

TEST REPORT

Applicant	PUNDI X LABS PTE. LTD.
Address	6 Raffles Boulevard, #03-308 Marina Square Singapore, 039594

Manufacturer or Supplier	PUNDI X LABS PTE. LTD.
Address	6 Raffles Boulevard, #03-308 Marina Square Singapore, 039594
Product Name	XPOS
Brand Name	Pundi X
Model	X2
Additional Model & Model Difference	N/A
Date of tests	Nov. 02, 2018 ~ Mar. 14, 2019

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 Supervisor / EMC Department
	 Date: Apr. 24, 2019

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Test Report No.: RF190423N029-4

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF181102N040-4	Original release.	Apr. 02, 2019
RF190423N029-4	Based on the original report RF181102N040-4 changed the address of applicant/ Manufacturer, but it doesn't need to be retested.	Apr. 24, 2019

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	2.90dB
	30MHz ~ 1GMHz	3.76dB
	1GHz ~ 18GHz	4.84dB
	18GHz ~ 40GHz	4.96dB

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

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT NAME	XPOS
MODEL NO.	X2
FCC ID	2ASTH-X2
POWER SUPPLY	DC 5V from Adapter, DC 3.8V From Li-ion Battery, DC 5V from Pedestal, DC 5V from USB Host Unit
MODULATION TYPE	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
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): 5260 ~ 5320MHz: 4 channels for 802.11a, 802.11n (20MHz) 2 channels for 802.11n, 11ac (40MHz) 5500 ~ 5700MHz: 11 channels for 802.11a, 802.11n (20MHz) 5 channels for 802.11n (40MHz) 5745 ~ 5825MHz: 5 channels for 802.11a, 802.11n,11ac (20MHz) 2 channels for 802.11n,11ac (40MHz)
CONDUCTED OUTPUT POWER	13.91dBm for 5150 ~ 5250MHz (Maximum AVG Power) 13.68dBm for 5250 ~ 5350MHz (Maximum AVG Power) 15.38dBm for 5470 ~ 5725MHz (Maximum AVG Power) 15.25dBm for 5725 ~ 5850MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: FPC antenna with 1.2dBi gain 5260 ~ 5320MHz: FPC antenna with 1.2dBi gain 5500 ~ 5700MHz: FPC antenna with 1.2dBi gain 5745 ~ 5825MHz: FPC antenna with 1.2dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTES:

1. 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 20MHz	1TX/1RX
802.11n 40MHz	1TX/1RX

2. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. Please refer to the EUT photo document (Reference No.: 190423N029) for detailed product photo.
5. The EUT uses following adapter.

Adapter :	
Brand	N/A
Model	PX1-1200200JL
Input Power	100V-240V~, 50/60Hz, 0.35A Max
Output Power	5Vdc, 2.0A
DC Line	Shielded, Detachable, 145cm

2.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5250 ~ 5350MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

FOR 5470 ~ 5725MHz

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

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

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

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

FOR 5725 ~ 5850MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

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 Battery with wifi(5G) link
B	√	√	√	-	Powered by Adapter with wifi(5G) link

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

NOTE:

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

NOTE: "-"means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
B	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
	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11a	5470-5725	100 to 140	100, 112, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 112, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
B	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)
B	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
	802.11a	5250-5350	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11a	5470-5725	100 to 140	100, 112, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 112, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
	802.11a	5725-5850	149 to 165	149, 157, 165	OFDM	BPSK	6.0
	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	13.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	24deg. C, 55%RH	DC 5V From Adapter	Daniel
RE≥1G	24deg. C, 55%RH	DC 5V From Adapter	Daniel
PLC	20deg. C, 56%RH	DC 5V From Adapter	Dragon
APCM	20deg. C, 55%RH	DC 3.8V From Fully Battery	Sen He



BUREAU
VERITAS

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2.3 DUTY CYCLE OF TEST SIGNAL

802.11a: Duty cycle = 100 %

802.11n (20MHz): Duty cycle =100 %

802.11n (40MHz): Duty cycle =100 %



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:

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

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 12,19	Mar. 11,20
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	Aug. 02,18	Aug. 01,19
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	May 04,18	May 03,19
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Apr. 18,18	Apr. 18,19
Bilog Antenna (20MHz -2GHz)	Teseq	CBL 6111D	30643	Aug. 11, 18	Aug. 10, 19
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	Jul. 21, 18	Jul. 20, 19
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170242	May 05,18	May 04,19
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	Feb. 10,19	Feb. 09,20
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	Apr. 18,18	Apr. 18,19
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 09,18	Nov. 08,19
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, GREGT/CHINA and NIM/CHINA.
2. The horn antenna is used only for the measurement of emission frequency above 1GHz 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:

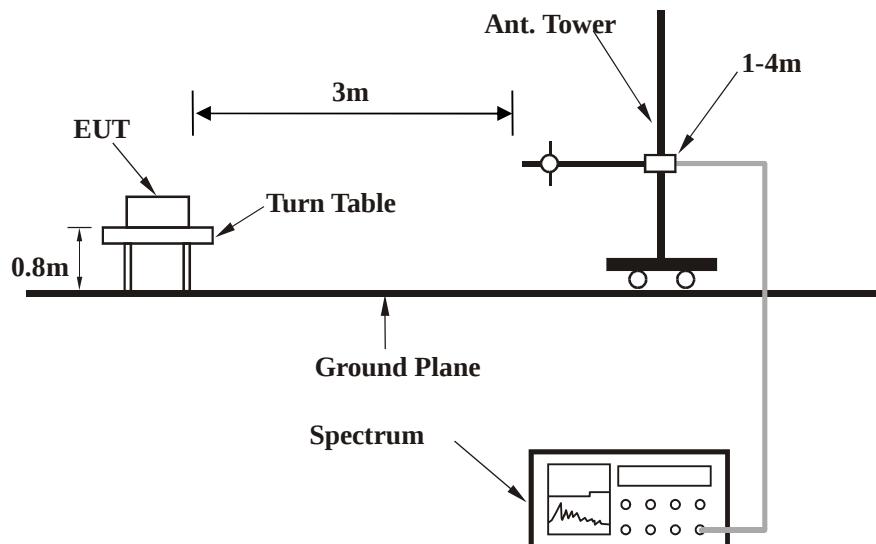
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution 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.

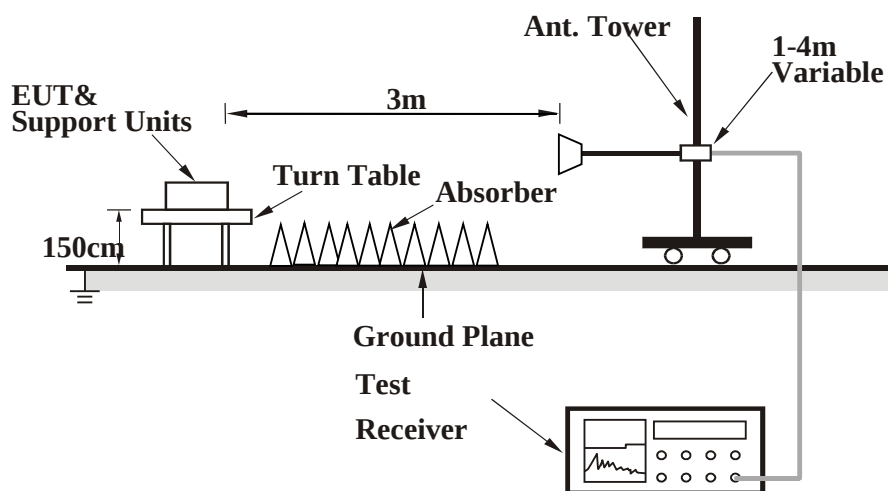
3.1.6 TEST SETUP

Below 1GHz test setup



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

Above 1GHz test setup



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



3.1.7 EUT OPERATING CONDITION

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

3.1.8 FTEST RESULTS

BELOW 1GHz WORST-CASE DATA

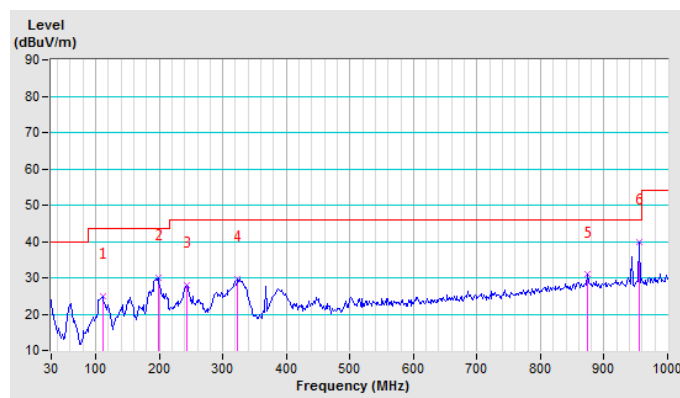
802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	110.83	24.86 QP	43.50	-18.64	1.00 H	152	42.04	-17.18
2	197.88	30.09 QP	43.50	-13.41	1.00 H	303	48.11	-18.02
3	242.96	27.89 QP	46.00	-18.11	1.00 H	179	43.70	-15.81
4	323.80	29.62 QP	46.00	-16.38	1.00 H	204	41.29	-11.67
5	874.09	30.91 QP	46.00	-15.09	1.00 H	82	31.77	-0.86
6	954.92	39.95 QP	46.00	-6.05	1.00 H	77	40.22	-0.27

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.

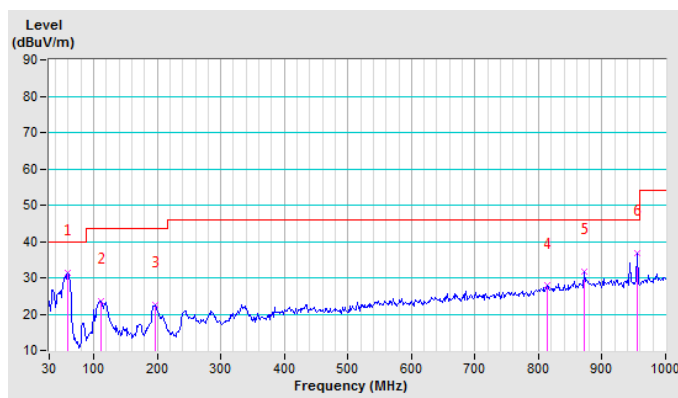


CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	59.54	31.49 QP	40.00	-8.51	1.00 V	192	55.61	-24.12
2	112.39	23.55 QP	43.50	-19.95	1.00 V	47	40.62	-17.07
3	196.33	22.68 QP	43.50	-20.82	1.00 V	122	40.67	-17.99
4	813.46	27.87 QP	46.00	-18.13	1.00 V	208	29.67	-1.80
5	872.53	31.65 QP	46.00	-14.35	1.00 V	242	32.54	-0.89
6	954.92	36.92 QP	46.00	-9.08	1.00 V	301	37.19	-0.27

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.



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	5150.00	63.24 PK	74.00	-10.76	1.00 H	268	57.44	5.80
2	5150.00	47.33 AV	54.00	-6.67	1.00 H	268	41.53	5.80
3	*5180.00	106.20 PK			1.00 H	268	100.29	5.91
4	*5180.00	96.25 AV			1.00 H	268	90.34	5.91
5	#10360.00	53.68 PK	68.20	-14.52	1.00 H	0	39.63	14.05
6	15540.00	63.26 PK	74.00	-10.74	1.00 H	360	42.37	20.89
7	15540.00	47.85 AV	54.00	-6.15	1.00 H	360	26.96	20.89
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	5150.00	59.92 PK	74.00	-14.08	2.03 V	180	54.12	5.80
2	5150.00	45.99 AV	54.00	-8.01	2.03 V	180	40.19	5.80
3	*5180.00	103.83 PK			2.03 V	181	97.92	5.91
4	*5180.00	93.79 AV			2.03 V	181	87.88	5.91
5	#10360.00	54.13 PK	68.20	-14.07	1.00 V	360	40.08	14.05
6	15540.00	62.48 PK	74.00	-11.52	1.00 V	0	41.59	20.89
7	15540.00	46.28 AV	54.00	-7.72	1.00 V	0	25.39	20.89

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 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	5150.00	53.10 PK	74.00	-20.90	1.32 H	193	47.30	5.80
2	5150.00	40.55 AV	54.00	-13.45	1.32 H	193	34.75	5.80
3	*5200.00	107.83 PK			1.32 H	193	101.85	5.98
4	*5200.00	97.69 AV			1.32 H	193	91.71	5.98
5	#10400.00	54.18 PK	68.20	-14.02	1.00 H	360	40.05	14.13
6	15600.00	63.26 PK	74.00	-10.74	1.00 H	0	42.23	21.03
7	15600.00	47.49 AV	54.00	-6.51	1.00 H	0	26.46	21.03
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.38 PK	74.00	-21.62	1.00 V	268	46.58	5.80
2	5150.00	40.23 AV	54.00	-13.77	1.00 V	268	34.43	5.80
3	*5200.00	104.26 PK			1.00 V	268	98.28	5.98
4	*5200.00	94.35 AV			1.00 V	268	88.37	5.98
5	#10400.00	53.49 PK	68.20	-14.71	1.00 V	0	39.36	14.13
6	15600.00	62.46 PK	74.00	-11.54	1.00 V	360	41.43	21.03
7	15600.00	46.87 AV	54.00	-7.13	1.00 V	360	25.84	21.03

