

## 3.2 CONDUCTED EMISSION MEASUREMENT

### 3.2.1 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.

### 3.2.2 TEST INSTRUMENTS

| Equipment           | Manufacturer  | Model No. | Serial No. | Last Cal.  | Next Cal.  |
|---------------------|---------------|-----------|------------|------------|------------|
| EMI Test Receiver   | Rohde&Schwarz | ESR3      | 101900     | Feb. 15,22 | Feb. 14,23 |
| EMC32 test software | Rohde&Schwarz | EMC32     | NA         | NA         | NA         |
| LISN network        | Rohde&Schwarz | ENV216    | 101922     | Mar. 04,22 | Mar. 03,23 |

**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.

### 3.2.3 TEST PROCEDURES

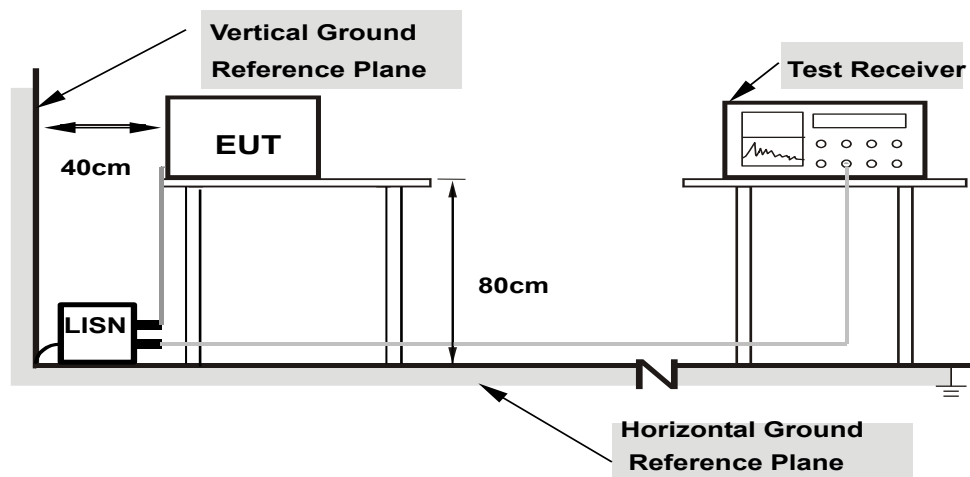
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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.

### 3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

### 3.2.5 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).

### 3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

### 3.2.7 TEST RESULTS

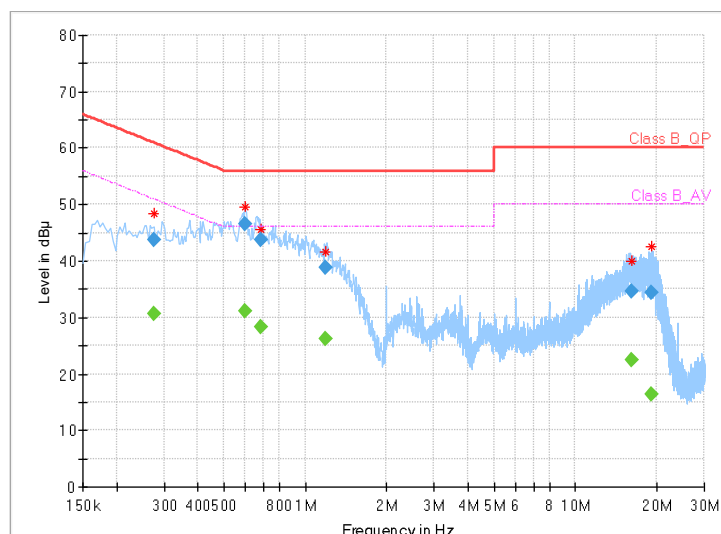
#### CONDUCTED WORST-CASE DATA:

|                 |                |                                          |                                       |
|-----------------|----------------|------------------------------------------|---------------------------------------|
| Frequency Range | 150KHz ~ 30MHz | Detector Function & Resolution Bandwidth | Quasi-Peak (QP) / Average (AV), 9 kHz |
| Input Power     | 120Vac, 60Hz   | Environmental Conditions                 | 26deg. C, 51%RH                       |
| Tested By       | Carl Xie       |                                          |                                       |

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.276000        | ---              | 30.66           | 50.94        | 20.28       | L1   | ON     | 9.7        |
| 0.276000        | 43.75            | ---             | 60.94        | 17.19       | L1   | ON     | 9.7        |
| 0.600000        | ---              | 31.15           | 46.00        | 14.85       | L1   | ON     | 9.7        |
| 0.600000        | 46.51            | ---             | 56.00        | 9.49        | L1   | ON     | 9.7        |
| 0.688000        | ---              | 28.34           | 46.00        | 17.66       | L1   | ON     | 9.7        |
| 0.688000        | 43.64            | ---             | 56.00        | 12.36       | L1   | ON     | 9.7        |
| 1.192000        | ---              | 26.23           | 46.00        | 19.77       | L1   | ON     | 9.7        |
| 1.192000        | 38.78            | ---             | 56.00        | 17.22       | L1   | ON     | 9.7        |
| 16.140000       | ---              | 22.52           | 50.00        | 27.48       | L1   | ON     | 9.8        |
| 16.140000       | 34.69            | ---             | 60.00        | 25.31       | L1   | ON     | 9.8        |
| 19.128000       | ---              | 16.34           | 50.00        | 33.66       | L1   | ON     | 9.8        |
| 19.128000       | 34.44            | ---             | 60.00        | 25.56       | 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

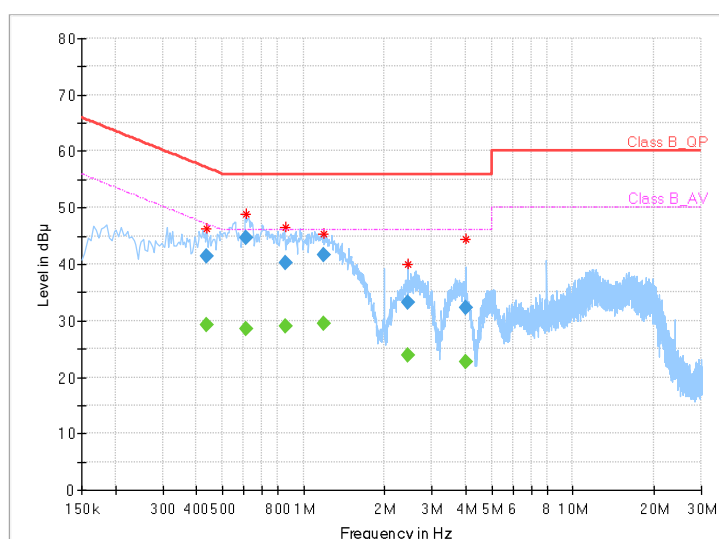


|                 |                |                                          |                                       |
|-----------------|----------------|------------------------------------------|---------------------------------------|
| Frequency Range | 150KHz ~ 30MHz | Detector Function & Resolution Bandwidth | Quasi-Peak (QP) / Average (AV), 9 kHz |
| Input Power     | 120Vac, 60Hz   | Environmental Conditions                 | 26deg. C, 51%RH                       |
| Tested By       | Carl Xie       |                                          |                                       |

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.436000        | ---              | 29.17           | 47.14        | 17.97       | N    | ON     | 9.7        |
| 0.436000        | 41.45            | ---             | 57.14        | 15.69       | N    | ON     | 9.7        |
| 0.612000        | ---              | 28.64           | 46.00        | 17.36       | N    | ON     | 9.7        |
| 0.612000        | 44.57            | ---             | 56.00        | 11.43       | N    | ON     | 9.7        |
| 0.856000        | ---              | 28.98           | 46.00        | 17.02       | N    | ON     | 9.7        |
| 0.856000        | 40.33            | ---             | 56.00        | 15.67       | N    | ON     | 9.7        |
| 1.184000        | ---              | 29.54           | 46.00        | 16.46       | N    | ON     | 9.8        |
| 1.184000        | 41.63            | ---             | 56.00        | 14.37       | N    | ON     | 9.8        |
| 2.440000        | ---              | 23.90           | 46.00        | 22.10       | N    | ON     | 9.8        |
| 2.440000        | 33.17            | ---             | 56.00        | 22.83       | N    | ON     | 9.8        |
| 3.996000        | ---              | 22.58           | 46.00        | 23.42       | N    | ON     | 9.8        |
| 3.996000        | 32.19            | ---             | 56.00        | 23.81       | 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



### 3.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

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

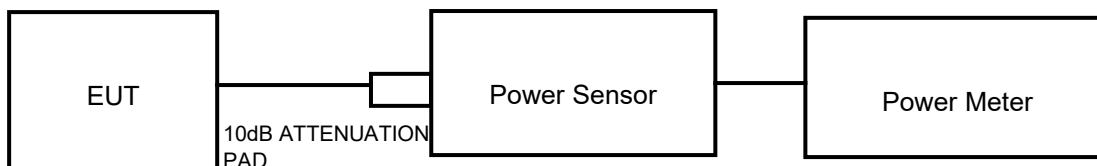
| Operation Band | EUT Category |                                   | LIMIT                                                                                                                       |
|----------------|--------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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)                                                                                                             |
|                |              | 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.

