

TEST REPORT



Applicant	Particle Industries, Inc
Address	325 9th Street, San Francisco, CA 94103 United States

Manufacturer or Supplier	Particle Industries, Inc
Address	325 9th Street, San Francisco, CA 94103 United States
Product	Wi-Fi Module
Brand Name	Particle
Model	P2
Additional Model & Model Difference	N/A
Date of tests	Feb. 21, 2021 ~ Apr. 11, 2022

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

- ☒ Canada RSS-247 Issue 2 (2017-02)
- ☒ Canada RSS-Gen Issue 5 (2021-02)

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: May 19, 2022

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Test Report No.: IC2202WDG0092-3

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
IC2202WDG0092-3	Original release	May 19, 2022



1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: RSS-247, RSS-Gen			
Standard Section	Test Type and Limit	Result	Remark
RSS-Gen			
8.8	AC Power Conducted Emission	PASS	Meet the requirement of limit
6.7	Occupied Bandwidth Measurement	PASS	Meet the requirement of limit.
Standard Section	Test Type and Limit	Result	Remark
RSS-247			
6.2.1 (2) 6.2.2 (2) 6.2.3 (2) 6.2.4 (2)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit
6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)	Transmit Power	PASS	Meet the requirement of limit
6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)	Peak Power Spectral Density	PASS	Meet the requirement of limit
6.2.4 (1)	6dB bandwidth	PASS	Meet the requirement of limit. (5.725 ~ 5.850GHz Band only)

2 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	3.82dB
	1GHz ~ 18GHz	4.94dB
	18GHz ~ 40GHz	5.07dB

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



3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Wi-Fi Module
BRAND	Particle
MODEL NO.	P2
ADDITIONAL MODEL	N/A
IC ID	20127-P2
POWER SUPPLY	DC 3.3V
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 150Mbps 802.11ac : up to 200.0Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, (without open 5600~5650MHz) 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 channels for 802.11a, 802.11n, 11ac (20MHz) 2 channels for 802.11n, 11ac (40MHz): 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11n, 11ac (40MHz) 5500 ~ 5700MHz: 8 channels for 802.11a, 802.11n (20MHz) 3 channels for 802.11n (40MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n, 11ac (20MHz) 2 channels for 802.11n, 11ac (40MHz)
CONDUCTED OUTPUT POWER	81.283mW for 5180 ~ 5240MHz (Maximum AVG Power) 81.658mW for 5260 ~ 5320MHz (Maximum AVG Power) 97.949mW for 5500 ~ 5700MHz (Maximum AVG Power) 91.411mW for 5745 ~ 5825MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: PCB antenna with 1.28dBi gain External PCB Antenna with -0.32dBi gain 5260 ~ 5320MHz: PCB antenna with 1.60dBi gain External PCB Antenna with -0.08dBi gain 5500 ~ 5700MHz: (without open 5600~5650MHz) PCB antenna with 1.74dBi gain External PCB Antenna with 0.87dBi gain 5745 ~ 5825MHz: PCB antenna with 1.21dBi gain External PCB Antenna with 1.26dBi gain
DATA CABLE	N/A

**NOTES:**

1. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.
2. Please refer to the EUT photo document (Reference No.: 2202WDG0092-1) for detailed product photo.
3. The Wi-Fi Module uses two antennas, but couldn't transmit simultaneously, the antenna type and gain are different, and the antenna port is the same, so the RF conducted output power is the same.

EIRP(Band 1 only),PSD(Band 1 only), radiated emission and conducted emission have been evaluated for both antennas respectively, EIRP(Band 1 only) data and PSD(Band 1 only) data for both antennas are shown in the report, but only the worst antenna data (PCB antenna) is shown in the test report for the radiation spurious emission test and conducted emission.

4. The EUT provides completed transmitters and receivers, the EUT uses only one antenna at any time.

MODULATION MODE	TX FUNCTION
802.11a	1TX/1RX
802.11n (HT20) 802.11ac (VHT20)	1TX/1RX
802.11n (HT40) 802.11ac (VHT40)	1TX/1RX

* The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case for final test were chosen 802.11n (HT20/HT40) and record in the report.

5. Conformity Assessment Body Identifier (CABID): CN0026



3.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5250 ~ 5350MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

**FOR 5470 ~ 5725MHz**

8 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	104	5520 MHz
108	5540 MHz	112	5560 MHz
116	5580 MHz	132	5660 MHz
136	5680 MHz	140	5700 MHz

3 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	110	5550 MHz
134	5670 MHz	--	--

FOR 5725 ~ 5850MHz

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz



3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE \geq 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Powered by DC 3.3V from PCB base support with wifi(5G) link

Where

RE \geq 1G: Radiated Emission above 1GHz**RE<1G:** Radiated Emission below 1GHz**PLC:** Power Line Conducted Emission**APCM:** Antenna Port Conducted Measurement**NOTE:**The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.**NOTE:** "-" means no effect.**RADIATED EMISSION TEST (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)
A	802.11a	5150-5250	36 to 48	36, 44, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	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
	802.11a	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
	802.11a	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

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

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)
A	802.11a	5150-5250	36 to 48	36, 44, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	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
	802.11a	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
	802.11a	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

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	25deg. C, 55%RH	DC 3.3V from PCB base support	Jelly
RE≥1G	25deg. C, 55%RH	DC 3.3V from PCB base support	Jelly
PLC	25deg. C, 58%RH	DC 3.3V from PCB base support	Summer
APCM	25deg. C, 58%RH	DC 3.3V from PCB base support	Vincent



3.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = $2.063/2.194 = 0.940$, Duty factor = $10 * \log(1/0.940) = 0.269$

802.11n (HT20): Duty cycle = $1.917/2.057 = 0.932$, Duty factor = $10 * \log(1/0.932) = 0.306$

802.11n (HT40): Duty cycle = $0.943/1.075 = 0.877$, Duty factor = $10 * \log(1/0.877) = 0.570$





3.4 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	Notebook	DELL	Inspiron 13-7378	GMSJZD2	N/A
2	PCB base support	N/A	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 0.8m; DC Line: Unshielded, Non-detachable 1.8m; USB Cable: Shielded, Detachable, 0.5m
2	N/A

3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

Canada RSS-247 Issue 2 (2017-02)

Canada RSS-Gen Issue 5 (2021-02)

ANSI C63.10-2013

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

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 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 20dB under any condition of modulation.

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Applicable To	Limit	
789033 D02 General UNII Test Procedure New Rules v01r03	Field Strength at 3m	
	PK:74 (dBμV/m)	AV:54 (dBμV/m)
Applicable To	Eirp Limit	Equivalent Field Strength at 3m
RSS-247 6.2.1 (2)	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
RSS-247 6.2.2 (2)		
RSS-247 6.2.3 (2)		
RSS-247 6.2.4 (2)	Note	Note

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

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:

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



4.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 07, 23
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	May 09, 22
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 20, 22
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Mar. 13, 23
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	May 21, 22
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	May 21, 22
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170147	May 14, 22
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	May 22, 22
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	May 12, 22
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Jan. 10, 23
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A

NOTES:

1. The test was performed in 966 Chamber.
2. The calibration interval of the above test instruments are 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 IC test Site Registration No. is 5936A.

4.1.4 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. For below 1GHz was used bilog antenna, and above 1GHz was used horn 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. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.
- g. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

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.

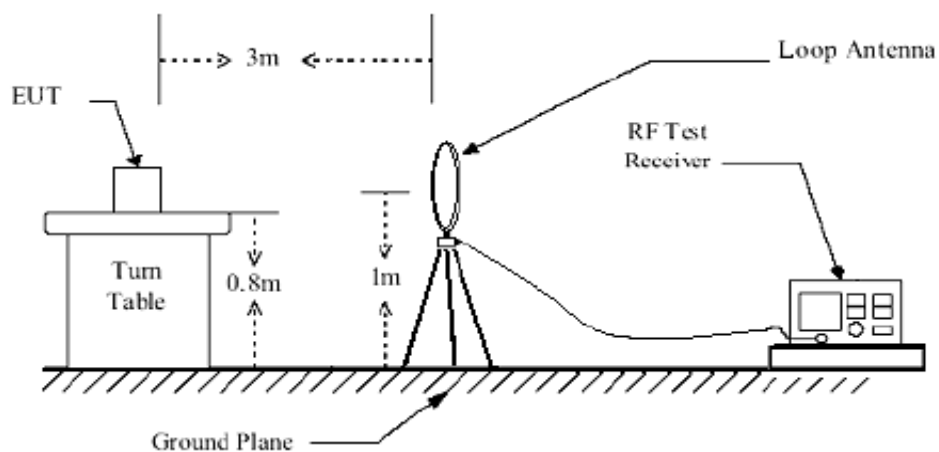
4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

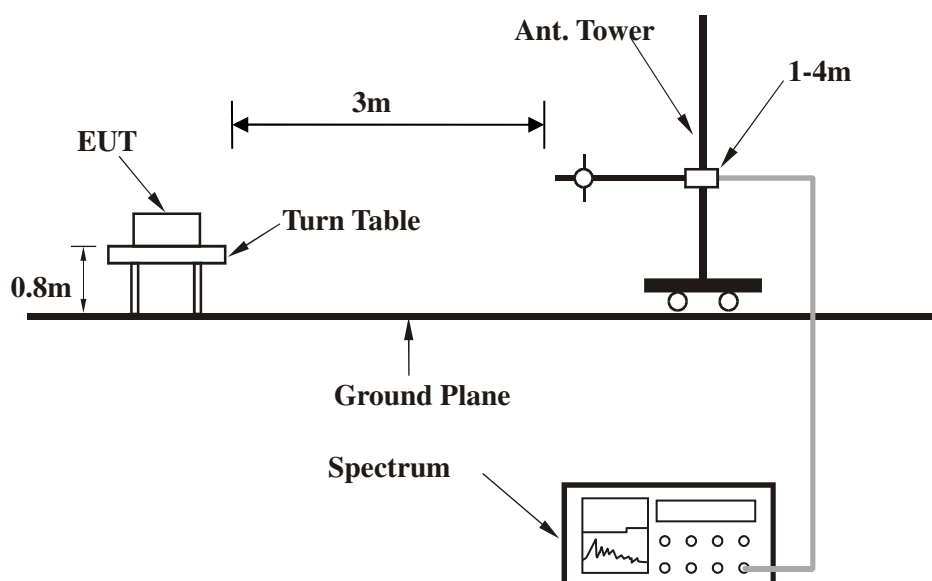


4.1.6 TEST SETUP

Below 30MHz test setup

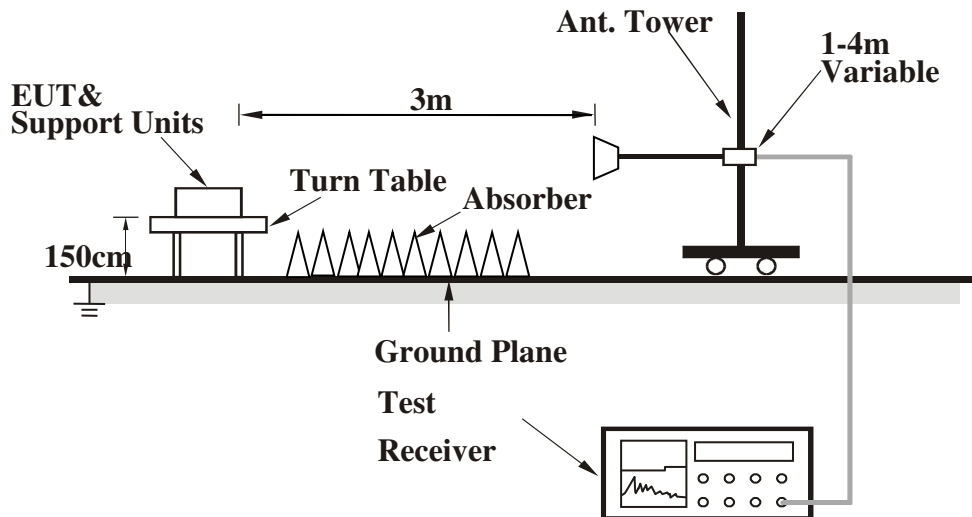


Below 1GHz test setup



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).

4.1.7 EUT OPERATING CONDITION

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



4.1.8 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

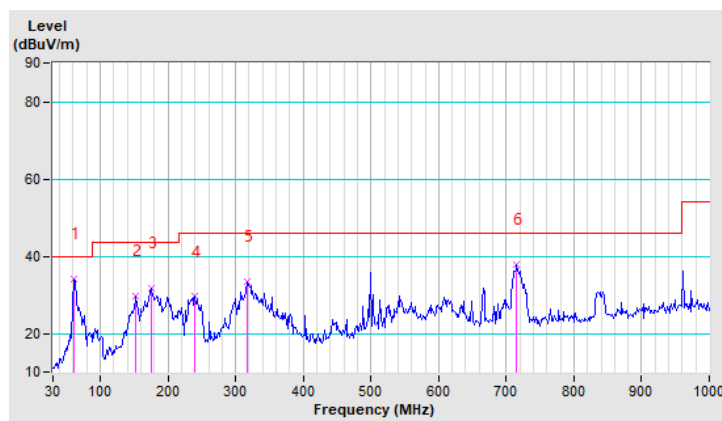
802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 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	61.09	34.21 QP	40.00	-5.79	1.00 H	67	52.58	-18.37
2	152.80	29.73 QP	43.50	-13.77	1.00 H	0	46.40	-16.67
3	174.57	31.78 QP	43.50	-11.72	1.00 H	56	49.52	-17.74
4	239.86	29.51 QP	46.00	-16.49	1.00 H	44	47.09	-17.58
5	317.58	33.37 QP	46.00	-12.63	1.00 H	6	48.53	-15.16
6	715.53	37.82 QP	46.00	-8.18	1.00 H	0	44.28	-6.46

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 greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.



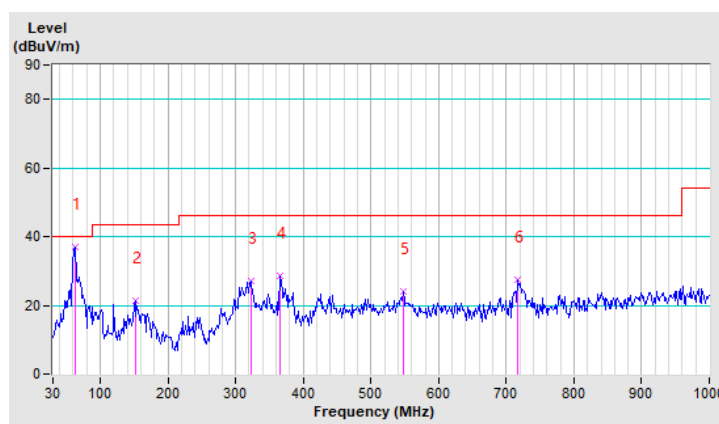


CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

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	62.64	36.84 QP	40.00	-3.16	1.00 V	61	55.32	-18.48
2	152.80	21.23 QP	43.50	-22.27	1.00 V	46	37.90	-16.67
3	322.24	27.10 QP	46.00	-18.90	1.00 V	34	42.14	-15.04
4	365.77	28.62 QP	46.00	-17.38	1.00 V	23	42.55	-13.93
5	547.64	23.86 QP	46.00	-22.14	1.00 V	12	33.19	-9.33
6	717.08	27.41 QP	46.00	-18.59	1.00 V	2	33.85	-6.44

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 greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.





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	5145.00	61.88 PK	74.00	-12.12	1.00 H	154	56.09	5.79
2	5145.00	45.57 AV	54.00	-8.43	1.00 H	154	39.78	5.79
3	5150.00	66.50 PK	74.00	-7.50	1.00 H	154	60.70	5.80
4	5150.00	50.98 AV	54.00	-3.02	1.00 H	154	45.18	5.80
5	*5180.00	105.58 PK			1.00 H	154	99.72	5.86
6	*5180.00	95.44 AV			1.00 H	154	89.58	5.86
7	#10360.00	51.00 PK	68.20	-17.20	1.54 H	166	37.60	13.40
8	15540.00	54.96 PK	74.00	-19.04	1.23 H	155	36.09	18.87
9	15540.00	43.20 AV	54.00	-10.80	1.23 H	155	24.33	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)	Peak (PK) Average (AV)
1	5145.00	60.21 PK	74.00	-13.79	1.00 V	155	54.42	5.79
2	5145.00	45.66 AV	54.00	-8.34	1.00 V	155	39.87	5.79
3	5150.00	63.87 PK	74.00	-10.13	1.00 V	155	58.07	5.80
4	5150.00	48.10 AV	54.00	-5.90	1.00 V	155	42.30	5.80
5	*5180.00	103.73 PK			1.00 V	155	97.87	5.86
6	*5180.00	94.22 AV			1.00 V	155	88.36	5.86
7	#10360.00	51.44 PK	68.20	-16.76	1.21 V	173	38.04	13.40
8	15540.00	53.86 PK	74.00	-20.14	1.10 V	148	34.99	18.87
9	15540.00	42.89 AV	54.00	-11.11	1.10 V	148	24.02	18.87

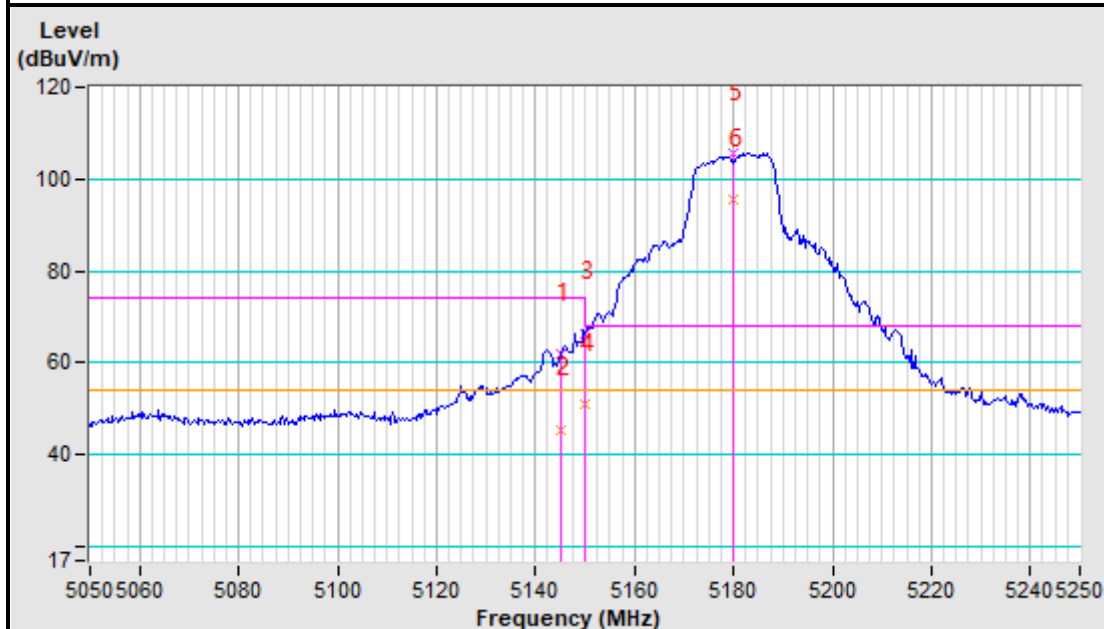
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

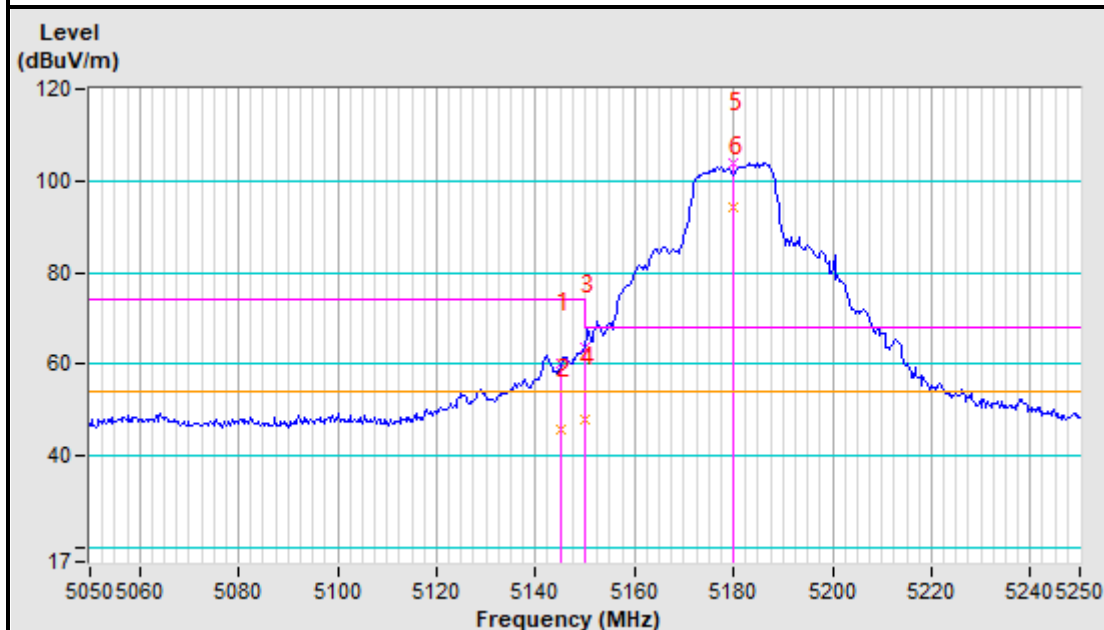


Band edge Plot

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	5145.00	50.33 PK	74.00	-23.67	1.00 H	177	44.54	5.79
2	5145.00	38.02 AV	54.00	-15.98	1.00 H	177	32.23	5.79
3	5150.00	53.01 PK	74.00	-20.99	1.00 H	177	47.21	5.80
4	5150.00	39.21 AV	54.00	-14.79	1.00 H	177	33.41	5.80
5	*5200.00	106.33 PK			1.00 H	177	100.44	5.89
6	*5200.00	96.21 AV			1.00 H	177	90.32	5.89
7	#10400.00	52.46 PK	68.20	-15.74	1.25 H	156	38.95	13.51
8	15600.00	54.31 PK	74.00	-19.69	1.89 H	165	35.35	18.96
9	15600.00	42.54 AV	54.00	-11.46	1.89 H	165	23.58	18.96
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	50.00 PK	74.00	-24.00	1.25 V	147	44.21	5.79
2	5145.00	37.96 AV	54.00	-16.04	1.25 V	147	32.17	5.79
3	5150.00	50.89 PK	74.00	-23.11	1.25 V	147	45.09	5.80
4	5150.00	39.10 AV	54.00	-14.90	1.25 V	147	33.30	5.80
5	*5200.00	104.91 PK			1.25 V	147	99.02	5.89
6	*5200.00	94.67 AV			1.25 V	147	88.78	5.89
7	#10400.00	51.02 PK	68.20	-17.18	1.00 V	156	37.51	13.51
8	15600.00	54.32 PK	74.00	-19.68	1.56 V	157	35.36	18.96
9	15600.00	42.15 AV	54.00	-11.85	1.56 V	157	23.19	18.96

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 greater than 20dB margin.
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	5145.00	45.21 PK	74.00	-28.79	1.44 H	126	39.42	5.79
2	5145.00	35.00 AV	54.00	-19.00	1.44 H	126	29.21	5.79
3	5150.00	46.77 PK	74.00	-27.23	1.44 H	126	40.97	5.80
4	5150.00	35.54 AV	54.00	-18.46	1.44 H	126	29.74	5.80
5	*5240.00	104.93 PK			1.44 H	126	98.96	5.97
6	*5240.00	94.66 AV			1.44 H	126	88.69	5.97
7	5350.00	53.21 PK	74.00	-20.79	1.44 H	126	47.04	6.17
8	5350.00	36.58 AV	54.00	-17.42	1.44 H	126	30.41	6.17
9	5355.00	51.65 PK	74.00	-22.35	1.44 H	126	45.47	6.18
10	5355.00	35.21 AV	54.00	-18.79	1.44 H	126	29.03	6.18
11	#10480.00	51.20 PK	68.20	-17.00	1.00 H	168	37.45	13.75
12	15720.00	53.96 PK	74.00	-20.04	1.36 H	46	34.81	19.15
13	15720.00	43.02 AV	54.00	-10.98	1.36 H	46	23.87	19.15
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	46.51 PK	74.00	-27.49	1.00 V	156	40.72	5.79
2	5145.00	35.44 AV	54.00	-18.56	1.00 V	156	29.65	5.79
3	5150.00	46.95 PK	74.00	-27.05	1.00 V	156	41.15	5.80
4	5150.00	36.65 AV	54.00	-17.35	1.00 V	156	30.85	5.80
5	*5240.00	105.21 PK			1.00 V	156	99.24	5.97
6	*5240.00	95.69 AV			1.00 V	156	89.72	5.97
7	5350.00	52.45 PK	74.00	-21.55	1.00 V	156	46.28	6.17
8	5350.00	36.98 AV	54.00	-17.02	1.00 V	156	30.81	6.17
9	5355.00	50.24 PK	74.00	-23.76	1.00 V	156	44.06	6.18
10	5355.00	35.98 AV	54.00	-18.02	1.00 V	156	29.80	6.18
11	#10480.00	51.05 PK	68.20	-17.15	1.54 V	89	37.30	13.75
12	15720.00	53.64 PK	74.00	-20.36	1.54 V	169	34.49	19.15
13	15720.00	42.68 AV	54.00	-11.32	1.54 V	169	23.53	19.15

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 greater than 20dB margin.
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	5145.00	67.37 PK	74.00	-6.63	1.00 H	148	61.58	5.79
2	5145.00	48.25 AV	54.00	-5.75	1.00 H	148	42.46	5.79
3	5150.00	68.64 PK	74.00	-5.36	1.00 H	148	62.84	5.80
4	5150.00	50.50 AV	54.00	-3.50	1.00 H	148	44.70	5.80
5	*5180.00	104.77 PK			1.00 H	148	98.91	5.86
6	*5180.00	95.14 AV			1.00 H	148	89.28	5.86
7	#10360.00	51.25 PK	68.20	-16.95	1.00 H	186	37.85	13.40
8	15540.00	52.96 PK	74.00	-21.04	1.15 H	214	34.09	18.87
9	15540.00	41.86 AV	54.00	-12.14	1.15 H	214	22.99	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	5145.00	65.40 PK	74.00	-8.60	1.00 V	38	59.61	5.79
2	5145.00	45.65 AV	54.00	-8.35	1.00 V	38	39.86	5.79
3	5150.00	66.85 PK	74.00	-7.15	1.00 V	38	61.05	5.80
4	5150.00	48.52 AV	54.00	-5.48	1.00 V	38	42.72	5.80
5	*5180.00	103.74 PK			1.00 V	38	97.88	5.86
6	*5180.00	93.68 AV			1.00 V	38	87.82	5.86
7	#10360.00	51.56 PK	68.20	-16.64	1.00 V	136	38.16	13.40
8	15540.00	53.12 PK	74.00	-20.88	1.21 V	145	34.25	18.87
9	15540.00	42.10 AV	54.00	-11.90	1.21 V	145	23.23	18.87