REMARKS:

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

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	5150.00	48.07 PK	74.00	-25.93	1.47 H	193	42.27	5.80
2	5150.00	35.99 AV	54.00	-18.01	1.47 H	193	30.19	5.80
3	*5240.00	105.35 PK			1.48 H	193	99.23	6.12
4	*5240.00	95.33 AV			1.48 H	193	89.21	6.12
5	5350.00	50.70 PK	74.00	-23.30	1.47 H	193	44.17	6.53
6	5350.00	38.00 AV	54.00	-16.00	1.47 H	193	31.47	6.53
7	#10480.00	53.69 PK	68.20	-14.51	1.00 H	253	39.40	14.29
8	15720.00	63.96 PK	74.00	-10.04	1.00 H	360	42.65	21.31
9	15720.00	47.82 AV	54.00	-6.18	1.00 H	360	26.51	21.31
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	5150.00	48.25 PK	74.00	-25.75	1.00 V	226	42.45	5.80
2	5150.00	35.23 AV	54.00	-18.77	1.00 V	226	29.43	5.80
3	*5240.00	101.67 PK			1.00 V	226	95.55	6.12
4	*5240.00	92.46 AV			1.00 V	226	86.34	6.12
5	5350.00	49.87 PK	74.00	-24.13	1.00 V	226	43.34	6.53
6	5350.00	37.56 AV	54.00	-16.44	1.00 V	226	31.03	6.53
7	#10480.00	52.78 PK	68.20	-15.42	1.00 V	0	38.49	14.29
8	15720.00	62.48 PK	74.00	-11.52	1.00 V	360	41.17	21.31
9	15720.00	46.78 AV	54.00	-7.22	1.00 V	360	25.47	21.31

REMARKS:

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

802.11n (20MHz)

CHANNEL	TX Channel 36	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	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	5150.00	66.95 PK	74.00	-7.05	1.00 H	268	61.15	5.80
2	5150.00	49.73 AV	54.00	-4.27	1.00 H	268	43.93	5.80
3	*5180.00	107.10 PK			1.00 H	268	101.19	5.91
4	*5180.00	96.53 AV			1.00 H	268	90.62	5.91
5	#10360.00	54.68 PK	68.20	-13.52	1.00 H	360	40.63	14.05
6	15540.00	63.28 PK	74.00	-10.72	1.00 H	0	42.39	20.89
7	15540.00	47.16 AV	54.00	-6.84	1.00 H	0	26.27	20.89
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	5150.00	62.31 PK	74.00	-11.69	1.00 V	197	56.51	5.80
2	5150.00	46.79 AV	54.00	-7.21	1.00 V	197	40.99	5.80
3	*5180.00	104.28 PK			1.00 V	197	98.37	5.91
4	*5180.00	92.74 AV			1.00 V	197	86.83	5.91
5	#10360.00	52.68 PK	68.20	-15.52	1.00 V	0	38.63	14.05
6	15540.00	62.16 PK	74.00	-11.84	1.00 V	360	41.27	20.89
7	15540.00	46.59 AV	54.00	-7.41	1.00 V	360	25.70	20.89

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 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	5150.00	53.26 PK	74.00	-20.74	1.00 H	236	47.46	5.80
2	5150.00	41.89 AV	54.00	-12.11	1.00 H	236	36.09	5.80
3	*5200.00	105.23 PK			1.00 H	236	99.25	5.98
4	*5200.00	94.75 AV			1.00 H	236	88.77	5.98
5	#10400.00	54.29 PK	68.20	-13.91	1.00 H	0	40.16	14.13
6	15600.00	63.87 PK	74.00	-10.13	1.00 H	360	42.84	21.03
7	15600.00	47.84 AV	54.00	-6.16	1.00 H	360	26.81	21.03
8	15600.00	47.31 AV	54.00	-6.69	2.44 H	200	25.72	21.59
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	5150.00	55.65 PK	74.00	-18.35	1.30 V	37	49.85	5.80
2	5150.00	41.32 AV	54.00	-12.68	1.30 V	37	35.52	5.80
3	*5200.00	108.15 PK			1.30 V	37	102.17	5.98
4	*5200.00	97.77 AV			1.30 V	37	91.79	5.98
5	#10400.00	53.26 PK	68.20	-14.94	1.00 V	0	39.13	14.13
6	15600.00	63.29 PK	74.00	-10.71	1.00 V	360	42.26	21.03
7	15600.00	47.49 AV	54.00	-6.51	1.00 V	360	26.46	21.03
8	15600.00	46.32 AV	54.00	-7.68	2.50 V	185	24.73	21.59

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.

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	5150.00	49.63 PK	74.00	-24.37	1.00 H	194	43.83	5.80
2	5150.00	36.95 AV	54.00	-17.05	1.00 H	194	31.15	5.80
3	*5240.00	107.60 PK			1.00 H	194	101.48	6.12
4	*5240.00	96.97 AV			1.00 H	194	90.85	6.12
5	5350.00	52.27 PK	74.00	-21.73	1.00 H	194	45.74	6.53
6	5350.00	39.35 AV	54.00	-14.65	1.00 H	194	32.82	6.53
7	#10480.00	53.26 PK	68.20	-14.94	1.00 H	0	38.97	14.29
8	15720.00	63.48 PK	74.00	-10.52	1.00 H	360	42.17	21.31
9	15720.00	47.29 AV	54.00	-6.71	1.00 H	360	25.98	21.31
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	5150.00	50.23 PK	74.00	-23.77	1.00 V	248	44.43	5.80
2	5150.00	37.49 AV	54.00	-16.51	1.00 V	248	31.69	5.80
3	*5240.00	104.82 PK			1.00 V	248	98.70	6.12
4	*5240.00	92.53 AV			1.00 V	248	86.41	6.12
5	5350.00	51.49 PK	74.00	-22.51	1.00 V	248	44.96	6.53
6	5350.00	38.62 AV	54.00	-15.38	1.00 V	248	32.09	6.53
7	#10480.00	52.67 PK	68.20	-15.53	1.00 V	360	38.38	14.29
8	15720.00	61.67 PK	74.00	-12.33	1.00 V	0	40.36	21.31
9	15720.00	46.97 AV	54.00	-7.03	1.00 V	0	25.66	21.31

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	5150.00	65.48 PK	74.00	-8.52	1.00 H	266	59.68	5.80
2	5150.00	50.07 AV	54.00	-3.93	1.00 H	266	44.27	5.80
3	*5190.00	101.08 PK			1.00 H	266	95.13	5.95
4	*5190.00	90.45 AV			1.00 H	266	84.50	5.95
5	#10380.00	53.69 PK	68.20	-14.51	1.00 H	0	39.60	14.09
6	15570.00	63.26 PK	74.00	-10.74	1.00 H	360	42.30	20.96
7	15570.00	47.48 AV	54.00	-6.52	1.00 H	360	26.52	20.96
8	15570.00	46.74 AV	54.00	-7.26	1.55 H	145	24.03	22.71
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	5150.00	62.33 PK	74.00	-11.67	1.00 V	157	56.53	5.80
2	5150.00	48.57 AV	54.00	-5.43	1.00 V	157	42.77	5.80
3	*5190.00	98.62 PK			1.00 V	157	92.67	5.95
4	*5190.00	88.75 AV			1.00 V	157	82.80	5.95
5	#10380.00	52.48 PK	68.20	-15.72	1.00 V	0	38.39	14.09
6	15570.00	62.61 PK	74.00	-11.39	1.00 V	360	41.65	20.96
7	15570.00	47.39 AV	54.00	-6.61	1.00 V	360	26.43	20.96
8	15570.00	48.12 AV	54.00	-5.88	3.10 V	250	25.41	22.71

REMARKS:

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

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	5150.00	57.79 PK	74.00	-16.21	1.00 H	265	51.99	5.80
2	5150.00	43.07 AV	54.00	-10.93	1.00 H	265	37.27	5.80
3	*5230.00	104.47 PK			1.00 H	265	98.38	6.09
4	*5230.00	93.74 AV			1.00 H	265	87.65	6.09
5	#10460.00	54.29 PK	68.20	-13.91	1.00 H	0	40.04	14.25
6	15690.00	63.26 PK	74.00	-10.74	1.00 H	360	42.02	21.24
7	15690.00	47.49 AV	54.00	-6.51	1.00 H	360	26.25	21.24
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.38 PK	74.00	-17.62	1.00 V	174	50.58	5.80
2	5150.00	41.96 AV	54.00	-12.04	1.00 V	174	36.16	5.80
3	*5230.00	101.29 PK			1.00 V	174	95.20	6.09
4	*5230.00	90.75 AV			1.00 V	174	84.66	6.09
5	#10460.00	53.28 PK	68.20	-14.92	1.00 V	360	39.03	14.25
6	15690.00	62.54 PK	74.00	-11.46	1.00 V	0	41.30	21.24
7	15690.00	46.92 AV	54.00	-7.08	1.00 V	0	25.68	21.24

REMARKS:

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

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	5150.00	47.56 PK	74.00	-26.44	1.02 H	193	41.76	5.80
2	5150.00	36.10 AV	54.00	-17.90	1.02 H	193	30.30	5.80
3	*5260.00	108.02 PK			1.02 H	193	101.81	6.21
4	*5260.00	98.30 AV			1.02 H	193	92.09	6.21
5	5350.00	54.17 PK	74.00	-19.83	1.02 H	193	47.64	6.53
6	5350.00	40.41 AV	54.00	-13.59	1.02 H	193	33.88	6.53
7	#10520.00	54.62 PK	68.20	-13.58	1.00 H	360	40.26	14.36
8	15780.00	64.29 PK	74.00	-9.71	1.00 H	0	42.84	21.45
9	15780.00	47.51 AV	54.00	-6.49	1.00 H	0	26.06	21.45
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	5150.00	46.28 PK	74.00	-27.72	1.00 V	253	40.48	5.80
2	5150.00	34.86 AV	54.00	-19.14	1.00 V	253	29.06	5.80
3	*5260.00	104.73 PK			1.00 V	253	98.52	6.21
4	*5260.00	95.47 AV			1.00 V	253	89.26	6.21
5	5350.00	52.87 PK	74.00	-21.13	1.00 V	253	46.34	6.53
6	5350.00	39.46 AV	54.00	-14.54	1.00 V	253	32.93	6.53
7	#10520.00	53.39 PK	68.20	-14.81	1.00 V	0	39.03	14.36
8	15780.00	62.79 PK	74.00	-11.21	1.00 V	360	41.34	21.45
9	15780.00	46.51 AV	54.00	-7.49	1.00 V	360	25.06	21.45

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.

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	110.21 PK			1.22 H	189	103.86	6.35
2	*5300.00	100.04 AV			1.22 H	189	93.69	6.35
3	5350.00	59.62 PK	74.00	-14.38	1.22 H	189	53.09	6.53
4	5350.00	45.82 AV	54.00	-8.18	1.22 H	189	39.29	6.53
5	10600.00	54.36 PK	74.00	-19.64	1.00 H	0	39.84	14.52
6	10600.00	42.16 AV	54.00	-11.84	1.00 H	0	27.64	14.52
7	15900.00	63.75 PK	74.00	-10.25	1.00 H	360	42.02	21.73
8	15900.00	47.45 AV	54.00	-6.55	1.00 H	360	25.72	21.73
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	107.43 PK			1.00 V	231	101.08	6.35
2	*5300.00	96.85 AV			1.00 V	231	90.50	6.35
3	5350.00	56.47 PK	74.00	-17.53	1.00 V	231	49.94	6.53
4	5350.00	42.19 AV	54.00	-11.81	1.00 V	231	35.66	6.53
5	10600.00	53.64 PK	74.00	-20.36	1.00 V	360	39.12	14.52
6	10600.00	41.48 AV	54.00	-12.52	1.00 V	360	26.96	14.52
7	15900.00	62.63 PK	74.00	-11.37	1.00 V	0	40.90	21.73
8	15900.00	46.82 AV	54.00	-7.18	1.00 V	0	25.09	21.73

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	108.29 PK			1.15 H	189	101.87	6.42
2	*5320.00	97.92 AV			1.15 H	189	91.50	6.42
3	5350.00	64.69 PK	74.00	-9.31	1.15 H	189	58.16	6.53
4	5350.00	49.52 AV	54.00	-4.48	1.15 H	189	42.99	6.53
5	10640.00	54.62 PK	74.00	-19.38	1.00 H	0	40.02	14.60
6	10640.00	42.37 AV	54.00	-11.63	1.00 H	0	27.77	14.60
7	15960.00	63.29 PK	74.00	-10.71	1.00 H	360	41.42	21.87
8	15960.00	47.54 AV	54.00	-6.46	1.00 H	360	25.67	21.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	104.27 PK			1.00 V	254	97.85	6.42
2	*5320.00	94.36 AV			1.00 V	254	87.94	6.42
3	5350.00	60.78 PK	74.00	-13.22	1.00 V	254	54.25	6.53
4	5350.00	45.93 AV	54.00	-8.07	1.00 V	254	39.40	6.53
5	10640.00	53.28 PK	74.00	-20.72	1.00 V	360	38.68	14.60
6	10640.00	41.87 AV	54.00	-12.13	1.00 V	360	27.27	14.60
7	15960.00	62.57 PK	74.00	-11.43	1.00 V	0	40.70	21.87
8	15960.00	46.88 AV	54.00	-7.12	1.00 V	0	25.01	21.87

