

# VARIANT FCC TEST REPORT

## (Part 15, Subpart E)

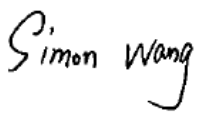
|            |                                                                                                                   |
|------------|-------------------------------------------------------------------------------------------------------------------|
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|                           |                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------|
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| Address:                  | 401, Building 3, Shenzhen Software Park, Maling Community, Yuehai Sub-district, Nanshan District, Shenzhen, China |
| Product:                  | Pay Tablet                                                                                                        |
| Brand Name:               | ZOLON                                                                                                             |
| Model Name:               | M8                                                                                                                |
| FCC ID:                   | 2AV5BM8                                                                                                           |
| Date of tests:            | Sep. 19, 2021 ~ Oct. 12, 2021                                                                                     |

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 15, Subpart E, Section 15.407**

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

|                                                                                                            |                                                                                                              |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
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| <br>Date: May. 29, 2024 | <br>Date: May. 29, 2024 |

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## RELEASE CONTROL RECORD

| ISSUE NO.         | REASON FOR CHANGE                                                                                                 | DATE ISSUED   |
|-------------------|-------------------------------------------------------------------------------------------------------------------|---------------|
| W7L-P21090022RF03 | Original release                                                                                                  | Oct. 13, 2021 |
| W7L-P24050005RF03 | Based on the original report changing the applicant information and manufacturer information, brand name, FCC ID. | May. 29, 2024 |

## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC PART 15, SUBPART E |                                           |            |
|------------------------------------------|-------------------------------------------|------------|
| STANDARD SECTION                         | TEST TYPE AND LIMIT                       | RESULT     |
| 15.407(b)(6)                             | AC Power Conducted Emission               | Compliance |
| 15.407(b)<br>(1/2/3/4/5)                 | Radiated Emission & Band Edge Measurement | Compliance |
| 15.407(a/1/2/3)                          | Maximum conducted output Power            | Compliance |
| 15.407(a/1/2/3)                          | Peak Power Spectral Density               | Compliance |
| 15.403(i)                                | 26 dB Bandwidth                           | Compliance |
| 15.407(e)                                | 6 dB Bandwidth                            | Compliance |
| 15.203                                   | Antenna Requirement                       | Compliance |

### 1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| MEASUREMENT                         | UNCERTAINTY           |
|-------------------------------------|-----------------------|
| AC Power Conducted emissions        | $\pm 2.70\text{dB}$   |
| Radiated emissions (30MHz~1GMHz)    | $\pm 4.98\text{dB}$   |
| Radiated emissions (1GMHz ~6GMHz)   | $\pm 4.70\text{dB}$   |
| Radiated emissions (6GMHz ~18GMHz)  | $\pm 4.60\text{dB}$   |
| Radiated emissions (18GMHz ~40GMHz) | $\pm 4.12\text{dB}$   |
| Conducted emissions                 | $\pm 4.01\text{dB}$   |
| Occupied Channel Bandwidth          | $\pm 43.58\text{KHz}$ |
| Conducted Output power              | $\pm 2.06\text{dB}$   |
| Power Spectral Density              | $\pm 0.85\text{ dB}$  |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .



## 2 GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT</b>             | Pay Tablet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>BRAND NAME</b>          | ZOLON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>MODEL NAME</b>          | M8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>NOMINAL VOLTAGE</b>     | 5Vdc /9Vdc /12Vdc (adapter)<br>3.85Vdc (Rechargeable Li-ion, battery)                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>MODULATION</b>          | OFDM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>TRANSFER RATE</b>       | 802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps<br>802.11n: up to MCS7<br>802.11ac: up to 390.0Mbps                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>OPERATING FREQUENCY</b> | 5180 ~ 5240MHz, 5260 ~ 5320MHz,<br>5500 ~ 5720MHz, 5745 ~ 5825MHz                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>NUMBER OF CHANNEL</b>   | 5180 ~ 5240MHz: 4 for 802.11a, 802.11n, 802.11ac (20MHz)<br>2 for 802.11n, 802.11ac (40MHz)<br>1 for 802.11ac (80MHz)<br>5260 ~ 5320MHz: 4 for 802.11a, 802.11n, 802.11ac (20MHz)<br>2 for 802.11n, 802.11ac (40MHz)<br>1 for 802.11ac (80MHz)<br>5500 ~ 5720MHz: 12 for 802.11a, 802.11n, 802.11ac(20MHz)<br>6 for 802.11n, 802.11ac (40MHz)<br>3 for 802.11ac (80MHz)<br>5745 ~ 5825MHz: 5 for 802.11a, 802.11n, 802.11ac (20MHz)<br>3 for 802.11n, 802.11ac (40MHz)<br>2 for 802.11ac (80MHz) |
| <b>AVERAGE POWER</b>       | 26.24mW for 5180 ~ 5240MHz<br>25.12mW for 5260 ~ 5320MHz<br>26.85mW for 5500 ~ 5720MHz<br>26.36mW for 5745 ~ 5825MHz                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ANTENNA TYPE</b>        | PIFA Antenna                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ANTENNA GAIN</b>        | 0.7 dBi for 5180 ~ 5240MHz<br>0.7 dBi for 5260 ~ 5320MHz<br>0.7 dBi for 5500 ~ 5720MHz<br>0.7 dBi for 5745 ~ 5825MHz                                                                                                                                                                                                                                                                                                                                                                             |
| <b>HW VERSION</b>          | M8-XXX-XXX-XXXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>SW VERSION</b>          | V0.0.0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>I/O PORTS</b>           | Refer to user's manual                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>CABLE SUPPLIED</b>      | USB cable: unshielded without ferrite, 1 meter                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



**NOTE:**

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

| MODULATION MODE          | TX FUNCTION |
|--------------------------|-------------|
| 802.11a                  | 1TX/1RX     |
| 802.11n/802.11ac (20MHz) | 1TX/1RX     |
| 802.11n/802.11ac (40MHz) | 1TX/1RX     |
| 802.11ac (80MHz)         | 1TX/1RX     |

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

**List of Accessory:**

| ACCESSORIES | BRAND | MODEL            | SPECIFICATION                                              |
|-------------|-------|------------------|------------------------------------------------------------|
| Battery     | IES   | ICS021NA         | Capacity: 3.85vdc 6300mAh                                  |
| AC Adapter  | /     | GLH-PD18W-U      | I/P:100-240Vac, 0.5A<br>O/P: 5Vdc, 3A/9Vdc, 2A/12Vdc, 1.5A |
| USB Cable   | /     | HJ-20010506CC444 | Shielded, 1meter                                           |

## 2.2 DESCRIPTION OF TEST MODES

### FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n, 802.11ac (20MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 36      | 5180 MHz  | 44      | 5220 MHz  |
| 40      | 5200 MHz  | 48      | 5240 MHz  |

2 channels are provided for 802.11n, 802.11ac (40MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 38      | 5190 MHz  | 46      | 5230 MHz  |

1 channel is provided for 802.11ac (80MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 42      | 5210 MHz  |         |           |

### FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n, 802.11ac (20MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 52      | 5260 MHz  | 60      | 5300 MHz  |
| 56      | 5280 MHz  | 64      | 5320 MHz  |

2 channels are provided for 802.11n, 802.11ac (40MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 54      | 5270 MHz  | 62      | 5310 MHz  |

1 channel is provided for 802.11ac (80MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 58      | 5290 MHz  |         |           |



**FOR 5500 ~ 5720MHz**

12 channels are provided for 802.11a, 802.11n, 802.11ac (20MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 100     | 5500 MHz  | 124     | 5620MHz   |
| 104     | 5520 MHz  | 128     | 5640MHz   |
| 108     | 5540 MHz  | 132     | 5660 MHz  |
| 112     | 5560 MHz  | 136     | 5680 MHz  |
| 116     | 5580 MHz  | 140     | 5700 MHz  |
| 120     | 5600 MHz  | 144     | 5720 MHz  |

6 channels are provided for 802.11n, 802.11ac (40MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 102     | 5510 MHz  | 126     | 5630MHz   |
| 110     | 5550 MHz  | 134     | 5670 MHz  |
| 118     | 5590 MHz  | 142     | 5710 MHz  |

3 channel is provided for 802.11ac (80MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 106     | 5530 MHz  | 138     | 5690 MHz  |
| 122     | 5610 MHz  |         |           |

**FOR 5745 ~ 5825MHz**

5 channels are provided for 802.11a, 802.11n, 802.11ac (20MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 144     | 5720MHz   | 157     | 5785 MHz  |
| 149     | 5745 MHz  | 165     | 5825 MHz  |
| 153     | 5765 MHz  |         |           |

3 channels are provided for 802.11n, 802.11ac (40MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 142     | 5710 MHz  | 159     | 5795 MHz  |
| 151     | 5755 MHz  |         |           |

2 channel is provided for 802.11ac (80MHz):

| CHANNEL | FREQUENCY | CHANNEL | FREQUENCY |
|---------|-----------|---------|-----------|
| 138     | 5690MHz   | 155     | 5775 MHz  |



## 2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

| EUT<br>CONFIGURE<br>MODE | APPLICABLE TO |       |     |      | DESCRIPTION                           |
|--------------------------|---------------|-------|-----|------|---------------------------------------|
|                          | RE $\geq$ 1G  | RE<1G | PLC | APCM |                                       |
| A                        | √             | √     | √   | -    | Powered by Adapter with wifi(5G) link |
| B                        | -             | -     | -   | √    | Powered by Battery with wifi(5G) link |
| C                        | -             | -     | -   | -    | Powered by USB with wifi(5G) link     |

Where

**RE $\geq$ 1G:** Radiated Emission above 1GHz**RE<1G:** Radiated Emission below 1GHz**PLC:** Power Line Conducted Emission**APCM:** Antenna Port Conducted Measurement**NOTE:**The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.**NOTE:** “-” means no effect.**RADIATED EMISSION TEST (BELOW 1GHz):**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT<br>CONFIGURE<br>MODE | MODE            | FREQ. BAND<br>(MHz) | AVAILABLE<br>CHANNEL | TESTED<br>CHANNEL | MODULATION | DATA RATE<br>(Mbps) |
|--------------------------|-----------------|---------------------|----------------------|-------------------|------------|---------------------|
| A                        | 802.11n (20MHz) | 5180-5240           | 36 to 48             | 48                | OFDM       | MCS0                |

**RADIATED EMISSION TEST (ABOVE 1GHz):**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT<br>CONFIGURE<br>MODE | MODE             | FREQ. BAND<br>(MHz) | AVAILABLE<br>CHANNEL | TESTED CHANNEL     | MODULATION | DATA RATE (Mbps) |
|--------------------------|------------------|---------------------|----------------------|--------------------|------------|------------------|
| A                        | 802.11a          | 5180-5240           | 36 to 48             | 36, 40, 48         | OFDM       | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 36 to 48             | 36, 40, 48         | OFDM       | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 38 to 46             | 38, 46             | OFDM       | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 42                   | 42                 | OFDM       | MCS0             |
| A                        | 802.11a          | 5260-5320           | 52 to 64             | 52, 60, 64         | OFDM       | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 52 to 64             | 52, 60, 64         | OFDM       | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 54 to 62             | 54, 62             | OFDM       | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 58                   | 58                 | OFDM       | MCS0             |
| A                        | 802.11a          | 5500-5720           | 100 to 144           | 100, 116, 140, 144 | OFDM       | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 100 to 144           | 100, 116, 140, 144 | OFDM       | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 102 to 142           | 102, 110, 134, 142 | OFDM       | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 106 to 138           | 106, 138           | OFDM       | MCS0             |
| A                        | 802.11a          | 5745-5825           | 144 to 165           | 144, 149, 157,165  | OFDM       | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 144 to 165           | 144, 149, 157,165  | OFDM       | MCS0             |
| A                        | 802.11ac (40MHz) |                     | 142 to 159           | 142, 151, 159      | OFDM       | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 138,155              | 138, 155           | OFDM       | MCS0             |

**POWER LINE CONDUCTED EMISSION TEST:**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT<br>CONFIGURE<br>MODE | MODE            | FREQ. BAND<br>(MHz) | AVAILABLE<br>CHANNEL | TESTED<br>CHANNEL | MODULATION | DATA RATE<br>(Mbps) |
|--------------------------|-----------------|---------------------|----------------------|-------------------|------------|---------------------|
| A                        | 802.11n (40MHz) | 5180-5240           | 36 to 48             | 48                | OFDM       | MCS0                |



**BANDEDGE MEASUREMENT:**

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT<br>CONFIGURE<br>MODE | MODE             | FREQ. BAND<br>(MHz) | AVAILABLE<br>CHANNEL | TESTED CHANNEL     | MODULATION | DATA RATE (Mbps) |
|--------------------------|------------------|---------------------|----------------------|--------------------|------------|------------------|
| A                        | 802.11a          | 5180-5240           | 36 to 48             | 36, 48             | 36 to 48   | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 36 to 48             | 36, 48             | 36 to 48   | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 38 to 46             | 38, 46             | 38 to 46   | MCS0             |
| A                        | 802.11ac (20MHz) |                     | 36 to 48             | 36, 48             | 36 to 48   | MCS0             |
| A                        | 802.11ac (40MHz) |                     | 38 to 46             | 38, 46             | 38 to 46   | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 42                   | 42                 | 42         | MCS0             |
| A                        | 802.11a          | 5260-5320           | 52 to 64             | 52, 64             | 52 to 64   | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 52 to 64             | 52, 64             | 52 to 64   | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 54 to 62             | 54, 62             | 54 to 62   | MCS0             |
| A                        | 802.11ac (20MHz) |                     | 52 to 64             | 52, 64             | 52 to 64   | MCS0             |
| A                        | 802.11ac (40MHz) |                     | 54 to 62             | 54, 62             | 54 to 62   | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 58                   | 58                 | 58         | MCS0             |
| A                        | 802.11a          | 5500-5720           | 100 to 144           | 100, 116, 140, 144 | 100 to 144 | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 100 to 144           | 100, 116, 140, 144 | 100 to 144 | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 102 to 142           | 102, 110, 134, 142 | 102 to 142 | MCS0             |
| A                        | 802.11ac (20MHz) |                     | 100 to 144           | 100, 116, 140, 144 | 100 to 144 | MCS0             |
| A                        | 802.11ac (40MHz) |                     | 102 to 142           | 102, 110, 134, 142 | 102 to 142 | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 106 to 138           | 106, 138           | 106 to 138 | MCS0             |
| EUT<br>CONFIGURE<br>MODE | MODE             | FREQ. BAND<br>(MHz) | AVAILABLE<br>CHANNEL | TESTED CHANNEL     | MODULATION | DATA RATE (Mbps) |
| A                        | 802.11a          | 5745-5825           | 144 to 165           | 144, 149, 157,165  | OFDM       | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 144 to 165           | 144, 149, 157,165  | OFDM       | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 142 to 159           | 142, 151, 159      | OFDM       | MCS0             |
| A                        | 802.11ac (20MHz) |                     | 144 to 165           | 144, 149, 157,165  | OFDM       | MCS0             |



|   |                     |  |            |               |      |      |
|---|---------------------|--|------------|---------------|------|------|
| A | 802.11ac<br>(40MHz) |  | 142 to 159 | 142, 151, 159 | OFDM | MCS0 |
| A | 802.11ac<br>(80MHz) |  | 138,155    | 138, 155      | OFDM | MCS0 |

**ANTENNA PORT CONDUCTED MEASUREMENT:**

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT<br>CONFIGURE<br>MODE | MODE             | FREQ. BAND<br>(MHz) | AVAILABLE<br>CHANNEL | TESTED CHANNEL | MODULATION | DATA RATE (Mbps) |
|--------------------------|------------------|---------------------|----------------------|----------------|------------|------------------|
| A                        | 802.11a          | 5180-5240           | 36 to 48             | 36, 40, 48     | OFDM       | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 36 to 48             | 36, 40, 48     | OFDM       | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 38 to 46             | 38, 46         | OFDM       | MCS0             |
| A                        | 802.11ac (20MHz) |                     | 36 to 48             | 36, 40, 48     | OFDM       | MCS0             |
| A                        | 802.11ac (40MHz) |                     | 38 to 46             | 38, 46         | OFDM       | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 42                   | 42             | OFDM       | MCS0             |
| A                        | 802.11a          | 5260-5320           | 52 to 64             | 52, 60, 64     | OFDM       | 6.0              |
| A                        | 802.11n (20MHz)  |                     | 52 to 64             | 52, 60, 64     | OFDM       | MCS0             |
| A                        | 802.11n (40MHz)  |                     | 54 to 62             | 54, 62         | OFDM       | MCS0             |
| A                        | 802.11ac (20MHz) |                     | 52 to 64             | 52, 60, 64     | OFDM       | MCS0             |
| A                        | 802.11ac (40MHz) |                     | 54 to 62             | 54, 62         | OFDM       | MCS0             |
| A                        | 802.11ac (80MHz) |                     | 58                   | 58             | OFDM       | MCS0             |

|   |                  |           |            |                    |      |      |
|---|------------------|-----------|------------|--------------------|------|------|
| A | 802.11a          | 5500-5720 | 100 to 144 | 100, 116, 140, 144 | OFDM | 6.0  |
| A | 802.11n (20MHz)  |           | 100 to 144 | 100, 116, 140, 144 | OFDM | MCS0 |
| A | 802.11n (40MHz)  |           | 102 to 142 | 102, 110, 134, 142 | OFDM | MCS0 |
| A | 802.11ac (20MHz) |           | 100 to 144 | 100, 116, 140, 144 | OFDM | MCS0 |
| A | 802.11ac (40MHz) |           | 102 to 142 | 102, 110, 134, 142 | OFDM | MCS0 |
| A | 802.11ac (80MHz) |           | 106 to 138 | 106, 138           | OFDM | MCS0 |
| A | 802.11a          | 5745-5825 | 144 to 165 | 144, 149, 157,165  | OFDM | 6.0  |
| A | 802.11n (20MHz)  |           | 144 to 165 | 144, 149, 157,165  | OFDM | MCS0 |
| A | 802.11n (40MHz)  |           | 142 to 159 | 142, 151, 159      | OFDM | MCS0 |
| A | 802.11ac (20MHz) |           | 144 to 165 | 144, 149, 157,165  | OFDM | MCS0 |
| A | 802.11ac (40MHz) |           | 142 to 159 | 142, 151, 159      | OFDM | MCS0 |
| A | 802.11ac (80MHz) |           | 138,155    | 138, 155           | OFDM | MCS0 |

**TEST CONDITION:**

| APPLICABLE TO | ENVIRONMENTAL CONDITIONS | INPUT POWER | TESTED BY   |
|---------------|--------------------------|-------------|-------------|
| RE<1G         | 23deg. C, 70%RH          | DC 3.85V    | Star Le     |
| RE≥1G         | 23deg. C, 70%RH          | DC 3.85V    | Star Le     |
| PLC           | 25deg. C, 52%RH          | DC 3.85V    | Jimmy Liu   |
| APCM          | 25deg. C, 60%RH          | DC 3.85V    | Kevin Zhang |

## 2.3 DUTY CYCLE OF TEST SIGNAL

Duty cycle of test signal is < 98%, duty factor shall be considered.

**802.11a:** Duty cycle = 1.41/1.44 = 0.979, Duty factor =  $10 * \log(1 / 0.979) = 0.09$ .

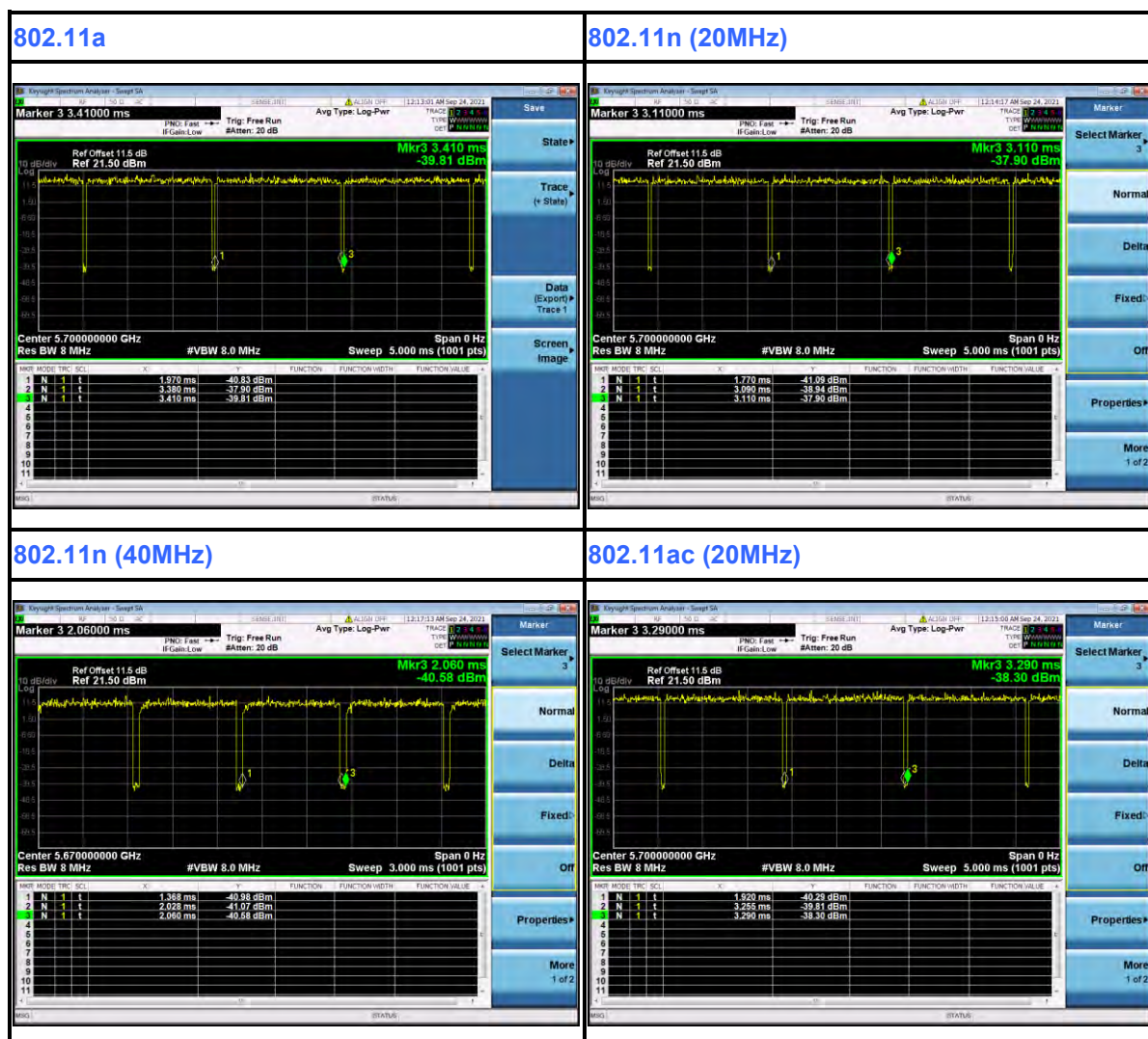
**802.11n (20MHz):** Duty cycle = 1.32/1.34=0.985, duty factor shall not be considered.

**802.11n (40MHz):** Duty cycle =0.66/0.692 = 0.954, Duty factor =  $10 * \log(1 / 0.954) = 0.20$

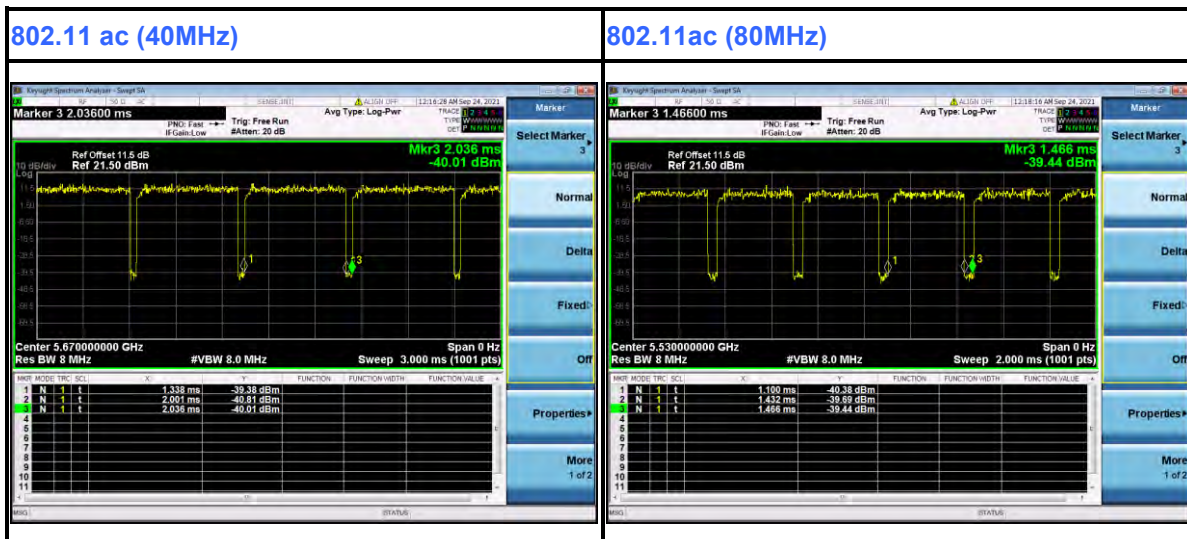
**802.11ac (20MHz):** Duty cycle = 1.335/1.37=0.974, Duty factor =  $10 * \log(1 / 0.974) = 0.11$ .

**802.11ac (40MHz):** Duty cycle =0.663/0.698=0.95, Duty factor =  $10 * \log(1 / 0.95) = 0.22$ .

**802.11ac (80MHz):** Duty cycle =0.332/0.366=0.907, Duty factor =  $10 * \log(1 / 0.907) = 0.42$











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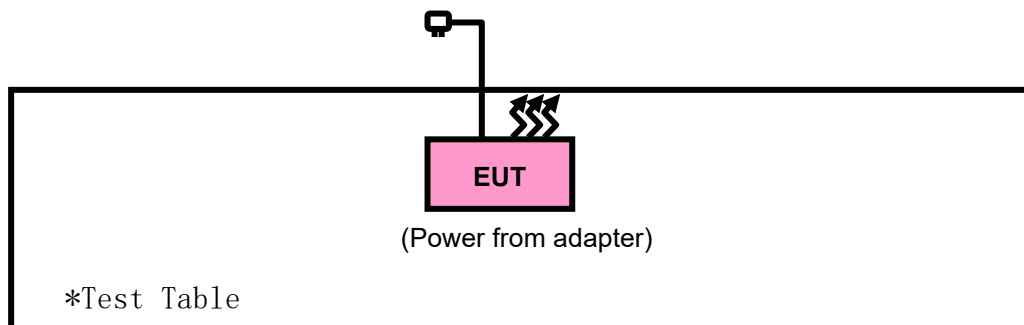
## 2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| NO. | PRODUCT | BRAND  | MODEL NO.     | SERIAL NO. | FCC ID |
|-----|---------|--------|---------------|------------|--------|
| 1   | Desktop | Lenovo | M73 SFF       | PC04GRQV   | N/A    |
| 2   | Desktop | Lenovo | M73 SFF       | PC06CS27   | N/A    |
| 3   | Laptop  | Lenovo | Thnikpad L440 | R90FTFKN   | N/A    |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|-----------------------------------------------------|
| 1   | AC Line: Unshielded, Detachable 1m                  |

## 2.4.1 CONFIGURATION OF SYSTEM UNDER TEST



## 2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart E (15.407)**

**KDB 789033 D02 General U-NII Test Procedures New Rules v02r01**

**ANSI C63.10-2013**

All test items have been performed and recorded as per the above standards.

**NOTE:** The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (Certification). The test report has been issued separately.

### 3 TEST TYPES AND RESULTS

#### 3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

##### 3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

| FREQUENCIES<br>(MHz) | FIELD STRENGTH<br>(microvolts/meter) | MEASUREMENT DISTANCE<br>(meters) |
|----------------------|--------------------------------------|----------------------------------|
| 0.009 ~ 0.490        | 2400/F(kHz)                          | 300                              |
| 0.490 ~ 1.705        | 24000/F(kHz)                         | 30                               |
| 1.705 ~ 30.0         | 30                                   | 30                               |
| 30 ~ 88              | 100                                  | 3                                |
| 88 ~ 216             | 150                                  | 3                                |
| 216 ~ 960            | 200                                  | 3                                |
| Above 960            | 500                                  | 3                                |

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

##### 3.1.2 LIMITS OF UNWANTED EMISSION

| RESTRICTED BANDS            | APPLICABLE TO                                                  | LIMIT                         |                                          |
|-----------------------------|----------------------------------------------------------------|-------------------------------|------------------------------------------|
|                             | 789033 D02 General<br>UNII Test Procedures<br>New Rules v02r01 | FIELD STRENGTH AT 3m (dBµV/m) |                                          |
|                             |                                                                | PK : 74                       | AV : 54                                  |
| OUT OF THE RESTRICTED BANDS | APPLICABLE TO                                                  | EIRP LIMIT (dBm/MHz)          | EQUIVALENT FIELD STRENGTH AT 3m (dBµV/m) |
|                             | 15.407(b)(1)                                                   | PK : -27                      | PK : 68.2                                |
|                             | 15.407(b)(2)                                                   |                               |                                          |
|                             | 15.407(b)(3)                                                   |                               |                                          |
|                             | 15.407(b)(4)                                                   | See note 2 (FCC 16-24)        |                                          |

**NOTE:** The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000 \sqrt{30P}}{3} \mu\text{V/m, where } P \text{ is the eirp (Watts).}$$

2. All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

### 3.1.3 TEST INSTRUMENTS

| Equipment                  | Manufacturer | Model No.                   | Serial No.                  | Last Cal.   | Next Cal.   |
|----------------------------|--------------|-----------------------------|-----------------------------|-------------|-------------|
| 3m Semi-anechoic Chamber   | ETS-LINDGREN | 9m*6m*6m                    | Euroshieldpn-CT0001143-1216 | May. 19,20  | May. 18,23  |
| Bilog Antenna              | ETS-LINDGREN | 3143B                       | 00161965                    | Mar. 05,21  | Mar. 04,22  |
| Horn Antenna               | ETS-LINDGREN | 3117                        | 00168728                    | Apr. 02,21  | Apr. 01,22  |
| Horn Antenna (18GHz-40GHz) | N/A          | QWH-SL-18-40-K-SG/QMS-00361 | 15433                       | Aug. 26, 21 | Aug. 25, 22 |
| Horn Antenna (18GHz-40GHz) | N/A          | QWH-SL-18-40-K-SG/QMS-00361 | 15433                       | Aug. 25, 21 | Aug. 24, 22 |
| Test Software              | E3           | V 9.160323                  | N/A                         | N/A         | N/A         |
| Test Software              | ADT          | ADT_Radiated_V7.6.15.9.2    | N/A                         | N/A         | N/A         |
| 10dB Attenuator            | JFW/USA      | 50HF-010-SMA                | 1505                        | Jun. 03,21  | Jun. 02,22  |
| MXE EMI Receiver           | KEYSIGHT     | N9038A-544                  | MY54450026                  | Apr. 22,21  | Apr. 21,22  |
| Signal Pre-Amplifier       | EMSI         | EMC 9135                    | 980249                      | Jun. 02,21  | Jun. 01,22  |
| Signal Pre-Amplifier       | EMSI         | EMC 012645B                 | 980257                      | Jun. 03,21  | Jun. 02,22  |
| Signal Pre-Amplifier       | EMSI         | EMC 184045B                 | 980259                      | Apr. 22,21  | Apr. 21,22  |

**NOTE:** 1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
2. The test was performed in 3m Chamber.  
3. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

### 3.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

#### **NOTE:**

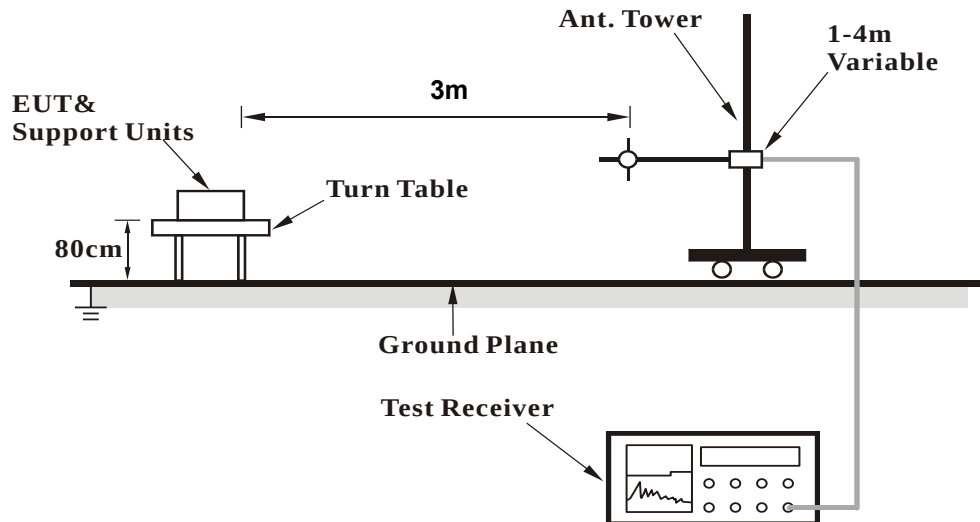
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ( $10 \log(1/\text{duty cycle})$ ).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

### 3.1.5 DEVIATION FROM TEST STANDARD

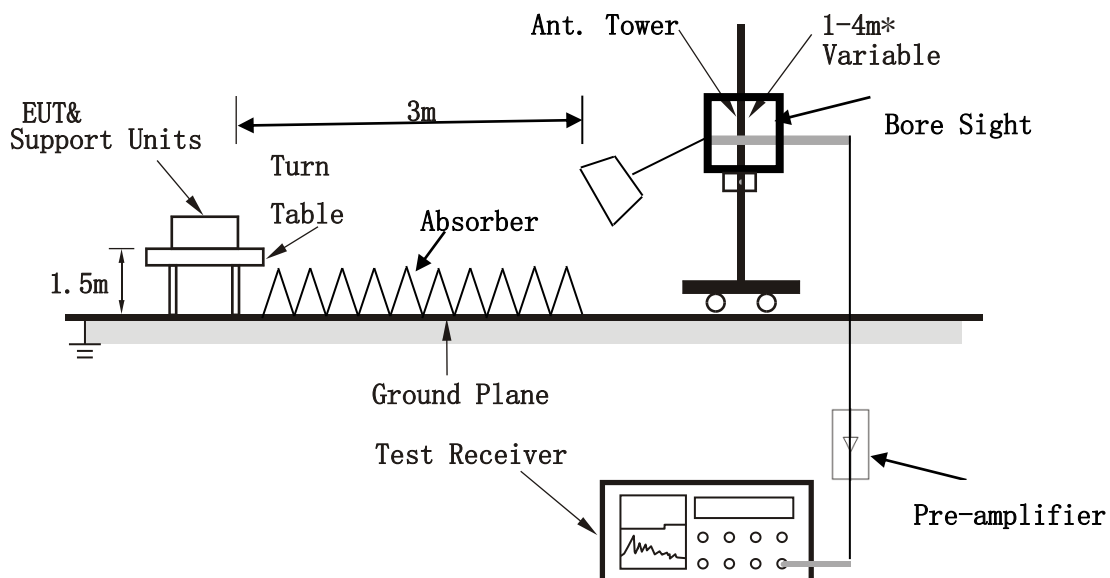
No deviation.

### 3.1.6 TEST SETUP

< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



**Note:** Above 1G is a directional antenna

Depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

For the actual test configuration, please refer to the attached file (Test Setup Photo).



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### 3.1.7 EUT OPERATING CONDITION

- a. Set the EUT under full load condition and placed them on a testing table.
- b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the EUT in full functions.

