

FCC Test Report

Report No.: RF160621C08-1

FCC ID: H8N-PCT5230

Test Model: ADR1776

Received Date: Jun. 21, 2016

Test Date: Aug. 03 ~ Aug. 23, 2016

Issued Date: Aug. 25, 2016

Applicant: ASKEY COMPUTER CORP.

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Release Control Record

Issue No.	Description	Date Issued
RF160621C08-1	Original release.	Aug. 25, 2016

1 Certificate of Conformity

Product: Smart Phone
Brand: Turbonet
Test Model: ADR1776
Sample Status: Engineering sample
Applicant: ASKEY COMPUTER CORP.
Test Date: Aug. 03 ~ Aug. 23, 2016
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 EMC characteristics under the conditions specified in this report.

Prepared by : Celine Chou , **Date:** Aug. 25, 2016
Celine Chou / Specialist

Approved by : Ken Liu , **Date:** Aug. 25, 2016
Ken Liu / Senior 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 -14.52dB at 2.57029MHz.
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 -1.0dB at 5725.00MHz, 5150.00MHz, 5350.00MHz and 5470.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is Spring not a standard connector.

*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	2.44 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.63 dB
	200MHz ~ 1000MHz	3.64 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Smart Phone
Brand	Turbonet
Test Model	ADR1776
Status of EUT	Engineering sample
Power Supply Rating	3.8Vdc (Battery) 5Vdc or 9Vdc (Adapter or host equipment) 9Vdc (Adapter)
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 150Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz & 5745 ~ 5825MHz
Number of Channel	5180MHz ~ 5240MHz 802.11a, 802.11n (HT20): 4 802.11n (HT40): 2 5260MHz ~ 5320MHz: 802.11a, 802.11n (HT20): 4 802.11n (HT40): 2 5500MHz ~ 5700MHz: 802.11a, 802.11n (HT20): 8 802.11n (HT40): 3 5745MHz ~ 5825MHz: 802.11a, 802.11n (HT20): 5 802.11n (HT40): 2
Output Power	5180MHz ~ 5240MHz: 52.000mW 5260MHz ~ 5320MHz: 49.659mW 5500MHz ~ 5700MHz: 54.075mW 5745MHz ~ 5825MHz: 45.920mW
Antenna Type	5180MHz ~ 5240MHz: Embedded antenna with 2.76dBi gain 5260MHz ~ 5320MHz: Embedded antenna with 2.54dBi gain 5500MHz ~ 5700MHz: Embedded antenna with 4.11dBi gain 5745MHz ~ 5825MHz: Embedded antenna with 3.73dBi gain
Antenna Connector	Spring
Accessory Device	Refer to Note for more details
Data Cable Supplied	Refer to Note for more details

Note:

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

Modulation Mode	TX Function
802.11a	2TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX

2. The EUT contains following accessory devices and data cable.

Item	Brand	Model	Specification
Battery	FUJI	492005	3.8Vdc, 11.21Wh or 2950mAh
USB cable	N/A	N/A	0.95m shielded cable without core
Adapter	DELTA Electronics, INC.	ADP-18GW B	I/P: 100-240Vac, 0.5A, 50-60Hz O/P: 5Vdc, 2A charger 9Vdc, 2A fast charger

3. The EUT has disabled the 5600-5650MHz band by S/W to avoid 5600-5650MHz.

3.2 Description of Test Modes

For 5180 ~ 5240MHz

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

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

For 5260 ~ 5320MHz

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

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

For 5500 ~ 5700MHz

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

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 (HT40):

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

For 5745 ~ 5825MHz:

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

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE \geq 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Powered by adapter
B	-	√	√	-	Powered by host equipment
C	-	√	-	-	Powered by EUT

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

Note:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane**.
2. "-" means no effect.

Radiated Emission Test (Above 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
A	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
A	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
A	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
A	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
A	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5

Radiated Emission Test (Below 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B, C	802.11a	5180-5240	36 to 48	36	OFDM	BPSK	6.0
		5260-5320	52 to 64		OFDM	BPSK	6.0
		5500-5700	100 to 140		OFDM	BPSK	6.0
		5745-5825	149 to 165		OFDM	BPSK	6.0

Power Line Conducted Emission Test:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36	OFDM	BPSK	6.0
		5260-5320	52 to 64		OFDM	BPSK	6.0
		5500-5700	100 to 140		OFDM	BPSK	6.0
		5745-5825	149 to 165		OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
A	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
A	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
A	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
A	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
A	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE _≥ 1G	20deg. C, 69%RH	120Vac, 60Hz	Bond Tseng
RE _{<} 1G	25deg. C, 69%RH	120Vac, 60Hz	Tank Wu
PLC	24deg. C, 64%RH	120Vac, 60Hz	Match Tsui
APCM	25deg. C, 60%RH	120Vac, 60Hz	Frank Liu

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is < 98 %, duty factor shall be considered.

802.11a: Duty cycle = $1.362/1.587 = 0.858$, Duty factor = $10 * \log(1/0.858) = 0.66$

802.11n (HT20): Duty cycle = $1.275/1.495 = 0.853$, Duty factor = $10 * \log(1/0.853) = 0.69$

802.11n (HT40): Duty cycle = $0.630/0.835 = 0.754$, Duty factor = $10 * \log(1/0.754) = 1.22$



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.

