



Test Report No.: RF2205WDG0306-4



TEST REPORT

Applicant	Zhiwei Robotics Corp.
Address	Room 603, 2 Boyun Road, Pudong, Shanghai P.R.China

Manufacturer or Supplier	Zhiwei Robotics Corp.
Address	Room 603, 2 Boyun Road, Pudong, Shanghai P.R.China
Product	LattePanda 3 Delta
Brand Name	LattePanda
Model	DFR0981
Additional Model & Model Difference	DFR0982, see item 3.1
Date of tests	Jun. 05, 2022 ~ Jul. 22, 2022

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

Tested by Lucas Chen Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	
	Date: Aug. 03, 2022

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2205WDG0306-4	Original release.	Aug. 03, 2022



1. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407 UNDER NEW RULE)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emissions	PASS	Meet the requirement of limit.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is i-pex not a standard connector.

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	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	3.05dB
Radiated emissions	9KHz ~ 30MHz	2.16dB
	30MHz ~ 1GMHz	3.63dB
	1GHz ~ 18GHz	4.96dB
	18GHz ~ 40GHz	4.37dB

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

PRODUCT	LattePanda 3 Delta
MODEL NO.	DFR0981
FCC ID	2AIDMLPDF0981
POWER SUPPLY	Powered by Adapter
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
MODULATION TECHNOLOGY	OFDM, OFDMA
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps 802.11ac : up to 1733.3Mbps 802.11ax : up to 2401.9Mbps
OPERATING FREQUENCY	See notes 7
NUMBER OF CHANNEL	See notes 7
CONDUCTED OUTPUT POWER	17.228mW for Band 1 (Maximum AVG Power) 16.751mW for Band 2 (Maximum AVG Power) 16.147mW for Band 3 (Maximum AVG Power) 13.423mW for Band 4 (Maximum AVG Power)
ANTENNA TYPE	Band 1/2/3/4: Chain 0: FPCB antenna with 0.67dBi gain Chain 1: FPCB antenna with 0.67dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTES:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 2205WDG0306-1) for detailed product photo.
4. Additional model DFR0982 is identical with the test model DFR0981 except the system software version and model number for marketing purpose.



5. The EUT was powered by the following Adapter:

ADAPTER	
BRAND:	N/A
MODEL:	XYX-PD45X
INPUT:	AC 100-240V 50/60HZ 1A
OUTPUT:	DC 5/9/12/15V 3A, DC 20V 2.25A
DC LINE:	Shielded, Non-detachable, 155cm, with two cores
AC LINE:	Unshielded, Detachable, 45cm

6. The working status of the two antennas is as follows.

MODULATION MODE	TX FUNCTION
802.11a	2 Chains (MIMO)
802.11n (HT20)/802.11ac (VHT20)/ 802.11ax (HE20)	2 Chains (MIMO)
802.11n (HT40)/802.11ac (VHT40)/ 802.11ax (HE40)	2 Chains (MIMO)
802.11ac (VHT80)/802.11ax (HE80)	2 Chains (MIMO)
802.11ac (VHT160)/802.11ax (HE160)	2 Chains (MIMO)

* The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz), 802.11ac mode for 20MHz (40MHz, 80MHz, 160MHz) and 802.11ax mode for 20MHz (40MHz, 80MHz, 160MHz), therefore the manufacturer will control the power for 802.11ax mode is the same as the 802.11n/ac mode or more lower than it and investigated worst case to representative mode in test report. (Final test mode refer to section 2.2.1)

7. The operating frequency of the EUT.

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Number Of Channel
5150-5250(Band 1)	a, n (HT20), ac (VHT20), ax (HE 20)	5180-5240	4
5250-5350(Band 2)		5260-5320	4
5470-5725(Band 3)		5500-5700	11
5725-5850(Band 4)		5745-5825	5
5150-5250(Band 1)	n (HT40), ac (VHT40), ax (HE 40)	5190-5230	2
5250-5350(Band 2)		5270-5310	2
5470-5725(Band 3)		5510-5670	5
5725-5850(Band 4)		5755-5795	2
5150-5250(Band 1)	ac (VHT80), ax (HE 80)	5210	1
5250-5350(Band 2)		5290	1
5470-5725(Band 3)		5530-5610	2
5725-5850(Band 4)		5775	1
5150-5350(Band 1&2)	ac (VHT160), ax (HE 160)	5250	1
5470-5725(Band 3)		5570	1



2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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

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

2 channels are provided for 802.11a c 40MHz, 802.11n (40MHz), 802.11ax (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210MHz	--	--

FOR 5250 ~ 5350MHz

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

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

2 channels are provided for 802.11a c 40MHz, 802.11n (40MHz), 802.11ax (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290MHz	--	--

**FOR 5150 ~ 5350MHz**

1 channel is provided for 802.11ac (160MHz), 802.11ax (160MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
50	5250MHz	--	--

FOR 5470 ~ 5725MHz

11 channels are provided for 802.11a, 802.11a c 20MHz, 802.11n (20MHz), 802.11ax (20MHz):

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

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	122	5610MHz

1 channel is provided for 802.11ac (160MHz), 802.11ax (160MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
114	5570MHz	--	--

**FOR 5725 ~ 5850MHz**

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745MHz	153	5765MHz
157	5785MHz	161	5805MHz
165	5825MHz	--	--

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
155	5775MHz	--	--



2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	Powered by Adapter with wifi (5G) link

Where **RE≥1G**: Radiated Emission above 1GHz

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

1. 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 (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 CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11ac (80MHz)		42	42	OFDM	BPSK	29.3
-	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac (80MHz)		58	58	OFDM	BPSK	29.3
-	802.11ac (160MHz)	5150-5350	50	50	OFDM	BPSK	58.5
-	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	802.11ac (80MHz)		106 to 122	106, 122	OFDM	BPSK	29.3
-	802.11ac (160MHz)		114	114	OFDM	BPSK	58.5
-	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
-	802.11ac (80MHz)		155	155	OFDM	BPSK	29.3

**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 CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250 5470-5725 5725-5850	36 to 48 100 to 140 149 to 165	36	OFDM	BPSK	6.0

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 CONFIGURE MODE	TESTED CONDITION
-	WIFI (5G) Link

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 CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11ac (80MHz)		42	42	OFDM	BPSK	29.3
-	802.11ax (20MHz) Output power only		36 to 48	36, 40, 48	OFDMA	BPSK	8.0
-	802.11ax (40MHz) Output power only		38 to 46	38, 46	OFDMA	BPSK	16.0
-	802.11ax (80MHz) Output power only		42	42	OFDMA	BPSK	34.0



-	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac (80MHz)		58	58	OFDM	BPSK	29.3
-	802.11ax (20MHz) Output power only		52 to 64	52, 60, 64	OFDMA	BPSK	8.0
-	802.11ax (40MHz) Output power only		54 to 62	54, 62	OFDMA	BPSK	16.0
-	802.11ax (80MHz) Output power only		58	58	OFDMA	BPSK	34.0
-	802.11ac (160MHz)	5150-5350	50	50	OFDM	BPSK	58.5
-	802.11ac (160MHz) Output power only		50	50	OFDMA	BPSK	68.0
-	802.11a	5470-5725	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	802.11ac (80MHz)		106 to 122	106, 122	OFDM	BPSK	29.3
-	802.11ac (160MHz)		114	114	OFDM	BPSK	58.5
-	802.11ax (20MHz) Output power only		100 to 140	100, 116, 140	OFDMA	BPSK	8.0
-	802.11ax (40MHz) Output power only		102 to 134	102, 110, 134	OFDMA	BPSK	16.0
-	802.11ax (80MHz) Output power only		106 to 122	106, 122	OFDMA	BPSK	34.0
-	802.11ax (160MHz) Output power only		114	114	OFDMA	BPSK	68.0
-	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
-	802.11ac (80MHz)		155	155	OFDM	BPSK	29.3
-	802.11ax (20MHz) Output power only		149 to 165	149, 157, 165	OFDMA	BPSK	8.0
-	802.11ax (40MHz) Output power only		151 to 159	151, 159	OFDMA	BPSK	16.0
-	802.11ax (80MHz) Output power only		155	155	OFDMA	BPSK	34.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	25deg. C, 54%RH	AC 120V 60Hz	Jelly
RE≥1G	25deg. C, 54%RH	AC 120V 60Hz	Jelly
PLC	23deg. C, 56%RH	AC 120V 60Hz	Summer
APCM	25deg. C, 58%RH	AC 120V 60Hz	Vincent



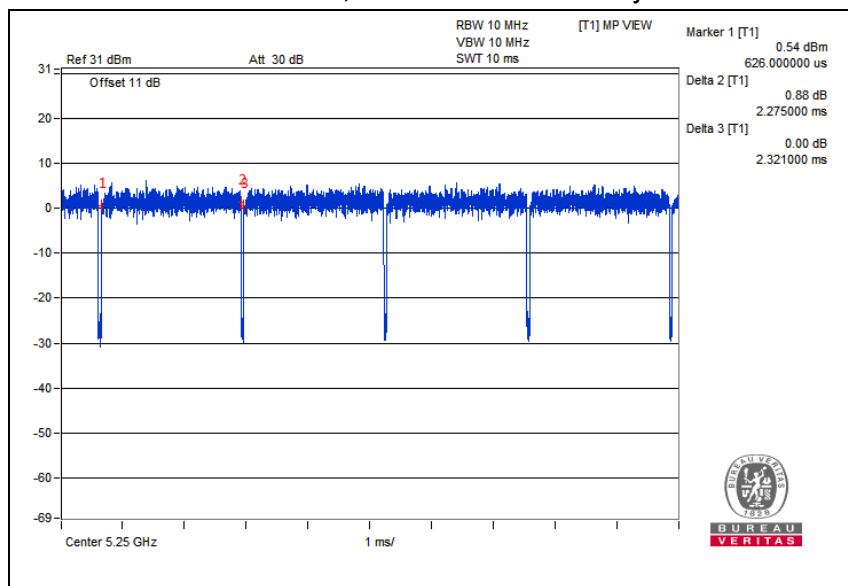
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2.3 DUTY CYCLE OF TEST SIGNAL

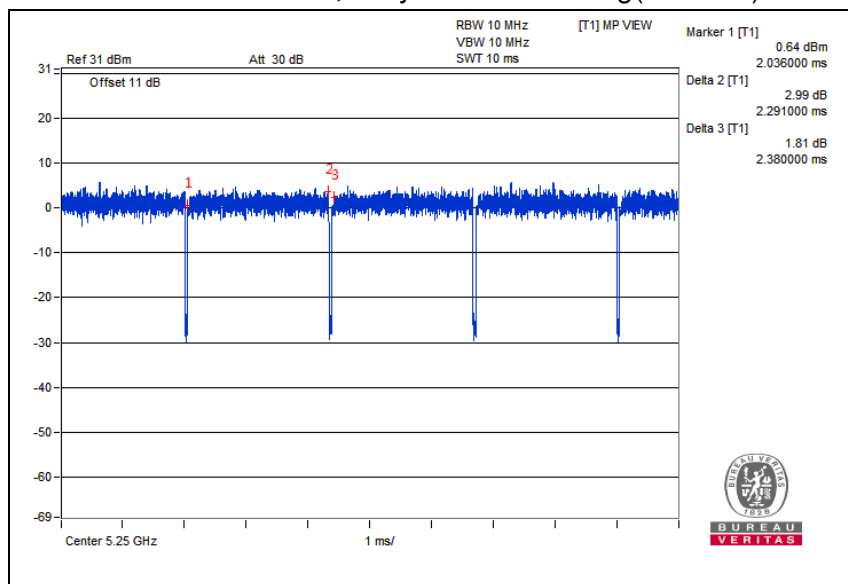
Chain 0:

Duty cycle = $2.275/2.321 = 98.0\%$, No need add the duty factor



Chain 1:

Duty cycle = $2.291/2.380 = 96.3\%$, Duty factor = $10 * \log(1/0.977) = 0.164$



**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	Logitech	UE3600	1238CP529108	N/A	N/A
2	Wireless Router	TP-LINK	TL-WDR3310	1.24E+09	N/A
3	Mouse	A4TECH	N360	N/A	N/A
5	Mobile Phone	MEIZU	M3 NOTE	91QEBNJ25CKF	N/A
4	USB Driver 3.0(16G)	Kingston	DTSE9G2/16GB	YVLP9-B8HTAQ-XXAYB	N/A
5	Keyboard	DELL	KB212-B	CN-0N291F-71581-46L-00BB-A01	N/A
6	TF Card (32G)	Kingston	KN003773517	N/A	N/A
7	Monitor	DELL	U2720QM	4383185043	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	Earphone: Unshielded, Non-detachable 1.5m
2	DC Line: Unshielded, Detachable 1.2m
3	USB Line: Unshielded, Non-detachable 1.5m
5	N/A
4	N/A
5	USB: Unshielded, Non-detachable 1.8m
6	N/A

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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



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 (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (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

NOTES:

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 30dB under any condition of modulation.



3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01r03	FIELD STRENGTH AT 3m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	Note	Note

NOTE: For transmitters operating in the 5.725-5.85 GHz band:

Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the alternative limit.

15.407(b)(4)(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.

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

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



Test Report No.: RF2205WDG0306-4

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Spectrum Analyzer	Rohde&Schwarz	FSV40-N	101817	Jun 19, 23
Bilog Antenna	SCHWARZBECK	VULB 9168	01281	July 30, 22
Pre-Amplifier	Agilent	8447D	2944A10488	Aug. 08, 22
3m Semi-anechoic Chamber	ETS-Lindgren	9m*6m*6m	D3040003DG-1	July 30, 24
Coaxial RF Cable	Joinfront	JFAA6-NMNM-8000	2100033742	July. 11, 23
Coaxial RF Cable	Joinfront	JFAR-NMBNCM-2000	2100033742	July. 11, 23
Coaxial RF Cable	Joinfront	JFAR-BNCMSMM-500	2100033742	July. 11, 23
Test software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Horn Antenna	ETS-Lindgren	3117	00240041	July 22, 22
Horn Antenna	SCHWARZBECK	BBHA 9170	01024	Dec. 25, 22
Pre-Amplifier (1GHz-18GHz)	SCHWARZBECK	BBV 9718C	00142	Jun. 14, 23
Pre-Amplifier (18GHz-40GHz)	Rohde&Schwarz	SCU40	100437	Nov. 16, 22
Coaxial RF Cable	Joinfront	JFAA6-NMNM-8000	2100033742	July. 11, 23
Coaxial RF Cable	Joinfront	JFAA6-NMSMM-2000	2100033742	July. 11, 23
Coaxial RF Cable	Joinfront	JFAA6-NMSMM-800	2100033742	July. 11, 23

NOTES:

1. The test was performed in 966 Chamber-3 (Baodun)
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. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 749762.



3.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters semi-anechoic chamber. 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.

NOTES:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection 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 $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

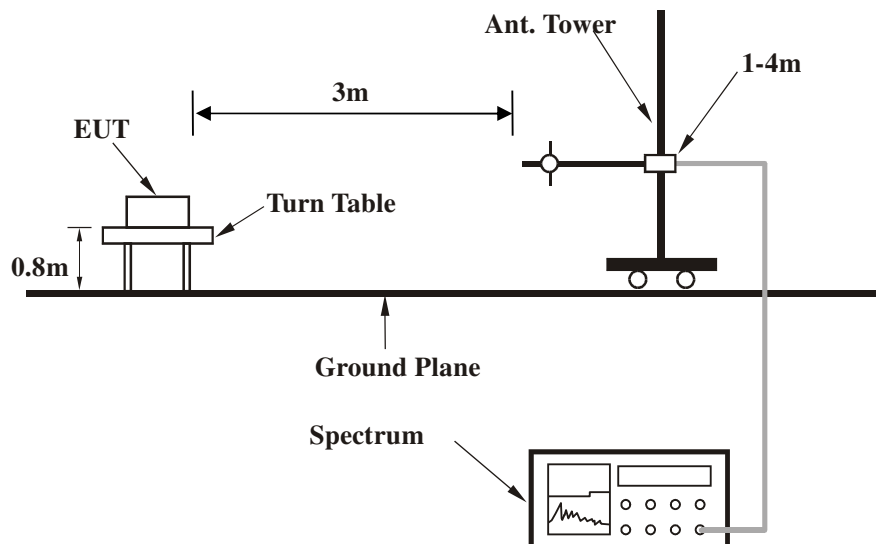
3.1.5 DEVIATION FROM TEST STANDARD

No deviation.



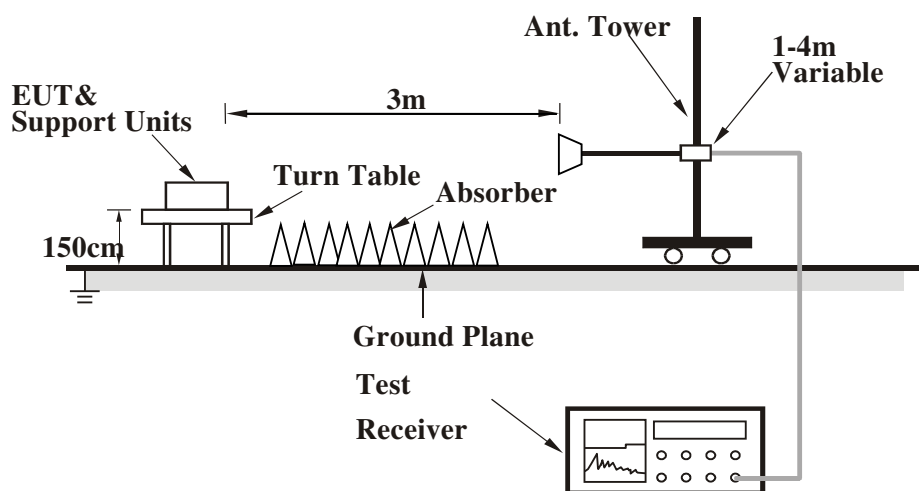
3.1.6 TEST SETUP

Below 1GHz test setup



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

Above 1GHz test setup



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



Test Report No.: RF2205WDG0306-4

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 FTEST RESULTS

BELOW 1GHz WORST-CASE DATA

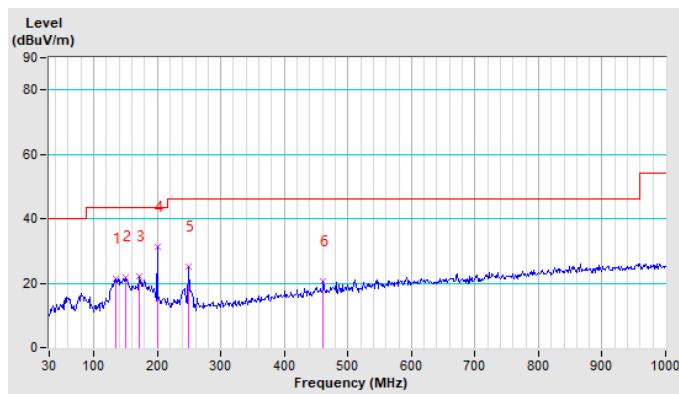
802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	134.03	21.36 QP	43.50	-22.14	1.00 H	308	36.13	-14.77
2	149.49	21.92 QP	43.50	-21.58	1.00 H	144	35.61	-13.69
3	171.99	22.05 QP	43.50	-21.45	1.00 H	276	36.36	-14.31
4	200.10	31.16 QP	43.50	-12.34	1.00 H	20	47.56	-16.40
5	249.30	25.12 QP	46.00	-20.88	1.00 H	73	39.37	-14.25
6	461.58	20.67 QP	46.00	-25.33	1.00 H	19	30.38	-9.71

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.





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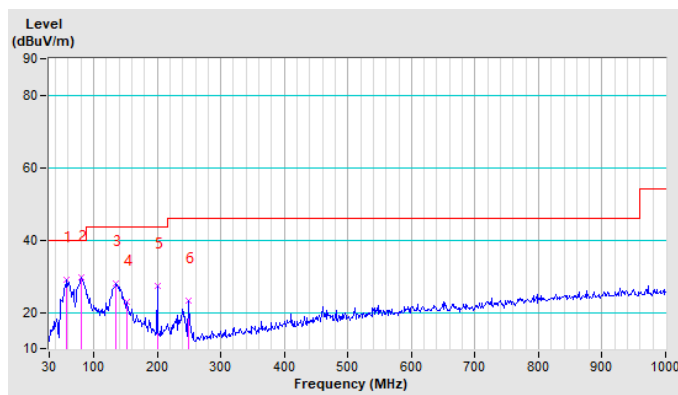
Test Report No.: RF2205WDG0306-4

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	58.12	28.92 QP	40.00	-11.08	1.00 V	309	42.95	-14.03
2	80.61	29.51 QP	40.00	-10.49	1.00 V	156	46.89	-17.38
3	135.43	28.06 QP	43.50	-15.44	1.00 V	301	42.63	-14.57
4	152.30	22.75 QP	43.50	-20.75	1.00 V	18	36.38	-13.63
5	200.10	27.29 QP	43.50	-16.21	1.00 V	171	43.69	-16.40
6	249.30	23.17 QP	46.00	-22.83	1.00 V	233	37.42	-14.25

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.



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Test Report No.: RF2205WDG0306-4

Band 1 (5150-5250MHz):

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5128.58	46.97 PK	74.00	-27.03	1.00 H	303	41.65	5.32
2	5128.58	37.40 AV	54.00	-16.60	1.00 H	303	32.08	5.32
3	5150.00	46.71 PK	74.00	-27.29	1.00 H	303	41.37	5.34
4	5150.00	35.49 AV	54.00	-18.51	1.00 H	303	30.15	5.34
5	*5180.00	95.47 PK			1.00 H	303	90.09	5.38
6	*5180.00	86.59 AV			1.00 H	303	81.21	5.38
7	#10360.00	52.38 PK	68.20	-15.82	2.00 H	179	43.11	9.27
8	15540.00	60.87 PK	74.00	-13.13	1.04 H	311	42.32	18.55
9	15540.00	46.67 AV	54.00	-7.33	1.04 H	311	28.12	18.55
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5147.68	45.84 PK	74.00	-28.16	1.14 V	185	40.50	5.34
2	5147.68	35.71 AV	54.00	-18.29	1.14 V	185	30.37	5.34
3	5150.00	46.16 PK	74.00	-27.84	1.14 V	185	40.82	5.34
4	5150.00	33.58 AV	54.00	-20.42	1.14 V	185	28.24	5.34
5	*5180.00	90.34 PK			1.14 V	185	84.96	5.38
6	*5180.00	83.15 AV			1.14 V	185	77.77	5.38
7	#10360.00	51.19 PK	68.20	-17.01	1.00 V	85	41.92	9.27
8	15540.00	59.43 PK	74.00	-14.57	1.00 V	204	40.88	18.55
9	15540.00	45.27 AV	54.00	-8.73	1.00 V	204	26.72	18.55

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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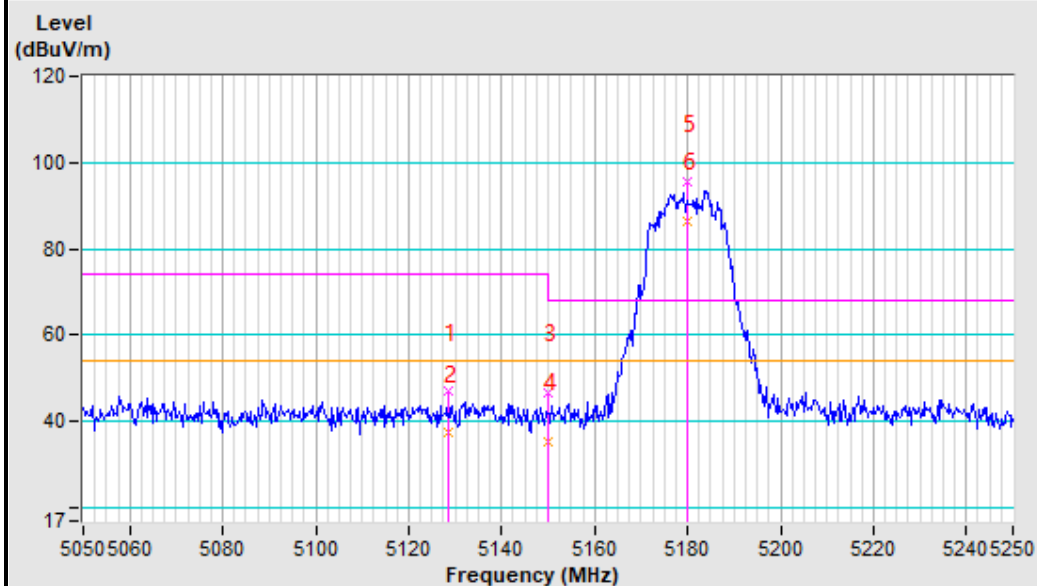


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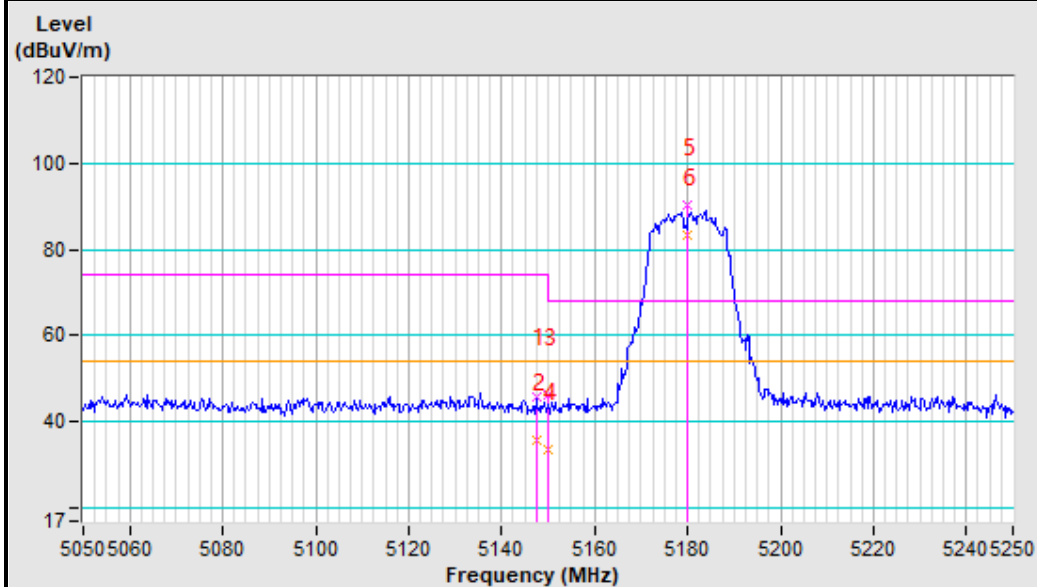
Test Report No.: RF2205WDG0306-4

Band edge Plot

5180MHz Horizontal



5180MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.34	47.02 PK	74.00	-26.98	1.04 H	179	41.68	5.34
2	5145.34	36.29 AV	54.00	-17.71	1.04 H	179	30.95	5.34
3	5150.00	46.71 PK	74.00	-27.29	1.04 H	179	41.37	5.34
4	5150.00	35.41 AV	54.00	-18.59	1.04 H	179	30.07	5.34
5	*5200.00	95.17 PK			1.04 H	179	89.76	5.41
6	*5200.00	84.29 AV			1.04 H	179	78.88	5.41
7	#10400.00	52.79 PK	68.20	-15.41	2.00 H	302	43.46	9.33
8	15600.00	60.33 PK	74.00	-13.67	1.14 H	35	41.65	18.68
9	15600.00	46.19 AV	54.00	-7.81	1.14 H	35	27.51	18.68
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.34	46.44 PK	74.00	-27.56	1.15 V	304	41.10	5.34
2	5145.34	35.51 AV	54.00	-18.49	1.15 V	304	30.17	5.34
3	5150.00	45.23 PK	74.00	-28.77	1.15 V	304	39.89	5.34
4	5150.00	34.19 AV	54.00	-19.81	1.15 V	304	28.85	5.34
5	*5200.00	90.76 PK			1.15 V	304	85.35	5.41
6	*5200.00	82.09 AV			1.15 V	304	76.68	5.41
7	#10400.00	51.18 PK	68.20	-17.02	1.36 V	52	41.85	9.33
8	15600.00	59.34 PK	74.00	-14.66	1.00 V	352	40.66	18.68
9	15600.00	45.76 AV	54.00	-8.24	1.00 V	352	27.08	18.68

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5139.26	47.34 PK	74.00	-26.66	1.09 H	175	42.01	5.33
2	5139.26	36.59 AV	54.00	-17.41	1.09 H	175	31.26	5.33
3	5150.00	46.29 PK	74.00	-27.71	1.09 H	175	40.95	5.34
4	5150.00	35.37 AV	54.00	-18.63	1.09 H	175	30.03	5.34
5	*5240.00	95.02 PK			1.09 H	175	89.56	5.46
6	*5240.00	84.11 AV			1.09 H	175	78.65	5.46
7	5350.00	46.84 PK	74.00	-27.16	1.09 H	175	41.23	5.61
8	5350.00	36.43 AV	54.00	-17.57	1.09 H	175	30.82	5.61
9	5360.91	47.28 PK	74.00	-26.72	1.09 H	175	41.66	5.62
10	5360.91	36.66 AV	54.00	-17.34	1.09 H	175	31.04	5.62
11	#10480.00	52.76 PK	68.20	-15.44	1.13 H	236	43.30	9.46
12	15720.00	60.74 PK	74.00	-13.26	1.00 H	104	41.81	18.93
13	15720.00	46.72 AV	54.00	-7.28	1.00 H	104	27.79	18.93
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5139.26	46.21 PK	74.00	-27.79	1.05 V	302	40.88	5.33
2	5139.26	35.42 AV	54.00	-18.58	1.05 V	302	30.09	5.33
3	5150.00	45.11 PK	74.00	-28.89	1.05 V	302	39.77	5.34
4	5150.00	34.45 AV	54.00	-19.55	1.05 V	302	29.11	5.34
5	*5240.00	89.79 PK			1.05 V	302	84.33	5.46
6	*5240.00	80.45 AV			1.05 V	302	74.99	5.46
7	5350.00	45.44 PK	74.00	-28.56	1.05 V	302	39.83	5.61
8	5350.00	35.29 AV	54.00	-18.71	1.05 V	302	29.68	5.61
9	5360.91	46.19 PK	74.00	-27.81	1.05 V	302	40.57	5.62
10	5360.91	35.50 AV	54.00	-18.50	1.05 V	302	29.88	5.62
11	#10480.00	51.63 PK	68.20	-16.57	1.08 V	79	42.17	9.46
12	15720.00	59.43 PK	74.00	-14.57	1.00 V	45	40.50	18.93
13	15720.00	45.48 AV	54.00	-8.52	1.00 V	45	26.55	18.93

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



802.11n (20MHz)

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5129.45	46.87 PK	74.00	-27.13	1.01 H	306	41.55	5.32
2	5129.45	36.57 AV	54.00	-17.43	1.01 H	306	31.25	5.32
3	5150.00	46.19 PK	74.00	-27.81	1.01 H	306	40.85	5.34
4	5150.00	35.26 AV	54.00	-18.74	1.01 H	306	29.92	5.34
5	*5180.00	94.25 PK			1.01 H	306	88.87	5.38
6	*5180.00	83.93 AV			1.01 H	306	78.55	5.38
7	#10360.00	52.63 PK	68.20	-15.57	1.09 H	352	43.36	9.27
8	15540.00	60.17 PK	74.00	-13.83	1.00 H	96	41.62	18.55
9	15540.00	46.34 AV	54.00	-7.66	1.00 H	96	27.79	18.55
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5129.45	46.52 PK	74.00	-27.48	1.06 V	178	41.20	5.32
2	5129.45	36.40 AV	54.00	-17.60	1.06 V	178	31.08	5.32
3	5150.00	45.39 PK	74.00	-28.61	1.06 V	178	40.05	5.34
4	5150.00	34.91 AV	54.00	-19.09	1.06 V	178	29.57	5.34
5	*5180.00	91.82 PK			1.06 V	178	86.44	5.38
6	*5180.00	82.56 AV			1.06 V	178	77.18	5.38
7	#10360.00	51.47 PK	68.20	-16.73	1.35 V	294	42.20	9.27
8	15540.00	59.66 PK	74.00	-14.34	1.00 V	35	41.11	18.55
9	15540.00	45.34 AV	54.00	-8.66	1.00 V	35	26.79	18.55

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

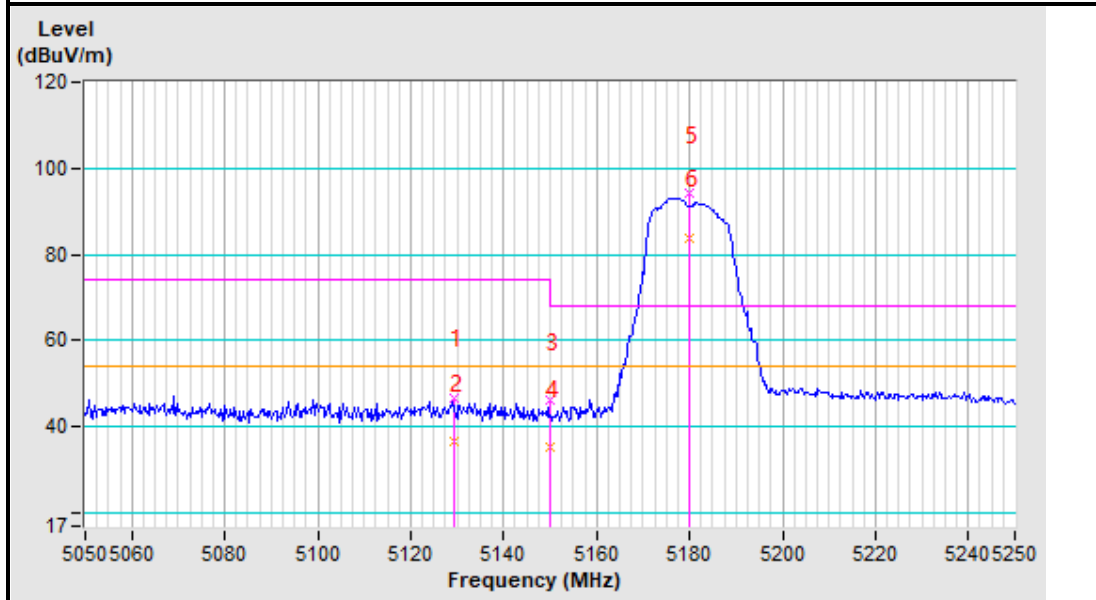


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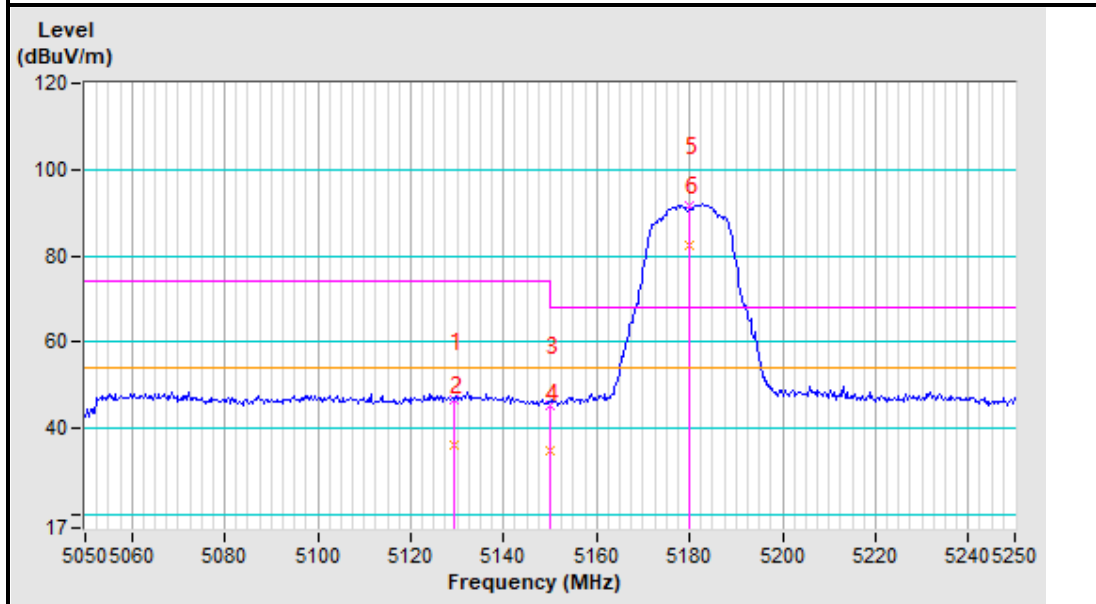
Test Report No.: RF2205WDG0306-4

Band edge Plot

5180MHz Horizontal



5180MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.49	47.94 PK	74.00	-26.06	1.06 H	169	42.60	5.34
2	5145.49	35.27 AV	54.00	-18.73	1.06 H	169	29.93	5.34
3	5150.00	47.31 PK	74.00	-26.69	1.06 H	169	41.97	5.34
4	5150.00	36.21 AV	54.00	-17.79	1.06 H	169	30.87	5.34
5	*5200.00	95.09 PK			1.06 H	169	89.68	5.41
6	*5200.00	84.33 AV			1.06 H	169	78.92	5.41
7	#10400.00	52.76 PK	68.20	-15.44	1.77 H	94	43.43	9.33
8	15600.00	60.84 PK	74.00	-13.16	1.00 H	47	42.16	18.68
9	15600.00	46.92 AV	54.00	-7.08	1.00 H	47	28.24	18.68
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.49	46.52 PK	74.00	-27.48	1.05 V	185	41.18	5.34
2	5145.49	34.11 AV	54.00	-19.89	1.05 V	185	28.77	5.34
3	5150.00	46.25 PK	74.00	-27.75	1.05 V	185	40.91	5.34
4	5150.00	35.47 AV	54.00	-18.53	1.05 V	185	30.13	5.34
5	*5200.00	90.11 PK			1.05 V	185	84.70	5.41
6	*5200.00	80.43 AV			1.05 V	185	75.02	5.41
7	#10400.00	51.44 PK	68.20	-16.76	1.00 V	36	42.11	9.33
8	15600.00	59.75 PK	74.00	-14.25	1.03 V	251	41.07	18.68
9	15600.00	45.17 AV	54.00	-8.83	1.03 V	251	26.49	18.68