### 3.1.8 TEST RESULTS

#### BELOW 1GHz WORST-CASE DATA:

30 MHz – 1GHz data:

Band 1

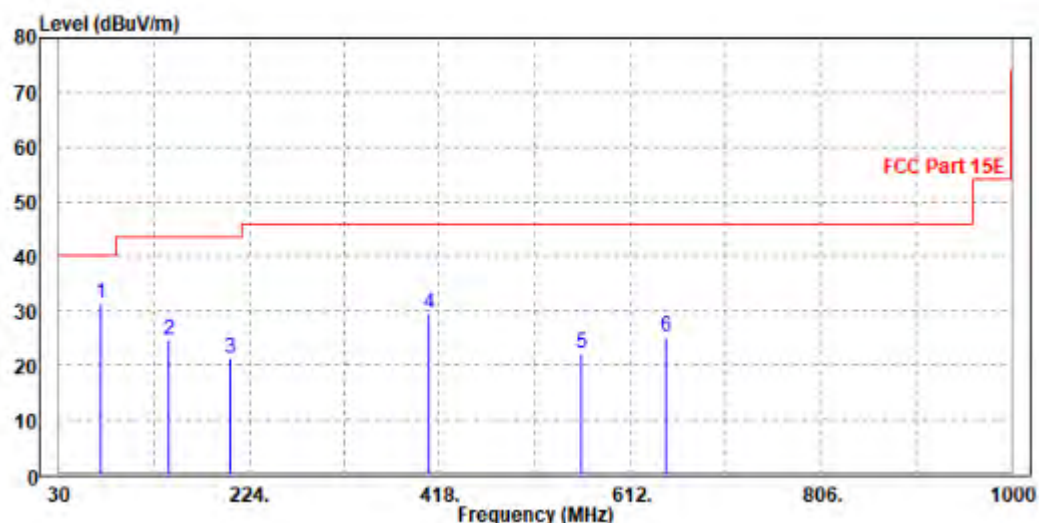
802.11n (20MHz)

|                        |               |                          |                 |
|------------------------|---------------|--------------------------|-----------------|
| <b>CHANNEL</b>         | TX Channel 48 | <b>DETECTOR FUNCTION</b> | Quasi-Peak (QP) |
| <b>FREQUENCY RANGE</b> | 30MHz ~ 1GHz  |                          |                 |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 72.68                                               | 31.48                         | 59.96                   | 40                | -8.52          | 7.75                         | 1.1                   | 37.33                    | 300                       | 360                        | Peak   |
| 142.52                                              | 24.57                         | 51.39                   | 43.5              | -18.93         | 8.55                         | 1.52                  | 36.89                    | 300                       | 360                        | Peak   |
| 204.6                                               | 21.31                         | 44.85                   | 43.5              | -22.19         | 11.2                         | 1.82                  | 36.56                    | 300                       | 360                        | Peak   |
| 406.36                                              | 29.6                          | 46.85                   | 46                | -16.4          | 17.01                        | 2.58                  | 36.84                    | 300                       | 360                        | Peak   |
| 562.53                                              | 22.07                         | 36.24                   | 46                | -23.93         | 19.95                        | 3.11                  | 37.23                    | 300                       | 360                        | Peak   |
| 648.86                                              | 25.21                         | 37.6                    | 46                | -20.79         | 21.68                        | 3.38                  | 37.45                    | 300                       | 360                        | Peak   |

#### REMARKS:

1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



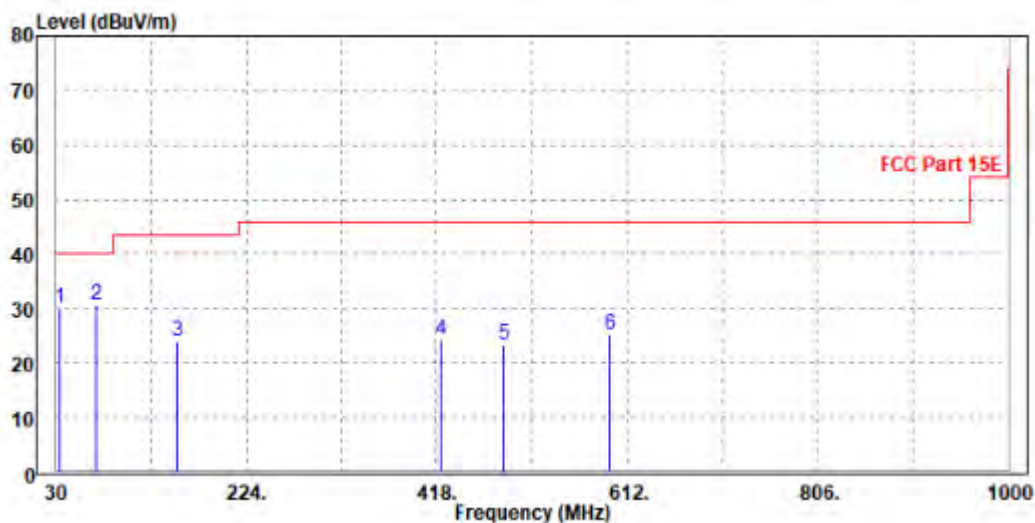


|                        |              |                          |                 |
|------------------------|--------------|--------------------------|-----------------|
| <b>CHANNEL</b>         | Channel 48   | <b>DETECTOR FUNCTION</b> | Quasi-Peak (QP) |
| <b>FREQUENCY RANGE</b> | 30MHz ~ 1GHz |                          |                 |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|---------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                    | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 34.85                                             | 30.21                         | 48.98                   | 40                | -9.79          | 18.07                        | 0.75                  | 37.59                    | 200                       | 360                        | Peak   |
| 71.71                                             | 30.73                         | 59                      | 40                | -9.27          | 7.97                         | 1.09                  | 37.33                    | 200                       | 360                        | Peak   |
| 154.16                                            | 24                            | 48.58                   | 43.5              | -19.5          | 10.62                        | 1.58                  | 36.78                    | 200                       | 360                        | Peak   |
| 422.85                                            | 24.27                         | 40.87                   | 46                | -21.73         | 17.63                        | 2.64                  | 36.87                    | 200                       | 360                        | Peak   |
| 486.87                                            | 23.35                         | 38.6                    | 46                | -22.65         | 18.85                        | 2.88                  | 36.98                    | 200                       | 360                        | Peak   |
| 594.54                                            | 25.33                         | 38.68                   | 46                | -20.67         | 20.8                         | 3.2                   | 37.35                    | 200                       | 360                        | Peak   |

**REMARKS:**

1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.





**ABOVE 1GHz WORST-CASE DATA:**

**Note:** For higher frequency, the emission is too low to be detected.

**Band 1**

**802.11a**

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 36 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.21                         | 57.52                   | 74                | -18.79         | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Peak    |
| 5150                                                | 49.49                         | 51.8                    | 54                | -4.51          | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Average |
| 5180                                                | 95.21                         | 97.44                   | -                 | -              | 34.54                        | 9.58                  | 46.35                    | 180                       | 60                         | Peak    |
| 5180                                                | 87.91                         | 90.14                   | -                 | -              | 34.54                        | 9.58                  | 46.35                    | 180                       | 60                         | Average |
| 5350                                                | 55.27                         | 56.95                   | 74                | -18.73         | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Peak    |
| 5350                                                | 48.54                         | 50.22                   | 54                | -5.46          | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.73                         | 56.96                   | 74                | -19.27         | 34.6                         | 9.52                  | 46.35                    | 100                       | 193                        | Peak    |
| 5150                                                | 49.31                         | 51.54                   | 54                | -4.69          | 34.6                         | 9.52                  | 46.35                    | 100                       | 193                        | Average |
| 5180                                                | 94.21                         | 96.38                   | -                 | -              | 34.6                         | 9.58                  | 46.35                    | 100                       | 193                        | Peak    |
| 5180                                                | 86.75                         | 88.92                   | -                 | -              | 34.6                         | 9.58                  | 46.35                    | 100                       | 193                        | Average |
| 5350                                                | 55.5                          | 57.26                   | 74                | -18.5          | 34.6                         | 9.94                  | 46.3                     | 100                       | 193                        | Peak    |
| 5350                                                | 48.8                          | 50.56                   | 54                | -5.2           | 34.6                         | 9.94                  | 46.3                     | 100                       | 193                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5180MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 40 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.44                         | 57.75                   | 74                | -18.56         | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Peak    |
| 5150                                                | 49.71                         | 52.02                   | 54                | -4.29          | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Average |
| 5200                                                | 95.08                         | 97.24                   | -                 | -              | 34.56                        | 9.62                  | 46.34                    | 180                       | 60                         | Peak    |
| 5200                                                | 88.04                         | 90.2                    | -                 | -              | 34.56                        | 9.62                  | 46.34                    | 180                       | 60                         | Average |
| 5350                                                | 53.85                         | 55.53                   | 74                | -20.15         | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Peak    |
| 5350                                                | 49.02                         | 50.7                    | 54                | -4.98          | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.59                         | 56.82                   | 74                | -19.41         | 34.6                         | 9.52                  | 46.35                    | 100                       | 193                        | Peak    |
| 5150                                                | 49.94                         | 52.17                   | 54                | -4.06          | 34.6                         | 9.52                  | 46.35                    | 100                       | 193                        | Average |
| 5200                                                | 93.71                         | 95.83                   | -                 | -              | 34.6                         | 9.62                  | 46.34                    | 100                       | 193                        | Peak    |
| 5200                                                | 86.74                         | 88.86                   | -                 | -              | 34.6                         | 9.62                  | 46.34                    | 100                       | 193                        | Average |
| 5350                                                | 56.14                         | 57.9                    | 74                | -17.86         | 34.6                         | 9.94                  | 46.3                     | 100                       | 193                        | Peak    |
| 5350                                                | 49.13                         | 50.89                   | 54                | -4.87          | 34.6                         | 9.94                  | 46.3                     | 100                       | 193                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5200MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 48 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.34                         | 57.65                   | 74                | -18.66         | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Peak    |
| 5150                                                | 49.72                         | 52.03                   | 54                | -4.28          | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Average |
| 5240                                                | 95.93                         | 97.96                   | -                 | -              | 34.59                        | 9.71                  | 46.33                    | 180                       | 60                         | Peak    |
| 5240                                                | 89.04                         | 91.07                   | -                 | -              | 34.59                        | 9.71                  | 46.33                    | 180                       | 60                         | Average |
| 5350                                                | 55.88                         | 57.56                   | 74                | -18.12         | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Peak    |
| 5350                                                | 49.06                         | 50.74                   | 54                | -4.94          | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 56.93                         | 59.16                   | 74                | -17.07         | 34.6                         | 9.52                  | 46.35                    | 100                       | 193                        | Peak    |
| 5150                                                | 49.91                         | 52.14                   | 54                | -4.09          | 34.6                         | 9.52                  | 46.35                    | 100                       | 193                        | Average |
| 5240                                                | 94.18                         | 96.2                    | -                 | -              | 34.6                         | 9.71                  | 46.33                    | 100                       | 193                        | Peak    |
| 5240                                                | 87.51                         | 89.53                   | -                 | -              | 34.6                         | 9.71                  | 46.33                    | 100                       | 193                        | Average |
| 5350                                                | 54.26                         | 56.02                   | 74                | -19.74         | 34.6                         | 9.94                  | 46.3                     | 100                       | 193                        | Peak    |
| 5350                                                | 48.28                         | 50.04                   | 54                | -5.72          | 34.6                         | 9.94                  | 46.3                     | 100                       | 193                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.



802.11n (20MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 36 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.78                         | 57.09                   | 74                | -19.22         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 50.17                         | 52.48                   | 54                | -3.83          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5180                                                | 95.58                         | 97.81                   | -                 | -              | 34.54                        | 9.58                  | 46.35                    | 200                       | 65                         | Peak    |
| 5180                                                | 87.99                         | 90.22                   | -                 | -              | 34.54                        | 9.58                  | 46.35                    | 200                       | 65                         | Average |
| 5350                                                | 53.9                          | 55.58                   | 74                | -20.1          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 48.69                         | 50.37                   | 54                | -5.31          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 56.52                         | 58.75                   | 74                | -17.48         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 49.66                         | 51.89                   | 54                | -4.34          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5180                                                | 92.96                         | 95.13                   | -                 | -              | 34.6                         | 9.58                  | 46.35                    | 100                       | 200                        | Peak    |
| 5180                                                | 85.79                         | 87.96                   | -                 | -              | 34.6                         | 9.58                  | 46.35                    | 100                       | 200                        | Average |
| 5350                                                | 55.25                         | 57.01                   | 74                | -18.75         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 49.21                         | 50.97                   | 54                | -4.79          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5180MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 40 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.7                          | 58.01                   | 74                | -18.3          | 34.52                        | 9.52                  | 46.35                    | 200                       | 60                         | Peak    |
| 5150                                                | 49.97                         | 52.28                   | 54                | -4.03          | 34.52                        | 9.52                  | 46.35                    | 200                       | 60                         | Average |
| 5200                                                | 95.21                         | 97.37                   | -                 | -              | 34.56                        | 9.62                  | 46.34                    | 200                       | 60                         | Peak    |
| 5200                                                | 87.92                         | 90.08                   | -                 | -              | 34.56                        | 9.62                  | 46.34                    | 200                       | 60                         | Average |
| 5350                                                | 55.78                         | 57.46                   | 74                | -18.22         | 34.68                        | 9.94                  | 46.3                     | 200                       | 60                         | Peak    |
| 5350                                                | 48.65                         | 50.33                   | 54                | -5.35          | 34.68                        | 9.94                  | 46.3                     | 200                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 56.76                         | 58.99                   | 74                | -17.24         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 50.23                         | 52.46                   | 54                | -3.77          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5200                                                | 95.23                         | 97.35                   | -                 | -              | 34.6                         | 9.62                  | 46.34                    | 100                       | 200                        | Peak    |
| 5200                                                | 87.43                         | 89.55                   | -                 | -              | 34.6                         | 9.62                  | 46.34                    | 100                       | 200                        | Average |
| 5350                                                | 54.32                         | 56.08                   | 74                | -19.68         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 48.39                         | 50.15                   | 54                | -5.61          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5200MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 48 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.38                         | 56.69                   | 74                | -19.62         | 34.52                        | 9.52                  | 46.35                    | 200                       | 60                         | Peak    |
| 5150                                                | 49.6                          | 51.91                   | 54                | -4.4           | 34.52                        | 9.52                  | 46.35                    | 200                       | 60                         | Average |
| 5240                                                | 95.81                         | 97.84                   | -                 | -              | 34.59                        | 9.71                  | 46.33                    | 200                       | 60                         | Peak    |
| 5240                                                | 88                            | 90.03                   | -                 | -              | 34.59                        | 9.71                  | 46.33                    | 200                       | 60                         | Average |
| 5350                                                | 54.73                         | 56.41                   | 74                | -19.27         | 34.68                        | 9.94                  | 46.3                     | 200                       | 60                         | Peak    |
| 5350                                                | 48.69                         | 50.37                   | 54                | -5.31          | 34.68                        | 9.94                  | 46.3                     | 200                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.97                         | 57.2                    | 74                | -19.03         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 50.47                         | 52.7                    | 54                | -3.53          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5240                                                | 93.62                         | 95.64                   | -                 | -              | 34.6                         | 9.71                  | 46.33                    | 100                       | 200                        | Peak    |
| 5240                                                | 86.98                         | 89                      | -                 | -              | 34.6                         | 9.71                  | 46.33                    | 100                       | 200                        | Average |
| 5350                                                | 54.52                         | 56.28                   | 74                | -19.48         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 48.75                         | 50.51                   | 54                | -5.25          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.



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Test Report No.: W7L-P24050005RF03

### 802.11n (40MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 38 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.09                         | 57.4                    | 74                | -18.91         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 50.12                         | 52.43                   | 54                | -3.88          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5190                                                | 90.69                         | 92.88                   | -                 | -              | 34.55                        | 9.6                   | 46.34                    | 200                       | 65                         | Peak    |
| 5190                                                | 84.25                         | 86.44                   | -                 | -              | 34.55                        | 9.6                   | 46.34                    | 200                       | 65                         | Average |
| 5350                                                | 55.68                         | 57.36                   | 74                | -18.32         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 48.51                         | 50.19                   | 54                | -5.49          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.8                          | 57.03                   | 74                | -19.2          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 50.24                         | 52.47                   | 54                | -3.76          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5190                                                | 90.14                         | 92.28                   | -                 | -              | 34.6                         | 9.6                   | 46.34                    | 100                       | 200                        | Peak    |
| 5190                                                | 83.07                         | 85.21                   | -                 | -              | 34.6                         | 9.6                   | 46.34                    | 100                       | 200                        | Average |
| 5350                                                | 56.94                         | 58.7                    | 74                | -17.06         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 48.47                         | 50.23                   | 54                | -5.53          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

#### REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5190MHz: Fundamental frequency.



|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 46 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.86                         | 57.17                   | 74                | -19.14         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 50.36                         | 52.67                   | 54                | -3.64          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5230                                                | 91.31                         | 93.37                   | -                 | -              | 34.58                        | 9.69                  | 46.33                    | 200                       | 65                         | Peak    |
| 5230                                                | 84.93                         | 86.99                   | -                 | -              | 34.58                        | 9.69                  | 46.33                    | 200                       | 65                         | Average |
| 5350                                                | 56.72                         | 58.4                    | 74                | -17.28         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 48.71                         | 50.39                   | 54                | -5.29          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.87                         | 58.1                    | 74                | -18.13         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 50.42                         | 52.65                   | 54                | -3.58          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5230                                                | 89.31                         | 91.35                   | -                 | -              | 34.6                         | 9.69                  | 46.33                    | 100                       | 200                        | Peak    |
| 5230                                                | 82.87                         | 84.91                   | -                 | -              | 34.6                         | 9.69                  | 46.33                    | 100                       | 200                        | Average |
| 5350                                                | 54.75                         | 56.51                   | 74                | -19.25         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 49.77                         | 51.53                   | 54                | -4.23          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5230MHz: Fundamental frequency.



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Test Report No.: W7L-P24050005RF03

### 802.11ac (20MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 36 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 56.5                          | 58.81                   | 74                | -17.5          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 49.63                         | 51.94                   | 54                | -4.37          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5180                                                | 94.96                         | 97.19                   | -                 | -              | 34.54                        | 9.58                  | 46.35                    | 200                       | 65                         | Peak    |
| 5180                                                | 87.35                         | 89.58                   | -                 | -              | 34.54                        | 9.58                  | 46.35                    | 200                       | 65                         | Average |
| 5350                                                | 54.43                         | 56.11                   | 74                | -19.57         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 49.54                         | 51.22                   | 54                | -4.46          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.69                         | 56.92                   | 74                | -19.31         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 49.59                         | 51.82                   | 54                | -4.41          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5180                                                | 93.11                         | 95.28                   | -                 | -              | 34.6                         | 9.58                  | 46.35                    | 100                       | 200                        | Peak    |
| 5180                                                | 84.98                         | 87.15                   | -                 | -              | 34.6                         | 9.58                  | 46.35                    | 100                       | 200                        | Average |
| 5350                                                | 55.45                         | 57.21                   | 74                | -18.55         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 48.35                         | 50.11                   | 54                | -5.65          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

#### REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5180MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 40 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.34                         | 56.65                   | 74                | -19.66         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 49.94                         | 52.25                   | 54                | -4.06          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5200                                                | 95.4                          | 97.56                   | -                 | -              | 34.56                        | 9.62                  | 46.34                    | 200                       | 65                         | Peak    |
| 5200                                                | 88.08                         | 90.24                   | -                 | -              | 34.56                        | 9.62                  | 46.34                    | 200                       | 65                         | Average |
| 5350                                                | 56.22                         | 57.9                    | 74                | -17.78         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 48.56                         | 50.24                   | 54                | -5.44          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 56.65                         | 58.88                   | 74                | -17.35         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 49.73                         | 51.96                   | 54                | -4.27          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5200                                                | 93.69                         | 95.81                   | -                 | -              | 34.6                         | 9.62                  | 46.34                    | 100                       | 200                        | Peak    |
| 5200                                                | 86.1                          | 88.22                   | -                 | -              | 34.6                         | 9.62                  | 46.34                    | 100                       | 200                        | Average |
| 5350                                                | 56.86                         | 58.62                   | 74                | -17.14         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 48.95                         | 50.71                   | 54                | -5.05          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5200MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 48 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 56.44                         | 58.75                   | 74                | -17.56         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 49.45                         | 51.76                   | 54                | -4.55          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5240                                                | 95.62                         | 97.65                   | -                 | -              | 34.59                        | 9.71                  | 46.33                    | 200                       | 65                         | Peak    |
| 5240                                                | 88.23                         | 90.26                   | -                 | -              | 34.59                        | 9.71                  | 46.33                    | 200                       | 65                         | Average |
| 5350                                                | 55.57                         | 57.25                   | 74                | -18.43         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 48.34                         | 50.02                   | 54                | -5.66          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.67                         | 56.9                    | 74                | -19.33         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 49.66                         | 51.89                   | 54                | -4.34          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5240                                                | 92.92                         | 94.94                   | -                 | -              | 34.6                         | 9.71                  | 46.33                    | 100                       | 200                        | Peak    |
| 5240                                                | 86.53                         | 88.55                   | -                 | -              | 34.6                         | 9.71                  | 46.33                    | 100                       | 200                        | Average |
| 5350                                                | 54.68                         | 56.44                   | 74                | -19.32         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 48.98                         | 50.74                   | 54                | -5.02          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.



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Test Report No.: W7L-P24050005RF03

### 802.11ac (40MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 38 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.95                         | 57.26                   | 74                | -19.05         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 49.8                          | 52.11                   | 54                | -4.2           | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5190                                                | 91.18                         | 93.37                   | -                 | -              | 34.55                        | 9.6                   | 46.34                    | 200                       | 65                         | Peak    |
| 5190                                                | 83.72                         | 85.91                   | -                 | -              | 34.55                        | 9.6                   | 46.34                    | 200                       | 65                         | Average |
| 5350                                                | 54.93                         | 56.61                   | 74                | -19.07         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 48.47                         | 50.15                   | 54                | -5.53          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.18                         | 57.41                   | 74                | -18.82         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 49.8                          | 52.03                   | 54                | -4.2           | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5190                                                | 90.1                          | 92.24                   | -                 | -              | 34.6                         | 9.6                   | 46.34                    | 100                       | 200                        | Peak    |
| 5190                                                | 82.2                          | 84.34                   | -                 | -              | 34.6                         | 9.6                   | 46.34                    | 100                       | 200                        | Average |
| 5350                                                | 54.58                         | 56.34                   | 74                | -19.42         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 49.17                         | 50.93                   | 54                | -4.83          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

#### REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5190MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 46 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 56.35                         | 58.66                   | 74                | -17.65         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 50.44                         | 52.75                   | 54                | -3.56          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5230                                                | 89.71                         | 91.77                   | -                 | -              | 34.58                        | 9.69                  | 46.33                    | 200                       | 65                         | Peak    |
| 5230                                                | 82.13                         | 84.19                   | -                 | -              | 34.58                        | 9.69                  | 46.33                    | 200                       | 65                         | Average |
| 5350                                                | 56.07                         | 57.75                   | 74                | -17.93         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 48.96                         | 50.64                   | 54                | -5.04          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.6                          | 56.83                   | 74                | -19.4          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 50.22                         | 52.45                   | 54                | -3.78          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5230                                                | 89.08                         | 91.12                   | -                 | -              | 34.6                         | 9.69                  | 46.33                    | 100                       | 200                        | Peak    |
| 5230                                                | 81.88                         | 83.92                   | -                 | -              | 34.6                         | 9.69                  | 46.33                    | 100                       | 200                        | Average |
| 5350                                                | 54.88                         | 56.64                   | 74                | -19.12         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 48.55                         | 50.31                   | 54                | -5.45          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5230MHz: Fundamental frequency.



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Test Report No.: W7L-P24050005RF03

802.11ac (80MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 42 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.31                         | 57.62                   | 74                | -18.69         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 50.25                         | 52.56                   | 54                | -3.75          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5210                                                | 86.72                         | 88.85                   | -                 | -              | 34.57                        | 9.64                  | 46.34                    | 200                       | 65                         | Peak    |
| 5210                                                | 79.19                         | 81.32                   | -                 | -              | 34.57                        | 9.64                  | 46.34                    | 200                       | 65                         | Average |
| 5350                                                | 53.83                         | 55.51                   | 74                | -20.17         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 49.02                         | 50.7                    | 54                | -4.98          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 57.05                         | 59.28                   | 74                | -16.95         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 50.18                         | 52.41                   | 54                | -3.82          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5210                                                | 84.87                         | 86.97                   | -                 | -              | 34.6                         | 9.64                  | 46.34                    | 100                       | 200                        | Peak    |
| 5210                                                | 77.61                         | 79.71                   | -                 | -              | 34.6                         | 9.64                  | 46.34                    | 100                       | 200                        | Average |
| 5350                                                | 54.56                         | 56.32                   | 74                | -19.44         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 49.2                          | 50.96                   | 54                | -4.8           | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5210MHz: Fundamental frequency.



**Band 2**

**802.11a**

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 52 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.84                         | 57.15                   | 74                | -19.16         | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Peak    |
| 5150                                                | 49.02                         | 51.33                   | 54                | -4.98          | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Average |
| 5260                                                | 93.88                         | 95.84                   | -                 | -              | 34.61                        | 9.75                  | 46.32                    | 180                       | 60                         | Peak    |
| 5260                                                | 85.96                         | 87.92                   | -                 | -              | 34.61                        | 9.75                  | 46.32                    | 180                       | 60                         | Average |
| 5350                                                | 54.19                         | 55.87                   | 74                | -19.81         | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Peak    |
| 5350                                                | 48.54                         | 50.22                   | 54                | -5.46          | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.5                          | 57.73                   | 74                | -18.5          | 34.6                         | 9.52                  | 46.35                    | 100                       | 190                        | Peak    |
| 5150                                                | 48.69                         | 50.92                   | 54                | -5.31          | 34.6                         | 9.52                  | 46.35                    | 100                       | 190                        | Average |
| 5260                                                | 92.08                         | 94.05                   | -                 | -              | 34.6                         | 9.75                  | 46.32                    | 100                       | 190                        | Peak    |
| 5260                                                | 84.11                         | 86.08                   | -                 | -              | 34.6                         | 9.75                  | 46.32                    | 100                       | 190                        | Average |
| 5350                                                | 54.27                         | 56.03                   | 74                | -19.73         | 34.6                         | 9.94                  | 46.3                     | 100                       | 190                        | Peak    |
| 5350                                                | 47.78                         | 49.54                   | 54                | -6.22          | 34.6                         | 9.94                  | 46.3                     | 100                       | 190                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5260MHz: Fundamental frequency.



|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 60 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 52.77                         | 55.08                   | 74                | -21.23         | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Peak    |
| 5150                                                | 48.57                         | 50.88                   | 54                | -5.43          | 34.52                        | 9.52                  | 46.35                    | 180                       | 60                         | Average |
| 5300                                                | 93.97                         | 95.81                   | -                 | -              | 34.64                        | 9.83                  | 46.31                    | 180                       | 60                         | Peak    |
| 5300                                                | 87.78                         | 89.62                   | -                 | -              | 34.64                        | 9.83                  | 46.31                    | 180                       | 60                         | Average |
| 5350                                                | 53.71                         | 55.39                   | 74                | -20.29         | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Peak    |
| 5350                                                | 47.57                         | 49.25                   | 54                | -6.43          | 34.68                        | 9.94                  | 46.3                     | 180                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.6                          | 56.83                   | 74                | -19.4          | 34.6                         | 9.52                  | 46.35                    | 100                       | 192                        | Peak    |
| 5150                                                | 48.03                         | 50.26                   | 54                | -5.97          | 34.6                         | 9.52                  | 46.35                    | 100                       | 192                        | Average |
| 5300                                                | 91.52                         | 93.4                    | -                 | -              | 34.6                         | 9.83                  | 46.31                    | 100                       | 192                        | Peak    |
| 5300                                                | 83.32                         | 85.2                    | -                 | -              | 34.6                         | 9.83                  | 46.31                    | 100                       | 192                        | Average |
| 5350                                                | 54.23                         | 55.99                   | 74                | -19.77         | 34.6                         | 9.94                  | 46.3                     | 100                       | 192                        | Peak    |
| 5350                                                | 48.14                         | 49.9                    | 54                | -5.86          | 34.6                         | 9.94                  | 46.3                     | 100                       | 192                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5300MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 64 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 53.04                         | 55.35                   | 74                | -20.96         | 34.52                        | 9.52                  | 46.35                    | 123                       | 205                        | Peak    |
| 5150                                                | 47.98                         | 50.29                   | 54                | -6.02          | 34.52                        | 9.52                  | 46.35                    | 123                       | 205                        | Average |
| 5320                                                | 93.21                         | 94.97                   | -                 | -              | 34.66                        | 9.88                  | 46.3                     | 123                       | 205                        | Peak    |
| 5320                                                | 84.58                         | 86.34                   | -                 | -              | 34.66                        | 9.88                  | 46.3                     | 123                       | 205                        | Average |
| 5350                                                | 55.25                         | 56.93                   | 74                | -18.75         | 34.68                        | 9.94                  | 46.3                     | 123                       | 205                        | Peak    |
| 5350                                                | 48.49                         | 50.17                   | 54                | -5.51          | 34.68                        | 9.94                  | 46.3                     | 123                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.97                         | 58.2                    | 74                | -18.03         | 34.6                         | 9.52                  | 46.35                    | 100                       | 192                        | Peak    |
| 5150                                                | 48.65                         | 50.88                   | 54                | -5.35          | 34.6                         | 9.52                  | 46.35                    | 100                       | 192                        | Average |
| 5320                                                | 90.71                         | 92.53                   | -                 | -              | 34.6                         | 9.88                  | 46.3                     | 100                       | 192                        | Peak    |
| 5320                                                | 82.27                         | 84.09                   | -                 | -              | 34.6                         | 9.88                  | 46.3                     | 100                       | 192                        | Average |
| 5350                                                | 56.08                         | 57.84                   | 74                | -17.92         | 34.6                         | 9.94                  | 46.3                     | 100                       | 192                        | Peak    |
| 5350                                                | 48.47                         | 50.23                   | 54                | -5.53          | 34.6                         | 9.94                  | 46.3                     | 100                       | 192                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5320MHz: Fundamental frequency.



802.11n (20MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 52 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.71                         | 58.02                   | 74                | -18.29         | 34.52                        | 9.52                  | 46.35                    | 190                       | 60                         | Peak    |
| 5150                                                | 48.63                         | 50.94                   | 54                | -5.37          | 34.52                        | 9.52                  | 46.35                    | 190                       | 60                         | Average |
| 5260                                                | 96.05                         | 98.01                   | -                 | -              | 34.61                        | 9.75                  | 46.32                    | 190                       | 60                         | Peak    |
| 5260                                                | 88.5                          | 90.46                   | -                 | -              | 34.61                        | 9.75                  | 46.32                    | 190                       | 60                         | Average |
| 5350                                                | 55.78                         | 57.46                   | 74                | -18.22         | 34.68                        | 9.94                  | 46.3                     | 190                       | 60                         | Peak    |
| 5350                                                | 48.72                         | 50.4                    | 54                | -5.28          | 34.68                        | 9.94                  | 46.3                     | 190                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.48                         | 57.71                   | 74                | -18.52         | 34.6                         | 9.52                  | 46.35                    | 100                       | 190                        | Peak    |
| 5150                                                | 48.76                         | 50.99                   | 54                | -5.24          | 34.6                         | 9.52                  | 46.35                    | 100                       | 190                        | Average |
| 5260                                                | 92.27                         | 94.24                   | -                 | -              | 34.6                         | 9.75                  | 46.32                    | 100                       | 190                        | Peak    |
| 5260                                                | 84.2                          | 86.17                   | -                 | -              | 34.6                         | 9.75                  | 46.32                    | 100                       | 190                        | Average |
| 5350                                                | 53.1                          | 54.86                   | 74                | -20.9          | 34.6                         | 9.94                  | 46.3                     | 100                       | 190                        | Peak    |
| 5350                                                | 48.63                         | 50.39                   | 54                | -5.37          | 34.6                         | 9.94                  | 46.3                     | 100                       | 190                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5260MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 60 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 53.35                         | 55.66                   | 74                | -20.65         | 34.52                        | 9.52                  | 46.35                    | 190                       | 60                         | Peak    |
| 5150                                                | 48.26                         | 50.57                   | 54                | -5.74          | 34.52                        | 9.52                  | 46.35                    | 190                       | 60                         | Average |
| 5300                                                | 94.6                          | 96.44                   | -                 | -              | 34.64                        | 9.83                  | 46.31                    | 190                       | 60                         | Peak    |
| 5300                                                | 87.91                         | 89.75                   | -                 | -              | 34.64                        | 9.83                  | 46.31                    | 190                       | 60                         | Average |
| 5350                                                | 55.88                         | 57.56                   | 74                | -18.12         | 34.68                        | 9.94                  | 46.3                     | 190                       | 60                         | Peak    |
| 5350                                                | 48.48                         | 50.16                   | 54                | -5.52          | 34.68                        | 9.94                  | 46.3                     | 190                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 57.23                         | 59.46                   | 74                | -16.77         | 34.6                         | 9.52                  | 46.35                    | 100                       | 190                        | Peak    |
| 5150                                                | 47.75                         | 49.98                   | 54                | -6.25          | 34.6                         | 9.52                  | 46.35                    | 100                       | 190                        | Average |
| 5300                                                | 92.2                          | 94.08                   | -                 | -              | 34.6                         | 9.83                  | 46.31                    | 100                       | 190                        | Peak    |
| 5300                                                | 84.38                         | 86.26                   | -                 | -              | 34.6                         | 9.83                  | 46.31                    | 100                       | 190                        | Average |
| 5350                                                | 53.98                         | 55.74                   | 74                | -20.02         | 34.6                         | 9.94                  | 46.3                     | 100                       | 190                        | Peak    |
| 5350                                                | 47.3                          | 49.06                   | 54                | -6.7           | 34.6                         | 9.94                  | 46.3                     | 100                       | 190                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5300MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 64 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.03                         | 57.34                   | 74                | -18.97         | 34.52                        | 9.52                  | 46.35                    | 190                       | 60                         | Peak    |
| 5150                                                | 48.48                         | 50.79                   | 54                | -5.52          | 34.52                        | 9.52                  | 46.35                    | 190                       | 60                         | Average |
| 5320                                                | 95.33                         | 97.09                   | -                 | -              | 34.66                        | 9.88                  | 46.3                     | 190                       | 60                         | Peak    |
| 5320                                                | 88.56                         | 90.32                   | -                 | -              | 34.66                        | 9.88                  | 46.3                     | 190                       | 60                         | Average |
| 5350                                                | 53.8                          | 55.48                   | 74                | -20.2          | 34.68                        | 9.94                  | 46.3                     | 190                       | 60                         | Peak    |
| 5350                                                | 47.63                         | 49.31                   | 54                | -6.37          | 34.68                        | 9.94                  | 46.3                     | 190                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.58                         | 57.81                   | 74                | -18.42         | 34.6                         | 9.52                  | 46.35                    | 100                       | 140                        | Peak    |
| 5150                                                | 48.51                         | 50.74                   | 54                | -5.49          | 34.6                         | 9.52                  | 46.35                    | 100                       | 140                        | Average |
| 5320                                                | 93.42                         | 95.24                   | -                 | -              | 34.6                         | 9.88                  | 46.3                     | 100                       | 140                        | Peak    |
| 5320                                                | 86.57                         | 88.39                   | -                 | -              | 34.6                         | 9.88                  | 46.3                     | 100                       | 140                        | Average |
| 5350                                                | 56.22                         | 57.98                   | 74                | -17.78         | 34.6                         | 9.94                  | 46.3                     | 100                       | 140                        | Peak    |
| 5350                                                | 47.83                         | 49.59                   | 54                | -6.17          | 34.6                         | 9.94                  | 46.3                     | 100                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5320MHz: Fundamental frequency.



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Test Report No.: W7L-P24050005RF03

### 802.11n (40MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 54 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.46                         | 56.77                   | 74                | -19.54         | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Peak    |
| 5150                                                | 48.14                         | 50.45                   | 54                | -5.86          | 34.52                        | 9.52                  | 46.35                    | 200                       | 65                         | Average |
| 5270                                                | 90.43                         | 92.36                   | -                 | -              | 34.62                        | 9.77                  | 46.32                    | 200                       | 65                         | Peak    |
| 5270                                                | 83.23                         | 85.16                   | -                 | -              | 34.62                        | 9.77                  | 46.32                    | 200                       | 65                         | Average |
| 5350                                                | 53.76                         | 55.44                   | 74                | -20.24         | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Peak    |
| 5350                                                | 46.89                         | 48.57                   | 54                | -7.11          | 34.68                        | 9.94                  | 46.3                     | 200                       | 65                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.12                         | 56.35                   | 74                | -19.88         | 34.6                         | 9.52                  | 46.35                    | 100                       | 190                        | Peak    |
| 5150                                                | 48.4                          | 50.63                   | 54                | -5.6           | 34.6                         | 9.52                  | 46.35                    | 100                       | 190                        | Average |
| 5270                                                | 87.32                         | 89.27                   | -                 | -              | 34.6                         | 9.77                  | 46.32                    | 100                       | 190                        | Peak    |
| 5270                                                | 81.24                         | 83.19                   | -                 | -              | 34.6                         | 9.77                  | 46.32                    | 100                       | 190                        | Average |
| 5350                                                | 54.06                         | 55.82                   | 74                | -19.94         | 34.6                         | 9.94                  | 46.3                     | 100                       | 190                        | Peak    |
| 5350                                                | 47.82                         | 49.58                   | 54                | -6.18          | 34.6                         | 9.94                  | 46.3                     | 100                       | 190                        | Average |

#### REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5270MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 62 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.72                         | 58.03                   | 74                | -18.28         | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Peak    |
| 5150                                                | 49.28                         | 51.59                   | 54                | -4.72          | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Average |
| 5310                                                | 92.03                         | 93.84                   | -                 | -              | 34.65                        | 9.85                  | 46.31                    | 200                       | 62                         | Peak    |
| 5310                                                | 86.56                         | 88.37                   | -                 | -              | 34.65                        | 9.85                  | 46.31                    | 200                       | 62                         | Average |
| 5350                                                | 54.69                         | 56.37                   | 74                | -19.31         | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Peak    |
| 5350                                                | 49.68                         | 51.36                   | 54                | -4.32          | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.03                         | 57.26                   | 74                | -18.97         | 34.6                         | 9.52                  | 46.35                    | 143                       | 75                         | Peak    |
| 5150                                                | 49.97                         | 52.2                    | 54                | -4.03          | 34.6                         | 9.52                  | 46.35                    | 143                       | 75                         | Average |
| 5310                                                | 89.36                         | 91.22                   |                   |                | 34.6                         | 9.85                  | 46.31                    | 143                       | 75                         | Peak    |
| 5310                                                | 84.48                         | 86.34                   |                   |                | 34.6                         | 9.85                  | 46.31                    | 143                       | 75                         | Average |
| 5350                                                | 53.82                         | 55.58                   | 74                | -20.18         | 34.6                         | 9.94                  | 46.3                     | 143                       | 75                         | Peak    |
| 5350                                                | 48.62                         | 50.38                   | 54                | -5.38          | 34.6                         | 9.94                  | 46.3                     | 143                       | 75                         | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5310MHz: Fundamental frequency.



