

FCC Test Report

Report No.: RF181116D02-2

FCC ID: RFH-TRN3800T

Test Model: TRN-TABLET3

Received Date: Nov. 16, 2018

Test Date: Nov. 30 ~ Dec. 18, 2018

Issued Date: Jan. 2, 2019

Applicant: IEI Integration Corp.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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**FCC Registration /
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Release Control Record

Issue No.	Description	Date Issued
RF181116D02-2	Original release.	Dec. 20, 2018

1 Certificate of Conformity

Product: TABLET PC

Brand: iEi

Test Model: TRN-TABLET3

Sample Status: Engineering sample

Applicant: IEI Integration Corp.

Test Date: Nov. 30 ~ Dec. 18, 2018

Standards: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by :

Annie Chang

Date: Jan. 2, 2019

Annie Chang / Senior Specialist

Approved by :

Rex Lai

Date: Jan. 2, 2019

Rex Lai / Associate Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -2.15dB at 0.33359MHz.
15.407(b)(1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -2.10dB at 5150.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOB test plots were recorded in Annex A.

2.1 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	Expanded Uncertainty (k=2) (\pm)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.77 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	2.38 dB
	30MHz ~ 1000MHz	5.54 dB
Radiated Emissions above 1 GHz	Above 1GHz	5.48 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	TABLET PC
Brand	iEi
Test Model	TRN-TABLET3
Sample Status	Engineering sample
Nominal Voltage	19Vdc from adapter
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 150Mbps 802.11ac: up to 433.3Mbps
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5700MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11n (20MHz), 802.11ac (20MHz): 4 802.11n (40MHz), 802.11ac (40MHz): 2 802.11ac (80MHz): 1 5260~5320MHz: 802.11a, 802.11n (20MHz), 802.11ac (20MHz): 4 802.11n (40MHz), 802.11ac (40MHz): 2 802.11ac (80MHz): 1 5500~5700MHz: 802.11a, 802.11n (20MHz), 802.11ac (20MHz): 8 802.11n (40MHz), 802.11ac (40MHz): 3 802.11ac (80MHz): 1 5745~5825MHz: 802.11a, 802.11n (20MHz), 802.11ac (20MHz): 5 802.11n (40MHz), 802.11ac (40MHz): 2 802.11ac (80MHz): 1
Output Power	5180~5240MHz: 20.045mW 5260~5320MHz: 20.749mW 5500~5700MHz: 20.845mW 5745~5825MHz: 21.232mW
Antenna Type	PIFA antenna with 2dBi gain
Antenna Connector	N/A
Accessory Device	Adapter
Cable Supplied	N/A

Note:

1. The EUT provides 1 completed transmitter and 1 receiver.

Modulation Mode	TX Function
802.11a	1TX
802.11n (20MHz)	1TX
802.11n (40MHz)	1TX
802.11ac (20MHz)	1TX
802.11ac (40MHz)	1TX
802.11ac (80MHz)	1TX

Note: The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz) and 802.11ac mode for 20MHz (40MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

2. The EUT uses following adapter.

Brand	Darfon
Model	EM12501E
Input Rating	100-240Vac, 3.5-2.5A, 50-60Hz
Output Rating	19V, 10.52A
Power Line	Non-shielded AC (3-Pin) cable (1.8m) Non-shielded DC cable (1.1m) with two ferrite cores

3. The EUT was pre-tested with the following modes:

- EUT Operating Mode + powered from Adapter
- EUT Operating Mode + powered from Battery

The worst emission level was found when the EUT tested under **EUT Operating Mode + powered from Adapter**, therefore, only its test data was recorded in this report.

4. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

5180~5240MHz:

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

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

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

Channel	Frequency
42	5210MHz

5260~5320MHz:

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

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

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

Channel	Frequency
58	5290MHz

5500~5700MHz:

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

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

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

Channel	Frequency	Channel	Frequency
102	5510 MHz	134	5670 MHz
110	5550 MHz		

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

Channel	Frequency
106	5530 MHz

5745~5825MHz:

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

Channel	Frequency	Channel	Frequency
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

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

Channel	Frequency
155	5775MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE \geq 1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where RE \geq 1G: Radiated Emission above 1GHz & Bandedge Measurement
 RE<1G: Radiated Emission below 1GHz
 PLC: Power Line Conducted Emission
 APCM: Antenna Port Conducted Measurement

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	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ac (20MHz)		36 to 48	36, 40, 48	OFDM	6.5
	802.11ac (40MHz)		38 to 46	38, 46	OFDM	13.5
	802.11ac (80MHz)		42	42	OFDM	29.3
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (20MHz)		52 to 64	52, 60, 64	OFDM	6.5
	802.11ac (40MHz)		54 to 62	54, 62	OFDM	13.5
	802.11ac (80MHz)		58	58	OFDM	29.3
-	802.11a	5500-5700	100 to 140	100, 116,132, 140	OFDM	6.0
	802.11ac (20MHz)		100 to 140	100, 116,132, 140	OFDM	6.5
	802.11ac (40MHz)		102 to 134	102, 110, 134	OFDM	13.5
	802.11ac (80MHz)		106	106	OFDM	29.3
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ac (20MHz)		149 to 165	149, 157, 165	OFDM	6.5
	802.11ac (40MHz)		151 to 159	151, 159	OFDM	13.5
	802.11ac (80MHz)		155	155	OFDM	29.3

Radiated Emission Test (Below 1GHz):

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	157	OFDM	6.0
		5260-5320	52 to 64		OFDM	6.0
		5500-5700	100 to 140		OFDM	6.0
		5745-5825	149 to 165		OFDM	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	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	157	OFDM	6.0
		5260-5320	52 to 64		OFDM	6.0
		5500-5700	100 to 140		OFDM	6.0
		5745-5825	149 to 165		OFDM	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	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ac (20MHz)		36 to 48	36, 40, 48	OFDM	6.5
	802.11ac (40MHz)		38 to 46	38, 46	OFDM	13.5
	802.11ac (80MHz)		42	42	OFDM	29.3
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (20MHz)		52 to 64	52, 60, 64	OFDM	6.5
	802.11ac (40MHz)		54 to 62	54, 62	OFDM	13.5
	802.11ac (80MHz)		58	58	OFDM	29.3
-	802.11a	5500-5700	100 to 140	100, 116, 132, 140	OFDM	6.0
	802.11ac (20MHz)		100 to 140	100, 116, 132, 140	OFDM	6.5
	802.11ac (40MHz)		102 to 134	102, 110, 134	OFDM	13.5
	802.11ac (80MHz)		106	106	OFDM	29.3
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ac (20MHz)		149 to 165	149, 157, 165	OFDM	6.5
	802.11ac (40MHz)		151 to 159	151, 159	OFDM	13.5
	802.11ac (80MHz)		155	155	OFDM	29.3

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE \geq 1G	24 deg. C, 75% RH	120Vac, 60Hz	Ian Chang
RE<1G	24 deg. C, 75% RH	120Vac, 60Hz	Ian Chang
PLC	23 deg. C, 82% RH	120Vac, 60Hz	Ian Chang
APCM	25 deg. C, 76% RH	120Vac, 60Hz	Saxon Lee

3.3 Duty Cycle of Test Signal

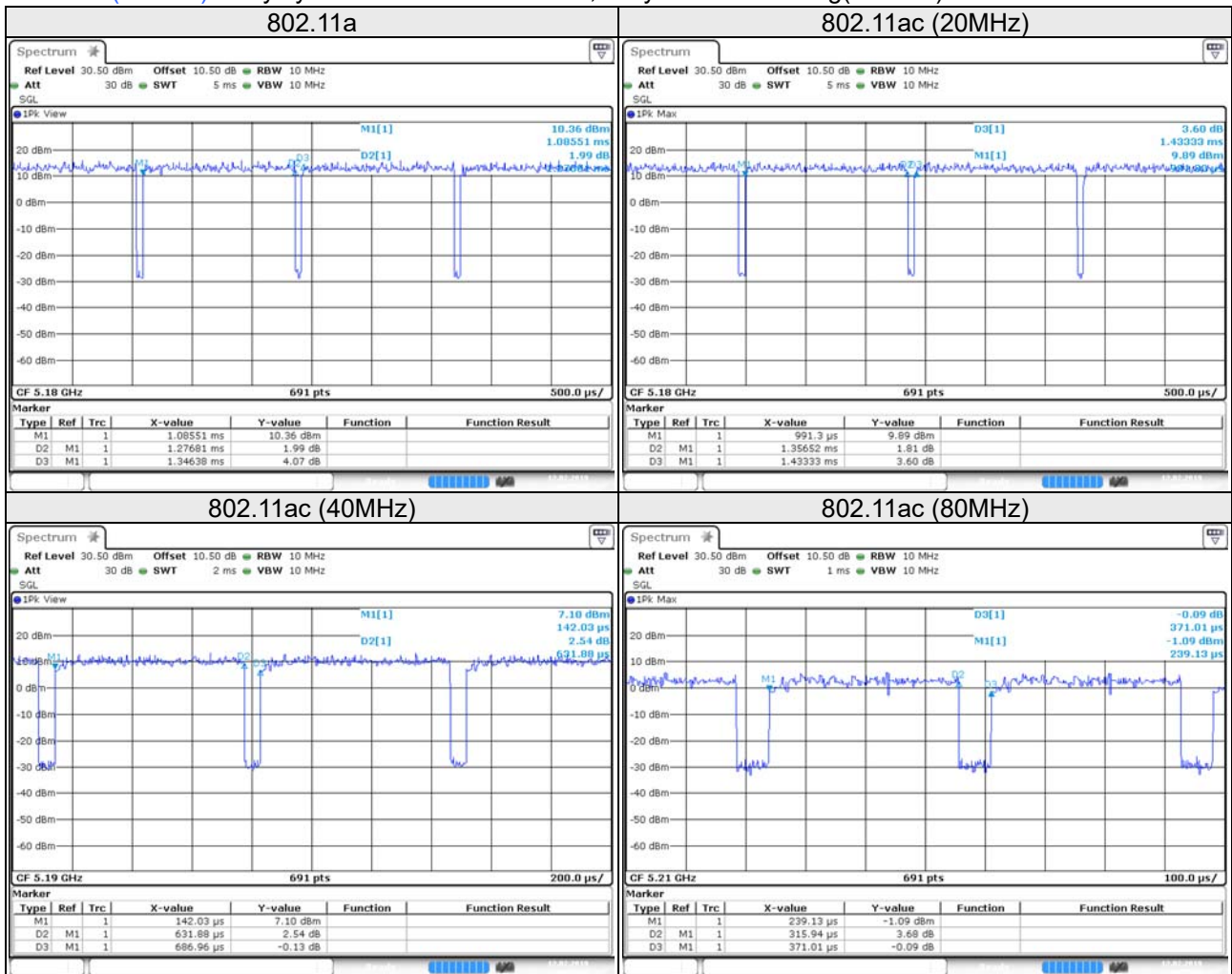
Duty cycle of test signal is < 98 %, duty factor is required

802.11a: Duty cycle = 1.276/1.346 = 0.948, Duty factor = $10 * \log(1/0.948) = 0.23$

802.11n (20MHz): Duty cycle = 1.356/1.433 = 0.946, Duty factor = $10 * \log(1/0.946) = 0.24$

802.11n (40MHz): Duty cycle = 0.631/0.686 = 0.920, Duty factor = $10 * \log(1/0.920) = 0.36$

802.11ac (80MHz): Duty cycle = 0.315/0.371 = 0.849, Duty factor = $10 * \log(1/0.849) = 0.71$



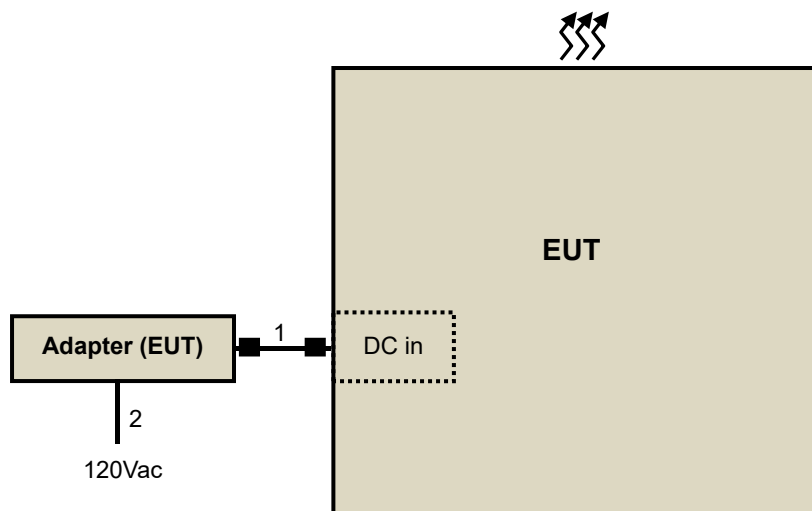
3.4 Description of Support Units

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC cable	1	1.1	N	2	Supplied by client
2.	AC Power cord	1	1.8	N	0	Supplied by client

Note: The core(s) is(are) originally attached to the cable(s).

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

ANSI C63.10:2013

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

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

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2(dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	<input checked="" type="checkbox"/> 15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2(dBµV/m) ^{*1} PK: 105.2 (dBµV/m) ^{*2} PK: 110.8(dBµV/m) ^{*3} PK: 122.2 (dBµV/m) ^{*4}
	<input type="checkbox"/> 15.407(b)(4)(ii)	Emission limits in section 15.247(d)	
^{*1} beyond 75 MHz or more above of the band edge. ^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

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

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

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	Feb. 21, 2018	Feb. 20, 2019
HP Preamplifier	8449B	3008A01201	Feb. 22, 2018	Feb. 21, 2019
MITEQ Preamplifier	AMF-6F-260400-33-8P	892164	Feb. 21, 2018	Feb. 20, 2019
Agilent TEST RECEIVER	N9038A	MY51210129	Feb. 6, 2018	Feb. 5, 2019
Schwarzbeck Antenna	VULB 9168	139	Nov. 26, 2018	Nov. 25, 2019
Schwarzbeck Antenna	VHBA 9123	480	May 19, 2017	May 18, 2019
Schwarzbeck Horn Antenna	BBHA-9170	212	Nov. 25, 2018	Nov. 24, 2019
Schwarzbeck Horn Antenna	BBHA 9120-D1	D130	Nov. 25, 2018	Nov. 24, 2019
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	Radiated_V7.6.15.9.5	NA	NA	NA
SUHNER RF cable With 4dB PAD	SF102	Cable-CH6-01	Aug. 13, 2018	Aug. 12, 2019
SUHNER RF cable With 3/4dB PAD	SF102	Cable-CH8-3.6m	Aug. 13, 2018	Aug. 12, 2019
KEYSIGHT MIMO Powermeasurement Test set	U2021XA	U2021XA-001	Jun. 4, 2018	Jun. 3, 2019
KEYSIGHT Spectrum Analyzer	N9030A	MY54490260	Aug. 3, 2018	Aug. 2, 2019
Loop Antenna EMCI	LPA600	270	Aug. 11, 2017	Aug. 10, 2019
EMCO Horn Antenna	3115	00028257	Nov. 25, 2018	Nov. 24, 2019
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA
ROHDE & SCHWARZ Spectrum Analyzer	FSV40	101042	Sep. 27, 2018	Sep. 26, 2019
Anritsu Power Sensor	MA2411B	0738404	Apr. 26, 2018	Apr. 25, 2019
Anritsu Power Meter	ML2495A	0842014	Apr. 26, 2018	Apr. 25, 2019
Temperature & Humidity Chamber	MHU-225AU	920409	May 25, 2018	May 24, 2019
DIGITAL POWER METER IDRC	CP-240	240515	Sep. 13, 2018	Sep. 12, 2019
AC Power Source ExTech	CFW-105	E000603	NA	NA

- NOTE:** 1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Chamber No. 6.
4. The Industry Canada Reference No. IC 7450E-6.