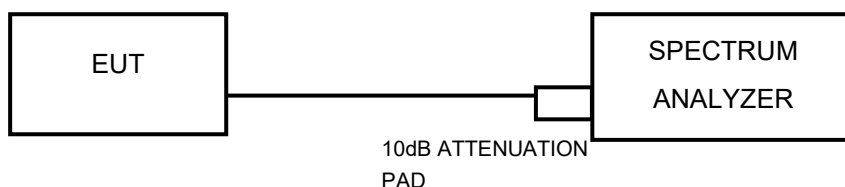
### 3.3.2 TEST SETUP

#### FOR POWER OUTPUT MEASUREMENT

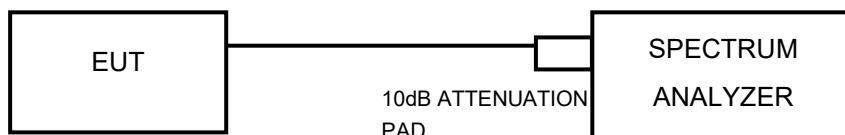
##### 802.11a, 802.11n/ac (20MHz), 802.11 n/ac (40MHz) TEST CONFIGURATION



##### 11ac TEST CONFIGURATION



#### FOR 26dB BANDWIDTH



### 3.3.3 TEST INSTRUMENTS

| Equipment           | Manufacturer | Model No.  | Serial No. | Last Cal.  | Next Cal.  |
|---------------------|--------------|------------|------------|------------|------------|
| Power Meter         | ANRITSU      | ML2495A    | 1506002    | Feb. 22,22 | Feb. 21,23 |
| EXA Signal Analyzer | KEYSIGHT     | N9010A-526 | MY54510322 | Feb. 18,22 | Feb. 17,23 |
| EXA Signal Analyzer | KEYSIGHT     | N9010A-544 | MY54510355 | May.15,22  | May.14,23  |
| Power Sensor        | ANRITSU      | MA2411B    | 1339352    | May. 06,22 | May. 05,23 |

#### 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.

### 3.3.4 TEST PROCEDURE

#### FOR POWER MEASUREMENT

##### For 802.11a, 802.11 n/ac (20MHz), 802.11 n/ac (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.

### 3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

### 3.3.6 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-P24010017RF03**

### 3.3.7 TEST RESULTS

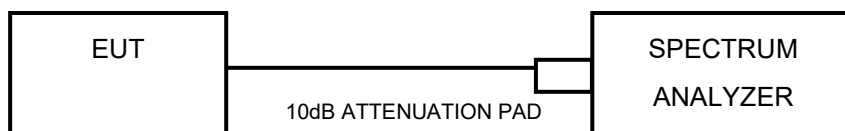
Please Refer to Appendix. Of this test report.

### 3.4 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

#### 3.4.1 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 |

#### 3.4.2 TEST SETUP



#### 3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

#### 3.4.4 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

#### 3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 3.4.6 EUT OPERATING CONDITIONS

Same as 3.1.7.



**Test Report No.: W7L-P24010017RF03**

### 3.4.7 TEST RESULTS

Please Refer to Appendix. Of this test report.

### 3.5 AUTOMATICALLY DISCONTINUE TRANSMISSION

#### 3.5.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

#### 3.5.2 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

#### 3.5.3 TEST RESULT

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission

## 4 PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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

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



## 6 APPENDIX

### EMISSION BANDWIDTH

#### TEST RESULT

| TestMode  | Antenna | Frequency<br>[MHz] | 26db EBW<br>[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|--------------------|-------------------|----------|----------|------------|---------|
| 11A       | Ant1    | 5180               | 26.160            | 5166.480 | 5192.640 | ---        | ---     |
|           |         | 5200               | 25.640            | 5186.160 | 5211.800 | ---        | ---     |
|           |         | 5240               | 23.400            | 5228.440 | 5251.840 | ---        | ---     |
|           |         | 5260               | 30.400            | 5244.600 | 5275.000 | ---        | ---     |
|           |         | 5300               | 27.040            | 5285.480 | 5312.520 | ---        | ---     |
|           |         | 5320               | 24.400            | 5307.800 | 5332.200 | ---        | ---     |
|           |         | 5500               | 26.000            | 5485.680 | 5511.680 | ---        | ---     |
|           |         | 5580               | 27.560            | 5565.600 | 5593.160 | ---        | ---     |
|           |         | 5700               | 23.280            | 5686.680 | 5709.960 | ---        | ---     |
|           |         | 5720               | 26.680            | 5705.960 | 5732.640 | ---        | ---     |
|           |         | 5720_UNII-2C       | 19.04             | 5705.960 | 5725     | ---        | ---     |
|           |         | 5720_UNII-3        | 7.64              | 5725     | 5732.640 | ---        | ---     |
|           |         | 5745               | 24.280            | 5731.880 | 5756.160 | ---        | ---     |
|           |         | 5785               | 23.200            | 5772.480 | 5795.680 | ---        | ---     |
|           |         | 5825               | 22.640            | 5813.040 | 5835.680 | ---        | ---     |
| 11N20SISO | Ant1    | 5180               | 27.920            | 5165.640 | 5193.560 | ---        | ---     |
|           |         | 5200               | 29.040            | 5185.240 | 5214.280 | ---        | ---     |
|           |         | 5240               | 29.720            | 5224.560 | 5254.280 | ---        | ---     |
|           |         | 5260               | 31.640            | 5243.920 | 5275.560 | ---        | ---     |
|           |         | 5300               | 30.520            | 5284.200 | 5314.720 | ---        | ---     |
|           |         | 5320               | 27.400            | 5305.840 | 5333.240 | ---        | ---     |
|           |         | 5500               | 30.200            | 5483.960 | 5514.160 | ---        | ---     |
|           |         | 5580               | 28.160            | 5565.120 | 5593.280 | ---        | ---     |
|           |         | 5700               | 30.000            | 5685.120 | 5715.120 | ---        | ---     |
|           |         | 5720               | 26.360            | 5706.760 | 5733.120 | ---        | ---     |
|           |         | 5720_UNII-2C       | 18.24             | 5706.760 | 5725     | ---        | ---     |
|           |         | 5720_UNII-3        | 8.12              | 5725     | 5733.120 | ---        | ---     |
|           |         | 5745               | 27.480            | 5730.840 | 5758.320 | ---        | ---     |
|           |         | 5785               | 27.800            | 5769.920 | 5797.720 | ---        | ---     |
|           |         | 5825               | 28.360            | 5810.960 | 5839.320 | ---        | ---     |