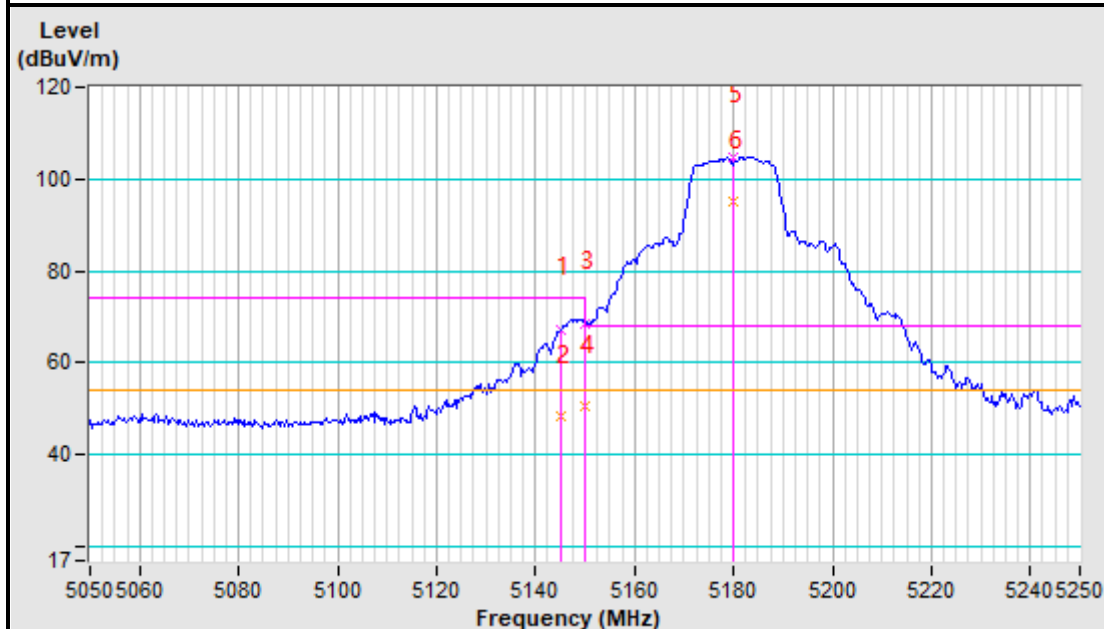
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

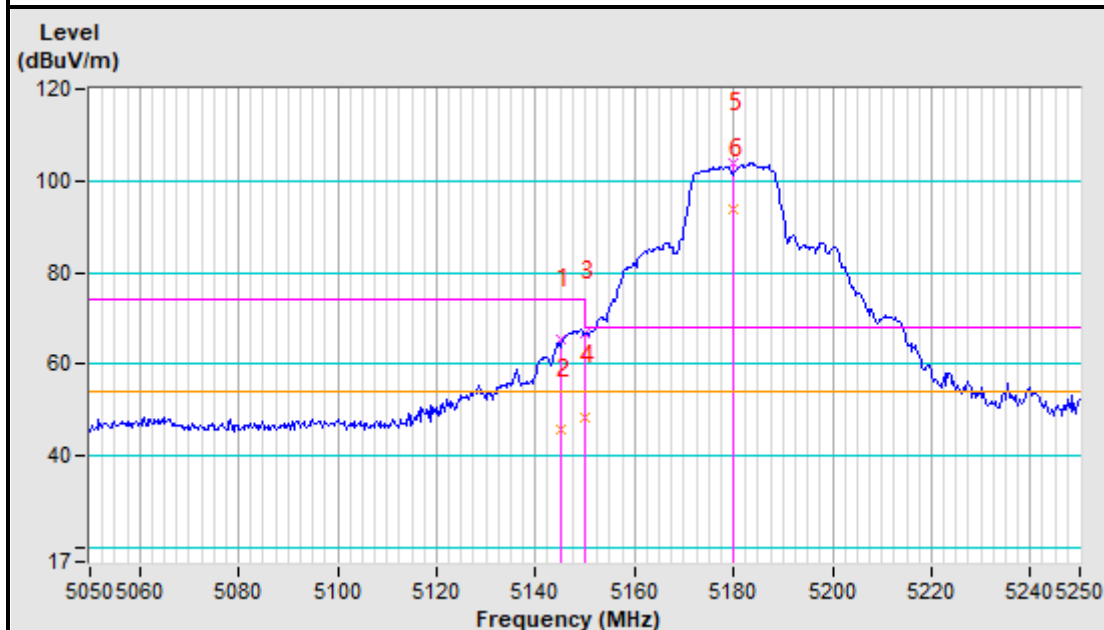


Band edge Plot

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	5145.00	50.26 PK	74.00	-23.74	1.29 H	189	44.47	5.79
2	5145.00	38.54 AV	54.00	-15.46	1.29 H	189	32.75	5.79
3	5150.00	51.54 PK	74.00	-22.46	1.29 H	189	45.74	5.80
4	5150.00	39.51 AV	54.00	-14.49	1.29 H	189	33.71	5.80
5	*5200.00	105.00 PK			1.29 H	189	99.11	5.89
6	*5200.00	95.64 AV			1.29 H	189	89.75	5.89
7	#10400.00	52.36 PK	68.20	-15.84	1.00 H	154	38.85	13.51
8	15600.00	53.62 PK	74.00	-20.38	1.00 H	159	34.66	18.96
9	15600.00	42.36 AV	54.00	-11.64	1.00 H	159	23.40	18.96
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	48.95 PK	74.00	-25.05	1.00 V	125	43.16	5.79
2	5145.00	36.54 AV	54.00	-17.46	1.00 V	125	30.75	5.79
3	5150.00	50.67 PK	74.00	-23.33	1.00 V	125	44.87	5.80
4	5150.00	39.11 AV	54.00	-14.89	1.00 V	125	33.31	5.80
5	*5200.00	104.06 PK			1.00 V	125	98.17	5.89
6	*5200.00	94.68 AV			1.00 V	125	88.79	5.89
7	#10400.00	52.15 PK	68.20	-16.05	1.55 V	123	38.64	13.51
8	15600.00	54.25 PK	74.00	-19.75	1.56 V	123	35.29	18.96
9	15600.00	42.31 AV	54.00	-11.69	1.56 V	123	23.35	18.96

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 greater than 20dB margin.
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	5145.00	49.65 PK	74.00	-24.35	1.45 H	126	43.86	5.79
2	5145.00	38.54 AV	54.00	-15.46	1.45 H	126	32.75	5.79
3	5150.00	52.11 PK	74.00	-21.89	1.45 H	126	46.31	5.80
4	5150.00	41.36 AV	54.00	-12.64	1.45 H	126	35.56	5.80
5	*5240.00	105.02 PK			1.45 H	126	99.05	5.97
6	*5240.00	95.36 AV			1.45 H	126	89.39	5.97
7	5350.00	53.11 PK	74.00	-20.89	1.45 H	126	46.94	6.17
8	5350.00	42.68 AV	54.00	-11.32	1.45 H	126	36.51	6.17
9	5355.00	52.67 PK	74.00	-21.33	1.45 H	126	46.49	6.18
10	5355.00	42.10 AV	54.00	-11.90	1.45 H	126	35.92	6.18
11	#10480.00	52.48 PK	68.20	-15.72	1.00 H	176	38.73	13.75
12	15720.00	54.36 PK	74.00	-19.64	1.00 H	136	35.21	19.15
13	15720.00	42.61 AV	54.00	-11.39	1.00 H	136	23.46	19.15
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	50.09 PK	74.00	-23.91	1.20 V	225	44.30	5.79
2	5145.00	39.00 AV	54.00	-15.00	1.20 V	225	33.21	5.79
3	5150.00	51.32 PK	74.00	-22.68	1.20 V	225	45.52	5.80
4	5150.00	41.65 AV	54.00	-12.35	1.20 V	225	35.85	5.80
5	*5240.00	104.05 PK			1.20 V	225	98.08	5.97
6	*5240.00	94.36 AV			1.20 V	225	88.39	5.97
7	5350.00	53.42 PK	74.00	-20.58	1.20 V	225	47.25	6.17
8	5350.00	42.00 AV	54.00	-12.00	1.20 V	225	35.83	6.17
9	5355.00	52.69 PK	74.00	-21.31	1.20 V	225	46.51	6.18
10	5355.00	42.21 AV	54.00	-11.79	1.20 V	225	36.03	6.18
11	#10480.00	52.75 PK	68.20	-15.45	1.00 V	159	39.00	13.75
12	15720.00	54.31 PK	74.00	-19.69	1.00 V	156	35.16	19.15
13	15720.00	42.69 AV	54.00	-11.31	1.00 V	156	23.54	19.15

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 greater than 20dB margin.
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	5145.00	62.86 PK	74.00	-11.14	1.67 H	80	57.07	5.79
2	5145.00	45.96 AV	54.00	-8.04	1.67 H	80	40.17	5.79
3	5150.00	68.00 PK	74.00	-6.00	1.67 H	80	62.20	5.80
4	5150.00	49.75 AV	54.00	-4.25	1.67 H	80	43.95	5.80
5	*5190.00	100.00 PK			1.67 H	80	94.12	5.88
6	*5190.00	90.76 AV			1.67 H	80	84.88	5.88
7	#10380.00	51.57 PK	68.20	-16.63	1.54 H	122	38.11	13.46
8	15570.00	53.61 PK	74.00	-20.39	1.24 H	156	34.69	18.92
9	15570.00	42.11 AV	54.00	-11.89	1.24 H	156	23.19	18.92
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	61.91 PK	74.00	-12.09	1.00 V	125	56.12	5.79
2	5145.00	39.69 AV	54.00	-14.31	1.00 V	125	33.90	5.79
3	5150.00	64.23 PK	74.00	-9.77	1.00 V	125	58.43	5.80
4	5150.00	41.36 AV	54.00	-12.64	1.00 V	125	35.56	5.80
5	*5190.00	98.50 PK			1.00 V	125	92.62	5.88
6	*5190.00	88.98 AV			1.00 V	125	83.10	5.88
7	#10380.00	51.36 PK	68.20	-16.84	1.44 V	125	37.90	13.46
8	15570.00	53.75 PK	74.00	-20.25	1.02 V	156	34.83	18.92
9	15570.00	42.66 AV	54.00	-11.34	1.02 V	156	23.74	18.92

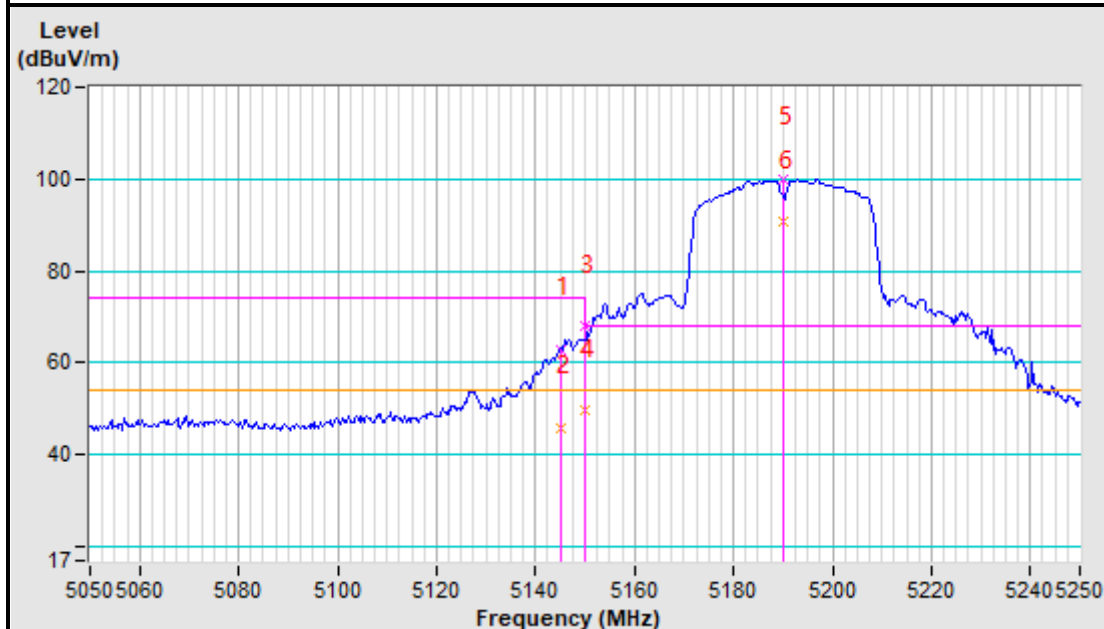
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

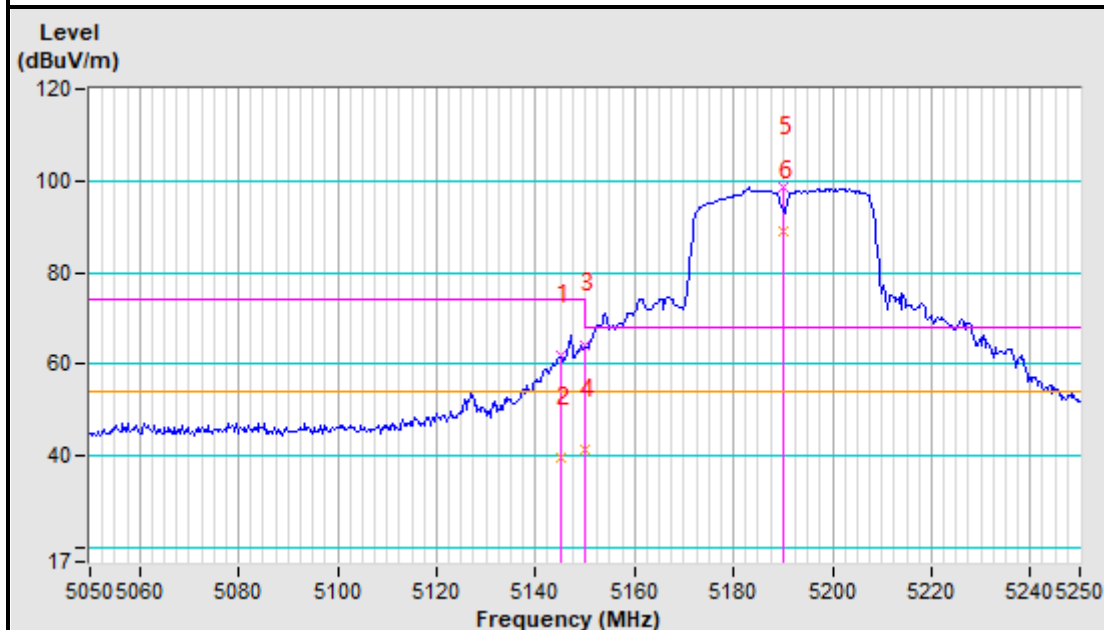


Band edge Plot

5190MHz Horizontal



5190MHz Vertical





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	5145.00	49.32 PK	74.00	-24.68	1.45 H	177	43.53	5.79
2	5145.00	39.55 AV	54.00	-14.45	1.45 H	177	33.76	5.79
3	5150.00	53.15 PK	74.00	-20.85	1.45 H	177	47.35	5.80
4	5150.00	42.36 AV	54.00	-11.64	1.45 H	177	36.56	5.80
5	*5230.00	103.11 PK			1.45 H	177	97.16	5.95
6	*5230.00	92.68 AV			1.45 H	177	86.73	5.95
7	#10460.00	51.02 PK	68.20	-17.18	1.00 H	156	37.34	13.68
8	15690.00	54.33 PK	74.00	-19.67	1.25 H	125	35.23	19.10
9	15690.00	42.65 AV	54.00	-11.35	1.25 H	125	23.55	19.10
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	5145.00	49.56 PK	74.00	-24.44	1.45 V	177	43.77	5.79
2	5145.00	40.25 AV	54.00	-13.75	1.45 V	177	34.46	5.79
3	5150.00	52.66 PK	74.00	-21.34	1.45 V	177	46.86	5.80
4	5150.00	42.56 AV	54.00	-11.44	1.45 V	177	36.76	5.80
5	*5230.00	99.56 PK			1.45 V	177	93.61	5.95
6	*5230.00	89.66 AV			1.45 V	177	83.71	5.95
7	#10460.00	51.23 PK	68.20	-16.97	1.00 V	156	37.55	13.68
8	15690.00	54.36 PK	74.00	-19.64	1.25 V	125	35.26	19.10
9	15690.00	42.73 AV	54.00	-11.27	1.25 V	125	23.63	19.10

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



Band 2 (5250-5350MHz): ABOVE 1GHz DATA 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	5145.00	53.24 PK	74.00	-20.76	1.00 H	230	47.45	5.79
2	5145.00	41.52 AV	54.00	-12.48	1.00 H	230	35.73	5.79
3	5150.00	55.43 PK	74.00	-18.57	1.00 H	230	49.63	5.80
4	5150.00	42.15 AV	54.00	-11.85	1.00 H	230	36.35	5.80
5	*5260.00	104.56 PK			1.00 H	230	98.56	6.00
6	*5260.00	95.21 AV			1.00 H	230	89.21	6.00
7	5350.00	55.32 PK	74.00	-18.68	1.00 H	230	49.15	6.17
8	5350.00	42.36 AV	54.00	-11.64	1.00 H	230	36.19	6.17
9	5355.00	54.15 PK	74.00	-19.85	1.00 H	230	47.97	6.18
10	5355.00	42.25 AV	54.00	-11.75	1.00 H	230	36.07	6.18
11	#10520.00	53.00 PK	68.20	-15.20	1.27 H	139	39.18	13.82
12	15780.00	54.89 PK	74.00	-19.11	1.47 H	135	35.66	19.23
13	15780.00	42.56 AV	54.00	-11.44	1.47 H	135	23.33	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	53.69 PK	74.00	-20.31	1.00 V	39	47.90	5.79
2	5145.00	41.99 AV	54.00	-12.01	1.00 V	39	36.20	5.79
3	5150.00	56.36 PK	74.00	-17.64	1.00 V	39	50.56	5.80
4	5150.00	42.36 AV	54.00	-11.64	1.00 V	39	36.56	5.80
5	*5260.00	103.95 PK			1.00 V	39	97.95	6.00
6	*5260.00	94.66 AV			1.00 V	39	88.66	6.00
7	5350.00	56.78 PK	74.00	-17.22	1.00 V	39	50.61	6.17
8	5350.00	43.65 AV	54.00	-10.35	1.00 V	39	37.48	6.17
9	5355.00	54.69 PK	74.00	-19.31	1.00 V	39	48.51	6.18
10	5355.00	42.36 AV	54.00	-11.64	1.00 V	39	36.18	6.18
11	#10520.00	52.66 PK	68.20	-15.54	1.27 V	139	38.84	13.82
12	15780.00	54.61 PK	74.00	-19.39	1.47 V	135	35.38	19.23
13	15780.00	42.39 AV	54.00	-11.61	1.47 V	135	23.16	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



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	104.56 PK			1.93 H	115	98.48	6.08
2	*5300.00	95.11 AV			1.93 H	115	89.03	6.08
3	5350.00	54.21 PK	74.00	-19.79	1.93 H	115	48.04	6.17
4	5350.00	43.68 AV	54.00	-10.32	1.93 H	115	37.51	6.17
5	5355.00	53.60 PK	74.00	-20.40	1.93 H	115	47.42	6.18
6	5355.00	42.36 AV	54.00	-11.64	1.93 H	115	36.18	6.18
7	10600.00	53.11 PK	74.00	-20.89	1.00 H	157	39.20	13.91
8	10600.00	42.15 AV	54.00	-11.85	1.00 H	157	28.24	13.91
9	15900.00	54.86 PK	74.00	-19.14	1.00 H	147	35.44	19.42
10	15900.00	45.21 AV	54.00	-8.79	1.00 H	147	25.79	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	103.22 PK			1.14 V	180	97.14	6.08
2	*5300.00	94.67 AV			1.14 V	180	88.59	6.08
3	5350.00	53.89 PK	74.00	-20.11	1.14 V	180	47.72	6.17
4	5350.00	42.63 AV	54.00	-11.37	1.14 V	180	36.46	6.17
5	5355.00	53.17 PK	74.00	-20.83	1.14 V	180	46.99	6.18
6	5355.00	42.88 AV	54.00	-11.12	1.14 V	180	36.70	6.18
7	10600.00	52.96 PK	74.00	-21.04	1.26 V	136	39.05	13.91
8	10600.00	41.62 AV	54.00	-12.38	1.26 V	136	27.71	13.91
9	15900.00	54.97 PK	74.00	-19.03	1.00 V	147	35.55	19.42
10	15900.00	45.15 AV	54.00	-8.85	1.00 V	147	25.73	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



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Test Report No.: IC2202WDG0092-3

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	104.68 PK			1.00 H	156	98.57	6.11
2	*5320.00	95.61 AV			1.00 H	156	89.50	6.11
3	5350.00	64.56 PK	74.00	-9.44	1.00 H	156	58.39	6.17
4	5350.00	47.85 AV	54.00	-6.15	1.00 H	156	41.68	6.17
5	5355.00	58.79 PK	74.00	-15.21	1.00 H	156	52.61	6.18
6	5355.00	46.21 AV	54.00	-7.79	1.00 H	156	40.03	6.18
7	10640.00	51.69 PK	74.00	-22.31	1.00 H	125	37.74	13.95
8	10640.00	41.00 AV	54.00	-13.00	1.00 H	125	27.05	13.95
9	15960.00	54.89 PK	74.00	-19.11	1.22 H	158	35.38	19.51
10	15960.00	45.36 AV	54.00	-8.64	1.22 H	158	25.85	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	103.40 PK			1.25 V	110	97.29	6.11
2	*5320.00	94.56 AV			1.25 V	110	88.45	6.11
3	5350.00	62.52 PK	74.00	-11.48	1.25 V	110	56.35	6.17
4	5350.00	47.36 AV	54.00	-6.64	1.25 V	110	41.19	6.17
5	5355.00	59.11 PK	74.00	-14.89	1.25 V	110	52.93	6.18
6	5355.00	45.69 AV	54.00	-8.31	1.25 V	110	39.51	6.18
7	10640.00	52.05 PK	74.00	-21.95	1.00 V	158	38.10	13.95
8	10640.00	42.31 AV	54.00	-11.69	1.00 V	158	28.36	13.95
9	15960.00	54.67 PK	74.00	-19.33	1.52 V	120	35.16	19.51
10	15960.00	45.74 AV	54.00	-8.26	1.52 V	120	26.23	19.51

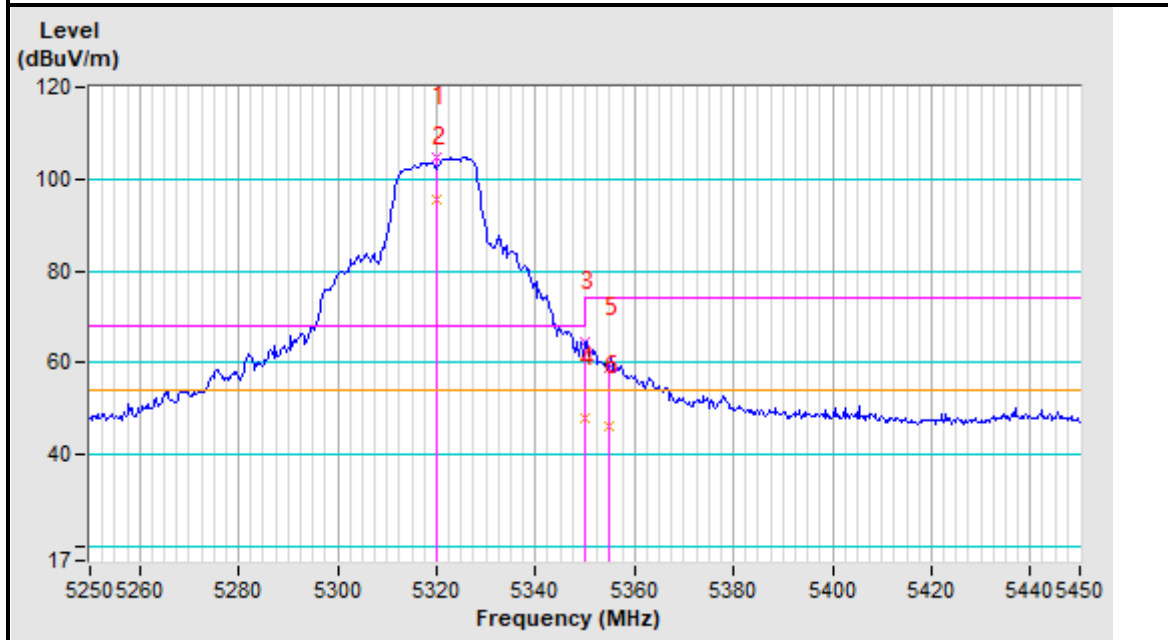
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