4.1.3 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case 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 Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. 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 height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

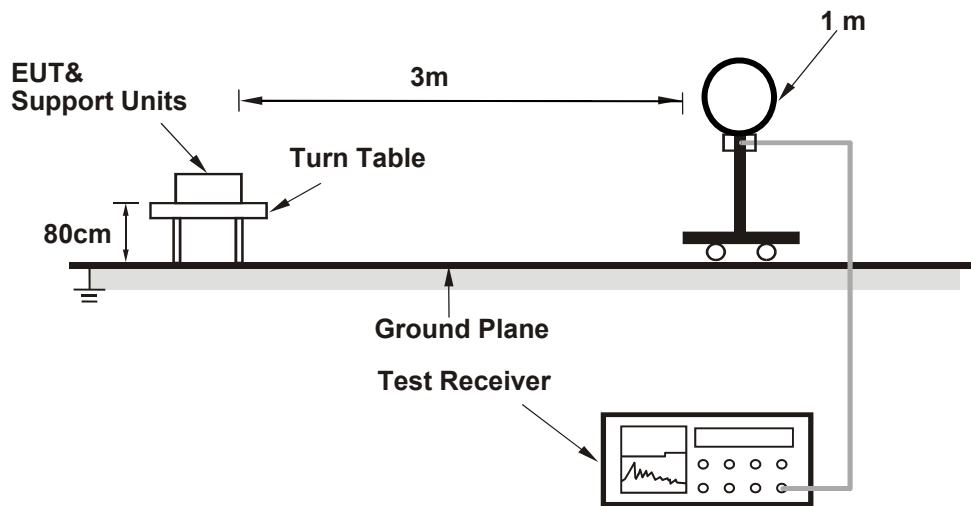
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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 $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

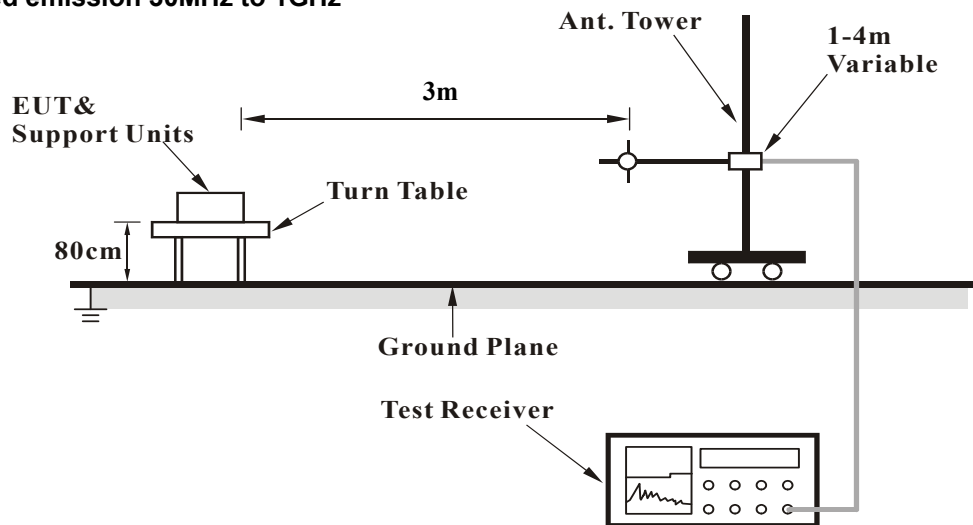
No deviation.

4.1.5 Test Set Up

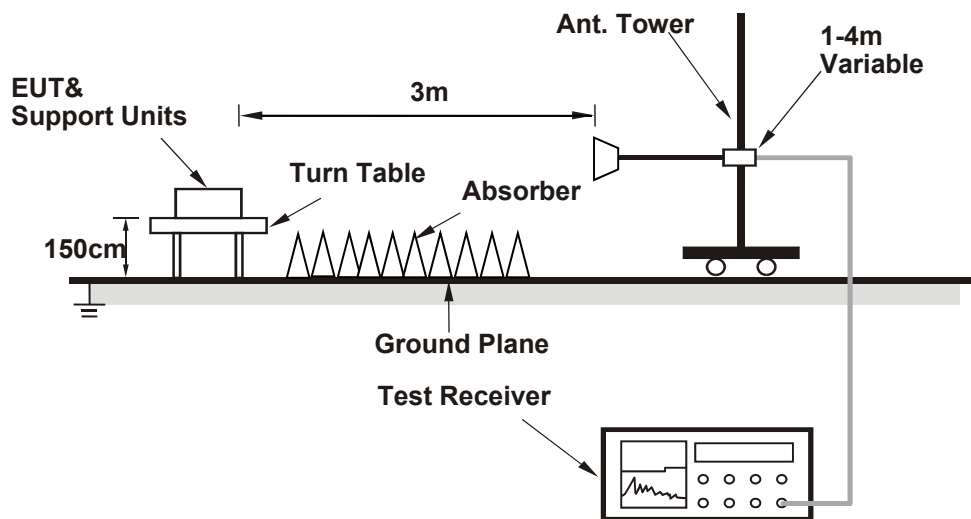
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

- Connected the EUT with the Adapter.
- Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

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	60.32 PK	74.00	-13.68	1.99 H	7	55.05	5.27
2	5150.00	46.30 AV	54.00	-7.70	1.99 H	7	41.03	5.27
3	*5180.00	97.34 PK			1.99 H	7	92.29	5.05
4	*5180.00	86.62 AV			1.99 H	7	81.57	5.05
5	#10360.00	57.57 PK	68.20	-10.63	1.67 H	134	41.83	15.74

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.23 PK	74.00	-12.77	2.90 V	19	55.96	5.27
2	5150.00	47.43 AV	54.00	-6.57	2.90 V	19	42.16	5.27
3	*5180.00	101.96 PK			2.90 V	19	96.91	5.05
4	*5180.00	91.23 AV			2.90 V	19	86.18	5.05
5	#10360.00	57.90 PK	68.20	-10.30	1.87 V	110	42.16	15.74

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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	*5200.00	97.34 PK			2.03 H	10	92.44	4.90
2	*5200.00	87.26 AV			2.03 H	10	82.36	4.90
3	#10400.00	57.51 PK	68.20	-10.69	1.51 H	128	41.46	16.05

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	101.73 PK			2.99 V	20	96.83	4.90
2	*5200.00	90.96 AV			2.99 V	20	86.06	4.90
3	#10400.00	58.67 PK	68.20	-9.53	1.69 V	111	42.62	16.05

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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	*5240.00	94.81 PK			2.01 H	5	90.16	4.65
2	*5240.00	85.09 AV			2.01 H	5	80.44	4.65
3	5350.00	58.38 PK	74.00	-15.62	2.01 H	5	53.88	4.50
4	5350.00	44.39 AV	54.00	-9.61	2.01 H	5	39.89	4.50
5	#10480.00	57.85 PK	68.20	-10.35	1.71 H	105	41.19	16.66

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	100.14 PK			2.96 V	22	95.49	4.65
2	*5240.00	89.49 AV			2.96 V	22	84.84	4.65
3	5350.00	58.68 PK	74.00	-15.32	2.96 V	22	54.18	4.50
4	5350.00	44.72 AV	54.00	-9.28	2.96 V	22	40.22	4.50
5	#10480.00	58.82 PK	68.20	-9.38	1.69 V	223	42.16	16.66

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 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	59.30 PK	74.00	-14.70	2.06 H	15	54.03	5.27
2	5150.00	45.53 AV	54.00	-8.47	2.06 H	15	40.26	5.27
3	*5260.00	96.00 PK			2.06 H	15	91.48	4.52
4	*5260.00	85.51 AV			2.06 H	15	80.99	4.52
5	#10520.00	58.39 PK	68.20	-9.81	1.88 H	271	41.54	16.85

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	5150.00	59.41 PK	74.00	-14.59	3.98 V	22	54.14	5.27
2	5150.00	45.99 AV	54.00	-8.01	3.98 V	22	40.72	5.27
3	*5260.00	99.72 PK			3.98 V	22	95.20	4.52
4	*5260.00	88.81 AV			3.98 V	22	84.29	4.52
5	#10520.00	59.01 PK	68.20	-9.19	1.63 V	268	42.16	16.85

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	94.43 PK			2.11 H	26	90.11	4.32
2	*5300.00	84.38 AV			2.11 H	26	80.06	4.32
3	10600.00	58.03 PK	74.00	-15.97	1.24 H	18	41.06	16.97
4	10600.00	44.60 AV	54.00	-9.40	1.24 H	18	27.63	16.97

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	98.10 PK			2.71 V	25	93.78	4.32
2	*5300.00	97.82 AV			2.71 V	25	93.50	4.32
3	10600.00	59.32 PK	74.00	-14.68	1.68 V	228	42.35	16.97
4	10600.00	45.43 AV	54.00	-8.57	1.68 V	228	28.46	16.97

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	94.82 PK			2.16 H	6	90.44	4.38
2	*5320.00	84.54 AV			2.16 H	6	80.16	4.38
3	5350.00	56.91 PK	74.00	-17.09	2.16 H	6	52.41	4.50
4	5350.00	44.14 AV	54.00	-9.86	2.16 H	6	39.64	4.50
5	10640.00	58.20 PK	74.00	-15.80	1.42 H	25	41.54	16.66
6	10640.00	44.12 AV	54.00	-9.88	1.42 H	25	27.46	16.66

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	98.62 PK			3.86 V	23	94.24	4.38
2	*5320.00	87.85 AV			3.86 V	23	83.47	4.38
3	5350.00	57.54 PK	74.00	-16.46	3.86 V	23	53.04	4.50
4	5350.00	44.85 AV	54.00	-9.15	3.86 V	23	40.35	4.50
5	10640.00	58.82 PK	74.00	-15.18	1.96 V	231	42.16	16.66
6	10640.00	45.30 AV	54.00	-8.70	1.96 V	231	28.64	16.66

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	5460.00	57.91 PK	74.00	-16.09	2.03 H	18	53.26	4.65
2	5460.00	43.53 AV	54.00	-10.47	2.03 H	18	38.88	4.65
3	#5470.00	57.72 PK	68.20	-10.48	2.03 H	18	53.11	4.61
4	*5500.00	95.61 PK			2.03 H	18	91.14	4.47
5	*5500.00	85.24 AV			2.03 H	18	80.77	4.47
6	11000.00	58.29 PK	74.00	-15.71	1.55 H	228	41.87	16.42
7	11000.00	43.11 AV	54.00	-10.89	1.55 H	228	26.69	16.42

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.53 PK	74.00	-15.47	2.87 V	23	53.88	4.65
2	5460.00	43.99 AV	54.00	-10.01	2.87 V	23	39.34	4.65
3	#5470.00	58.50 PK	68.20	-9.70	2.87 V	23	53.89	4.61
4	*5500.00	99.23 PK			2.87 V	23	94.76	4.47
5	*5500.00	88.33 AV			2.87 V	23	83.86	4.47
6	11000.00	58.91 PK	74.00	-15.09	1.87 V	164	42.49	16.42
7	11000.00	43.88 AV	54.00	-10.12	1.87 V	164	27.46	16.42

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	99.72 PK			2.05 H	24	94.89	4.83
2	*5580.00	88.52 AV			2.05 H	24	83.69	4.83
3	11160.00	59.11 PK	74.00	-14.89	1.99 H	269	42.07	17.04
4	11160.00	43.71 AV	54.00	-10.29	1.99 H	269	26.67	17.04

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	103.32 PK			3.50 V	28	98.49	4.83
2	*5580.00	92.21 AV			3.50 V	28	87.38	4.83
3	11160.00	59.53 PK	74.00	-14.47	1.78 V	145	42.49	17.04
4	11160.00	45.03 AV	54.00	-8.97	1.78 V	145	27.99	17.04

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 132	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	*5660.00	99.80 PK			2.15 H	29	94.72	5.08
2	*5660.00	89.07 AV			2.15 H	29	83.99	5.08
3	11320.00	58.06 PK	74.00	-15.94	1.82 H	20	41.36	16.70
4	11320.00	43.22 AV	54.00	-10.78	1.82 H	20	26.52	16.70

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	*5660.00	103.89 PK			2.47 V	18	98.81	5.08
2	*5660.00	93.20 AV			2.47 V	18	88.12	5.08
3	11320.00	59.21 PK	74.00	-14.79	1.85 V	220	42.51	16.70
4	11320.00	44.55 AV	54.00	-9.45	1.85 V	220	27.85	16.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	95.06 PK			2.04 H	15	89.77	5.29
2	*5700.00	84.15 AV			2.04 H	15	78.86	5.29
3	#5725.00	61.31 PK	68.20	-6.89	2.04 H	15	55.85	5.46
4	11400.00	57.92 PK	74.00	-16.08	1.77 H	148	41.08	16.84
5	11400.00	43.07 AV	54.00	-10.93	1.77 H	148	26.23	16.84

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	98.84 PK			2.44 V	19	93.55	5.29
2	*5700.00	87.97 AV			2.44 V	19	82.68	5.29
3	#5725.00	64.68 PK	68.20	-3.52	2.44 V	19	59.22	5.46
4	11400.00	59.03 PK	74.00	-14.97	1.82 V	152	42.19	16.84
5	11400.00	44.33 AV	54.00	-9.67	1.82 V	152	27.49	16.84