REMARKS:

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

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	5150.00	49.01 PK	74.00	-24.99	1.00 H	195	43.21	5.80
2	5150.00	36.16 AV	54.00	-17.84	1.00 H	195	30.36	5.80
3	*5260.00	108.47 PK			1.00 H	195	102.26	6.21
4	*5260.00	98.40 AV			1.00 H	195	92.19	6.21
5	5350.00	52.99 PK	74.00	-21.01	1.00 H	195	46.46	6.53
6	5350.00	40.41 AV	54.00	-13.59	1.00 H	195	33.88	6.53
7	#10520.00	54.68 PK	68.20	-13.52	1.00 H	0	40.32	14.36
8	15780.00	63.68 PK	74.00	-10.32	1.00 H	360	42.23	21.45
9	15780.00	47.49 AV	54.00	-6.51	1.00 H	360	26.04	21.45
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	5150.00	48.67 PK	74.00	-25.33	1.00 V	251	42.87	5.80
2	5150.00	35.27 AV	54.00	-18.73	1.00 V	251	29.47	5.80
3	*5260.00	105.87 PK			1.00 V	251	99.66	6.21
4	*5260.00	94.79 AV			1.00 V	251	88.58	6.21
5	5350.00	51.47 PK	74.00	-22.53	1.00 V	251	44.94	6.53
6	5350.00	38.63 AV	54.00	-15.37	1.00 V	251	32.10	6.53
7	#10520.00	53.84 PK	68.20	-14.36	1.00 V	360	39.48	14.36
8	15780.00	62.78 PK	74.00	-11.22	1.00 V	0	41.33	21.45
9	15780.00	46.58 AV	54.00	-7.42	1.00 V	0	25.13	21.45

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.

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	109.42 PK			1.18 H	197	103.07	6.35
2	*5300.00	99.00 AV			1.18 H	197	92.65	6.35
3	5350.00	60.18 PK	74.00	-13.82	1.18 H	197	53.65	6.53
4	5350.00	44.84 AV	54.00	-9.16	1.18 H	197	38.31	6.53
5	10600.00	54.73 PK	74.00	-19.27	1.00 H	0	40.21	14.52
6	10600.00	43.28 AV	54.00	-10.72	1.00 H	0	28.76	14.52
7	15900.00	64.15 PK	74.00	-9.85	1.00 H	360	42.42	21.73
8	15900.00	47.59 AV	54.00	-6.41	1.00 H	360	25.86	21.73
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	106.34 PK			1.00 V	226	99.99	6.35
2	*5300.00	96.21 AV			1.00 V	226	89.86	6.35
3	5350.00	57.33 PK	74.00	-16.67	1.00 V	226	50.80	6.53
4	5350.00	41.29 AV	54.00	-12.71	1.00 V	226	34.76	6.53
5	10600.00	53.20 PK	74.00	-20.80	1.00 V	360	38.68	14.52
6	10600.00	42.87 AV	54.00	-11.13	1.00 V	360	28.35	14.52
7	15900.00	63.82 PK	74.00	-10.18	1.00 V	0	42.09	21.73
8	15900.00	46.93 AV	54.00	-7.07	1.00 V	0	25.20	21.73

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	109.26 PK			1.19 H	192	102.84	6.42
2	*5320.00	98.95 AV			1.19 H	192	92.53	6.42
3	5350.00	69.43 PK	74.00	-4.57	1.19 H	192	62.90	6.53
4	5350.00	51.04 AV	54.00	-2.96	1.19 H	192	44.51	6.53
5	10640.00	53.63 PK	74.00	-20.37	1.00 H	0	39.03	14.60
6	10640.00	42.57 AV	54.00	-11.43	1.00 H	0	27.97	14.60
7	15960.00	63.16 PK	74.00	-10.84	1.00 H	360	41.29	21.87
8	15960.00	47.48 AV	54.00	-6.52	1.00 H	360	25.61	21.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.34 PK			1.00 V	236	98.92	6.42
2	*5320.00	96.15 AV			1.00 V	236	89.73	6.42
3	5350.00	65.26 PK	74.00	-8.74	1.00 V	236	58.73	6.53
4	5350.00	48.67 AV	54.00	-5.33	1.00 V	236	42.14	6.53
5	10640.00	53.27 PK	74.00	-20.73	1.00 V	0	38.67	14.60
6	10640.00	42.15 AV	54.00	-11.85	1.00 V	0	27.55	14.60
7	15960.00	63.59 PK	74.00	-10.41	1.00 V	360	41.72	21.87
8	15960.00	46.74 AV	54.00	-7.26	1.00 V	360	24.87	21.87

REMARKS:

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

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	106.09 PK			1.22 H	194	99.85	6.24
2	*5270.00	95.43 AV			1.22 H	194	89.19	6.24
3	5350.00	61.38 PK	74.00	-12.62	1.22 H	194	54.85	6.53
4	5350.00	47.13 AV	54.00	-6.87	1.22 H	194	40.60	6.53
5	#10540.00	54.23 PK	68.20	-13.97	1.00 H	0	39.82	14.41
6	15810.00	63.51 PK	74.00	-10.49	1.00 H	360	41.99	21.52
7	15810.00	47.42 AV	54.00	-6.58	1.00 H	360	25.90	21.52
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	*5270.00	103.26 PK			1.00 V	227	97.02	6.24
2	*5270.00	92.47 AV			1.00 V	227	86.23	6.24
3	5350.00	58.43 PK	74.00	-15.57	1.00 V	227	51.90	6.53
4	5350.00	45.49 AV	54.00	-8.51	1.00 V	227	38.96	6.53
5	#10540.00	53.37 PK	68.20	-14.83	1.00 V	360	38.96	14.41
6	15810.00	63.28 PK	74.00	-10.72	1.00 V	0	41.76	21.52
7	15810.00	46.88 AV	54.00	-7.12	1.00 V	0	25.36	21.52

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.

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	100.60 PK			1.18 H	197	94.22	6.38
2	*5310.00	90.44 AV			1.18 H	197	84.06	6.38
3	5350.00	64.14 PK	74.00	-9.86	1.18 H	197	57.61	6.53
4	5350.00	48.84 AV	54.00	-5.16	1.18 H	197	42.31	6.53
5	10620.00	53.29 PK	74.00	-20.71	1.00 H	0	38.73	14.56
6	10620.00	42.57 AV	54.00	-11.43	1.00 H	0	28.01	14.56
7	15930.00	63.26 PK	74.00	-10.74	1.00 H	360	41.46	21.80
8	15930.00	47.72 AV	54.00	-6.28	1.00 H	360	25.92	21.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	97.48 PK			1.00 V	231	91.10	6.38
2	*5310.00	87.39 AV			1.00 V	231	81.01	6.38
3	5350.00	61.28 PK	74.00	-12.72	1.00 V	231	54.75	6.53
4	5350.00	46.31 AV	54.00	-7.69	1.00 V	231	39.78	6.53
5	10620.00	53.14 PK	74.00	-20.86	1.00 V	0	38.58	14.56
6	10620.00	42.26 AV	54.00	-11.74	1.00 V	0	27.70	14.56
7	15930.00	63.45 PK	74.00	-10.55	1.00 V	360	41.65	21.80
8	15930.00	46.59 AV	54.00	-7.41	1.00 V	360	24.79	21.80

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 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	64.83 PK	68.20	-3.37	1.08 H	187	57.87	6.96
2	*5500.00	110.25 PK			1.08 H	187	103.18	7.07
3	*5500.00	100.43 AV			1.08 H	187	93.36	7.07
4	11000.00	54.26 PK	74.00	-19.74	1.00 H	0	38.98	15.28
5	11000.00	43.64 AV	54.00	-10.36	1.00 H	0	28.36	15.28
6	#16500.00	64.26 PK	68.20	-3.94	1.00 H	360	41.55	22.71
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	60.35 PK	68.20	-7.85	1.00 V	252	53.39	6.96
2	*5500.00	107.46 PK			1.00 V	252	100.39	7.07
3	*5500.00	96.85 AV			1.00 V	252	89.78	7.07
4	11000.00	54.63 PK	74.00	-19.37	1.00 V	360	39.35	15.28
5	11000.00	42.28 AV	54.00	-11.72	1.00 V	360	27.00	15.28
6	#16500.00	63.12 PK	68.20	-5.08	1.00 V	0	40.41	22.71

REMARKS:

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

CHANNEL	TX Channel 112	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	49.03 PK	68.20	-19.17	1.20 H	107	42.07	6.96
2	*5580.00	109.21 PK			1.20 H	107	102.17	7.04
3	*5580.00	101.93 AV			1.20 H	107	94.89	7.04
4	11160.00	54.86 PK	74.00	-19.14	1.00 H	0	39.28	15.58
5	11160.00	43.92 AV	54.00	-10.08	1.00 H	0	28.34	15.58
6	#16740.00	63.26 PK	68.20	-4.94	1.00 H	360	40.41	22.85
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	#5470.00	45.38 PK	68.20	-22.82	1.00 V	218	38.42	6.96
2	*5580.00	105.78 PK			1.00 V	218	98.74	7.04
3	*5580.00	98.34 AV			1.00 V	218	91.30	7.04
4	11160.00	53.68 PK	74.00	-20.32	1.00 V	360	38.10	15.58
5	11160.00	43.26 AV	54.00	-10.74	1.00 V	360	27.68	15.58
6	#16740.00	63.74 PK	68.20	-4.46	1.00 V	0	40.89	22.85

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 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	109.38 PK			1.05 H	191	102.38	7.00
2	*5700.00	98.65 AV			1.05 H	191	91.65	7.00
3	#5725.00	65.35 PK	68.20	-2.85	1.05 H	191	58.36	6.99
4	11400.00	54.32 PK	74.00	-19.68	1.00 H	0	38.28	16.04
5	11400.00	43.26 AV	54.00	-10.74	1.00 H	0	27.22	16.04
6	#17100.00	63.29 PK	68.20	-4.91	1.00 H	360	40.27	23.02
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	106.48 PK			1.00 V	203	99.48	7.00
2	*5700.00	95.74 AV			1.00 V	203	88.74	7.00
3	#5725.00	61.49 PK	68.20	-6.71	1.00 V	203	54.50	6.99
4	11400.00	53.85 PK	74.00	-20.15	1.00 V	360	37.81	16.04
5	11400.00	43.18 AV	54.00	-10.82	1.00 V	360	27.14	16.04
6	#17100.00	63.20 PK	68.20	-5.00	1.00 V	0	40.18	23.02

REMARKS:

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

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	63.34 PK	68.20	-4.86	1.08 H	186	56.38	6.96
2	*5500.00	108.71 PK			1.08 H	186	101.64	7.07
3	*5500.00	98.45 AV			1.08 H	186	91.38	7.07
4	11000.00	53.29 PK	74.00	-20.71	1.00 H	360	38.01	15.28
5	11000.00	42.48 AV	54.00	-11.52	1.00 H	360	27.20	15.28
6	#16500.00	63.80 PK	68.20	-4.40	1.00 H	0	41.09	22.71
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	60.23 PK	68.20	-7.97	1.00 V	226	53.27	6.96
2	*5500.00	105.16 PK			1.00 V	226	98.09	7.07
3	*5500.00	95.78 AV			1.00 V	226	88.71	7.07
4	11000.00	53.68 PK	74.00	-20.32	1.00 V	0	38.40	15.28
5	11000.00	42.43 AV	54.00	-11.57	1.00 V	0	27.15	15.28
6	#16500.00	61.18 PK	68.20	-7.02	1.00 V	360	38.47	22.71

REMARKS:

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

CHANNEL	TX Channel 112	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	53.44 PK	68.20	-14.76	1.21 H	186	46.48	6.96
2	*5580.00	111.93 PK			1.21 H	186	104.89	7.04
3	*5580.00	101.27 AV			1.21 H	186	94.23	7.04
4	11160.00	53.96 PK	74.00	-20.04	1.00 H	0	38.38	15.58
5	11160.00	43.15 AV	54.00	-10.85	1.00 H	0	27.57	15.58
6	#16740.00	63.57 PK	68.20	-4.63	1.00 H	360	40.72	22.85
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	#5470.00	50.27 PK	68.20	-17.93	1.00 V	224	43.31	6.96
2	*5580.00	108.76 PK			1.00 V	224	101.72	7.04
3	*5580.00	98.47 AV			1.00 V	224	91.43	7.04
4	11160.00	53.26 PK	74.00	-20.74	1.00 V	360	37.68	15.58
5	11160.00	42.87 AV	54.00	-11.13	1.00 V	360	27.29	15.58
6	#16740.00	63.25 PK	68.20	-4.95	1.00 V	0	40.40	22.85