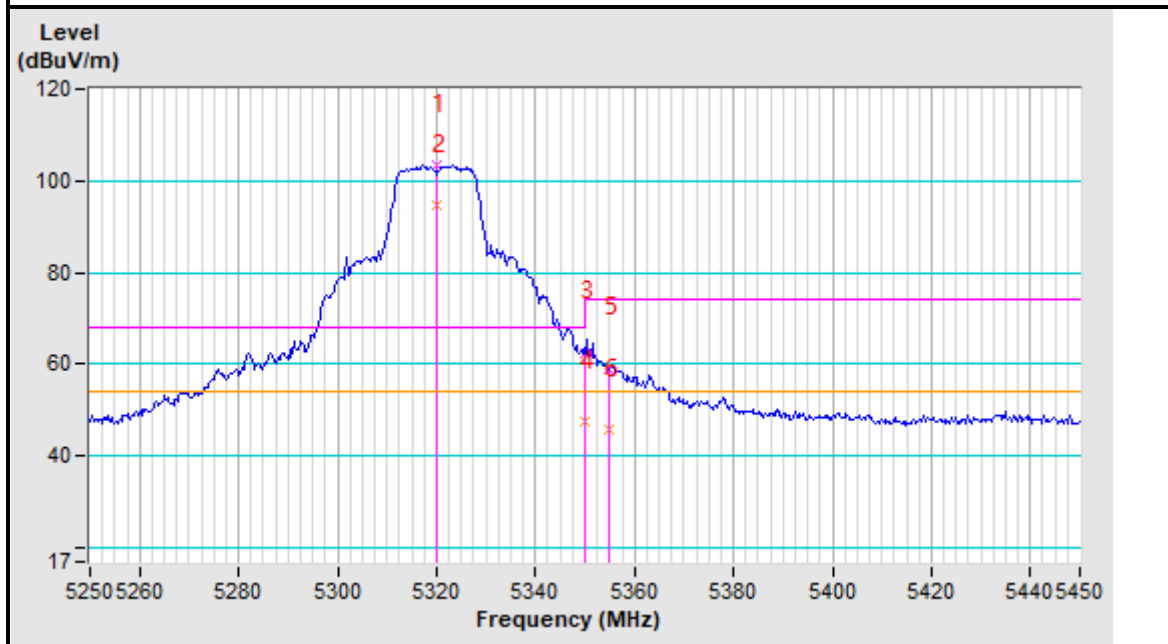


Band edge Plot

5320MHz Horizontal



5320MHz Vertical





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	5145.00	53.44 PK	74.00	-20.56	1.00 H	78	47.65	5.79
2	5145.00	42.00 AV	54.00	-12.00	1.00 H	78	36.21	5.79
3	5150.00	53.12 PK	74.00	-20.88	1.00 H	78	47.32	5.80
4	5150.00	42.36 AV	54.00	-11.64	1.00 H	78	36.56	5.80
5	*5260.00	104.85 PK			1.00 H	78	98.85	6.00
6	*5260.00	94.68 AV			1.00 H	78	88.68	6.00
7	5350.00	54.88 PK	74.00	-19.12	1.00 H	78	48.71	6.17
8	5350.00	43.65 AV	54.00	-10.35	1.00 H	78	37.48	6.17
9	5355.00	53.64 PK	74.00	-20.36	1.00 H	78	47.46	6.18
10	5355.00	42.69 AV	54.00	-11.31	1.00 H	78	36.51	6.18
11	#10520.00	53.16 PK	68.20	-15.04	1.00 H	163	39.34	13.82
12	15780.00	54.36 PK	74.00	-19.64	1.00 H	154	35.13	19.23
13	15780.00	43.25 AV	54.00	-10.75	1.00 H	154	24.02	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	53.11 PK	74.00	-20.89	1.00 V	55	47.32	5.79
2	5145.00	42.20 AV	54.00	-11.80	1.00 V	55	36.41	5.79
3	5150.00	54.36 PK	74.00	-19.64	1.00 V	55	48.56	5.80
4	5150.00	43.15 AV	54.00	-10.85	1.00 V	55	37.35	5.80
5	*5260.00	103.95 PK			1.00 V	55	97.95	6.00
6	*5260.00	94.10 AV			1.00 V	55	88.10	6.00
7	5350.00	54.42 PK	74.00	-19.58	1.00 V	55	48.25	6.17
8	5350.00	42.36 AV	54.00	-11.64	1.00 V	55	36.19	6.17
9	5355.00	53.67 PK	74.00	-20.33	1.00 V	55	47.49	6.18
10	5355.00	42.22 AV	54.00	-11.78	1.00 V	55	36.04	6.18
11	#10520.00	54.11 PK	68.20	-14.09	1.44 V	129	40.29	13.82
12	15780.00	54.33 PK	74.00	-19.67	1.33 V	128	35.10	19.23
13	15780.00	45.64 AV	54.00	-8.36	1.33 V	128	26.41	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



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	104.25 PK			1.00 H	178	98.17	6.08
2	*5300.00	95.62 AV			1.00 H	178	89.54	6.08
3	5350.00	54.25 PK	74.00	-19.75	1.00 H	178	48.08	6.17
4	5350.00	42.00 AV	54.00	-12.00	1.00 H	178	35.83	6.17
5	5355.00	53.00 PK	74.00	-21.00	1.00 H	178	46.82	6.18
6	5355.00	41.98 AV	54.00	-12.02	1.00 H	178	35.80	6.18
7	10600.00	53.11 PK	74.00	-20.89	1.33 H	126	39.20	13.91
8	10600.00	42.36 AV	54.00	-11.64	1.33 H	126	28.45	13.91
9	15900.00	54.88 PK	74.00	-19.12	1.00 H	136	35.46	19.42
10	15900.00	42.35 AV	54.00	-11.65	1.00 H	136	22.93	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	104.56 PK			1.00 V	64	98.48	6.08
2	*5300.00	95.00 AV			1.00 V	64	88.92	6.08
3	5350.00	54.25 PK	74.00	-19.75	1.00 V	64	48.08	6.17
4	5350.00	43.11 AV	54.00	-10.89	1.00 V	64	36.94	6.17
5	5355.00	52.69 PK	74.00	-21.31	1.00 V	64	46.51	6.18
6	5355.00	41.96 AV	54.00	-12.04	1.00 V	64	35.78	6.18
7	10600.00	53.64 PK	74.00	-20.36	1.44 V	158	39.73	13.91
8	10600.00	42.58 AV	54.00	-11.42	1.44 V	158	28.67	13.91
9	15900.00	54.36 PK	74.00	-19.64	1.00 V	54	34.94	19.42
10	15900.00	43.65 AV	54.00	-10.35	1.00 V	54	24.23	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.



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VERITAS**

Test Report No.: IC2202WDG0092-3

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	104.89 PK			1.00 H	80	98.78	6.11
2	*5320.00	95.65 AV			1.00 H	80	89.54	6.11
3	5350.00	65.41 PK	74.00	-8.59	1.00 H	80	59.24	6.17
4	5350.00	48.52 AV	54.00	-5.48	1.00 H	80	42.35	6.17
5	5355.00	61.15 PK	74.00	-12.85	1.00 H	80	54.97	6.18
6	5355.00	46.22 AV	54.00	-7.78	1.00 H	80	40.04	6.18
7	10640.00	52.96 PK	74.00	-21.04	1.00 H	183	39.01	13.95
8	10640.00	42.34 AV	54.00	-11.66	1.00 H	183	28.39	13.95
9	15960.00	54.55 PK	74.00	-19.45	1.00 H	152	35.04	19.51
10	15960.00	43.98 AV	54.00	-10.02	1.00 H	152	24.47	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	103.90 PK			1.00 V	42	97.79	6.11
2	*5320.00	94.51 AV			1.00 V	42	88.40	6.11
3	5350.00	65.07 PK	74.00	-8.93	1.00 V	42	58.90	6.17
4	5350.00	47.54 AV	54.00	-6.46	1.00 V	42	41.37	6.17
5	5355.00	61.41 PK	74.00	-12.59	1.00 V	42	55.23	6.18
6	5355.00	45.20 AV	54.00	-8.80	1.00 V	42	39.02	6.18
7	10640.00	53.11 PK	74.00	-20.89	1.00 V	145	39.16	13.95
8	10640.00	41.65 AV	54.00	-12.35	1.00 V	145	27.70	13.95
9	15960.00	54.33 PK	74.00	-19.67	1.25 V	148	34.82	19.51
10	15960.00	44.12 AV	54.00	-9.88	1.25 V	148	24.61	19.51

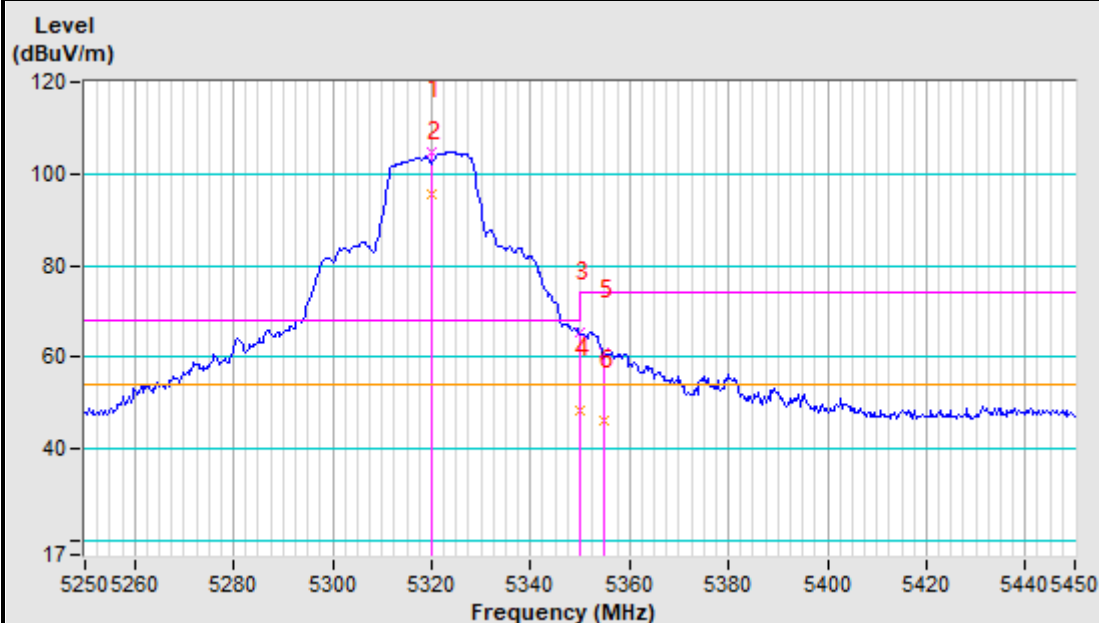
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

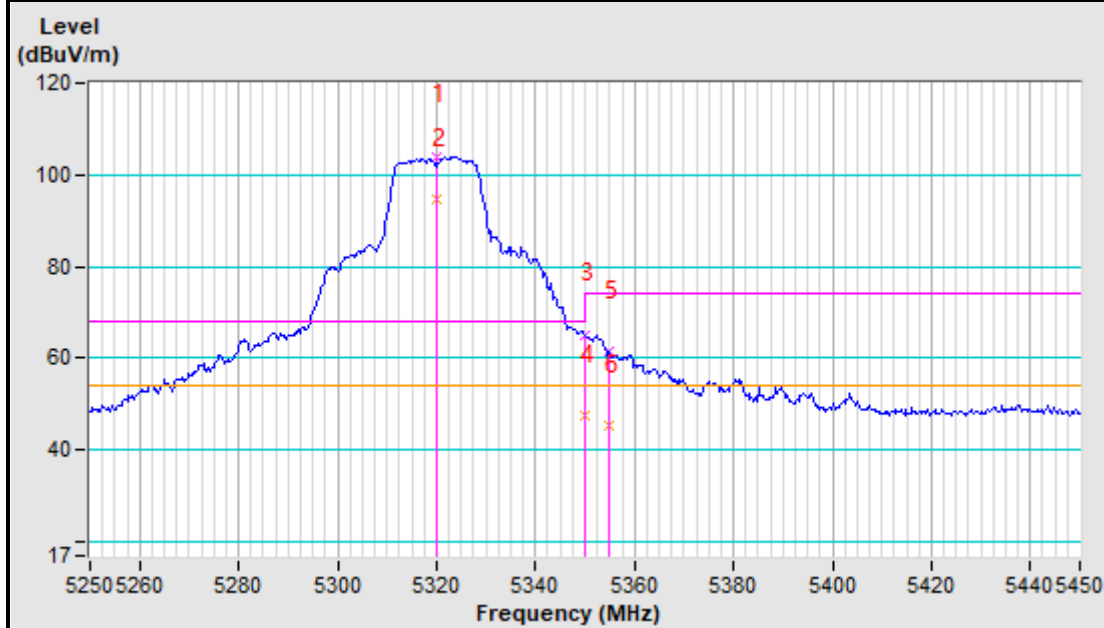


Band edge Plot

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	103.15 PK			1.00 H	120	97.13	6.02
2	*5270.00	92.54 AV			1.00 H	120	86.52	6.02
3	5350.00	54.65 PK	74.00	-19.35	1.00 H	120	48.48	6.17
4	5350.00	42.65 AV	54.00	-11.35	1.00 H	120	36.48	6.17
5	5355.00	54.15 PK	74.00	-19.85	1.00 H	120	47.97	6.18
6	5355.00	41.69 AV	54.00	-12.31	1.00 H	120	35.51	6.18
7	#10540.00	54.12 PK	68.20	-14.08	1.56 H	125	40.28	13.84
8	15810.00	54.65 PK	74.00	-19.35	1.54 H	144	35.37	19.28
9	15810.00	45.12 AV	54.00	-8.88	1.54 H	144	25.84	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	100.02 PK			1.00 V	244	94.00	6.02
2	*5270.00	90.36 AV			1.00 V	244	84.34	6.02
3	5350.00	53.46 PK	74.00	-20.54	1.00 V	244	47.29	6.17
4	5350.00	41.43 AV	54.00	-12.57	1.00 V	244	35.26	6.17
5	5355.00	54.10 PK	74.00	-19.90	1.00 V	244	47.92	6.18
6	5355.00	41.89 AV	54.00	-12.11	1.00 V	244	35.71	6.18
7	#10540.00	54.58 PK	68.20	-13.62	1.10 V	128	40.74	13.84
8	15810.00	55.32 PK	74.00	-18.68	1.32 V	122	36.04	19.28
9	15810.00	45.30 AV	54.00	-8.70	1.32 V	122	26.02	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



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	99.30 PK			1.14 H	130	93.21	6.09
2	*5310.00	89.25 AV			1.14 H	130	83.16	6.09
3	5350.00	70.85 PK	74.00	-3.15	1.14 H	130	64.68	6.17
4	5350.00	50.00 AV	54.00	-4.00	1.14 H	130	43.83	6.17
5	5355.00	63.90 PK	74.00	-10.10	1.14 H	130	57.72	6.18
6	5355.00	46.26 AV	54.00	-7.74	1.14 H	130	40.08	6.18
7	10620.00	53.11 PK	74.00	-20.89	1.17 H	154	39.18	13.93
8	10620.00	42.15 AV	54.00	-11.85	1.17 H	154	28.22	13.93
9	15930.00	54.89 PK	74.00	-19.11	1.00 H	148	35.43	19.46
10	15930.00	45.34 AV	54.00	-8.66	1.00 H	148	25.88	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	97.42 PK			1.00 V	34	91.33	6.09
2	*5310.00	87.56 AV			1.00 V	34	81.47	6.09
3	5350.00	67.04 PK	74.00	-6.96	1.00 V	34	60.87	6.17
4	5350.00	45.62 AV	54.00	-8.38	1.00 V	34	39.45	6.17
5	5355.00	61.00 PK	74.00	-13.00	1.00 V	34	54.82	6.18
6	5355.00	44.58 AV	54.00	-9.42	1.00 V	34	38.40	6.18
7	10620.00	53.15 PK	74.00	-20.85	1.00 V	147	39.22	13.93
8	10620.00	42.15 AV	54.00	-11.85	1.00 V	147	28.22	13.93
9	15930.00	54.67 PK	74.00	-19.33	1.42 V	139	35.21	19.46
10	15930.00	45.33 AV	54.00	-8.67	1.42 V	139	25.87	19.46

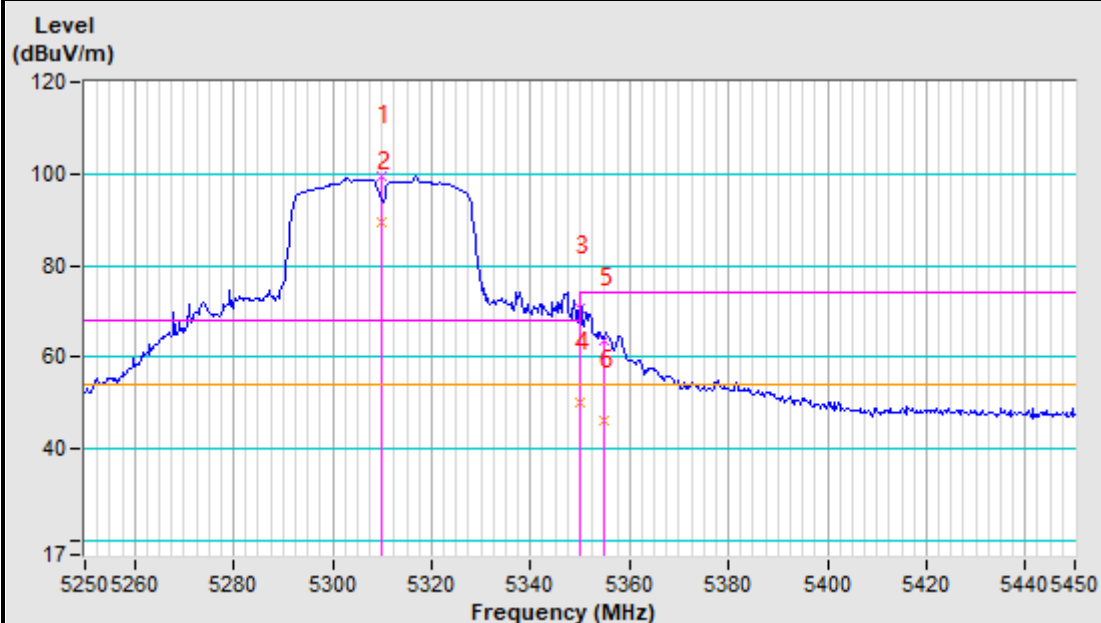
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

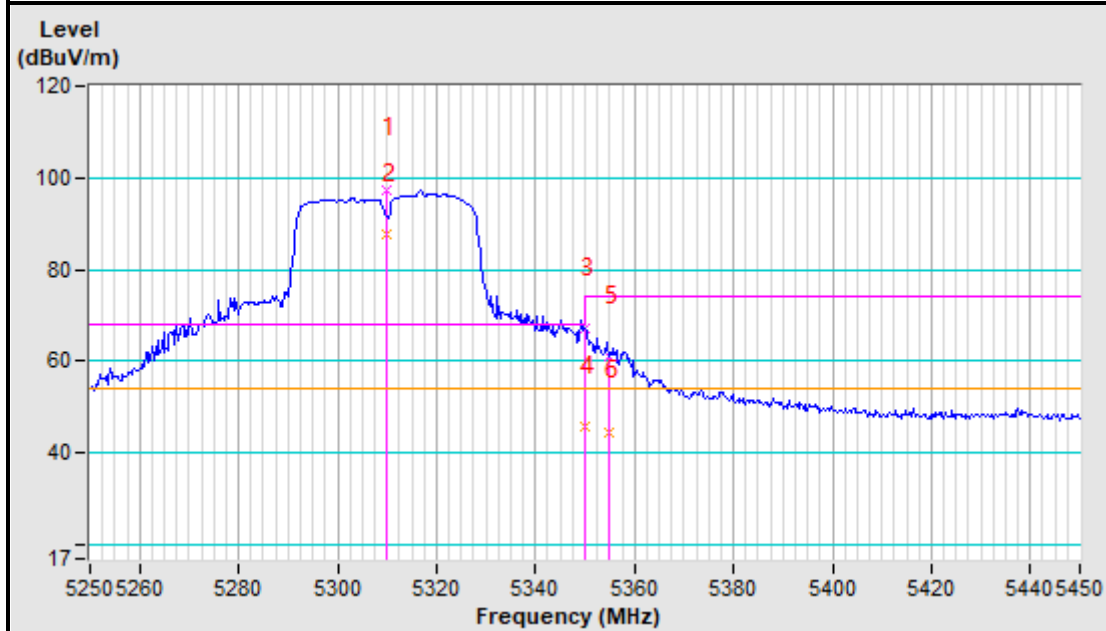


Band edge Plot

5310MHz Horizontal



5310MHz Vertical





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	#5465.00	64.04 PK	68.20	-4.16	1.00 H	43	57.66	6.38
2	#5470.00	64.56 PK	68.20	-3.64	1.00 H	43	58.18	6.38
3	*5500.00	104.24 PK			1.00 H	43	97.80	6.44
4	*5500.00	94.51 AV			1.00 H	43	88.07	6.44
5	11000.00	52.34 PK	74.00	-21.66	1.57 H	154	37.98	14.36
6	11000.00	41.57 AV	54.00	-12.43	1.57 H	154	27.21	14.36
7	#16500.00	54.26 PK	68.20	-13.94	1.00 H	157	34.15	20.11
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	#5465.00	63.64 PK	68.20	-4.56	1.00 V	300	57.26	6.38
2	#5470.00	64.95 PK	68.20	-3.25	1.00 V	300	58.57	6.38
3	*5500.00	102.90 PK			1.00 V	300	96.46	6.44
4	*5500.00	92.58 AV			1.00 V	300	86.14	6.44
5	11000.00	52.57 PK	74.00	-21.43	1.00 V	189	38.21	14.36
6	11000.00	41.38 AV	54.00	-12.62	1.00 V	189	27.02	14.36
7	#16500.00	54.85 PK	68.20	-13.35	1.20 V	145	34.74	20.11

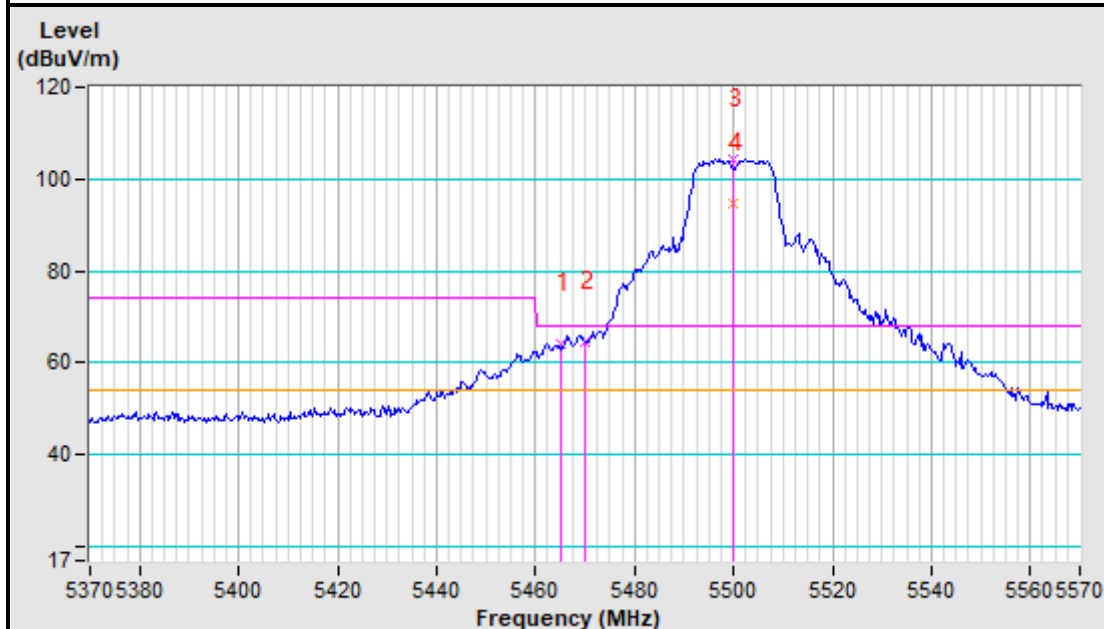
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

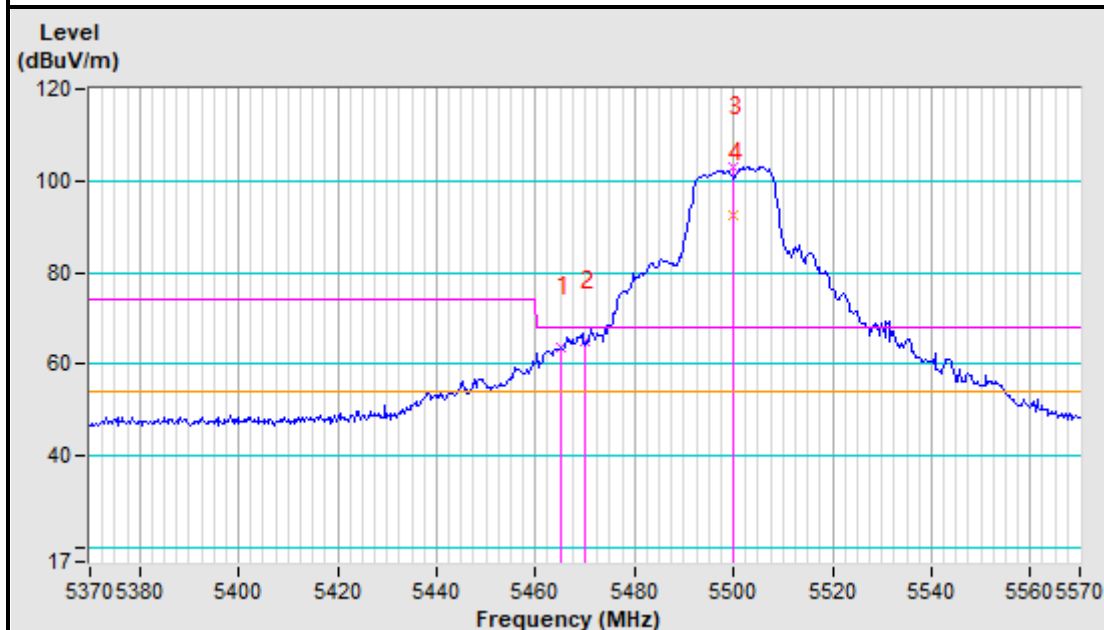


Band edge Plot

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	47.51 PK	68.20	-20.69	1.00 H	20	41.13	6.38
2	*5580.00	105.21 PK			1.00 H	20	98.53	6.68
3	*5580.00	95.37 AV			1.00 H	20	88.69	6.68
4	11160.00	52.52 PK	74.00	-21.48	1.44 H	147	37.84	14.68
5	11160.00	41.58 AV	54.00	-12.42	1.44 H	147	26.90	14.68
6	#16740.00	53.15 PK	68.20	-15.05	1.55 H	125	32.59	20.56
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	46.59 PK	68.20	-21.61	1.00 V	125	40.21	6.38
2	*5580.00	103.98 PK			1.00 V	125	97.30	6.68
3	*5580.00	94.20 AV			1.00 V	125	87.52	6.68
4	11160.00	53.26 PK	74.00	-20.74	1.23 V	147	38.58	14.68
5	11160.00	42.15 AV	54.00	-11.85	1.23 V	147	27.47	14.68
6	#16740.00	54.83 PK	68.20	-13.37	1.25 V	148	34.27	20.56