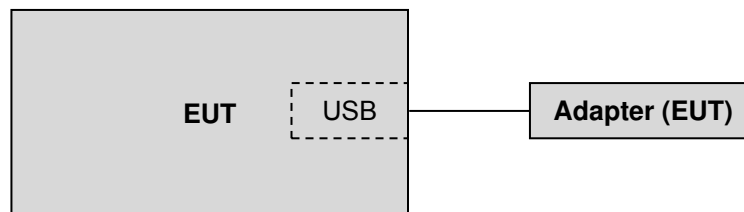
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5430	2RL3YW1	FCC DoC Approved	-

Note:

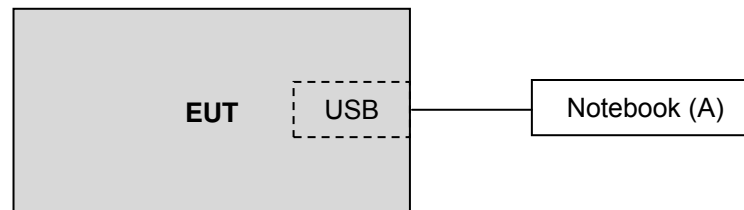
1. All power cords of the above support units are non-shielded (1.8m).
2. Items A acted as communication partners to transfer data.

3.4.1 Configuration of System under Test

Test Mode A



Test Mode B



Test Mode C



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 Procedures New Rules v01r03

ANSI C63.10-2013

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

Note: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

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 v01r02		Field Strength at 3m	
		PK:74 (dBuV/m)	AV:54 (dBuV/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(dBuV/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(dBuV/m) ^{*1} PK:105.2 (dBuV/m) ^{*2} PK: 110.8(dBuV/m) ^{*3} PK:122.2 (dBuV/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.		^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.	
^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 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:

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Dec. 23, 2015	Dec. 22, 2016
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Apr. 19, 2016	Apr. 18, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-148	Jan. 18, 2016	Jan. 17, 2017
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Jan. 08, 2016	Jan. 07, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Jan. 18, 2016	Jan. 17, 2017
Preamplifier Agilent	8449B	3008A01911	Aug. 09, 2015	Aug. 08, 2016
			Aug. 09, 2016	Aug. 08, 2017
Preamplifier Agilent	8447D	2944A10638	Aug. 09, 2015	Aug. 08, 2016
			Aug. 09, 2016	Aug. 08, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-02(309222 +248780)	Aug. 09, 2015	Aug. 08, 2016
			Aug. 09, 2016	Aug. 08, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-03(274092)	Aug. 09, 2015	Aug. 08, 2016
			Aug. 09, 2016	Aug. 08, 2017
RF signal cable Woken	8D-FB	Cable-CH9-01	Aug. 09, 2015	Aug. 08, 2016
			Aug. 09, 2016	Aug. 08, 2017
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2015	Oct. 17, 2016
High Speed Peak Power Meter	ML2495A	0824011	Jul. 09, 2015	Jul. 08, 2016
			Jul. 09, 2016	Jul. 08, 2017
Power Sensor	MA2411B	0738171	Jul. 09, 2015	Jul. 08, 2016
			Jul. 09, 2016	Jul. 08, 2017
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2016	Jun. 07, 2017

- Note:
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 HwaYa Chamber 9.
 3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 215374.
 5. The IC Site Registration No. is IC 7450F-9.

4.1.3 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 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:

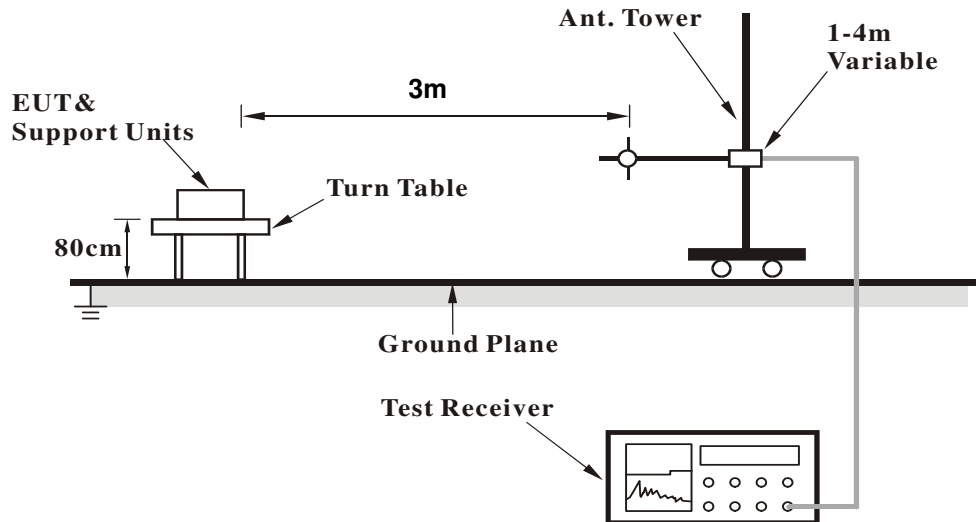
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ($10 \log(1/\text{duty cycle})$).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle \geq 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

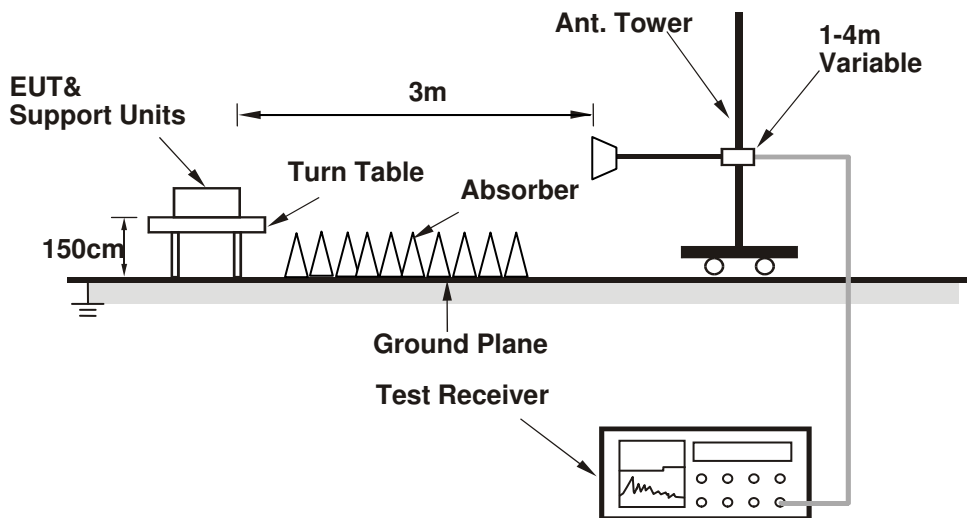
No deviation.