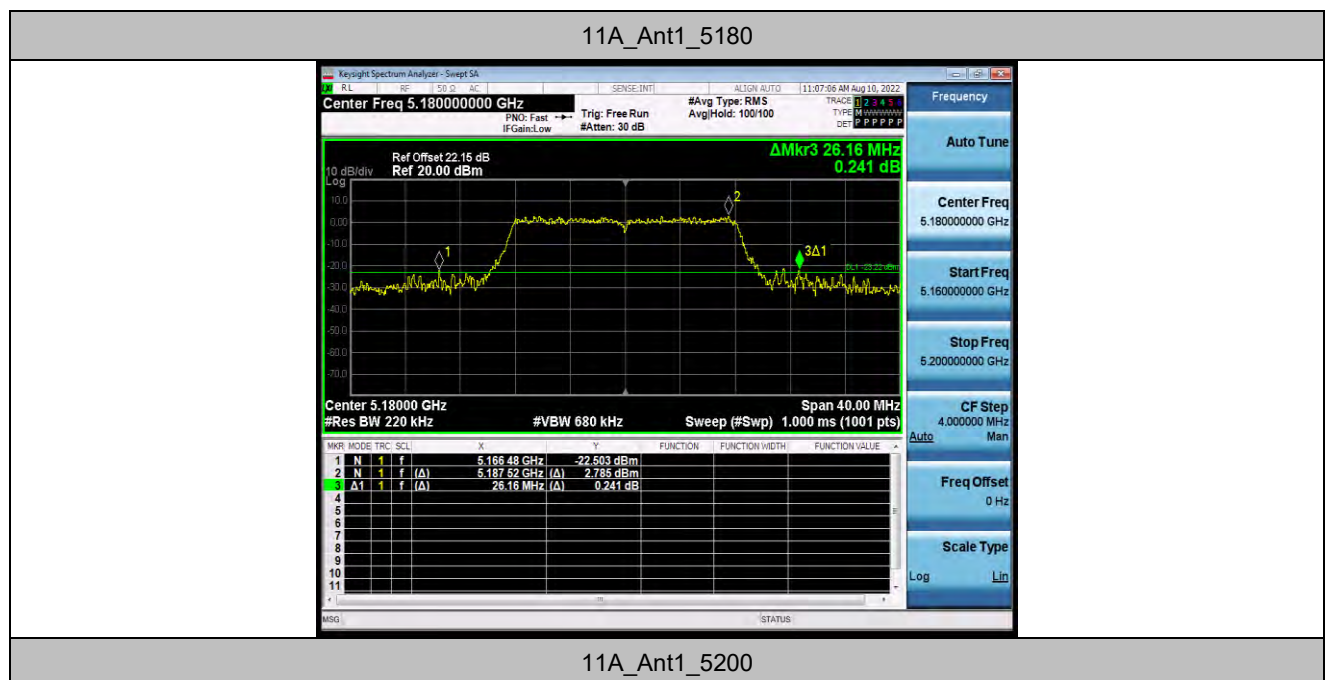


|            |      |              |        |          |          |     |     |
|------------|------|--------------|--------|----------|----------|-----|-----|
| 11N40SISO  | Ant1 | 5190         | 67.280 | 5155.600 | 5222.880 | --- | --- |
|            |      | 5230         | 67.200 | 5198.640 | 5265.840 | --- | --- |
|            |      | 5270         | 59.600 | 5241.120 | 5300.720 | --- | --- |
|            |      | 5310         | 61.280 | 5280.400 | 5341.680 | --- | --- |
|            |      | 5510         | 65.280 | 5477.840 | 5543.120 | --- | --- |
|            |      | 5550         | 61.200 | 5520.560 | 5581.760 | --- | --- |
|            |      | 5670         | 63.200 | 5636.560 | 5699.760 | --- | --- |
|            |      | 5710         | 67.280 | 5675.920 | 5743.200 | --- | --- |
|            |      | 5710_UNII-2C | 49.08  | 5675.920 | 5725     | --- | --- |
|            |      | 5710_UNII-3  | 18.2   | 5725     | 5743.200 | --- | --- |
|            |      | 5755         | 65.120 | 5721.400 | 5786.520 | --- | --- |
|            |      | 5795         | 65.040 | 5762.520 | 5827.560 | --- | --- |
| 11AC20SISO | Ant1 | 5180         | 28.320 | 5163.680 | 5192.000 | --- | --- |
|            |      | 5200         | 24.160 | 5187.200 | 5211.360 | --- | --- |
|            |      | 5240         | 25.720 | 5226.720 | 5252.440 | --- | --- |
|            |      | 5260         | 27.640 | 5246.480 | 5274.120 | --- | --- |
|            |      | 5300         | 26.080 | 5286.480 | 5312.560 | --- | --- |
|            |      | 5320         | 28.400 | 5305.920 | 5334.320 | --- | --- |
|            |      | 5500         | 30.040 | 5484.880 | 5514.920 | --- | --- |
|            |      | 5580         | 23.360 | 5567.560 | 5590.920 | --- | --- |
|            |      | 5700         | 22.840 | 5687.640 | 5710.480 | --- | --- |
|            |      | 5720         | 24.920 | 5707.920 | 5732.840 | --- | --- |
|            |      | 5720_UNII-2C | 17.08  | 5707.920 | 5725     | --- | --- |
|            |      | 5720_UNII-3  | 7.84   | 5725     | 5732.840 | --- | --- |
|            |      | 5745         | 22.800 | 5732.360 | 5755.160 | --- | --- |
|            |      | 5785         | 25.480 | 5772.280 | 5797.760 | --- | --- |
|            |      | 5825         | 25.640 | 5810.920 | 5836.560 | --- | --- |
| 11AC40SISO | Ant1 | 5190         | 57.440 | 5160.320 | 5217.760 | --- | --- |
|            |      | 5230         | 54.240 | 5202.640 | 5256.880 | --- | --- |
|            |      | 5270         | 56.240 | 5241.520 | 5297.760 | --- | --- |
|            |      | 5310         | 59.920 | 5282.160 | 5342.080 | --- | --- |
|            |      | 5510         | 68.000 | 5474.240 | 5542.240 | --- | --- |
|            |      | 5550         | 54.800 | 5521.920 | 5576.720 | --- | --- |
|            |      | 5670         | 69.440 | 5633.680 | 5703.120 | --- | --- |
|            |      | 5710         | 50.080 | 5685.680 | 5735.760 | --- | --- |



|            |      |              |         |          |          |     |     |
|------------|------|--------------|---------|----------|----------|-----|-----|
| 11AC80SISO | Ant1 | 5710_UNII-2C | 39.32   | 5685.680 | 5725     | --- | --- |
|            |      | 5710_UNII-3  | 10.76   | 5725     | 5735.760 | --- | --- |
|            |      | 5755         | 53.040  | 5727.080 | 5780.120 | --- | --- |
|            |      | 5795         | 61.760  | 5765.400 | 5827.160 | --- | --- |
|            |      | 5210         | 126.240 | 5137.520 | 5263.760 | --- | --- |
|            |      | 5290         | 137.440 | 5220.080 | 5357.520 | --- | --- |
|            |      | 5530         | 102.560 | 5481.840 | 5584.400 | --- | --- |
|            |      | 5610         | 97.440  | 5561.040 | 5658.480 | --- | --- |
| 11AC80SISO | Ant1 | 5690         | 84.320  | 5646.800 | 5731.120 | --- | --- |
|            |      | 5690_UNII-2C | 78.2    | 5646.800 | 5725     | --- | --- |
|            |      | 5690_UNII-3  | 6.12    | 5725     | 5731.120 | --- | --- |
|            |      | 5775         | 133.120 | 5698.200 | 5831.320 | --- | --- |