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 greater than 20dB margin.
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	100.33 PK			1.00 H	125	93.30	7.03
2	*5700.00	90.21 AV			1.00 H	125	83.18	7.03
3	#5725.00	64.73 PK	68.20	-3.47	1.00 H	125	57.63	7.10
4	#5730.00	60.10 PK	68.20	-8.10	1.00 H	125	52.99	7.11
5	11400.00	52.34 PK	74.00	-21.66	1.00 H	28	37.19	15.15
6	11400.00	42.16 AV	54.00	-11.84	1.00 H	28	27.01	15.15
7	#17100.00	54.89 PK	68.20	-13.31	1.25 H	165	33.84	21.05
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	98.59 PK			1.00 V	310	91.56	7.03
2	*5700.00	89.41 AV			1.00 V	310	82.38	7.03
3	#5725.00	62.58 PK	68.20	-5.62	1.00 V	310	55.48	7.10
4	#5730.00	58.95 PK	68.20	-9.25	1.00 V	310	51.84	7.11
5	11400.00	52.33 PK	74.00	-21.67	1.00 V	130	37.18	15.15
6	11400.00	42.74 AV	54.00	-11.26	1.00 V	130	27.59	15.15
7	#17100.00	54.96 PK	68.20	-13.24	1.41 V	126	33.91	21.05

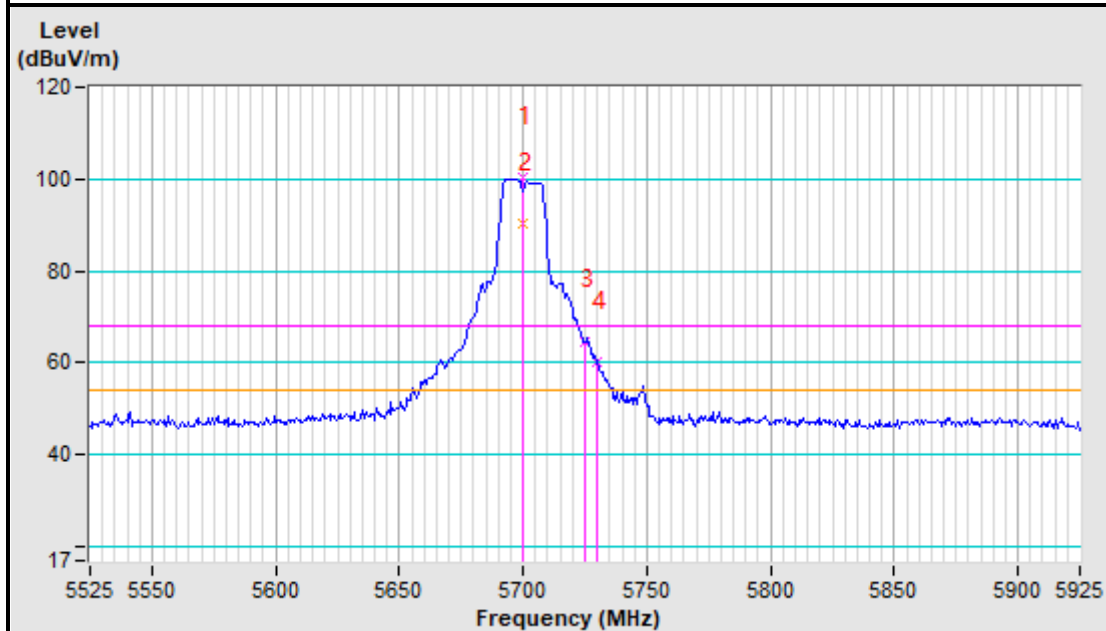
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

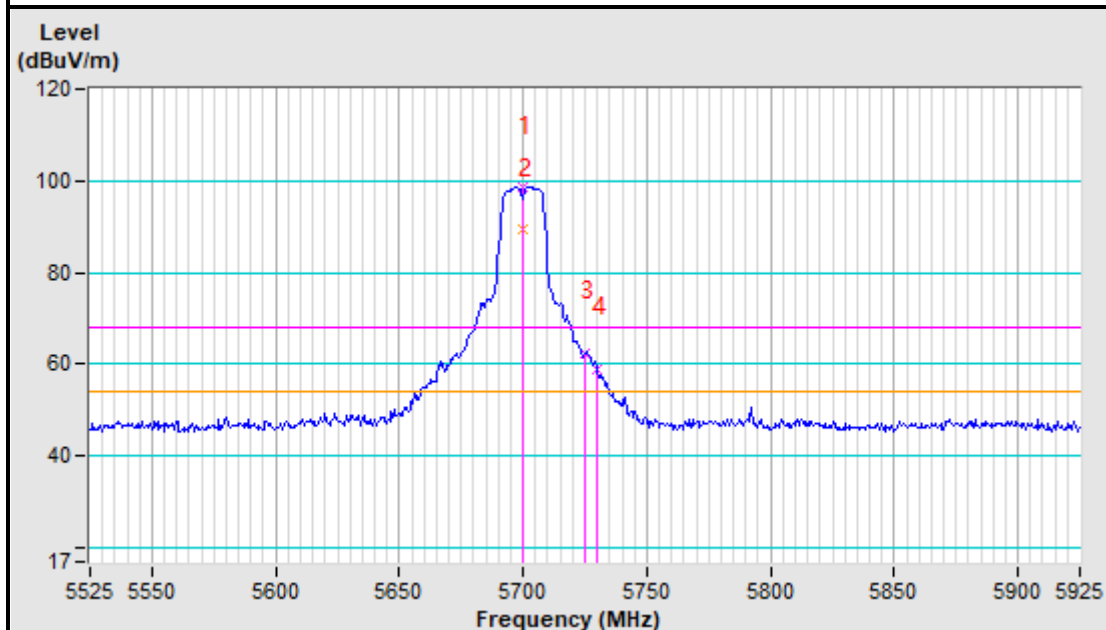


Band edge Plot

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	#5465.00	63.60 PK	68.20	-4.60	1.00 H	125	57.22	6.38
2	#5470.00	63.81 PK	68.20	-4.39	1.00 H	125	57.43	6.38
3	*5500.00	101.84 PK			1.00 H	125	95.40	6.44
4	*5500.00	91.52 AV			1.00 H	125	85.08	6.44
5	11000.00	53.17 PK	74.00	-20.83	1.33 H	145	38.81	14.36
6	11000.00	42.00 AV	54.00	-12.00	1.33 H	145	27.64	14.36
7	#16500.00	54.89 PK	68.20	-13.31	1.00 H	126	34.78	20.11
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	#5465.00	63.57 PK	68.20	-4.63	1.00 V	300	57.19	6.38
2	#5470.00	64.58 PK	68.20	-3.62	1.00 V	300	58.20	6.38
3	*5500.00	101.11 PK			1.00 V	300	94.67	6.44
4	*5500.00	91.52 AV			1.00 V	300	85.08	6.44
5	11000.00	51.96 PK	74.00	-22.04	1.71 V	135	37.60	14.36
6	11000.00	41.95 AV	54.00	-12.05	1.71 V	135	27.59	14.36
7	#16500.00	54.01 PK	68.20	-14.19	1.56 V	145	33.90	20.11

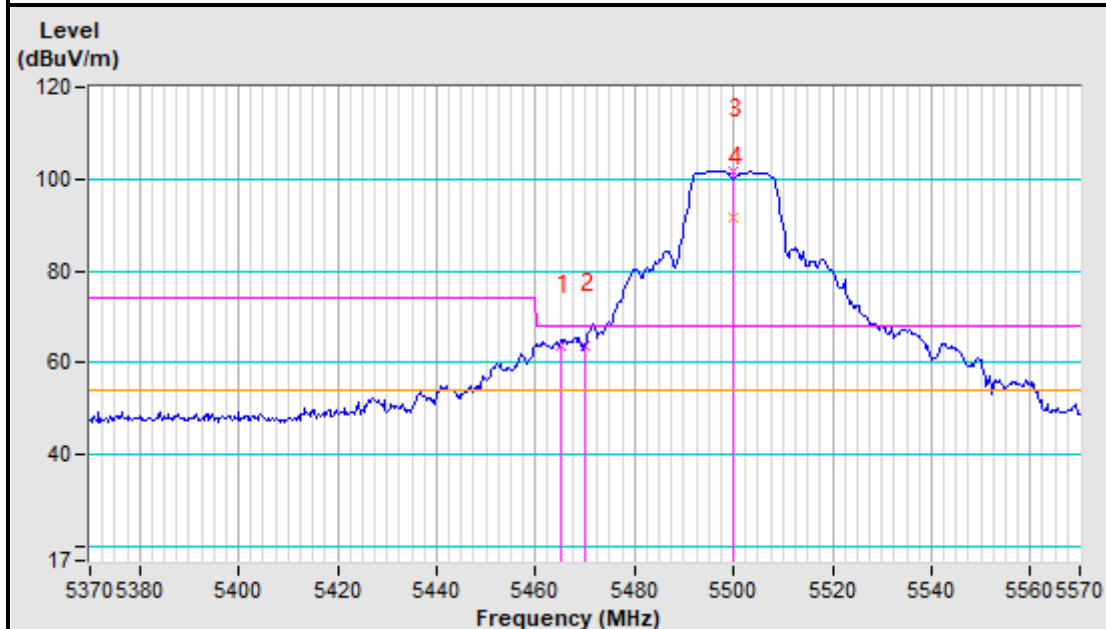
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

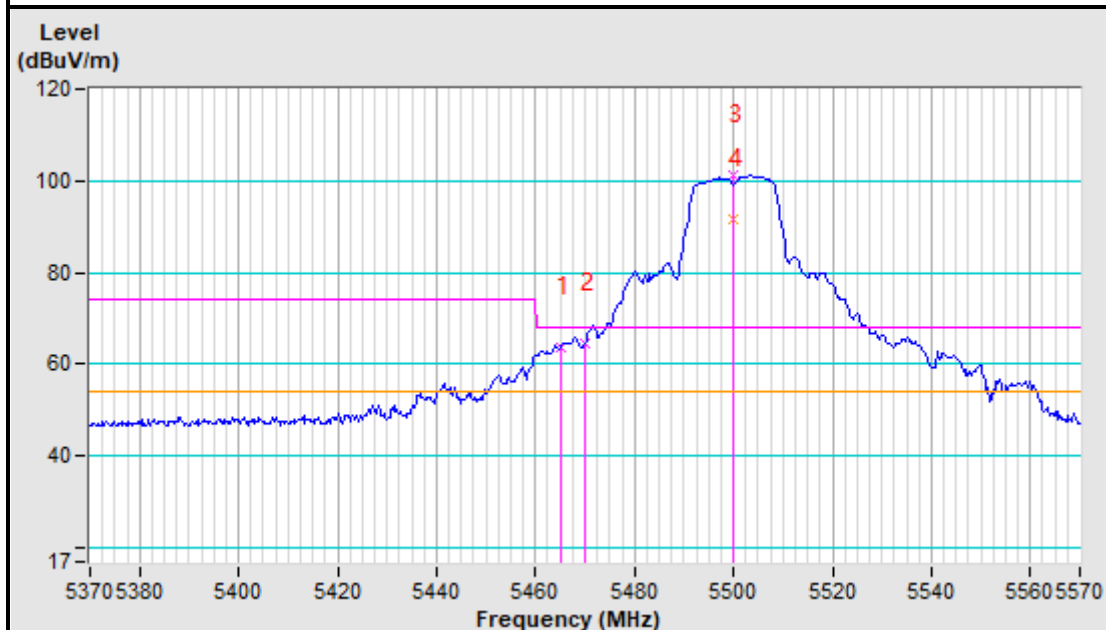


Band edge Plot

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	50.37 PK	68.20	-17.83	1.00 H	25	43.99	6.38
2	*5580.00	105.34 PK			1.00 H	25	98.66	6.68
3	*5580.00	94.96 AV			1.00 H	25	88.28	6.68
4	11160.00	52.86 PK	74.00	-21.14	1.75 H	135	38.18	14.68
5	11160.00	42.93 AV	54.00	-11.07	1.75 H	135	28.25	14.68
6	#16740.00	55.00 PK	68.20	-13.20	1.00 H	110	34.44	20.56
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	52.33 PK	68.20	-15.87	1.00 V	300	45.95	6.38
2	*5580.00	104.00 PK			1.00 V	300	97.32	6.68
3	*5580.00	94.35 AV			1.00 V	300	87.67	6.68
4	11160.00	52.39 PK	74.00	-21.61	1.50 V	126	37.71	14.68
5	11160.00	42.38 AV	54.00	-11.62	1.50 V	126	27.70	14.68
6	#16740.00	54.91 PK	68.20	-13.29	1.00 V	125	34.35	20.56

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 greater than 20dB margin.
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	99.90 PK			1.00 H	344	92.87	7.03
2	*5700.00	89.45 AV			1.00 H	344	82.42	7.03
3	#5725.00	63.81 PK	68.20	-4.39	1.00 H	344	56.71	7.10
4	#5730.00	60.67 PK	68.20	-7.53	1.00 H	344	53.56	7.11
5	11400.00	52.61 PK	74.00	-21.39	1.00 H	154	37.46	15.15
6	11400.00	41.95 AV	54.00	-12.05	1.00 H	154	26.80	15.15
7	#17100.00	56.93 PK	68.20	-11.27	1.20 H	156	35.88	21.05
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	98.20 PK			1.00 V	321	91.17	7.03
2	*5700.00	89.52 AV			1.00 V	321	82.49	7.03
3	#5725.00	61.59 PK	68.20	-6.61	1.00 V	321	54.49	7.10
4	#5730.00	60.14 PK	68.20	-8.06	1.00 V	321	53.03	7.11
5	11400.00	52.73 PK	74.00	-21.27	1.00 V	122	37.58	15.15
6	11400.00	41.85 AV	54.00	-12.15	1.00 V	122	26.70	15.15
7	#17100.00	55.32 PK	68.20	-12.88	1.20 V	120	34.27	21.05

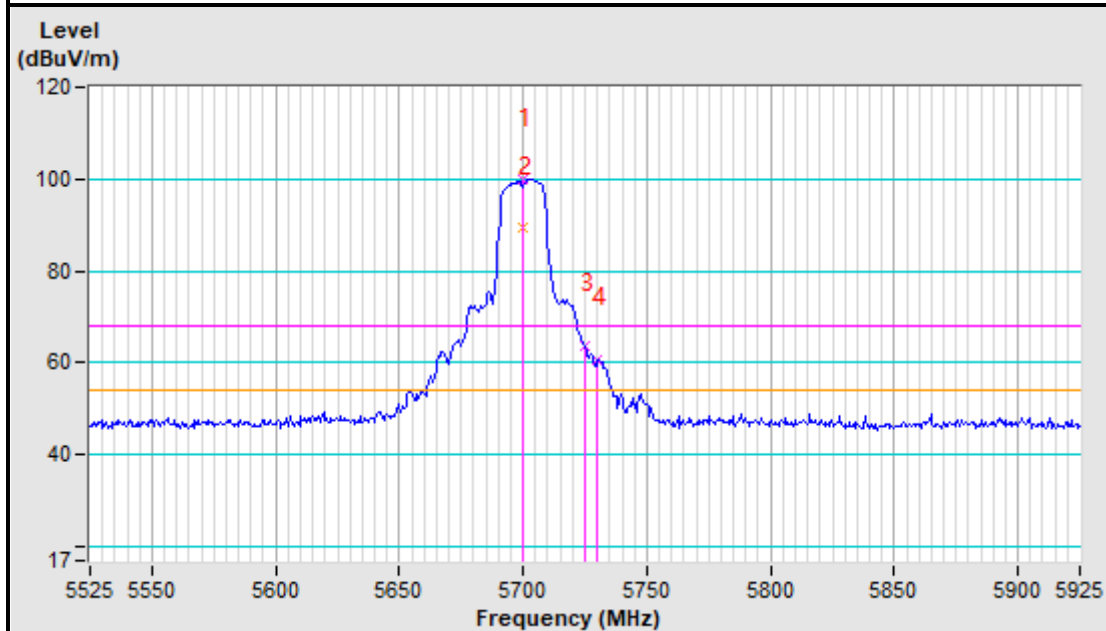
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

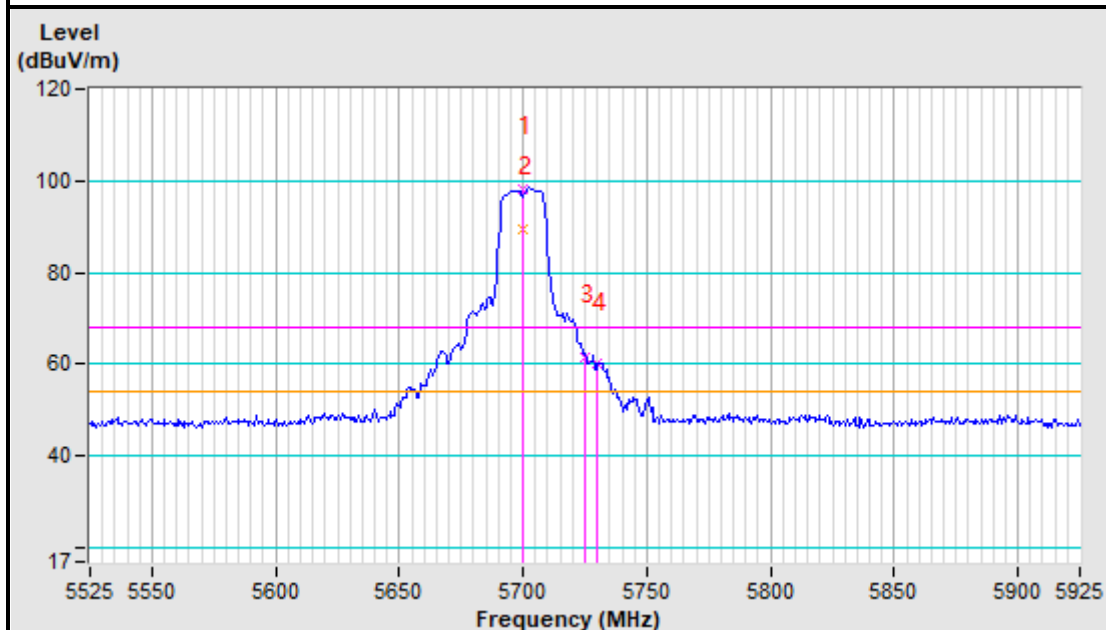


Band edge Plot

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	#5465.00	61.88 PK	68.20	-6.32	1.00 H	31	55.50	6.38
2	#5470.00	62.93 PK	68.20	-5.27	1.00 H	31	56.55	6.38
3	*5510.00	98.53 PK			1.00 H	31	92.06	6.47
4	*5510.00	89.60 AV			1.00 H	31	83.13	6.47
5	11020.00	53.43 PK	74.00	-20.57	1.75 H	155	39.04	14.39
6	11020.00	42.96 AV	54.00	-11.04	1.75 H	155	28.57	14.39
7	#16530.00	54.77 PK	68.20	-13.43	1.68 H	250	34.61	20.16
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	#5465.00	62.21 PK	68.20	-5.99	1.00 V	319	55.83	6.38
2	#5470.00	63.27 PK	68.20	-4.93	1.00 V	319	56.89	6.38
3	*5510.00	96.89 PK			1.00 V	319	90.42	6.47
4	*5510.00	87.33 AV			1.00 V	319	80.86	6.47
5	11020.00	53.15 PK	74.00	-20.85	1.00 V	136	38.76	14.39
6	11020.00	42.16 AV	54.00	-11.84	1.00 V	136	27.77	14.39
7	#16530.00	54.98 PK	68.20	-13.22	1.54 V	41	34.82	20.16

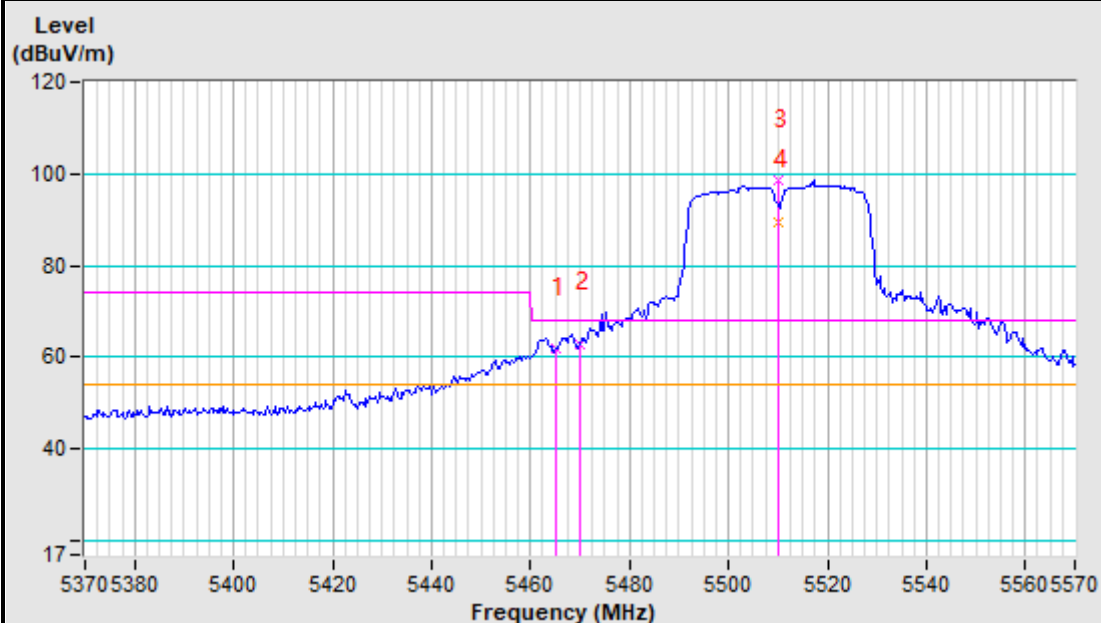
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

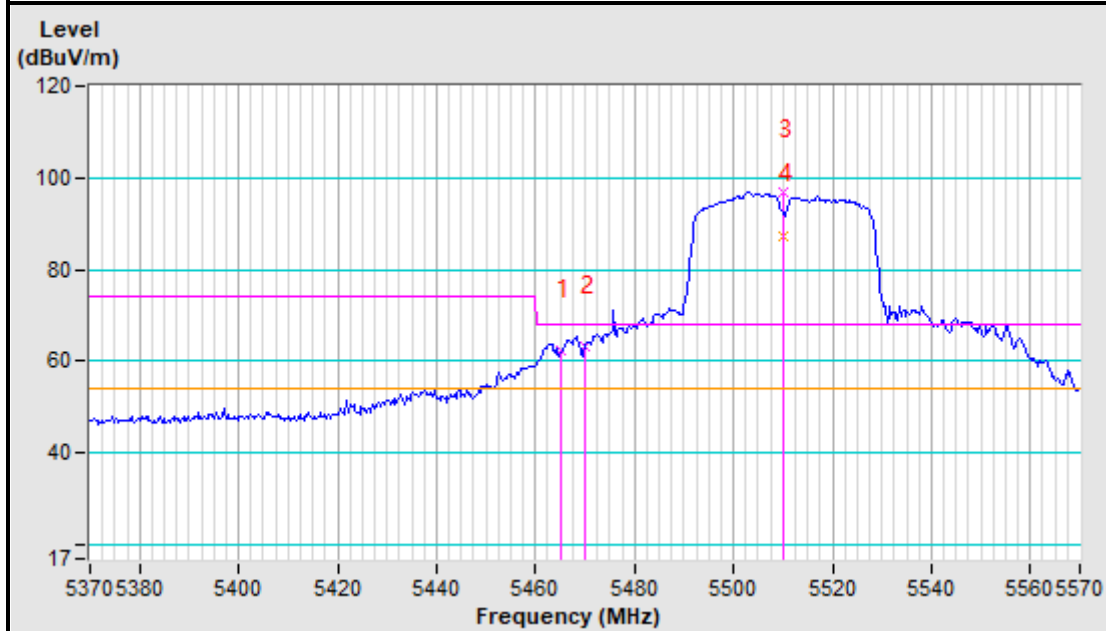


Band edge Plot

5510MHz Horizontal



5510MHz Vertical





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	#5470.00	62.36 PK	68.20	-5.84	1.00 H	36	55.98	6.38
2	*5550.00	104.56 PK			1.00 H	36	97.98	6.58
3	*5550.00	94.88 AV			1.00 H	36	88.30	6.58
4	11100.00	52.55 PK	74.00	-21.45	1.89 H	354	38.00	14.55
5	11100.00	42.18 AV	54.00	-11.82	1.89 H	354	27.63	14.55
6	#16650.00	54.97 PK	68.20	-13.23	1.00 H	154	34.58	20.39
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	61.33 PK	68.20	-6.87	1.00 V	334	54.95	6.38
2	*5550.00	103.58 PK			1.00 V	334	97.00	6.58
3	*5550.00	93.68 AV			1.00 V	334	87.10	6.58
4	11100.00	52.16 PK	74.00	-21.84	1.73 V	155	37.61	14.55
5	11100.00	42.52 AV	54.00	-11.48	1.73 V	155	27.97	14.55
6	#16650.00	55.00 PK	68.20	-13.20	1.00 V	126	34.61	20.39

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



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	98.76 PK			1.00 H	30	91.83	6.93
2	*5670.00	88.35 AV			1.00 H	30	81.42	6.93
3	#5725.00	63.00 PK	68.20	-5.20	1.00 H	30	55.90	7.10
4	#5730.00	60.00 PK	68.20	-8.20	1.00 H	30	52.89	7.11
5	11340.00	53.62 PK	74.00	-20.38	1.35 H	125	38.60	15.02
6	11340.00	42.00 AV	54.00	-12.00	1.35 H	125	26.98	15.02
7	#17010.00	55.62 PK	68.20	-12.58	1.00 H	167	34.59	21.03
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	98.47 PK			1.00 V	335	91.54	6.93
2	*5670.00	88.95 AV			1.00 V	335	82.02	6.93
3	#5725.00	60.50 PK	68.20	-7.70	1.00 V	335	53.40	7.10
4	#5730.00	58.11 PK	68.20	-10.09	1.00 V	335	51.00	7.11
5	11340.00	53.16 PK	74.00	-20.84	1.44 V	110	38.14	15.02
6	11340.00	41.69 AV	54.00	-12.31	1.44 V	110	26.67	15.02
7	#17010.00	54.83 PK	68.20	-13.37	1.00 V	136	33.80	21.03

