



Test Report No.: RF200108N028-4



TEST REPORT

Applicant	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD.
Address	309, 3rd Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, P.R. China

Manufacturer or Supplier	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD.
Address	309, 3rd Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, P.R. China
Product Name	Video Conferencing Endpoint
Brand Name	YEALINK
Model	VC210
Additional Model & Model Difference	N/A
Date of tests	Jan. 08, 2020 ~ Apr. 03, 2020

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
Project Engineer / EMC Department

Approved by Glyn He
Assistant Manager / EMC Department

Date: Apr. 15, 2020

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF200108N028-4	Original release.	Apr. 15, 2020



1. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

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

1.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.70dB
Radiated emissions	9KHz ~ 30MHz	2.16dB
	30MHz ~ 1GMHz	3.60dB
	1GHz ~ 18GHz	4.82dB
	18GHz ~ 40GHz	5.00dB

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	Video Conferencing Endpoint
BRAND	YEALINK
MODEL NO.	VC210
FCC ID	T2C-VC210
POWER SUPPLY	PSE 54Vdc 0.56A or PoE 48Vdc 0.27A
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 150Mbps 802.11ac: up to 433.3Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz): 1 channel for 802.11ac 80MHz 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11n, 11ac (40MHz) 1 channel for 802.11ac (80MHz) 5500 ~ 5700MHz: 11 channels for 802.11a, 802.11n (20MHz) 5 channels for 802.11n (40MHz) 2 channel for 802.11ac (80MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz) 1 channel for 802.11ac (80MHz)
CONDUCTED OUTPUT POWER	14.11dBm for 5180 ~ 5240MHz (Maximum AVG Power) 14.22dBm for 5260 ~ 5320MHz (Maximum AVG Power) 14.56dBm for 5500 ~ 5700MHz (Maximum AVG Power) 13.78dBm for 5745 ~ 5825MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: PCB antenna with 3dBi gain 5260 ~ 5320MHz: PCB antenna with 3dBi gain 5500 ~ 5700MHz: PCB antenna with 3dBi gain 5745 ~ 5825MHz: PCB antenna with 3dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	RJ45 Line*2: Shielded, Detachable, 200cm. HDMI Line: Shielded, Detachable, 180cm with two core



NOTES:

1. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.
2. Please refer to the EUT photo document (Reference No.: 200108N028) for detailed product photo.
3. The EUT incorporates a SISO function. Physically, the EUT provides 1 completed transmitter and 1 receiver.

MODULATION MODE	FUNCTION
802.11a	1TX/1RX
802.11n (HT20), 802.11ac (VHT20)	1TX/1RX
802.11n (HT40), 802.11ac (VHT40)	1TX/1RX
802.11ac (VHT80)	1TX/1RX

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

4. The EUT were powered by the following POE:

POE	
BRAND:	Yealink
MODEL:	YLPOE30
INPUT:	AC 100-240V, 50/60Hz 1.0A
OUTPUT:	DC 54V, 0.65A
AC LINE:	Unshielded, Detachable, 180cm.



2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210MHz	--	--

FOR 5250 ~ 5350MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290MHz	--	--



FOR 5470 ~ 5725MHz

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

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

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

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

2 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530MHz	122	5610MHz

FOR 5725 ~ 5850MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

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 POE with wifi(5G) link

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

NOTE:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

NOTE: "-" means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

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

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

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



POWER LINE CONDUCTED EMISSION TEST:

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

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

ANTENNA PORT CONDUCTED MEASUREMENT:

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

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

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER(POE)	TESTED BY
RE<1G	24deg. C, 55%RH	AC 120V/60Hz	Hu
RE≥1G	24deg. C, 55%RH	AC 120V/60Hz	Hu
PLC	20deg. C, 56%RH	AC 120V/60Hz	Eric Fang
APCM	20deg. C, 55%RH	AC 120V/60Hz	Eric Fang



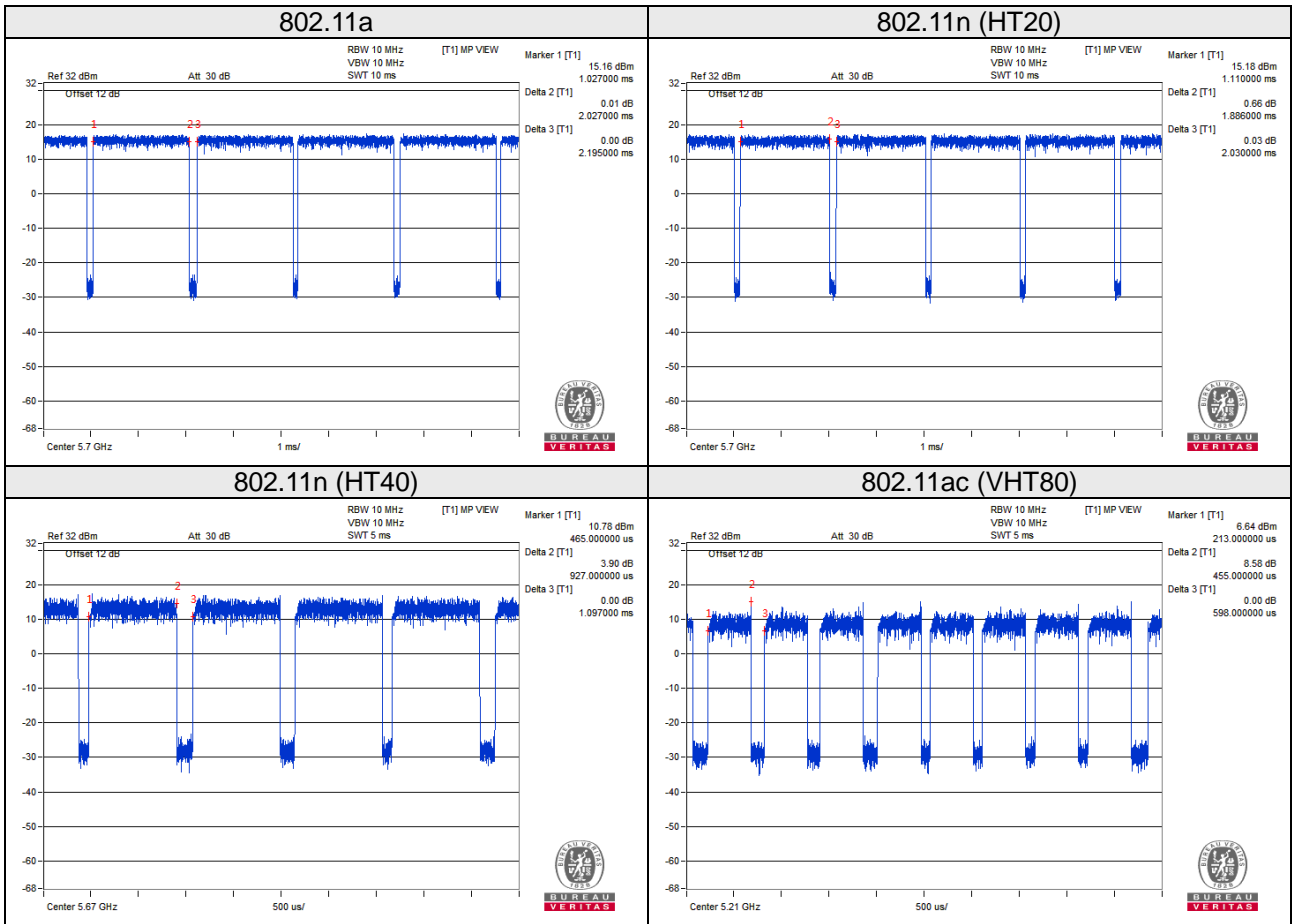
2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = 2.027/2.195 = 0.923, Duty factor = 10 * log(1/0.923) = 0.348

802.11n (HT20): Duty cycle = 1.886/2.030 = 0.929, Duty factor = 10 * log(1/0.929) = 0.920

802.11n (HT40): Duty cycle = 0.927/1.097 = 0.845, Duty factor = 10 * log(1/0.845) = 0.731

802.11ac (VHT80): Duty cycle = 0.455/0.598 = 0.761, Duty factor = 10 * log(1/0.761) = 1.186





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	N/A	N/A	N/A	N/A	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules v01r03

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:

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



3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 12,20	Mar. 11,21
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	May 22,19	May 21,20
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 28,19	May 27,20
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Apr. 21,19	Apr. 20,20
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	Jun. 23,19	Jun. 22,20
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	Jun. 23,19	Jun. 22,20
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170242	May 05,19	May 04,20
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	Apr. 21,19	Apr. 20,20
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	Apr. 21,19	Apr. 20,20
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 09,19	Nov. 08,20
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A

NOTES:

1. The calibration interval of the above test instruments are 12 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 $\geq 1/T$ (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

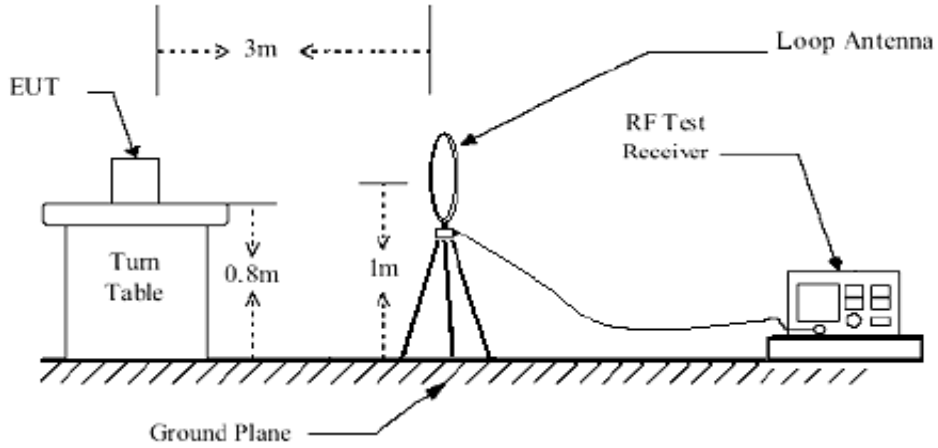
3.1.5 DEVIATION FROM TEST STANDARD

No deviation.

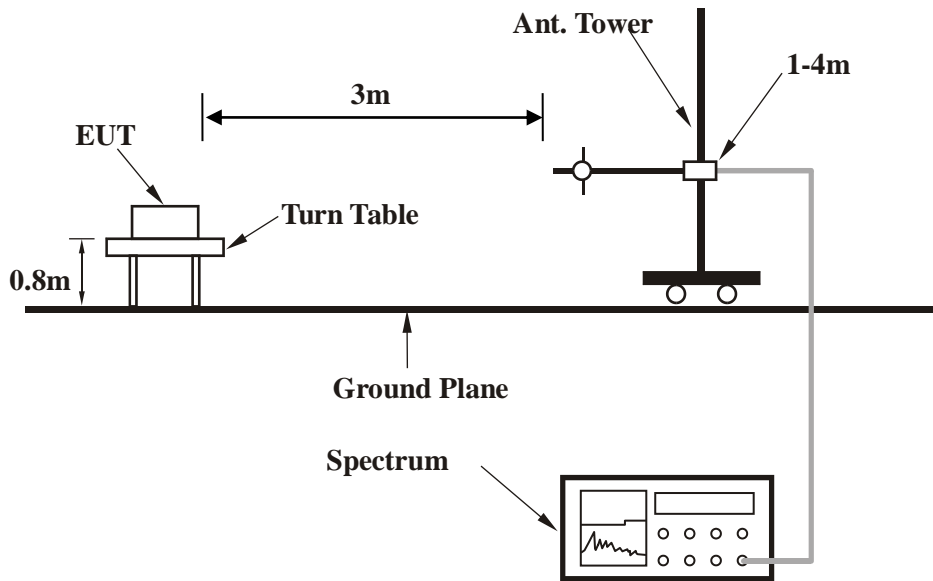


3.1.6 TEST SETUP

Below 30MHz



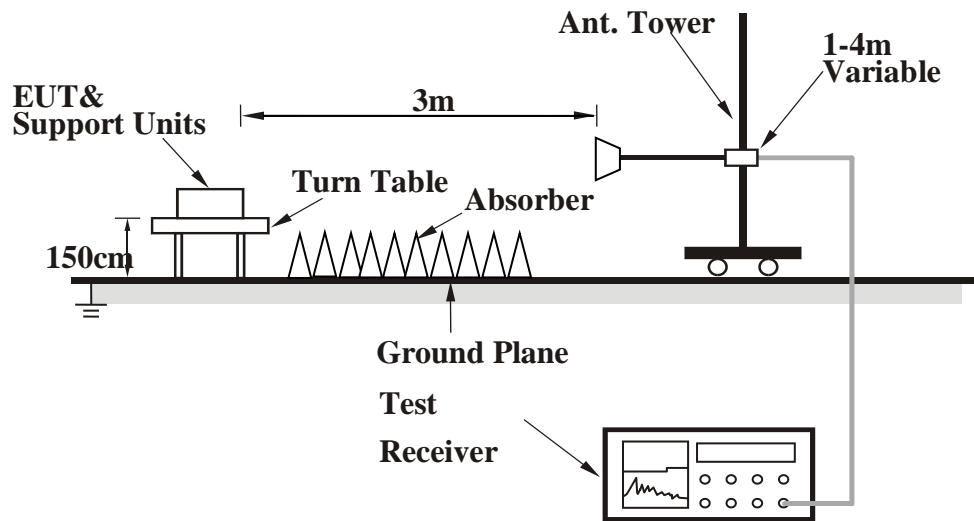
Below 1GHz test setup



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 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

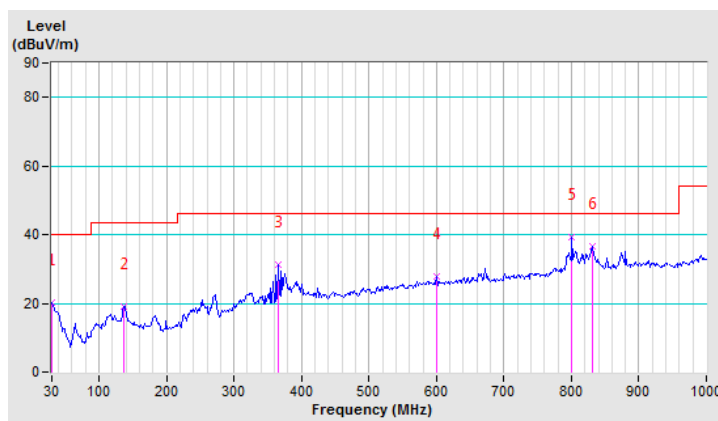
802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	20.20 QP	40.00	-19.80	1.00 H	152	31.29	-11.09
2	137.26	19.07 QP	43.50	-24.43	1.00 H	303	35.28	-16.21
3	365.77	31.39 QP	46.00	-14.61	1.00 H	179	41.49	-10.10
4	600.50	27.81 QP	46.00	-18.19	1.00 H	204	32.06	-4.25
5	801.03	39.16 QP	46.00	-6.84	1.00 H	82	39.64	-0.48
6	830.56	36.51 QP	46.00	-9.49	1.00 H	77	36.17	0.34

REMARKS:

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





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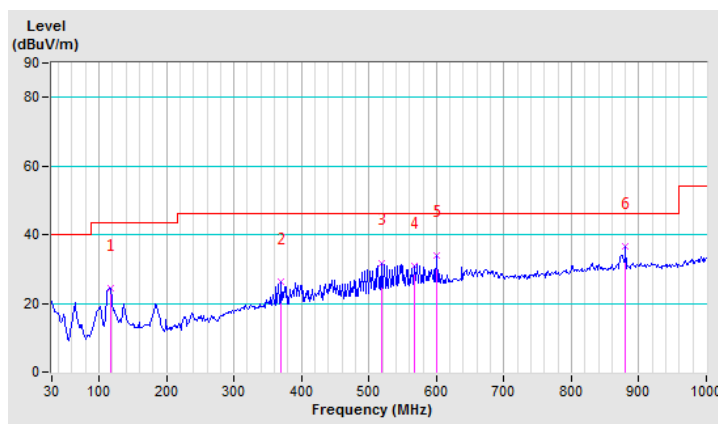
Test Report No.: RF200108N028-4

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

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	117.05	24.23 QP	43.50	-19.27	1.00 V	61	41.48	-17.25
2	370.43	26.46 QP	46.00	-19.54	1.00 V	46	36.46	-10.00
3	518.11	31.83 QP	46.00	-14.17	1.00 V	34	37.77	-5.94
4	567.85	30.88 QP	46.00	-15.12	1.00 V	23	35.45	-4.57
5	600.50	34.11 QP	46.00	-11.89	1.00 V	12	38.36	-4.25
6	880.30	36.68 QP	46.00	-9.32	1.00 V	2	35.53	1.15

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





Band 1 (5150-5250MHz):

ABOVE 1GHz DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5136.98	54.18 PK	74.00	-19.82	1.00 H	262	45.96	8.22
2	5136.98	39.29 AV	54.00	-14.71	1.00 H	262	31.07	8.22
3	5148.84	54.01 PK	74.00	-19.99	1.00 H	262	45.78	8.23
4	5148.84	39.14 AV	54.00	-14.86	1.00 H	262	30.91	8.23
5	*5180.00	104.24 PK			1.00 H	262	95.95	8.29
6	*5180.00	89.79 AV			1.00 H	262	81.50	8.29
7	#10360.00	59.78 PK	68.20	-8.42	1.00 H	0	41.92	17.86
8	15540.00	66.99 PK	74.00	-7.01	1.00 H	0	42.72	24.27
9	15540.00	45.31 AV	54.00	-8.69	1.00 H	0	21.04	24.27

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	54.17 PK	74.00	-19.83	1.00 V	159	45.95	8.22
2	5145.37	40.05 AV	54.00	-13.95	1.00 V	159	31.83	8.22
3	*5180.00	105.01 PK			1.00 V	159	96.72	8.29
4	*5180.00	91.30 AV			1.00 V	159	83.01	8.29
5	#10360.00	59.33 PK	68.20	-8.87	1.00 V	0	41.47	17.86
6	15540.00	66.10 PK	74.00	-7.90	1.00 V	0	41.83	24.27
7	15540.00	46.98 AV	54.00	-7.02	1.00 V	0	22.71	24.27

REMARKS:

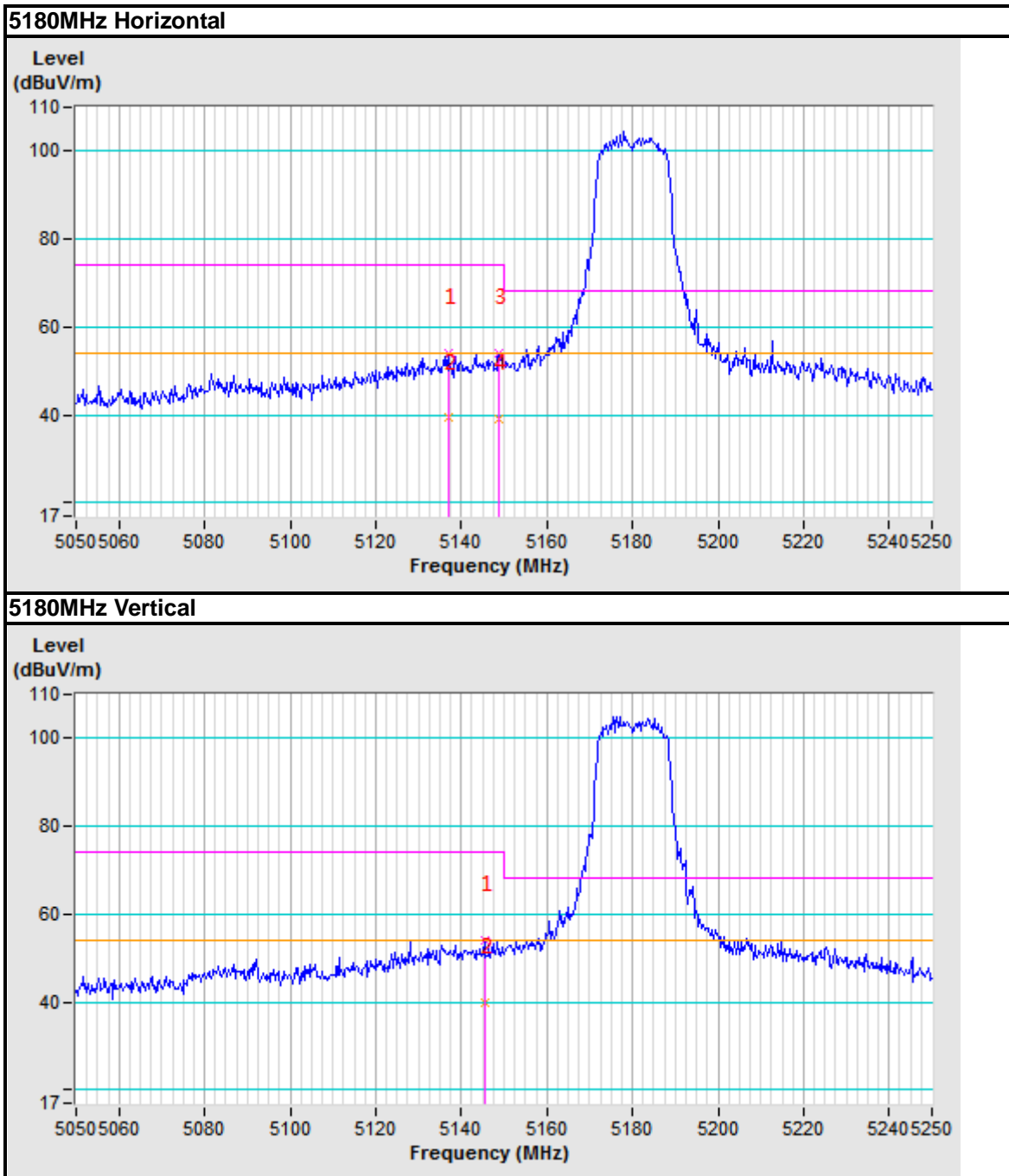
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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



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Test Report No.: RF200108N028-4

Band edge Plot





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5148.00	55.08 PK	74.00	-18.92	1.00 H	234	46.85	8.23
2	5148.00	42.03 AV	54.00	-11.97	1.00 H	234	33.80	8.23
3	5150.00	54.58 PK	74.00	-19.42	1.00 H	234	46.35	8.23
4	5150.00	42.11 AV	54.00	-11.89	1.00 H	234	33.88	8.23
5	*5200.00	102.07 PK			1.00 H	234	93.73	8.34
6	*5200.00	47.24 AV			1.00 H	234	38.90	8.34
7	#10400.00	59.36 PK	68.20	-8.84	1.00 H	0	41.41	17.95
8	15600.00	66.24 PK	74.00	-7.76	1.00 H	0	41.84	24.40
9	15600.00	45.05 AV	54.00	-8.95	1.00 H	0	20.65	24.40

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	5140.00	58.21 PK	74.00	-15.79	1.00 V	168	50.00	8.21
2	5140.00	39.88 AV	54.00	-14.12	1.00 V	168	31.67	8.21
3	5150.00	59.37 PK	74.00	-14.63	1.00 V	168	51.14	8.23
4	5150.00	40.12 AV	54.00	-13.88	1.00 V	168	31.89	8.23
5	*5200.00	103.50 PK			1.00 V	168	95.16	8.34
6	*5200.00	88.87 AV			1.00 V	168	80.53	8.34
7	#10400.00	60.02 PK	68.20	-8.18	1.00 V	0	42.07	17.95
8	15600.00	66.31 PK	74.00	-7.69	1.00 V	0	41.91	24.40
9	15600.00	46.28 AV	54.00	-7.72	1.00 V	0	21.88	24.40

REMARKS:

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



BUREAU VERITAS

Test Report No.: RF200108N028-4

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	5131.00	48.01 PK	74.00	-25.99	1.00 H	106	39.81	8.20
2	5131.00	38.02 AV	54.00	-15.98	1.00 H	106	29.82	8.20
3	5150.00	48.21 PK	74.00	-25.79	1.00 H	106	39.98	8.23
4	5150.00	38.11 AV	54.00	-15.89	1.00 H	106	29.88	8.23
5	*5240.00	102.54 PK			1.00 H	106	94.11	8.43
6	*5240.00	87.41 AV			1.00 H	106	78.98	8.43
7	5350.00	49.70 PK	74.00	-24.30	1.00 H	106	41.04	8.66
8	5350.00	38.50 AV	54.00	-15.50	1.00 H	106	29.84	8.66
9	5386.00	49.22 PK	74.00	-24.78	1.00 H	106	40.49	8.73
10	5386.00	38.14 AV	54.00	-15.86	1.00 H	106	29.41	8.73
11	#10480.00	59.33 PK	68.20	-8.87	1.00 H	0	41.20	18.13
12	15720.00	65.23 PK	74.00	-8.77	1.00 H	0	40.57	24.66
13	15720.00	45.02 AV	54.00	-8.98	1.00 H	0	20.36	24.66

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	5126.00	49.03 PK	74.00	-24.97	1.00 V	360	40.84	8.19
2	5126.00	37.19 AV	54.00	-16.81	1.00 V	360	29.00	8.19
3	5150.00	48.66 PK	74.00	-25.34	1.00 V	360	40.43	8.23
4	5150.00	37.89 AV	54.00	-16.11	1.00 V	360	29.66	8.23
5	*5240.00	105.56 PK			1.00 V	360	97.13	8.43
6	*5240.00	91.63 AV			1.00 V	360	83.20	8.43
7	5350.00	49.65 PK	74.00	-24.35	1.00 V	360	40.99	8.66
8	5350.00	38.10 AV	54.00	-15.90	1.00 V	360	29.44	8.66
9	5416.00	49.31 PK	74.00	-24.69	1.00 V	360	40.52	8.79
10	5416.00	37.80 AV	54.00	-16.20	1.00 V	360	29.01	8.79
11	#10480.00	60.03 PK	68.20	-8.17	1.00 V	0	41.90	18.13
12	15720.00	65.38 PK	74.00	-8.62	1.00 V	0	40.72	24.66
13	15720.00	46.22 AV	54.00	-7.78	1.00 V	0	21.56	24.66

REMARKS:

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

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802.11n (20MHz)

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

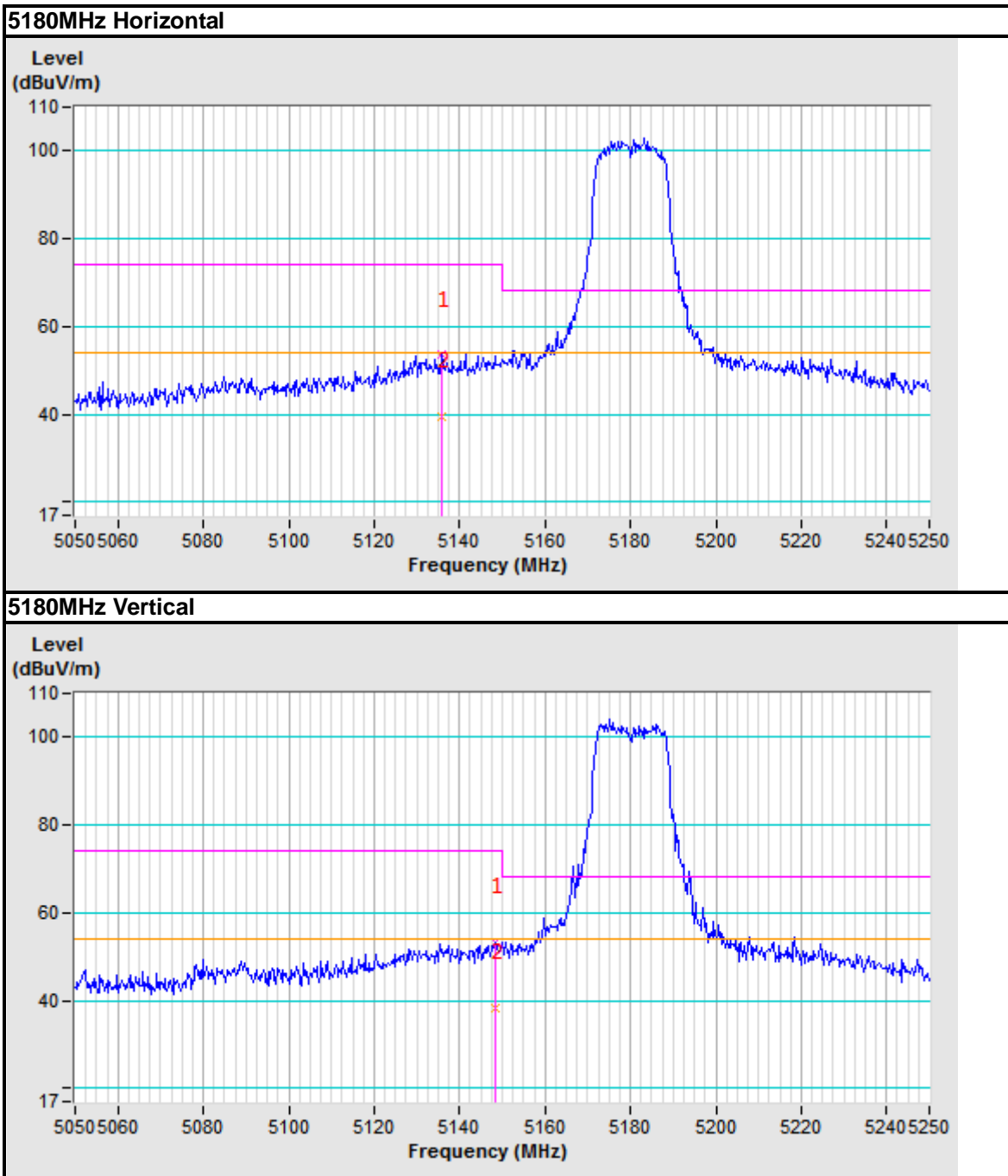
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5135.82	53.50 PK	74.00	-20.50	1.00 H	147	45.28	8.22
2	5135.82	39.46 AV	54.00	-14.54	1.00 H	147	31.24	8.22
3	*5180.00	102.73 PK			1.00 H	147	94.44	8.29
4	*5180.00	88.28 AV			1.00 H	147	79.99	8.29
5	#10360.00	60.03 PK	68.20	-8.17	1.00 H	0	42.17	17.86
6	15540.00	66.38 PK	74.00	-7.62	1.00 H	0	42.11	24.27
7	15540.00	45.28 AV	54.00	-8.72	1.00 H	0	21.01	24.27
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	5148.55	53.27 PK	74.00	-20.73	1.00 V	159	45.04	8.23
2	5148.55	38.32 AV	54.00	-15.68	1.00 V	159	30.09	8.23
3	*5180.00	104.27 PK			1.00 V	159	95.98	8.29
4	*5180.00	89.84 AV			1.00 V	159	81.55	8.29
5	#10360.00	60.14 PK	68.20	-8.06	1.00 V	0	42.28	17.86
6	15540.00	65.38 PK	74.00	-8.62	1.00 V	0	41.11	24.27
7	15540.00	41.22 AV	54.00	-12.78	1.00 V	0	16.95	24.27