## TEST GRAPHS





BUREAU  
VERITAS

Test Report No.: W7L-P24010017RF03



11A\_Ant1\_5240



11A\_Ant1\_5260

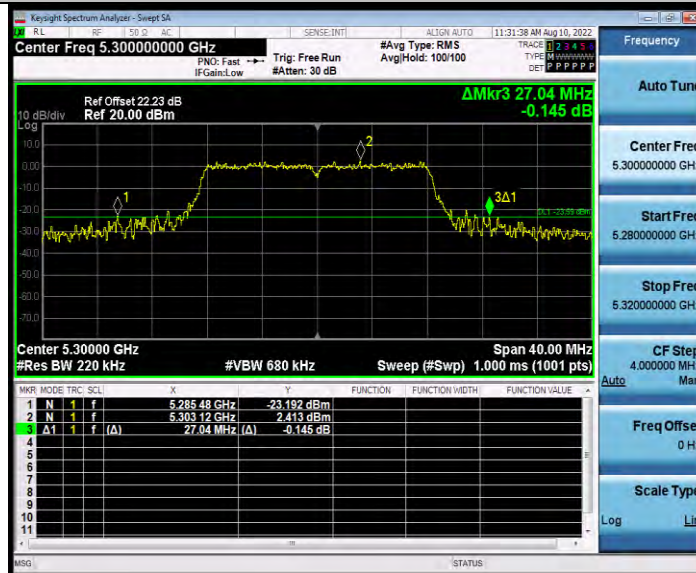


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11A\_Ant1\_5300



11A\_Ant1\_5320



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11A\_Ant1\_5500



11A\_Ant1\_5580



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11A\_Ant1\_5700



11A\_Ant1\_5720



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11A\_Ant1\_5745

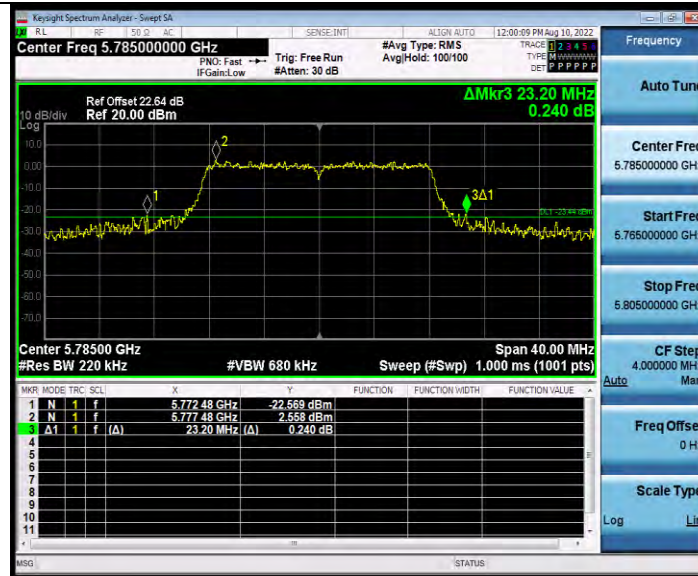


11A\_Ant1\_5785



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11A\_Ant1\_5825



11N20SISO\_Ant1\_5180

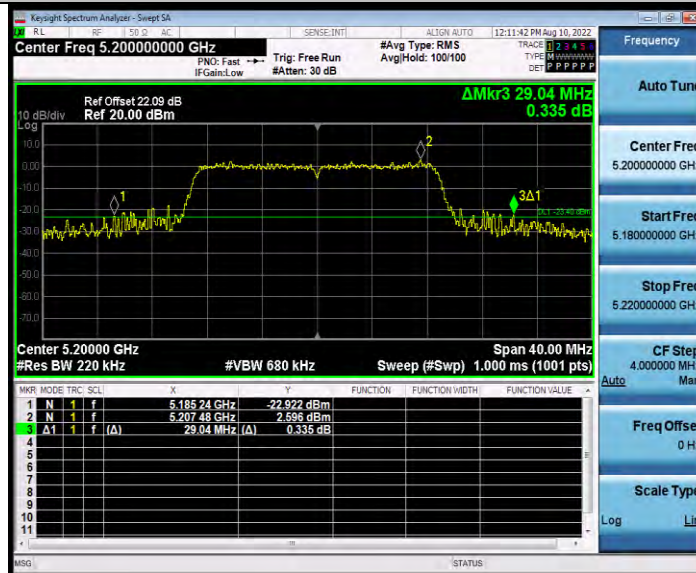


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11N20SISO\_Ant1\_5200

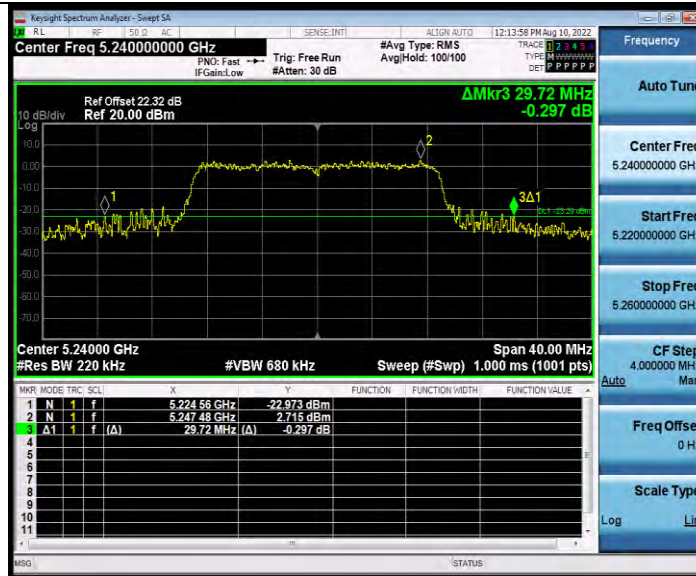


11N20SISO\_Ant1\_5240



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11N20SISO\_Ant1\_5260

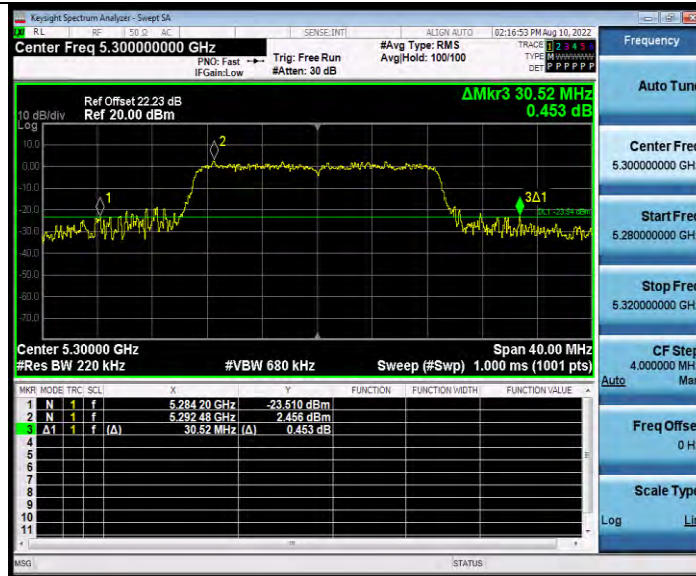


11N20SISO\_Ant1\_5300



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Test Report No.: W7L-P24010017RF03



11N20SISO\_Ant1\_5320

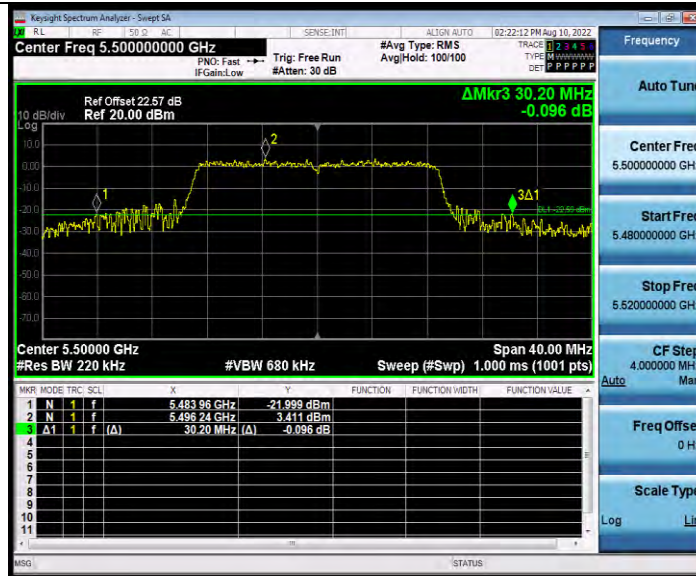


11N20SISO\_Ant1\_5500



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VERITAS

Test Report No.: W7L-P24010017RF03



11N20SISO\_Ant1\_5580

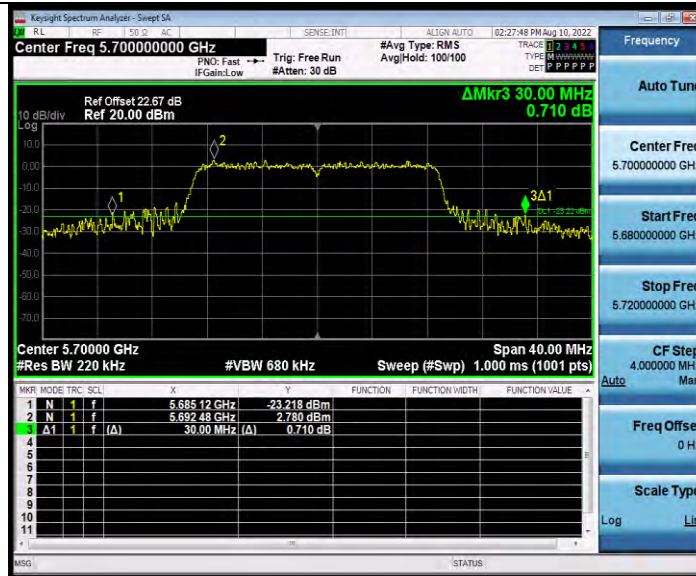


11N20SISO\_Ant1\_5700



BUREAU  
VERITAS

Test Report No.: W7L-P24010017RF03



11N20SISO\_Ant1\_5720

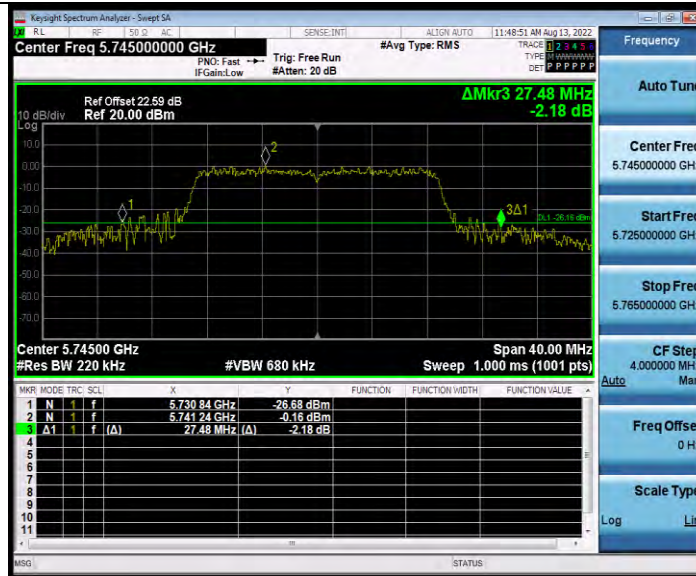


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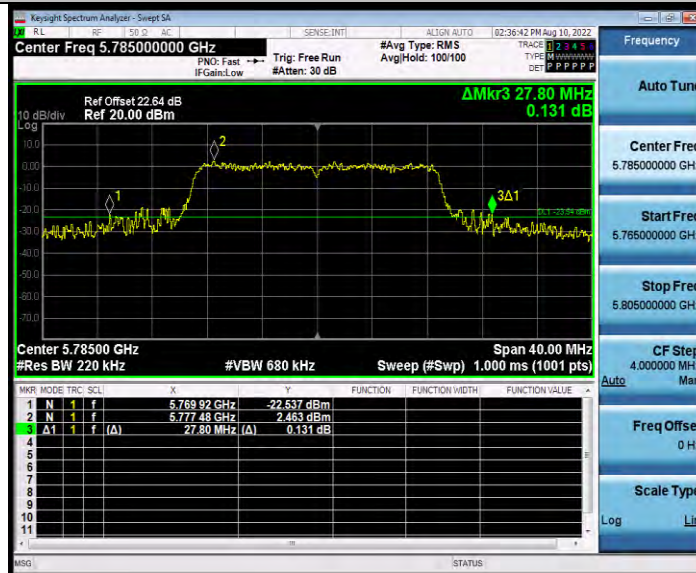