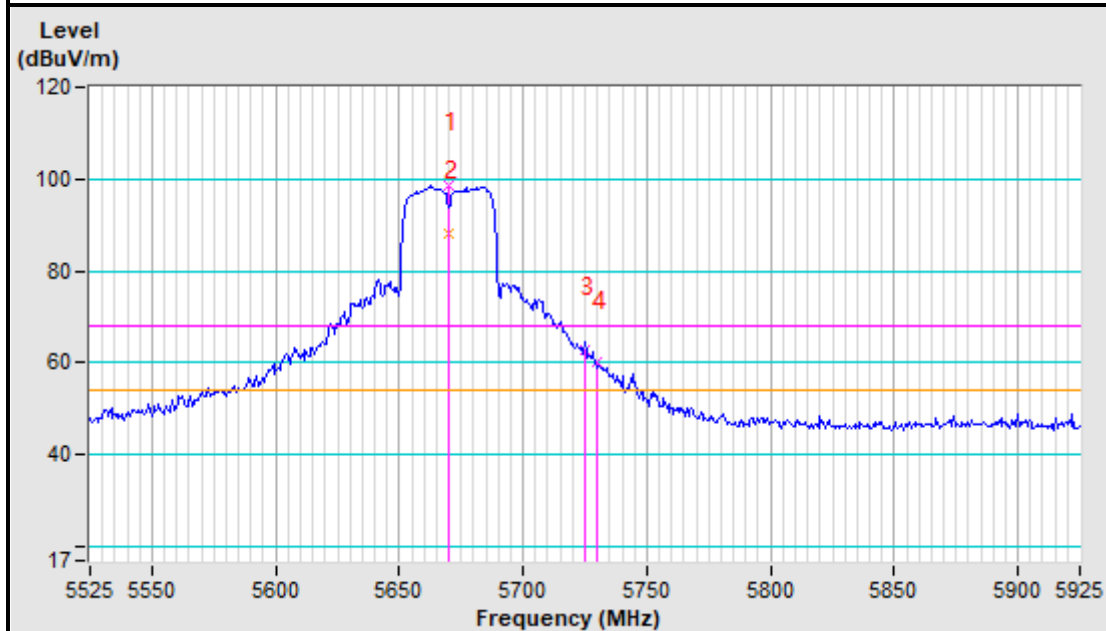
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

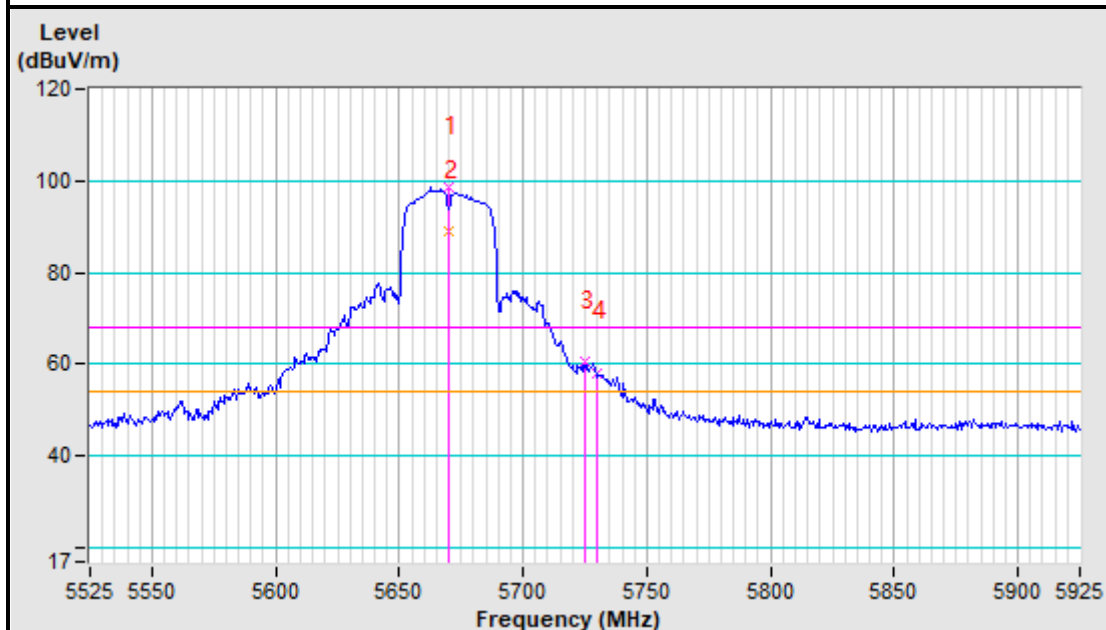


Band edge Plot

5670MHz Horizontal



5670MHz 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	#5720.00	78.76 PK	110.80	-32.04	1.00 H	125	71.68	7.08
2	#5725.00	90.43 PK	122.20	-31.77	1.00 H	125	83.33	7.10
3	*5745.00	112.56 PK			1.00 H	155	105.40	7.16
4	*5745.00	102.58 AV			1.00 H	155	95.42	7.16
5	#5855.00	59.08 PK	110.80	-51.72	1.00 H	125	51.60	7.48
6	11490.00	51.73 PK	74.00	-22.27	1.10 H	189	36.41	15.32
7	11490.00	41.87 AV	54.00	-12.13	1.10 H	189	26.55	15.32
8	#17235.00	54.28 PK	68.20	-13.92	1.57 H	113	33.21	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)	Peak (PK) Average (AV)
1	#5720.00	70.28 PK	110.80	-40.52	1.00 V	0	63.20	7.08
2	#5725.00	81.71 PK	122.20	-40.49	1.00 V	0	74.61	7.10
3	*5745.00	104.21 PK			1.00 V	125	97.05	7.16
4	*5745.00	94.33 AV			1.00 V	125	87.17	7.16
5	#5855.00	48.03 PK	110.80	-62.77	1.00 V	0	40.55	7.48
6	11490.00	51.48 PK	74.00	-22.52	1.25 V	144	36.16	15.32
7	11490.00	41.55 AV	54.00	-12.45	1.25 V	144	26.23	15.32
8	#17235.00	54.86 PK	68.20	-13.34	1.26 V	156	33.79	21.07

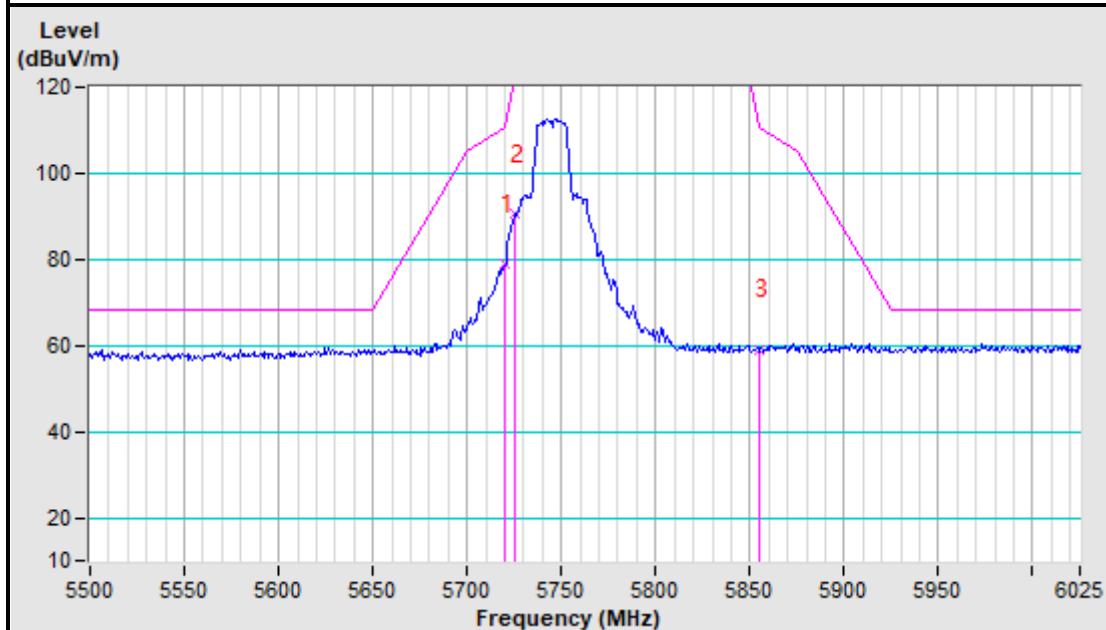
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

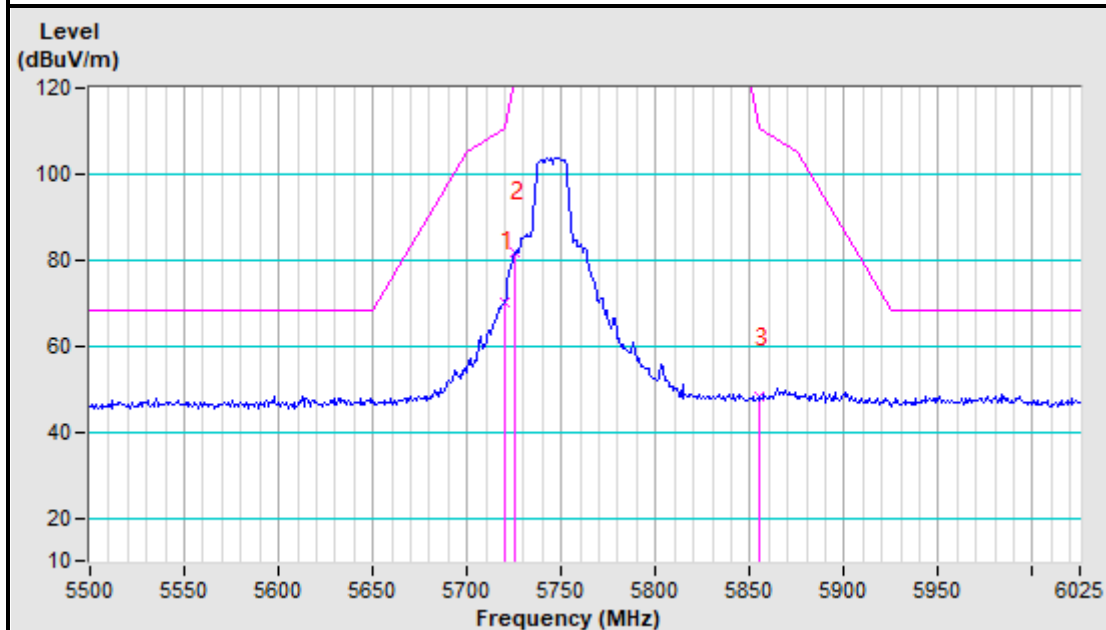


Band edge Plot

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	#5703.91	52.90 PK	106.30	-53.40	1.00 H	0	45.87	7.03
2	#5722.17	54.94 PK	115.76	-60.82	1.00 H	0	47.85	7.09
3	*5785.00	112.46 PK			1.00 H	147	105.19	7.27
4	*5785.00	102.56 AV			1.00 H	147	95.29	7.27
5	#5860.65	52.14 PK	109.22	-57.08	1.00 H	0	44.65	7.49
6	11570.00	52.61 PK	74.00	-21.39	1.73 H	126	37.09	15.52
7	11570.00	42.55 AV	54.00	-11.45	1.73 H	126	27.03	15.52
8	#17355.00	54.66 PK	68.20	-13.54	1.88 H	149	33.57	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	#5720.00	48.36 PK	110.80	-62.44	1.00 V	0	41.28	7.08
2	*5785.00	104.55 PK			1.22 V	154	97.28	7.27
3	*5785.00	94.85 AV			1.22 V	154	87.58	7.27
4	#5862.93	48.79 PK	108.58	-59.79	1.00 V	0	41.30	7.49
5	#5878.15	48.63 PK	102.86	-54.23	1.00 V	0	41.08	7.55
6	11570.00	52.34 PK	74.00	-21.66	1.55 V	186	36.82	15.52
7	11570.00	42.18 AV	54.00	-11.82	1.55 V	186	26.66	15.52
8	#17355.00	54.81 PK	68.20	-13.39	1.20 V	133	33.72	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * " : Fundamental frequency.
6. " # " : The radiated frequency is out of the restricted band.

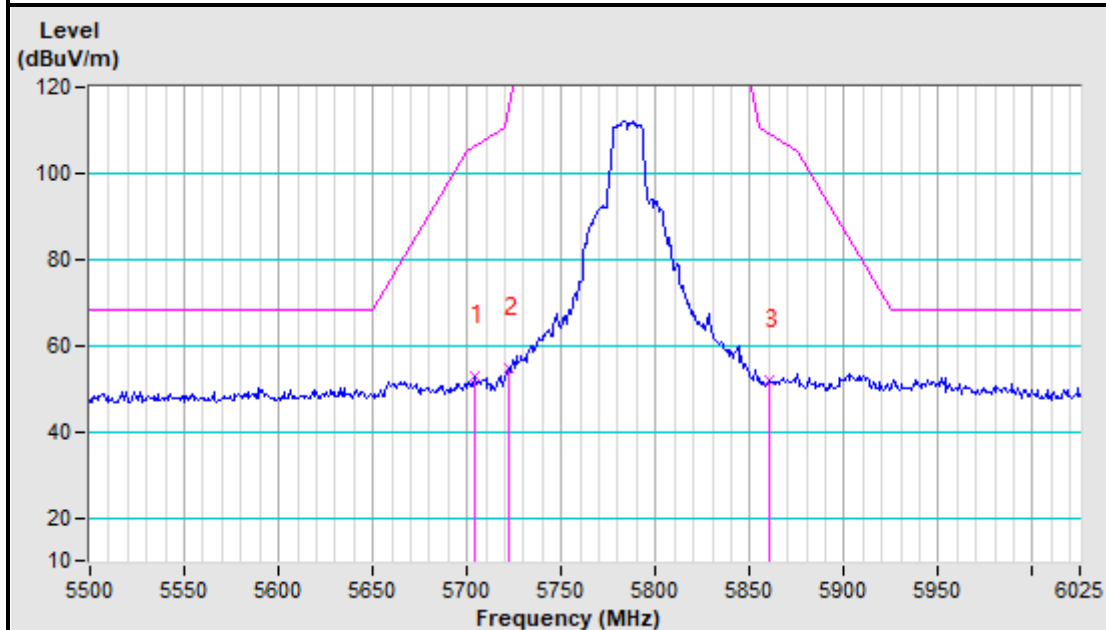


BUREAU
VERITAS

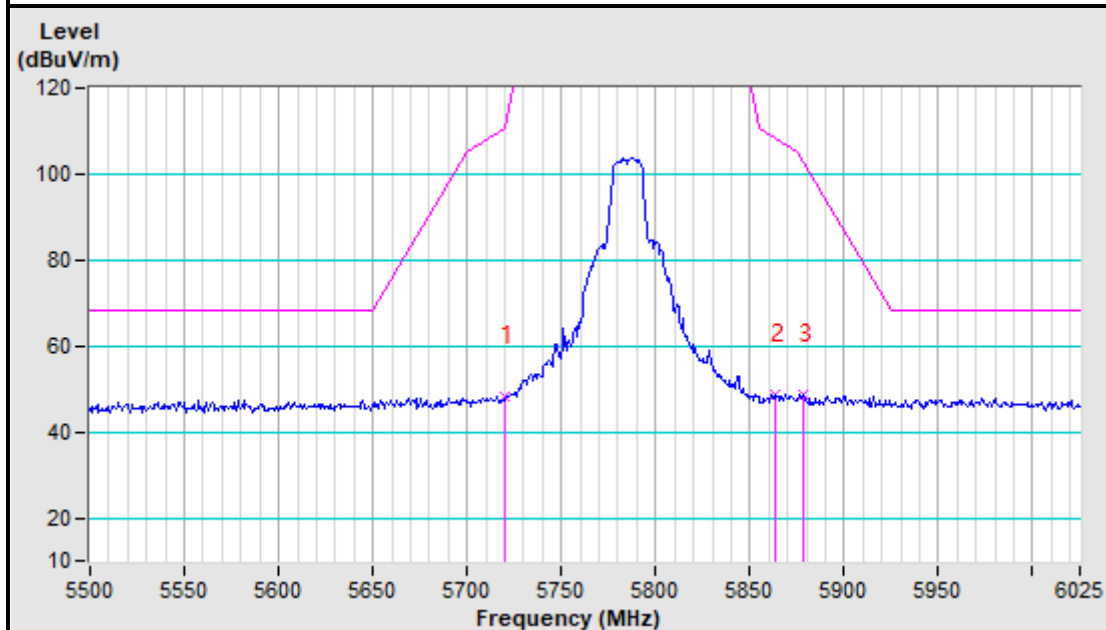
Test Report No.: IC2202WDG0092-3

Band edge Plot

5785MHz Horizontal



5785MHz Vertical





**BUREAU
VERITAS**

Test Report No.: IC2202WDG0092-3

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	#5707.72	53.59 PK	107.36	-53.77	1.00 H	0	46.55	7.04
2	*5825.00	113.87 PK			1.00 H	103	106.48	7.39
3	*5825.00	104.52 AV			1.00 H	103	97.13	7.39
4	#5850.00	76.47 PK	122.20	-45.73	1.00 H	0	69.01	7.46
5	#5856.85	69.72 PK	110.28	-40.56	1.00 H	0	62.24	7.48
6	11650.00	53.25 PK	74.00	-20.75	1.14 H	123	37.52	15.73
7	11650.00	41.88 AV	54.00	-12.12	1.14 H	123	26.15	15.73
8	#17475.00	54.80 PK	68.20	-13.40	1.20 H	115	33.69	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	#5741.96	51.61 PK	152.20	-100.59	1.00 V	0	44.47	7.14
2	*5825.00	104.28 PK			1.00 V	159	96.89	7.39
3	*5825.00	94.57 AV			1.00 V	159	87.18	7.39
4	#5850.00	69.67 PK	122.20	-52.53	1.00 V	0	62.21	7.46
5	#5856.85	62.39 PK	110.28	-47.89	1.00 V	0	54.91	7.48
6	11650.00	54.32 PK	74.00	-19.68	1.47 V	159	38.59	15.73
7	11650.00	41.69 AV	54.00	-12.31	1.47 V	159	25.96	15.73
8	#17475.00	54.59 PK	68.20	-13.61	1.37 V	184	33.48	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

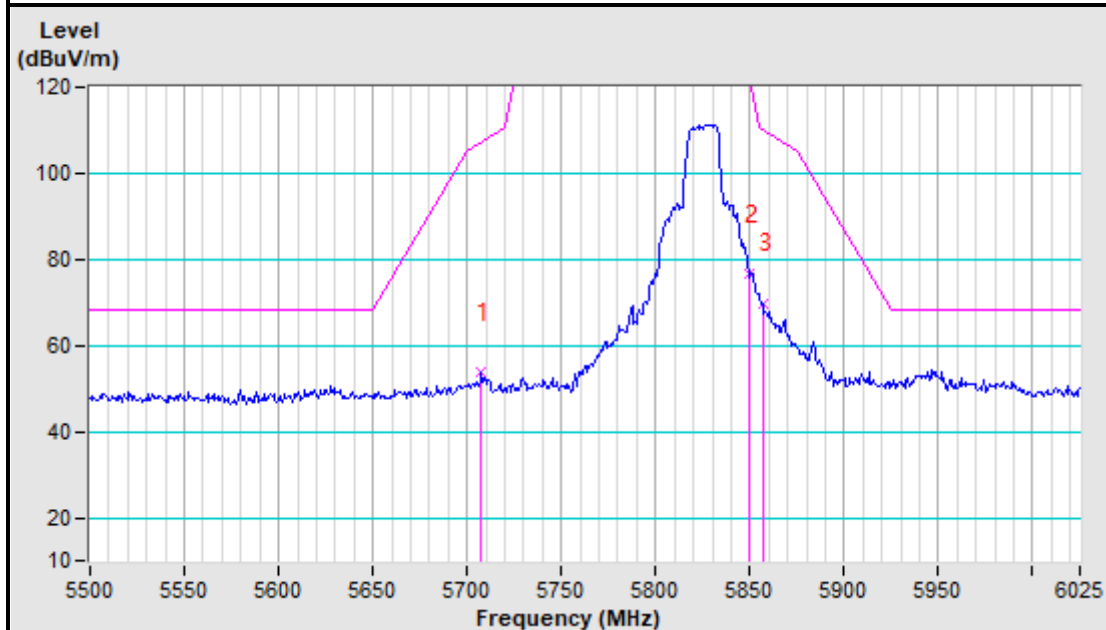


BUREAU
VERITAS

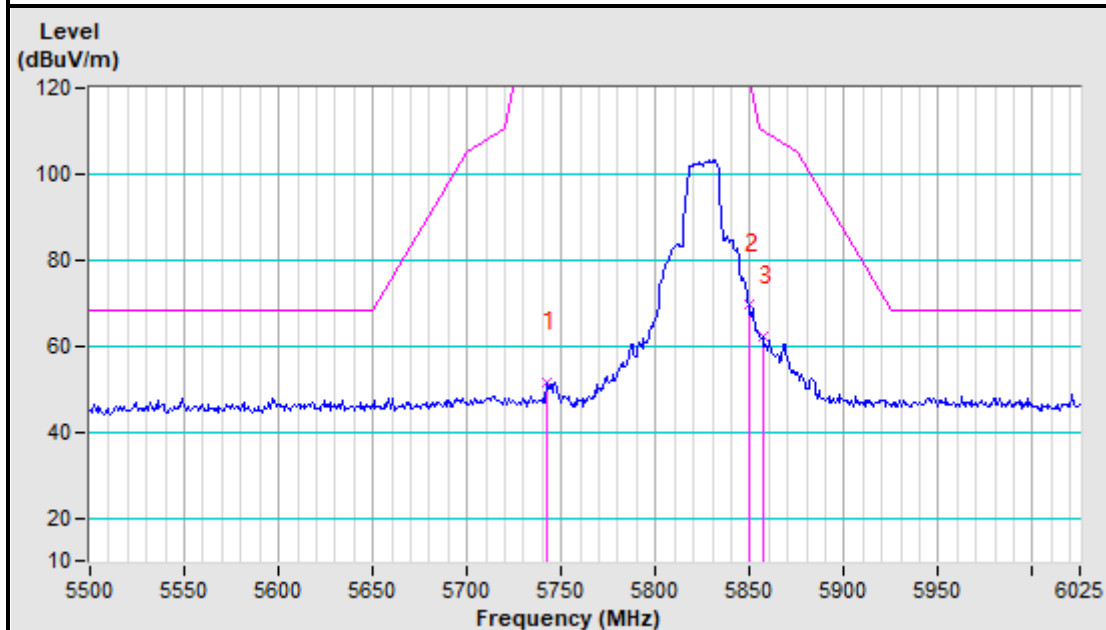
Test Report No.: IC2202WDG0092-3

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	#5719.89	81.59 PK	110.77	-29.18	1.00 H	0	74.51	7.08
2	#5725.00	90.13 PK	122.20	-32.07	1.00 H	0	83.03	7.10
3	*5745.00	113.21 PK			1.00 H	128	106.05	7.16
4	*5745.00	103.86 AV			1.00 H	128	96.70	7.16
5	#5806.63	65.65 PK	152.20	-86.55	1.00 H	0	58.31	7.34
6	11490.00	54.35 PK	74.00	-19.65	1.00 H	155	39.03	15.32
7	11490.00	42.36 AV	54.00	-11.64	1.00 H	155	27.04	15.32
8	#17235.00	55.68 PK	68.20	-12.52	1.25 H	149	34.61	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	#5720.65	76.43 PK	112.29	-35.86	1.00 V	0	69.34	7.09
2	#5725.00	82.62 PK	122.20	-39.58	1.00 V	0	75.52	7.10
3	*5745.00	104.56 PK			1.00 V	150	97.40	7.16
4	*5745.00	94.22 AV			1.00 V	150	87.06	7.16
5	#5805.87	57.72 PK	152.20	-94.48	1.00 V	0	50.38	7.34
6	11490.00	54.68 PK	74.00	-19.32	1.00 V	188	39.36	15.32
7	11490.00	42.51 AV	54.00	-11.49	1.00 V	188	27.19	15.32
8	#17235.00	55.75 PK	68.20	-12.45	1.30 V	156	34.68	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

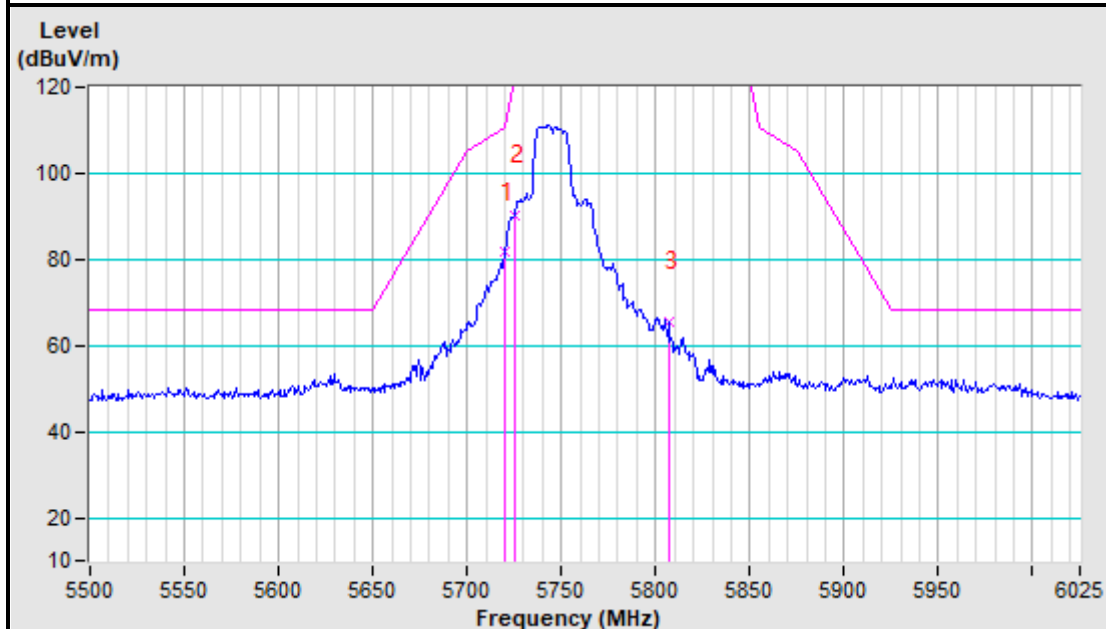


BUREAU
VERITAS

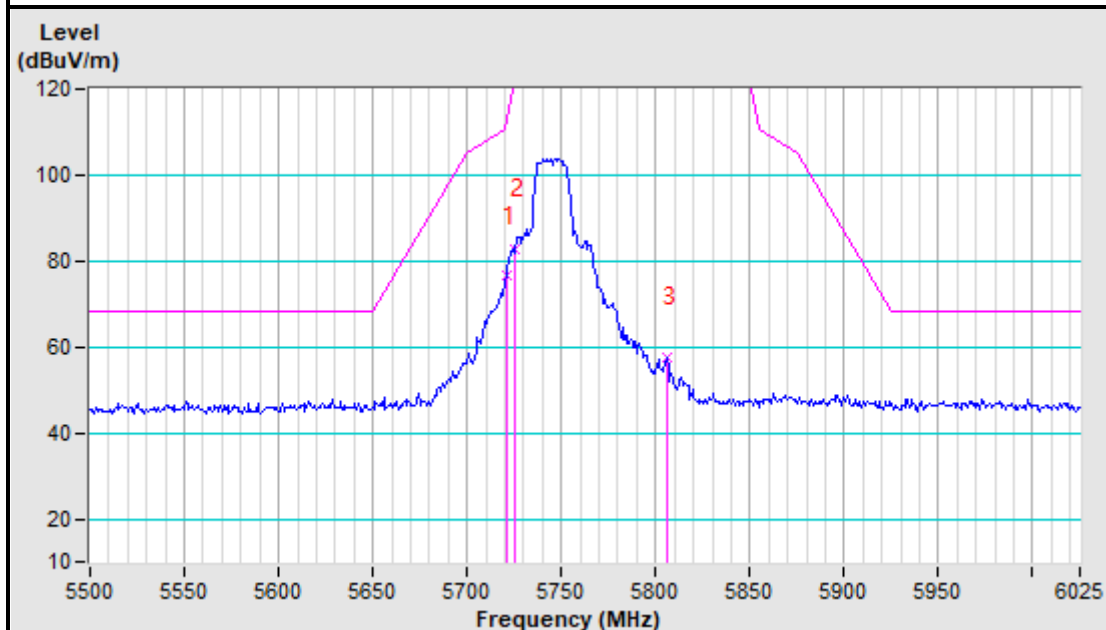
Test Report No.: IC2202WDG0092-3

Band edge Plot

5745MHz Horizontal



5745MHz Vertical





**BUREAU
VERITAS**

Test Report No.: IC2202WDG0092-3

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	#5713.80	55.96 PK	109.07	-53.11	1.00 H	0	48.90	7.06
2	*5785.00	113.08 PK			1.33 H	120	105.81	7.27
3	*5785.00	103.52 AV			1.33 H	120	96.25	7.27
4	#5854.57	59.81 PK	111.79	-51.98	1.00 H	0	52.33	7.48
5	#5861.41	57.20 PK	109.00	-51.80	1.00 H	0	49.71	7.49
6	11570.00	53.86 PK	74.00	-20.14	1.77 H	136	38.34	15.52
7	11570.00	41.79 AV	54.00	-12.21	1.77 H	136	26.27	15.52
8	#17355.00	55.40 PK	68.20	-12.80	1.45 H	150	34.31	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	#5724.46	52.16 PK	120.96	-68.80	1.00 V	0	45.06	7.10
2	*5785.00	104.21 PK			1.64 V	151	96.94	7.27
3	*5785.00	94.55 AV			1.64 V	151	87.28	7.27
4	#5855.33	52.10 PK	110.71	-58.61	1.00 V	0	44.62	7.48
5	#5866.74	49.32 PK	107.51	-58.19	1.00 V	0	41.81	7.51
6	11570.00	53.11 PK	74.00	-20.89	1.22 V	136	37.59	15.52
7	11570.00	41.62 AV	54.00	-12.38	1.22 V	136	26.10	15.52
8	#17355.00	55.68 PK	68.20	-12.52	1.00 V	126	34.59	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

