TEST REPORT

Applicant	BenQ Corporation
Address	16 Jihu Road, Neihu, Taipei 114, Taiwan

Manufacturer or Supplier	BenQ Corporation
Address	16 Jihu Road, Neihu, Taipei 114, Taiwan
Product Name	InstaShare Button
Brand Name	BenQ
Model	TWY31
Additional Model & Model Difference	N/A
Date of tests	Sep. 18, 2021 ~ Nov. 01, 2021

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

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

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

Tested by Andy Zhu Supervisor / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	 Date: Dec. 15, 2021

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2109WDG0104-2	Original release.	Dec. 15, 2021

1. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407 UNDER NEW RULE)			
STANDARD SECTION	**TEST TYPE**	**RESULT**	**REMARK**
15.407(b)(6)	AC Power Conducted Emissions	PASS	Meet the requirement of limit.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used

1.1 MEASUREMENT UNCERTAINTY

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

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

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

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT NAME	InstaShare Button
MODEL NO.	TWY31
FCC ID	JVPTWY31
POWER SUPPLY	DC 5V From USB host unit
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11n: up to 300.0Mbps 802.11ac : up to 866.6Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	See section 2.2
CONDUCTED OUTPUT POWER	9.318mW for 5150 ~ 5250MHz (Maximum AVG Power) 9.611mW for 5250 ~ 5350MHz (Maximum AVG Power) 9.944mW for 5470 ~ 5725MHz (Maximum AVG Power) 9.894mW for 5725 ~ 5850MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: FPC antenna with 3dBi gain 5260 ~ 5320MHz: FPC antenna with 3dBi gain 5500 ~ 5700MHz: FPC antenna with 3dBi gain 5745 ~ 5825MHz: FPC antenna with 3dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB Cable: Shielded, detachable,10cm

NOTES:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitter and 2 receiver.

MODULATION MODE	TX FUNCTION
802.11n (HT20), 802.11ac (VHT20)	2 Chains (MIMO)
802.11n (HT40), 802.11ac (VHT40)	2 Chains (MIMO)
802.11ac (VHT80)	2 Chains (MIMO)

   * The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)
4. Please refer to the EUT photo document (Reference No.: 2109WDG0104) for detailed product photo.

5. ANTENNA LIST

Ant. No.	Vendor	Antenna Type	Operation Frequency Range
			5GHz
Chain 0	SHENZHEN SHUODIAN ELECTRONIC AND TECHNOLOGY CO.,LTD	FPC	3dBi
Chain 1		FPC	3dBi
Directional Gain for PSD			6.01dBi
Directional Gain for power			3dBi

All antennas have the same gain, Directional gain = GANT + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices, Array Gain = 10 log(NANT/NSS=1) dB.

For power measurements on IEEE 802.11 devices, Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4

2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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

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

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210MHz	--	--

FOR 5250 ~ 5350MHz

4 channels are provided for 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

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290MHz	--	--

FOR 5470 ~ 5725MHz

11 channels are provided for 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	120	5600 MHz
124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz
140	5700 MHz	--	--

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	110	5550 MHz
118	5590 MHz	134	5670 MHz

2 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	122	5610MHz

FOR 5725 ~ 5850MHz

5 channels are provided for 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

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
155	5775MHz	--	--

2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

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

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

NOTE:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-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	802.11n (20MHz)	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11ac 80MHz		42	42	OFDM	BPSK	29.3
	802.11n (20MHz)	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11ac 80MHz		58	58	OFDM	BPSK	29.3
	802.11n (20MHz)	5470-5725	100 to 140	100, 112, 140	OFDM	BPSK	6.0
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac 80MHz		106, 122	106, 122	OFDM	BPSK	29.3
	802.11n (20MHz)	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
	802.11ac 80MHz		155	155	OFDM	BPSK	29.3

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (20MHz)	5150-5250 5250-5350 5470-5725 5725-5850	36 to 48 52 to 64 100 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	802.11n (20MHz)	5150-5250 5250-5350 5470-5725 5725-5850	36 to 48 52 to 64 100 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	802.11n (20MHz)	5150-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11ac 80MHz		42	42	OFDM	BPSK	29.3
	802.11n (20MHz)	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11ac 80MHz		58	58	OFDM	BPSK	29.3
	802.11n (20MHz)	5470-5725	100 to 140	100, 112, 140	OFDM	BPSK	6.0
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11ac 80MHz		106, 122	106, 122	OFDM	BPSK	29.3
	802.11n (20MHz)	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5
	802.11ac 80MHz		155	155	OFDM	BPSK	29.3

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	24deg. C, 55%RH	DC 5V from Notebook	Jelly
RE≥1G	24deg. C, 55%RH	DC 5V from Notebook	Jelly
PLC	20deg. C, 56%RH	DC 5V from Notebook	Alex
APCM	20deg. C, 55%RH	DC 5V from Notebook	Vincent

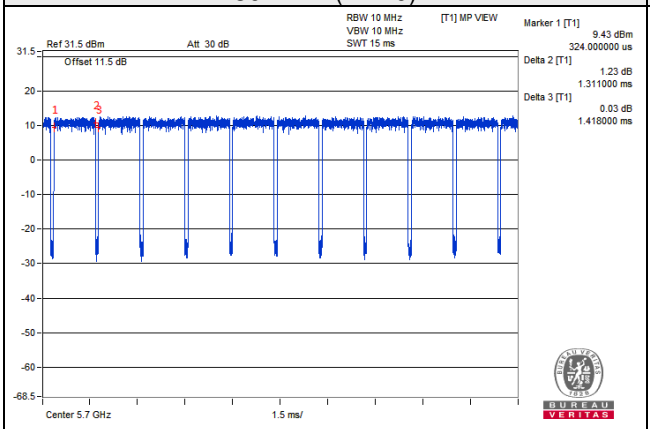
2.3 DUTY CYCLE OF TEST SIGNAL

802.11n (HT20): Duty cycle = 1.311/1.418 =0.925, Duty factor = 10 * log(1/0.925) = 0.339

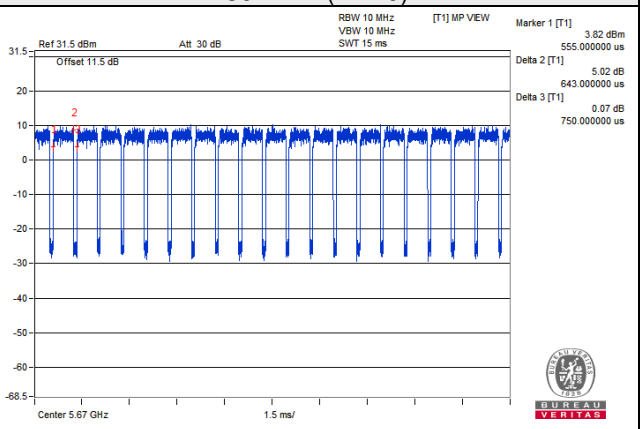
802.11n (HT40): Duty cycle = 0.643/0.750 =0.857, Duty factor = 10 * log(1/0.857) = 0.670

802.11ac (VHT80): Duty cycle = 0.322/0.424 =0.759, Duty factor = 10 * log(1/0.759) = 1.198

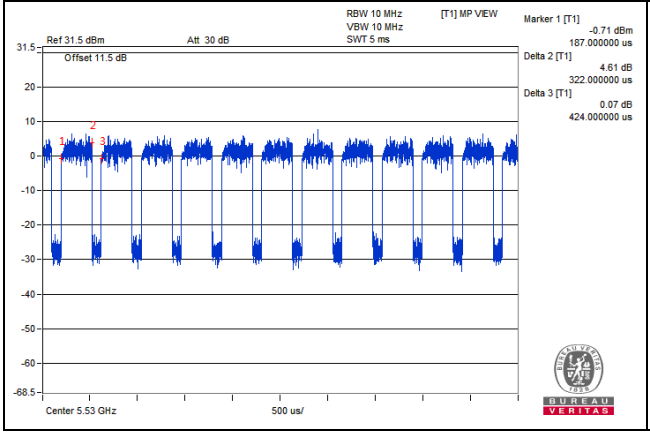
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



2.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	Latitude 5280	77K2GH2	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 0.8m, DC Line: Unshielded, Detachable 1.8m

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

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

3. TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

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

NOTES:
1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 30dB under any condition of modulation.

3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

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

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

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

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 07,22
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. 13,22
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	Mar. 13,22
Test Software	ADT	ADT_Radiated_V7 .6.15.9.2	N/A	N/A

NOTES:

1. The calibration interval of the above test instruments are 12, 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The horn antenna is used only for the measurement of emission frequency above1GHz if tested.
3. The FCC Site Registration No. is 749762.

3.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTES:

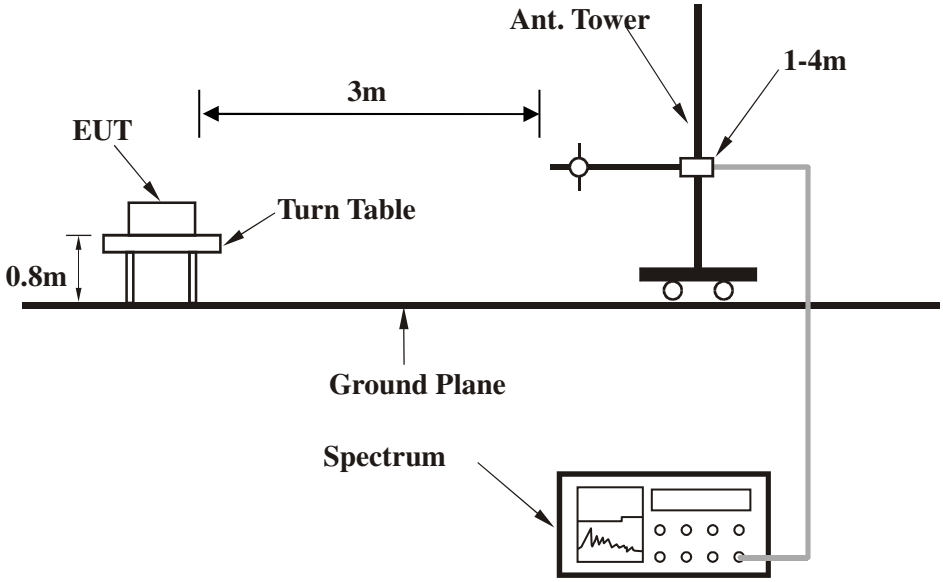
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

3.1.5 DEVIATION FROM TEST STANDARD

No deviation.

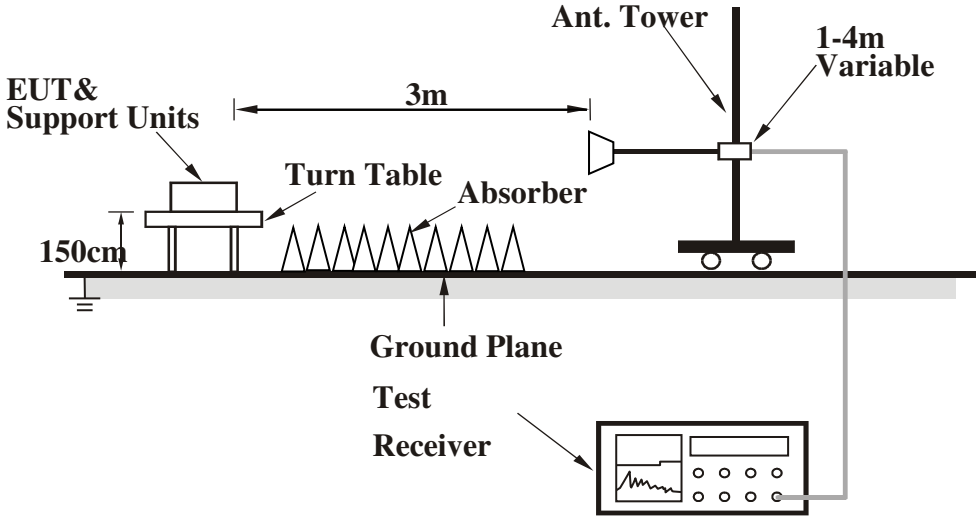
3.1.6 TEST SETUP

Below 1GHz test setup



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

Above 1GHz test setup



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

3.1.7 EUT OPERATING CONDITION

a. Set the EUT under full load condition and placed them on a testing table.

b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.

c. The necessary accessories enable the EUT in full functions.

3.1.8 FTEST RESULTS

BELOW 1GHz WORST-CASE DATA

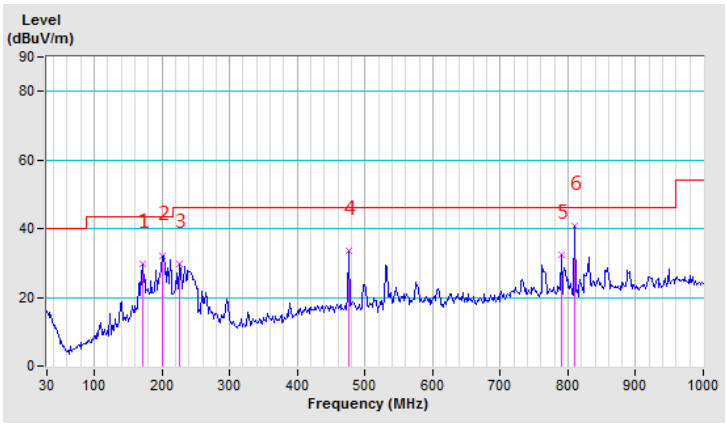
802.11n 20

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	171.46	29.83 QP	43.50	-13.67	1.61 H	152	48.99	-19.16
2	200.99	32.06 QP	43.50	-11.44	2.96 H	303	52.71	-20.65
3	225.87	29.73 QP	46.00	-16.27	3.23 H	179	49.22	-19.49
4	476.14	33.39 QP	46.00	-12.61	3.27 H	204	44.75	-11.36
5	790.14	32.24 QP	46.00	-13.76	2.77 H	82	38.31	-6.07
6	**810.35**	**40.78 QP**	**46.00**	**-5.22**	**1.75 H**	**77**	**46.80**	**-6.02**

REMARKS:

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

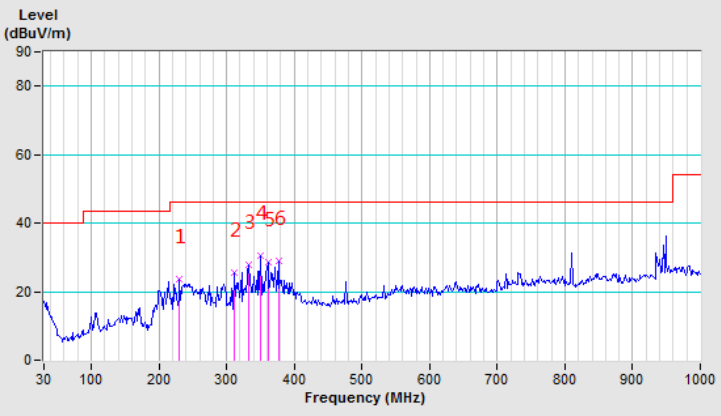


CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	230.53	23.62 QP	46.00	-22.38	1.59 V	41	42.80	-19.18
2	311.36	25.58 QP	46.00	-20.42	1.78 V	19	41.44	-15.86
3	333.12	27.71 QP	46.00	-18.29	1.52 V	54	43.02	-15.31
4	350.22	30.50 QP	46.00	-15.50	1.74 V	91	45.48	-14.98
5	361.11	28.60 QP	46.00	-17.40	1.86 V	65	42.48	-13.88
6	376.65	29.11 QP	46.00	-16.89	2.23 V	81	43.14	-14.03

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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.



Band 1 (5150-5250MHz):

ABOVE 1GHz DATA

802.11n (20MHz)

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

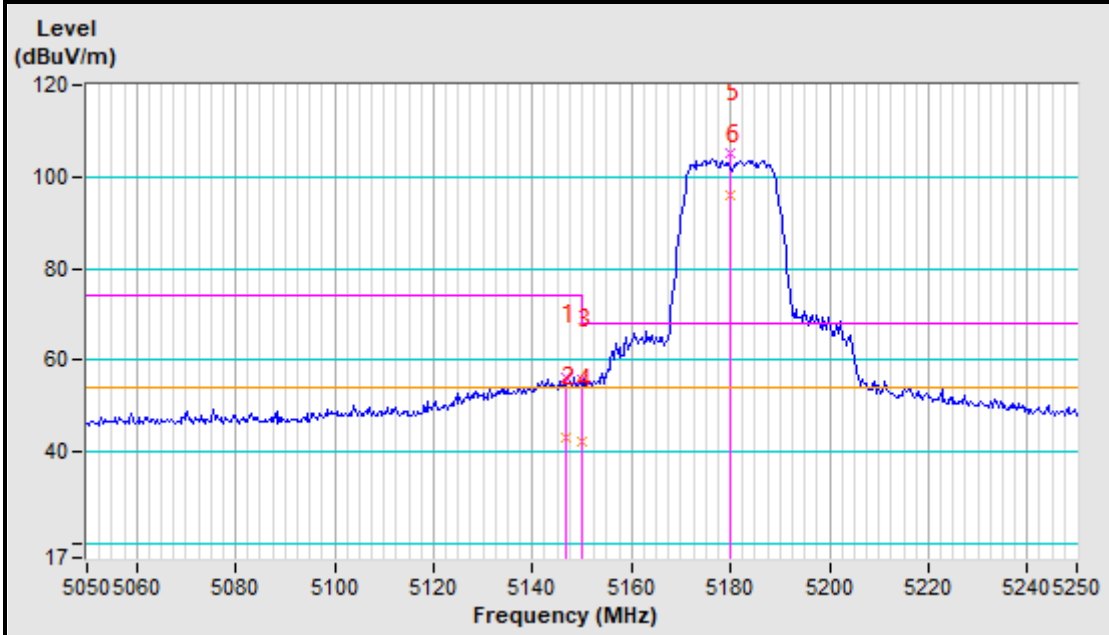
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5146.96	56.36 PK	74.00	-17.64	1.85 H	154	50.56	5.80
2	5146.96	43.15 AV	54.00	-10.85	1.85 H	154	37.35	5.80
3	5150.00	55.85 PK	74.00	-18.15	3.12 H	154	50.05	5.80
4	5150.00	42.34 AV	54.00	-11.66	3.12 H	154	36.54	5.80
5	*5180.00	105.11 PK			1.79 H	154	99.25	5.86
6	*5180.00	95.81 AV			1.79 H	154	89.95	5.86
7	#10360.00	59.34 PK	68.20	-8.86	2.03 H	0	45.94	13.40
8	15540.00	64.02 PK	74.00	-9.98	1.81 H	0	45.15	18.87
9	15540.00	46.33 AV	54.00	-7.67	1.81 H	0	27.46	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	5145.37	51.50 PK	74.00	-22.50	1.82 V	263	45.71	5.79
2	5145.37	41.30 AV	54.00	-12.70	1.82 V	263	35.51	5.79
3	5150.00	50.10 PK	74.00	-23.90	2.29 V	263	44.30	5.80
4	5150.00	38.57 AV	54.00	-15.43	2.29 V	263	32.77	5.80
5	*5180.00	100.02 PK			1.74 V	263	94.16	5.86
6	*5180.00	92.35 AV			1.74 V	263	86.49	5.86
7	#10360.00	58.71 PK	68.20	-9.49	1.81 V	0	45.31	13.40
8	15540.00	61.34 PK	74.00	-12.66	2.26 V	0	42.47	18.87
9	15540.00	45.02 AV	54.00	-8.98	2.26 V	0	26.15	18.87

REMARKS:

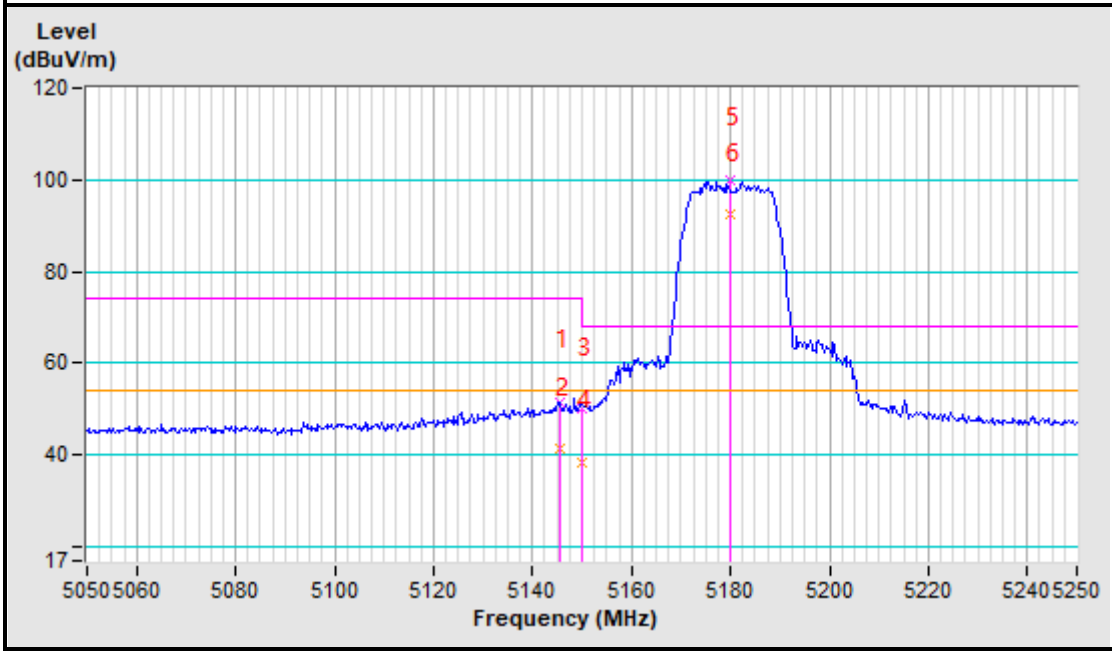
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5180MHz Horizontal



5180MHz Vertical



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

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	5144.36	51.52 PK	74.00	-22.48	3.50 H	147	45.73	5.79
2	5144.36	41.84 AV	54.00	-12.16	3.50 H	147	36.05	5.79
3	5150.00	51.17 PK	74.00	-22.83	2.59 H	147	45.37	5.80
4	5150.00	40.36 AV	54.00	-13.64	2.59 H	147	34.56	5.80
5	*5200.00	106.10 PK			3.10 H	147	100.21	5.89
6	*5200.00	97.34 AV			3.10 H	147	91.45	5.89
7	#10400.00	58.64 PK	68.20	-9.56	2.89 H	0	45.13	13.51
8	15600.00	62.15 PK	74.00	-11.85	2.81 H	0	43.19	18.96
9	15600.00	45.77 AV	54.00	-8.23	2.81 H	0	26.81	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	5142.62	48.60 PK	74.00	-25.40	1.48 V	173	42.81	5.79
2	5142.62	38.43 AV	54.00	-15.57	1.48 V	173	32.64	5.79
3	5150.00	46.33 PK	74.00	-27.67	2.02 V	173	40.53	5.80
4	5150.00	35.24 AV	54.00	-18.76	2.02 V	173	29.44	5.80
5	*5200.00	100.34 PK			1.54 V	173	94.45	5.89
6	*5200.00	91.56 AV			1.54 V	173	85.67	5.89
7	#10400.00	55.34 PK	68.20	-12.86	1.45 V	0	41.83	13.51
8	15600.00	60.34 PK	74.00	-13.66	1.93 V	0	41.38	18.96
9	15600.00	46.35 AV	54.00	-7.65	1.93 V	0	27.39	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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5147.36	48.30 PK	74.00	-25.70	2.92 H	52	42.50	5.80
2	5147.36	38.52 AV	54.00	-15.48	2.92 H	52	32.72	5.80
3	5150.00	47.63 PK	74.00	-26.37	2.92 H	52	41.83	5.80
4	5150.00	37.54 AV	54.00	-16.46	2.92 H	52	31.74	5.80
5	*5240.00	108.28 PK			3.47 H	52	102.31	5.97
6	*5240.00	98.34 AV			3.47 H	52	92.37	5.97
7	5350.00	47.37 PK	74.00	-26.63	3.18 H	52	41.20	6.17
8	5350.00	36.59 AV	54.00	-17.41	3.18 H	52	30.42	6.17
9	5375.00	52.54 PK	74.00	-21.46	3.30 H	52	46.33	6.21
10	5375.00	42.36 AV	54.00	-11.64	3.30 H	52	36.15	6.21
11	#10480.00	60.33 PK	68.20	-7.87	1.57 H	0	46.58	13.75
12	15720.00	67.36 PK	74.00	-6.64	2.30 H	0	48.21	19.15
13	15720.00	48.53 AV	54.00	-5.47	2.30 H	0	29.38	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	5136.39	47.31 PK	74.00	-26.69	2.27 V	279	41.54	5.77
2	5136.39	37.83 AV	54.00	-16.17	2.27 V	279	32.06	5.77
3	5150.00	45.54 PK	74.00	-28.46	1.76 V	279	39.74	5.80
4	5150.00	34.86 AV	54.00	-19.14	1.76 V	279	29.06	5.80
5	*5240.00	101.87 PK			2.28 V	279	95.90	5.97
6	*5240.00	93.35 AV			2.28 V	279	87.38	5.97
7	5350.00	47.31 PK	74.00	-26.69	1.71 V	279	41.14	6.17
8	5350.00	36.42 AV	54.00	-17.58	1.71 V	279	30.25	6.17
9	5362.00	47.63 PK	74.00	-26.37	2.15 V	279	41.45	6.18
10	5362.00	36.92 AV	54.00	-17.08	2.15 V	279	30.74	6.18
11	#10480.00	60.62 PK	68.20	-7.58	2.16 V	0	46.87	13.75
12	15720.00	61.37 PK	74.00	-12.63	1.98 V	0	42.22	19.15
13	15720.00	47.59 AV	54.00	-6.41	1.98 V	0	28.44	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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11n (40MHz)

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

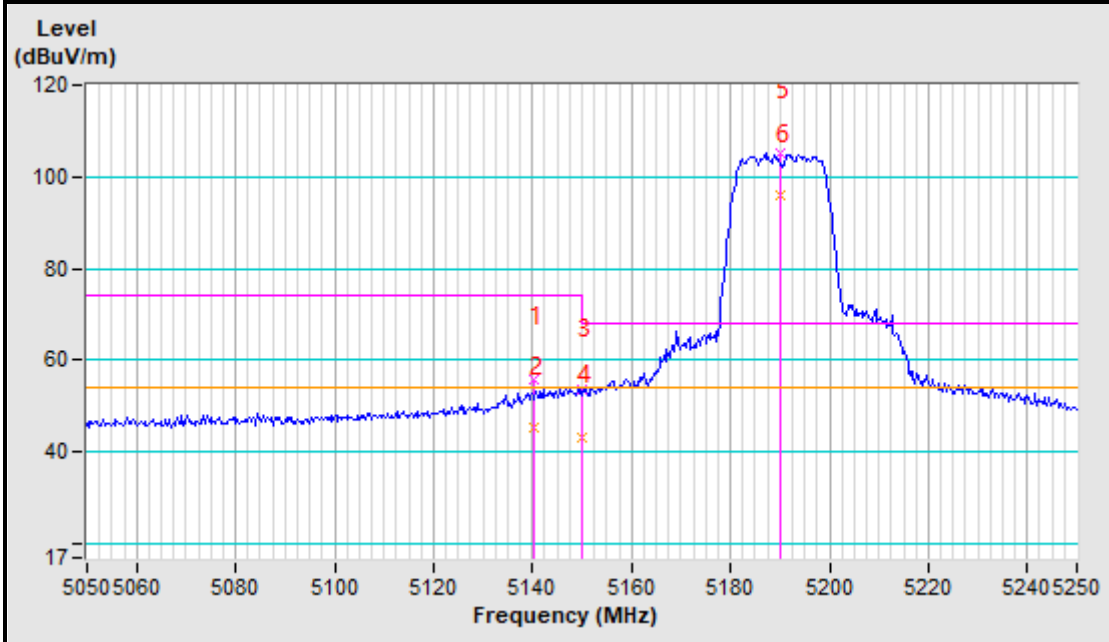
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5140.45	55.99 PK	74.00	-18.01	2.89 H	263	50.20	5.79
2	5140.45	45.26 AV	54.00	-8.74	2.89 H	263	39.47	5.79
3	5150.00	53.45 PK	74.00	-20.55	2.22 H	263	47.65	5.80
4	5150.00	43.26 AV	54.00	-10.74	2.22 H	263	37.46	5.80
5	*5190.00	105.34 PK			1.50 H	263	99.46	5.88
6	*5190.00	95.82 AV			1.50 H	263	89.94	5.88
7	#10380.00	59.63 PK	68.20	-8.57	2.47 H	0	46.17	13.46
8	15570.00	62.35 PK	74.00	-11.65	3.34 H	0	43.43	18.92
9	15570.00	47.16 AV	54.00	-6.84	3.34 H	0	28.24	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	5143.34	50.29 PK	74.00	-23.71	2.05 V	311	44.50	5.79
2	5143.34	39.41 AV	54.00	-14.59	2.05 V	311	33.62	5.79
3	5150.00	49.51 PK	74.00	-24.49	1.57 V	311	43.71	5.80
4	5150.00	37.86 AV	54.00	-16.14	1.57 V	311	32.06	5.80
5	*5190.00	100.05 PK			1.80 V	311	94.17	5.88
6	*5190.00	91.54 AV			1.80 V	311	85.66	5.88
7	#10380.00	58.26 PK	68.20	-9.94	1.84 V	0	44.80	13.46
8	15570.00	61.26 PK	74.00	-12.74	1.98 V	0	42.34	18.92
9	15570.00	46.32 AV	54.00	-7.68	1.98 V	0	27.40	18.92

REMARKS:

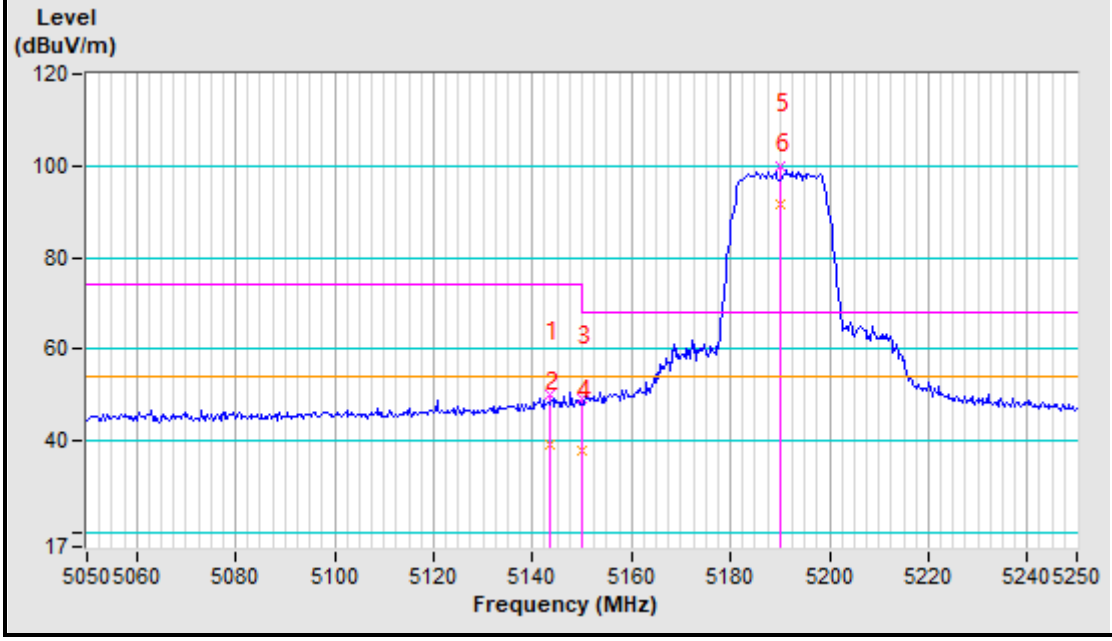
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5190MHz Horizontal