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11N20SISO\_Ant1\_5785



11N20SISO\_Ant1\_5825

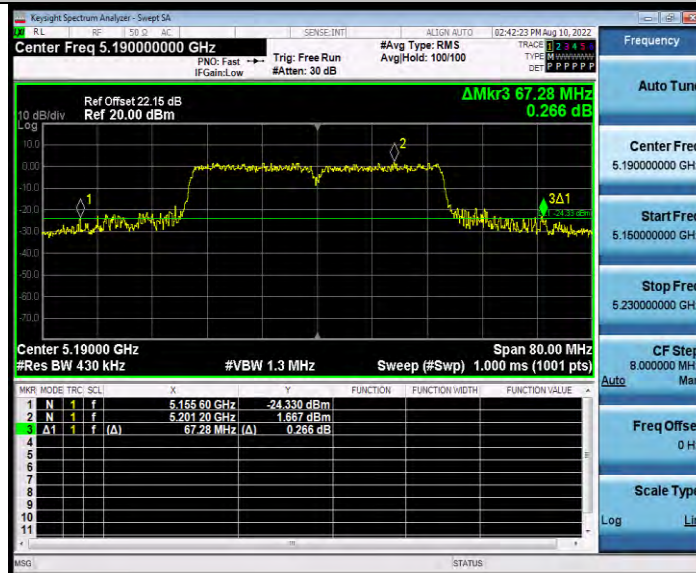


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11N40SISO\_Ant1\_5190

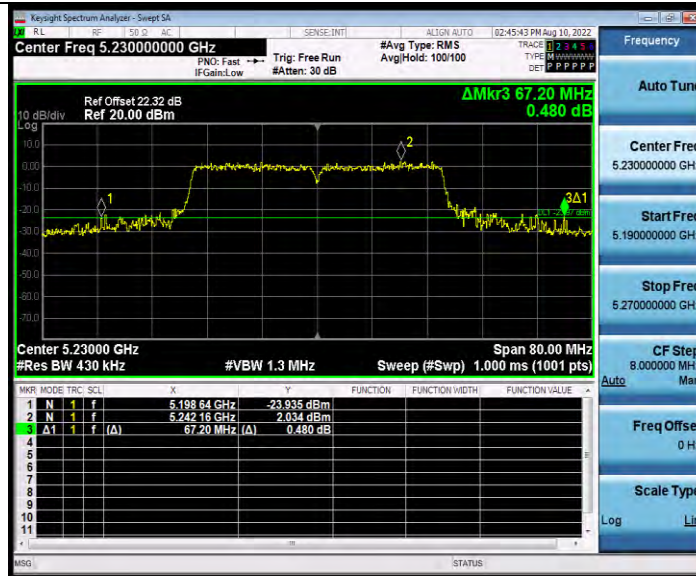


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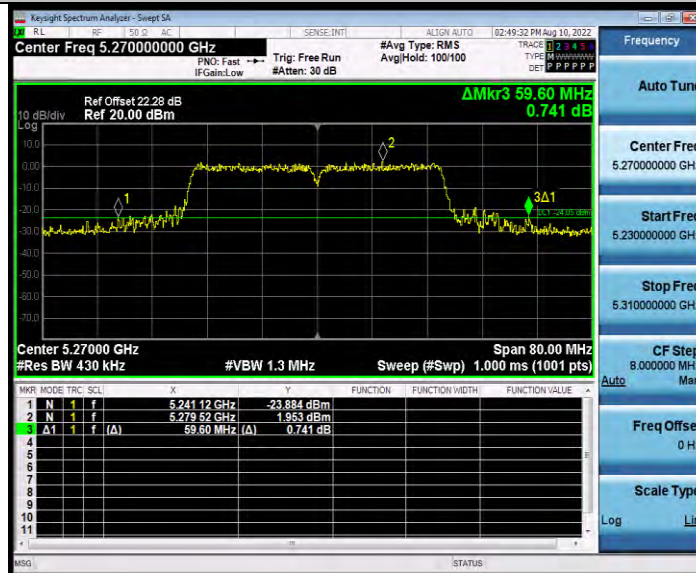


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Test Report No.: W7L-P24010017RF03



11N40SISO\_Ant1\_5270

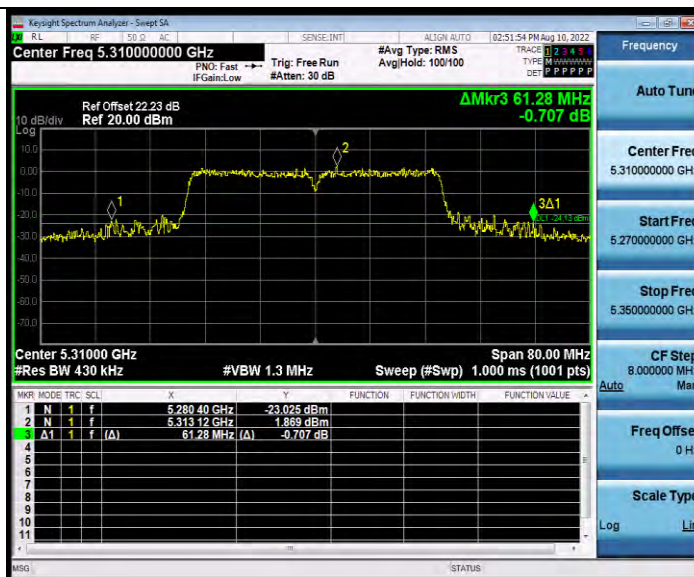


11N40SISO\_Ant1\_5310



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Test Report No.: W7L-P24010017RF03



11N40SISO\_Ant1\_5510

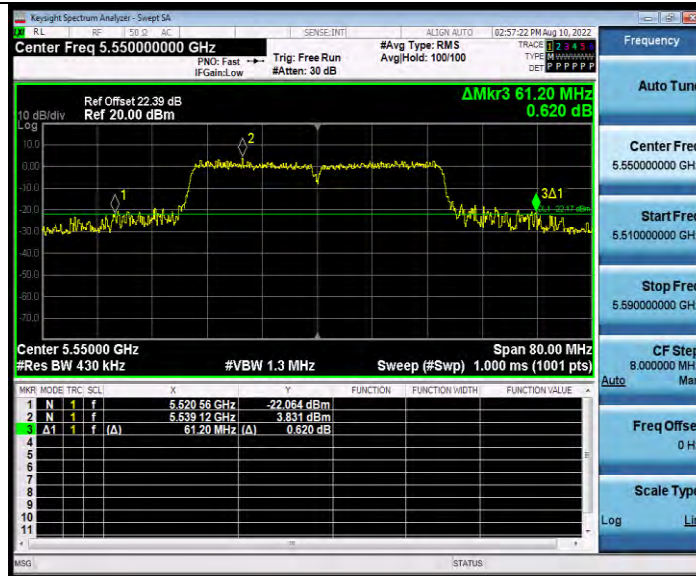


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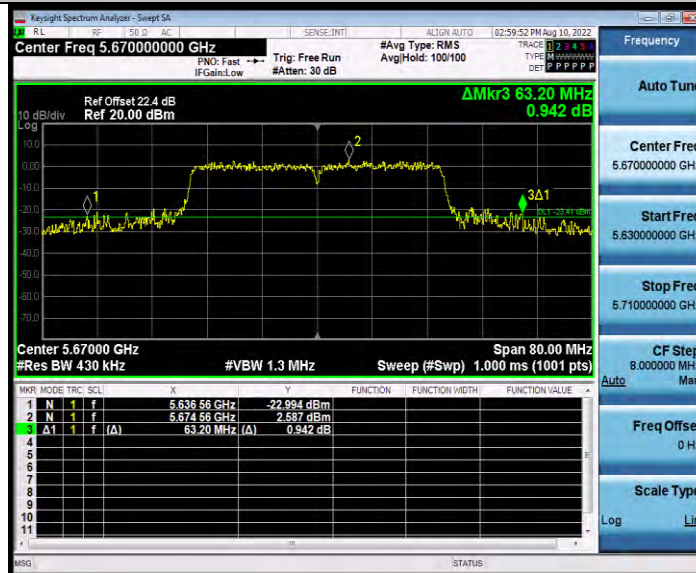


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Test Report No.: W7L-P24010017RF03



11N40SISO\_Ant1\_5670

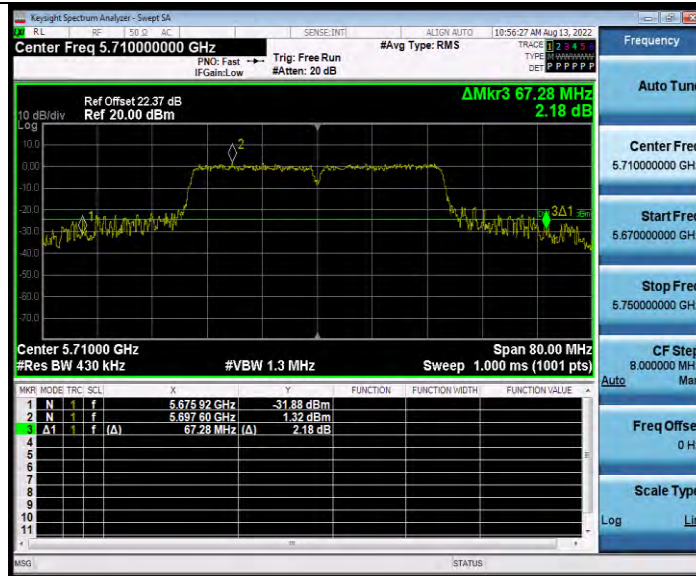


11N40SISO\_Ant1\_5710

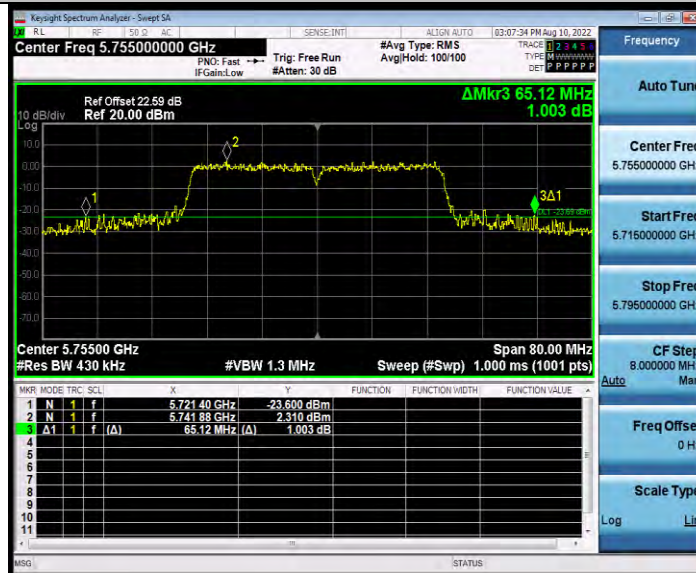


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Test Report No.: W7L-P24010017RF03