4.1.5 Test Set Up

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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

4.1.6 EUT Operating Conditions

Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Worst-Case Data:

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.4 PK	74.0	-9.6	1.66 H	211	59.8	4.6
2	5150.00	48.6 AV	54.0	-5.4	1.66 H	211	44.0	4.6
3	*5180.00	105.7 PK			1.66 H	211	63.5	42.2
4	*5180.00	95.4 AV			1.66 H	211	53.2	42.2
5	#10360.00	60.7 PK	74.0	-13.3	1.60 H	247	44.9	15.8
6	#10360.00	48.7 AV	54.0	-5.3	1.60 H	247	32.9	15.8

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	59.6 PK	74.0	-14.4	1.92 V	211	55.0	4.6
2	5150.00	45.9 AV	54.0	-8.1	1.92 V	211	41.3	4.6
3	*5180.00	99.4 PK			1.92 V	211	57.2	42.2
4	*5180.00	89.0 AV			1.92 V	211	46.8	42.2
5	#10360.00	60.3 PK	74.0	-13.7	1.50 V	334	44.5	15.8
6	#10360.00	47.3 AV	54.0	-6.7	1.50 V	334	31.5	15.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	104.5 PK			1.61 H	183	62.3	42.2
2	*5200.00	93.3 AV			1.61 H	183	51.1	42.2
3	#10400.00	61.2 PK	74.0	-12.8	1.50 H	6	45.3	15.9
4	#10400.00	48.5 AV	54.0	-5.5	1.50 H	6	32.6	15.9
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	97.9 PK			1.65 V	204	55.7	42.2
2	*5200.00	88.2 AV			1.65 V	204	46.0	42.2
3	#10400.00	60.0 PK	74.0	-14.0	1.55 V	344	44.1	15.9
4	#10400.00	47.4 AV	54.0	-6.6	1.55 V	344	31.5	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	103.8 PK			1.61 H	197	61.5	42.3
2	*5240.00	93.9 AV			1.61 H	197	51.6	42.3
3	5350.00	60.3 PK	74.0	-13.7	1.61 H	197	55.5	4.8
4	5350.00	46.5 AV	54.0	-7.5	1.61 H	197	41.7	4.8
5	#10480.00	62.2 PK	74.0	-11.8	1.50 H	278	46.0	16.2
6	#10480.00	49.0 AV	54.0	-5.0	1.50 H	278	32.8	16.2

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	99.7 PK			1.75 V	210	57.4	42.3
2	*5240.00	89.0 AV			1.75 V	210	46.7	42.3
3	5350.00	59.0 PK	74.0	-15.0	1.75 V	210	54.2	4.8
4	5350.00	46.4 AV	54.0	-7.6	1.75 V	210	41.6	4.8
5	#10480.00	60.6 PK	74.0	-13.4	1.54 V	311	44.4	16.2
6	#10480.00	47.9 AV	54.0	-6.1	1.54 V	311	31.7	16.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	*5260.00	105.3 PK			1.38 H	197	63.0	42.3
2	*5260.00	94.9 AV			1.38 H	197	52.6	42.3
3	5350.00	59.8 PK	74.0	-14.2	1.38 H	197	55.0	4.8
4	5350.00	46.9 AV	54.0	-7.1	1.38 H	197	42.1	4.8
5	#10520.00	60.6 PK	74.0	-13.4	1.50 H	199	44.5	16.1
6	#10520.00	47.8 AV	54.0	-6.2	1.50 H	199	31.7	16.1

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	*5260.00	99.8 PK			1.53 V	201	57.5	42.3
2	*5260.00	89.2 AV			1.53 V	201	46.9	42.3
3	5350.00	59.4 PK	74.0	-14.6	1.53 V	201	54.6	4.8
4	5350.00	46.4 AV	54.0	-7.6	1.53 V	201	41.6	4.8
5	#10520.00	59.9 PK	74.0	-14.1	1.47 V	174	43.8	16.1
6	#10520.00	47.3 AV	54.0	-6.7	1.47 V	174	31.2	16.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	107.6 PK			1.51 H	195	64.7	42.9
2	*5300.00	97.9 AV			1.51 H	195	55.0	42.9
3	10600.00	63.0 PK	74.0	-11.0	1.51 H	64	46.7	16.3
4	10600.00	49.8 AV	54.0	-4.2	1.51 H	64	33.5	16.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	101.6 PK			1.51 V	154	58.7	42.9
2	*5300.00	91.9 AV			1.51 V	154	49.0	42.9
3	10600.00	62.0 PK	74.0	-12.0	1.51 V	87	45.7	16.3
4	10600.00	47.8 AV	54.0	-6.2	1.51 V	87	31.5	16.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	104.3 PK			1.17 H	189	61.9	42.4
2	*5320.00	95.4 AV			1.17 H	189	53.0	42.4
3	5350.00	66.1 PK	74.0	-7.9	1.17 H	189	61.3	4.8
4	5350.00	47.4 AV	54.0	-6.6	1.17 H	189	42.6	4.8
5	10640.00	61.5 PK	74.0	-12.5	1.50 H	221	45.3	16.2
6	10640.00	48.1 AV	54.0	-5.9	1.50 H	221	31.9	16.2