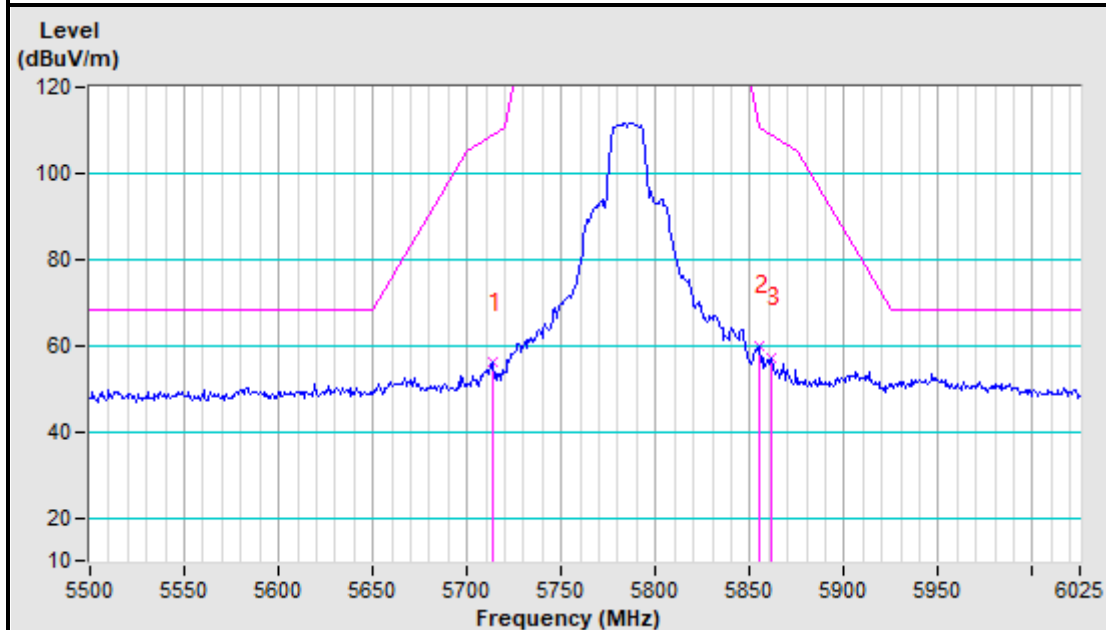


BUREAU
VERITAS

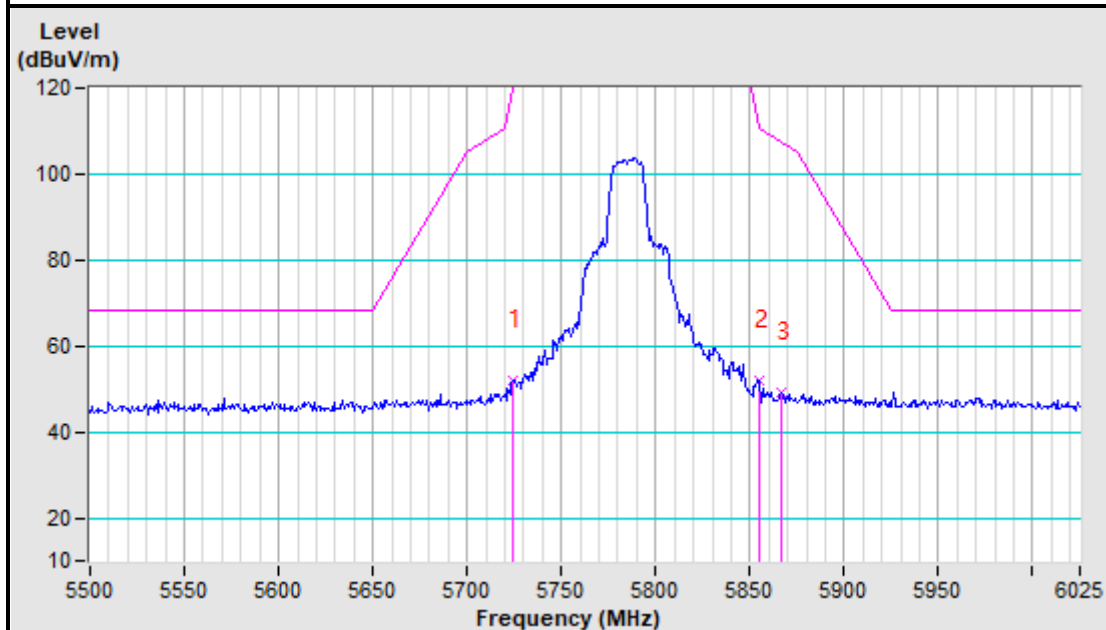
Test Report No.: IC2202WDG0092-3

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	#5707.72	52.15 PK	107.36	-55.21	1.00 H	0	45.11	7.04
2	*5825.00	113.10 PK			1.67 H	152	105.71	7.39
3	*5825.00	103.54 AV			1.67 H	152	96.15	7.39
4	#5850.00	81.06 PK	122.20	-41.14	1.00 H	0	73.60	7.46
5	#5856.85	74.45 PK	110.28	-35.83	1.00 H	0	66.97	7.48
6	11650.00	52.77 PK	74.00	-21.23	1.00 H	185	37.04	15.73
7	11650.00	41.06 AV	54.00	-12.94	1.00 H	185	25.33	15.73
8	#17475.00	55.32 PK	68.20	-12.88	1.22 H	168	34.21	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	#5711.52	48.51 PK	108.43	-59.92	1.00 V	0	41.45	7.06
2	*5825.00	104.86 PK			1.87 V	165	97.47	7.39
3	*5825.00	94.77 AV			1.87 V	165	87.38	7.39
4	#5850.00	72.72 PK	122.20	-49.48	1.00 V	0	65.26	7.46
5	#5864.46	62.35 PK	108.15	-45.80	1.00 V	0	54.84	7.51
6	11650.00	52.86 PK	74.00	-21.14	1.25 V	144	37.13	15.73
7	11650.00	41.83 AV	54.00	-12.17	1.25 V	144	26.10	15.73
8	#17475.00	55.15 PK	68.20	-13.05	1.36 V	120	34.04	21.11

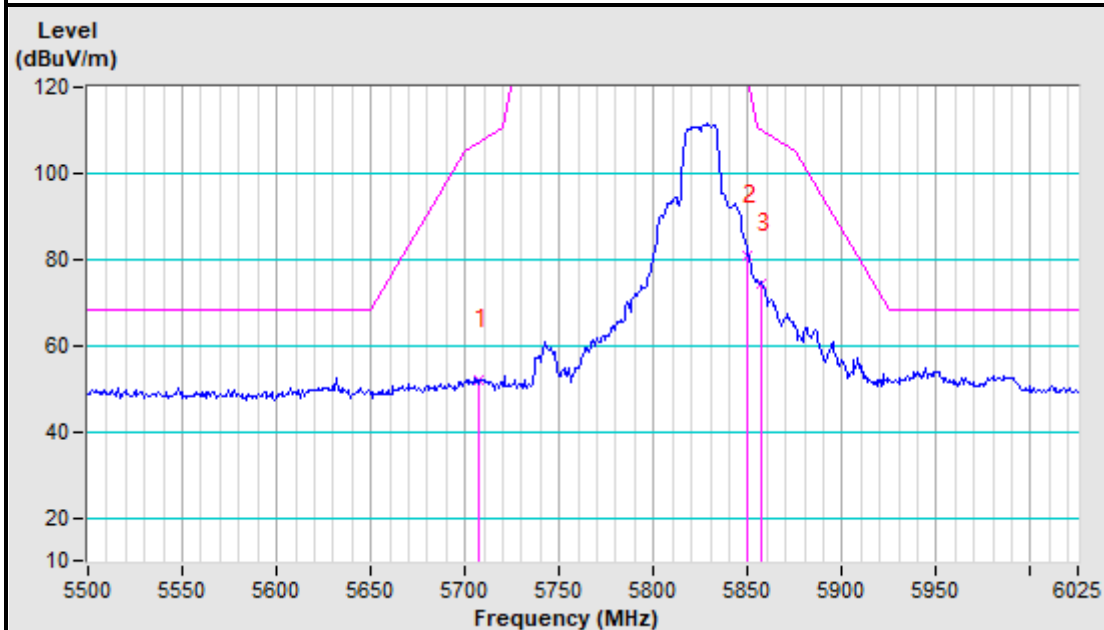
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

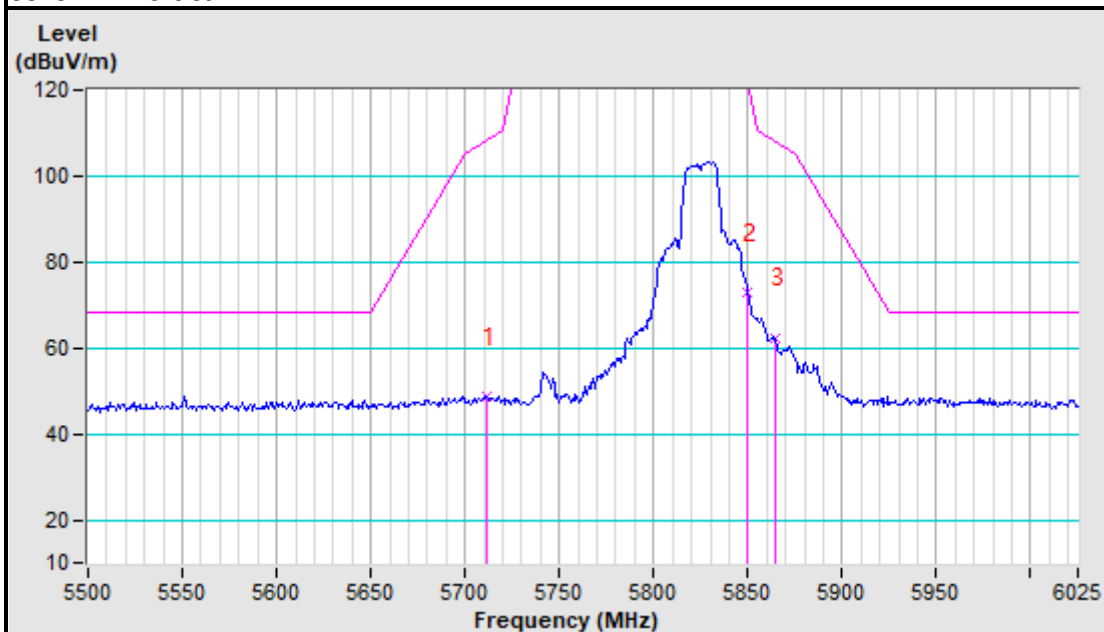


Band edge Plot

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	#5713.80	84.58 PK	109.07	-24.49	1.00 H	0	77.52	7.06
2	#5725.00	88.33 PK	122.20	-33.87	1.00 H	0	81.23	7.10
3	*5755.00	109.86 PK			1.20 H	156	102.68	7.18
4	*5755.00	99.54 AV			1.20 H	156	92.36	7.18
5	#5861.41	60.60 PK	109.00	-48.40	1.00 H	0	53.11	7.49
6	11510.00	52.11 PK	74.00	-21.89	1.30 H	144	36.74	15.37
7	11510.00	41.58 AV	54.00	-12.42	1.30 H	144	26.21	15.37
8	#17265.00	54.45 PK	68.20	-13.75	1.35 H	166	33.38	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	#5713.80	77.83 PK	109.07	-31.24	1.00 V	0	70.77	7.06
2	#5725.00	80.42 PK	122.20	-41.78	1.00 V	0	73.32	7.10
3	*5755.00	102.31 PK			1.20 V	156	95.13	7.18
4	*5755.00	92.65 AV			1.20 V	156	85.47	7.18
5	#5857.61	54.65 PK	110.07	-55.42	1.00 V	0	47.17	7.48
6	11510.00	52.55 PK	74.00	-21.45	1.00 V	125	37.18	15.37
7	11510.00	41.37 AV	54.00	-12.63	1.00 V	125	26.00	15.37
8	#17265.00	54.86 PK	68.20	-13.34	1.00 V	146	33.79	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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

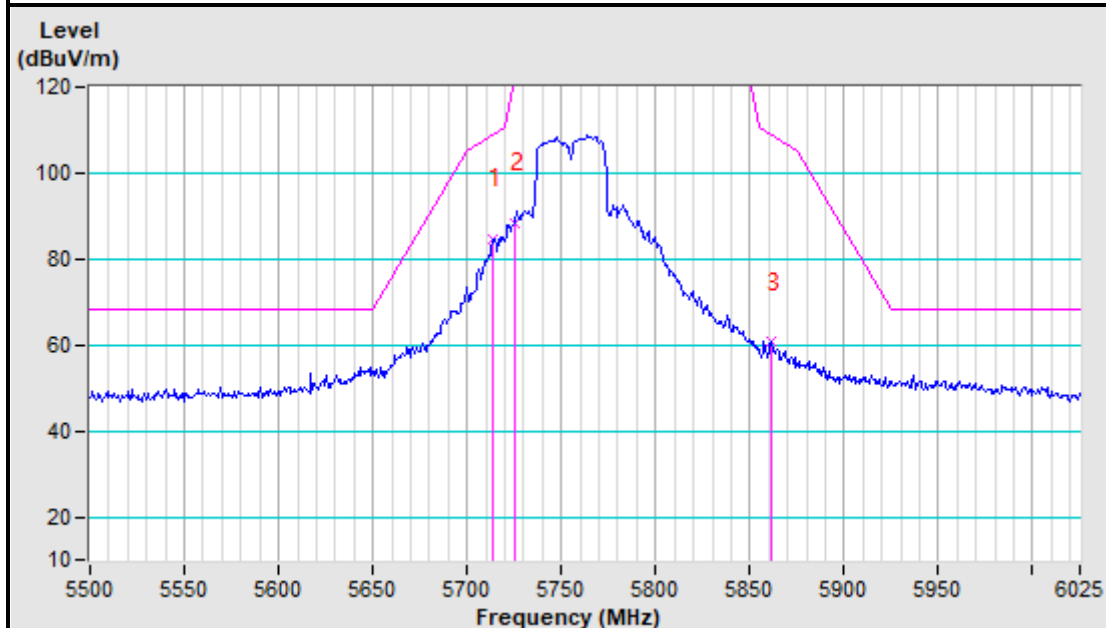
Band edge Plot



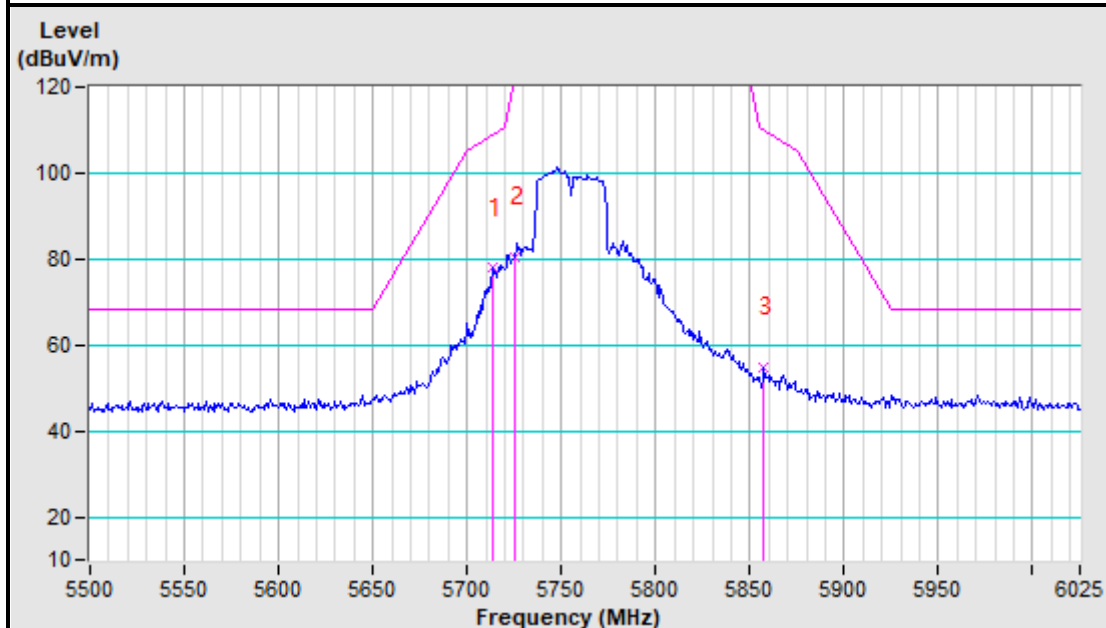
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VERITAS

Test Report No.: IC2202WDG0092-3

5755MHz Horizontal



5755MHz Vertical





**BUREAU
VERITAS**

Test Report No.: IC2202WDG0092-3

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	#5706.20	59.68 PK	106.94	-47.26	1.00 H	0	52.64	7.04
2	*5795.00	109.42 PK			1.47 H	158	102.12	7.30
3	*5795.00	99.85 AV			1.47 H	158	92.55	7.30
4	#5850.00	69.80 PK	122.20	-52.40	1.00 H	0	62.34	7.46
5	#5867.50	64.17 PK	107.30	-43.13	1.00 H	0	56.66	7.51
6	11590.00	52.64 PK	74.00	-21.36	1.00 H	160	37.07	15.57
7	11590.00	42.55 AV	54.00	-11.45	1.00 H	160	26.98	15.57
8	#17385.00	55.62 PK	68.20	-12.58	1.00 H	152	34.52	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	#5706.20	54.48 PK	106.94	-52.46	1.00 V	0	47.44	7.04
2	*5795.00	102.33 PK			1.25 V	144	95.03	7.30
3	*5795.00	92.45 AV			1.25 V	144	85.15	7.30
4	#5850.00	61.47 PK	122.20	-60.73	1.00 V	0	54.01	7.46
5	#5856.85	59.58 PK	110.28	-50.70	1.00 V	0	52.10	7.48
6	11590.00	52.20 PK	74.00	-21.80	1.20 V	183	36.63	15.57
7	11590.00	41.63 AV	54.00	-12.37	1.20 V	183	26.06	15.57
8	#17385.00	55.75 PK	68.20	-12.45	1.63 V	125	34.65	21.10

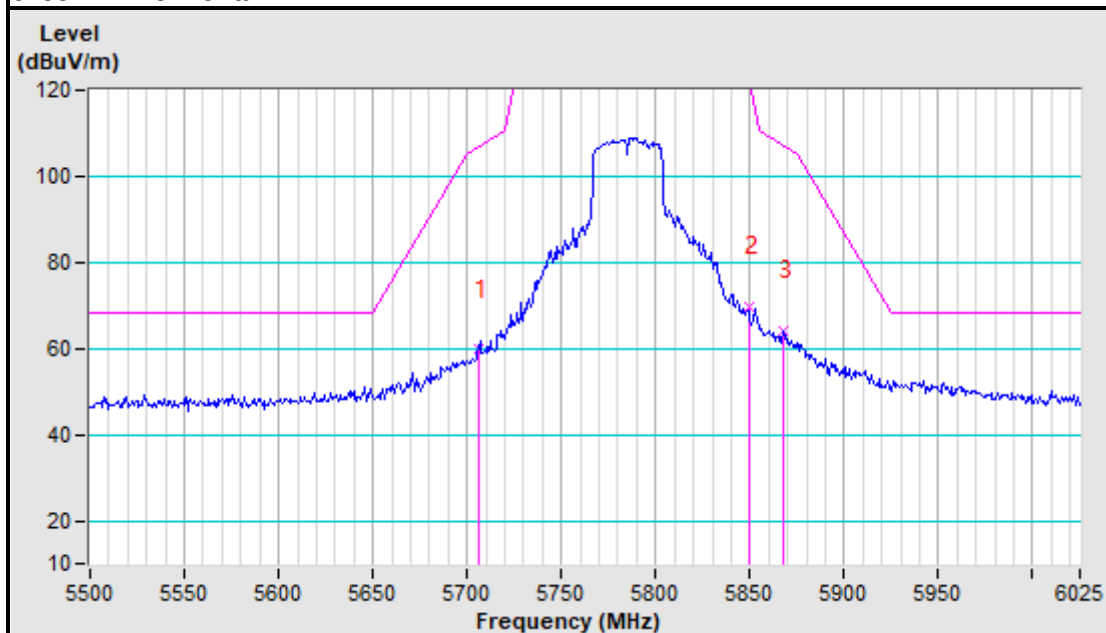
REMARKS:

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 greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

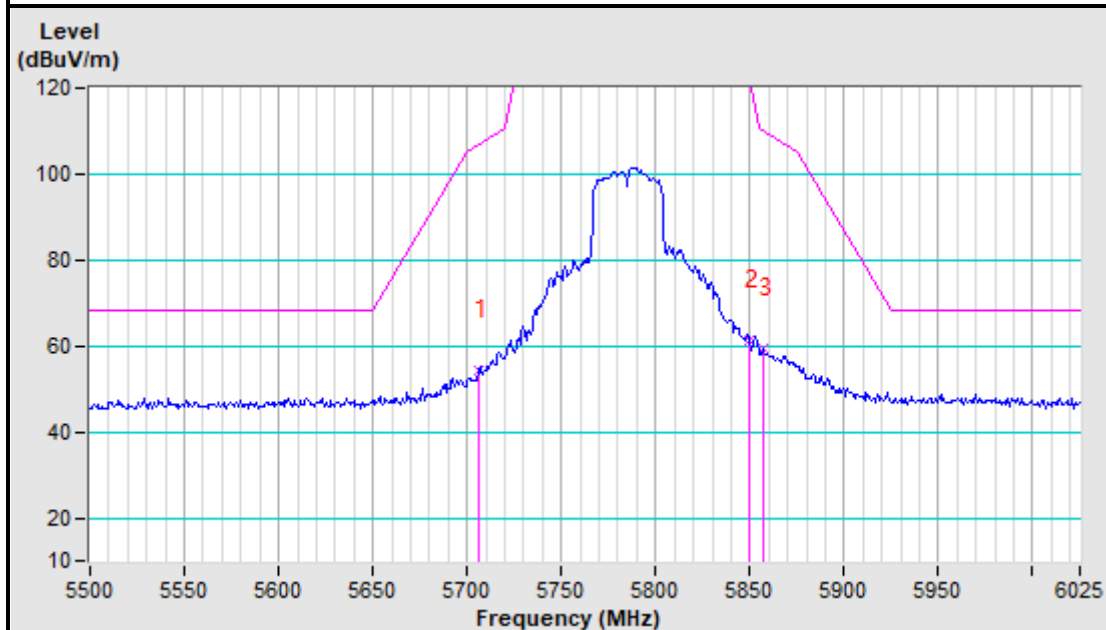


Band edge Plot

5795MHz Horizontal



5795MHz Vertical





4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 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.

4.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Jan. 18,23
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Jan. 23,23
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Jan. 18,23
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Aug. 05,22
Coaxial RF Cable	/	CE CABLE	C2310066DG	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.
 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.

4.2.3 TEST PROCEDURES

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

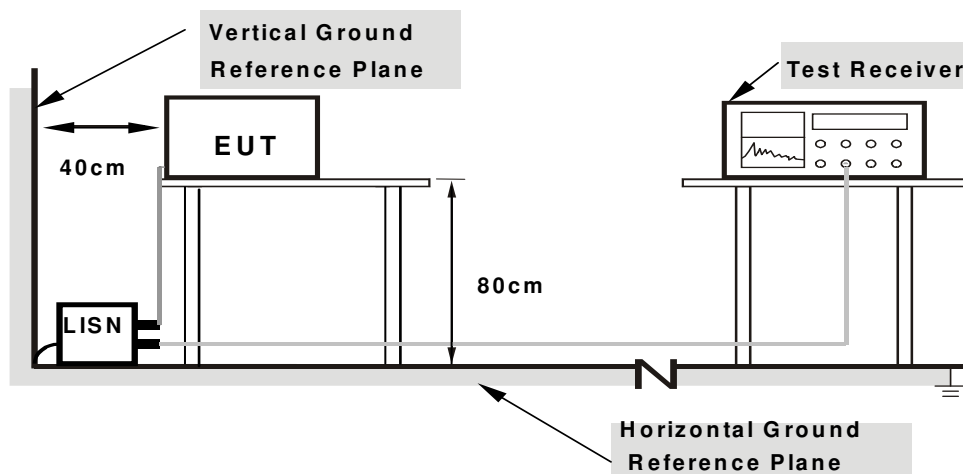
NOTE: All modes of operation were investigated and the worst-case emissions are reported.