11N40SISO\_Ant1\_5755

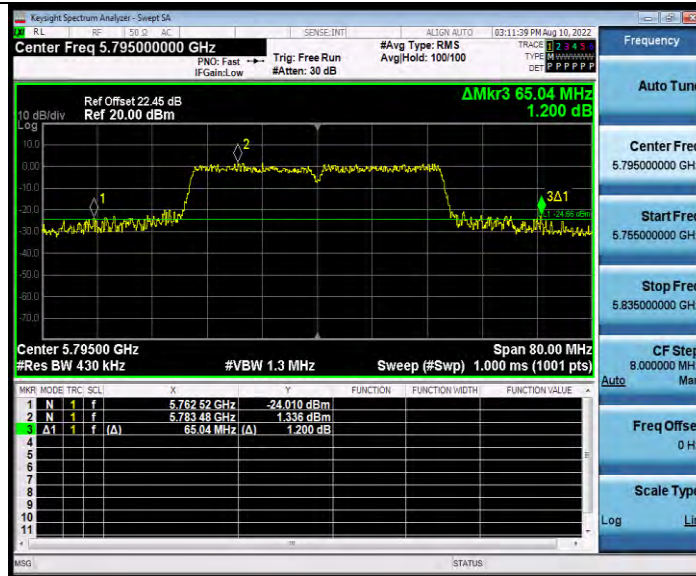


11N40SISO\_Ant1\_5795

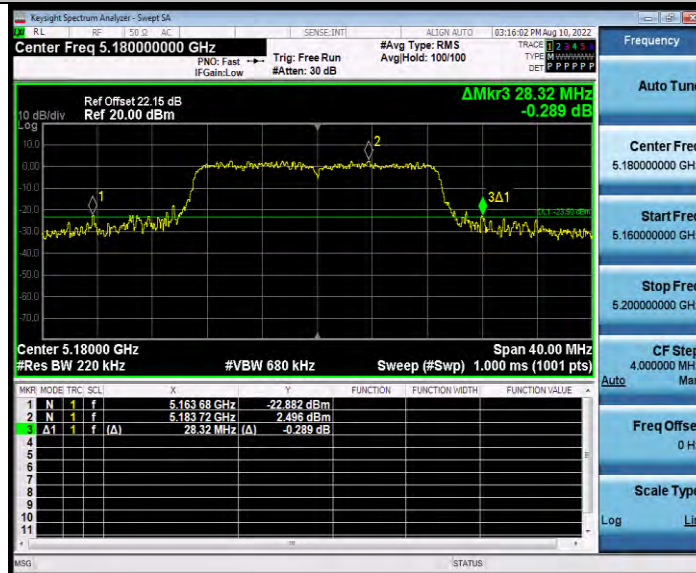


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VERITAS

Test Report No.: W7L-P24010017RF03



11AC20SISO\_Ant1\_5180

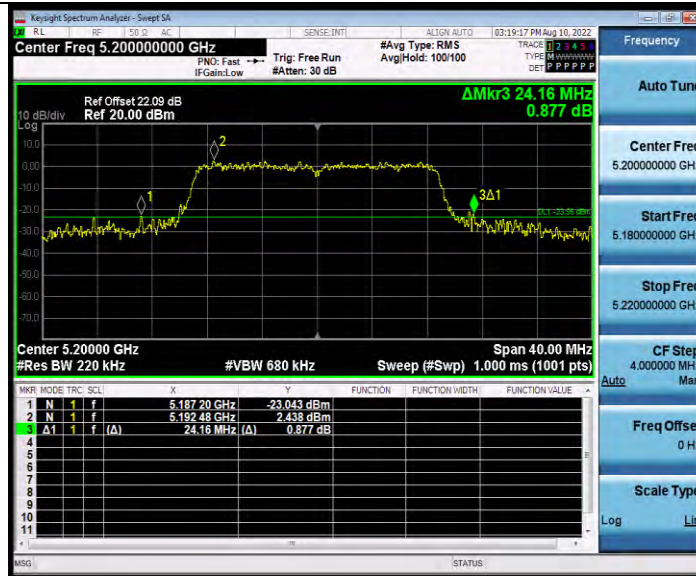


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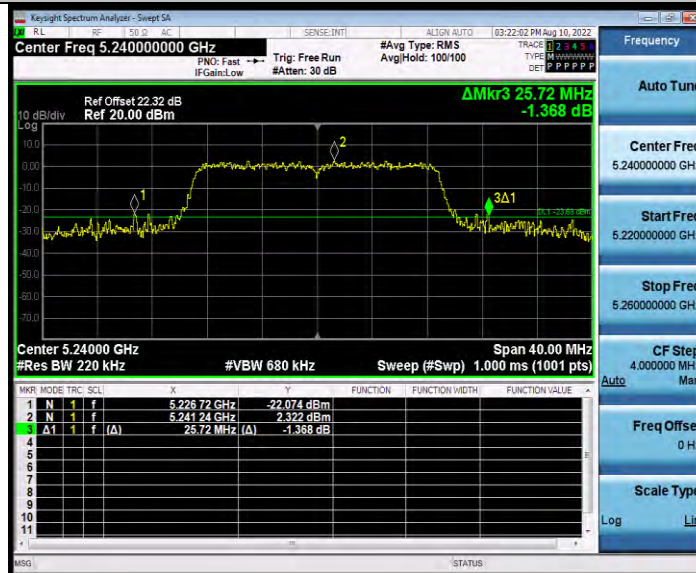


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Test Report No.: W7L-P24010017RF03



11AC20SISO\_Ant1\_5240



11AC20SISO\_Ant1\_5260



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11AC20SISO\_Ant1\_5300

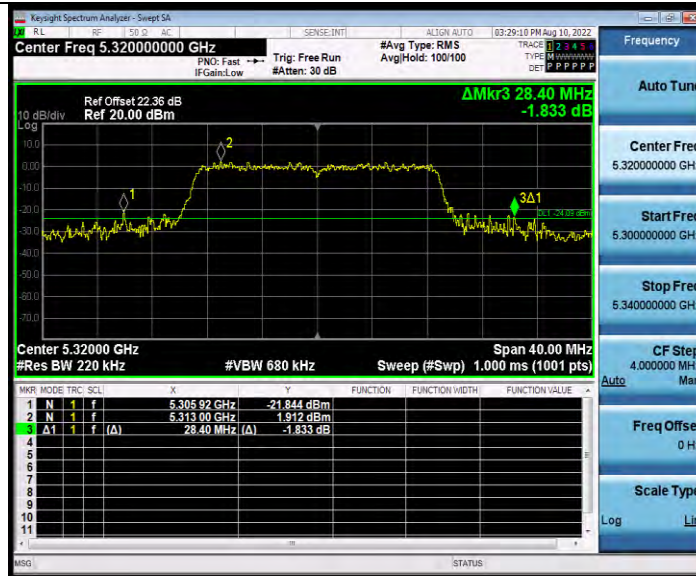


11AC20SISO\_Ant1\_5320



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Test Report No.: W7L-P24010017RF03



11AC20SISO\_Ant1\_5500



11AC20SISO\_Ant1\_5580



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Test Report No.: W7L-P24010017RF03



11AC20SISO\_Ant1\_5700



11AC20SISO\_Ant1\_5720



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11AC20SISO\_Ant1\_5745



11AC20SISO\_Ant1\_5785



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11AC20SISO\_Ant1\_5825



11AC40SISO\_Ant1\_5190



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Test Report No.: W7L-P24010017RF03



11AC40SISO\_Ant1\_5230



11AC40SISO\_Ant1\_5270



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11AC40SISO\_Ant1\_5310



11AC40SISO\_Ant1\_5510



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11AC40SISO\_Ant1\_5550



11AC40SISO\_Ant1\_5670



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Test Report No.: W7L-P24010017RF03