5190MHz Vertical



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	5140.74	48.17 PK	74.00	-25.83	1.92 H	14	42.38	5.79
2	5140.74	38.26 AV	54.00	-15.74	1.92 H	14	32.47	5.79
3	5150.00	49.36 PK	74.00	-24.64	2.64 H	14	43.56	5.80
4	5150.00	40.25 AV	54.00	-13.75	2.64 H	14	34.45	5.80
5	*5230.00	107.54 PK			1.61 H	14	101.59	5.95
6	*5230.00	97.32 AV			1.61 H	14	91.37	5.95
7	#10460.00	60.36 PK	68.20	-7.84	2.97 H	0	46.68	13.68
8	15690.00	61.32 PK	74.00	-12.68	3.36 H	0	42.22	19.10
9	15690.00	45.38 AV	54.00	-8.62	3.36 H	0	26.28	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	5139.54	47.54 PK	74.00	-26.46	1.99 V	156	41.75	5.79
2	5139.54	37.12 AV	54.00	-16.88	1.99 V	156	31.33	5.79
3	5150.00	48.35 PK	74.00	-25.65	1.83 V	156	42.55	5.80
4	5150.00	39.11 AV	54.00	-14.89	1.83 V	156	33.31	5.80
5	*5230.00	100.72 PK			2.03 V	156	94.77	5.95
6	*5230.00	91.63 AV			2.03 V	156	85.68	5.95
7	#10460.00	59.74 PK	68.20	-8.46	1.76 V	0	46.06	13.68
8	15690.00	60.23 PK	74.00	-13.77	1.83 V	0	41.13	19.10
9	15690.00	44.35 AV	54.00	-9.65	1.83 V	0	25.25	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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (80MHz)

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

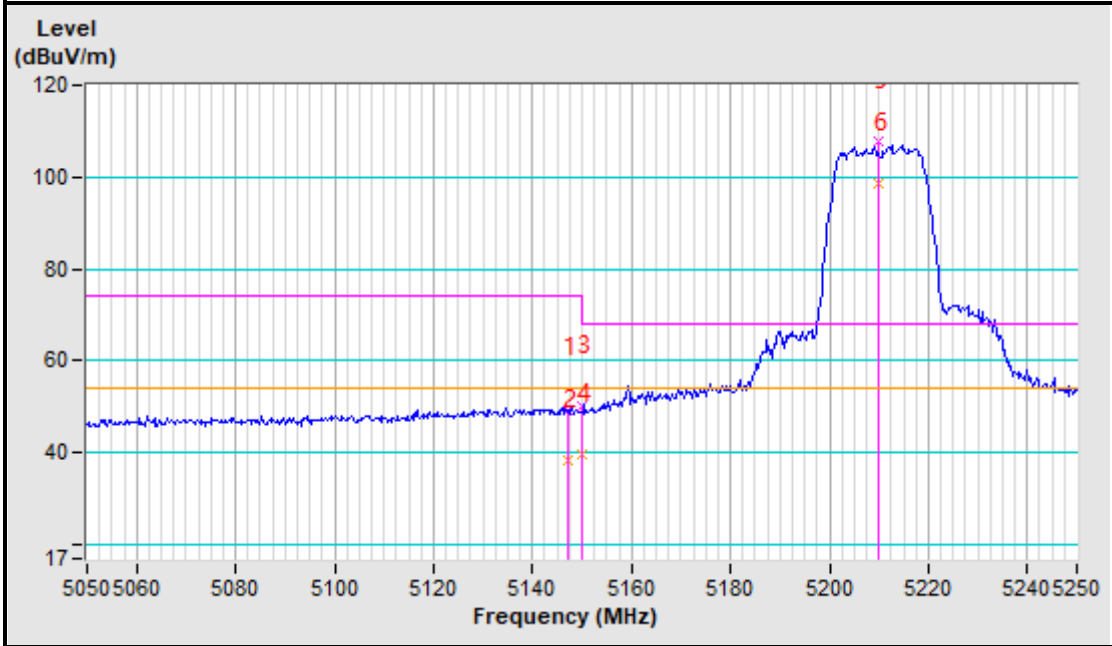
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5147.11	49.32 PK	74.00	-24.68	2.08 H	208	43.52	5.80
2	5147.11	38.27 AV	54.00	-15.73	2.08 H	208	32.47	5.80
3	5150.00	50.11 PK	74.00	-23.89	2.00 H	208	44.31	5.80
4	5150.00	39.69 AV	54.00	-14.31	2.00 H	208	33.89	5.80
5	*5210.00	107.73 PK			1.71 H	208	101.82	5.91
6	*5210.00	98.54 AV			1.71 H	208	92.63	5.91
7	#10420.00	61.36 PK	68.20	-6.84	1.86 H	0	47.78	13.58
8	15630.00	64.38 PK	74.00	-9.62	2.04 H	0	45.37	19.01
9	15630.00	46.32 AV	54.00	-7.68	2.04 H	0	27.31	19.01
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	5130.61	48.44 PK	74.00	-25.56	2.03 V	283	42.67	5.77
2	5130.61	37.25 AV	54.00	-16.75	2.03 V	283	31.48	5.77
3	5150.00	48.36 PK	74.00	-25.64	1.53 V	283	42.56	5.80
4	5150.00	36.72 AV	54.00	-17.28	1.53 V	283	30.92	5.80
5	*5210.00	100.37 PK			2.15 V	283	94.46	5.91
6	*5210.00	91.36 AV			2.15 V	283	85.45	5.91
7	#10420.00	59.36 PK	68.20	-8.84	1.51 V	0	45.78	13.58
8	15630.00	63.25 PK	74.00	-10.75	1.64 V	0	44.24	19.01
9	15630.00	45.64 AV	54.00	-8.36	1.64 V	0	26.63	19.01

REMARKS:

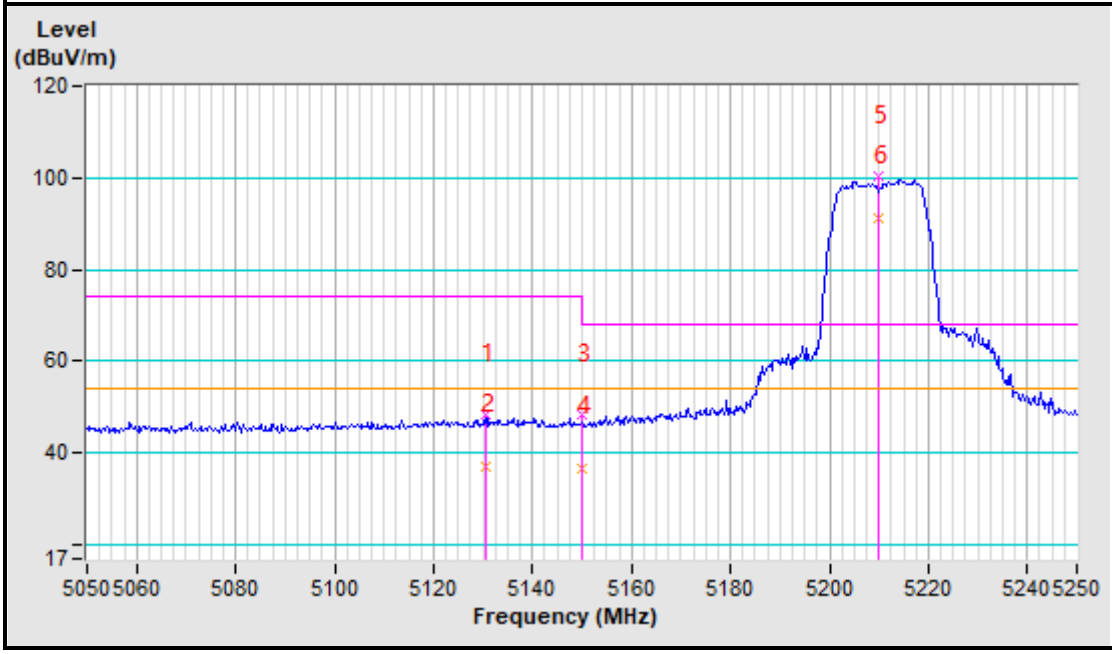
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5210MHz Horizontal



5210MHz Vertical



Band 2 (5250-5350MHz):

ABOVE 1GHz DATA

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	5138.71	49.21 PK	74.00	-24.79	1.98 H	93	43.42	5.79
2	5138.71	40.24 AV	54.00	-13.76	1.98 H	93	34.45	5.79
3	5150.00	46.11 PK	74.00	-27.89	2.16 H	93	40.31	5.80
4	5150.00	38.57 AV	54.00	-15.43	2.16 H	93	32.77	5.80
5	*5260.00	106.31 PK			3.27 H	93	100.31	6.00
6	*5260.00	97.54 AV			3.27 H	93	91.54	6.00
7	5350.00	47.04 PK	74.00	-26.96	2.79 H	93	40.87	6.17
8	5350.00	37.59 AV	54.00	-16.41	2.79 H	93	31.42	6.17
9	5378.22	49.38 PK	74.00	-24.62	1.65 H	93	43.17	6.21
10	5378.22	40.29 AV	54.00	-13.71	1.65 H	93	34.08	6.21
11	#10520.00	60.05 PK	68.20	-8.15	3.02 H	0	46.23	13.82
12	15780.00	61.34 PK	74.00	-12.66	3.03 H	0	42.11	19.23
13	15780.00	46.72 AV	54.00	-7.28	3.03 H	0	27.49	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	5143.05	46.75 PK	74.00	-27.25	1.40 V	274	40.96	5.79
2	5143.05	38.29 AV	54.00	-15.71	1.40 V	274	32.50	5.79
3	5150.00	45.59 PK	74.00	-28.41	1.86 V	274	39.79	5.80
4	5150.00	37.24 AV	54.00	-16.76	1.86 V	274	31.44	5.80
5	*5260.00	101.86 PK			1.41 V	274	95.86	6.00
6	*5260.00	92.54 AV			1.41 V	274	86.54	6.00
7	5350.00	47.42 PK	74.00	-26.58	2.24 V	274	41.25	6.17
8	5350.00	36.85 AV	54.00	-17.15	2.24 V	274	30.68	6.17
9	5363.89	48.01 PK	74.00	-25.99	1.91 V	274	41.81	6.20
10	5363.89	37.16 AV	54.00	-16.84	1.91 V	274	30.96	6.20
11	#10520.00	58.74 PK	68.20	-9.46	1.67 V	0	44.92	13.82
12	15780.00	60.16 PK	74.00	-13.84	1.81 V	274	40.93	19.23
13	15780.00	44.39 AV	54.00	-9.61	1.81 V	274	25.16	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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

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

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	106.81 PK			2.44 H	156	100.73	6.08
2	*5300.00	95.88 AV			2.44 H	156	89.80	6.08
3	5350.00	50.83 PK	74.00	-23.17	2.11 H	156	44.66	6.17
4	5350.00	45.34 AV	54.00	-8.66	2.11 H	156	39.17	6.17
5	5355.64	50.94 PK	74.00	-23.06	2.63 H	156	44.76	6.18
6	5355.64	44.19 AV	54.00	-9.81	2.63 H	156	38.01	6.18
7	10600.00	61.29 PK	74.00	-12.71	2.98 H	0	47.38	13.91
8	10600.00	43.59 AV	54.00	-10.41	2.98 H	0	29.68	13.91
9	15900.00	61.59 PK	74.00	-12.41	2.90 H	0	42.17	19.42
10	15900.00	44.06 AV	54.00	-9.94	2.90 H	0	24.64	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	101.29 PK			1.81 V	63	95.21	6.08
2	*5300.00	91.54 AV			1.81 V	63	85.46	6.08
3	5350.00	47.65 PK	74.00	-26.35	2.19 V	63	41.48	6.17
4	5350.00	40.25 AV	54.00	-13.75	2.19 V	63	34.08	6.17
5	5351.74	48.61 PK	74.00	-25.39	1.53 V	63	42.44	6.17
6	5351.74	41.54 AV	54.00	-12.46	1.53 V	63	35.37	6.17
7	10600.00	60.36 PK	74.00	-13.64	1.47 V	0	46.45	13.91
8	10600.00	42.17 AV	54.00	-11.83	1.47 V	0	28.26	13.91
9	15900.00	60.55 PK	74.00	-13.45	2.00 V	0	41.13	19.42
10	15900.00	42.74 AV	54.00	-11.26	2.00 V	0	23.32	19.42

REMARKS:

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

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

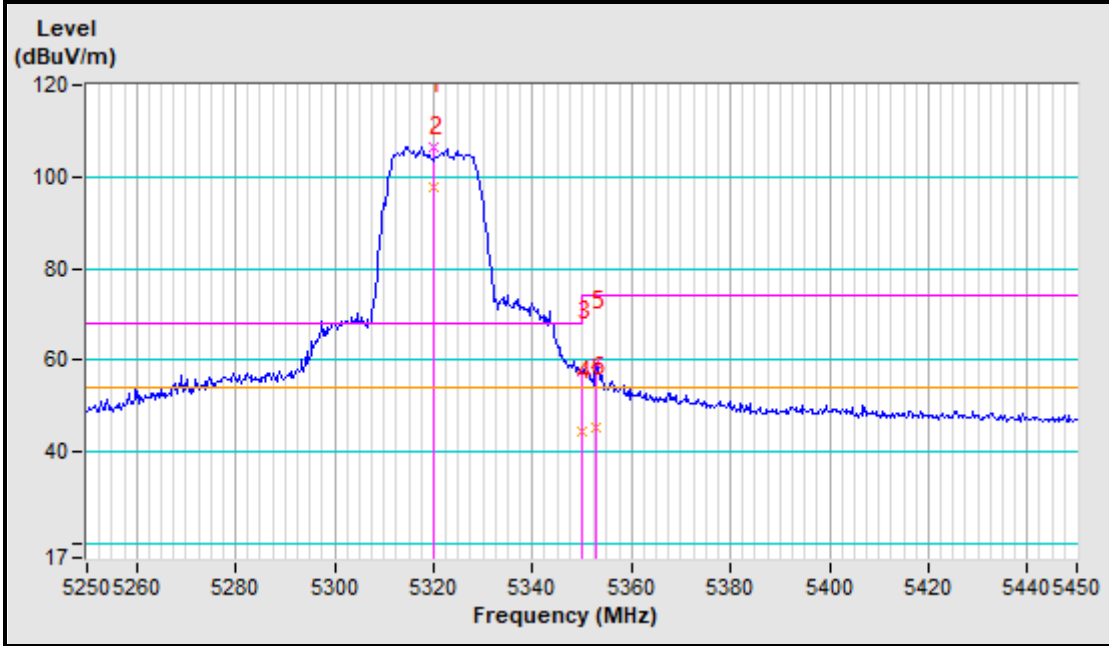
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	106.62 PK			2.04 H	241	100.51	6.11
2	*5320.00	97.63 AV			2.04 H	241	91.52	6.11
3	5350.00	57.42 PK	74.00	-16.58	2.73 H	241	51.25	6.17
4	5350.00	44.34 AV	54.00	-9.66	2.73 H	241	38.17	6.17
5	5352.89	59.41 PK	74.00	-14.59	2.39 H	241	53.24	6.17
6	5352.89	45.35 AV	54.00	-8.65	2.39 H	241	39.18	6.17
7	10640.00	60.34 PK	74.00	-13.66	3.12 H	0	46.39	13.95
8	10640.00	46.27 AV	54.00	-7.73	3.12 H	0	32.32	13.95
9	15900.00	61.77 PK	74.00	-12.23	2.25 H	0	42.35	19.42
10	15900.00	47.05 AV	54.00	-6.95	2.25 H	0	27.63	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	*5320.00	102.48 PK			2.01 V	27	96.37	6.11
2	*5320.00	91.97 AV			2.01 V	27	85.86	6.11
3	5350.00	54.70 PK	74.00	-19.30	1.90 V	27	48.53	6.17
4	5350.00	41.59 AV	54.00	-12.41	1.90 V	27	35.42	6.17
5	5352.32	53.85 PK	74.00	-20.15	1.89 V	27	47.68	6.17
6	5352.32	40.24 AV	54.00	-13.76	1.89 V	27	34.07	6.17
7	10640.00	59.75 PK	74.00	-14.25	1.66 V	0	45.80	13.95
8	10640.00	45.63 AV	54.00	-8.37	1.66 V	0	31.68	13.95
9	15900.00	60.34 PK	74.00	-13.66	1.65 V	0	40.92	19.42
10	15900.00	46.38 AV	54.00	-7.62	1.65 V	0	26.96	19.42

REMARKS:

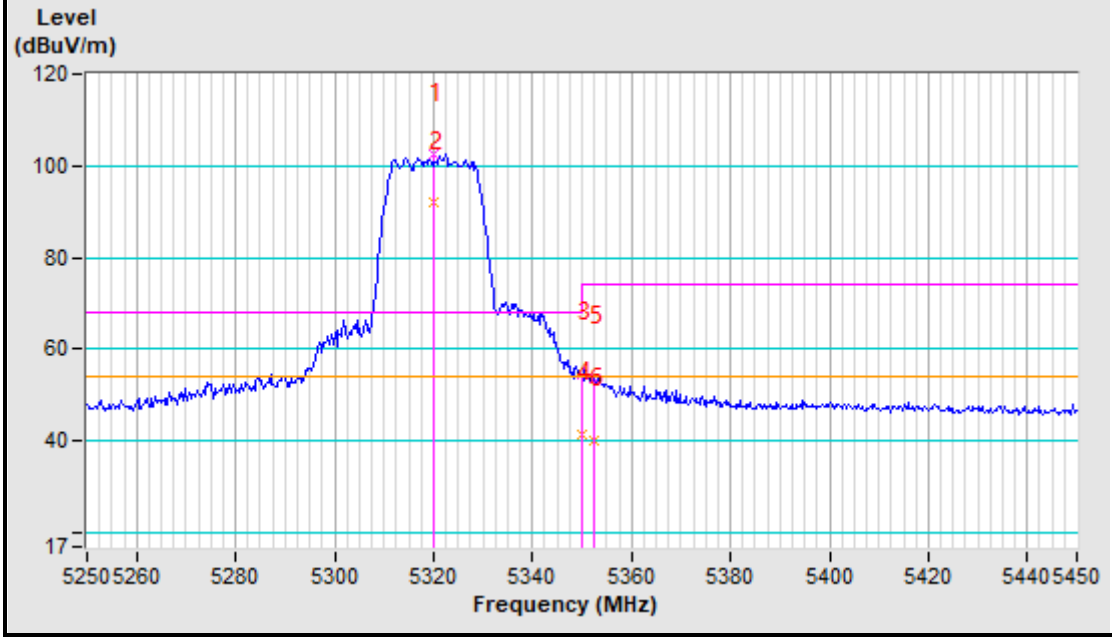
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

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	105.43 PK			1.75 H	47	99.41	6.02
2	*5270.00	95.36 AV			1.75 H	47	89.34	6.02
3	5350.00	55.08 PK	74.00	-18.92	2.57 H	47	48.91	6.17
4	5350.00	42.34 AV	54.00	-11.66	2.57 H	47	36.17	6.17
5	5354.92	54.61 PK	74.00	-19.39	1.86 H	47	48.43	6.18
6	5354.92	41.59 AV	54.00	-12.41	1.86 H	47	35.41	6.18
7	#10540.00	59.36 PK	68.20	-8.84	3.16 H	0	45.52	13.84
8	15810.00	60.36 PK	74.00	-13.64	3.28 H	0	41.08	19.28
9	15810.00	44.39 AV	54.00	-9.61	3.28 H	0	25.11	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	100.83 PK			1.78 V	177	94.81	6.02
2	*5270.00	90.34 AV			1.78 V	177	84.32	6.02
3	5350.00	50.53 PK	74.00	-23.47	2.10 V	177	44.36	6.17
4	5350.00	39.28 AV	54.00	-14.72	2.10 V	177	33.11	6.17
5	5354.63	51.54 PK	74.00	-22.46	1.81 V	177	45.36	6.18
6	5354.63	40.36 AV	54.00	-13.64	1.81 V	177	34.18	6.18
7	#10540.00	58.28 PK	68.20	-9.92	1.52 V	0	44.44	13.84
8	15810.00	59.27 PK	74.00	-14.73	2.19 V	0	39.99	19.28
9	15810.00	42.34 AV	54.00	-11.66	2.19 V	0	23.06	19.28

REMARKS:

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

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

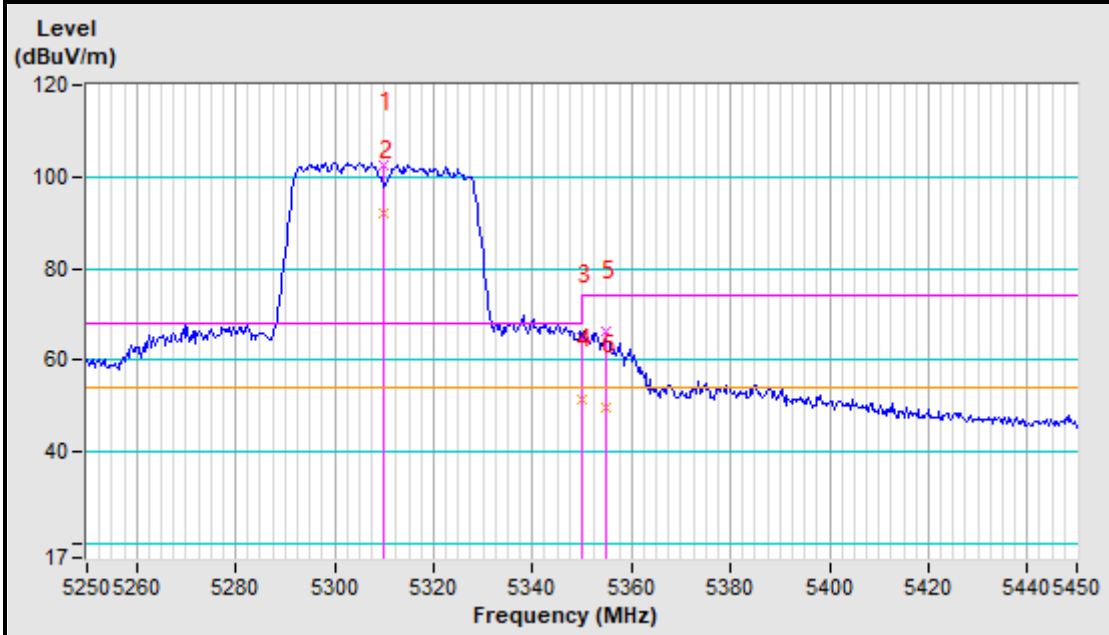
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	102.59 PK			2.13 H	308	96.50	6.09
2	*5310.00	92.28 AV			2.13 H	308	86.19	6.09
3	5350.00	65.15 PK	74.00	-8.85	3.16 H	308	58.98	6.17
4	5350.00	51.28 AV	54.00	-2.72	3.16 H	308	45.11	6.17
5	5354.92	66.14 PK	74.00	-7.86	3.28 H	308	59.96	6.18
6	5354.92	49.88 AV	54.00	-4.12	3.28 H	308	43.70	6.18
7	10620.00	61.88 PK	74.00	-12.12	2.99 H	0	47.95	13.93
8	10620.00	46.32 AV	54.00	-7.68	2.99 H	0	32.39	13.93
9	15930.00	62.57 PK	74.00	-11.43	2.62 H	0	43.11	19.46
10	15930.00	47.58 AV	54.00	-6.42	2.62 H	0	28.12	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	98.24 PK			2.08 V	263	92.15	6.09
2	*5310.00	88.71 AV			2.08 V	263	82.62	6.09
3	5350.00	60.49 PK	74.00	-13.51	2.02 V	263	54.32	6.17
4	5350.00	48.36 AV	54.00	-5.64	2.02 V	263	42.19	6.17
5	5353.76	61.63 PK	74.00	-12.37	1.98 V	263	55.46	6.17
6	5353.76	50.29 AV	54.00	-3.71	1.98 V	263	44.12	6.17
7	10620.00	60.39 PK	74.00	-13.61	1.79 V	0	46.46	13.93
8	10620.00	45.29 AV	54.00	-8.71	1.79 V	0	31.36	13.93
9	15930.00	61.33 PK	74.00	-12.67	1.99 V	0	41.87	19.46
10	15930.00	46.39 AV	54.00	-7.61	1.99 V	0	26.93	19.46

REMARKS:

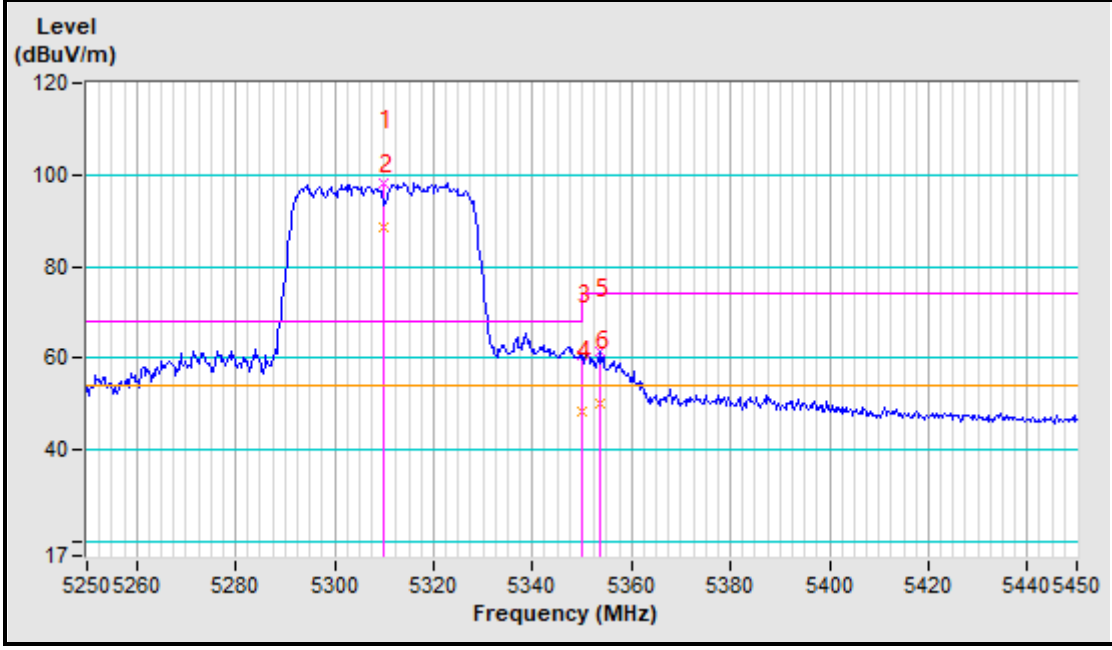
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5310MHz Horizontal



5310MHz Vertical



802.11ac 80MHz

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

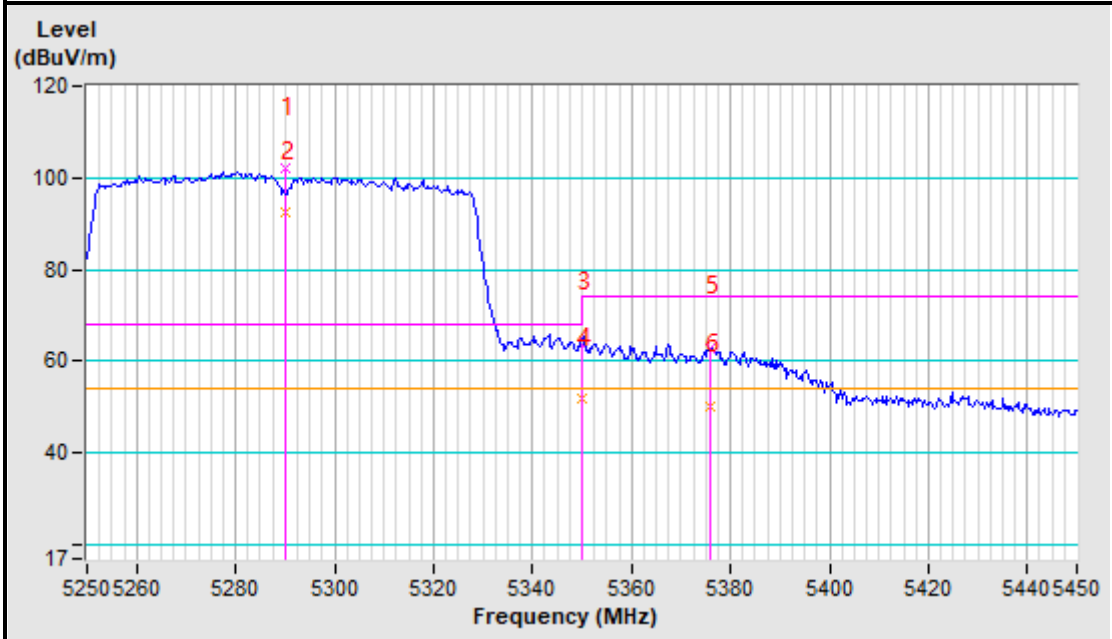
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	102.08 PK			2.20 H	318	96.02	6.06
2	*5290.00	92.44 AV			2.20 H	318	86.38	6.06
3	5350.00	63.82 PK	74.00	-10.18	3.25 H	318	57.65	6.17
4	**5350.00**	**51.85 AV**	**54.00**	**-2.15**	**3.25 H**	**318**	**45.68**	**6.17**
5	5376.05	63.03 PK	74.00	-10.97	1.51 H	318	56.82	6.21
6	5376.05	50.27 AV	54.00	-3.73	1.51 H	318	44.06	6.21
7	#10580.00	62.55 PK	68.20	-5.65	2.36 H	0	48.66	13.89
8	15870.00	61.35 PK	74.00	-12.65	2.90 H	0	41.98	19.37
9	15870.00	47.86 AV	54.00	-6.14	2.90 H	0	28.49	19.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	95.93 PK			1.75 V	145	89.87	6.06
2	*5290.00	85.47 AV			1.75 V	145	79.41	6.06
3	5350.00	58.70 PK	74.00	-15.30	1.58 V	145	52.53	6.17
4	5350.00	48.74 AV	54.00	-5.26	1.58 V	145	42.57	6.17
5	5376.63	59.64 PK	74.00	-14.36	1.79 V	145	53.43	6.21
6	5376.63	49.28 AV	54.00	-4.72	1.79 V	145	43.07	6.21
7	#10580.00	61.35 PK	68.20	-6.85	2.23 V	0	47.46	13.89
8	15870.00	60.33 PK	74.00	-13.67	2.18 V	0	40.96	19.37
9	15870.00	46.52 AV	54.00	-7.48	2.18 V	0	27.15	19.37