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 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	#5619.86	58.18 PK	68.20	-10.02	1.58 H	312	52.85	5.33
2	*5745.00	101.28 PK			1.58 H	312	95.67	5.61
3	*5745.00	90.63 AV			1.58 H	312	85.02	5.61
4	#5942.87	59.08 PK	68.20	-9.12	1.58 H	312	52.40	6.68
5	11490.00	59.89 PK	74.00	-14.11	1.88 H	254	42.63	17.26
6	11490.00	45.92 AV	54.00	-8.08	1.88 H	254	28.66	17.26

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5630.37	58.00 PK	68.20	-10.20	1.97 V	315	52.66	5.34
2	*5745.00	104.36 PK			1.97 V	315	98.42	5.94
3	*5745.00	94.04 AV			1.97 V	315	88.10	5.94
4	#5988.96	59.53 PK	68.20	-8.67	1.97 V	315	52.86	6.67
5	11490.00	59.29 PK	74.00	-14.71	1.57 V	142	41.62	17.67
6	11490.00	44.86 AV	54.00	-9.14	1.57 V	142	27.19	17.67

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	#5625.05	57.81 PK	68.20	-10.39	1.65 H	346	52.48	5.33
2	*5785.00	104.42 PK			1.65 H	346	98.21	6.21
3	*5785.00	92.20 AV			1.65 H	346	85.99	6.21
4	#5966.73	59.37 PK	68.20	-8.83	1.65 H	346	52.70	6.67
5	11570.00	60.18 PK	74.00	-13.82	2.19 H	247	42.58	17.60
6	11570.00	46.48 AV	54.00	-7.52	2.19 H	247	28.88	17.60

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	#5608.22	58.67 PK	68.20	-9.53	2.06 V	305	53.37	5.30
2	*5785.00	103.39 PK			2.06 V	305	97.18	6.21
3	*5785.00	93.09 AV			2.06 V	305	86.88	6.21
4	#5937.14	58.81 PK	68.20	-9.39	2.06 V	305	52.11	6.70
5	11570.00	59.54 PK	74.00	-14.46	1.47 V	215	41.94	17.60
6	11570.00	45.19 AV	54.00	-8.81	1.47 V	215	27.59	17.60

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	#5634.80	58.13 PK	68.20	-10.07	1.67 H	339	52.79	5.34
2	*5825.00	104.25 PK			1.67 H	339	97.82	6.43
3	*5825.00	93.11 AV			1.67 H	339	86.68	6.43
4	#5936.19	59.03 PK	68.20	-9.17	1.67 H	339	52.33	6.70
5	11650.00	42.64 PK	74.00	-31.36	1.89 H	258	25.27	17.37
6	11650.00	28.88 AV	54.00	-25.12	1.89 H	258	11.51	17.37

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5639.20	57.68 PK	68.20	-10.52	2.05 V	318	52.33	5.35
2	*5825.00	100.15 PK			2.05 V	318	93.72	6.43
3	*5825.00	89.79 AV			2.05 V	318	83.36	6.43
4	#5932.61	59.33 PK	68.20	-8.87	2.05 V	318	52.63	6.70
5	11650.00	41.18 PK	74.00	-32.82	2.36 V	205	23.81	17.37
6	11650.00	27.07 AV	54.00	-26.93	2.36 V	205	9.70	17.37

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

802.11n (HT20)

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	60.05 PK	74.00	-13.95	2.06 H	9	54.78	5.27
2	5150.00	45.90 AV	54.00	-8.10	2.06 H	9	40.63	5.27
3	*5180.00	96.92 PK			2.06 H	9	91.87	5.05
4	*5180.00	86.61 AV			2.06 H	9	81.56	5.05
5	#10360.00	56.93 PK	68.20	-11.27	1.89 H	215	41.19	15.74

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.71 PK	74.00	-13.29	3.02 V	18	55.44	5.27
2	5150.00	46.47 AV	54.00	-7.53	3.02 V	18	41.20	5.27
3	*5180.00	100.64 PK			3.02 V	18	95.59	5.05
4	*5180.00	90.54 AV			3.02 V	18	85.49	5.05
5	#10360.00	58.37 PK	68.20	-9.83	1.68 V	128	42.63	15.74

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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	*5200.00	97.74 PK			2.00 H	4	92.84	4.90
2	*5200.00	87.46 AV			2.00 H	4	82.56	4.90
3	#10400.00	57.42 PK	68.20	-10.78	1.79 H	203	41.37	16.05

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	101.29 PK			2.86 V	18	96.39	4.90
2	*5200.00	91.49 AV			2.86 V	18	86.59	4.90
3	#10400.00	58.56 PK	68.20	-9.64	1.55 V	266	42.51	16.05

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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	*5240.00	95.81 PK			2.05 H	10	91.16	4.65
2	*5240.00	85.99 AV			2.05 H	10	81.34	4.65
3	5350.00	58.37 PK	74.00	-15.63	2.05 H	10	53.87	4.50
4	5350.00	44.36 AV	54.00	-9.64	2.05 H	10	39.86	4.50
5	#10480.00	58.35 PK	68.20	-9.85	1.97 H	207	41.69	16.66

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	100.06 PK			3.10 V	21	95.41	4.65
2	*5240.00	90.14 AV			3.10 V	21	85.49	4.65
3	5350.00	59.18 PK	74.00	-14.82	3.10 V	21	54.68	4.50
4	5350.00	44.78 AV	54.00	-9.22	3.10 V	21	40.28	4.50
5	#10480.00	59.24 PK	68.20	-8.96	1.66 V	228	42.58	16.66

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 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	58.43 PK	74.00	-15.57	2.07 H	10	53.16	5.27
2	5150.00	45.30 AV	54.00	-8.70	2.07 H	10	40.03	5.27
3	*5260.00	94.63 PK			2.07 H	10	90.11	4.52
4	*5260.00	84.41 AV			2.07 H	10	79.89	4.52
5	#10520.00	57.91 PK	68.20	-10.29	1.99 H	254	41.06	16.85

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	5150.00	59.20 PK	74.00	-14.80	4.00 V	22	53.93	5.27
2	5150.00	45.97 AV	54.00	-8.03	4.00 V	22	40.70	5.27
3	*5260.00	98.19 PK			2.97 V	22	93.67	4.52
4	*5260.00	87.35 AV			2.97 V	22	82.83	4.52
5	#10520.00	59.01 PK	68.20	-9.19	1.75 V	224	42.16	16.85

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	94.76 PK			2.04 H	13	90.44	4.32
2	*5300.00	84.91 AV			2.04 H	13	80.59	4.32
3	10600.00	58.31 PK	74.00	-15.69	1.99 H	261	41.34	16.97
4	10600.00	44.33 AV	54.00	-9.67	1.99 H	261	27.36	16.97

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	98.06 PK			3.92 V	22	93.74	4.32
2	*5300.00	86.98 AV			3.92 V	22	82.66	4.32
3	10600.00	59.13 PK	74.00	-14.87	1.67 V	124	42.16	16.97
4	10600.00	45.31 AV	54.00	-8.69	1.67 V	124	28.34	16.97

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	94.51 PK			2.06 H	13	90.13	4.38
2	*5320.00	84.82 AV			2.06 H	13	80.44	4.38
3	5350.00	57.50 PK	74.00	-16.50	2.06 H	13	53.00	4.50
4	5350.00	43.61 AV	54.00	-10.39	2.06 H	13	39.11	4.50
5	10640.00	57.77 PK	74.00	-16.23	1.36 H	29	41.11	16.66
6	10640.00	44.00 AV	54.00	-10.00	1.36 H	29	27.34	16.66

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	98.06 PK			2.78 V	19	93.68	4.38
2	*5320.00	87.28 AV			2.78 V	19	82.90	4.38
3	5350.00	57.82 PK	74.00	-16.18	2.78 V	19	53.32	4.50
4	5350.00	44.35 AV	54.00	-9.65	2.78 V	19	39.85	4.50
5	10640.00	59.31 PK	74.00	-14.69	1.99 V	254	42.65	16.66
6	10640.00	45.30 AV	54.00	-8.70	1.99 V	254	28.64	16.66

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	5460.00	57.58 PK	74.00	-16.42	2.11 H	10	52.93	4.65
2	5460.00	42.53 AV	54.00	-11.47	2.11 H	10	37.88	4.65
3	#5470.00	57.62 PK	68.20	-10.58	2.11 H	10	53.01	4.61
4	*5500.00	95.89 PK			2.11 H	10	91.42	4.47
5	*5500.00	84.76 AV			2.11 H	10	80.29	4.47
6	11000.00	57.50 PK	74.00	-16.50	1.77 H	101	41.08	16.42
7	11000.00	42.73 AV	54.00	-11.27	1.77 H	101	26.31	16.42

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.10 PK	74.00	-15.90	3.45 V	28	53.45	4.65
2	5460.00	43.83 AV	54.00	-10.17	3.45 V	28	39.18	4.65
3	#5470.00	58.56 PK	68.20	-9.64	3.45 V	28	53.95	4.61
4	*5500.00	99.72 PK			3.45 V	28	95.25	4.47
5	*5500.00	89.02 AV			3.45 V	28	84.55	4.47
6	11000.00	59.26 PK	74.00	-14.74	1.69 V	236	42.84	16.42
7	11000.00	43.91 AV	54.00	-10.09	1.69 V	236	27.49	16.42

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	98.19 PK			2.13 H	12	93.36	4.83
2	*5580.00	87.02 AV			2.13 H	12	82.19	4.83
3	11160.00	58.66 PK	74.00	-15.34	1.88 H	220	41.62	17.04
4	11160.00	43.13 AV	54.00	-10.87	1.88 H	220	26.09	17.04

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	102.18 PK			2.51 V	23	97.35	4.83
2	*5580.00	90.74 AV			2.51 V	23	85.91	4.83
3	11160.00	59.56 PK	74.00	-14.44	1.56 V	239	42.52	17.04
4	11160.00	44.32 AV	54.00	-9.68	1.56 V	239	27.28	17.04

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 132	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	*5660.00	99.34 PK			2.09 H	9	94.26	5.08
2	*5660.00	88.40 AV			2.09 H	9	83.32	5.08
3	11320.00	57.95 PK	74.00	-16.05	1.36 H	339	41.25	16.70
4	11320.00	43.12 AV	54.00	-10.88	1.36 H	339	26.42	16.70

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	*5660.00	103.58 PK			2.55 V	17	98.50	5.08
2	*5660.00	92.53 AV			2.55 V	17	87.45	5.08
3	11320.00	59.31 PK	74.00	-14.69	1.82 V	256	42.61	16.70
4	11320.00	44.14 AV	54.00	-9.86	1.82 V	256	27.44	16.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	94.08 PK			2.08 H	13	88.79	5.29
2	*5700.00	82.93 AV			2.08 H	13	77.64	5.29
3	#5725.00	58.70 PK	68.20	-9.50	2.08 H	13	53.24	5.46
4	11400.00	58.03 PK	74.00	-15.97	1.96 H	286	41.19	16.84
5	11400.00	43.18 AV	54.00	-10.82	1.96 H	286	26.34	16.84

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	97.98 PK			2.53 V	21	92.69	5.29
2	*5700.00	86.44 AV			2.53 V	21	81.15	5.29
3	#5725.00	59.47 PK	68.20	-8.73	2.53 V	21	54.01	5.46
4	11400.00	59.35 PK	74.00	-14.65	1.72 V	154	42.51	16.84
5	11400.00	44.42 AV	54.00	-9.58	1.72 V	154	27.58	16.84

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 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	#5561.71	58.33 PK	68.20	-9.87	1.80 H	341	53.13	5.20
2	*5745.00	102.94 PK			1.80 H	341	97.00	5.94
3	*5745.00	92.78 AV			1.80 H	341	86.84	5.94
4	#5959.44	59.07 PK	68.20	-9.13	1.80 H	341	52.39	6.68
5	11490.00	42.19 PK	74.00	-31.81	2.19 H	229	24.52	17.67
6	11490.00	28.99 AV	54.00	-25.01	2.19 H	229	11.32	17.67

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5627.64	58.11 PK	68.20	-10.09	2.15 V	342	52.78	5.33
2	*5745.00	98.79 PK			2.15 V	342	92.85	5.94
3	*5745.00	88.46 AV			2.15 V	342	82.52	5.94
4	#5966.77	59.24 PK	68.20	-8.96	2.15 V	342	52.57	6.67
5	11490.00	41.62 PK	74.00	-32.38	1.55 V	228	23.95	17.67
6	11490.00	27.94 AV	54.00	-26.06	1.55 V	228	10.27	17.67

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	#5639.73	58.18 PK	68.20	-10.02	1.78 H	338	52.82	5.36
2	*5785.00	104.34 PK			1.78 H	338	98.13	6.21
3	*5785.00	94.69 AV			1.78 H	338	88.48	6.21
4	#5959.01	58.61 PK	68.20	-9.59	1.78 H	338	51.94	6.67
5	11570.00	42.08 PK	74.00	-31.92	2.05 H	221	24.48	17.60
6	11570.00	28.06 AV	54.00	-25.94	2.05 H	221	10.46	17.60

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	#5602.68	57.53 PK	68.20	-10.67	2.01 V	310	52.23	5.30
2	*5785.00	100.18 PK			2.01 V	310	93.97	6.21
3	*5785.00	90.63 AV			2.01 V	310	84.42	6.21
4	#5942.88	59.14 PK	68.20	-9.06	2.01 V	310	52.46	6.68
5	11570.00	41.62 PK	74.00	-32.38	1.42 V	185	24.02	17.60
6	11570.00	27.43 AV	54.00	-26.57	1.42 V	185	9.83	17.60

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	#5635.00	58.22 PK	68.20	-9.98	1.77 H	339	52.88	5.34
2	*5825.00	103.88 PK			1.77 H	339	97.45	6.43
3	*5825.00	93.48 AV			1.77 H	339	87.05	6.43
4	#5930.65	59.20 PK	68.20	-9.00	1.77 H	339	52.50	6.70
5	11650.00	42.84 PK	74.00	-31.16	2.36 H	210	25.47	17.37
6	11650.00	28.64 AV	54.00	-25.36	2.36 H	210	11.27	17.37

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5601.45	57.62 PK	68.20	-10.58	2.05 V	314	52.32	5.30
2	*5825.00	99.46 PK			2.05 V	314	93.03	6.43
3	*5825.00	89.74 AV			2.05 V	314	83.31	6.43
4	#5940.16	58.74 PK	68.20	-9.46	2.05 V	314	52.06	6.68
5	11650.00	41.18 PK	74.00	-32.82	1.82 V	254	23.81	17.37
6	11650.00	27.42 AV	54.00	-26.58	1.82 V	254	10.05	17.37