11AC40SISO\_Ant1\_5710

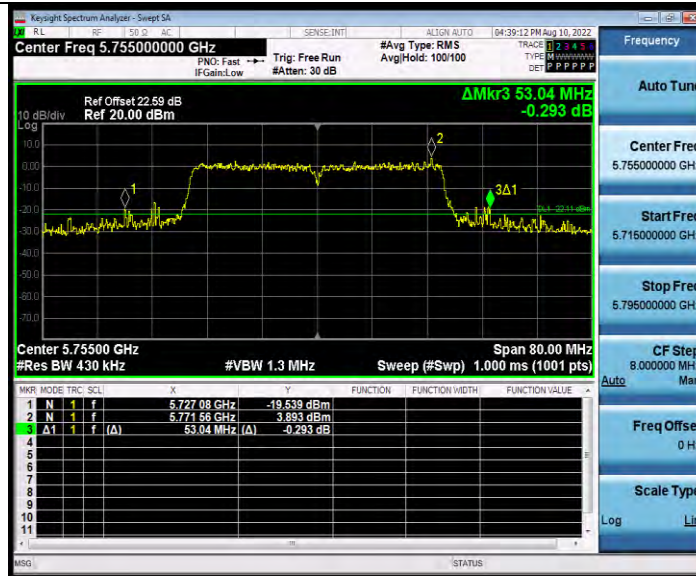


11AC40SISO\_Ant1\_5755

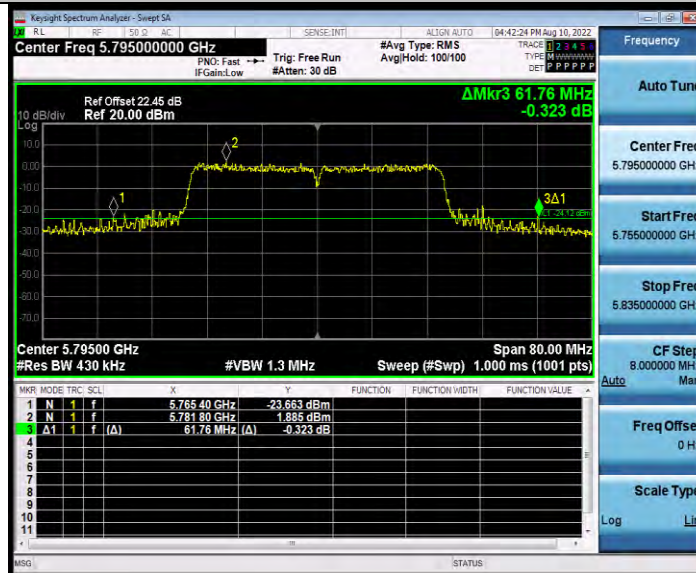


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VERITAS

Test Report No.: W7L-P24010017RF03



11AC40SISO\_Ant1\_5795

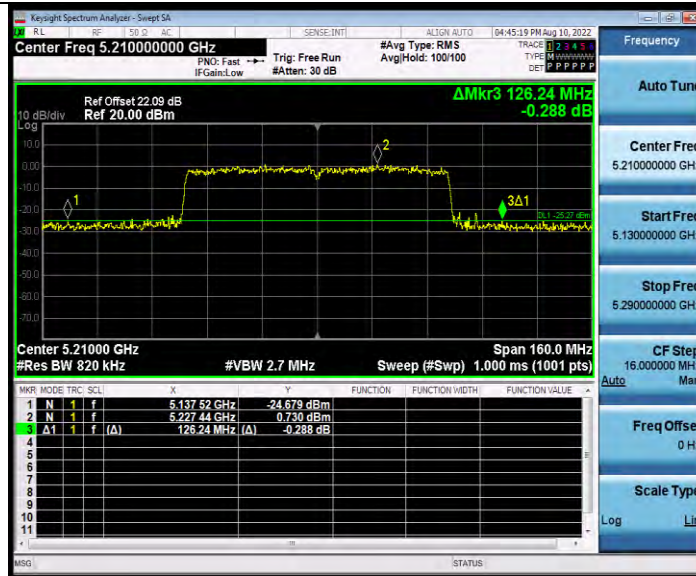


11AC80SISO\_Ant1\_5210

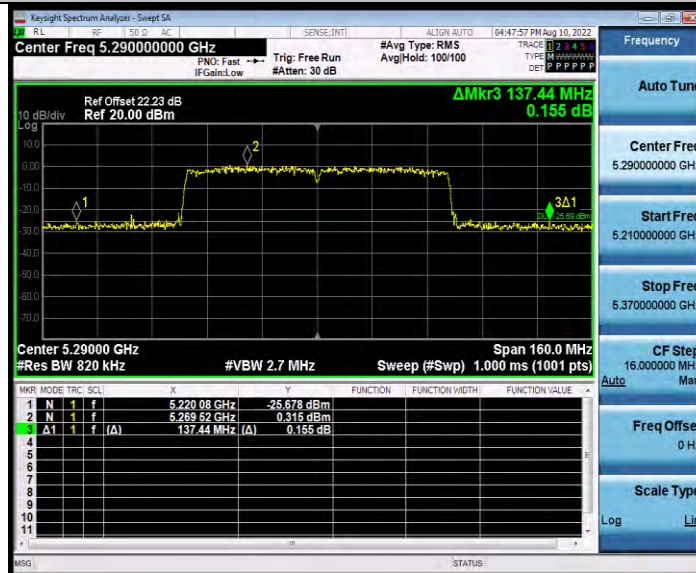


BUREAU  
VERITAS

Test Report No.: W7L-P24010017RF03



11AC80SISO\_Ant1\_5290



11AC80SISO\_Ant1\_5530

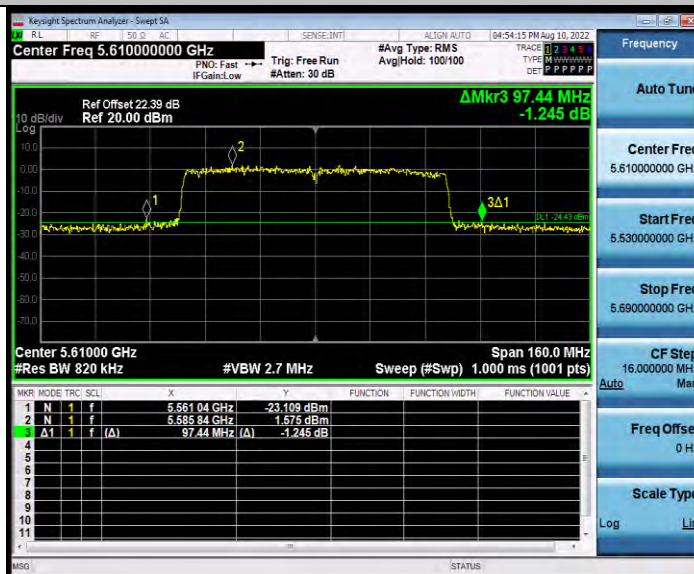


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VERITAS

Test Report No.: W7L-P24010017RF03



11AC80SISO\_Ant1\_5610



11AC80SISO\_Ant1\_5690



BUREAU  
VERITAS

Test Report No.: W7L-P24010017RF03



11AC80SISO\_Ant1\_5775



## OCCUPIED CHANNEL BANDWIDTH

### TEST RESULT

| TestMode  | Antenna | Frequency [MHz] | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|-----------|---------|-----------------|-----------|-----------|-----------|------------|---------|
| 11A       | Ant1    | 5180            | 16.991    | 5171.463  | 5188.454  | ---        | ---     |
|           |         | 5200            | 16.911    | 5191.529  | 5208.440  | ---        | ---     |
|           |         | 5240            | 16.972    | 5231.503  | 5248.475  | ---        | ---     |
|           |         | 5260            | 16.944    | 5251.519  | 5268.463  | ---        | ---     |
|           |         | 5300            | 16.915    | 5291.509  | 5308.424  | ---        | ---     |
|           |         | 5320            | 16.946    | 5311.479  | 5328.425  | ---        | ---     |
|           |         | 5500            | 16.967    | 5491.469  | 5508.436  | ---        | ---     |
|           |         | 5580            | 16.962    | 5571.477  | 5588.439  | ---        | ---     |
|           |         | 5700            | 16.914    | 5691.528  | 5708.442  | ---        | ---     |
|           |         | 5720            | 17.215    | 5711.3828 | 5728.5978 | ---        | ---     |
|           |         | 5720_UNII-2C    | 13.617    | 5711.3828 | 5725      | ---        | ---     |
|           |         | 5720_UNII-3     | 3.598     | 5725      | 5728.5978 | ---        | ---     |
|           |         | 5745            | 16.967    | 5736.469  | 5753.436  | ---        | ---     |
|           |         | 5785            | 16.909    | 5776.497  | 5793.406  | ---        | ---     |
|           |         | 5825            | 16.974    | 5816.483  | 5833.457  | ---        | ---     |
| 11N20SISO | Ant1    | 5180            | 17.883    | 5171.014  | 5188.897  | ---        | ---     |
|           |         | 5200            | 17.895    | 5191.009  | 5208.904  | ---        | ---     |
|           |         | 5240            | 17.879    | 5231.025  | 5248.904  | ---        | ---     |
|           |         | 5260            | 17.934    | 5251.0160 | 5268.9500 | ---        | ---     |
|           |         | 5300            | 17.862    | 5291.059  | 5308.921  | ---        | ---     |
|           |         | 5320            | 17.907    | 5311.020  | 5328.927  | ---        | ---     |
|           |         | 5500            | 17.868    | 5491.041  | 5508.909  | ---        | ---     |
|           |         | 5580            | 17.877    | 5571.054  | 5588.931  | ---        | ---     |
|           |         | 5700            | 17.913    | 5691.022  | 5708.935  | ---        | ---     |
|           |         | 5720            | 18.330    | 5710.8193 | 5729.1493 | ---        | ---     |
|           |         | 5720_UNII-2C    | 14.181    | 5710.8193 | 5725      | ---        | ---     |
|           |         | 5720_UNII-3     | 4.149     | 5725      | 5729.1493 | ---        | ---     |
|           |         | 5745            | 17.877    | 5736.007  | 5753.884  | ---        | ---     |
|           |         | 5785            | 17.904    | 5775.995  | 5793.899  | ---        | ---     |
|           |         | 5825            | 17.894    | 5816.040  | 5833.934  | ---        | ---     |