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.05 PK			1.18 H	183	101.05	7.00
2	*5700.00	97.49 AV			1.18 H	183	90.49	7.00
3	#5725.00	65.96 PK	68.20	-2.24	1.18 H	183	58.97	6.99
4	11400.00	54.59 PK	74.00	-19.41	1.00 H	0	38.55	16.04
5	11400.00	43.17 AV	54.00	-10.83	1.00 H	0	27.13	16.04
6	#17100.00	64.26 PK	68.20	-3.94	1.00 H	360	41.24	23.02
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	105.63 PK			1.00 V	230	98.63	7.00
2	*5700.00	94.58 AV			1.00 V	230	87.58	7.00
3	#5725.00	61.42 PK	68.20	-6.78	1.00 V	230	54.43	6.99
4	11400.00	53.99 PK	74.00	-20.01	1.00 V	360	37.95	16.04
5	11400.00	43.20 AV	54.00	-10.80	1.00 V	360	27.16	16.04
6	#17100.00	63.28 PK	68.20	-4.92	1.00 V	0	40.26	23.02

REMARKS:

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

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	64.80 PK	68.20	-3.40	1.03 H	186	57.84	6.96
2	*5510.00	100.46 PK			1.03 H	186	93.39	7.07
3	*5510.00	90.02 AV			1.03 H	186	82.95	7.07
4	11020.00	54.26 PK	74.00	-19.74	1.00 H	0	38.95	15.31
5	11020.00	43.67 AV	54.00	-10.33	1.00 H	0	28.36	15.31
6	#16530.00	63.48 PK	68.20	-4.72	1.00 H	360	40.76	22.72
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	61.26 PK	68.20	-6.94	1.00 V	231	54.30	6.96
2	*5510.00	97.64 PK			1.00 V	231	90.57	7.07
3	*5510.00	86.18 AV			1.00 V	231	79.11	7.07
4	11020.00	53.67 PK	74.00	-20.33	1.00 V	360	38.36	15.31
5	11020.00	43.14 AV	54.00	-10.86	1.00 V	360	27.83	15.31
6	#16530.00	63.52 PK	68.20	-4.68	1.00 V	0	40.80	22.72

REMARKS:

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

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	61.94 PK	68.20	-6.26	1.21 H	188	54.98	6.96
2	*5550.00	108.90 PK			1.21 H	188	101.85	7.05
3	*5550.00	98.45 AV			1.21 H	188	91.40	7.05
4	11100.00	54.67 PK	74.00	-19.33	1.00 H	N/A	39.21	15.46
5	11100.00	43.59 AV	54.00	-10.41	1.00 H	N/A	28.13	15.46
6	#16650.00	63.48 PK	68.20	-4.72	1.00 H	360	40.69	22.79
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	57.62 PK	68.20	-10.58	1.00 V	241	50.66	6.96
2	*5550.00	105.47 PK			1.00 V	241	98.42	7.05
3	*5550.00	95.74 AV			1.00 V	241	88.69	7.05
4	11100.00	53.78 PK	74.00	-20.22	1.00 V	360	38.32	15.46
5	11100.00	42.76 AV	54.00	-11.24	1.00 V	360	27.30	15.46
6	#16650.00	62.48 PK	68.20	-5.72	1.00 V	0	39.69	22.79

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	105.35 PK			1.16 H	186	98.34	7.01
2	*5670.00	94.69 AV			1.16 H	186	87.68	7.01
3	#5725.00	61.94 PK	68.20	-6.26	1.16 H	186	54.95	6.99
4	11340.00	54.29 PK	74.00	-19.71	1.00 H	360	38.37	15.92
5	11340.00	43.67 AV	54.00	-10.33	1.00 H	360	27.75	15.92
6	#17010.00	64.61 PK	68.20	-3.59	1.00 H	0	41.61	23.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	101.48 PK			1.00 V	248	94.47	7.01
2	*5670.00	91.64 AV			1.00 V	248	84.63	7.01
3	#5725.00	58.47 PK	68.20	-9.73	1.00 V	248	51.48	6.99
4	11340.00	53.69 PK	74.00	-20.31	1.00 V	0	37.77	15.92
5	11340.00	42.47 AV	54.00	-11.53	1.00 V	0	26.55	15.92
6	#17010.00	63.29 PK	68.20	-4.91	1.00 V	360	40.29	23.00

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 4 (5725-5850MHz):

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 149	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	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	5718.27	71.36 PK	110.32	-38.96	1.00 H	185	64.36	7.00
2	5722.48	77.95 PK	116.45	-38.50	1.00 H	185	70.96	6.99
3	5725.00	77.89 PK	122.20	-44.31	1.00 H	185	70.90	6.99
4	*5745.00	110.31 PK			1.00 H	185	103.32	6.99
5	*5745.00	99.76 AV			1.00 H	185	92.77	6.99
6	11490.00	54.68 PK	74.00	-19.32	1.00 H	0	38.48	16.20
7	11490.00	43.62 AV	54.00	-10.38	1.00 H	0	27.42	16.20
8	#17235.00	64.86 PK	68.20	-3.34	1.00 H	360	41.80	23.06
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	5719.95	72.75 PK	110.79	-38.04	1.33 V	239	65.75	7.00
2	5722.48	78.71 PK	116.45	-37.74	1.33 V	239	71.72	6.99
3	5725.00	78.55 PK	122.20	-43.65	1.33 V	239	71.56	6.99
4	*5745.00	111.26 PK			1.33 V	239	104.27	6.99
5	*5745.00	100.94 AV			1.33 V	239	93.95	6.99
6	11490.00	54.28 PK	74.00	-19.72	1.00 V	0	38.08	16.20
7	11490.00	43.67 AV	54.00	-10.33	1.00 V	0	27.47	16.20
8	#17235.00	64.18 PK	68.20	-4.02	1.00 V	360	41.12	23.06

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 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	5725.00	57.03 PK	122.20	-65.17	1.14 H	181	50.04	6.99
2	*5785.00	110.80 PK			1.13 H	182	103.84	6.96
3	*5785.00	100.50 AV			1.13 H	182	93.54	6.96
4	5850.00	56.10 PK	122.20	-66.10	1.14 H	181	49.16	6.94
5	5852.52	56.29 PK	116.44	-60.15	1.14 H	181	49.35	6.94
6	11570.00	54.38 PK	74.00	-19.62	1.00 H	360	37.98	16.40
7	11570.00	43.16 AV	54.00	-10.84	1.00 H	360	26.76	16.40
8	#17355.00	64.25 PK	68.20	-3.95	1.00 H	0	41.15	23.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5725.00	57.17 PK	122.20	-65.03	1.39 V	233	50.18	6.99
2	*5785.00	111.95 PK			1.38 V	233	104.99	6.96
3	*5785.00	101.41 AV			1.38 V	233	94.45	6.96
4	5850.00	55.72 PK	122.20	-66.48	1.39 V	233	48.78	6.94
5	5865.14	55.89 PK	107.96	-52.07	1.39 V	233	48.95	6.94
6	11570.00	54.28 PK	74.00	-19.72	1.00 V	360	37.88	16.40
7	11570.00	43.17 AV	54.00	-10.83	1.00 V	360	26.77	16.40
8	#17355.00	63.52 PK	68.20	-4.68	1.00 V	0	40.42	23.10

REMARKS:

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

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	110.64 PK			1.20 H	184	103.69	6.95
2	*5825.00	100.37 AV			1.20 H	184	93.42	6.95
3	5850.00	72.64 PK	122.20	-49.56	1.20 H	184	65.70	6.94
4	5852.52	71.38 PK	116.44	-45.06	1.20 H	184	64.44	6.94
5	5857.57	70.05 PK	110.08	-40.03	1.20 H	184	63.11	6.94
6	11650.00	54.69 PK	74.00	-19.31	1.00 H	0	38.07	16.62
7	11650.00	43.21 AV	54.00	-10.79	1.00 H	0	26.59	16.62
8	#17475.00	64.87 PK	68.20	-3.33	1.00 H	360	41.72	23.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	111.21 PK			1.04 V	232	104.26	6.95
2	*5825.00	101.01 AV			1.04 V	232	94.06	6.95
3	5850.00	73.13 PK	122.20	-49.07	1.05 V	233	66.19	6.94
4	5854.21	71.65 PK	112.61	-40.96	1.05 V	233	64.71	6.94
5	5858.41	70.89 PK	109.84	-38.95	1.05 V	233	63.95	6.94
6	11650.00	54.28 PK	74.00	-19.72	1.00 V	360	37.66	16.62
7	11650.00	43.26 AV	54.00	-10.74	1.00 V	360	26.64	16.62
8	#17475.00	64.58 PK	68.20	-3.62	1.00 V	0	41.43	23.15

REMARKS:

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

802.11n (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	5710.70	74.36 PK	108.20	-33.84	1.16 H	185	67.36	7.00
2	5720.79	79.12 PK	112.61	-33.49	1.16 H	185	72.13	6.99
3	5725.00	87.49 PK	122.20	-34.71	1.16 H	185	80.50	6.99
4	*5745.00	112.71 PK			1.15 H	185	105.72	6.99
5	*5745.00	102.12 AV			1.15 H	185	95.13	6.99
6	11490.00	54.38 PK	74.00	-19.62	1.00 H	0	38.18	16.20
7	11490.00	43.26 AV	54.00	-10.74	1.00 H	0	27.06	16.20
8	#17235.00	64.17 PK	68.20	-4.03	1.00 H	360	41.11	23.06
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	5719.11	74.57 PK	110.55	-35.98	1.12 V	242	67.57	7.00
2	5722.48	81.62 PK	116.45	-34.83	1.12 V	242	74.63	6.99
3	5725.00	86.24 PK	122.20	-35.96	1.12 V	242	79.25	6.99
4	*5745.00	112.55 PK			1.11 V	242	105.56	6.99
5	*5745.00	101.95 AV			1.11 V	242	94.96	6.99
6	11490.00	54.23 PK	74.00	-19.77	1.00 V	360	38.03	16.20
7	11490.00	43.12 AV	54.00	-10.88	1.00 V	360	26.92	16.20
8	#17235.00	63.76 PK	68.20	-4.44	1.00 V	0	40.70	23.06

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 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	5716.59	61.15 PK	109.85	-48.70	1.00 H	183	54.15	7.00
2	5725.00	61.93 PK	122.20	-60.27	1.00 H	183	54.94	6.99
3	*5785.00	111.40 PK			1.00 H	183	104.44	6.96
4	*5785.00	100.69 AV			1.00 H	183	93.73	6.96
5	5850.00	57.43 PK	122.20	-64.77	1.00 H	183	50.49	6.94
6	11570.00	53.26 PK	74.00	-20.74	1.00 H	0	36.86	16.40
7	11570.00	43.88 AV	54.00	-10.12	1.00 H	0	27.48	16.40
8	#17355.00	64.25 PK	68.20	-3.95	1.00 H	360	41.15	23.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5725.00	61.28 PK	122.20	-60.92	1.05 V	237	54.29	6.99
2	*5785.00	113.51 PK			1.05 V	237	106.55	6.96
3	*5785.00	101.57 AV			1.05 V	237	94.61	6.96
4	5850.00	57.21 PK	122.20	-64.99	1.05 V	237	50.27	6.94
5	5855.89	57.22 PK	110.55	-53.33	1.05 V	237	50.28	6.94
6	11570.00	54.68 PK	74.00	-19.32	1.00 V	360	38.28	16.40
7	11570.00	43.61 AV	54.00	-10.39	1.00 V	360	27.21	16.40
8	#17355.00	64.78 PK	68.20	-3.42	1.00 V	0	41.68	23.10

REMARKS:

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

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	109.33 PK			1.00 H	185	102.38	6.95
2	*5825.00	100.13 AV			1.00 H	185	93.18	6.95
3	5850.00	77.83 PK	122.20	-44.37	1.00 H	185	70.89	6.94
4	5855.89	71.97 PK	110.55	-38.58	1.00 H	185	65.03	6.94
5	5860.94	71.70 PK	109.14	-37.44	1.00 H	185	64.76	6.94
6	11650.00	54.87 PK	74.00	-19.13	1.00 H	0	38.25	16.62
7	11650.00	43.19 AV	54.00	-10.81	1.00 H	0	26.57	16.62
8	#17475.00	64.26 PK	68.20	-3.94	1.00 H	360	41.11	23.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	111.58 PK			1.00 V	238	104.63	6.95
2	*5825.00	100.85 AV			1.00 V	238	93.90	6.95
3	5850.00	79.16 PK	122.20	-43.04	1.03 V	238	72.22	6.94
4	5855.05	72.96 PK	110.79	-37.83	1.03 V	238	66.02	6.94
5	5860.94	72.59 PK	109.14	-36.55	1.03 V	238	65.65	6.94
6	11650.00	54.26 PK	74.00	-19.74	1.00 V	0	37.64	16.62
7	11650.00	43.79 AV	54.00	-10.21	1.00 V	0	27.17	16.62
8	#17475.00	64.23 PK	68.20	-3.97	1.00 V	360	41.08	23.15

REMARKS:

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

802.11n (40MHz)