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

802.11ac (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	62.41 PK	74.00	-11.59	2.06 H	11	57.14	5.27
2	5150.00	47.63 AV	54.00	-6.37	2.06 H	11	42.36	5.27
3	*5190.00	95.76 PK			2.06 H	11	90.78	4.98
4	*5190.00	84.31 AV			2.06 H	11	79.33	4.98
5	#10380.00	57.53 PK	68.20	-10.67	1.58 H	229	41.64	15.89

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	64.61 PK	74.00	-9.39	3.89 V	22	59.34	5.27
2	5150.00	49.68 AV	54.00	-4.32	3.89 V	22	44.41	5.27
3	*5190.00	99.89 PK			3.89 V	22	94.91	4.98
4	*5190.00	89.30 AV			3.89 V	22	84.32	4.98
5	#10380.00	58.50 PK	68.20	-9.70	1.99 V	124	42.61	15.89

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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	*5230.00	96.07 PK			2.07 H	13	91.36	4.71
2	*5230.00	84.93 AV			2.07 H	13	80.22	4.71
3	5350.00	58.53 PK	74.00	-15.47	2.07 H	13	54.03	4.50
4	5350.00	45.38 AV	54.00	-8.62	2.07 H	13	40.88	4.50
5	#10460.00	57.55 PK	68.20	-10.65	1.88 H	177	41.03	16.52

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	*5230.00	99.63 PK			3.88 V	26	94.92	4.71
2	*5230.00	88.51 AV			3.88 V	26	83.80	4.71
3	5350.00	59.40 PK	74.00	-14.60	3.88 V	26	54.90	4.50
4	5350.00	45.63 AV	54.00	-8.37	3.88 V	26	41.13	4.50
5	#10460.00	59.18 PK	68.20	-9.02	1.81 V	234	42.66	16.52

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 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	5150.00	58.41 PK	74.00	-15.59	2.06 H	13	53.14	5.27
2	5150.00	45.52 AV	54.00	-8.48	2.06 H	13	40.25	5.27
3	*5270.00	92.93 PK			2.06 H	13	88.46	4.47
4	*5270.00	82.41 AV			2.06 H	13	77.94	4.47
5	#10540.00	58.42 PK	68.20	-9.78	1.88 H	167	41.54	16.88

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	58.90 PK	74.00	-15.10	3.97 V	21	53.63	5.27
2	5150.00	46.13 AV	54.00	-7.87	3.97 V	21	40.86	5.27
3	*5270.00	96.16 PK			3.97 V	27	91.69	4.47
4	*5270.00	85.04 AV			3.97 V	27	80.57	4.47
5	#10540.00	59.51 PK	68.20	-8.69	1.88 V	45	42.63	16.88

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	91.85 PK			2.08 H	9	87.49	4.36
2	*5310.00	81.32 AV			2.08 H	9	76.96	4.36
3	5350.00	57.37 PK	74.00	-16.63	2.08 H	9	52.87	4.50
4	5350.00	44.37 AV	54.00	-9.63	2.08 H	9	39.87	4.50
5	10620.00	57.98 PK	74.00	-16.02	1.47 H	154	41.16	16.82
6	10620.00	44.13 AV	54.00	-9.87	1.47 H	154	27.31	16.82

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	94.46 PK			2.80 V	21	90.10	4.36
2	*5310.00	74.55 AV			2.80 V	21	70.19	4.36
3	5350.00	57.71 PK	74.00	-16.29	2.80 V	21	53.21	4.50
4	5350.00	44.90 AV	54.00	-9.10	2.80 V	21	40.40	4.50
5	10620.00	58.98 PK	74.00	-15.02	1.85 V	215	42.16	16.82
6	10620.00	45.13 AV	54.00	-8.87	1.85 V	215	28.31	16.82

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	5460.00	60.90 PK	74.00	-13.10	1.82 H	334	56.25	4.65
2	5460.00	45.18 AV	54.00	-8.82	1.82 H	334	40.53	4.65
3	#5470.00	65.71 PK	68.20	-2.49	1.82 H	334	61.10	4.61
4	*5510.00	96.10 PK			1.82 H	334	91.59	4.51
5	*5510.00	85.18 AV			1.82 H	334	80.67	4.51
6	11020.00	59.39 PK	74.00	-14.61	1.84 H	123	42.86	16.53
7	11020.00	45.49 AV	54.00	-8.51	1.84 H	123	28.96	16.53

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.23 PK	74.00	-16.77	2.01 V	302	52.58	4.65
2	5460.00	42.81 AV	54.00	-11.19	2.01 V	302	38.16	4.65
3	#5470.00	61.39 PK	68.20	-6.81	2.01 V	302	56.78	4.61
4	*5510.00	90.28 PK			2.01 V	302	85.77	4.51
5	*5510.00	80.09 AV			2.01 V	302	75.58	4.51
6	11020.00	59.11 PK	74.00	-14.89	1.85 V	264	42.58	16.53
7	11020.00	45.16 AV	54.00	-8.84	1.85 V	264	28.63	16.53

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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	*5550.00	97.16 PK			1.63 H	336	92.46	4.70
2	*5550.00	86.28 AV			1.63 H	336	81.58	4.70
3	11100.00	59.58 PK	74.00	-14.42	1.69 H	235	42.65	16.93
4	11100.00	45.59 AV	54.00	-8.41	1.69 H	235	28.66	16.93

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	90.56 PK			2.05 V	312	85.86	4.70
2	*5550.00	79.68 AV			2.05 V	312	74.98	4.70
3	11100.00	58.61 PK	74.00	-15.39	1.47 V	125	41.68	16.93
4	11100.00	44.57 AV	54.00	-9.43	1.47 V	125	27.64	16.93

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	97.34 PK			1.76 H	336	92.20	5.14
2	*5670.00	86.93 AV			1.76 H	336	81.79	5.14
3	#5725.00	62.27 PK	68.20	-5.93	1.76 H	336	56.81	5.46
4	11340.00	59.27 PK	74.00	-14.73	1.84 H	251	42.54	16.73
5	11340.00	45.12 AV	54.00	-8.88	1.84 H	251	28.39	16.73

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	*5670.00	90.92 PK			2.04 V	309	85.78	5.14
2	*5670.00	79.70 AV			2.04 V	309	74.56	5.14
3	#5725.00	59.65 PK	68.20	-8.55	2.04 V	309	54.19	5.46
4	11340.00	58.57 PK	74.00	-15.43	1.78 V	119	41.84	16.73
5	11340.00	44.07 AV	54.00	-9.93	1.78 V	119	27.34	16.73

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 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	#5599.27	58.45 PK	68.20	-9.75	1.85 H	322	53.15	5.30
2	*5755.00	100.26 PK			1.85 H	322	94.26	6.00
3	*5755.00	90.58 AV			1.85 H	322	84.58	6.00
4	#5947.71	59.58 PK	68.20	-8.62	1.85 H	322	52.90	6.68
5	11510.00	42.58 PK	74.00	-31.42	1.87 H	246	24.88	17.70
6	11510.00	28.26 AV	54.00	-25.74	1.87 H	246	10.56	17.70

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	#5634.00	57.94 PK	68.20	-10.26	1.96 V	302	52.60	5.34
2	*5755.00	96.58 PK			1.96 V	302	90.58	6.00
3	*5755.00	86.15 AV			1.96 V	302	80.15	6.00
4	#5930.15	59.28 PK	68.20	-8.92	1.96 V	302	52.57	6.71
5	11510.00	41.71 PK	74.00	-32.29	1.88 V	55	24.01	17.70
6	11510.00	27.63 AV	54.00	-26.37	1.88 V	55	9.93	17.70

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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	#5626.44	58.93 PK	68.20	-9.27	1.88 H	346	53.59	5.34
2	*5795.00	100.57 PK			1.88 H	346	94.29	6.28
3	*5795.00	90.34 AV			1.88 H	346	84.06	6.28
4	#5942.88	59.97 PK	68.20	-8.23	1.88 H	346	53.29	6.68
5	11590.00	42.63 PK	74.00	-31.37	1.47 H	153	25.07	17.56
6	11590.00	28.46 AV	54.00	-25.54	1.47 H	153	10.90	17.56

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5624.06	57.14 PK	68.20	-11.06	2.08 V	306	51.81	5.33
2	*5795.00	96.85 PK			2.08 V	306	90.57	6.28
3	*5795.00	86.34 AV			2.08 V	306	80.06	6.28
4	#5970.67	57.96 PK	68.20	-10.24	2.08 V	306	51.29	6.67
5	11590.00	41.63 PK	74.00	-32.37	2.02 V	5	24.07	17.56
6	11590.00	27.23 AV	54.00	-26.77	2.02 V	5	9.67	17.56

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

802.11ac (80MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.61 PK	74.00	-9.39	2.09 H	11	59.34	5.27
2	5150.00	48.46 AV	54.00	-5.54	2.09 H	11	43.19	5.27
3	*5210.00	94.47 PK			2.09 H	11	89.64	4.83
4	*5210.00	84.04 AV			2.09 H	11	79.21	4.83
5	5350.00	58.63 PK	74.00	-15.37	2.09 H	11	54.13	4.50
6	5350.00	45.38 AV	54.00	-8.62	2.09 H	11	40.88	4.50
7	#10420.00	57.90 PK	68.20	-10.30	1.94 H	127	41.69	16.21

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	67.61 PK	74.00	-6.39	2.85 V	19	62.34	5.27
2	5150.00	51.90 AV	54.00	-2.10	2.85 V	19	46.63	5.27
3	*5210.00	97.88 PK			2.85 V	19	93.05	4.83
4	*5210.00	87.43 AV			2.85 V	19	82.60	4.83
5	5350.00	59.37 PK	74.00	-14.63	2.85 V	19	54.87	4.50
6	5350.00	46.06 AV	54.00	-7.94	2.85 V	19	41.56	4.50
7	#10420.00	58.85 PK	68.20	-9.35	1.84 V	124	42.64	16.21

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 58	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.96 PK	74.00	-16.04	2.06 H	11	52.69	5.27
2	5150.00	45.85 AV	54.00	-8.15	2.06 H	11	40.58	5.27
3	*5290.00	89.95 PK			2.06 H	11	85.58	4.37
4	*5290.00	79.86 AV			2.06 H	11	75.49	4.37
5	5350.00	58.66 PK	74.00	-15.34	2.06 H	11	54.16	4.50
6	5350.00	46.08 AV	54.00	-7.92	2.06 H	11	41.58	4.50
7	#10580.00	58.50 PK	68.20	-9.70	1.96 H	296	41.56	16.94

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.76 PK	74.00	-15.24	2.80 V	23	53.49	5.27
2	5150.00	46.57 AV	54.00	-7.43	2.80 V	23	41.30	5.27
3	*5290.00	93.04 PK			2.80 V	23	88.67	4.37
4	*5290.00	83.16 AV			2.80 V	23	78.79	4.37
5	5350.00	59.75 PK	74.00	-14.25	2.80 V	23	55.25	4.50
6	5350.00	47.28 AV	54.00	-6.72	2.80 V	23	42.78	4.50
7	#10580.00	59.13 PK	68.20	-9.07	1.58 V	268	42.19	16.94

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 106	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.03 PK	74.00	-8.97	1.65 H	335	60.38	4.65
2	5460.00	50.66 AV	54.00	-3.34	1.65 H	335	46.01	4.65
3	#5470.00	65.73 PK	68.20	-2.47	1.65 H	335	61.12	4.61
4	*5530.00	94.89 PK			1.65 H	335	90.27	4.62
5	*5530.00	83.91 AV			1.65 H	335	79.29	4.62
6	11060.00	59.40 PK	74.00	-14.60	1.95 H	268	42.68	16.72
7	11060.00	45.36 AV	54.00	-8.64	1.95 H	268	28.64	16.72

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	5460.00	62.08 PK	74.00	-11.92	1.98 V	315	57.43	4.65
2	5460.00	47.94 AV	54.00	-6.06	1.98 V	315	43.29	4.65
3	#5470.00	62.24 PK	68.20	-5.96	1.98 V	315	57.63	4.61
4	*5530.00	90.88 PK			1.98 V	315	86.26	4.62
5	*5530.00	79.84 AV			1.98 V	315	75.22	4.62
6	11060.00	58.33 PK	74.00	-15.67	1.25 V	228	41.61	16.72
7	11060.00	43.91 AV	54.00	-10.09	1.25 V	228	27.19	16.72

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low 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 155	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5625.73	58.19 PK	68.20	-10.01	1.86 H	321	52.86	5.33
2	*5775.00	97.77 PK			1.86 H	321	91.63	6.14
3	*5775.00	87.05 AV			1.86 H	321	80.91	6.14
4	#5945.30	58.95 PK	68.20	-9.25	1.86 H	321	52.28	6.67
5	11550.00	42.64 PK	74.00	-31.36	1.55 H	263	25.01	17.63
6	11550.00	28.21 AV	54.00	-25.79	1.55 H	263	10.58	17.63

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5636.43	57.48 PK	68.20	-10.72	2.10 V	310	52.13	5.35
2	*5775.00	93.50 PK			2.10 V	310	87.36	6.14
3	*5775.00	83.06 AV			2.10 V	310	76.92	6.14
4	#5998.86	59.69 PK	68.20	-8.51	2.10 V	310	53.01	6.68
5	11550.00	41.43 PK	74.00	-32.57	1.72 V	226	23.80	17.63
6	11550.00	27.34 AV	54.00	-26.66	1.72 V	226	9.71	17.63

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

BELOW 1GHz WORST-CASE DATA

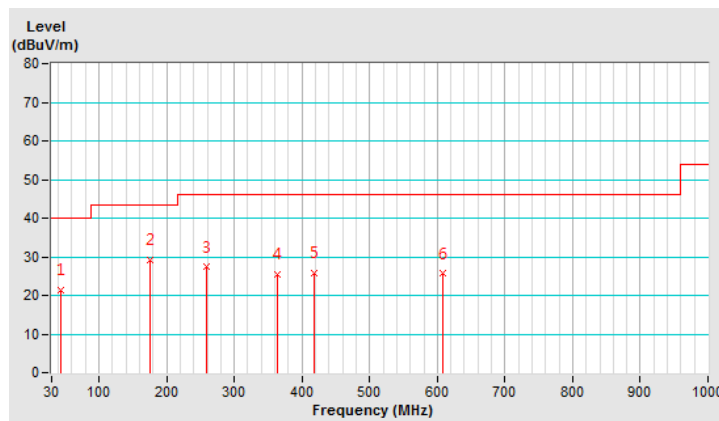
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CHANNEL	TX Channel 157	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 30MHz		