REMARKS:

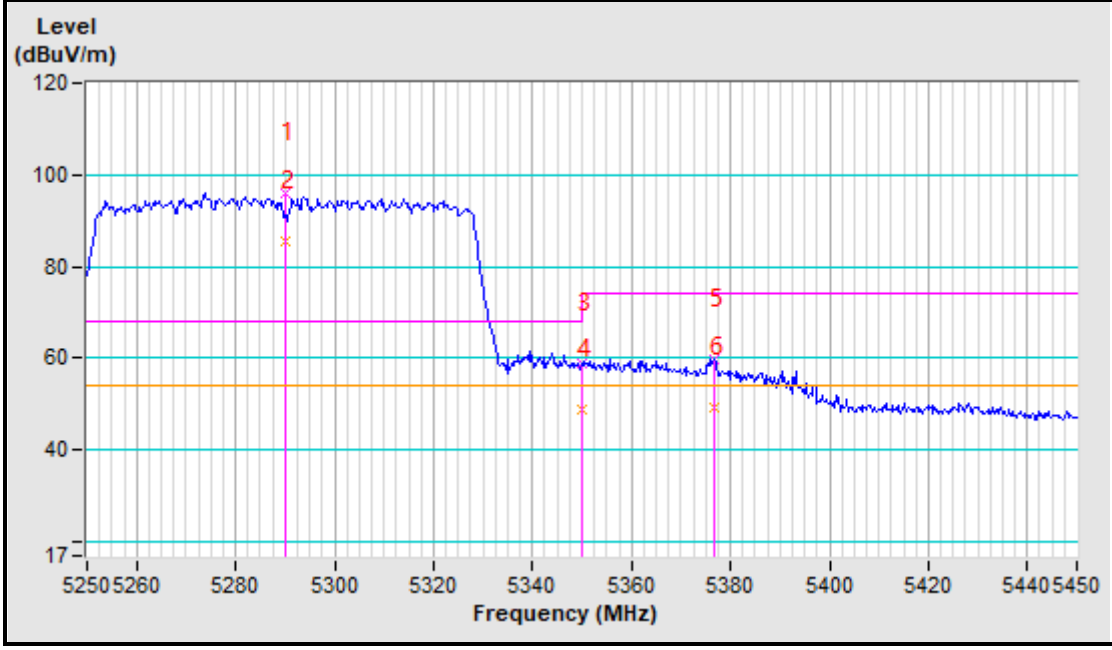
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5290MHz Horizontal



5290MHz Vertical



Band 3 (5470-5725MHz):

ABOVE 1GHz DATA

802.11n (20MHz)

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

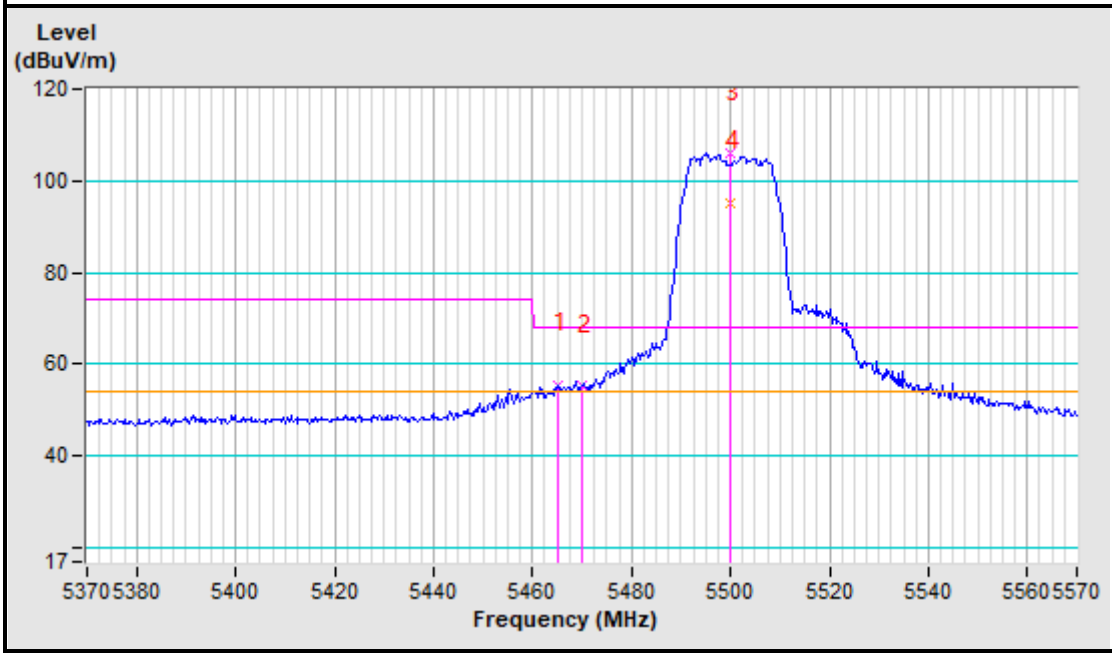
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	#5465.08	55.49 PK	68.20	-12.71	1.63 H	183	49.11	6.38
2	#5470.00	55.27 PK	68.20	-12.93	1.68 H	183	48.89	6.38
3	*5500.00	105.94 PK			3.41 H	183	99.50	6.44
4	*5500.00	95.32 AV			3.41 H	183	88.88	6.44
5	11000.00	59.74 PK	74.00	-14.26	2.21 H	0	45.38	14.36
6	11000.00	44.39 AV	54.00	-9.61	2.21 H	0	30.03	14.36
7	#16500.00	59.12 PK	68.20	-9.08	2.99 H	0	39.01	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	#5465.50	52.88 PK	68.20	-15.32	2.16 V	29	46.50	6.38
2	#5470.00	53.05 PK	68.20	-15.15	2.33 V	29	46.67	6.38
3	*5500.00	103.31 PK			2.07 V	29	96.87	6.44
4	*5500.00	92.44 AV			2.07 V	29	86.00	6.44
5	11000.00	58.36 PK	74.00	-15.64	1.65 V	0	44.00	14.36
6	11000.00	43.54 AV	54.00	-10.46	1.65 V	0	29.18	14.36
7	#16500.00	58.34 PK	68.20	-9.86	1.41 V	0	38.23	20.11

REMARKS:

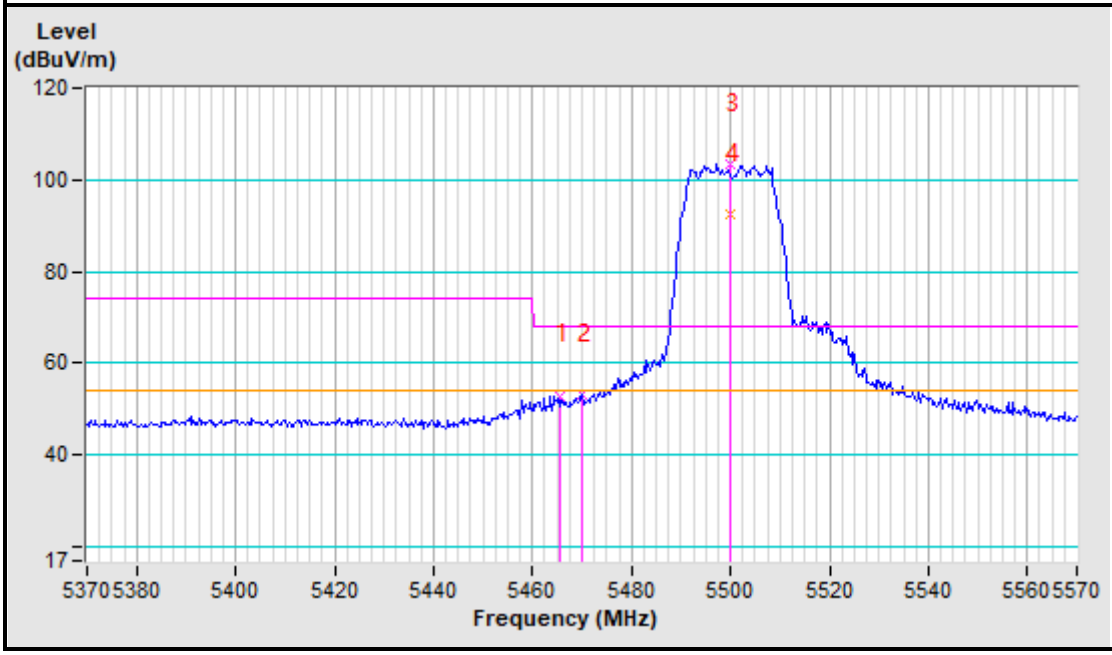
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5500MHz Horizontal



5500MHz Vertical



CHANNEL	TX Channel 112	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	47.06 PK	68.20	-21.14	1.81 H	175	40.68	6.38
2	*5580.00	106.04 PK			2.97 H	175	99.36	6.68
3	*5580.00	96.53 AV			2.97 H	175	89.85	6.68
4	11160.00	59.34 PK	74.00	-14.66	2.28 H	0	44.66	14.68
5	11160.00	43.29 AV	54.00	-10.71	2.28 H	0	28.61	14.68
6	#16740.00	59.43 PK	68.20	-8.77	2.20 H	0	38.87	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	46.38 PK	68.20	-21.82	1.80 V	133	40.00	6.38
2	*5580.00	104.24 PK			2.21 V	133	97.56	6.68
3	*5580.00	94.35 AV			2.21 V	133	87.67	6.68
4	11160.00	58.27 PK	74.00	-15.73	1.88 V	0	43.59	14.68
5	11160.00	41.15 AV	54.00	-12.85	1.88 V	0	26.47	14.68
6	#16740.00	58.34 PK	68.20	-9.86	1.47 V	0	37.78	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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

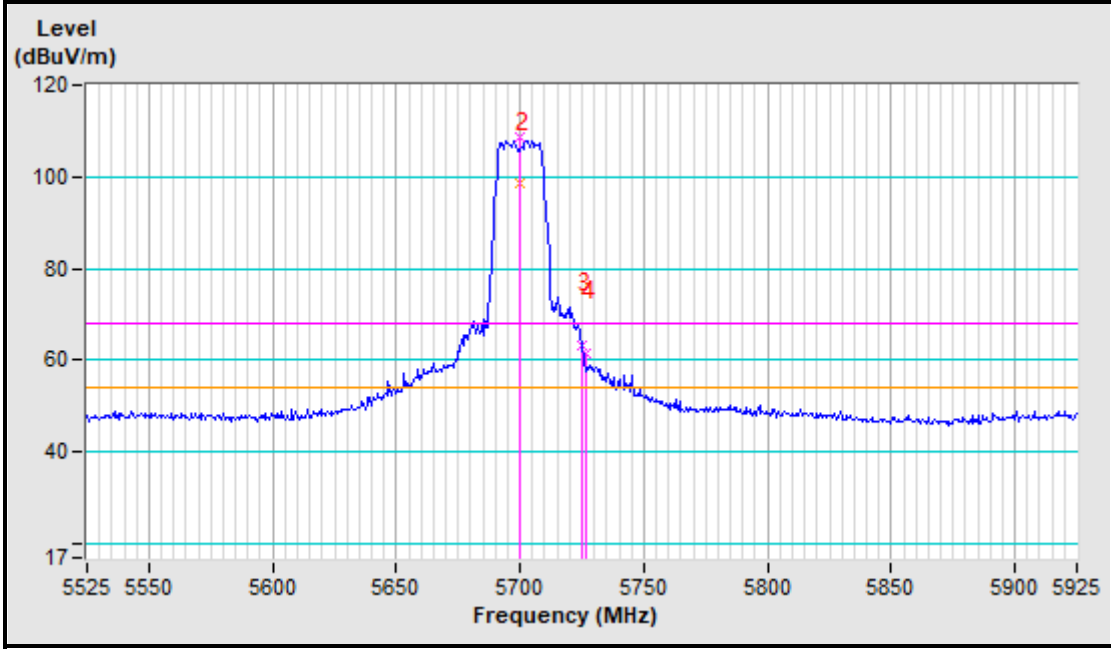
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.60 PK			3.27 H	319	101.57	7.03
2	*5700.00	98.53 AV			3.27 H	319	91.50	7.03
3	#5725.00	63.32 PK	68.20	-4.88	3.02 H	319	56.22	7.10
4	#5726.45	61.60 PK	68.20	-6.60	3.25 H	319	54.50	7.10
5	11400.00	60.29 PK	74.00	-13.71	2.86 H	0	45.14	15.15
6	11400.00	45.18 AV	54.00	-8.82	2.86 H	0	30.03	15.15
7	#17100.00	60.58 PK	68.20	-7.62	2.48 H	0	39.53	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	104.44 PK			1.44 V	218	97.41	7.03
2	*5700.00	93.39 AV			1.44 V	218	86.36	7.03
3	#5725.00	60.57 PK	68.20	-7.63	2.21 V	218	53.47	7.10
4	#5729.05	57.25 PK	68.20	-10.95	2.23 V	218	50.14	7.11
5	11400.00	59.63 PK	74.00	-14.37	2.15 V	0	44.48	15.15
6	11400.00	44.32 AV	54.00	-9.68	2.15 V	0	29.17	15.15
7	#17100.00	59.36 PK	68.20	-8.84	2.16 V	0	38.31	21.05

REMARKS:

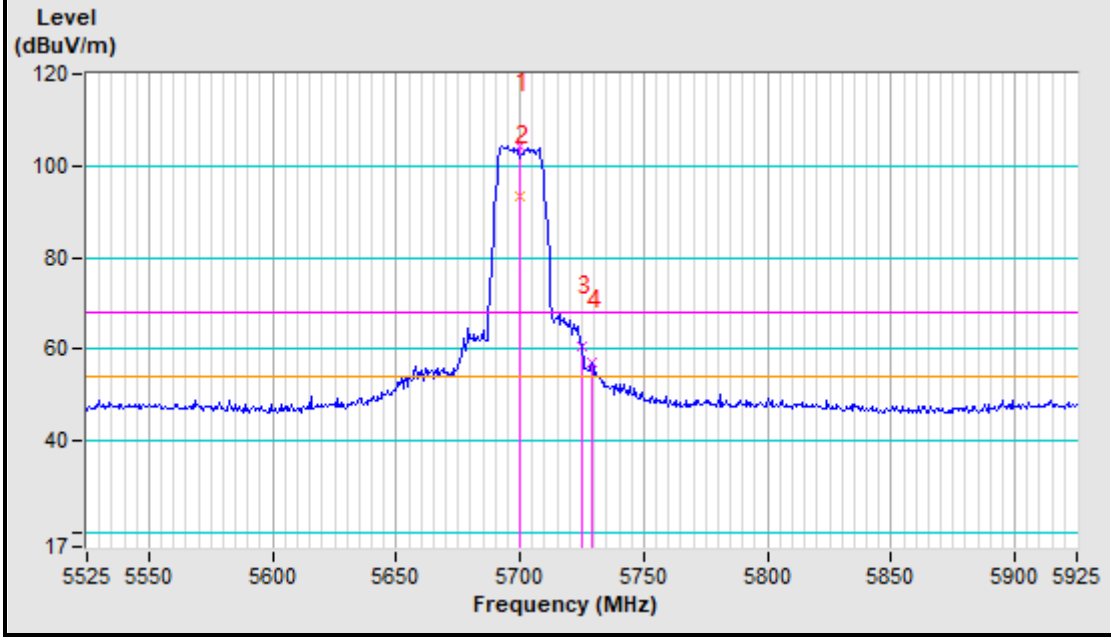
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5700MHz Horizontal



5700MHz Vertical



802.11n (40MHz)

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

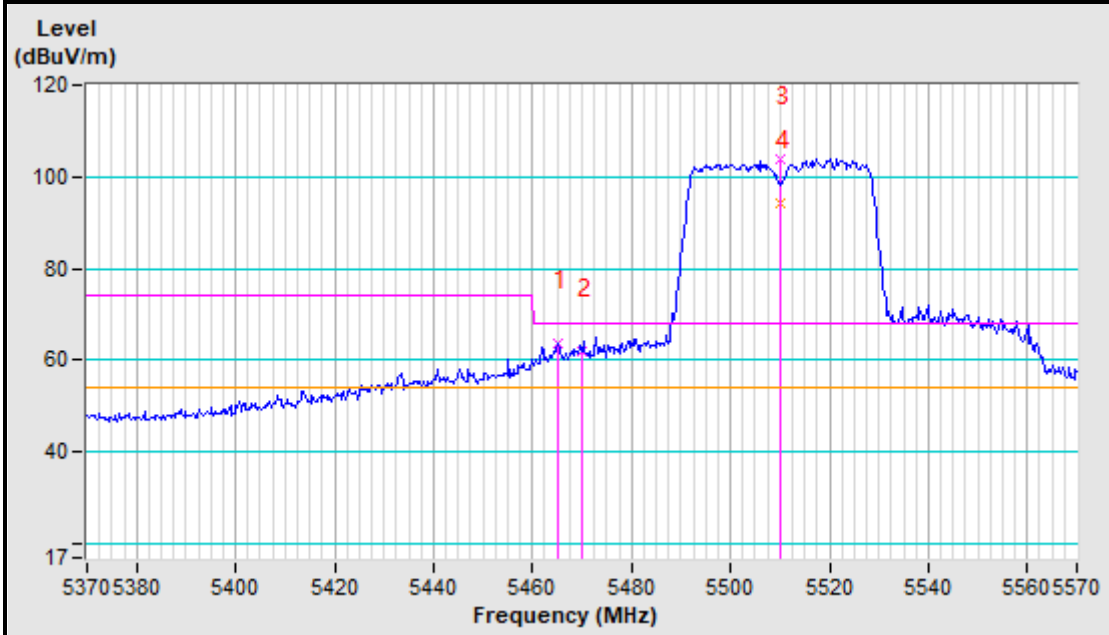
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5465.08	63.78 PK	68.20	-4.42	1.82 H	139	57.40	6.38
2	#5470.00	62.08 PK	68.20	-6.12	1.29 H	139	55.70	6.38
3	*5510.00	104.05 PK			3.15 H	139	97.58	6.47
4	*5510.00	94.32 AV			3.15 H	139	87.85	6.47
5	11020.00	60.38 PK	74.00	-13.62	1.93 H	0	45.99	14.39
6	11020.00	44.54 AV	54.00	-9.46	1.93 H	0	30.15	14.39
7	#16530.00	59.63 PK	68.20	-8.57	1.84 H	0	39.47	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	#5463.92	59.41 PK	68.20	-8.79	1.68 V	217	53.03	6.38
2	#5470.00	57.96 PK	68.20	-10.24	1.55 V	217	51.58	6.38
3	*5510.00	102.23 PK			2.07 V	217	95.76	6.47
4	*5510.00	92.44 AV			2.07 V	217	85.97	6.47
5	11020.00	59.74 PK	74.00	-14.26	2.00 V	0	45.35	14.39
6	11020.00	43.16 AV	54.00	-10.84	2.00 V	0	28.77	14.39
7	#16530.00	58.74 PK	68.20	-9.46	1.54 V	0	38.58	20.16

REMARKS:

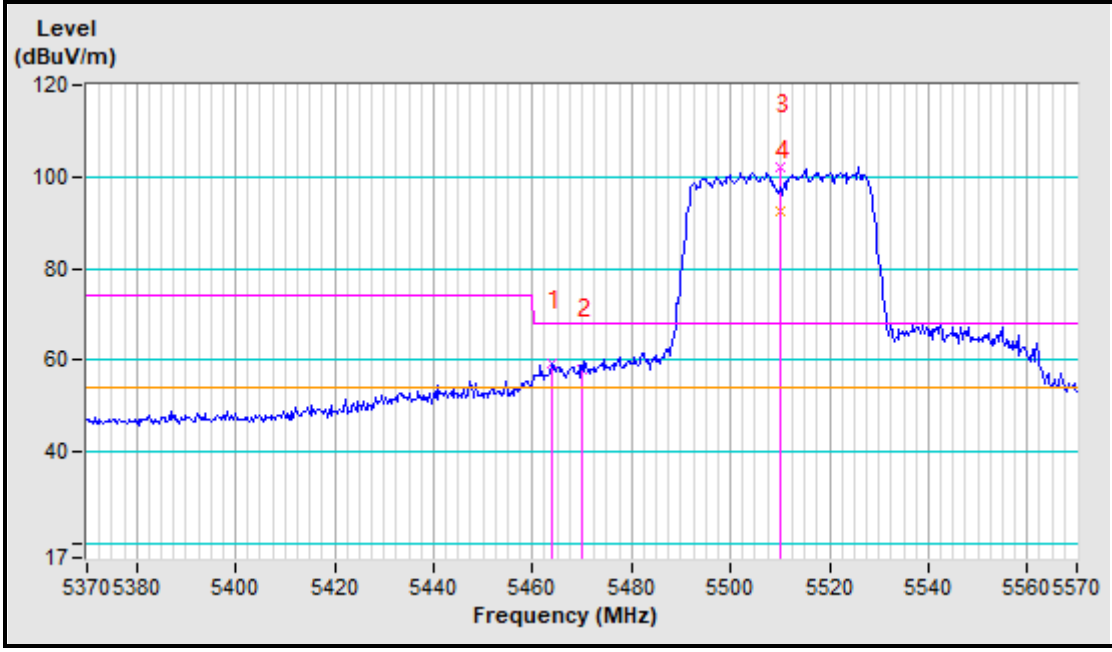
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

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	*5550.00	104.22 PK			2.70 H	38	97.64	6.58
2	*5550.00	94.35 AV			2.70 H	38	87.77	6.58
3	#5725.00	47.59 PK	68.20	-20.61	2.40 H	38	40.49	7.10
4	11100.00	60.74 PK	74.00	-13.26	1.66 H	0	46.19	14.55
5	11100.00	43.39 AV	54.00	-10.61	1.66 H	0	28.84	14.55
6	#16650.00	58.34 PK	68.20	-9.86	2.17 H	0	37.95	20.39
7	#16650.00	44.19 AV	54.00	-9.81	2.17 H	0	23.80	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	*5550.00	103.00 PK			2.26 V	274	96.42	6.58
2	*5550.00	92.36 AV			2.26 V	274	85.78	6.58
3	#5725.00	47.23 PK	68.20	-20.97	1.95 V	274	40.13	7.10
4	11100.00	58.63 PK	74.00	-15.37	1.61 V	0	44.08	14.55
5	11100.00	41.57 AV	54.00	-12.43	1.61 V	0	27.02	14.55
6	#16650.00	57.44 PK	68.20	-10.76	2.11 V	0	37.05	20.39
7	#16650.00	42.18 AV	54.00	-11.82	2.11 V	0	21.79	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 less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

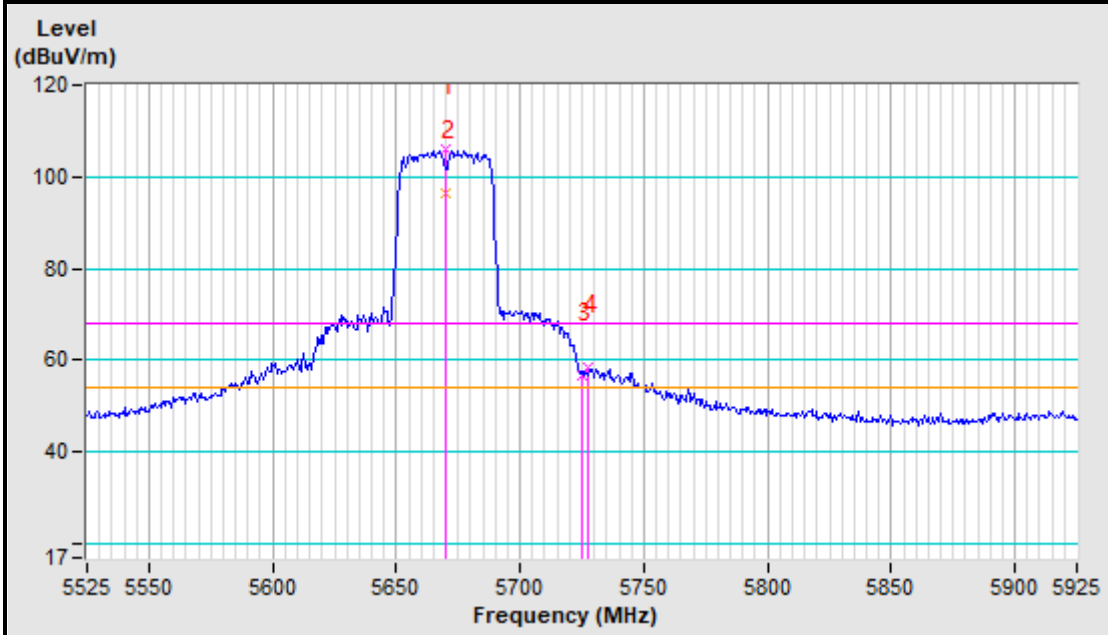
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	106.21 PK			3.34 H	243	99.28	6.93
2	*5670.00	96.58 AV			3.34 H	243	89.65	6.93
3	#5725.00	56.85 PK	68.20	-11.35	2.18 H	243	49.75	7.10
4	#5727.60	58.63 PK	68.20	-9.57	2.56 H	243	51.53	7.10
5	11340.00	61.53 PK	74.00	-12.47	1.67 H	0	46.51	15.02
6	11340.00	43.58 AV	54.00	-10.42	1.67 H	0	28.56	15.02
7	#17010.00	60.19 PK	68.20	-8.01	1.59 H	0	39.16	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	102.14 PK			1.47 V	49	95.21	6.93
2	*5670.00	91.83 AV			1.47 V	49	84.90	6.93
3	#5725.00	55.54 PK	68.20	-12.66	2.02 V	49	48.44	7.10
4	#5730.21	54.55 PK	68.20	-13.65	2.16 V	49	47.44	7.11
5	11340.00	60.35 PK	74.00	-13.65	1.59 V	0	45.33	15.02
6	11340.00	42.19 AV	54.00	-11.81	1.59 V	0	27.17	15.02
7	#17010.00	59.35 PK	68.20	-8.85	1.90 V	0	38.32	21.03

REMARKS:

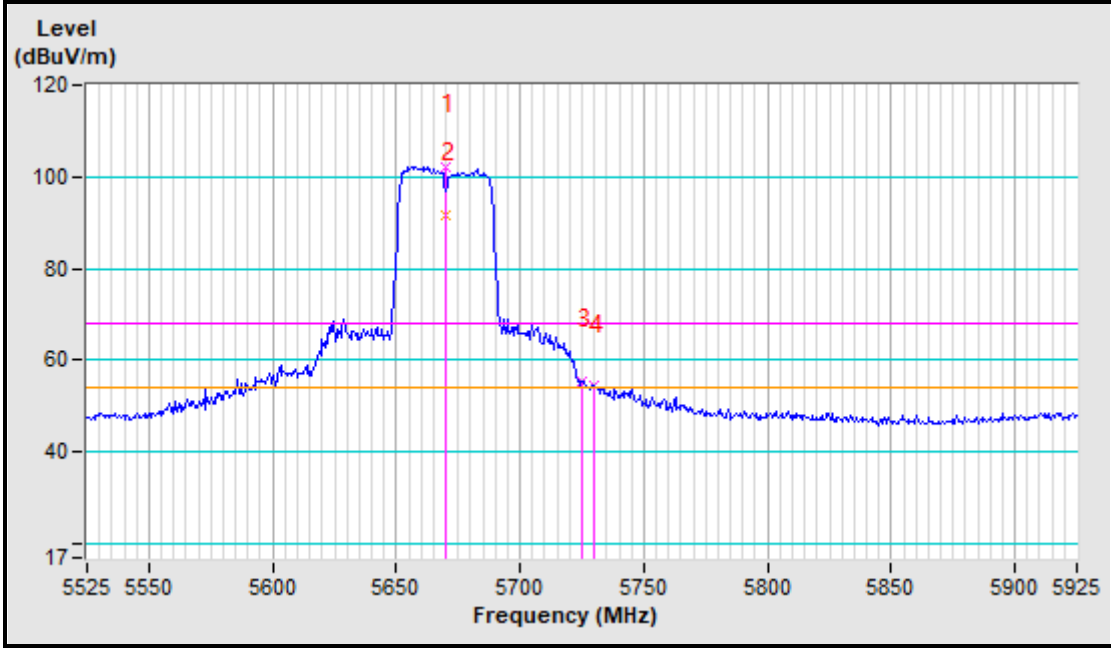
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5670MHz Horizontal



5670MHz Vertical



802.11ac 80MHz

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

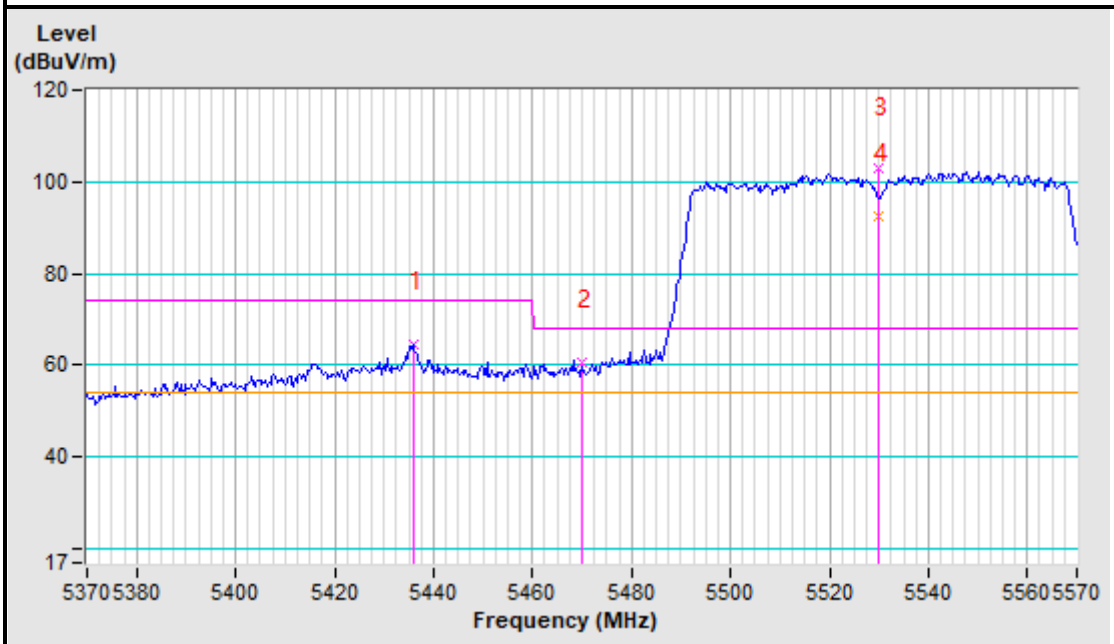
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5435.85	64.60 PK	74.00	-9.40	2.24 H	153	58.28	6.32
2	**#5470.00**	**60.77 PK**	**68.20**	**-7.43**	**2.48 H**	**153**	**54.39**	**6.38**
3	*5530.00	102.93 PK			3.10 H	153	96.40	6.53
4	*5530.00	92.58 AV			3.10 H	153	86.05	6.53
5	11060.00	62.54 PK	74.00	-11.46	2.81 H	0	48.07	14.47
6	11060.00	43.19 AV	54.00	-10.81	2.81 H	0	28.72	14.47
7	#16590.00	60.55 PK	68.20	-7.65	3.45 H	0	40.27	20.28
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	5435.85	60.39 PK	74.00	-13.61	1.36 V	285	54.07	6.32
2	#5470.00	55.98 PK	68.20	-12.22	1.77 V	285	49.60	6.38
3	*5530.00	99.89 PK			1.81 V	285	93.36	6.53
4	*5530.00	89.54 AV			1.81 V	285	83.01	6.53
5	11060.00	61.35 PK	74.00	-12.65	2.02 V	0	46.88	14.47
6	11060.00	42.05 AV	54.00	-11.95	2.02 V	0	27.58	14.47
7	#16590.00	59.34 PK	68.20	-8.86	2.05 V	0	39.06	20.28