CHANNEL	TX Channel 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	5714.90	77.74 PK	109.37	-31.63	1.00 H	182	70.74	7.00
2	5719.11	81.46 PK	110.55	-29.09	1.00 H	182	74.46	7.00
3	5725.00	82.44 PK	122.20	-39.76	1.00 H	182	75.45	6.99
4	*5755.00	107.57 PK			1.00 H	182	100.60	6.97
5	*5755.00	96.53 AV			1.00 H	182	89.56	6.97
6	11510.00	55.26 PK	74.00	-18.74	1.00 H	0	39.01	16.25
7	11510.00	44.86 AV	54.00	-9.14	1.00 H	0	28.61	16.25
8	#17265.00	64.85 PK	68.20	-3.35	1.00 H	360	41.77	23.08
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5712.38	76.00 PK	108.67	-32.67	1.12 V	241	69.00	7.00
2	5715.75	79.07 PK	109.61	-30.54	1.12 V	241	72.07	7.00
3	5725.00	82.44 PK	122.20	-39.76	1.12 V	241	75.45	6.99
4	*5755.00	108.34 PK			1.12 V	241	101.37	6.97
5	*5755.00	97.40 AV			1.12 V	241	90.43	6.97
6	11510.00	54.67 PK	74.00	-19.33	1.00 V	0	38.42	16.25
7	11510.00	43.28 AV	54.00	-10.72	1.00 V	0	27.03	16.25
8	#17265.00	64.31 PK	68.20	-3.89	1.00 V	360	41.23	23.08

REMARKS:

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

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	107.09 PK			1.00 H	183	100.13	6.96
2	*5795.00	96.40 AV			1.00 H	183	89.44	6.96
3	5850.00	69.36 PK	122.20	-52.84	1.00 H	184	62.42	6.94
4	5855.05	69.64 PK	110.79	-41.15	1.00 H	184	62.70	6.94
5	5858.41	68.34 PK	109.84	-41.50	1.00 H	184	61.40	6.94
6	11590.00	55.26 PK	74.00	-18.74	1.00 H	0	38.80	16.46
7	11590.00	44.87 AV	54.00	-9.13	1.00 H	0	28.41	16.46
8	#17385.00	64.78 PK	68.20	-3.42	1.00 H	360	41.67	23.11
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	*5795.00	107.58 PK			1.05 V	241	100.62	6.96
2	*5795.00	96.73 AV			1.05 V	241	89.77	6.96
3	5850.00	68.11 PK	122.20	-54.09	1.05 V	241	61.17	6.94
4	5855.89	68.56 PK	110.55	-41.99	1.05 V	241	61.62	6.94
5	5860.94	65.75 PK	109.14	-43.39	1.05 V	241	58.81	6.94
6	11590.00	54.87 PK	74.00	-19.13	1.00 V	360	38.41	16.46
7	11590.00	44.28 AV	54.00	-9.72	1.00 V	360	27.82	16.46
8	#17385.00	64.37 PK	68.20	-3.83	1.00 V	0	41.26	23.11

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.

3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 21,18	Mar. 20,19
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 03,19	Mar. 02,20
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Apr. 11,18	Apr. 10,19
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Jan. 18,19	Jan. 17,20
Test software	ADT	ADT_Conc_V7.3.7	N/A	N/A	N/A

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

3.2.3 TEST PROCEDURES

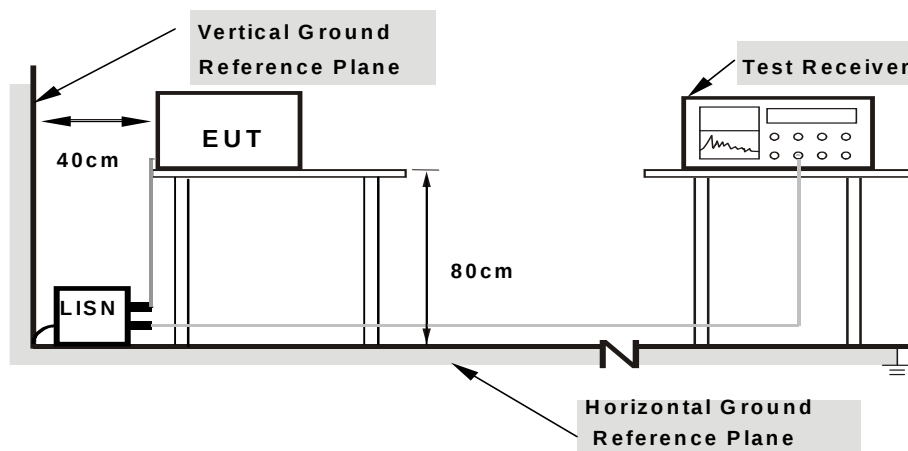
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



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

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

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7

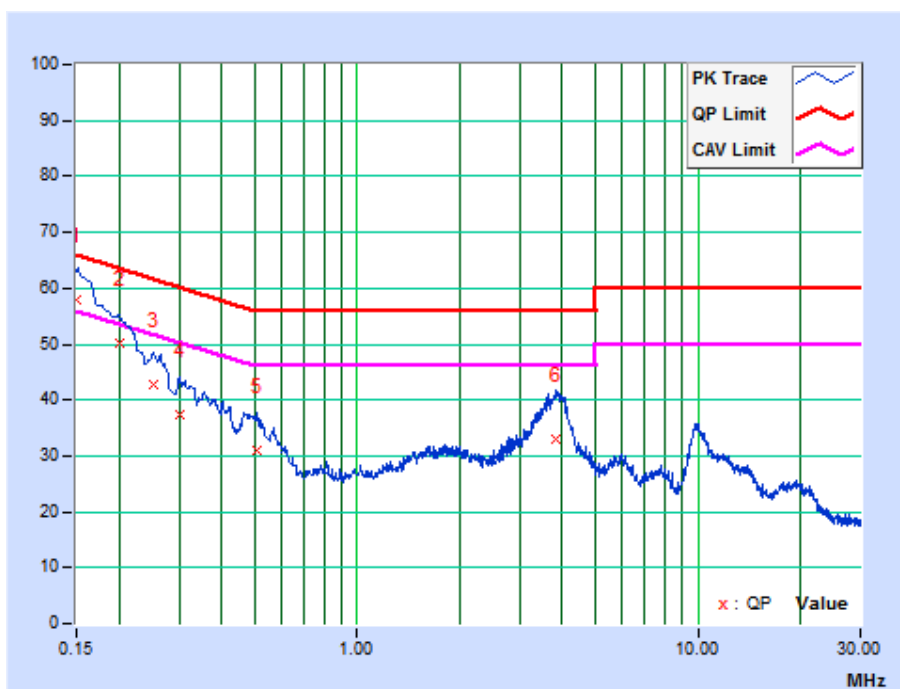
3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: 802.11a CH36

PHASE	Line	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.94	47.91	26.93	57.85	36.87	66.00	56.00	-8.15	-19.13
2	0.19983	10.29	40.01	20.41	50.30	30.70	63.62	53.62	-13.32	-22.92
3	0.25144	10.27	32.55	14.82	42.82	25.09	61.71	51.71	-18.89	-26.62
4	0.30009	9.61	27.66	11.09	37.27	20.70	60.24	50.24	-22.97	-29.54
5	0.50550	10.39	20.71	12.03	31.10	22.42	56.00	46.00	-24.90	-23.58
6	3.82650	9.81	23.02	15.47	32.83	25.28	56.00	46.00	-23.17	-20.72

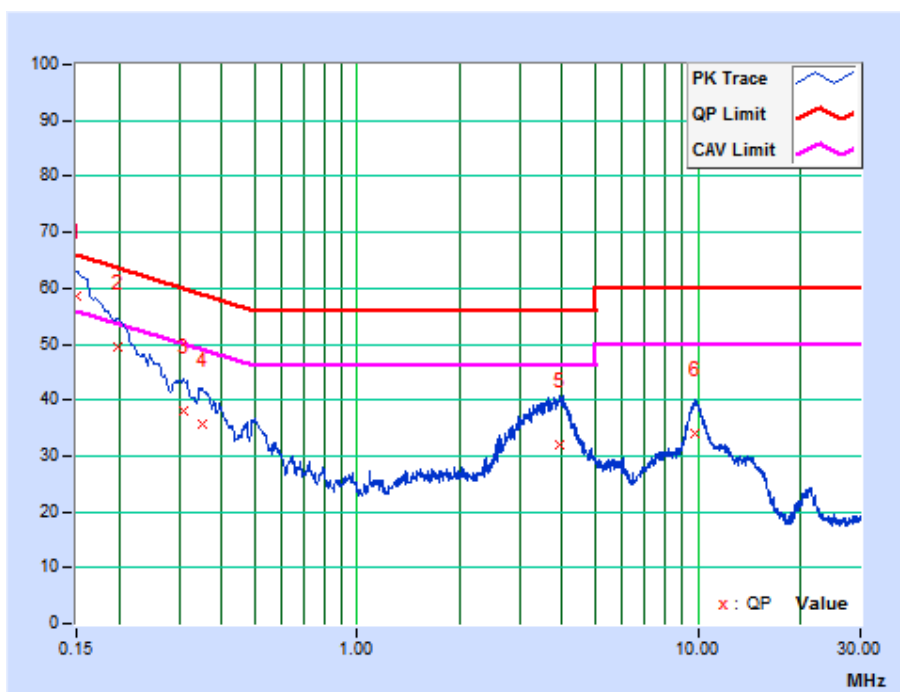
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. The emission levels of other frequencies were very low against the limit.
 3. Margin value = Emission level - Limit value
 4. Correction factor = Insertion loss + Cable loss
 5. Emission Level = Correction Factor +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



PHASE	Neutral	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.64	49.11	25.78	58.75	35.42	66.00	56.00	-7.25	-20.58
2	0.19721	9.81	39.82	18.24	49.63	28.05	63.73	53.73	-14.10	-25.68
3	0.30975	9.95	27.95	10.66	37.90	20.61	59.98	49.98	-22.08	-29.37
4	0.34975	10.31	25.22	7.28	35.53	17.59	58.97	48.97	-23.44	-31.38
5	3.91875	9.73	22.27	14.36	32.00	24.09	56.00	46.00	-24.00	-21.91
6	9.83175	9.98	23.87	16.61	33.85	26.59	60.00	50.00	-26.15	-23.41

- 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.



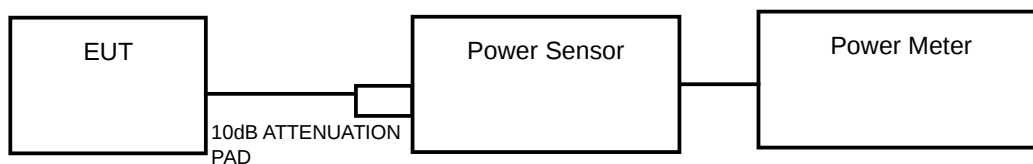
3.3 TRANSMIT POWER MEASUREMENT

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	Jun. 13,18	Jun. 12,19
Power Sensor	Keysight	U2021XA	MY55060018	Jun. 13,18	Jun. 12,19
Power Meter	Anritsu	ML2495A	1139001	Mar. 12,19	Mar. 11,20
Power Sensor	Anritsu	MA2411B	1531155	Mar. 12,19	Mar. 11,20
Digital Multimeter	FLUKE	15B	A1220010DG	Oct. 17, 18	Oct.16, 19
Humid & Temp Programmable Tester	Haida	HD-2257	110807201	Nov.15,18	Nov. 14,19
Oscilloscope	Agilent	DSO9254A	MY51260160	Nov. 09,18	Nov. 08,19
Signal Analyzer	Rohde & Schwarz	FSV7	102331	Aug. 02,18	Aug. 01,19
Signal Generator	Agilent	N5183A	MY50140980	Dec. 07,18	Dec. 06,19
Agile Signal Generator	Agilent	8645A	Agilent	Oct.27, 18	Oct.26, 19
Spectrum Analyzer	Keysight	N9020A	MY55400499	Mar. 12,19	Mar. 11,20
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Dec. 07, 18	Dec. 06, 19
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	13.81	24.044	24.00	PASS
40	5200	13.53	22.542	24.00	PASS
48	5240	13.74	23.659	24.00	PASS
52	5260	13.56	22.699	24.00	PASS
60	5300	13.51	22.439	24.00	PASS
64	5320	13.45	22.131	24.00	PASS
100	5500	13.78	23.878	24.00	PASS
120	5600	14.16	26.062	24.00	PASS
140	5700	14.67	29.309	24.00	PASS
149	5745	15.17	32.885	30.00	PASS
157	5785	15.25	33.497	30.00	PASS
165	5825	15.02	31.769	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(20.25)=24.06dBm > 24dBm

802.11n (20MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
36	5180	13.53	22.542	24.00	PASS
40	5200	13.68	23.335	24.00	PASS
48	5240	13.91	24.604	24.00	PASS
52	5260	13.68	23.335	24.00	PASS
60	5300	13.52	22.491	24.00	PASS
64	5320	13.48	22.284	24.00	PASS
100	5500	12.31	17.022	24.00	PASS
120	5600	14.23	26.485	24.00	PASS
140	5700	13.42	21.979	24.00	PASS
149	5745	14.89	30.832	30.00	PASS
157	5785	15.17	32.885	30.00	PASS
165	5825	15.23	33.343	30.00	PASS