REMARKS:

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



Band edge Plot





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5148.00	55.16 PK	74.00	-18.84	1.00 H	168	46.93	8.23
2	5148.00	37.90 AV	54.00	-16.10	1.00 H	168	29.67	8.23
3	5150.00	49.44 PK	74.00	-24.56	1.00 H	168	41.21	8.23
4	5150.00	38.40 AV	54.00	-15.60	1.00 H	168	30.17	8.23
5	*5200.00	101.17 PK			1.00 H	168	92.83	8.34
6	*5200.00	87.37 AV			1.00 H	168	79.03	8.34
7	#10400.00	58.97 PK	68.20	-9.23	1.00 H	0	41.02	17.95
8	15600.00	66.23 PK	74.00	-7.77	1.00 H	0	41.83	24.40
9	15600.00	45.08 AV	54.00	-8.92	1.00 H	0	20.68	24.40

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	5140.00	55.44 PK	74.00	-18.56	1.00 V	116	47.23	8.21
2	5140.00	37.60 AV	54.00	-16.40	1.00 V	116	29.39	8.21
3	5150.00	52.87 PK	74.00	-21.13	1.00 V	116	44.64	8.23
4	5150.00	38.10 AV	54.00	-15.90	1.00 V	116	29.87	8.23
5	*5200.00	102.57 PK			1.00 V	116	94.23	8.34
6	*5200.00	88.01 AV			1.00 V	116	79.67	8.34
7	#10400.00	60.35 PK	68.20	-7.85	1.00 V	0	42.40	17.95
8	15600.00	65.19 PK	74.00	-8.81	1.00 V	0	40.79	24.40
9	15600.00	45.32 AV	54.00	-8.68	1.00 V	0	20.92	24.40

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	5143.00	47.33 PK	74.00	-26.67	1.00 H	160	39.11	8.22
2	5143.00	35.71 AV	54.00	-18.29	1.00 H	160	27.49	8.22
3	5150.00	47.84 PK	74.00	-26.16	1.00 H	160	39.61	8.23
4	5150.00	37.90 AV	54.00	-16.10	1.00 H	160	29.67	8.23
5	*5240.00	101.05 PK			1.00 H	160	92.62	8.43
6	*5240.00	87.26 AV			1.00 H	160	78.83	8.43
7	5350.00	48.32 PK	74.00	-25.68	1.00 H	160	39.66	8.66
8	5350.00	36.46 AV	54.00	-17.54	1.00 H	160	27.80	8.66
9	5380.00	49.11 PK	74.00	-24.89	1.00 H	160	40.39	8.72
10	5380.00	36.72 AV	54.00	-17.28	1.00 H	160	28.00	8.72
11	#10480.00	62.38 PK	68.20	-5.82	1.00 H	0	44.25	18.13
12	15720.00	66.59 PK	74.00	-7.41	1.00 H	0	41.93	24.66
13	15720.00	45.47 AV	54.00	-8.53	1.00 H	0	20.81	24.66

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	5140.00	47.49 PK	74.00	-26.51	1.00 V	151	39.28	8.21
2	5140.00	35.85 AV	54.00	-18.15	1.00 V	151	27.64	8.21
3	5150.00	49.13 PK	74.00	-24.87	1.00 V	151	40.90	8.23
4	5150.00	35.77 AV	54.00	-18.23	1.00 V	151	27.54	8.23
5	*5240.00	105.32 PK			1.00 V	151	96.89	8.43
6	*5240.00	91.43 AV			1.00 V	151	83.00	8.43
7	5350.00	48.12 PK	74.00	-25.88	1.00 V	151	39.46	8.66
8	5350.00	36.28 AV	54.00	-17.72	1.00 V	151	27.62	8.66
9	5400.00	48.41 PK	74.00	-25.59	1.00 V	151	39.65	8.76
10	5400.00	36.76 AV	54.00	-17.24	1.00 V	151	28.00	8.76
11	#10480.00	61.03 PK	68.20	-7.17	1.00 V	0	42.90	18.13
12	15720.00	65.98 PK	74.00	-8.02	1.00 V	0	41.32	24.66
13	15720.00	46.56 AV	54.00	-7.44	1.00 V	0	21.90	24.66

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	5147.97	54.34 PK	74.00	-19.66	1.00 H	258	46.11	8.23
2	5147.97	38.26 V	54.00	-15.74	1.00 H	258	30.03	8.23
3	*5190.00	98.72 PK			1.00 H	258	90.40	8.32
4	*5190.00	82.51 AV			1.00 H	258	74.19	8.32
5	#10380.00	60.11 PK	68.20	-8.09	1.00 H	0	42.21	17.90
6	15570.00	64.99 PK	74.00	-9.01	1.00 H	0	40.66	24.33
7	15570.00	44.38 AV	54.00	-9.62	1.00 H	0	20.05	24.33

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5147.68	57.11 PK	74.00	-16.89	1.00 V	195	48.88	8.23
2	5147.68	40.26 AV	54.00	-13.74	1.00 V	195	32.03	8.23
3	*5190.00	101.22 PK			1.00 V	195	92.90	8.32
4	*5190.00	84.14 AV			1.00 V	195	75.82	8.32
5	#10380.00	64.30 PK	68.20	-3.90	1.00 V	0	46.40	17.90
6	15570.00	65.08 PK	74.00	-8.92	1.00 V	0	40.75	24.33
7	15570.00	45.13 AV	54.00	-8.87	1.00 V	0	20.80	24.33

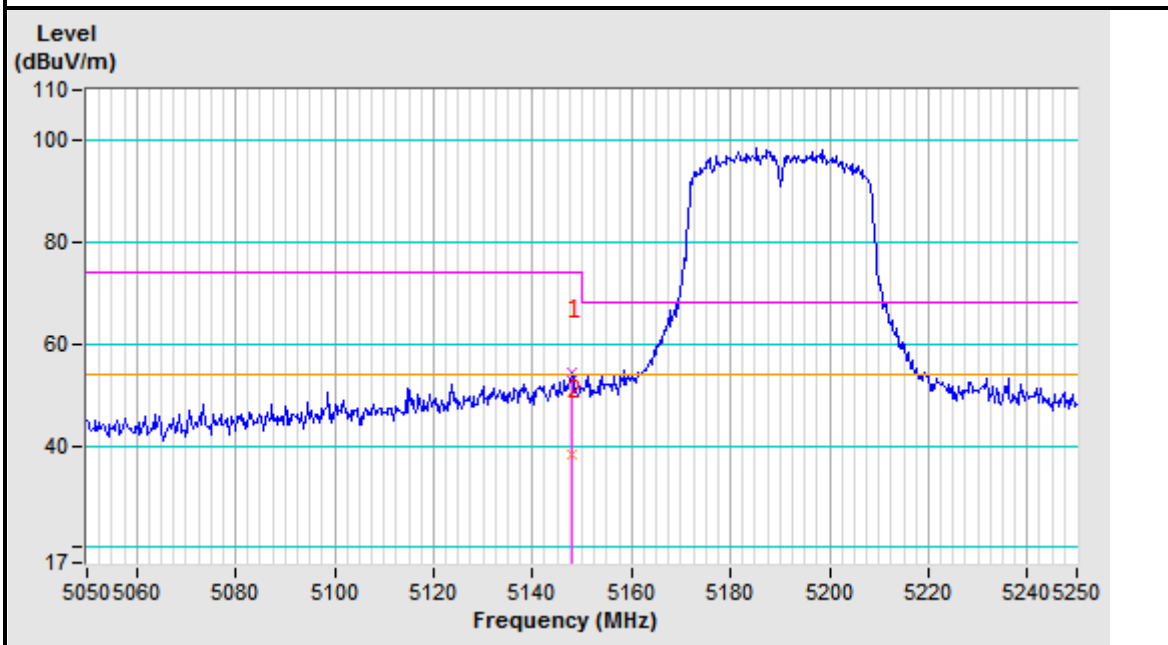
REMARKS:

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.

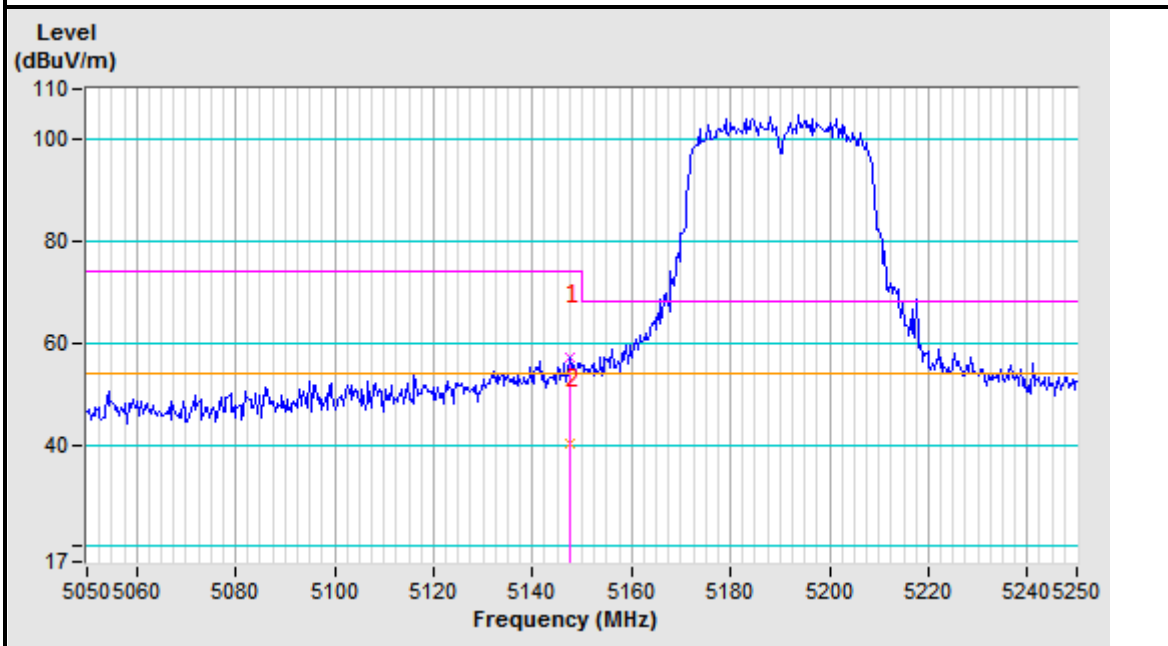


Band edge Plot

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	5140.00	54.34 PK	74.00	-19.66	1.00 H	122	46.13	8.21
2	5140.00	37.01 AV	54.00	-16.99	1.00 H	122	28.80	8.21
3	5150.00	54.47 PK	74.00	-19.53	1.00 H	122	46.24	8.23
4	5150.00	37.59 AV	54.00	-16.41	1.00 H	122	29.36	8.23
5	*5230.00	99.02 PK			1.00 H	122	90.62	8.40
6	*5230.00	82.54 AV			1.00 H	122	74.14	8.40
7	#10460.00	59.38 PK	68.20	-8.82	1.00 H	0	41.30	18.08
8	15690.00	64.81 PK	74.00	-9.19	1.00 H	0	40.22	24.59
9	15690.00	43.78 AV	54.00	-10.22	1.00 H	0	19.19	24.59

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	5143.00	57.52 PK	74.00	-16.48	1.00 V	196	49.30	8.22
2	5143.00	34.56 AV	54.00	-19.44	1.00 V	196	26.34	8.22
3	5150.00	55.65 PK	74.00	-18.35	1.00 V	196	47.42	8.23
4	5150.00	34.92 AV	54.00	-19.08	1.00 V	196	26.69	8.23
5	*5230.00	102.73 PK			1.00 V	196	94.33	8.40
6	*5230.00	85.23 AV			1.00 V	196	76.83	8.40
7	#10460.00	60.32 PK	68.20	-7.88	1.00 V	0	42.24	18.08
8	15690.00	64.38 PK	74.00	-9.62	1.00 V	0	39.79	24.59
9	15690.00	45.12 AV	54.00	-8.88	1.00 V	0	20.53	24.59

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)
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	5135.82	54.52 PK	74.00	-19.48	1.00 H	148	46.3	8.22
2	5135.82	31.13 AV	54.00	-22.87	1.00 H	148	22.91	8.22
3	*5210.00	98.78 PK			1.00 H	148	90.41	8.37
4	*5210.00	75.48 AV			1.00 H	148	67.11	8.37
5	#10420.00	60.11 PK	68.20	-8.09	1.00 H	0	42.12	17.99
6	15630.00	65.39 PK	74.00	-8.61	1.00 H	0	40.93	24.46
7	15630.00	45.18 AV	54.00	-8.82	1.00 H	0	20.72	24.46

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	5135.53	61.95 PK	74.00	-12.05	1.00 V	158	53.73	8.22
2	5135.53	41.27 AV	54.00	-12.73	1.00 V	158	33.05	8.22
3	*5210.00	102.13 PK			1.00 V	158	93.76	8.37
4	*5210.00	77.32 AV			1.00 V	158	68.95	8.37
5	#10420.00	60.39 PK	68.20	-7.81	1.00 V	0	42.40	17.99
6	15630.00	66.47 PK	74.00	-7.53	1.00 V	0	42.01	24.46
7	15630.00	46.13 AV	54.00	-7.87	1.00 V	0	21.67	24.46

REMARKS:

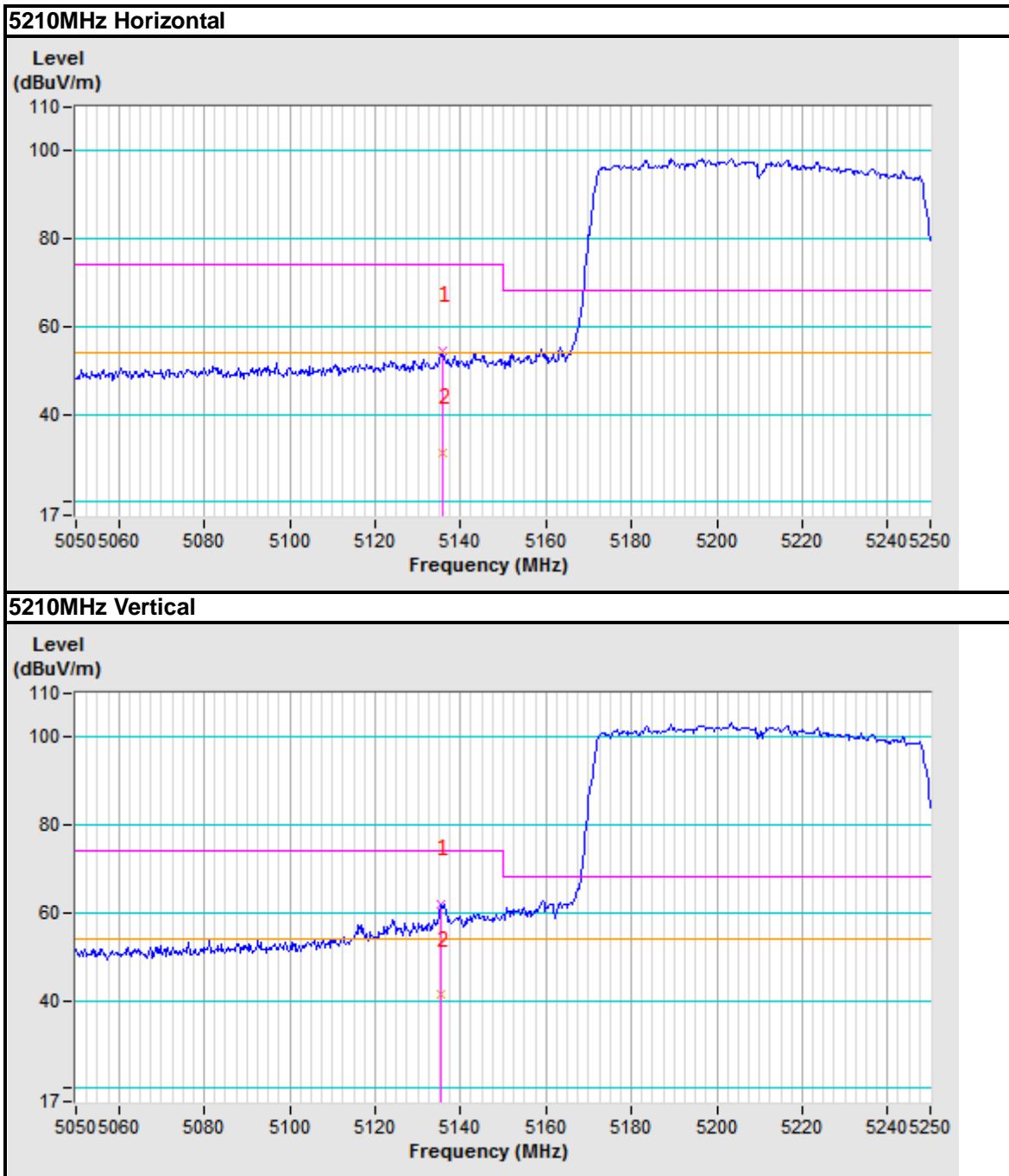
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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



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Test Report No.: RF200108N028-4

Band edge Plot





Band 2 (5250-5350MHz):

ABOVE 1GHz DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5142.00	46.46 PK	74.00	-27.54	1.00 H	186	38.24	8.22
2	5142.00	34.80 AV	54.00	-19.20	1.00 H	186	26.58	8.22
3	5150.00	46.46 PK	74.00	-27.54	1.00 H	186	38.23	8.23
4	5150.00	34.92 AV	54.00	-19.08	1.00 H	186	26.69	8.23
5	*5260.00	104.24 PK			1.00 H	186	95.78	8.46
6	*5260.00	90.39 AV			1.00 H	186	81.93	8.46
7	5350.00	49.03 PK	74.00	-24.97	1.00 H	186	40.37	8.66
8	5350.00	36.33 AV	54.00	-17.67	1.00 H	186	27.67	8.66
9	5355.00	48.55 PK	74.00	-25.45	1.00 H	186	39.88	8.67
10	5355.00	36.52 AV	54.00	-17.48	1.00 H	186	27.85	8.67
11	#10520.00	58.92 PK	68.20	-9.28	1.00 H	0	40.71	18.21
12	15780.00	64.53 PK	74.00	-9.47	1.00 H	0	39.75	24.78
13	15780.00	44.12 AV	54.00	-9.88	1.00 H	0	19.34	24.78

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	5142.00	47.44 PK	74.00	-26.56	1.00 V	166	39.22	8.22
2	5142.00	34.80 AV	54.00	-19.20	1.00 V	166	26.58	8.22
3	5150.00	47.06 PK	74.00	-26.94	1.00 V	166	38.83	8.23
4	5150.00	35.00 AV	54.00	-19.00	1.00 V	166	26.77	8.23
5	*5260.00	106.79 PK			1.00 V	166	98.33	8.46
6	*5260.00	92.25 AV			1.00 V	166	83.79	8.46
7	5350.00	50.35 PK	74.00	-23.65	1.00 V	166	41.69	8.66
8	5350.00	37.30 AV	54.00	-16.70	1.00 V	166	28.64	8.66
9	5360.00	51.25 PK	74.00	-22.75	1.00 V	166	42.57	8.68
10	5360.00	37.00 AV	54.00	-17.00	1.00 V	166	28.32	8.68
11	#10520.00	60.33 PK	68.20	-7.87	1.00 V	0	42.12	18.21
12	15780.00	65.97 PK	74.00	-8.03	1.00 V	0	41.19	24.78
13	15780.00	45.03 AV	54.00	-8.97	1.00 V	0	20.25	24.78

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.



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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	103.95 PK			1.00 H	147	95.40	8.55
2	*5300.00	90.24 AV			1.00 H	147	81.69	8.55
3	5350.00	55.36 PK	74.00	-18.64	1.00 H	147	46.70	8.66
4	5350.00	37.50 AV	54.00	-16.50	1.00 H	147	28.84	8.66
5	5352.00	57.71 PK	74.00	-16.29	1.00 H	147	49.05	8.66
6	5352.00	36.70 AV	54.00	-17.30	1.00 H	147	28.04	8.66
7	10600.00	59.23 PK	74.00	-14.77	1.00 H	0	40.89	18.34
8	10600.00	42.82 AV	54.00	-11.18	1.00 H	0	24.48	18.34
9	15900.00	65.81 PK	74.00	-8.19	1.00 H	0	40.77	25.04
10	15900.00	44.38 AV	54.00	-9.62	1.00 H	0	19.34	25.04

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	106.77 PK			1.00 V	200	98.22	8.55
2	*5300.00	93.44 AV			1.00 V	200	84.89	8.55
3	5350.00	61.90 PK	74.00	-12.10	1.00 V	200	53.24	8.66
4	5350.00	38.10 AV	54.00	-15.90	1.00 V	200	29.44	8.66
5	5356.00	59.79 PK	74.00	-14.21	1.00 V	200	51.12	8.67
6	5356.00	37.40 AV	54.00	-16.60	1.00 V	200	28.73	8.67
7	10600.00	60.12 PK	74.00	-13.88	1.00 V	0	41.78	18.34
8	10600.00	43.61 AV	54.00	-10.39	1.00 V	0	25.27	18.34
9	15900.00	65.39 PK	74.00	-8.61	1.00 V	0	40.35	25.04
10	15900.00	46.03 AV	54.00	-7.97	1.00 V	0	20.99	25.04

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	104.38 PK			1.00 H	157	95.78	8.60
2	*5320.00	91.42 AV			1.00 H	157	82.82	8.60
3	5350.00	51.11 PK	74.00	-22.89	1.00 H	157	42.45	8.66
4	5350.00	38.42 AV	54.00	-15.58	1.00 H	157	29.76	8.66
5	10640.00	59.12 PK	74.00	-14.88	1.00 H	0	40.71	18.41
6	10640.00	42.64 AV	54.00	-11.36	1.00 H	0	24.23	18.41
7	15960.00	64.39 PK	74.00	-9.61	1.00 H	0	39.22	25.17
8	15960.00	44.08 AV	54.00	-9.92	1.00 H	0	18.91	25.17
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	107.57 PK			1.00 V	188	98.97	8.60
2	*5320.00	94.11 AV			1.00 V	188	85.51	8.60
3	5350.00	52.33 PK	74.00	-21.67	1.00 V	188	43.67	8.66
4	5350.00	39.31 AV	54.00	-14.69	1.00 V	188	30.65	8.66
5	5352.90	55.11 PK	74.00	-18.89	1.00 V	188	46.44	8.67
6	5352.90	42.05 AV	54.00	-11.95	1.00 V	188	33.38	8.67
7	10640.00	60.23 PK	74.00	-13.77	1.00 V	0	41.82	18.41
8	10640.00	44.11 AV	54.00	-9.89	1.00 V	0	25.70	18.41
9	15960.00	65.23 PK	74.00	-8.77	1.00 V	0	40.06	25.17
10	15960.00	45.86 AV	54.00	-8.14	1.00 V	0	20.69	25.17

REMARKS:

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

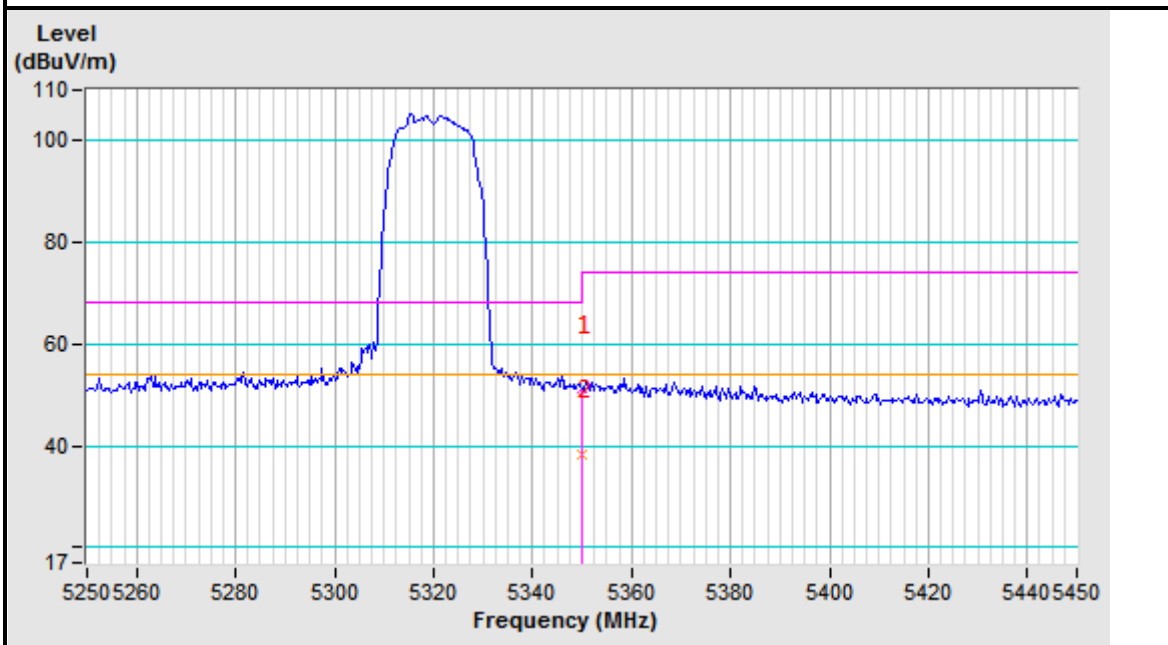


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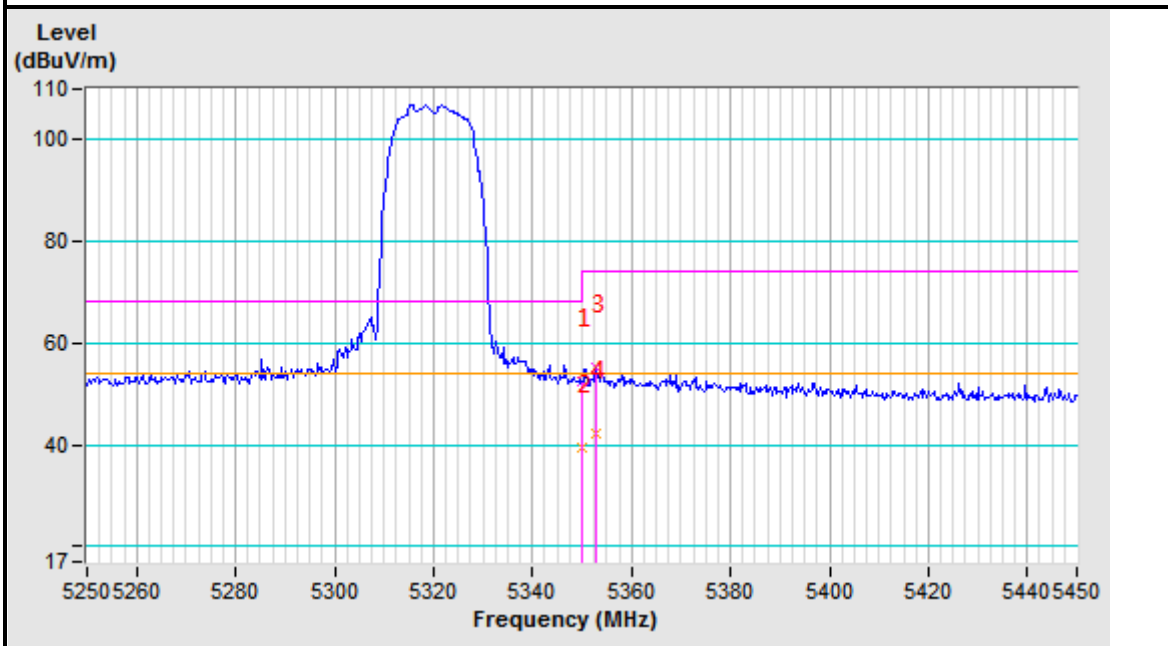
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Band edge Plot

5320MHz Horizontal



5320MHz Vertical





802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5144.00	47.83 PK	74.00	-26.17	1.00 H	241	39.61	8.22
2	5144.00	35.00 AV	54.00	-19.00	1.00 H	241	26.78	8.22
3	5150.00	47.43 PK	74.00	-26.57	1.00 H	241	39.20	8.23
4	5150.00	35.20 AV	54.00	-18.80	1.00 H	241	26.97	8.23
5	*5260.00	102.73 PK			1.00 H	241	94.27	8.46
6	*5260.00	88.36 AV			1.00 H	241	79.90	8.46
7	5350.00	49.48 PK	74.00	-24.52	1.00 H	241	40.82	8.66
8	5350.00	37.50 AV	54.00	-16.50	1.00 H	241	28.84	8.66
9	5360.00	49.30 PK	74.00	-24.70	1.00 H	241	40.62	8.68
10	5360.00	37.10 AV	54.00	-16.90	1.00 H	241	28.42	8.68
11	#10520.00	58.77 PK	68.20	-9.43	1.00 H	0	40.56	18.21
12	15780.00	65.13 PK	74.00	-8.87	1.00 H	0	40.35	24.78
13	15780.00	44.27 AV	54.00	-9.73	1.00 H	0	19.49	24.78