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5141.23	48.30 PK	74.00	-25.70	1.02 H	186	42.97	5.33
2	5141.23	36.74 AV	54.00	-17.26	1.02 H	186	31.41	5.33
3	5150.00	47.35 PK	74.00	-26.65	1.02 H	186	42.01	5.34
4	5150.00	36.28 AV	54.00	-17.72	1.02 H	186	30.94	5.34
5	*5240.00	95.43 PK			1.02 H	186	89.97	5.46
6	*5240.00	84.61 AV			1.02 H	186	79.15	5.46
7	5350.00	47.59 PK	74.00	-26.41	1.02 H	186	41.98	5.61
8	5350.00	36.71 AV	54.00	-17.29	1.02 H	186	31.10	5.61
9	5354.75	48.29 PK	74.00	-25.71	1.02 H	186	42.68	5.61
10	5354.75	36.89 AV	54.00	-17.11	1.02 H	186	31.28	5.61
11	#10480.00	53.02 PK	68.20	-15.18	1.56 H	47	43.56	9.46
12	15720.00	61.33 PK	74.00	-12.67	1.00 H	304	42.40	18.93
13	15720.00	47.16 AV	54.00	-6.84	1.00 H	304	28.23	18.93
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5141.23	47.19 PK	74.00	-26.81	1.17 V	175	41.86	5.33
2	5141.23	35.36 AV	54.00	-18.64	1.17 V	175	30.03	5.33
3	5150.00	46.27 PK	74.00	-27.73	1.17 V	175	40.93	5.34
4	5150.00	35.43 AV	54.00	-18.57	1.17 V	175	30.09	5.34
5	*5240.00	90.46 PK			1.17 V	175	85.00	5.46
6	*5240.00	81.22 AV			1.17 V	175	75.76	5.46
7	5350.00	46.29 PK	74.00	-27.71	1.17 V	175	40.68	5.61
8	5350.00	35.54 AV	54.00	-18.46	1.17 V	175	29.93	5.61
9	5354.75	47.11 PK	74.00	-26.89	1.17 V	175	41.50	5.61
10	5354.75	35.20 AV	54.00	-18.80	1.17 V	175	29.59	5.61
11	#10480.00	51.96 PK	68.20	-16.24	1.03 V	32	42.50	9.46
12	15720.00	59.46 PK	74.00	-14.54	1.00 V	196	40.53	18.93
13	15720.00	45.27 AV	54.00	-8.73	1.00 V	196	26.34	18.93

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



802.11n (40MHz)

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5129.45	47.80 PK	74.00	-26.20	1.00 H	305	42.48	5.32
2	5129.45	36.86 AV	54.00	-17.14	1.00 H	305	31.54	5.32
3	5150.00	46.93 PK	74.00	-27.07	1.00 H	305	41.59	5.34
4	5150.00	35.97 AV	54.00	-18.03	1.00 H	305	30.63	5.34
5	*5190.00	93.74 PK			1.00 H	305	88.34	5.40
6	*5190.00	80.85 AV			1.00 H	305	75.45	5.40
7	#10380.00	52.39 PK	68.20	-15.81	2.00 H	174	43.08	9.31
8	15570.00	60.44 PK	74.00	-13.56	1.00 H	326	41.83	18.61
9	15570.00	46.79 AV	54.00	-7.21	1.00 H	326	28.18	18.61
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5129.45	47.09 PK	74.00	-26.91	1.00 V	168	41.77	5.32
2	5129.45	36.21 AV	54.00	-17.79	1.00 V	168	30.89	5.32
3	5150.00	46.17 PK	74.00	-27.83	1.00 V	168	40.83	5.34
4	5150.00	34.29 AV	54.00	-19.71	1.00 V	168	28.95	5.34
5	*5190.00	88.78 PK			1.00 V	168	83.38	5.40
6	*5190.00	79.47 AV			1.00 V	168	74.07	5.40
7	#10380.00	51.44 PK	68.20	-16.76	1.07 V	214	42.13	9.31
8	15570.00	59.25 PK	74.00	-14.75	1.50 V	36	40.64	18.61
9	15570.00	45.11 AV	54.00	-8.89	1.50 V	36	26.50	18.61

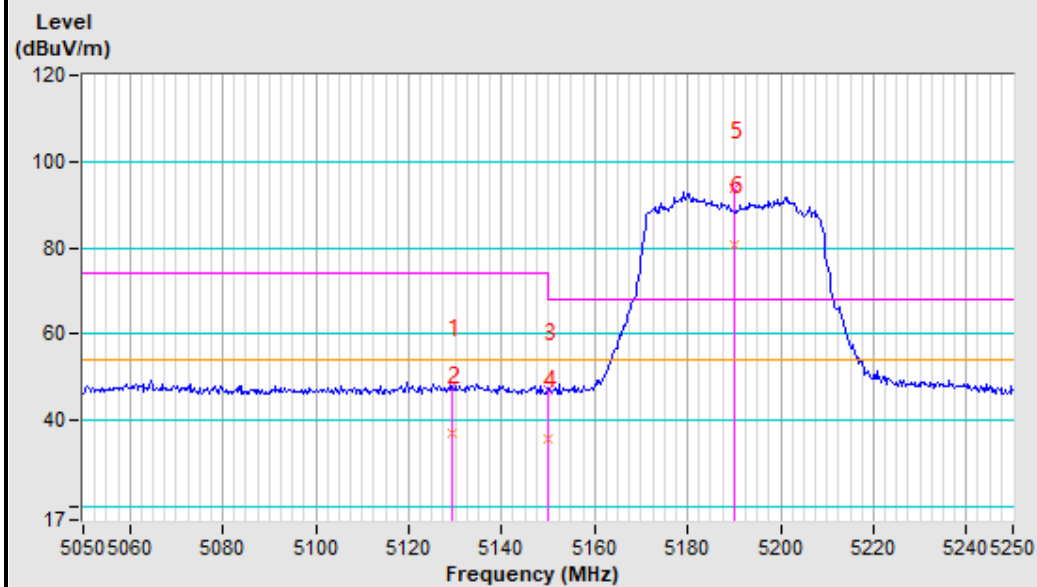
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

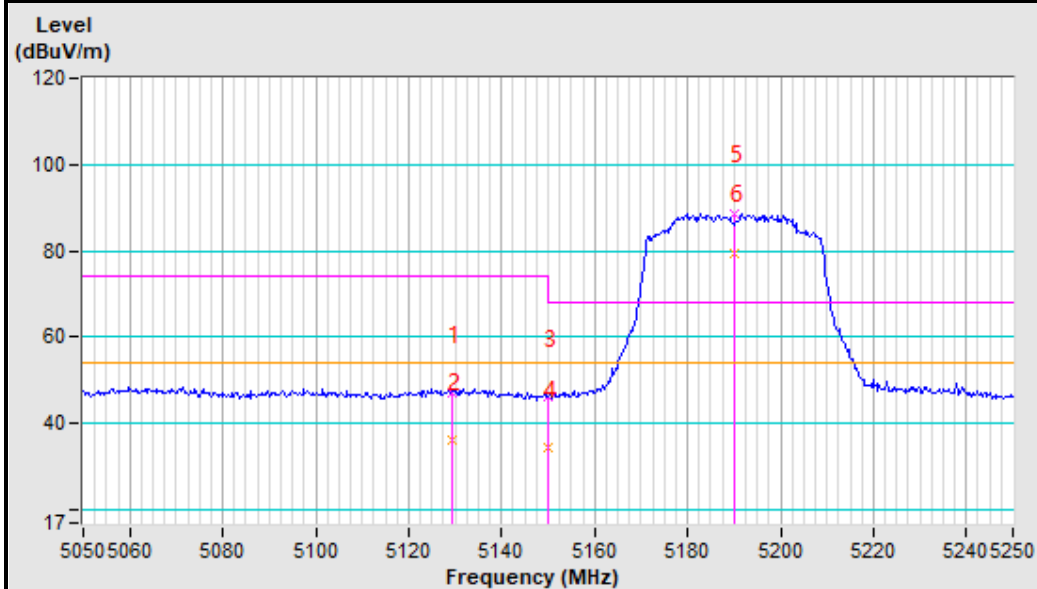


Band edge Plot

5190MHz Horizontal



5190MHz Vertical





**BUREAU
VERITAS**

Test Report No.: RF2205WDG0306-4

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5133.49	47.21 PK	74.00	-26.79	1.15 H	178	41.88	5.33
2	5133.49	36.44 AV	54.00	-17.56	1.15 H	178	31.11	5.33
3	5150.00	47.05 PK	74.00	-26.95	1.15 H	178	41.71	5.34
4	5150.00	36.24 AV	54.00	-17.76	1.15 H	178	30.90	5.34
5	*5230.00	93.25 PK			1.15 H	178	87.80	5.45
6	*5230.00	80.44 AV			1.15 H	178	74.99	5.45
7	#10460.00	52.71 PK	68.20	-15.49	1.00 H	54	43.28	9.43
8	15690.00	61.39 PK	74.00	-12.61	1.00 H	94	42.52	18.87
9	15690.00	47.24 AV	54.00	-6.76	1.00 H	94	28.37	18.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5133.49	46.37 PK	74.00	-27.63	1.05 V	175	41.04	5.33
2	5133.49	35.29 AV	54.00	-18.71	1.05 V	175	29.96	5.33
3	5150.00	46.21 PK	74.00	-27.79	1.05 V	175	40.87	5.34
4	5150.00	35.44 AV	54.00	-18.56	1.05 V	175	30.10	5.34
5	*5230.00	88.24 PK			1.05 V	175	82.79	5.45
6	*5230.00	79.63 AV			1.05 V	175	74.18	5.45
7	#10460.00	51.51 PK	68.20	-16.69	1.52 V	97	42.08	9.43
8	15690.00	60.21 PK	74.00	-13.79	1.00 V	305	41.34	18.87
9	15690.00	46.19 AV	54.00	-7.81	1.00 V	305	27.32	18.87

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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802.11ac (80MHz)

CHANNEL	TX Channel 42	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5129.45	47.87 PK	74.00	-26.13	1.00 H	303	42.55	5.32
2	5129.45	36.36 AV	54.00	-17.64	1.00 H	303	31.04	5.32
3	5150.00	46.99 PK	74.00	-27.01	1.00 H	303	41.65	5.34
4	5150.00	35.26 AV	54.00	-18.74	1.00 H	303	29.92	5.34
5	#5210.00	88.96 PK	68.20	20.76	1.00 H	303	83.53	5.43
6	#5210.00	75.74 AV	54.00	21.74	1.00 H	303	70.31	5.43
7	#10420.00	52.63 PK	68.20	-15.57	1.52 H	351	43.26	9.37
8	15630.00	60.18 PK	74.00	-13.82	1.00 H	75	41.44	18.74
9	15630.00	46.35 AV	54.00	-7.65	1.00 H	75	27.61	18.74
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5129.45	46.71 PK	74.00	-27.29	1.00 V	169	41.39	5.32
2	5129.45	36.09 AV	54.00	-17.91	1.00 V	169	30.77	5.32
3	5150.00	45.63 PK	74.00	-28.37	1.00 V	169	40.29	5.34
4	5150.00	35.14 AV	54.00	-18.86	1.00 V	169	29.80	5.34
5	#5210.00	86.22 PK	68.20	18.02	1.00 V	169	80.79	5.43
6	#5210.00	73.54 AV	54.00	19.54	1.00 V	169	68.11	5.43
7	#10420.00	51.75 PK	68.20	-16.45	1.08 V	45	42.38	9.37
8	15630.00	59.66 PK	74.00	-14.34	1.00 V	62	40.92	18.74
9	15630.00	45.20 AV	54.00	-8.80	1.00 V	62	26.46	18.74

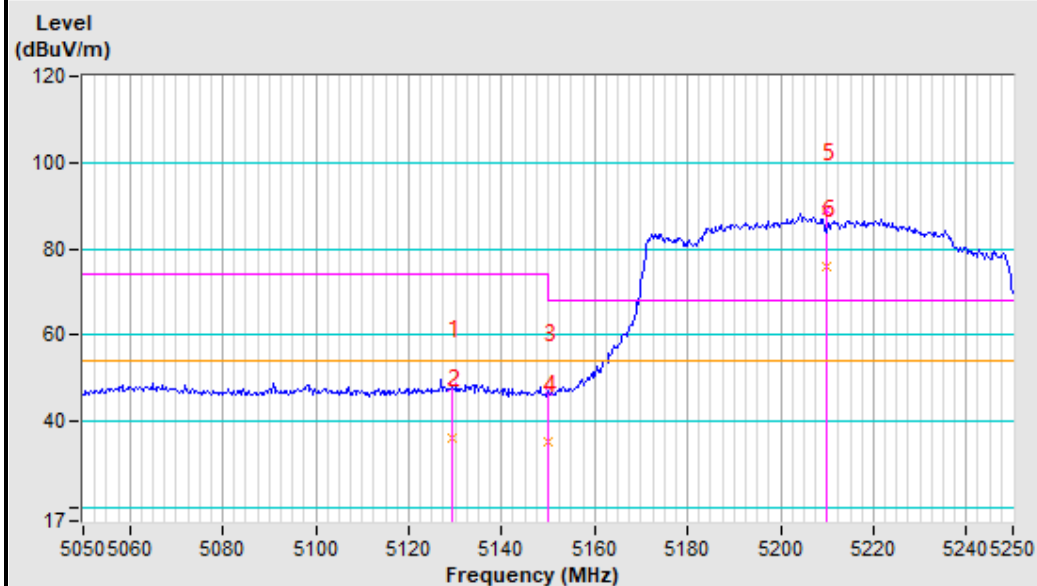
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

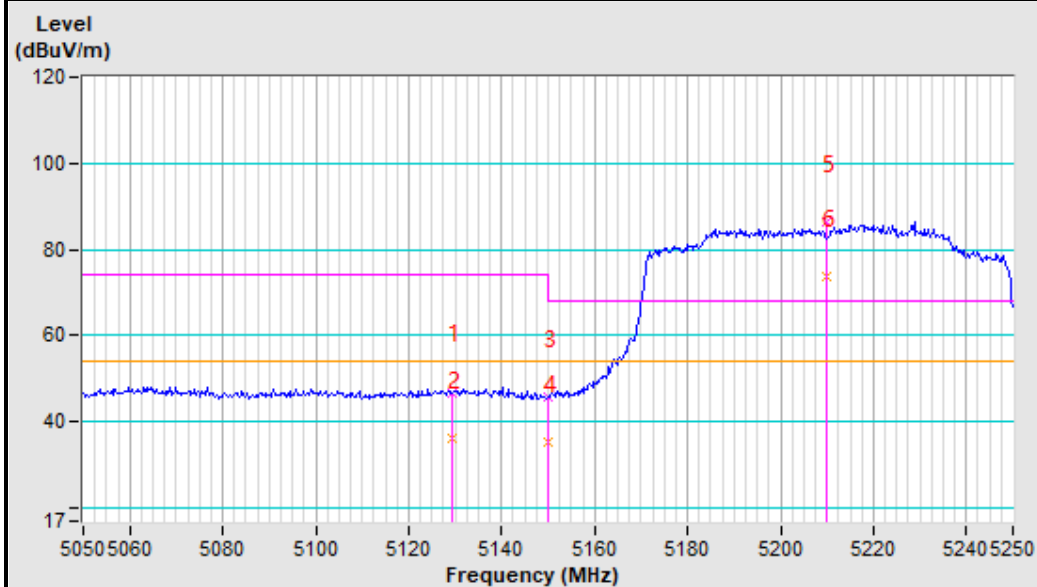


Band edge Plot

5210MHz Horizontal



5210MHz Vertical





Band 2 (5250-5350MHz):802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5142.00	43.39 PK	74.00	-30.61	1.00 H	140	37.60	5.79
2	5142.00	33.75 AV	54.00	-20.25	1.00 H	140	27.96	5.79
3	5150.00	42.36 PK	74.00	-31.64	1.00 H	140	36.56	5.80
4	5150.00	31.09 AV	54.00	-22.91	1.00 H	140	25.29	5.80
5	*5260.00	95.26 PK			1.00 H	140	89.26	6.00
6	*5260.00	84.75 AV			1.00 H	140	78.75	6.00
7	5350.00	44.10 PK	74.00	-29.90	1.00 H	140	37.93	6.17
8	5350.00	33.96 AV	54.00	-20.04	1.00 H	140	27.79	6.17
9	5359.00	42.19 PK	74.00	-31.81	1.00 H	140	36.01	6.18
10	5359.00	32.68 AV	54.00	-21.32	1.00 H	140	26.50	6.18
11	#10520.00	53.97 PK	68.20	-14.23	1.00 H	105	40.15	13.82
12	15780.00	58.20 PK	74.00	-15.80	1.00 H	36	38.97	19.23
13	15780.00	46.10 AV	54.00	-7.90	1.00 H	36	26.87	19.23
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.30	42.51 PK	74.00	-31.49	1.00 V	126	36.72	5.79
2	5145.30	32.96 AV	54.00	-21.04	1.00 V	126	27.17	5.79
3	5150.00	43.36 PK	74.00	-30.64	1.00 V	126	37.56	5.80
4	5150.00	33.29 AV	54.00	-20.71	1.00 V	126	27.49	5.80
5	*5260.00	90.26 PK			1.00 V	126	84.26	6.00
6	*5260.00	81.03 AV			1.00 V	126	75.03	6.00
7	5350.00	44.16 PK	74.00	-29.84	1.00 V	126	37.99	6.17
8	5350.00	33.57 AV	54.00	-20.43	1.00 V	126	27.40	6.17
9	5359.00	44.10 PK	74.00	-29.90	1.00 V	126	37.92	6.18
10	5359.00	34.26 AV	54.00	-19.74	1.00 V	126	28.08	6.18
11	#10520.00	53.65 PK	68.20	-14.55	1.00 V	58	39.83	13.82
12	15780.00	57.21 PK	74.00	-16.79	1.05 V	140	37.98	19.23
13	15780.00	45.15 AV	54.00	-8.85	1.05 V	140	25.92	19.23

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.



CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	95.10 PK			1.00 H	259	89.02	6.08
2	*5300.00	84.69 AV			1.00 H	259	78.61	6.08
3	5350.00	45.36 PK	74.00	-28.64	1.00 H	259	39.19	6.17
4	5350.00	36.10 AV	54.00	-17.90	1.00 H	259	29.93	6.17
5	5357.00	44.10 PK	74.00	-29.90	1.00 H	259	37.92	6.18
6	5357.00	34.66 AV	54.00	-19.34	1.00 H	259	28.48	6.18
7	10600.00	52.10 PK	74.00	-21.90	1.00 H	127	38.19	13.91
8	10600.00	39.52 AV	54.00	-14.48	1.00 H	127	25.61	13.91
9	15900.00	56.36 PK	74.00	-17.64	1.20 H	57	36.94	19.42
10	15900.00	44.10 AV	54.00	-9.90	1.20 H	57	24.68	19.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	89.65 PK			1.00 V	123	83.57	6.08
2	*5300.00	80.47 AV			1.00 V	123	74.39	6.08
3	5350.00	44.10 PK	74.00	-29.90	1.00 V	123	37.93	6.17
4	5350.00	35.25 AV	54.00	-18.75	1.00 V	123	29.08	6.17
5	5358.00	45.36 PK	74.00	-28.64	1.00 V	123	39.18	6.18
6	5358.00	36.10 AV	54.00	-17.90	1.00 V	123	29.92	6.18
7	10600.00	54.20 PK	74.00	-19.80	1.00 V	145	40.29	13.91
8	10600.00	40.36 AV	54.00	-13.64	1.00 V	145	26.45	13.91
9	15900.00	57.36 PK	74.00	-16.64	1.00 V	128	37.94	19.42
10	15900.00	45.25 AV	54.00	-8.75	1.00 V	128	25.83	19.42

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	94.79 PK			1.00 H	128	88.68	6.11
2	*5320.00	84.63 AV			1.00 H	128	78.52	6.11
3	5350.00	52.10 PK	74.00	-21.90	1.00 H	129	45.93	6.17
4	5350.00	39.51 AV	54.00	-14.49	1.00 H	129	33.34	6.17
5	5355.21	49.36 PK	74.00	-24.64	1.00 H	129	43.18	6.18
6	5355.21	37.21 AV	54.00	-16.79	1.00 H	129	31.03	6.18
7	10640.00	53.62 PK	74.00	-20.38	1.00 H	102	39.67	13.95
8	10640.00	39.74 AV	54.00	-14.26	1.00 H	102	25.79	13.95
9	15960.00	56.41 PK	74.00	-17.59	1.05 H	54	36.90	19.51
10	15960.00	45.84 AV	54.00	-8.16	1.05 H	54	26.33	19.51
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	87.72 PK			1.02 V	258	81.61	6.11
2	*5320.00	78.41 AV			1.02 V	258	72.30	6.11
3	5350.00	46.97 PK	74.00	-27.03	1.02 V	258	40.80	6.17
4	5350.00	34.25 AV	54.00	-19.75	1.02 V	258	28.08	6.17
5	5414.45	50.26 PK	74.00	-23.74	1.02 V	258	43.97	6.29
6	5414.45	36.10 AV	54.00	-17.90	1.02 V	258	29.81	6.29
7	10640.00	51.36 PK	74.00	-22.64	1.62 V	214	37.41	13.95
8	10640.00	38.74 AV	54.00	-15.26	1.62 V	214	24.79	13.95
9	15960.00	56.41 PK	74.00	-17.59	1.02 V	214	36.90	19.51
10	15960.00	44.27 AV	54.00	-9.73	1.02 V	214	24.76	19.51

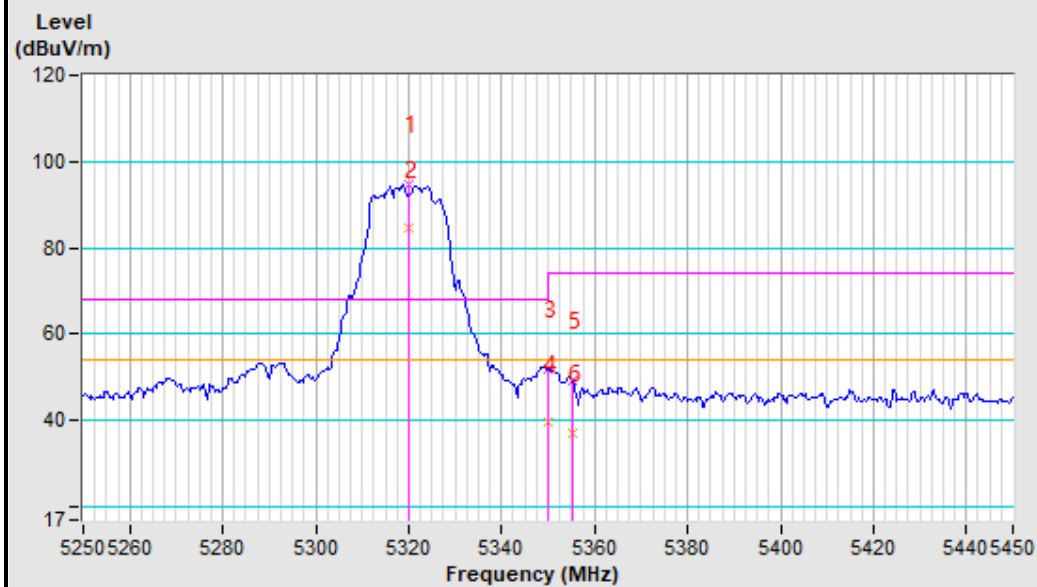
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

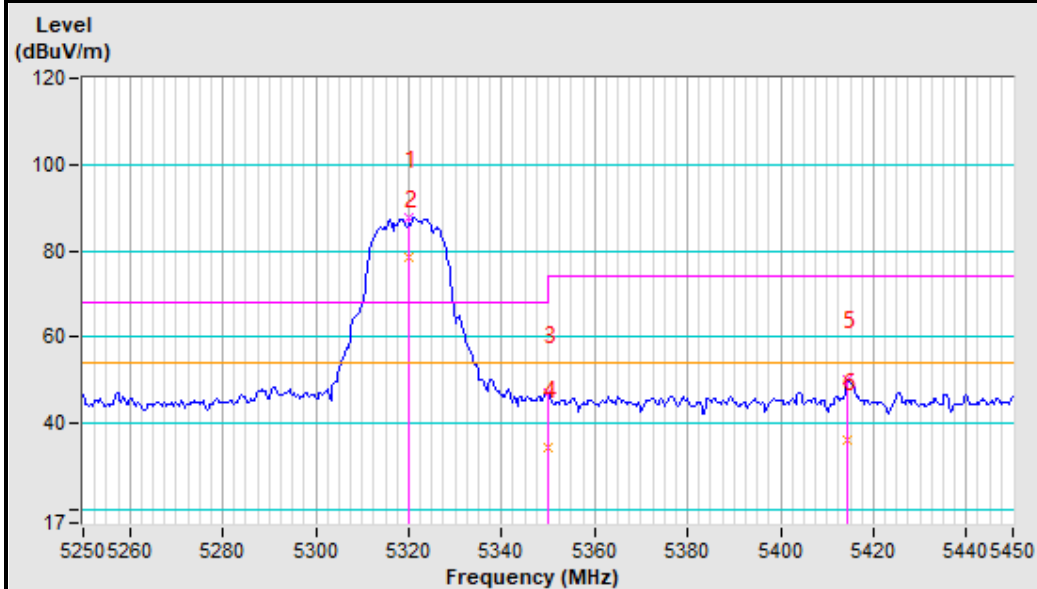


Band edge Plot

5320MHz Horizontal



5320MHz Vertical





Test Report No.: RF2205WDG0306-4

802.11n (20MHz)

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5143.00	46.36 PK	74.00	-27.64	1.01 H	104	40.57	5.79
2	5143.00	35.21 AV	54.00	-18.79	1.01 H	104	29.42	5.79
3	5150.00	45.98 PK	74.00	-28.02	1.01 H	104	40.18	5.80
4	5150.00	35.10 AV	54.00	-18.90	1.01 H	104	29.30	5.80
5	*5260.00	94.95 PK			1.01 H	104	88.95	6.00
6	*5260.00	84.69 AV			1.01 H	104	78.69	6.00
7	5350.00	44.36 PK	74.00	-29.64	1.01 H	104	38.19	6.17
8	5350.00	34.15 AV	54.00	-19.85	1.01 H	104	27.98	6.17
9	5358.00	46.36 PK	74.00	-27.64	1.01 H	104	40.18	6.18
10	5358.00	36.14 AV	54.00	-17.86	1.01 H	104	29.96	6.18
11	#10520.00	53.36 PK	68.20	-14.84	1.05 H	241	39.54	13.82
12	15780.00	56.36 PK	74.00	-17.64	1.01 H	126	37.13	19.23
13	15780.00	45.47 AV	54.00	-8.53	1.01 H	126	26.24	19.23
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	46.36 PK	74.00	-27.64	1.00 V	123	40.57	5.79
2	5145.00	35.25 AV	54.00	-18.75	1.00 V	123	29.46	5.79
3	5150.00	46.36 PK	74.00	-27.64	1.00 V	123	40.56	5.80
4	5150.00	34.20 AV	54.00	-19.80	1.00 V	123	28.40	5.80
5	*5260.00	88.36 PK			1.00 V	123	82.36	6.00
6	*5260.00	74.10 AV			1.00 V	123	68.10	6.00
7	5350.00	44.10 PK	74.00	-29.90	1.00 V	123	37.93	6.17
8	5350.00	34.36 AV	54.00	-19.64	1.00 V	123	28.19	6.17
9	5354.00	46.36 PK	74.00	-27.64	1.00 V	123	40.19	6.17
10	5354.00	35.59 AV	54.00	-18.41	1.00 V	123	29.42	6.17
11	#10520.00	54.26 PK	68.20	-13.94	1.00 V	56	40.44	13.82
12	15780.00	56.36 PK	74.00	-17.64	1.00 V	129	37.13	19.23
13	15780.00	46.10 AV	54.00	-7.90	1.00 V	129	26.87	19.23

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

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CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	94.85 PK			1.00 H	126	88.77	6.08
2	*5300.00	83.62 AV			1.00 H	126	77.54	6.08
3	5350.00	43.36 PK	74.00	-30.64	1.00 H	126	37.19	6.17
4	5350.00	32.69 AV	54.00	-21.31	1.00 H	126	26.52	6.17
5	5352.00	44.10 PK	74.00	-29.90	1.00 H	126	37.93	6.17
6	5352.00	33.15 AV	54.00	-20.85	1.00 H	126	26.98	6.17
7	10600.00	54.36 PK	74.00	-19.64	1.00 H	126	40.45	13.91
8	10600.00	40.15 AV	54.00	-13.85	1.00 H	126	26.24	13.91
9	15900.00	58.26 PK	74.00	-15.74	1.00 H	126	38.84	19.42
10	15900.00	46.36 AV	54.00	-7.64	1.00 H	126	26.94	19.42
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	88.25 PK			1.40 V	159	82.17	6.08
2	*5300.00	76.36 AV			1.40 V	159	70.28	6.08
3	5350.00	44.20 PK	74.00	-29.80	1.40 V	159	38.03	6.17
4	5350.00	33.69 AV	54.00	-20.31	1.40 V	159	27.52	6.17
5	5356.00	45.34 PK	74.00	-28.66	1.40 V	159	39.16	6.18
6	5356.00	35.69 AV	54.00	-18.31	1.40 V	159	29.51	6.18
7	10600.00	52.36 PK	74.00	-21.64	1.40 V	159	38.45	13.91
8	10600.00	38.69 AV	54.00	-15.31	1.40 V	159	24.78	13.91
9	15900.00	56.36 PK	74.00	-17.64	1.40 V	159	36.94	19.42
10	15900.00	46.20 AV	54.00	-7.80	1.40 V	159	26.78	19.42

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	85.44 PK			1.02 H	201	79.33	6.11
2	*5320.00	75.24 AV			1.02 H	201	69.13	6.11
3	5350.00	44.15 PK	74.00	-29.85	1.02 H	201	37.98	6.17
4	5350.00	33.69 AV	54.00	-20.31	1.02 H	201	27.52	6.17
5	5389.65	48.39 PK	74.00	-25.61	1.02 H	201	42.15	6.24
6	5389.65	39.62 AV	54.00	-14.38	1.02 H	201	33.38	6.24
7	10640.00	53.36 PK	74.00	-20.64	1.00 H	261	39.41	13.95
8	10640.00	40.10 AV	54.00	-13.90	1.00 H	261	26.15	13.95
9	15960.00	55.36 PK	74.00	-18.64	1.01 H	156	35.85	19.51
10	15960.00	43.37 AV	54.00	-10.63	1.01 H	156	23.86	19.51
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	85.70 PK			1.00 V	123	79.59	6.11
2	*5320.00	74.10 AV			1.00 V	123	67.99	6.11
3	5350.00	45.07 PK	74.00	-28.93	1.00 V	123	38.90	6.17
4	5350.00	35.14 AV	54.00	-18.86	1.00 V	123	28.97	6.17
5	5389.63	49.26 PK	74.00	-24.74	1.00 V	123	43.02	6.24
6	5389.63	38.74 AV	54.00	-15.26	1.00 V	123	32.50	6.24
7	10640.00	52.03 PK	74.00	-21.97	1.00 V	58	38.08	13.95
8	10640.00	38.96 AV	54.00	-15.04	1.00 V	58	25.01	13.95
9	15960.00	54.15 PK	74.00	-19.85	1.01 V	110	34.64	19.51
10	15960.00	42.15 AV	54.00	-11.85	1.01 V	110	22.64	19.51

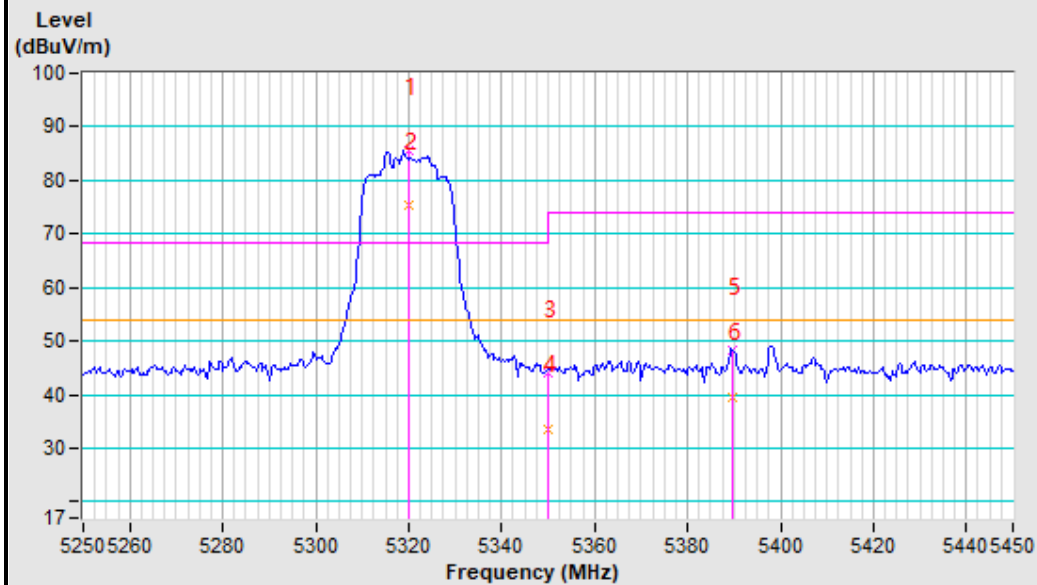
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

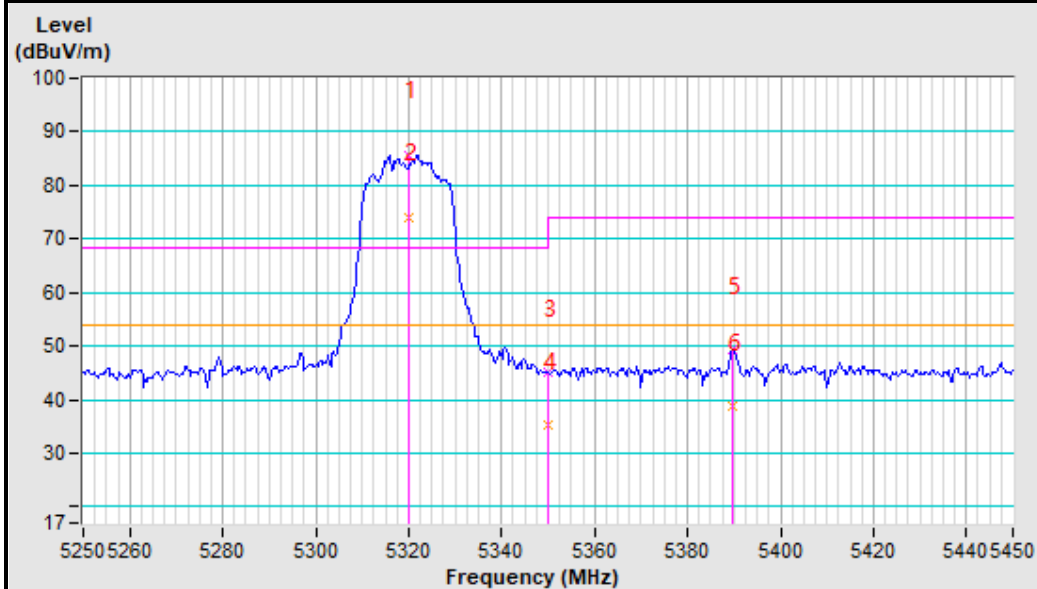


Band edge Plot

5320MHz Horizontal



5320MHz Vertical





802.11n (40MHz)

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	87.69 PK			1.06 H	296	81.67	6.02
2	*5270.00	77.41 AV			1.06 H	296	71.39	6.02
3	5350.00	45.25 PK	74.00	-28.75	1.06 H	296	39.08	6.17
4	5350.00	36.39 AV	54.00	-17.61	1.06 H	296	30.22	6.17
5	5357.00	47.25 PK	74.00	-26.75	1.06 H	296	41.07	6.18
6	5357.00	37.41 AV	54.00	-16.59	1.06 H	296	31.23	6.18
7	#10540.00	54.10 PK	68.20	-14.10	1.00 H	127	40.26	13.84
8	15810.00	57.41 PK	74.00	-16.59	1.70 H	58	38.13	19.28
9	15810.00	45.27 AV	54.00	-8.73	1.70 H	58	25.99	19.28
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	82.36 PK			1.00 V	129	76.34	6.02
2	*5270.00	72.69 AV			1.00 V	129	66.67	6.02
3	5350.00	43.36 PK	74.00	-30.64	1.00 V	129	37.19	6.17
4	5350.00	32.15 AV	54.00	-21.85	1.00 V	129	25.98	6.17
5	5356.00	46.26 PK	74.00	-27.74	1.00 V	129	40.08	6.18
6	5356.00	35.28 AV	54.00	-18.72	1.00 V	129	29.10	6.18
7	#10540.00	52.74 PK	68.20	-15.46	1.00 V	140	38.90	13.84
8	15810.00	57.36 PK	74.00	-16.64	1.04 V	59	38.08	19.28
9	15810.00	46.69 AV	54.00	-7.31	1.04 V	59	27.41	19.28

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.