REMARKS:

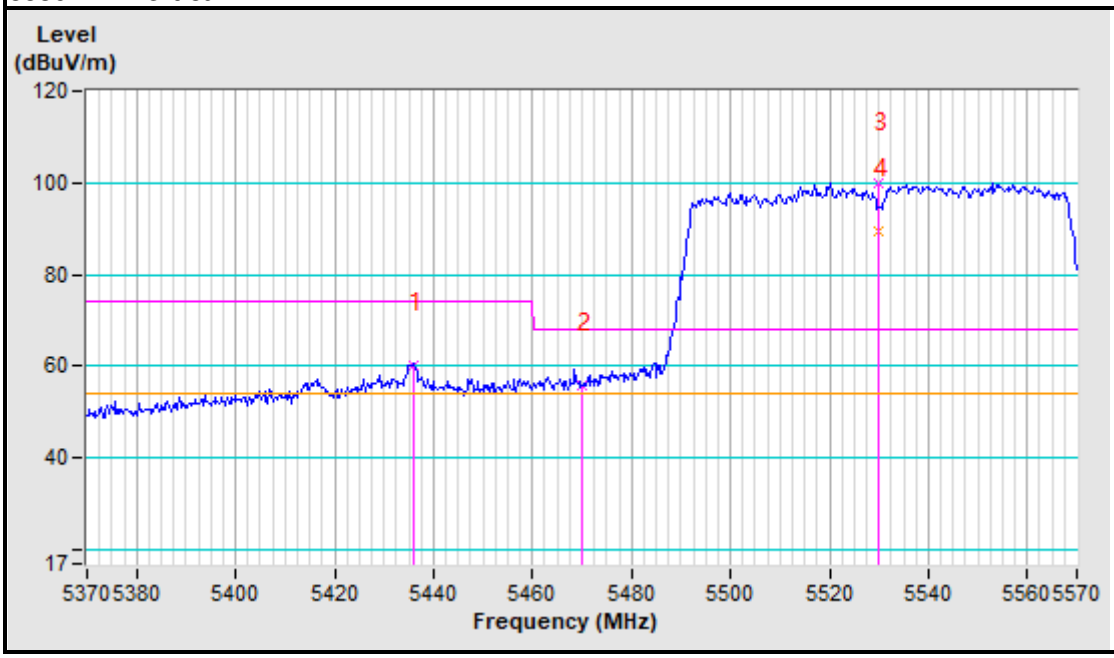
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5530MHz Horizontal



5530MHz Vertical



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

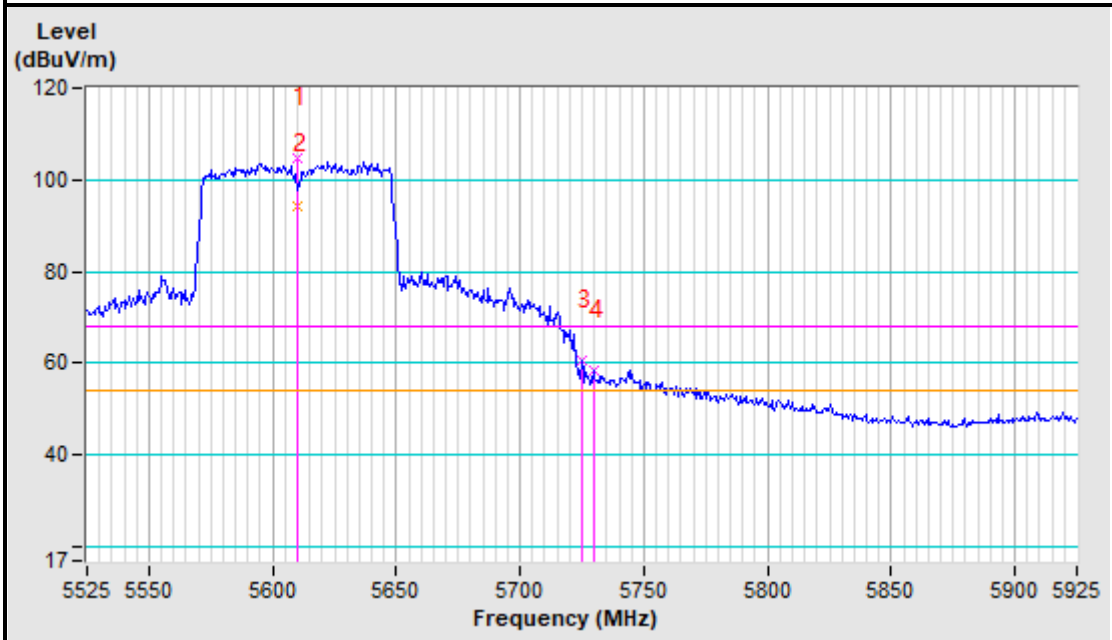
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	104.74 PK			2.00 H	96	97.98	6.76
2	*5610.00	94.36 AV			2.00 H	96	87.60	6.76
3	#5725.00	60.46 PK	68.20	-7.74	1.80 H	96	53.36	7.10
4	#5729.63	58.29 PK	68.20	-9.91	1.80 H	96	51.18	7.11
5	11220.00	62.54 PK	74.00	-11.46	1.80 H	0	47.75	14.79
6	11220.00	45.37 AV	54.00	-8.63	1.80 H	0	30.58	14.79
7	#16830.00	60.54 PK	68.20	-7.66	1.76 H	0	39.82	20.72
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	102.07 PK			1.58 V	75	95.31	6.76
2	*5610.00	91.48 AV			1.58 V	75	84.72	6.76
3	#5725.00	56.46 PK	68.20	-11.74	1.50 V	75	49.36	7.10
4	#5729.63	56.33 PK	68.20	-11.87	1.50 V	75	49.22	7.11
5	11220.00	61.96 PK	74.00	-12.04	1.50 V	0	47.17	14.79
6	11220.00	44.51 AV	54.00	-9.49	1.50 V	0	29.72	14.79
7	#16830.00	59.36 PK	68.20	-8.84	1.62 V	0	38.64	20.72

REMARKS:

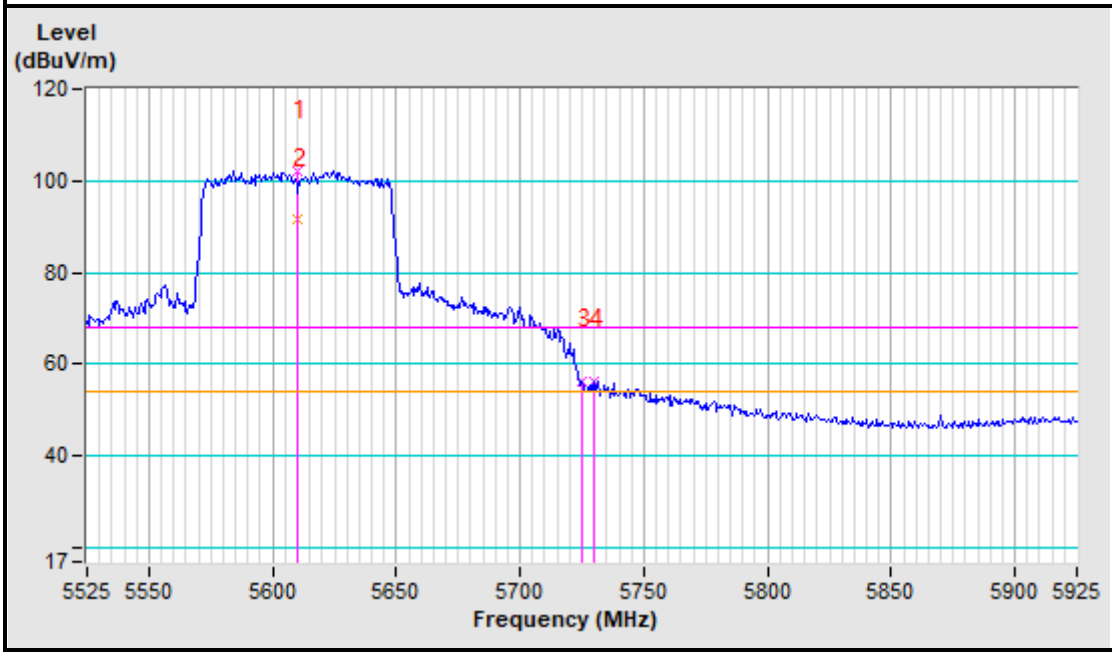
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5610MHz Horizontal



5610MHz Vertical



Band 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11n (20MHz)

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

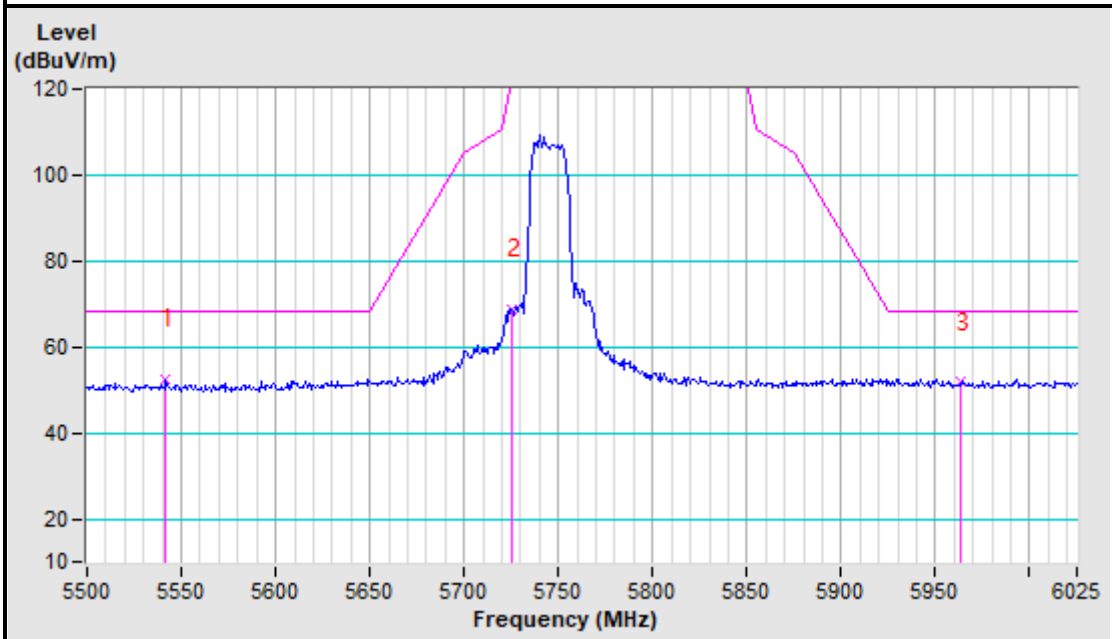
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5541.90	52.59 PK	68.20	-15.61	2.06 H	271	46.02	6.57
2	#5725.00	68.96 PK	122.20	-53.24	3.10 H	271	61.86	7.10
3	*5745.00	109.06 PK			1.72 H	114	101.90	7.16
4	*5745.00	97.54 AV			1.72 H	114	90.38	7.16
5	#5963.57	51.77 PK	68.20	-16.43	2.13 H	271	43.98	7.79
6	11490.00	62.39 PK	74.00	-11.61	1.89 H	0	47.07	15.32
7	11490.00	46.33 AV	54.00	-7.67	1.89 H	0	31.01	15.32
8	#17235.00	60.57 PK	68.20	-7.63	2.45 H	0	39.50	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	#5591.28	51.38 PK	68.20	-16.82	1.60 V	116	44.67	6.71
2	#5725.00	68.12 PK	122.20	-54.08	1.40 V	116	61.02	7.10
3	*5745.00	103.89 PK			1.62 V	114	96.73	7.16
4	*5745.00	92.47 AV			1.62 V	114	85.31	7.16
5	#5968.89	52.49 PK	68.20	-15.71	2.29 V	116	44.68	7.81
6	11490.00	60.54 PK	74.00	-13.46	1.73 V	0	45.22	15.32
7	11490.00	44.81 AV	54.00	-9.19	1.73 V	0	29.49	15.32
8	#17235.00	59.71 PK	68.20	-8.49	1.93 V	0	38.64	21.07

REMARKS:

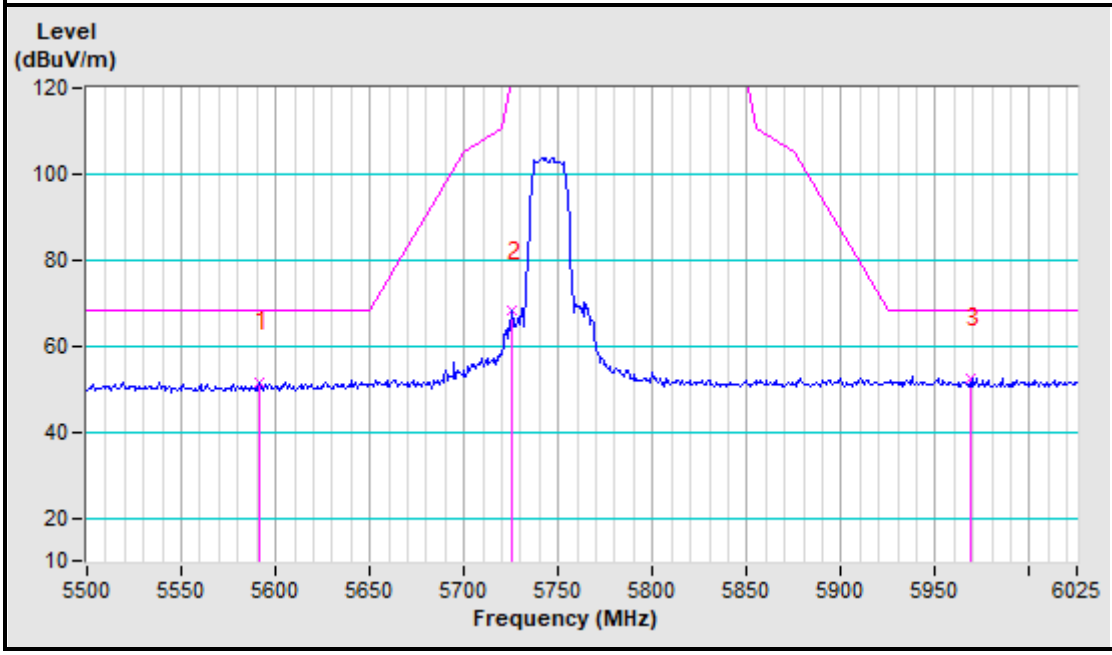
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5745MHz Horizontal



5745MHz Vertical



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

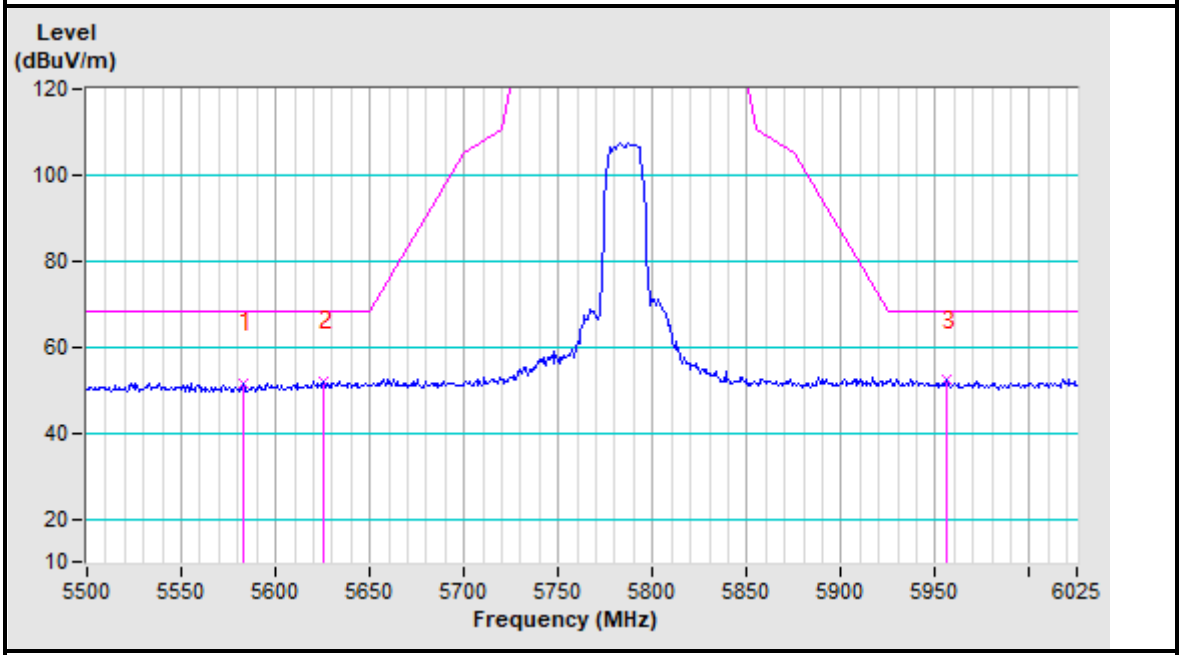
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5583.19	51.52 PK	68.20	-16.68	3.01 H	255	44.84	6.68
2	#5625.74	51.94 PK	68.20	-16.26	1.55 H	255	45.13	6.81
3	*5785.00	107.42 PK			3.00 H	38	100.15	7.27
4	*5785.00	96.49 AV			3.00 H	38	89.22	7.27
5	#5955.48	52.27 PK	68.20	-15.93	1.88 H	255	44.50	7.77
6	11570.00	59.82 PK	74.00	-14.18	1.82 H	0	44.30	15.52
7	11570.00	45.71 AV	54.00	-8.29	1.82 H	0	30.19	15.52
8	#17355.00	59.28 PK	68.20	-8.92	2.64 H	0	38.19	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	#5609.79	51.83 PK	68.20	-16.37	1.46 V	171	45.07	6.76
2	*5785.00	104.19 PK			1.49 V	56	96.92	7.27
3	*5785.00	93.77 AV			1.49 V	56	86.50	7.27
4	#5937.25	52.00 PK	68.20	-16.20	1.80 V	171	44.28	7.72
5	#5972.96	51.58 PK	68.20	-16.62	1.23 V	171	43.76	7.82
6	11570.00	58.61 PK	74.00	-15.39	1.41 V	0	43.09	15.52
7	11570.00	44.34 AV	54.00	-9.66	1.41 V	0	28.82	15.52
8	#17355.00	58.44 PK	68.20	-9.76	1.61 V	0	37.35	21.09

REMARKS:

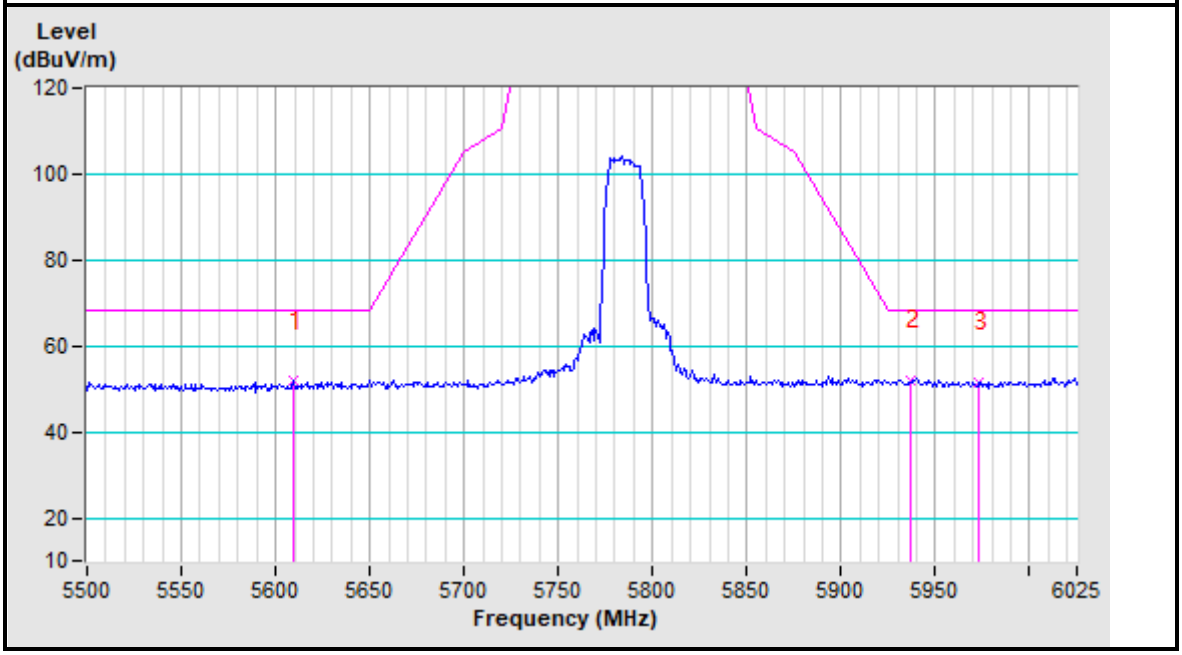
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5785MHz Horizontal



5785MHz Vertical



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

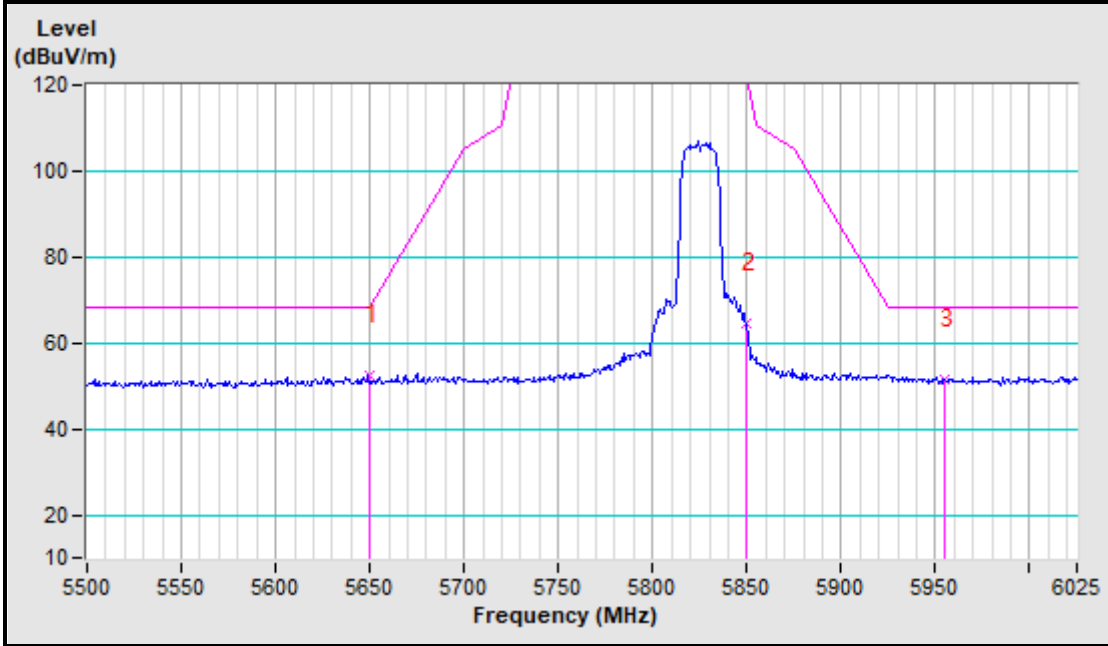
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5649.42	52.50 PK	68.20	-15.70	3.31 H	289	45.62	6.88
2	*5825.00	107.05 PK			1.80 H	47	99.66	7.39
3	*5825.00	96.59 AV			1.80 H	47	89.20	7.39
4	#5850.00	64.45 PK	122.20	-57.75	2.83 H	289	56.99	7.46
5	#5954.85	51.68 PK	68.20	-16.52	2.12 H	289	43.91	7.77
6	11650.00	60.56 PK	74.00	-13.44	3.41 H	0	44.83	15.73
7	11650.00	43.21 AV	54.00	-10.79	3.41 H	0	27.48	15.73
8	#17475.00	58.44 PK	68.20	-9.76	1.61 H	0	37.33	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	#5638.02	51.96 PK	68.20	-16.24	2.23 V	284	45.11	6.85
2	*5825.00	104.12 PK			1.50 V	305	96.73	7.39
3	*5825.00	93.66 AV			1.50 V	305	86.27	7.39
4	#5850.00	59.77 PK	122.20	-62.43	1.53 V	284	52.31	7.46
5	#5951.05	52.35 PK	68.20	-15.85	1.23 V	284	44.59	7.76
6	11650.00	58.49 PK	74.00	-15.51	1.48 V	0	42.76	15.73
7	11650.00	41.93 AV	54.00	-12.07	1.48 V	0	26.20	15.73
8	#17475.00	57.21 PK	68.20	-10.99	1.45 V	0	36.10	21.11

REMARKS:

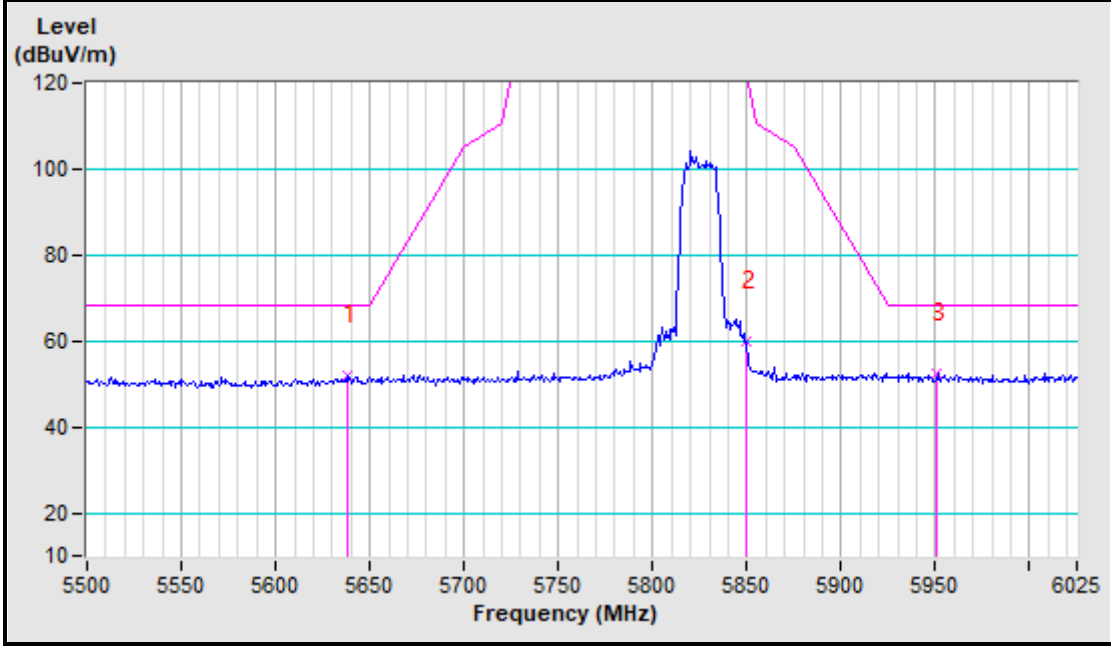
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5825MHz Horizontal



5825MHz Vertical



802.11n (40MHz)

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

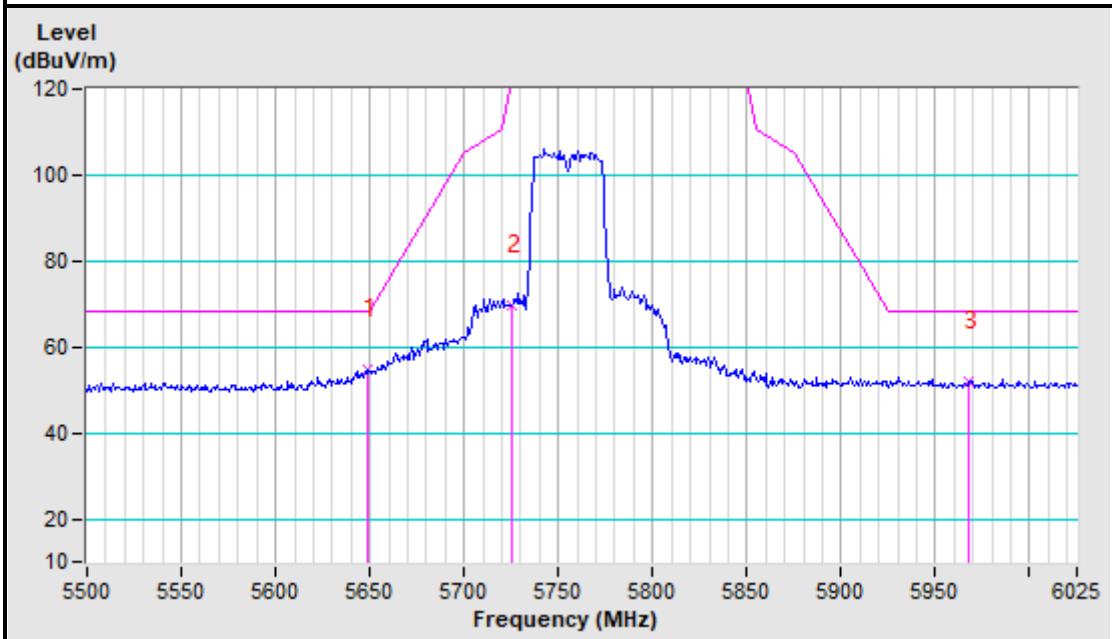
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5648.53	54.94 PK	68.20	-13.26	3.27 H	274	48.07	6.87
2	#5725.00	69.59 PK	122.20	-52.61	2.67 H	274	62.49	7.10
3	*5755.00	105.99 PK			1.85 H	307	98.81	7.18
4	*5755.00	95.47 AV			1.85 H	307	88.29	7.18
5	#5967.40	52.15 PK	68.20	-16.05	2.56 H	274	44.35	7.80
6	11510.00	60.39 PK	74.00	-13.61	1.55 H	0	45.02	15.37
7	11510.00	44.52 AV	54.00	-9.48	1.55 H	0	29.15	15.37
8	#17265.00	58.69 PK	68.20	-9.51	2.61 H	0	37.62	21.07
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5646.26	53.70 PK	68.20	-14.50	2.12 V	36	46.84	6.86
2	#5725.00	67.83 PK	122.20	-54.37	1.75 V	36	60.73	7.10
3	*5755.00	101.44 PK			2.28 V	214	94.26	7.18
4	*5755.00	90.26 AV			2.28 V	214	83.08	7.18
5	#5965.36	52.04 PK	68.20	-16.16	2.02 V	36	44.24	7.80
6	11510.00	59.63 PK	74.00	-14.37	2.22 V	0	44.26	15.37
7	11510.00	43.15 AV	54.00	-10.85	2.22 V	0	27.78	15.37
8	#17265.00	57.44 PK	68.20	-10.76	1.47 V	0	36.37	21.07