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	47.36 PK	74.00	-26.64	1.00 V	144	39.14	8.22
2	5145.00	35.11 AV	54.00	-18.89	1.00 V	144	26.89	8.22
3	5150.00	47.15 PK	74.00	-26.85	1.00 V	144	38.92	8.23
4	5150.00	35.08 AV	54.00	-18.92	1.00 V	144	26.85	8.23
5	*5260.00	105.99 PK			1.00 V	144	97.53	8.46
6	*5260.00	91.92 AV			1.00 V	144	83.46	8.46
7	5350.00	49.97 PK	74.00	-24.03	1.00 V	144	41.31	8.66
8	5350.00	37.60 AV	54.00	-16.40	1.00 V	144	28.94	8.66
9	5362.00	50.47 PK	74.00	-23.53	1.00 V	144	41.79	8.68
10	5362.00	37.50 AV	54.00	-16.50	1.00 V	144	28.82	8.68
11	#10520.00	61.32 PK	68.20	-6.88	1.00 V	0	43.11	18.21
12	15780.00	65.98 PK	74.00	-8.02	1.00 V	0	41.20	24.78
13	15780.00	45.23 AV	54.00	-8.77	1.00 V	0	20.45	24.78

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.00 PK			1.00 H	193	95.45	8.55
2	*5300.00	90.32 AV			1.00 H	193	81.77	8.55
3	5350.00	51.71 PK	74.00	-22.29	1.00 H	193	43.05	8.66
4	5350.00	37.20 AV	54.00	-16.80	1.00 H	193	28.54	8.66
5	5355.00	51.94 PK	74.00	-22.06	1.00 H	193	43.27	8.67
6	5355.00	36.80 AV	54.00	-17.20	1.00 H	193	28.13	8.67
7	10600.00	58.68 PK	74.00	-15.32	1.00 H	0	40.34	18.34
8	10600.00	40.32 AV	54.00	-13.68	1.00 H	0	21.98	18.34
9	15900.00	64.82 PK	74.00	-9.18	1.00 H	0	39.78	25.04
10	15900.00	43.88 AV	54.00	-10.12	1.00 H	0	18.84	25.04

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	102.68 PK			1.00 V	232	94.13	8.55
2	*5300.00	88.43 AV			1.00 V	232	79.88	8.55
3	5350.00	56.67 PK	74.00	-17.33	1.00 V	232	48.01	8.66
4	5350.00	37.22 AV	54.00	-16.78	1.00 V	232	28.56	8.66
5	5358.00	53.82 PK	74.00	-20.18	1.00 V	232	45.15	8.67
6	5358.00	36.69 AV	54.00	-17.31	1.00 V	232	28.02	8.67
7	10600.00	59.23 PK	74.00	-14.77	1.00 V	0	40.89	18.34
8	10600.00	42.25 AV	54.00	-11.75	1.00 V	0	23.91	18.34
9	15900.00	65.06 PK	74.00	-8.94	1.00 V	0	40.02	25.04
10	15900.00	45.39 AV	54.00	-8.61	1.00 V	0	20.35	25.04

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.00 PK			1.00 H	203	96.40	8.60
2	*5320.00	90.49 AV			1.00 H	203	81.89	8.60
3	5350.00	52.88 PK	74.00	-21.12	1.00 H	203	44.22	8.66
4	5350.00	37.95 AV	54.00	-16.05	1.00 H	203	29.29	8.66
5	10640.00	59.62 PK	74.00	-14.38	1.00 H	0	41.21	18.41
6	10640.00	40.06 AV	54.00	-13.94	1.00 H	0	21.65	18.41
7	15960.00	65.19 PK	74.00	-8.81	1.00 H	0	40.02	25.17
8	15960.00	45.11 AV	54.00	-8.89	1.00 H	0	19.94	25.17

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

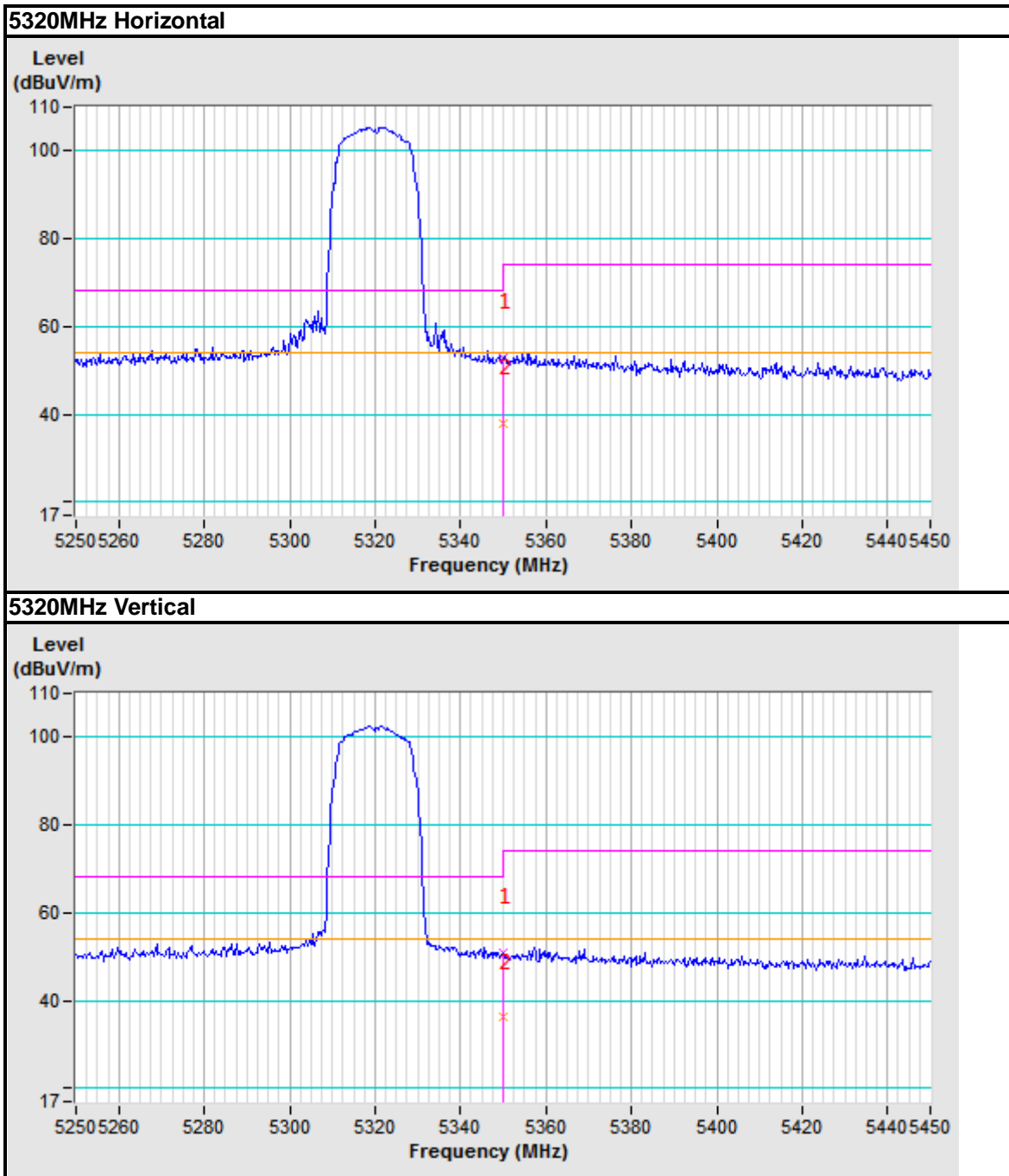
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	103.14 PK			1.00 V	231	94.54	8.60
2	*5320.00	88.62 AV			1.00 V	231	80.02	8.60
3	5350.00	51.06 PK	74.00	-22.94	1.00 V	231	42.4	8.66
4	5350.00	36.18 AV	54.00	-17.82	1.00 V	231	27.52	8.66
5	10640.00	60.15 PK	74.00	-13.85	1.00 V	0	41.74	18.41
6	10640.00	40.28 AV	54.00	-13.72	1.00 V	0	21.87	18.41
7	15960.00	66.34 PK	74.00	-7.66	1.00 V	0	41.17	25.17
8	15960.00	45.89 AV	54.00	-8.11	1.00 V	0	20.72	25.17

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





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	102.91 PK			1.00 H	168	94.42	8.49
2	*5270.00	86.24 AV			1.00 H	168	77.75	8.49
3	5350.00	53.62 PK	74.00	-20.38	1.00 H	168	44.96	8.66
4	5350.00	39.12 AV	54.00	-14.88	1.00 H	168	30.46	8.66
5	5377.09	51.42 PK	74.00	-22.58	1.00 H	168	42.70	8.72
6	5377.09	39.27 AV	54.00	-14.73	1.00 H	168	30.55	8.72
7	#10540.00	60.17 PK	68.20	-8.03	1.00 H	0	41.93	18.24
8	15810.00	66.31 PK	74.00	-7.69	1.00 H	0	41.46	24.85
9	15810.00	50.23 AV	54.00	-3.77	1.00 H	0	25.38	24.85

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	95.71 PK			1.00 V	144	87.22	8.49
2	*5270.00	79.50 AV			1.00 V	144	71.01	8.49
3	5350.00	53.93 PK	74.00	-20.07	1.00 V	144	45.27	8.66
4	5350.00	39.17 AV	54.00	-14.83	1.00 V	144	30.51	8.66
5	5365.05	50.16 PK	74.00	-23.84	1.00 V	144	41.47	8.69
6	5365.05	39.25 AV	54.00	-14.75	1.00 V	144	30.56	8.69
7	#10540.00	59.52 PK	68.20	-8.68	1.00 V	0	41.28	18.24
8	15810.00	66.57 PK	74.00	-7.43	1.00 V	0	41.72	24.85
9	15810.00	50.22 AV	54.00	-3.78	1.00 V	0	25.37	24.85

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 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	101.15 PK			1.00 H	169	92.58	8.57
2	*5310.00	84.47 AV			1.00 H	169	75.90	8.57
3	5351.16	54.93 PK	74.00	-19.07	1.00 H	169	46.27	8.66
4	5351.16	37.59 AV	54.00	-16.41	1.00 H	169	28.93	8.66
5	10620.00	60.19 PK	74.00	-13.81	1.00 H	0	41.81	18.38
6	10620.00	45.03 AV	54.00	-8.97	1.00 H	0	26.65	18.38
7	15930.00	66.31 PK	74.00	-7.69	1.00 H	0	41.20	25.11
8	15930.00	49.65 AV	54.00	-4.35	1.00 H	0	24.54	25.11

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	*5310.00	98.17 PK			1.00 V	157	89.60	8.57
2	*5310.00	82.13 AV			1.00 V	157	73.56	8.57
3	5350.00	50.26 PK	74.00	-23.74	1.00 V	157	41.6	8.66
4	5350.00	34.85 AV	54.00	-19.15	1.00 V	157	26.19	8.66
5	10620.00	60.11 PK	74.00	-13.89	1.00 V	0	41.73	18.38
6	10620.00	45.62 AV	54.00	-8.38	1.00 V	0	27.24	18.38
7	15930.00	66.02 PK	74.00	-7.98	1.00 V	0	40.91	25.11
8	15930.00	49.14 AV	54.00	-4.86	1.00 V	0	24.03	25.11

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.

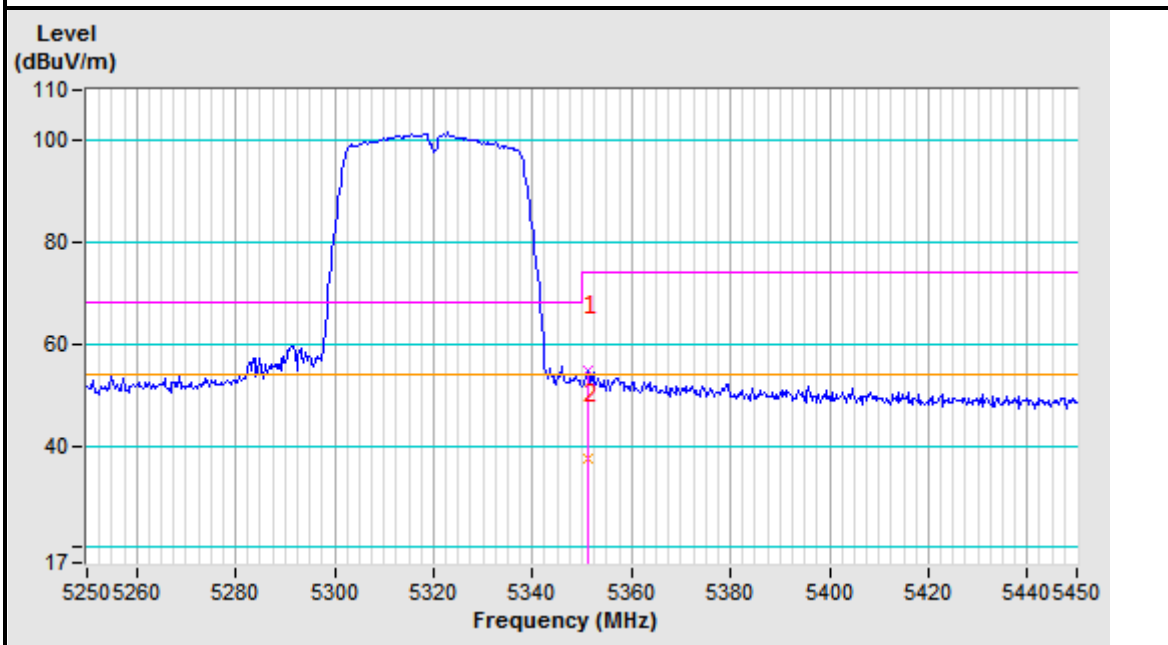


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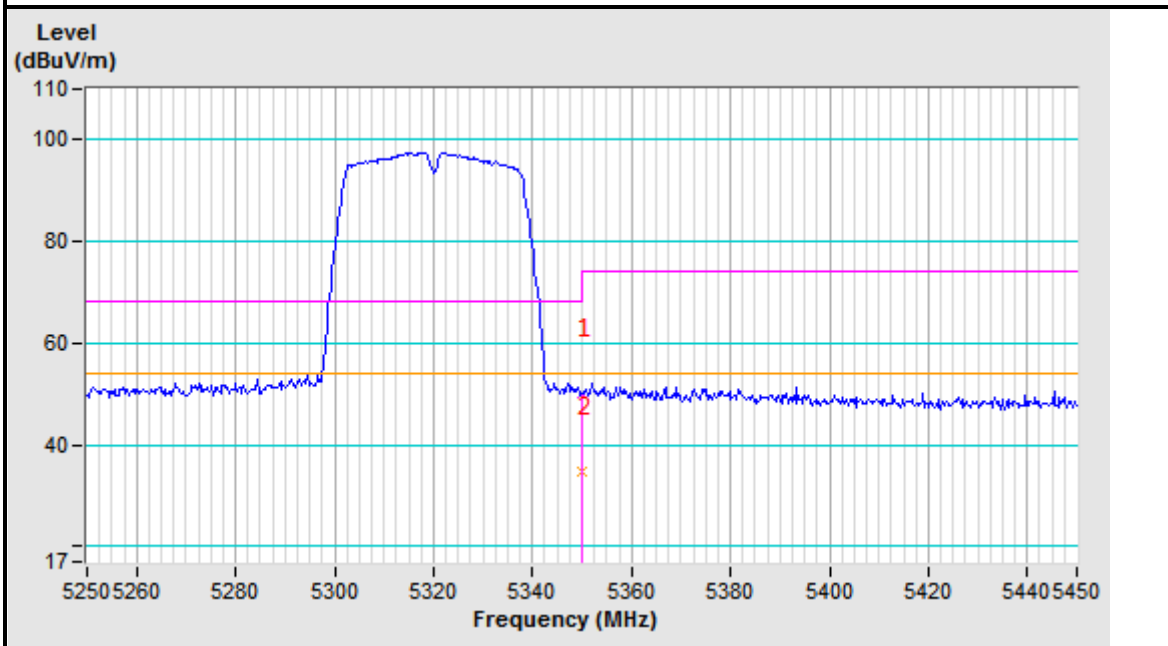
Test Report No.: RF200108N028-4

Band edge Plot

5310MHz Horizontal



5310MHz Vertical





802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	102.09 PK			1.00 H	168	93.57	8.52
2	*5290.00	80.25 AV			1.00 H	168	71.73	8.52
3	5352.89	56.09PK	74.00	-17.91	1.00 H	168	47.42	8.67
4	5352.89	36.19AV	54.00	-17.81	1.00 H	168	27.52	8.67
5	#10580.00	60.17 PK	68.20	-8.03	1.00 H	0	41.86	18.31
6	15870.00	65.97 PK	74.00	-8.03	1.00 H	0	40.99	24.98
7	15870.00	48.89 AV	54.00	-5.11	1.00 H	0	23.91	24.98
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	98.45 PK			1.26 V	156	89.93	8.52
2	*5290.00	75.44 AV			1.26 V	156	66.92	8.52
3	5350.00	51.79PK	74.00	-22.21	1.26 V	156	43.13	8.66
4	5350.00	32.26AV	54.00	-21.74	1.26 V	156	23.6	8.66
5	#10580.00	60.25 PK	68.20	-7.95	1.00 V	0	41.94	18.31
6	15870.00	66.02 PK	74.00	-7.98	1.00 V	0	41.04	24.98
7	15870.00	49.67 AV	54.00	-4.33	1.00 V	0	24.69	24.98

REMARKS:

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

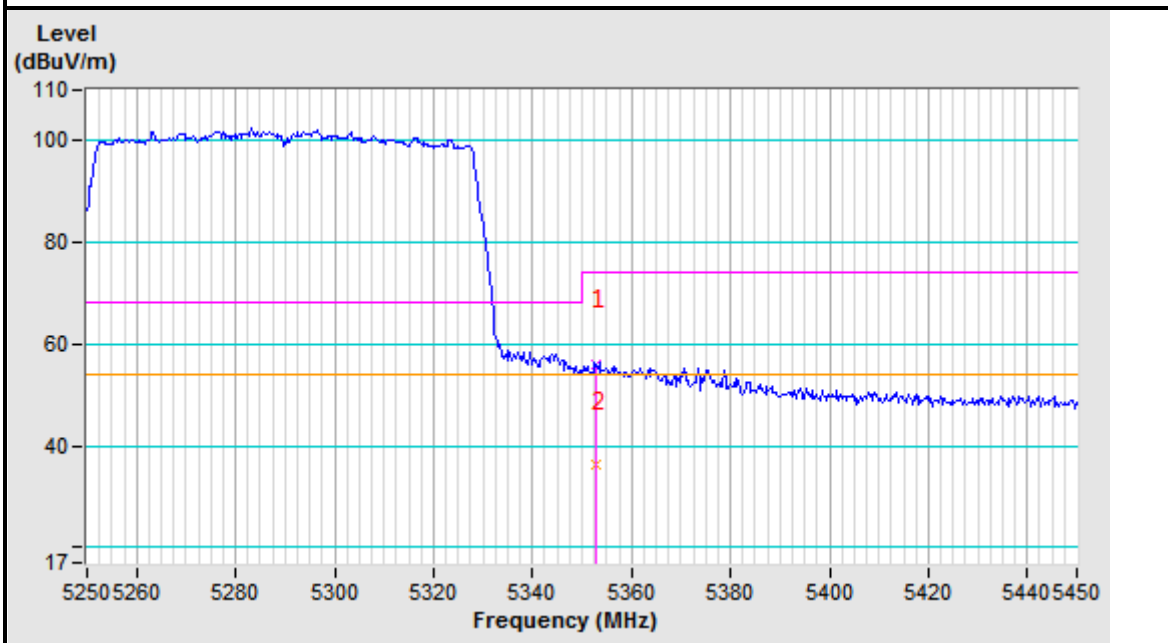


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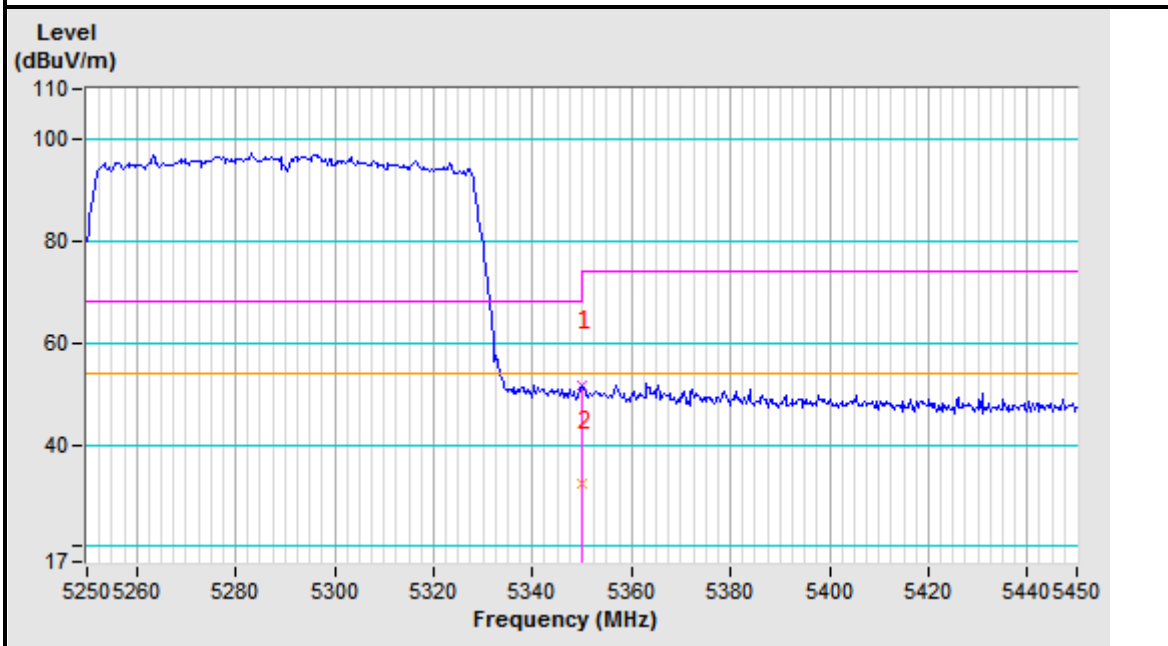
Test Report No.: RF200108N028-4

Band edge Plot

5290MHz Horizontal



5290MHz Vertical





Band 3 (5470-5725MHz):

ABOVE 1GHz DATA

802.11a

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

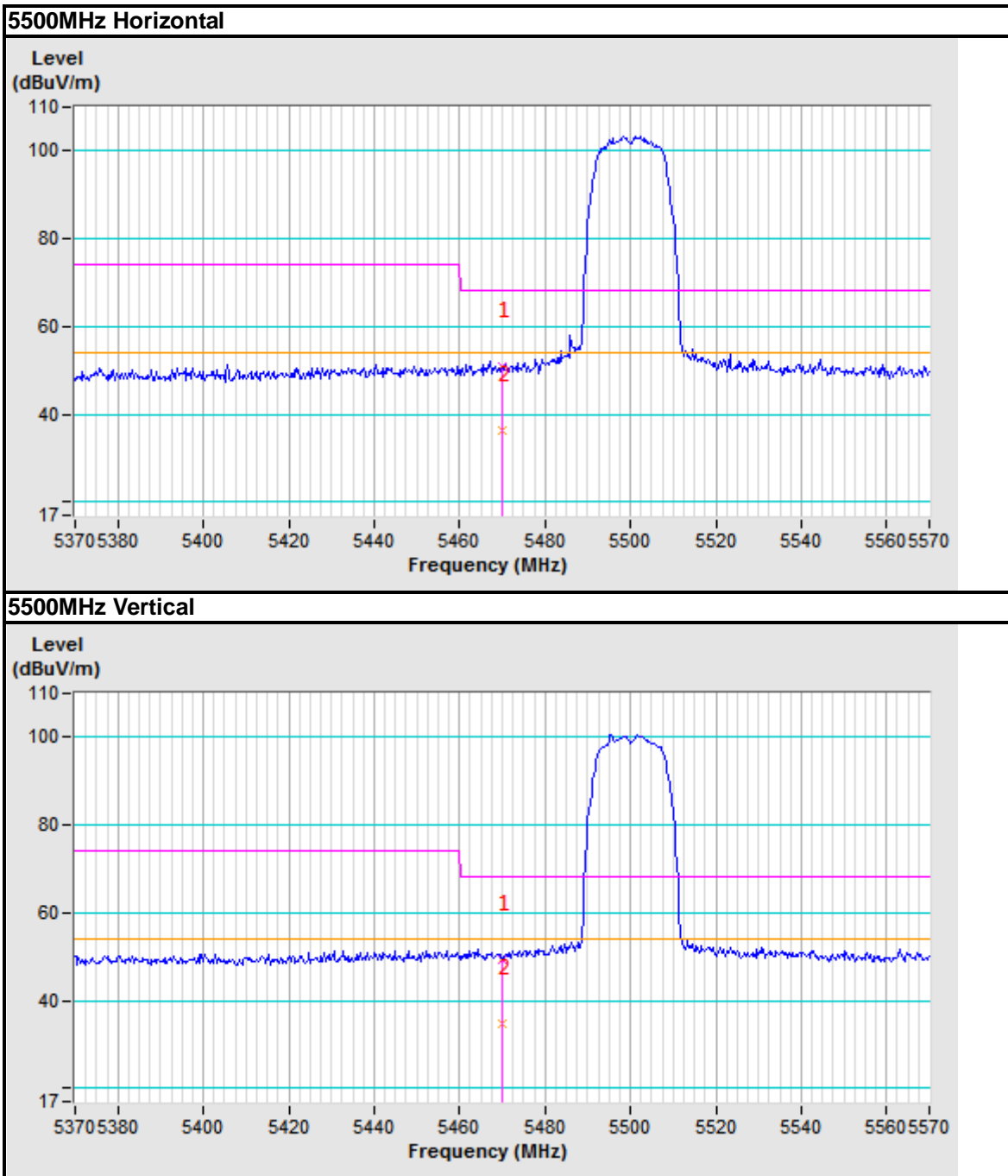
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.89 PK	68.20	-17.31	1.00 H	169	41.98	8.91
2	*5500.00	102.00 PK			1.00 H	169	93.03	8.97
3	*5500.00	87.73 AV			1.00 H	169	78.76	8.97
4	11000.00	60.21 PK	74.00	-13.79	1.00 H	0	41.17	19.04
5	11000.00	45.16 AV	54.00	-8.84	1.00 H	0	26.12	19.04
6	#16500.00	65.13 PK	68.20	-3.07	1.00 H	0	39.57	25.56
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	49.35 PK	68.20	-18.85	1.00 V	159	40.44	8.91
2	*5500.00	100.73 PK			1.00 V	159	91.76	8.97
3	*5500.00	87.44 AV			1.00 V	159	78.47	8.97
4	11000.00	59.15 PK	74.00	-14.85	1.00 V	0	40.11	19.04
5	11000.00	44.36 AV	54.00	-9.64	1.00 V	0	25.32	19.04
6	#16500.00	62.41 PK	68.20	-5.79	1.00 V	0	36.85	25.56

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.



Band edge Plot





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.73 PK	68.20	-15.47	1.00 H	169	43.82	8.91
2	*5580.00	103.28 PK			1.00 H	169	94.10	9.18
3	*5580.00	88.83 AV			1.00 H	169	79.65	9.18
4	11160.00	60.24 PK	74.00	-13.76	1.00 H	0	41.01	19.23
5	11160.00	44.85 AV	54.00	-9.15	1.00 H	0	25.62	19.23
6	#16740.00	62.18 PK	68.20	-6.02	1.00 H	0	35.88	26.30

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.79 PK	68.20	-15.41	1.00 V	159	43.88	8.91
2	*5580.00	101.23 PK			1.00 V	159	92.05	9.18
3	*5580.00	87.79 AV			1.00 V	159	78.61	9.18
4	11160.00	60.12 PK	74.00	-13.88	1.00 V	0	40.89	19.23
5	11160.00	45.37 AV	54.00	-8.63	1.00 V	0	26.14	19.23
6	#16740.00	63.08 PK	68.20	-5.12	1.00 V	0	36.78	26.30

REMARKS:

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



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Test Report No.: RF200108N028-4

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	101.78 PK			1.78 H	209	92.28	9.50
2	*5700.00	88.30 AV			1.78 H	209	78.80	9.50
3	#5725.00	49.60 PK	68.20	-18.60	1.78 H	209	40.04	9.56
4	#5733.10	51.63PK	68.20	-16.57	1.78 H	209	42.07	9.56
5	11400.00	60.18 PK	74.00	-13.82	1.00 H	0	40.65	19.53
6	11400.00	44.77 AV	54.00	-9.23	1.00 H	0	25.24	19.53
7	#17100.00	62.85 PK	68.20	-5.35	1.00 H	0	35.65	27.20

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	101.96 PK			1.00 V	117	92.46	9.50
2	*5700.00	87.21 AV			1.00 V	117	77.71	9.50
3	#5725.00	51.31 PK	68.20	-16.89	1.00 V	117	41.75	9.56
4	11400.00	60.01 PK	74.00	-13.99	1.00 V	0	40.48	19.53
5	11400.00	45.12 AV	54.00	-8.88	1.00 V	0	25.59	19.53
6	#17100.00	62.87 PK	68.20	-5.33	1.00 V	0	35.67	27.20

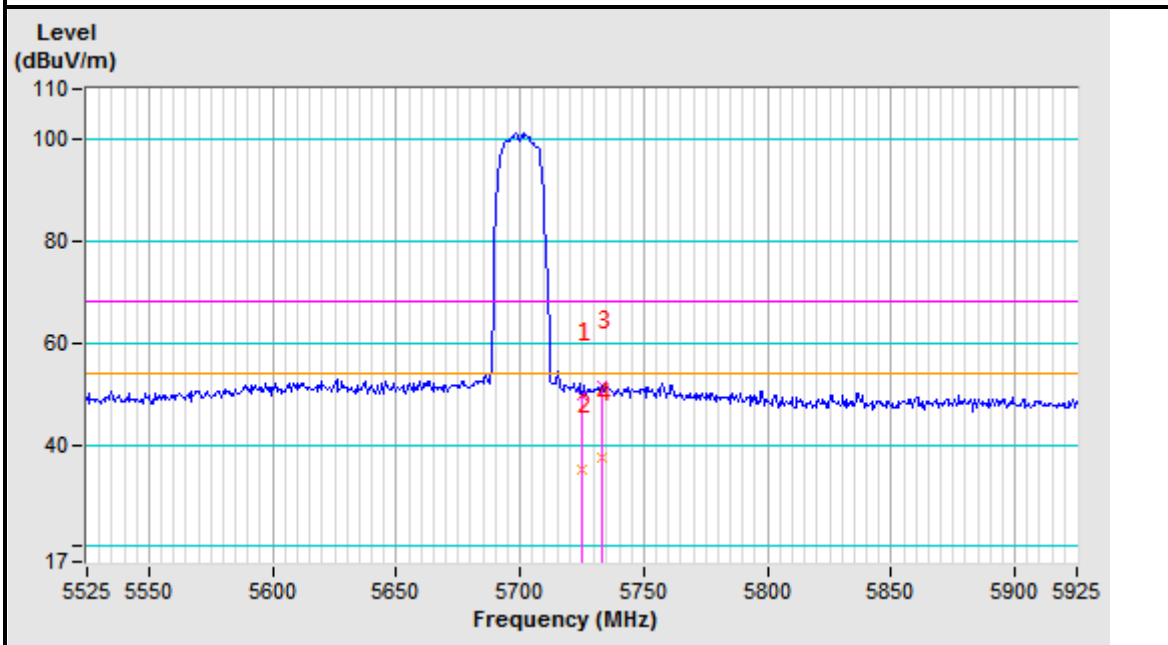
REMARKS:

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.