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Test Report No.: RF2205WDG0306-4

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	81.91 PK			1.00 H	125	75.82	6.09
2	*5310.00	70.36 AV			1.00 H	125	64.27	6.09
3	5350.00	44.47 PK	74.00	-29.53	1.00 H	125	38.30	6.17
4	5350.00	33.69 AV	54.00	-20.31	1.00 H	125	27.52	6.17
5	5389.65	49.37 PK	74.00	-24.63	1.00 H	125	43.13	6.24
6	5389.65	38.62 AV	54.00	-15.38	1.00 H	125	32.38	6.24
7	10620.00	54.36 PK	74.00	-19.64	1.00 H	257	40.43	13.93
8	10620.00	40.26 AV	54.00	-13.74	1.00 H	257	26.33	13.93
9	15930.00	57.36 PK	74.00	-16.64	1.00 H	126	37.90	19.46
10	15930.00	46.51 AV	54.00	-7.49	1.00 H	126	27.05	19.46
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	81.97 PK			1.06 V	63	75.88	6.09
2	*5310.00	69.81 AV			1.06 V	63	63.72	6.09
3	5350.00	44.58 PK	74.00	-29.42	1.06 V	63	38.41	6.17
4	5350.00	34.26 AV	54.00	-19.74	1.06 V	63	28.09	6.17
5	5389.36	48.28 PK	74.00	-25.72	1.06 V	63	42.04	6.24
6	5389.36	38.69 AV	54.00	-15.31	1.06 V	63	32.45	6.24
7	10620.00	53.74 PK	74.00	-20.26	1.00 V	58	39.81	13.93
8	10620.00	39.85 AV	54.00	-14.15	1.00 V	58	25.92	13.93
9	15930.00	56.74 PK	74.00	-17.26	1.00 V	104	37.28	19.46
10	15930.00	46.10 AV	54.00	-7.90	1.00 V	104	26.64	19.46

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.

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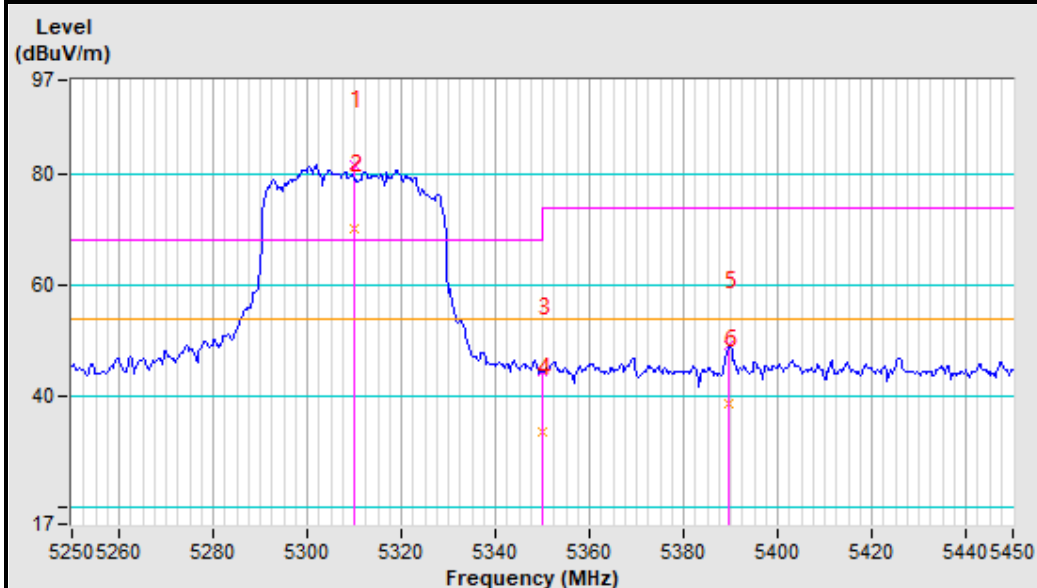


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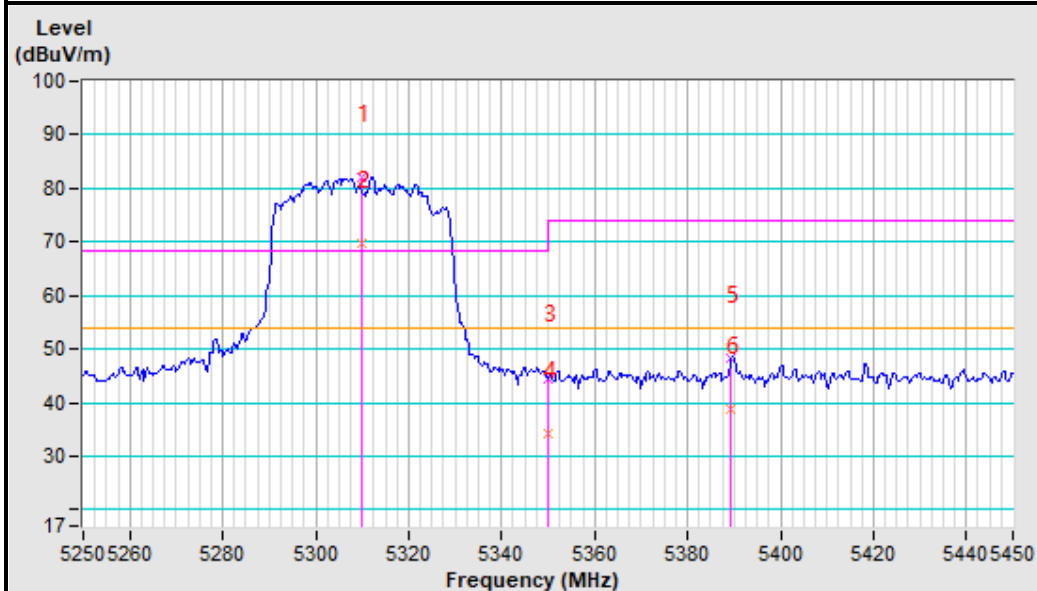
Test Report No.: RF2205WDG0306-4

Band edge Plot

5310MHz Horizontal



5310MHz Vertical





802.11ac 80MHz

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5290.00	86.33 PK	68.20	18.13	1.04 H	46	80.27	6.06
2	#5290.00	75.41 AV	54.00	21.41	1.04 H	46	69.35	6.06
3	5350.00	45.98 PK	74.00	-28.02	1.04 H	46	39.81	6.17
4	5350.00	36.21 AV	54.00	-17.79	1.04 H	46	30.04	6.17
5	5388.49	45.69 PK	74.00	-28.31	1.04 H	46	39.45	6.24
6	5388.49	35.74 AV	54.00	-18.26	1.04 H	46	29.50	6.24
7	#10580.00	54.16 PK	68.20	-14.04	1.00 H	126	40.27	13.89
8	15870.00	56.36 PK	74.00	-17.64	1.40 H	158	36.99	19.37
9	15870.00	45.75 AV	54.00	-8.25	1.40 H	158	26.38	19.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5290.00	79.36 PK	68.20	11.16	1.02 V	213	73.30	6.06
2	#5290.00	68.52 AV	54.00	14.52	1.02 V	213	62.46	6.06
3	5350.00	45.14 PK	74.00	-28.86	1.02 V	213	38.97	6.17
4	5350.00	34.26 AV	54.00	-19.74	1.02 V	213	28.09	6.17
5	5390.52	47.59 PK	74.00	-26.41	1.02 V	213	41.35	6.24
6	5390.52	37.58 AV	54.00	-16.42	1.02 V	213	31.34	6.24
7	#10580.00	53.74 PK	68.20	-14.46	1.00 V	96	39.85	13.89
8	15870.00	55.74 PK	74.00	-18.26	1.40 V	103	36.37	19.37
9	15870.00	44.69 AV	54.00	-9.31	1.40 V	103	25.32	19.37

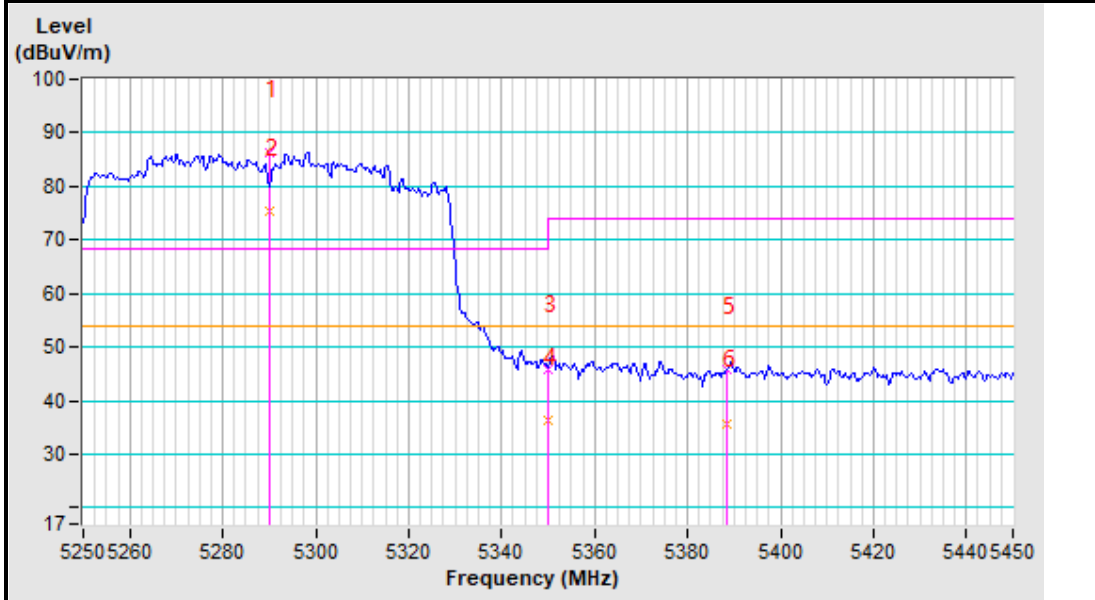
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

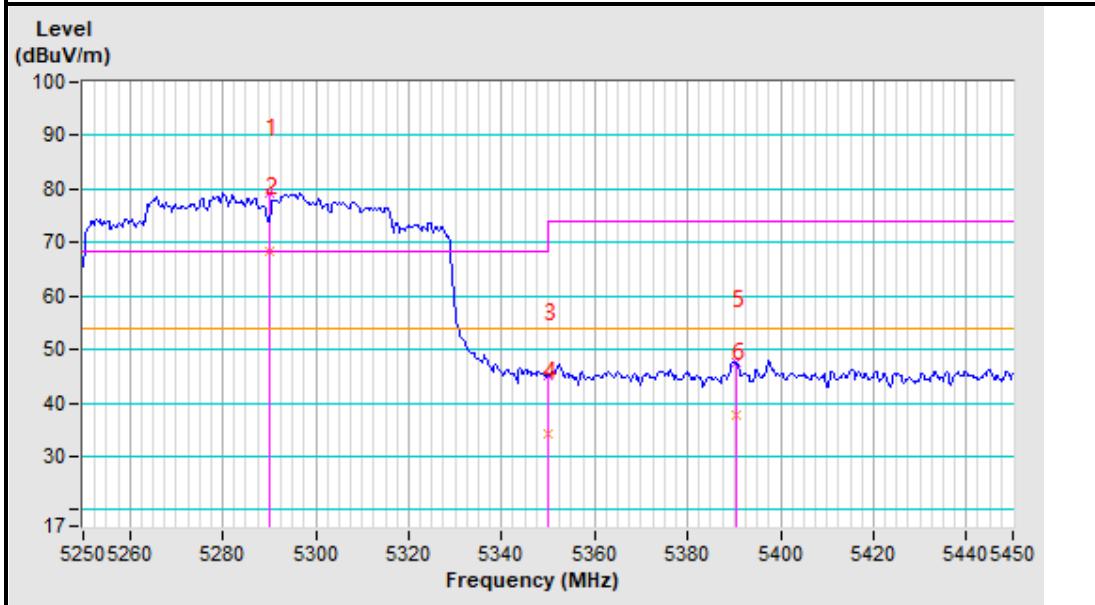


Band edge Plot

5290MHz Horizontal



5290MHz Vertical





Band 1 + Band 2 (5150-5350MHz):

ABOVE 1GHz DATA

802.11ac (160MHz)

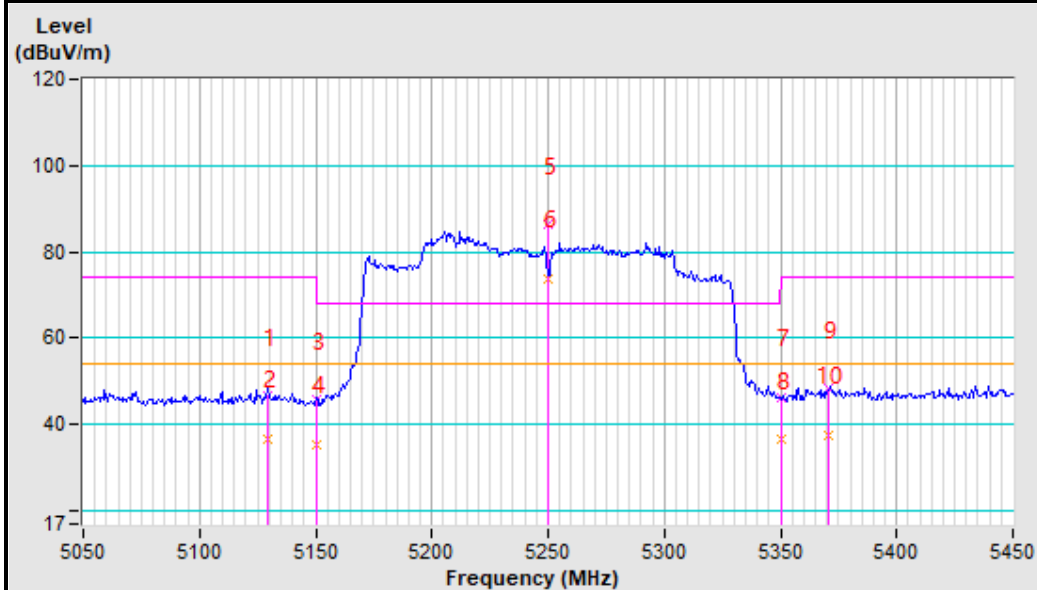
CHANNEL	TX Channel 50	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5129.45	46.67 PK	74.00	-27.33	1.01 H	309	41.35	5.32
2	5129.45	36.83 AV	54.00	-17.17	1.01 H	309	31.51	5.32
3	5150.00	45.71 PK	74.00	-28.29	1.01 H	309	40.37	5.34
4	5150.00	35.47 AV	54.00	-18.53	1.01 H	309	30.13	5.34
5	*5250.00	86.26 PK	68.20	18.06	1.01 H	309	80.79	5.47
6	*5250.00	73.80 AV	54.00	19.80	1.01 H	309	68.33	5.47
7	5350.00	46.37 PK	74.00	-27.63	1.01 H	309	40.76	5.61
8	5350.00	36.48 AV	54.00	-17.52	1.01 H	309	30.87	5.61
9	5370.98	48.29 PK	74.00	-25.71	1.01 H	309	42.66	5.63
10	5370.98	37.73 AV	54.00	-16.27	1.01 H	309	32.10	5.63
11	#10500.00	52.44 PK	68.20	-15.76	1.00 H	37	42.95	9.49
12	15750.00	61.43 PK	74.00	-12.57	2.00 H	103	42.43	19.00
13	15750.00	47.01 AV	54.00	-6.99	2.00 H	103	28.01	19.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5129.45	45.20 PK	74.00	-28.80	1.14 V	178	39.88	5.32
2	5129.45	36.36 AV	54.00	-17.64	1.14 V	178	31.04	5.32
3	5150.00	45.40 PK	74.00	-28.60	1.14 V	178	40.06	5.34
4	5150.00	35.40 AV	54.00	-18.60	1.14 V	178	30.06	5.34
5	*5250.00	80.64 PK	68.20	12.44	1.14 V	178	75.17	5.47
6	*5250.00	69.60 AV	54.00	15.60	1.14 V	178	64.13	5.47
7	5350.00	45.25 PK	74.00	-28.75	1.14 V	178	39.64	5.61
8	5350.00	36.14 AV	54.00	-17.86	1.14 V	178	30.53	5.61
9	5370.98	47.49 PK	74.00	-26.51	1.14 V	178	41.86	5.63
10	5370.98	37.46 AV	54.00	-16.54	1.14 V	178	31.83	5.63
11	#10500.00	51.63 PK	68.20	-16.57	1.07 V	215	42.14	9.49
12	15750.00	60.35 PK	74.00	-13.65	1.35 V	308	41.35	19.00
13	15750.00	46.92 AV	54.00	-7.08	1.35 V	308	27.92	19.00

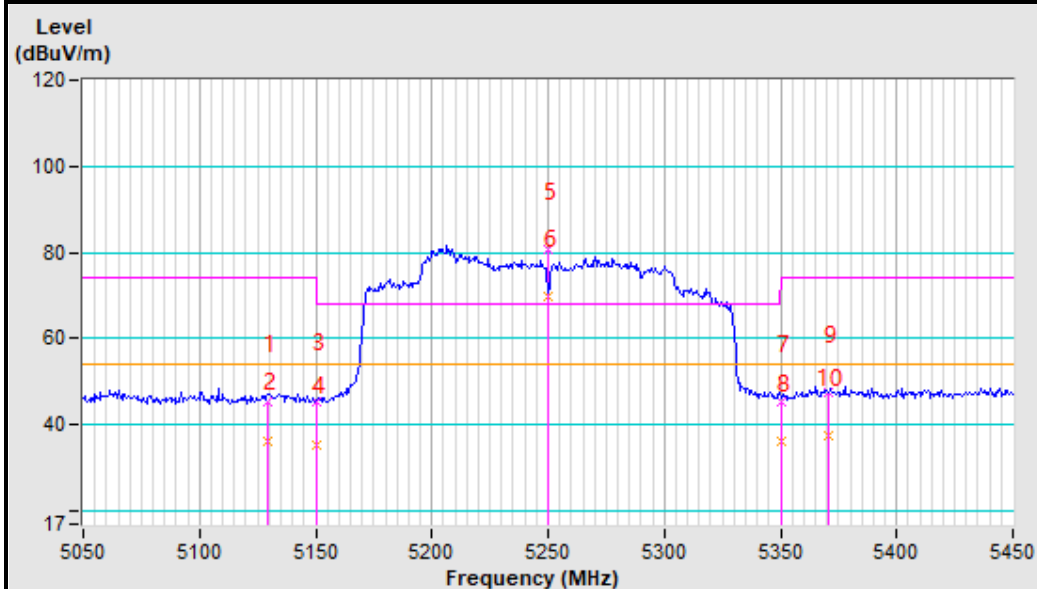


Band edge Plot

5250MHz Horizontal



5250MHz Vertical





Test Report No.: RF2205WDG0306-4

Band 3 (5470-5725MHz):

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5462.94	48.71 PK	68.20	-19.49	1.00 H	274	42.96	5.75
2	#5470.00	48.54 PK	68.20	-19.66	1.00 H	274	42.78	5.76
3	*5500.00	97.27 PK			1.00 H	274	91.47	5.80
4	*5500.00	87.06 AV			1.00 H	274	81.26	5.80
5	11000.00	52.69 PK	74.00	-21.31	1.05 H	49	41.70	10.99
6	11000.00	44.64 AV	54.00	-9.36	1.05 H	49	33.65	10.99
7	#16500.00	61.82 PK	68.20	-6.38	1.00 H	197	43.15	18.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5462.94	48.63 PK	68.20	-19.57	1.00 V	317	42.88	5.75
2	#5470.00	47.33 PK	68.20	-20.87	1.00 V	317	41.57	5.76
3	*5500.00	93.19 PK			1.00 V	317	87.39	5.80
4	*5500.00	81.37 AV			1.00 V	317	75.57	5.80
5	11000.00	51.71 PK	74.00	-22.29	2.00 V	129	40.72	10.99
6	11000.00	43.25 AV	54.00	-10.75	2.00 V	129	32.26	10.99
7	#16500.00	60.19 PK	68.20	-8.01	1.00 V	152	41.52	18.67

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

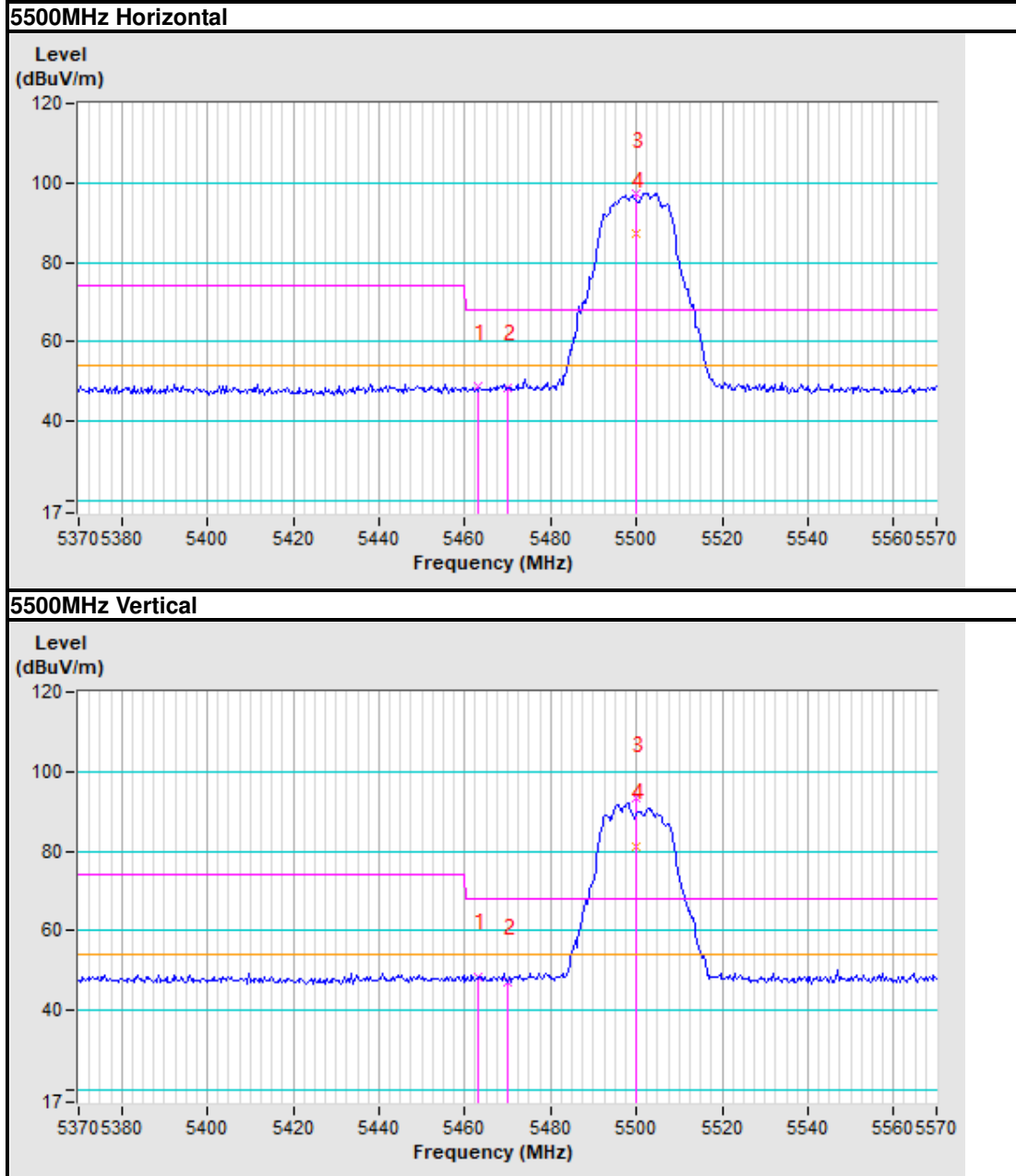
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Dongguan Branch

No. 96, Guantai Road (Houjie Section), Houjie
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Band edge Plot





CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	46.34 PK	68.20	-21.86	1.06 H	177	40.58	5.76
2	*5580.00	96.52 PK			1.06 H	177	90.60	5.92
3	*5580.00	84.39 AV			1.06 H	177	78.47	5.92
4	11160.00	52.11 PK	74.00	-21.89	1.34 H	59	40.19	11.92
5	11160.00	43.29 AV	54.00	-10.71	1.34 H	59	31.37	11.92
6	#16740.00	61.74 PK	68.20	-6.46	1.00 H	109	42.33	19.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	45.71 PK	68.20	-22.49	1.08 V	157	39.95	5.76
2	*5580.00	92.44 PK			1.08 V	157	86.52	5.92
3	*5580.00	80.91 AV			1.08 V	157	74.99	5.92
4	11160.00	51.19 PK	74.00	-22.81	2.00 V	351	39.27	11.92
5	11160.00	43.08 AV	54.00	-10.92	2.00 V	351	31.16	11.92
6	#16740.00	60.52 PK	68.20	-7.68	1.00 V	25	41.11	19.41

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	98.71 PK			1.96 H	308	92.60	6.11
2	*5700.00	88.63 AV			1.96 H	308	82.52	6.11
3	#5725.00	48.11 PK	68.20	-20.09	1.96 H	308	41.97	6.14
4	#5728.20	50.96 PK	68.20	-17.24	1.96 H	308	44.81	6.15
5	11400.00	52.39 PK	74.00	-21.61	2.00 H	315	39.09	13.30
6	11400.00	44.78 AV	54.00	-9.22	2.00 H	315	31.48	13.30
7	#17100.00	62.09 PK	68.20	-6.11	1.00 H	32	41.55	20.54
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	93.93 PK			1.01 V	154	87.82	6.11
2	*5700.00	83.91 AV			1.01 V	154	77.80	6.11
3	#5725.00	46.51 PK	68.20	-21.69	1.01 V	154	40.37	6.14
4	#5767.30	49.07 PK	68.20	-19.13	1.01 V	154	42.86	6.21
5	11400.00	51.28 PK	74.00	-22.72	1.57 V	209	37.98	13.30
6	11400.00	43.44 AV	54.00	-10.56	1.57 V	209	30.14	13.30
7	#17100.00	61.11 PK	68.20	-7.09	1.00 V	304	40.57	20.54

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

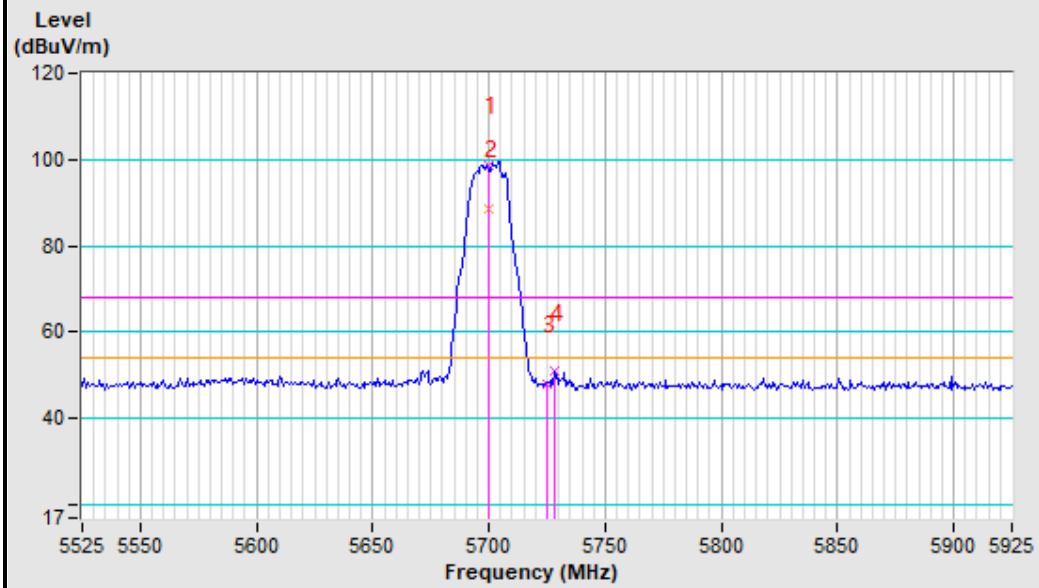


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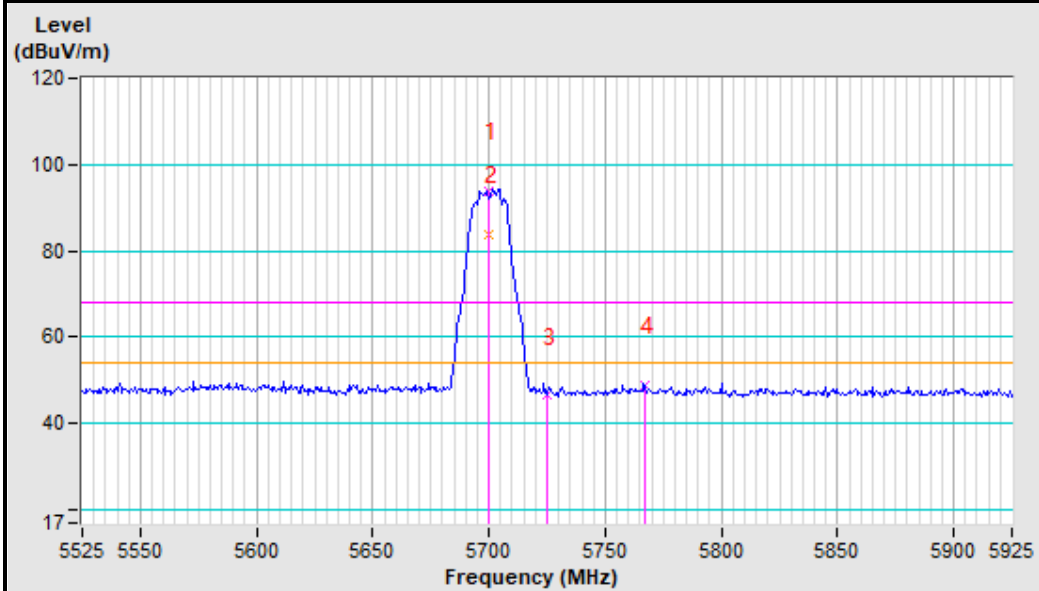
Test Report No.: RF2205WDG0306-4

Band edge Plot

5700MHz Horizontal



5700MHz Vertical





802.11n (20MHz)

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5461.60	49.73 PK	68.20	-18.47	1.06 H	320	43.98	5.75
2	#5470.00	47.52 PK	68.20	-20.68	1.06 H	320	41.76	5.76
3	*5500.00	97.96 PK			1.06 H	320	92.16	5.80
4	*5500.00	85.79 AV			1.06 H	320	79.99	5.80
5	11000.00	52.61 PK	74.00	-21.39	1.29 H	314	41.62	10.99
6	11000.00	44.39 AV	54.00	-9.61	1.29 H	314	33.40	10.99
7	#16500.00	61.74 PK	68.20	-6.46	1.00 H	75	43.07	18.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5460.38	49.69 PK	68.20	-18.51	1.05 V	153	43.94	5.75
2	#5470.00	47.15 PK	68.20	-21.05	1.05 V	153	41.39	5.76
3	*5500.00	92.58 PK			1.05 V	153	86.78	5.80
4	*5500.00	80.47 AV			1.05 V	153	74.67	5.80
5	11000.00	51.22 PK	74.00	-22.78	1.09 V	313	40.23	10.99
6	11000.00	43.18 AV	54.00	-10.82	1.09 V	313	32.19	10.99
7	#16500.00	60.25 PK	68.20	-7.95	1.00 V	75	41.58	18.67

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

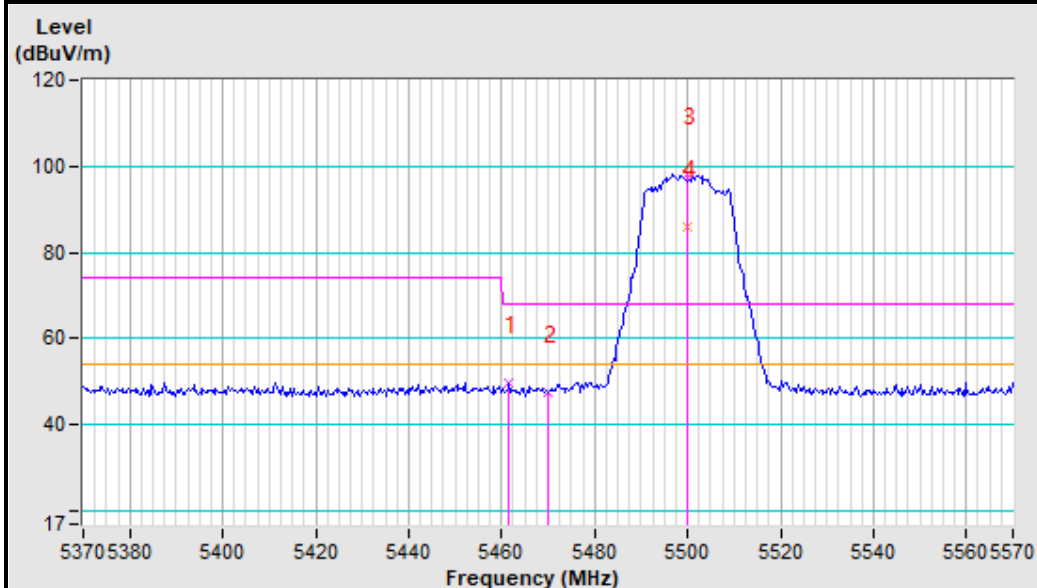


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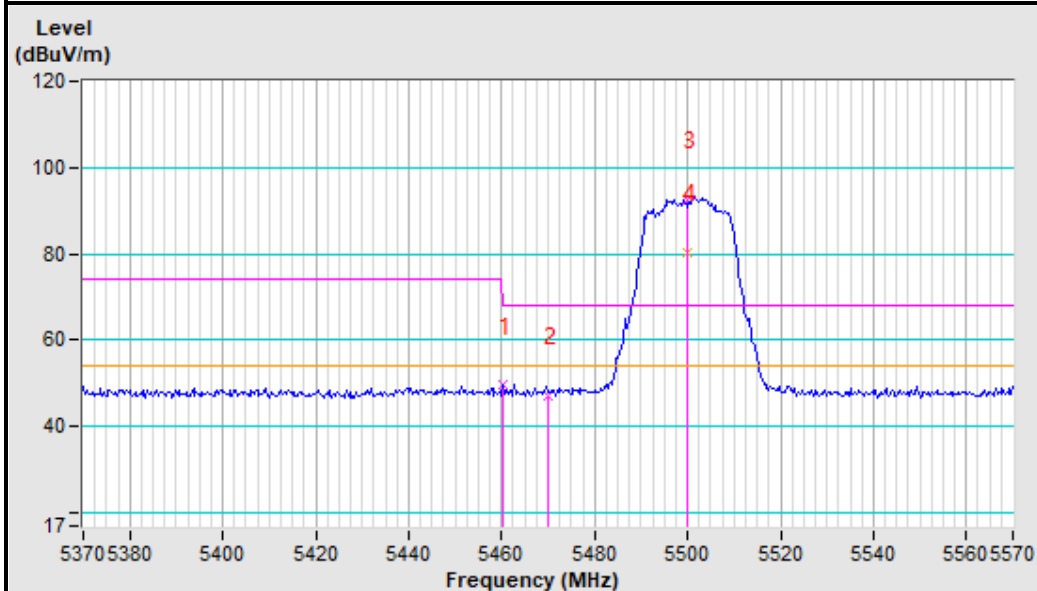
Test Report No.: RF2205WDG0306-4

Band edge Plot

5500MHz Horizontal



5500MHz Vertical





CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	47.52 PK	68.20	-20.68	1.07 H	251	41.76	5.76
2	*5580.00	97.49 PK			1.07 H	251	91.57	5.92
3	*5580.00	85.46 AV			1.07 H	251	79.54	5.92
4	11160.00	52.84 PK	74.00	-21.16	1.00 H	315	40.92	11.92
5	11160.00	44.19 AV	54.00	-9.81	1.00 H	315	32.27	11.92
6	#16740.00	61.35 PK	68.20	-6.85	2.00 H	104	41.94	19.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	46.22 PK	68.20	-21.98	2.00 V	46	40.46	5.76
2	*5580.00	93.21 PK			2.00 V	46	87.29	5.92
3	*5580.00	81.48 AV			2.00 V	46	75.56	5.92
4	11160.00	51.76 PK	74.00	-22.24	1.39 V	54	39.84	11.92
5	11160.00	43.22 AV	54.00	-10.78	1.39 V	54	31.30	11.92
6	#16740.00	60.09 PK	68.20	-8.11	1.02 V	35	40.68	19.41

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	96.10 PK			1.00 H	293	89.99	6.11
2	*5700.00	85.90 AV			1.00 H	293	79.79	6.11
3	#5725.00	47.35 PK	68.20	-20.85	1.00 H	293	41.21	6.14
4	#5735.89	49.75 PK	68.20	-18.45	1.00 H	293	43.59	6.16
5	11400.00	52.74 PK	74.00	-21.26	2.00 H	195	39.44	13.30
6	11400.00	44.91 AV	54.00	-9.09	2.00 H	195	31.61	13.30
7	#17100.00	61.29 PK	68.20	-6.91	1.54 H	302	40.75	20.54
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	93.08 PK			1.00 V	183	86.97	6.11
2	*5700.00	81.93 AV			1.00 V	183	75.82	6.11
3	#5725.00	46.01 PK	68.20	-22.19	1.00 V	183	39.87	6.14
4	#5727.56	48.78 PK	68.20	-19.42	1.00 V	183	42.63	6.15
5	11400.00	51.49 PK	74.00	-22.51	1.62 V	318	38.19	13.30
6	11400.00	43.72 AV	54.00	-10.28	1.62 V	318	30.42	13.30
7	#17100.00	60.74 PK	68.20	-7.46	1.00 V	306	40.20	20.54