4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 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).

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6



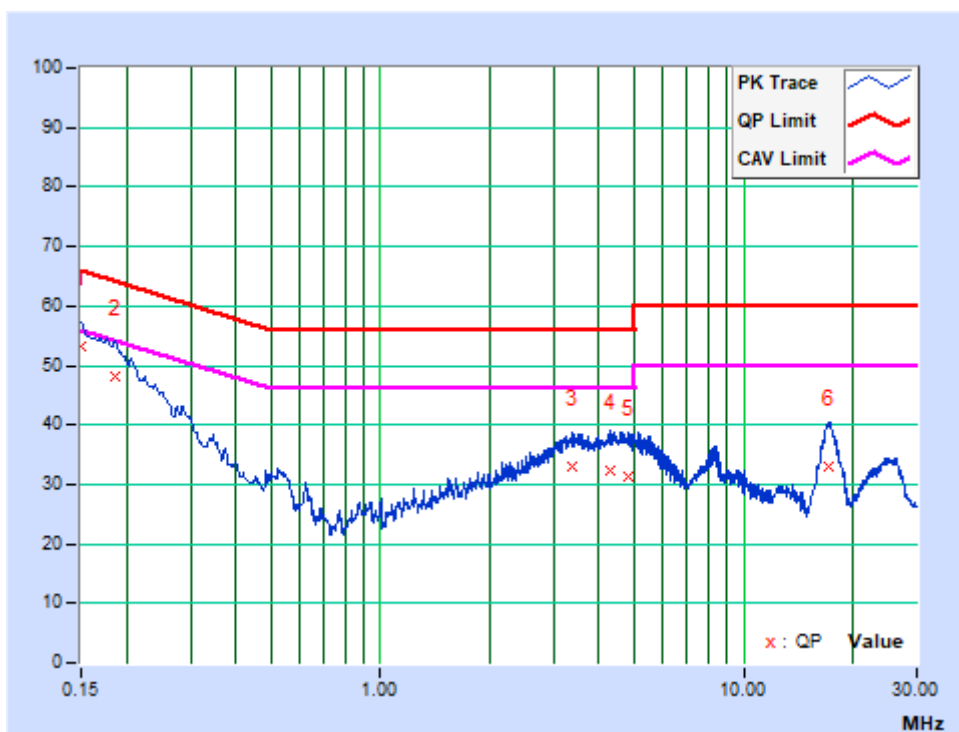
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA : 802.11a CH36

PHASE	Line	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.90	43.29	21.11	53.19	31.01	66.00	56.00	-12.81	-24.99
2	0.18559	9.91	38.39	14.99	48.30	24.90	64.23	54.23	-15.93	-29.33
3	3.37425	10.14	22.72	15.12	32.86	25.26	56.00	46.00	-23.14	-20.74
4	4.31025	10.16	22.09	15.99	32.25	26.15	56.00	46.00	-23.75	-19.85
5	4.78950	10.17	21.23	15.68	31.40	25.85	56.00	46.00	-24.60	-20.15
6	17.07450	10.44	22.43	13.55	32.87	23.99	60.00	50.00	-27.13	-26.01

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

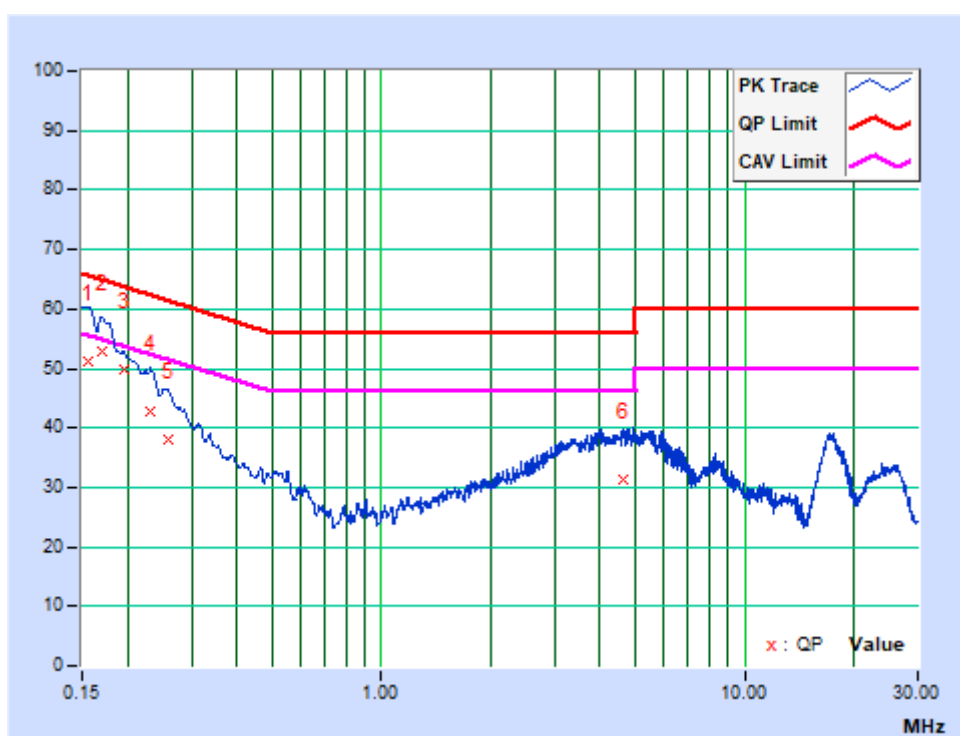




PHASE	Neutral	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15509	9.84	41.32	21.39	51.16	31.23	65.72	55.72	-14.56	-24.49
2	0.16966	9.84	42.99	21.26	52.83	31.10	64.98	54.98	-12.14	-23.87
3	0.19514	9.85	40.12	14.69	49.97	24.54	63.81	53.81	-13.85	-29.28
4	0.23106	9.85	33.05	12.90	42.90	22.75	62.41	52.41	-19.51	-29.66
5	0.25748	9.85	28.13	7.74	37.98	17.59	61.51	51.51	-23.53	-33.92
6	4.63875	9.97	21.31	16.09	31.28	26.06	56.00	46.00	-24.72	-19.94

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





4.3 TRANSMIT POWER MEASUREMENT

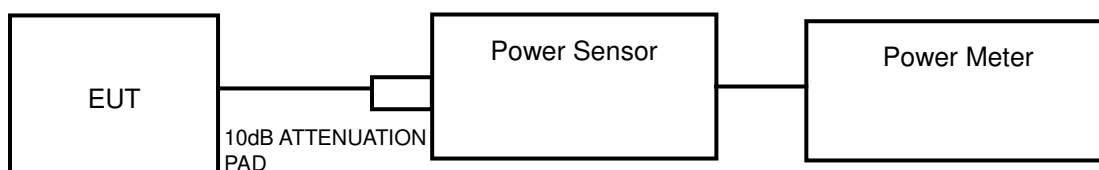
4.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	EIRP shall not exceed 200mW or $10 + 10\log B$, dBm
5.250 ~ 5.350GHz 5.470 ~ 5.600GHz	Conducted output power shall not exceed 250mW or $11 + 10\log B$, dBm
5.650 ~ 5.725GHz	EIRP shall not exceed 1.0W or $17 + 10\log B$, dBm
5.725 ~ 5.825GHz	Conducted output power shall not exceed 1 W.

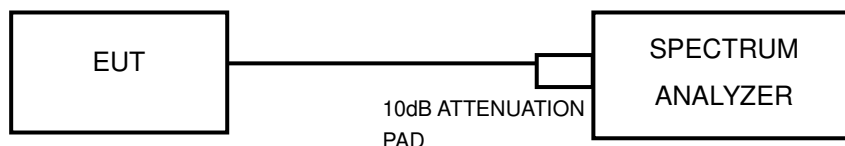
NOTE: Where B is the 99% emission bandwidth in MHz.

4.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 99% BANDWIDTH





4.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY57320002	Feb.23.23
Power Sensor	Keysight	U2021XA	MY55060018	May 09, 22
Power Meter	Anritsu	ML2495A	1139001	Feb. 24, 22
Power Sensor	Anritsu	MA2411B	1531155	Feb. 24, 22
Digital Multimeter	FLUKE	15B	A1220010DG	N/A
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Nov. 03, 22
Oscilloscope	Agilent	DSO9254A	MY51260160	Aug. 11, 22
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Jan. 16, 23
Signal Generator	Agilent	N5183A	MY50140980	Mar 23, 23
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 14, 22
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Keysight	E3642A	MY56146098	N/A
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	N/A

NOTES:

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

4.3.4 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 99% BANDWIDTH

The transmitter antenna output was connected to the spectrum analyzer through an attenuator. The resolution bandwidth shall be set to the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth.

Below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

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

4.3.7 TEST RESULTS

OUTPUT POWER:

For 5.180~5.240GHz

PCB Antenna

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	CONDUCTED POWER (dBm)	CONDUCTED POWER (mW)	EIRP POWER (dBm)	EIRP LIMIT (dBm)	PASS/ FAIL
36	5180	17.62	57.810	18.90	22.46	PASS
44	5220	18.10	64.565	19.38	22.46	PASS
48	5240	18.65	73.282	19.93	22.54	PASS

NOTES:

1. $10\text{dBm} + 10\log(17.60) = 22.46\text{dBm} < 23.01\text{dBm}$
2. $10\text{dBm} + 10\log(17.60) = 22.46\text{dBm} < 23.01\text{dBm}$
3. $10\text{dBm} + 10\log(17.93) = 22.54\text{dBm} < 23.01\text{dBm}$

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	CONDUCTED POWER (dBm)	CONDUCTED POWER (mW)	EIRP POWER (dBm)	EIRP LIMIT (dBm)	PASS/ FAIL
36	5180	17.25	53.088	18.53	22.62	PASS
44	5220	17.81	60.395	19.09	22.62	PASS
48	5240	18.18	65.766	19.46	22.69	PASS

NOTES:

1. $10\text{dBm} + 10\log(18.26) = 22.62\text{dBm} < 23.01\text{dBm}$
2. $10\text{dBm} + 10\log(18.26) = 22.62\text{dBm} < 23.01\text{dBm}$
3. $10\text{dBm} + 10\log(18.58) = 22.69\text{dBm} < 23.01\text{dBm}$



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	CONDUCTED POWER (dBm)	CONDUCTED POWER (mW)	EIRP POWER (dBm)	EIRP LIMIT (dBm)	PASS/ FAIL
38	5190	17.24	52.966	18.52	23.01	PASS
46	5230	19.10	81.283	20.38	23.01	PASS

NOTES:

1. $10\text{dBm} + 10\log(36.19) = 25.59\text{dBm} > 23.01\text{dBm}$
2. $10\text{dBm} + 10\log(38.15) = 25.81\text{dBm} > 23.01\text{dBm}$

External PCB Antenna

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	CONDUCTED POWER (dBm)	CONDUCTED POWER (mW)	EIRP POWER (dBm)	EIRP LIMIT (dBm)	PASS/ FAIL
36	5180	17.62	57.810	17.30	22.46	PASS
44	5220	18.10	64.565	17.78	22.46	PASS
48	5240	18.65	73.282	18.33	22.54	PASS

NOTES:

1. $10\text{dBm} + 10\log(17.60) = 22.46\text{dBm} < 23.01\text{dBm}$
2. $10\text{dBm} + 10\log(17.60) = 22.46\text{dBm} < 23.01\text{dBm}$
3. $10\text{dBm} + 10\log(17.93) = 22.54\text{dBm} < 23.01\text{dBm}$

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	CONDUCTED POWER (dBm)	CONDUCTED POWER (mW)	EIRP POWER (dBm)	EIRP LIMIT (dBm)	PASS/ FAIL
36	5180	17.25	53.088	16.93	22.62	PASS
44	5220	17.81	60.395	17.49	22.62	PASS
48	5240	18.18	65.766	17.86	22.69	PASS

NOTES:

1. $10\text{dBm} + 10\log(18.26) = 22.62\text{dBm} < 23.01\text{dBm}$
2. $10\text{dBm} + 10\log(18.26) = 22.62\text{dBm} < 23.01\text{dBm}$
3. $10\text{dBm} + 10\log(18.58) = 22.69\text{dBm} < 23.01\text{dBm}$



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	CONDUCTED POWER (dBm)	CONDUCTED POWER (mW)	EIRP POWER (dBm)	EIRP LIMIT (dBm)	PASS/ FAIL
38	5190	17.24	52.966	16.92	23.01	PASS
46	5230	19.10	81.283	18.78	23.01	PASS

NOTES:

1. $10\text{dBm} + 10\log(36.19) = 25.59\text{dBm} > 23.01\text{dBm}$
2. $10\text{dBm} + 10\log(38.15) = 25.81\text{dBm} > 23.01\text{dBm}$

For 5.260~5.320GHz, 5.500 ~ 5.580GHz and 5.660 ~ 5.700GHz

802.11a

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
52	5260	18.78	75.509	23.54	PASS
60	5300	19.12	81.658	23.77	PASS
64	5320	19.11	81.470	23.54	PASS
100	5500	19.91	97.949	23.84	PASS
116	5580	19.49	88.920	23.54	PASS
140	5700	14.82	30.339	23.21	PASS

NOTES:

CONDUCTED POWER

1. $11\text{dBm} + 10\log(17.93) = 23.54\text{dBm} < 23.98\text{dBm}$
2. $11\text{dBm} + 10\log(18.91) = 23.77\text{dBm} < 23.98\text{dBm}$
3. $11\text{dBm} + 10\log(17.93) = 23.54\text{dBm} < 23.98\text{dBm}$
4. $11\text{dBm} + 10\log(19.23) = 23.84\text{dBm} < 23.98\text{dBm}$
5. $11\text{dBm} + 10\log(17.93) = 23.54\text{dBm} < 23.98\text{dBm}$
6. $11\text{dBm} + 10\log(16.63) = 23.21\text{dBm} < 23.98\text{dBm}$



802.11n (20MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
52	5260	18.59	72.277	23.76	PASS
60	5300	18.82	76.208	23.76	PASS
64	5320	18.74	74.817	23.69	PASS
100	5500	19.21	83.368	23.69	PASS
116	5580	18.73	74.645	23.62	PASS
140	5700	15.22	33.266	23.54	PASS

NOTES:

CONDUCTED POWER

1. $11\text{dBm} + 10\log(18.90) = 23.76\text{dBm} < 23.98\text{dBm}$
2. $11\text{dBm} + 10\log(18.90) = 23.76\text{dBm} < 23.98\text{dBm}$
3. $11\text{dBm} + 10\log(18.58) = 23.69\text{dBm} < 23.98\text{dBm}$
4. $11\text{dBm} + 10\log(18.58) = 23.69\text{dBm} < 23.98\text{dBm}$
5. $11\text{dBm} + 10\log(18.26) = 23.62\text{dBm} < 23.98\text{dBm}$
6. $11\text{dBm} + 10\log(17.93) = 23.54\text{dBm} < 23.98\text{dBm}$

802.11n (40MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
54	5270	18.87	77.090	23.98	PASS
62	5310	18.41	69.343	23.98	PASS
102	5510	17.23	52.845	23.98	PASS
110	5550	19.63	91.833	23.98	PASS
134	5670	16.81	47.973	23.98	PASS

NOTES:

CONDUCTED POWER

1. $11\text{dBm} + 10\log(37.49) = 26.74\text{dBm} > 23.98\text{dBm}$
2. $11\text{dBm} + 10\log(36.52) = 26.63\text{dBm} > 23.98\text{dBm}$
3. $11\text{dBm} + 10\log(36.52) = 26.63\text{dBm} > 23.98\text{dBm}$
4. $11\text{dBm} + 10\log(38.00) = 26.80\text{dBm} > 23.98\text{dBm}$
5. $11\text{dBm} + 10\log(35.86) = 26.55\text{dBm} > 23.98\text{dBm}$

**For 5745~5825MHz****802.11a**

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
149	5745	19.61	91.411	30.00	PASS
157	5785	18.53	71.285	30.00	PASS
165	5825	18.48	70.469	30.00	PASS

802.11n (20MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
149	5745	19.27	84.528	30.00	PASS
157	5785	18.52	71.121	30.00	PASS
165	5825	18.32	67.920	30.00	PASS

802.11n (40MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
151	5755	19.56	90.365	30.00	PASS
159	5795	18.57	71.945	30.00	PASS

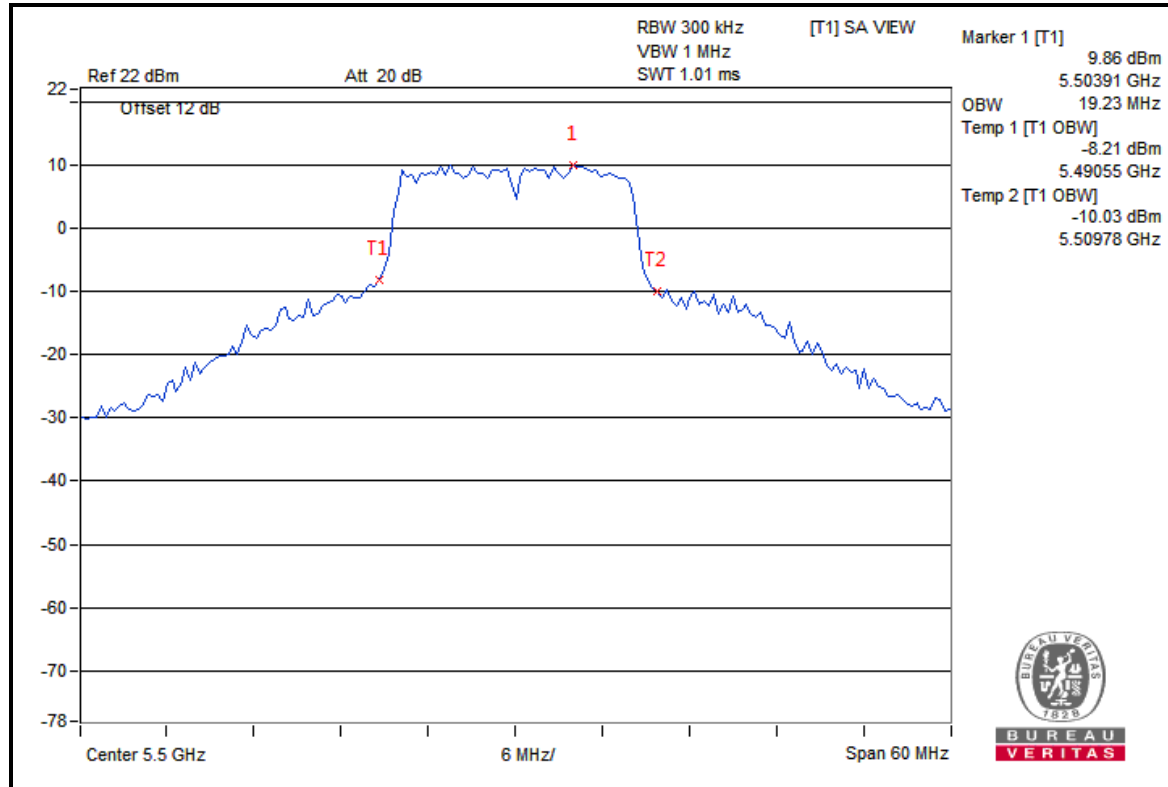


99% BANDWIDTH

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	99% BANDWIDTH (MHz)	PASS / FAIL
36	5180	17.60	PASS
44	5220	17.60	PASS
48	5240	17.93	PASS
52	5260	17.93	PASS
60	5300	18.91	PASS
64	5320	17.93	PASS
100	5500	19.23	PASS
116	5580	17.93	PASS
140	5700	16.63	PASS
149	5745	17.60	PASS
157	5785	16.96	PASS
165	5825	17.28	PASS

WORST PLOT

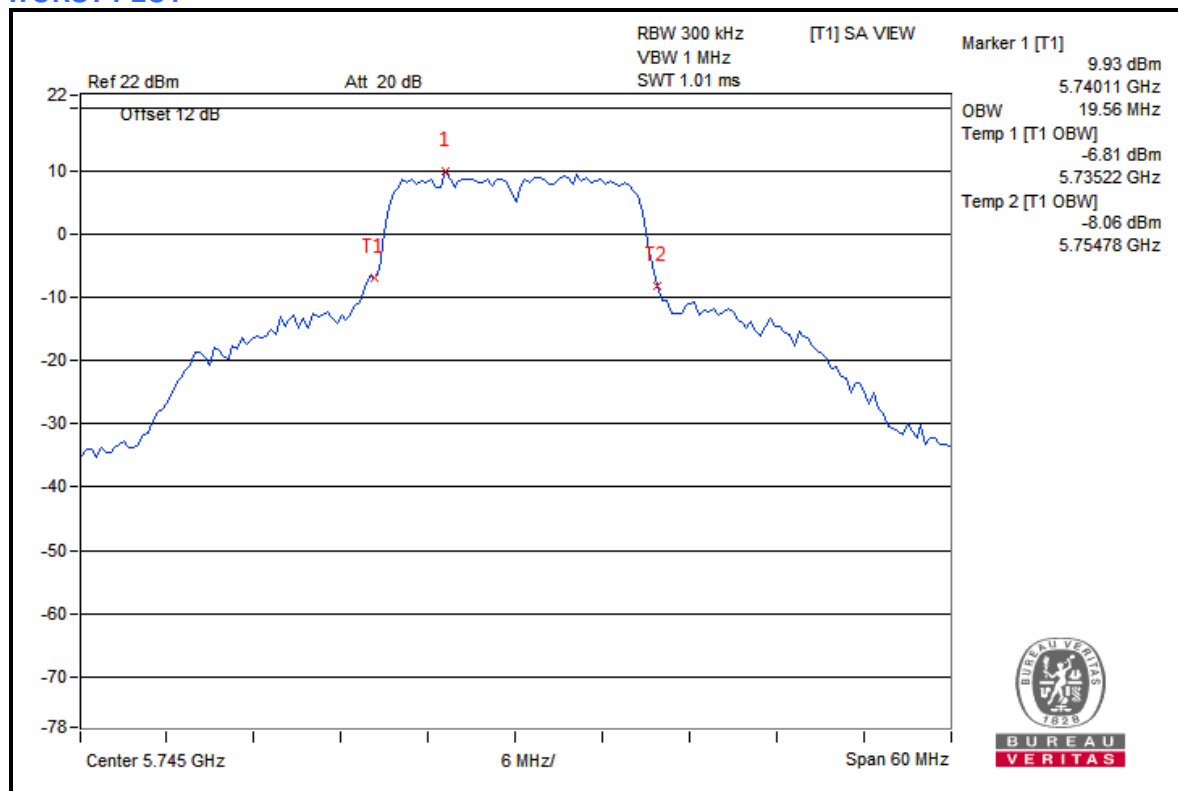




802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	99% BANDWIDTH (MHz)	PASS / FAIL
36	5180	18.26	PASS
44	5220	18.26	PASS
48	5240	18.58	PASS
52	5260	18.90	PASS
60	5300	18.90	PASS
64	5320	18.58	PASS
100	5500	18.58	PASS
116	5580	18.26	PASS
140	5700	17.93	PASS
149	5745	19.56	PASS
157	5785	18.26	PASS
165	5825	18.26	PASS

WORST PLOT





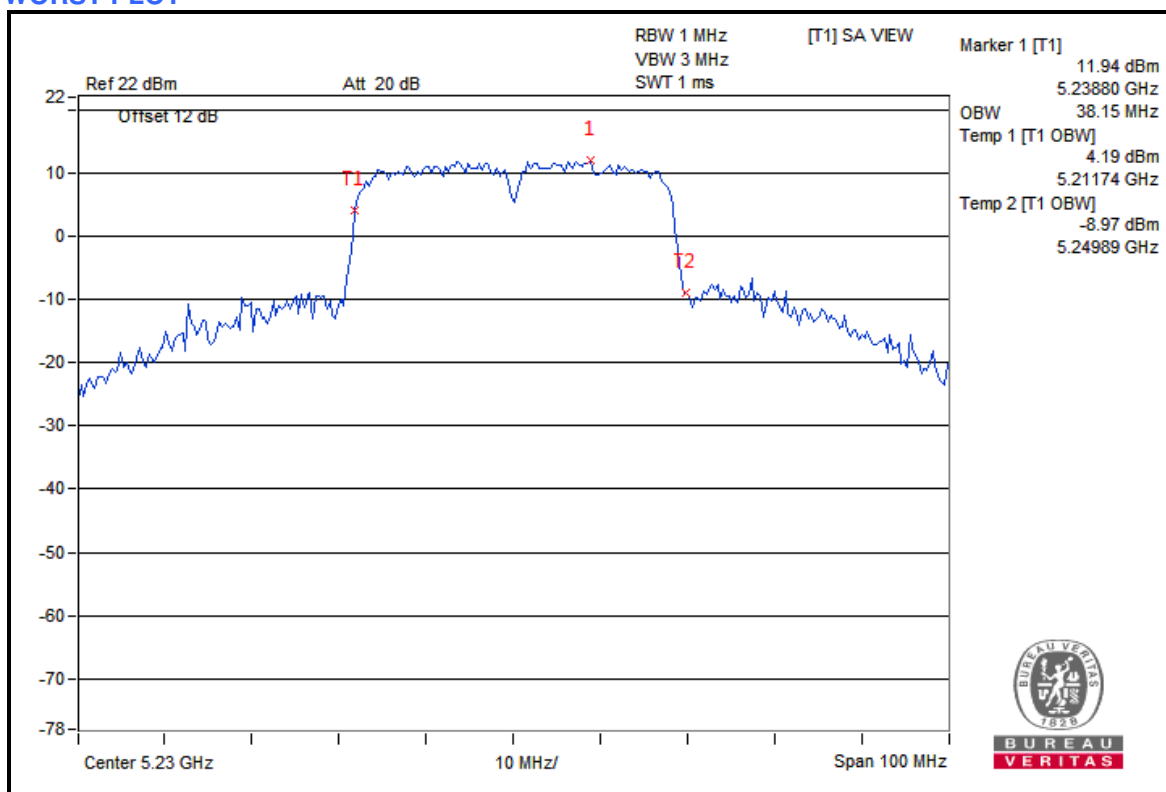
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802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	99% BANDWIDTH (MHz)	PASS / FAIL
38	5190	36.19	PASS
46	5230	38.15	PASS
54	5270	37.49	PASS
62	5310	36.52	PASS
102	5510	36.52	PASS
110	5550	38.00	PASS
134	5670	35.86	PASS
151	5755	36.84	PASS
159	5795	36.38	PASS

WORST PLOT

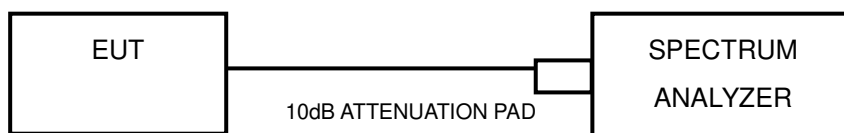


4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT(dBm)
5.15 ~ 5.25GHz	EIRP spectral density shall not exceed 10 dBm in any 1.0 MHz band.
5.25 ~ 5.35GHz and 5.470 ~ 5.725GHz	Power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
5.725~5825GHz	Power spectral density shall not exceed 30 dBm in any 500 kHz band.