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	99.3 PK			1.48 V	207	56.9	42.4
2	*5320.00	88.5 AV			1.48 V	207	46.1	42.4
3	5350.00	59.2 PK	74.0	-14.8	1.48 V	207	54.4	4.8
4	5350.00	46.5 AV	54.0	-7.5	1.48 V	207	41.7	4.8
5	10640.00	61.0 PK	74.0	-13.0	1.57 V	234	44.8	16.2
6	10640.00	47.6 AV	54.0	-6.4	1.57 V	234	31.4	16.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	60.2 PK	74.0	-13.8	1.93 H	196	55.4	4.8
2	5460.00	47.6 AV	54.0	-6.4	1.93 H	196	42.8	4.8
3	#5470.00	72.5 PK	74.0	-1.5	1.93 H	196	67.6	4.9
4	#5470.00	50.8 AV	54.0	-3.2	1.93 H	196	45.9	4.9
5	*5500.00	110.5 PK			1.93 H	196	67.3	43.2
6	*5500.00	99.8 AV			1.93 H	196	56.6	43.2
7	11000.00	62.8 PK	74.0	-11.2	1.50 H	228	45.5	17.3
8	11000.00	51.6 AV	54.0	-2.4	1.50 H	228	34.3	17.3

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	58.7 PK	74.0	-15.3	1.69 V	205	53.9	4.8
2	5460.00	46.3 AV	54.0	-7.7	1.69 V	205	41.5	4.8
3	#5470.00	64.4 PK	74.0	-9.6	1.69 V	205	59.5	4.9
4	#5470.00	47.4 AV	54.0	-6.6	1.69 V	205	42.5	4.9
5	*5500.00	102.3 PK			1.69 V	205	59.1	43.2
6	*5500.00	92.7 AV			1.69 V	205	49.5	43.2
7	11000.00	61.5 PK	74.0	-12.5	1.50 V	183	44.2	17.3
8	11000.00	49.8 AV	54.0	-4.2	1.50 V	183	32.5	17.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	110.9 PK			2.01 H	193	67.5	43.4
2	*5580.00	100.3 AV			2.01 H	193	56.9	43.4
3	11160.00	60.5 PK	74.0	-13.5	1.50 H	224	43.9	16.6
4	11160.00	50.6 AV	54.0	-3.4	1.50 H	224	34.0	16.6
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	102.3 PK			1.50 V	208	58.9	43.4
2	*5580.00	91.8 AV			1.50 V	208	48.4	43.4
3	11160.00	59.5 PK	74.0	-14.5	1.54 V	228	42.9	16.6
4	11160.00	49.8 AV	54.0	-4.2	1.54 V	228	33.2	16.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	109.0 PK			2.34 H	197	65.5	43.5
2	*5700.00	97.9 AV			2.34 H	197	54.4	43.5
3	#5725.00	71.6 PK	74.0	-2.4	2.34 H	197	66.5	5.1
4	#5725.00	53.0 AV	54.0	-1.0	2.34 H	197	47.9	5.1
5	11400.00	60.8 PK	74.0	-13.2	1.50 H	227	44.3	16.5
6	11400.00	51.0 AV	54.0	-3.0	1.50 H	227	34.5	16.5

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	97.7 PK			1.50 V	207	54.2	43.5
2	*5700.00	87.5 AV			1.50 V	207	44.0	43.5
3	#5725.00	61.6 PK	74.0	-12.4	1.50 V	207	56.5	5.1
4	#5725.00	46.2 AV	54.0	-7.8	1.50 V	207	41.1	5.1
5	11400.00	60.2 PK	74.0	-13.8	1.57 V	193	43.7	16.5
6	11400.00	49.9 AV	54.0	-4.1	1.57 V	193	33.4	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	#5610.40	58.3 PK	68.2	-9.9	1.92 H	196	53.3	5.0
2	*5745.00	109.1 PK			1.92 H	196	65.5	43.6
3	*5745.00	98.3 AV			1.92 H	196	54.7	43.6
4	#5943.20	59.1 PK	68.2	-9.1	1.92 H	196	53.8	5.3
5	11490.00	61.7 PK	74.0	-12.3	2.39 H	183	45.6	16.1
6	11490.00	50.6 AV	54.0	-3.4	2.39 H	183	34.5	16.1

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5609.60	57.6 PK	68.2	-10.6	1.88 V	205	52.6	5.0
2	*5745.00	98.9 PK			1.88 V	205	55.3	43.6
3	*5745.00	88.1 AV			1.88 V	205	44.5	43.6
4	#5932.00	58.8 PK	68.2	-9.4	1.88 V	205	53.5	5.3
5	11490.00	60.3 PK	74.0	-13.7	1.68 V	225	44.2	16.1
6	11490.00	48.3 AV	54.0	-5.7	1.68 V	225	32.2	16.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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 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	*5785.00	109.4 PK			1.97 H	196	65.8	43.6
2	*5785.00	97.8 AV			1.97 H	196	54.2	43.6
3	11570.00	61.4 PK	74.0	-12.6	2.35 H	187	45.3	16.1
4	11570.00	49.2 AV	54.0	-4.8	2.35 H	187	33.1	16.1
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	*5785.00	98.6 PK			1.84 V	205	55.0	43.6
2	*5785.00	88.0 AV			1.84 V	205	44.4	43.6
3	11570.00	60.8 PK	74.0	-13.2	1.55 V	229	44.7	16.1
4	11570.00	48.7 AV	54.0	-5.3	1.55 V	229	32.6	16.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	#5640.00	58.8 PK	68.2	-9.4	1.97 H	196	53.7	5.1
2	*5825.00	108.3 PK			1.97 H	196	64.7	43.6
3	*5825.00	97.5 AV			1.97 H	196	53.9	43.6
4	#5975.20	59.7 PK	68.2	-8.5	1.97 H	196	54.3	5.4
5	11650.00	61.5 PK	74.0	-12.5	2.27 H	193	45.2	16.3
6	11650.00	50.2 AV	54.0	-3.8	2.27 H	193	33.9	16.3

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	#5632.00	58.6 PK	68.2	-9.6	1.56 V	160	53.5	5.1
2	*5825.00	97.9 PK			1.56 V	160	54.3	43.6
3	*5825.00	87.2 AV			1.56 V	160	43.6	43.6
4	#5953.60	59.4 PK	68.2	-8.8	1.56 V	160	54.1	5.3
5	11650.00	60.8 PK	74.0	-13.2	1.51 V	218	44.5	16.3
6	11650.00	48.8 AV	54.0	-5.2	1.51 V	218	32.5	16.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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.