For Band 2~Band 3: Limit = 11dBm+10log(26 BW)=11+10log(20.04)=24.02dBm > 24dBm



802.11n (40MHz)

CHANNEL NUMBER	FREQ. (MHz)	AVG. CONDUCTED POWER (dBm)	AVG. CONDUCTED POWER (mW)	LIMIT (dBm)	PASS /FAIL
38	5190	11.52	14.191	24.00	PASS
46	5230	13.22	20.989	24.00	PASS
54	5270	13.13	20.559	24.00	PASS
62	5310	10.45	11.092	24.00	PASS
102	5510	8.50	7.079	24.00	PASS
118	5590	15.38	34.514	24.00	PASS
134	5670	13.87	24.378	24.00	PASS
151	5755	14.92	31.046	24.00	PASS
159	5795	14.81	30.269	30.00	PASS

26dB BANDWIDTH:

802.11a

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	31.85	PASS
40	5200	28.47	PASS
48	5240	34.38	PASS
52	5260	34.66	PASS
60	5300	33.29	PASS
64	5320	25.57	PASS
100	5500	21.81	PASS
132	5660	26.13	PASS
140	5700	20.25	PASS

802.11n (20MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
36	5180	26.52	PASS
40	5200	32.09	PASS
48	5240	30.80	PASS
52	5260	34.62	PASS
60	5300	33.80	PASS
64	5320	27.57	PASS
100	5500	20.04	PASS
132	5660	31.02	PASS
140	5700	20.07	PASS

802.11n (40MHz)

Channel Number	Freq. (MHz)	26dB DOWN BANDWIDTH (MHz)	PASS /FAIL
38	5190	41.13	PASS
46	5230	73.21	PASS
54	5270	73.14	PASS
62	5310	41.10	PASS
102	5510	41.44	PASS
118	5590	65.90	PASS
134	5670	42.50	PASS

6dB BANDWIDTH For 5725-5850MHz

802.11a

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	16.41	PASS
157	5785	16.44	PASS
165	5825	16.42	PASS

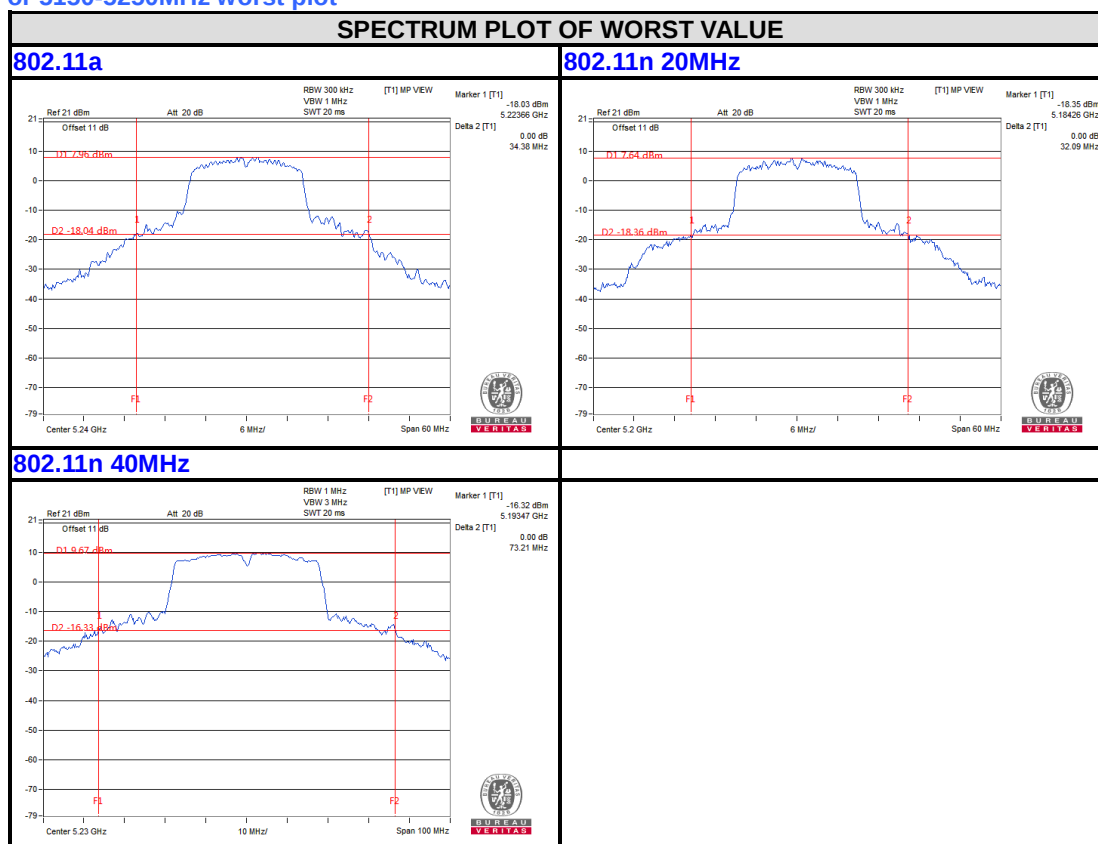
802.11n (20M)

Channel Number	Freq. (MHz)	6dB DOWN BANDWIDTH (MHz)	PASS /FAIL
149	5745	17.68	PASS
157	5785	17.66	PASS
165	5825	17.67	PASS

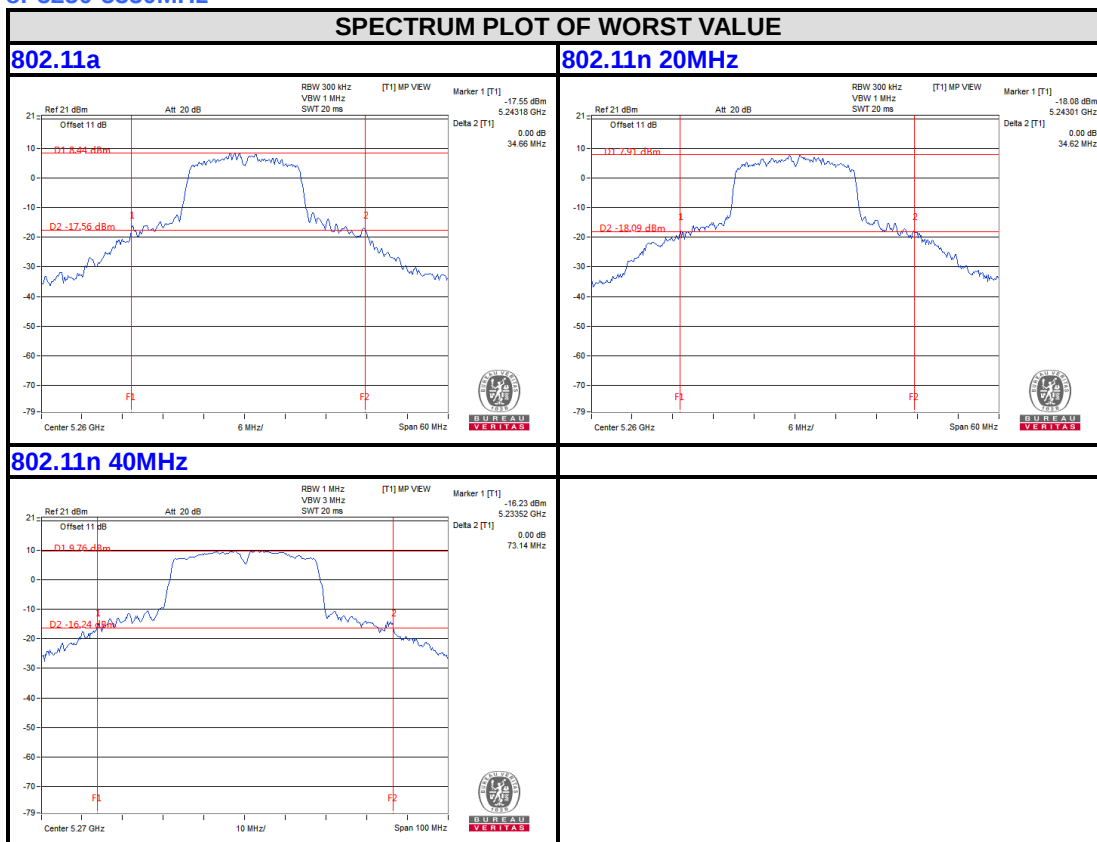
802.11n (40M)

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

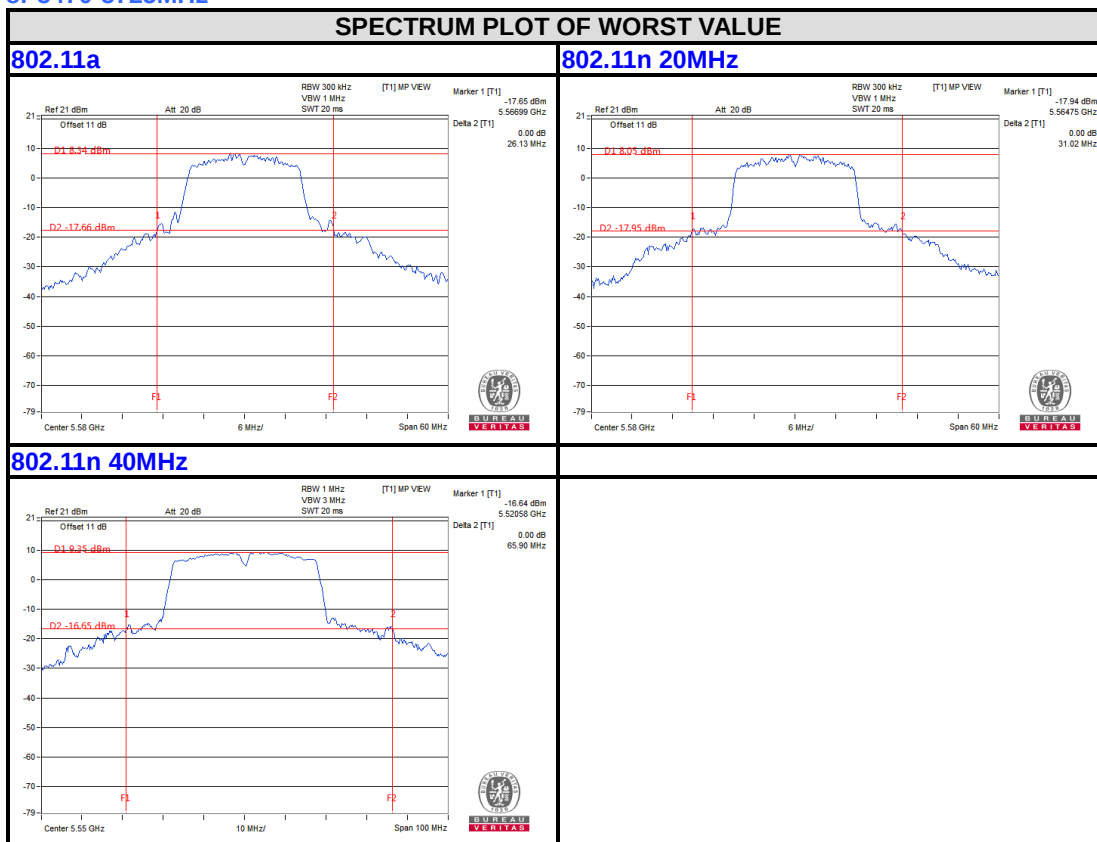
**26dB bandwidth Test Plot
For 5150-5250MHz worst plot**