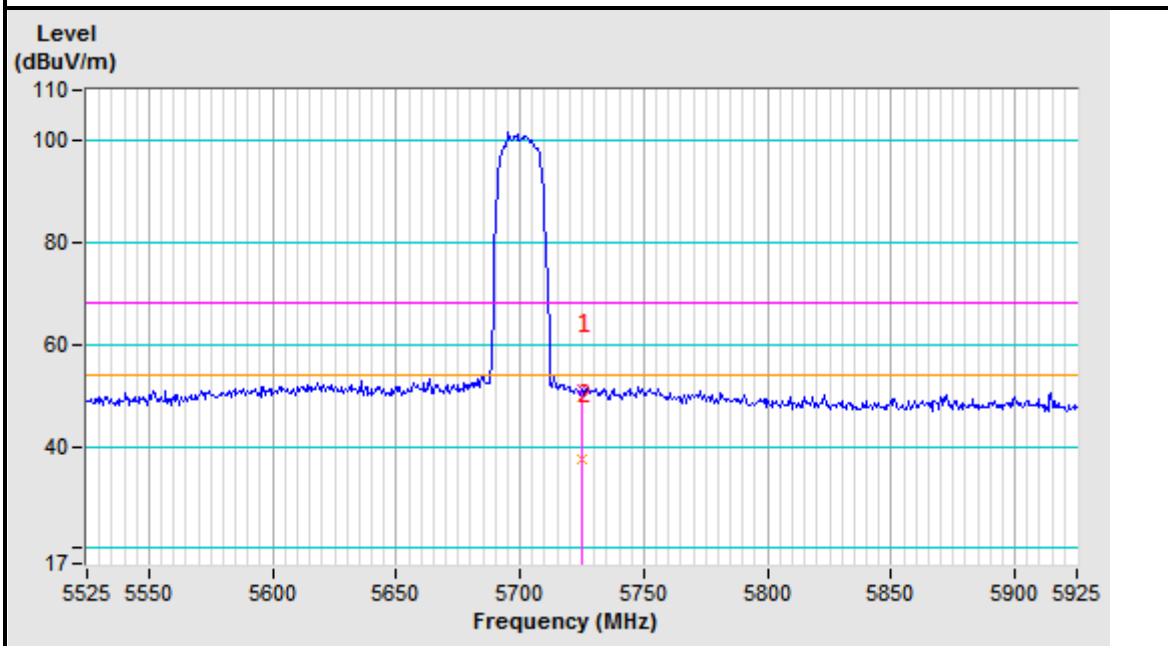


Band edge Plot

5700MHz Horizontal



5700MHz Vertical





802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.90 PK	68.20	-17.30	1.00 H	169	41.99	8.91
2	*5500.00	99.43 PK			1.00 H	169	90.46	8.97
3	*5500.00	85.11 AV			1.00 H	169	76.14	8.97
4	11000.00	60.24 PK	74.00	-13.76	1.00 H	0	41.20	19.04
5	11000.00	44.87 AV	54.00	-9.13	1.00 H	0	25.83	19.04
6	#16500.00	62.34 PK	68.20	-5.86	1.00 H	0	36.78	25.56
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	51.34 PK	68.20	-16.86	1.00 V	154	42.43	8.91
2	*5500.00	100.38 PK			1.00 V	154	91.41	8.97
3	*5500.00	86.04 AV			1.00 V	154	77.07	8.97
4	11000.00	60.24 PK	74.00	-13.76	1.00 V	0	41.20	19.04
5	11000.00	45.13 AV	54.00	-8.87	1.00 V	0	26.09	19.04
6	#16500.00	62.29 PK	68.20	-5.91	1.00 V	0	36.73	25.56

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.

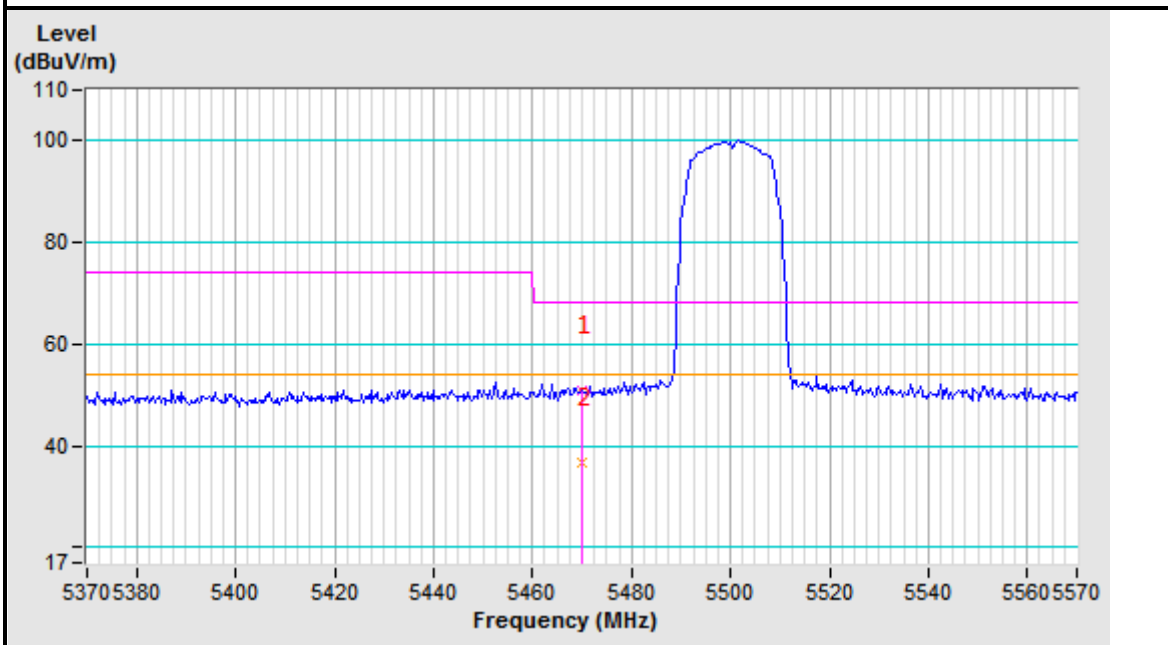


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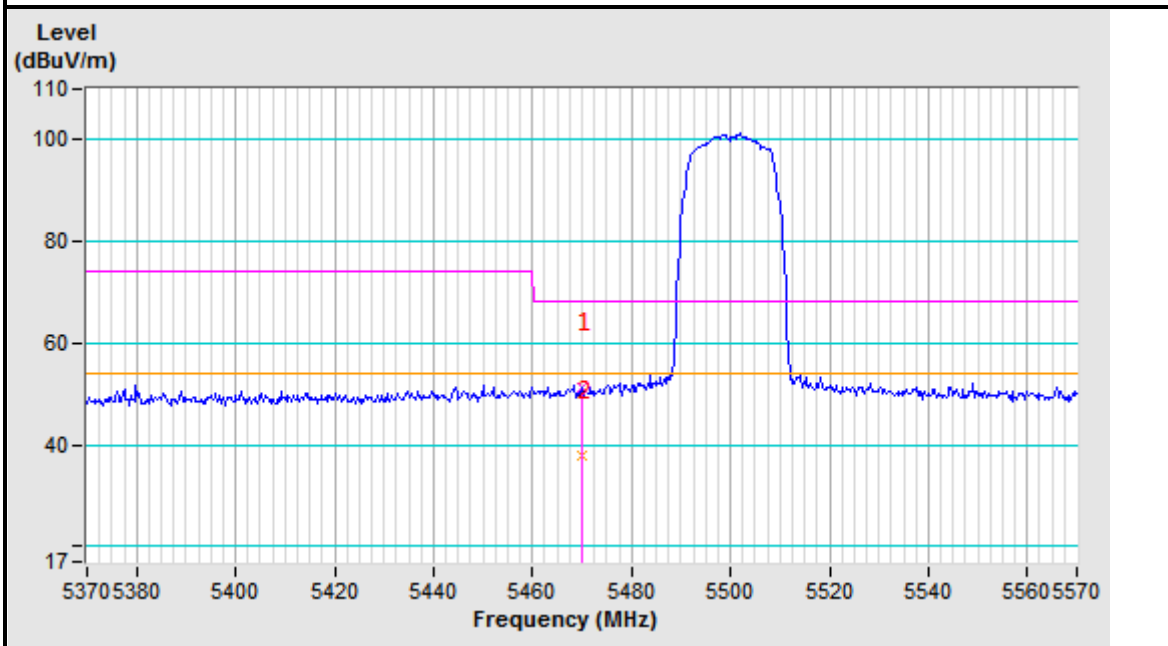
Test Report No.: RF200108N028-4

Band edge Plot

5500MHz Horizontal



5500MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.01 PK	68.20	-16.19	1.00 H	168	43.10	8.91
2	*5580.00	97.80 PK			1.00 H	168	88.62	9.18
3	*5580.00	83.36 AV			1.00 H	168	74.18	9.18
4	11160.00	60.13 PK	74.00	-13.87	1.00 H	0	40.90	19.23
5	11160.00	44.96 AV	54.00	-9.04	1.00 H	0	25.73	19.23
6	#16740.00	62.29 PK	68.20	-5.91	1.00 H	0	35.99	26.30

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	51.82 PK	68.20	-16.38	1.00 V	161	42.91	8.91
2	*5580.00	100.28 PK			1.00 V	161	91.10	9.18
3	*5580.00	86.19 AV			1.00 V	161	77.01	9.18
4	11160.00	60.03 PK	74.00	-13.97	1.00 V	0	40.80	19.23
5	11160.00	45.07 AV	54.00	-8.93	1.00 V	0	25.84	19.23
6	#16740.00	62.85 PK	68.20	-5.35	1.00 V	0	36.55	26.30

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	100.08 PK			1.00 H	210	90.58	9.50
2	*5700.00	87.01 AV			1.00 H	210	77.51	9.50
3	#5725.00	51.13 PK	68.20	-17.07	1.00 H	210	41.57	9.56
4	11400.00	60.18 PK	74.00	-13.82	1.00 H	0	40.65	19.53
5	11400.00	45.20 AV	54.00	-8.80	1.00 H	0	25.67	19.53
6	#17100.00	62.38 PK	68.20	-5.82	1.00 H	0	35.18	27.20

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	100.79 PK			1.00 V	157	91.29	9.50
2	*5700.00	85.66 AV			1.00 V	157	76.16	9.50
3	#5725.00	51.35 PK	68.20	-16.85	1.00 V	157	41.79	9.56
4	11400.00	60.35 PK	74.00	-13.65	1.00 V	0	40.82	19.53
5	11400.00	45.52 AV	54.00	-8.48	1.00 V	0	25.99	19.53
6	#17100.00	62.74 PK	68.20	-5.46	1.00 V	0	35.54	27.20

REMARKS:

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

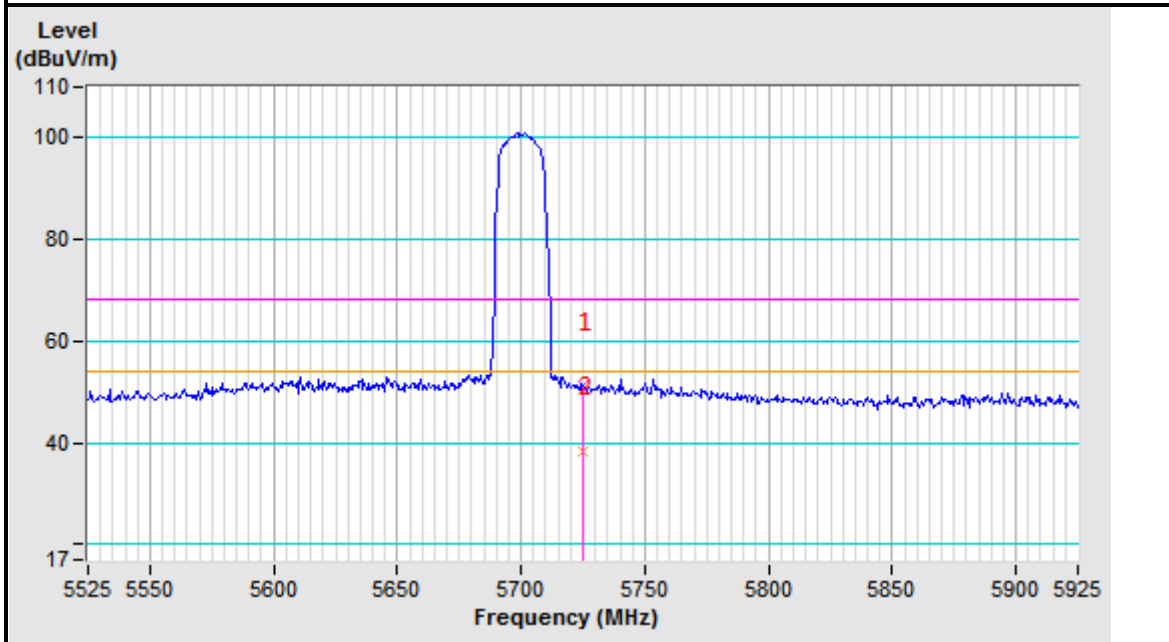


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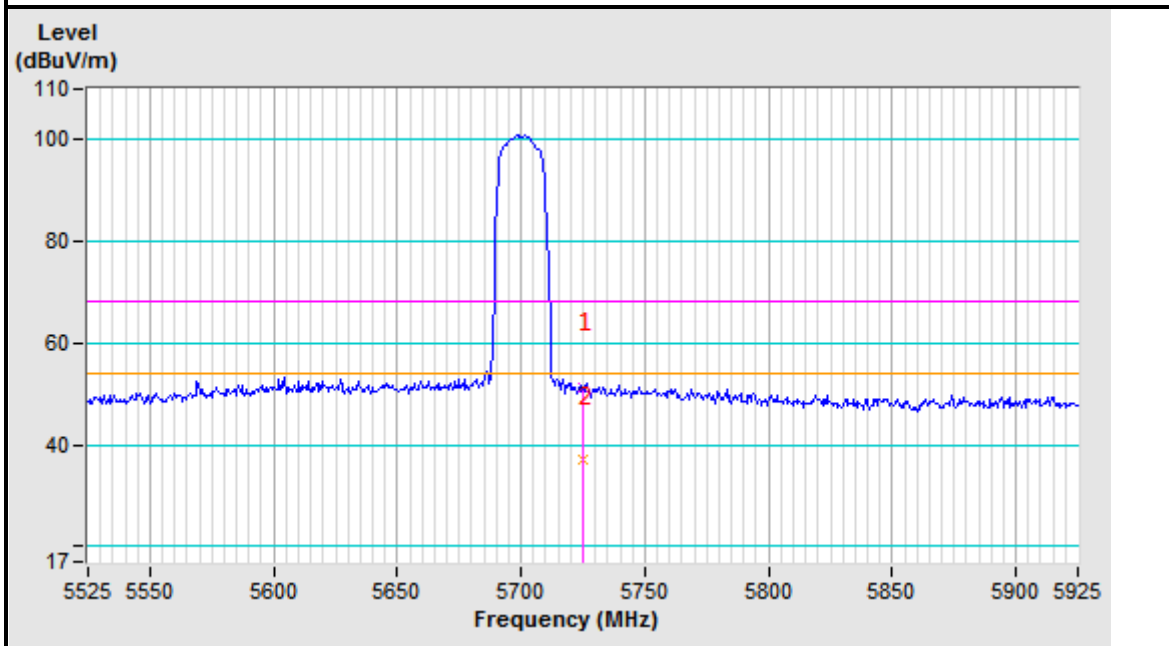
Test Report No.: RF200108N028-4

Band edge Plot

5700MHz Horizontal



5700MHz Vertical





802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.92 PK	68.20	-17.28	1.00 H	167	42.01	8.91
2	*5510.00	100.57 PK			1.00 H	167	91.58	8.99
3	*5510.00	83.45 AV			1.00 H	167	74.46	8.99
4	11020.00	60.12 PK	74.00	-13.88	1.00 H	0	41.05	19.07
5	11020.00	45.31AV	54.00	-8.69	1.00 H	0	26.24	19.07
6	#16530.00	62.25 PK	68.20	-5.95	1.00 H	0	36.60	25.65
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	#5466.82	53.58 PK	68.20	-14.62	1.00 V	157	44.67	8.91
2	*5510.00	100.45 PK			1.00 V	157	91.46	8.99
3	*5510.00	83.67 AV			1.00 V	157	74.68	8.99
4	11020.00	60.21 PK	74.00	-13.79	1.00 V	0	41.14	19.07
5	11020.00	45.67 AV	54.00	-8.33	1.00 V	0	26.60	19.07
6	#16530.00	62.71 PK	68.20	-5.49	1.00 V	0	37.06	25.65

REMARKS:

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

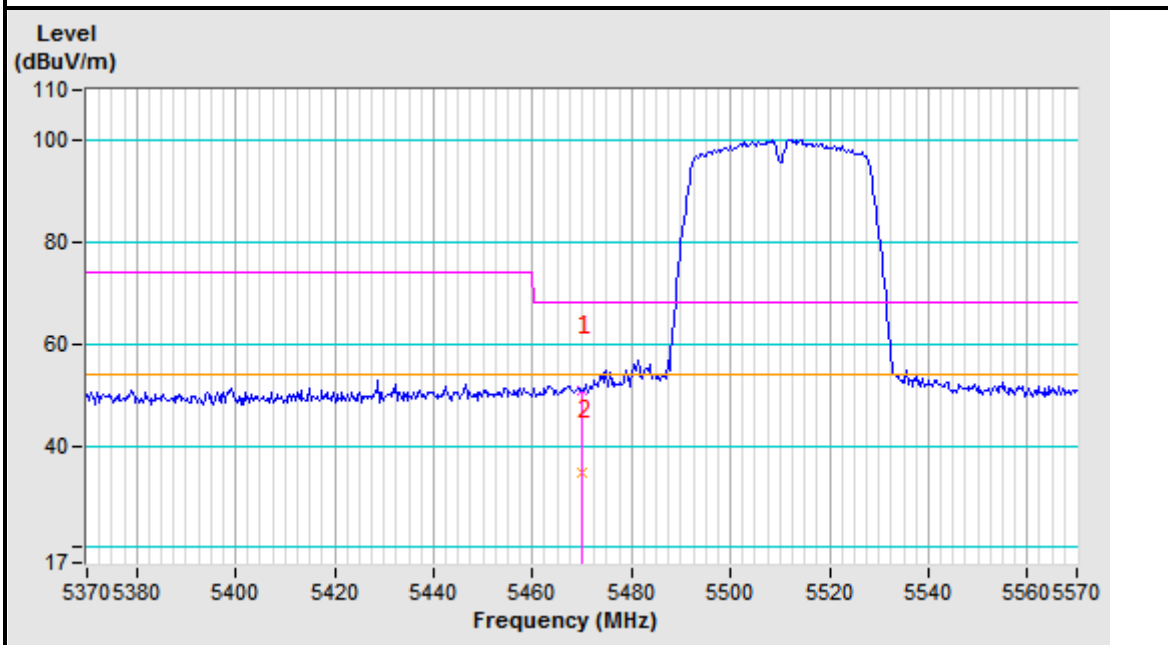


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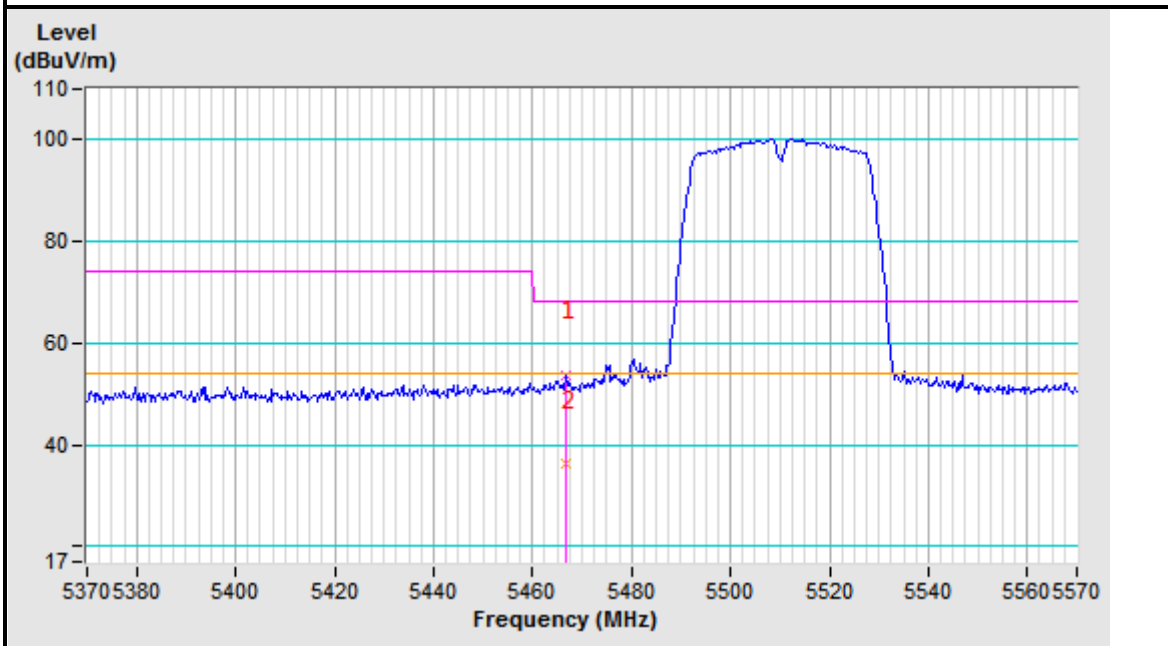
Test Report No.: RF200108N028-4

Band edge Plot

5510MHz Horizontal



5510MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.44 PK	68.20	-15.76	1.00 H	208	43.53	8.91
2	#5590.00	100.88 PK			1.00 H	208	91.68	9.20
3	#5590.00	84.84 AV			1.00 H	208	75.64	9.20
4	11180.00	60.07 PK	74.00	-13.93	1.00 H	0	40.81	19.26
5	11180.00	44.86 AV	54.00	-9.14	1.00 H	0	25.60	19.26
6	#16770.00	61.85 PK	68.20	-6.35	1.00 H	0	35.46	26.39

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.82 PK	68.20	-16.38	1.00 V	156	42.91	8.91
2	#5590.00	100.07 PK			1.00 V	156	90.87	9.20
3	#5590.00	83.68 AV			1.00 V	156	74.48	9.20
4	11180.00	60.28 PK	74.00	-13.72	1.00 V	0	41.02	19.26
5	11180.00	45.14 AV	54.00	-8.86	1.00 V	0	25.88	19.26
6	#16770.00	62.54 PK	68.20	-5.66	1.00 V	0	36.15	26.39

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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	100.52 PK			1.00 H	155	91.11	9.41
2	*5670.00	83.77 AV			1.00 H	155	74.36	9.41
3	#5725.00	50.83 PK	68.20	-17.37	1.00 H	155	41.27	9.56
4	11340.00	59.87 PK	74.00	-14.13	1.00 H	0	40.41	19.46
5	11340.00	44.95 AV	54.00	-9.05	1.00 H	0	25.49	19.46
6	#17010.00	61.35 PK	68.20	-6.85	1.00 H	0	34.24	27.11

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	*5670.00	100.71 PK			1.00 V	157	91.30	9.41
2	*5670.00	83.47 AV			1.00 V	157	74.06	9.41
3	#5726.16	52.16 PK	68.20	-16.04	1.00 V	157	42.60	9.56
4	11340.00	59.56 PK	74.00	-14.44	1.00 V	0	40.10	19.46
5	11340.00	44.79 AV	54.00	-9.21	1.00 V	0	25.33	19.46
6	#17010.00	62.58 PK	68.20	-5.62	1.00 V	0	35.47	27.11

REMARKS:

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

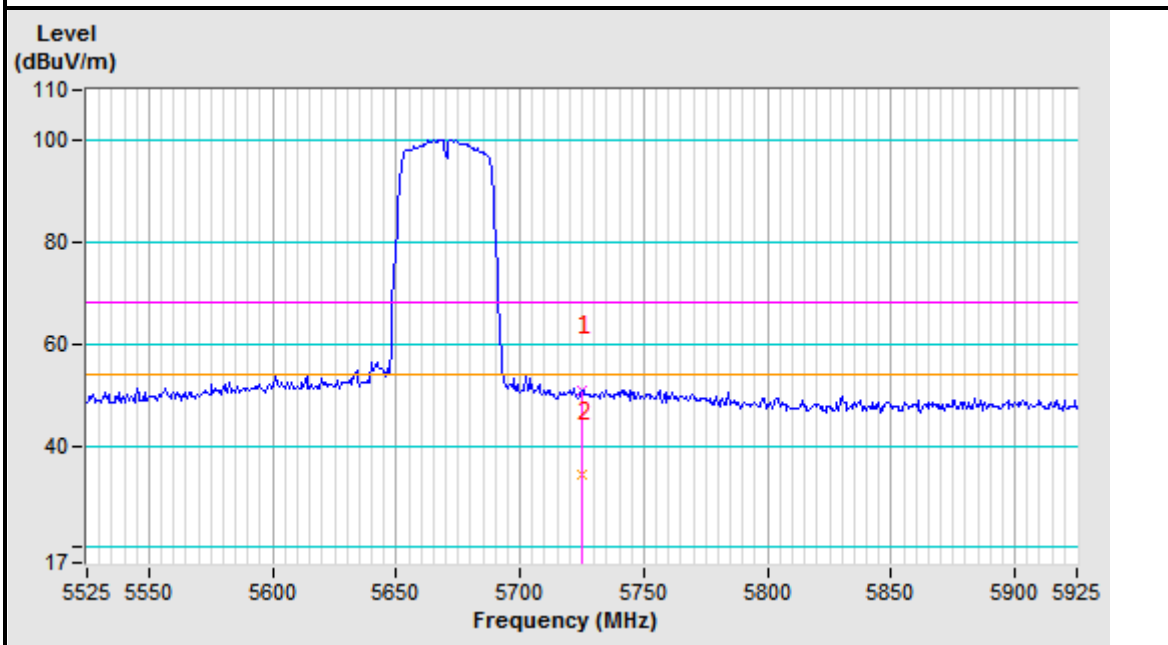


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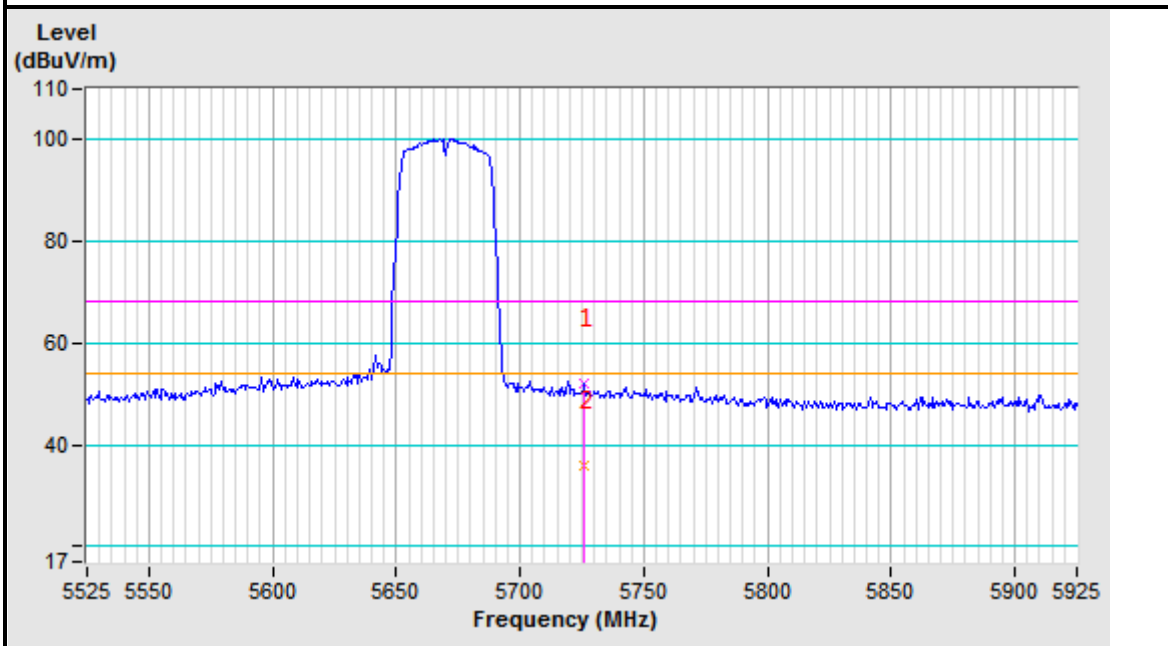
Test Report No.: RF200108N028-4