|            |      |              |        |           |           |     |     |
|------------|------|--------------|--------|-----------|-----------|-----|-----|
| 11N40SISO  | Ant1 | 5190         | 36.646 | 5171.591  | 5208.237  | --- | --- |
|            |      | 5230         | 36.656 | 5211.664  | 5248.320  | --- | --- |
|            |      | 5270         | 36.594 | 5251.738  | 5288.332  | --- | --- |
|            |      | 5310         | 36.516 | 5291.714  | 5328.230  | --- | --- |
|            |      | 5510         | 36.715 | 5491.680  | 5528.395  | --- | --- |
|            |      | 5550         | 36.527 | 5531.740  | 5568.267  | --- | --- |
|            |      | 5670         | 36.498 | 5651.743  | 5688.241  | --- | --- |
|            |      | 5710         | 37.343 | 5691.4222 | 5728.7652 | --- | --- |
|            |      | 5710_UNII-2C | 33.578 | 5691.4222 | 5725      | --- | --- |
|            |      | 5710_UNII-3  | 3.765  | 5725      | 5728.7652 | --- | --- |
|            |      | 5755         | 36.690 | 5736.653  | 5773.343  | --- | --- |
|            |      | 5795         | 36.630 | 5776.640  | 5813.270  | --- | --- |
| 11AC20SISO | Ant1 | 5180         | 17.867 | 5171.043  | 5188.910  | --- | --- |
|            |      | 5200         | 17.845 | 5191.064  | 5208.909  | --- | --- |
|            |      | 5240         | 17.833 | 5231.075  | 5248.908  | --- | --- |
|            |      | 5260         | 17.867 | 5251.030  | 5268.897  | --- | --- |
|            |      | 5300         | 17.838 | 5291.057  | 5308.895  | --- | --- |
|            |      | 5320         | 17.837 | 5311.050  | 5328.887  | --- | --- |
|            |      | 5500         | 17.857 | 5491.036  | 5508.893  | --- | --- |
|            |      | 5580         | 17.887 | 5571.020  | 5588.907  | --- | --- |
|            |      | 5700         | 17.891 | 5691.051  | 5708.942  | --- | --- |
|            |      | 5720         | 18.089 | 5710.9676 | 5729.0566 | --- | --- |
|            |      | 5720_UNII-2C | 14.032 | 5710.9676 | 5725      | --- | --- |
|            |      | 5720_UNII-3  | 4.057  | 5725      | 5729.0566 | --- | --- |
|            |      | 5745         | 17.860 | 5736.036  | 5753.896  | --- | --- |
|            |      | 5785         | 17.849 | 5776.027  | 5793.876  | --- | --- |
|            |      | 5825         | 17.866 | 5816.017  | 5833.883  | --- | --- |
| 11AC40SISO | Ant1 | 5190         | 36.588 | 5171.693  | 5208.281  | --- | --- |
|            |      | 5230         | 36.479 | 5211.780  | 5248.259  | --- | --- |
|            |      | 5270         | 36.584 | 5251.723  | 5288.307  | --- | --- |
|            |      | 5310         | 36.506 | 5291.738  | 5328.244  | --- | --- |
|            |      | 5510         | 36.667 | 5491.646  | 5528.313  | --- | --- |
|            |      | 5550         | 36.543 | 5531.720  | 5568.263  | --- | --- |
|            |      | 5670         | 36.678 | 5651.676  | 5688.354  | --- | --- |
|            |      | 5710         | 36.980 | 5691.5525 | 5728.5325 | --- | --- |



|            |      |              |        |           |           |     |     |
|------------|------|--------------|--------|-----------|-----------|-----|-----|
|            |      | 5710_UNII-2C | 33.448 | 5691.5525 | 5725      | --- | --- |
|            |      | 5710_UNII-3  | 3.533  | 5725      | 5728.5325 | --- | --- |
|            |      | 5755         | 36.657 | 5736.594  | 5773.251  | --- | --- |
|            |      | 5795         | 36.655 | 5776.617  | 5813.272  | --- | --- |
| 11AC80SISO | Ant1 | 5210         | 76.047 | 5171.947  | 5247.994  | --- | --- |
|            |      | 5290         | 76.156 | 5251.878  | 5328.034  | --- | --- |
|            |      | 5530         | 75.960 | 5492.028  | 5567.988  | --- | --- |
|            |      | 5610         | 76.188 | 5571.877  | 5648.065  | --- | --- |
|            |      | 5690         | 76.032 | 5651.9947 | 5728.0267 | --- | --- |
|            |      | 5690_UNII-2C | 73.005 | 5651.9947 | 5725      | --- | --- |
|            |      | 5690_UNII-3  | 3.027  | 5725      | 5728.0267 | --- | --- |
|            |      | 5775         | 76.201 | 5736.867  | 5813.068  | --- | --- |

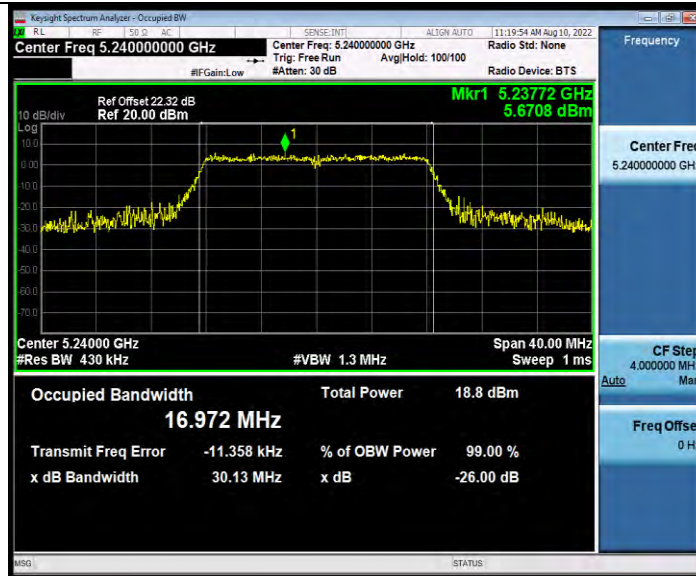
## TEST GRAPHS



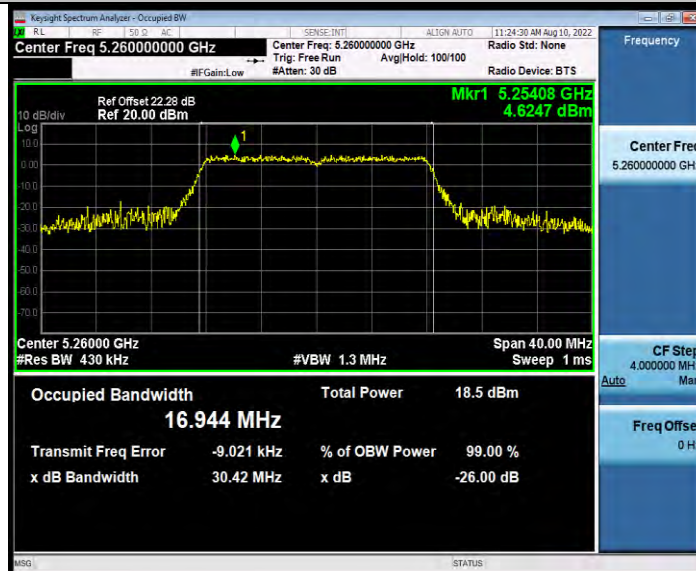


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11A\_Ant1\_5260

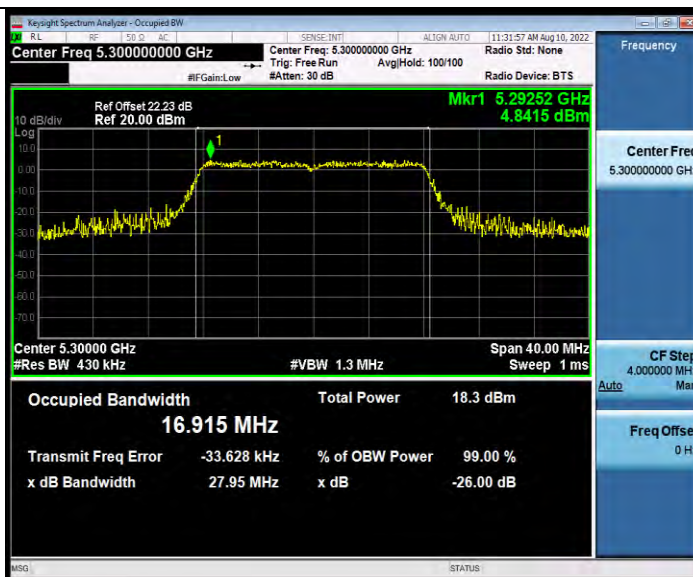


11A\_Ant1\_5300

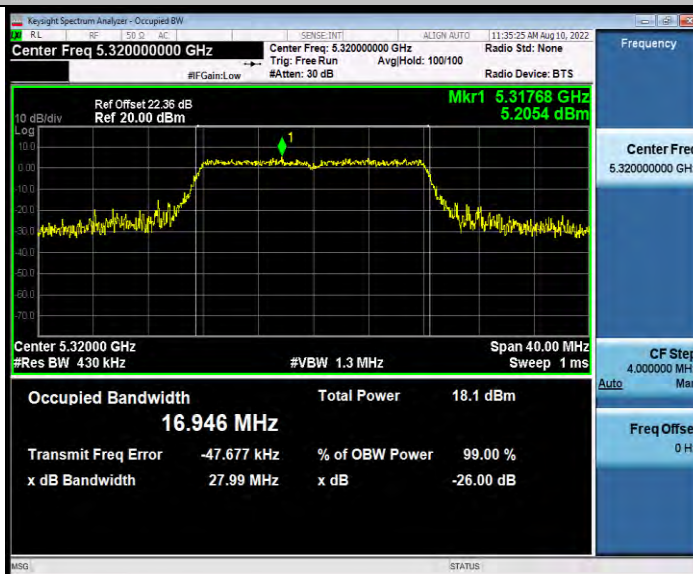


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VERITAS

Test Report No.: W7L-P24010017RF03



11A\_Ant1\_5320



11A\_Ant1\_5500