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

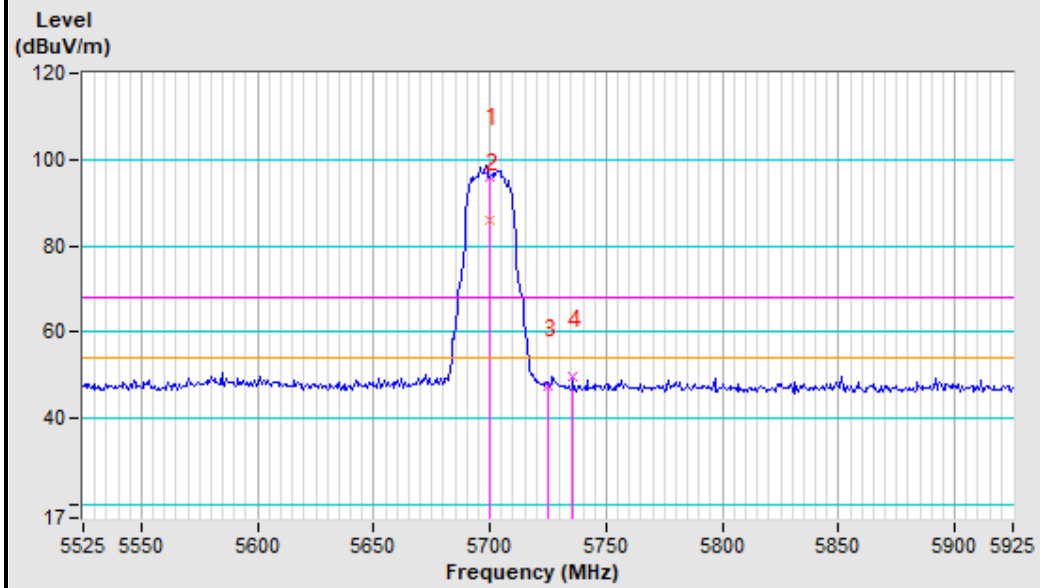


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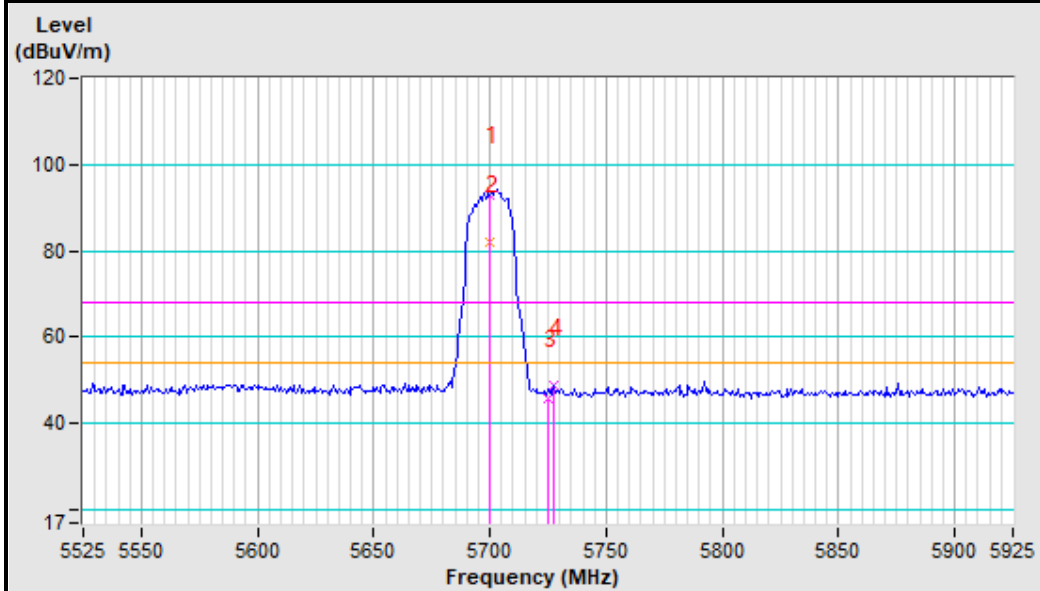
Test Report No.: RF2205WDG0306-4

Band edge Plot

5700MHz Horizontal



5700MHz Vertical





802.11n (40MHz)

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

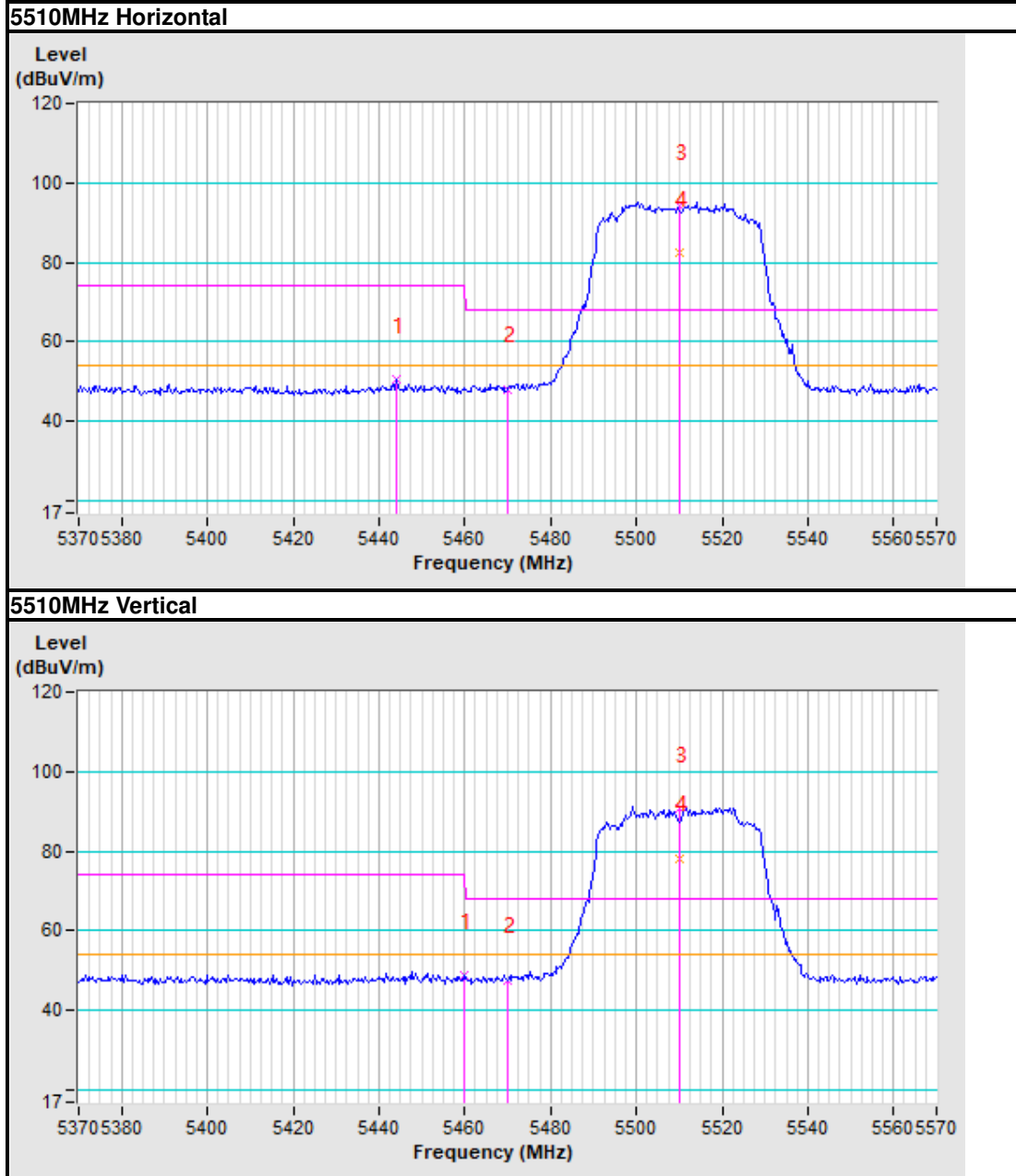
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5444.03	50.43 PK	74.00	-23.57	1.15 H	320	44.70	5.73
2	#5470.00	48.07 PK	68.20	-20.13	1.15 H	320	42.31	5.76
3	*5510.00	94.24 PK			1.15 H	320	88.43	5.81
4	*5510.00	82.25 AV			1.15 H	320	76.44	5.81
5	11020.00	52.79 PK	74.00	-21.21	2.00 H	137	41.69	11.10
6	11020.00	44.61 AV	54.00	-9.39	2.00 H	137	33.51	11.10
7	#16530.00	61.33 PK	68.20	-6.87	1.00 H	201	42.57	18.76
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5459.74	48.82 PK	74.00	-25.18	1.09 V	153	43.07	5.75
2	#5470.00	47.74 PK	68.20	-20.46	1.09 V	153	41.98	5.76
3	*5510.00	90.69 PK			1.09 V	153	84.88	5.81
4	*5510.00	78.25 AV			1.09 V	153	72.44	5.81
5	11020.00	51.43 PK	74.00	-22.57	1.04 V	25	40.33	11.10
6	11020.00	43.22 AV	54.00	-10.78	1.04 V	25	32.12	11.10
7	#16530.00	60.51 PK	68.20	-7.69	1.52 V	135	41.75	18.76

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



Band edge Plot





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Test Report No.: RF2205WDG0306-4

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5449.18	48.22 PK	74.00	-25.78	1.37 H	303	42.48	5.74
2	#5470.00	47.49 PK	68.20	-20.71	1.37 H	303	41.73	5.76
3	*5550.00	96.83 PK			1.37 H	303	90.96	5.87
4	*5550.00	85.22 AV			1.37 H	303	79.35	5.87
5	11100.00	52.91 PK	74.00	-21.09	1.50 H	36	41.35	11.56
6	11100.00	44.76 AV	54.00	-9.24	1.50 H	36	33.20	11.56
7	#16650.00	61.25 PK	68.20	-6.95	1.00 H	96	42.12	19.13
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5446.17	47.39 PK	74.00	-26.61	1.06 V	95	41.66	5.73
2	#5470.00	46.14 PK	68.20	-22.06	1.06 V	95	40.38	5.76
3	*5550.00	93.27 PK			1.06 V	95	87.40	5.87
4	*5550.00	82.49 AV			1.06 V	95	76.62	5.87
5	11100.00	51.17 PK	74.00	-22.83	1.73 V	252	39.61	11.56
6	11100.00	43.08 AV	54.00	-10.92	1.73 V	252	31.52	11.56
7	#16650.00	60.25 PK	68.20	-7.95	1.00 V	47	41.12	19.13

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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Test Report No.: RF2205WDG0306-4

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	94.95 PK			1.32 H	218	88.89	6.06
2	*5670.00	82.80 AV			1.32 H	218	76.74	6.06
3	#5725.00	47.21 PK	68.20	-20.99	1.32 H	218	41.07	6.14
4	#5775.00	48.77 PK	68.20	-19.43	1.32 H	218	42.55	6.22
5	11340.00	52.61 PK	74.00	-21.39	2.00 H	42	39.67	12.94
6	11340.00	44.84 AV	54.00	-9.16	2.00 H	42	31.90	12.94
7	#17010.00	61.73 PK	68.20	-6.47	1.00 H	219	41.49	20.24
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	90.13 PK			1.16 V	170	84.07	6.06
2	*5670.00	78.52 AV			1.16 V	170	72.46	6.06
3	#5725.00	46.97 PK	68.20	-21.23	1.16 V	170	40.83	6.14
4	#5762.82	48.53 PK	68.20	-19.67	1.16 V	170	42.33	6.20
5	11340.00	51.19 PK	74.00	-22.81	1.52 V	251	38.25	12.94
6	11340.00	43.22 AV	54.00	-10.78	1.52 V	251	30.28	12.94
7	#17010.00	60.14 PK	68.20	-8.06	1.32 V	214	39.90	20.24

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Bureau Veritas Shenzhen Co., Ltd.
Dongguan Branch

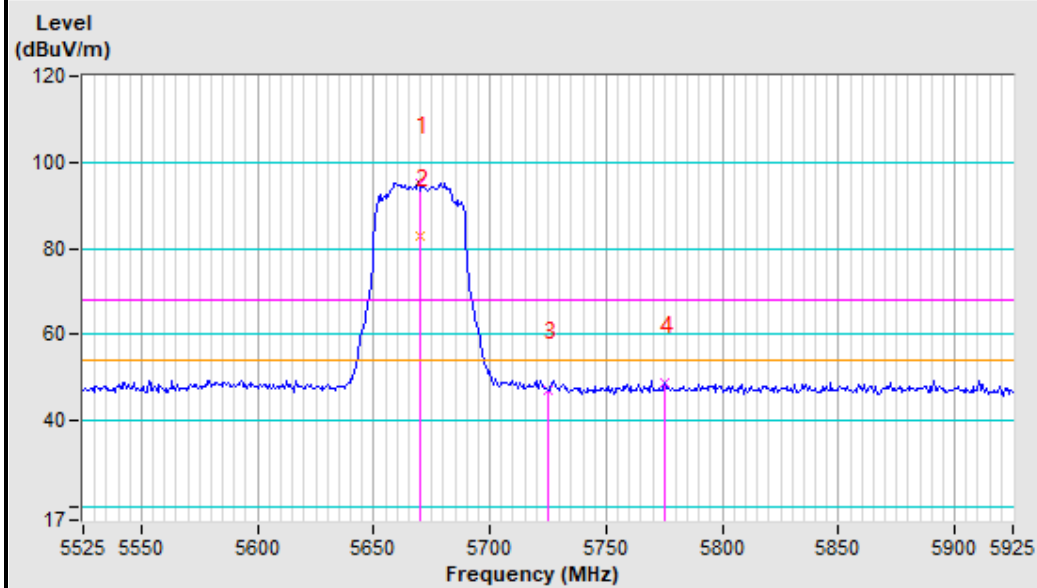
No. 96, Guantai Road (Houjie Section), Houjie
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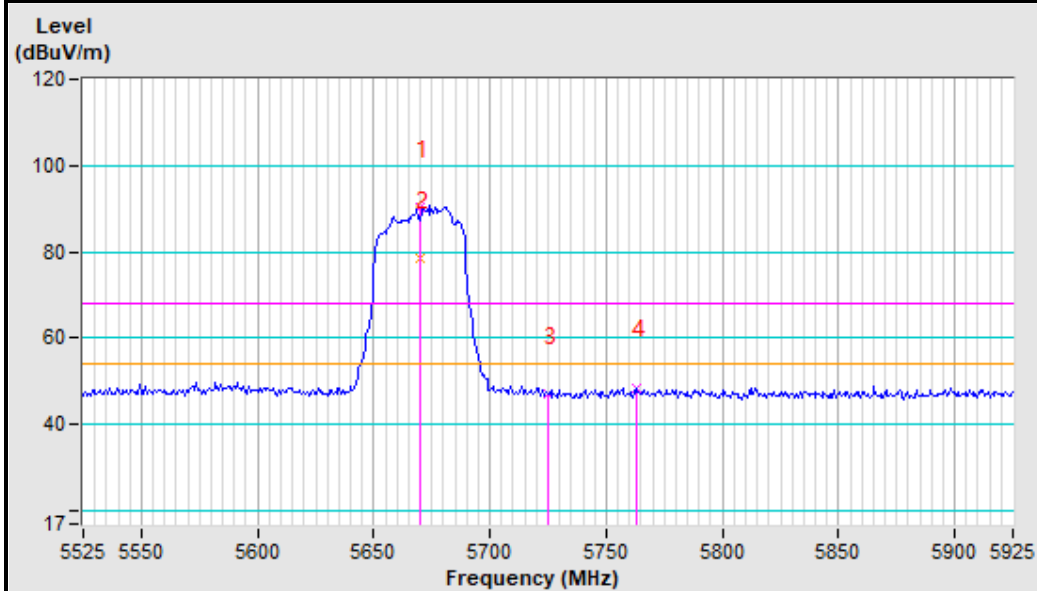


Band edge Plot

5670MHz Horizontal



5670MHz Vertical





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								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5459.74	49.77 PK	74.00	-24.23	1.06 H	225	44.02	5.75
2	#5470.00	48.84 PK	68.20	-19.36	1.06 H	225	43.08	5.76
3	*5530.00	90.87 PK			1.06 H	225	85.03	5.84
4	*5530.00	81.49 AV			1.06 H	225	75.65	5.84
5	11060.00	52.77 PK	74.00	-21.23	1.09 H	314	41.44	11.33
6	11060.00	44.71 AV	54.00	-9.29	1.09 H	314	33.38	11.33
7	#16590.00	61.84 PK	68.20	-6.36	2.00 H	43	42.90	18.94
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5437.62	50.49 PK	74.00	-23.51	1.29 V	152	44.77	5.72
2	#5470.00	48.45 PK	68.20	-19.75	1.29 V	152	42.69	5.76
3	*5530.00	87.56 PK			1.29 V	152	81.72	5.84
4	*5530.00	75.20 AV			1.29 V	152	69.36	5.84
5	11060.00	51.47 PK	74.00	-22.53	1.12 V	251	40.14	11.33
6	11060.00	43.64 AV	54.00	-10.36	1.12 V	251	32.31	11.33
7	#16590.00	60.91 PK	68.20	-7.29	1.00 V	35	41.97	18.94

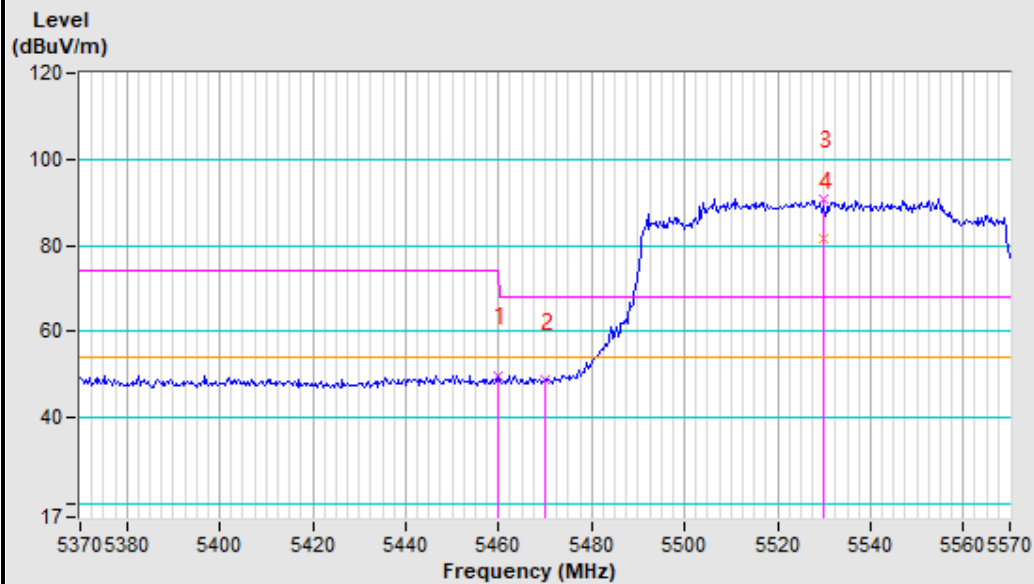
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

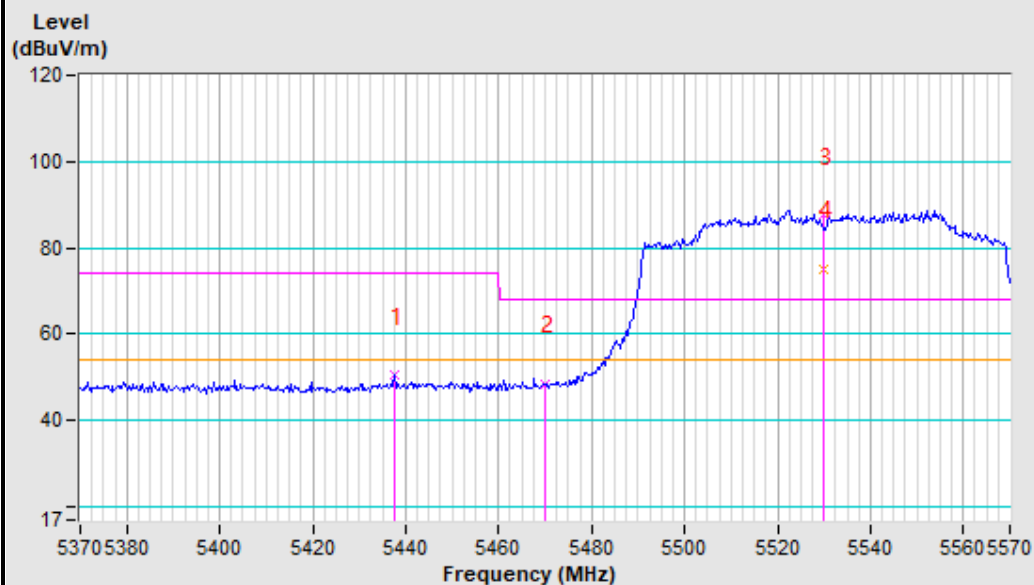


Band edge Plot

5530MHz Horizontal



5530MHz Vertical





CHANNEL	TX Channel 122	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	91.13 PK			1.27 H	25	85.17	5.96
2	*5610.00	81.96 AV			1.27 H	25	76.00	5.96
3	#5725.00	47.94 PK	68.20	-20.26	1.27 H	25	41.80	6.14
4	#5800.60	49.22 PK	68.20	-18.98	1.27 H	25	42.97	6.25
5	11220.00	52.29 PK	74.00	-21.71	1.35 H	25	40.03	12.26
6	11220.00	44.76 AV	54.00	-9.24	1.35 H	25	32.50	12.26
7	#16830.00	61.28 PK	68.20	-6.92	1.00 H	217	41.59	19.69
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	86.03 PK			1.02 V	339	80.07	5.96
2	*5610.00	75.41 AV			1.02 V	339	69.45	5.96
3	#5725.00	47.49 PK	68.20	-20.71	1.02 V	339	41.35	6.14
4	#5781.41	49.11 PK	68.20	-19.09	1.02 V	339	42.88	6.23
5	11220.00	51.49 PK	74.00	-22.51	1.02 V	63	39.23	12.26
6	11220.00	43.67 AV	54.00	-10.33	1.02 V	63	31.41	12.26
7	#16830.00	60.54 PK	68.20	-7.66	1.00 V	26	40.85	19.69

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

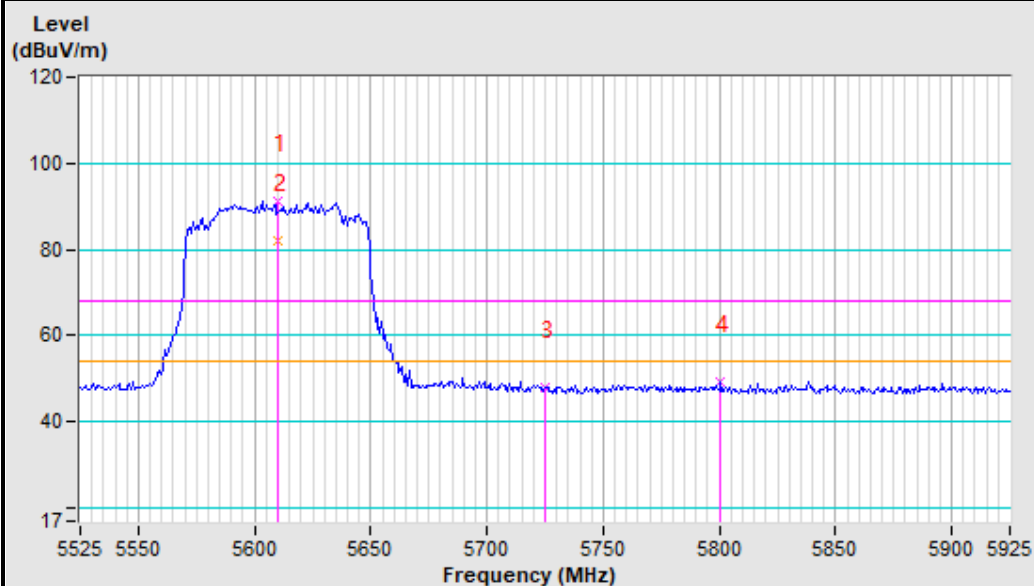


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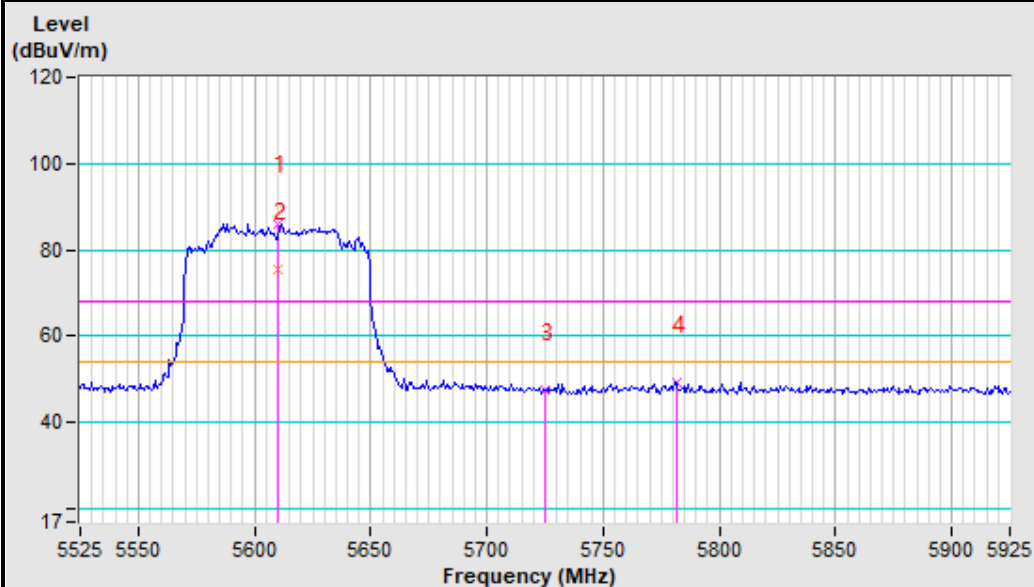
Test Report No.: RF2205WDG0306-4

Band edge Plot

5610MHz Horizontal



5610MHz Vertical





802.11ac 160MHz

CHANNEL	TX Channel 114	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5435.31	49.81 PK	74.00	-24.19	1.27 H	49	44.09	5.72
2	#5470.00	48.45 PK	68.20	-19.75	1.27 H	49	42.69	5.76
3	*5570.00	88.65 PK			1.27 H	49	82.75	5.90
4	*5570.00	80.33 AV			1.27 H	49	74.43	5.90
5	#5725.00	47.72 PK	68.20	-20.48	1.27 H	49	41.58	6.14
6	#5757.01	49.05 PK	68.20	-19.15	1.27 H	49	42.86	6.19
7	11140.00	53.16 PK	74.00	-20.84	2.00 H	104	41.36	11.80
8	11140.00	45.27 AV	54.00	-8.73	2.00 H	104	33.47	11.80
9	#16710.00	62.11 PK	68.20	-6.09	1.09 H	35	42.79	19.32
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5408.62	49.51 PK	74.00	-24.49	1.05 V	46	43.83	5.68
2	#5470.00	48.39 PK	68.20	-19.81	1.05 V	46	42.63	5.76
3	*5570.00	83.87 PK			1.05 V	46	77.97	5.90
4	*5570.00	75.11 AV			1.05 V	46	69.21	5.90
5	#5725.00	47.61 PK	68.20	-20.59	1.05 V	46	41.47	6.14
6	#5769.47	48.85 PK	68.20	-19.35	1.05 V	46	42.64	6.21
7	11140.00	52.45 PK	74.00	-21.55	1.00 V	319	40.65	11.80
8	11140.00	44.37 AV	54.00	-9.63	1.00 V	319	32.57	11.80
9	#16710.00	61.24 PK	68.20	-6.96	1.02 V	35	41.92	19.32

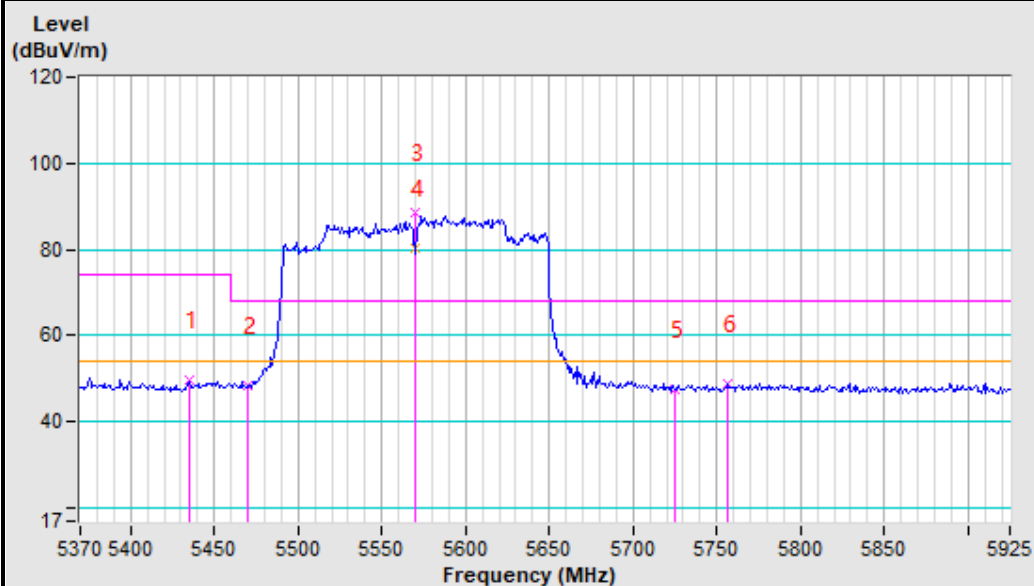
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

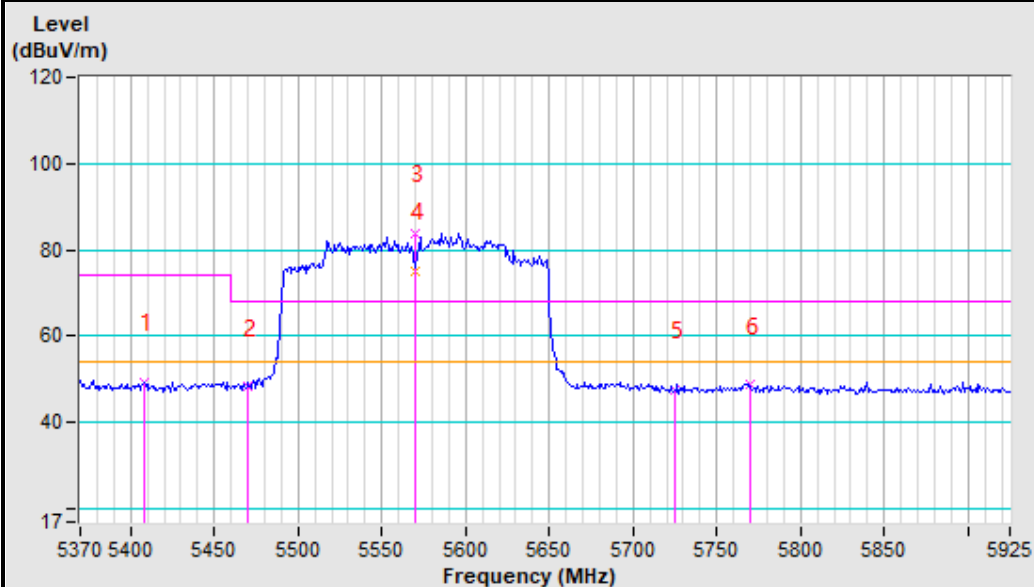


Band edge Plot

5570MHz Horizontal



5570MHz Vertical





Band 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5652.06	45.61 PK	69.73	-24.12	1.00 H	0	38.72	6.89
2	#5725.00	48.05 PK	122.20	-74.15	1.00 H	0	40.95	7.10
3	*5745.00	95.17 PK			1.00 H	126	88.01	7.16
4	*5745.00	85.63 AV			1.00 H	126	78.47	7.16
5	#5909.62	44.84 PK	79.55	-34.71	1.00 H	0	37.21	7.63
6	11490.00	53.36 PK	74.00	-20.64	1.00 H	185	38.04	15.32
7	11490.00	36.52 AV	54.00	-17.48	1.00 H	185	21.20	15.32
8	#17235.00	56.69 PK	68.20	-11.51	1.00 H	175	35.62	21.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5650.54	45.18 PK	68.60	-23.42	1.00 V	0	38.30	6.88
2	#5725.00	45.20 PK	122.20	-77.00	1.00 V	0	38.10	7.10
3	*5745.00	79.12 PK			1.06 V	36	71.96	7.16
4	*5745.00	69.27 AV			1.06 V	36	62.11	7.16
5	#5955.76	46.20 PK	68.20	-22.00	1.00 V	0	38.43	7.77
6	11490.00	53.54 PK	74.00	-20.46	1.00 V	72	38.22	15.32
7	11490.00	40.28 AV	54.00	-13.72	1.00 V	72	24.96	15.32
8	#17235.00	56.74 PK	68.20	-11.46	1.00 V	213	35.67	21.07

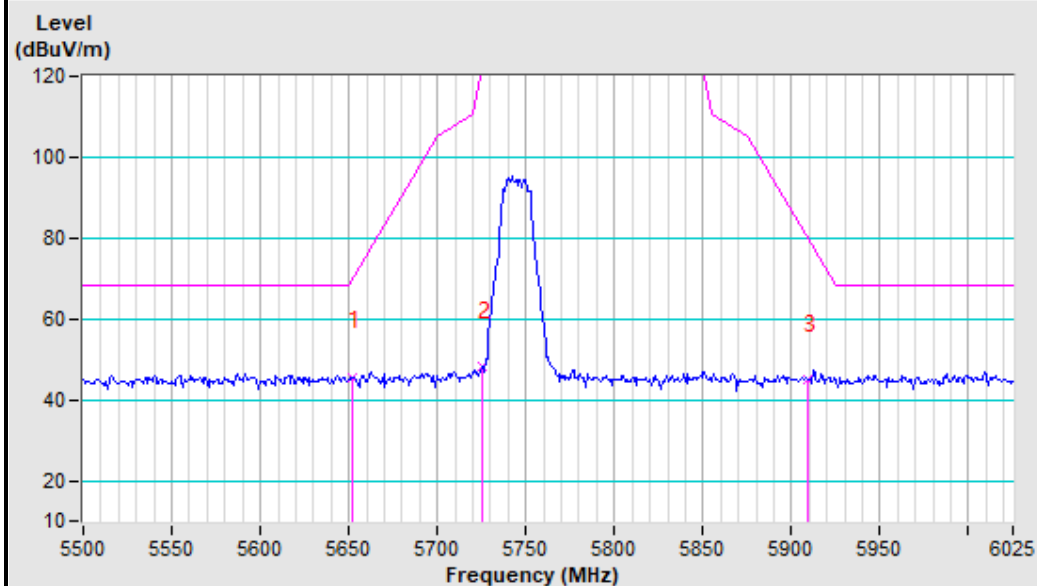
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

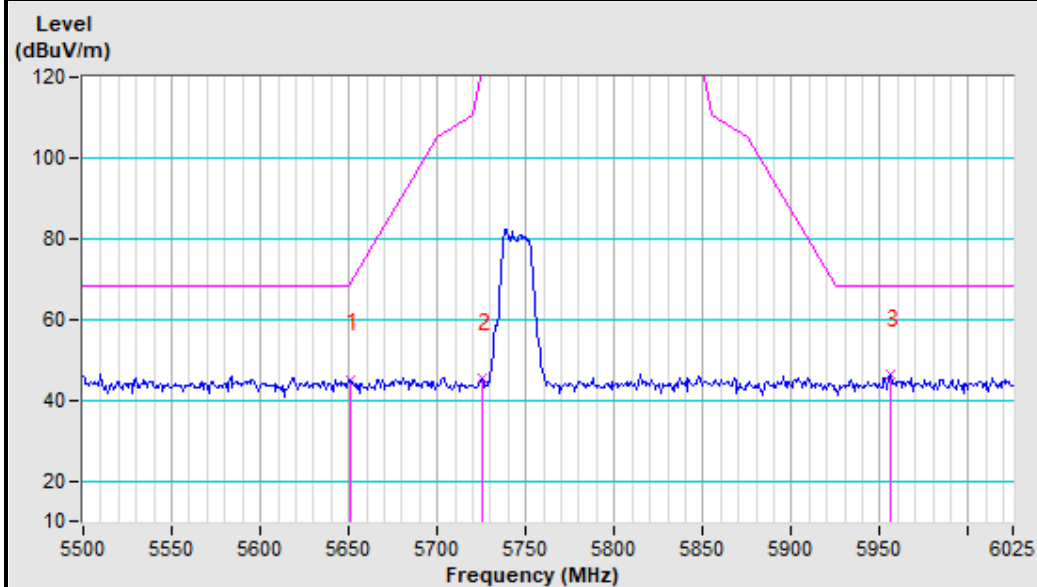


Band edge Plot

5745MHz Horizontal



5745MHz Vertical





CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

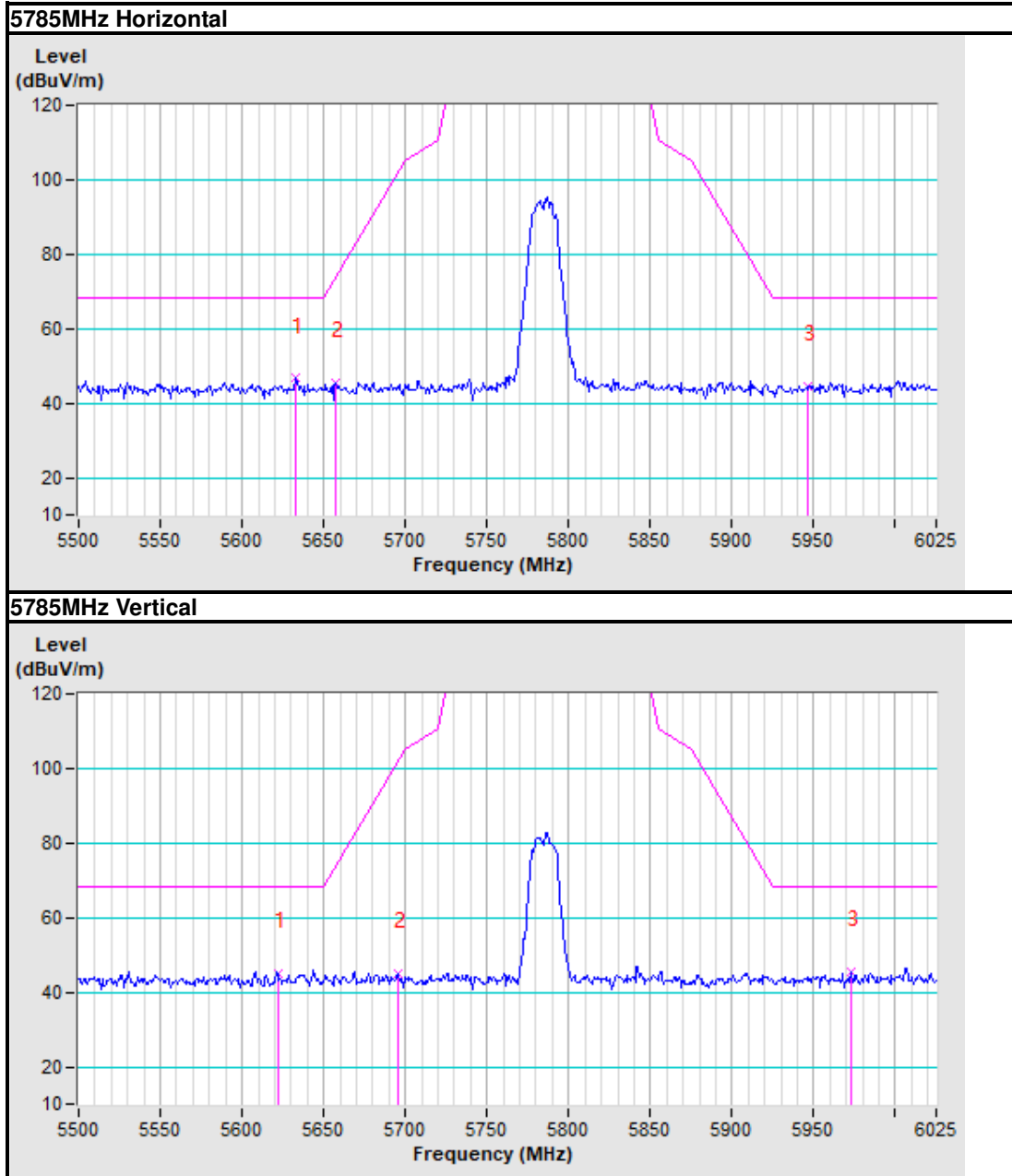
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5633.15	46.63 PK	68.20	-21.57	1.00 H	0	39.80	6.83
2	#5657.50	45.39 PK	73.77	-28.38	1.00 H	0	38.49	6.90
3	*5785.00	95.36 PK			1.00 H	123	88.09	7.27
4	*5785.00	86.14 AV			1.00 H	123	78.87	7.27
5	#5946.63	44.63 PK	68.20	-23.57	1.00 H	0	36.88	7.75
6	11570.00	54.36 PK	74.00	-19.64	1.00 H	236	38.84	15.52
7	11570.00	44.10 AV	54.00	-9.90	1.00 H	236	28.58	15.52
8	#17355.00	57.41 PK	68.20	-10.79	1.00 H	210	36.32	21.09
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5621.74	45.19 PK	68.20	-23.01	1.00 V	0	38.40	6.79
2	#5695.54	44.97 PK	101.92	-56.95	1.00 V	0	37.96	7.01
3	*5785.00	82.56 PK			1.04 V	159	75.29	7.27
4	*5785.00	72.49 AV			1.04 V	159	65.22	7.27
5	#5972.50	45.52 PK	68.20	-22.68	1.00 V	0	37.70	7.82
6	11570.00	53.36 PK	74.00	-20.64	1.00 V	258	37.84	15.52
7	11570.00	44.10 AV	54.00	-9.90	1.00 V	258	28.58	15.52
8	#17355.00	56.69 PK	68.20	-11.51	1.00 V	102	35.60	21.09