Band edge Plot

5670MHz Horizontal



5670MHz Vertical





802.11ac 80MHz

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5451.19	56.94 PK	68.20	-11.26	1.00 H	208	48.03	8.91
2	#5470.00	55.59 PK	68.20	-12.61	1.00 H	208	46.68	8.91
3	*5530.00	100.34 PK			1.00 H	208	91.29	9.05
4	*5530.00	78.04 AV			1.00 H	208	68.99	9.05
5	11060.00	60.12 PK	74.00	-13.88	1.00 H	0	41.01	19.11
6	11060.00	45.68 AV	54.00	-8.32	1.00 H	0	26.57	19.11
7	#16590.00	62.08 PK	68.20	-6.12	1.00 H	0	36.24	25.84
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	#5450.90	56.44 PK	68.20	-11.76	1.00 V	158	47.53	8.91
2	#5470.00	54.67 PK	68.20	-13.53	1.00 V	158	45.76	8.91
3	*5530.00	99.93 PK			1.00 V	158	90.88	9.05
4	*5530.00	78.38 AV			1.00 V	158	69.33	9.05
5	11060.00	60.03 PK	74.00	-13.97	1.00 V	0	40.92	19.11
6	11060.00	44.56 AV	54.00	-9.44	1.00 V	0	25.45	19.11
7	#16590.00	62.34 PK	68.20	-5.86	1.00 V	0	36.50	25.84

REMARKS:

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

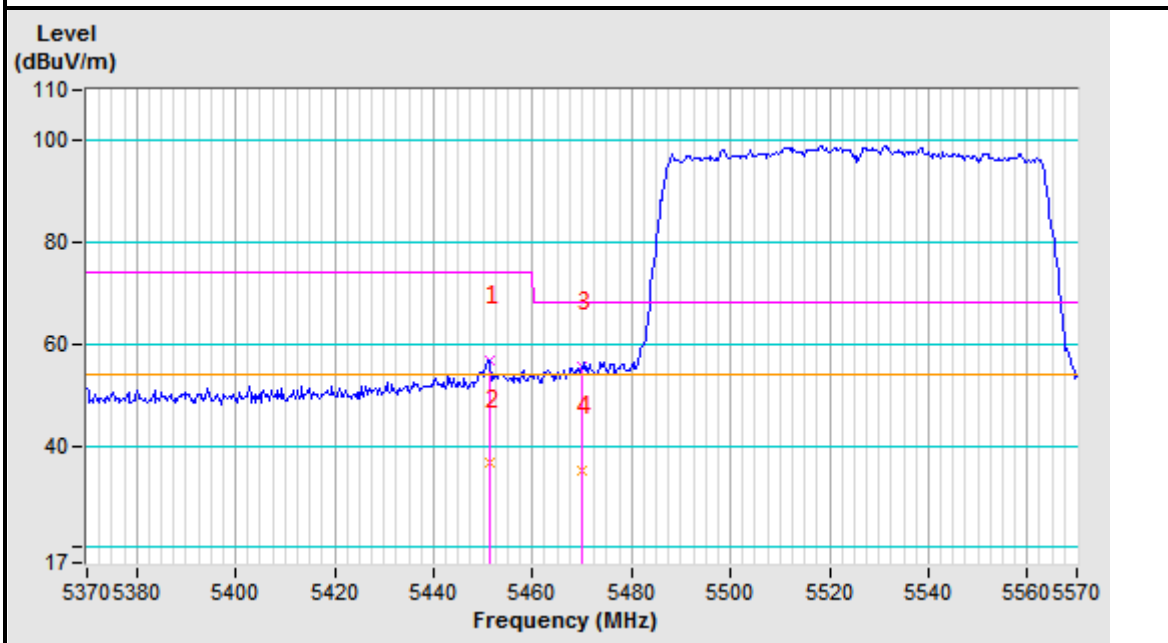


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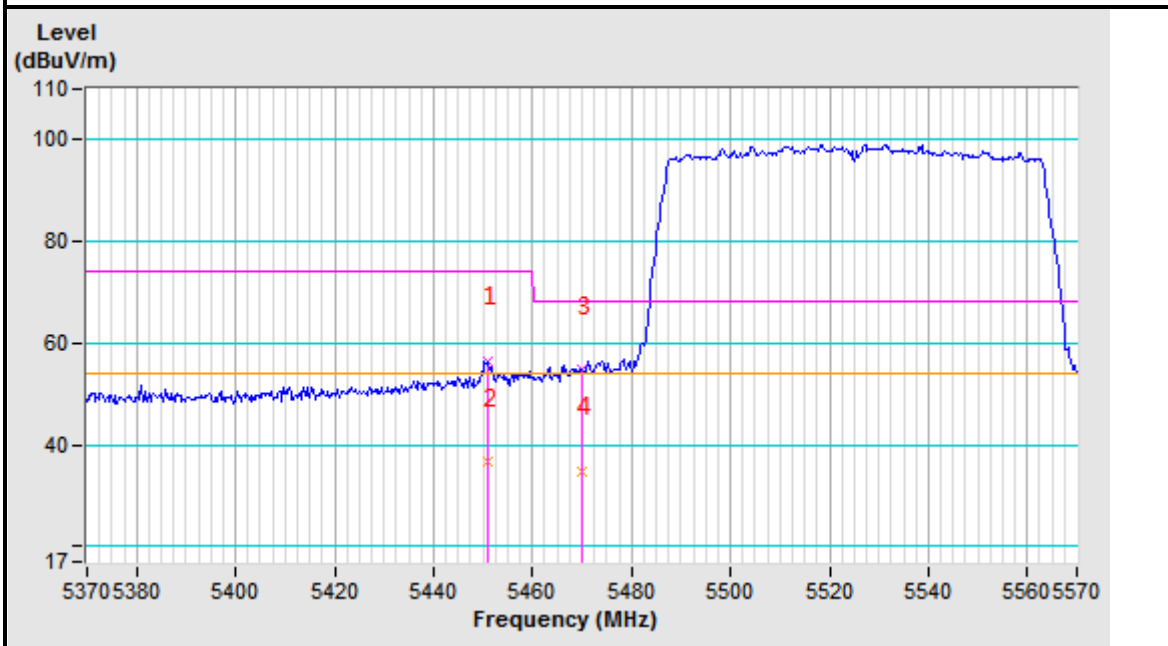
Test Report No.: RF200108N028-4

Band edge Plot

5530MHz Horizontal



5530MHz Vertical





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Test Report No.: RF200108N028-4

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	99.73 PK			1.00 H	168	90.47	9.26
2	*5610.00	78.67 AV			1.00 H	168	69.41	9.26
3	#5725.00	49.58 PK	68.20	-18.62	1.00 H	168	40.02	9.56
4	11220.00	60.31 PK	74.00	-13.69	1.00 H	0	41.00	19.31
5	11220.00	45.21 AV	54.00	-8.79	1.00 H	0	25.90	19.31
6	#16830.00	61.97 PK	68.20	-6.23	1.00 H	0	35.40	26.57
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	100.96 PK			1.00 V	159	91.70	9.26
2	*5610.00	79.56 AV			1.00 V	159	70.30	9.26
3	#5725.00	49.26 PK	68.20	-18.94	1.00 V	159	39.7	9.56
4	11220.00	60.08 PK	74.00	-13.92	1.00 V	0	40.77	19.31
5	11220.00	44.95 AV	54.00	-9.05	1.00 V	0	25.64	19.31
6	#16830.00	62.41 PK	68.20	-5.79	1.00 V	0	35.84	26.57

REMARKS:

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

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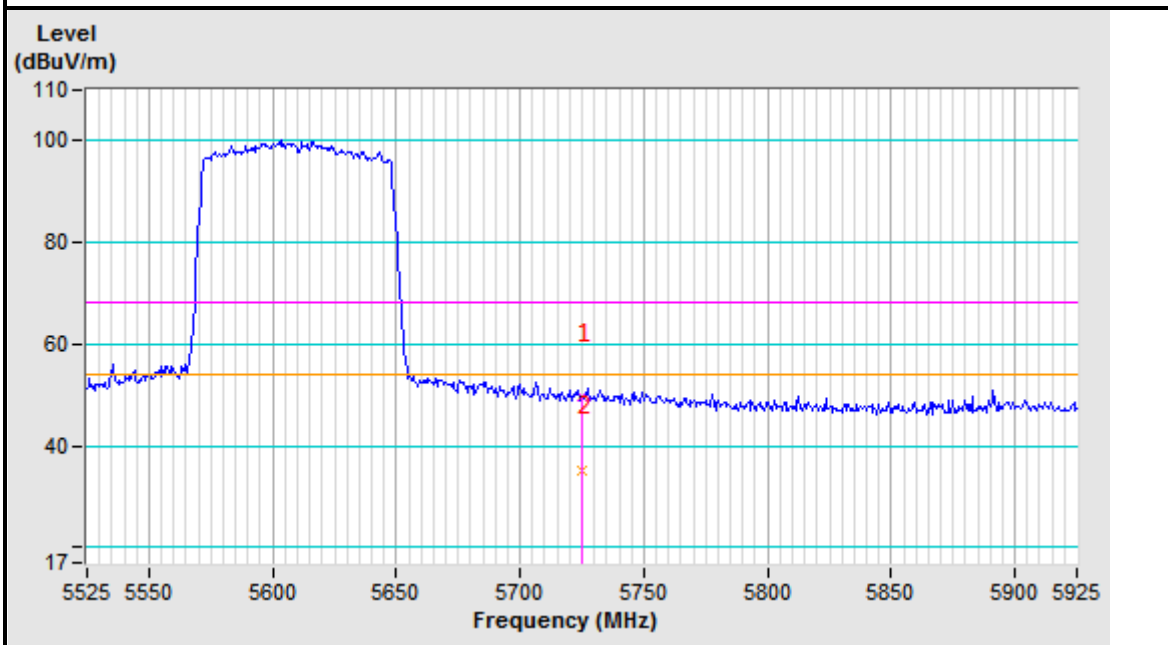


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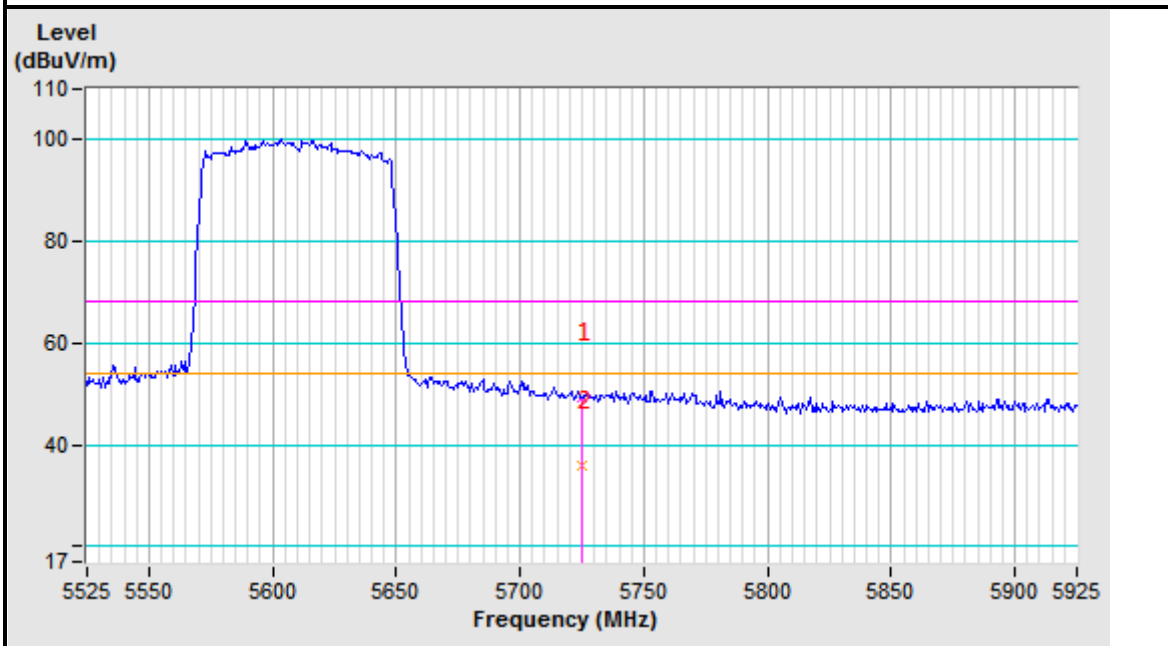
Test Report No.: RF200108N028-4

Band edge Plot

5610MHz Horizontal



5610MHz Vertical





Band 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5700.87	58.87 PK	105.44	-46.57	1.00 H	308	49.37	9.50
2	#5715.33	61.30 PK	109.49	-48.19	1.00 H	308	51.76	9.54
3	#5725.00	70.34 PK	122.20	-51.86	1.00 H	308	60.78	9.56
4	*5745.00	101.64 PK			1.00 H	308	92.03	9.61
5	*5745.00	87.87 AV			1.00 H	308	78.26	9.61
6	11490.00	60.06 PK	74.00	-13.94	1.00 H	0	40.42	19.64
7	11490.00	44.84 AV	54.00	-9.16	1.00 H	0	25.20	19.64
8	#17235.00	62.23 PK	68.20	-5.97	1.00 H	0	34.88	27.35

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	#5714.57	65.68 PK	109.28	-43.60	1.00 V	124	56.14	9.54
2	#5719.13	68.13 PK	110.56	-42.43	1.00 V	124	58.59	9.54
3	#5725.00	70.85 PK	122.20	-51.35	1.00 V	124	61.29	9.56
4	*5745.00	103.92 PK			1.00 V	124	94.31	9.61
5	*5745.00	89.58 AV			1.00 V	124	79.97	9.61
6	11490.00	60.15 PK	74.00	-13.85	1.00 V	0	40.51	19.64
7	11490.00	44.89 AV	54.00	-9.11	1.00 V	0	25.25	19.64
8	#17235.00	62.39 PK	68.20	-5.81	1.00 V	0	35.04	27.35

REMARKS:

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

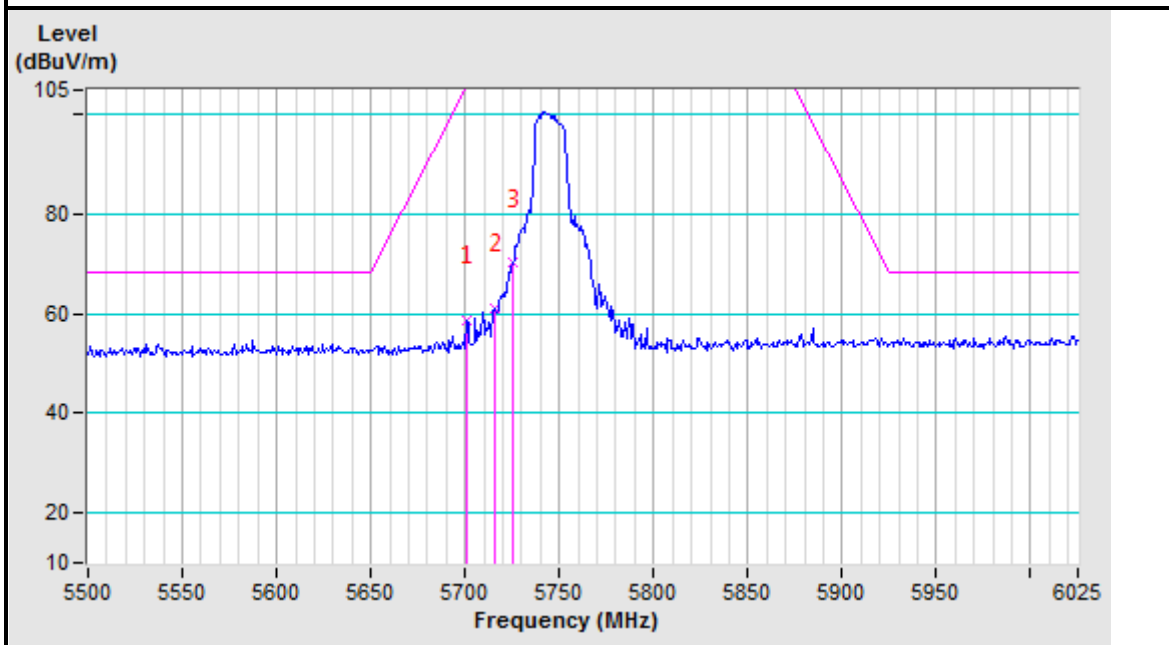


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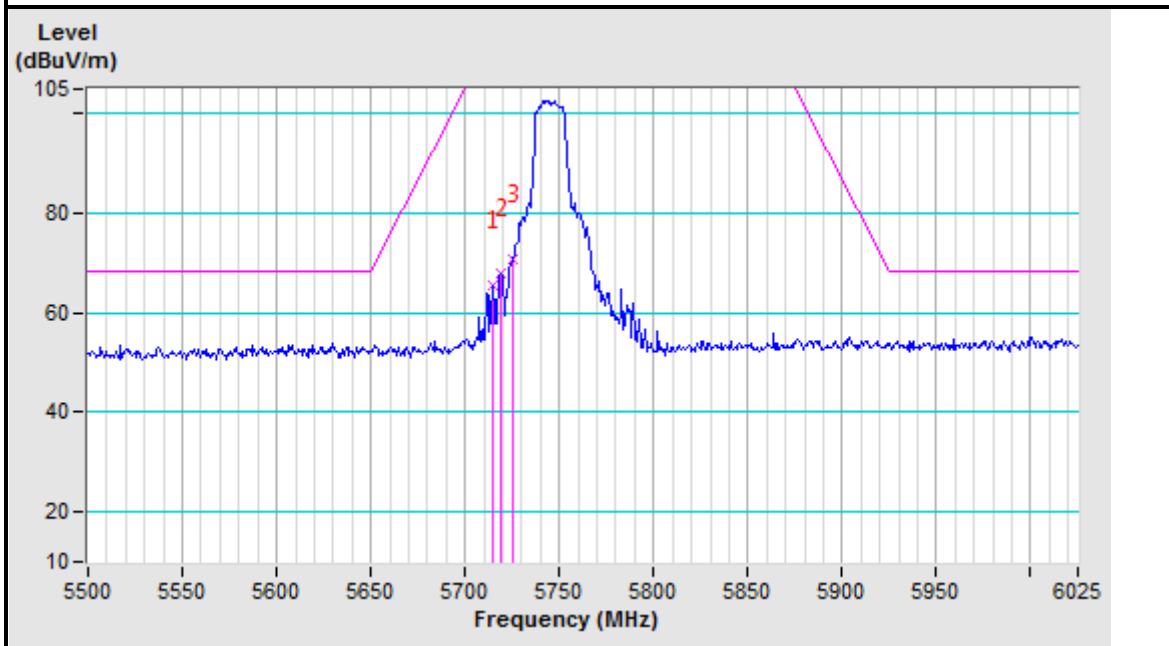
Test Report No.: RF200108N028-4

Band edge Plot

5745MHz Horizontal



5745MHz Vertical





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5670.43	54.57 PK	83.36	-28.79	1.00 H	173	45.15	9.42
2	#5703.15	54.68 PK	106.08	-51.40	1.00 H	173	45.17	9.51
3	*5785.00	101.40 PK			1.00 H	172	91.69	9.71
4	*5785.00	87.41 AV			1.00 H	172	77.70	9.71
5	#5890.33	55.18 PK	93.83	-38.65	1.00 H	173	45.19	9.99
6	11570.00	59.59 PK	74.00	-14.41	1.00 H	0	39.79	19.80
7	11570.00	44.81 AV	54.00	-9.19	1.00 H	0	25.01	19.80
8	#17355.00	62.44 PK	68.20	-5.76	1.00 H	0	34.96	27.48

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

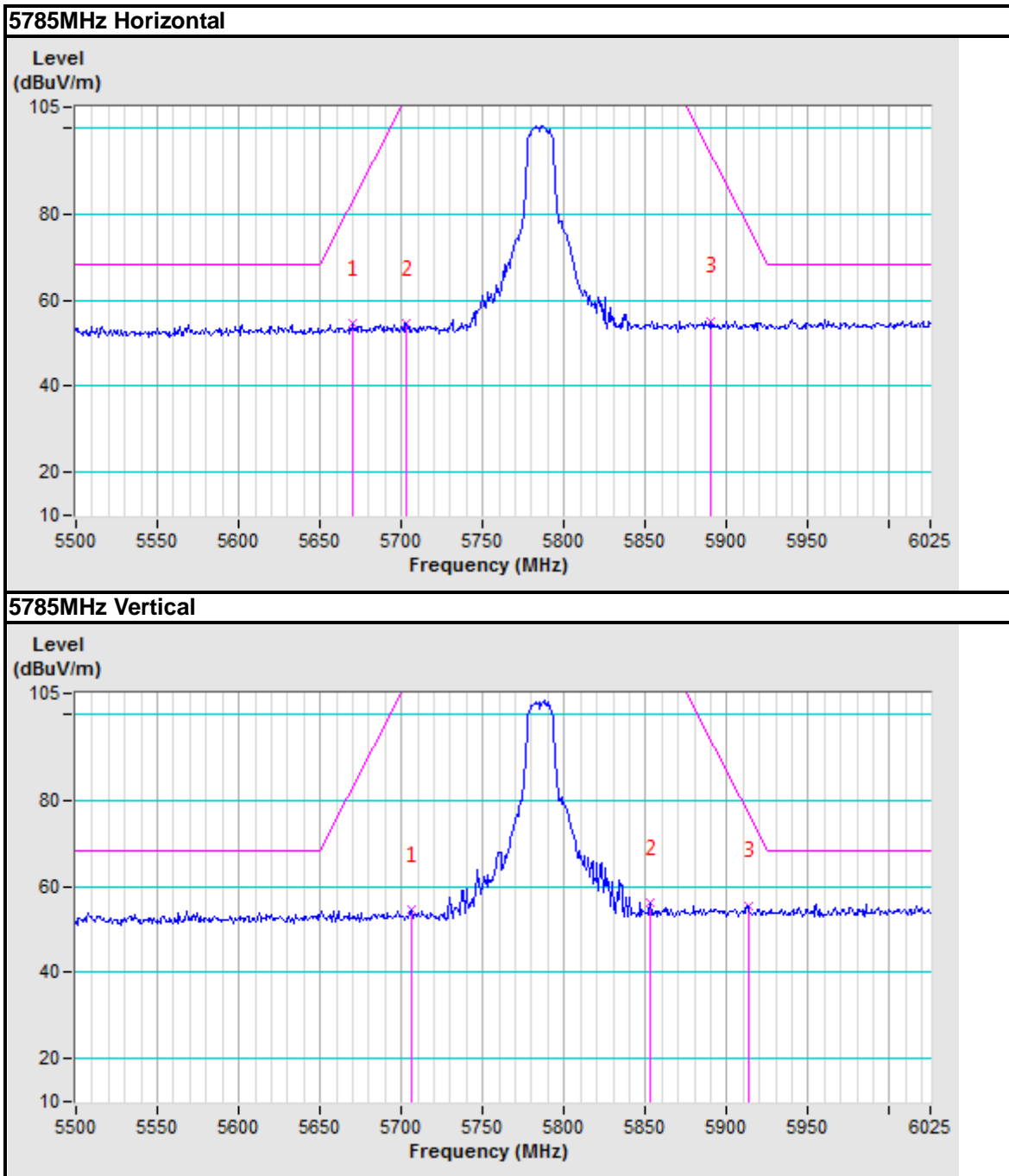
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5706.20	54.55 PK	106.94	-52.39	1.00 V	125	45.04	9.51
2	*5785.00	104.28 PK			1.00 V	125	94.57	9.71
3	*5785.00	90.02 AV			1.00 V	125	80.31	9.71
4	#5853.04	56.28 PK	115.26	-58.98	1.00 V	125	46.39	9.89
5	#5913.15	55.60 PK	76.94	-21.34	1.00 V	125	45.54	10.06
6	11570.00	60.02 PK	74.00	-13.98	1.00 V	0	40.22	19.80
7	11570.00	45.28 AV	54.00	-8.72	1.00 V	0	25.48	19.80
8	#17355.00	62.11 PK	68.20	-6.09	1.00 V	0	34.63	27.48

REMARKS:

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



Band edge Plot





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5719.89	54.57 PK	110.77	-56.20	1.00 H	169	45.03	9.54
2	*5825.00	101.16 PK			1.00 H	169	91.34	9.82
3	*5825.00	87.65 AV			1.00 H	169	77.83	9.82
4	#5850.00	70.69 PK	122.20	-51.51	1.00 H	169	60.81	9.88
5	#5867.50	58.50 PK	107.30	-48.80	1.00 H	169	48.57	9.93
6	11650.00	60.16 PK	74.00	-13.84	1.00 H	0	40.18	19.98
7	11650.00	45.08 AV	54.00	-8.92	1.00 H	0	25.10	19.98
8	#17475.00	61.89 PK	68.20	-6.31	1.00 H	0	34.27	27.62

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

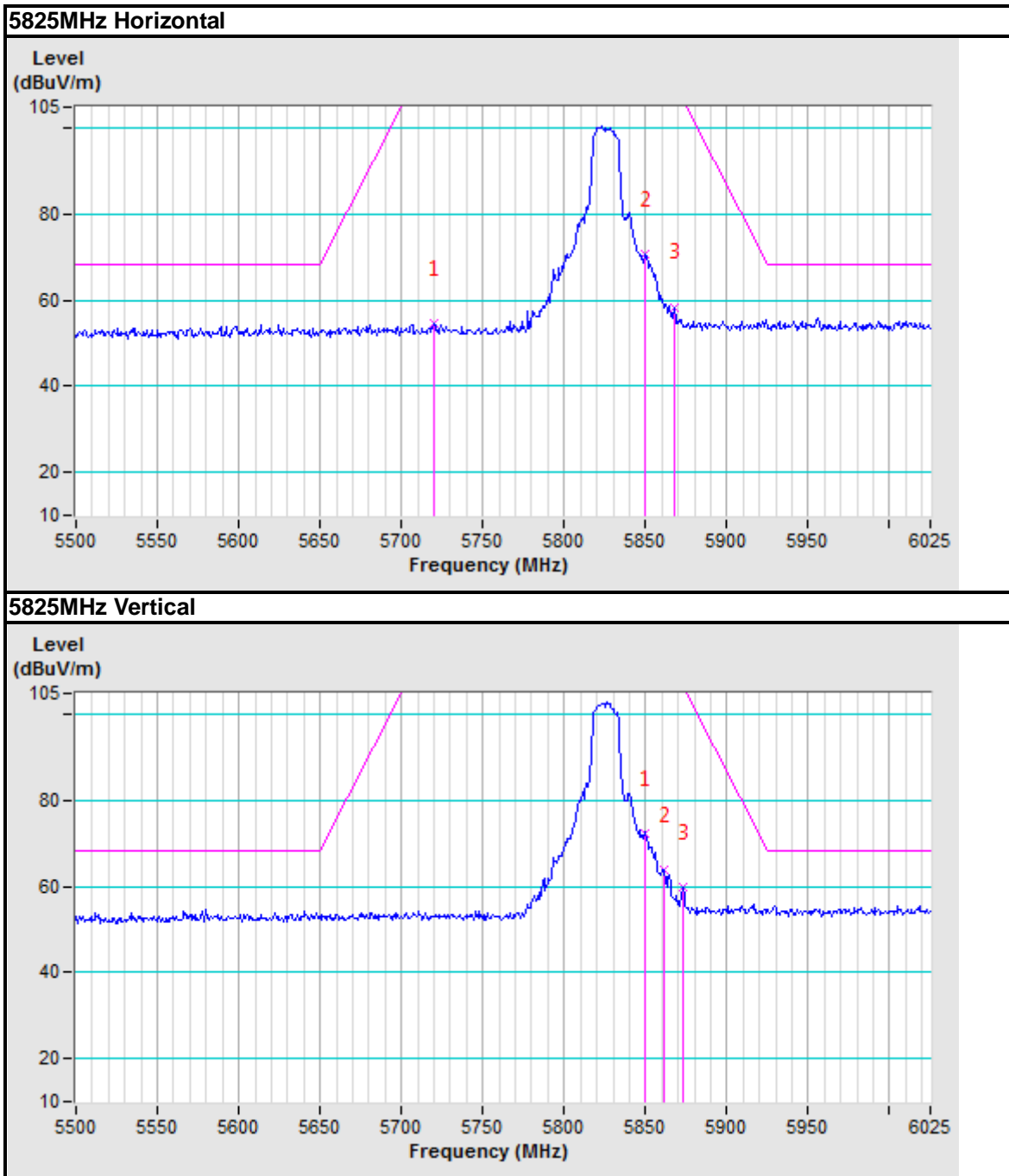
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	103.12 PK			1.00 V	159	93.30	9.82
2	*5825.00	89.64 AV			1.00 V	159	79.82	9.82
3	#5850.00	72.34 PK	122.20	-49.86	1.00 V	160	62.46	9.88
4	#5861.41	63.84 PK	109.00	-45.16	1.00 V	160	53.92	9.92
5	#5872.83	59.74 PK	105.81	-46.07	1.00 V	160	49.79	9.95
6	11650.00	59.84 PK	74.00	-14.16	1.00 V	0	39.86	19.98
7	11650.00	45.06 AV	54.00	-8.94	1.00 V	0	25.08	19.98
8	#17475.00	62.49 PK	68.20	-5.71	1.00 V	0	34.87	27.62