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	43.00	21.48 QP	40.00	-18.52	1.84 H	23	29.13	-7.65
2	175.69	29.21 QP	43.50	-14.29	2.15 H	192	37.06	-7.85
3	258.14	27.31 QP	46.00	-18.69	1.45 H	26	34.17	-6.86
4	364.12	25.42 QP	46.00	-20.58	2.39 H	360	29.54	-4.12
5	418.00	25.77 QP	46.00	-20.23	1.87 H	192	28.91	-3.14
6	607.97	25.63 QP	46.00	-20.37	2.20 H	23	24.73	0.90

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz :the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



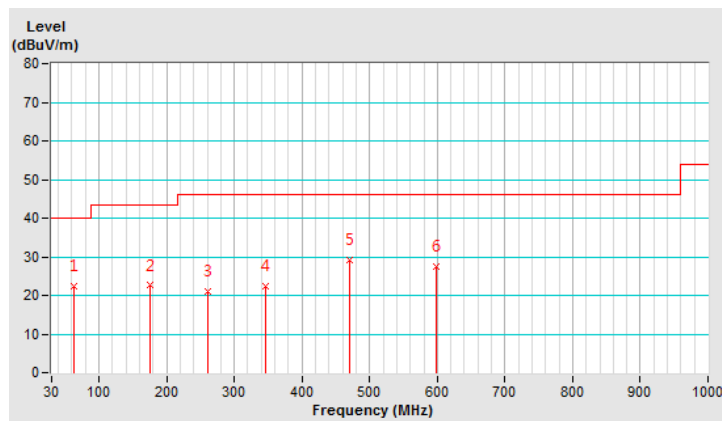
CHANNEL	TX Channel 157	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 30MHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	62.59	22.40 QP	40.00	-17.60	1.74 V	176	30.59	-8.19
2	174.77	22.57 QP	43.50	-20.93	1.62 V	109	30.30	-7.73
3	260.08	21.14 QP	46.00	-24.86	1.55 V	360	27.91	-6.77
4	346.80	22.35 QP	46.00	-23.65	1.38 V	360	26.93	-4.58
5	471.06	29.13 QP	46.00	-16.87	1.74 V	360	31.02	-1.89
6	598.13	27.52 QP	46.00	-18.48	1.98 V	326	26.83	0.69

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz :the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	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.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
ROHDE & SCHWARZ TEST RECEIVER	ESCS 30	838251/021	Nov. 1, 2018	Oct. 31, 2019
ROHDE & SCHWARZ Artificial Mains Network (For EUT)	ENV216	101195	May 2, 2018	May 1, 2019
LISN With Adapter (for EUT)	AD10	C03Ada-002	May 2, 2018	May 1, 2019
EMCO L.I.S.N. (For peripherals)	3825/2	9504-2359	Jul. 26, 2018	Jul. 25, 2019
SCHWARZBECK Artificial Mains Network (For EUT)	NNLK8129	8129229	May 3, 2018	May 2, 2019
Software	Cond_V7.3.7.4	NA	NA	NA
RF cable (JYEBAO) With 10dB PAD	5D-FB	Cable-C03.01	Sep. 18, 2018	Sep. 17, 2019
LYNICS Terminator (For EMCO LISN)	0900510	E1-01-300	Jan. 19, 2018	Jan. 18, 2019
LYNICS Terminator (For EMCO LISN)	0900510	E1-01-301	Jan. 19, 2018	Jan. 18, 2019
ROHDE & SCHWARZ Artificial Mains Network (For TV EUT)	ESH3-Z5	100220	Nov. 21, 2018	Nov. 20, 2019
LISN With Adapter (for TV EUT)	100220	N/A	Nov. 21, 2018	Nov. 20, 2019

Notes: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in Shielded Room No. 3.

4.2.3 Test Procedures

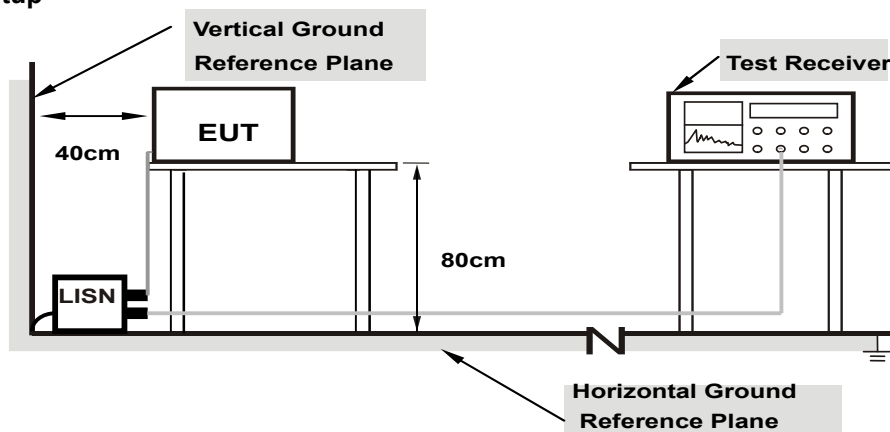
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance 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) was not recorded.

NOTE: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

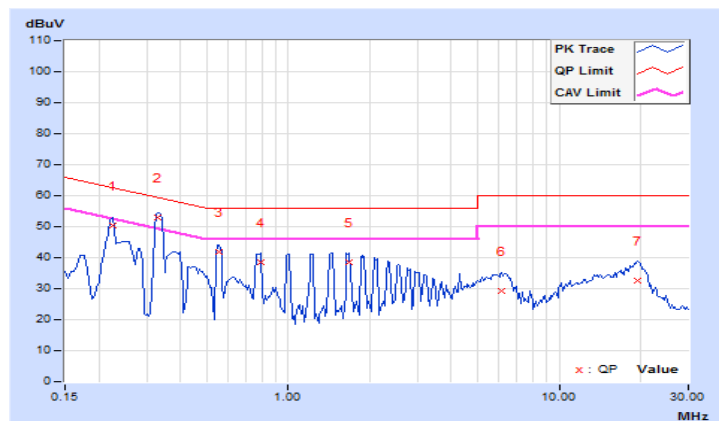
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Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.22422	9.67	40.73	26.35	50.40	36.02	62.66	52.66	-12.26	-16.64
2	0.32969	9.68	43.39	37.38	53.07	47.06	59.46	49.46	-6.39	-2.40
3	0.55234	9.70	32.15	27.62	41.85	37.32	56.00	46.00	-14.15	-8.68
4	0.79063	9.72	28.89	16.68	38.61	26.40	56.00	46.00	-17.39	-19.60
5	1.67969	9.76	28.89	18.19	38.65	27.95	56.00	46.00	-17.35	-18.05
6	6.15625	9.87	19.39	8.96	29.26	18.83	60.00	50.00	-30.74	-31.17
7	19.41016	9.98	22.78	13.54	32.76	23.52	60.00	50.00	-27.24	-26.48

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.

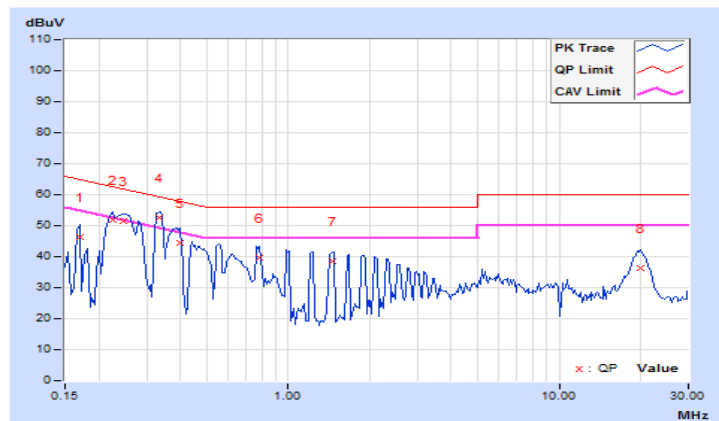


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.16953	9.68	36.56	12.21	46.24	21.89	64.98
2	0.22422	9.67	42.26	30.52	51.93	40.19	62.66	52.66	-10.73	-12.47
3	0.24766	9.67	41.80	34.94	51.47	44.61	61.84	51.84	-10.37	-7.23
4	0.33359	9.68	42.93	37.53	52.61	47.21	59.36	49.36	-6.75	-2.15
5	0.40000	9.69	34.64	12.86	44.33	22.55	57.85	47.85	-13.52	-25.30
6	0.78672	9.72	29.85	21.86	39.57	31.58	56.00	46.00	-16.43	-14.42
7	1.44922	9.75	28.89	18.27	38.64	28.02	56.00	46.00	-17.36	-17.98
8	20.06641	10.03	26.43	16.96	36.46	26.99	60.00	50.00	-23.54	-23.01

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.



4.3 Transmit Power Measurement

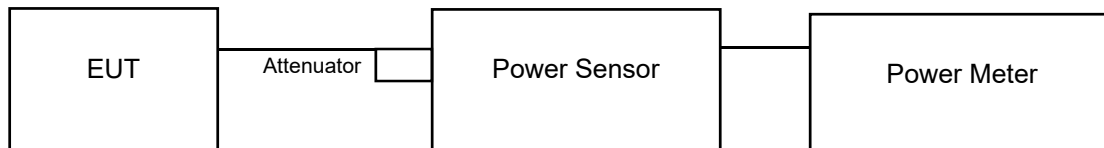
4.3.1 Limits of Transmit Power Measurement

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 (24 dBm) or 11 dBm+10 log B*
U-NII-2C		√	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3		√	1 Watt (30 dBm)

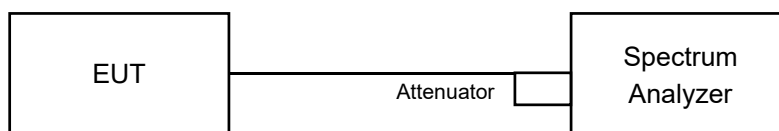
*B is the 26 dB emission bandwidth in megahertz

4.3.2 Test Setup

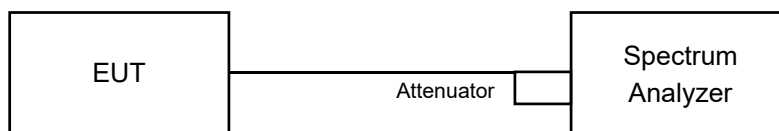
For Power Output
 802.11a, 802.11ac (20MHz), 802.11ac (40MHz)



802.11ac (80MHz)



For 26dB and Occupied Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

For 802.11a, 802.11ac (20MHz), 802.11ac (40MHz)

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 and set the detector to AVERAGE. Duty factor is not added to measured value.

For 802.11ac (80MHz)

- a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- b. Set sweep trigger to "free run".
- c. Set RBW = 1 MHz
- d. Set VBW \geq 3 MHz
- e. Number of points in sweep \geq 2 Span / RBW
- f. Sweep time \leq (number of points in sweep) * T
- g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- h. Detector = RMS
- i. Trace mode = max hold
- j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
- k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

For 26dB Bandwidth

- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. 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 Occupied Bandwidth

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

802.11a

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	17.865	12.52	24.00	Pass
40	5200	19.543	12.91	24.00	Pass
48	5240	20.045	13.02	24.00	Pass
52	5260	20.559	13.13	24.00	Pass
60	5300	20.324	13.08	24.00	Pass
64	5320	20.749	13.17	24.00	Pass
100	5500	20.045	13.02	24.00	Pass
116	5582	20.845	13.19	24.00	Pass
132	5660	20.464	13.11	24.00	Pass
140	5700	20.045	13.02	24.00	Pass
149	5745	20.989	13.22	30.00	Pass
157	5785	20.606	13.14	30.00	Pass
165	5825	21.232	13.27	30.00	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. $11\text{dBm} + 10\log(21.84) = 24.39\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(22.34) = 24.49\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(22.09) = 24.44\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(22.08) = 24.44\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(21.93) = 24.41\text{ dBm} > 24\text{dBm}$
6. $11\text{dBm} + 10\log(21.96) = 24.42\text{ dBm} > 24\text{dBm}$
7. $11\text{dBm} + 10\log(21.90) = 24.40\text{ dBm} > 24\text{dBm}$

802.11ac (20MHz)

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	15.959	12.03	24.00	Pass
40	5200	16.106	12.07	24.00	Pass
48	5240	16.069	12.06	24.00	Pass
52	5260	16.293	12.12	24.00	Pass
60	5300	16.634	12.21	24.00	Pass
64	5320	16.444	12.16	24.00	Pass
100	5500	16.558	12.19	24.00	Pass
116	5582	16.482	12.17	24.00	Pass
132	5660	16.444	12.16	24.00	Pass
140	5700	16.368	12.14	24.00	Pass
149	5745	16.711	12.23	30.00	Pass
157	5785	16.331	12.13	30.00	Pass
165	5825	16.634	12.21	30.00	Pass

Note:

For U-NII-2A, U-NII-2C Band:

1. $11\text{dBm} + 10\log(22.40) = 24.50\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(22.54) = 24.53\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(22.96) = 24.61\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(22.42) = 24.51\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(22.74) = 24.57\text{ dBm} > 24\text{dBm}$
6. $11\text{dBm} + 10\log(22.26) = 24.48\text{ dBm} > 24\text{dBm}$
7. $11\text{dBm} + 10\log(22.33) = 24.49\text{ dBm} > 24\text{dBm}$

802.11ac (40MHz)

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	15.922	12.02	24.00	Pass
46	5230	16.293	12.12	24.00	Pass
54	5270	16.558	12.19	24.00	Pass
62	5310	16.293	12.12	24.00	Pass
102	5510	16.331	12.13	24.00	Pass
110	5550	16.634	12.21	24.00	Pass
134	5670	16.596	12.20	24.00	Pass
151	5755	16.558	12.19	30.00	Pass
159	5795	16.144	12.08	30.00	Pass

Note:

For U-NII-2A, U-NII-2C Band:

- $11\text{dBm} + 10\log(44.57) = 27.49\text{ dBm} > 24\text{dBm}$
- $11\text{dBm} + 10\log(44.69) = 27.50\text{ dBm} > 24\text{dBm}$
- $11\text{dBm} + 10\log(43.96) = 27.43\text{ dBm} > 24\text{dBm}$
- $11\text{dBm} + 10\log(44.85) = 27.52\text{ dBm} > 24\text{dBm}$
- $11\text{dBm} + 10\log(46.83) = 27.71\text{ dBm} > 24\text{dBm}$

802.11ac (80MHz)

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
42	5210	16.520	12.18	24.00	Pass
58	5290	16.106	12.07	24.00	Pass
106	5530	16.634	12.21	24.00	Pass
155	5775	16.634	12.21	30.00	Pass

Note:

For U-NII-2A, U-NII-2C Band:

- $11\text{dBm} + 10\log(82.83) = 30.18\text{ dBm} > 24\text{dBm}$
- $11\text{dBm} + 10\log(82.24) = 30.15\text{ dBm} > 24\text{dBm}$

26dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	21.98
40	5200	22.11
48	5240	22.03
52	5260	21.84
60	5300	22.34
64	5320	22.09
100	5500	22.08
116	5580	21.93
132	5660	21.96
140	5700	21.90

802.11ac (20MHz)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	22.41
40	5200	22.22
48	5240	22.65
52	5260	22.40
60	5300	22.54
64	5320	22.96
100	5500	22.42
116	5580	22.74
132	5660	22.26
140	5700	22.33

802.11ac (40MHz)

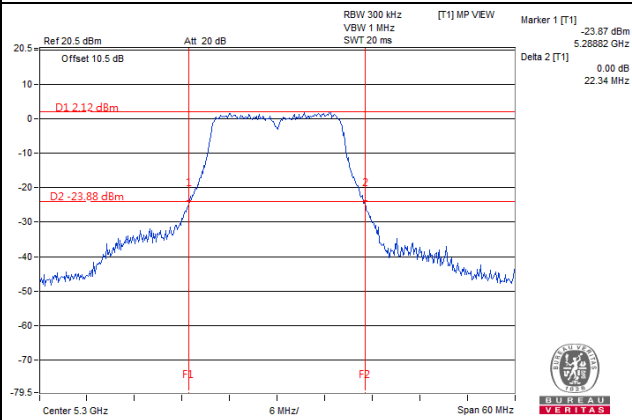
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
38	5190	44.88
46	5230	44.46
54	5270	44.57
62	5310	44.69
102	5510	43.96
110	5550	44.85
134	5670	46.83

802.11ac (80MHz)

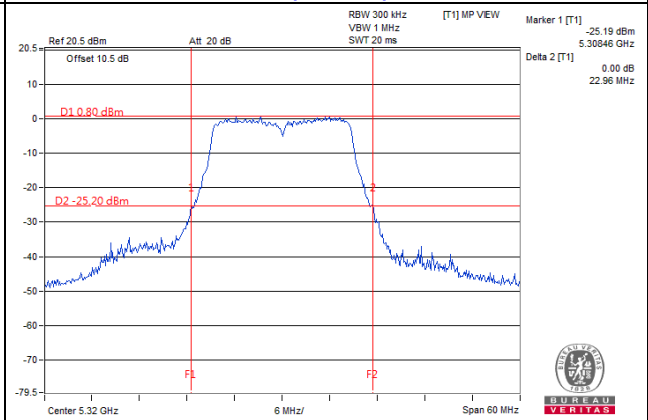
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
42	5210	83.85
58	5290	82.83
106	5530	82.24

Spectrum Plot of Worst Value

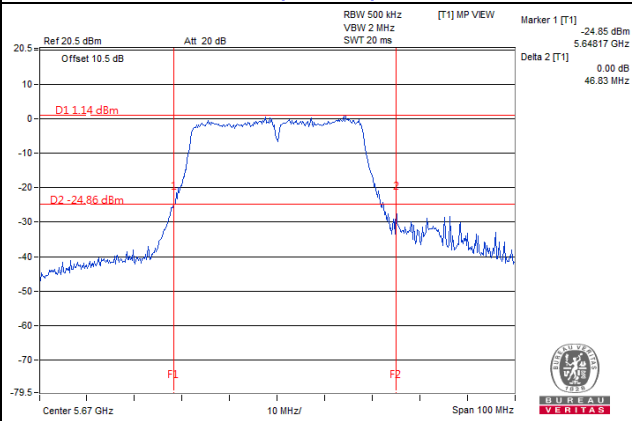
802.11a / CH60



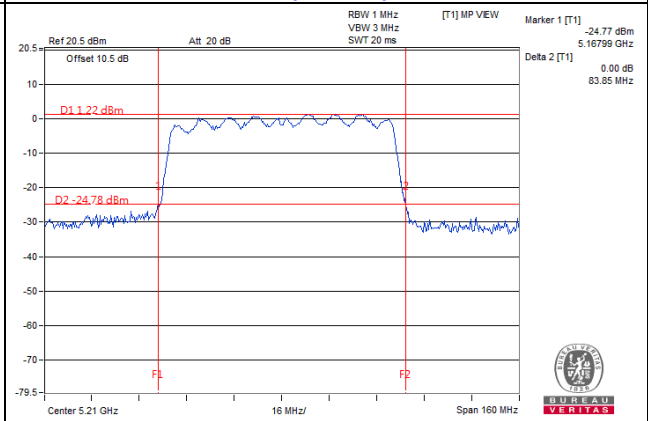
802.11ac (20MHz) / CH64



802.11ac (40MHz) / CH134

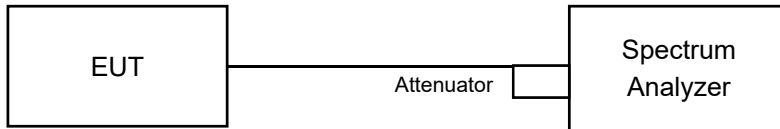


802.11ac (80MHz) / CH42



4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.4.4 Test Result

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.04
40	5200	16.92
48	5240	16.92
52	5260	16.92
60	5300	16.92
64	5320	16.92
100	5500	16.92
116	5580	16.92
132	5660	16.92
140	5700	16.92

802.11ac (20MHz)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.88
40	5200	18.00
48	5240	17.88
52	5260	18.00
60	5300	18.00
64	5320	18.12
100	5500	18.12
116	5580	17.88
132	5660	17.88
140	5700	17.88

802.11ac (40MHz)

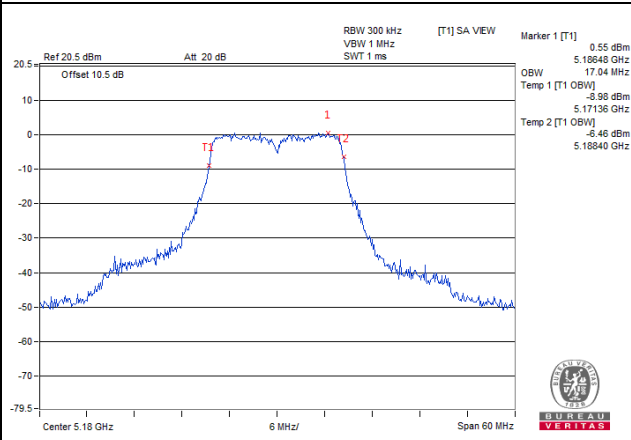
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	36.60
46	5230	36.80
54	5270	36.60
62	5310	36.60
102	5510	36.80
110	5550	36.80
134	5670	36.60

802.11ac (80MHz)

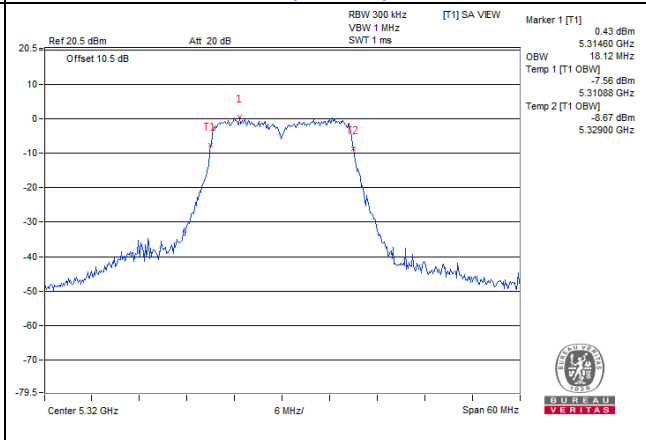
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
42	5210	75.36
58	5290	75.36
106	5530	75.36

Spectrum Plot of Worst Value

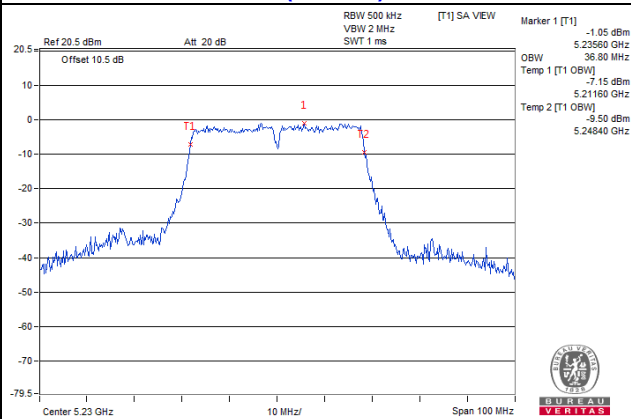
802.11a / CH36



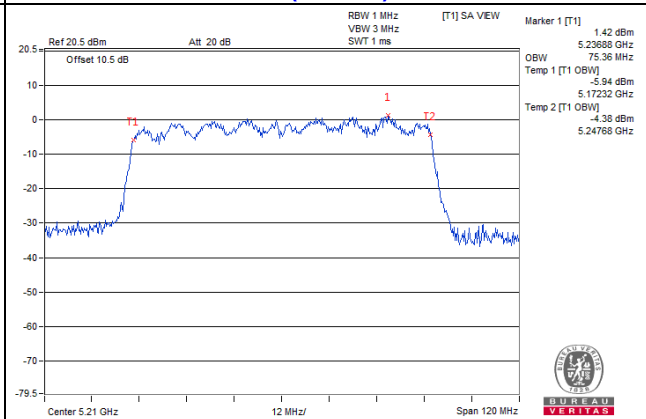
802.11ac (20MHz) / CH64



802.11ac (40MHz) / CH46



802.11ac (80MHz) / CH42

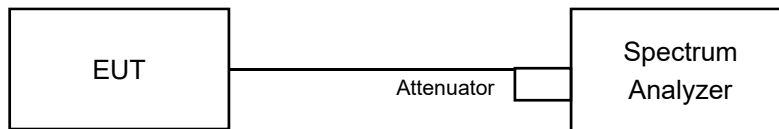


4.5 Peak Power Spectral Density Measurement

4.5.1 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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

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

Duty cycle of test signal is < 98%

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1MHz, Set VBW \geq 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 $10 \log (1/\text{duty cycle})$

For U-NII-3 band:

Duty cycle of test signal is < 98%

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 300 kHz, Set VBW \geq 1 MHz, Detector = RMS
- 3) Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
- 4) Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(500 \text{ kHz} / 300 \text{ kHz})$
- 5) Sweep time = auto, trigger set to "free run".
- 6) Trace average at least 100 traces in power averaging mode.
- 7) Record the max value and add $10 \log (1/\text{duty cycle})$

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as 4.3.6.

4.5.7 Test Results

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

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	-3.13	0.23	-2.90	11	Pass
40	5200	-3.02	0.23	-2.79	11	Pass
48	5240	-2.58	0.23	-2.35	11	Pass
52	5260	-2.69	0.23	-2.46	11	Pass
60	5300	-2.89	0.23	-2.66	11	Pass
64	5320	-2.46	0.23	-2.23	11	Pass
100	5500	-3.24	0.23	-3.01	11	Pass
116	5580	-2.86	0.23	-2.63	11	Pass
132	5660	-2.94	0.23	-2.71	11	Pass
140	5700	-3.04	0.23	-2.81	11	Pass

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

802.11n (20MHz)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	-4.11	0.24	-3.87	11	Pass
40	5200	-4.13	0.24	-3.89	11	Pass
48	5240	-4.18	0.24	-3.94	11	Pass
52	5260	-4.01	0.24	-3.77	11	Pass
60	5300	-3.73	0.24	-3.49	11	Pass
64	5320	-4.18	0.24	-3.94	11	Pass
100	5500	-4.18	0.24	-3.94	11	Pass
116	5580	-3.95	0.24	-3.71	11	Pass
132	5660	-4.21	0.24	-3.97	11	Pass
140	5700	-3.91	0.24	-3.67	11	Pass

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

802.11n (40MHz)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
38	5190	-7.71	0.36	-7.35	11	Pass
46	5230	-7.34	0.36	-6.98	11	Pass
54	5270	-7.36	0.36	-7.00	11	Pass
62	5310	-7.68	0.36	-7.32	11	Pass
102	5510	-7.04	0.36	-6.68	11	Pass
110	5550	-6.80	0.36	-6.44	11	Pass
134	5670	-7.05	0.36	-6.69	11	Pass

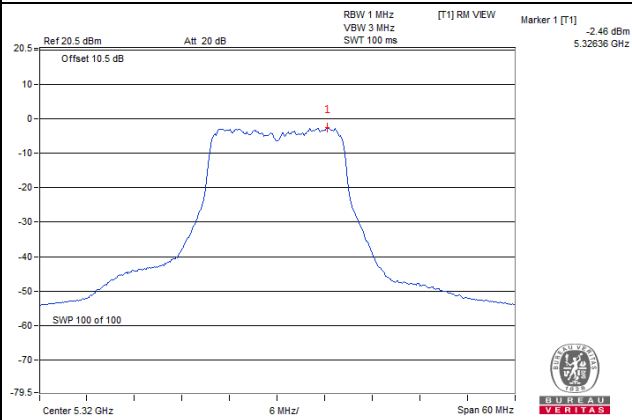
802.11ac (80MHz)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
42	5210	-16.50	0.71	-15.79	11	Pass
58	5290	-20.47	0.71	-19.76	11	Pass
106	5530	-22.96	0.71	-22.25	11	Pass

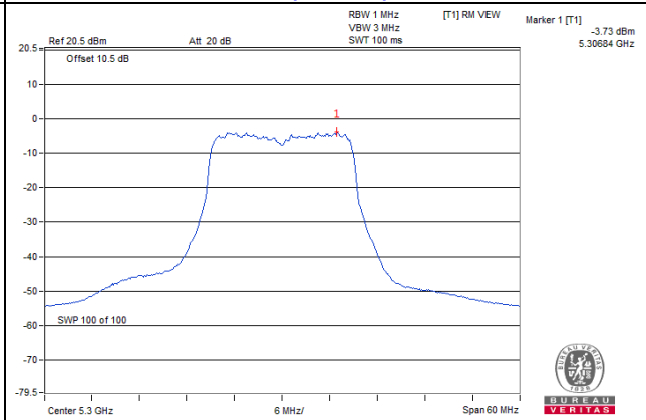
Note: Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