REMARKS:

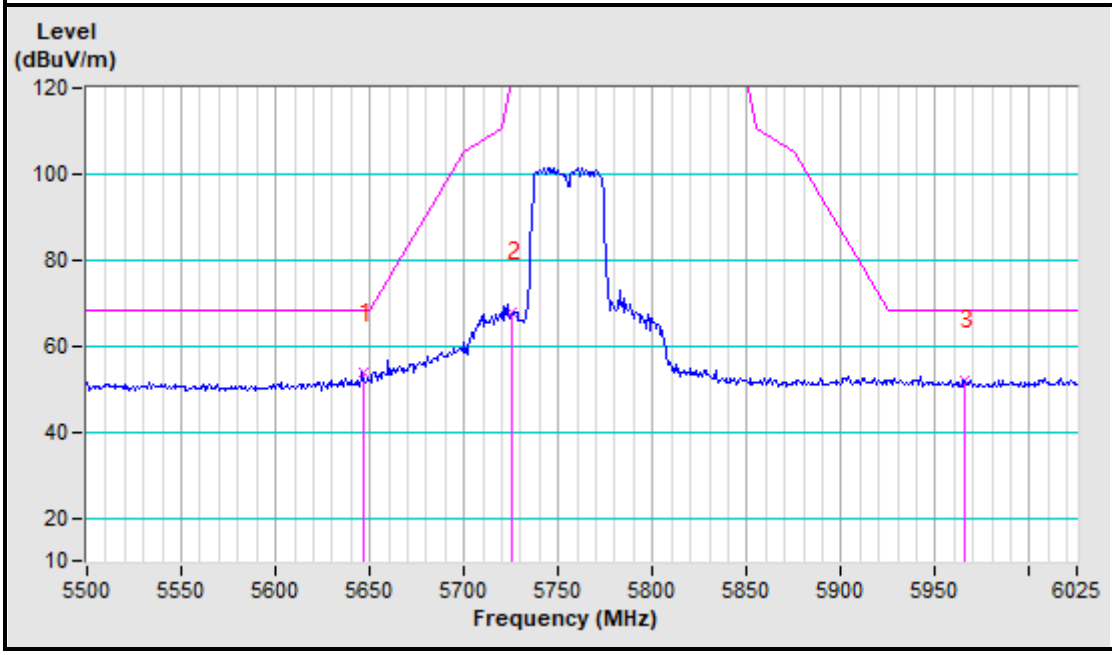
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5755MHz Horizontal



5755MHz Vertical



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

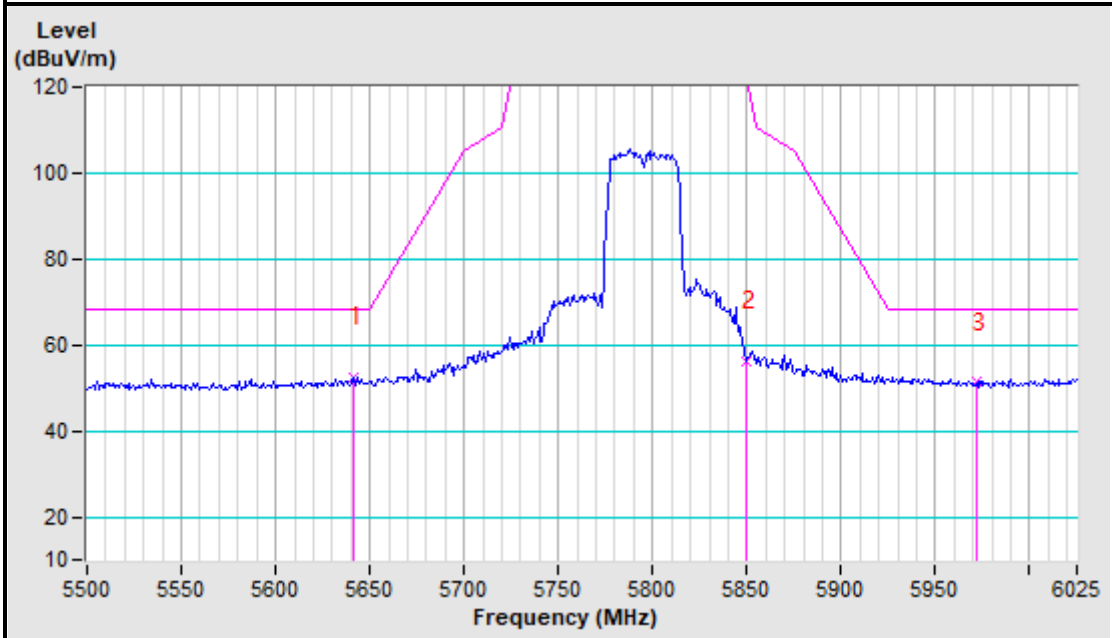
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5641.82	52.59 PK	68.20	-15.61	2.95 H	54	45.74	6.85
2	*5795.00	105.70 PK			1.91 H	188	98.40	7.30
3	*5795.00	95.49 AV			1.91 H	188	88.19	7.30
4	#5850.00	56.23 PK	122.20	-65.97	3.38 H	54	48.77	7.46
5	#5972.32	51.33 PK	68.20	-16.87	2.82 H	54	43.51	7.82
6	11590.00	62.54 PK	74.00	-11.46	2.79 H	0	46.97	15.57
7	11590.00	46.05 AV	54.00	-7.95	2.79 H	0	30.48	15.57
8	#17385.00	60.38 PK	68.20	-7.82	2.46 H	0	39.28	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	#5636.51	51.98 PK	68.20	-16.22	1.53 V	205	45.15	6.83
2	*5795.00	100.79 PK			1.59 V	203	93.49	7.30
3	*5795.00	90.34 AV			1.59 V	203	83.04	7.30
4	#5850.00	53.33 PK	122.20	-68.87	1.55 V	205	45.87	7.46
5	#5954.85	52.17 PK	68.20	-16.03	1.44 V	205	44.40	7.77
6	11590.00	60.29 PK	74.00	-13.71	1.50 V	0	44.72	15.57
7	11590.00	44.18 AV	54.00	-9.82	1.50 V	0	28.61	15.57
8	#17385.00	58.71 PK	68.20	-9.49	2.25 V	0	37.61	21.10

REMARKS:

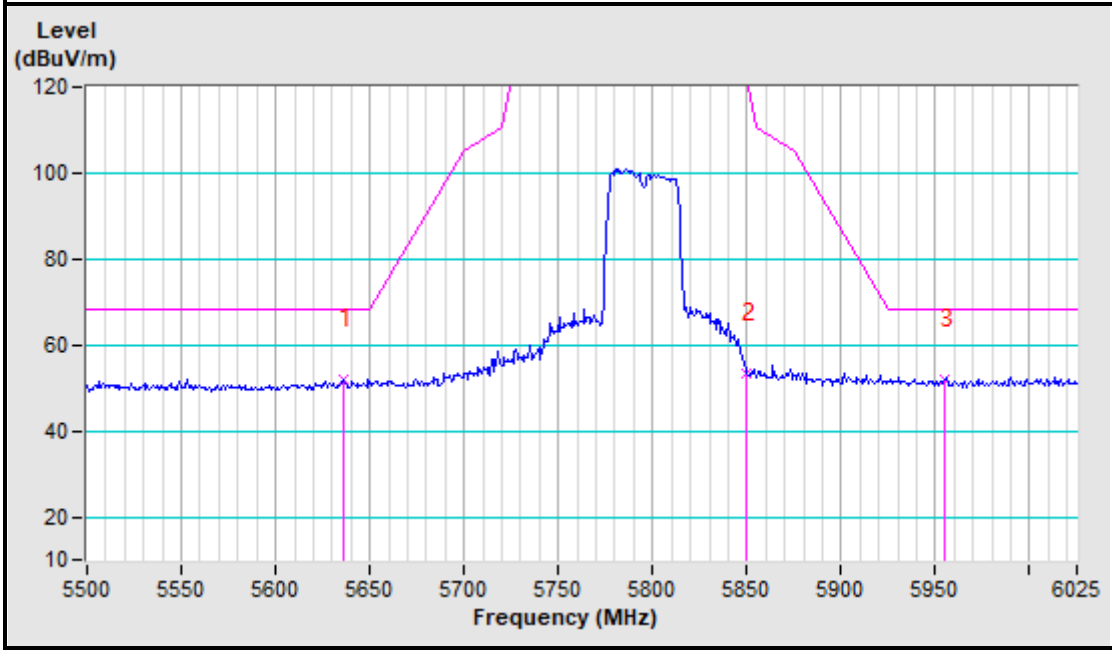
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5795MHz Horizontal



5795MHz Vertical



802.11ac 80MHz

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

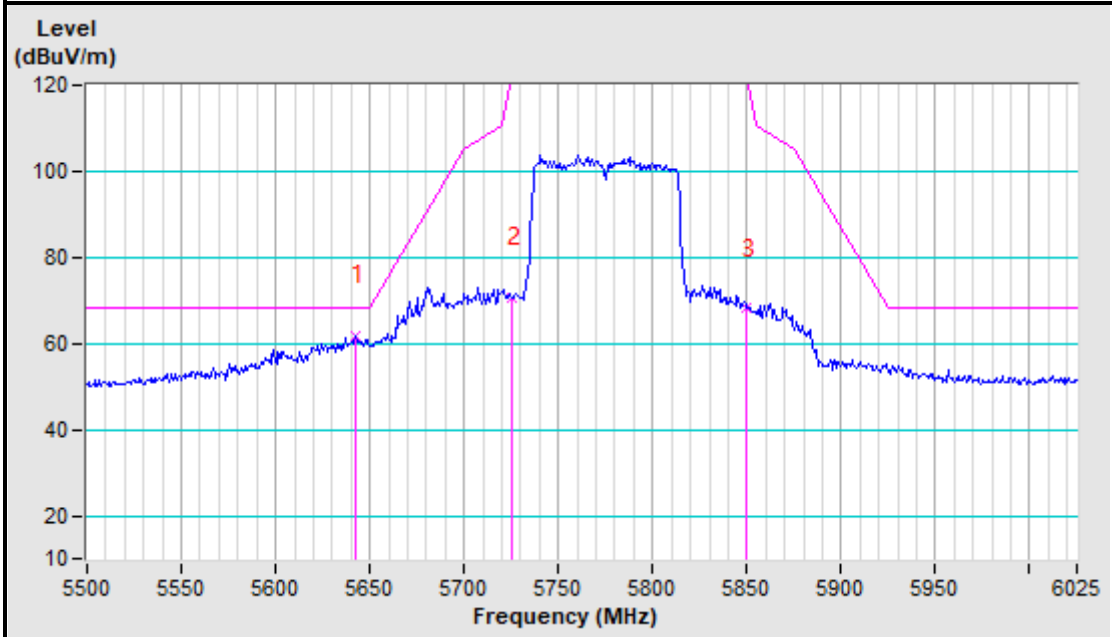
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5642.58	61.71 PK	68.20	-6.49	3.00 H	49	54.85	6.86
2	#5725.00	70.62 PK	122.20	-51.58	2.01 H	49	63.52	7.10
3	#5755.00	104.75 PK			1.65 H	305	97.57	7.18
4	#5755.00	94.33 AV			1.65 H	305	87.15	7.18
5	#5850.00	68.06 PK	122.20	-54.14	2.63 H	49	60.60	7.46
6	11550.00	61.54 PK	74.00	-12.46	2.80 H	0	46.07	15.47
7	11550.00	44.72 AV	54.00	-9.28	2.80 H	0	29.25	15.47
8	#17325.00	61.47 PK	68.20	-6.73	2.87 H	0	40.39	21.08
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5626.63	58.75 PK	68.20	-9.45	2.05 V	209	51.94	6.81
2	#5636.51	59.23 PK	68.20	-8.97	1.56 V	209	52.40	6.83
3	#5725.00	67.17 PK	122.20	-55.03	1.80 V	209	60.07	7.10
4	#5755.00	99.02 PK			1.80 V	209	91.84	7.18
5	#5755.00	89.47 AV			1.70 V	209	82.29	7.18
6	#5850.00	64.45 PK	122.20	-57.75	1.78 V	209	56.99	7.46
7	11550.00	60.36 PK	74.00	-13.64	1.78 V	0	44.89	15.47
8	11550.00	43.54 AV	54.00	-10.46	2.20 V	0	28.07	15.47
9	#17325.00	60.34 PK	68.20	-7.86	2.05 V	0	39.26	21.08

REMARKS:

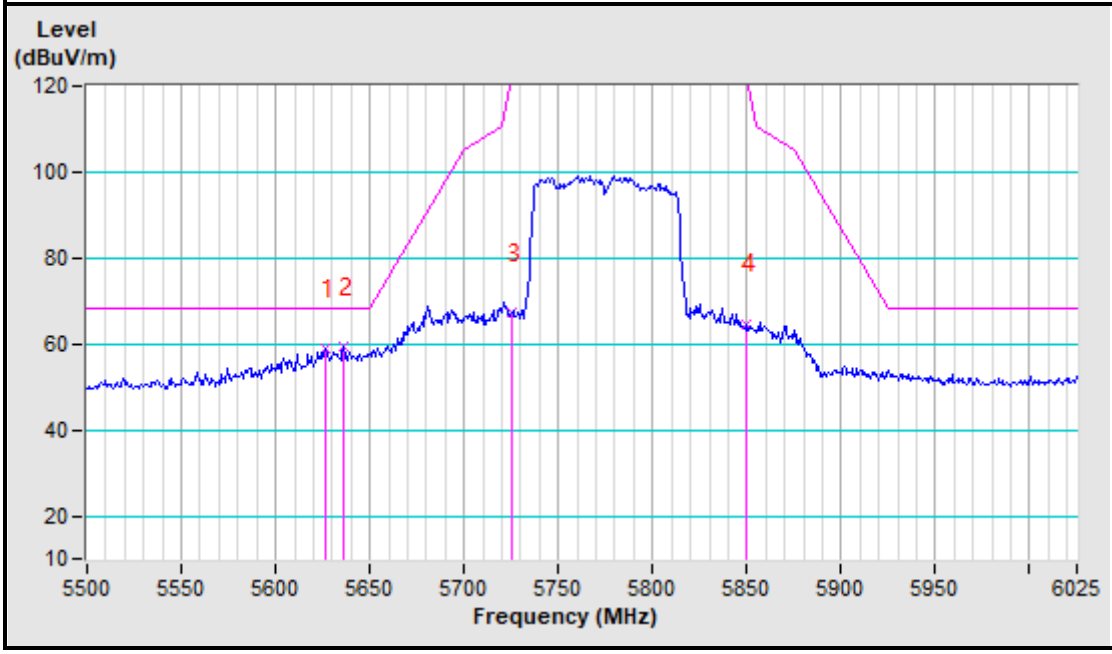
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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

Band edge Plot

5775MHz Horizontal



5775MHz Vertical



3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 07,22
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 07,22
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 07,22
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Sep. 17,22
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.

3.2.3 TEST PROCEDURES

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

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

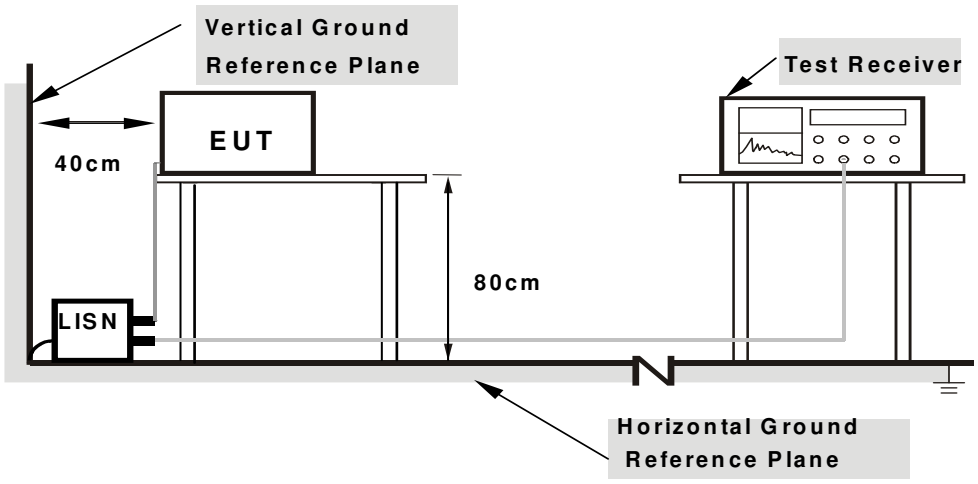
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

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

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



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

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

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.6

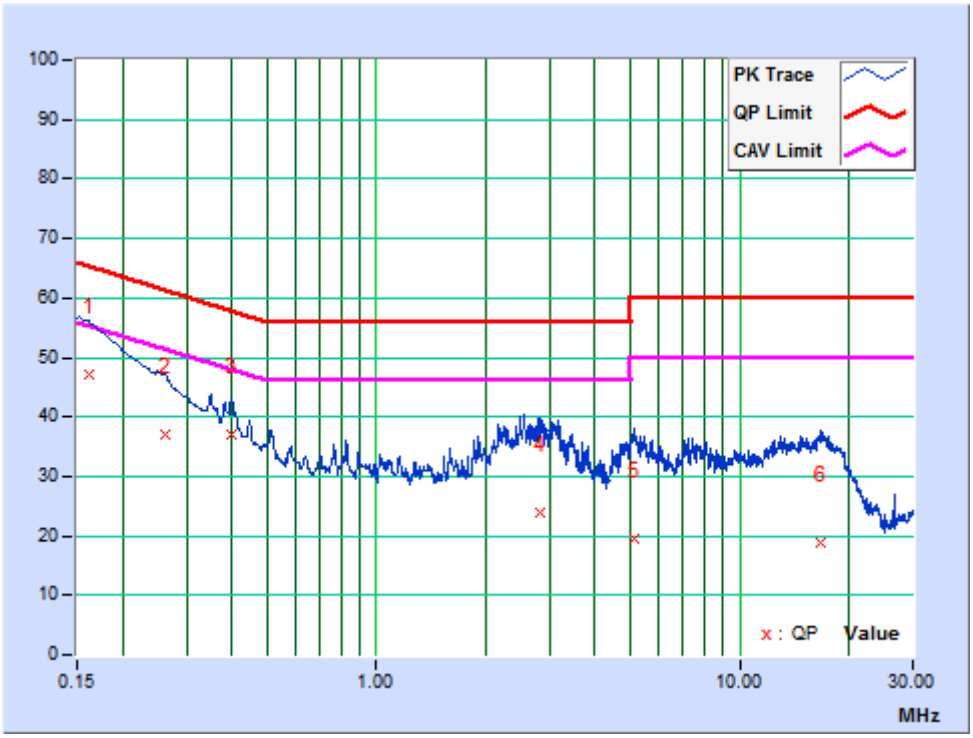
3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: 802.11n 20 CH36

PHASE	Line	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16125	9.91	37.26	12.72	47.17	22.63	65.40	55.40	-18.23	-32.77
2	0.26090	9.94	27.21	11.07	37.15	21.01	61.40	51.40	-24.25	-30.39
3	**0.39806**	**9.95**	**27.18**	**25.22**	**37.13**	**35.17**	**57.89**	**47.89**	**-20.76**	**-12.72**
4	2.81605	10.04	13.93	9.63	23.97	19.67	56.00	46.00	-32.03	-26.33
5	5.10675	10.05	9.35	5.66	19.40	15.71	60.00	50.00	-40.60	-34.29
6	16.80000	10.25	8.76	4.26	19.01	14.51	60.00	50.00	-40.99	-35.49

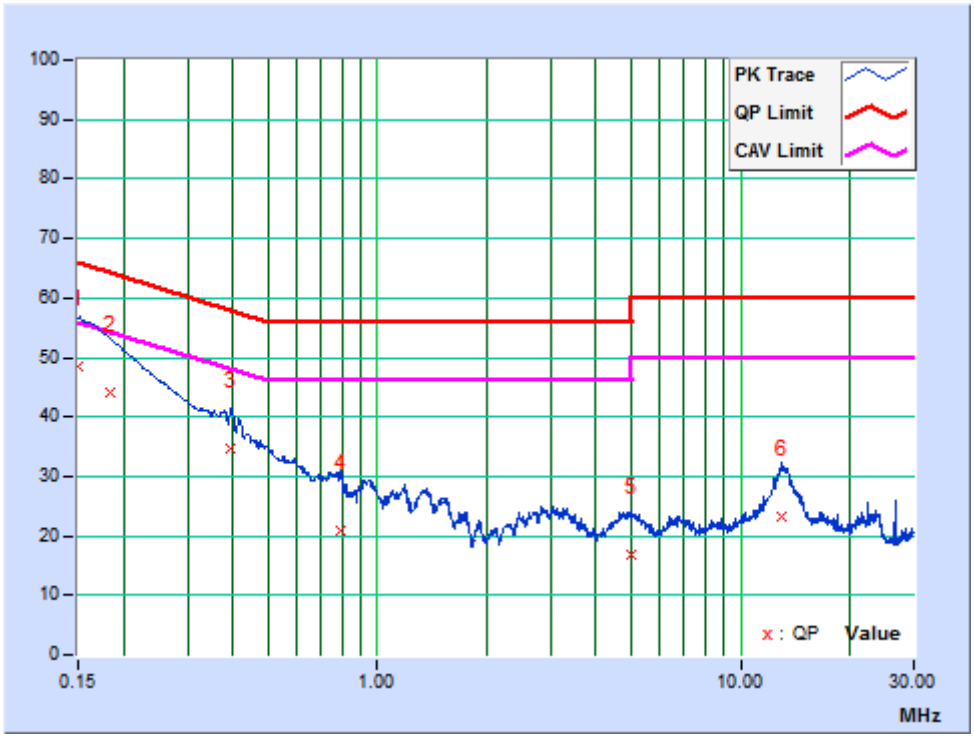
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading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



PHASE	Neutral	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.90	38.58	14.89	48.48	24.79	66.00	56.00	-17.52	-31.21
2	0.18375	9.92	34.26	12.93	44.18	22.85	64.31	54.31	-20.13	-31.46
3	0.39596	9.95	24.63	23.50	34.58	33.45	57.94	47.94	-23.36	-14.49
4	0.79502	10.00	10.97	8.95	20.97	18.95	56.00	46.00	-35.03	-27.05
5	4.97625	10.09	6.84	3.09	16.93	13.18	56.00	46.00	-39.07	-32.82
6	12.94800	10.20	13.02	6.35	23.22	16.55	60.00	50.00	-36.78	-33.45

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



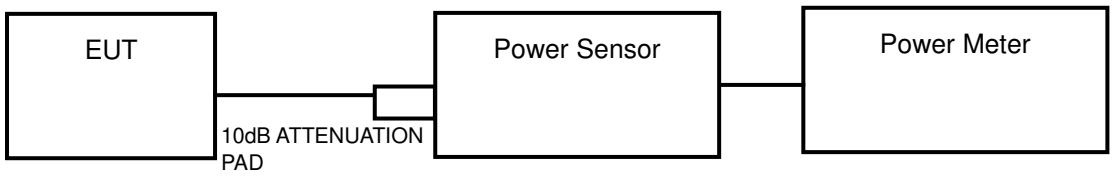
3.3 TRANSMIT POWER MEASUREMENT

3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

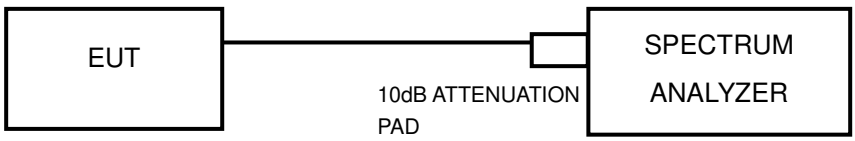
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client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

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

3.3.2 TEST SETUP



FOR 6/26dB BANDWIDTH



3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	May 09, 22
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. 03,21
Oscilloscope	Agilent	DSO9254A	MY51260160	Aug. 11,22
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Feb. 24,22
Signal Generator	Agilent	N5183A	MY50140980	Mar 23.22
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

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.

3.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

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

FOR 26dB BANDWIDTH

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

FOR 6dB BANDWIDTH

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

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

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

3.3.7 TEST RESULTS

OUTPUT POWER:

802.11n (20MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	6.31	6.78	4.276	4.764	9.04	9.56	24.00	PASS
40	5200	6.35	6.67	4.315	4.645	8.96	9.52	24.00	PASS
48	5240	6.41	6.78	4.375	4.764	9.139	9.61	24.00	PASS
52	5260	6.83	6.73	4.819	4.71	9.529	9.79	24.00	PASS
60	5300	6.75	6.77	4.732	4.753	9.485	9.77	24.00	PASS
64	5320	6.68	6.95	4.656	4.955	9.611	9.83	24.00	PASS
100	5500	6.47	7.37	4.436	5.458	9.894	9.95	24.00	PASS
116	5580	6.42	6.67	4.385	4.645	9.03	9.56	24.00	PASS
140	5700	7.24	6.43	5.297	4.395	9.692	9.86	24.00	PASS
149	5745	7.04	6.79	5.058	4.775	9.833	9.93	30.00	PASS
157	5785	6.57	6.87	4.539	4.864	9.403	9.73	30.00	PASS
165	5825	6.92	6.94	4.92	4.943	9.863	9.94	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(21.87)= 24.40dBm > 24dBm

21.87MHz Calculated results correspond to the worst limiting results.

NOTE: Directional gain = 3dBi < 6dBi , so the limit is no need to be reduced.

802.11n (40MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
38	5190	6.33	7.01	4.295	5.023	9.318	9.69	24.00	PASS
46	5230	6.28	7.04	4.246	5.058	9.304	9.69	24.00	PASS
54	5270	6.35	6.91	4.315	4.909	9.224	9.65	24.00	PASS
62	5310	6.27	6.84	4.236	4.831	9.067	9.57	24.00	PASS
102	5510	6.52	6.43	4.487	4.395	8.882	9.49	24.00	PASS
110	5550	6.81	6.40	4.797	4.365	9.162	9.62	24.00	PASS
134	5670	6.95	6.98	4.955	4.989	9.944	9.98	24.00	PASS
151	5755	6.31	6.25	4.276	4.217	8.493	9.29	24.00	PASS
159	5795	6.28	6.33	4.246	4.295	8.541	9.32	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(41.01)= 27.13dBm > 24dBm

41.01MHz Calculated results correspond to the worst limiting results.

NOTE: Directional gain = 3dBi < 6dBi , so the limit is no need to be reduced.

802.11ac (80MHz)

Channel Number	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)		AVG. CONDUCTED POWER (mW)		Total Max. power output		LIMIT (dBm)	PASS /FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
42	5210	6.51	6.57	4.477	4.539	9.016	9.55	24.00	PASS
58	5290	6.62	6.73	4.592	4.71	9.302	9.69	24.00	PASS
106	5530	6.57	6.68	4.539	4.656	9.195	9.64	24.00	PASS
122	5610	6.69	6.42	4.667	4.385	9.052	9.57	24.00	PASS
155	5775	7.12	6.76	5.152	4.742	9.894	9.95	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(82.02)= 30.14 dBm > 24dBm

82.02MHz Calculated results correspond to the worst limiting results.

NOTE: Directional gain = 3dBi < 6dBi , so the limit is no need to be reduced.