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





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	#5713.04	63.55 PK	108.85	-45.30	1.00 H	309	54.02	9.53
2	#5719.13	66.27 PK	110.56	-44.29	1.00 H	309	56.73	9.54
3	#5725.00	67.76 PK	122.20	-54.44	1.00 H	309	58.20	9.56
4	*5745.00	101.51 PK			1.00 H	309	91.90	9.61
5	*5745.00	87.58 AV			1.00 H	309	77.97	9.61
6	11490.00	60.12 PK	74.00	-13.88	1.00 H	0	40.48	19.64
7	11490.00	44.52 AV	54.00	-9.48	1.00 H	0	24.88	19.64
8	#17235.00	62.08 PK	68.20	-6.12	1.00 H	0	34.73	27.35

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

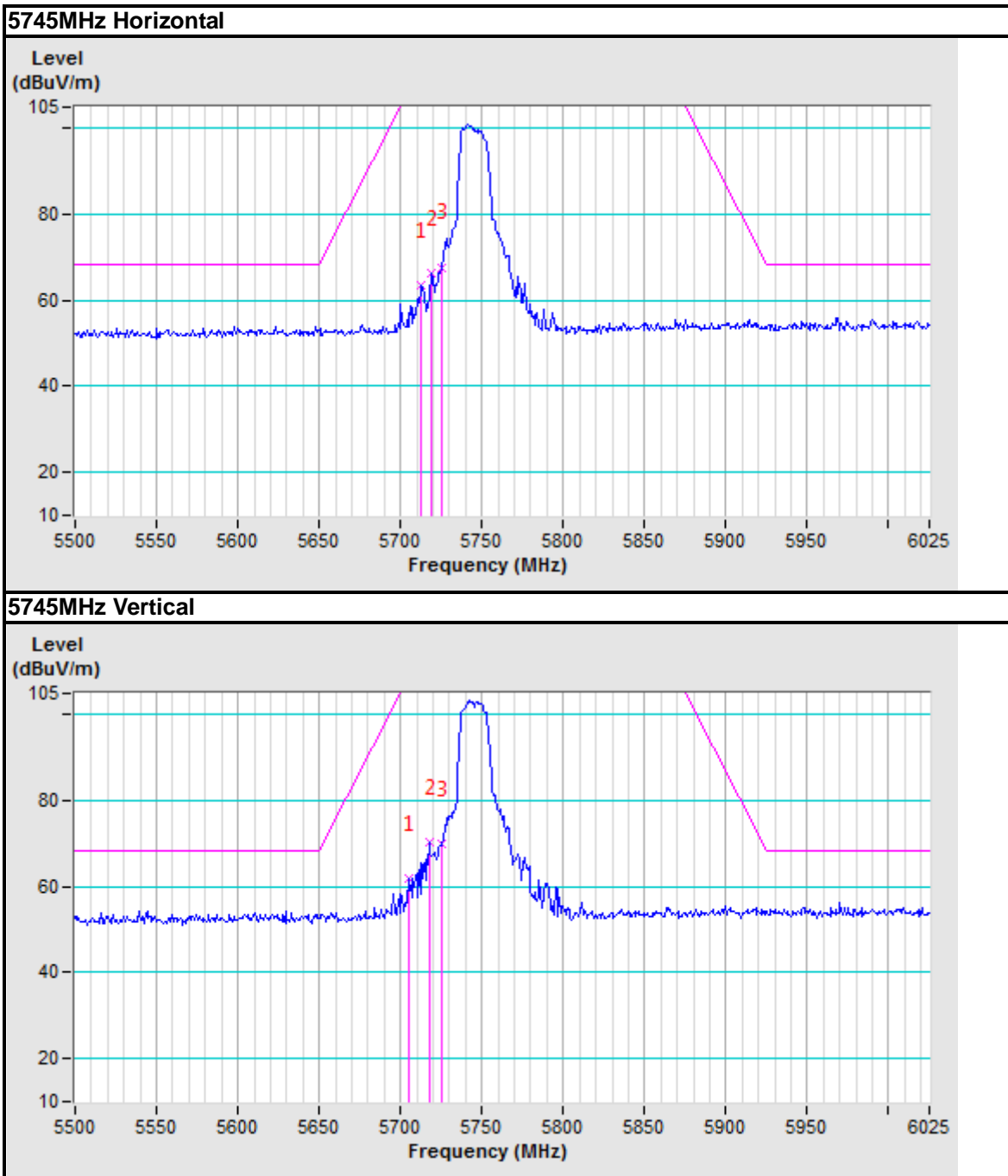
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5704.67	61.95 PK	106.51	-44.56	1.00 V	124	52.45	9.50
2	#5717.61	70.21 PK	110.13	-39.92	1.00 V	124	60.67	9.54
3	#5725.00	70.00 PK	122.20	-52.20	1.00 V	124	60.44	9.56
4	*5745.00	104.20 PK			1.00 V	123	94.59	9.61
5	*5745.00	89.76 AV			1.00 V	123	80.15	9.61
6	11490.00	59.85 PK	74.00	-14.15	1.00 V	0	40.21	19.64
7	11490.00	44.67 AV	54.00	-9.33	1.00 V	0	25.03	19.64
8	#17235.00	62.24 PK	68.20	-5.96	1.00 V	0	34.89	27.35

REMARKS:

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



Band edge Plot





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Test Report No.: RF200108N028-4

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5687.17	55.23 PK	95.74	-40.51	1.00 H	172	45.77	9.46
2	#5719.13	54.76 PK	110.56	-55.80	1.00 H	172	45.22	9.54
3	*5785.00	102.14 PK			1.00 H	172	92.43	9.71
4	*5785.00	88.15 AV			1.00 H	172	78.44	9.71
5	#5870.54	55.03 PK	106.45	-51.42	1.00 H	172	45.09	9.94
6	11570.00	59.61 PK	74.00	-14.39	1.00 H	0	39.81	19.80
7	11570.00	44.58 AV	54.00	-9.42	1.00 H	0	24.78	19.80
8	#17355.00	62.17 PK	68.20	-6.03	1.00 H	0	34.69	27.48

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	#5687.17	55.23 PK	95.74	-40.51	1.00 H	172	45.77	9.46
2	#5719.13	54.76 PK	110.56	-55.80	1.00 H	172	45.22	9.54
3	*5785.00	102.14 PK			1.00 H	172	92.43	9.71
4	*5785.00	88.15 AV			1.00 H	172	78.44	9.71
5	#5870.54	55.03 PK	106.45	-51.42	1.00 H	172	45.09	9.94
6	11570.00	59.61 PK	74.00	-14.39	1.00 H	0	39.81	19.80
7	11570.00	44.58 AV	54.00	-9.42	1.00 H	0	24.78	19.80
8	#17355.00	62.17 PK	68.20	-6.03	1.00 H	0	34.69	27.48

REMARKS:

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

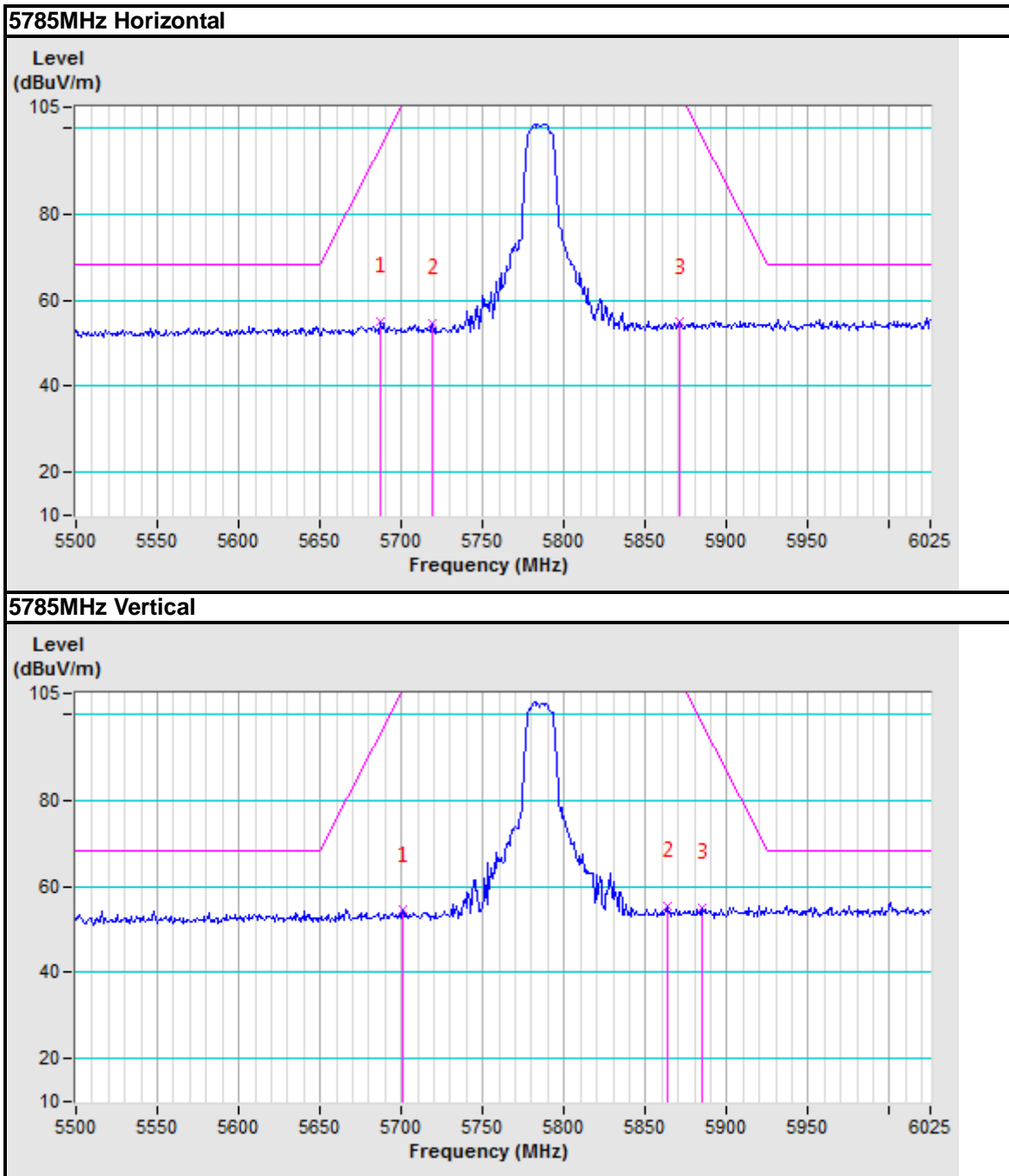
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Dongguan Branch

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Band edge Plot





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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	101.08 PK			1.00 H	169	91.26	9.82
2	*5825.00	87.39 AV			1.00 H	169	77.57	9.82
3	#5850.00	66.25 PK	122.20	-55.95	1.00 H	170	56.37	9.88
4	#5856.85	63.92 PK	110.28	-46.36	1.00 H	170	54.01	9.91
5	#5862.93	61.02 PK	108.58	-47.56	1.00 H	170	51.10	9.92
6	11650.00	60.15 PK	74.00	-13.85	1.00 H	0	40.17	19.98
7	11650.00	45.12 AV	54.00	-8.88	1.00 H	0	25.14	19.98
8	#17475.00	62.24 PK	68.20	-5.96	1.00 H	0	34.62	27.62
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	*5825.00	103.53 PK			1.00 V	158	93.71	9.82
2	*5825.00	89.89 AV			1.00 V	158	80.07	9.82
3	#5850.00	67.94 PK	122.20	-54.26	1.00 V	158	58.06	9.88
4	#5859.89	63.26 PK	109.43	-46.17	1.00 V	158	53.34	9.92
5	#5866.74	62.26 PK	107.51	-45.25	1.00 V	158	52.33	9.93
6	11650.00	59.97 PK	74.00	-14.03	1.00 V	0	39.99	19.98
7	11650.00	44.83 AV	54.00	-9.17	1.00 V	0	24.85	19.98
8	#17475.00	62.07 PK	68.20	-6.13	1.00 V	0	34.45	27.62

REMARKS:

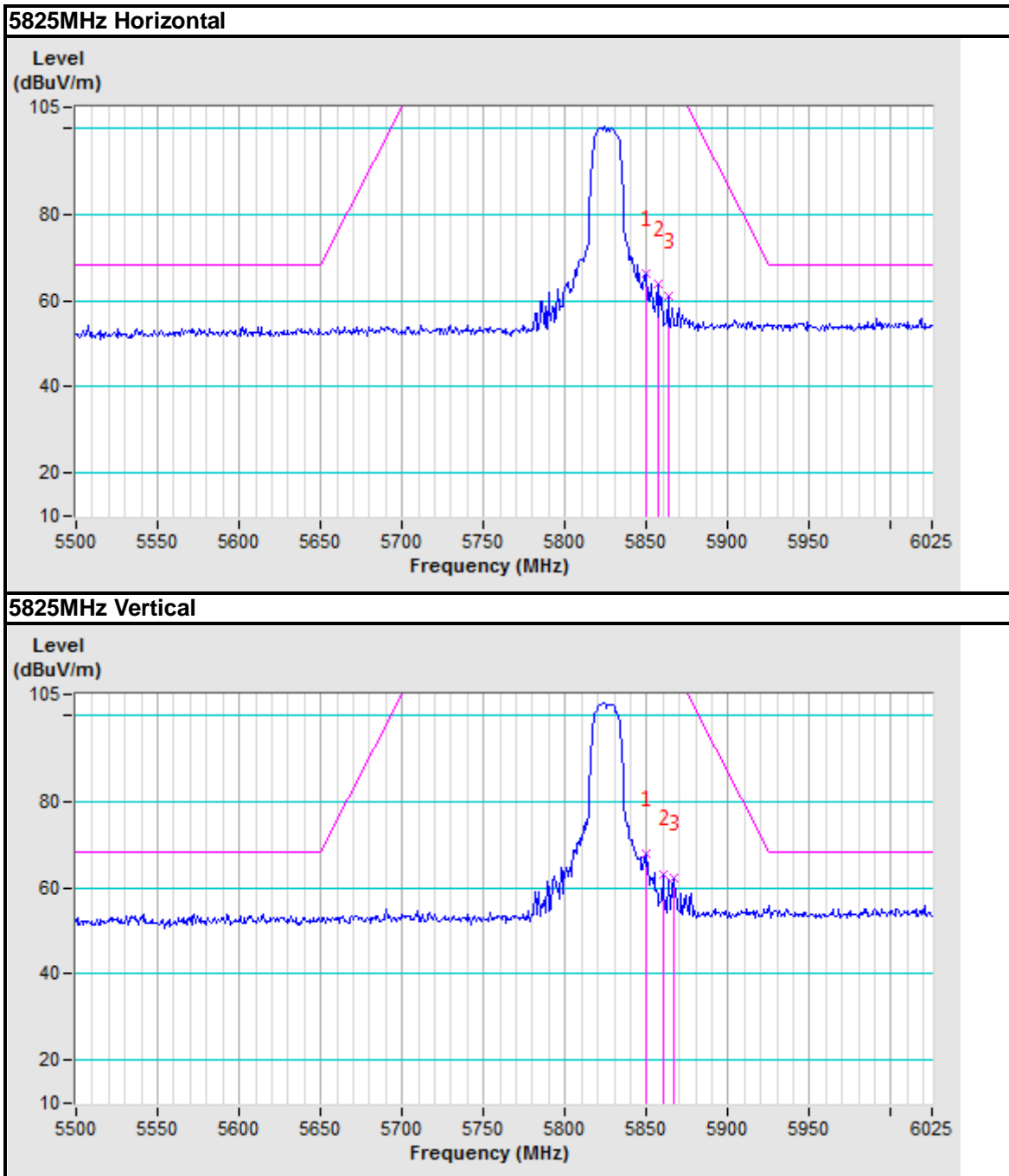
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were less than 20dB margin against the limit.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental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



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Test Report No.: RF200108N028-4

Band edge Plot





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	#5696.87	60.90 PK	102.90	-42.00	1.00 H	178	51.41	9.49
2	#5716.23	68.31 PK	109.74	-41.43	1.00 H	178	58.77	9.54
3	#5725.00	69.96 PK	122.20	-52.24	1.00 H	178	60.40	9.56
4	*5755.00	102.74 PK			1.00 H	178	93.10	9.64
5	*5755.00	86.25 AV			1.00 H	178	76.61	9.64
6	11510.00	60.03 PK	74.00	-13.97	1.00 H	0	40.36	19.67
7	11510.00	45.24 AV	54.00	-8.76	1.00 H	0	25.57	19.67
8	#17265.00	62.07 PK	68.20	-6.13	1.00 H	0	34.69	27.38

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	#5701.08	59.73 PK	105.50	-45.77	1.00 V	126	50.23	9.50
2	#5716.23	65.66 PK	109.74	-44.08	1.00 V	126	56.12	9.54
3	#5725.00	68.32 PK	122.20	-53.88	1.00 V	126	58.76	9.56
4	*5755.00	100.78 PK			1.00 V	126	91.14	9.64
5	*5755.00	84.15 AV			1.00 V	126	74.51	9.64
6	11510.00	60.14 PK	74.00	-13.86	1.00 V	0	40.47	19.67
7	11510.00	45.06 AV	54.00	-8.94	1.00 V	0	25.39	19.67
8	#17265.00	62.18 PK	68.20	-6.02	1.00 V	0	34.80	27.38

REMARKS:

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

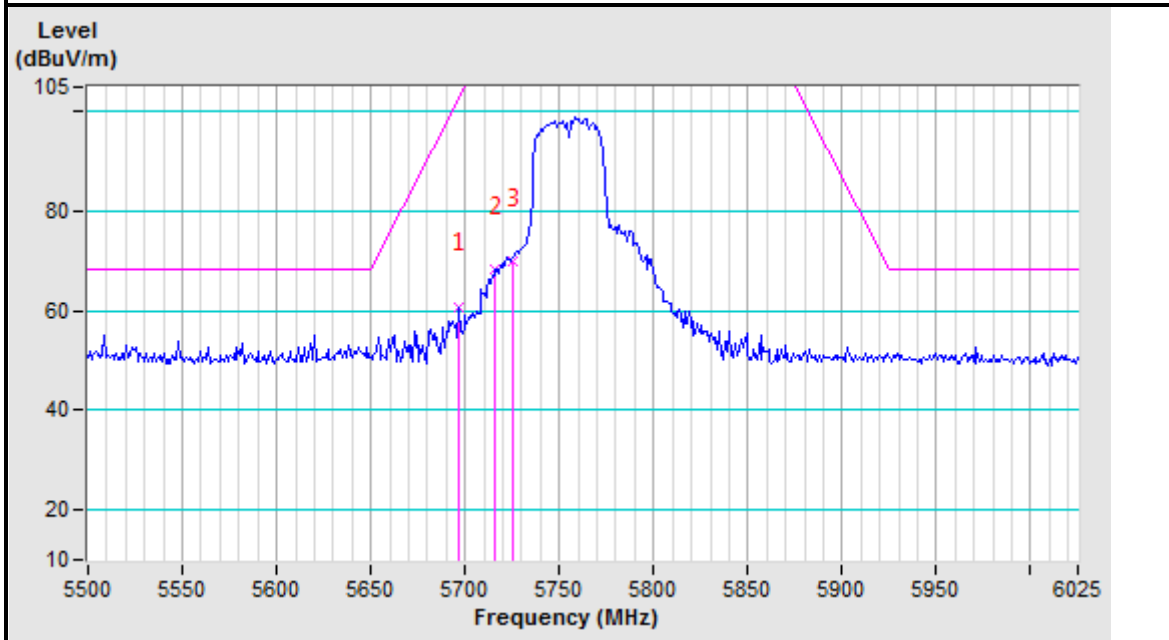


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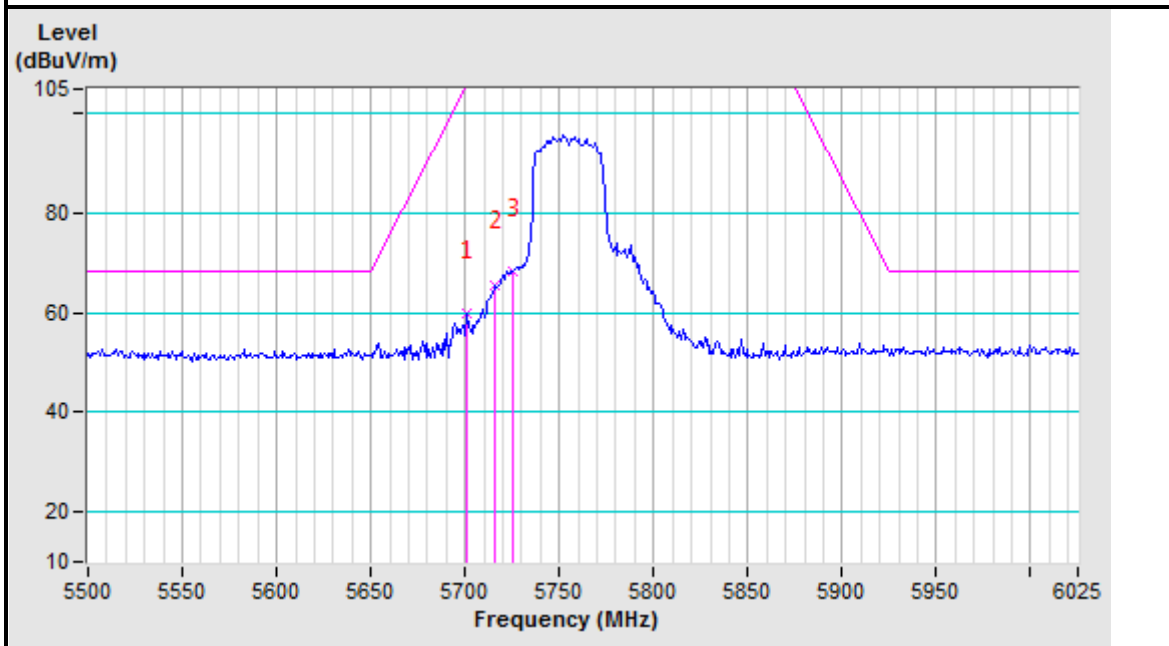
Test Report No.: RF200108N028-4

Band edge Plot

5755MHz Horizontal



5755MHz Vertical





BUREAU VERITAS

Test Report No.: RF200108N028-4

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	*5795.00	102.87 PK			1.00 H	177	93.12	9.75
2	*5795.00	85.98 AV			1.00 H	177	76.23	9.75
3	#5850.00	58.04 PK	122.20	-64.16	1.00 H	177	48.16	9.88
4	#5872.72	57.90 PK	105.84	-47.94	1.00 H	177	47.95	9.95
5	#5890.38	56.17 PK	93.78	-37.61	1.00 H	177	46.18	9.99
6	11590.00	60.11 PK	74.00	-13.89	1.00 H	0	40.27	19.84
7	11590.00	44.87 AV	54.00	-9.13	1.00 H	0	25.03	19.84
8	#17385.00	61.54 PK	68.20	-6.66	1.00 H	0	34.02	27.52

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	*5795.00	101.63 PK			1.00 V	225	91.88	9.75
2	*5795.00	85.42 AV			1.00 V	225	75.67	9.75
3	#5850.00	57.77 PK	122.20	-64.43	1.00 V	225	47.89	9.88
4	#5854.21	57.84 PK	112.61	-54.77	1.00 V	225	47.94	9.90
5	#5870.19	56.13 PK	106.54	-50.41	1.00 V	225	46.19	9.94
6	11590.00	60.12 PK	74.00	-13.88	1.00 V	0	40.28	19.84
7	11590.00	44.86 AV	54.00	-9.14	1.00 V	0	25.02	19.84
8	#17385.00	62.16 PK	68.20	-6.04	1.00 V	0	34.64	27.52

REMARKS:

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

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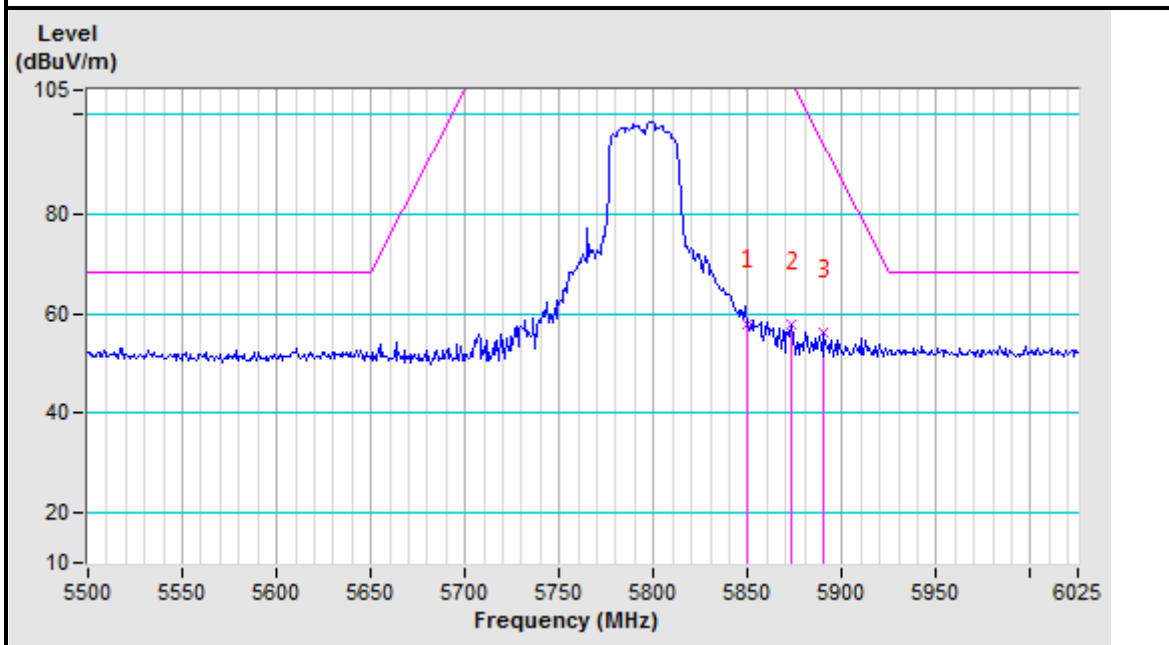
No. 96, Guantai Road (Houjie Section), Houjie Town, Dongguan City, Guangdong Province. 523942. People's Republic of China.

Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
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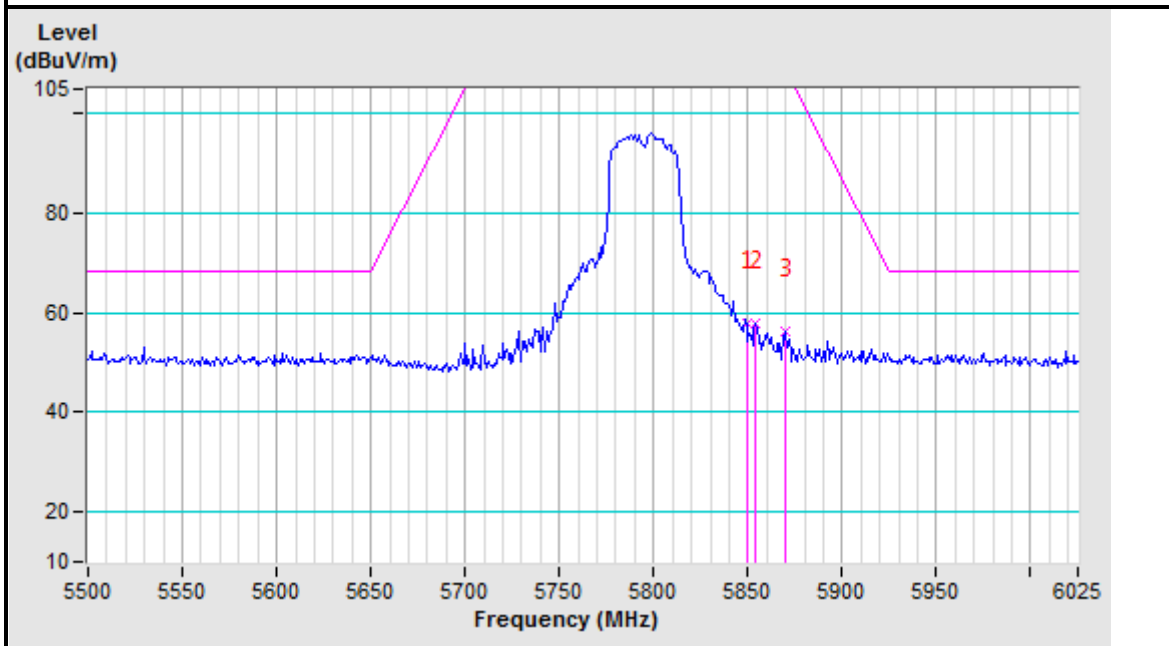


Band edge Plot

5795MHz Horizontal



5795MHz Vertical





802.11ac 80MHz

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

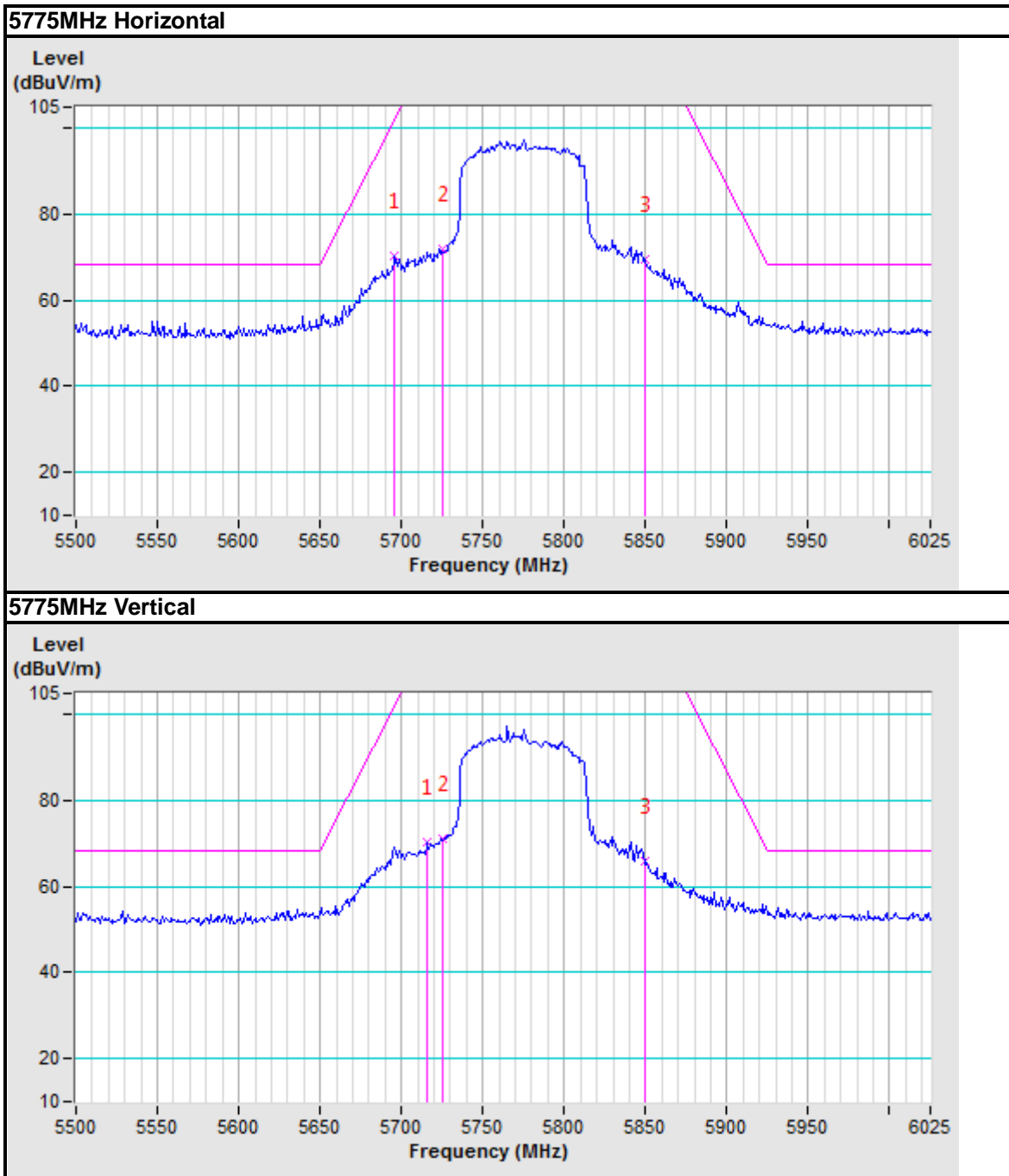
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5775.00	102.56 PK			1.00 H	178	92.87	9.69
2	*5775.00	82.09 AV			1.00 H	178	72.40	9.69
3	11550.00	59.96 PK	74.00	-14.04	1.00 H	0	40.20	19.76
4	11550.00	45.07 AV	54.00	-8.93	1.00 H	0	25.31	19.76
5	#17325.00	61.99 PK	68.20	-6.21	1.00 H	0	34.54	27.45
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	*5775.00	100.73 PK			1.00 V	114	91.04	9.69
2	*5775.00	80.64 AV			1.00 V	114	70.95	9.69
3	11550.00	60.03 PK	74.00	-13.97	1.00 V	0	40.27	19.76
4	11550.00	44.96 AV	54.00	-9.04	1.00 V	0	25.20	19.76
5	#17325.00	62.15 PK	68.20	-6.05	1.00 V	0	34.70	27.45

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





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

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

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 12,20	Mar. 11,21
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 12,20	Mar. 11,21
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 12,20	Mar. 11,21
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Sep. 24,19	Sep. 23,20
Test software	ADT	ADT_Cond_V7.3.7	N/A	N/A	N/A

- NOTES:**
- The test was performed in shielded room 553.
 - The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.



3.2.3 TEST PROCEDURES

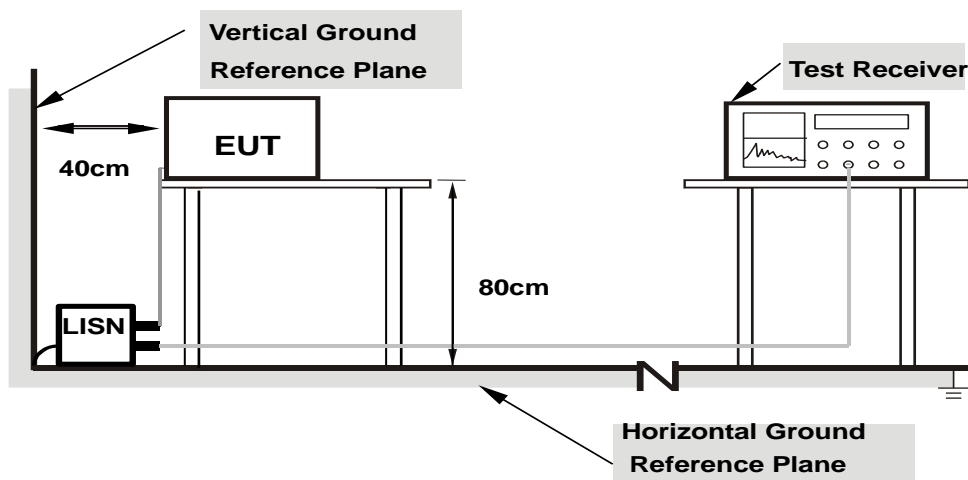
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



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

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

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7



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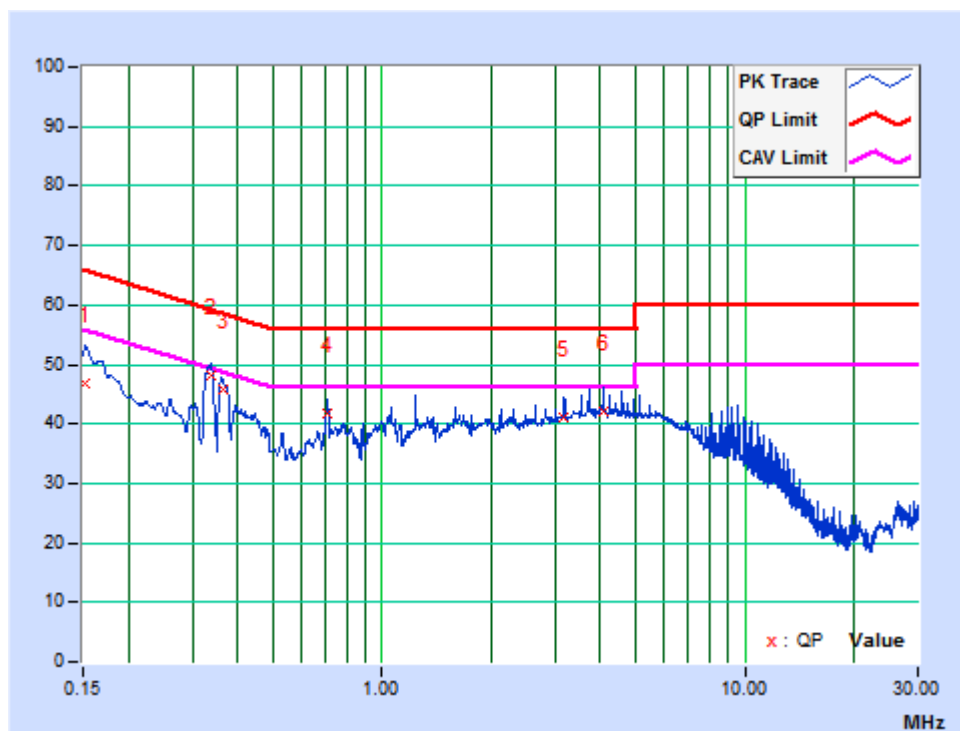
3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: 802.11a CH36

PHASE	Line	6dB BANDWIDTH	9kHz
-------	------	---------------	------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15225	10.21	36.53	25.23	46.74	35.44	65.88	55.88	-19.14	-20.44
2	0.33675	10.22	37.87	33.83	48.09	44.05	59.28	49.28	-11.20	-5.24
3	0.36375	10.22	35.44	31.26	45.66	41.48	58.64	48.64	-12.98	-7.16
4	0.70783	10.23	31.54	27.28	41.77	37.51	56.00	46.00	-14.23	-8.49
5	3.18525	10.22	30.74	25.96	40.96	36.18	56.00	46.00	-15.04	-9.82
6	4.06950	10.23	31.86	27.44	42.09	37.67	56.00	46.00	-13.91	-8.33

- 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.





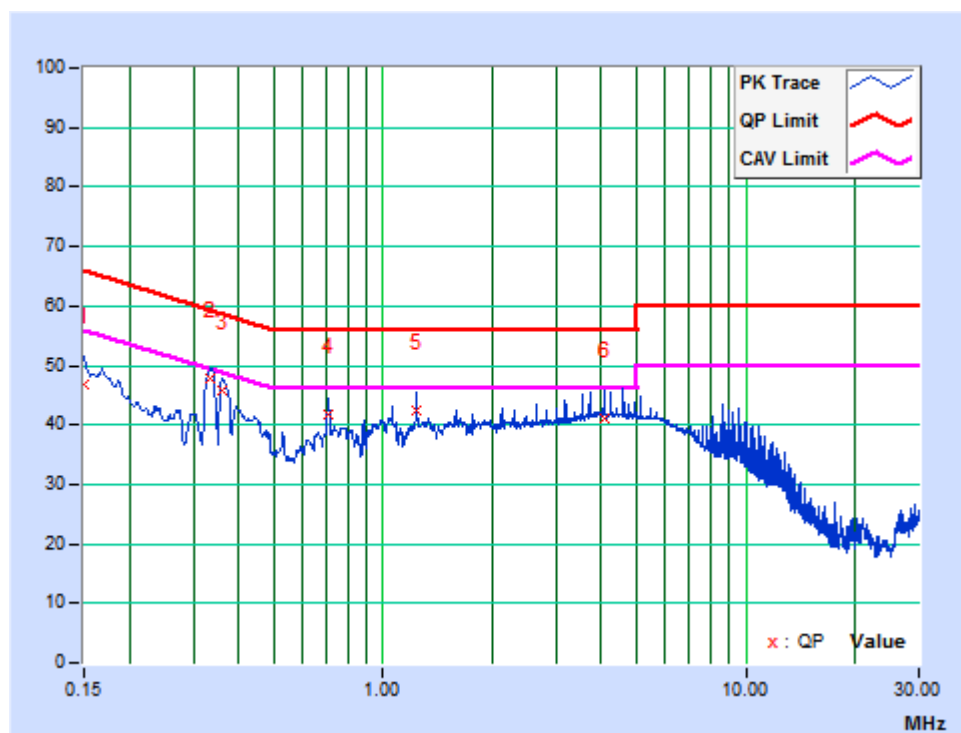
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PHASE	Neutral	6dB BANDWIDTH	9kHz
--------------	---------	----------------------	------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.01	36.66	25.18	46.67	35.19	66.00	56.00	-19.33	-20.81
2	0.33440	10.01	37.73	36.13	47.74	46.14	59.34	49.34	-11.60	-3.20
3	0.35911	10.02	35.63	27.17	45.65	37.19	58.75	48.75	-13.10	-11.56
4	0.70783	10.03	31.85	27.62	41.88	37.65	56.00	46.00	-14.12	-8.35
5	1.23886	10.03	32.31	28.68	42.34	38.71	56.00	46.00	-13.66	-7.29
6	4.06725	10.03	30.96	25.52	40.99	35.55	56.00	46.00	-15.01	-10.45

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





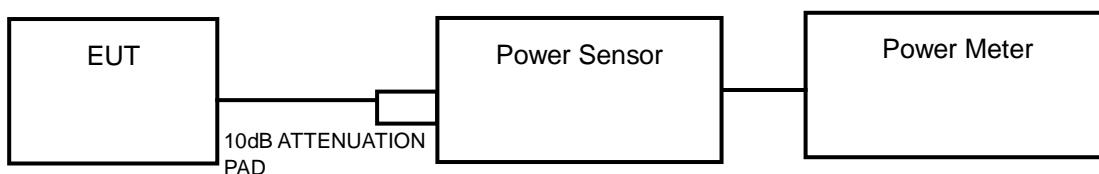
3.3 TRANSMIT POWER MEASUREMENT

3.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

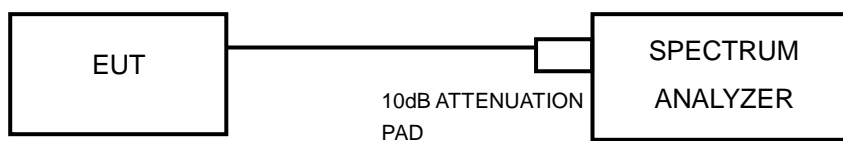
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p \leq 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client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

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

3.3.2 TEST SETUP



FOR 6/26dB BANDWIDTH





3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	May 22,19	May 21,20
Power Sensor	Keysight	U2021XA	MY55060018	May 22,19	May 21,20
Power Meter	Anritsu	ML2495A	1139001	Mar. 12,20	Mar. 11,21
Power Sensor	Anritsu	MA2411B	1531155	Mar. 12,20	Mar. 11,21
Digital Multimeter	FLUKE	15B	A1220010DG	Oct. 17, 19	Oct.16, 20
Humid & Temp Programmable Tester	Haida	HD-2257	110807201	Nov.15,19	Nov. 14,20
Oscilloscope	Agilent	DSO9254A	MY51260160	Sep. 18,19	Sep. 17,20
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Mar. 13,20	Mar. 12,21
Signal Generator	Agilent	N5183A	MY50140980	Sep. 19,19	Sep. 18,20
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 12,19	Sep. 11,20
Attenuator	MINI	BW-S10W2 +	S130129FGE2	N/A	N/A
DC Source	Keysight	E3642A	MY56146098	N/A	N/A

NOTES:

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

3.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

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

FOR 26dB BANDWIDTH

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

FOR 6dB BANDWIDTH

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

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

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



3.3.7 TEST RESULTS

OUTPUT POWER:

802.11a

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	12.95	19.724	24.00	PASS
40	5200	13.22	20.989	24.00	PASS
48	5240	13.78	23.878	24.00	PASS
52	5260	13.67	23.281	24.00	PASS
60	5300	12.74	18.793	24.00	PASS
64	5320	12.65	18.408	24.00	PASS
100	5500	13.59	22.856	24.00	PASS
116	5580	14.56	28.576	24.00	PASS
140	5700	13.31	21.429	24.00	PASS
149	5745	12.91	19.543	30.00	PASS
157	5785	12.27	16.866	30.00	PASS
165	5825	12.79	19.011	30.00	PASS

Note:

5180 ~ 5240MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced.

5260 ~ 5320MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

5500 ~ 5700MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

5745 ~ 5825MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

1. $11\text{dBm} + 10\log(21.66) = 24.36\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(21.42) = 24.31\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(22.06) = 24.44\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(27.50) = 25.39\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.41) = 24.10\text{ dBm} > 24\text{dBm}$
6. $11\text{dBm} + 10\log(25.94) = 25.14\text{ dBm} > 24\text{dBm}$



802.11n (20MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	12.57	18.072	24.00	PASS
40	5200	13.01	19.999	24.00	PASS
48	5240	13.58	22.803	24.00	PASS
52	5260	13.49	22.336	24.00	PASS
60	5300	12.52	17.865	24.00	PASS
64	5320	12.55	17.989	24.00	PASS
100	5500	13.48	22.284	24.00	PASS
116	5580	14.29	26.853	24.00	PASS
140	5700	13.05	20.184	24.00	PASS
149	5745	13.78	23.878	30.00	PASS
157	5785	12.46	17.62	30.00	PASS
165	5825	12.73	18.75	30.00	PASS

Note:

5180 ~ 5240MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced.

5260 ~ 5320MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

5500 ~ 5700MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

5745 ~ 5825MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (21.61) = 24.35 dBm > 24dBm

11dBm + 10log (21.23) = 24.27 dBm > 24dBm

11dBm + 10log (23.05) = 24.63 dBm > 24dBm

11dBm + 10log (24.68) = 24.93 dBm > 24dBm

11dBm + 10log (21.05) = 24.23 dBm > 24dBm

11dBm + 10log (25.99) = 25.15 dBm > 24dBm



802.11n (40MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
38	5190	13.27	21.232	24.00	PASS
46	5230	13.42	21.979	24.00	PASS
54	5270	13.09	20.37	24.00	PASS
62	5310	12.99	19.907	24.00	PASS
102	5510	14.08	25.586	24.00	PASS
110	5550	14.14	25.942	24.00	PASS
134	5670	13.88	24.434	24.00	PASS
151	5755	13.57	22.751	30.00	PASS
159	5795	12.95	19.724	30.00	PASS

Note:

5180 ~ 5240MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced.

5260 ~ 5320MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

5500 ~ 5700MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

5745 ~ 5825MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (45.70) = 27.60 dBm > 24dBm

11dBm + 10log (66.67) = 29.24 dBm > 24dBm

11dBm + 10log (55.46) = 28.44 dBm > 24dBm

11dBm + 10log (50.34) = 28.02 dBm > 24dBm

11dBm + 10log (56.02) = 28.48 dBm > 24dBm



802.11ac (80MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
42	5210	14.11	25.763	24.00	PASS
58	5290	14.22	26.424	24.00	PASS
106	5530	14.25	26.607	24.00	PASS
122	5610	14.09	25.645	24.00	PASS
155	5775	13.61	22.961	30.00	PASS

Note:

5180 ~ 5240MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced.

5260 ~ 5320MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

5500 ~ 5700MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

5745 ~ 5825MHz Max. Gain = 3dBi < 6dBi, so the limit no ned to be reduced

For 5260 ~ 5320MHz, 5500 ~ 5700MHz

11dBm + 10log (92.70) = 30.67 dBm > 24dBm

11dBm + 10log (83.34) = 30.21 dBm > 24dBm

11dBm + 10log (82.69) = 30.17 dBm > 24dBm



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Test Report No.: RF200108N028-4

26dB BANDWIDTH:

802.11a

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	23.09	PASS
40	5200	22.53	PASS
48	5240	22.25	PASS
52	5260	21.66	PASS
60	5300	21.42	PASS
64	5320	22.06	PASS
100	5500	27.50	PASS
116	5580	20.41	PASS
140	5700	25.94	PASS

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	22.42	PASS
40	5200	21.89	PASS
48	5240	21.50	PASS
52	5260	21.61	PASS
60	5300	21.23	PASS
64	5320	23.05	PASS
100	5500	24.68	PASS
116	5580	21.05	PASS
140	5700	25.99	PASS



802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	46.59	PASS
46	5230	45.26	PASS
54	5270	45.70	PASS
62	5310	66.67	PASS
102	5510	55.46	PASS
110	5550	50.34	PASS
134	5670	56.02	PASS

802.11ac (80MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
42	5210	88.72	PASS
58	5290	92.70	PASS
106	5530	83.34	PASS
122	5610	82.69	PASS



6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	15.14	PASS
157	5785	15.20	PASS
165	5825	15.22	PASS

802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	15.19	PASS
157	5785	15.21	PASS
165	5825	15.20	PASS

802.11n (40M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
151	5755	35.25	PASS
159	5795	35.25	PASS

802.11ac (80MHz)

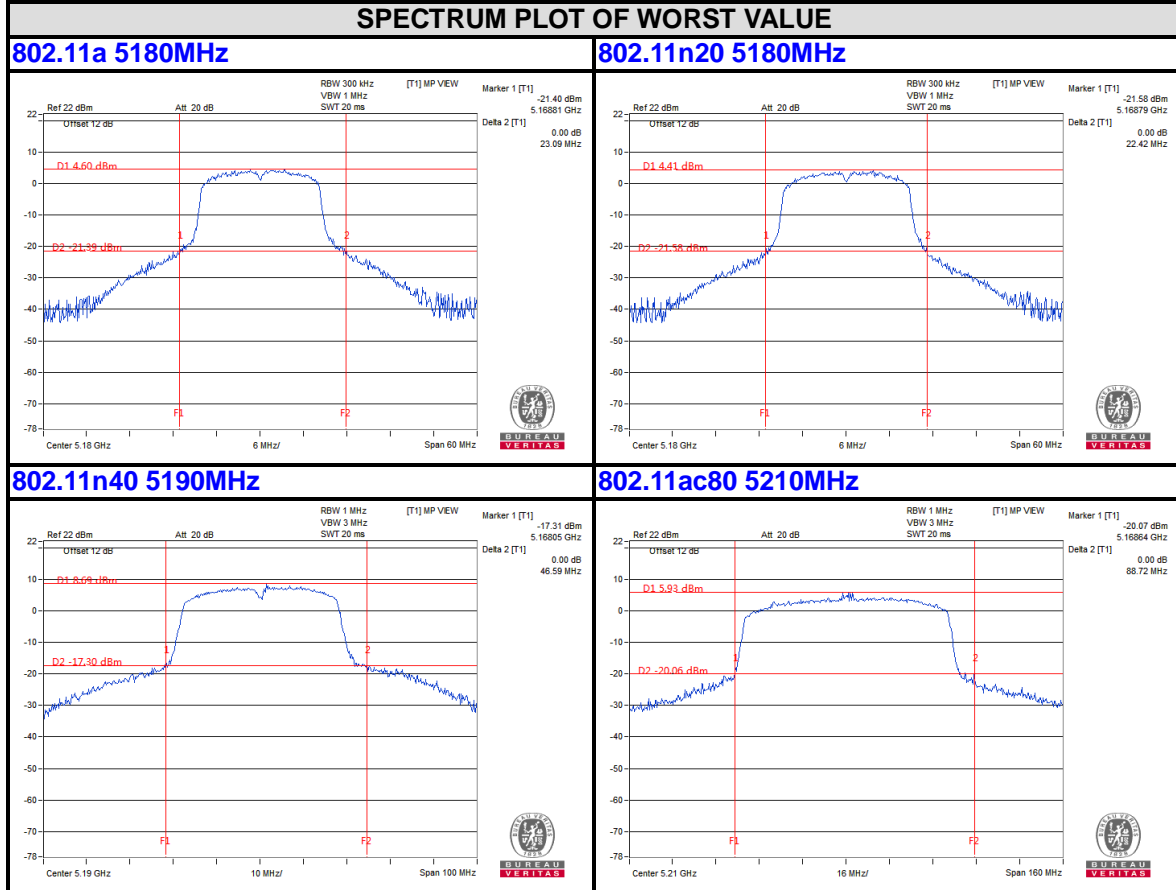
Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
155	5775	75.29	PASS



**BUREAU
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Test Report No.: RF200108N028-4

**26dB bandwidth Test Plot
For 5150-5250MHz**



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Dongguan Branch

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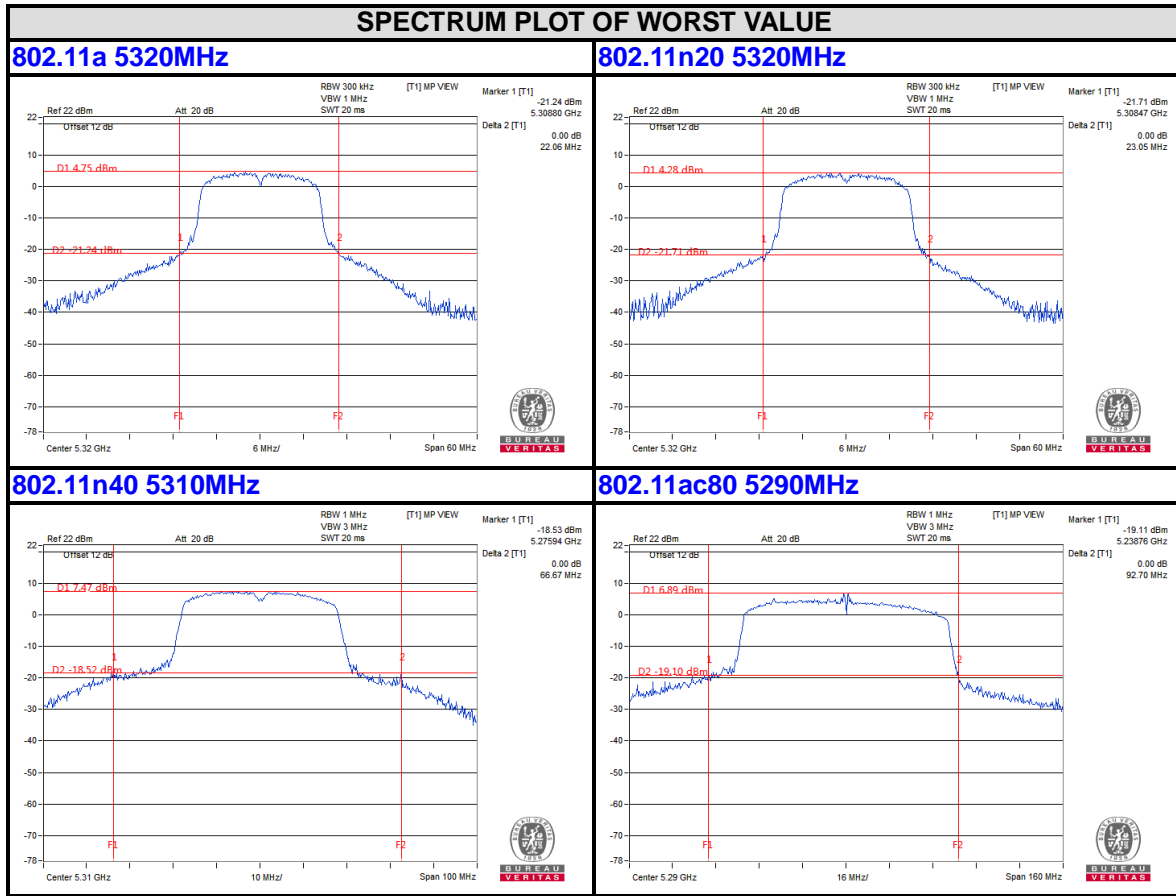
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Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



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Test Report No.: RF200108N028-4

For 5250-5350MHz



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Dongguan Branch

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Town, Dongguan City, Guangdong Province.
523942. People's Republic of China.

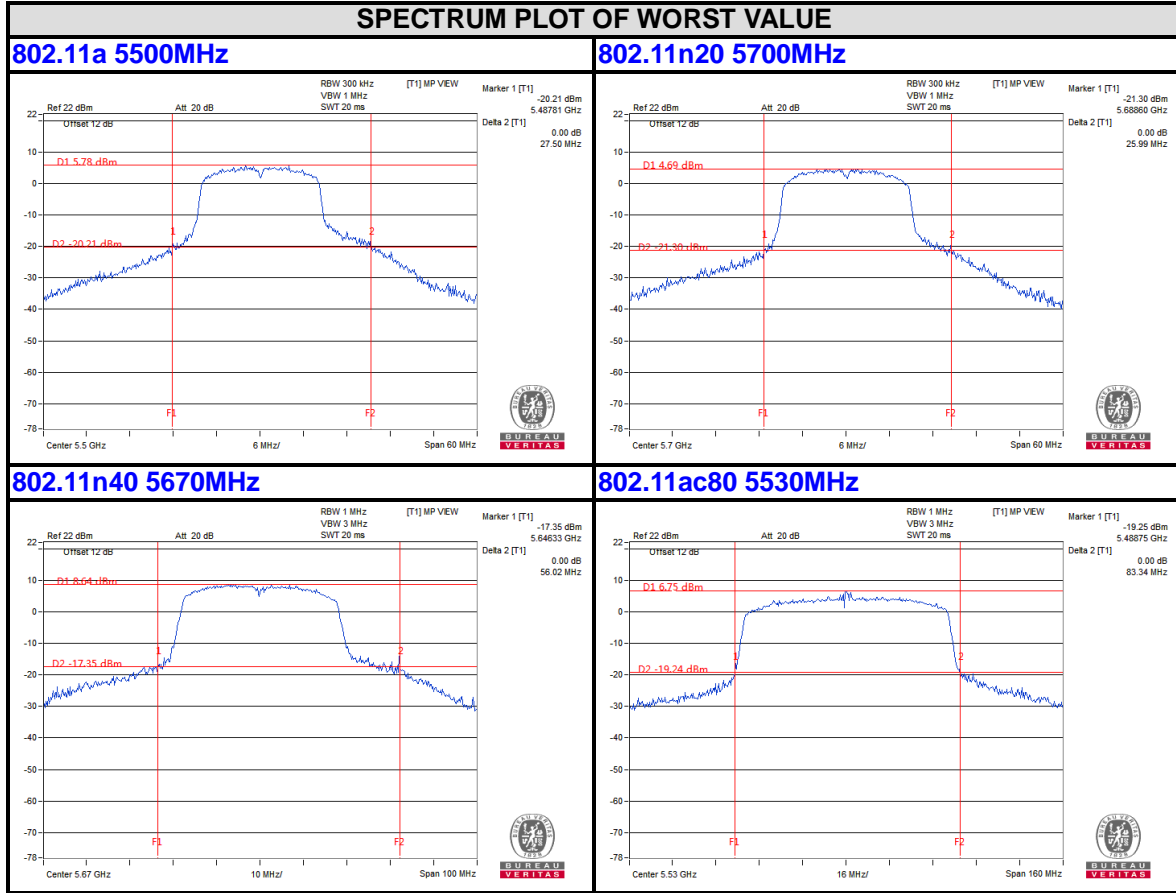
Tel: +86 769 8998 2098
Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



BUREAU VERITAS

Test Report No.: RF200108N028-4

For 5470-5725MHz



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Dongguan Branch

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Town, Dongguan City, Guangdong Province.
523942. People's Republic of China.