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.4 PK	74.0	-6.6	1.63 H	176	62.8	4.6
2	5150.00	50.4 AV	54.0	-3.6	1.63 H	176	45.8	4.6
3	*5180.00	103.8 PK			1.63 H	176	61.6	42.2
4	*5180.00	94.0 AV			1.63 H	176	51.8	42.2
5	#10360.00	61.4 PK	74.0	-12.6	1.50 H	99	45.6	15.8
6	#10360.00	48.5 AV	54.0	-5.5	1.50 H	99	32.7	15.8

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	61.1 PK	74.0	-12.9	1.64 V	200	56.5	4.6
2	5150.00	46.4 AV	54.0	-7.6	1.64 V	200	41.8	4.6
3	*5180.00	98.3 PK			1.64 V	200	56.1	42.2
4	*5180.00	87.4 AV			1.64 V	200	45.2	42.2
5	#10360.00	60.5 PK	74.0	-13.5	1.55 V	74	44.7	15.8
6	#10360.00	47.6 AV	54.0	-6.4	1.55 V	74	31.8	15.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	104.0 PK			1.50 H	189	61.8	42.2
2	*5200.00	94.3 AV			1.50 H	189	52.1	42.2
3	#10400.00	61.6 PK	74.0	-12.4	1.50 H	88	45.7	15.9
4	#10400.00	48.5 AV	54.0	-5.5	1.50 H	88	32.6	15.9
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	98.9 PK			1.65 V	203	56.7	42.2
2	*5200.00	87.9 AV			1.65 V	203	45.7	42.2
3	#10400.00	60.1 PK	74.0	-13.9	1.50 V	123	44.2	15.9
4	#10400.00	47.7 AV	54.0	-6.3	1.50 V	123	31.8	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	103.9 PK			1.35 H	173	61.6	42.3
2	*5240.00	93.6 AV			1.35 H	173	51.3	42.3
3	5350.00	59.2 PK	74.0	-14.8	1.35 H	173	54.4	4.8
4	5350.00	46.8 AV	54.0	-7.2	1.35 H	173	42.0	4.8
5	#10480.00	60.6 PK	74.0	-13.4	1.52 H	81	44.4	16.2
6	#10480.00	48.6 AV	54.0	-5.4	1.52 H	81	32.4	16.2
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	98.2 PK			2.00 V	206	55.9	42.3
2	*5240.00	87.9 AV			2.00 V	206	45.6	42.3
3	5350.00	59.8 PK	74.0	-14.2	2.00 V	206	55.0	4.8
4	5350.00	46.7 AV	54.0	-7.3	2.00 V	206	41.9	4.8
5	#10480.00	60.0 PK	74.0	-14.0	1.55 V	122	43.8	16.2
6	#10480.00	47.7 AV	54.0	-6.3	1.55 V	122	31.5	16.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	59.2 PK	74.0	-14.8	2.19 H	197	54.6	4.6
2	5150.00	46.8 AV	54.0	-7.2	2.19 H	197	42.2	4.6
3	*5260.00	107.5 PK			2.19 H	197	64.6	42.9
4	*5260.00	96.7 AV			2.19 H	197	53.8	42.9
5	#10520.00	62.0 PK	74.0	-12.0	1.50 H	232	46.0	16.0
6	#10520.00	49.2 AV	54.0	-4.8	1.50 H	232	33.2	16.0

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	57.9 PK	74.0	-16.1	1.51 V	201	53.3	4.6
2	5150.00	46.5 AV	54.0	-7.5	1.51 V	201	41.9	4.6
3	*5260.00	100.7 PK			1.51 V	201	57.8	42.9
4	*5260.00	89.9 AV			1.51 V	201	47.0	42.9
5	#10520.00	61.1 PK	74.0	-12.9	1.55 V	256	45.1	16.0
6	#10520.00	47.8 AV	54.0	-6.2	1.55 V	256	31.8	16.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	108.5 PK			1.66 H	197	65.6	42.9
2	*5300.00	97.5 AV			1.66 H	197	54.6	42.9
3	10600.00	61.0 PK	74.0	-13.0	1.51 H	193	44.7	16.3
4	10600.00	49.8 AV	54.0	-4.2	1.51 H	193	33.5	16.3
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	100.3 PK			1.53 V	174	57.4	42.9
2	*5300.00	91.4 AV			1.53 V	174	48.5	42.9
3	10600.00	59.8 PK	74.0	-14.2	1.55 V	208	43.5	16.3
4	10600.00	49.0 AV	54.0	-5.0	1.55 V	208	32.7	16.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	109.1 PK			1.99 H	187	66.2	42.9
2	*5320.00	98.7 AV			1.99 H	187	55.8	42.9
3	5350.00	69.7 PK	74.0	-4.3	1.99 H	187	65.0	4.7
4	5350.00	50.6 AV	54.0	-3.4	1.99 H	187	45.9	4.7
5	10640.00	60.8 PK	74.0	-13.2	1.50 H	125	44.4	16.4
6	10640.00	49.6 AV	54.0	-4.4	1.50 H	125	33.2	16.4