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



Band edge Plot





CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5668.78	46.02 PK	82.14	-36.12	1.00 H	0	39.09	6.93
2	*5825.00	94.77 PK			1.02 H	218	87.38	7.39
3	*5825.00	84.52 AV			1.02 H	218	77.13	7.39
4	#5850.00	46.73 PK	122.20	-75.47	1.00 H	0	39.27	7.46
5	#5932.05	45.14 PK	68.20	-23.06	1.00 H	0	37.44	7.70
6	11650.00	54.36 PK	74.00	-19.64	1.05 H	247	38.63	15.73
7	11650.00	43.86 AV	54.00	-10.14	1.05 H	247	28.13	15.73
8	#17475.00	56.54 PK	68.20	-11.66	1.50 H	159	35.43	21.11
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5636.51	43.30 PK	68.20	-24.90	1.00 V	0	36.47	6.83
2	*5825.00	87.83 PK			1.00 V	129	80.44	7.39
3	*5825.00	77.45 AV			1.00 V	129	70.06	7.39
4	#5850.00	44.57 PK	122.20	-77.63	1.00 V	0	37.11	7.46
5	#5910.02	44.85 PK	79.25	-34.40	1.00 V	0	37.22	7.63
6	11650.00	52.03 PK	74.00	-21.97	1.00 V	216	36.30	15.73
7	11650.00	43.10 AV	54.00	-10.90	1.00 V	216	27.37	15.73
8	#17475.00	55.20 PK	68.20	-13.00	1.00 V	178	34.09	21.11

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

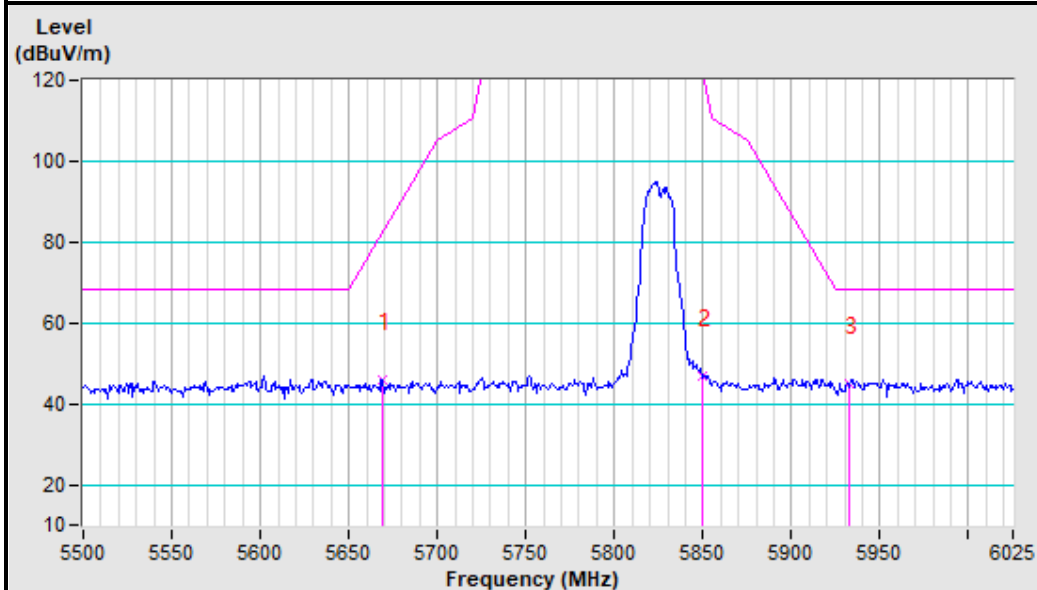


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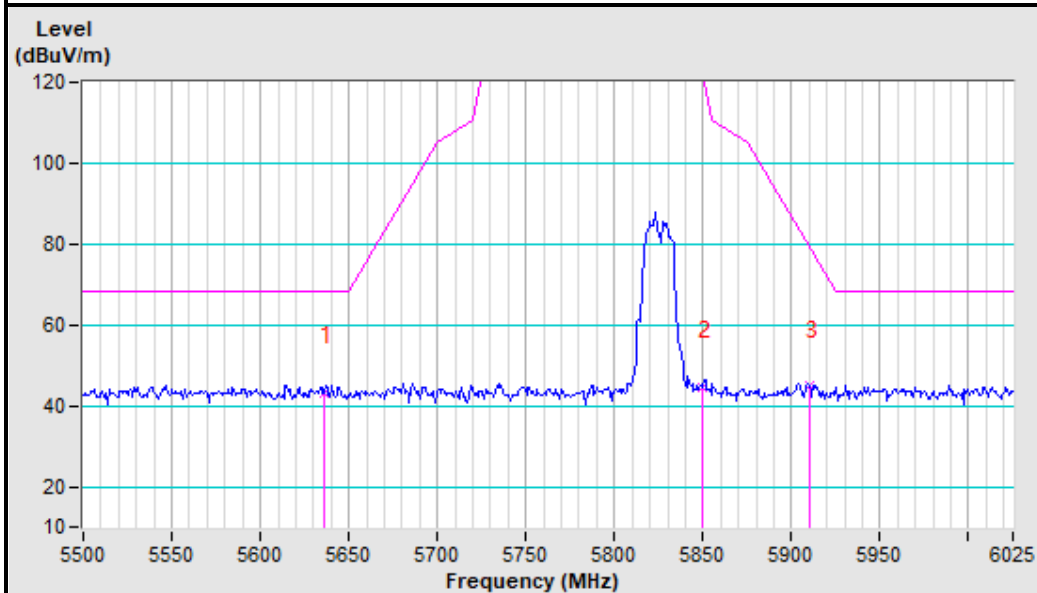
Test Report No.: RF2205WDG0306-4

Band edge Plot

5825MHz Horizontal



5825MHz Vertical





802.11n (20MHz)

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5671.82	46.77 PK	84.39	-37.62	1.00 H	0	39.83	6.94
2	#5725.00	46.77 PK	122.20	-75.43	1.00 H	0	39.67	7.10
3	*5745.00	93.44 PK			1.00 H	215	86.28	7.16
4	*5745.00	83.47 AV			1.00 H	215	76.31	7.16
5	#5936.74	45.55 PK	68.20	-22.65	1.00 H	0	37.83	7.72
6	11490.00	54.26 PK	74.00	-19.74	1.02 H	217	38.94	15.32
7	11490.00	41.19 AV	54.00	-12.81	1.02 H	217	25.87	15.32
8	#17235.00	56.36 PK	68.20	-11.84	1.00 H	121	35.29	21.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5630.11	44.66 PK	68.20	-23.54	1.00 V	0	37.84	6.82
2	#5725.00	42.78 PK	122.20	-79.42	1.00 V	0	35.68	7.10
3	*5745.00	79.39 PK			1.23 V	205	72.23	7.16
4	*5745.00	69.41 AV			1.23 V	205	62.25	7.16
5	#5937.50	44.65 PK	68.20	-23.55	1.00 V	0	36.93	7.72
6	11490.00	53.36 PK	74.00	-20.64	1.00 V	147	38.04	15.32
7	11490.00	40.15 AV	54.00	-13.85	1.00 V	147	24.83	15.32
8	#17235.00	54.47 PK	68.20	-13.73	1.00 V	259	33.40	21.07

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

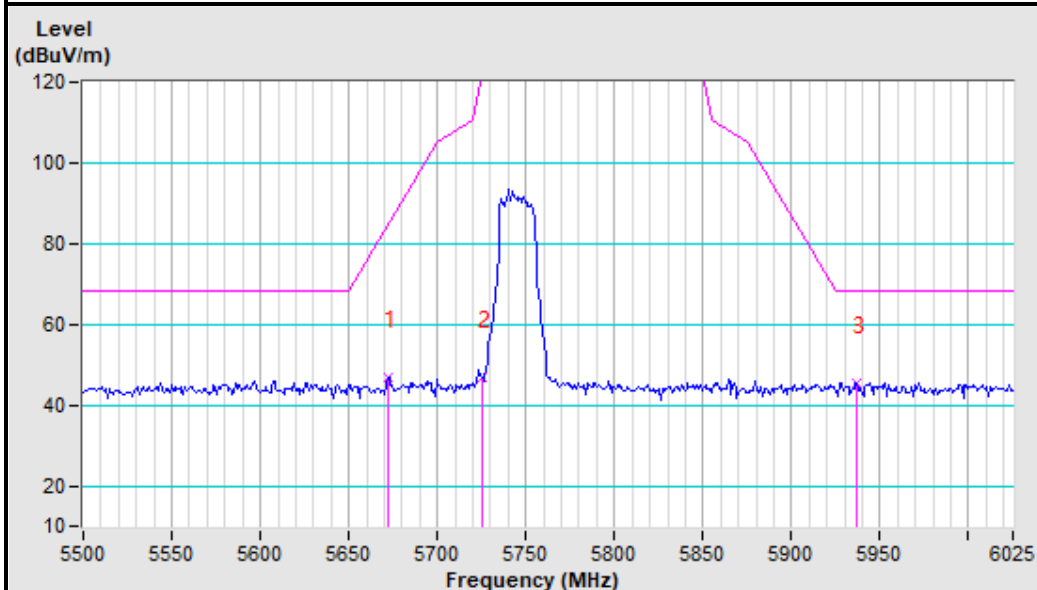


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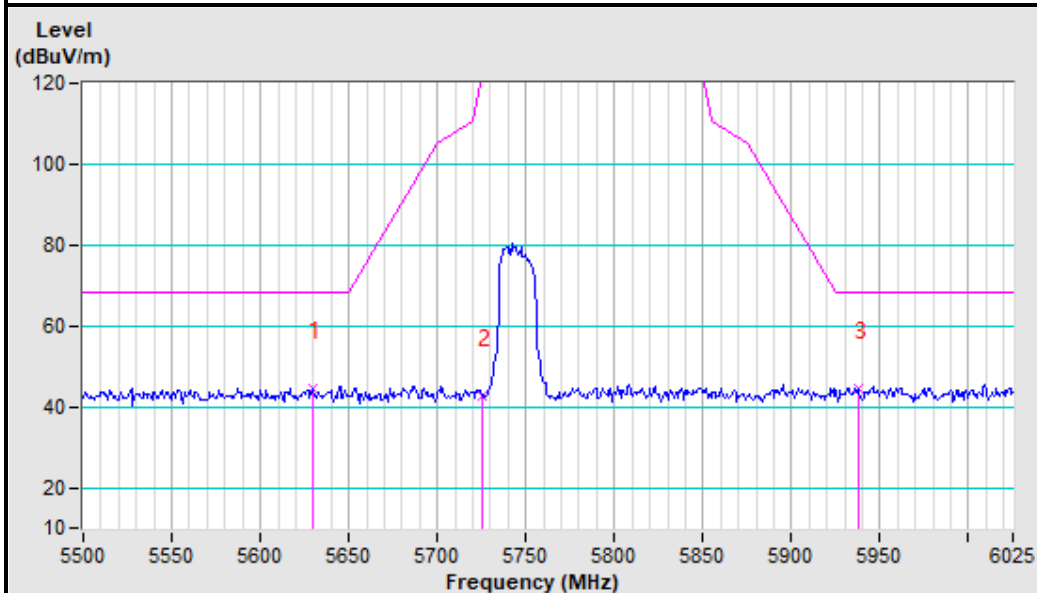
Test Report No.: RF2205WDG0306-4

Band edge Plot

5745MHz Horizontal



5745MHz Vertical





CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5602.72	45.52 PK	68.20	-22.68	1.00 H	0	38.78	6.74
2	#5662.07	46.17 PK	77.16	-30.99	1.00 H	0	39.25	6.92
3	*5785.00	94.12 PK			1.00 H	169	86.85	7.27
4	*5785.00	83.96 AV			1.00 H	169	76.69	7.27
5	#5971.74	44.99 PK	68.20	-23.21	1.00 H	0	37.17	7.82
6	11570.00	54.26 PK	74.00	-19.74	1.00 H	47	38.74	15.52
7	11570.00	42.09 AV	54.00	-11.91	1.00 H	47	26.57	15.52
8	#17355.00	55.48 PK	68.20	-12.72	1.00 H	109	34.39	21.09
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5589.02	44.48 PK	68.20	-23.72	1.00 V	0	37.78	6.70
2	#5671.20	47.18 PK	83.92	-36.74	1.00 V	0	40.24	6.94
3	*5785.00	87.69 PK			1.00 V	147	80.42	7.27
4	*5785.00	77.59 AV			1.00 V	147	70.32	7.27
5	#5949.67	44.94 PK	68.20	-23.26	1.00 V	0	37.18	7.76
6	11570.00	54.36 PK	74.00	-19.64	1.20 V	104	38.84	15.52
7	11570.00	42.98 AV	54.00	-11.02	1.20 V	104	27.46	15.52
8	#17355.00	57.69 PK	68.20	-10.51	1.00 V	257	36.60	21.09

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

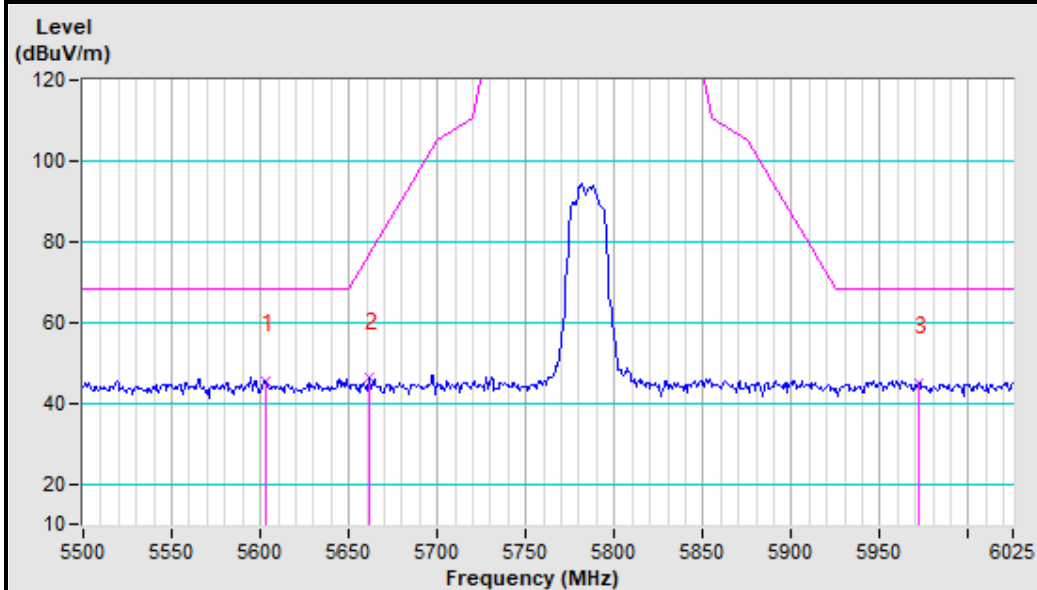


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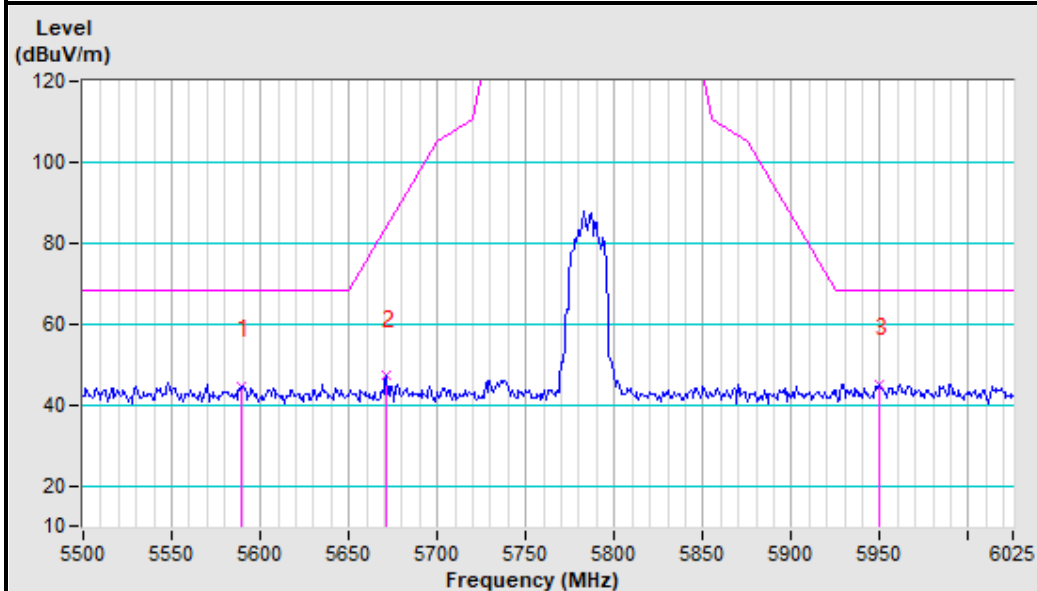
Test Report No.: RF2205WDG0306-4

Band edge Plot

5785MHz Horizontal



5785MHz Vertical





CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5601.20	46.21 PK	68.20	-21.99	1.00 H	0	39.47	6.74
2	*5825.00	92.45 PK			1.30 H	236	85.06	7.39
3	*5825.00	82.69 AV			1.30 H	236	75.30	7.39
4	#5850.00	45.63 PK	122.20	-76.57	1.00 H	0	38.17	7.46
5	#5945.11	45.76 PK	68.20	-22.44	1.00 H	0	38.02	7.74
6	11650.00	54.36 PK	74.00	-19.64	1.00 H	257	38.63	15.73
7	11650.00	41.28 AV	54.00	-12.72	1.00 H	257	25.55	15.73
8	#17472.00	58.10 PK	68.20	-10.10	1.00 H	123	37.00	21.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5560.87	46.50 PK	68.20	-21.70	1.00 V	0	39.88	6.62
2	*5825.00	81.86 PK			1.05 V	57	74.47	7.39
3	*5825.00	78.41 AV			1.05 V	57	71.02	7.39
4	#5850.00	44.74 PK	122.20	-77.46	1.00 V	0	37.28	7.46
5	#5943.45	45.08 PK	68.20	-23.12	1.00 V	0	37.35	7.73
6	11650.00	55.26 PK	74.00	-18.74	1.04 V	128	39.53	15.73
7	11650.00	43.37 AV	54.00	-10.63	1.04 V	128	27.64	15.73
8	#17475.00	58.36 PK	68.20	-9.84	1.00 V	125	37.25	21.11

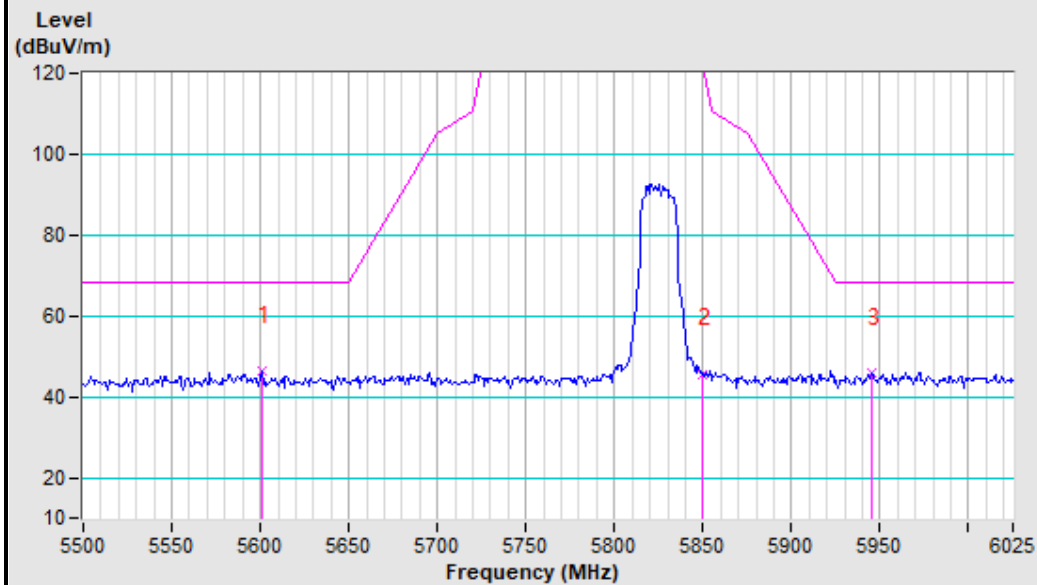
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

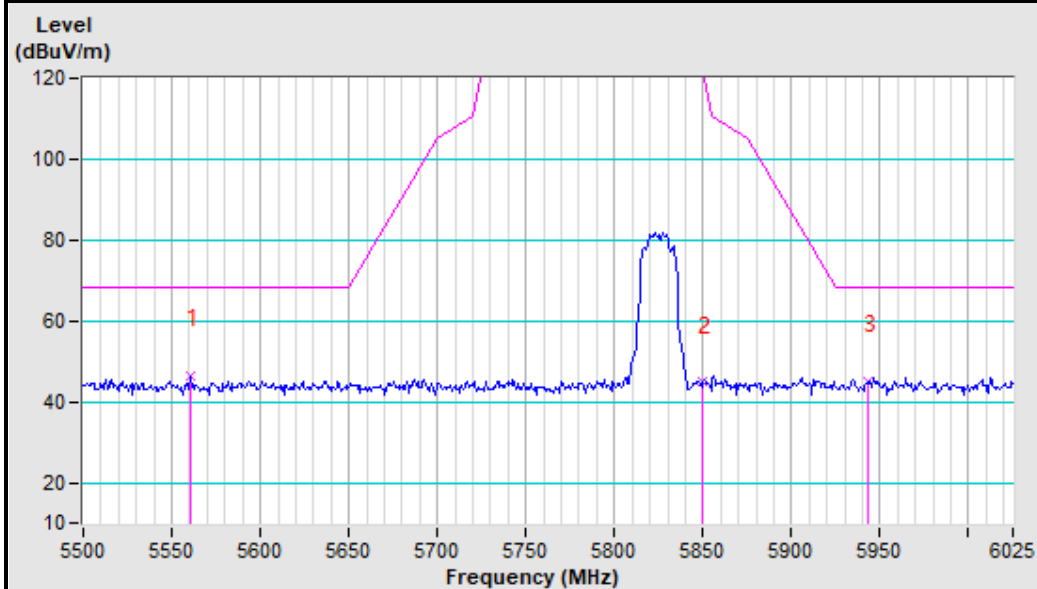


Band edge Plot

5825MHz Horizontal



5825MHz Vertical





802.11n (40MHz)

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5658.90	44.79 PK	74.81	-30.02	1.00 H	0	37.89	6.90
2	#5725.00	48.23 PK	122.20	-73.97	1.00 H	0	41.13	7.10
3	*5755.00	91.05 PK			1.00 H	245	83.87	7.18
4	*5755.00	81.36 AV			1.00 H	245	74.18	7.18
5	#5937.37	45.54 PK	68.20	-22.66	1.00 H	0	37.82	7.72
6	11510.00	54.36 PK	74.00	-19.64	1.02 H	21	38.99	15.37
7	11510.00	42.06 AV	54.00	-11.94	1.02 H	21	26.69	15.37
8	#17265.00	56.47 PK	68.20	-11.73	1.01 H	129	35.40	21.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5654.34	44.85 PK	71.42	-26.57	1.00 V	0	37.96	6.89
2	#5725.00	45.61 PK	122.20	-76.59	1.00 V	0	38.51	7.10
3	*5755.00	85.12 PK			1.02 V	218	77.94	7.18
4	*5755.00	74.36 AV			1.02 V	218	67.18	7.18
5	#5927.86	45.30 PK	68.20	-22.90	1.00 V	0	37.61	7.69
6	11510.00	53.36 PK	74.00	-20.64	1.00 V	16	37.99	15.37
7	11510.00	39.75 AV	54.00	-14.25	1.00 V	16	24.38	15.37
8	#17265.00	56.69 PK	68.20	-11.51	1.04 V	48	35.62	21.07

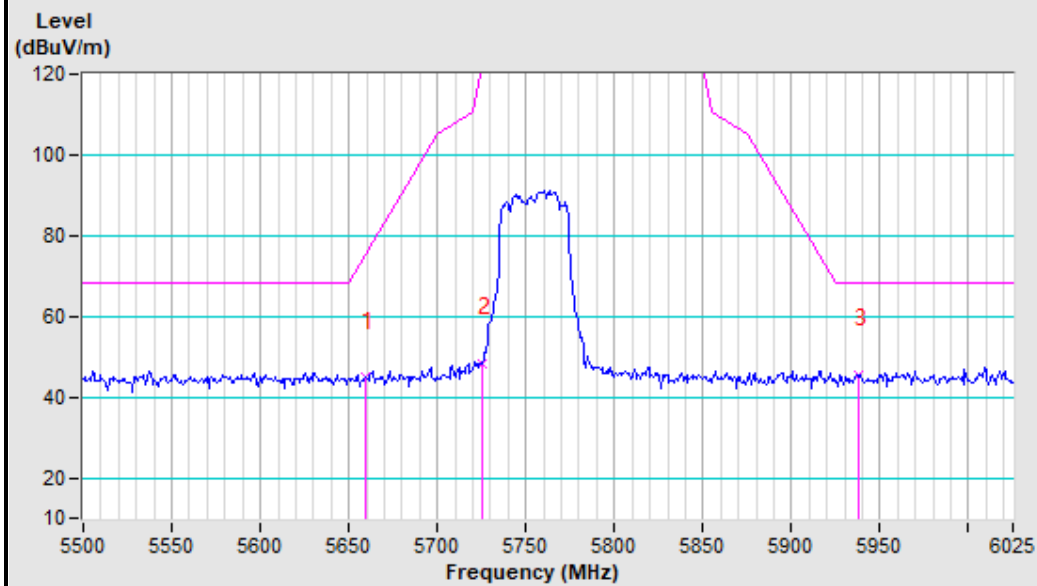
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

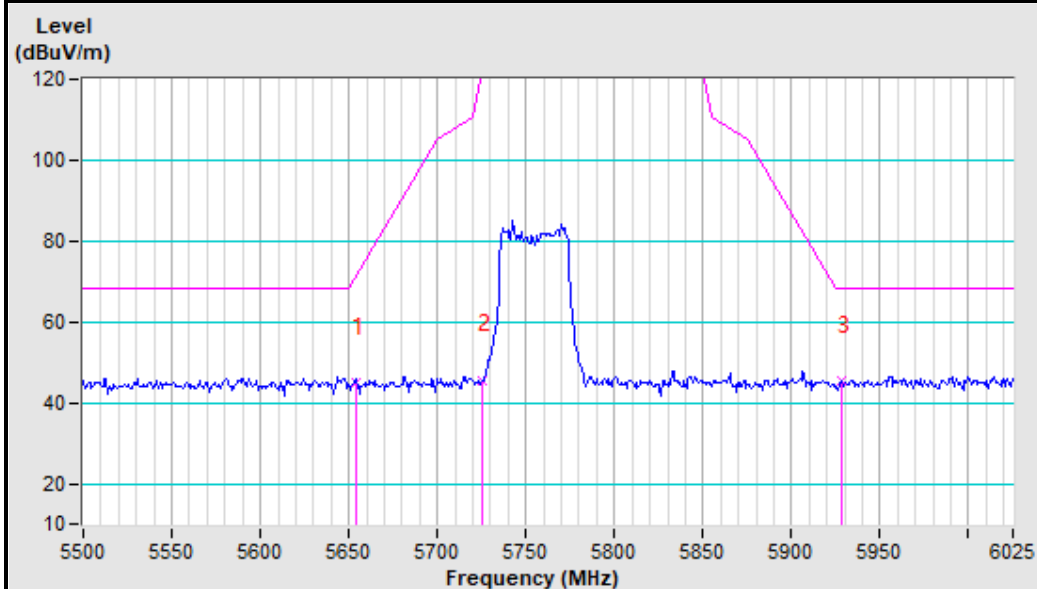


Band edge Plot

5755MHz Horizontal



5755MHz Vertical





CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5649.89	46.26 PK	68.20	-21.94	1.00 H	0	39.38	6.88
2	*5795.00	95.98 PK			1.00 H	216	88.68	7.30
3	*5795.00	85.41 AV			1.00 H	216	78.11	7.30
4	#5850.00	48.09 PK	122.20	-74.11	1.00 H	0	40.63	7.46
5	#5956.52	47.85 PK	68.20	-20.35	1.00 H	0	40.08	7.77
6	11590.00	55.38 PK	74.00	-18.62	1.00 H	216	39.81	15.57
7	11590.00	41.69 AV	54.00	-12.31	1.00 H	216	26.12	15.57
8	#17385.00	58.26 PK	68.20	-9.94	1.02 H	247	37.16	21.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5628.59	46.67 PK	68.20	-21.53	1.00 V	0	39.85	6.82
2	*5795.00	87.65 PK			1.50 V	257	80.35	7.30
3	*5795.00	77.41 AV			1.50 V	257	70.11	7.30
4	#5850.00	46.03 PK	122.20	-76.17	1.00 V	0	38.57	7.46
5	#5945.11	45.98 PK	68.20	-22.22	1.00 V	0	38.24	7.74
6	11590.00	53.36 PK	74.00	-20.64	1.02 V	215	37.79	15.57
7	11590.00	40.75 AV	54.00	-13.25	1.02 V	215	25.18	15.57
8	#17385.00	56.41 PK	68.20	-11.79	1.05 V	57	35.31	21.10

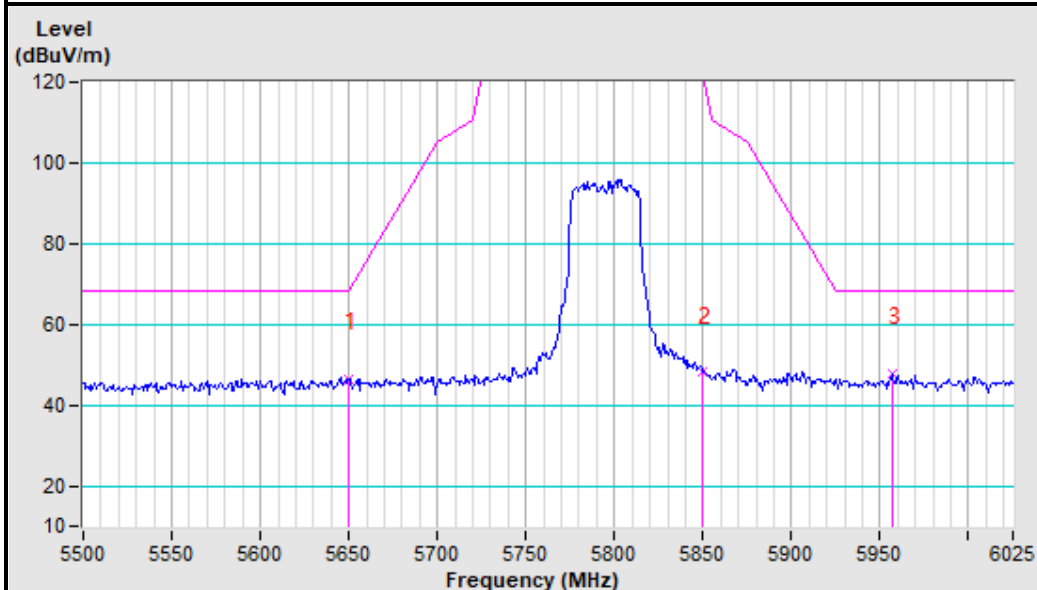
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

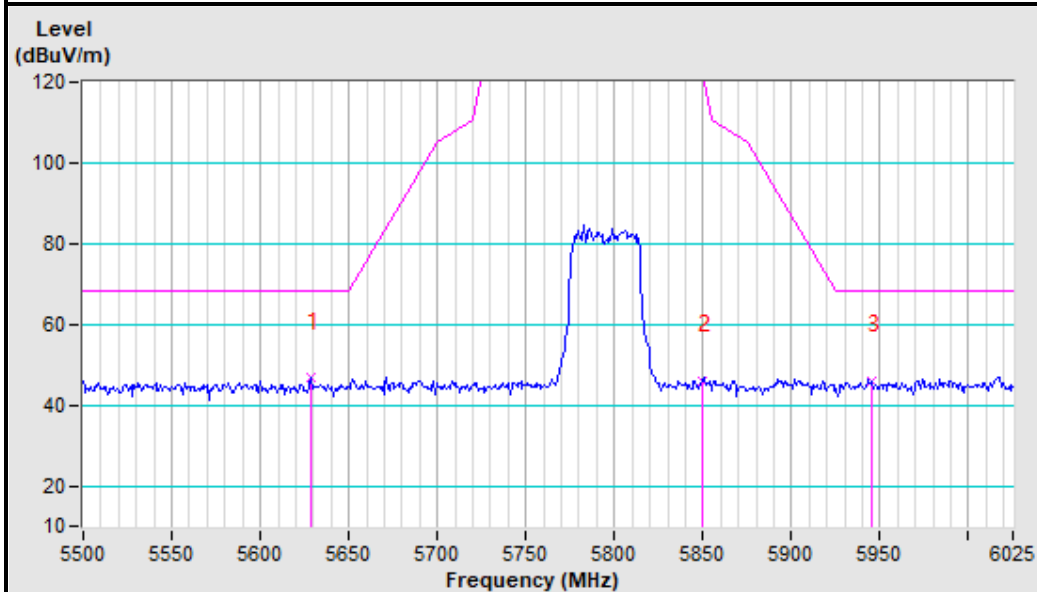


Band edge Plot

5795MHz Horizontal



5795MHz Vertical





802.11ac 80MHz

CHANNEL	TX Channel 155	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5676.37	46.51 PK	87.75	-41.24	1.00 H	0	39.55	6.96
2	#5725.00	54.85 PK	122.20	-67.35	1.00 H	0	47.75	7.10
3	*5775.00	91.69 PK			1.05 H	59	84.45	7.24
4	*5775.00	81.75 AV			1.05 H	59	74.51	7.24
5	#5850.00	48.87 PK	122.20	-73.33	1.00 H	0	41.41	7.46
6	11550.00	56.36 PK	74.00	-17.64	1.00 H	125	40.89	15.47
7	11550.00	43.38 AV	54.00	-10.62	1.00 H	125	27.91	15.47
8	#17325.00	57.69 PK	68.20	-10.51	1.20 H	217	36.61	21.08
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5725.00	45.22 PK	122.20	-76.98	1.00 V	0	38.12	7.10
2	*5775.00	79.73 PK			1.00 V	128	72.49	7.24
3	*5775.00	68.69 AV			1.00 V	128	61.45	7.24
4	#5850.00	44.32 PK	122.20	-77.88	1.00 V	0	36.86	7.46
5	#5946.49	44.04 PK	68.20	-24.16	1.00 V	0	36.29	7.75
6	11550.00	55.24 PK	74.00	-18.76	1.00 V	215	39.77	15.47
7	11550.00	41.29 AV	54.00	-12.71	1.00 V	215	25.82	15.47
8	#17325.00	56.60 PK	68.20	-11.60	1.05 V	78	35.52	21.08