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Test Report No.: W7L-P24050005RF03

### 802.11ac (20MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 52 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.24                         | 57.55                   | 74                | -18.76         | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Peak    |
| 5150                                                | 49.52                         | 51.83                   | 54                | -4.48          | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Average |
| 5260                                                | 95.72                         | 97.68                   | -                 | -              | 34.61                        | 9.75                  | 46.32                    | 200                       | 62                         | Peak    |
| 5260                                                | 88.36                         | 90.32                   | -                 | -              | 34.61                        | 9.75                  | 46.32                    | 200                       | 62                         | Average |
| 5350                                                | 54.38                         | 56.06                   | 74                | -19.62         | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Peak    |
| 5350                                                | 48.37                         | 50.05                   | 54                | -5.63          | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.61                         | 57.84                   | 74                | -18.39         | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Peak    |
| 5150                                                | 48.94                         | 51.17                   | 54                | -5.06          | 34.6                         | 9.52                  | 46.35                    | 100                       | 200                        | Average |
| 5260                                                | 93.76                         | 95.73                   | -                 | -              | 34.6                         | 9.75                  | 46.32                    | 100                       | 200                        | Peak    |
| 5260                                                | 87.48                         | 89.45                   | -                 | -              | 34.6                         | 9.75                  | 46.32                    | 100                       | 200                        | Average |
| 5350                                                | 54.28                         | 56.04                   | 74                | -19.72         | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Peak    |
| 5350                                                | 48.68                         | 50.44                   | 54                | -5.32          | 34.6                         | 9.94                  | 46.3                     | 100                       | 200                        | Average |

#### REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5260MHz: Fundamental frequency.



|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 60 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.93                         | 57.24                   | 74                | -19.07         | 34.52                        | 9.52                  | 46.35                    | 170                       | 62                         | Peak    |
| 5150                                                | 49.77                         | 52.08                   | 54                | -4.23          | 34.52                        | 9.52                  | 46.35                    | 170                       | 62                         | Average |
| 5300                                                | 95.89                         | 97.73                   | –                 | –              | 34.64                        | 9.83                  | 46.31                    | 170                       | 62                         | Peak    |
| 5300                                                | 89.17                         | 91.01                   | –                 | –              | 34.64                        | 9.83                  | 46.31                    | 170                       | 62                         | Average |
| 5350                                                | 55.24                         | 56.92                   | 74                | -18.76         | 34.68                        | 9.94                  | 46.3                     | 170                       | 62                         | Peak    |
| 5350                                                | 49.01                         | 50.69                   | 54                | -4.99          | 34.68                        | 9.94                  | 46.3                     | 170                       | 62                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 56.71                         | 58.94                   | 74                | -17.29         | 34.6                         | 9.52                  | 46.35                    | 108                       | 135                        | Peak    |
| 5150                                                | 49.05                         | 51.28                   | 54                | -4.95          | 34.6                         | 9.52                  | 46.35                    | 108                       | 135                        | Average |
| 5300                                                | 92.94                         | 94.82                   | –                 | –              | 34.6                         | 9.83                  | 46.31                    | 108                       | 135                        | Peak    |
| 5300                                                | 86.86                         | 88.74                   | –                 | –              | 34.6                         | 9.83                  | 46.31                    | 108                       | 135                        | Average |
| 5350                                                | 53.67                         | 55.43                   | 74                | -20.33         | 34.6                         | 9.94                  | 46.3                     | 108                       | 135                        | Peak    |
| 5350                                                | 48.71                         | 50.47                   | 54                | -5.29          | 34.6                         | 9.94                  | 46.3                     | 108                       | 135                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5300MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 64 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.99                         | 57.3                    | 74                | -19.01         | 34.52                        | 9.52                  | 46.35                    | 170                       | 62                         | Peak    |
| 5150                                                | 49.01                         | 51.32                   | 54                | -4.99          | 34.52                        | 9.52                  | 46.35                    | 170                       | 62                         | Average |
| 5320                                                | 95.98                         | 97.74                   | –                 | –              | 34.66                        | 9.88                  | 46.3                     | 170                       | 62                         | Peak    |
| 5320                                                | 88.52                         | 90.28                   | –                 | –              | 34.66                        | 9.88                  | 46.3                     | 170                       | 62                         | Average |
| 5350                                                | 55.19                         | 56.87                   | 74                | -18.81         | 34.68                        | 9.94                  | 46.3                     | 170                       | 62                         | Peak    |
| 5350                                                | 48.83                         | 50.51                   | 54                | -5.17          | 34.68                        | 9.94                  | 46.3                     | 170                       | 62                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.85                         | 57.08                   | 74                | -19.15         | 34.6                         | 9.52                  | 46.35                    | 100                       | 135                        | Peak    |
| 5150                                                | 49.56                         | 51.79                   | 54                | -4.44          | 34.6                         | 9.52                  | 46.35                    | 100                       | 135                        | Average |
| 5320                                                | 93.53                         | 95.35                   | –                 | –              | 34.6                         | 9.88                  | 46.3                     | 100                       | 135                        | Peak    |
| 5320                                                | 87.36                         | 89.18                   | –                 | –              | 34.6                         | 9.88                  | 46.3                     | 100                       | 135                        | Average |
| 5350                                                | 55.41                         | 57.17                   | 74                | -18.59         | 34.6                         | 9.94                  | 46.3                     | 100                       | 135                        | Peak    |
| 5350                                                | 49.1                          | 50.86                   | 54                | -4.9           | 34.6                         | 9.94                  | 46.3                     | 100                       | 135                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5320MHz: Fundamental frequency.



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Test Report No.: W7L-P24050005RF03

802.11ac (40MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 54 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.62                         | 57.93                   | 74                | -18.38         | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Peak    |
| 5150                                                | 49.35                         | 51.66                   | 54                | -4.65          | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Average |
| 5270                                                | 91.28                         | 93.21                   | –                 | –              | 34.62                        | 9.77                  | 46.32                    | 200                       | 62                         | Peak    |
| 5270                                                | 86.28                         | 88.21                   | –                 | –              | 34.62                        | 9.77                  | 46.32                    | 200                       | 62                         | Average |
| 5350                                                | 55.2                          | 56.88                   | 74                | -18.8          | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Peak    |
| 5350                                                | 48.61                         | 50.29                   | 54                | -5.39          | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.4                          | 56.63                   | 74                | -19.6          | 34.6                         | 9.52                  | 46.35                    | 115                       | 140                        | Peak    |
| 5150                                                | 49.43                         | 51.66                   | 54                | -4.57          | 34.6                         | 9.52                  | 46.35                    | 115                       | 140                        | Average |
| 5270                                                | 89.18                         | 91.13                   | –                 | –              | 34.6                         | 9.77                  | 46.32                    | 115                       | 140                        | Peak    |
| 5270                                                | 83.73                         | 85.68                   | –                 | –              | 34.6                         | 9.77                  | 46.32                    | 115                       | 140                        | Average |
| 5350                                                | 54.4                          | 56.16                   | 74                | -19.6          | 34.6                         | 9.94                  | 46.3                     | 115                       | 140                        | Peak    |
| 5350                                                | 49.13                         | 50.89                   | 54                | -4.87          | 34.6                         | 9.94                  | 46.3                     | 115                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5270MHz: Fundamental frequency.

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 62 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 55.99                         | 58.3                    | 74                | -18.01         | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Peak    |
| 5150                                                | 50.5                          | 52.81                   | 54                | -3.5           | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Average |
| 5310                                                | 91.67                         | 93.48                   | –                 | –              | 34.65                        | 9.85                  | 46.31                    | 200                       | 62                         | Peak    |
| 5310                                                | 86.23                         | 88.04                   | –                 | –              | 34.65                        | 9.85                  | 46.31                    | 200                       | 62                         | Average |
| 5350                                                | 54.77                         | 56.45                   | 74                | -19.23         | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Peak    |
| 5350                                                | 49.63                         | 51.31                   | 54                | -4.37          | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.98                         | 57.21                   | 74                | -19.02         | 34.6                         | 9.52                  | 46.35                    | 100                       | 140                        | Peak    |
| 5150                                                | 49.96                         | 52.19                   | 54                | -4.04          | 34.6                         | 9.52                  | 46.35                    | 100                       | 140                        | Average |
| 5310                                                | 88.32                         | 90.18                   | –                 | –              | 34.6                         | 9.85                  | 46.31                    | 100                       | 140                        | Peak    |
| 5310                                                | 83.06                         | 84.92                   | –                 | –              | 34.6                         | 9.85                  | 46.31                    | 100                       | 140                        | Average |
| 5350                                                | 54.76                         | 56.52                   | 74                | -19.24         | 34.6                         | 9.94                  | 46.3                     | 100                       | 140                        | Peak    |
| 5350                                                | 48.85                         | 50.61                   | 54                | -5.15          | 34.6                         | 9.94                  | 46.3                     | 100                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5310MHz: Fundamental frequency.



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Test Report No.: W7L-P24050005RF03

802.11ac (80MHz)

|                        |               |                          |              |
|------------------------|---------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 58 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz  |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.31                         | 56.62                   | 74                | -19.69         | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Peak    |
| 5150                                                | 49.89                         | 52.2                    | 54                | -4.11          | 34.52                        | 9.52                  | 46.35                    | 200                       | 62                         | Average |
| 5290                                                | 86.09                         | 87.96                   | -                 | -              | 34.63                        | 9.81                  | 46.31                    | 200                       | 62                         | Peak    |
| 5290                                                | 80.87                         | 82.74                   | -                 | -              | 34.63                        | 9.81                  | 46.31                    | 200                       | 62                         | Average |
| 5350                                                | 53.75                         | 55.43                   | 74                | -20.25         | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Peak    |
| 5350                                                | 49.66                         | 51.34                   | 54                | -4.34          | 34.68                        | 9.94                  | 46.3                     | 200                       | 62                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5150                                                | 54.73                         | 56.96                   | 74                | -19.27         | 34.6                         | 9.52                  | 46.35                    | 100                       | 140                        | Peak    |
| 5150                                                | 50.11                         | 52.34                   | 54                | -3.89          | 34.6                         | 9.52                  | 46.35                    | 100                       | 140                        | Average |
| 5290                                                | 85.14                         | 87.04                   | -                 | -              | 34.6                         | 9.81                  | 46.31                    | 100                       | 140                        | Peak    |
| 5290                                                | 79.69                         | 81.59                   | -                 | -              | 34.6                         | 9.81                  | 46.31                    | 100                       | 140                        | Average |
| 5350                                                | 54.2                          | 55.96                   | 74                | -19.8          | 34.6                         | 9.94                  | 46.3                     | 100                       | 140                        | Peak    |
| 5350                                                | 49.08                         | 50.84                   | 54                | -4.92          | 34.6                         | 9.94                  | 46.3                     | 100                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5290MHz: Fundamental frequency.



Test Report No.: W7L-P24050005RF03

Band 3

802.11a

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 100 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 54.48                         | 55.8                    | 74                | -19.52         | 34.77                        | 10.17                 | 46.26                    | 200                       | 60                         | Peak    |
| 5460                                                | 48.74                         | 50.06                   | 54                | -5.26          | 34.77                        | 10.17                 | 46.26                    | 200                       | 60                         | Average |
| 5470                                                | 56.68                         | 57.97                   | 68.3              | -11.62         | 34.78                        | 10.19                 | 46.26                    | 200                       | 60                         | Peak    |
| 5500                                                | 95.68                         | 96.87                   | -                 | -              | 34.8                         | 10.26                 | 46.25                    | 200                       | 60                         | Peak    |
| 5500                                                | 88.49                         | 89.68                   | -                 | -              | 34.8                         | 10.26                 | 46.25                    | 200                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 54.55                         | 56.04                   | 74                | -19.45         | 34.6                         | 10.17                 | 46.26                    | 115                       | 140                        | Peak    |
| 5460                                                | 48.99                         | 50.48                   | 54                | -5.01          | 34.6                         | 10.17                 | 46.26                    | 115                       | 140                        | Average |
| 5470                                                | 54.95                         | 56.42                   | 68.3              | -13.35         | 34.6                         | 10.19                 | 46.26                    | 115                       | 140                        | Peak    |
| 5500                                                | 94.03                         | 95.42                   | -                 | -              | 34.6                         | 10.26                 | 46.25                    | 115                       | 140                        | Peak    |
| 5500                                                | 87.91                         | 89.3                    | -                 | -              | 34.6                         | 10.26                 | 46.25                    | 115                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 116 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 55.02                         | 56.34                   | 74                | -18.98         | 34.77                        | 10.17                 | 46.26                    | 200                       | 60                         | Peak    |
| 5460                                                | 49.08                         | 50.4                    | 54                | -4.92          | 34.77                        | 10.17                 | 46.26                    | 200                       | 60                         | Average |
| 5470                                                | 54.32                         | 55.61                   | 68.3              | -13.98         | 34.78                        | 10.19                 | 46.26                    | 200                       | 60                         | Peak    |
| 5580                                                | 96.84                         | 97.58                   | –                 | –              | 34.9                         | 10.59                 | 46.23                    | 200                       | 60                         | Peak    |
| 5580                                                | 90.54                         | 91.28                   | –                 | –              | 34.9                         | 10.59                 | 46.23                    | 200                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 54.31                         | 55.8                    | 74                | -19.69         | 34.6                         | 10.17                 | 46.26                    | 115                       | 140                        | Peak    |
| 5460                                                | 48.53                         | 50.02                   | 54                | -5.47          | 34.6                         | 10.17                 | 46.26                    | 115                       | 140                        | Average |
| 5470                                                | 54.99                         | 56.46                   | 68.3              | -13.31         | 34.6                         | 10.19                 | 46.26                    | 115                       | 140                        | Peak    |
| 5580                                                | 96.99                         | 97.93                   | –                 | –              | 34.7                         | 10.59                 | 46.23                    | 115                       | 140                        | Peak    |
| 5580                                                | 90.59                         | 91.53                   | –                 | –              | 34.7                         | 10.59                 | 46.23                    | 115                       | 140                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5580MHz: Fundamental frequency.
- #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 140 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5700                                                | 95.47                         | 95.53                   | –                 | –              | 35.04                        | 11.09                 | 46.19                    | 100                       | 50                         | Peak    |
| 5700                                                | 89.21                         | 89.27                   | –                 | –              | 35.04                        | 11.09                 | 46.19                    | 100                       | 50                         | Average |
| 5725                                                | 60.58                         | 60.5                    | 68.3              | -7.72          | 35.07                        | 11.2                  | 46.19                    | 100                       | 50                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5700                                                | 98.18                         | 98.44                   | –                 | –              | 34.84                        | 11.09                 | 46.19                    | 120                       | 245                        | Peak    |
| 5700                                                | 92.29                         | 92.55                   | –                 | –              | 34.84                        | 11.09                 | 46.19                    | 120                       | 245                        | Average |
| 5725                                                | 58.67                         | 58.79                   | 68.3              | -9.63          | 34.87                        | 11.2                  | 46.19                    | 120                       | 245                        | Peak    |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5700MHz: Fundamental frequency.
- #: Out of restricted band.



|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 144 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 56.83                         | 58.12                   | 74                | -17.17         | 34.78                        | 10.19                 | 46.26                    | 105                       | 48                         | Peak    |
| 5720                                                | 96.92                         | 96.87                   | -                 | -              | 35.06                        | 11.18                 | 46.19                    | 105                       | 48                         | Peak    |
| 5720                                                | 90.83                         | 90.78                   | -                 | -              | 35.06                        | 11.18                 | 46.19                    | 105                       | 48                         | Average |
| 5850                                                | 58.01                         | 57.22                   | 68.3              | -10.29         | 35.22                        | 11.72                 | 46.15                    | 105                       | 48                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 56.38                         | 57.85                   | 74                | -17.62         | 34.6                         | 10.19                 | 46.26                    | 120                       | 245                        | Peak    |
| 5720                                                | 98.49                         | 98.64                   | -                 | -              | 34.86                        | 11.18                 | 46.19                    | 120                       | 245                        | Peak    |
| 5720                                                | 92.06                         | 92.21                   | -                 | -              | 34.86                        | 11.18                 | 46.19                    | 120                       | 245                        | Average |
| 5850                                                | 57.43                         | 56.84                   | 68.3              | -10.87         | 35.02                        | 11.72                 | 46.15                    | 120                       | 245                        | Peak    |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5720MHz: Fundamental frequency.
3. #: Out of restricted band.

802.11n (20MHz)

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 100 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 53.9                          | 55.22                   | 74                | -20.1          | 34.77                        | 10.17                 | 46.26                    | 120                       | 60                         | Peak    |
| 5460                                                | 48.99                         | 50.31                   | 54                | -5.01          | 34.77                        | 10.17                 | 46.26                    | 120                       | 60                         | Average |
| 5470                                                | 55.71                         | 57                      | 68.3              | -12.59         | 34.78                        | 10.19                 | 46.26                    | 120                       | 60                         | Peak    |
| 5500                                                | 95.4                          | 96.59                   | –                 | –              | 34.8                         | 10.26                 | 46.25                    | 120                       | 60                         | Peak    |
| 5500                                                | 88.92                         | 90.11                   | –                 | –              | 34.8                         | 10.26                 | 46.25                    | 120                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 55.58                         | 57.07                   | 74                | -18.42         | 34.6                         | 10.17                 | 46.26                    | 103                       | 140                        | Peak    |
| 5460                                                | 48.98                         | 50.47                   | 54                | -5.02          | 34.6                         | 10.17                 | 46.26                    | 103                       | 140                        | Average |
| 5470                                                | 54.59                         | 56.06                   | 68.3              | -13.71         | 34.6                         | 10.19                 | 46.26                    | 103                       | 140                        | Peak    |
| 5500                                                | 94.74                         | 96.13                   | –                 | –              | 34.6                         | 10.26                 | 46.25                    | 103                       | 140                        | Peak    |
| 5500                                                | 88.76                         | 90.15                   | –                 | –              | 34.6                         | 10.26                 | 46.25                    | 103                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 116 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 54.74                         | 56.06                   | 74                | -19.26         | 34.77                        | 10.17                 | 46.26                    | 200                       | 60                         | Peak    |
| 5460                                                | 48.54                         | 49.86                   | 54                | -5.46          | 34.77                        | 10.17                 | 46.26                    | 200                       | 60                         | Average |
| 5470                                                | 55.64                         | 56.93                   | 68.3              | -12.66         | 34.78                        | 10.19                 | 46.26                    | 200                       | 60                         | Peak    |
| 5580                                                | 96.39                         | 97.13                   | –                 | –              | 34.9                         | 10.59                 | 46.23                    | 200                       | 60                         | Peak    |
| 5580                                                | 89.86                         | 90.6                    | –                 | –              | 34.9                         | 10.59                 | 46.23                    | 200                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 53.66                         | 55.15                   | 74                | -20.34         | 34.6                         | 10.17                 | 46.26                    | 103                       | 140                        | Peak    |
| 5460                                                | 48.78                         | 50.27                   | 54                | -5.22          | 34.6                         | 10.17                 | 46.26                    | 103                       | 140                        | Average |
| 5470                                                | 54.87                         | 56.34                   | 68.3              | -13.43         | 34.6                         | 10.19                 | 46.26                    | 103                       | 140                        | Peak    |
| 5580                                                | 95.78                         | 96.72                   | –                 | –              | 34.7                         | 10.59                 | 46.23                    | 103                       | 140                        | Peak    |
| 5580                                                | 88.09                         | 89.03                   | –                 | –              | 34.7                         | 10.59                 | 46.23                    | 103                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5580MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 140 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5700                                                | 96.6                          | 96.66                   | –                 | –              | 35.04                        | 11.09                 | 46.19                    | 100                       | 45                         | Peak    |
| 5700                                                | 89.86                         | 89.92                   | –                 | –              | 35.04                        | 11.09                 | 46.19                    | 100                       | 45                         | Average |
| 5725                                                | 58.43                         | 58.35                   | 68.3              | -9.87          | 35.07                        | 11.2                  | 46.19                    | 100                       | 45                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5700                                                | 98.6                          | 98.86                   | –                 | –              | 34.84                        | 11.09                 | 46.19                    | 155                       | 240                        | Peak    |
| 5700                                                | 92.29                         | 92.55                   | –                 | –              | 34.84                        | 11.09                 | 46.19                    | 155                       | 240                        | Average |
| 5725                                                | 59.51                         | 59.63                   | 68.3              | -8.79          | 34.87                        | 11.2                  | 46.19                    | 155                       | 240                        | Peak    |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5700MHz: Fundamental frequency.
- #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 144 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 54.19                         | 55.48                   | 74                | -19.81         | 34.78                        | 10.19                 | 46.26                    | 100                       | 35                         | Peak    |
| 5720                                                | 95.14                         | 95.09                   | -                 | -              | 35.06                        | 11.18                 | 46.19                    | 100                       | 35                         | Peak    |
| 5720                                                | 87.92                         | 87.87                   | -                 | -              | 35.06                        | 11.18                 | 46.19                    | 100                       | 35                         | Average |
| 5850                                                | 60.13                         | 59.34                   | 68.3              | -8.17          | 35.22                        | 11.72                 | 46.15                    | 100                       | 35                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 56.34                         | 57.81                   | 74                | -17.66         | 34.6                         | 10.19                 | 46.26                    | 155                       | 240                        | Peak    |
| 5720                                                | 98.98                         | 99.13                   | -                 | -              | 34.86                        | 11.18                 | 46.19                    | 155                       | 240                        | Peak    |
| 5720                                                | 93.07                         | 93.22                   | -                 | -              | 34.86                        | 11.18                 | 46.19                    | 155                       | 240                        | Average |
| 5850                                                | 58.21                         | 57.62                   | 68.3              | -10.09         | 35.02                        | 11.72                 | 46.15                    | 155                       | 240                        | Peak    |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5720MHz: Fundamental frequency.
3. #: Out of restricted band.



802.11n (40MHz)

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 102 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 53.66                         | 54.98                   | 74                | -20.34         | 34.77                        | 10.17                 | 46.26                    | 100                       | 60                         | Peak    |
| 5460                                                | 49.03                         | 50.35                   | 54                | -4.97          | 34.77                        | 10.17                 | 46.26                    | 100                       | 60                         | Average |
| 5470                                                | 58.03                         | 59.32                   | 68.3              | -10.27         | 34.78                        | 10.19                 | 46.26                    | 100                       | 60                         | Peak    |
| 5510                                                | 90.06                         | 91.2                    | -                 | -              | 34.81                        | 10.3                  | 46.25                    | 100                       | 60                         | Peak    |
| 5510                                                | 85.52                         | 86.66                   | -                 | -              | 34.81                        | 10.3                  | 46.25                    | 100                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 53.6                          | 55.09                   | 74                | -20.4          | 34.6                         | 10.17                 | 46.26                    | 102                       | 140                        | Peak    |
| 5460                                                | 48.8                          | 50.29                   | 54                | -5.2           | 34.6                         | 10.17                 | 46.26                    | 102                       | 140                        | Average |
| 5470                                                | 55.06                         | 56.53                   | 68.3              | -13.24         | 34.6                         | 10.19                 | 46.26                    | 102                       | 140                        | Peak    |
| 5510                                                | 90.03                         | 91.37                   | -                 | -              | 34.61                        | 10.3                  | 46.25                    | 102                       | 140                        | Peak    |
| 5510                                                | 85.2                          | 86.54                   | -                 | -              | 34.61                        | 10.3                  | 46.25                    | 102                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5510MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 110 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 53.7                          | 55.02                   | 74                | -20.3          | 34.77                        | 10.17                 | 46.26                    | 100                       | 60                         | Peak    |
| 5460                                                | 49.46                         | 50.78                   | 54                | -4.54          | 34.77                        | 10.17                 | 46.26                    | 100                       | 60                         | Average |
| 5470                                                | 54.23                         | 55.52                   | 68.3              | -14.07         | 34.78                        | 10.19                 | 46.26                    | 100                       | 60                         | Peak    |
| 5550                                                | 91.41                         | 92.32                   | –                 | –              | 34.86                        | 10.47                 | 46.24                    | 100                       | 60                         | Peak    |
| 5550                                                | 86.73                         | 87.64                   | –                 | –              | 34.86                        | 10.47                 | 46.24                    | 100                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 54.97                         | 56.46                   | 74                | -19.03         | 34.6                         | 10.17                 | 46.26                    | 102                       | 140                        | Peak    |
| 5460                                                | 48.99                         | 50.48                   | 54                | -5.01          | 34.6                         | 10.17                 | 46.26                    | 102                       | 140                        | Average |
| 5470                                                | 53.77                         | 55.24                   | 68.3              | -14.53         | 34.6                         | 10.19                 | 46.26                    | 102                       | 140                        | Peak    |
| 5550                                                | 90.35                         | 91.46                   | –                 | –              | 34.66                        | 10.47                 | 46.24                    | 102                       | 140                        | Peak    |
| 5550                                                | 85.67                         | 86.78                   | –                 | –              | 34.66                        | 10.47                 | 46.24                    | 102                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 134 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5670                                                | 90.97                         | 91.2                    | –                 | –              | 35                           | 10.97                 | 46.2                     | 100                       | 60                         | Peak    |
| 5670                                                | 86.82                         | 87.05                   | –                 | –              | 35                           | 10.97                 | 46.2                     | 100                       | 60                         | Average |
| 5725                                                | 56.49                         | 56.41                   | 68.3              | -11.81         | 35.07                        | 11.2                  | 46.19                    | 100                       | 60                         | Peak    |
| ANTENNA POLARITY & test distance: Vertical at 3 m   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5670                                                | 89.97                         | 90.4                    | –                 | –              | 34.8                         | 10.97                 | 46.2                     | 100                       | 140                        | Peak    |
| 5670                                                | 85.81                         | 86.24                   | –                 | –              | 34.8                         | 10.97                 | 46.2                     | 100                       | 140                        | Average |
| 5725                                                | 58.14                         | 58.26                   | 68.3              | -10.16         | 34.87                        | 11.2                  | 46.19                    | 100                       | 140                        | Peak    |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5670MHz: Fundamental frequency.
- #: Out of restricted band.



|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 142 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 55.19                         | 56.48                   | 74                | -18.81         | 34.78                        | 10.19                 | 46.26                    | 100                       | 50                         | Peak    |
| 5710                                                | 89.88                         | 89.88                   | –                 | –              | 35.05                        | 11.14                 | 46.19                    | 100                       | 50                         | Peak    |
| 5710                                                | 85.34                         | 85.34                   | –                 | –              | 35.05                        | 11.14                 | 46.19                    | 100                       | 50                         | Average |
| 5850                                                | 59.49                         | 58.7                    | 68.3              | -8.81          | 35.22                        | 11.72                 | 46.15                    | 100                       | 50                         | Peak    |
| ANTENNA POLARITY & test distance: Vertical at 3 m   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 54.23                         | 55.7                    | 74                | -19.77         | 34.6                         | 10.19                 | 46.26                    | 155                       | 240                        | Peak    |
| 5710                                                | 93.62                         | 93.82                   | –                 | –              | 34.85                        | 11.14                 | 46.19                    | 155                       | 240                        | Peak    |
| 5710                                                | 90.04                         | 90.24                   | –                 | –              | 34.85                        | 11.14                 | 46.19                    | 155                       | 240                        | Average |
| 5850                                                | 56.51                         | 55.92                   | 68.3              | -11.79         | 35.02                        | 11.72                 | 46.15                    | 155                       | 240                        | Peak    |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5710MHz: Fundamental frequency.
3. #: Out of restricted band.



802.11ac (20MHz)

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 100 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 56.63                         | 57.95                   | 74                | -17.37         | 34.77                        | 10.17                 | 46.26                    | 152                       | 60                         | Peak    |
| 5460                                                | 48.81                         | 50.13                   | 54                | -5.19          | 34.77                        | 10.17                 | 46.26                    | 152                       | 60                         | Average |
| 5470                                                | 56                            | 57.29                   | 68.3              | -12.3          | 34.78                        | 10.19                 | 46.26                    | 152                       | 60                         | Peak    |
| 5500                                                | 95.15                         | 96.34                   | –                 | –              | 34.8                         | 10.26                 | 46.25                    | 152                       | 60                         | Peak    |
| 5500                                                | 89.61                         | 90.8                    | –                 | –              | 34.8                         | 10.26                 | 46.25                    | 152                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 55.79                         | 57.28                   | 74                | -18.21         | 34.6                         | 10.17                 | 46.26                    | 103                       | 140                        | Peak    |
| 5460                                                | 48.96                         | 50.45                   | 54                | -5.04          | 34.6                         | 10.17                 | 46.26                    | 103                       | 140                        | Average |
| 5470                                                | 55.02                         | 56.49                   | 68.3              | -13.28         | 34.6                         | 10.19                 | 46.26                    | 103                       | 140                        | Peak    |
| 5500                                                | 95.66                         | 97.05                   | –                 | –              | 34.6                         | 10.26                 | 46.25                    | 103                       | 140                        | Peak    |
| 5500                                                | 88.78                         | 90.17                   | –                 | –              | 34.6                         | 10.26                 | 46.25                    | 103                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 116 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 55.39                         | 56.71                   | 74                | -18.61         | 34.77                        | 10.17                 | 46.26                    | 200                       | 60                         | Peak    |
| 5460                                                | 48.64                         | 49.96                   | 54                | -5.36          | 34.77                        | 10.17                 | 46.26                    | 200                       | 60                         | Average |
| 5470                                                | 55.12                         | 56.41                   | 68.3              | -13.18         | 34.78                        | 10.19                 | 46.26                    | 200                       | 60                         | Peak    |
| 5580                                                | 95.59                         | 96.33                   | –                 | –              | 34.9                         | 10.59                 | 46.23                    | 200                       | 60                         | Peak    |
| 5580                                                | 90.03                         | 90.77                   | –                 | –              | 34.9                         | 10.59                 | 46.23                    | 200                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 54.56                         | 56.05                   | 74                | -19.44         | 34.6                         | 10.17                 | 46.26                    | 100                       | 140                        | Peak    |
| 5460                                                | 48.73                         | 50.22                   | 54                | -5.27          | 34.6                         | 10.17                 | 46.26                    | 100                       | 140                        | Average |
| 5470                                                | 54.45                         | 55.92                   | 68.3              | -13.85         | 34.6                         | 10.19                 | 46.26                    | 100                       | 140                        | Peak    |
| 5580                                                | 95.9                          | 96.84                   | –                 | –              | 34.7                         | 10.59                 | 46.23                    | 100                       | 140                        | Peak    |
| 5580                                                | 89.16                         | 90.1                    | –                 | –              | 34.7                         | 10.59                 | 46.23                    | 100                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5580MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 140 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5700                                                | 96.63                         | 96.69                   | –                 | –              | 35.04                        | 11.09                 | 46.19                    | 100                       | 45                         | Peak    |
| 5700                                                | 89.97                         | 90.03                   | –                 | –              | 35.04                        | 11.09                 | 46.19                    | 100                       | 45                         | Average |
| 5725                                                | 59.11                         | 59.03                   | 68.3              | -9.19          | 35.07                        | 11.2                  | 46.19                    | 100                       | 45                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5700                                                | 98.42                         | 98.68                   | –                 | –              | 34.84                        | 11.09                 | 46.19                    | 200                       | 240                        | Peak    |
| 5700                                                | 91.9                          | 92.16                   | –                 | –              | 34.84                        | 11.09                 | 46.19                    | 200                       | 240                        | Average |
| 5725                                                | 58.38                         | 58.5                    | 68.3              | -9.92          | 34.87                        | 11.2                  | 46.19                    | 200                       | 240                        | Peak    |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5700MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 144 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 55.16                         | 56.45                   | 74                | -18.84         | 34.78                        | 10.19                 | 46.26                    | 218                       | 45                         | Peak    |
| 5720                                                | 95.34                         | 95.29                   | –                 | –              | 35.06                        | 11.18                 | 46.19                    | 218                       | 45                         | Peak    |
| 5720                                                | 89.25                         | 89.2                    | –                 | –              | 35.06                        | 11.18                 | 46.19                    | 218                       | 45                         | Average |
| 5850                                                | 57.69                         | 56.9                    | 68.3              | -10.61         | 35.22                        | 11.72                 | 46.15                    | 218                       | 45                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 56.04                         | 57.51                   | 74                | -17.96         | 34.6                         | 10.19                 | 46.26                    | 200                       | 240                        | Peak    |
| 5720                                                | 98.41                         | 98.56                   | –                 | –              | 34.86                        | 11.18                 | 46.19                    | 200                       | 240                        | Peak    |
| 5720                                                | 92.63                         | 92.78                   | –                 | –              | 34.86                        | 11.18                 | 46.19                    | 200                       | 240                        | Average |
| 5850                                                | 60.12                         | 59.53                   | 68.3              | -8.18          | 35.02                        | 11.72                 | 46.15                    | 200                       | 240                        | Peak    |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5720MHz: Fundamental frequency.
3. #: Out of restricted band.



802.11ac (40MHz)

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 102 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 55.23                         | 56.55                   | 74                | -18.77         | 34.77                        | 10.17                 | 46.26                    | 120                       | 60                         | Peak    |
| 5460                                                | 49.7                          | 51.02                   | 54                | -4.3           | 34.77                        | 10.17                 | 46.26                    | 120                       | 60                         | Average |
| 5470                                                | 55.13                         | 56.42                   | 68.3              | -13.17         | 34.78                        | 10.19                 | 46.26                    | 120                       | 60                         | Peak    |
| 5510                                                | 90.84                         | 91.98                   | -                 | -              | 34.81                        | 10.3                  | 46.25                    | 120                       | 60                         | Peak    |
| 5510                                                | 85.97                         | 87.11                   | -                 | -              | 34.81                        | 10.3                  | 46.25                    | 120                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 56.08                         | 57.57                   | 74                | -17.92         | 34.6                         | 10.17                 | 46.26                    | 110                       | 140                        | Peak    |
| 5460                                                | 49.12                         | 50.61                   | 54                | -4.88          | 34.6                         | 10.17                 | 46.26                    | 110                       | 140                        | Average |
| 5470                                                | 55.59                         | 57.06                   | 68.3              | -12.71         | 34.6                         | 10.19                 | 46.26                    | 110                       | 140                        | Peak    |
| 5510                                                | 89.56                         | 90.9                    | -                 | -              | 34.61                        | 10.3                  | 46.25                    | 110                       | 140                        | Peak    |
| 5510                                                | 84.62                         | 85.96                   | -                 | -              | 34.61                        | 10.3                  | 46.25                    | 110                       | 140                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5510MHz: Fundamental frequency.
- #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 110 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 54.61                         | 55.93                   | 74                | -19.39         | 34.77                        | 10.17                 | 46.26                    | 100                       | 60                         | Peak    |
| 5460                                                | 48.99                         | 50.31                   | 54                | -5.01          | 34.77                        | 10.17                 | 46.26                    | 100                       | 60                         | Average |
| 5470                                                | 53.84                         | 55.13                   | 68.3              | -14.46         | 34.78                        | 10.19                 | 46.26                    | 100                       | 60                         | Peak    |
| 5550                                                | 91.72                         | 92.63                   | –                 | –              | 34.86                        | 10.47                 | 46.24                    | 100                       | 60                         | Peak    |
| 5550                                                | 87.03                         | 87.94                   | –                 | –              | 34.86                        | 10.47                 | 46.24                    | 100                       | 60                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 55.61                         | 57.1                    | 74                | -18.39         | 34.6                         | 10.17                 | 46.26                    | 110                       | 140                        | Peak    |
| 5460                                                | 48.92                         | 50.41                   | 54                | -5.08          | 34.6                         | 10.17                 | 46.26                    | 110                       | 140                        | Average |
| 5470                                                | 55.43                         | 56.9                    | 68.3              | -12.87         | 34.6                         | 10.19                 | 46.26                    | 110                       | 140                        | Peak    |
| 5550                                                | 89.76                         | 90.87                   | –                 | –              | 34.66                        | 10.47                 | 46.24                    | 110                       | 140                        | Peak    |
| 5550                                                | 84.52                         | 85.63                   | –                 | –              | 34.66                        | 10.47                 | 46.24                    | 110                       | 140                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 134 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5670                                                | 91.18                         | 91.41                   | –                 | –              | 35                           | 10.97                 | 46.2                     | 100                       | 60                         | Peak    |
| 5670                                                | 86.53                         | 86.76                   | –                 | –              | 35                           | 10.97                 | 46.2                     | 100                       | 60                         | Average |
| 5725                                                | 58.23                         | 58.15                   | 68.3              | -10.07         | 35.07                        | 11.2                  | 46.19                    | 100                       | 60                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5670                                                | 94.37                         | 94.8                    | –                 | –              | 34.8                         | 10.97                 | 46.2                     | 200                       | 140                        | Peak    |
| 5670                                                | 90.08                         | 90.51                   | –                 | –              | 34.8                         | 10.97                 | 46.2                     | 200                       | 140                        | Average |
| 5725                                                | 55.63                         | 55.75                   | 68.3              | -12.67         | 34.87                        | 11.2                  | 46.19                    | 200                       | 140                        | Peak    |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5670MHz: Fundamental frequency.
- #: Out of restricted band.



|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 142 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 53.49                         | 54.78                   | 74                | -20.51         | 34.78                        | 10.19                 | 46.26                    | 100                       | 55                         | Peak    |
| 5710                                                | 91.59                         | 91.59                   | –                 | –              | 35.05                        | 11.14                 | 46.19                    | 100                       | 55                         | Peak    |
| 5710                                                | 87.27                         | 87.27                   | –                 | –              | 35.05                        | 11.14                 | 46.19                    | 100                       | 55                         | Average |
| 5850                                                | 58.02                         | 57.23                   | 68.3              | -10.28         | 35.22                        | 11.72                 | 46.15                    | 100                       | 55                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 54.06                         | 55.53                   | 74                | -19.94         | 34.6                         | 10.19                 | 46.26                    | 142                       | 240                        | Peak    |
| 5710                                                | 94.62                         | 94.82                   | –                 | –              | 34.85                        | 11.14                 | 46.19                    | 142                       | 240                        | Peak    |
| 5710                                                | 90.37                         | 90.57                   | –                 | –              | 34.85                        | 11.14                 | 46.19                    | 142                       | 240                        | Average |
| 5850                                                | 57.04                         | 56.45                   | 68.3              | -11.26         | 35.02                        | 11.72                 | 46.15                    | 142                       | 240                        | Peak    |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5710MHz: Fundamental frequency.
3. #: Out of restricted band.



## 802.11ac (80MHz)

|                 |                |                   |              |
|-----------------|----------------|-------------------|--------------|
| CHANNEL         | TX Channel 106 | DETECTOR FUNCTION | Peak (PK)    |
| FREQUENCY RANGE | 1GHz ~ 40GHz   |                   | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 53.94                         | 55.26                   | 74                | -20.06         | 34.77                        | 10.17                 | 46.26                    | 100                       | 55                         | Peak    |
| 5460                                                | 49.28                         | 50.6                    | 54                | -4.72          | 34.77                        | 10.17                 | 46.26                    | 100                       | 55                         | Average |
| 5470                                                | 54.61                         | 55.9                    | 68.3              | -13.69         | 34.78                        | 10.19                 | 46.26                    | 100                       | 55                         | Peak    |
| 5530                                                | 86.77                         | 87.79                   | -                 | -              | 34.84                        | 10.38                 | 46.24                    | 100                       | 55                         | Peak    |
| 5530                                                | 82.14                         | 83.16                   | -                 | -              | 34.84                        | 10.38                 | 46.24                    | 100                       | 55                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5460                                                | 54.48                         | 55.97                   | 74                | -19.52         | 34.6                         | 10.17                 | 46.26                    | 110                       | 140                        | Peak    |
| 5460                                                | 48.63                         | 50.12                   | 54                | -5.37          | 34.6                         | 10.17                 | 46.26                    | 110                       | 140                        | Average |
| 5470                                                | 54.29                         | 55.76                   | 68.3              | -14.01         | 34.6                         | 10.19                 | 46.26                    | 110                       | 140                        | Peak    |
| 5530                                                | 84.78                         | 86                      | -                 | -              | 34.64                        | 10.38                 | 46.24                    | 110                       | 140                        | Peak    |
| 5530                                                | 80.26                         | 81.48                   | -                 | -              | 34.64                        | 10.38                 | 46.24                    | 110                       | 140                        | Average |

## REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5530MHz: Fundamental frequency.
3. #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 122 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5610                                                | 87.35                         | 87.92                   | –                 | –              | 34.93                        | 10.72                 | 46.22                    | 100                       | 60                         | Peak    |
| 5610                                                | 83.76                         | 84.33                   | –                 | –              | 34.93                        | 10.72                 | 46.22                    | 100                       | 60                         | Average |
| 5725                                                | 55.95                         | 55.87                   | 68.3              | -12.35         | 35.07                        | 11.2                  | 46.19                    | 100                       | 60                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5610                                                | 84.62                         | 85.39                   | –                 | –              | 34.73                        | 10.72                 | 46.22                    | 110                       | 140                        | Peak    |
| 5610                                                | 80.72                         | 81.49                   | –                 | –              | 34.73                        | 10.72                 | 46.22                    | 110                       | 140                        | Average |
| 5725                                                | 53.5                          | 53.62                   | 68.3              | -14.8          | 34.87                        | 11.2                  | 46.19                    | 110                       | 140                        | Peak    |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5610MHz: Fundamental frequency.
- #: Out of restricted band.

|                        |                |                          |              |
|------------------------|----------------|--------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 138 | <b>DETECTOR FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                          | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 55.2                          | 56.49                   | 74                | -18.8          | 34.78                        | 10.19                 | 46.26                    | 100                       | 60                         | Peak    |
| 5690                                                | 86.69                         | 86.81                   | -                 | -              | 35.03                        | 11.05                 | 46.2                     | 100                       | 60                         | Peak    |
| 5690                                                | 82.28                         | 82.4                    | -                 | -              | 35.03                        | 11.05                 | 46.2                     | 100                       | 60                         | Average |
| 5850                                                | 57.19                         | 56.4                    | 68.3              | -11.11         | 35.22                        | 11.72                 | 46.15                    | 100                       | 60                         | Peak    |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5470                                                | 54.55                         | 56.02                   | 74                | -19.45         | 34.6                         | 10.19                 | 46.26                    | 100                       | 140                        | Peak    |
| 5690                                                | 85.43                         | 85.75                   | -                 | -              | 34.83                        | 11.05                 | 46.2                     | 100                       | 140                        | Peak    |
| 5690                                                | 80.88                         | 81.2                    | -                 | -              | 34.83                        | 11.05                 | 46.2                     | 100                       | 140                        | Average |
| 5850                                                | 59.38                         | 58.79                   | 68.3              | -8.92          | 35.02                        | 11.72                 | 46.15                    | 100                       | 140                        | Peak    |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5690MHz: Fundamental frequency.
3. #: Out of restricted band.