26dB BANDWIDTH:

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
36	5180	22.11	22.04	PASS
40	5200	22.17	21.90	PASS
48	5240	22.03	21.87	PASS
52	5260	22.13	21.97	PASS
60	5300	22.04	22.08	PASS
64	5320	22.11	22.10	PASS
100	5500	22.07	21.96	PASS
132	5660	22.12	21.99	PASS
140	5700	22.16	22.11	PASS

802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
38	5190	41.25	41.16	PASS
46	5230	41.26	41.16	PASS
54	5270	41.24	41.14	PASS
62	5310	41.16	41.08	PASS
102	5510	41.39	41.01	PASS
118	5590	41.37	41.26	PASS
134	5670	41.42	41.25	PASS

802.11ac (80MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
42	5210	82.50	82.27	PASS
58	5290	82.81	82.34	PASS
106	5530	82.40	82.02	PASS
122	5610	82.72	82.37	PASS

6dB BANDWIDTH For 5725-5850MHz

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
149	**5745**	17.65	17.67	PASS
157	**5785**	17.65	17.68	PASS
165	**5825**	17.65	17.67	PASS

802.11n (40M)

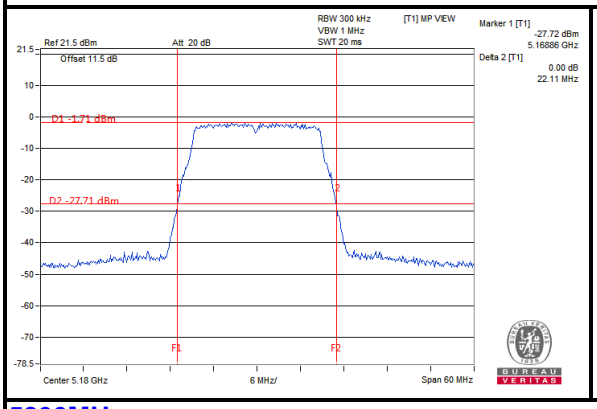
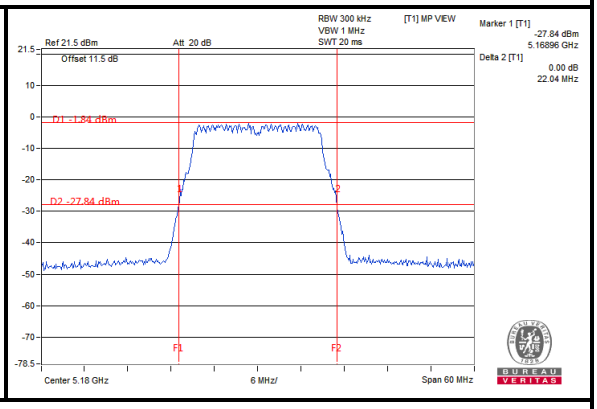
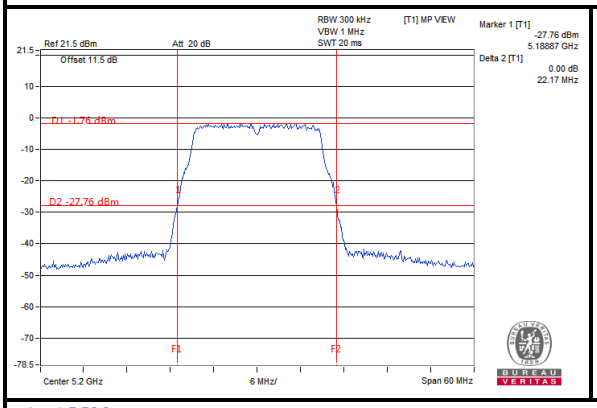
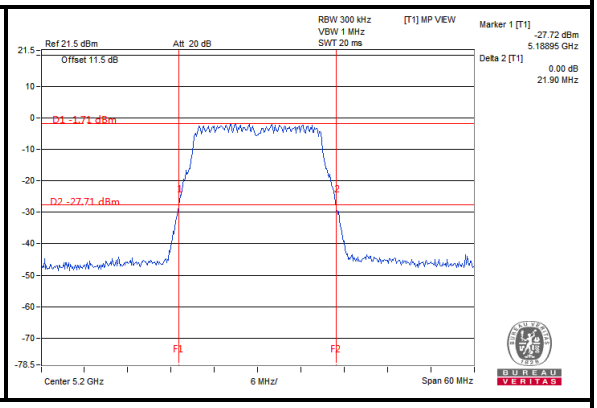
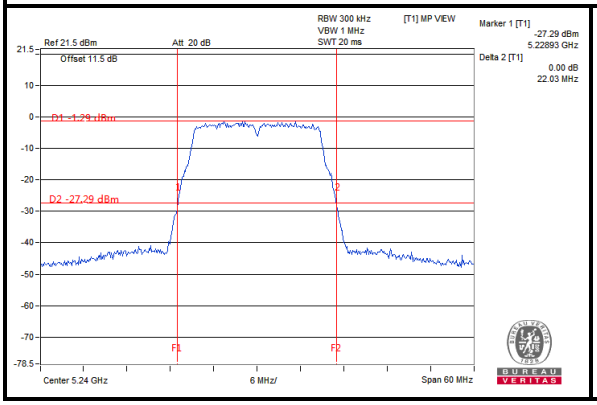
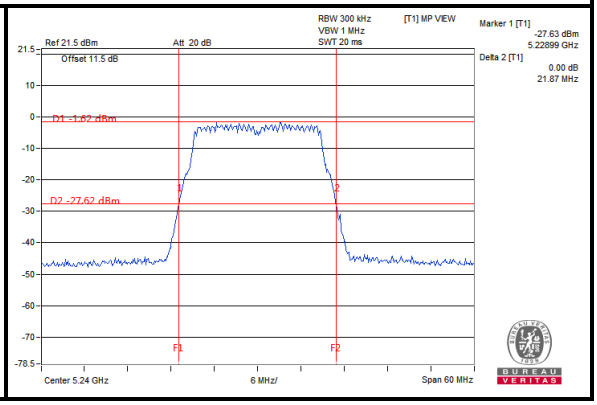
Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
151	**5755**	36.41	36.48	PASS
159	**5795**	36.41	36.47	PASS

802.11ac (80MHz)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)		PASS /FAIL
		Chain 0	Chain 1	
155	**5775**	75.82	76.06	PASS

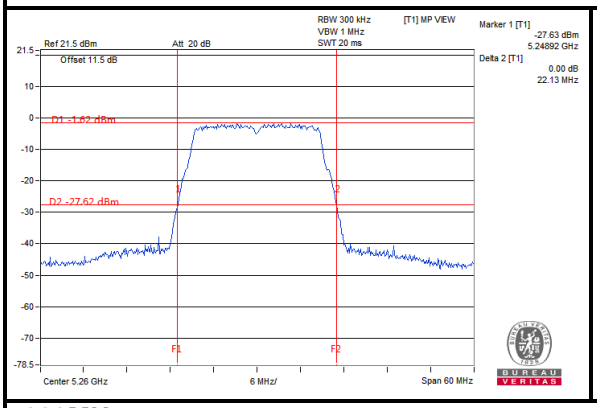
26dB bandwidth Test Plot

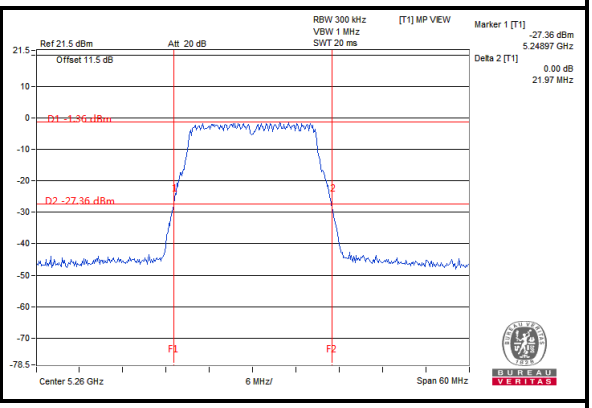
802.11n 20MHz

SPECTRUM PLOT	
CHAIN 0	CHAIN 1
5180MHz	
	
5200MHz	
	
5240MHz	
	

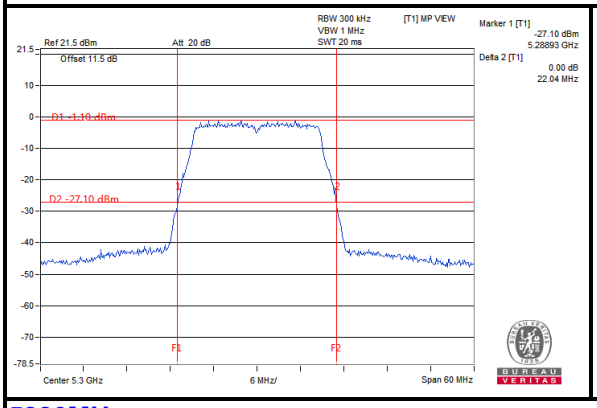
SPECTRUM PLOT	
CHAIN 0	CHAIN 1

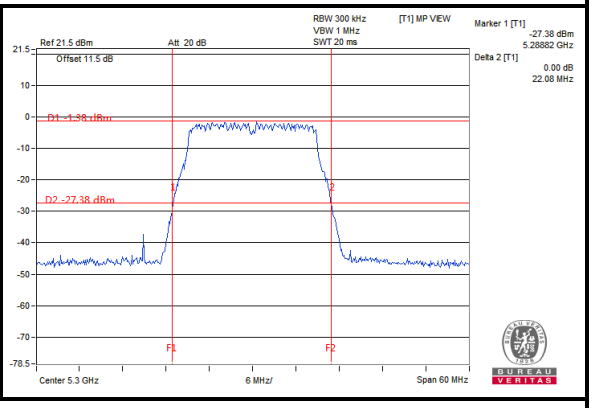
5260MHz



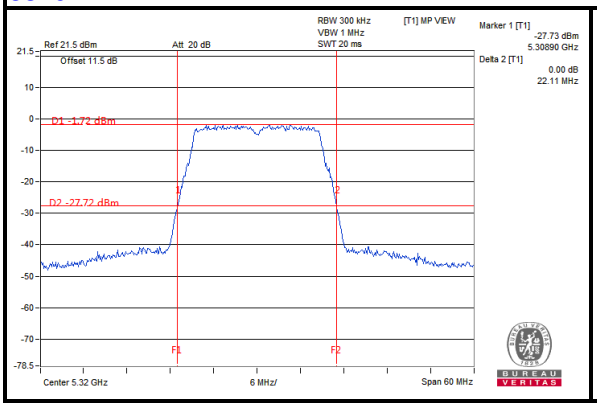


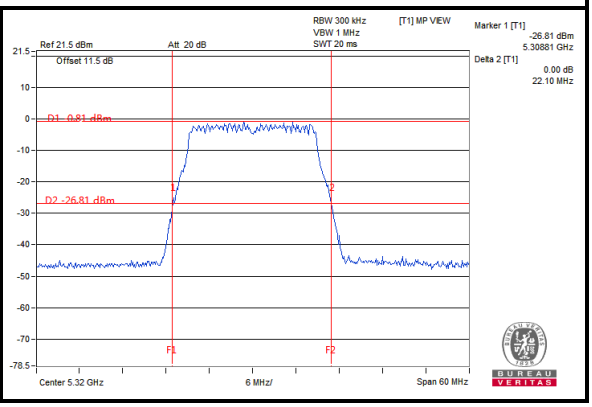
5300MHz





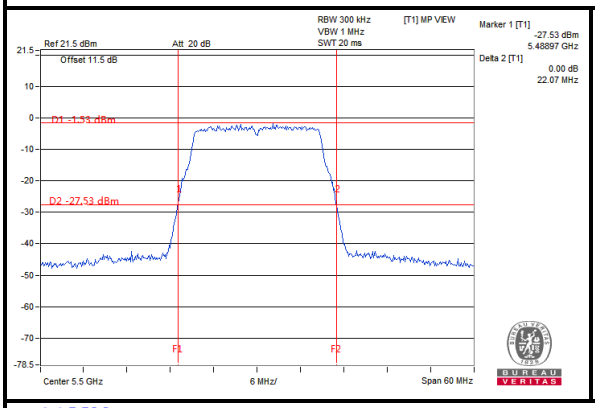
5320MHz

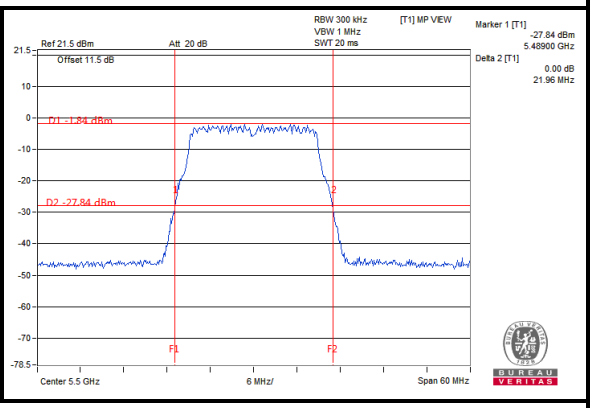




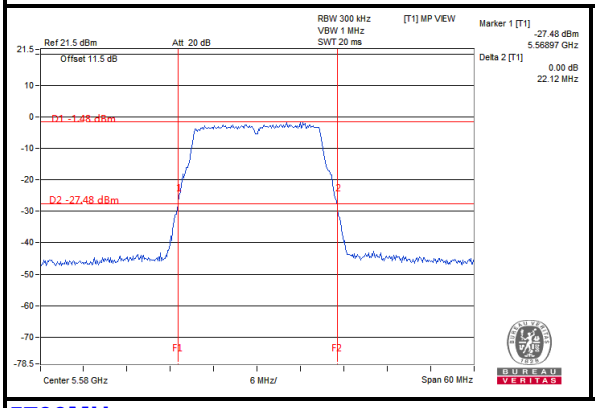
SPECTRUM PLOT	
CHAIN 0	CHAIN 1

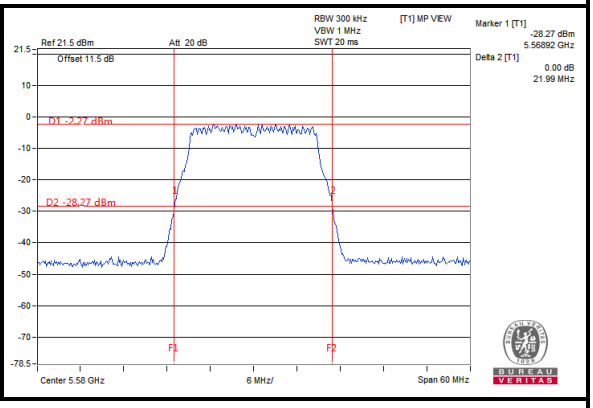
5500MHz



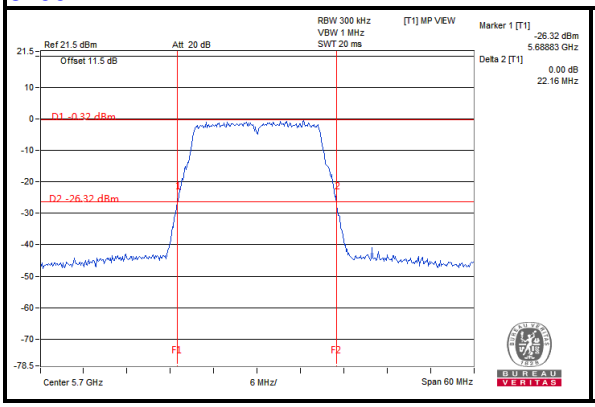


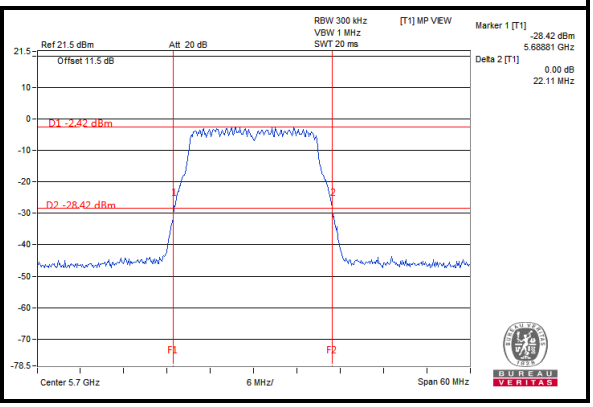
5580MHz





5700MHz

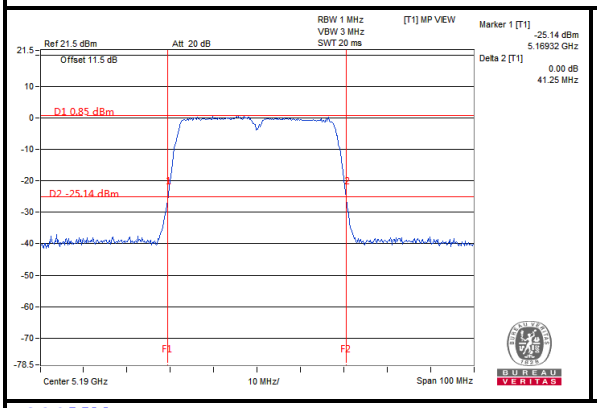


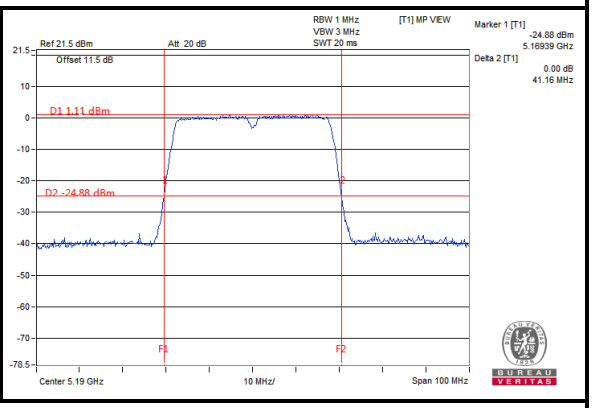


802.11n 40MHz

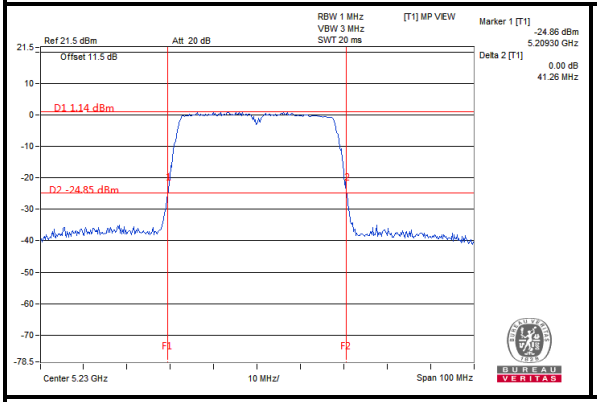
SPECTRUM PLOT	
CHAIN 0	CHAIN 1

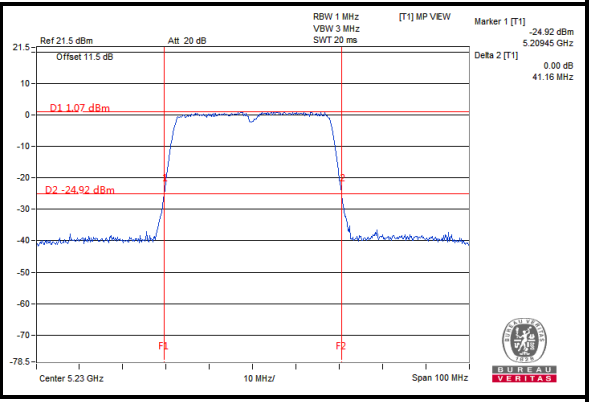
5190MHz



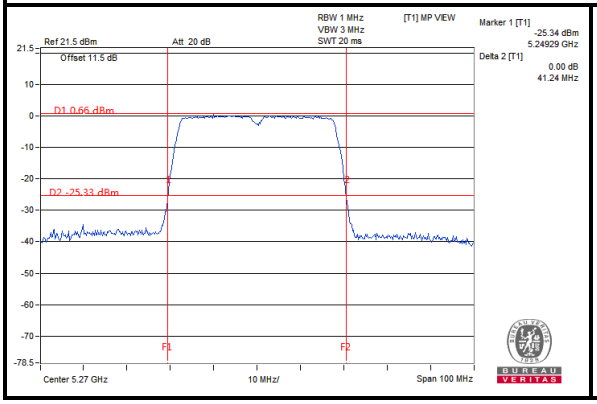


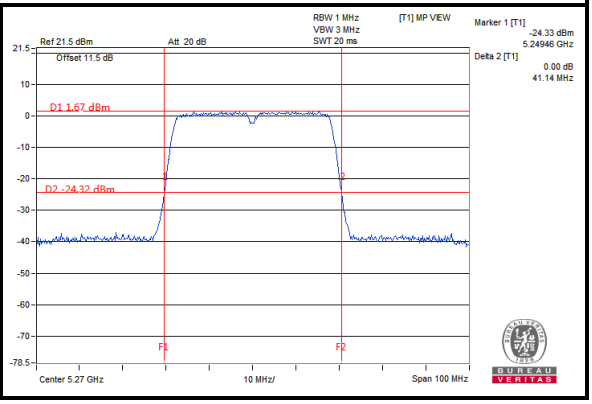
5230MHz





5270MHz





SPECTRUM PLOT	
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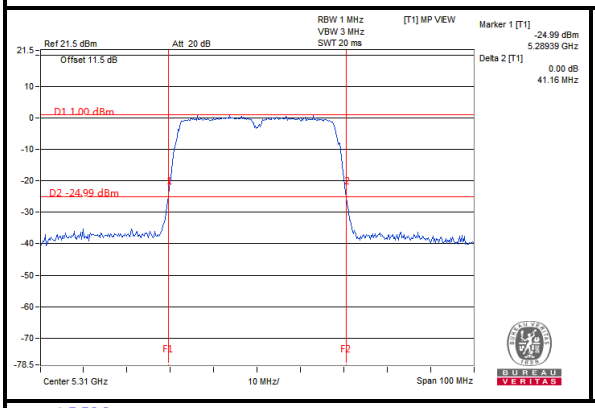
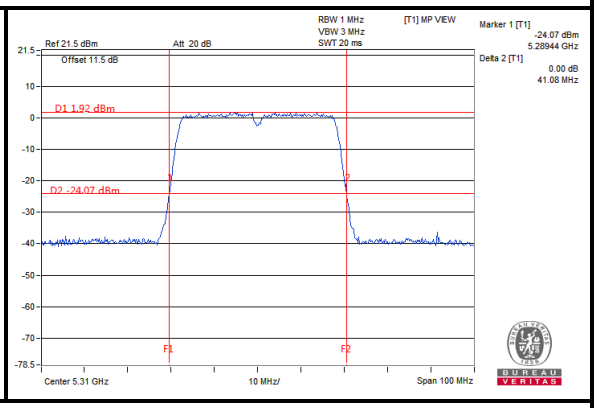
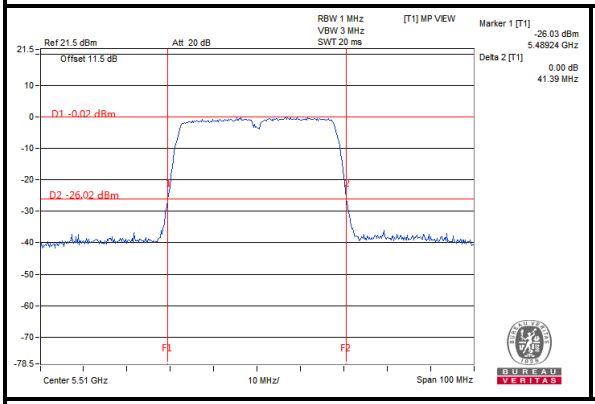
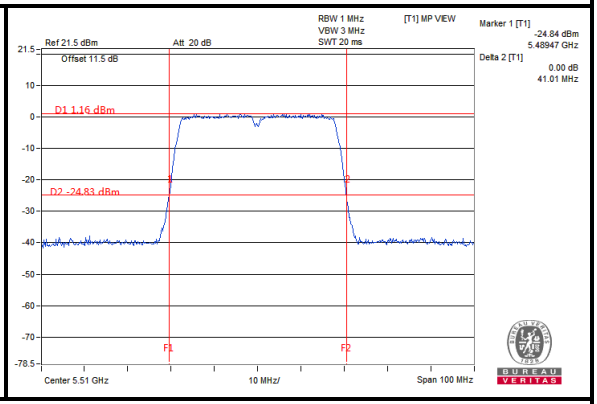
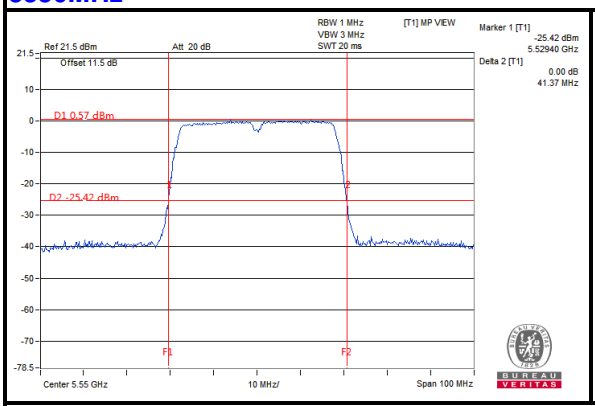
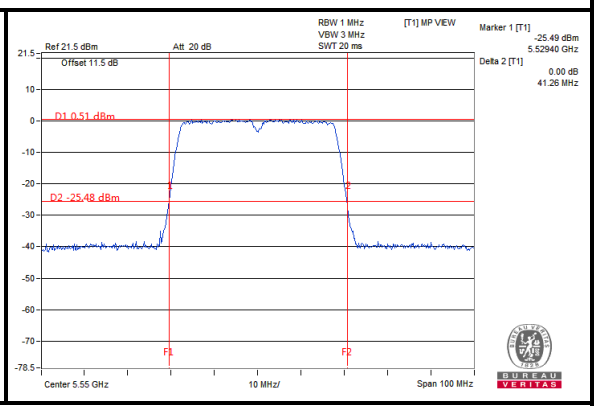
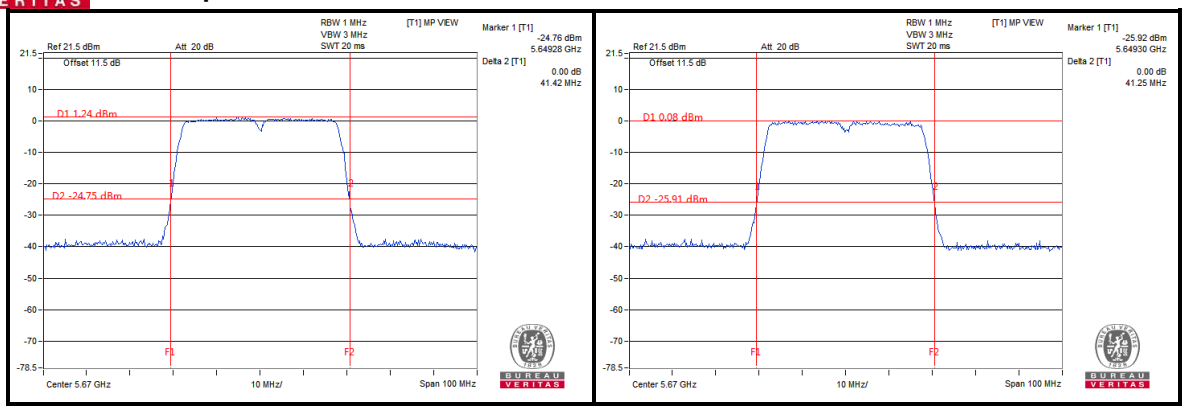
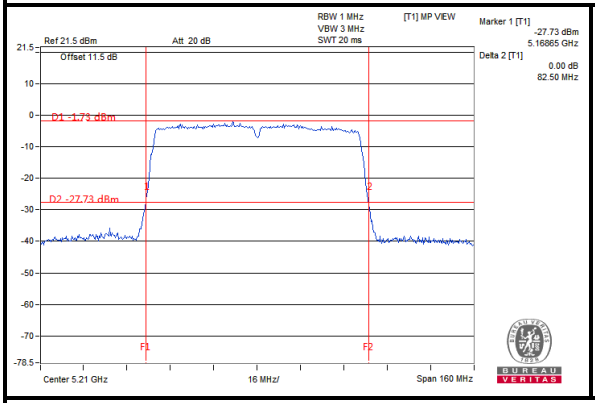
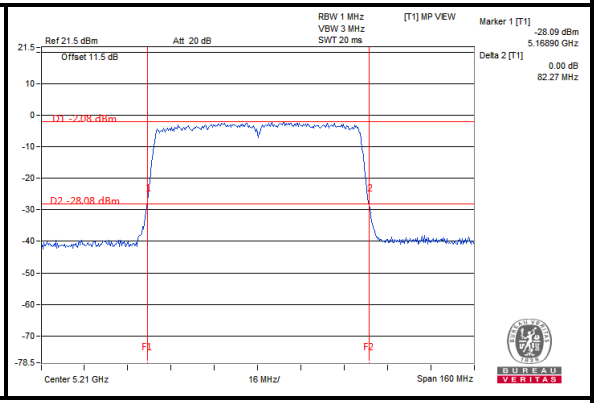
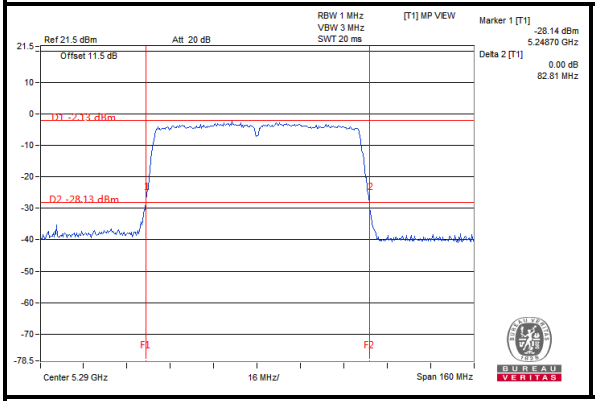
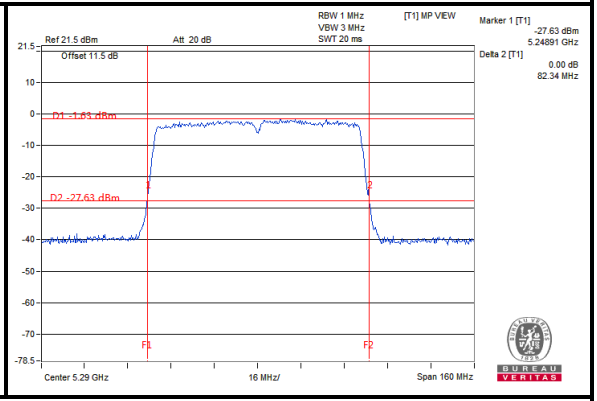
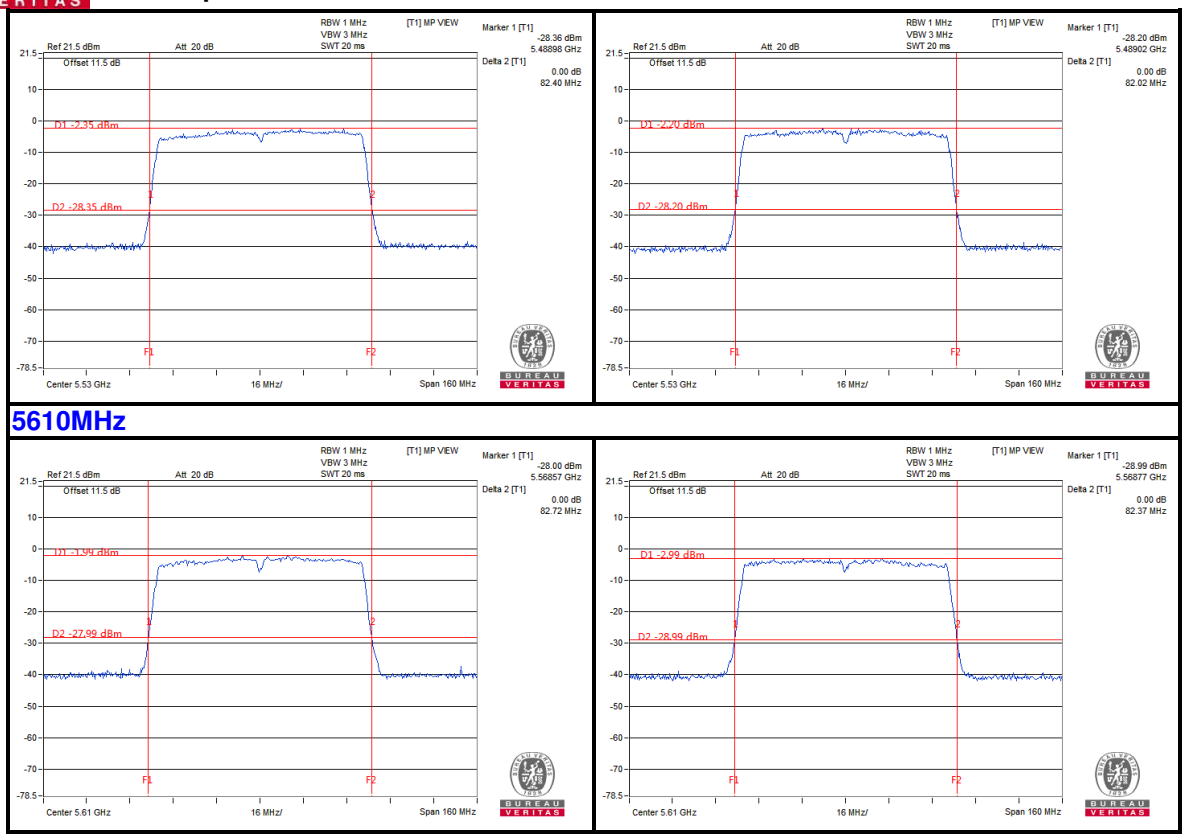
5310MHz	
	