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

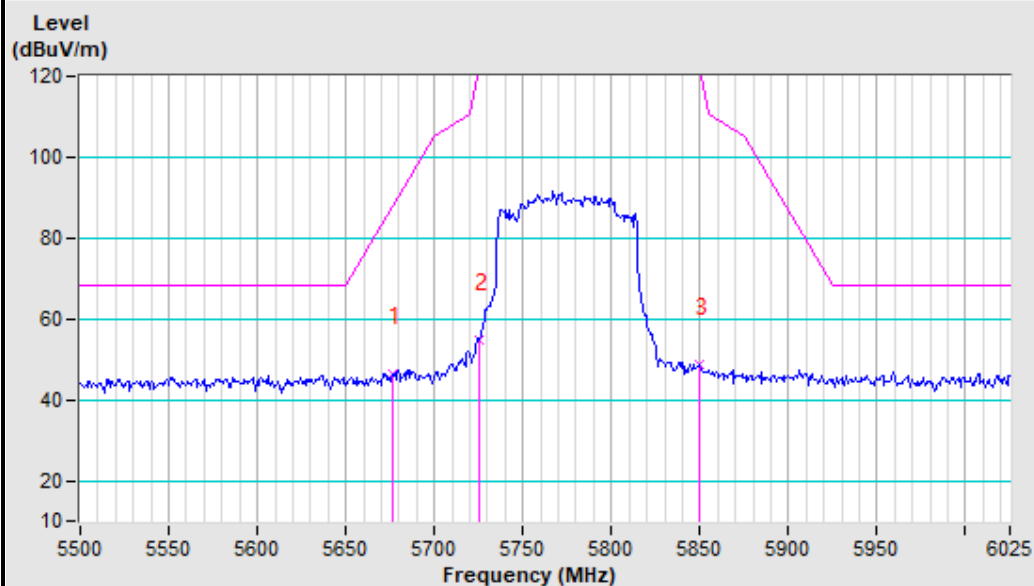


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VERITAS

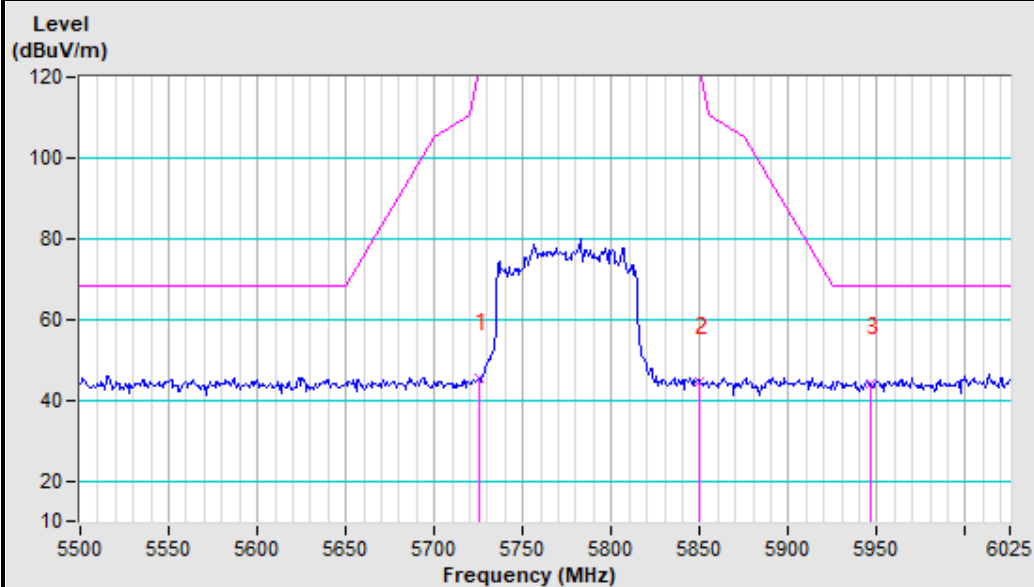
Test Report No.: RF2205WDG0306-4

Band edge Plot

5775MHz Horizontal



5795MHz Vertical





3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

- NOTES:**
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.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 07,23
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 07,23
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 07,23
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Aug. 05,22
Coaxial RF Cable	/	CE CABLE	C2310066D G	Jul. 27,22
Test software	ADT	ADT_Cond_V7.3.7	N/A	N/A

- NOTES:**
1. The test was performed in shielded room 553. (Chenwu)
 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

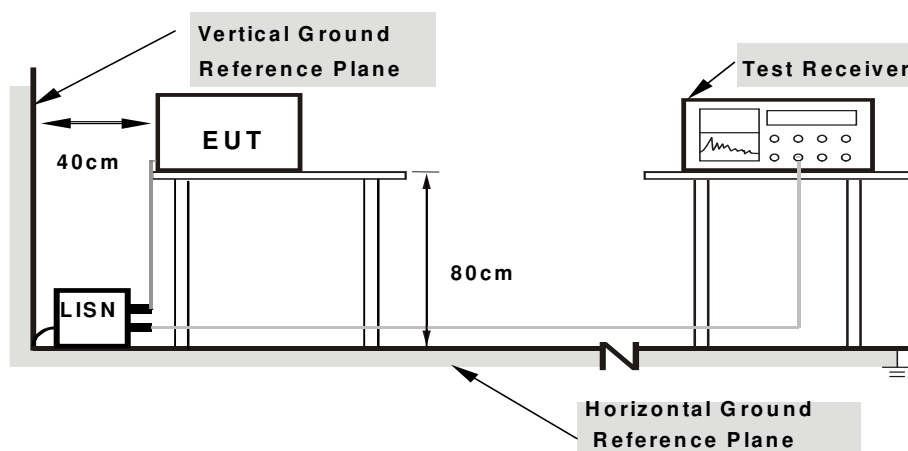
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were 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 3.1.6



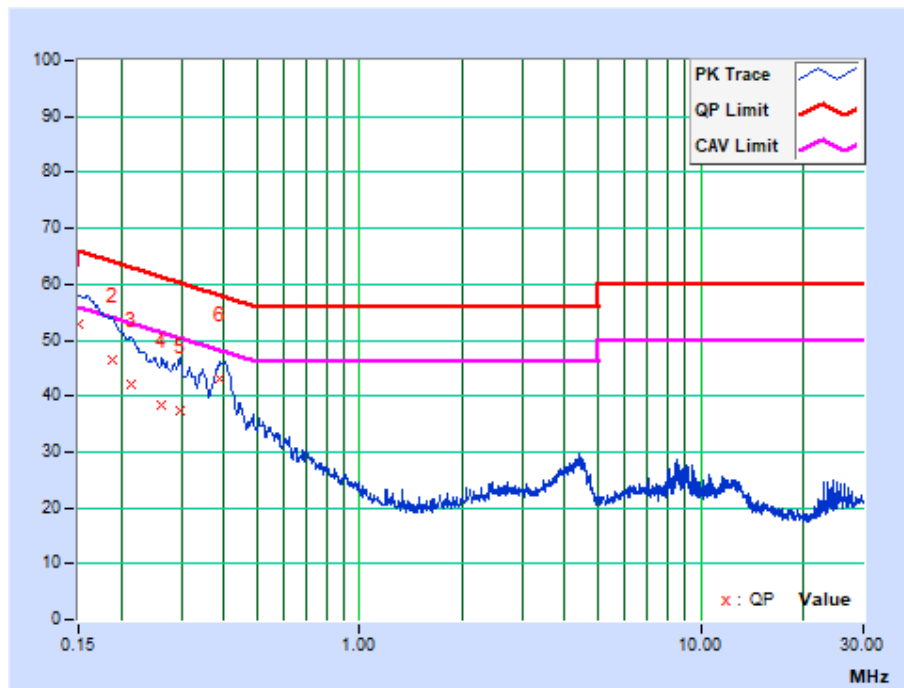
3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: WIFI Link

PHASE	Line	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.93	42.84	26.75	52.77	36.68	66.00	56.00	-13.23	-19.32
2	0.18756	10.01	36.58	21.76	46.59	31.77	64.14	54.14	-17.55	-22.37
3	0.21291	10.05	32.07	19.02	42.12	29.07	63.09	53.09	-20.97	-24.02
4	0.26298	10.09	28.46	16.41	38.55	26.50	61.34	51.34	-22.79	-24.84
5	0.29616	10.11	27.39	16.52	37.50	26.63	60.35	50.35	-22.85	-23.72
6	0.39077	10.14	32.93	26.53	43.07	36.67	58.05	48.05	-14.98	-11.38

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

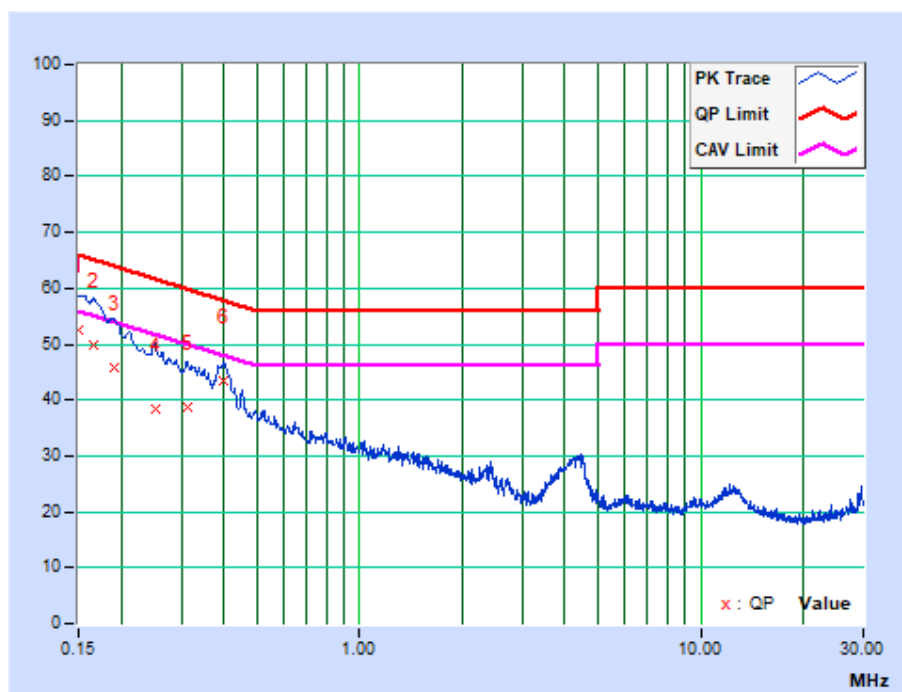




PHASE	Neutral	6dB BANDWIDTH	9kHz
-------	---------	---------------	------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.83	42.64	26.29	52.47	36.12	66.00	56.00	-13.53	-19.88
2	0.16567	9.86	39.87	24.60	49.73	34.46	65.17	55.17	-15.45	-20.72
3	0.19050	9.89	35.91	21.21	45.80	31.10	64.01	54.01	-18.21	-22.91
4	0.25125	9.97	28.30	15.64	38.27	25.61	61.72	51.72	-23.44	-26.10
5	0.31222	10.01	28.79	21.09	38.80	31.10	59.91	49.91	-21.11	-18.81
6	0.39975	10.02	33.29	27.32	43.31	37.34	57.86	47.86	-14.55	-10.52

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.





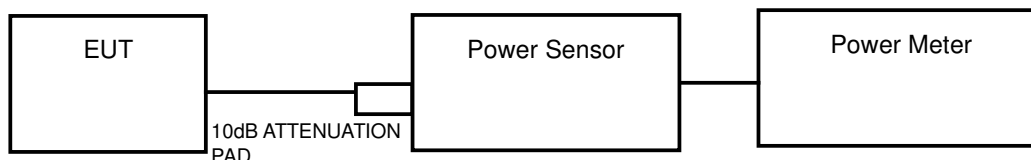
3.3 TRANSMIT POWER MEASUREMENT

3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

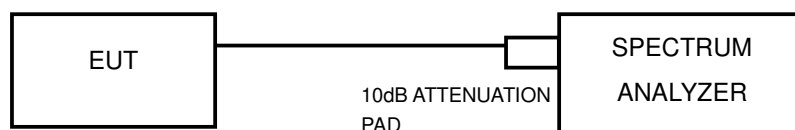
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√		250mW(24dBm) or 11 dBm+10LogB*
U-NII-2C	√		250mW(24dBm) or 11 dBm+10LogB*
U-NII-3	√		1 Watt (30 dBm)

NOTE: 1. Where B is the 26dB emission bandwidth in MHz.

3.3.2 TEST SETUP



FOR 6/26dB BANDWIDTH





3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Wireless Connectivity Tester	Rohde&Schwarz	CMW270	101601	Nov. 21, 22
MXA signal analyzer	Agilent	N9020A	MY49100060	Apr. 18, 23
Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Jan. 16, 23
Frequency Analyzer	Keysight	N9010B	MY60240432	Nov. 25, 22
Programmable Temperature&Humidity Chamber	Hongjin	HYC-TH-225DH	DG-180746	Feb. 16, 23
DC Source	Agilent	E3640A	MY40004013	Feb. 23, 23
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	N/A
Test software	ADT	ADT_RF Test Software V6.6.5.4	N/A	N/A

NOTES:

1. The test was performed in RF Test Shielded Room (Chenwu).
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.

3.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

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 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = RMS.
- 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) ≥ 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.



3.3.7 TEST RESULTS

OUTPUT POWER:

802.11a

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	8.85	9.01	7.674	7.962	15.636	11.94	24.00	PASS
40	5200	8.78	8.12	7.551	6.486	14.037	11.47	24.00	PASS
48	5240	8.81	9.11	7.603	8.147	15.750	11.97	24.00	PASS
52	5260	8.43	8.61	6.966	7.261	14.227	11.53	24.00	PASS
60	5300	8.41	8.58	6.934	7.211	14.145	11.51	24.00	PASS
64	5320	8.44	8.62	6.982	7.278	14.260	11.54	24.00	PASS
100	5500	8.48	8.61	7.047	7.261	14.308	11.56	24.00	PASS
116	5580	8.45	8.55	6.998	7.161	14.159	11.51	24.00	PASS
140	5700	8.43	8.53	6.966	7.129	14.095	11.49	24.00	PASS
149	5745	7.68	7.66	5.861	5.834	11.695	10.68	30.00	PASS
157	5785	7.58	7.55	5.728	5.689	11.417	10.58	30.00	PASS
165	5825	7.21	7.58	5.260	5.728	10.988	10.41	30.00	PASS

For Band 2~Band 3: Limit = $11\text{dBm} + 10\log(26\text{ BW}) = 11 + 10\log(23.00) = 24.62\text{ dBm} > 24\text{dBm}$

23.00MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain = $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi , so the power limit no need to reduce.



802.11n (20MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	9.21	9.18	8.337	8.279	16.616	12.21	24.00	PASS
40	5200	9.22	9.23	8.356	8.375	16.731	12.24	24.00	PASS
48	5240	9.11	9.21	8.147	8.337	16.484	12.17	24.00	PASS
52	5260	8.76	8.88	7.516	7.727	15.243	11.83	24.00	PASS
60	5300	8.73	8.81	7.464	7.603	15.067	11.78	24.00	PASS
64	5320	8.81	8.85	7.603	7.674	15.277	11.84	24.00	PASS
100	5500	8.79	8.77	7.568	7.534	15.102	11.79	24.00	PASS
116	5580	8.83	8.75	7.638	7.499	15.137	11.80	24.00	PASS
140	5700	8.76	8.82	7.516	7.621	15.137	11.80	24.00	PASS
149	5745	7.51	7.45	5.636	5.559	11.195	10.49	30.00	PASS
157	5785	7.41	7.33	5.508	5.408	10.916	10.38	30.00	PASS
165	5825	7.52	7.28	5.649	5.346	10.995	10.41	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(23.25)= 24.66 dBm > 24dBm

23.25MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power limit no need to reduce.



802.11n (40MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
38	5190	9.45	9.22	8.810	8.356	17.166	12.35	24.00	PASS
46	5230	9.38	9.26	8.670	8.433	17.103	12.33	24.00	PASS
54	5270	9.01	8.55	7.962	7.161	15.123	11.80	24.00	PASS
62	5310	9.11	8.48	8.147	7.047	15.194	11.82	24.00	PASS
102	5510	8.88	8.48	7.727	7.047	14.774	11.69	24.00	PASS
110	5550	8.91	8.43	7.780	6.966	14.746	11.69	24.00	PASS
134	5670	8.97	8.58	7.889	7.211	15.100	11.79	24.00	PASS
151	5755	7.78	7.31	5.998	5.383	11.381	10.56	30.00	PASS
159	5795	8.97	7.43	7.889	5.534	13.423	11.28	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(43.12)= 27.35 dBm > 24dBm

43.12MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain= 0.67 + 10*log(2) =3.68dBi, less than 6dBi, so the power limit no need to reduce.



802.11ac (80MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
42	5210	9.48	9.22	8.872	8.356	17.228	12.36	24.00	PASS
58	5290	9.11	8.68	8.147	7.379	15.526	11.91	24.00	PASS
106	5530	9.13	8.37	8.185	6.871	15.056	11.78	24.00	PASS
122	5610	9.11	8.48	8.147	7.047	15.194	11.82	24.00	PASS
155	5775	7.71	7.43	5.902	5.534	11.436	10.58	30.00	PASS

For Band 2~Band 3: Limit = $11\text{dBm} + 10\log(26\text{ BW}) = 11 + 10\log(83.00) = 30.19\text{ dBm} > 24\text{dBm}$

83.00MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain = $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi , so the power limit no need to reduce.

802.11ac (160MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
50	5250	8.66	8.53	7.345	7.129	14.474	11.61	24.00	PASS
114	5570	8.42	8.33	6.95	6.808	13.758	11.39	24.00	PASS

For Band 2~Band 3: Limit = $11\text{dBm} + 10\log(26\text{ BW}) = 11 + 10\log(166.76) = 33.22\text{ dBm} > 24\text{dBm}$

166.76MHz Calculated results correspond to the worst limiting results.

Notes:

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

1. Directional gain = $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi , so the power limit no need to reduce.



802.11ax (20MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	8.89	8.98	7.745	7.907	15.652	11.95	24.00	PASS
40	5200	8.78	8.99	7.551	7.925	15.476	11.90	24.00	PASS
48	5240	8.89	9.21	7.745	8.337	16.082	12.06	24.00	PASS
52	5260	8.58	8.61	7.211	7.261	14.472	11.61	24.00	PASS
60	5300	8.48	8.67	7.047	7.362	14.409	11.59	24.00	PASS
64	5320	8.35	8.42	6.839	6.950	13.789	11.40	24.00	PASS
100	5500	8.31	8.43	6.776	6.966	13.742	11.38	24.00	PASS
116	5580	8.38	8.49	6.887	7.063	13.950	11.45	24.00	PASS
140	5700	8.36	8.45	6.855	6.998	13.853	11.42	24.00	PASS
149	5745	6.55	6.73	4.519	4.710	9.229	9.65	30.00	PASS
157	5785	6.38	6.52	4.345	4.487	8.832	9.46	30.00	PASS
165	5825	6.12	6.33	4.093	4.295	8.388	9.24	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(23.25)= 24.66 dBm > 24dBm

23.25MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain= 0.67 + 10*log(2) =3.68dBi, less than 6dBi, so the power limit no need to reduce.



802.11ax (40MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
38	5190	8.82	8.97	7.621	7.889	15.510	11.91	24.00	PASS
46	5230	8.75	8.87	7.499	7.709	15.208	11.82	24.00	PASS
54	5270	8.92	9.08	7.798	8.091	15.889	12.01	24.00	PASS
62	5310	8.68	8.59	7.379	7.228	14.607	11.65	24.00	PASS
102	5510	8.58	8.73	7.211	7.464	14.675	11.67	24.00	PASS
110	5550	8.63	8.88	7.295	7.727	15.022	11.77	24.00	PASS
134	5670	9.01	9.13	7.962	8.185	16.147	12.08	24.00	PASS
151	5755	6.99	7.11	5.000	5.140	10.140	10.06	30.00	PASS
159	5795	6.72	7.01	4.699	5.023	9.722	9.88	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(43.12)= 27.35 dBm > 24dBm

43.12MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain= 0.67 + 10*log(2) =3.68dBi, less than 6dBi, so the power limit no need to reduce.



802.11ax (80MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
42	5210	9.16	9.11	8.241	8.147	16.388	12.15	24.00	PASS
58	5290	9.18	9.28	8.279	8.472	16.751	12.24	24.00	PASS
106	5530	8.95	9.11	7.852	8.147	15.999	12.04	24.00	PASS
122	5610	8.93	9.01	7.816	7.962	15.778	11.98	24.00	PASS
155	5775	7.11	7.23	5.140	5.284	10.424	10.18	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(83.00)= 30.19 dBm > 24dBm

83.00MHz Calculated results correspond to the worst limiting results.

Notes:

For U-NII-1&U-NII-2A&U-NII-2C&U-NII-3

1. Directional gain= 0.67 + 10*log(2) =3.68dBi, less than 6dBi, so the power limit no need to reduce.

802.11ax (160MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
50	5250	8.49	8.45	7.063	6.998	14.061	11.48	24.00	PASS
114	5570	8.33	8.25	6.808	6.683	13.491	11.30	24.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(166.76)= 33.22 dBm > 24dBm

166.76MHz Calculated results correspond to the worst limiting results.

Notes:

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

1. Directional gain= 0.67 + 10*log(2) =3.68dBi, less than 6dBi, so the power limit no need to reduce.

**26dB BANDWIDTH:****802.11a**

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
36	5180	23.44	23.44	PASS
40	5200	23.54	23.54	PASS
48	5240	23.05	23.05	PASS
52	5260	23.25	23.25	PASS
60	5300	23.23	23.23	PASS
64	5320	23.33	23.33	PASS
100	5500	23.09	23.09	PASS
116	5580	23.00	23.00	PASS
140	5700	23.86	23.86	PASS

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
36	5180	23.46	23.46	PASS
40	5200	23.79	23.79	PASS
48	5240	22.69	22.69	PASS
52	5260	23.79	23.79	PASS
60	5300	23.31	23.31	PASS
64	5320	23.85	23.85	PASS
100	5500	23.25	23.25	PASS
116	5580	23.87	23.87	PASS
140	5700	23.25	23.25	PASS

**802.11n (40MHz)**

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
38	5190	43.55	43.55	PASS
46	5230	42.62	42.62	PASS
54	5270	43.39	43.39	PASS
62	5310	43.30	43.30	PASS
102	5510	43.41	43.41	PASS
110	5550	43.12	43.12	PASS
134	5670	43.97	43.97	PASS

802.11ac (80MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
42	5210	83.10	83.10	PASS
58	5290	83.73	83.73	PASS
106	5530	83.00	83.00	PASS
122	5610	83.30	83.30	PASS

802.11ac (160MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
50	5250	167.32	166.76	PASS
114	5570	167.14	167.04	PASS

**6dB BANDWIDTH For 5725-5850MHz****802.11a**

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
149	5745	16.40	16.40	PASS
157	5785	16.41	16.41	PASS
165	5825	16.40	16.40	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
149	5745	18.93	18.93	PASS
157	5785	18.93	18.93	PASS
165	5825	18.96	18.96	PASS

802.11n (40M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
151	5755	38.00	38.00	PASS
159	5795	37.88	37.88	PASS

802.11ac (80MHz)

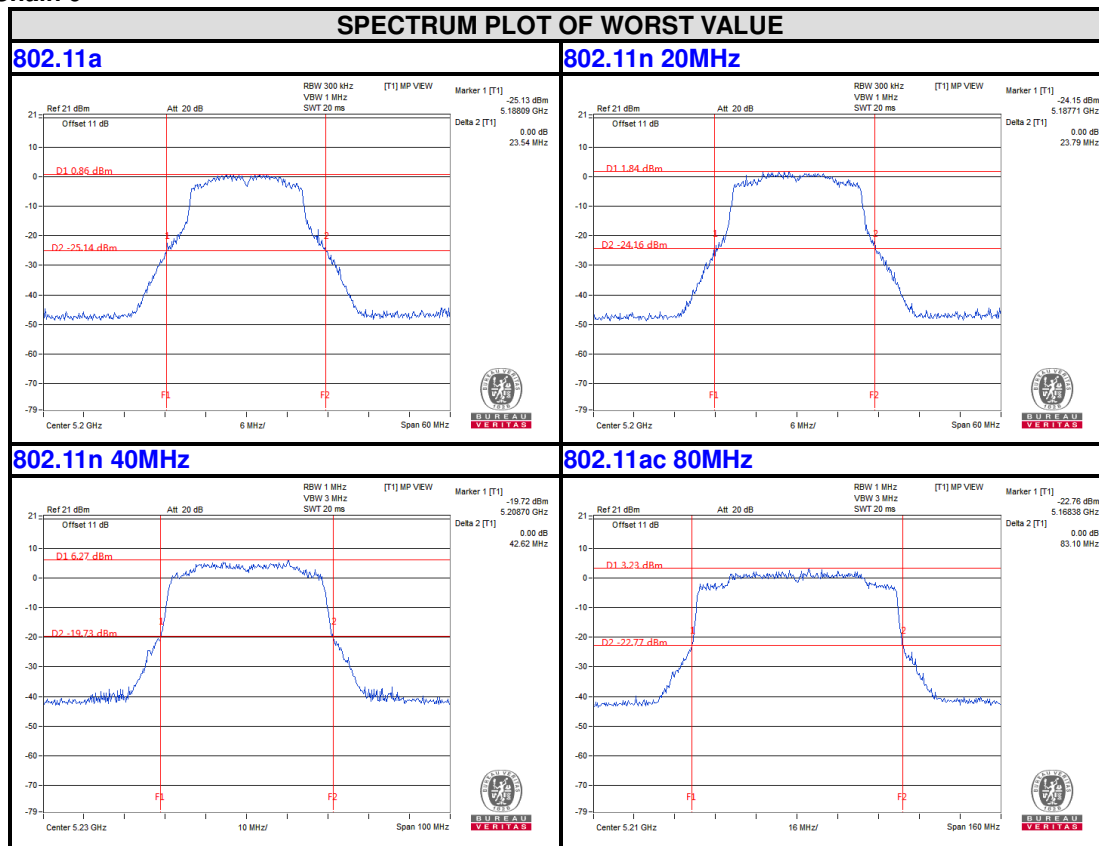
Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
155	5775	72.86	72.86	PASS



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26dB bandwidth Test Plot
For 5150-5250MHz worst plot
Chain 0



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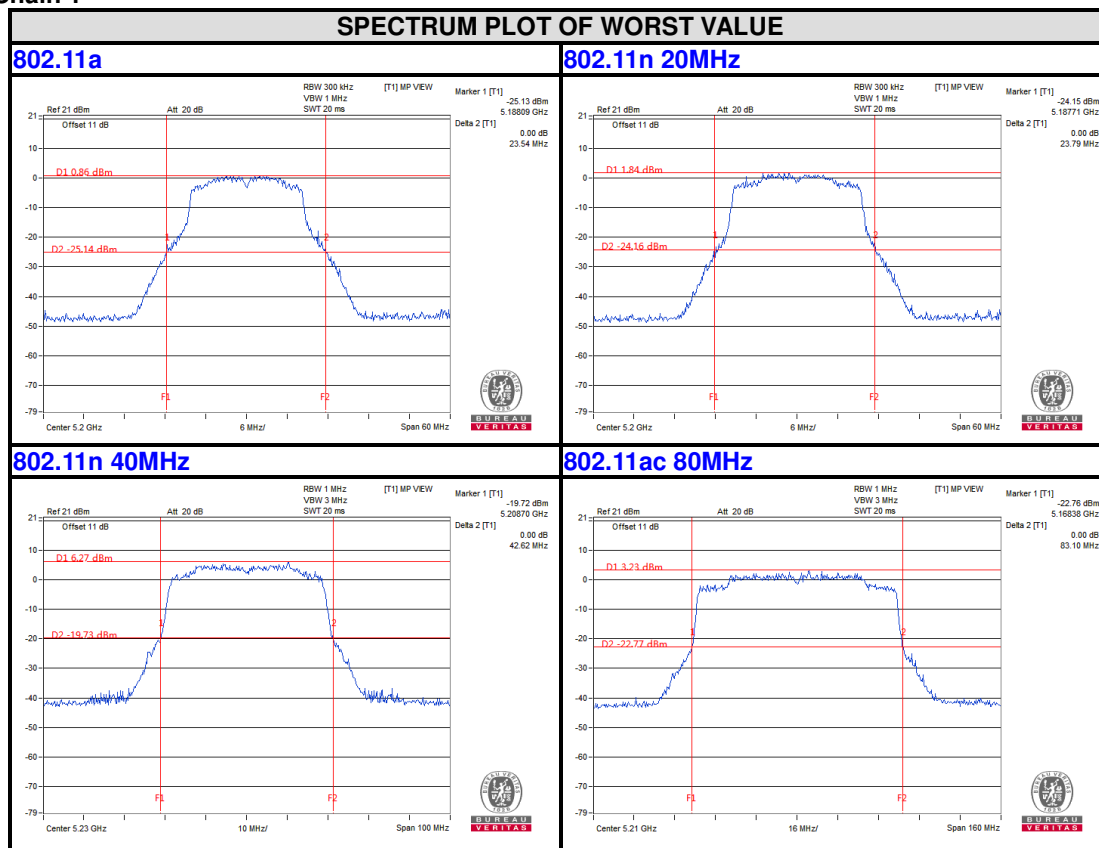
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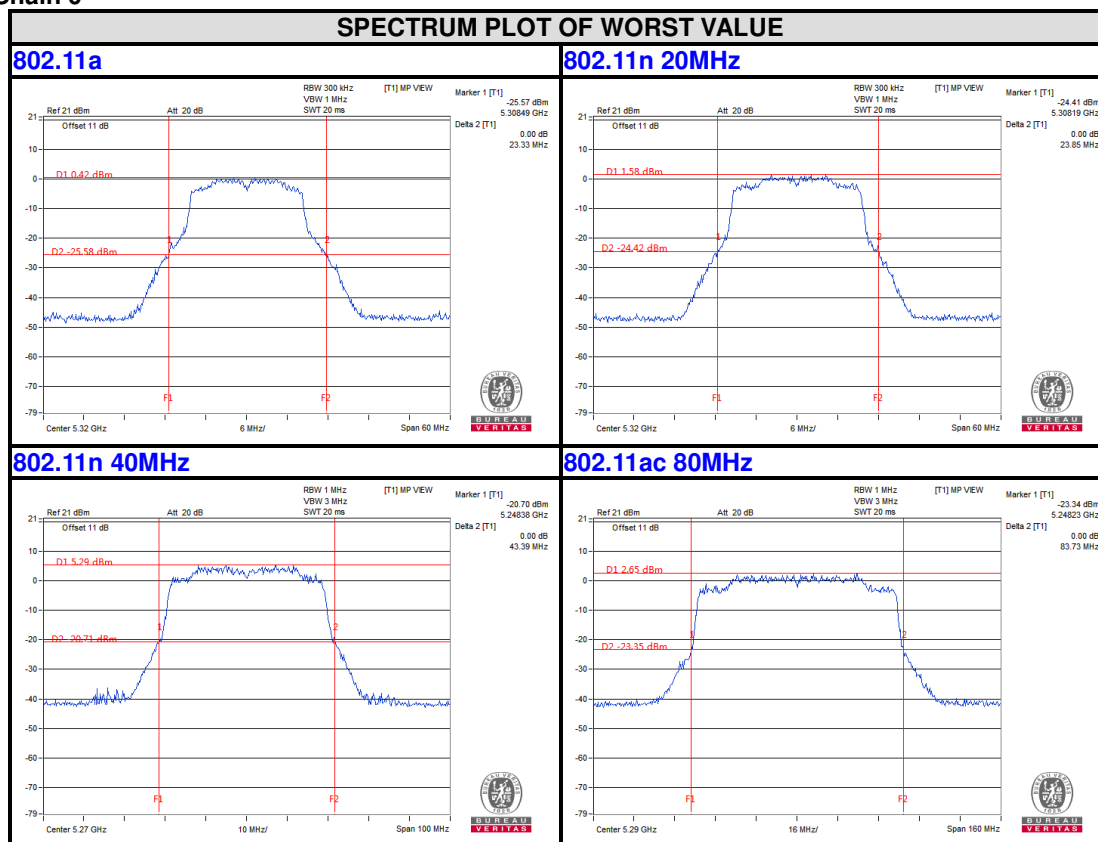


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For 5250-5350MHz

Chain 0



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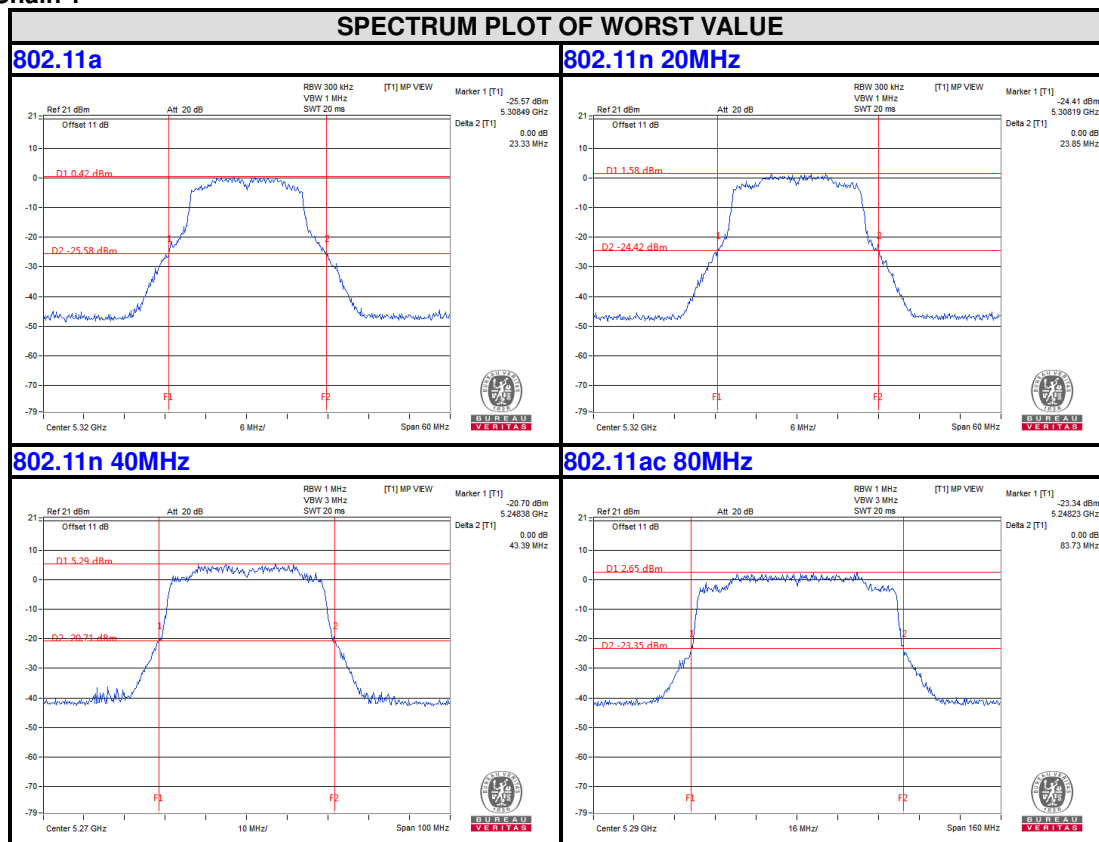
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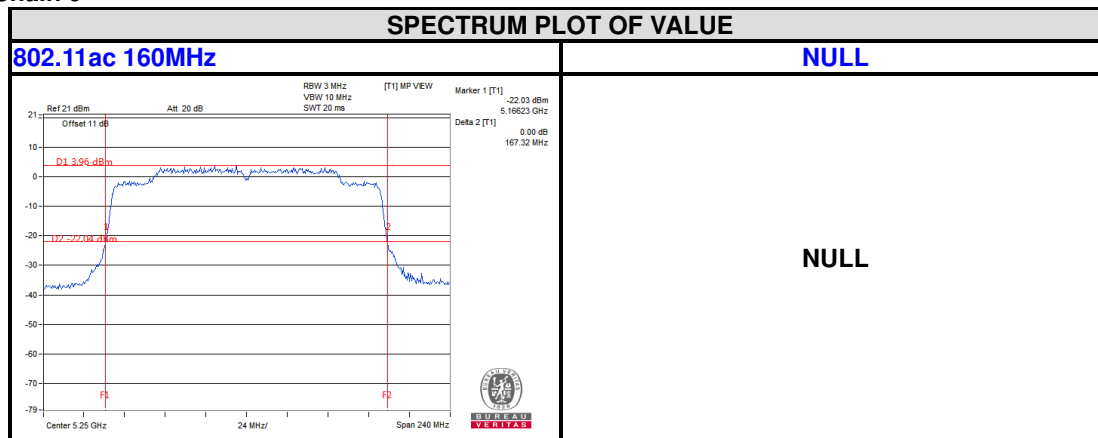


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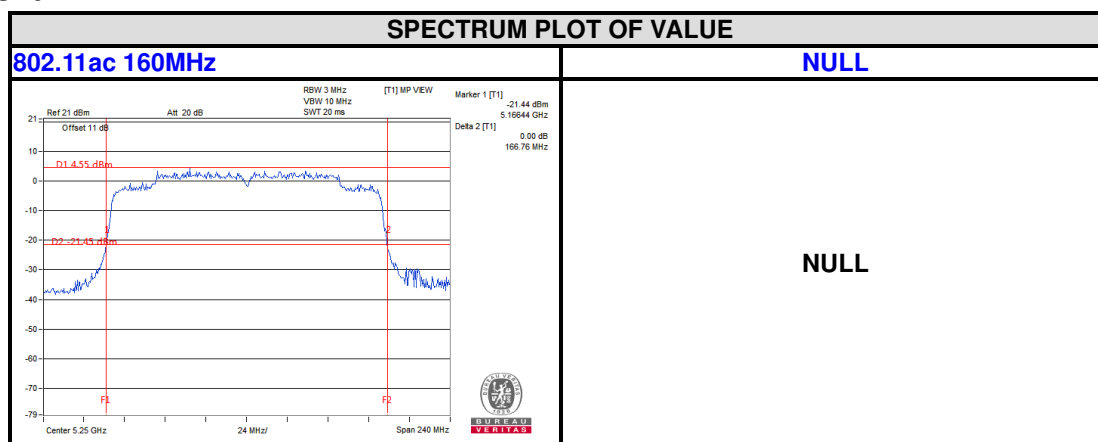
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For 5150-5350MHz