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	101.9 PK			1.50 V	205	59.0	42.9
2	*5320.00	90.8 AV			1.50 V	205	47.9	42.9
3	5350.00	65.5 PK	74.0	-8.5	1.50 V	205	60.8	4.7
4	5350.00	47.0 AV	54.0	-7.0	1.50 V	205	42.3	4.7
5	10640.00	59.9 PK	74.0	-14.1	1.57 V	173	43.5	16.4
6	10640.00	48.5 AV	54.0	-5.5	1.57 V	173	32.1	16.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	60.9 PK	74.0	-13.1	1.97 H	198	56.1	4.8
2	5460.00	48.6 AV	54.0	-5.4	1.97 H	198	43.8	4.8
3	#5470.00	72.8 PK	74.0	-1.2	1.97 H	198	67.9	4.9
4	#5470.00	51.5 AV	54.0	-2.5	1.97 H	198	46.6	4.9
5	*5500.00	110.4 PK			1.97 H	198	67.2	43.2
6	*5500.00	99.2 AV			1.97 H	198	56.0	43.2
7	11000.00	62.5 PK	74.0	-11.5	1.88 H	232	45.2	17.3
8	11000.00	49.4 AV	54.0	-4.6	1.88 H	232	32.1	17.3

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	59.6 PK	74.0	-14.4	1.62 V	206	54.8	4.8
2	5460.00	46.4 AV	54.0	-7.6	1.62 V	206	41.6	4.8
3	#5470.00	66.5 PK	74.0	-7.5	1.62 V	206	61.6	4.9
4	#5470.00	47.3 AV	54.0	-6.7	1.62 V	206	42.4	4.9
5	*5500.00	101.3 PK			1.62 V	206	58.1	43.2
6	*5500.00	90.8 AV			1.62 V	206	47.6	43.2
7	11000.00	62.3 PK	74.0	-11.7	1.61 V	188	45.0	17.3
8	11000.00	49.1 AV	54.0	-4.9	1.61 V	188	31.8	17.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	110.7 PK			2.12 H	197	67.3	43.4
2	*5580.00	99.9 AV			2.12 H	197	56.5	43.4
3	11160.00	60.3 PK	74.0	-13.7	2.04 H	229	43.7	16.6
4	11160.00	49.4 AV	54.0	-4.6	2.04 H	229	32.8	16.6

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	102.5 PK			1.52 V	205	59.1	43.4
2	*5580.00	91.6 AV			1.52 V	205	48.2	43.4
3	11160.00	60.1 PK	74.0	-13.9	1.65 V	215	43.5	16.6
4	11160.00	49.1 AV	54.0	-4.9	1.65 V	215	32.5	16.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	107.7 PK			2.04 H	194	64.2	43.5
2	*5700.00	96.1 AV			2.04 H	194	52.6	43.5
3	#5725.00	72.1 PK	74.0	-1.9	2.04 H	197	67.0	5.1
4	#5725.00	52.6 AV	54.0	-1.4	2.04 H	197	47.5	5.1
5	11400.00	60.7 PK	74.0	-13.3	1.57 H	224	44.2	16.5
6	11400.00	48.6 AV	54.0	-5.4	1.57 H	224	32.1	16.5

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	97.0 PK			1.50 V	205	53.5	43.5
2	*5700.00	85.8 AV			1.50 V	205	42.3	43.5
3	#5725.00	60.0 PK	74.0	-14.0	1.50 V	205	54.9	5.1
4	#5725.00	46.4 AV	54.0	-7.6	1.50 V	205	41.3	5.1
5	11400.00	60.3 PK	74.0	-13.7	N/A V	N/A	43.8	16.5
6	11400.00	48.3 AV	54.0	-5.7	N/A V	N/A	31.8	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	#5612.80	58.8 PK	68.2	-9.4	2.12 H	196	53.8	5.0
2	*5745.00	109.0 PK			2.12 H	196	65.4	43.6
3	*5745.00	98.2 AV			2.12 H	196	54.6	43.6
4	#5929.60	59.0 PK	68.2	-9.2	2.12 H	196	53.7	5.3
5	11490.00	61.4 PK	74.0	-12.6	2.40 H	185	45.3	16.1
6	11490.00	50.1 AV	54.0	-3.9	2.40 H	185	34.0	16.1

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5638.40	58.4 PK	68.2	-9.8	1.89 V	206	53.3	5.1
2	*5745.00	98.8 PK			1.89 V	206	55.2	43.6
3	*5745.00	87.8 AV			1.89 V	206	44.2	43.6
4	#5980.80	58.1 PK	68.2	-10.1	1.89 V	206	52.8	5.3
5	11490.00	60.8 PK	74.0	-13.2	1.71 V	226	44.7	16.1
6	11490.00	48.2 AV	54.0	-5.8	1.71 V	226	32.1	16.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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 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	*5785.00	106.2 PK			2.16 H	195	62.6	43.6
2	*5785.00	95.4 AV			2.16 H	195	51.8	43.6
3	11570.00	61.3 PK	74.0	-12.7	2.09 H	194	45.2	16.1
4	11570.00	49.4 AV	54.0	-4.6	2.09 H	194	33.3	16.1
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	*5785.00	96.0 PK			1.86 V	155	52.4	43.6
2	*5785.00	84.9 AV			1.86 V	155	41.3	43.6
3	11570.00	61.0 PK	74.0	-13.0	1.77 V	226	44.9	16.1
4	11570.00	48.3 AV	54.0	-5.7	1.77 V	226	32.2	16.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	#5625.60	58.2 PK	68.2	-10.0	2.08 H	197	53.1	5.1
2	*5825.00	105.9 PK			2.08 H	197	62.3	43.6
3	*5825.00	95.0 AV			2.08 H	197	51.4	43.6
4	#5960.80	58.8 PK	68.2	-9.4	2.08 H	197	53.5	5.3
5	11650.00	61.6 PK	74.0	-12.4	2.01 H	199	45.3	16.3
6	11650.00	49.8 AV	54.0	-4.2	2.01 H	199	33.5	16.3

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	#5642.40	58.9 PK	68.2	-9.3	1.88 V	150	53.8	5.1
2	*5825.00	96.6 PK			1.88 V	150	53.0	43.6
3	*5825.00	85.3 AV			1.88 V	150	41.7	43.6
4	#5970.40	58.4 PK	68.2	-9.8	1.88 V	150	53.1	5.3
5	11650.00	61.1 PK	74.0	-12.9	1.66 V	219	44.8	16.3
6	11650.00	48.5 AV	54.0	-5.5	1.66 V	219	32.2	16.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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.