5510MHz	
	
5550MHz	
	
5670MHz	



SPECTRUM PLOT	
CHAIN 0	CHAIN 1
5210MHz	
	
5290MHz	
	
5530MHz	

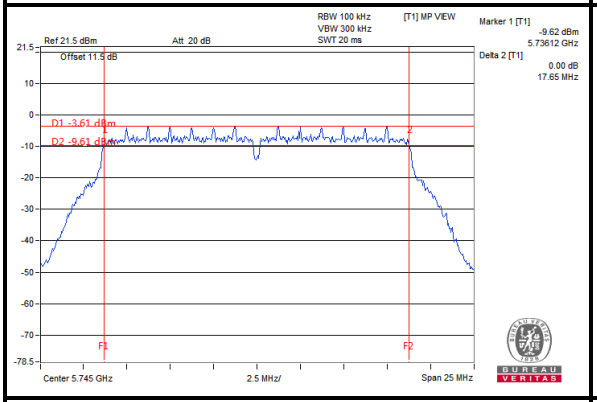
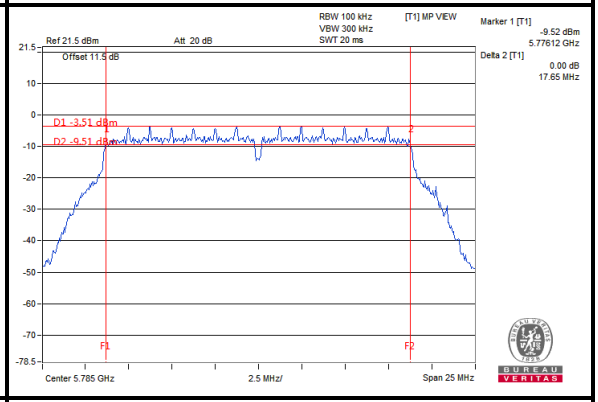
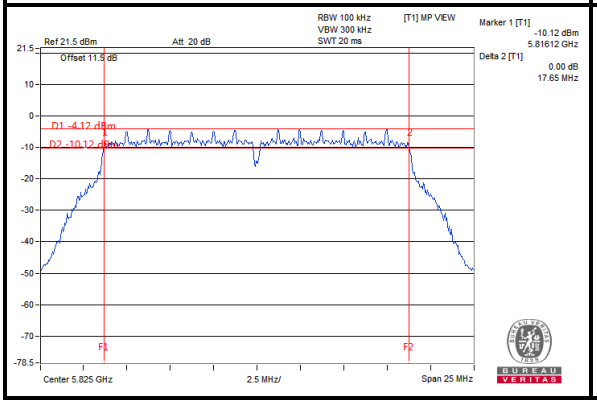

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MP VIEW
Ref 21.5 dBm
Att 20 dB
Offset 11.5 dB
Marker 1 [T1]
-28.36 dBm
5.48898 GHz
Delta 2 [T1]
0.00 dB
82.40 MHz
D1 -2.35 dBm
D2 -28.35 dBm
Center 5.53 GHz
16 MHz/
Span 160 MHz
Marker 1 [T1]
-28.20 dBm
5.48902 GHz
Delta 2 [T1]
0.00 dB
82.02 MHz
D1 -2.20 dBm
D2 -28.20 dBm

5610MHz

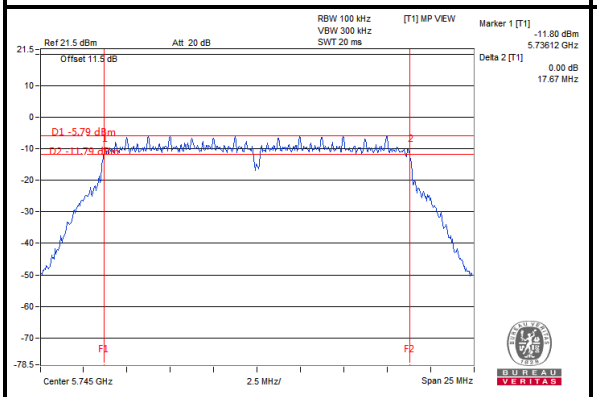
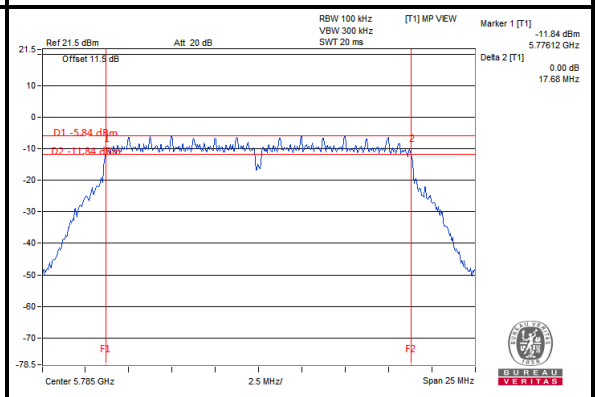
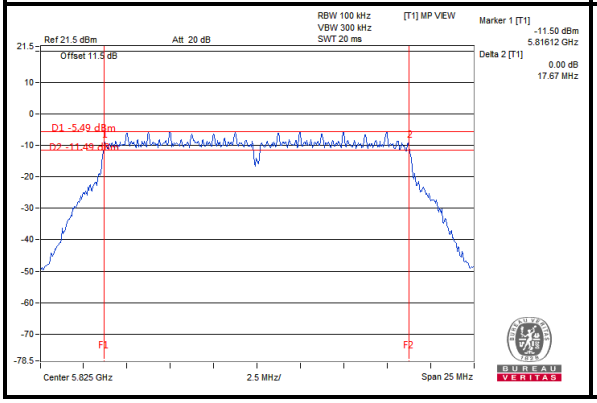
RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MP VIEW
Ref 21.5 dBm
Att 20 dB
Offset 11.5 dB
Marker 1 [T1]
-28.00 dBm
5.56857 GHz
Delta 2 [T1]
0.00 dB
82.72 MHz
D2 -27.99 dBm
Center 5.61 GHz
16 MHz/
Span 160 MHz
Marker 1 [T1]
-28.99 dBm
5.56877 GHz
Delta 2 [T1]
0.00 dB
82.37 MHz
D1 -2.99 dBm
D2 -28.99 dBm

6dB BANDWIDTH For 5725-5850MHz

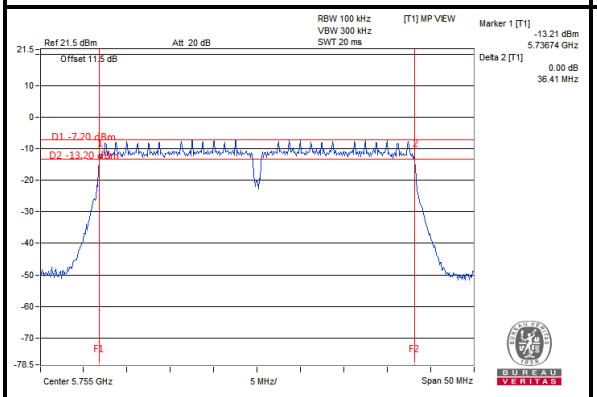
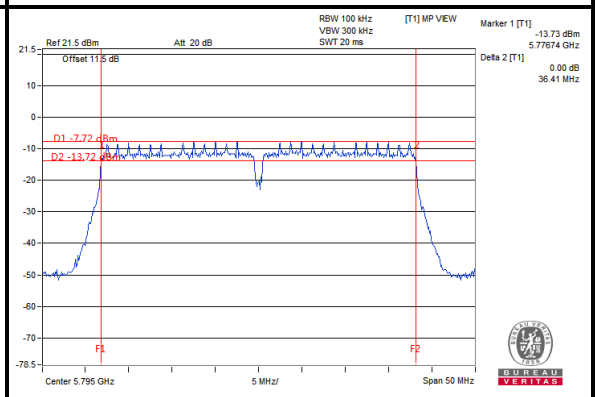
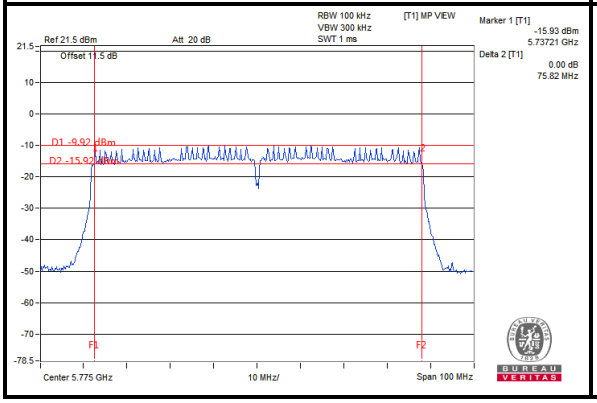
Chain 0

SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

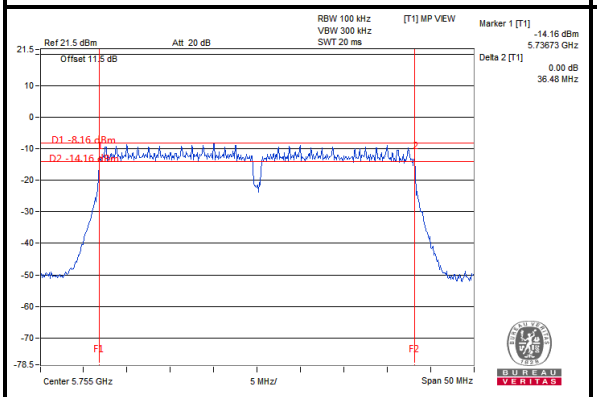
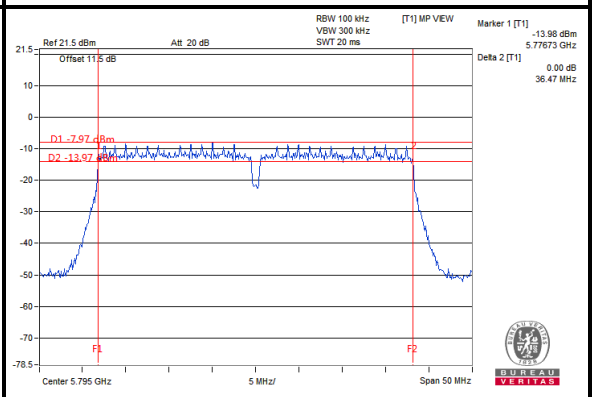
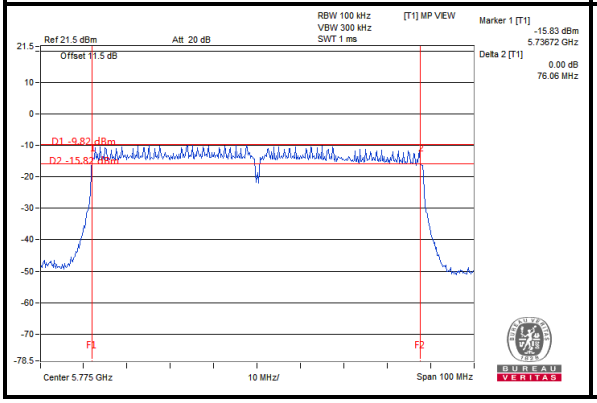
Chain 1

SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

Chain 0

SPECTRUM PLOT OF WORST VALUE	
802.11n 40MHz	
	
802.11ac 80MHz	
	

Chain 1

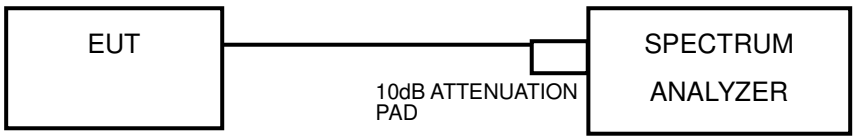
SPECTRUM PLOT OF WORST VALUE	
802.11n 40MHz	
	
802.11ac 80MHz	
	

3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Mobile and Portable client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

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

Using method SA-2

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1MHz, Set VBW =3 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value and add 10 log (1/duty cycle)

For U-NII-3 band:

Using method SA-2

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 300 kHz, Set VBW =1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value and add 10 log (1/duty cycle)

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.3.6

3.4.7 TEST RESULTS

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

802.11n (20MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		RF Power Level in 1MHz BW (mW)		Total power density		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
36	5180	-6.47	-7.62	0.2254	0.1730	0.4312	-3.65	10.99	PASS
40	5200	-6.53	-7.52	0.2223	0.1770	0.4321	-3.64	10.99	PASS
48	5240	-6.51	-7.76	0.2234	0.1675	0.4231	-3.74	10.99	PASS
52	5260	-6.49	-7.00	0.2244	0.1995	0.4588	-3.38	10.99	PASS
60	5300	-6.53	-7.14	0.2223	0.1932	0.4497	-3.47	10.99	PASS
64	5320	-6.59	-7.07	0.2193	0.1963	0.4498	-3.47	10.99	PASS
100	5500	-6.99	-7.70	0.2000	0.1698	0.4002	-3.98	10.99	PASS
116	5580	-6.77	-8.14	0.2104	0.1535	0.3938	-4.05	10.99	PASS
140	5700	-5.58	-8.28	0.2767	0.1486	0.4603	-3.37	10.99	PASS

NOTE: Directional gain = 3dBi + 10log(2) = 6.01dBi > 6dBi , so the power density limit shall be reduced to 11-(6.01-6) = 10.99dBm.

802.11n (40MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		RF Power Level in 1MHz BW (mW)		Total power density		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
38	5190	-10.23	-10.44	0.0948	0.0904	0.2176	-6.62	10.99	PASS
46	5230	-10.18	-10.47	0.0959	0.0897	0.2181	-6.61	10.99	PASS
54	5270	-10.59	-9.95	0.0873	0.1012	0.2215	-6.55	10.99	PASS
62	5310	-10.63	-9.87	0.0865	0.1030	0.2227	-6.52	10.99	PASS
102	5510	-11.01	-10.63	0.0793	0.0865	0.1948	-7.10	10.99	PASS
110	5550	-10.67	-10.91	0.0857	0.0811	0.1960	-7.08	10.99	PASS
134	5670	-9.86	-11.36	0.1033	0.0731	0.2073	-6.83	10.99	PASS

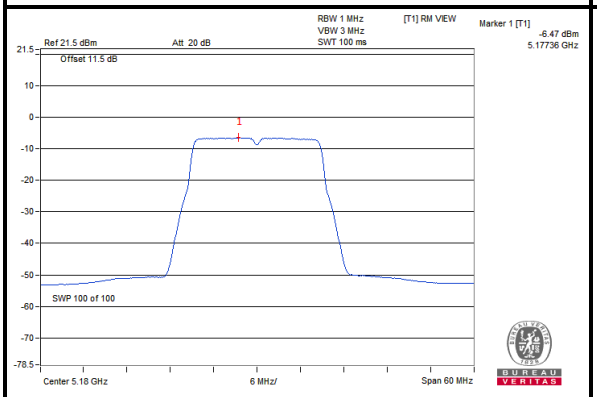
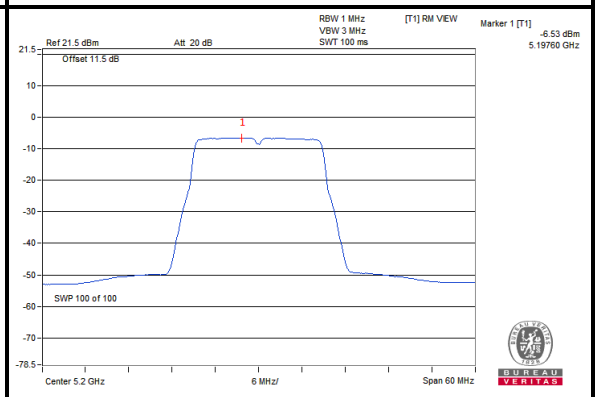
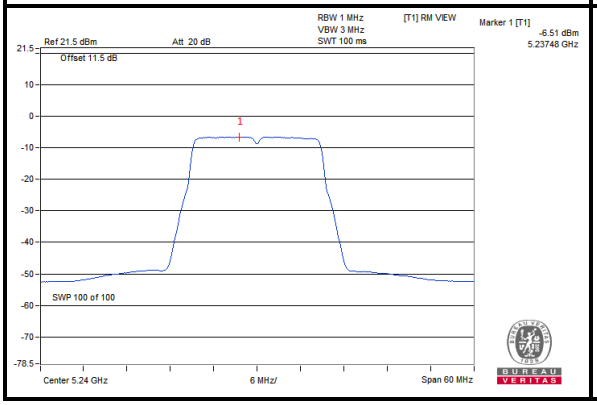
NOTE: Directional gain = 3dBi + 10log(2) = 6.01dBi > 6dBi , so the power density limit shall be reduced to 11-(6.01-6) = 10.99dBm.

802.11ac (80MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)		RF Power Level in 1MHz BW (mW)		Total power density		MAX. Limit (dBm)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1	mW	dBm		
42	5210	-14.19	-14.24	0.0381	0.0377	0.1019	-9.92	10.99	PASS
58	5290	-14.34	-13.80	0.0368	0.0417	0.1055	-9.77	10.99	PASS
106	5530	-14.19	-14.74	0.0381	0.0336	0.0964	-10.16	10.99	PASS
122	5610	-13.81	-14.99	0.0416	0.0317	0.0985	-10.07	10.99	PASS

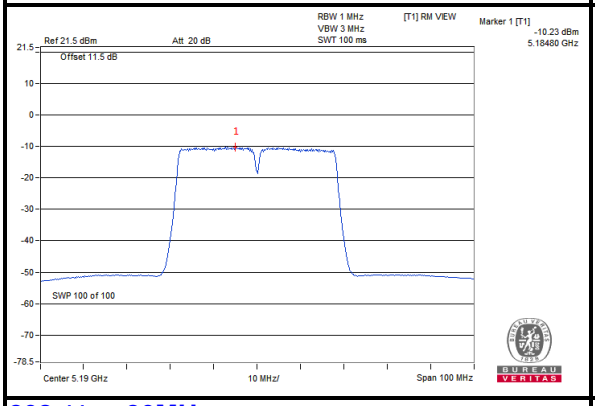
NOTE: Directional gain = 3dBi + 10log(2) = 6.01dBi > 6dBi , so the power density limit shall be reduced to 11-(6.01-6) = 10.99dBm.

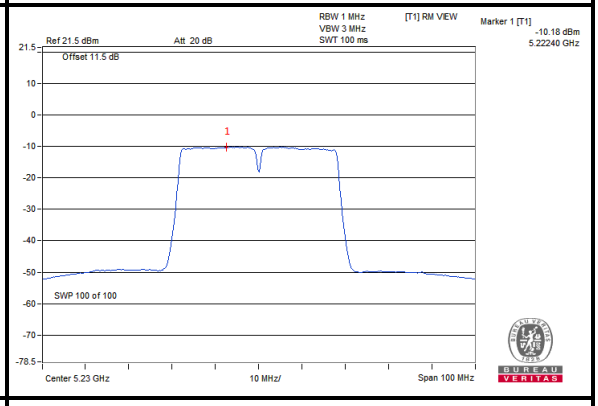
PSD Test Plot
BAND 1
5150-5250MHz
Chain 0

SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

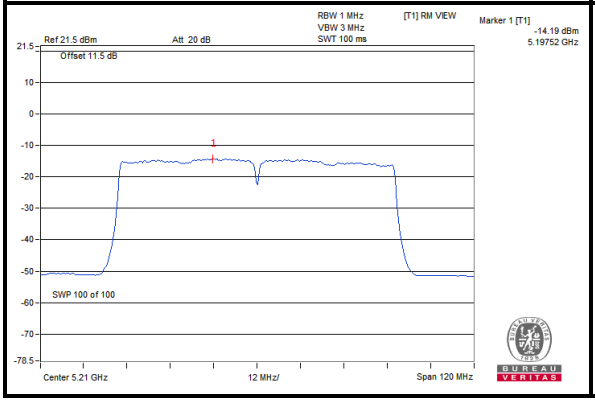
SPECTRUM PLOT OF WORST VALUE

802.11n 40MHz

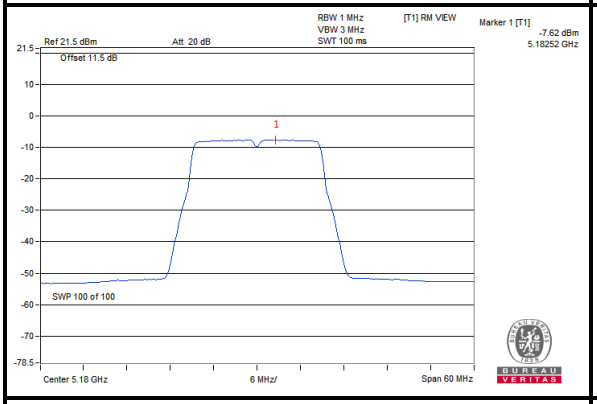
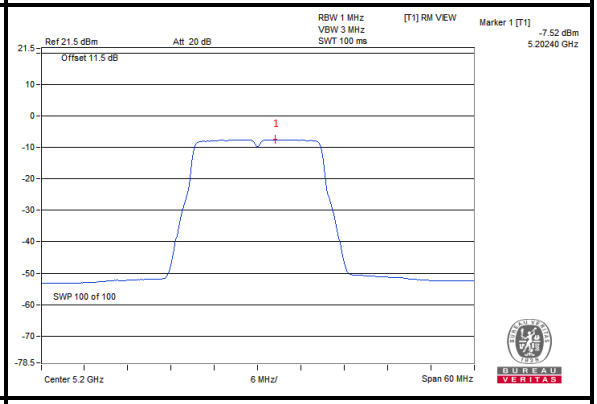
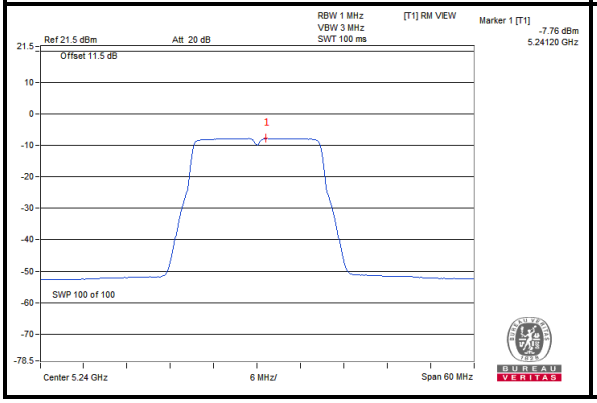




802.11ac 80MHz

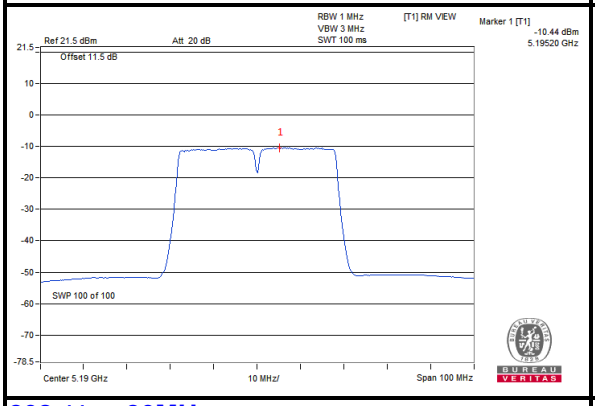


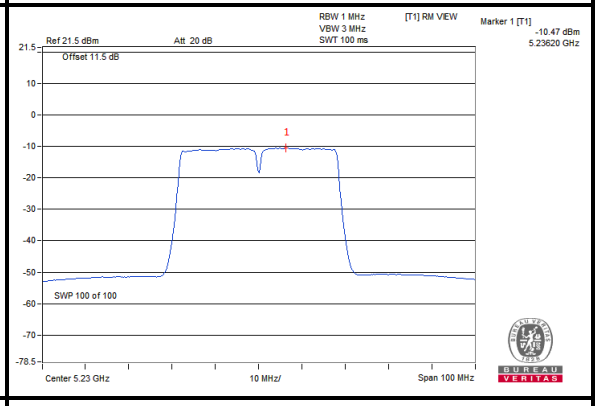
Chain 1

SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

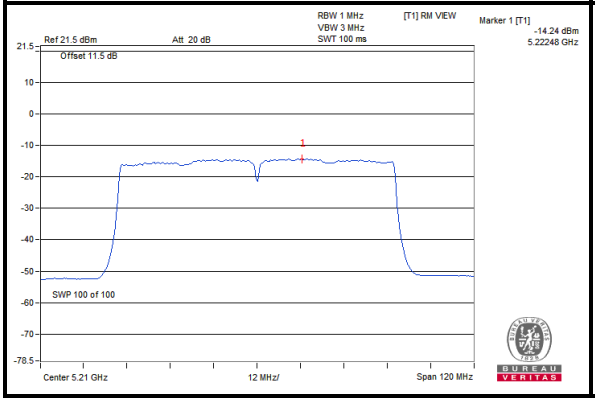
SPECTRUM PLOT OF WORST VALUE

802.11n 40MHz

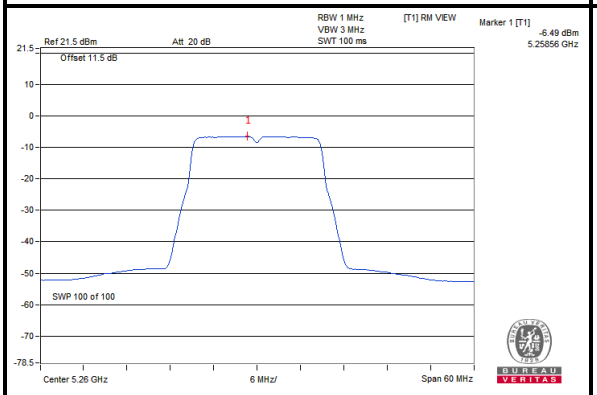
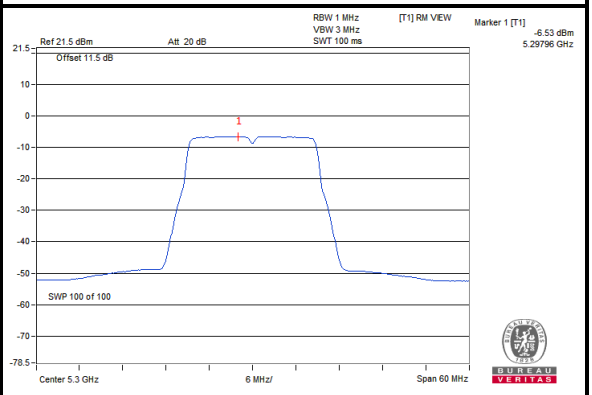
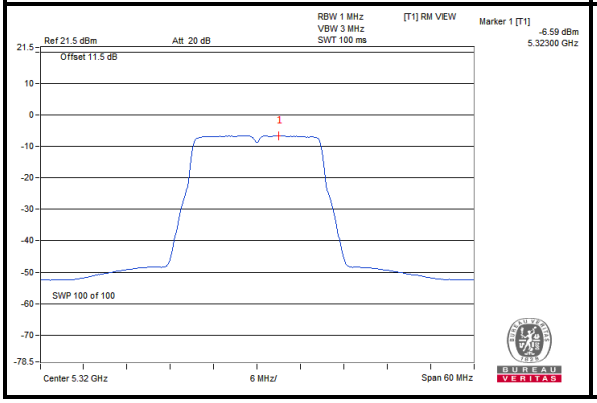




802.11ac 80MHz

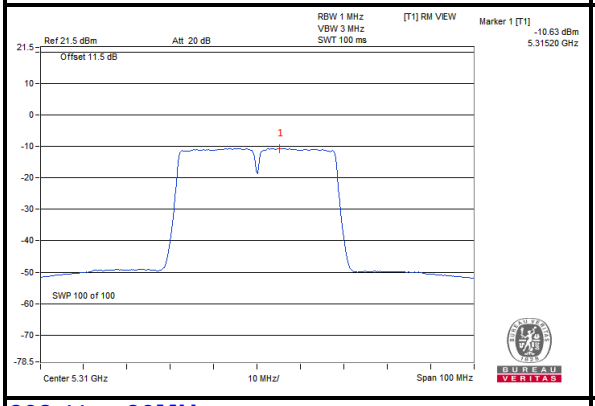


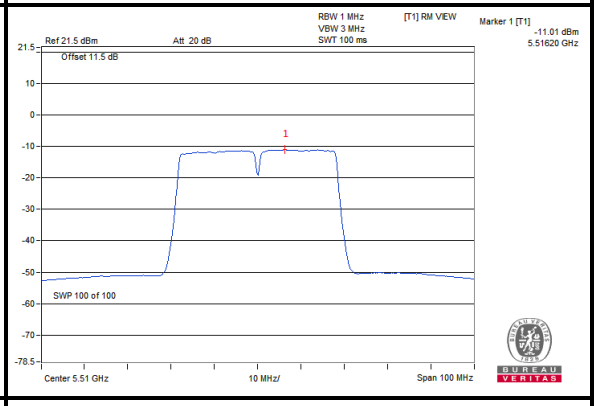
BAND 2
5250-5350MHz
Chain 0

SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

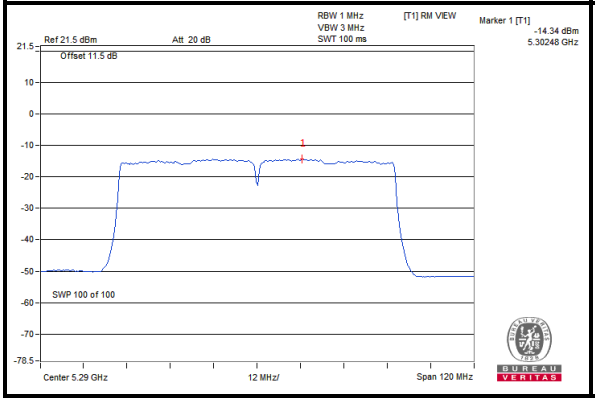
SPECTRUM PLOT OF WORST VALUE

802.11n 40MHz

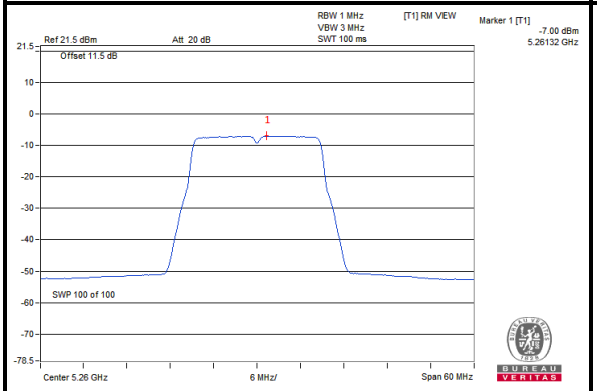
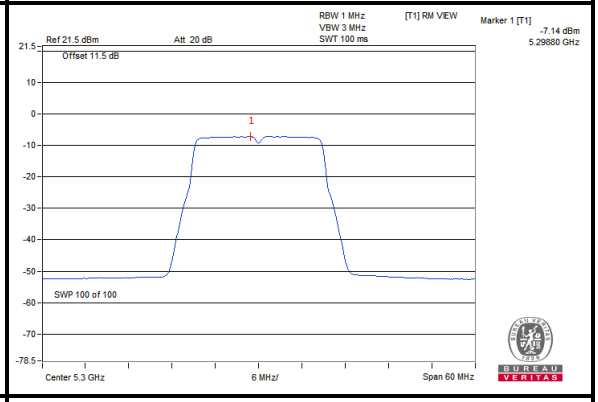
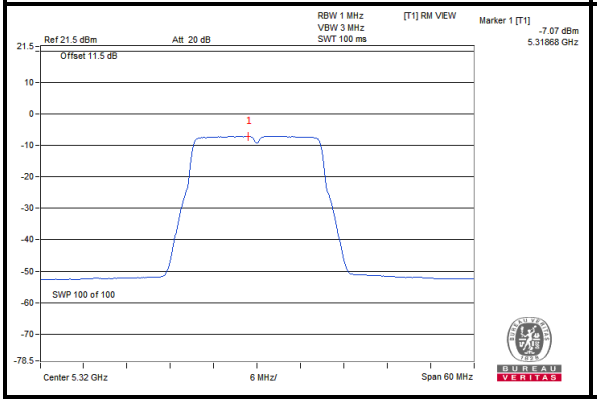