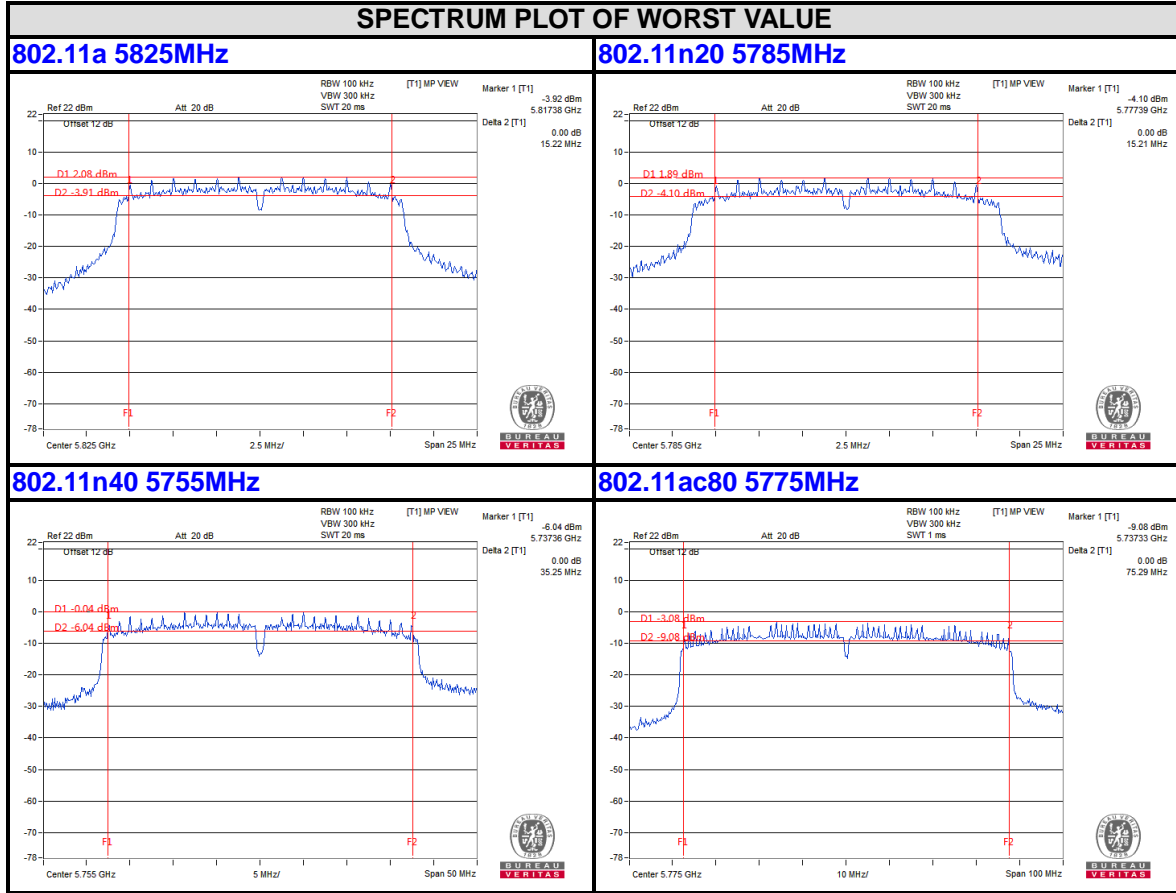
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Fax: +86 769 8593 1080
Email: customerservice.dg@cn.bureauveritas.com



BUREAU VERITAS

Test Report No.: RF200108N028-4

6dB BANDWIDTH For 5725-5850MHz



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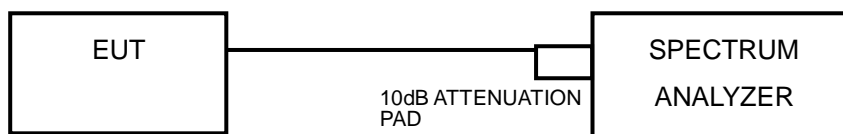
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3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

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

Using method SA-2

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

For U-NII-3 band:

Using method SA-2

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

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.3.6



3.4.7 TEST RESULTS

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

802.11a

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
36	5180	-0.27	0.348	0.078	11.00	PASS
40	5200	0.04	0.348	0.388	11.00	PASS
48	5240	0.71	0.348	1.058	11.00	PASS
52	5260	0.70	0.348	1.048	11.00	PASS
60	5300	-0.08	0.348	0.268	11.00	PASS
64	5320	-0.13	0.348	0.218	11.00	PASS
100	5500	0.73	0.348	1.078	11.00	PASS
116	5580	1.70	0.348	2.048	11.00	PASS
140	5700	0.19	0.348	0.538	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	-8.60	-6.38	0.348	-6.032	30.00	PASS
157	5785	-9.33	-7.11	0.348	-6.762	30.00	PASS
165	5825	-8.77	-6.55	0.348	-6.202	30.00	PASS

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



802.11n (20MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
36	5180	-0.57	0.920	0.35	11.00	PASS
40	5200	-0.25	0.920	0.67	11.00	PASS
48	5240	0.39	0.920	1.31	11.00	PASS
52	5260	0.31	0.920	1.23	11.00	PASS
60	5300	-0.54	0.920	0.38	11.00	PASS
64	5320	-0.48	0.920	0.44	11.00	PASS
100	5500	0.46	0.920	1.38	11.00	PASS
116	5580	1.25	0.920	2.17	11.00	PASS
140	5700	0.02	0.920	0.94	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
149	5745	-7.94	-5.72	0.920	-4.8	30.00	PASS
157	5785	-9.40	-7.18	0.920	-6.26	30.00	PASS
165	5825	-9.03	-6.81	0.920	-5.89	30.00	PASS

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

802.11n (40MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
38	5190	-3.41	0.731	-2.679	11.00	PASS
46	5230	-3.16	0.731	-2.429	11.00	PASS
54	5270	-3.35	0.731	-2.619	11.00	PASS
62	5310	-3.46	0.731	-2.729	11.00	PASS
102	5510	-2.27	0.731	-1.539	11.00	PASS
118	5590	-2.20	0.731	-1.469	11.00	PASS
134	5670	-2.57	0.731	-1.839	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
151	5755	-11.94	-9.72	0.731	-8.989	30.00	PASS
159	5795	-12.53	-10.31	0.731	-9.579	30.00	PASS

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



802.11ac (80MHz)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	MAX. Limit (dBm)	PASS / FAIL
42	5210	-7.24	1.186	-6.054	11.00	PASS
58	5290	-6.66	1.186	-5.474	11.00	PASS
106	5530	-6.89	1.186	-5.704	11.00	PASS
122	5610	-6.53	1.186	-5.344	11.00	PASS

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

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500k Hz)	Limit (dBm/500kHz)	PASS / FAIL
155	5775	-16.43	-14.21	1.186	-13.024	30.00	PASS

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

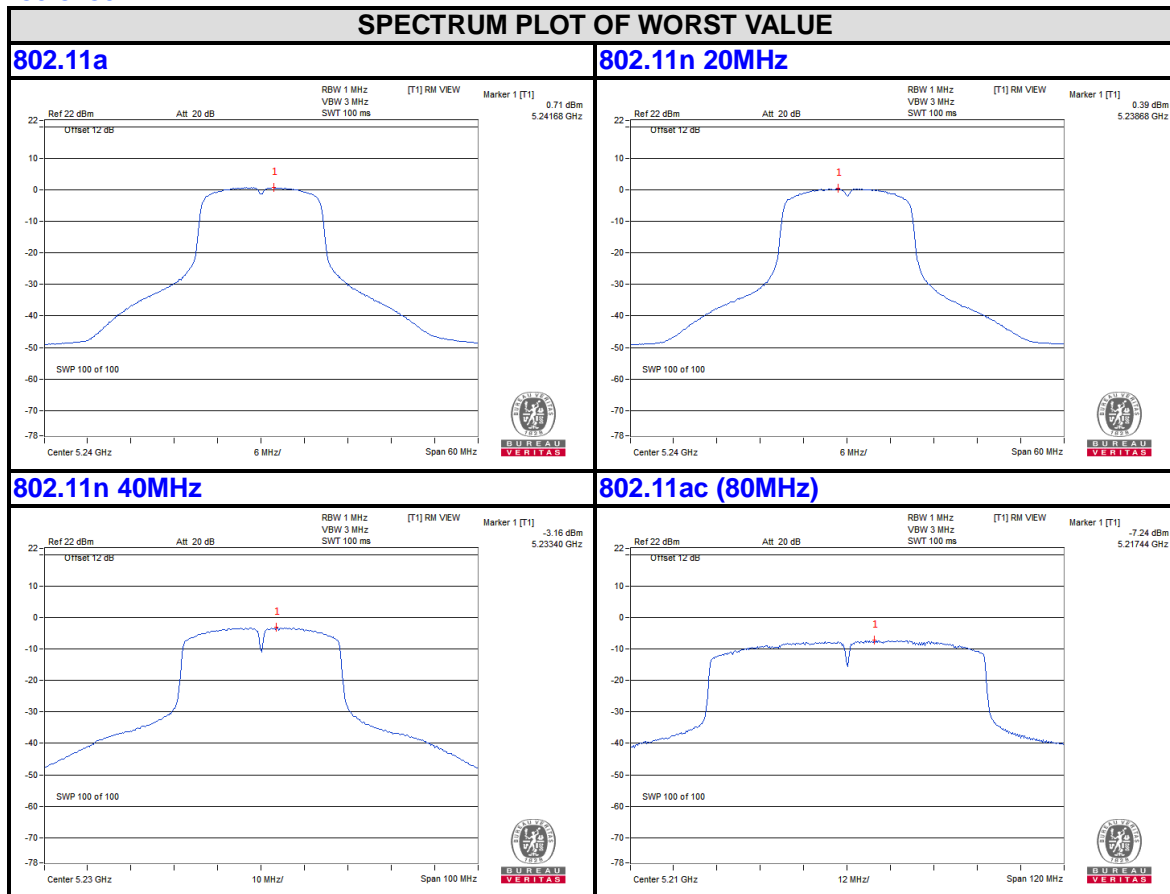


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Test Report No.: RF200108N028-4

PSD Test Plot

BAND 1
5150-5250MHz



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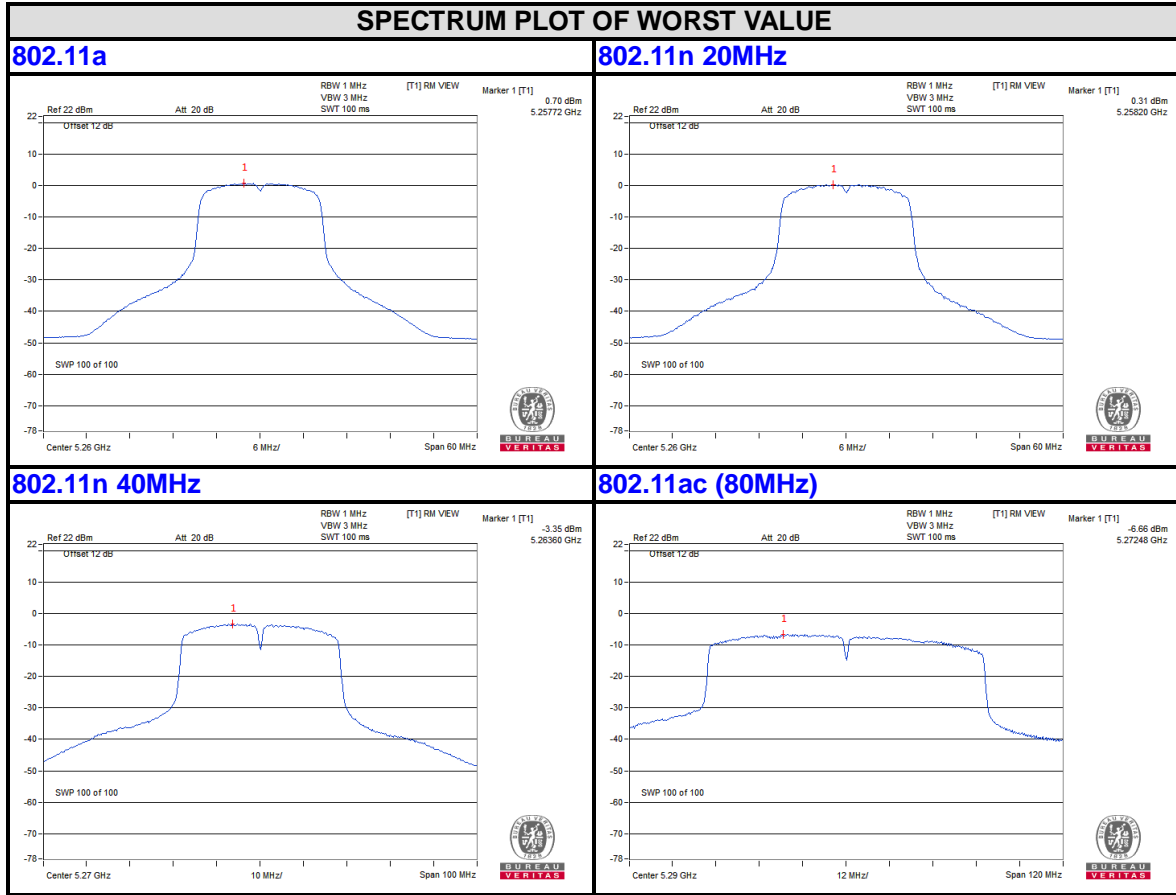
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BAND 2
5250-5350MHz



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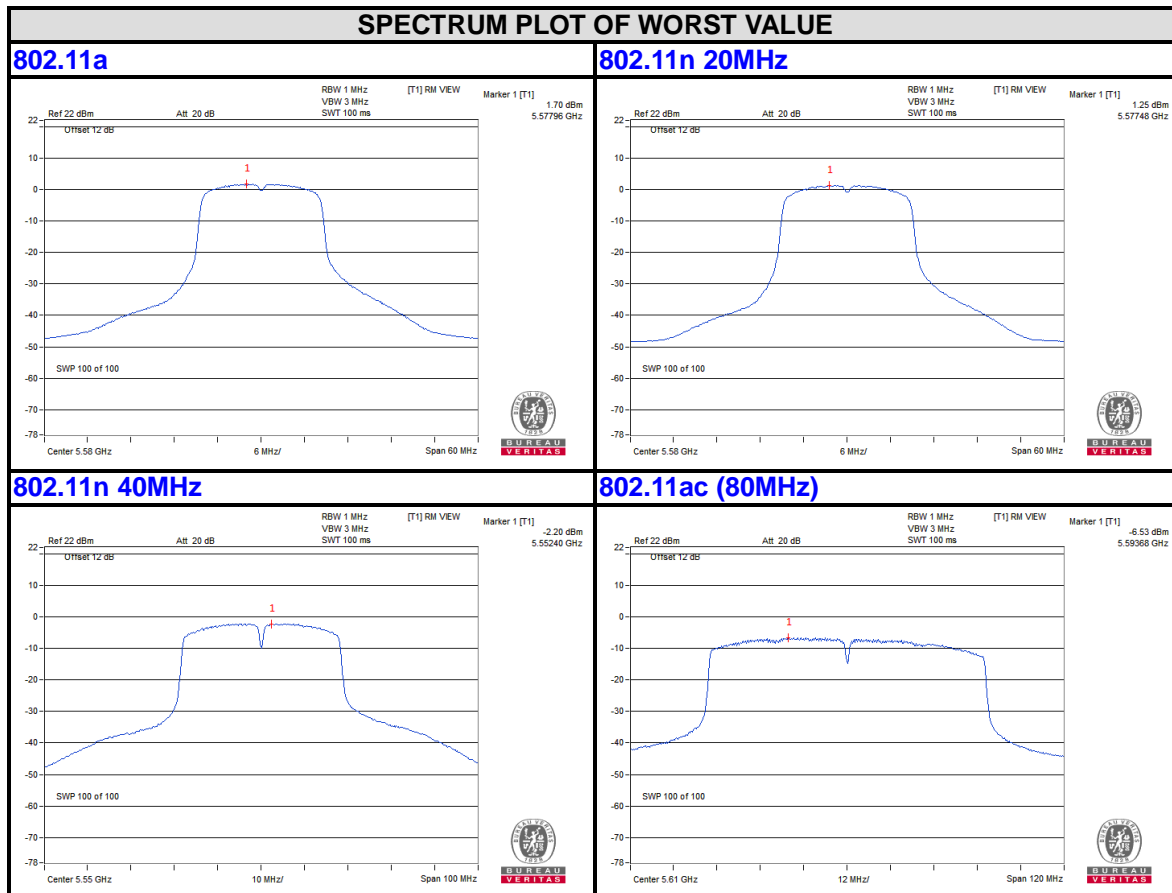
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BAND 3
5470-5725MHz



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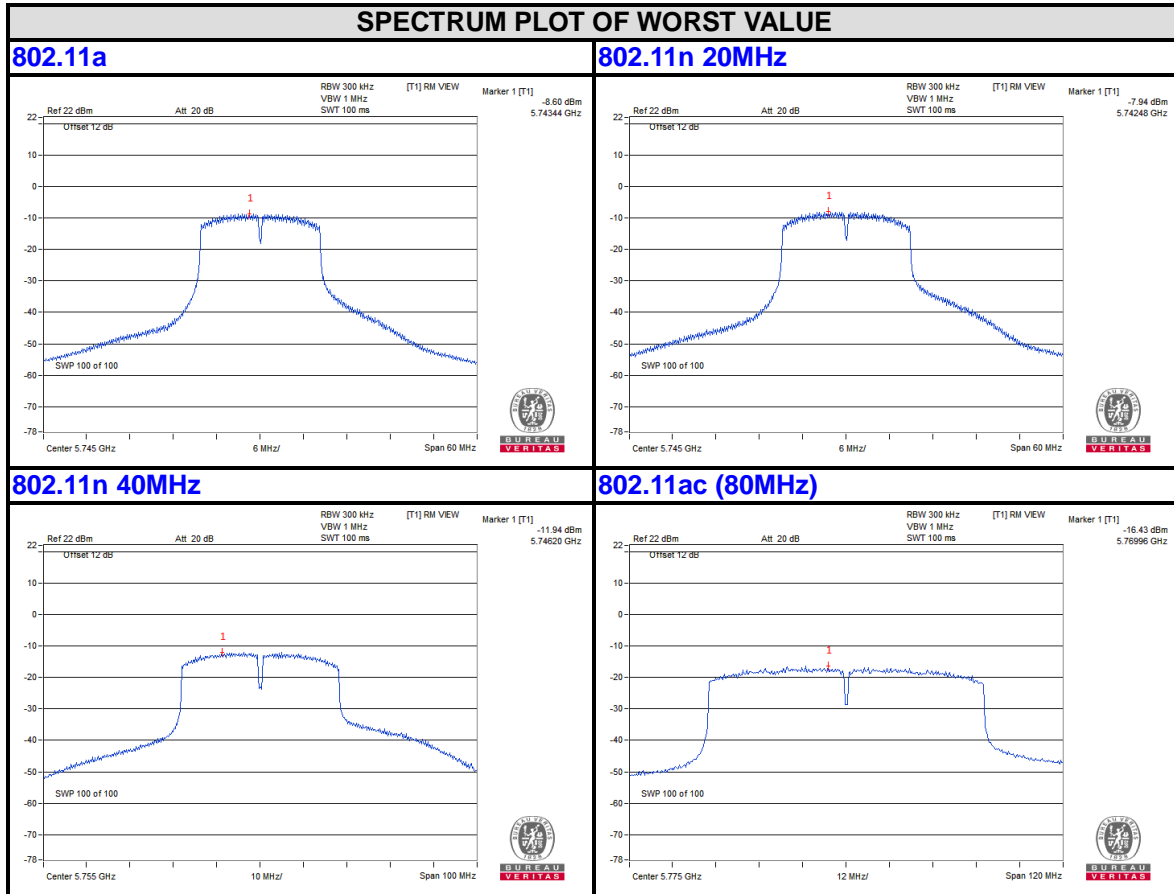
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BAND4
5725-5850MHz



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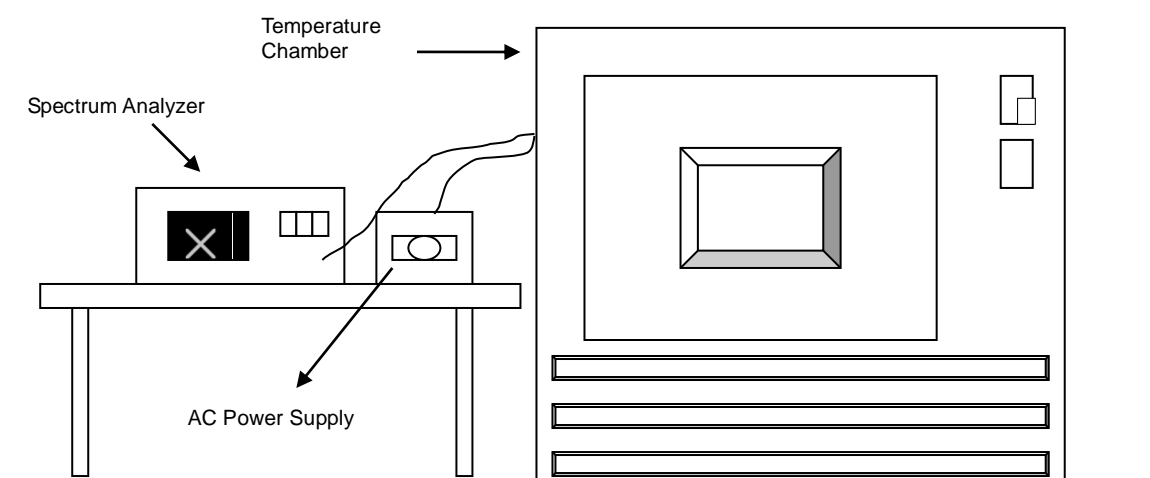
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3.5 FREQUENCY STABILITY

3.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.



3.5.4 TEST PROCEDURE

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

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

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



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3.5.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5179.9838	-0.00031	5179.9843	-0.00030	5179.9858	-0.00027	5179.9876	-0.00024
40	120	5179.9932	-0.00013	5179.9913	-0.00017	5179.9917	-0.00016	5179.9917	-0.00016
30	120	5180.015	0.00029	5180.0144	0.00028	5180.0143	0.00028	5180.0172	0.00033
20	120	5179.9792	-0.00040	5179.9776	-0.00043	5179.9819	-0.00035	5179.9796	-0.00039
10	120	5180.0084	0.00016	5180.0052	0.00010	5180.0098	0.00019	5180.0054	0.00010
0	120	5179.9963	-0.00007	5179.9942	-0.00011	5179.9966	-0.00007	5179.9924	-0.00015
-10	120	5179.9855	-0.00028	5179.9875	-0.00024	5179.9862	-0.00027	5179.989	-0.00021
-20	120	5179.9943	-0.00011	5179.9917	-0.00016	5179.9953	-0.00009	5179.9959	-0.00008
-30	120	5179.977	-0.00044	5179.9769	-0.00045	5179.9771	-0.00044	5179.9762	-0.00046

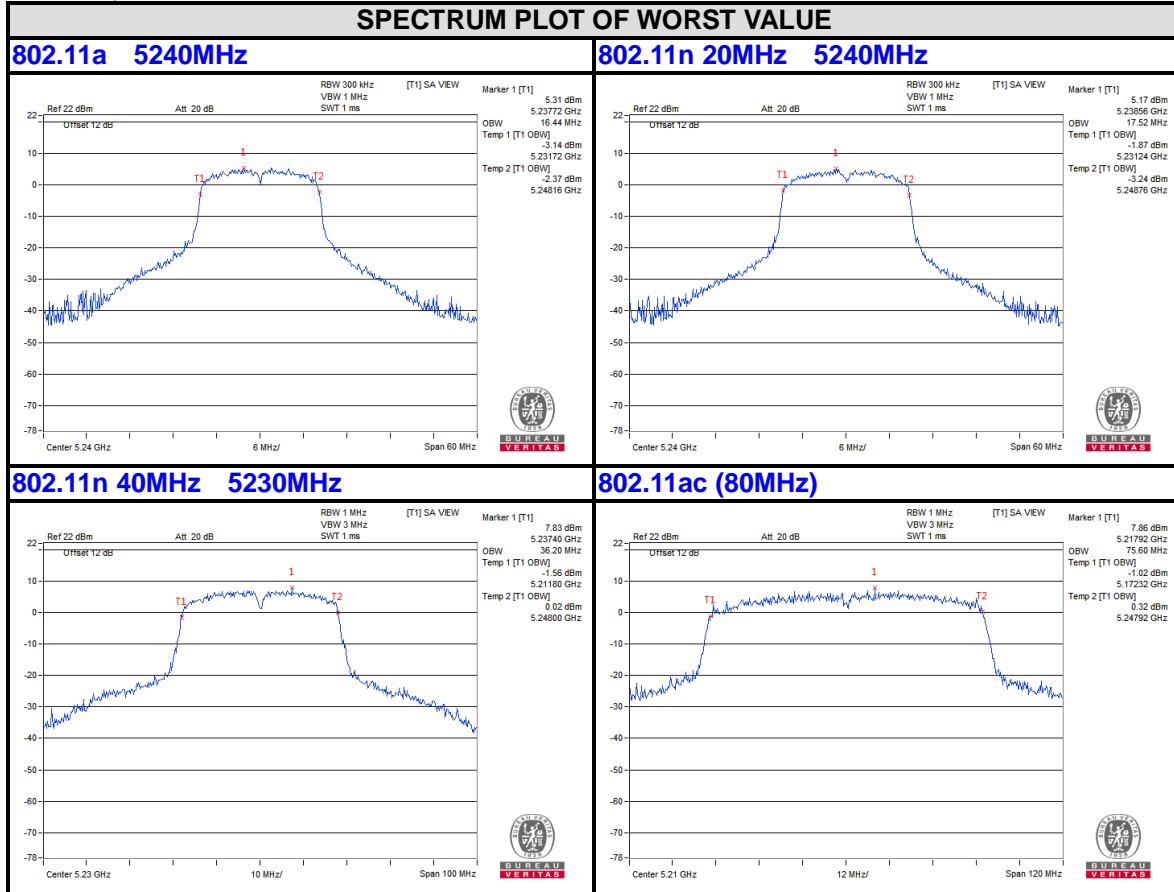
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	138	5179.9792	-0.00040	5179.9786	-0.00041	5179.9821	-0.00035	5179.9797	-0.00039
	120	5179.9792	-0.00040	5179.9776	-0.00043	5179.9819	-0.00035	5179.9796	-0.00039
	102	5179.9802	-0.00038	5179.9779	-0.00043	5179.9814	-0.00036	5179.9786	-0.00041



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Band 1
5150-5250MHz
99% Occupied Bandwidth Without over DFS Band



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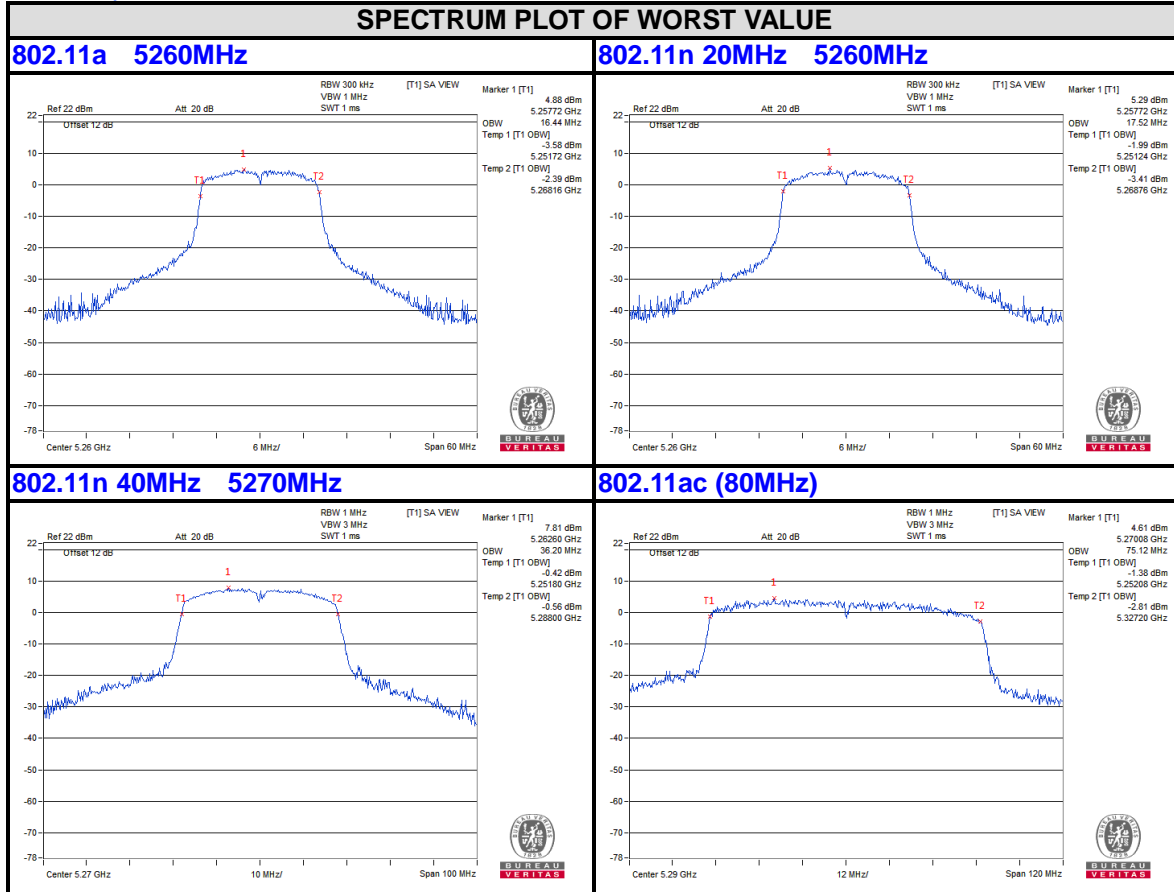
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Band 2
5250-5350MHz
99% Occupied Bandwidth Without over Band 1



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4. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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

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

---END---