**BUREAU  
VERITAS**

Test Report No.: W7L-P24050005RF03

Band 4:

802.11a

|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 149 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5745                                                | 97.09                         | 96.9                    | –                 | –              | 35.09                        | 11.28                 | 46.18                    | 105                       | 45                         | Peak    |
| 5745                                                | 90.51                         | 90.32                   | –                 | –              | 35.09                        | 11.28                 | 46.18                    | 105                       | 45                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5745                                                | 99.84                         | 99.85                   | –                 | –              | 34.89                        | 11.28                 | 46.18                    | 170                       | 55                         | Peak    |
| 5745                                                | 93.75                         | 93.76                   | –                 | –              | 34.89                        | 11.28                 | 46.18                    | 170                       | 55                         | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

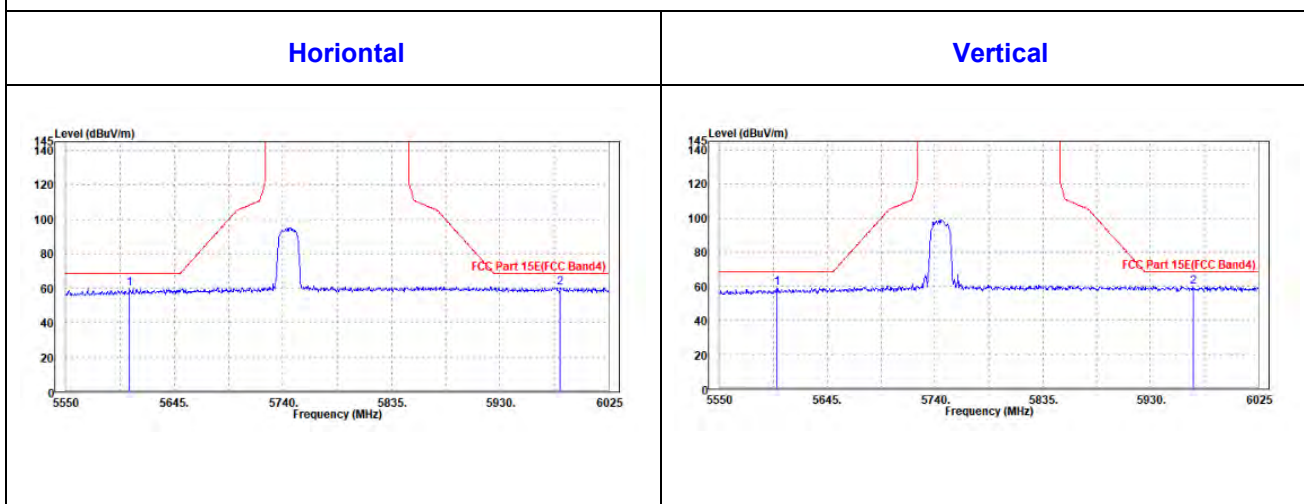


## OOBE DATA

### 802.11a

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5606.05                                             | 59.47                         | 60.06                   | 68.2              | -8.73          | 34.93                        | 10.7                  | 46.22                    | 300                       | 0                          | Peak   |
| 5982.725                                            | 60.3                          | 58.75                   | 68.2              | -7.9           | 35.38                        | 12.28                 | 46.11                    | 300                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5600.825                                            | 58.8                          | 59.62                   | 68.2              | -9.4           | 34.72                        | 10.68                 | 46.22                    | 300                       | 0                          | Peak   |
| 5967.525                                            | 59.65                         | 58.4                    | 68.2              | -8.55          | 35.16                        | 12.21                 | 46.12                    | 300                       | 0                          | Peak   |

### CH 149





|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 157 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5785                                                | 96.9                          | 96.48                   | –                 | –              | 35.14                        | 11.45                 | 46.17                    | 100                       | 203                        | Peak    |
| 5785                                                | 90.42                         | 90                      | –                 | –              | 35.14                        | 11.45                 | 46.17                    | 100                       | 203                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5785                                                | 99.11                         | 98.89                   | –                 | –              | 34.94                        | 11.45                 | 46.17                    | 200                       | 55                         | Peak    |
| 5785                                                | 93.11                         | 92.89                   | –                 | –              | 34.94                        | 11.45                 | 46.17                    | 200                       | 55                         | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.

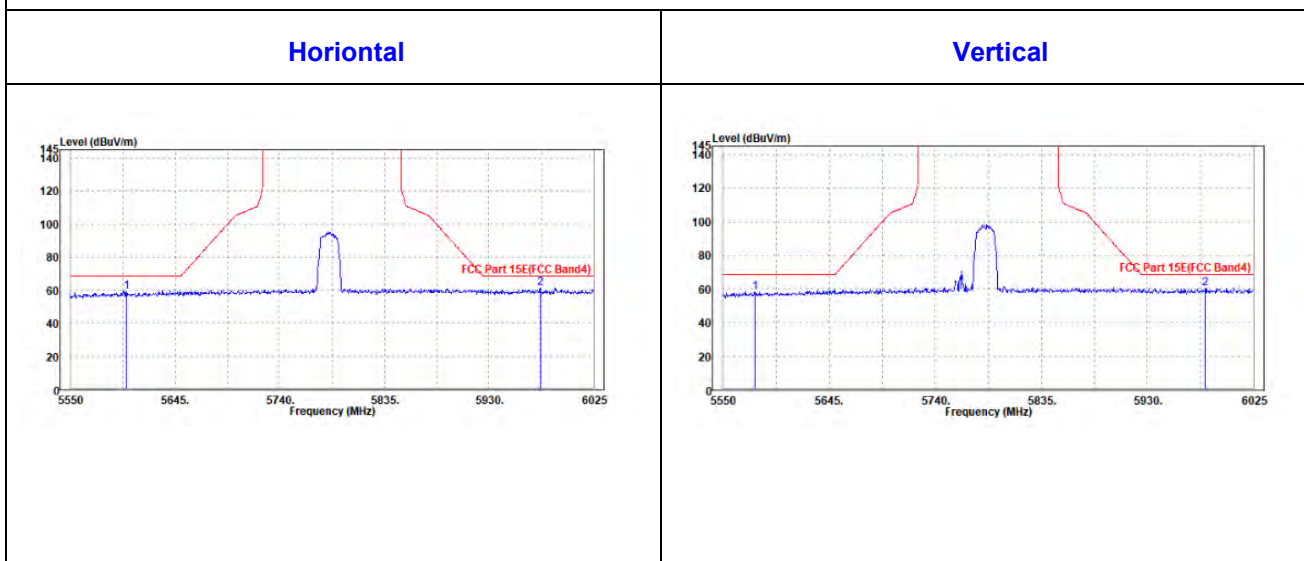


## OOBE DATA

### 802.11a

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5600.825                                            | 59.01                         | 59.63                   | 68.2              | -9.19          | 34.92                        | 10.68                 | 46.22                    | 300                       | 0                          | Peak   |
| 5976.55                                             | 61.32                         | 59.82                   | 68.2              | -6.88          | 35.37                        | 12.25                 | 46.12                    | 300                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5578.5                                              | 58.14                         | 59.1                    | 68.2              | -10.06         | 34.69                        | 10.58                 | 46.23                    | 200                       | 0                          | Peak   |
| 5981.775                                            | 60.35                         | 59.02                   | 68.2              | -7.85          | 35.18                        | 12.27                 | 46.12                    | 200                       | 0                          | Peak   |

### CH 157







|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 165 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5825                                                | 96.42                         | 95.77                   | –                 | –              | 35.19                        | 11.62                 | 46.16                    | 100                       | 205                        | Peak    |
| 5825                                                | 90.09                         | 89.44                   | –                 | –              | 35.19                        | 11.62                 | 46.16                    | 100                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5825                                                | 98.96                         | 98.51                   | –                 | –              | 34.99                        | 11.62                 | 46.16                    | 200                       | 55                         | Peak    |
| 5825                                                | 92.66                         | 92.21                   | –                 | –              | 34.99                        | 11.62                 | 46.16                    | 200                       | 55                         | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

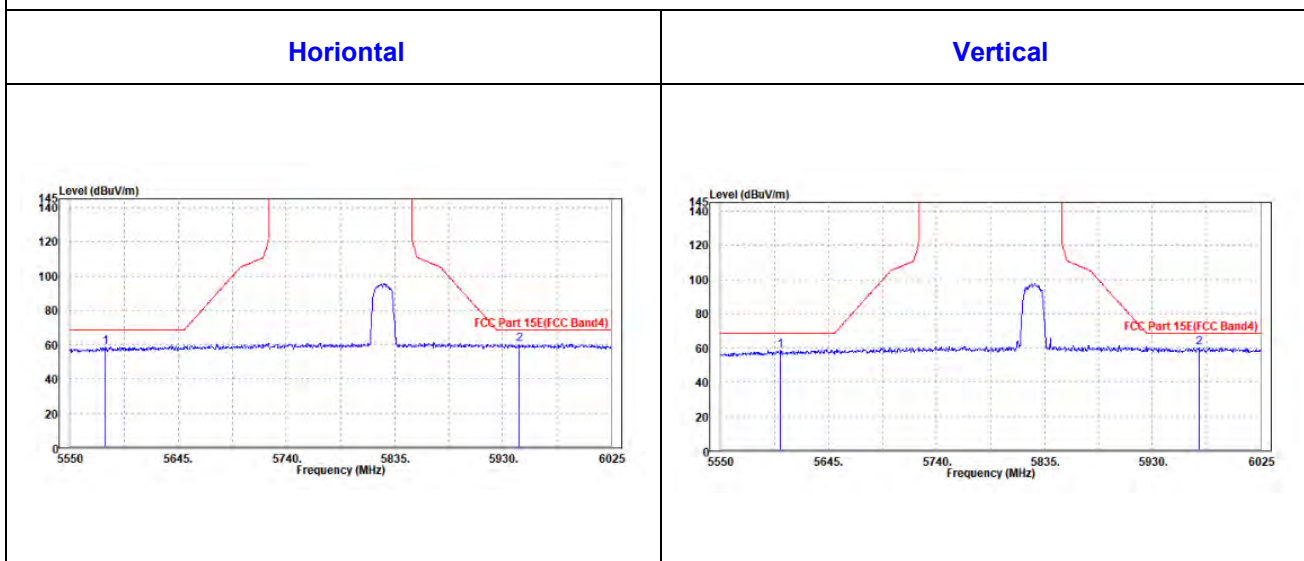


## Oobe Data

802.11a

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5581.35                                             | 58.56                         | 59.29                   | 68.2              | -9.64          | 34.9                         | 10.6                  | 46.23                    | 200                       | 360                        | Peak   |
| 5944.725                                            | 60.3                          | 58.98                   | 68.2              | -7.9           | 35.33                        | 12.12                 | 46.13                    | 200                       | 360                        | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5602.725                                            | 58.44                         | 59.25                   | 68.2              | -9.76          | 34.72                        | 10.69                 | 46.22                    | 300                       | 360                        | Peak   |
| 5970.85                                             | 60.1                          | 58.82                   | 68.2              | -8.1           | 35.17                        | 12.23                 | 46.12                    | 300                       | 360                        | Peak   |

## CH 165





802.11n (20MHz)

|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 149 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5745                                                | 96.34                         | 96.15                   | –                 | –              | 35.09                        | 11.28                 | 46.18                    | 118                       | 45                         | Peak    |
| 5745                                                | 89.57                         | 89.38                   | –                 | –              | 35.09                        | 11.28                 | 46.18                    | 118                       | 45                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5745                                                | 98.63                         | 98.64                   | –                 | –              | 34.89                        | 11.28                 | 46.18                    | 200                       | 55                         | Peak    |
| 5745                                                | 92.85                         | 92.86                   | –                 | –              | 34.89                        | 11.28                 | 46.18                    | 200                       | 55                         | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5745MHz: Fundamental frequency.



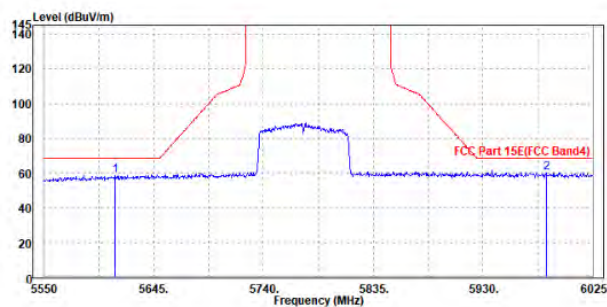
## Oobe Data

### 802.11n (20MHz)

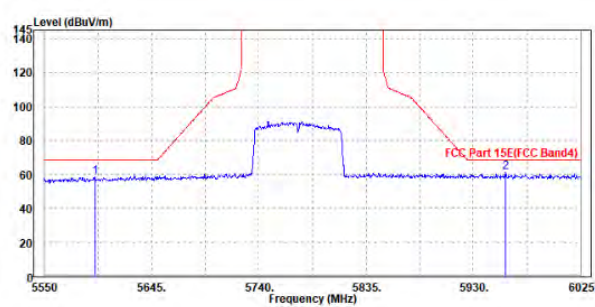
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5606.525                                            | 58.45                         | 59.04                   | 68.2              | -9.75          | 34.93                        | 10.7                  | 46.22                    | 300                       | 360                        | Peak   |
| 5965.625                                            | 60.62                         | 59.17                   | 68.2              | -7.58          | 35.36                        | 12.21                 | 46.12                    | 300                       | 360                        | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5606.05                                             | 58.63                         | 59.42                   | 68.2              | -9.57          | 34.73                        | 10.7                  | 46.22                    | 200                       | 360                        | Peak   |
| 5979.875                                            | 60.3                          | 58.97                   | 68.2              | -7.9           | 35.18                        | 12.27                 | 46.12                    | 200                       | 360                        | Peak   |

## CH 149

### Horizontal



### Vertical





|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 157 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5785                                                | 96.57                         | 96.35                   | –                 | –              | 34.94                        | 11.45                 | 46.17                    | 200                       | 205                        | Peak    |
| 5785                                                | 90.2                          | 89.98                   | –                 | –              | 34.94                        | 11.45                 | 46.17                    | 200                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5785                                                | 98.95                         | 98.73                   | –                 | –              | 34.94                        | 11.45                 | 46.17                    | 200                       | 55                         | Peak    |
| 5785                                                | 92.42                         | 92.2                    | –                 | –              | 34.94                        | 11.45                 | 46.17                    | 200                       | 55                         | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.

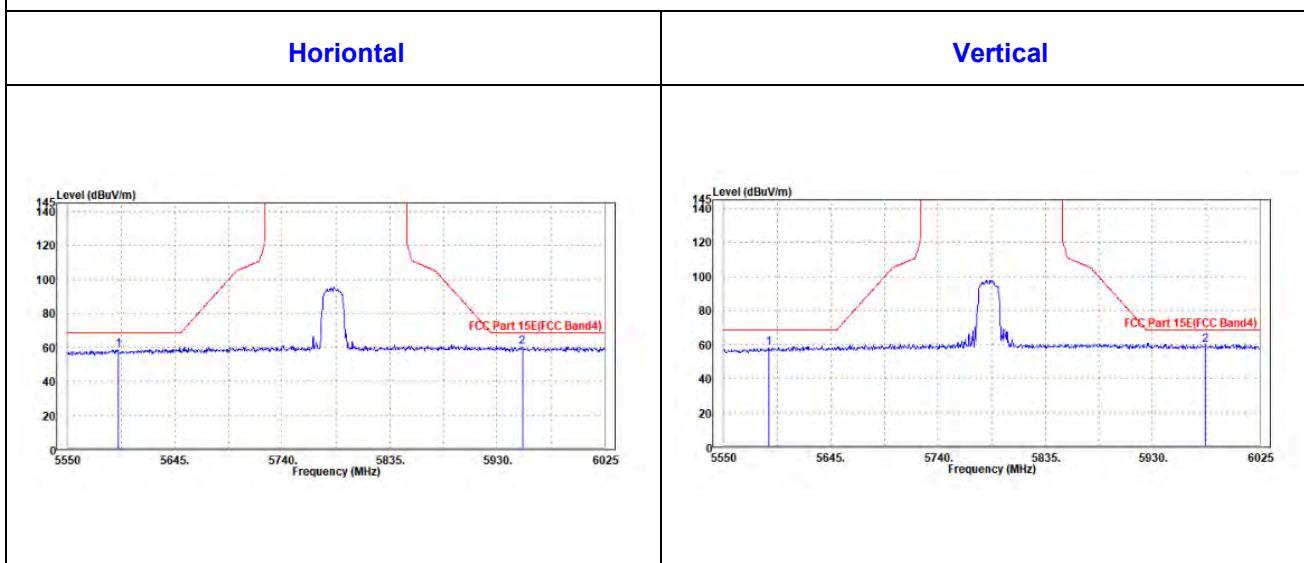


## Oobe Data

### 802.11n (20MHz)

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                       |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-----------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ. (MHz)                                         | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV<br>/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5594.65                                             | 58.49                         | 59.15                   | 68.2                  | -9.71          | 34.91                        | 10.65                 | 46.22                    | 200                       | 0                          | Peak   |
| 5952.325                                            | 60.34                         | 58.97                   | 68.2                  | -7.86          | 35.34                        | 12.15                 | 46.12                    | 200                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                       |                |                              |                       |                          |                           |                            |        |
| FREQ. (MHz)                                         | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV<br>/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5590.375                                            | 58.11                         | 58.99                   | 68.2                  | -10.09         | 34.71                        | 10.63                 | 46.22                    | 300                       | 0                          | Peak   |
| 5977.025                                            | 59.67                         | 58.37                   | 68.2                  | -8.53          | 35.17                        | 12.25                 | 46.12                    | 300                       | 0                          | Peak   |

## CH 157





|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 165 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5825                                                | 96.32                         | 95.67                   | –                 | –              | 35.19                        | 11.62                 | 46.16                    | 100                       | 205                        | Peak    |
| 5825                                                | 89.85                         | 89.2                    | –                 | –              | 35.19                        | 11.62                 | 46.16                    | 100                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5825                                                | 98.55                         | 98.1                    | –                 | –              | 34.99                        | 11.62                 | 46.16                    | 200                       | 55                         | Peak    |
| 5825                                                | 92.12                         | 91.67                   | –                 | –              | 34.99                        | 11.62                 | 46.16                    | 200                       | 55                         | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5825MHz: Fundamental frequency.



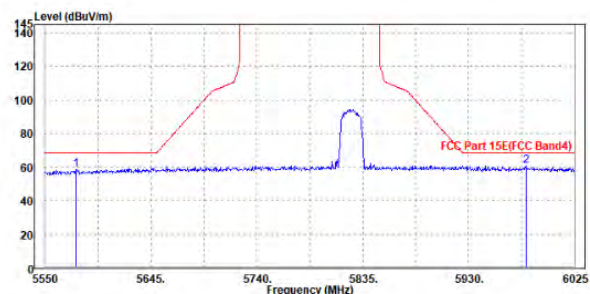
## Oobe Data

### 802.11n (20MHz)

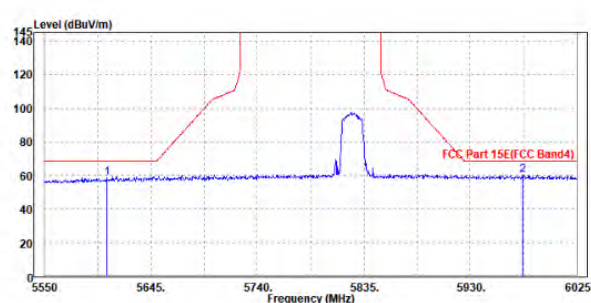
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5577.55                                             | 58.63                         | 59.39                   | 68.2              | -9.57          | 34.89                        | 10.58                 | 46.23                    | 300                       | 0                          | Peak   |
| 5981.3                                              | 60.86                         | 59.33                   | 68.2              | -7.34          | 35.38                        | 12.27                 | 46.12                    | 300                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5605.575                                            | 58.48                         | 59.27                   | 68.2              | -9.72          | 34.73                        | 10.7                  | 46.22                    | 200                       | 0                          | Peak   |
| 5977.025                                            | 60.25                         | 58.95                   | 68.2              | -7.95          | 35.17                        | 12.25                 | 46.12                    | 200                       | 0                          | Peak   |

## CH 165

### Horizontal



### Vertical







**802.11n (40MHz)**

|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 151 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5755                                                | 90.06                         | 89.81                   | –                 | –              | 35.11                        | 11.32                 | 46.18                    | 100                       | 205                        | Peak    |
| 5755                                                | 85.72                         | 85.47                   | –                 | –              | 35.11                        | 11.32                 | 46.18                    | 100                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5755                                                | 94.5                          | 94.45                   | –                 | –              | 34.91                        | 11.32                 | 46.18                    | 200                       | 240                        | Peak    |
| 5755                                                | 89.65                         | 89.6                    | –                 | –              | 34.91                        | 11.32                 | 46.18                    | 200                       | 240                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5755MHz: Fundamental frequency.



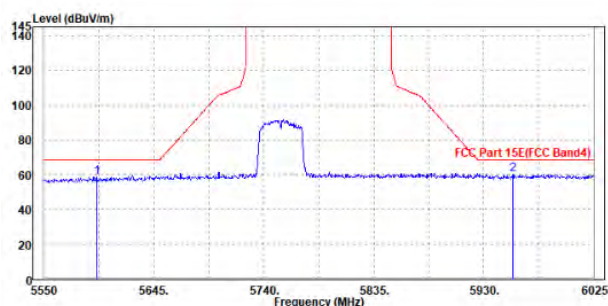
## Oobe Data

### 802.11n (40MHz)

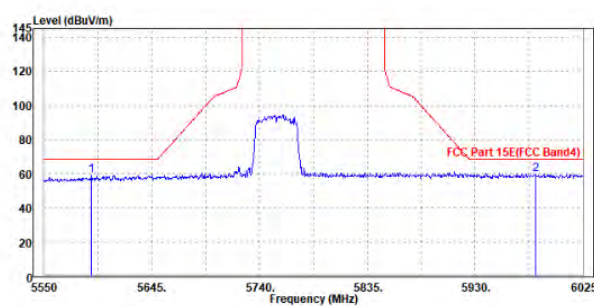
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5595.6                                              | 58.41                         | 59.06                   | 68.2              | -9.79          | 34.91                        | 10.66                 | 46.22                    | 200                       | 0                          | Peak   |
| 5955.175                                            | 60.09                         | 58.7                    | 68.2              | -8.11          | 35.35                        | 12.16                 | 46.12                    | 200                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5591.8                                              | 58.8                          | 59.67                   | 68.2              | -9.4           | 34.71                        | 10.64                 | 46.22                    | 300                       | 0                          | Peak   |
| 5983.675                                            | 59.6                          | 58.25                   | 68.2              | -8.6           | 35.18                        | 12.28                 | 46.11                    | 300                       | 0                          | Peak   |

## CH 151

### Horizontal



### Vertical





|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 159 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5795                                                | 92.49                         | 92.02                   | –                 | –              | 35.15                        | 11.49                 | 46.17                    | 200                       | 295                        | Peak    |
| 5795                                                | 86.94                         | 86.47                   | –                 | –              | 35.15                        | 11.49                 | 46.17                    | 200                       | 295                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5795                                                | 93.66                         | 93.39                   | –                 | –              | 34.95                        | 11.49                 | 46.17                    | 200                       | 240                        | Peak    |
| 5795                                                | 88.78                         | 88.51                   | –                 | –              | 34.95                        | 11.49                 | 46.17                    | 200                       | 240                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5795MHz: Fundamental frequency.

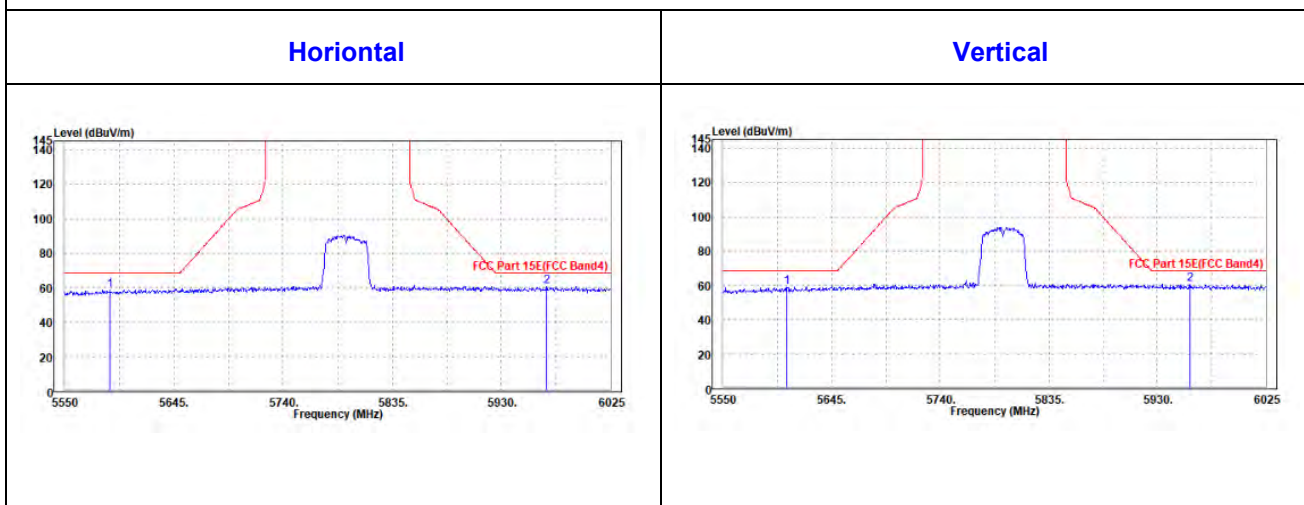


**Oobe Data**

802.11n (40MHz)

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5589.425                                            | 58.48                         | 59.16                   | 68.2              | -9.72          | 34.91                        | 10.63                 | 46.22                    | 300                       | 0                          | Peak   |
| 5969.425                                            | 60.8                          | 59.34                   | 68.2              | -7.4           | 35.36                        | 12.22                 | 46.12                    | 300                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5605.575                                            | 59.04                         | 59.83                   | 68.2              | -9.16          | 34.73                        | 10.7                  | 46.22                    | 200                       | 0                          | Peak   |
| 5958.5                                              | 60.45                         | 59.24                   | 68.2              | -7.75          | 35.15                        | 12.18                 | 46.12                    | 200                       | 0                          | Peak   |

**CH 159**





802.11ac (20MHz)

|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 149 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5745                                                | 96.04                         | 95.85                   | –                 | –              | 35.09                        | 11.28                 | 46.18                    | 100                       | 205                        | Peak    |
| 5745                                                | 90.17                         | 89.98                   | –                 | –              | 35.09                        | 11.28                 | 46.18                    | 100                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5745                                                | 100.04                        | 100.05                  | –                 | –              | 34.89                        | 11.28                 | 46.18                    | 200                       | 240                        | Peak    |
| 5745                                                | 93.4                          | 93.41                   | –                 | –              | 34.89                        | 11.28                 | 46.18                    | 200                       | 240                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5745MHz: Fundamental frequency.

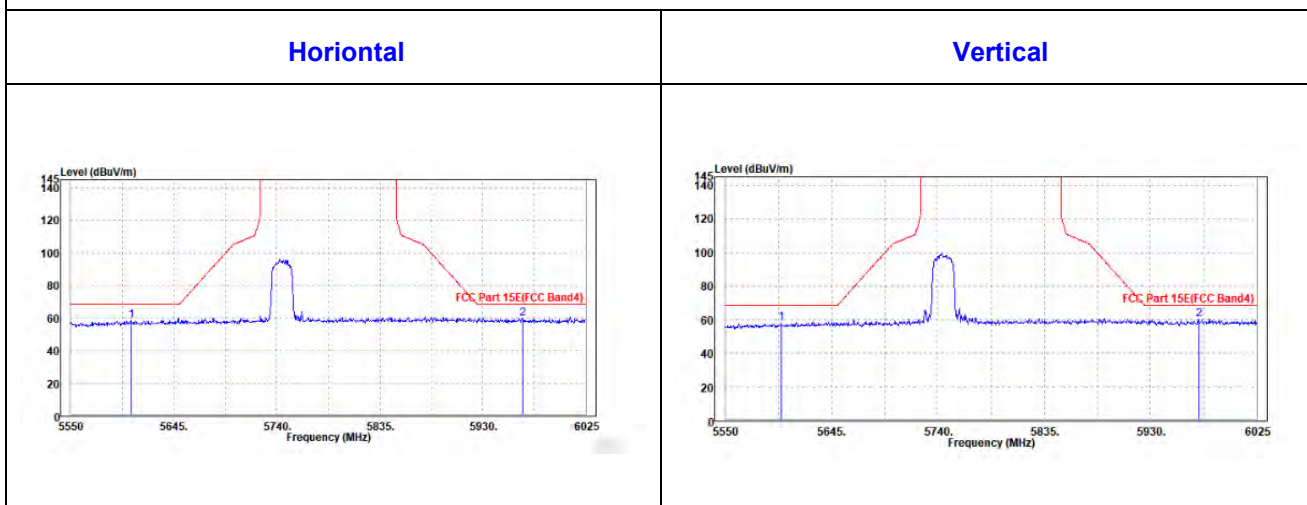


## Oobe Data

### 802.11ac (20MHz)

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5605.575                                            | 58.49                         | 59.08                   | 68.2              | -9.71          | 34.93                        | 10.7                  | 46.22                    | 200                       | 0                          | Peak   |
| 5966.575                                            | 59.54                         | 58.09                   | 68.2              | -8.66          | 35.36                        | 12.21                 | 46.12                    | 200                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5600.35                                             | 58.12                         | 58.94                   | 68.2              | -10.08         | 34.72                        | 10.68                 | 46.22                    | 300                       | 0                          | Peak   |
| 5973.225                                            | 60.26                         | 58.97                   | 68.2              | -7.94          | 35.17                        | 12.24                 | 46.12                    | 300                       | 0                          | Peak   |

## CH 149





|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 157 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5785                                                | 97.26                         | 96.84                   | –                 | –              | 35.14                        | 11.45                 | 46.17                    | 200                       | 295                        | Peak    |
| 5785                                                | 91.24                         | 90.82                   | –                 | –              | 35.14                        | 11.45                 | 46.17                    | 200                       | 295                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5785                                                | 99.95                         | 99.73                   | –                 | –              | 34.94                        | 11.45                 | 46.17                    | 182                       | 240                        | Peak    |
| 5785                                                | 93.63                         | 93.41                   | –                 | –              | 34.94                        | 11.45                 | 46.17                    | 182                       | 240                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.

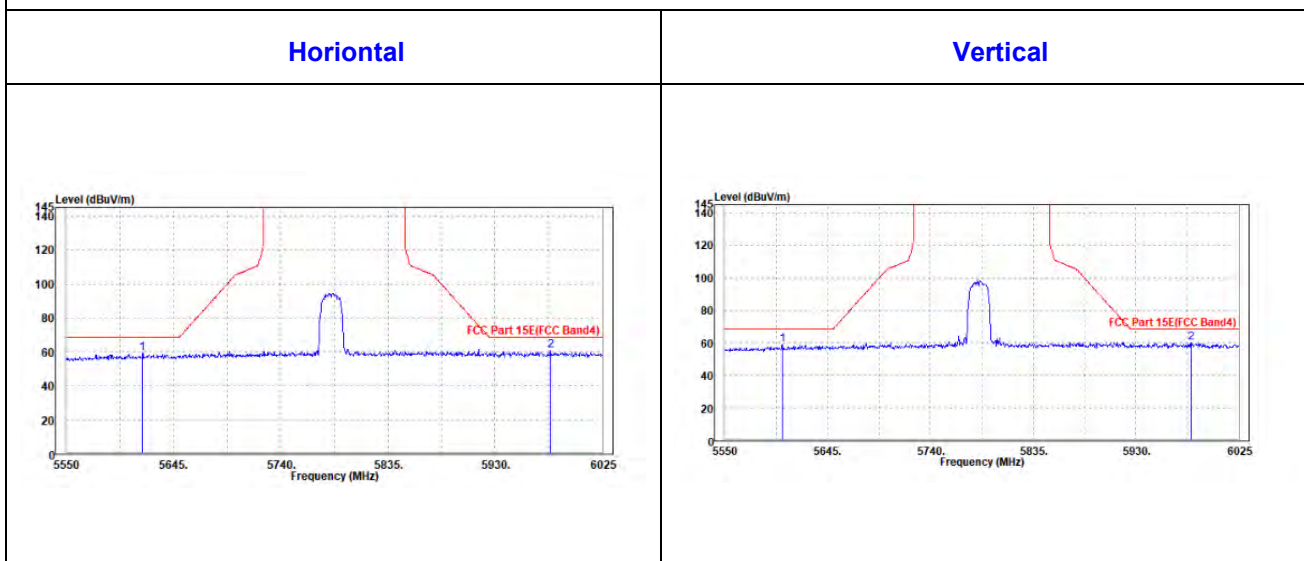


## Oobe Data

### 802.11ac (20MHz)

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                       |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-----------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ. (MHz)                                         | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV<br>/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5617.45                                             | 59.04                         | 59.57                   | 68.2                  | -9.16          | 34.94                        | 10.75                 | 46.22                    | 300                       | 0                          | Peak   |
| 5978.925                                            | 60.41                         | 58.9                    | 68.2                  | -7.79          | 35.37                        | 12.26                 | 46.12                    | 300                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                       |                |                              |                       |                          |                           |                            |        |
| FREQ. (MHz)                                         | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV<br>/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5603.2                                              | 58.81                         | 59.62                   | 68.2                  | -9.39          | 34.72                        | 10.69                 | 46.22                    | 200                       | 0                          | Peak   |
| 5980.825                                            | 59.87                         | 58.54                   | 68.2                  | -8.33          | 35.18                        | 12.27                 | 46.12                    | 200                       | 0                          | Peak   |

## CH 157







|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 165 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5825                                                | 96.47                         | 95.82                   | –                 | –              | 35.19                        | 11.62                 | 46.16                    | 210                       | 205                        | Peak    |
| 5825                                                | 89.94                         | 89.29                   | –                 | –              | 35.19                        | 11.62                 | 46.16                    | 210                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5825                                                | 98.94                         | 98.49                   | –                 | –              | 34.99                        | 11.62                 | 46.16                    | 182                       | 240                        | Peak    |
| 5825                                                | 92.7                          | 92.25                   | –                 | –              | 34.99                        | 11.62                 | 46.16                    | 182                       | 240                        | Average |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.



**BUREAU  
VERITAS**

Test Report No.: W7L-P24050005RF03

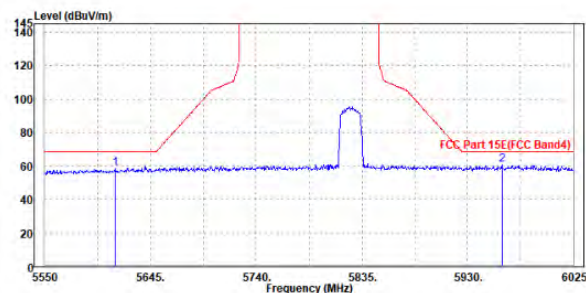
## OOBE DATA

802.11ac (20MHZ)

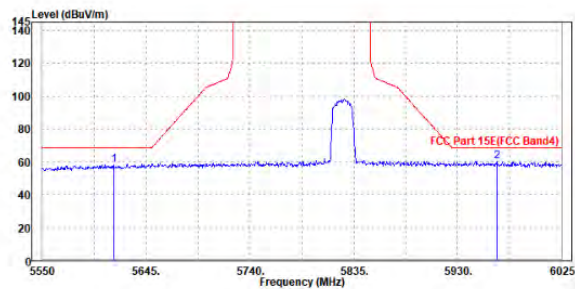
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5613.175                                            | 58.18                         | 58.73                   | 68.2              | -10.02         | 34.94                        | 10.73                 | 46.22                    | 200                       | 0                          | Peak   |
| 5960.875                                            | 60.38                         | 58.96                   | 68.2              | -7.82          | 35.35                        | 12.19                 | 46.12                    | 200                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5615.55                                             | 58.05                         | 58.79                   | 68.2              | -10.15         | 34.74                        | 10.74                 | 46.22                    | 300                       | 0                          | Peak   |
| 5966.1                                              | 60.19                         | 58.94                   | 68.2              | -8.01          | 35.16                        | 12.21                 | 46.12                    | 300                       | 0                          | Peak   |

## CH 165

### Horizontal



### Vertical





802.11ac (40MHz)

|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 151 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5755                                                | 92.68                         | 92.43                   | –                 | –              | 35.11                        | 11.32                 | 46.18                    | 100                       | 45                         | Peak    |
| 5755                                                | 87.48                         | 87.23                   | –                 | –              | 35.11                        | 11.32                 | 46.18                    | 100                       | 45                         | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5755                                                | 94.91                         | 94.86                   | –                 | –              | 34.91                        | 11.32                 | 46.18                    | 107                       | 230                        | Peak    |
| 5755                                                | 90.15                         | 90.1                    | –                 | –              | 34.91                        | 11.32                 | 46.18                    | 107                       | 230                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5755MHz: Fundamental frequency.