802.11ac 80MHz

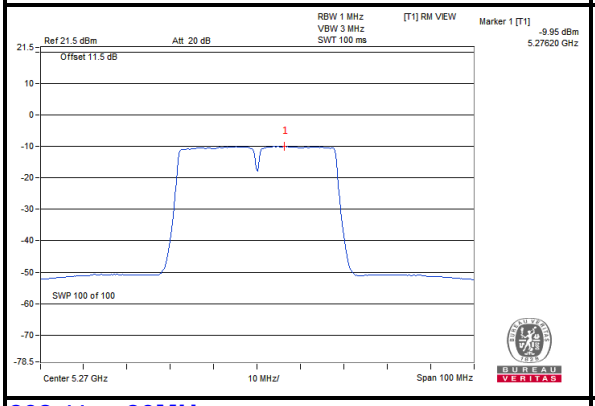


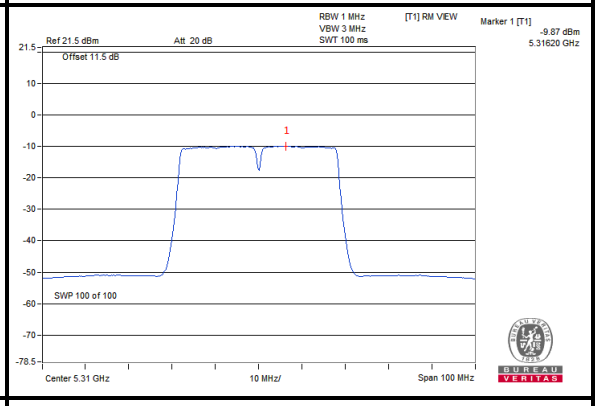
Chain 1

SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

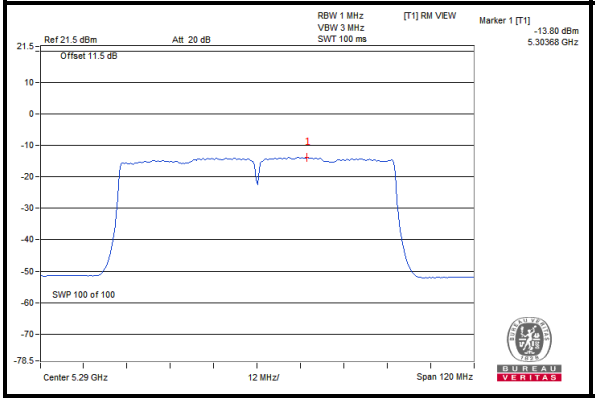
SPECTRUM PLOT OF WORST VALUE

802.11n 40MHz

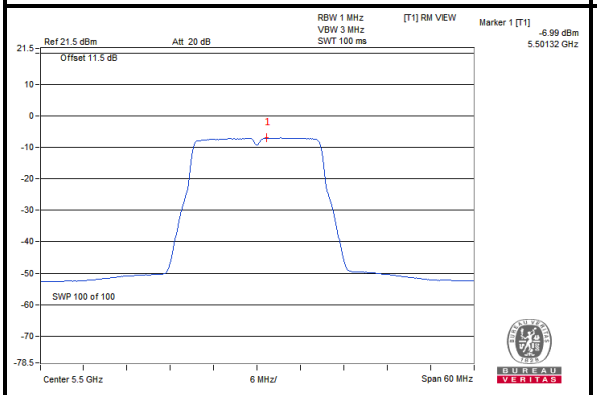
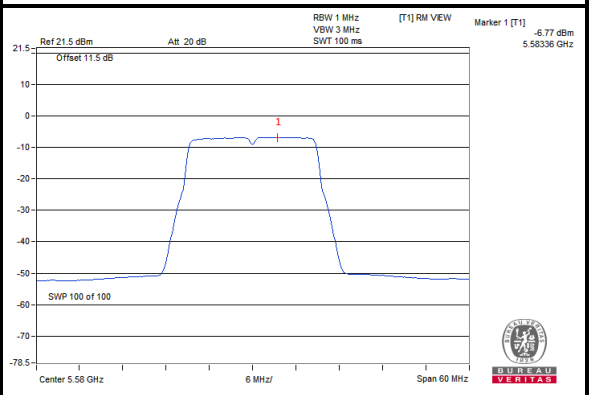
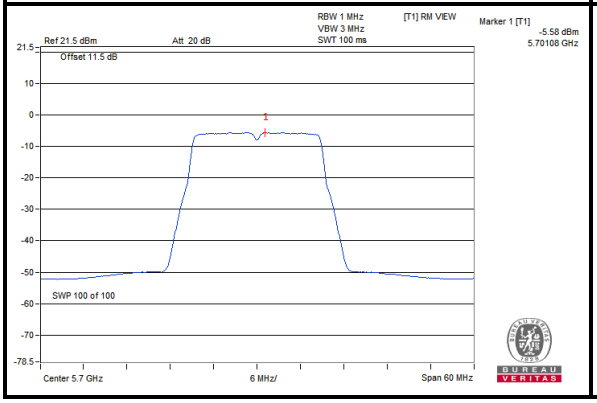




802.11ac 80MHz

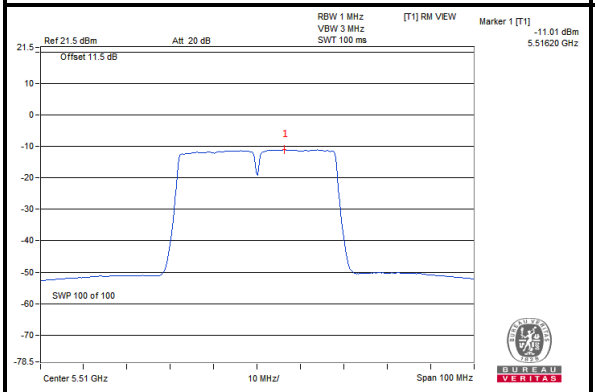


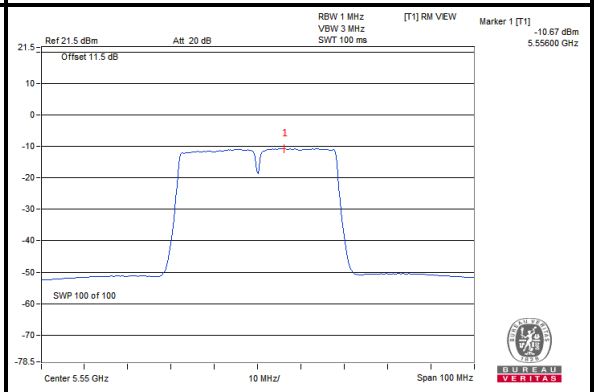
BAND 3
5470-5725MHz
Chain 0

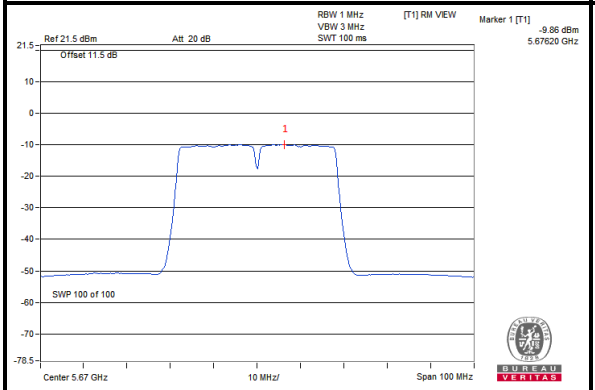
SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

SPECTRUM PLOT OF WORST VALUE

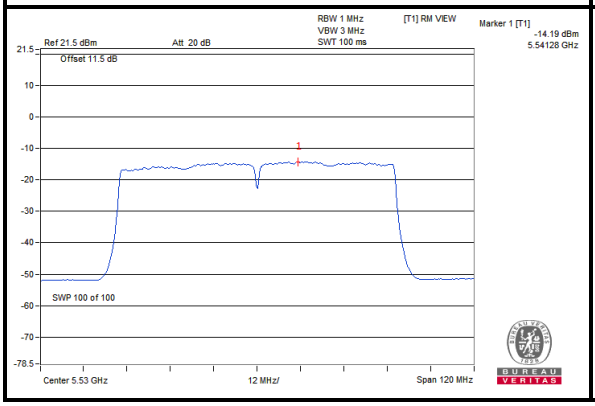
802.11n 40MHz

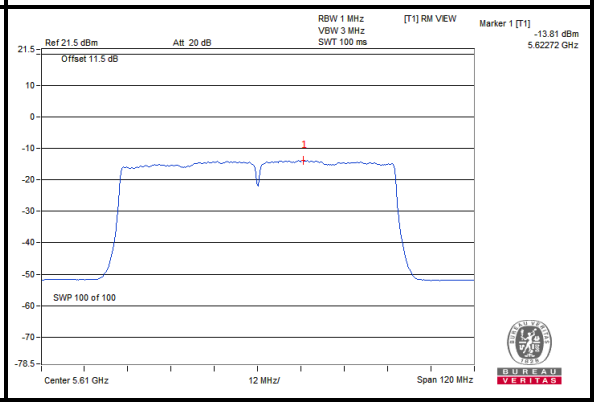




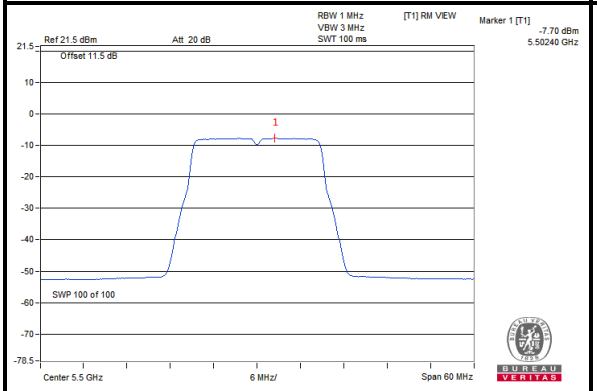
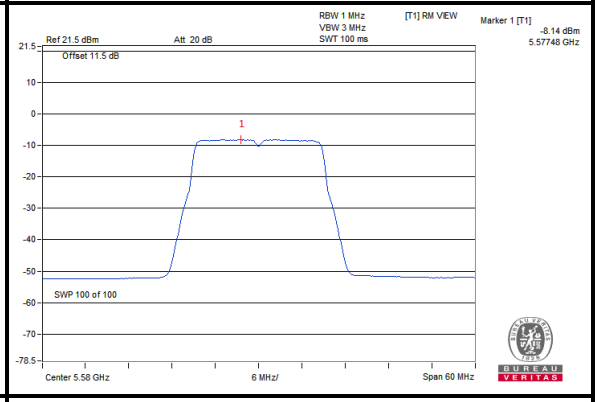
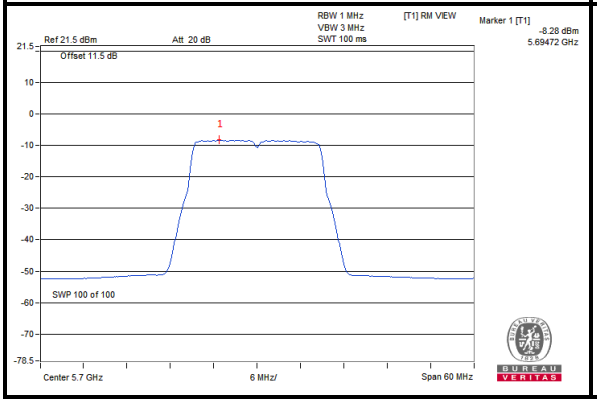


802.11ac 80MHz



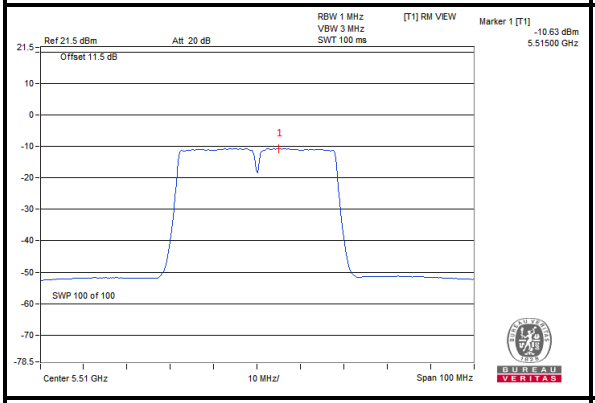


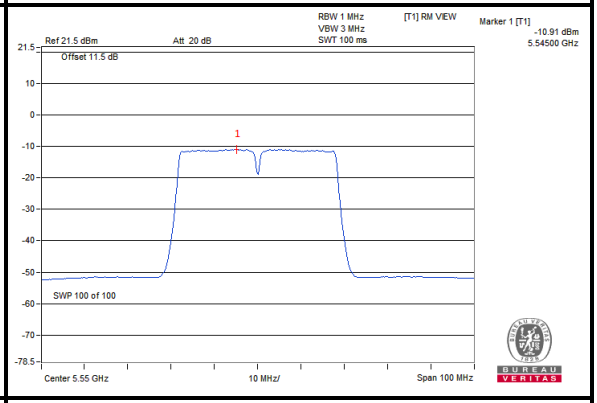
Chain 1

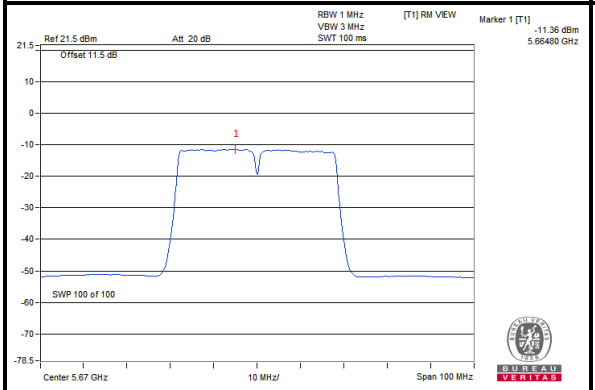
SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

SPECTRUM PLOT OF WORST VALUE

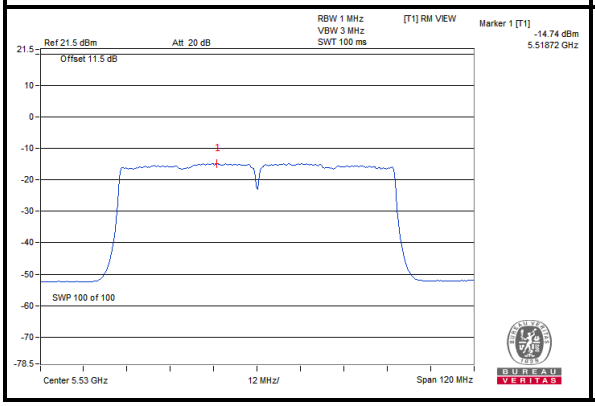
802.11n 40MHz

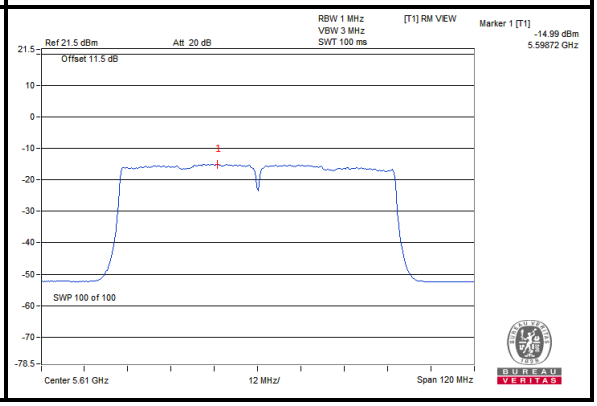






802.11ac 80MHz





For U-NII-3:

802.11n (20MHz)

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)		RF Power Level in 500kHz BW (dBm)		Total PSD (dBm/500kHz)	MAX. Limit (dBm/ 500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1			
149	5745	-14.00	-16.43	-11.78	-14.21	-9.82	29.99	PASS
157	5785	-14.25	-16.57	-12.03	-14.35	-10.03	29.99	PASS
165	5825	-14.79	-16.28	-12.57	-14.06	-10.24	29.99	PASS

NOTE: Directional gain = 3dBi + 10log(2) = 6.01dBi > 6dBi , so the power density limit shall be reduced to 30-(6.01-6) = 29.99dBm.

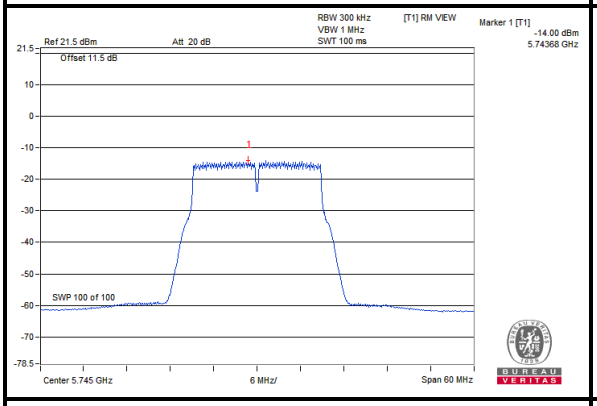
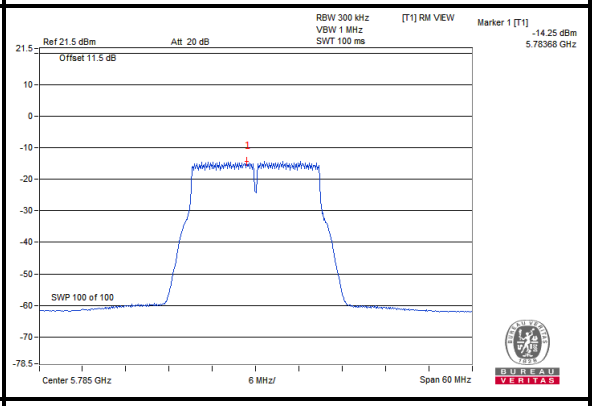
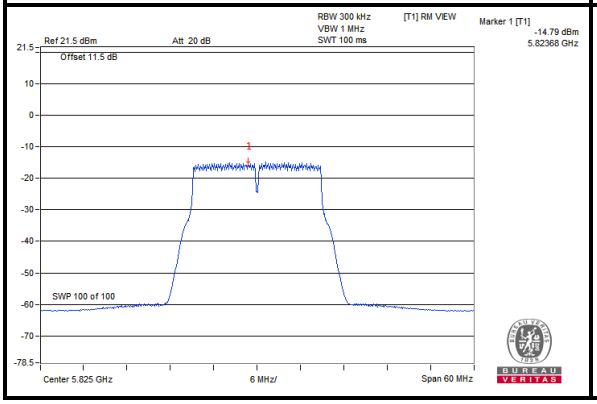
Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)		RF Power Level in 500kHz BW (dBm)		Total PSD (dBm/500kHz)	MAX. Limit (dBm/ 500k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1			
151	5755	-18.36	-19.88	-16.14	-17.66	-13.82	29.99	PASS
159	5795	-18.68	-19.60	-16.46	-17.38	-13.89	29.99	PASS

NOTE: Directional gain = 3dBi + 10log(2) = 6.01dBi > 6dBi , so the power density limit shall be reduced to 30-(6.01-6) = 29.99dBm.

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)		RF Power Level in 500kHz BW (dBm)		Total PSD (dBm/500kHz)	MAX. Limit (dBm/5 00k)	PASS / FAIL
		Chain 0	Chain 1	Chain 0	Chain 1			
155	5775	-22.61	-22.46	-20.39	-20.24	-17.30	29.99	PASS

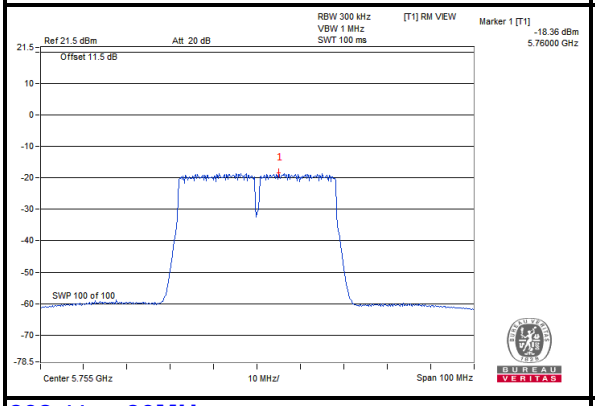
NOTE: Directional gain = 3dBi + 10log(2) = 6.01dBi > 6dBi , so the power density limit shall be reduced to 30-(6.01-6) = 29.99dBm.

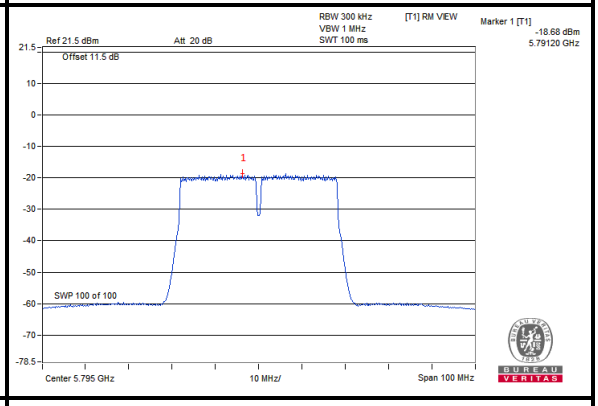
BAND4
5725-5850MHz
Chain 0

SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

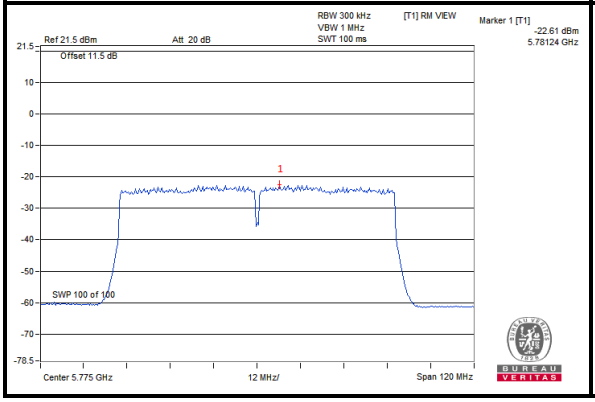
SPECTRUM PLOT OF WORST VALUE

802.11n 40MHz

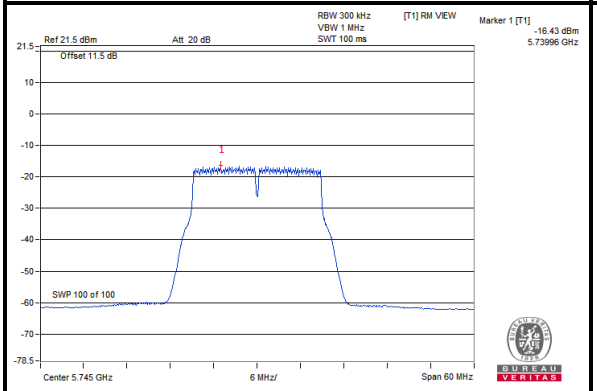
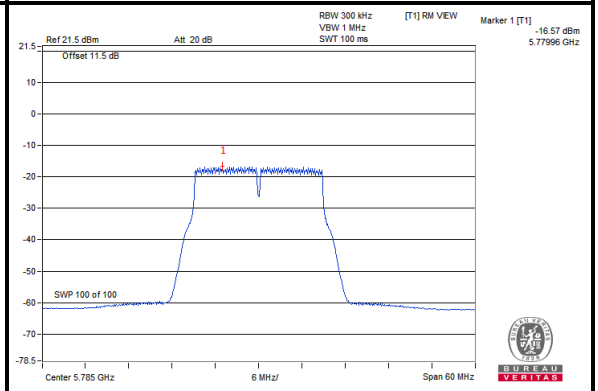
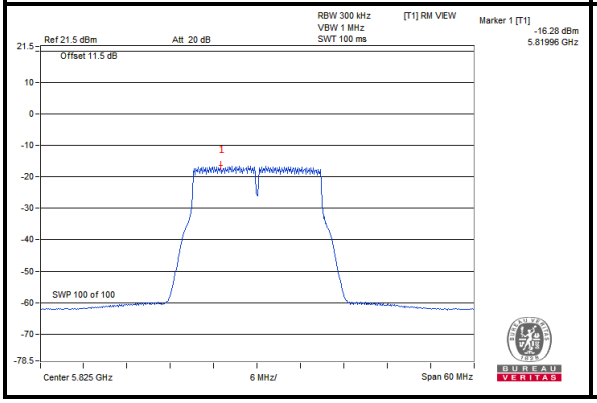




802.11ac 80MHz

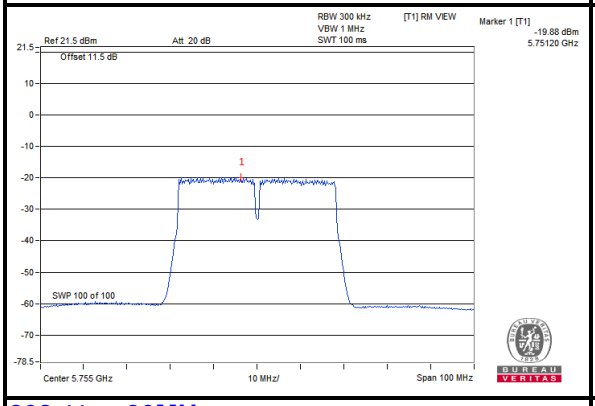


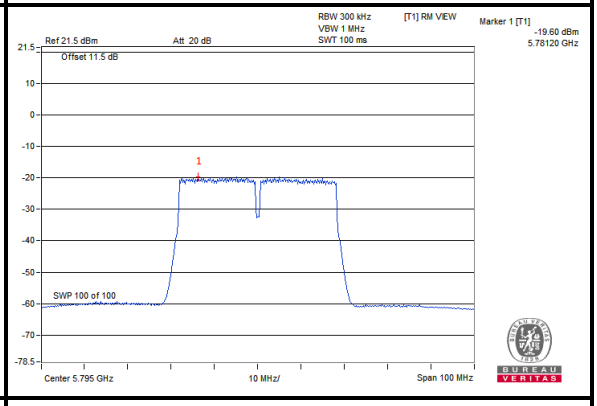
Chain 1

SPECTRUM PLOT OF WORST VALUE	
802.11n 20MHz	
	
	

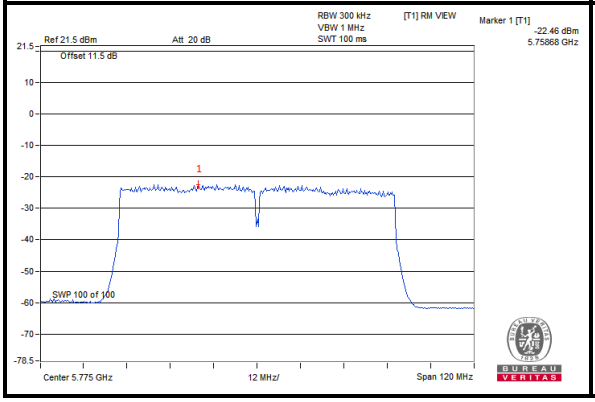
SPECTRUM PLOT OF WORST VALUE

802.11n 40MHz





802.11ac 80MHz

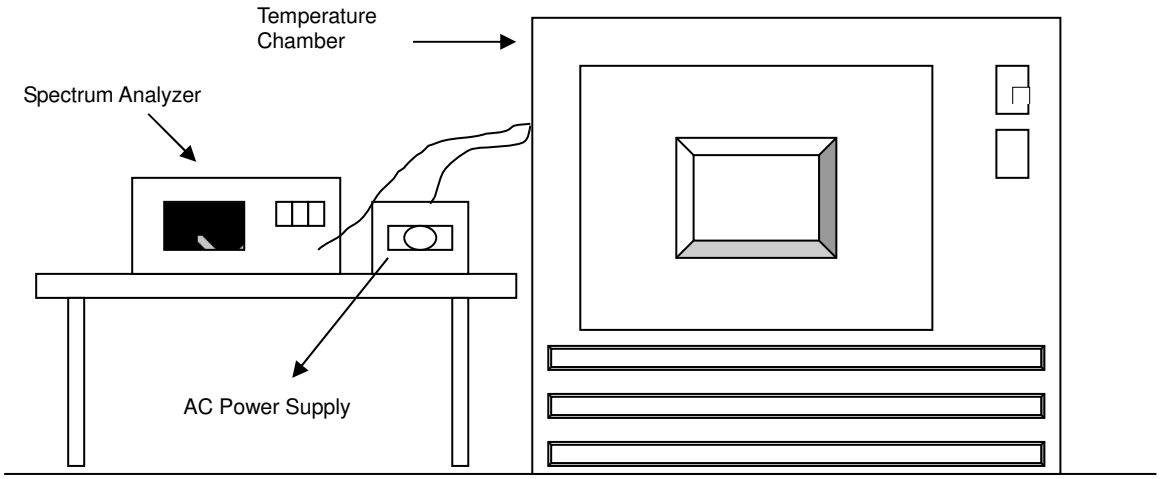


3.5 FREQUENCY STABILITY

3.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.4 TEST PROCEDURE

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

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

3.5.7 TEST RESULTS

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5179.9962	-0.00007	5179.9996	-0.00001	5179.9966	-0.00007	5179.9978	-0.00004
40	120	5179.9829	-0.00033	5179.9855	-0.00028	5179.986	-0.00027	5179.985	-0.00029
30	120	5180.0207	0.00040	5180.0206	0.00040	5180.0227	0.00044	5180.0225	0.00043
20	120	5180.0231	0.00045	5180.0209	0.00040	5180.0236	0.00046	5180.0239	0.00046
10	120	5179.9973	-0.00005	5179.9946	-0.00010	5179.9974	-0.00005	5179.9983	-0.00003
0	120	5180.0128	0.00025	5180.0121	0.00023	5180.0144	0.00028	5180.0123	0.00024
-10	120	5180.0164	0.00032	5180.0165	0.00032	5180.0201	0.00039	5180.0193	0.00037
-20	120	5180.0187	0.00036	5180.018	0.00035	5180.0195	0.00038	5180.0185	0.00036
-30	120	5179.998	-0.00004	5179.9997	-0.00001	5179.9996	-0.00001	5179.9992	-0.00002

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	138	5180.0237	0.00046	5180.0199	0.00038	5180.0238	0.00046	5180.0242	0.00047
	120	5180.0231	0.00045	5180.0209	0.00040	5180.0236	0.00046	5180.0239	0.00046
	102	5180.0238	0.00046	5180.0206	0.00040	5180.0231	0.00045	5180.023	0.00044

4. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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

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

---END---