Chain 0



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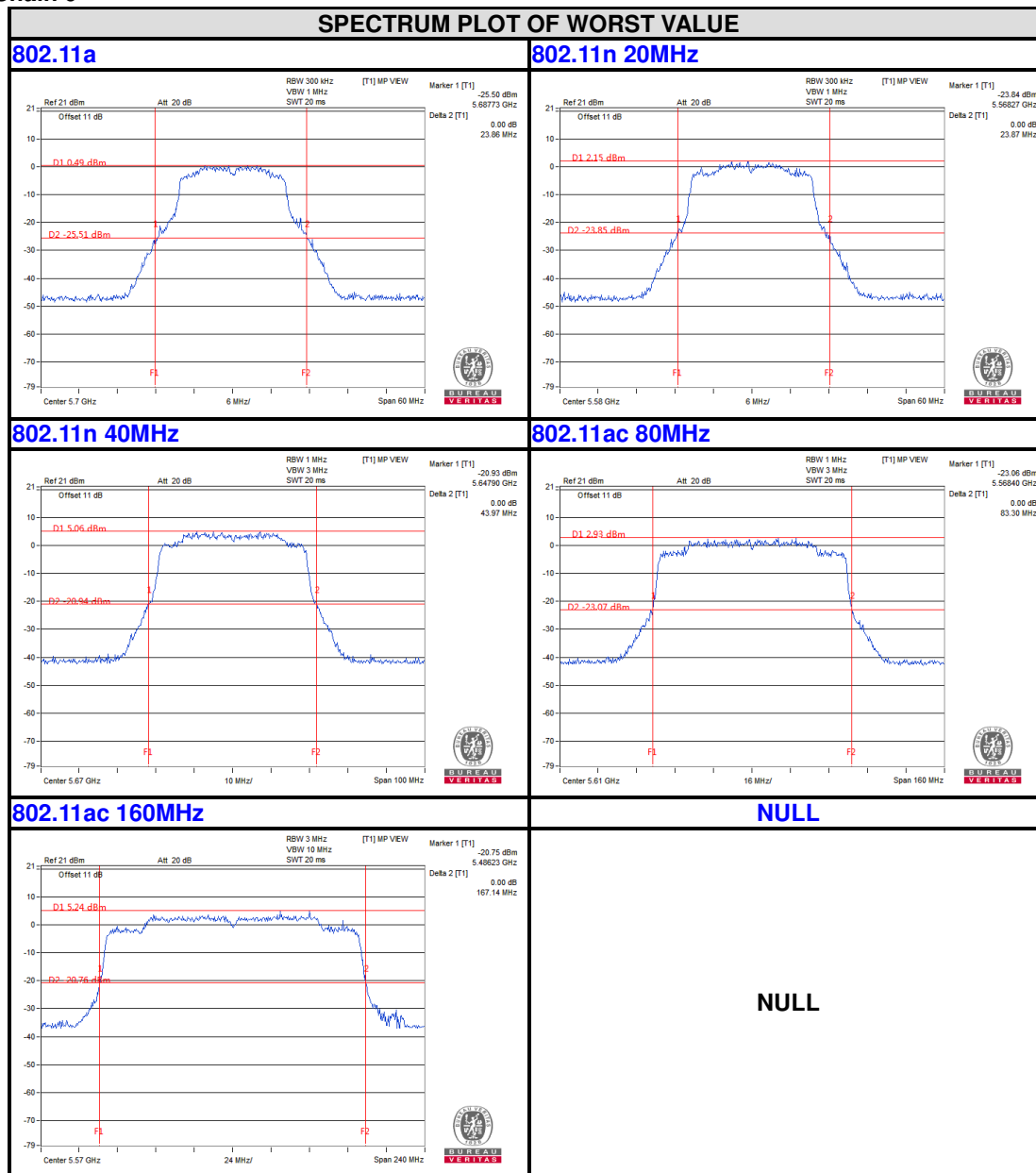


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For 5470-5725MHz

Chain 0



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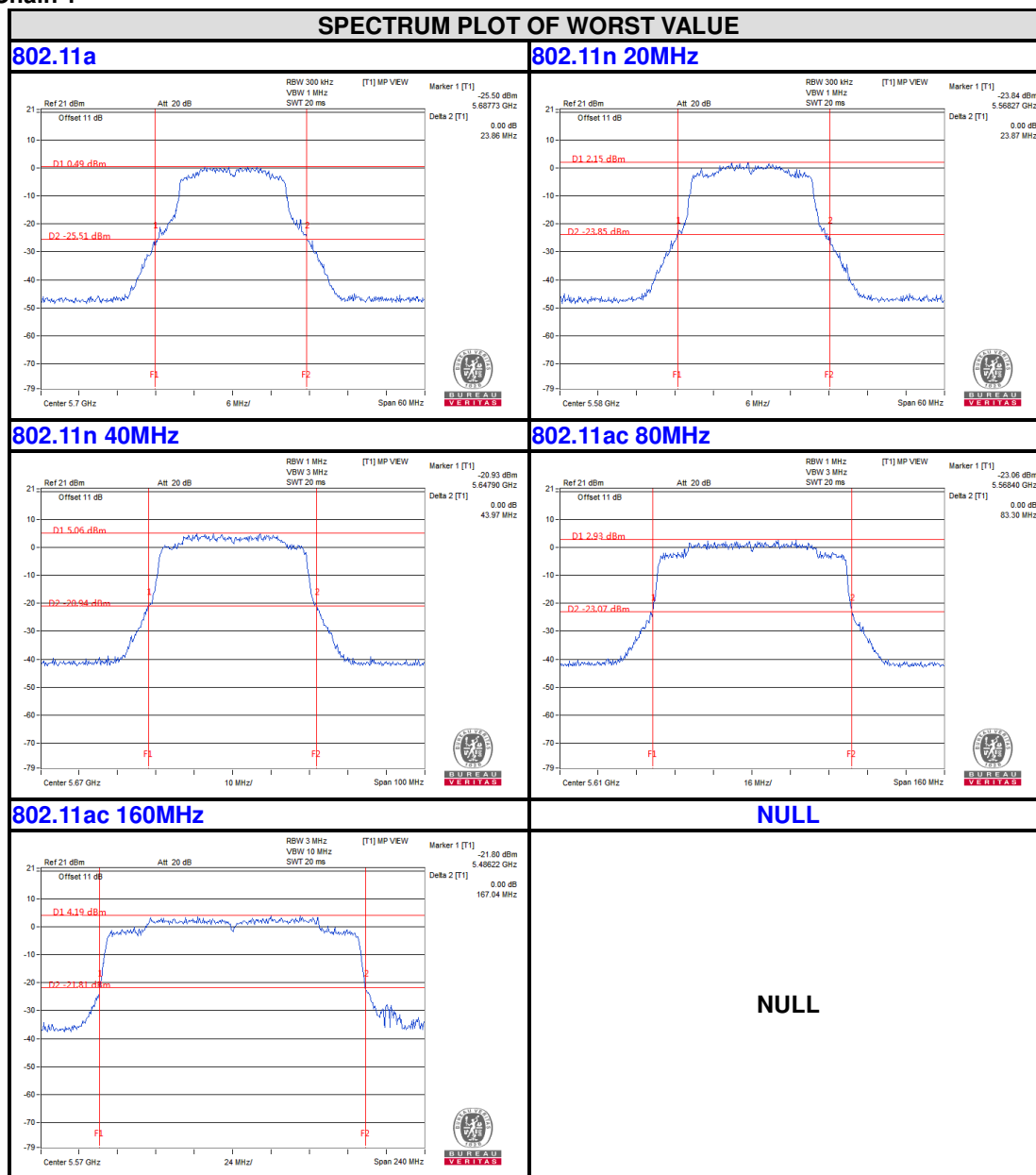
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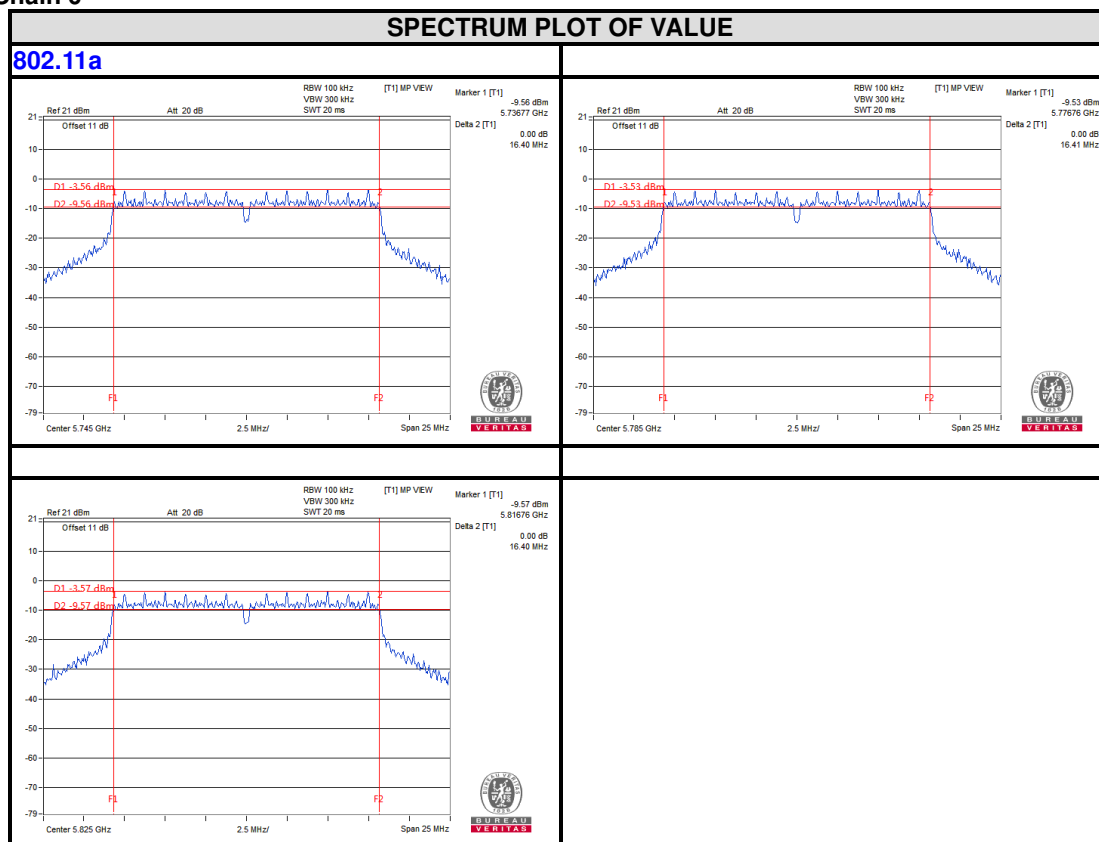


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6dB BANDWIDTH For 5725-5850MHz

Chain 0



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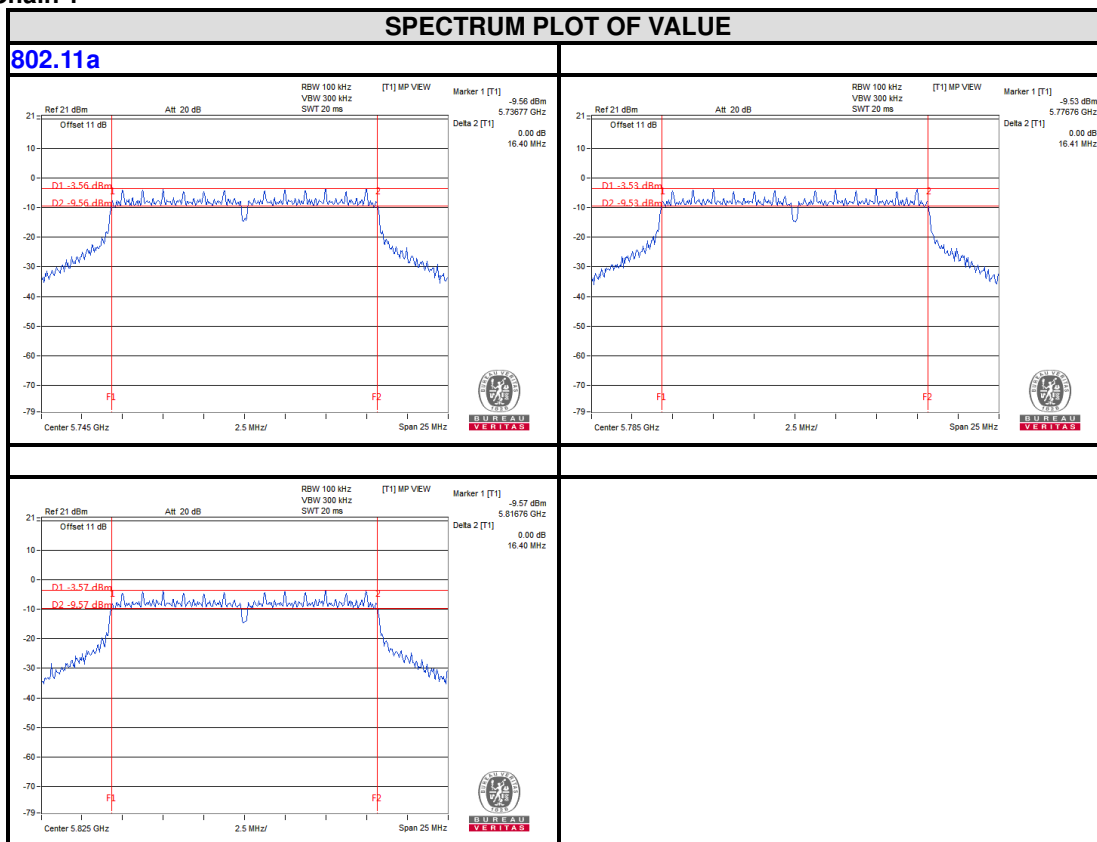
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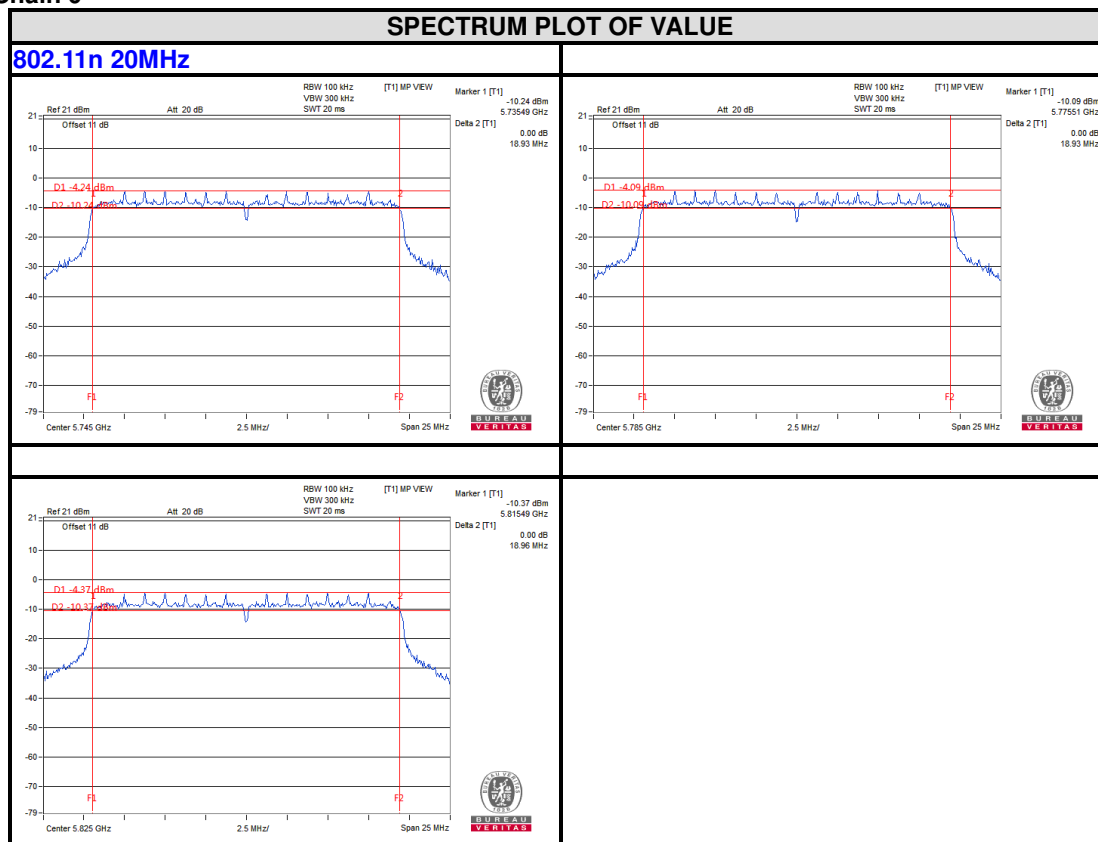
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Chain 0



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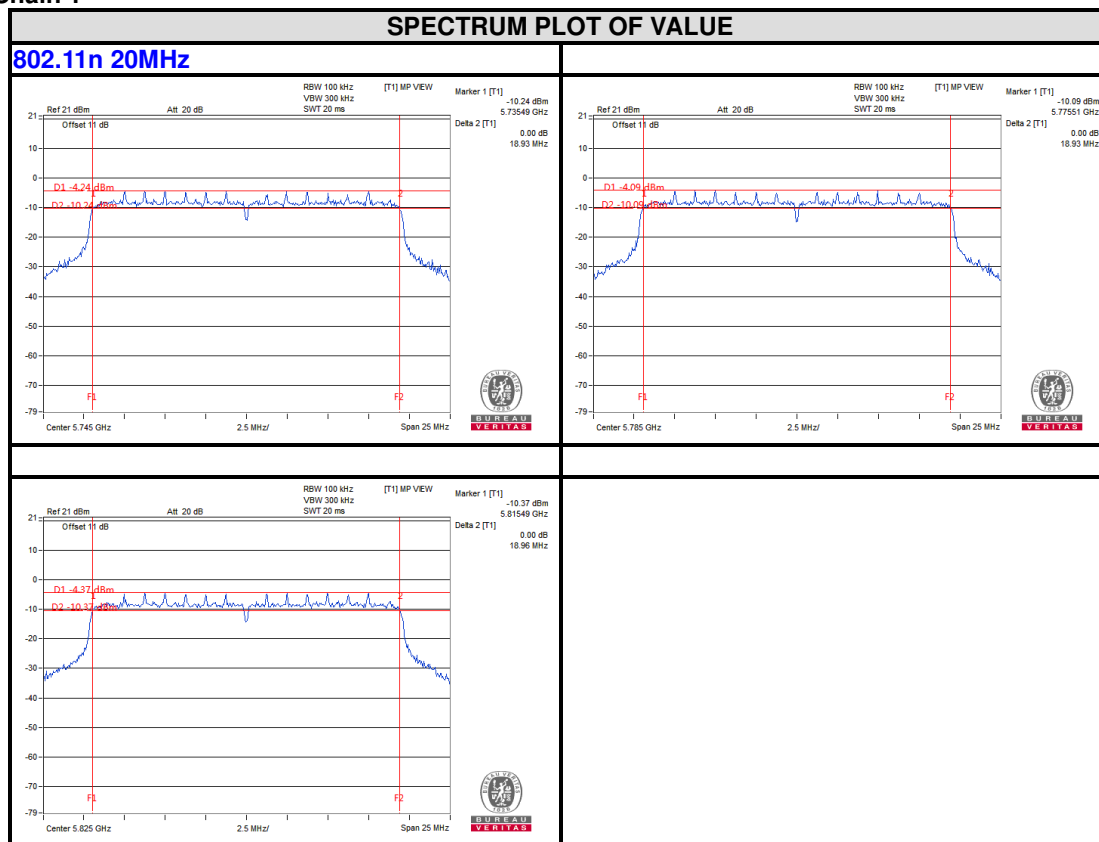
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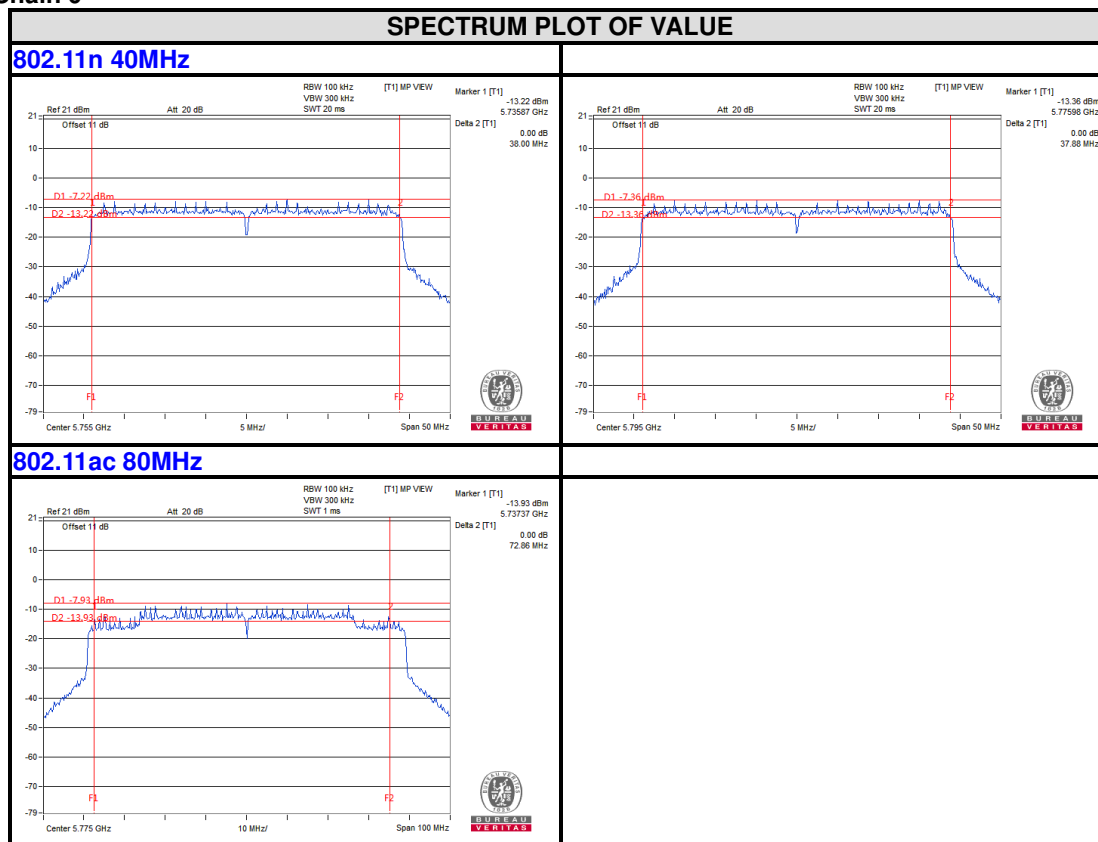
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Chain 0



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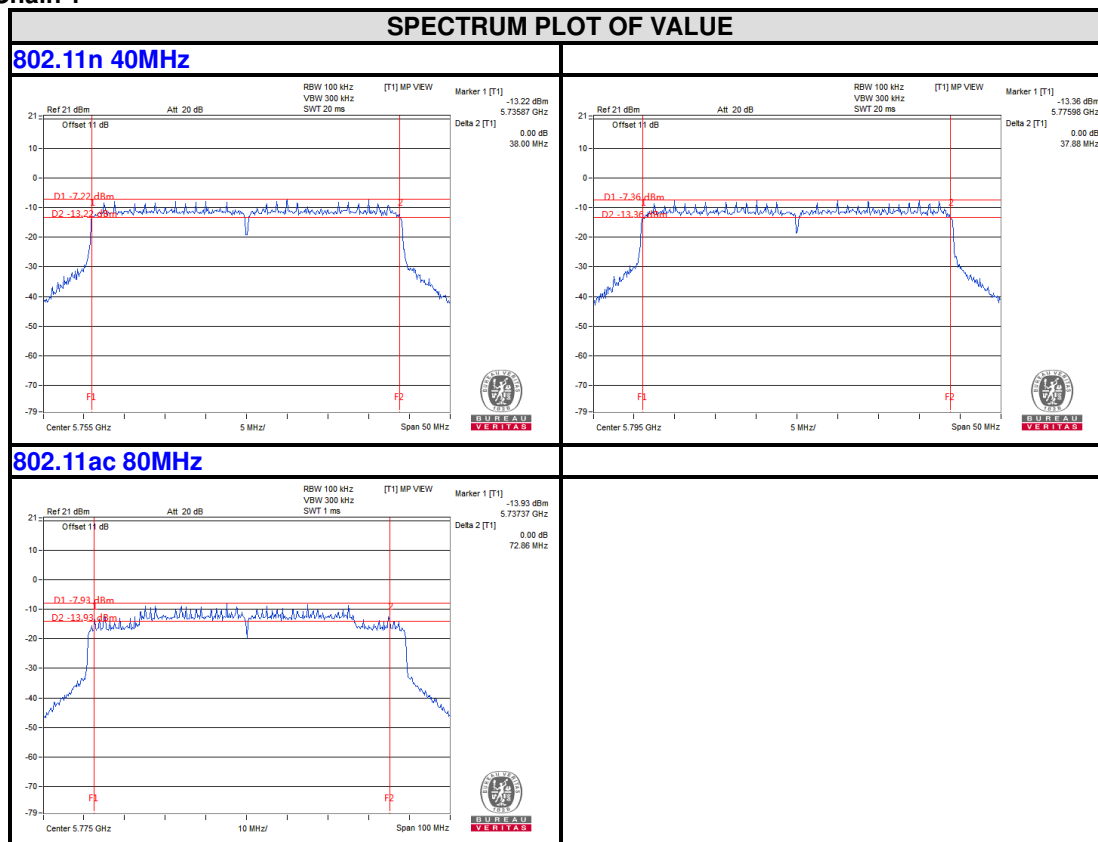
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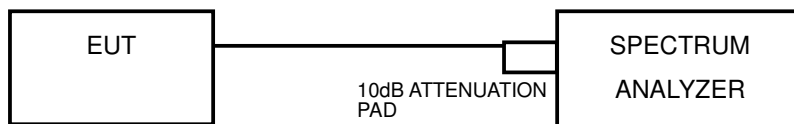


3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF PEAK 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	
	√	Mobile and Portable client device	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

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1MHz, Set VBW =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) Record the max value and add 10 log (1/duty cycle)



For U-NII-3 band:

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 300 kHz, Set VBW = 1 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) Record the max value and add 10 log (1/duty cycle)

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.3.6



3.4.7 TEST RESULTS

For U-NII-1, U-NII-2A & U-NII-2C, For U-NII-3:
802.11a

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	-3.99	-3.99	0	0.164	0.813	-0.90	11.00	PASS
40	5200	-3.98	-3.98	0	0.164	0.815	-0.89	11.00	PASS
48	5240	-3.89	-3.89	0	0.164	0.832	-0.80	11.00	PASS
52	5260	-4.30	-4.30	0	0.164	0.757	-1.21	11.00	PASS
60	5300	-4.32	-4.32	0	0.164	0.754	-1.23	11.00	PASS
64	5320	-4.56	-4.56	0	0.164	0.713	-1.47	11.00	PASS
100	5500	-4.40	-4.40	0	0.164	0.740	-1.31	11.00	PASS
116	5580	-4.56	-4.56	0	0.164	0.713	-1.47	11.00	PASS
140	5700	-4.39	-4.39	0	0.164	0.742	-1.30	11.00	PASS

Notes: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-1, U-NII-2A, U-NII-2C

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.

Channel Number	Frequency (MHz)	RF Power Level in 500kHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm/500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
149	5745	-7.77	-7.77	0	0.164	0.341	-4.68	30.00	PASS
157	5785	-7.82	-7.82	0	0.164	0.337	-4.73	30.00	PASS
165	5825	-7.89	-7.89	0	0.164	0.331	-4.80	30.00	PASS

Note: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-3

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.



802.11n (20MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	-4.55	-4.55	0	0.164	0.715	-1.46	11.00	PASS
40	5200	-4.46	-4.46	0	0.164	0.730	-1.37	11.00	PASS
48	5240	-4.42	-4.42	0	0.164	0.737	-1.33	11.00	PASS
52	5260	-4.54	-4.54	0	0.164	0.717	-1.45	11.00	PASS
60	5300	-4.66	-4.66	0	0.164	0.697	-1.57	11.00	PASS
64	5320	-4.80	-4.80	0	0.164	0.675	-1.71	11.00	PASS
100	5500	-4.67	-4.67	0	0.164	0.696	-1.58	11.00	PASS
116	5580	-4.73	-4.73	0	0.164	0.686	-1.64	11.00	PASS
140	5700	-4.62	-4.62	0	0.164	0.704	-1.53	11.00	PASS

Notes: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-1, U-NII-2A, U-NII-2C

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.

Channel Number	Frequency (MHz)	RF Power Level in 500kHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm/500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
149	5745	-8.60	-8.60	0	0.164	0.281	-5.51	30.00	PASS
157	5785	-8.61	-8.61	0	0.164	0.281	-5.52	30.00	PASS
165	5825	-8.72	-8.72	0	0.164	0.274	-5.63	30.00	PASS

Note: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-3

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.



802.11n (40MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
38	5190	-7.38	-7.38	0	0.164	0.373	-4.29	11.00	PASS
46	5230	-7.32	-7.32	0	0.164	0.378	-4.23	11.00	PASS
54	5270	-7.95	-7.95	0	0.164	0.327	-4.86	11.00	PASS
62	5310	-8.11	-8.11	0	0.164	0.315	-5.02	11.00	PASS
102	5510	-8.06	-8.06	0	0.164	0.319	-4.97	11.00	PASS
110	5550	-8.29	-8.29	0	0.164	0.302	-5.20	11.00	PASS
134	5670	-8.08	-8.08	0	0.164	0.317	-4.99	11.00	PASS

Notes: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-1, U-NII-2A, U-NII-2C

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.

Channel Number	Frequency (MHz)	RF Power Level in 500kHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm/500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
151	5755	-11.58	-11.58	0	0.164	0.142	-8.49	30.00	PASS
159	5795	-11.60	-11.60	0	0.164	0.141	-8.51	30.00	PASS

Note: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-3

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.



802.11ac (80MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
42	5210	-10.38	-10.38	0	0.164	0.187	-7.29	11.00	PASS
58	5290	-10.70	-10.70	0	0.164	0.174	-7.61	11.00	PASS
106	5530	-10.88	-10.88	0	0.164	0.166	-7.79	11.00	PASS
122	5610	-10.78	-10.78	0	0.164	0.170	-7.69	11.00	PASS

Notes: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-1, U-NII-2A, U-NII-2C

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.

Channel Number	Frequency (MHz)	RF Power Level in 500kHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm/500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
155	5775	-13.74	-13.74	0	0.164	0.086	-10.65	30.00	PASS

Note: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-3

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.

**802.11ac (160MHz)**

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		Duty Factor (dB)		Final result (Total PSD)		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
50	5250	-14.29	-13.91	0	0.164	0.079	-11.00	11.00	PASS
114	5570	-14.68	-14.18	0	0.164	0.074	-11.33	11.00	PASS

Notes: Refer to section 2.3 for duty cycle spectrum plot.

For U-NII-1, U-NII-2A, U-NII-2C

1. Directional gain= $0.67 + 10 \cdot \log(2) = 3.68\text{dBi}$, less than 6dBi, so the power density limit no need to reduce.



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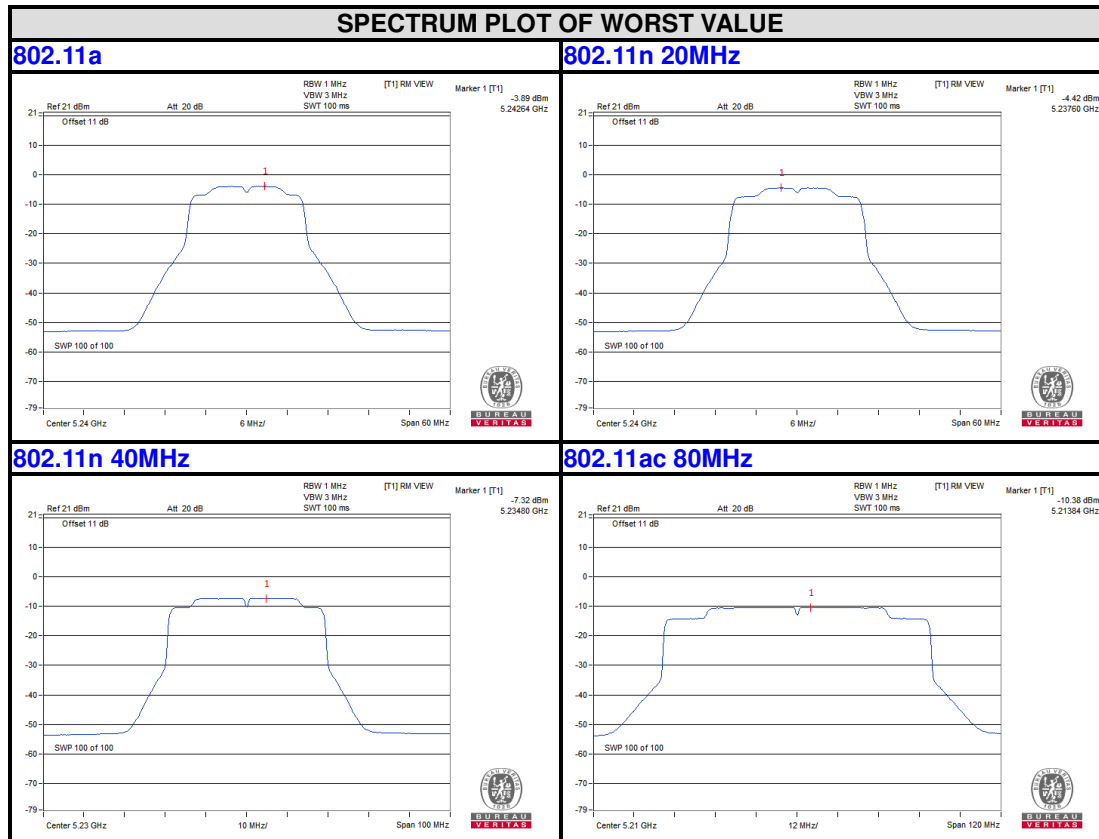
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PSD Test Plot

BAND 1

5150-5250MHz

Chain 0



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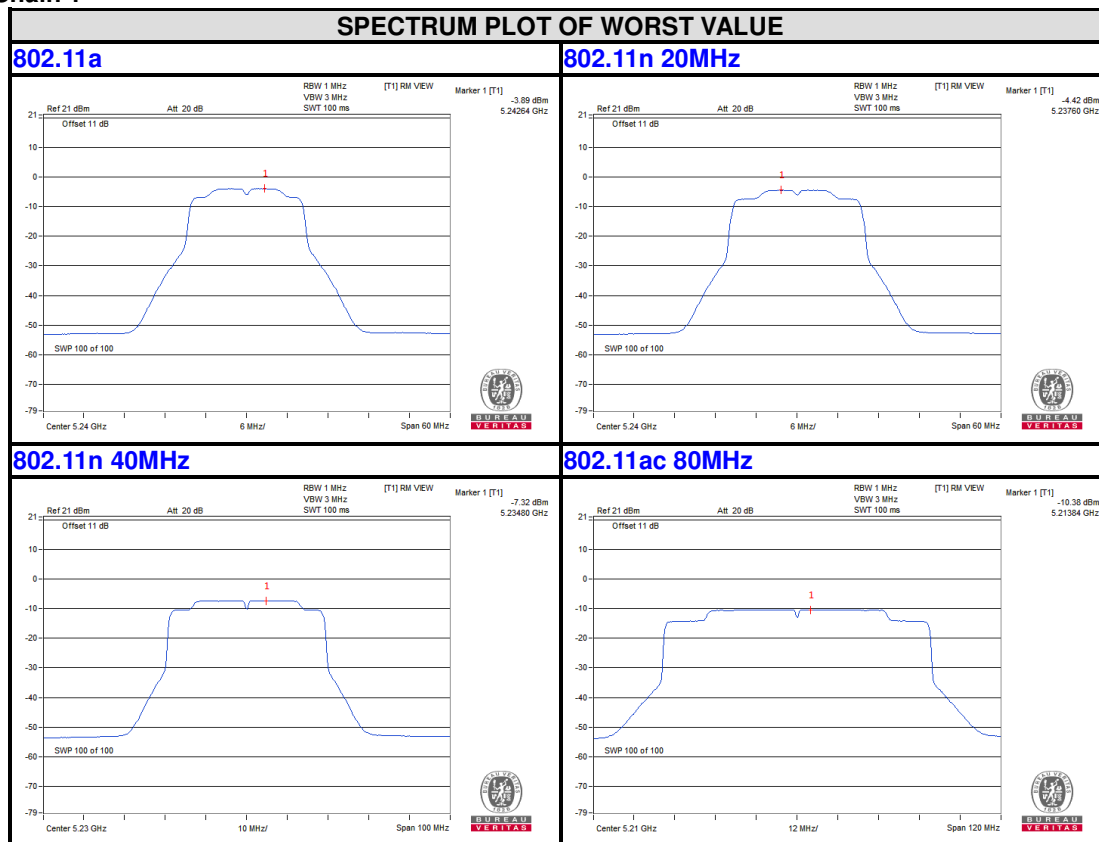
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Chain 1