**BUREAU  
VERITAS**

Test Report No.: W7L-P24050005RF03

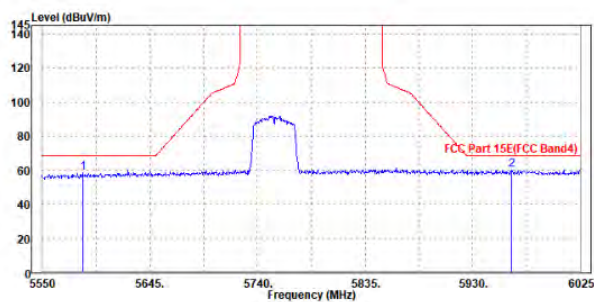
## OOBE DATA

802.11ac (40MHZ)

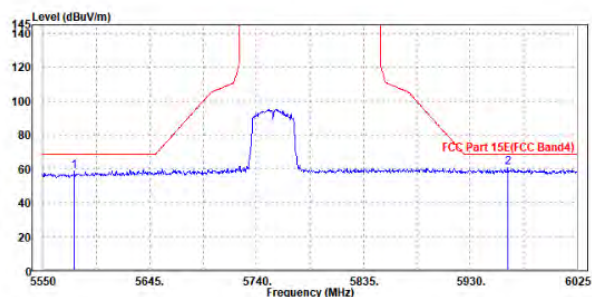
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5585.625                                            | 58.27                         | 58.99                   | 68.2              | -9.93          | 34.9                         | 10.61                 | 46.23                    | 300                       | 0                          | Peak   |
| 5964.675                                            | 59.92                         | 58.48                   | 68.2              | -8.28          | 35.36                        | 12.2                  | 46.12                    | 300                       | 0                          | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5578.025                                            | 58.58                         | 59.54                   | 68.2              | -9.62          | 34.69                        | 10.58                 | 46.23                    | 200                       | 0                          | Peak   |
| 5963.25                                             | 60.57                         | 59.33                   | 68.2              | -7.63          | 35.16                        | 12.2                  | 46.12                    | 200                       | 0                          | Peak   |

## CH 151

### Horizontal



### Vertical





|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 159 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5795                                                | 90.09                         | 89.62                   | –                 | –              | 35.15                        | 11.49                 | 46.17                    | 100                       | 205                        | Peak    |
| 5795                                                | 85.32                         | 84.85                   | –                 | –              | 35.15                        | 11.49                 | 46.17                    | 100                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5795                                                | 93.69                         | 93.42                   | –                 | –              | 34.95                        | 11.49                 | 46.17                    | 107                       | 230                        | Peak    |
| 5795                                                | 88.67                         | 88.4                    | –                 | –              | 34.95                        | 11.49                 | 46.17                    | 107                       | 230                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5795MHz: Fundamental frequency.

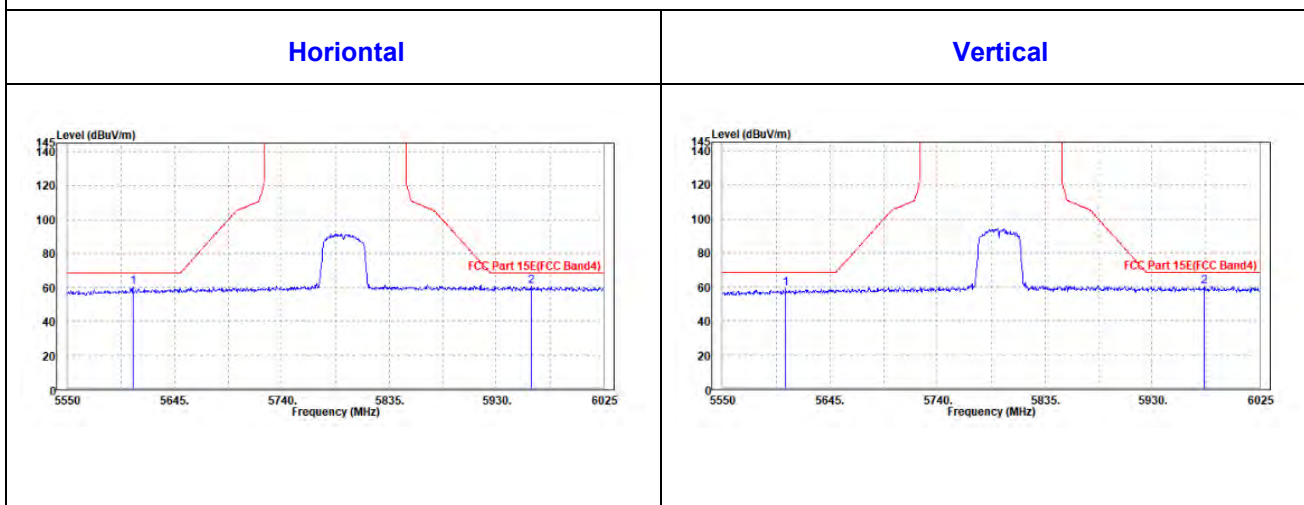


## Oobe Data

### 802.11ac (40MHz)

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5607.95                                             | 60.3                          | 60.88                   | 68.2              | -7.9           | 34.93                        | 10.71                 | 46.22                    | 200                       | 360                        | Peak   |
| 5960.875                                            | 60.52                         | 59.1                    | 68.2              | -7.68          | 35.35                        | 12.19                 | 46.12                    | 200                       | 360                        | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5606.05                                             | 58.74                         | 59.53                   | 68.2              | -9.46          | 34.73                        | 10.7                  | 46.22                    | 300                       | 360                        | Peak   |
| 5976.075                                            | 60.22                         | 58.92                   | 68.2              | -7.98          | 35.17                        | 12.25                 | 46.12                    | 300                       | 360                        | Peak   |

## CH 159





802.11ac (80MHz)

|                        |                |                              |              |
|------------------------|----------------|------------------------------|--------------|
| <b>CHANNEL</b>         | TX Channel 155 | <b>DETECTOR<br/>FUNCTION</b> | Peak (PK)    |
| <b>FREQUENCY RANGE</b> | 1GHz ~ 40GHz   |                              | Average (AV) |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|---------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5775                                                | 85.59                         | 85.22                   | –                 | –              | 35.13                        | 11.41                 | 46.17                    | 100                       | 205                        | Peak    |
| 5775                                                | 82                            | 81.63                   | –                 | –              | 35.13                        | 11.41                 | 46.17                    | 100                       | 205                        | Average |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |         |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK  |
| 5775                                                | 90.3                          | 90.13                   | –                 | –              | 34.93                        | 11.41                 | 46.17                    | 160                       | 240                        | Peak    |
| 5775                                                | 86.44                         | 86.27                   | –                 | –              | 34.93                        | 11.41                 | 46.17                    | 160                       | 240                        | Average |

**REMARKS:**

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor  
Margin value = Emission level – Limit value.
- 5775MHz: Fundamental frequency.



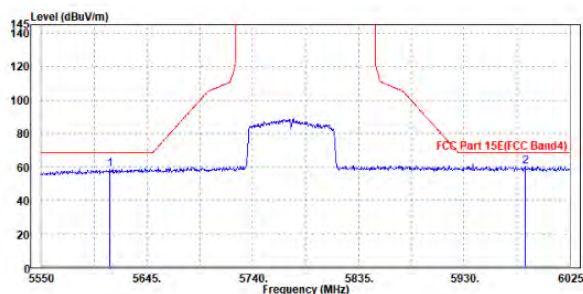
## Oobe Data

### 802.11ac (80MHz)

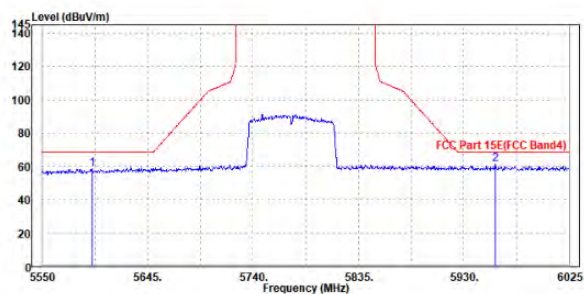
| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
|-----------------------------------------------------|-------------------------------|-------------------------|-------------------|----------------|------------------------------|-----------------------|--------------------------|---------------------------|----------------------------|--------|
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5611.275                                            | 58.42                         | 58.99                   | 68.2              | -9.78          | 34.93                        | 10.72                 | 46.22                    | 300                       | 360                        | Peak   |
| 5984.625                                            | 60.31                         | 58.75                   | 68.2              | -7.89          | 35.38                        | 12.29                 | 46.11                    | 300                       | 360                        | Peak   |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M   |                               |                         |                   |                |                              |                       |                          |                           |                            |        |
| FREQ.<br>(MHz)                                      | EMISSION<br>LEVEL<br>(dBuV/m) | READ<br>LEVEL<br>(dBuV) | LIMIT<br>(dBuV/m) | MARGIN<br>(dB) | ANTENNA<br>FACTOR<br>(dB /m) | CABLE<br>LOSS<br>(dB) | PREAMP<br>FACTOR<br>(dB) | ANTENNA<br>HEIGHT<br>(cm) | TABLE<br>ANGLE<br>(Degree) | REMARK |
| 5595.125                                            | 58.26                         | 59.12                   | 68.2              | -9.94          | 34.71                        | 10.65                 | 46.22                    | 200                       | 360                        | Peak   |
| 5958.5                                              | 61.12                         | 59.91                   | 68.2              | -7.08          | 35.15                        | 12.18                 | 46.12                    | 200                       | 360                        | Peak   |

## CH 155

### Horizontal



### Vertical





## 3.2 OUT OF BAND EMISSION MEASUREMENT

### 3.2.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

| OUT OF THE<br>RESTRICTED<br>BANDS | APPLICABLE TO | EIRP LIMIT<br>(dBm/MHz) |
|-----------------------------------|---------------|-------------------------|
|                                   | 15.407(b)(1)  | -27                     |
|                                   | 15.407(b)(2)  |                         |
|                                   | 15.407(b)(3)  |                         |
|                                   | 15.407(b)(4)  | See note                |

**NOTE:**

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

### 3.2.2 TEST INSTRUMENTS

| Equipment           | Manufacturer | Model No.    | Serial No. | Last Cal.  | Next Cal.  |
|---------------------|--------------|--------------|------------|------------|------------|
| 10dB Attenuator     | JFW/USA      | 50HF-010-SMA | 1505       | Jun. 03,21 | Jun. 02,22 |
| EXA Signal Analyzer | KEYSIGHT     | N9010A-544   | MY54510355 | Jun. 03,21 | Jun. 02,22 |

**NOTE:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF OVEN ROOM.
3. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

### 3.2.3 TEST PROCEDURES

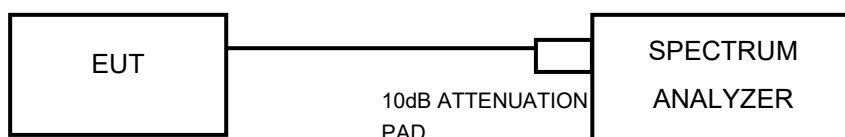
- a. Check the calibration of the measurement instrument using either an internal calibrator or a known signal from an external generator.
- b. The resolution bandwidth is set to 1MHzThe Video bandwidth is set to  $\geq 1\text{MHz}$ , report the peak value out of operating band.
- c. Repeat above procedures until all frequencies measured were complete.

**NOTE:** All modes of operation were investigated and the worst-case emissions are reported, antenna gain was added into the test result.

### 3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

### 3.2.5 TEST SETUP



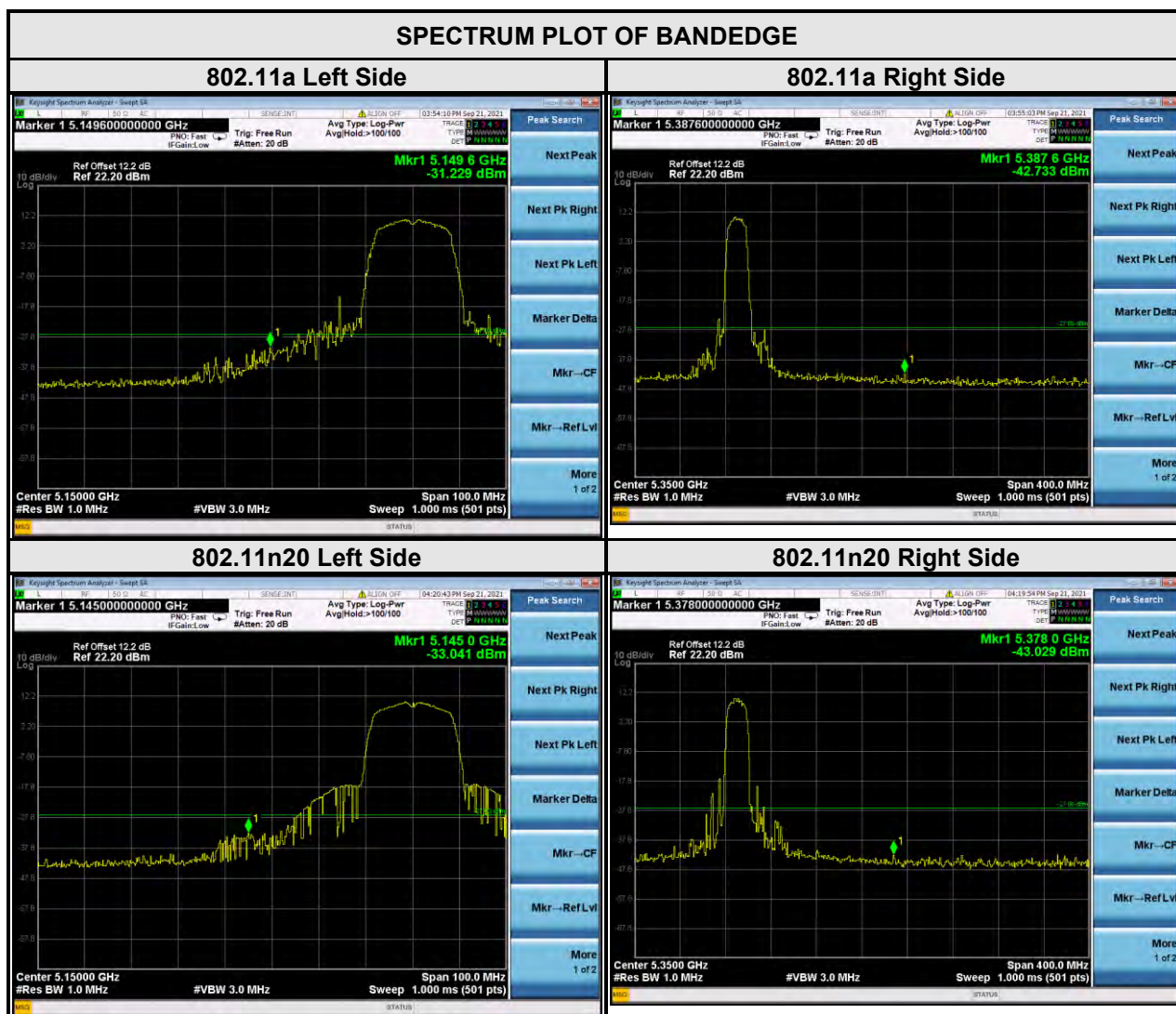
### 3.2.6 EUT OPERATING CONDITION

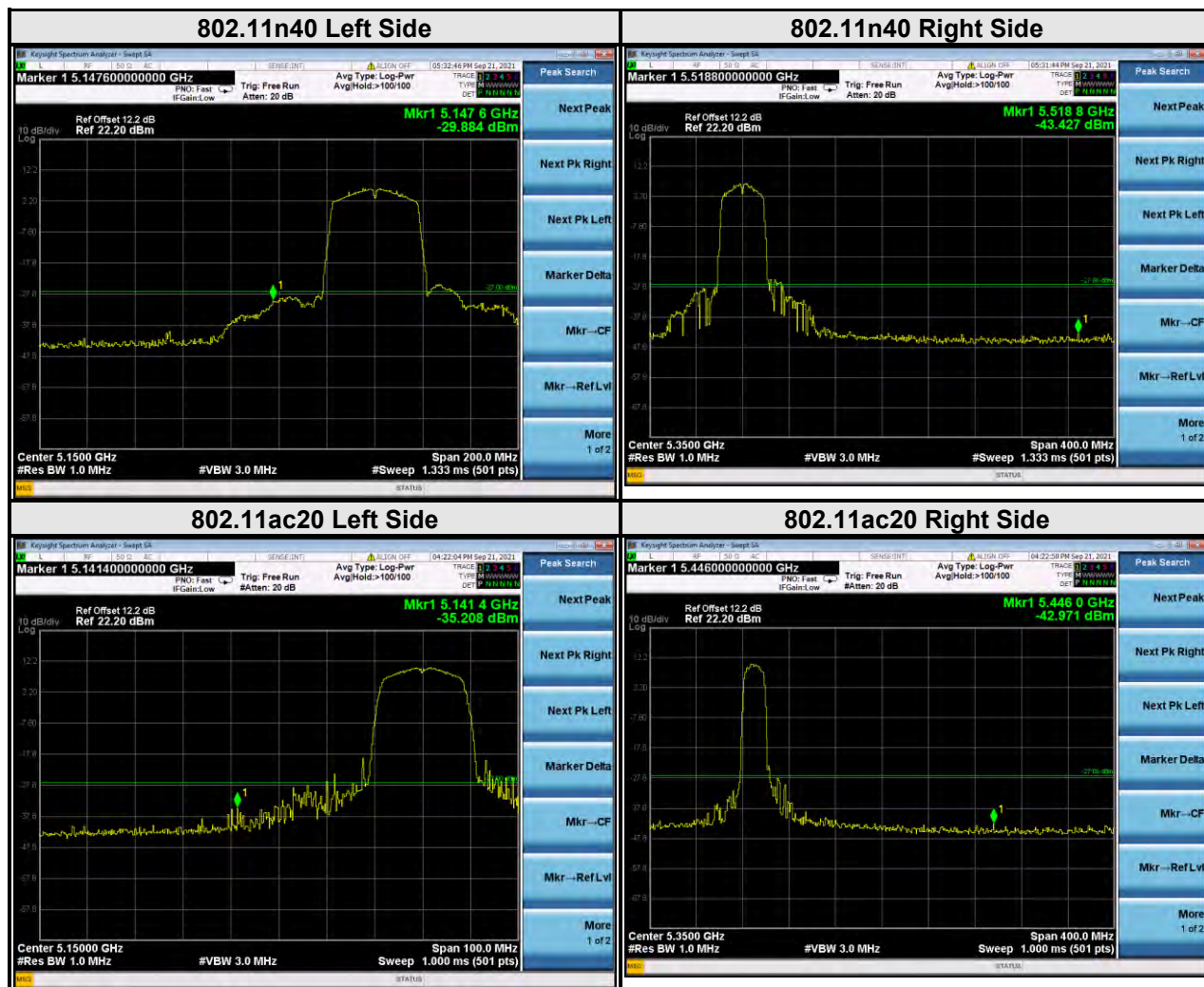
- a. Set the EUT under full load condition and placed them on a testing table.
- b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the EUT in full functions.



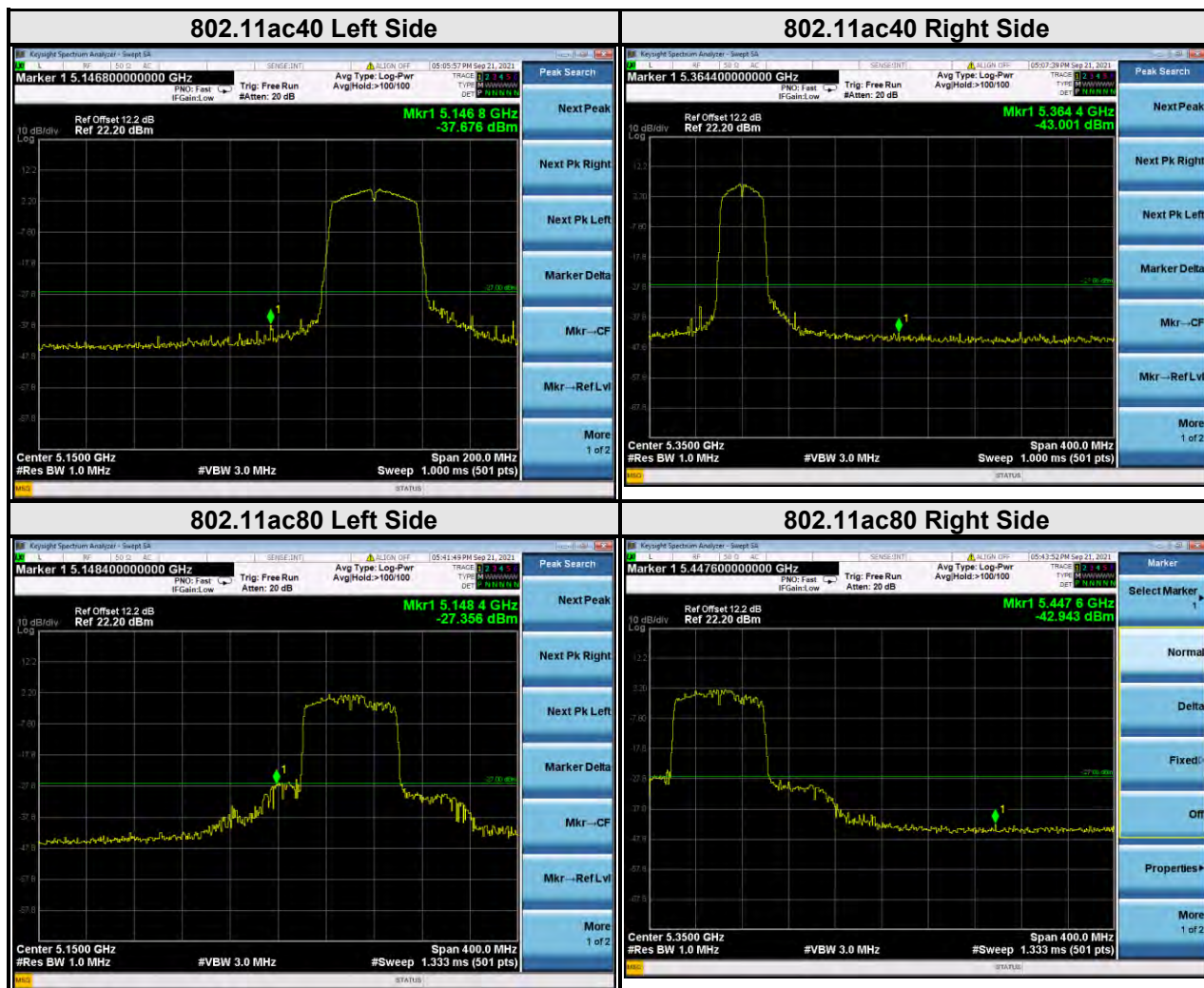
### 3.2.7 TEST RESULTS

For U-NII-1:







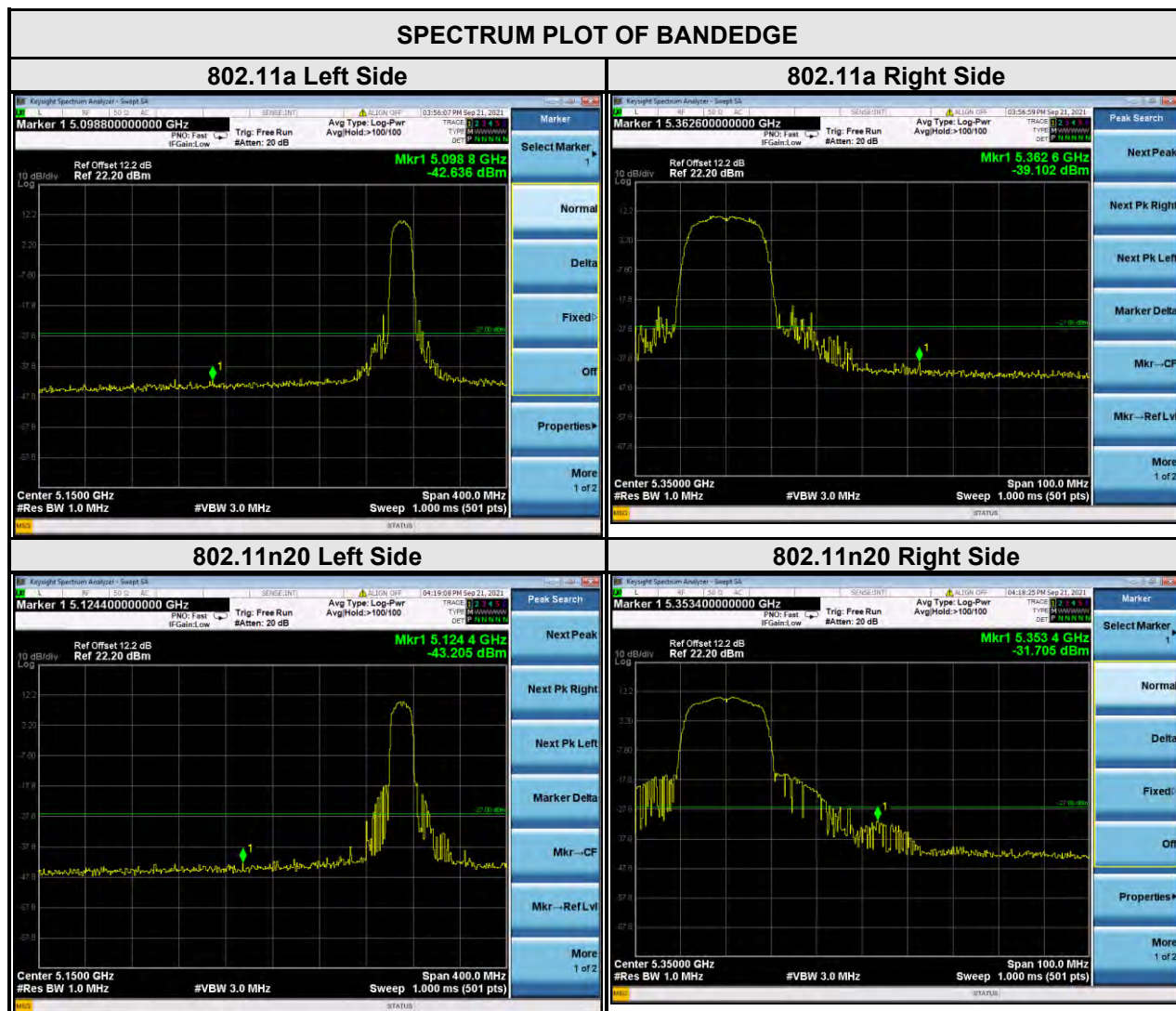


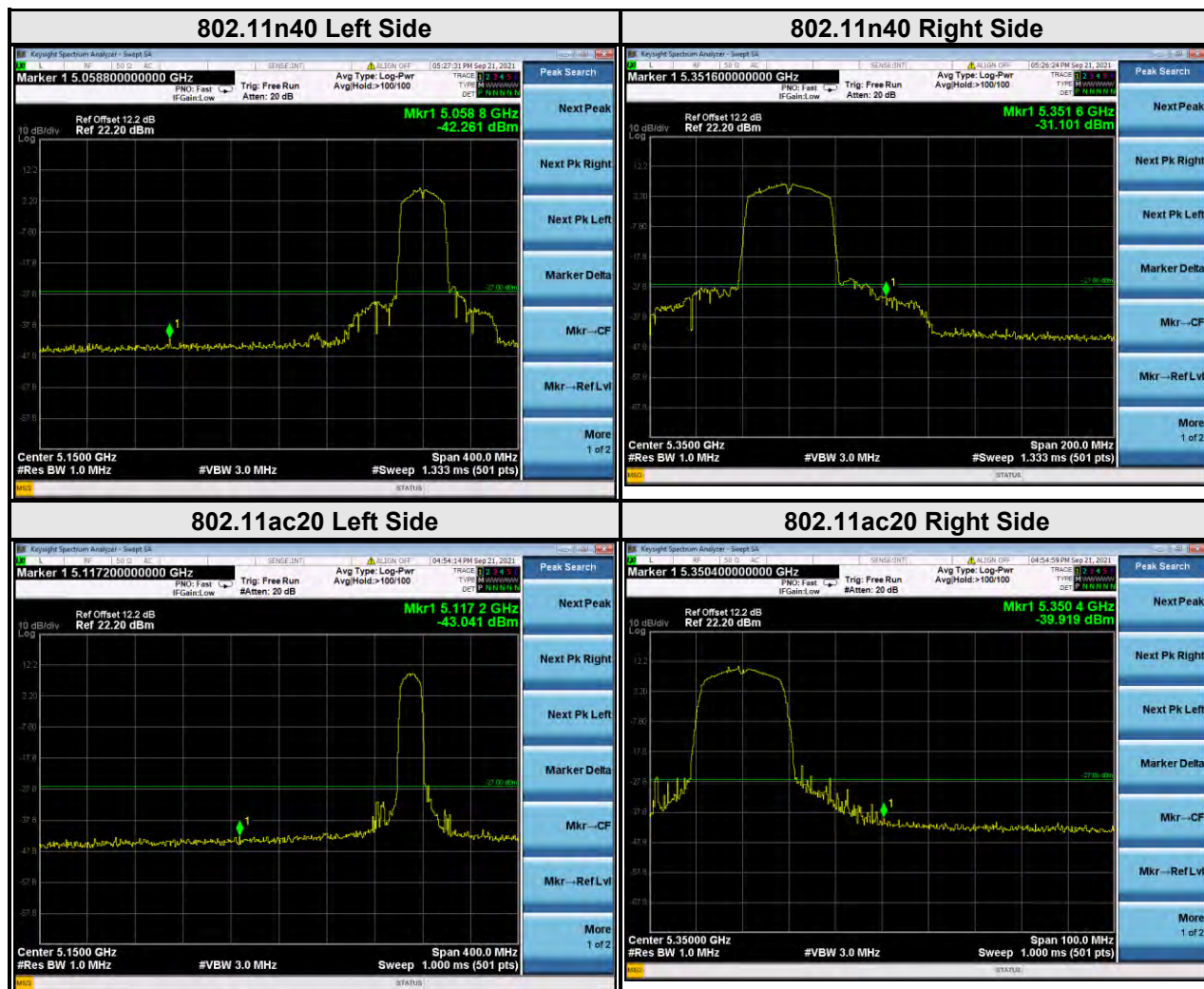


BUREAU  
VERITAS

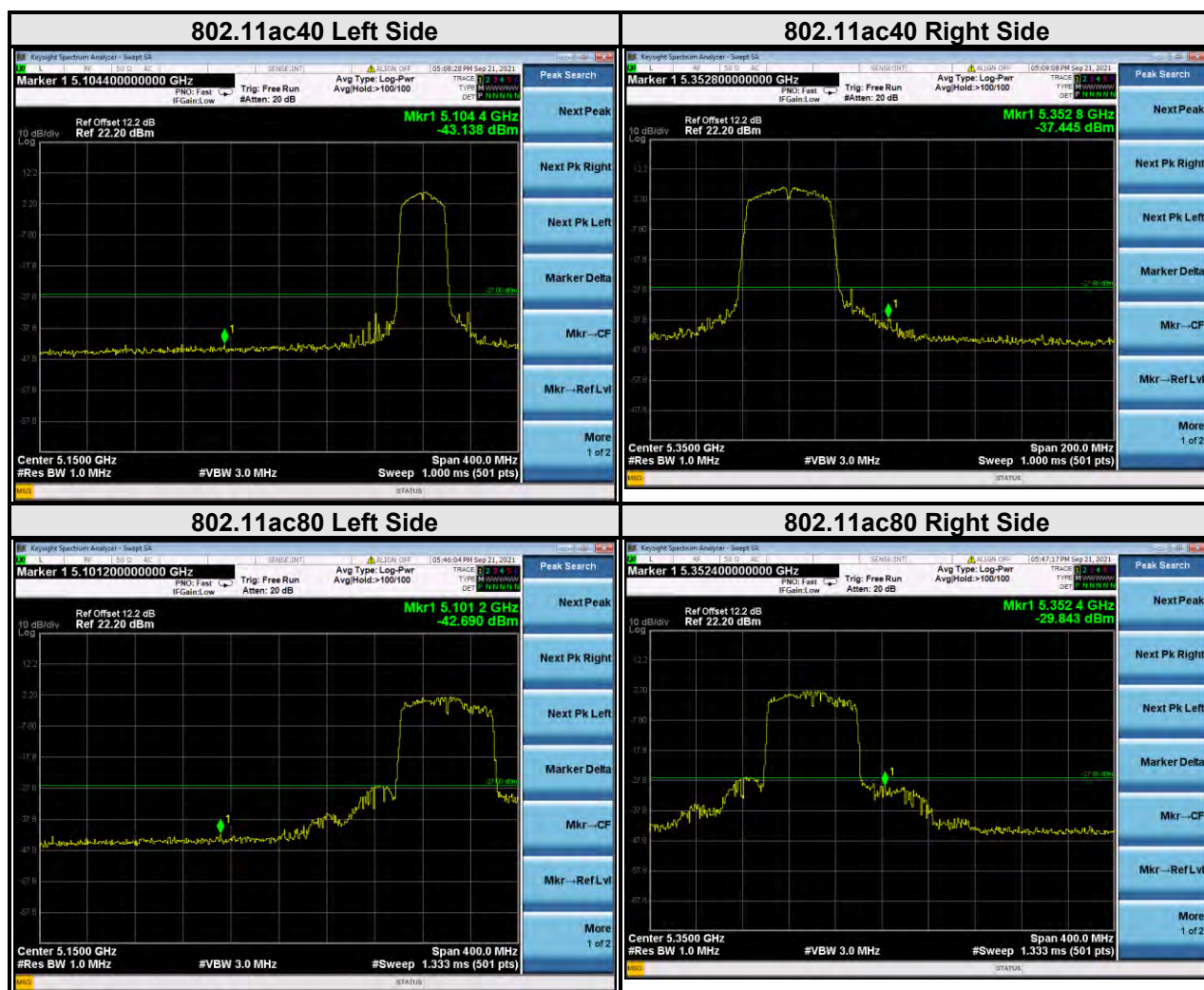
Test Report No.: W7L-P24050005RF03

For U-NII-2A:













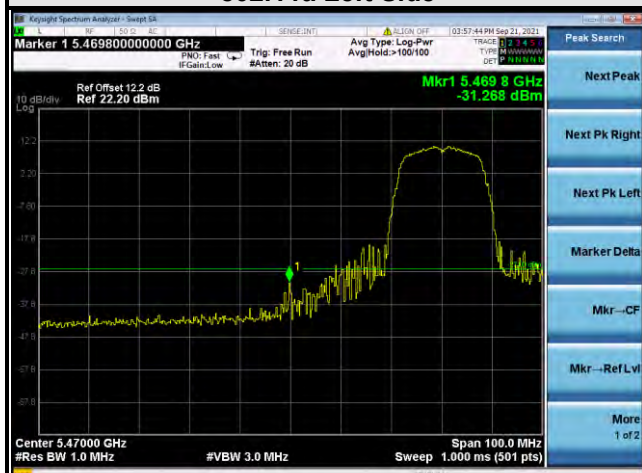
BUREAU  
VERITAS

Test Report No.: W7L-P24050005RF03

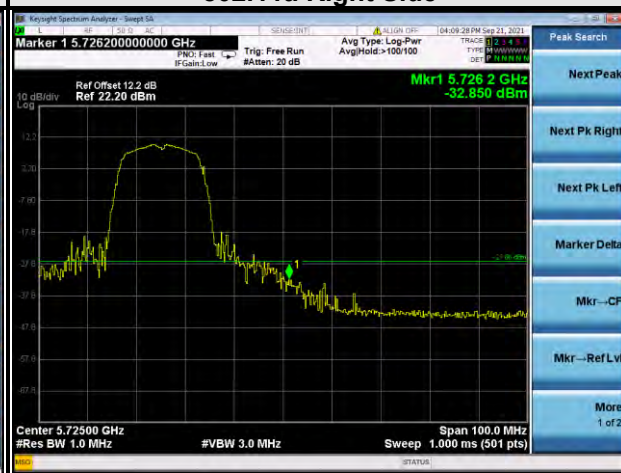
For U-NII-2C:

## SPECTRUM PLOT OF BANDEDGE

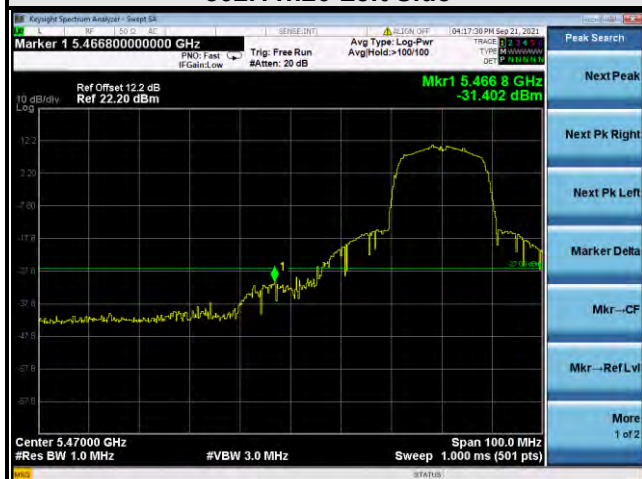
802.11a Left Side



802.11a Right Side

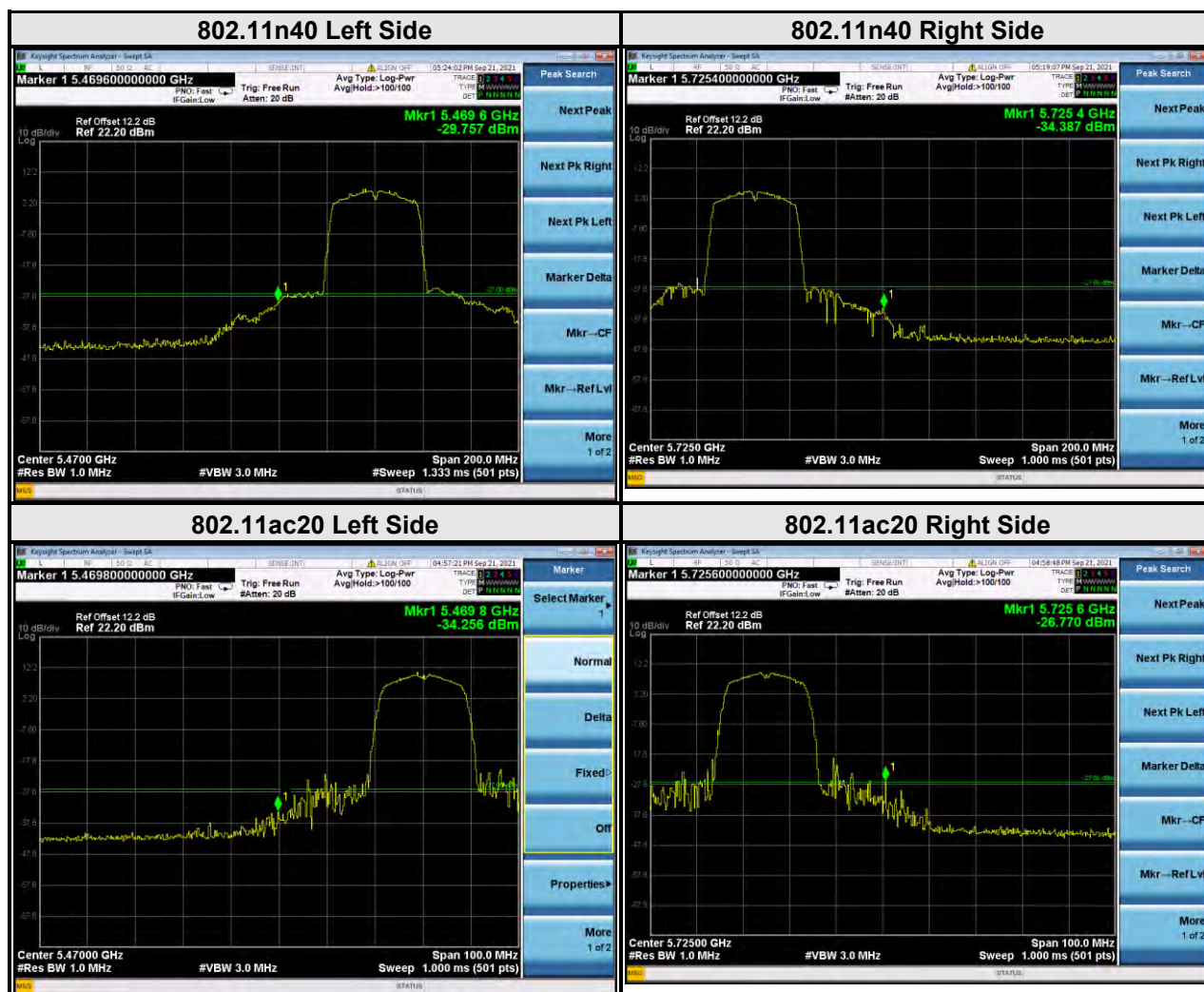


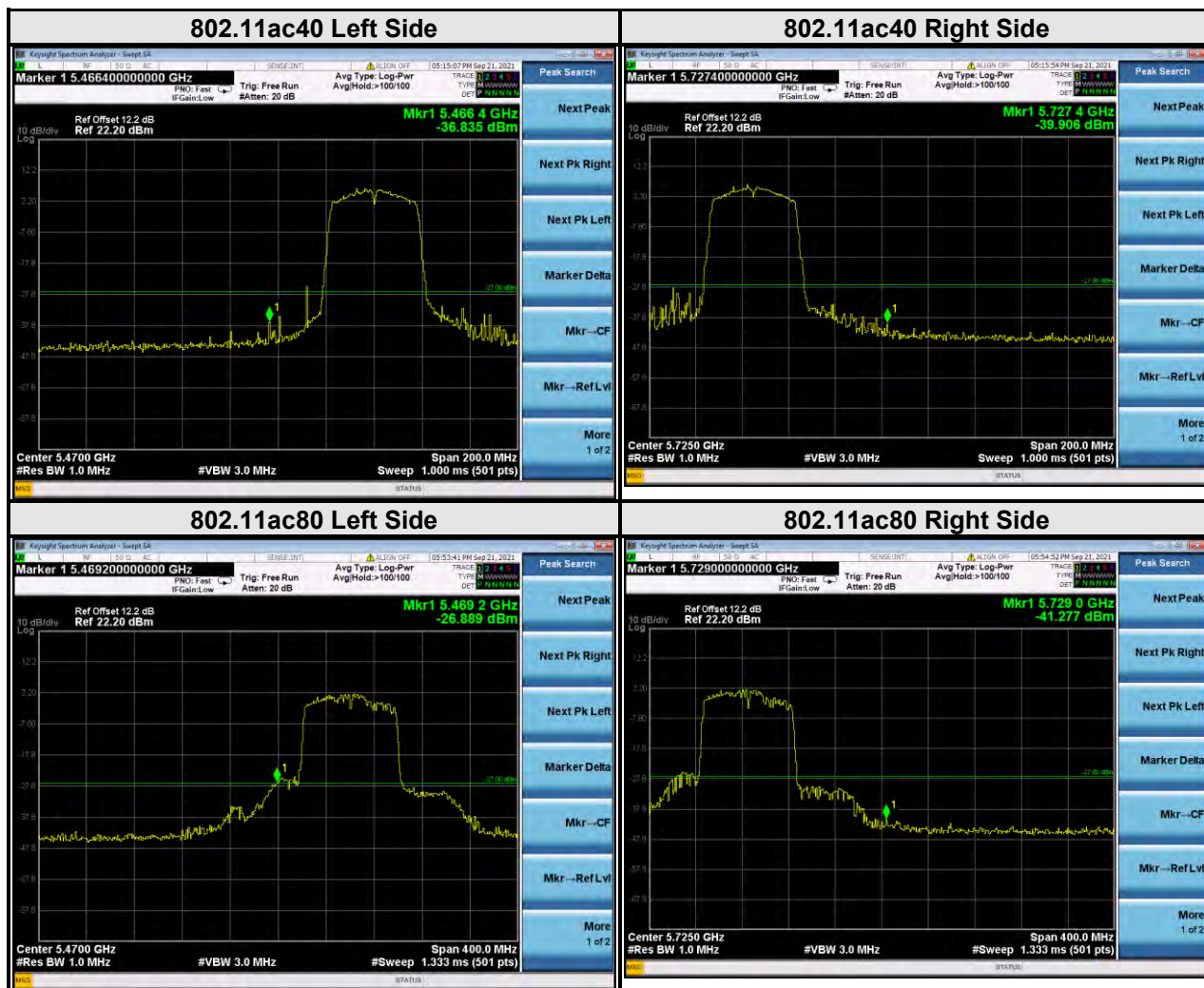
802.11n20 Left Side



802.11n20 Right Side







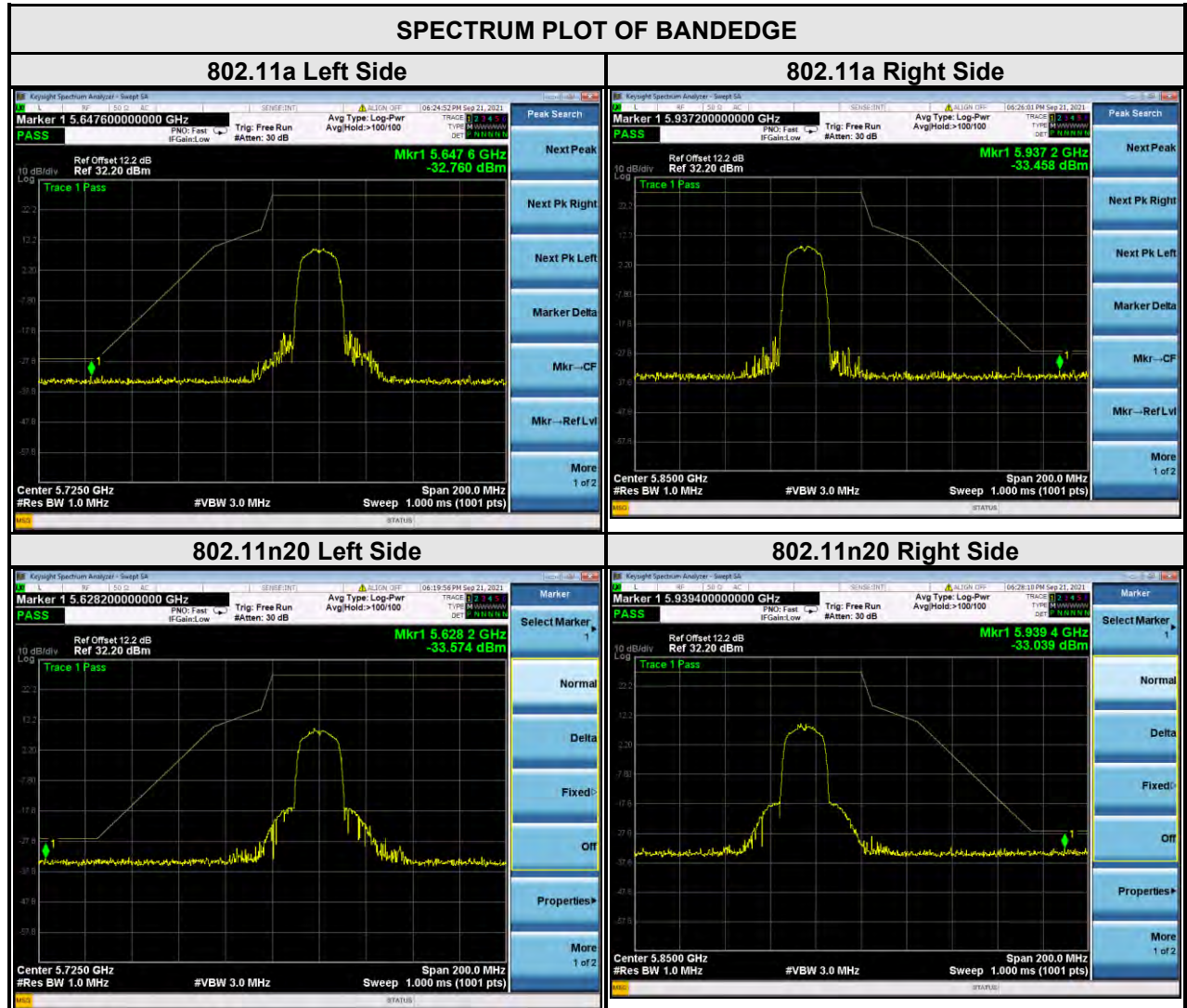


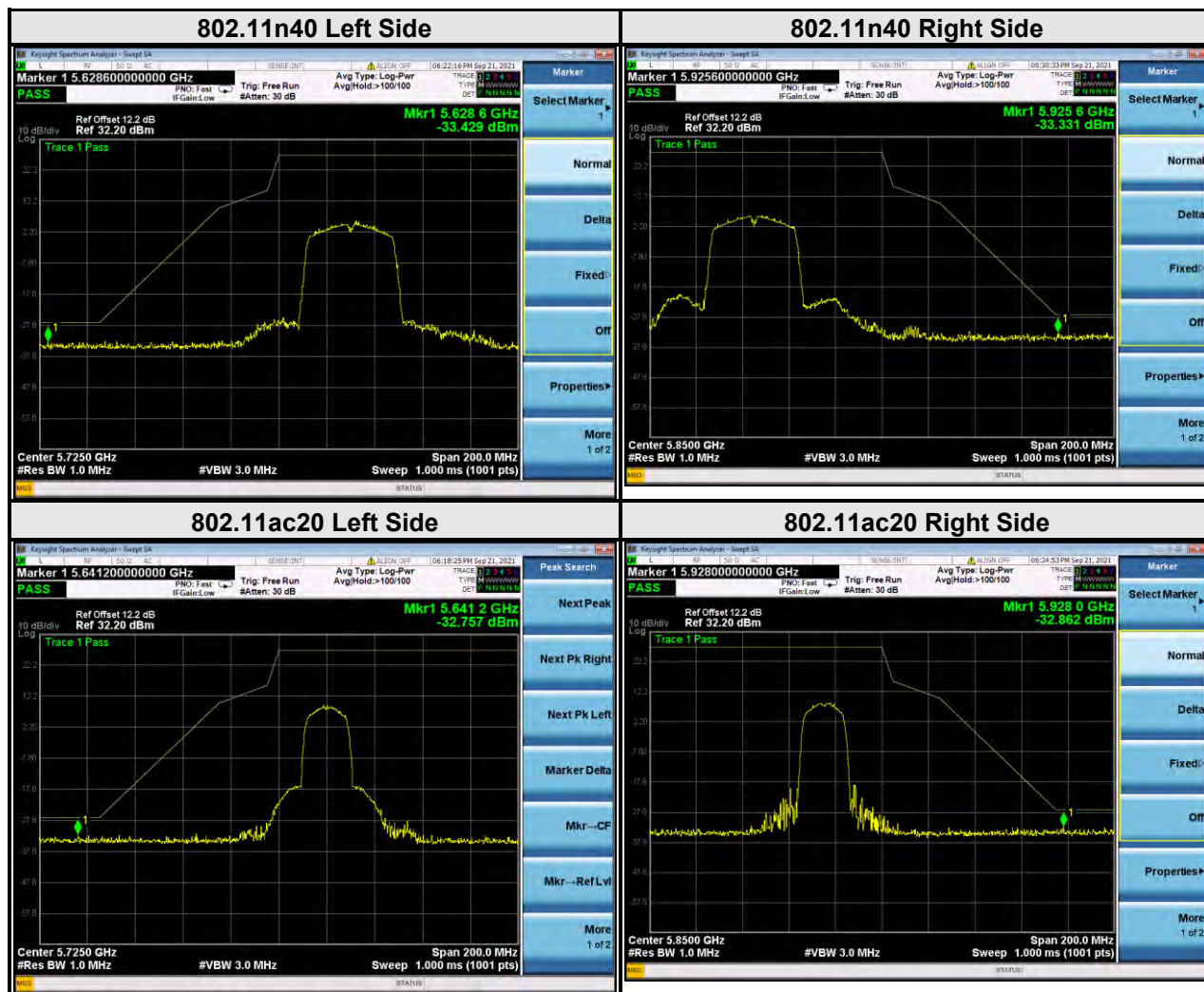


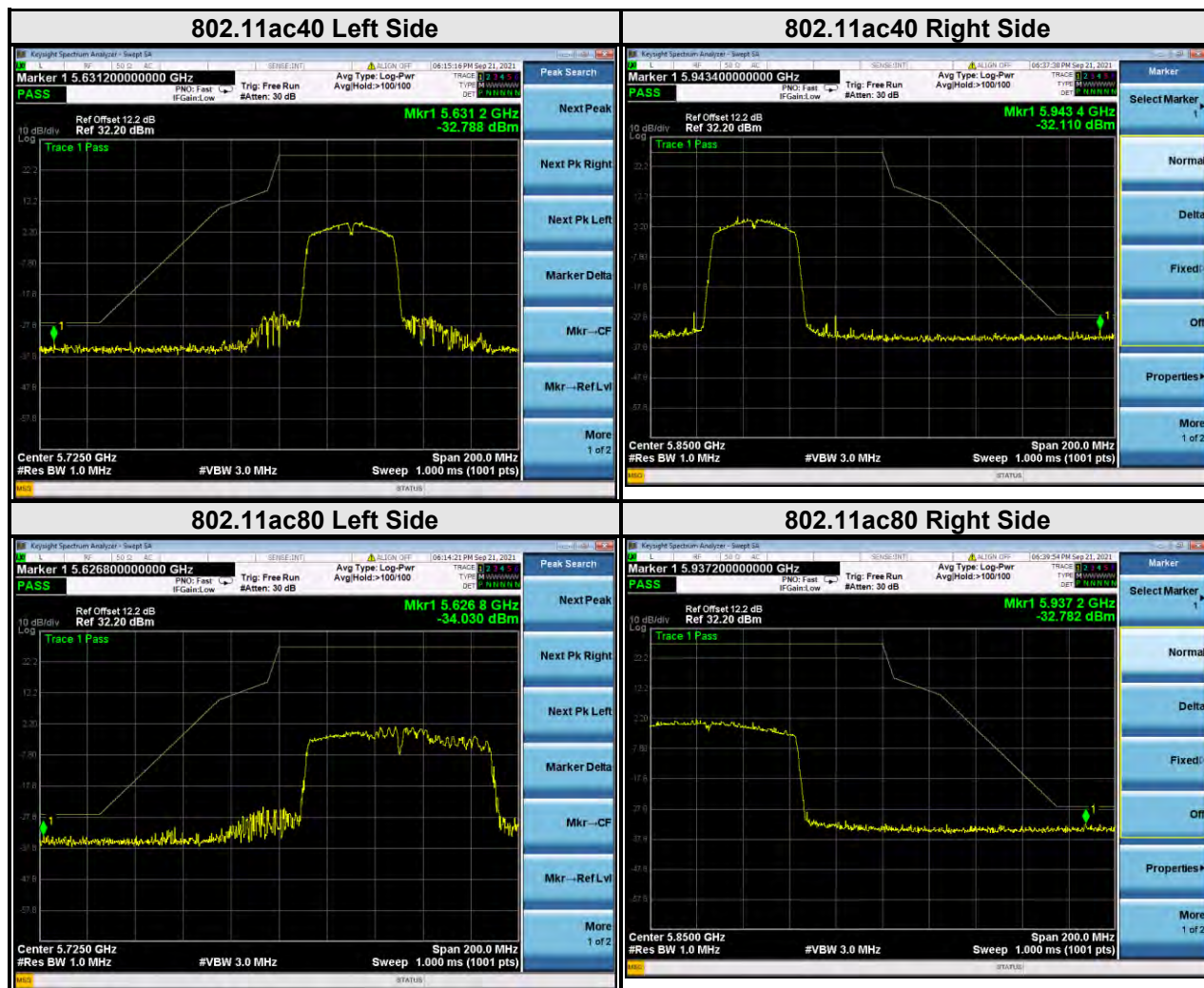
BUREAU  
VERITAS

Test Report No.: W7L-P24050005RF03

For U-NII-3:









### 3.3 CONDUCTED EMISSION MEASUREMENT

#### 3.3.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

| FREQUENCY OF EMISSION (MHz) | CONDUCTED LIMIT (dB $\mu$ V) |          |
|-----------------------------|------------------------------|----------|
|                             | Quasi-peak                   | Average  |
| 0.15 ~ 0.5                  | 66 to 56                     | 56 to 46 |
| 0.5 ~ 5                     | 56                           | 46       |
| 5 ~ 30                      | 60                           | 50       |

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
  2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
  3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 3.3.2 TEST INSTRUMENTS

| Equipment           | Manufacturer  | Model No. | Serial No. | Last Cal.  | Next Cal.  |
|---------------------|---------------|-----------|------------|------------|------------|
| EMI Test Receiver   | Rohde&Schwarz | ESR3      | 101900     | Mar. 03,21 | Mar. 02,22 |
| EMC32 test software | Rohde&Schwarz | EMC32     | NA         | NA         | NA         |
| LISN network        | Rohde&Schwarz | ENV216    | 101922     | Feb. 22,21 | Feb. 21,22 |

**NOTE:**

1. The test was performed in CE shielded room.
2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

#### 3.3.3 TEST PROCEDURES

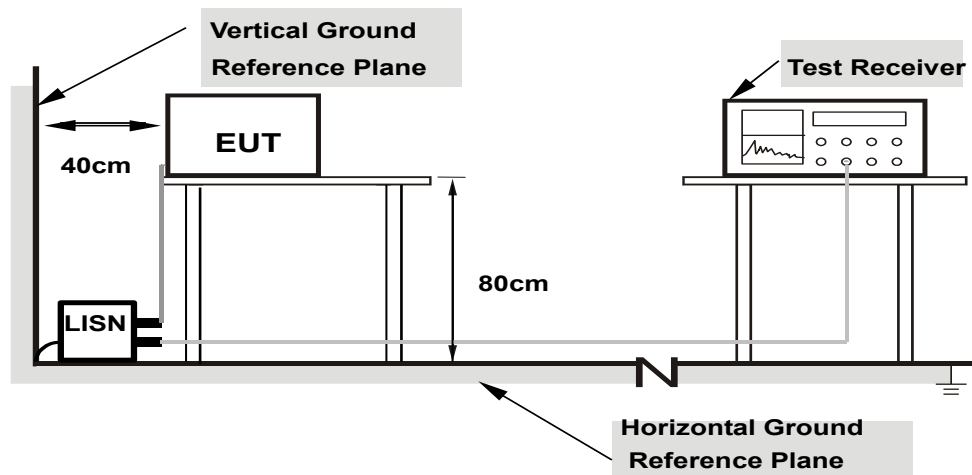
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

**NOTE:** All modes of operation were investigated and the worst-case emissions are reported.

### 3.3.4 DEVIATION FROM TEST STANDARD

No deviation.

### 3.3.5 TEST SETUP



**Note: 1.Support units were connected to second LISN.  
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80  
from other units and other metal planes**

For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 3.3.6 EUT OPERATING CONDITIONS

Same as 3.1.6.



### 3.3.7 TEST RESULTS

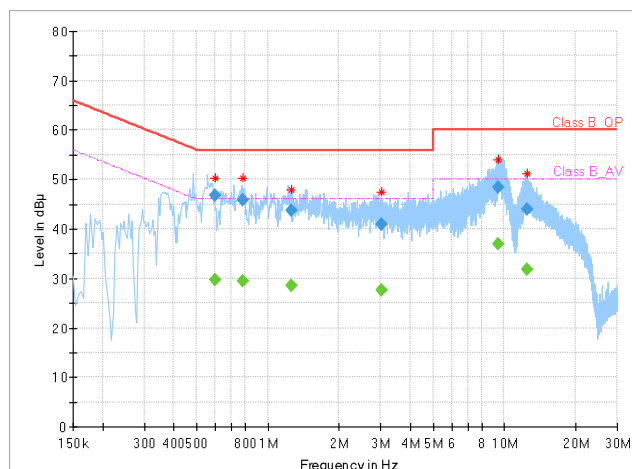
#### CONDUCTED WORST-CASE DATA:

|                 |                |                                          |                                       |
|-----------------|----------------|------------------------------------------|---------------------------------------|
| Frequency Range | 150KHz ~ 30MHz | Detector Function & Resolution Bandwidth | Quasi-Peak (QP) / Average (AV), 9 kHz |
| Input Power     | 120Vac, 60Hz   | Environmental Conditions                 | 25deg. C, 55%RH                       |
| Tested By       | Carl Xie       |                                          |                                       |

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.596000        | ---              | 29.79           | 46.00        | 16.21       | L1   | ON     | 9.7        |
| 0.596000        | 46.72            | ---             | 56.00        | 9.28        | L1   | ON     | 9.7        |
| 0.784000        | ---              | 29.36           | 46.00        | 16.64       | L1   | ON     | 9.7        |
| 0.784000        | 45.86            | ---             | 56.00        | 10.14       | L1   | ON     | 9.7        |
| 1.260000        | ---              | 28.46           | 46.00        | 17.54       | L1   | ON     | 9.7        |
| 1.260000        | 43.79            | ---             | 56.00        | 12.21       | L1   | ON     | 9.7        |
| 3.028000        | ---              | 27.64           | 46.00        | 18.36       | L1   | ON     | 9.7        |
| 3.028000        | 40.94            | ---             | 56.00        | 15.06       | L1   | ON     | 9.7        |
| 9.372000        | ---              | 37.04           | 50.00        | 12.96       | L1   | ON     | 9.7        |
| 9.372000        | 48.49            | ---             | 60.00        | 11.51       | L1   | ON     | 9.7        |
| 12.424000       | ---              | 31.83           | 50.00        | 18.17       | L1   | ON     | 9.8        |
| 12.424000       | 44.01            | ---             | 60.00        | 15.99       | L1   | ON     | 9.8        |

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Limit value -Emission level
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.

Full Spectrum

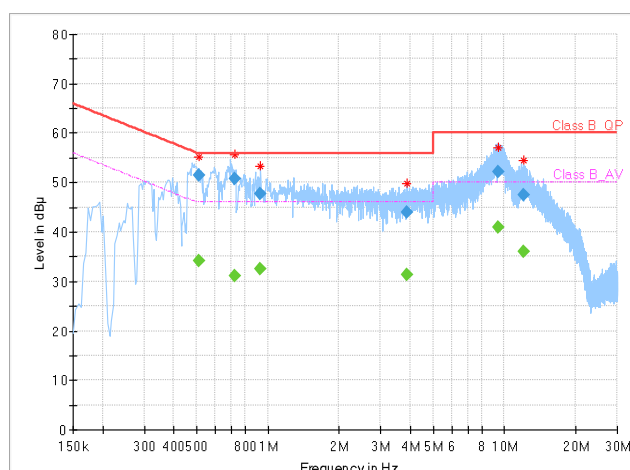


|                 |                |                                          |                                       |
|-----------------|----------------|------------------------------------------|---------------------------------------|
| Frequency Range | 150KHz ~ 30MHz | Detector Function & Resolution Bandwidth | Quasi-Peak (QP) / Average (AV), 9 kHz |
| Input Power     | 120Vac, 60Hz   | Environmental Conditions                 | 25deg. C, 55%RH                       |
| Tested By       | Carl Xie       |                                          |                                       |

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.512000        | ---              | 34.05           | 46.00        | 11.95       | N    | ON     | 9.7        |
| 0.512000        | 51.49            | ---             | 56.00        | 4.51        | N    | ON     | 9.7        |
| 0.728000        | ---              | 31.08           | 46.00        | 14.92       | N    | ON     | 9.7        |
| 0.728000        | 50.74            | ---             | 56.00        | 5.26        | N    | ON     | 9.7        |
| 0.928000        | ---              | 32.55           | 46.00        | 13.45       | N    | ON     | 9.7        |
| 0.928000        | 47.78            | ---             | 56.00        | 8.22        | N    | ON     | 9.7        |
| 3.884000        | ---              | 31.33           | 46.00        | 14.67       | N    | ON     | 9.8        |
| 3.884000        | 43.95            | ---             | 56.00        | 12.05       | N    | ON     | 9.8        |
| 9.424000        | ---              | 40.84           | 50.00        | 9.16        | N    | ON     | 9.8        |
| 9.424000        | 52.17            | ---             | 60.00        | 7.83        | N    | ON     | 9.8        |
| 12.024000       | ---              | 36.06           | 50.00        | 13.94       | N    | ON     | 9.8        |
| 12.024000       | 47.44            | ---             | 60.00        | 12.56       | N    | ON     | 9.8        |

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Limit value -Emission level
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.

Full Spectrum



### 3.4 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

#### 3.4.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

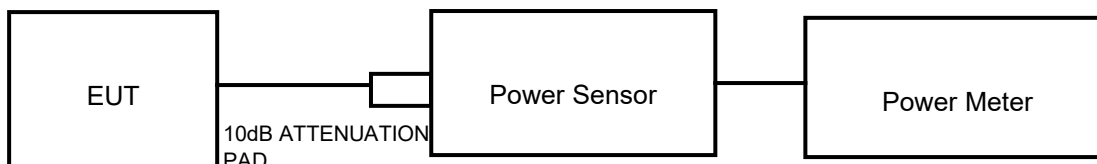
| Operation Band | EUT Category |                                   | LIMIT                                                                                                                       |
|----------------|--------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| U-NII-1        |              | Outdoor Access Point              | 1 Watt (30 dBm)<br>(Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon) |
|                |              | Fixed point-to-point Access Point | 1 Watt (30 dBm)                                                                                                             |
|                | <b>B</b>     | Indoor Access Point               | 1 Watt (30 dBm)                                                                                                             |
|                | √            | Client devices                    | 250mW (24 dBm)                                                                                                              |
| U-NII-2A       | √            |                                   | 250mW (24 dBm) or 11 dBm+10 log B*                                                                                          |
| U-NII-2C       | √            |                                   | 250mW (24 dBm) or 11 dBm+10 log B*                                                                                          |
| U-NII-3        | √            |                                   | 1 Watt (30 dBm)                                                                                                             |

**NOTE:** Where B is the 26dB emission bandwidth in MHz.

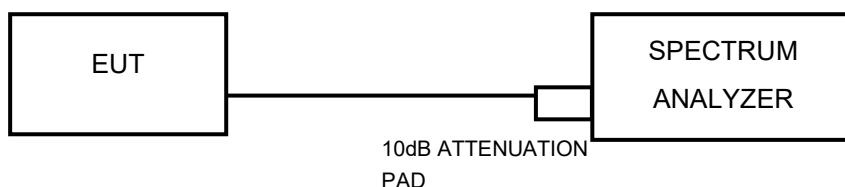
### 3.4.2 TEST SETUP

#### FOR POWER OUTPUT MEASUREMENT

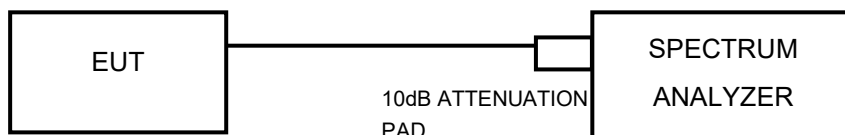
##### 802.11a, 802.11n (20MHz), 802.11n (40MHz) TEST CONFIGURATION



##### 11ac TEST CONFIGURATION



##### FOR 26dB BANDWIDTH



### 3.4.3 TEST INSTRUMENTS

| Equipment           | Manufacturer | Model No.  | Serial No. | Last Cal.  | Next Cal.  |
|---------------------|--------------|------------|------------|------------|------------|
| Power Meter         | ANRITSU      | ML2495A    | 1506002    | Feb. 22,21 | Feb. 21,22 |
| EXA Signal Analyzer | KEYSIGHT     | N9010A-526 | MY54510322 | Feb. 25,21 | Feb. 24,22 |
| EXA Signal Analyzer | KEYSIGHT     | N9010A-544 | MY54510355 | Jun. 03,21 | Jun. 02,22 |
| Power Sensor        | ANRITSU      | MA2411B    | 1339352    | May. 07,21 | May. 08,22 |

**NOTE:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.

### 3.4.4 TEST PROCEDURE

#### FOR POWER MEASUREMENT

##### For 802.11a, 802.11n (20MHz), 802.11n (40MHz)

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

##### For 802.11ac (80MHz)

1. Measure the duty cycle,  $x$ , of the transmitter output signal as described in II.B.
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1 MHz.
4. Set VBW  $\geq$  3 MHz.
5. Number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ . (This ensures that bin-to-bin spacing is  $\leq \text{RBW}/2$ , so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto.
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
8. Do not use sweep triggering. Allow the sweep to “free run.”
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Add  $10 \log (1/x)$ , where  $x$  is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add  $10 \log (1/0.25) = 6 \text{ dB}$  if the duty cycle is 25%.

#### FOR 99 PERCENT OCCUPIED BANDWIDTH

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW  $\geq 3 \cdot$  RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

#### FOR 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = Peak.
- 4) Trace mode = max hold.
- 5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

#### FOR 6dB BANDWIDTH

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW)  $\geq 3$  RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

### 3.4.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.





Test Report No.: W7L-P24050005RF03

### 3.4.7 TEST RESULTS

#### OUTPUT POWER:

802.11a

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | AVERAGE<br>POWER (dBm) | Duty<br>Factor | FINAL<br>AVERAGE<br>POWER<br>(dBm) | FINAL<br>AVERAGE<br>POWER<br>(mW) | POWER<br>LIMIT<br>(dBm) | PASS/FAIL |
|---------|-------------------------------|------------------------|----------------|------------------------------------|-----------------------------------|-------------------------|-----------|
| 36      | 5180                          | 14.10                  | 0.09           | 14.19                              | <b>26.24</b>                      | 24                      | PASS      |
| 40      | 5200                          | 14.00                  | 0.09           | 14.09                              | 25.64                             | 24                      | PASS      |
| 48      | 5240                          | 13.99                  | 0.09           | 14.08                              | 25.59                             | 24                      | PASS      |
| 52      | 5260                          | 13.91                  | 0.09           | 14.00                              | <b>25.12</b>                      | 24                      | PASS      |
| 60      | 5300                          | 13.89                  | 0.09           | 13.98                              | 25.00                             | 24                      | PASS      |
| 64      | 5320                          | 13.87                  | 0.09           | 13.96                              | 24.89                             | 24                      | PASS      |
| 100     | 5500                          | 13.84                  | 0.09           | 13.93                              | 24.72                             | 24                      | PASS      |
| 116     | 5580                          | 14.20                  | 0.09           | 14.29                              | <b>26.85</b>                      | 24                      | PASS      |
| 140     | 5700                          | 14.02                  | 0.09           | 14.11                              | 25.76                             | 24                      | PASS      |
| 144     | 5720                          | 14.05                  | 0.09           | 14.14                              | 25.94                             | 24                      | PASS      |
| 144     | 5720                          | 14.05                  | 0.09           | 14.14                              | 25.94                             | 30                      | PASS      |
| 149     | 5745                          | 14.08                  | 0.09           | 14.17                              | 26.12                             | 30                      | PASS      |
| 157     | 5785                          | 14.10                  | 0.09           | 14.19                              | 26.24                             | 30                      | PASS      |
| 165     | 5825                          | 14.12                  | 0.09           | 14.21                              | <b>26.36</b>                      | 30                      | PASS      |

**802.11n (20MHz)**

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | AVERAGE<br>POWER (dBm) | Duty<br>Factor | FINAL<br>AVERAGE<br>POWER<br>(dBm) | FINAL<br>AVERAGE<br>POWER<br>(mW) | POWER<br>LIMIT<br>(dBm) | PASS/FAIL |
|---------|-------------------------------|------------------------|----------------|------------------------------------|-----------------------------------|-------------------------|-----------|
| 36      | 5180                          | 13.98                  | 0              | 13.98                              | 25.00                             | 24                      | PASS      |
| 40      | 5200                          | 14.00                  | 0              | 14.00                              | 25.12                             | 24                      | PASS      |
| 48      | 5240                          | 13.86                  | 0              | 13.86                              | 24.32                             | 24                      | PASS      |
| 52      | 5260                          | 13.82                  | 0              | 13.82                              | 24.10                             | 24                      | PASS      |
| 60      | 5300                          | 13.80                  | 0              | 13.80                              | 23.99                             | 24                      | PASS      |
| 64      | 5320                          | 13.85                  | 0              | 13.85                              | 24.27                             | 24                      | PASS      |
| 100     | 5500                          | 13.78                  | 0              | 13.78                              | 23.88                             | 24                      | PASS      |
| 116     | 5580                          | 14.18                  | 0              | 14.18                              | 26.18                             | 24                      | PASS      |
| 140     | 5700                          | 14.01                  | 0              | 14.01                              | 25.18                             | 24                      | PASS      |
| 144     | 5720                          | 13.97                  | 0              | 13.97                              | 24.95                             | 24                      | PASS      |
| 144     | 5720                          | 13.97                  | 0              | 13.97                              | 24.95                             | 30                      | PASS      |
| 149     | 5745                          | 14.05                  | 0              | 14.05                              | 25.41                             | 30                      | PASS      |
| 157     | 5785                          | 14.07                  | 0              | 14.07                              | 25.53                             | 30                      | PASS      |
| 165     | 5825                          | 14.06                  | 0              | 14.06                              | 25.47                             | 30                      | PASS      |



**802.11n (40MHz)**

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | AVERAGE<br>POWER (dBm) | Duty<br>Factor | FINAL<br>AVERAGE<br>POWER<br>(dBm) | FINAL<br>AVERAGE<br>POWER<br>(mW) | POWER<br>LIMIT<br>(dBm) | PASS/FAIL |
|---------|-------------------------------|------------------------|----------------|------------------------------------|-----------------------------------|-------------------------|-----------|
| 38      | 5190                          | 13.22                  | 0.20           | 13.42                              | 21.98                             | 24                      | PASS      |
| 46      | 5230                          | 13.25                  | 0.20           | 13.45                              | 22.13                             | 24                      | PASS      |
| 54      | 5270                          | 13.12                  | 0.20           | 13.32                              | 21.48                             | 24                      | PASS      |
| 62      | 5310                          | 13.02                  | 0.20           | 13.22                              | 20.99                             | 24                      | PASS      |
| 102     | 5510                          | 13.06                  | 0.20           | 13.26                              | 21.18                             | 24                      | PASS      |
| 110     | 5550                          | 13.10                  | 0.20           | 13.30                              | 21.38                             | 24                      | PASS      |
| 134     | 5670                          | 12.80                  | 0.20           | 13.00                              | 19.95                             | 24                      | PASS      |
| 142     | 5710                          | 12.82                  | 0.20           | 13.02                              | 20.04                             | 24                      | PASS      |
| 142     | 5710                          | 12.82                  | 0.20           | 13.02                              | 20.04                             | 30                      | PASS      |
| 151     | 5755                          | 12.90                  | 0.20           | 13.10                              | 20.42                             | 30                      | PASS      |
| 159     | 5795                          | 12.88                  | 0.20           | 13.08                              | 20.32                             | 30                      | PASS      |

**802.11ac (20MHz)**

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | AVERAGE<br>POWER (dBm) | Duty<br>Factor | FINAL<br>AVERAGE<br>POWER<br>(dBm) | FINAL<br>AVERAGE<br>POWER<br>(mW) | POWER<br>LIMIT<br>(dBm) | PASS/FAIL |
|---------|-------------------------------|------------------------|----------------|------------------------------------|-----------------------------------|-------------------------|-----------|
| 36      | 5180                          | 13.96                  | 0.11           | 14.07                              | 25.53                             | 24                      | PASS      |
| 40      | 5200                          | 13.85                  | 0.11           | 13.96                              | 24.89                             | 24                      | PASS      |
| 48      | 5240                          | 13.91                  | 0.11           | 14.02                              | 25.23                             | 24                      | PASS      |
| 52      | 5260                          | 13.86                  | 0.11           | 13.97                              | 24.95                             | 24                      | PASS      |
| 60      | 5300                          | 13.77                  | 0.11           | 13.88                              | 24.43                             | 24                      | PASS      |
| 64      | 5320                          | 13.75                  | 0.11           | 13.86                              | 24.32                             | 24                      | PASS      |
| 100     | 5500                          | 13.74                  | 0.11           | 13.85                              | 24.27                             | 24                      | PASS      |
| 116     | 5580                          | 13.78                  | 0.11           | 13.89                              | 24.49                             | 24                      | PASS      |
| 140     | 5700                          | 13.95                  | 0.11           | 14.06                              | 25.47                             | 24                      | PASS      |
| 144     | 5720                          | 13.98                  | 0.11           | 14.09                              | 25.64                             | 24                      | PASS      |
| 144     | 5720                          | 13.98                  | 0.11           | 14.09                              | 25.64                             | 30                      | PASS      |
| 149     | 5745                          | 14.05                  | 0.11           | 14.16                              | 26.06                             | 30                      | PASS      |
| 157     | 5785                          | 14.02                  | 0.11           | 14.13                              | 25.88                             | 30                      | PASS      |
| 165     | 5825                          | 14.08                  | 0.11           | 14.19                              | 26.24                             | 30                      | PASS      |