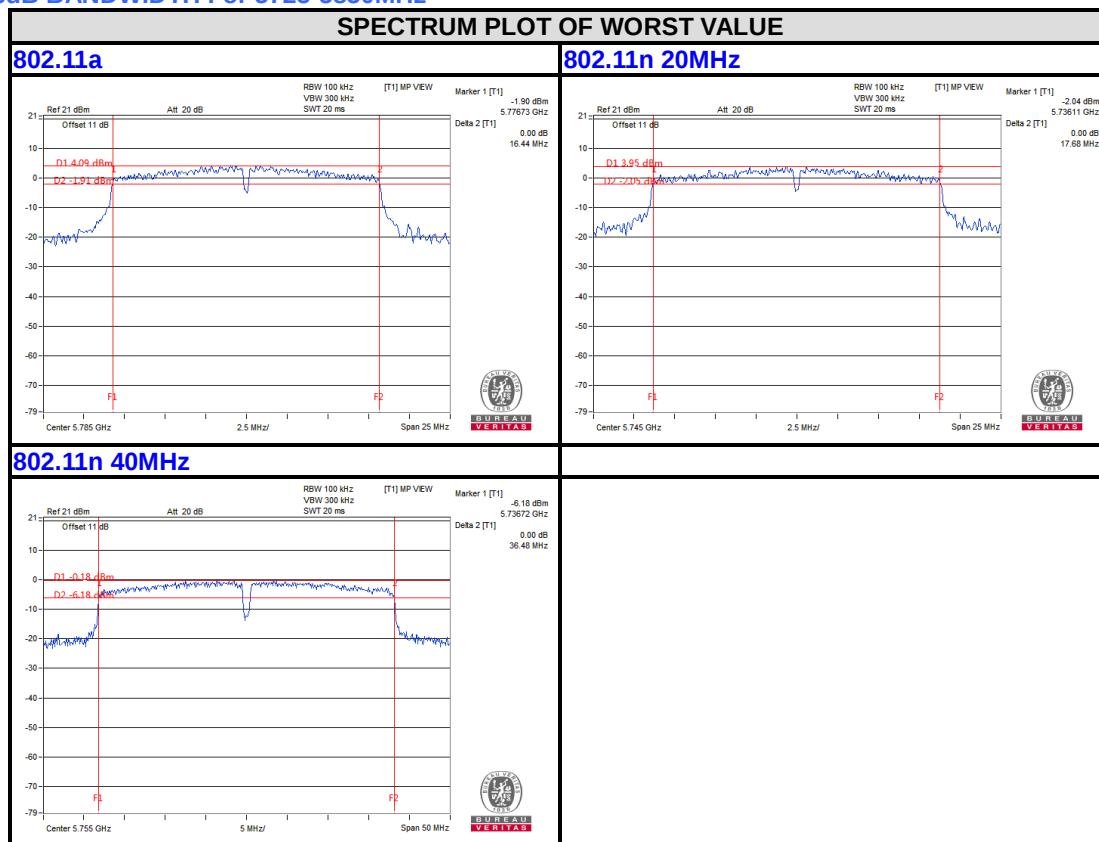
For 5250-5350MHz



For 5470-5725MHz



6dB BANDWIDTH For 5725-5850MHz

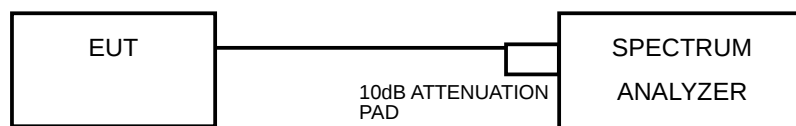


3.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

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

Using method SA-2

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

For U-NII-3 band:

Using method SA-2

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

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.3.6

3.4.7 TEST RESULTS

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

802.11a

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)	RF Power Level in 1MHz BW (mW)	MAX. Limit (dBm/MHz)	PASS / FAIL
36	5180	4.14	2.5942	11.00	PASS
40	5200	3.93	2.4717	11.00	PASS
48	5240	4.48	2.8054	11.00	PASS
52	5260	4.32	2.704	11.00	PASS
60	5300	4.20	2.6303	11.00	PASS
64	5320	3.03	2.0091	11.00	PASS
100	5500	2.31	1.7022	11.00	PASS
120	5600	4.30	2.6915	11.00	PASS
140	5700	2.73	1.875	11.00	PASS

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)	RF Power Level in 500kHz BW (dBm)	MAX. Limit (dBm/500KHz)	PASS / FAIL
149	5745	-2.89	-0.67	30.00	PASS
157	5785	-2.56	-0.34	30.00	PASS
165	5825	-2.40	-0.18	30.00	PASS

802.11n (20MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)	RF Power Level in 1MHz BW (mW)	MAX. Limit (dBm/MHz)	PASS / FAIL
36	5180	2.76	1.888	11.00	PASS
40	5200	3.69	2.3388	11.00	PASS
48	5240	3.59	2.2856	11.00	PASS
52	5260	3.81	2.4044	11.00	PASS
60	5300	3.77	2.3823	11.00	PASS
64	5320	2.81	1.9099	11.00	PASS
100	5500	0.10	1.0233	11.00	PASS
120	5600	4.09	2.5645	11.00	PASS
140	5700	1.22	1.3243	11.00	PASS

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)	RF Power Level in 500kHz BW (dBm)	MAX. Limit (dBm/500KHz)	PASS / FAIL
149	5745	-3.17	-0.95	30.00	PASS
157	5785	-3.10	-0.88	30.00	PASS
165	5825	-2.45	-0.23	30.00	PASS

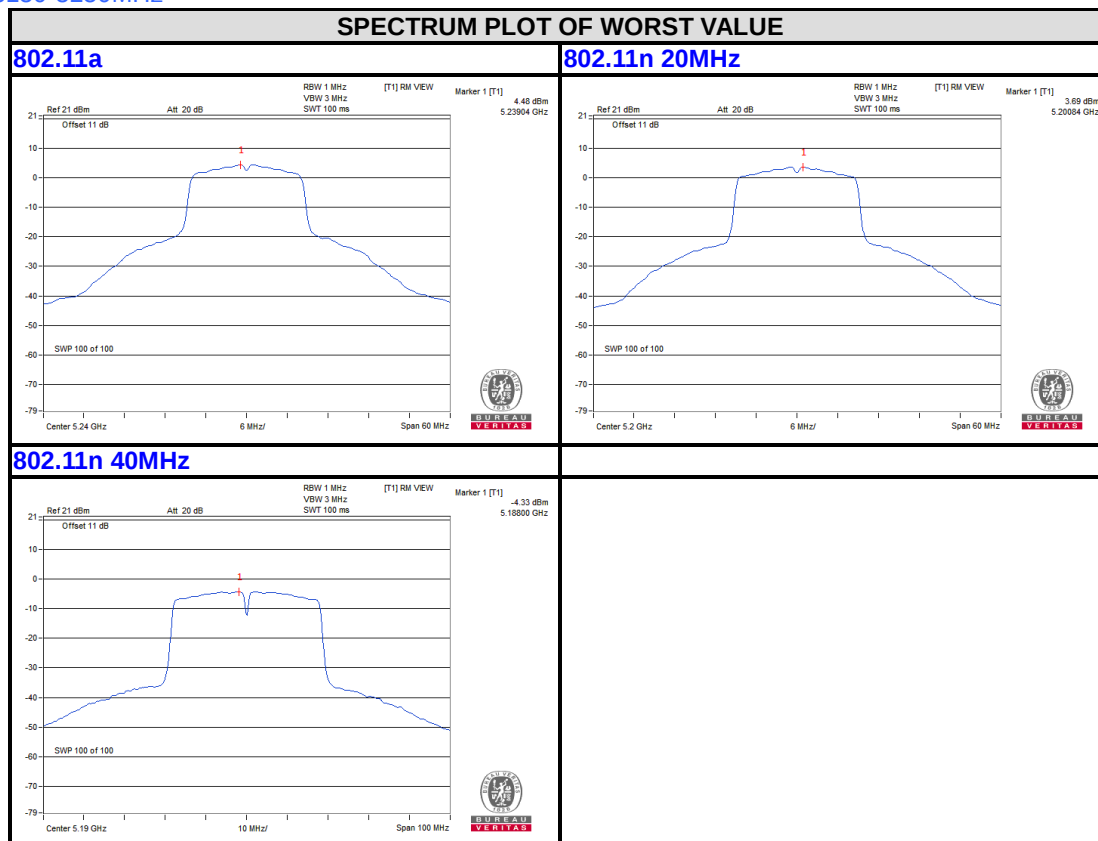
802.11n (40MHz)

Channel Number	Frequency (MHz)	RF Power Level in 1MHz BW (dBm)	RF Power Level in 1MHz BW (mW)	MAX. Limit (dBm/MHz)	PASS / FAIL
38	5190	-4.33	0.369	11.00	PASS
46	5230	0.00	1	11.00	PASS
54	5270	-0.01	0.9977	11.00	PASS
62	5310	-5.90	0.257	11.00	PASS
102	5510	-7.77	0.1671	11.00	PASS
118	5590	-0.43	0.9057	11.00	PASS
134	5670	-1.94	0.6397	11.00	PASS

Channel Number	Frequency (MHz)	RF Power Level in 300kHz BW (dBm)	RF Power Level in 500kHz BW (dBm)	MAX. Limit (dBm/500KHz)	PASS / FAIL
151	5755	-7.80	-5.58	30.00	PASS
159	5795	-7.93	-5.71	30.00	PASS