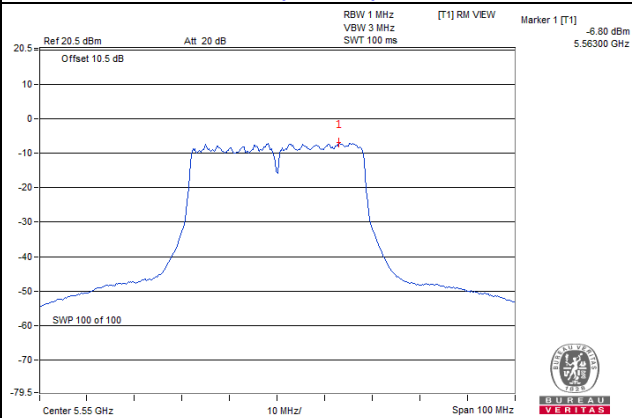
802.11a / CH64



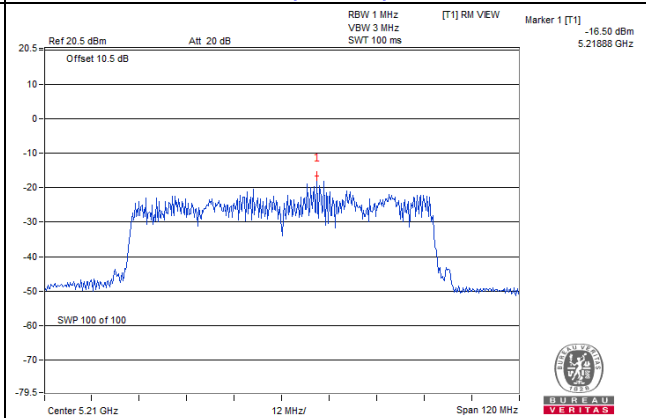
802.11ac (20MHz) / CH60



802.11ac (40MHz) / CH110



802.11ac (80MHz) / CH42



For U-NII-3 band:

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/500kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
149	5745	-11.34	0.23	-11.11	30	Pass
157	5785	-11.53	0.23	-11.30	30	Pass
165	5825	-11.46	0.23	-11.23	30	Pass

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

802.11ac (20MHz)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/500kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
149	5745	-12.63	0.24	-12.39	30	Pass
157	5785	-13.00	0.24	-12.76	30	Pass
165	5825	-12.44	0.24	-12.20	30	Pass

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

802.11ac (40MHz)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/500kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
151	5755	-16.45	0.36	-16.09	30	Pass
159	5795	-16.83	0.36	-16.47	30	Pass

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

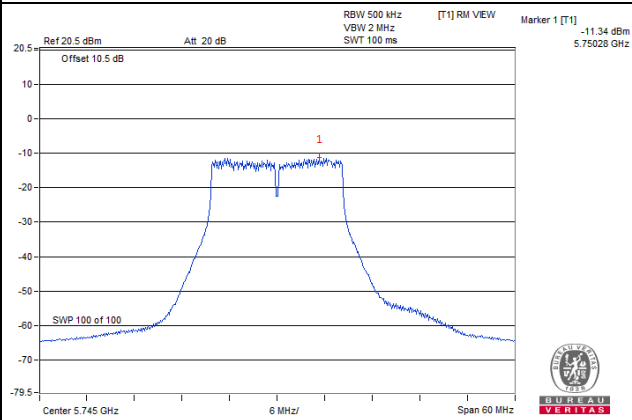
802.11ac (80MHz)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/500kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
155	5775	-28.82	0.71	-28.11	30	Pass

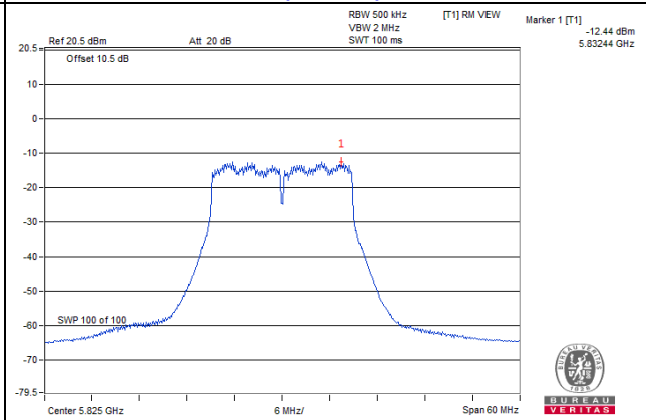
Note: Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

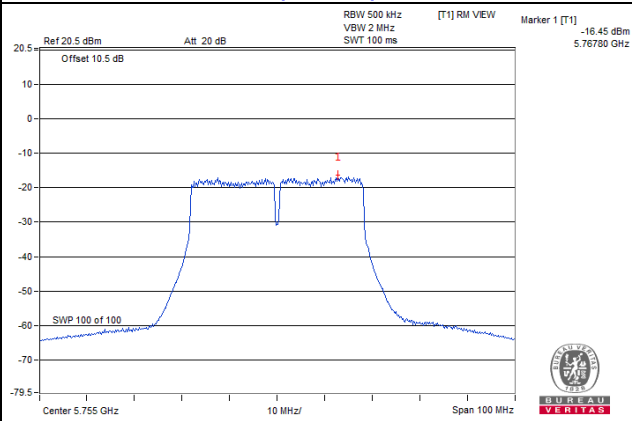
802.11a / CH149



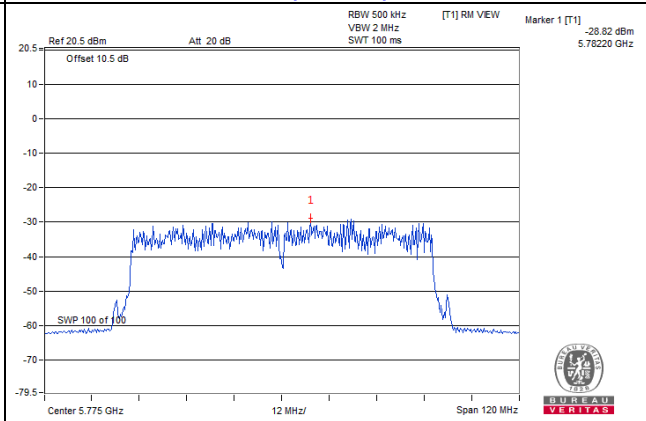
802.11ac (20MHz) / CH165



802.11ac (40MHz) / CH151



802.11ac (80MHz) / CH42

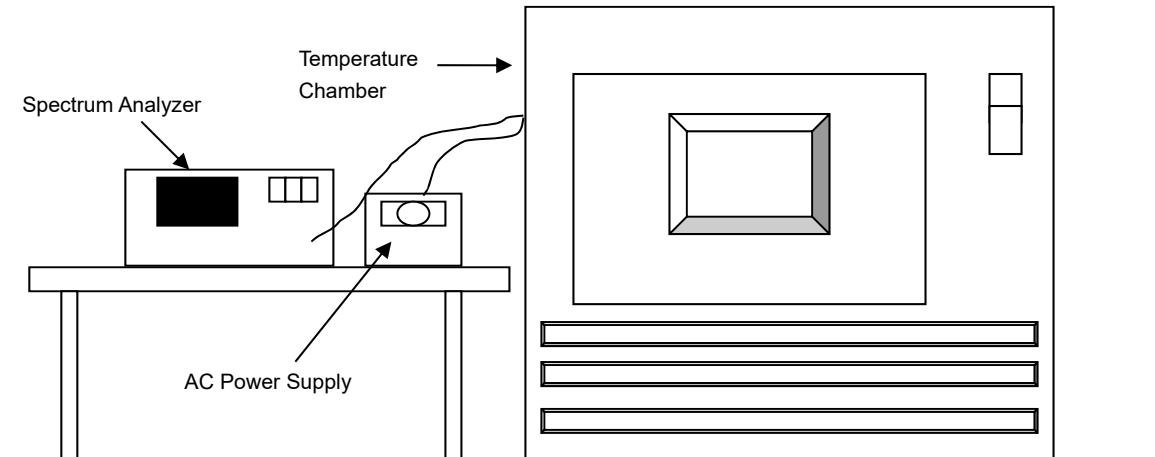


4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- 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.
- Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
- 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.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 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)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
50	120	5180.0032	PASS	5180.0015	PASS	5180.0013	PASS	5180.0029	PASS
40	120	5180.0091	PASS	5180.0094	PASS	5180.0080	PASS	5180.0059	PASS
30	120	5180.0195	PASS	5180.0159	PASS	5180.0175	PASS	5180.0185	PASS
20	120	5180.0003	PASS	5180.0004	PASS	5179.9999	PASS	5180.0018	PASS
10	120	5179.9883	PASS	5179.9877	PASS	5179.9898	PASS	5179.9889	PASS
0	120	5179.9988	PASS	5179.9965	PASS	5179.9966	PASS	5179.9984	PASS
-10	120	5179.9925	PASS	5179.9952	PASS	5179.9965	PASS	5179.9942	PASS
-20	120	5180.0065	PASS	5180.0072	PASS	5180.0048	PASS	5180.0072	PASS
-30	120	5179.9802	PASS	5179.9765	PASS	5179.9793	PASS	5179.9814	PASS

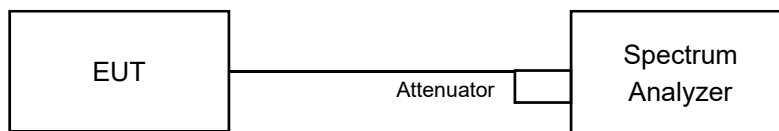
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	138	5179.9993	PASS	5180.0003	PASS	5179.9996	PASS	5180.0020	PASS
	120	5180.0003	PASS	5180.0004	PASS	5179.9999	PASS	5180.0018	PASS
	102	5180.0005	PASS	5179.9999	PASS	5179.9999	PASS	5180.0027	PASS

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

Measurement Procedure REF

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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	16.37	0.5	Pass
157	5785	16.39	0.5	Pass
165	5825	16.40	0.5	Pass

802.11ac (20MHz)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	17.59	0.5	Pass
157	5785	17.58	0.5	Pass
165	5825	17.56	0.5	Pass

802.11ac (40MHz)

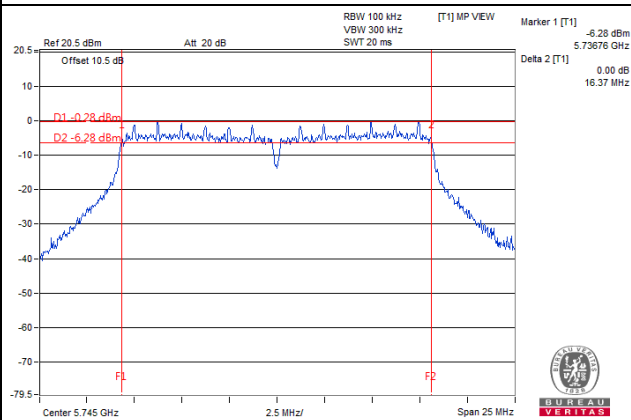
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
151	5755	36.13	0.5	Pass
159	5795	36.42	0.5	Pass

802.11ac (80MHz)

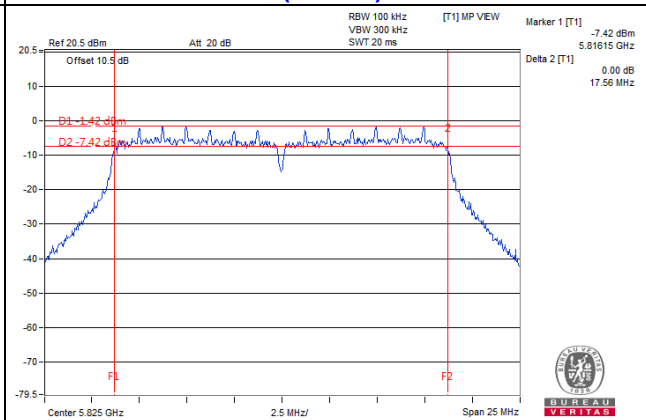
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
155	5775	75.31	0.5	Pass