802.11n (HT40)

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	68.1 PK	74.0	-5.9	1.32 H	173	63.5	4.6
2	5150.00	53.0 AV	54.0	-1.0	1.32 H	173	48.4	4.6
3	*5190.00	99.7 PK			1.32 H	173	57.5	42.2
4	*5190.00	88.3 AV			1.32 H	173	46.1	42.2
5	#10380.00	61.8 PK	74.0	-12.2	1.51 H	123	45.9	15.9
6	#10380.00	48.9 AV	54.0	-5.1	1.51 H	123	33.0	15.9
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	64.2 PK	74.0	-9.8	2.07 V	212	59.6	4.6
2	5150.00	47.5 AV	54.0	-6.5	2.07 V	212	42.9	4.6
3	*5190.00	93.3 PK			2.07 V	212	51.1	42.2
4	*5190.00	82.1 AV			2.07 V	212	39.9	42.2
5	#10380.00	60.5 PK	74.0	-13.5	1.53 V	155	44.6	15.9
6	#10380.00	47.7 AV	54.0	-6.3	1.53 V	155	31.8	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	98.7 PK			1.60 H	174	56.4	42.3
2	*5230.00	87.9 AV			1.60 H	174	45.6	42.3
3	5350.00	59.2 PK	74.0	-14.8	1.60 H	174	54.4	4.8
4	5350.00	47.4 AV	54.0	-6.6	1.60 H	174	42.6	4.8
5	#10460.00	60.7 PK	74.0	-13.3	1.52 H	67	44.8	15.9
6	#10460.00	49.2 AV	54.0	-4.8	1.52 H	67	33.3	15.9

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	94.9 PK			1.80 V	209	52.6	42.3
2	*5230.00	84.0 AV			1.80 V	209	41.7	42.3
3	5350.00	59.3 PK	74.0	-14.7	1.80 V	209	54.5	4.8
4	5350.00	46.3 AV	54.0	-7.7	1.80 V	209	41.5	4.8
5	#10460.00	59.9 PK	74.0	-14.1	1.57 V	88	44.0	15.9
6	#10460.00	48.7 AV	54.0	-5.3	1.57 V	88	32.8	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	58.7 PK	74.0	-15.3	1.50 H	201	54.1	4.6
2	5150.00	47.2 AV	54.0	-6.8	1.50 H	201	42.6	4.6
3	*5270.00	101.2 PK			1.50 H	201	58.3	42.9
4	*5270.00	89.8 AV			1.50 H	201	46.9	42.9
5	#10540.00	62.2 PK	74.0	-11.8	1.50 H	161	46.0	16.2
6	#10540.00	49.4 AV	54.0	-4.6	1.50 H	161	33.2	16.2

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	58.2 PK	74.0	-15.8	1.57 V	233	53.6	4.6
2	5150.00	46.4 AV	54.0	-7.6	1.57 V	233	41.8	4.6
3	*5270.00	95.4 PK			1.57 V	233	52.5	42.9
4	*5270.00	84.1 AV			1.57 V	233	41.2	42.9
5	#10540.00	61.4 PK	74.0	-12.6	N/A V	N/A	45.2	16.2
6	#10540.00	48.5 AV	54.0	-5.5	N/A V	N/A	32.3	16.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	100.3 PK			1.53 H	200	57.4	42.9
2	*5310.00	89.8 AV			1.53 H	200	46.9	42.9
3	5350.00	69.9 PK	74.0	-4.1	1.53 H	200	65.2	4.7
4	5350.00	53.0 AV	54.0	-1.0	1.53 H	200	48.3	4.7
5	10620.00	61.1 PK	74.0	-12.9	1.53 H	152	44.6	16.5
6	10620.00	49.0 AV	54.0	-5.0	1.53 H	152	32.5	16.5

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	95.8 PK			1.31 V	204	52.9	42.9
2	*5310.00	83.9 AV			1.31 V	204	41.0	42.9
3	5350.00	63.5 PK	74.0	-10.5	1.31 V	204	58.8	4.7
4	5350.00	47.5 AV	54.0	-6.5	1.31 V	204	42.8	4.7
5	10620.00	60.7 PK	74.0	-13.3	1.57 V	141	44.2	16.5
6	10620.00	48.6 AV	54.0	-5.4	1.57 V	141	32.1	16.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	59.7 PK	74.0	-14.3	1.56 H	200	54.9	4.8
2	5460.00	48.1 AV	54.0	-5.9	1.56 H	200	43.3	4.8
3	#5470.00	72.4 PK	74.0	-1.6	1.56 H	200	67.5	4.9
4	#5470.00	53.0 AV	54.0	-1.0	1.56 H	200	48.1	4.9
5	*5510.00	102.2 PK			1.56 H	200	59.0	43.2
6	*5510.00	91.3 AV			1.56 H	200	48.1	43.2
7	11020.00	63.1 PK	74.0	-10.9	1.55 H	204	45.9	17.2
8	11020.00	50.4 AV	54.0	-3.6	1.55 H	204	33.2	17.2