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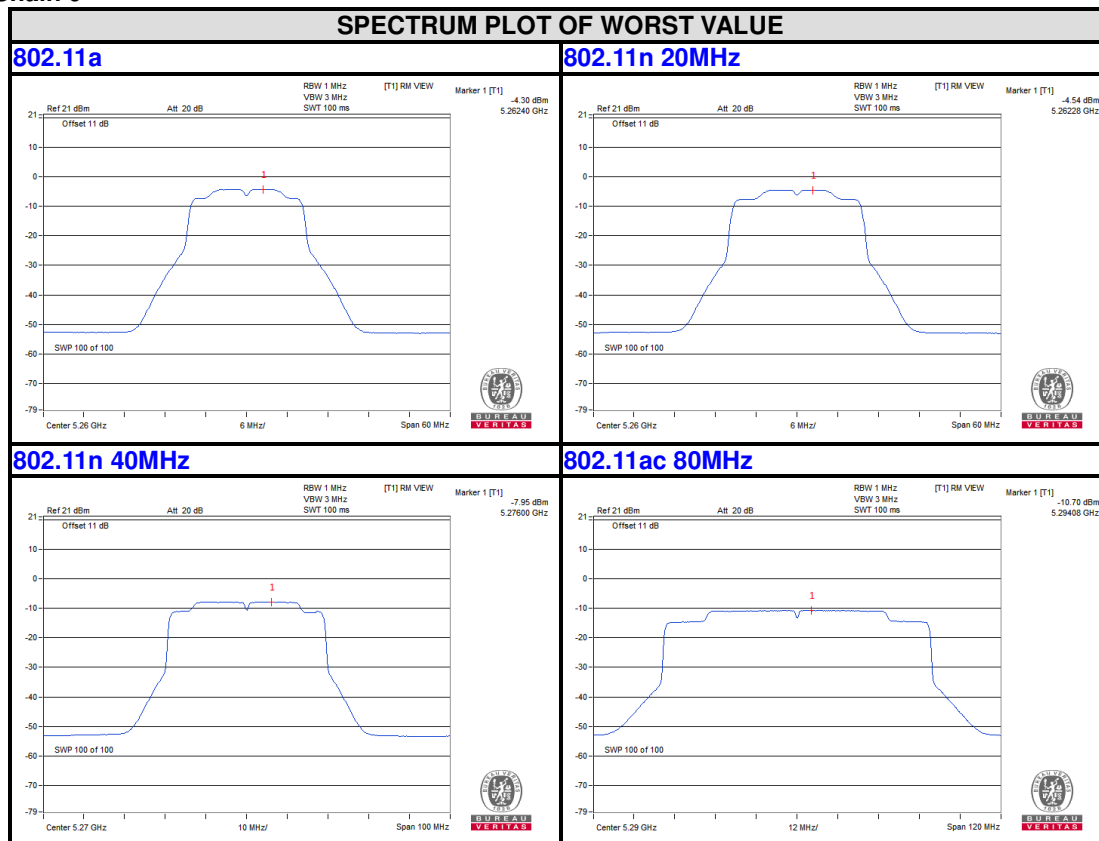


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BAND 2
5250-5350MHz

Chain 0



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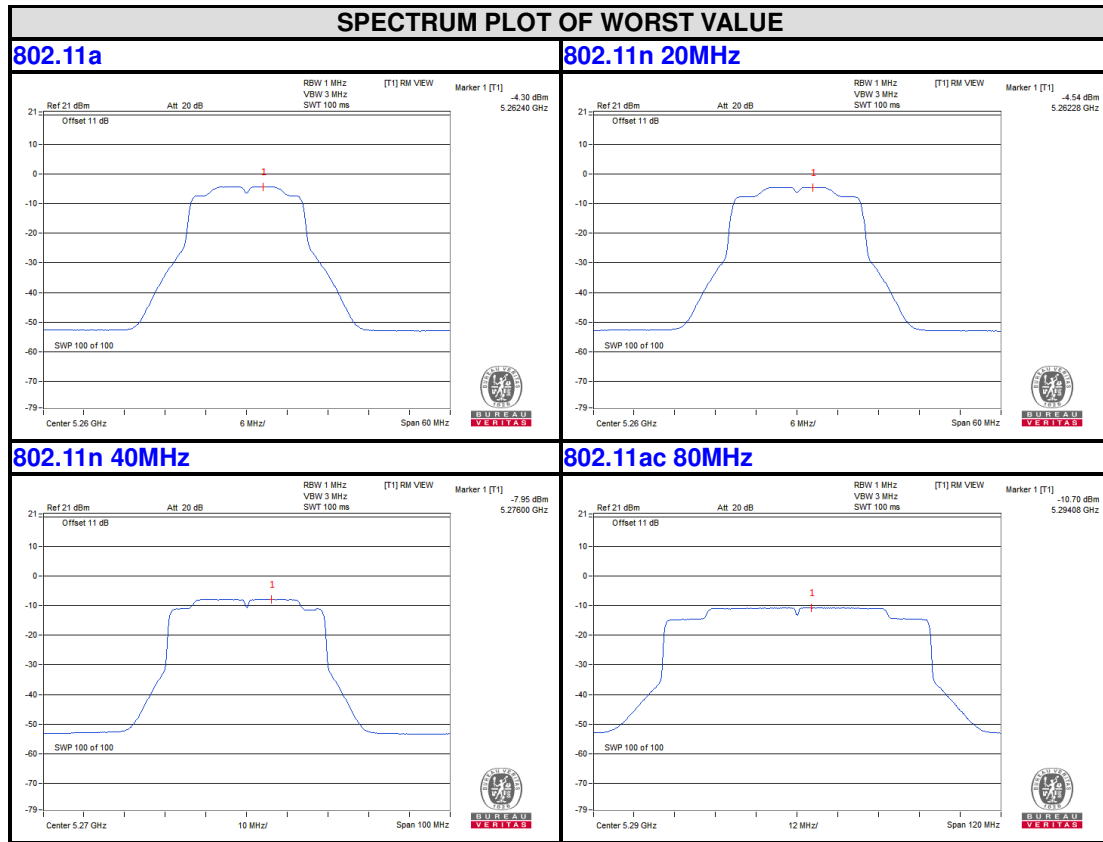
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Chain 1



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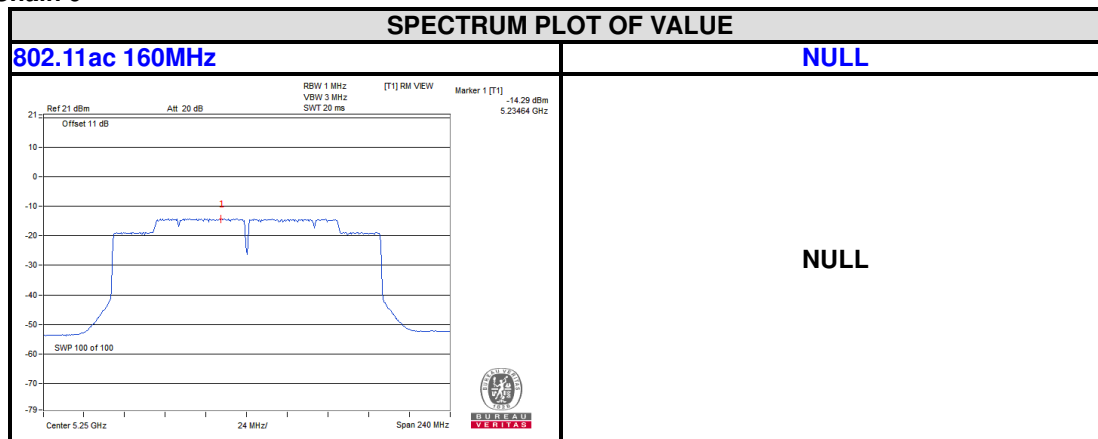


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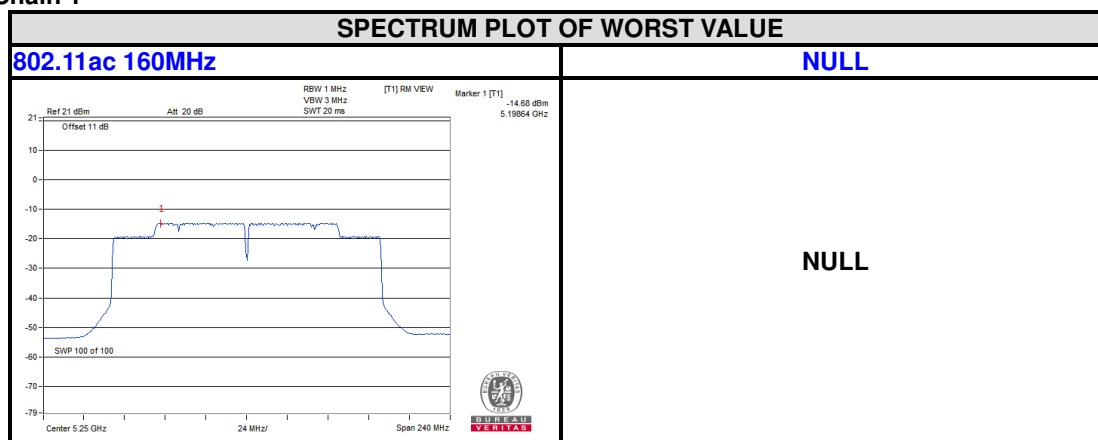
Test Report No.: RF2205WDG0306-4

BAND 1+BAND 2
5150-5350MHz

Chain 0



Chain 1

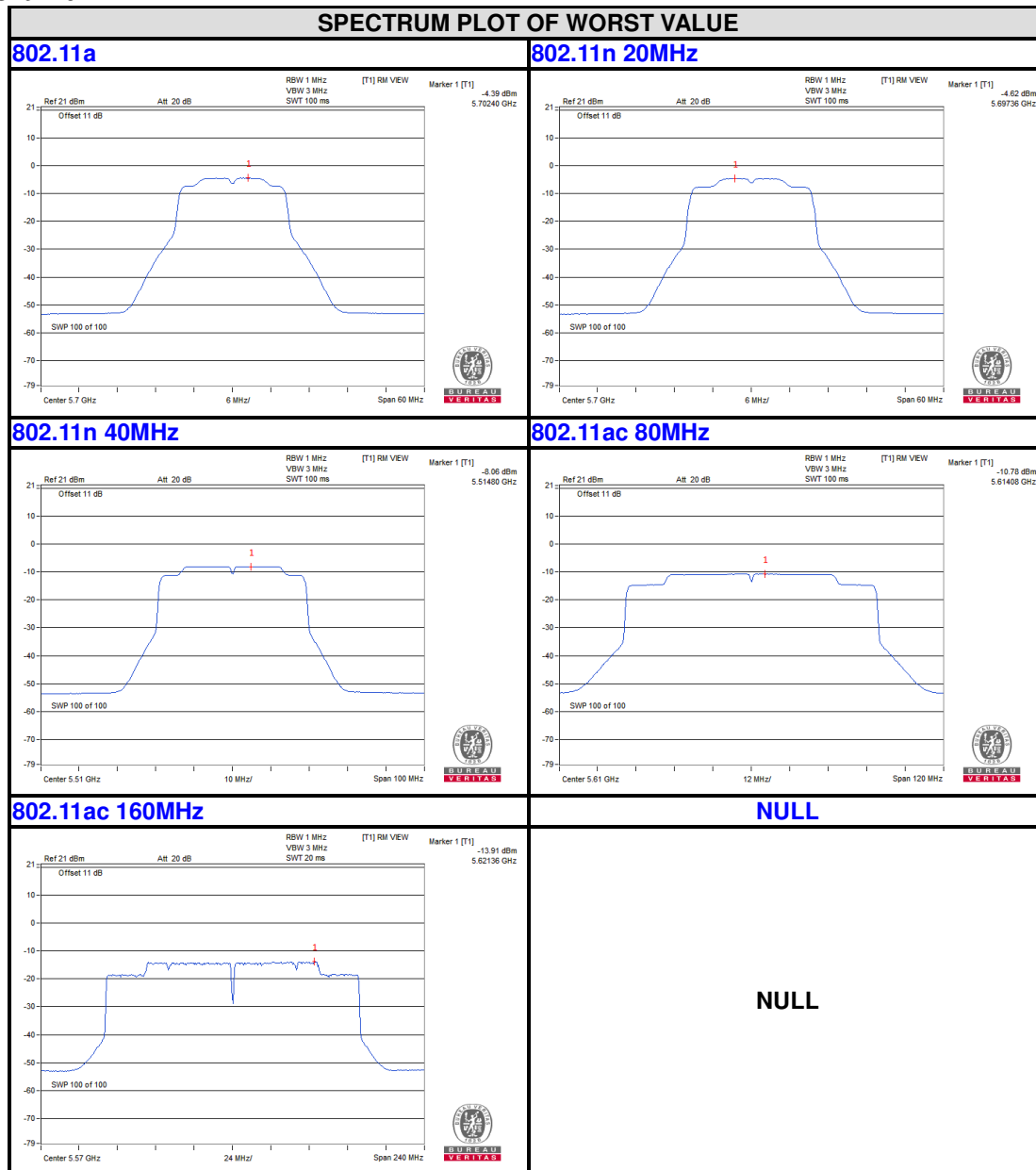




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BAND 3
5470-5725MHz
Chain 0



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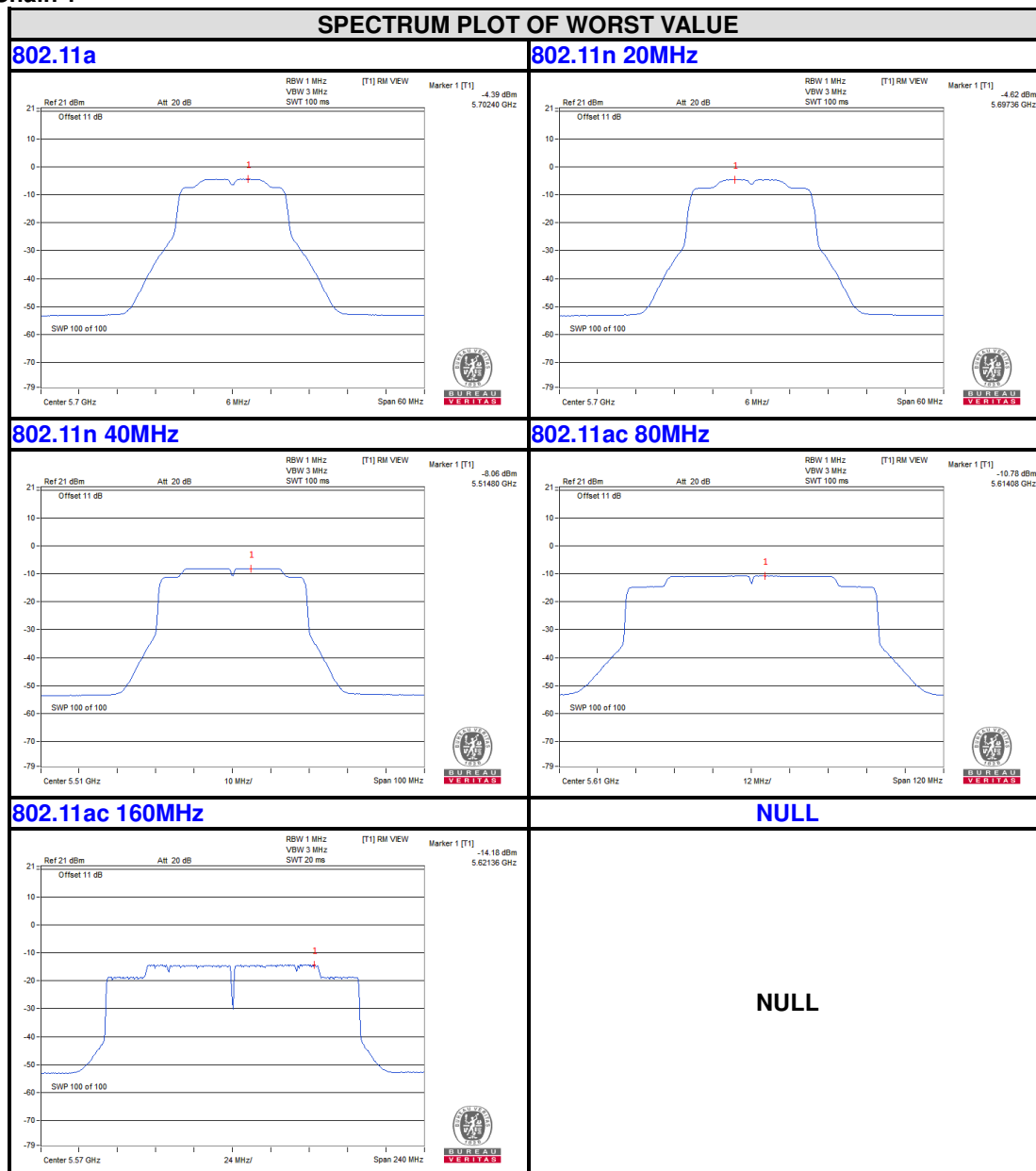
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Chain 1



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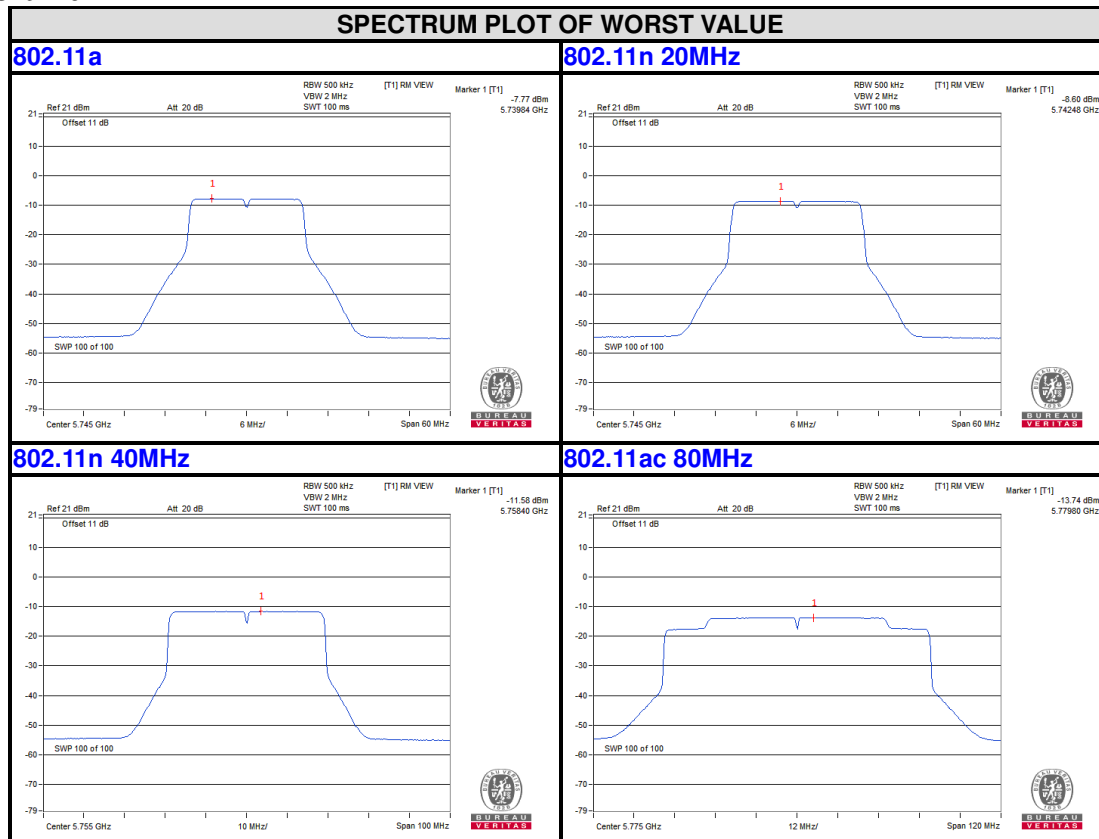
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BAND4
5725-5850MHz
Chain 0



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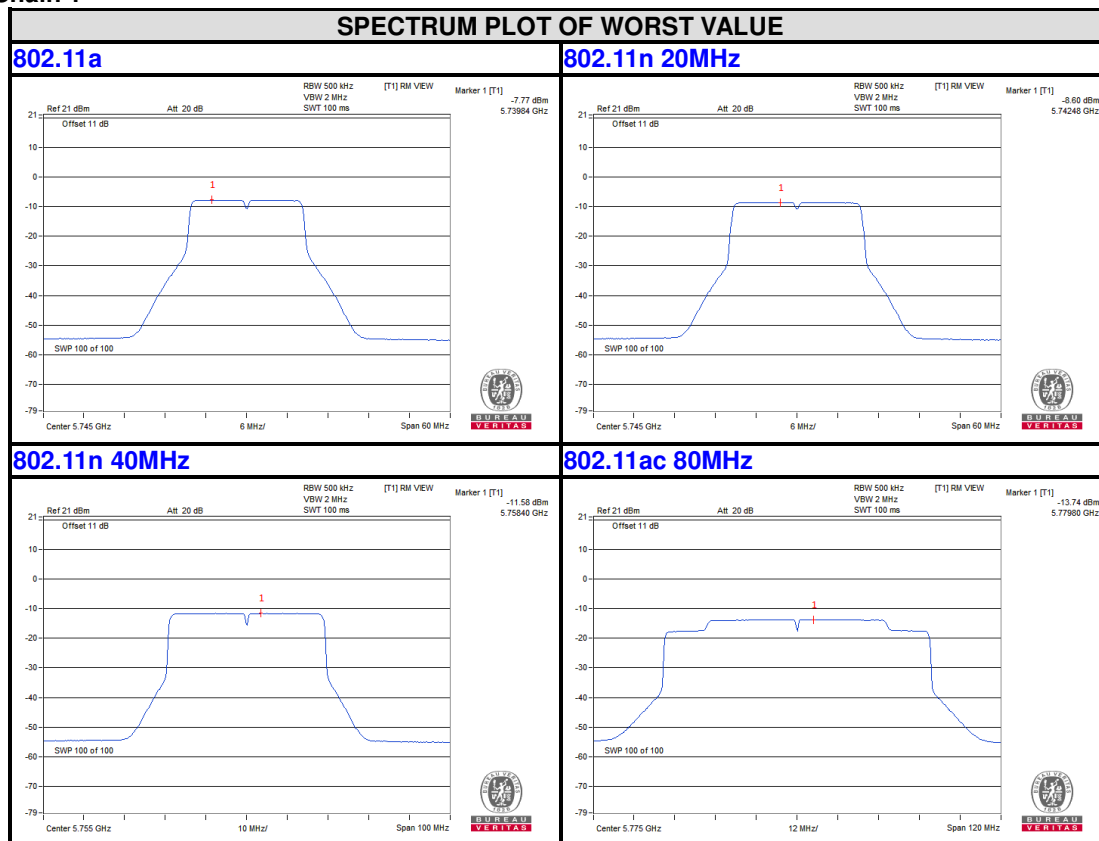
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Chain 1



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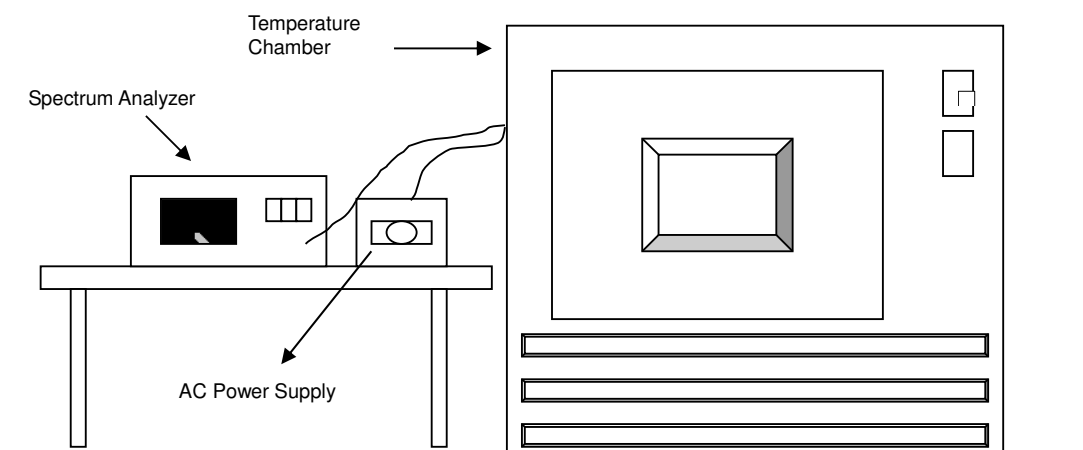


3.5 FREQUENCY STABILITY

3.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency of the carrier signal shall be maintained within band of operation.

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 PROCEDURE

- a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- b. Turn the EUT on and couple its output to a spectrum analyzer.
- c. Turn the EUT off and set the chamber to the highest temperature specified.
- d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

Set the EUT transmit at un-modulation mode to test frequency stability.

**3.5.7 TEST RESULTS**

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5180.0255	0.00049	5180.0231	0.00045	5180.0241	0.00047	5180.0229	0.00044
40	120	5180.0249	0.00048	5180.0263	0.00051	5180.0246	0.00047	5180.0272	0.00053
30	120	5179.9767	-0.00045	5179.9762	-0.00046	5179.9761	-0.00046	5179.9766	-0.00045
20	120	5180.0061	0.00012	5180.0035	0.00007	5180.0068	0.00013	5180.0074	0.00014
10	120	5179.9778	-0.00043	5179.9758	-0.00047	5179.9782	-0.00042	5179.9797	-0.00039
0	120	5180.0169	0.00033	5180.0162	0.00031	5180.0178	0.00034	5180.0197	0.00038
-10	120	5180.0186	0.00036	5180.0211	0.00041	5180.0195	0.00038	5180.0231	0.00045
-20	120	5180.0209	0.00040	5180.0213	0.00041	5180.019	0.00037	5180.0209	0.00040
-30	120	5179.9799	-0.00039	5179.9779	-0.00043	5179.9805	-0.00038	5179.9817	-0.00035

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	138	5180.0069	0.00013	5180.0039	0.00008	5180.006	0.00012	5180.0071	0.00014
	120	5180.0061	0.00012	5180.0035	0.00007	5180.0068	0.00013	5180.0074	0.00014
	102	5180.0057	0.00011	5180.0031	0.00006	5180.0076	0.00015	5180.007	0.00014



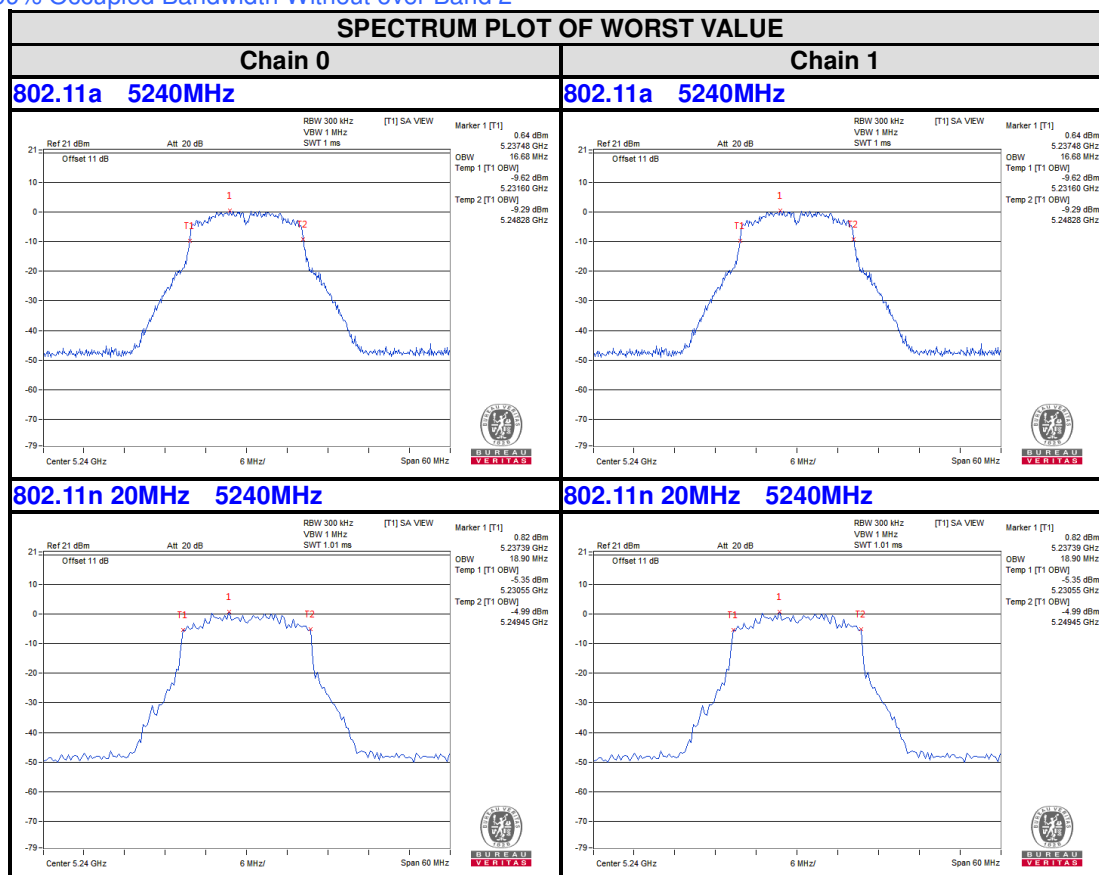
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Band 1

5150-5250MHz

99% Occupied Bandwidth Without over Band 2



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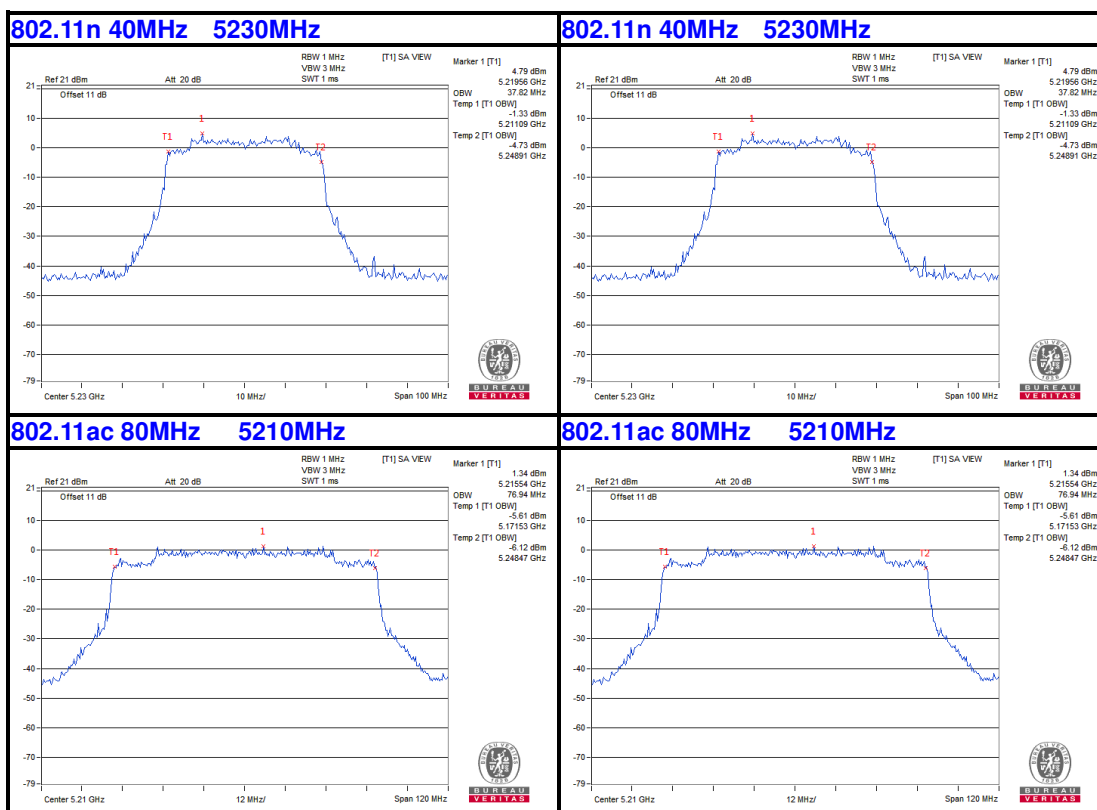
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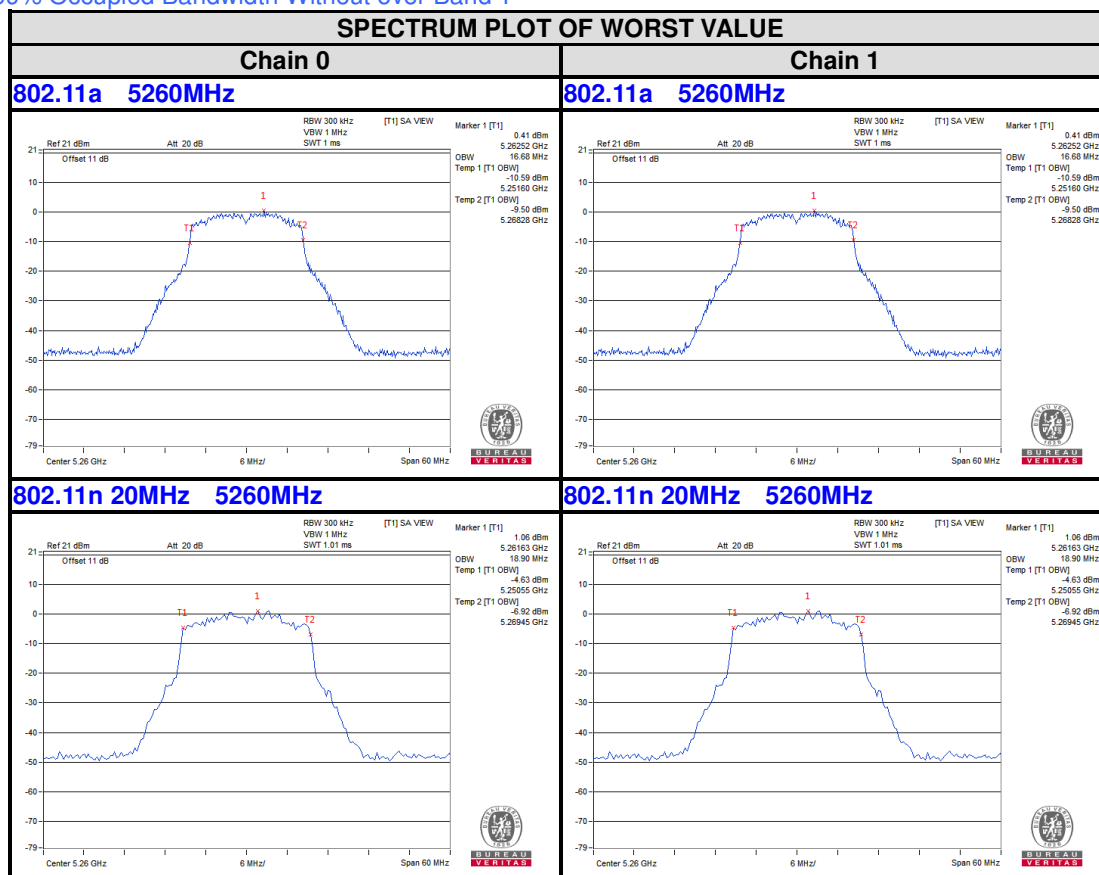
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Band 2

5250-5350MHz

99% Occupied Bandwidth Without over Band 1



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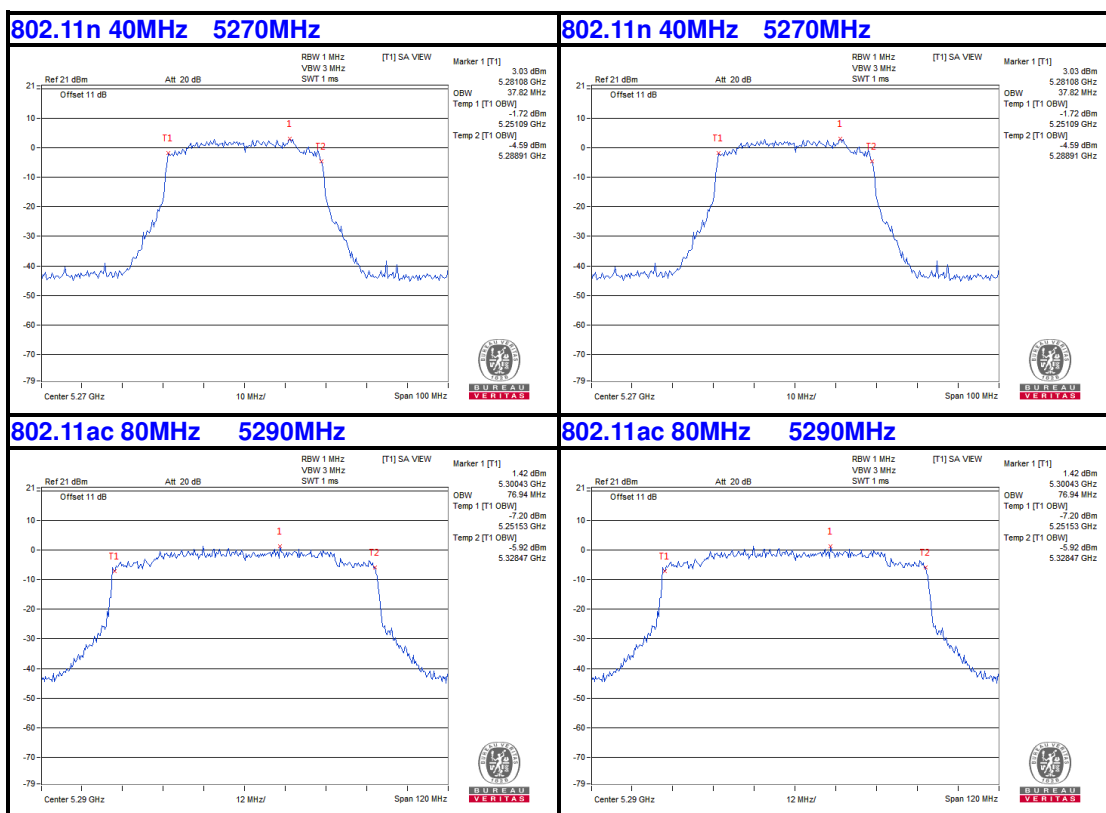
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4. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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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---