802.11ac (40MHz)

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | AVERAGE<br>POWER (dBm) | Duty<br>Factor | FINAL<br>AVERAGE<br>POWER<br>(dBm) | FINAL<br>AVERAGE<br>POWER<br>(mW) | POWER<br>LIMIT<br>(dBm) | PASS/FAIL |
|---------|-------------------------------|------------------------|----------------|------------------------------------|-----------------------------------|-------------------------|-----------|
| 38      | 5190                          | 13.24                  | 0.22           | 13.46                              | 22.18                             | 24                      | PASS      |
| 46      | 5230                          | 13.22                  | 0.22           | 13.44                              | 22.08                             | 24                      | PASS      |
| 54      | 5270                          | 13.16                  | 0.22           | 13.38                              | 21.78                             | 24                      | PASS      |
| 62      | 5310                          | 13.07                  | 0.22           | 13.29                              | 21.33                             | 24                      | PASS      |
| 102     | 5510                          | 13.03                  | 0.22           | 13.25                              | 21.13                             | 24                      | PASS      |
| 110     | 5550                          | 13.12                  | 0.22           | 13.34                              | 21.58                             | 24                      | PASS      |
| 134     | 5670                          | 13.18                  | 0.22           | 13.40                              | 21.88                             | 24                      | PASS      |
| 142     | 5710                          | 13.25                  | 0.22           | 13.47                              | 22.23                             | 24                      | PASS      |
| 142     | 5710                          | 13.25                  | 0.22           | 13.47                              | 22.23                             | 30                      | PASS      |
| 151     | 5755                          | 13.26                  | 0.22           | 13.48                              | 22.28                             | 30                      | PASS      |
| 159     | 5795                          | 12.92                  | 0.22           | 13.14                              | 20.61                             | 30                      | PASS      |

802.11ac (80MHz)

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | AVERAGE<br>POWER (dBm) | Duty<br>Factor | FINAL<br>AVERAGE<br>POWER<br>(dBm) | FINAL<br>AVERAGE<br>POWER<br>(mW) | POWER<br>LIMIT<br>(dBm) | PASS/FAIL |
|---------|-------------------------------|------------------------|----------------|------------------------------------|-----------------------------------|-------------------------|-----------|
| 42      | 5210                          | 12.02                  | 0.42           | 12.44                              | 17.54                             | 24                      | PASS      |
| 58      | 5290                          | 11.95                  | 0.42           | 12.37                              | 17.26                             | 24                      | PASS      |
| 106     | 5530                          | 11.82                  | 0.42           | 12.24                              | 16.75                             | 24                      | PASS      |
| 122     | 5610                          | 11.80                  | 0.42           | 12.22                              | 16.67                             | 24                      | PASS      |
| 138     | 5690                          | 12.00                  | 0.42           | 12.42                              | 17.46                             | 24                      | PASS      |
| 138     | 5690                          | 12.00                  | 0.42           | 12.42                              | 17.46                             | 30                      | PASS      |
| 155     | 5775                          | 11.98                  | 0.42           | 12.40                              | 17.38                             | 30                      | PASS      |

**99% OCCUPIED BANDWIDTH & 26dB BANDWIDTH/6dB BANDWIDTH DATA FROM:**

**802.11a**

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | 99% OCCUPIED<br>BANDWIDTH | 26dB<br>BANDWIDTH<br>(MHz) | PASS/FAIL |
|---------|-------------------------------|---------------------------|----------------------------|-----------|
| 36      | 5180                          | 16.56                     | 20.09                      | PASS      |
| 40      | 5200                          | 16.50                     | 20.19                      | PASS      |
| 48      | 5240                          | 16.62                     | 19.92                      | PASS      |
| 52      | 5260                          | 16.56                     | 19.89                      | PASS      |
| 60      | 5300                          | 16.50                     | 20.04                      | PASS      |
| 64      | 5320                          | 16.50                     | 20.22                      | PASS      |
| 100     | 5500                          | 16.56                     | 20.13                      | PASS      |
| 116     | 5580                          | 16.56                     | 20.16                      | PASS      |
| 140     | 5700                          | 16.62                     | 20.19                      | PASS      |
| 144     | 5720                          | 16.62                     | 20.26                      | PASS      |
| CHANNEL | CHANNEL<br>FREQUENCY          | 99% OCCUPIED<br>BANDWIDTH | 6dB<br>BANDWIDTH           | PASS/FAIL |
| 144     | 5720                          | 16.62                     | 15.32                      | PASS      |
| 149     | 5745                          | 16.56                     | 15.12                      | PASS      |
| 157     | 5785                          | 16.56                     | 15.12                      | PASS      |
| 165     | 5825                          | 16.56                     | 15.13                      | PASS      |

**802.11n (20MHz)**

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | 99% OCCUPIED<br>BANDWIDTH | 26dB<br>BANDWIDTH<br>(MHz) | PASS/FAIL |
|---------|-------------------------------|---------------------------|----------------------------|-----------|
| 36      | 5180                          | 17.76                     | 20.40                      | PASS      |
| 40      | 5200                          | 17.70                     | 20.42                      | PASS      |
| 48      | 5240                          | 17.70                     | 20.47                      | PASS      |
| 52      | 5260                          | 17.76                     | 20.40                      | PASS      |
| 60      | 5300                          | 17.76                     | 20.32                      | PASS      |
| 64      | 5320                          | 17.70                     | 20.37                      | PASS      |
| 100     | 5500                          | 17.70                     | 20.50                      | PASS      |
| 116     | 5580                          | 17.64                     | 20.34                      | PASS      |
| 140     | 5700                          | 17.70                     | 20.47                      | PASS      |
| 142     | 5720                          | 17.70                     | 20.41                      | PASS      |
| CHANNEL | CHANNEL<br>FREQUENCY          | 99% OCCUPIED<br>BANDWIDTH | 6dB<br>BANDWIDTH           | PASS/FAIL |
| 144     | 5720                          | 17.70                     | 15.13                      | PASS      |
| 149     | 5745                          | 17.70                     | 15.12                      | PASS      |
| 157     | 5785                          | 17.70                     | 15.13                      | PASS      |
| 165     | 5825                          | 17.64                     | 15.33                      | PASS      |

**802.11n (40MHz)**

| <b>CHANNEL</b> | <b>CHANNEL<br/>FREQUENCY<br/>(MHz)</b> | <b>99% OCCUPIED<br/>BANDWIDTH</b> | <b>26dB<br/>BANDWIDTH<br/>(MHz)</b> | <b>PASS/FAIL</b> |
|----------------|----------------------------------------|-----------------------------------|-------------------------------------|------------------|
| 38             | 5190                                   | 36.20                             | 41.62                               | PASS             |
| 46             | 5230                                   | 36.30                             | 41.40                               | PASS             |
| 54             | 5270                                   | 36.20                             | 41.71                               | PASS             |
| 62             | 5310                                   | 36.20                             | 41.32                               | PASS             |
| 102            | 5510                                   | 36.20                             | 41.56                               | PASS             |
| 110            | 5550                                   | 36.20                             | 41.75                               | PASS             |
| 134            | 5670                                   | 36.20                             | 41.33                               | PASS             |
| 142            | 5710                                   | 36.20                             | 41.33                               | PASS             |
| <b>CHANNEL</b> | <b>CHANNEL<br/>FREQUENCY</b>           | <b>99% OCCUPIED<br/>BANDWIDTH</b> | <b>6dB<br/>BANDWIDTH</b>            | <b>PASS/FAIL</b> |
| 142            | 5710                                   | 36.20                             | 35.17                               | PASS             |
| 151            | 5755                                   | 36.10                             | 35.13                               | PASS             |
| 159            | 5795                                   | 36.10                             | 35.13                               | PASS             |

**802.11ac (20MHz)**

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | 99% OCCUPIED<br>BANDWIDTH | 26dB<br>BANDWIDTH<br>(MHz) | PASS/FAIL |
|---------|-------------------------------|---------------------------|----------------------------|-----------|
| 36      | 5180                          | 17.64                     | 20.41                      | PASS      |
| 40      | 5200                          | 17.70                     | 20.43                      | PASS      |
| 48      | 5240                          | 17.64                     | 20.42                      | PASS      |
| 52      | 5260                          | 17.70                     | 20.46                      | PASS      |
| 60      | 5300                          | 17.64                     | 20.57                      | PASS      |
| 64      | 5320                          | 17.70                     | 20.32                      | PASS      |
| 100     | 5500                          | 17.58                     | 20.52                      | PASS      |
| 116     | 5580                          | 17.70                     | 20.40                      | PASS      |
| 140     | 5700                          | 17.64                     | 20.40                      | PASS      |
| 144     | 5720                          | 17.64                     | 20.55                      | PASS      |
| CHANNEL | CHANNEL<br>FREQUENCY          | 99% OCCUPIED<br>BANDWIDTH | 6dB<br>BANDWIDTH           | PASS/FAIL |
| 144     | 5720                          | 17.64                     | 15.16                      | PASS      |
| 149     | 5745                          | 17.64                     | 15.12                      | PASS      |
| 157     | 5785                          | 17.70                     | 15.12                      | PASS      |
| 165     | 5825                          | 17.64                     | 15.10                      | PASS      |





802.11ac (40MHz)

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | 99% OCCUPIED<br>BANDWIDTH | 26dB<br>BANDWIDTH<br>(MHz) | PASS/FAIL |
|---------|-------------------------------|---------------------------|----------------------------|-----------|
| 38      | 5190                          | 36.20                     | 41.34                      | PASS      |
| 46      | 5230                          | 36.10                     | 41.10                      | PASS      |
| 54      | 5270                          | 36.20                     | 41.20                      | PASS      |
| 62      | 5310                          | 36.10                     | 41.60                      | PASS      |
| 102     | 5510                          | 36.20                     | 41.43                      | PASS      |
| 110     | 5550                          | 36.10                     | 41.43                      | PASS      |
| 134     | 5670                          | 36.00                     | 41.25                      | PASS      |
| 142     | 5710                          | 36.10                     | 41.33                      | PASS      |
| CHANNEL | CHANNEL<br>FREQUENCY          | 99% OCCUPIED<br>BANDWIDTH | 6dB<br>BANDWIDTH           | PASS/FAIL |
| 142     | 5710                          | 36.10                     | 35.09                      | PASS      |
| 151     | 5755                          | 36.00                     | 35.14                      | PASS      |
| 159     | 5795                          | 36.10                     | 35.10                      | PASS      |

802.11ac (80MHz)

| CHANNEL | CHANNEL<br>FREQUENCY<br>(MHz) | 99% OCCUPIED<br>BANDWIDTH | 26dB<br>BANDWIDTH<br>(MHz) | PASS/FAIL |
|---------|-------------------------------|---------------------------|----------------------------|-----------|
| 42      | 5210                          | 75.24                     | 81.40                      | PASS      |
| 58      | 5290                          | 75.12                     | 81.07                      | PASS      |
| 106     | 5530                          | 75.12                     | 81.19                      | PASS      |
| 122     | 5610                          | 75.24                     | 81.21                      | PASS      |
| 138     | 5690                          | 75.24                     | 81.04                      | PASS      |
| CHANNEL | CHANNEL<br>FREQUENCY          | 99% OCCUPIED<br>BANDWIDTH | 6dB<br>BANDWIDTH           | PASS/FAIL |
| 138     | 5690                          | 75.24                     | 75.41                      | PASS      |
| 155     | 5775                          | 75.12                     | 75.18                      | PASS      |

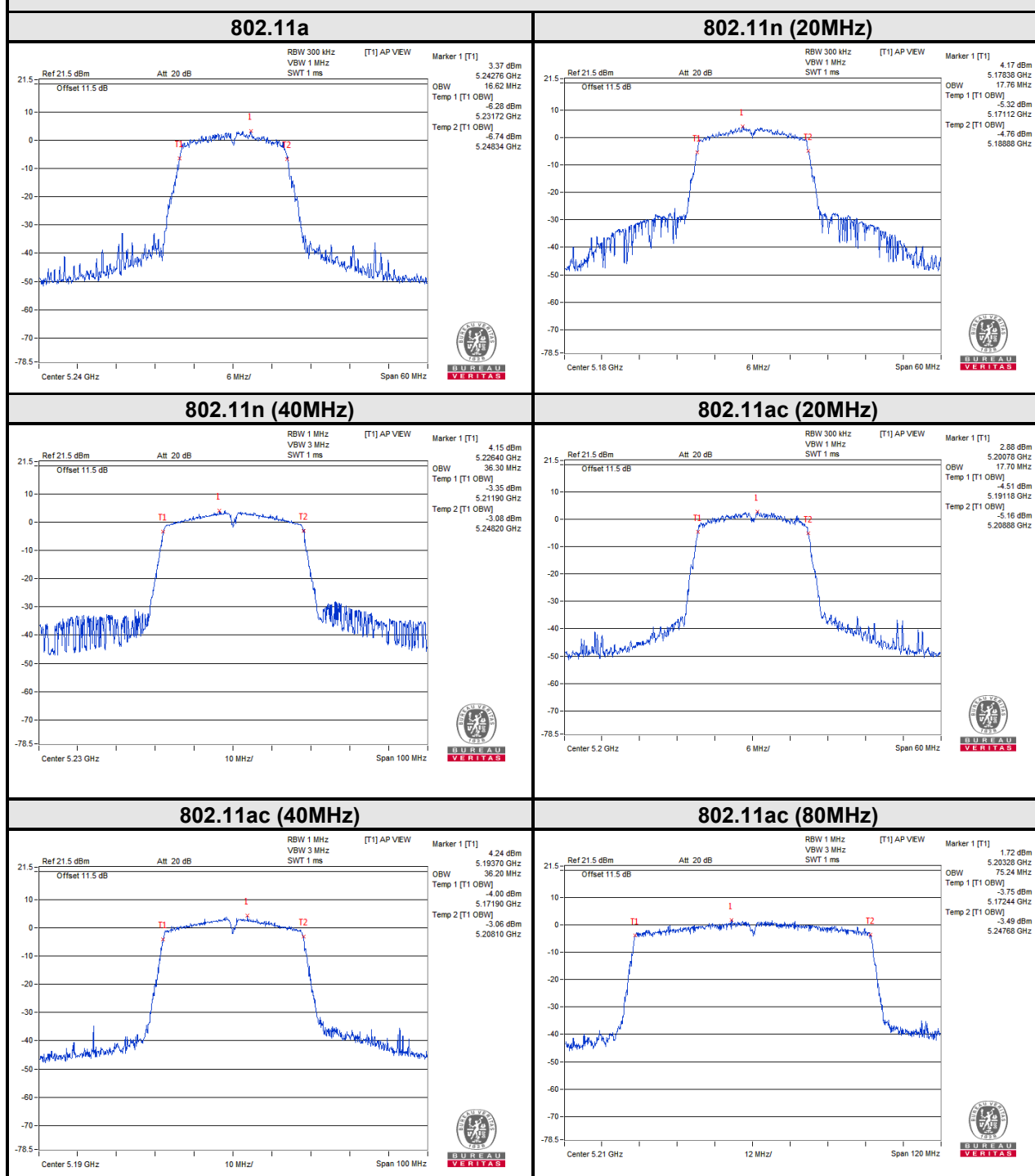


BUREAU  
VERITAS

Test Report No.: W7L-P24050005RF03

For U-NII-1:

## SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH



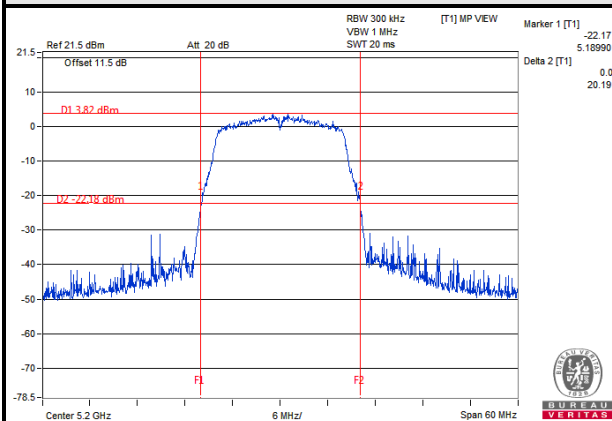


BUREAU  
VERITAS

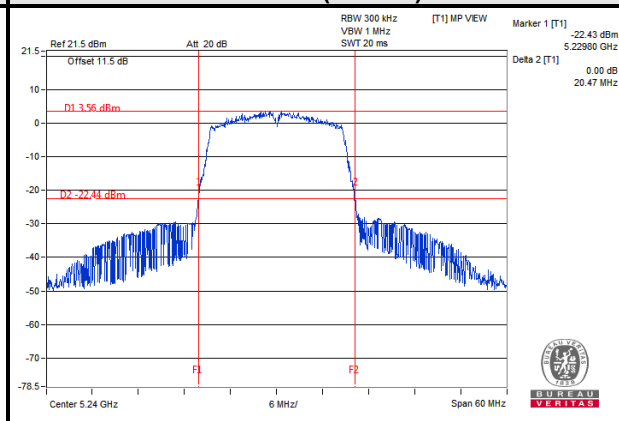
Test Report No.: W7L-P24050005RF03

## SPECTRUM PLOT OF WORST VALUE of 26dB Bandwidth

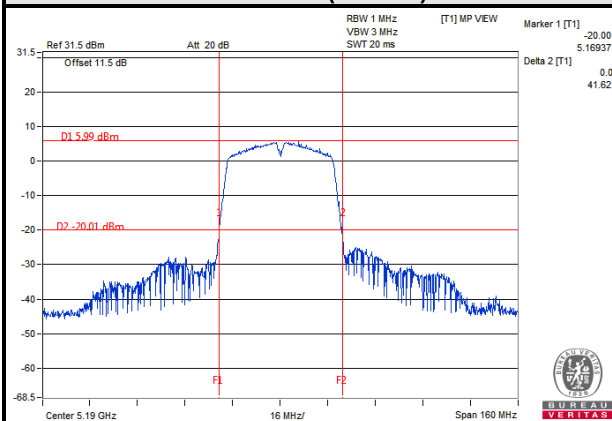
### 802.11a



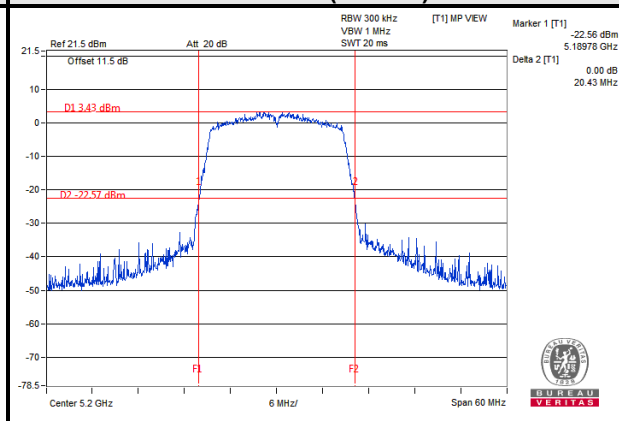
### 802.11n (20MHz)



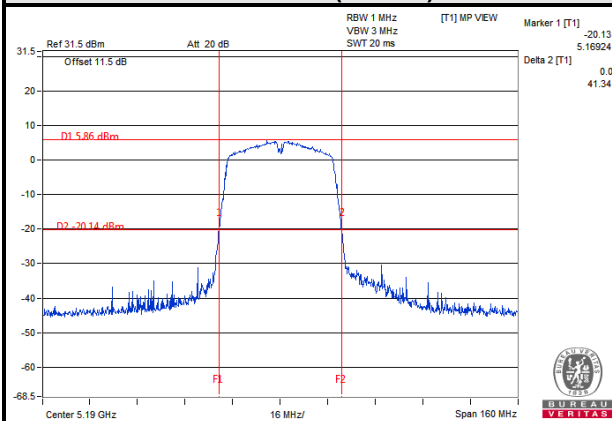
### 802.11n (40MHz)



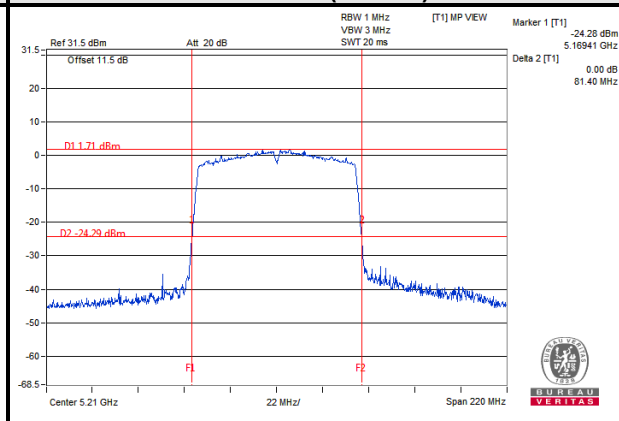
### 802.11ac (20MHz)



### 802.11ac (40MHz)



### 802.11ac (80MHz)





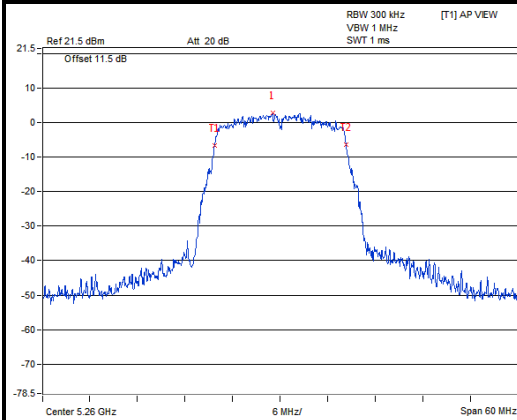
BUREAU  
VERITAS

Test Report No.: W7L-P24050005RF03

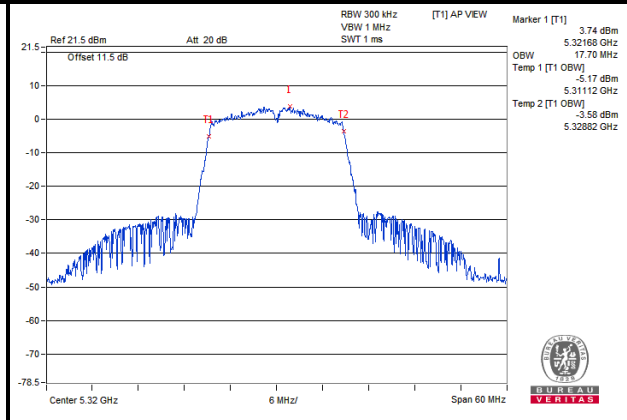
For U-NII-2A:

## SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH

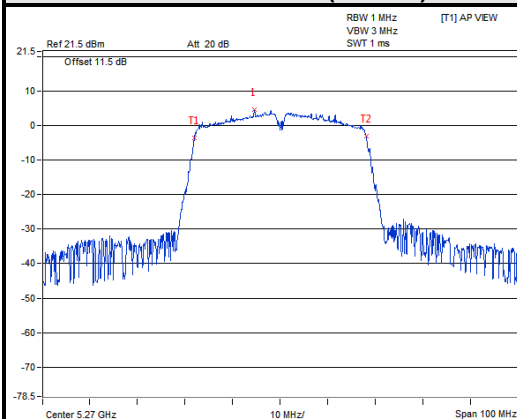
802.11a



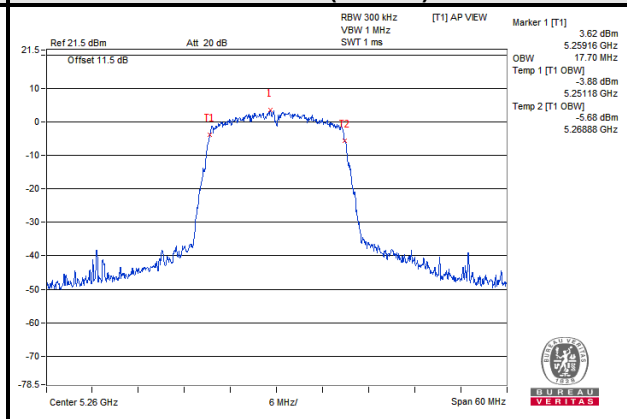
802.11n (20MHz)



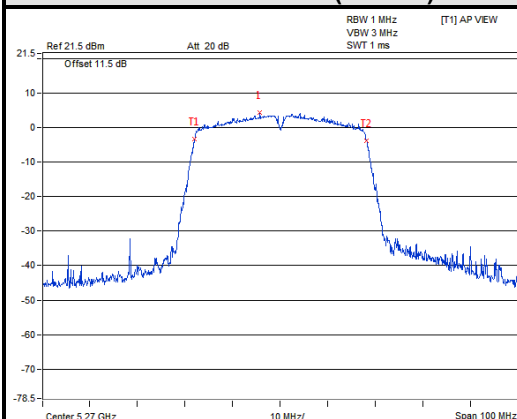
802.11n (40MHz)



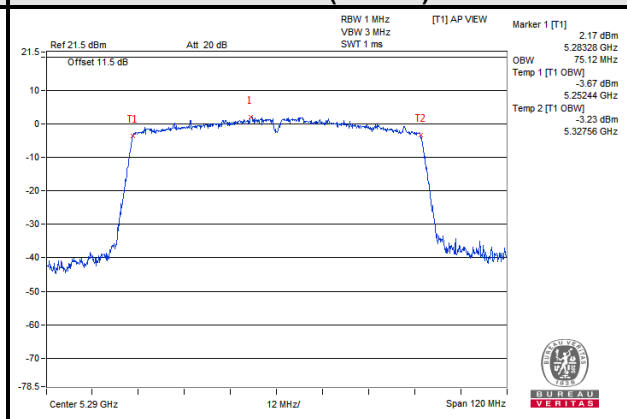
802.11ac (20MHz)



802.11ac (40MHz)



802.11ac (80MHz)



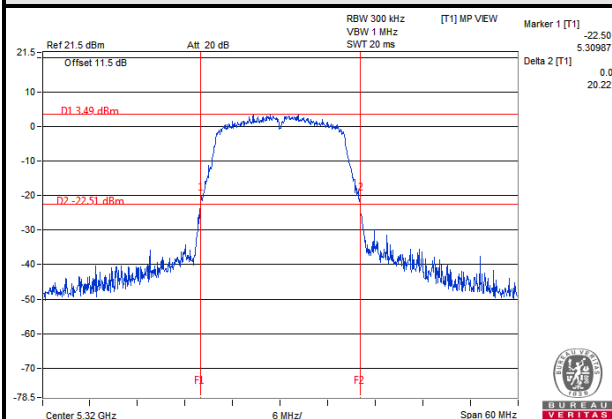


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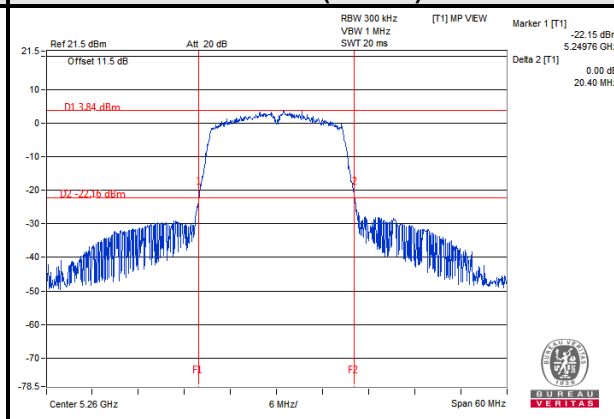
Test Report No.: W7L-P24050005RF03

## SPECTRUM PLOT OF WORST VALUE of 26dB Bandwidth

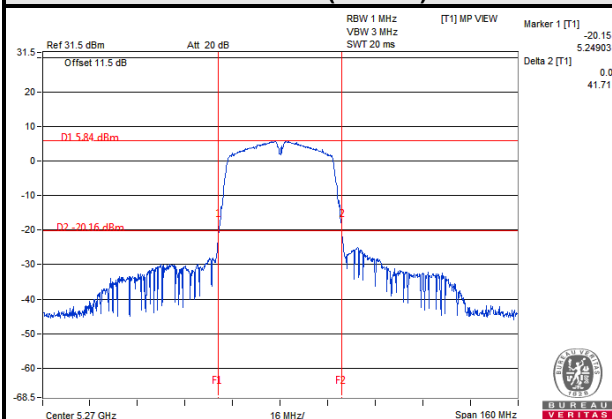
### 802.11a



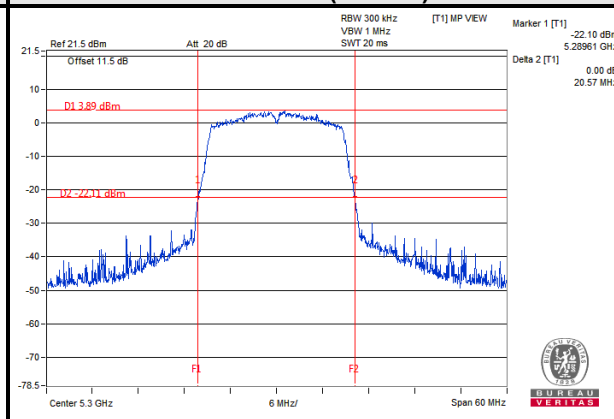
### 802.11n (20MHz)



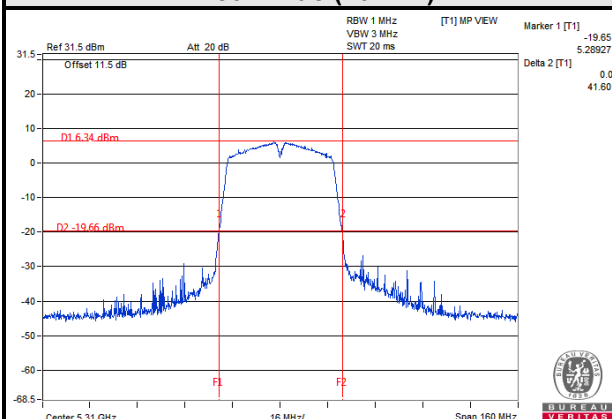
### 802.11n (40MHz)



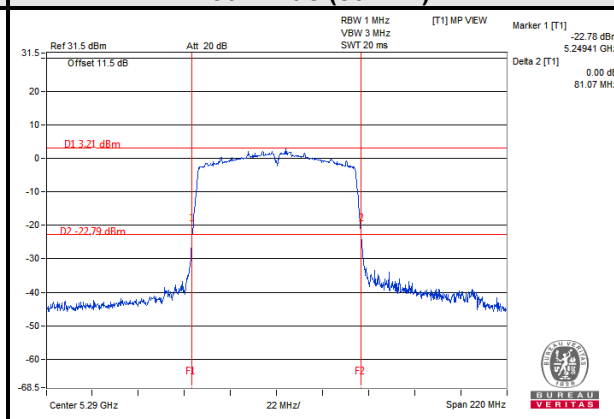
### 802.11ac (20MHz)



### 802.11ac (40MHz)



### 802.11ac (80MHz)

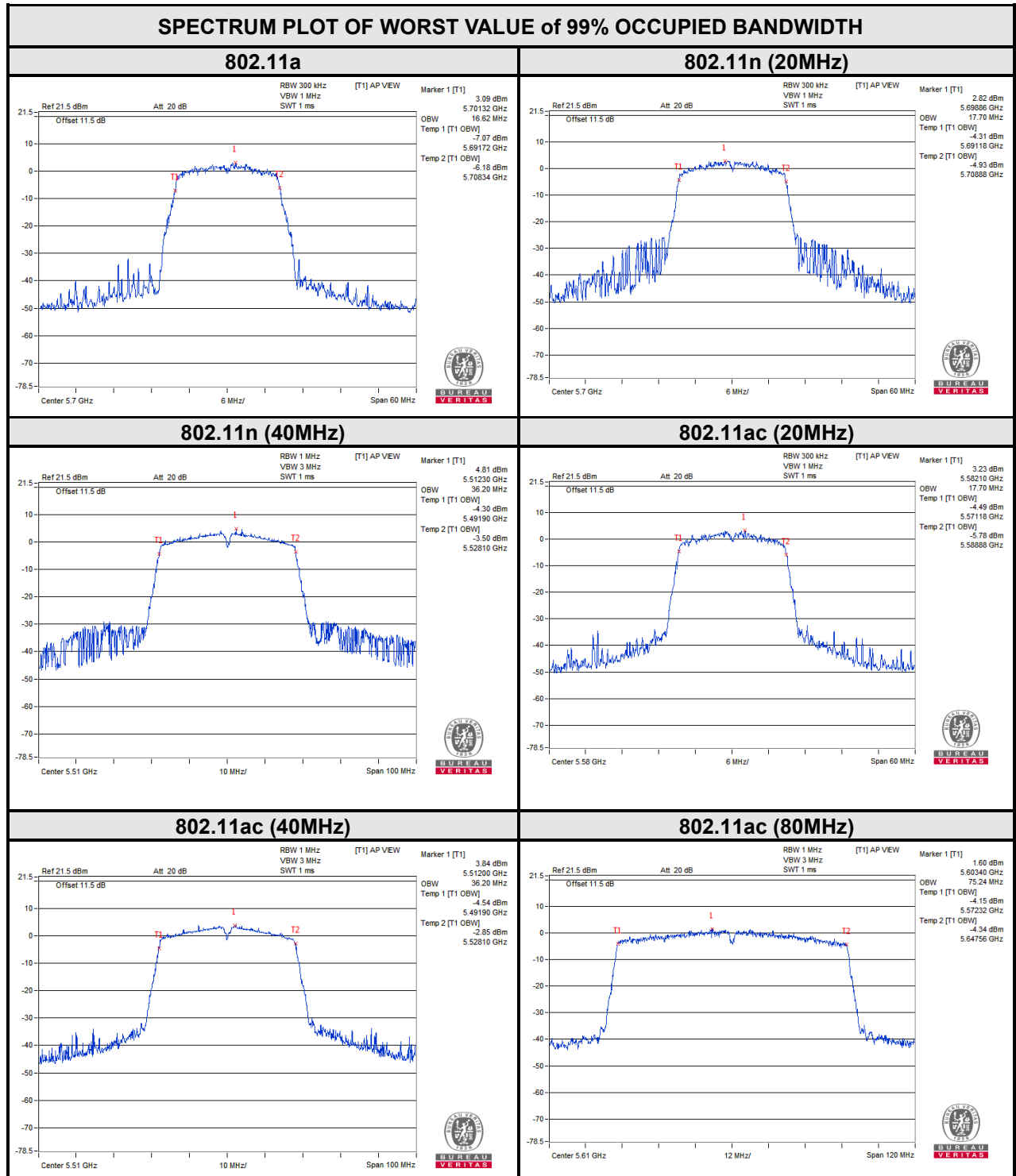




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Test Report No.: W7L-P24050005RF03

For U-NII-2C:



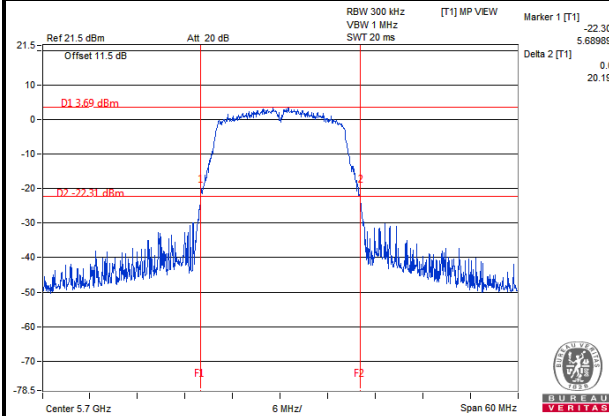


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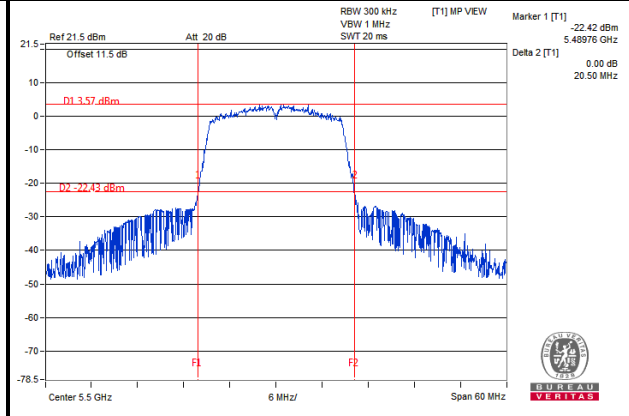
Test Report No.: W7L-P24050005RF03

## SPECTRUM PLOT OF WORST VALUE of 26dB Bandwidth

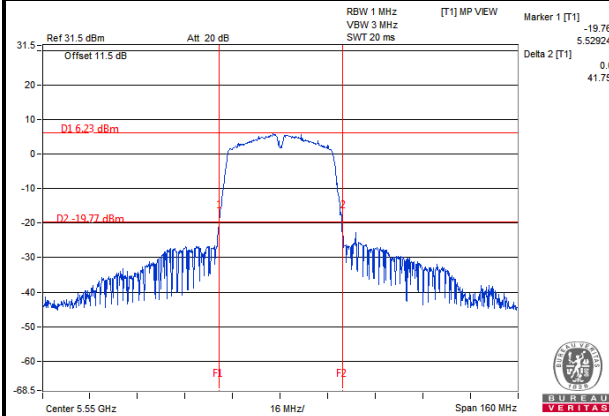
### 802.11a



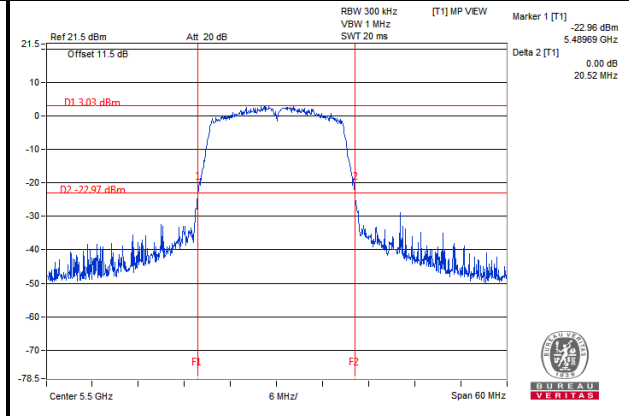
### 802.11n (20MHz)



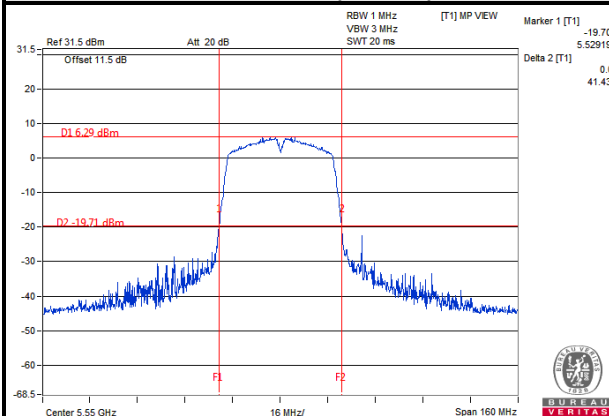
### 802.11n (40MHz)