Spectrum Plot of Worst Value

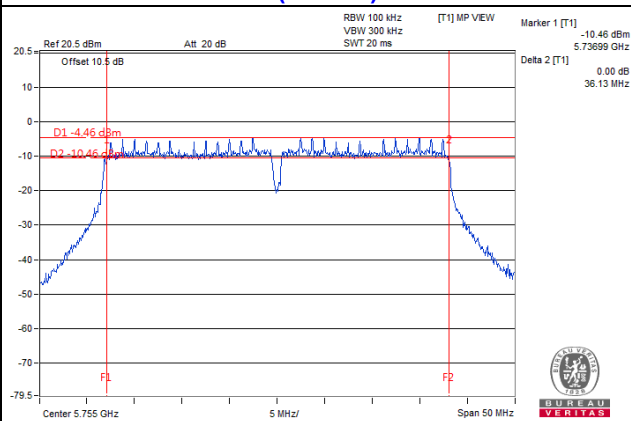
802.11a / CH149



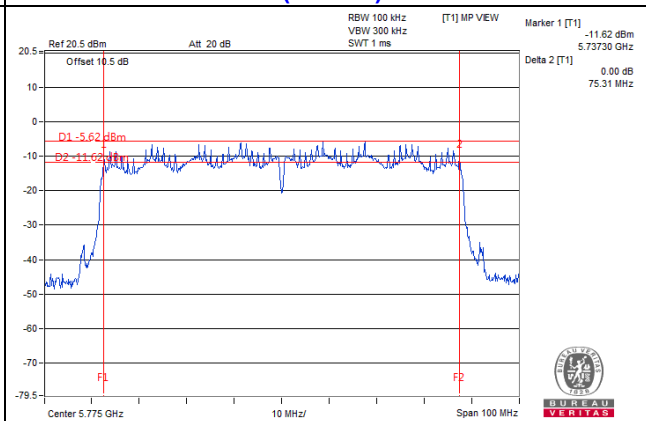
802.11ac (20MHz) / CH165



802.11ac (40MHz) / CH151



802.11ac (80MHz) / CH155



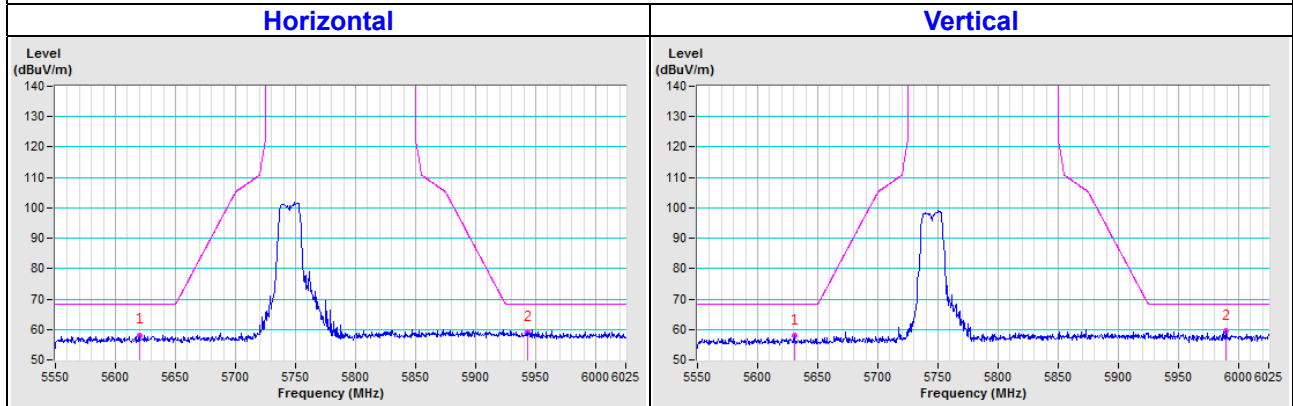
5 Pictures of Test Arrangements

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

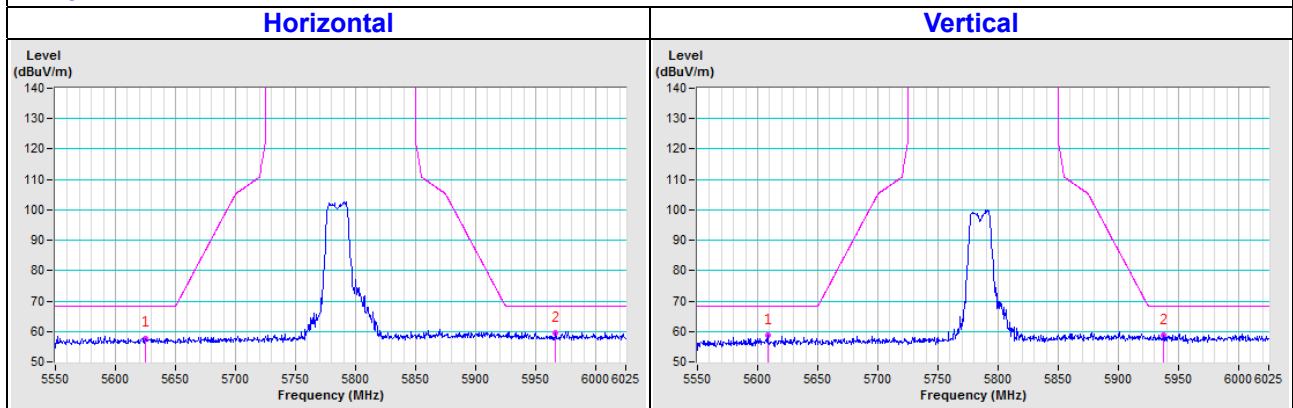
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a

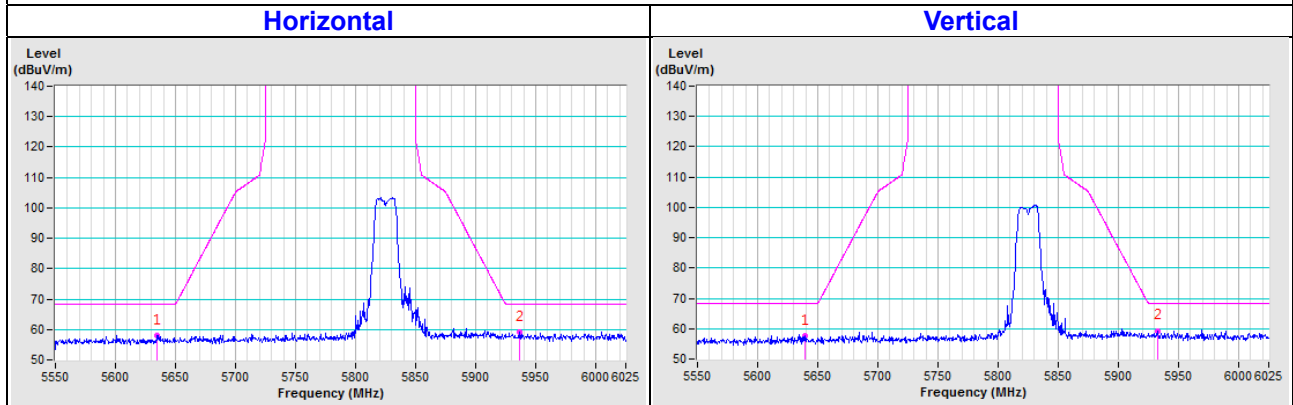
CH149



CH157



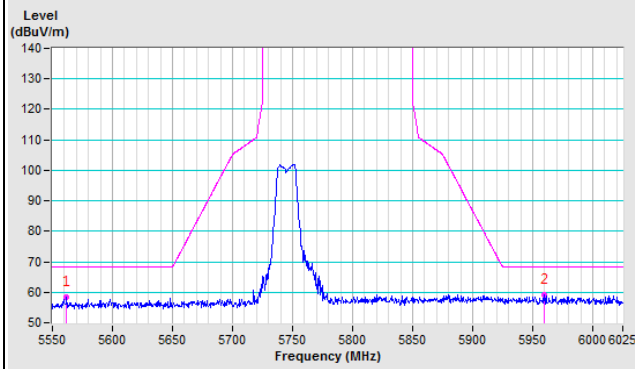
CH165



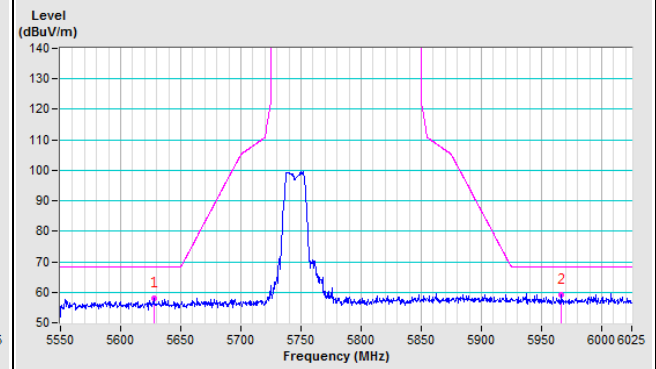
802.11ac (20MHz)

CH149

Horizontal

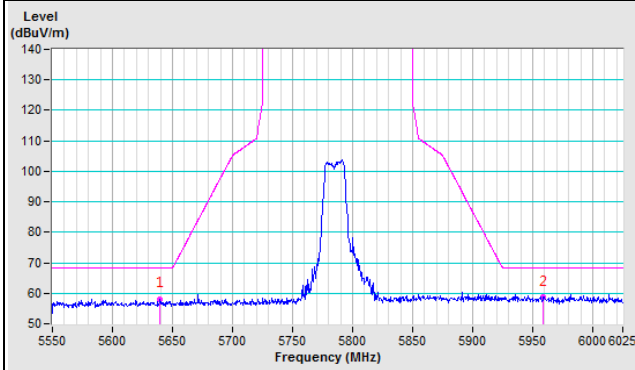


Vertical

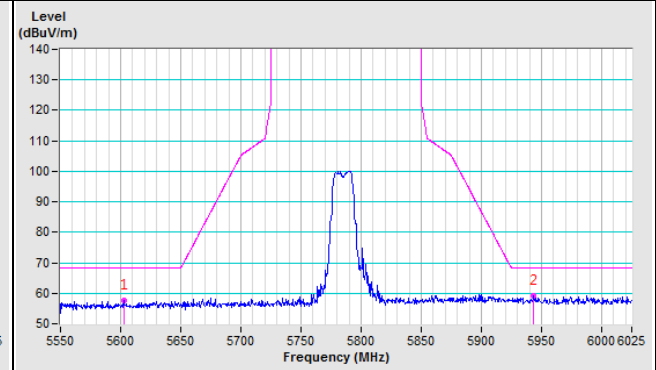


CH157

Horizontal

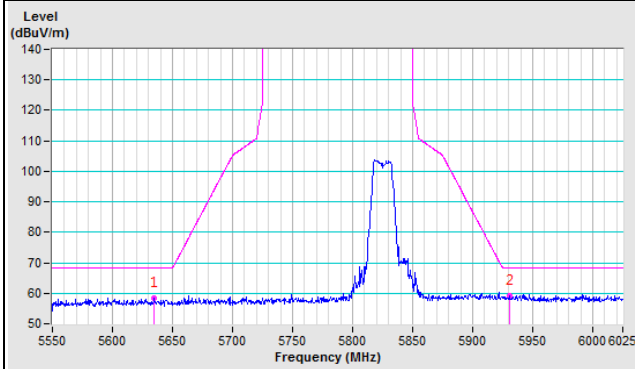


Vertical

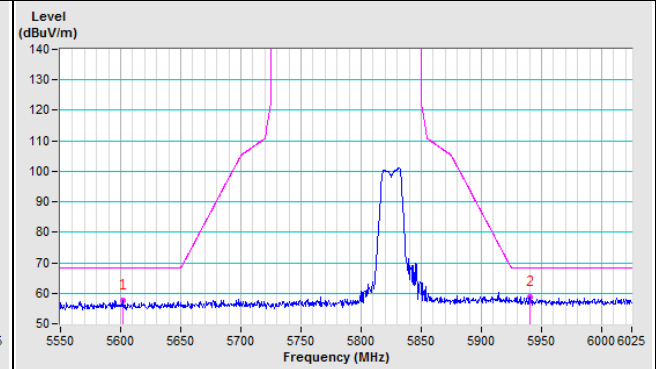


CH165

Horizontal

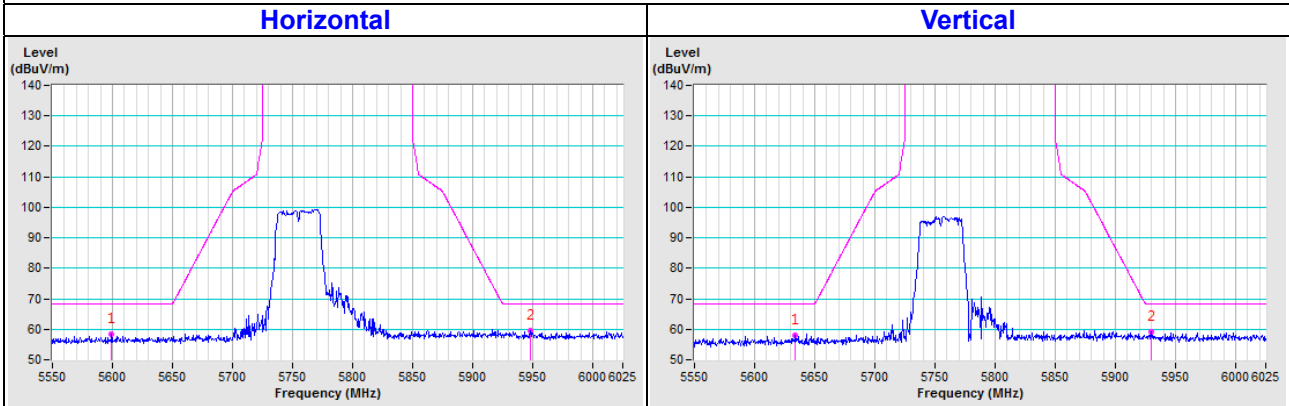


Vertical

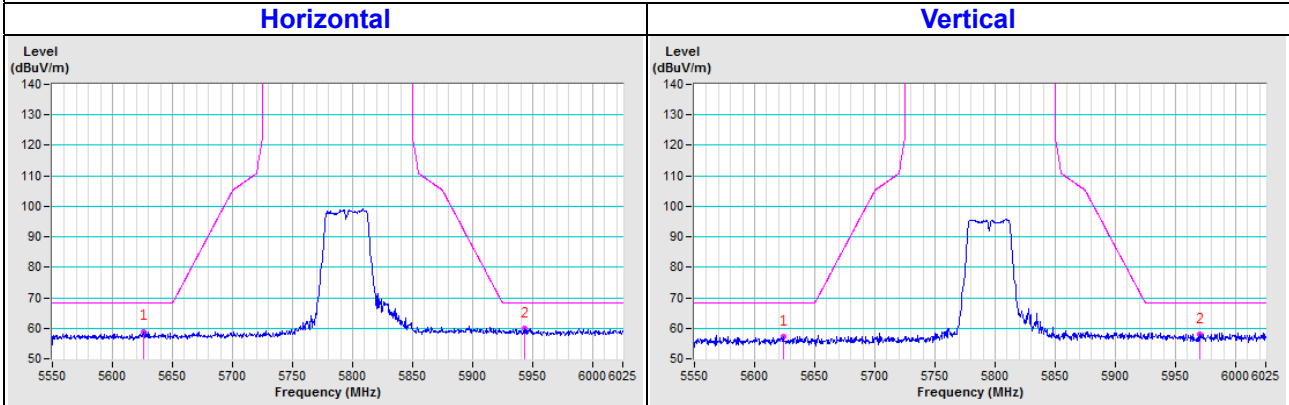


802.11ac (40MHz)

CH151

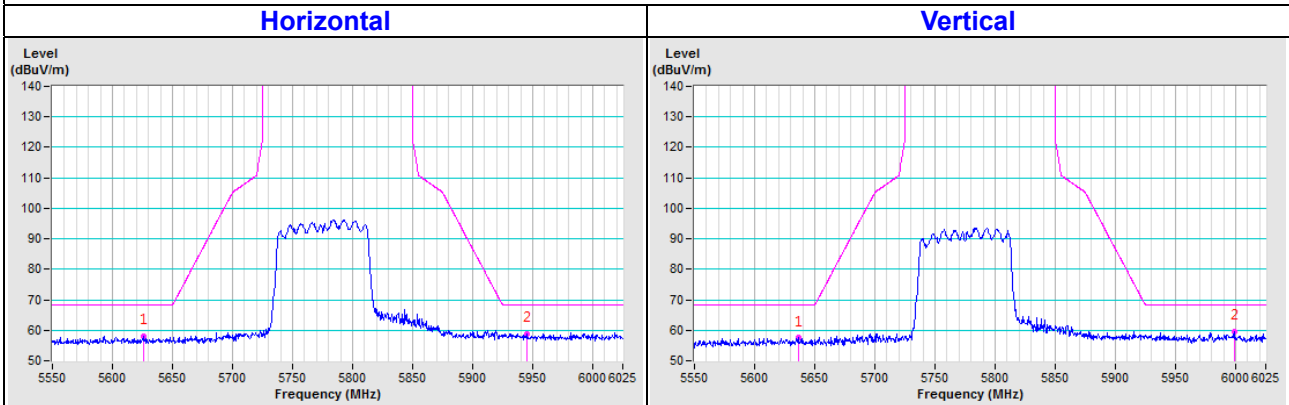


CH159



802.11ac (80MHz)

CH155



Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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