PSD Test Plot

BAND 1
5150-5250MHz

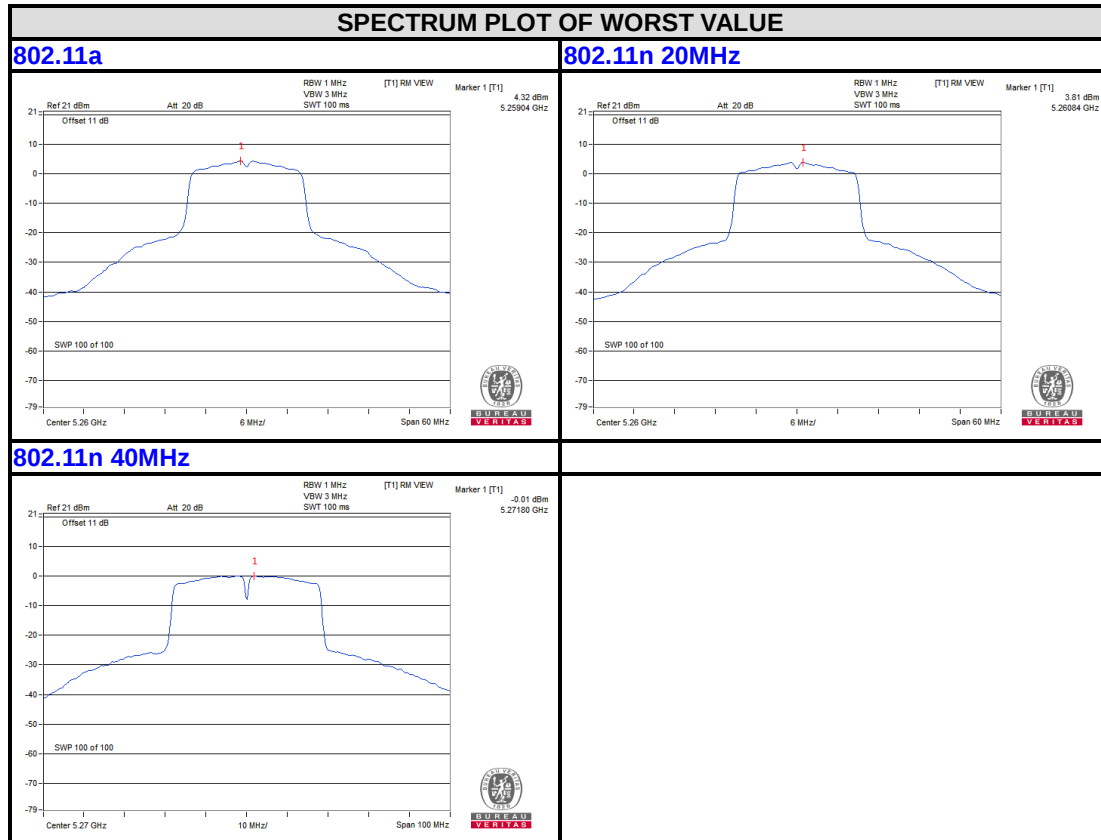




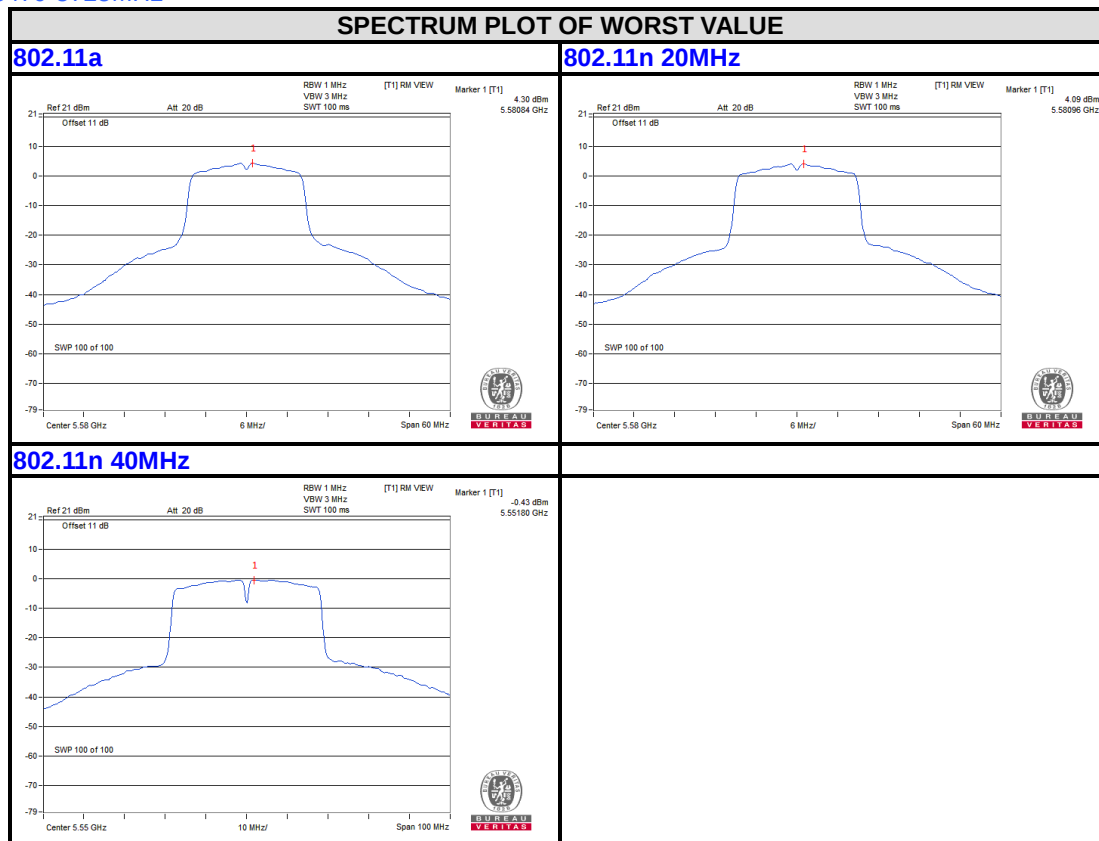
BUREAU
VERITAS

Test Report No.: RF190423N029-4

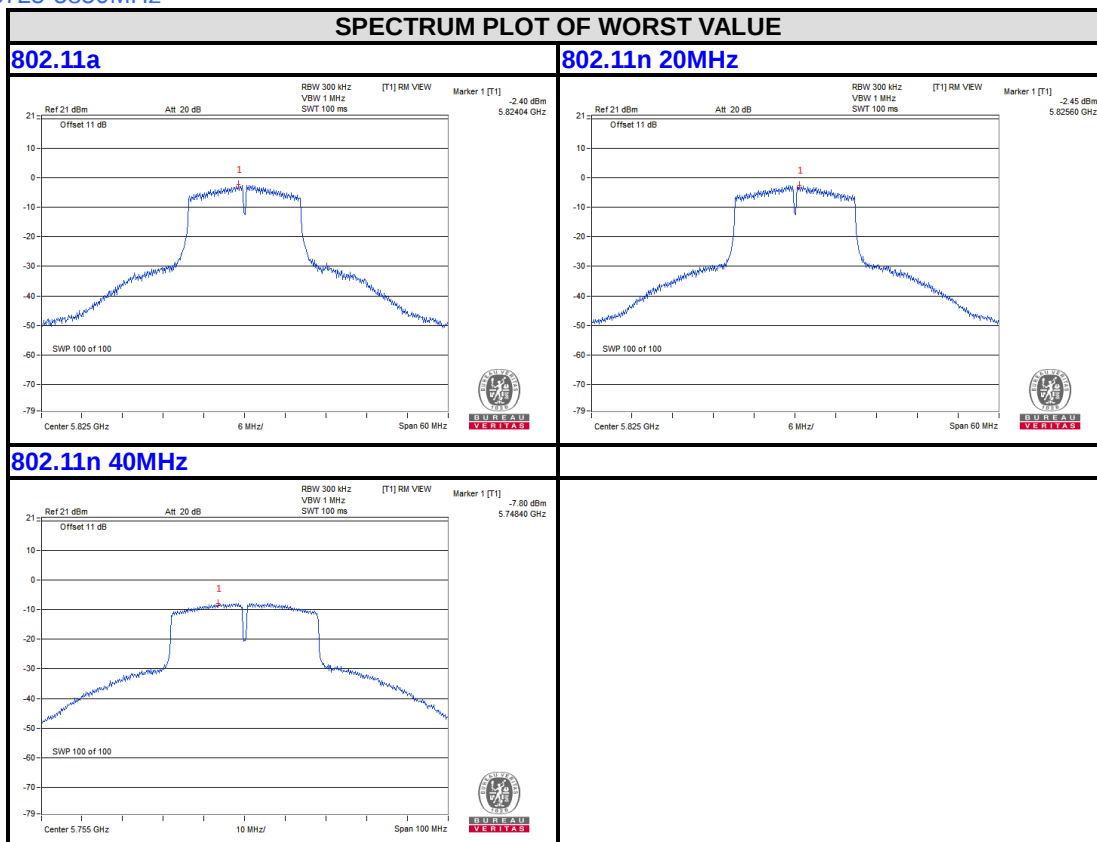
BAND 2
5250-5350MHz



BAND 3
5470-5725MHz



BAND4
5725-5850MHz

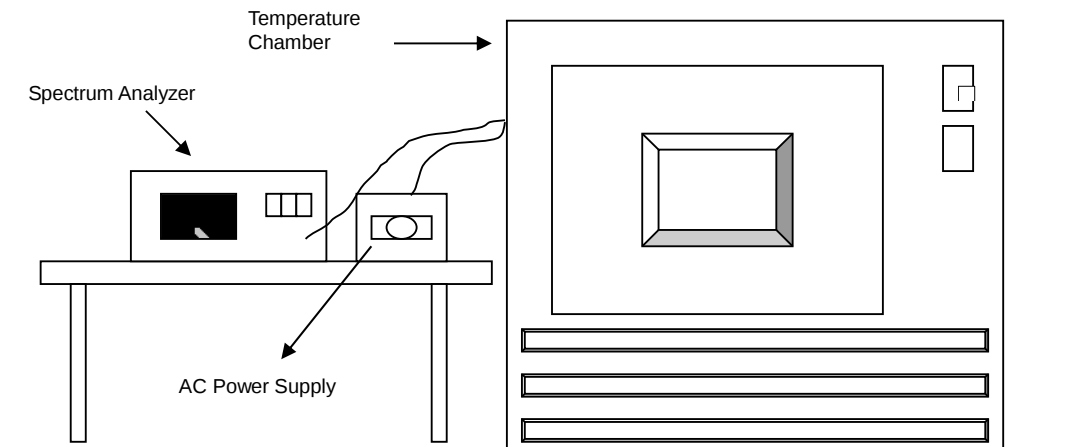


3.5 FREQUENCY STABILITY

3.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.4 TEST PROCEDURE

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

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

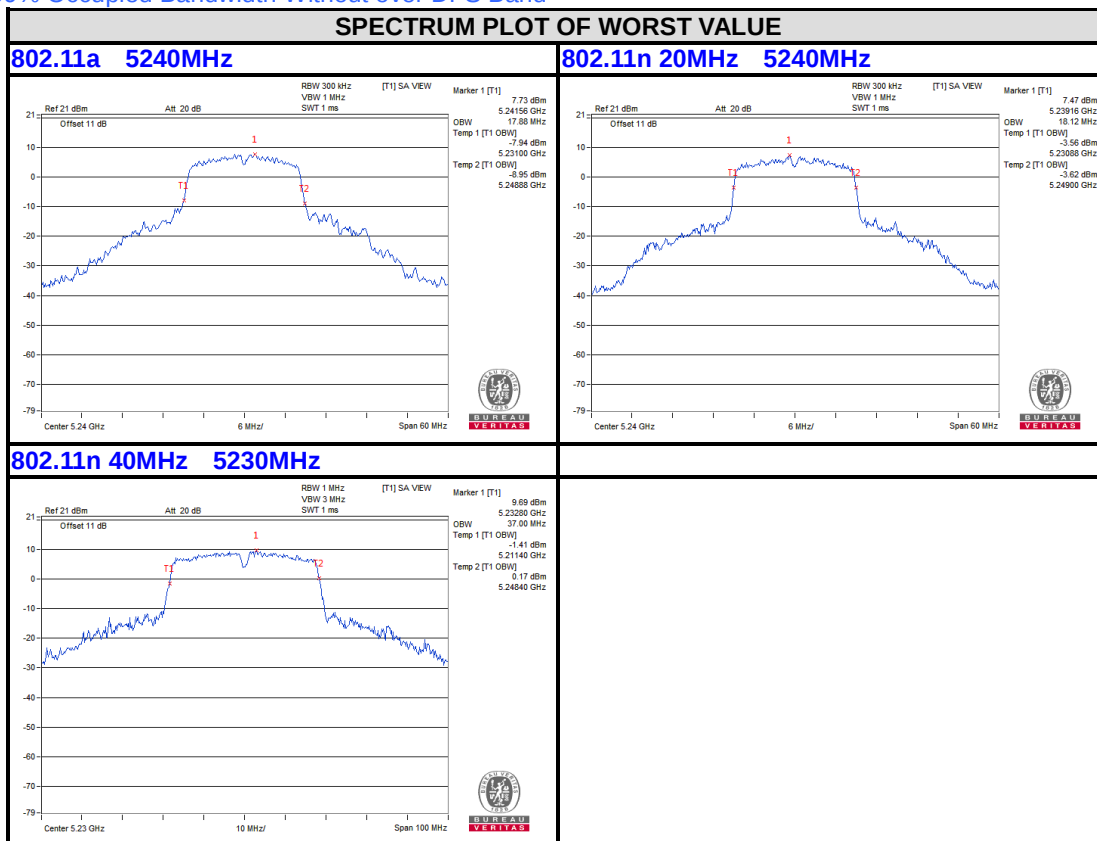
Set the EUT transmit at un-modulation mode to test frequency stability.

3.5.7 TEST RESULTS

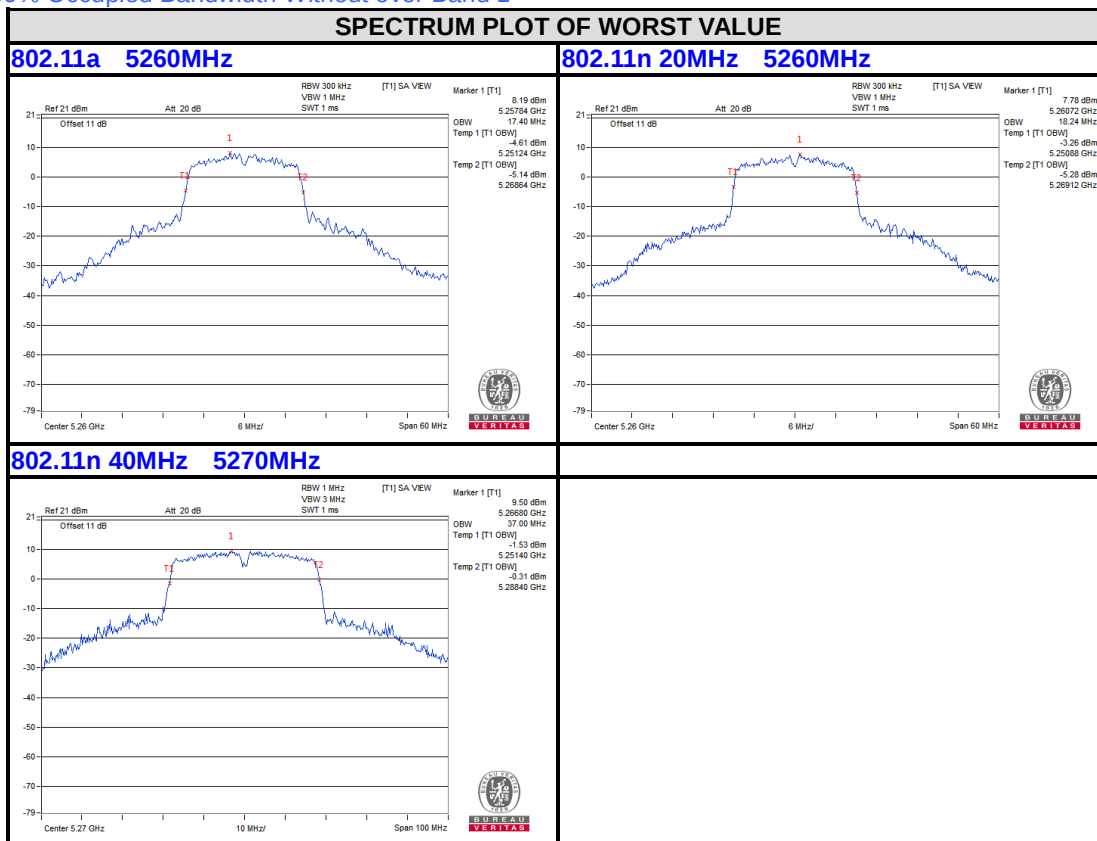
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
50	120	5179.977	-0.00044	5179.9766	-0.00045	5179.9736	-0.00051	5179.9754	-0.00047
40	120	5180.0255	0.00049	5180.0273	0.00053	5180.0238	0.00046	5180.0263	0.00051
30	120	5180.0043	0.00008	5180.003	0.00006	5180.0011	0.00002	5180.0019	0.00004
20	120	5180.0089	0.00017	5180.0071	0.00014	5180.0068	0.00013	5180.0093	0.00018
10	120	5180.0033	0.00006	5180.004	0.00008	5180.003	0.00006	5180.0035	0.00007
0	120	5179.9748	-0.00049	5179.977	-0.00044	5179.9761	-0.00046	5179.9791	-0.00040
-10	120	5180.0091	0.00018	5180.0087	0.00017	5180.0073	0.00014	5180.0079	0.00015
-20	120	5179.9863	-0.00026	5179.9835	-0.00032	5179.9862	-0.00027	5179.9846	-0.00030
-30	120	5180.0132	0.00025	5180.0112	0.00022	5180.0097	0.00019	5180.0116	0.00022

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift	Measured Frequency (MHz)	Frequency Drift
20	138	5180.0089	0.00017	5180.0068	0.00013	5180.0068	0.00013	5180.0089	0.00017
	120	5180.0089	0.00017	5180.0071	0.00014	5180.0068	0.00013	5180.0093	0.00018
	102	5180.0088	0.00017	5180.0068	0.00013	5180.0067	0.00013	5180.0102	0.00020

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



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





Test Report No.: RF190423N029-4

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---