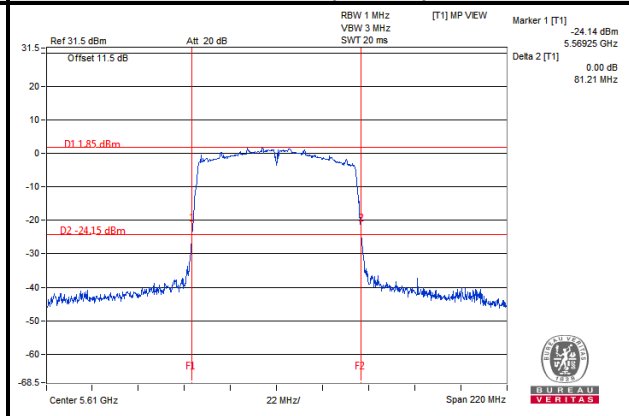
### 802.11ac (20MHz)



### 802.11ac (40MHz)



### 802.11ac (80MHz)



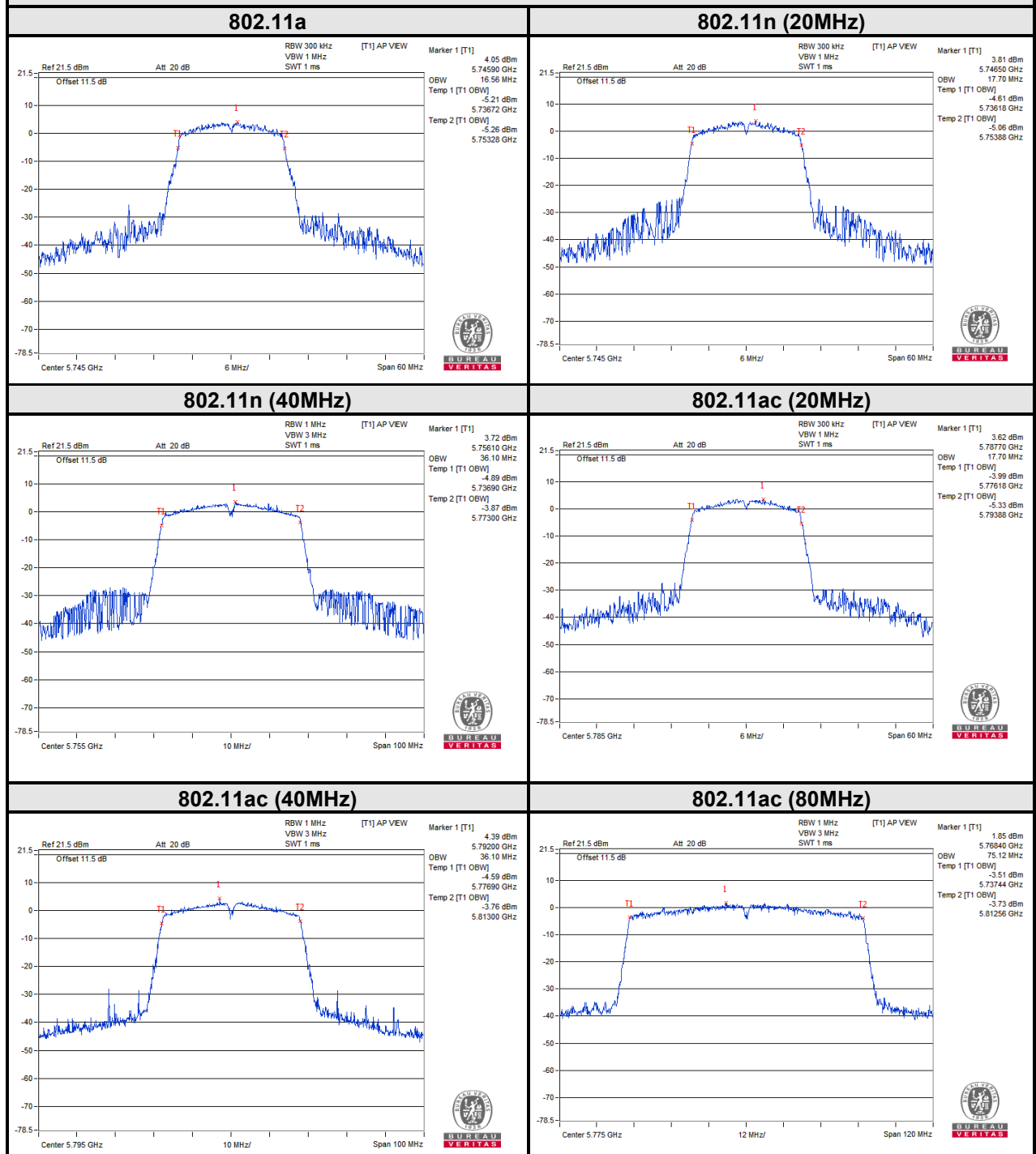


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Test Report No.: W7L-P24050005RF03

For U-NII-3:

### SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH





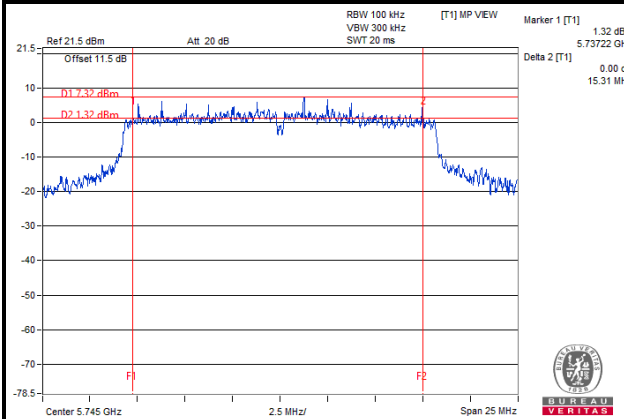


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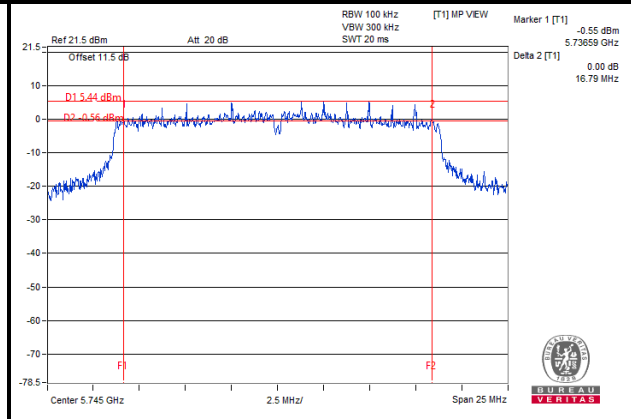
Test Report No.: W7L-P24050005RF03

## SPECTRUM PLOT OF WORST VALUE of 6dB Bandwidth

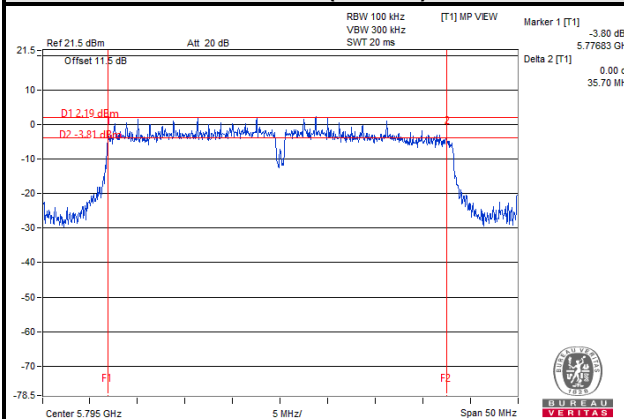
### 802.11a



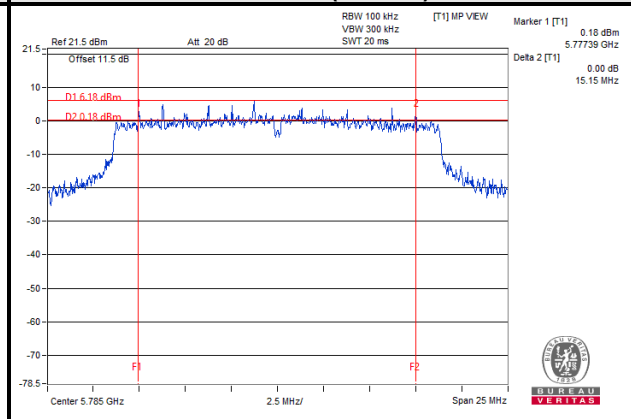
### 802.11n (20MHz)



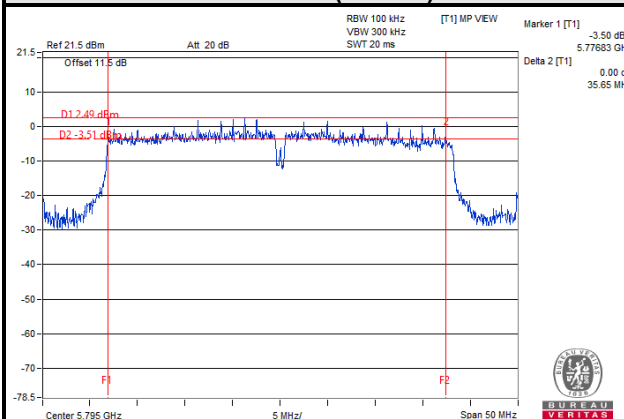
### 802.11n (40MHz)



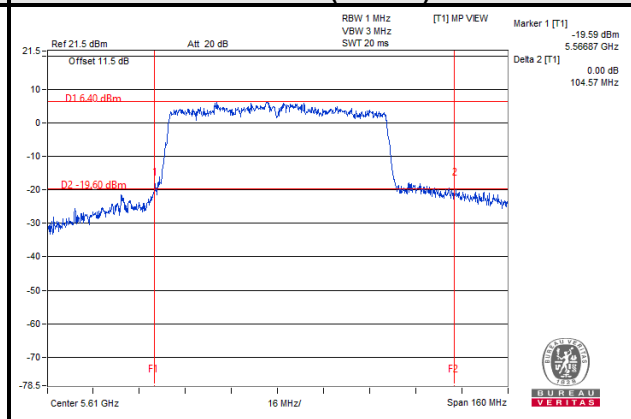
### 802.11ac (20MHz)



### 802.11ac (40MHz)



### 802.11ac (80MHz)

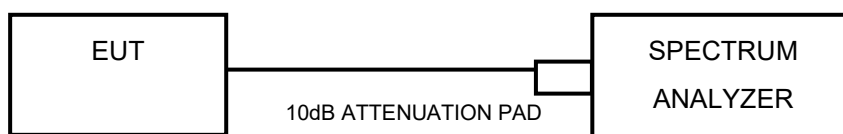


### 3.5 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

#### 3.5.1 LIMITS OF MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

| Operation Band | EUT Category |                                   | LIMIT         |
|----------------|--------------|-----------------------------------|---------------|
| U-NII-1        |              | Outdoor Access Point              | 17dBm/ MHz    |
|                |              | Fixed point-to-point Access Point |               |
|                |              | Indoor Access Point               |               |
|                | √            | Client devices                    | 11dBm/ MHz    |
| U-NII-2A       | √            |                                   | 11dBm/ MHz    |
| U-NII-2C       | √            |                                   | 11dBm/ MHz    |
| U-NII-3        | √            |                                   | 30dBm/ 500kHz |

#### 3.5.2 TEST SETUP



#### 3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

### 3.5.4 TEST PROCEDURES

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1 MHz, Set VBW  $\geq$  3 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to "free run".
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Add  $10 \log (1/x)$ , where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
- 7) Record the max value

### 3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

### 3.5.6 EUT OPERATING CONDITIONS

Same as 3.1.6.

### 3.5.7 TEST RESULTS

For U-NII-1 & U-NII-2A& U-NII-2C:

802.11a

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/MHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/MHz) | MAXIMUM<br>LIMIT<br>(dBm/MHz) | PASS/FAIL |
|---------|--------------------|-------------------------------------|-------------|--------------------------------------|-------------------------------|-----------|
| 36      | 5180               | 0.53                                | 0.09        | 0.62                                 | 11                            | PASS      |
| 40      | 5200               | -0.14                               | 0.09        | -0.05                                | 11                            | PASS      |
| 48      | 5240               | 0.00                                | 0.09        | 0.09                                 | 11                            | PASS      |
| 52      | 5260               | 0.11                                | 0.09        | 0.20                                 | 11                            | PASS      |
| 60      | 5300               | 0.16                                | 0.09        | 0.25                                 | 11                            | PASS      |
| 64      | 5320               | 0.04                                | 0.09        | 0.13                                 | 11                            | PASS      |
| 100     | 5500               | 0.22                                | 0.09        | 0.31                                 | 11                            | PASS      |
| 116     | 5580               | 0.40                                | 0.09        | 0.49                                 | 11                            | PASS      |
| 140     | 5700               | -0.27                               | 0.09        | -0.18                                | 11                            | PASS      |
| 144     | 5720               | -0.53                               | 0.09        | -0.44                                | 11                            | PASS      |

802.11n (20MHz)

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/MHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/MHz) | MAXIMUM<br>LIMIT<br>(dBm/MHz) | PASS/FAIL |
|---------|--------------------|-------------------------------------|-------------|--------------------------------------|-------------------------------|-----------|
| 36      | 5180               | -0.04                               | 0           | -0.04                                | 11                            | PASS      |
| 40      | 5200               | 0.85                                | 0           | 0.85                                 | 11                            | PASS      |
| 48      | 5240               | 0.04                                | 0           | 0.04                                 | 11                            | PASS      |
| 52      | 5260               | 0.16                                | 0           | 0.16                                 | 11                            | PASS      |
| 60      | 5300               | 0.01                                | 0           | 0.01                                 | 11                            | PASS      |
| 64      | 5320               | -0.16                               | 0           | -0.16                                | 11                            | PASS      |
| 100     | 5500               | -0.12                               | 0           | -0.12                                | 11                            | PASS      |
| 116     | 5580               | 0.32                                | 0           | 0.32                                 | 11                            | PASS      |
| 140     | 5700               | -0.55                               | 0           | -0.55                                | 11                            | PASS      |
| 144     | 5720               | -0.94                               | 0           | -0.94                                | 11                            | PASS      |

802.11n (40MHz)

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/MHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/MHz) | MAXIMUM<br>LIMIT<br>(dBm/MHz) | PASS/FAIL |
|---------|--------------------|-------------------------------------|-------------|--------------------------------------|-------------------------------|-----------|
| 38      | 5190               | -4.01                               | 0.20        | -3.81                                | 11                            | PASS      |
| 46      | 5230               | -3.55                               | 0.20        | -3.35                                | 11                            | PASS      |
| 54      | 5270               | -3.24                               | 0.20        | -3.04                                | 11                            | PASS      |
| 62      | 5310               | -3.37                               | 0.20        | -3.17                                | 11                            | PASS      |
| 102     | 5510               | -3.63                               | 0.20        | -3.43                                | 11                            | PASS      |
| 110     | 5550               | -3.75                               | 0.20        | -3.55                                | 11                            | PASS      |
| 134     | 5670               | -4.58                               | 0.20        | -4.38                                | 11                            | PASS      |
| 142     | 5710               | -5.00                               | 0.20        | -4.80                                | 11                            | PASS      |

802.11 ac (20MHz)

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/MHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/MHz) | MAXIMUM<br>LIMIT<br>(dBm/MHz) | PASS/FAIL |
|---------|--------------------|-------------------------------------|-------------|--------------------------------------|-------------------------------|-----------|
| 36      | 5180               | -0.72                               | 0.11        | -0.61                                | 11                            | PASS      |
| 40      | 5200               | -0.60                               | 0.11        | -0.49                                | 11                            | PASS      |
| 48      | 5240               | -0.22                               | 0.11        | -0.11                                | 11                            | PASS      |
| 52      | 5260               | -0.21                               | 0.11        | -0.10                                | 11                            | PASS      |
| 60      | 5300               | -0.23                               | 0.11        | -0.12                                | 11                            | PASS      |
| 64      | 5320               | -0.28                               | 0.11        | -0.17                                | 11                            | PASS      |
| 100     | 5500               | -0.43                               | 0.11        | -0.32                                | 11                            | PASS      |
| 116     | 5580               | -0.30                               | 0.11        | -0.19                                | 11                            | PASS      |
| 140     | 5700               | -1.51                               | 0.11        | -1.40                                | 11                            | PASS      |
| 144     | 5720               | -0.88                               | 0.11        | -0.77                                | 11                            | PASS      |



**802.11ac (40MHz)**

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/MHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/MHz) | MAXIMUM<br>LIMIT<br>(dBm/MHz) | PASS/FAIL |
|---------|--------------------|-------------------------------------|-------------|--------------------------------------|-------------------------------|-----------|
| 38      | 5190               | -4.09                               | 0.22        | -3.87                                | 11                            | PASS      |
| 46      | 5230               | -3.60                               | 0.22        | -3.38                                | 11                            | PASS      |
| 54      | 5270               | -3.42                               | 0.22        | -3.20                                | 11                            | PASS      |
| 62      | 5310               | -3.49                               | 0.22        | -3.27                                | 11                            | PASS      |
| 102     | 5510               | -3.98                               | 0.22        | -3.76                                | 11                            | PASS      |
| 110     | 5550               | -3.77                               | 0.22        | -3.55                                | 11                            | PASS      |
| 134     | 5670               | -4.25                               | 0.22        | -4.03                                | 11                            | PASS      |
| 142     | 5710               | -4.50                               | 0.22        | -4.28                                | 11                            | PASS      |

**802.11ac (80MHz)**

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/MHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/MHz) | MAXIMUM<br>LIMIT<br>(dBm/MHz) | PASS/FAIL |
|---------|--------------------|-------------------------------------|-------------|--------------------------------------|-------------------------------|-----------|
| 42      | 5210               | -8.23                               | 0.42        | -7.81                                | 11                            | PASS      |
| 58      | 5290               | -7.66                               | 0.42        | -7.24                                | 11                            | PASS      |
| 106     | 5530               | -8.00                               | 0.42        | -7.58                                | 11                            | PASS      |
| 122     | 5610               | -8.51                               | 0.42        | -8.09                                | 11                            | PASS      |
| 138     | 5690               | -8.89                               | 0.42        | -8.47                                | 11                            | PASS      |

For U-NII-3:

Note: dBm/500kHz= dBm/300kHz+10\*log(0.5/0.3)= dBm/300kHz+2.22

802.11a

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/300kHz) | PSD w/o<br>Duty Factor<br>(dBm/500kHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/500kHz) | LIMIT<br>(dBm/500kHz) | PASS<br>/FAIL |
|---------|--------------------|----------------------------------------|----------------------------------------|-------------|-----------------------------------------|-----------------------|---------------|
| 144     | 5720               | -5.51                                  | -3.29                                  | 0.09        | -3.20                                   | 30                    | PASS          |
| 149     | 5745               | -4.30                                  | -2.08                                  | 0.09        | -1.99                                   | 30                    | PASS          |
| 157     | 5785               | -5.09                                  | -2.87                                  | 0.09        | -2.78                                   | 30                    | PASS          |
| 165     | 5825               | -5.11                                  | -2.89                                  | 0.09        | -2.80                                   | 30                    | PASS          |

802.11n (20MHz)

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/300kHz) | PSD w/o<br>Duty Factor<br>(dBm/500kHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/500kHz) | LIMIT<br>(dBm/500kHz) | PASS<br>/FAIL |
|---------|--------------------|----------------------------------------|----------------------------------------|-------------|-----------------------------------------|-----------------------|---------------|
| 144     | 5720               | -5.92                                  | -3.70                                  | 0           | -3.70                                   | 30                    | PASS          |
| 149     | 5745               | -5.25                                  | -3.03                                  | 0           | -3.03                                   | 30                    | PASS          |
| 157     | 5785               | -5.19                                  | -2.97                                  | 0           | -2.97                                   | 30                    | PASS          |
| 165     | 5825               | -5.40                                  | -3.18                                  | 0           | -3.18                                   | 30                    | PASS          |

802.11n (40MHz)

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/300kHz) | PSD w/o<br>Duty Factor<br>(dBm/500kHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/500kHz) | LIMIT<br>(dBm/500kHz) | PASS<br>/FAIL |
|---------|--------------------|----------------------------------------|----------------------------------------|-------------|-----------------------------------------|-----------------------|---------------|
| 142     | 5710               | -10.18                                 | -7.96                                  | 0.20        | -7.76                                   | 30                    | PASS          |
| 151     | 5755               | -9.41                                  | -7.19                                  | 0.20        | -6.99                                   | 30                    | PASS          |
| 159     | 5795               | -9.64                                  | -7.42                                  | 0.20        | -7.22                                   | 30                    | PASS          |



### 802.11ac (20MHz)

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/300kHz) | PSD w/o<br>Duty Factor<br>(dBm/500kHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/500kHz) | LIMIT<br>(dBm/500kHz) | PASS<br>/FAIL |
|---------|--------------------|----------------------------------------|----------------------------------------|-------------|-----------------------------------------|-----------------------|---------------|
| 144     | 5720               | -6.39                                  | -4.17                                  | 0.11        | -4.06                                   | 30                    | PASS          |
| 149     | 5745               | -6.55                                  | -4.33                                  | 0.11        | -4.22                                   | 30                    | PASS          |
| 157     | 5785               | -5.30                                  | -3.08                                  | 0.11        | -2.97                                   | 30                    | PASS          |
| 165     | 5825               | -5.64                                  | -3.42                                  | 0.11        | -3.31                                   | 30                    | PASS          |

### 802.11ac (40MHz)

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/300kHz) | PSD w/o<br>Duty Factor<br>(dBm/500kHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/500kHz) | LIMIT<br>(dBm/500kHz) | PASS<br>/FAIL |
|---------|--------------------|----------------------------------------|----------------------------------------|-------------|-----------------------------------------|-----------------------|---------------|
| 142     | 5710               | -10.28                                 | -8.06                                  | 0.22        | -7.84                                   | 30                    | PASS          |
| 151     | 5755               | -9.30                                  | -7.08                                  | 0.22        | -6.86                                   | 30                    | PASS          |
| 159     | 5795               | -9.52                                  | -7.30                                  | 0.22        | -7.08                                   | 30                    | PASS          |

### 802.11ac (80MHz)

| CHANNEL | FREQUENCY<br>(MHz) | PSD w/o<br>Duty Factor<br>(dBm/300kHz) | PSD w/o<br>Duty Factor<br>(dBm/500kHz) | Duty Factor | PSD with<br>Duty Factor<br>(dBm/500kHz) | LIMIT<br>(dBm/500kHz) | PASS<br>/FAIL |
|---------|--------------------|----------------------------------------|----------------------------------------|-------------|-----------------------------------------|-----------------------|---------------|
| 138     | 5690               | -13.61                                 | -11.39                                 | 0.42        | -10.97                                  | 30                    | PASS          |
| 155     | 5775               | -12.65                                 | -10.43                                 | 0.42        | -10.01                                  | 30                    | PASS          |



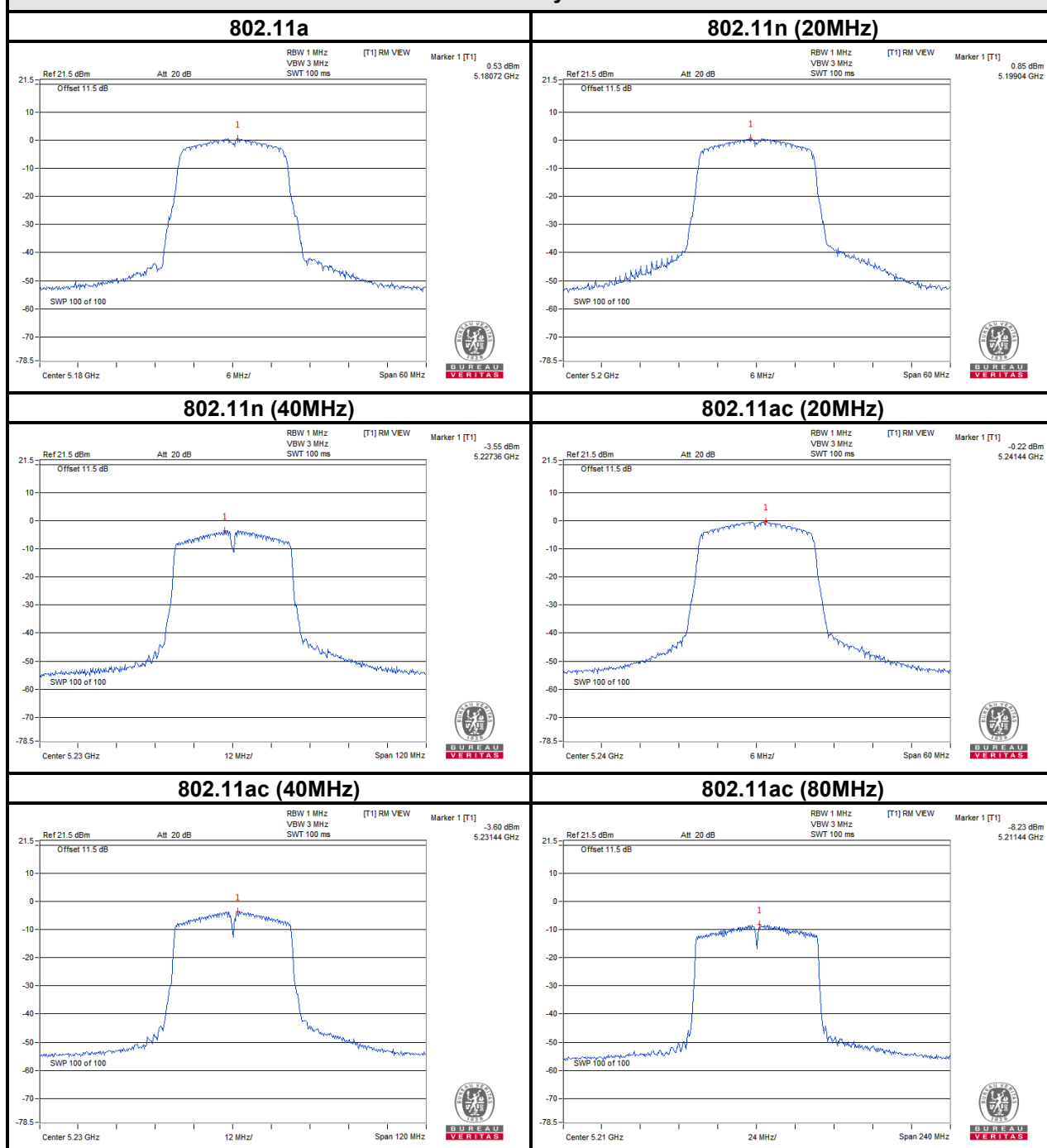


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Test Report No.: W7L-P24050005RF03

For 5180~5240MHz

### PSD w/o Duty Factor



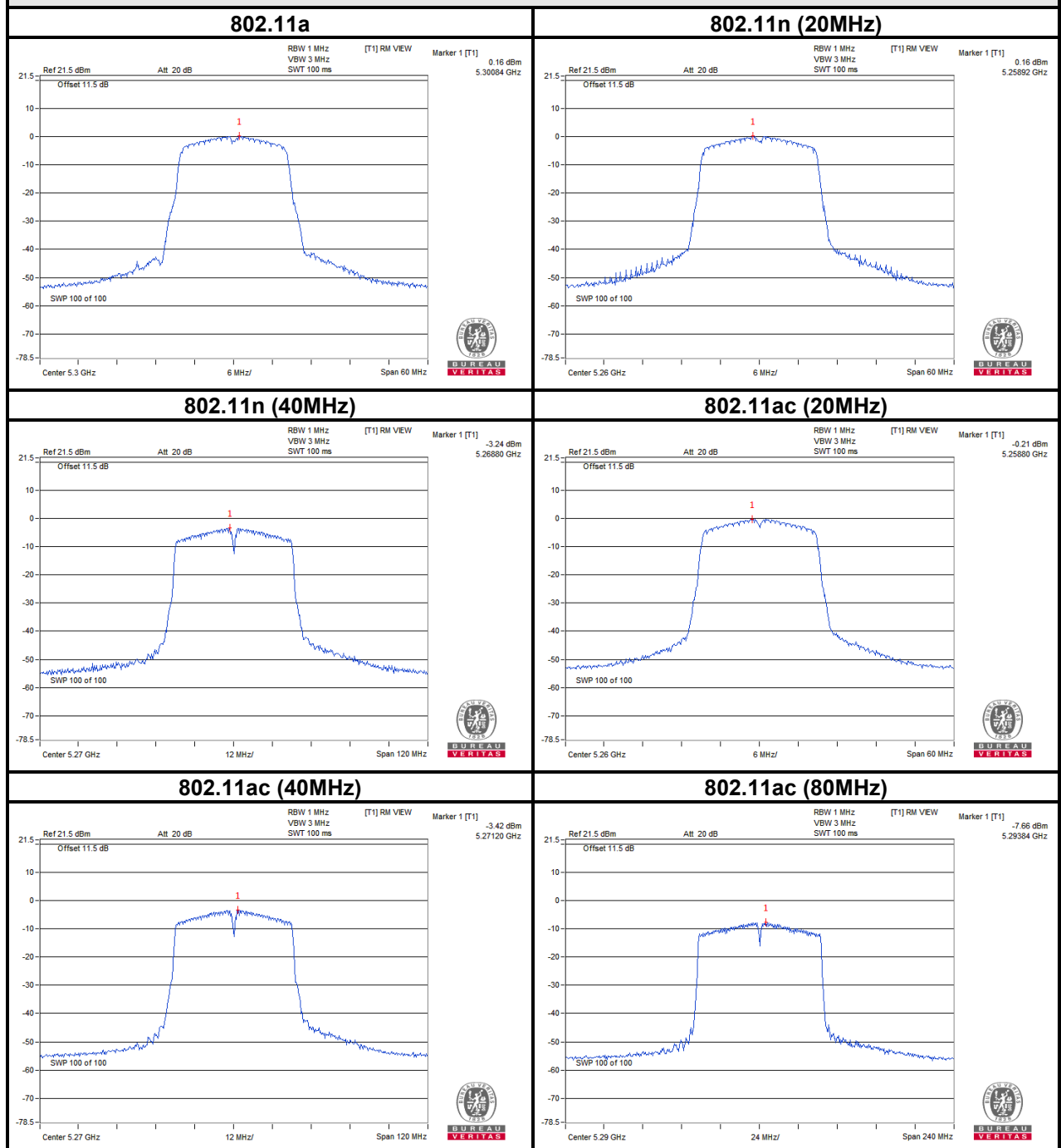


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Test Report No.: W7L-P24050005RF03

For 5260~5320MHz

### PSD w/o Duty Factor



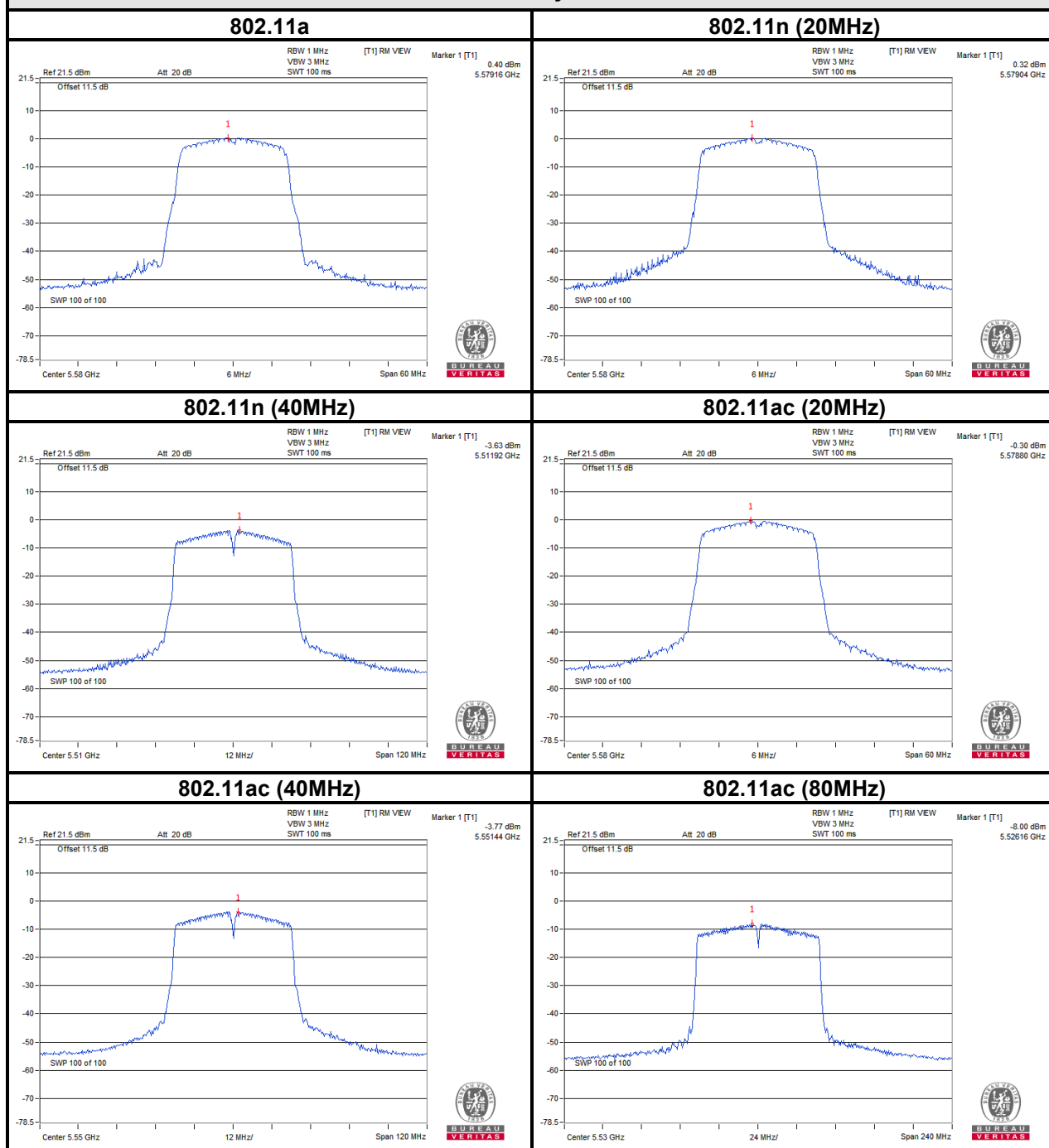


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Test Report No.: W7L-P24050005RF03

For 5500~5700MHz

### PSD w/o Duty Factor

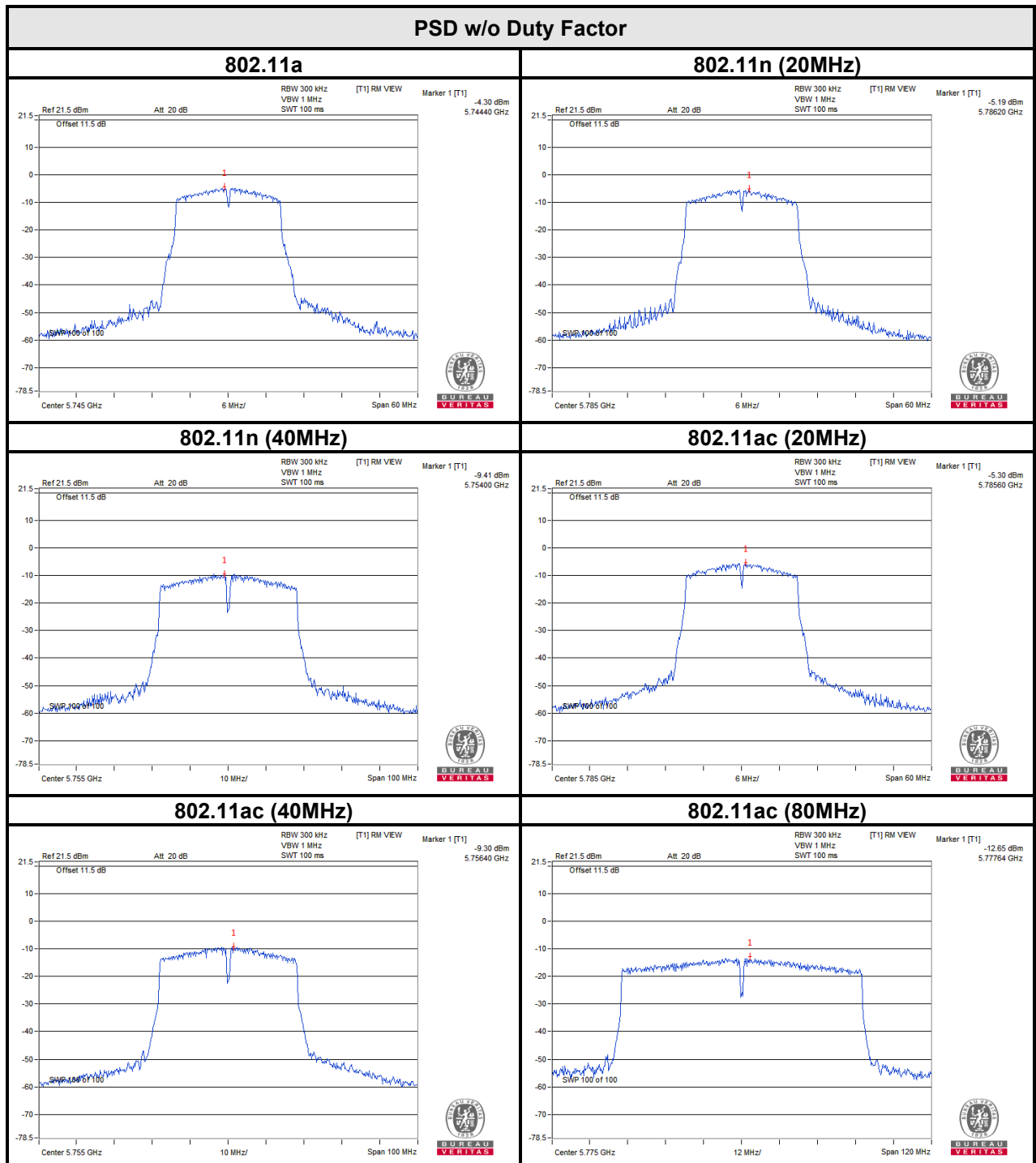




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Test Report No.: W7L-P24050005RF03

For 5745~5825MHz





Test Report No.: W7L-P24050005RF03

## 4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

## **5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB**

No modifications were made to the EUT by the lab during the test.

**---END---**