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY57320002	Feb.23.23
Power Sensor	Keysight	U2021XA	MY55060018	May 09, 22
Power Meter	Anritsu	ML2495A	1139001	Feb. 24, 22
Power Sensor	Anritsu	MA2411B	1531155	Feb. 24, 22
Digital Multimeter	FLUKE	15B	A1220010DG	N/A
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Nov. 03, 22
Oscilloscope	Agilent	DSO9254A	MY51260160	Aug. 11, 22
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Jan. 16, 23
Signal Generator	Agilent	N5183A	MY50140980	Mar 23, 23
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 14, 22
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Keysight	E3642A	MY56146098	N/A
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	N/A

NOTES:

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

4.4.4 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 = 500 kHz, Set VBW =2 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)

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

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



4.4.7 TEST RESULTS

For U-NII-1: PCB Antenna

802.11a

Channel	Frequency (MHz)	PSD (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Ant. Gain (dBi)	MAX.EIRP PSD (dBm)	EIRP PSD Limit (dBm)	PASS / FAIL
36	5180	4.15	0.269	4.419	1.28	5.699	10.00	PASS
44	5200	4.60	0.269	4.869	1.28	6.149	10.00	PASS
48	5240	5.18	0.269	5.449	1.28	6.729	10.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

Channel	Frequency (MHz)	PSD (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Ant. Gain (dBi)	MAX.EIRP PSD (dBm)	EIRP PSD Limit (dBm)	PASS / FAIL
36	5180	3.45	0.306	3.756	1.28	5.036	10.00	PASS
44	5200	3.99	0.306	4.296	1.28	5.576	10.00	PASS
48	5240	4.25	0.306	4.556	1.28	5.836	10.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

Channel	Frequency (MHz)	PSD (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Ant. Gain (dBi)	MAX.EIRP PSD (dBm)	EIRP PSD Limit (dBm)	PASS / FAIL
38	5190	0.13	0.57	0.700	1.28	1.980	10.00	PASS
46	5230	2.87	0.57	3.440	1.28	4.720	10.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.



For U-NII-1: External PCB Antenna

802.11a

Channel	Frequency (MHz)	PSD (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Ant. Gain (dBi)	MAX.EIRP PSD (dBm)	EIRP PSD Limit (dBm)	PASS / FAIL
36	5180	4.15	0.269	4.419	-0.32	4.099	10.00	PASS
44	5200	4.60	0.269	4.869	-0.32	4.549	10.00	PASS
48	5240	5.18	0.269	5.449	-0.32	5.129	10.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

Channel	Frequency (MHz)	PSD (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Ant. Gain (dBi)	MAX.EIRP PSD (dBm)	EIRP PSD Limit (dBm)	PASS / FAIL
36	5180	3.45	0.306	3.756	-0.32	3.436	10.00	PASS
44	5200	3.99	0.306	4.296	-0.32	3.976	10.00	PASS
48	5240	4.25	0.306	4.556	-0.32	4.236	10.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

Channel	Frequency (MHz)	PSD (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Ant. Gain (dBi)	MAX.EIRP PSD (dBm)	EIRP PSD Limit (dBm)	PASS / FAIL
38	5190	0.13	0.57	0.700	-0.32	0.380	10.00	PASS
46	5230	2.87	0.57	3.440	-0.32	3.120	10.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.



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For U-NII-2A & U-NII-2C, For U-NII-3:

802.11a

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
52	5260	5.56	0.269	5.829	11.00	PASS
60	5300	5.88	0.269	6.149	11.00	PASS
64	5320	5.48	0.269	5.749	11.00	PASS
100	5500	6.37	0.269	6.639	11.00	PASS
116	5580	5.81	0.269	6.079	11.00	PASS
140	5700	2.21	0.269	2.479	11.00	PASS

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	4.42	0.269	4.689	30.00	PASS
157	5785	3.28	0.269	3.549	30.00	PASS
165	5825	3.23	0.269	3.499	30.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.



802.11n (20MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
52	5260	4.92	0.306	5.226	11.00	PASS
60	5300	5.06	0.306	5.366	11.00	PASS
64	5320	5.00	0.306	5.306	11.00	PASS
100	5500	5.42	0.306	5.726	11.00	PASS
116	5580	4.82	0.306	5.126	11.00	PASS
140	5700	1.34	0.306	1.646	11.00	PASS

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	4.07	0.306	4.376	30.00	PASS
157	5785	3.11	0.306	3.416	30.00	PASS
165	5825	2.87	0.306	3.176	30.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.



802.11n (40MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
54	5270	2.01	0.57	2.580	11.00	PASS
62	5310	1.42	0.57	1.990	11.00	PASS
102	5510	0.79	0.57	1.360	11.00	PASS
118	5590	2.68	0.57	3.250	11.00	PASS
134	5670	-0.31	0.57	0.260	11.00	PASS

Chan.	Freq. (MHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	PASS / FAIL
151	5755	0.53	0.57	1.100	30.00	PASS
159	5795	-0.15	0.57	0.420	30.00	PASS

Notes: Refer to section 3.3 for duty cycle spectrum plot.



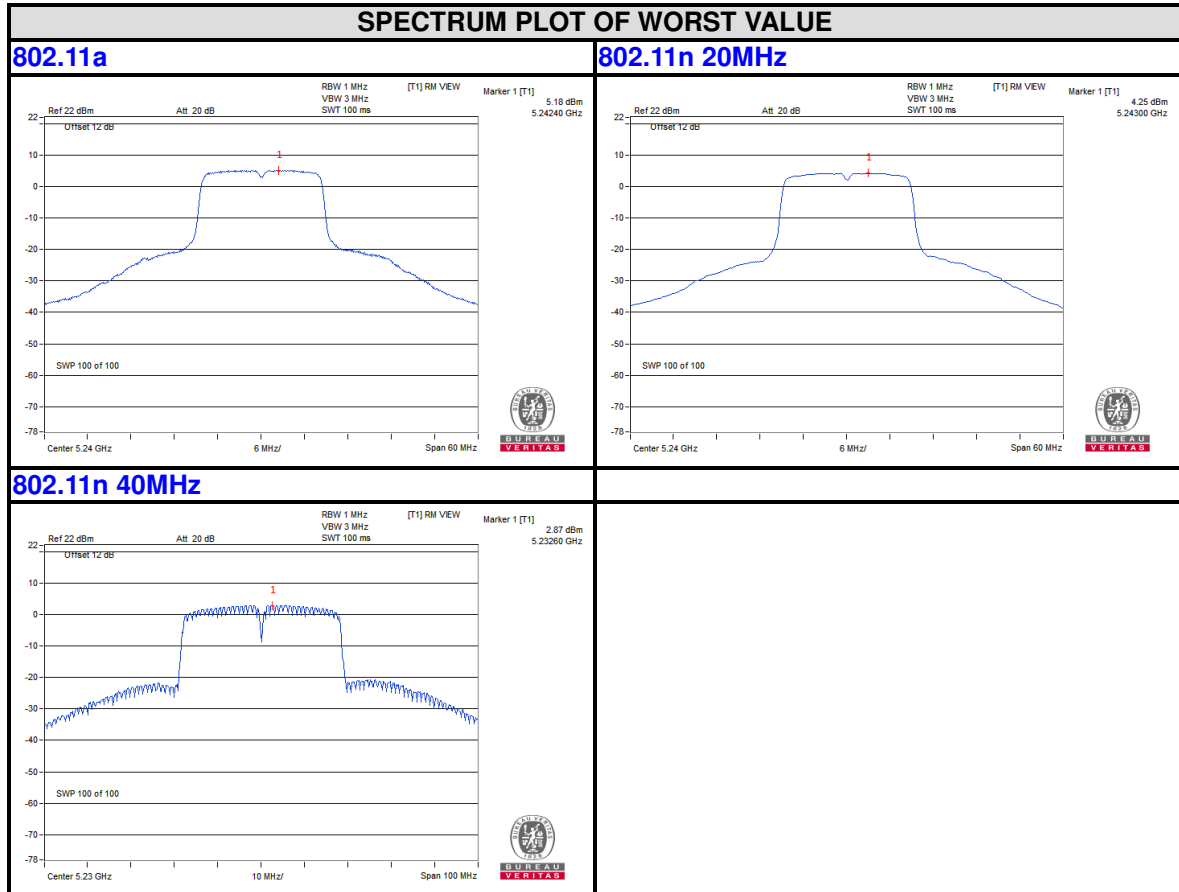
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PSD Test Plot

BAND 1

5150-5250MHz

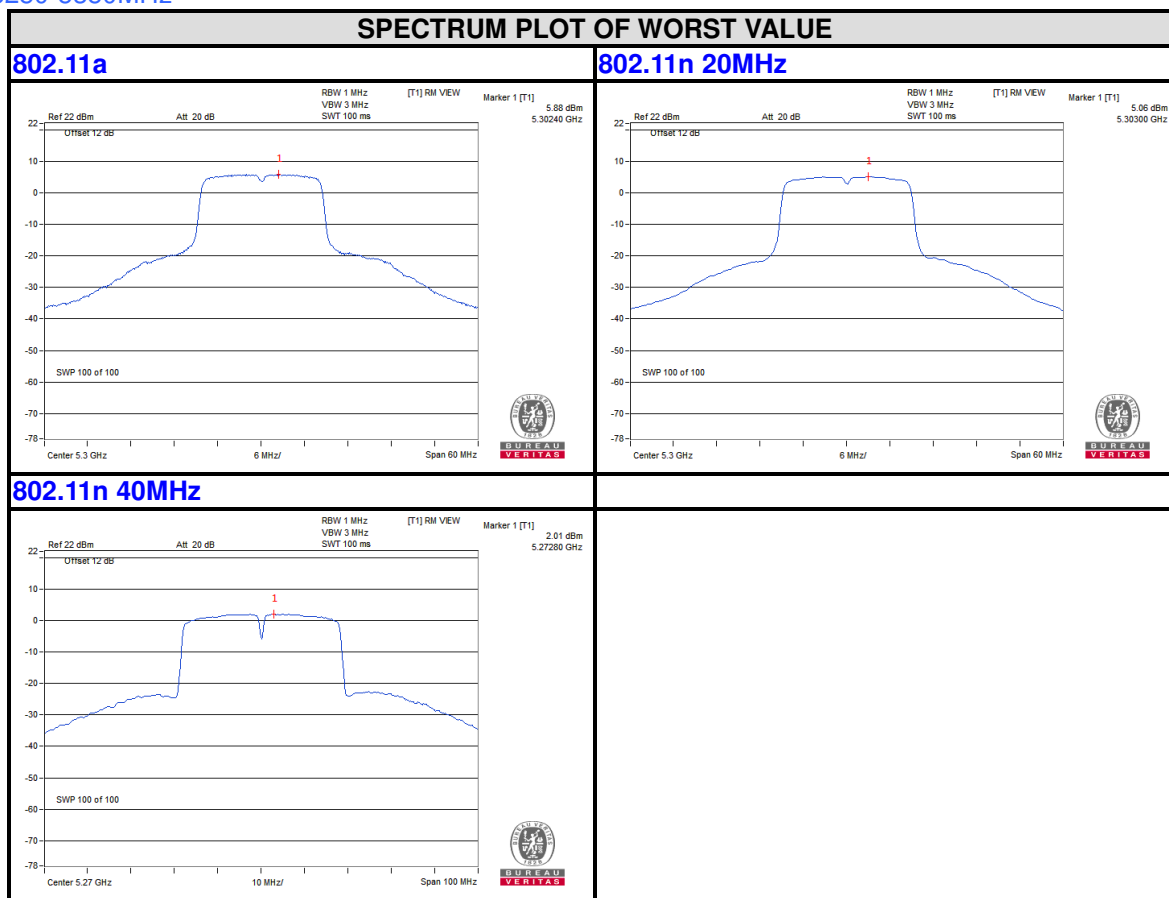




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VERITAS

Test Report No.: IC2202WDG0092-3

BAND 2
5250-5350MHz

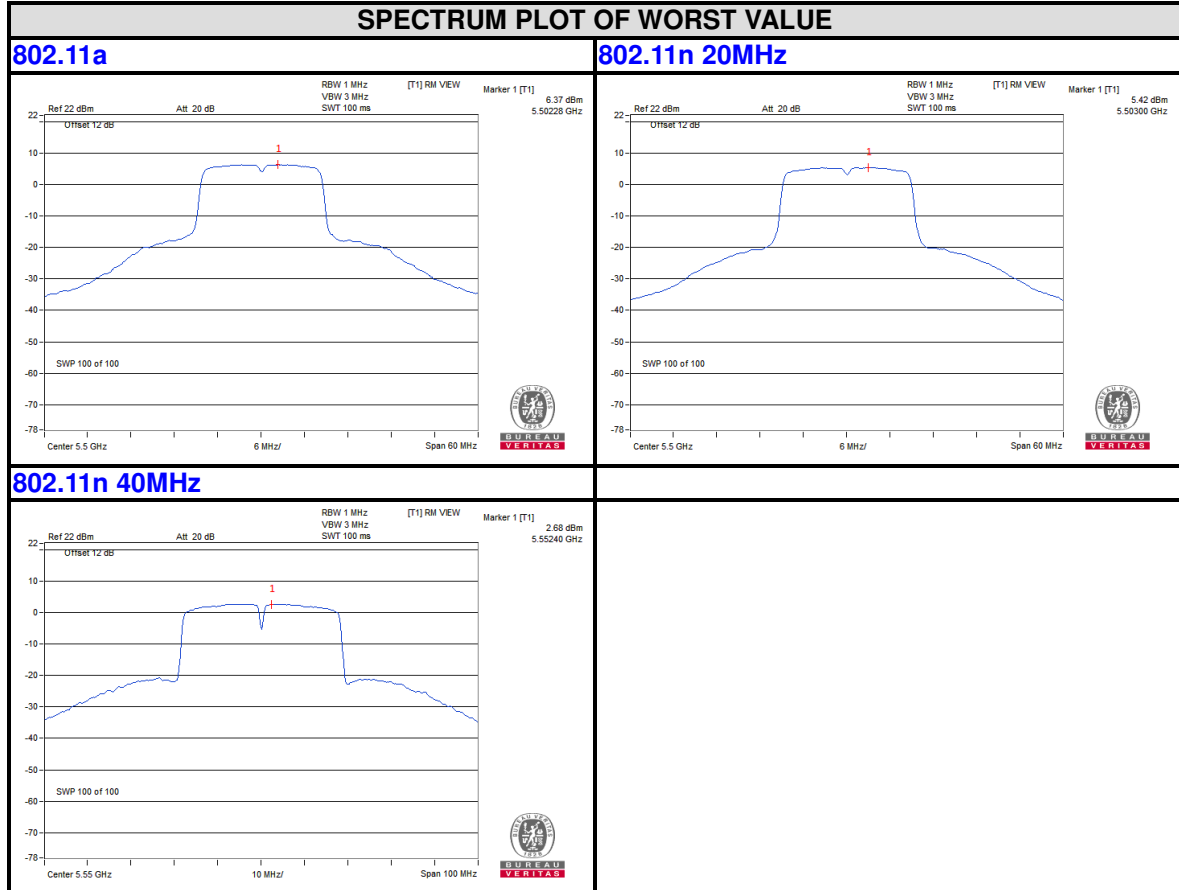




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VERITAS

Test Report No.: IC2202WDG0092-3

BAND 3
5470-5725MHz





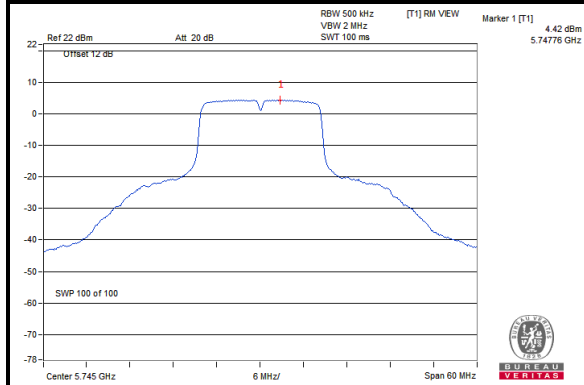
BUREAU
VERITAS

Test Report No.: IC2202WDG0092-3

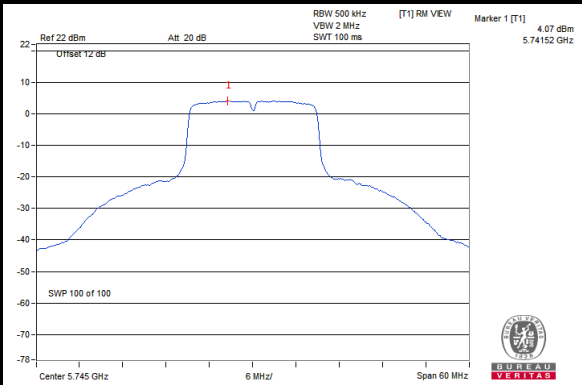
BAND4
5725-5850MHz

SPECTRUM PLOT OF WORST VALUE

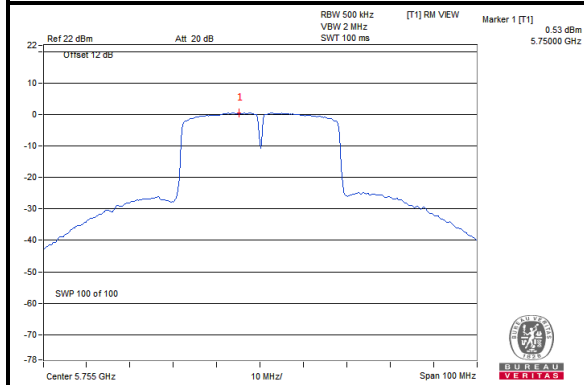
802.11a



802.11n 20MHz



802.11n 40MHz

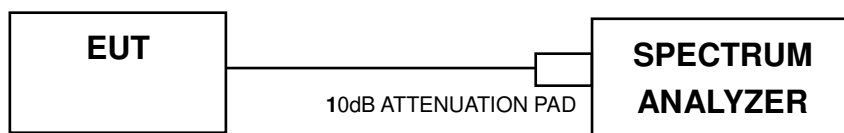


4.5 6dB BANDWIDTH MEASUREMENT

4.5.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.5.2 Test Setup



4.5.3 TEST INSTRUMENTS

Refer to section 4.3.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

MEASUREMENT PROCEDURE REF

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

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

**4.5.7 TEST RESULTS****6dB BANDWIDTH For 5725-5850MHz****802.11a**

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.35	PASS
157	5785	16.35	PASS
165	5825	16.37	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.93	PASS
157	5785	17.01	PASS
165	5825	17.03	PASS

802.11n (40M)

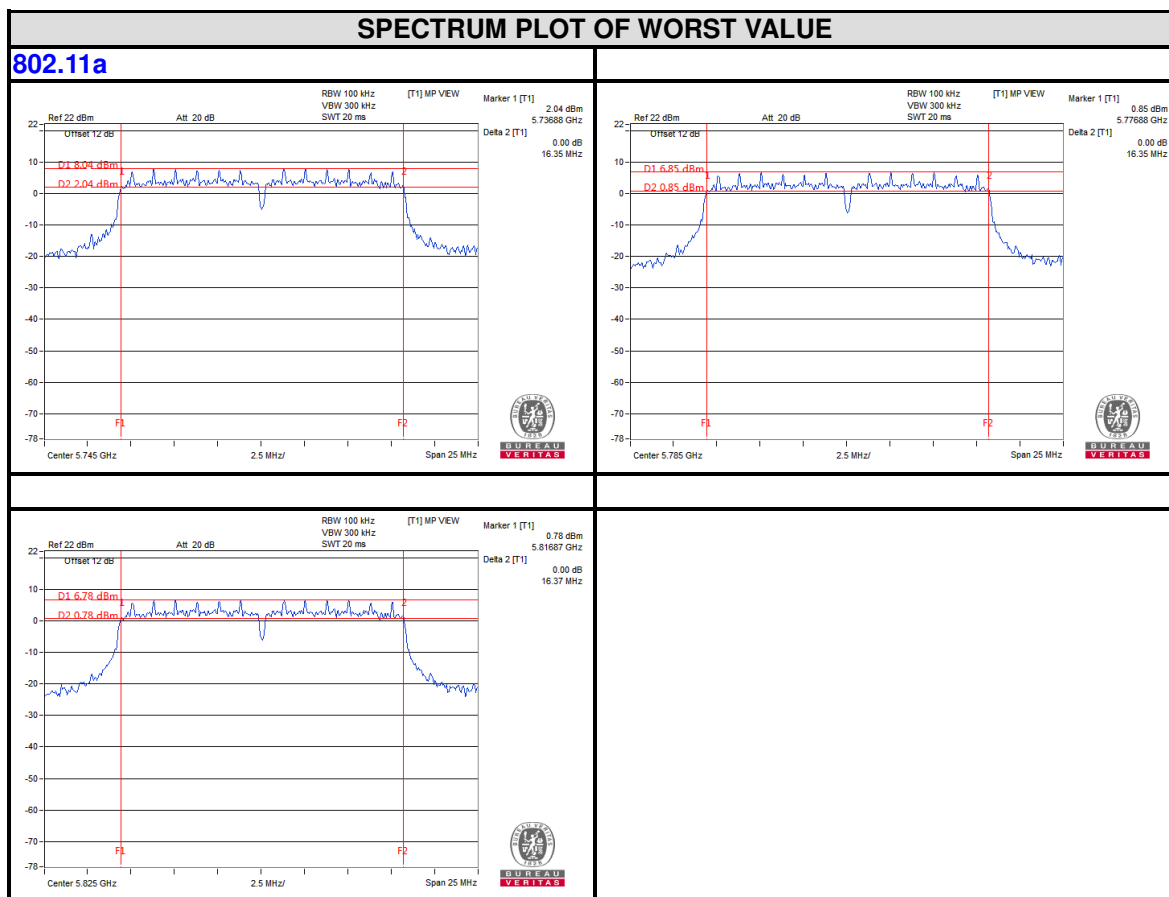
Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
151	5755	35.26	PASS
159	5795	35.22	PASS



BUREAU
VERITAS

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6dB BANDWIDTH For 5725-5850MHz



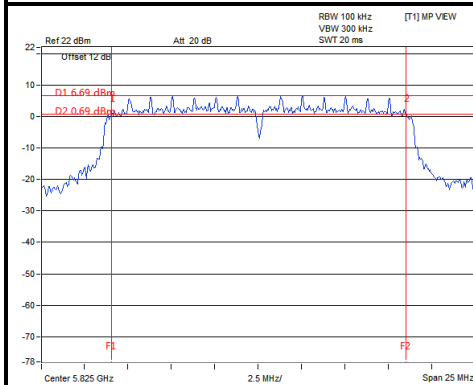
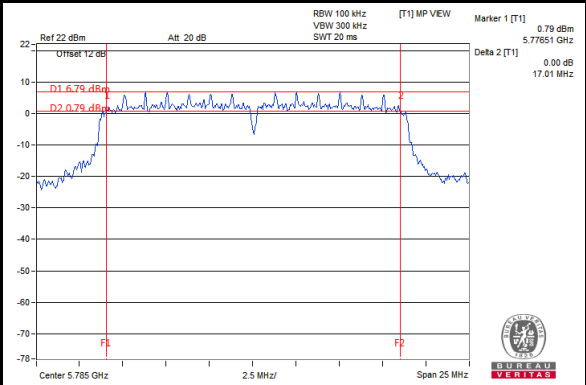
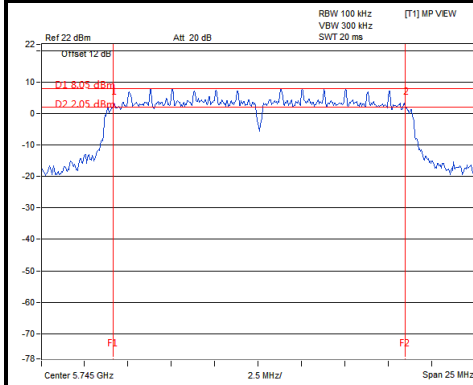


BUREAU
VERITAS

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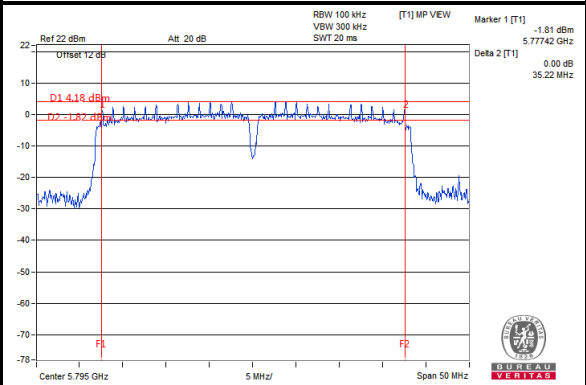
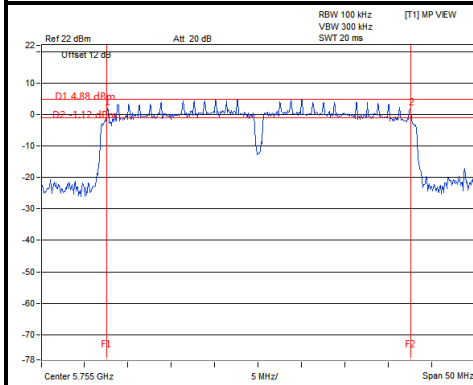
SPECTRUM PLOT OF WORST VALUE

802.11n20



SPECTRUM PLOT OF WORST VALUE

802.11n40





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5 PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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6 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---