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	59.2 PK	74.0	-14.8	1.53 V	209	54.4	4.8
2	5460.00	46.4 AV	54.0	-7.6	1.53 V	209	41.6	4.8
3	#5470.00	63.2 PK	74.0	-10.8	1.53 V	209	58.3	4.9
4	#5470.00	48.5 AV	54.0	-5.5	1.53 V	209	43.6	4.9
5	*5510.00	93.9 PK			1.53 V	209	50.7	43.2
6	*5510.00	83.5 AV			1.53 V	209	40.3	43.2
7	11020.00	62.3 PK	74.0	-11.7	1.54 V	155	45.1	17.2
8	11020.00	49.6 AV	54.0	-4.4	1.54 V	155	32.4	17.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	103.2 PK			1.61 H	202	59.9	43.3
2	*5550.00	92.2 AV			1.61 H	202	48.9	43.3
3	11100.00	60.4 PK	74.0	-13.6	1.58 H	212	44.0	16.4
4	11100.00	48.6 AV	54.0	-5.4	1.58 H	212	32.2	16.4

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	95.6 PK			1.78 V	187	52.3	43.3
2	*5550.00	85.0 AV			1.78 V	187	41.7	43.3
3	11100.00	59.5 PK	74.0	-14.5	1.53 V	245	43.1	16.4
4	11100.00	48.0 AV	54.0	-6.0	1.53 V	245	31.6	16.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	102.4 PK			1.95 H	201	58.9	43.5
2	*5670.00	91.5 AV			1.95 H	201	48.0	43.5
3	#5725.00	59.2 PK	74.0	-14.8	1.95 H	201	54.1	5.1
4	#5725.00	46.7 AV	54.0	-7.3	1.95 H	201	41.6	5.1
5	11340.00	61.6 PK	74.0	-12.4	2.48 H	183	44.5	17.1
6	11340.00	52.1 AV	54.0	-1.9	2.48 H	183	35.0	17.1

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	92.2 PK			1.60 V	212	48.7	43.5
2	*5670.00	81.4 AV			1.60 V	212	37.9	43.5
3	#5725.00	59.0 PK	74.0	-15.0	1.60 V	212	53.9	5.1
4	#5725.00	45.3 AV	54.0	-8.7	1.60 V	212	40.2	5.1
5	11340.00	60.7 PK	74.0	-13.3	2.15 V	248	43.6	17.1
6	11340.00	49.5 AV	54.0	-4.5	2.15 V	248	32.4	17.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	#5611.20	58.0 PK	68.2	-10.2	2.17 H	198	53.0	5.0
2	*5755.00	103.6 PK			2.17 H	198	60.0	43.6
3	*5755.00	92.9 AV			2.17 H	198	49.3	43.6
4	#5958.40	58.6 PK	68.2	-9.6	2.17 H	198	53.3	5.3
5	11510.00	61.1 PK	74.0	-12.9	2.36 H	189	45.2	15.9
6	11510.00	50.6 AV	54.0	-3.4	2.36 H	189	34.7	15.9

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	#5625.60	58.0 PK	68.2	-10.2	1.83 V	155	52.9	5.1
2	*5755.00	92.8 PK			1.83 V	155	49.2	43.6
3	*5755.00	82.5 AV			1.83 V	155	38.9	43.6
4	#5950.40	59.0 PK	68.2	-9.2	1.83 V	155	53.7	5.3
5	11510.00	60.8 PK	74.0	-13.2	1.77 V	233	44.9	15.9
6	11510.00	49.3 AV	54.0	-4.7	1.77 V	233	33.4	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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 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	#5613.60	57.7 PK	68.2	-10.5	2.07 H	198	52.7	5.0
2	*5795.00	102.6 PK			2.07 H	198	59.0	43.6
3	*5795.00	91.9 AV			2.07 H	198	48.3	43.6
4	#5976.00	58.6 PK	68.2	-9.6	2.07 H	198	53.2	5.4
5	11590.00	61.3 PK	74.0	-12.7	2.24 H	190	45.2	16.1
6	11590.00	50.4 AV	54.0	-3.6	2.24 H	190	34.3	16.1

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	#5643.20	58.2 PK	68.2	-10.0	1.89 V	154	53.1	5.1
2	*5795.00	92.4 PK			1.89 V	154	48.8	43.6
3	*5795.00	81.7 AV			1.89 V	154	38.1	43.6
4	#5980.80	59.0 PK	68.2	-9.2	1.89 V	154	53.7	5.3
5	11590.00	60.9 PK	74.0	-13.1	1.71 V	232	44.8	16.1
6	11590.00	49.2 AV	54.0	-4.8	1.71 V	232	33.1	16.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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.

Below 1GHz Worst-Case Data:

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	24.6 QP	40.0	-15.4	1.25 H	242	40.2	-15.6
2	59.10	25.5 QP	40.0	-14.5	2.00 H	105	39.8	-14.3
3	86.26	23.6 QP	40.0	-16.4	1.00 H	193	42.5	-18.9
4	138.64	22.9 QP	43.5	-20.6	2.00 H	44	37.0	-14.1
5	181.32	25.5 QP	43.5	-18.0	2.00 H	81	40.1	-14.6
6	495.60	28.2 QP	46.0	-17.8	1.50 H	148	34.8	-6.6

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	30.00	34.4 QP	40.0	-5.6	1.24 V	185	50.0	-15.6
2	59.10	33.8 QP	40.0	-6.2	1.24 V	25	48.1	-14.3
3	86.26	29.0 QP	40.0	-11.0	1.50 V	219	47.9	-18.9
4	152.22	21.9 QP	43.5	-21.6	2.00 V	193	35.3	-13.4
5	179.38	19.0 QP	43.5	-24.5	1.00 V	76	33.3	-14.3
6	499.48	28.3 QP	46.0	-17.7	1.50 V	167	34.8	-6.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

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

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	39.70	21.2 QP	40.0	-18.8	1.00 H	18	35.9	-14.7
2	66.86	22.5 QP	40.0	-17.5	2.00 H	164	38.0	-15.5
3	152.22	18.4 QP	43.5	-25.1	1.26 H	8	31.8	-13.4
4	192.96	20.6 QP	43.5	-22.9	2.00 H	334	36.3	-15.7
5	831.22	33.6 QP	46.0	-12.4	1.26 H	8	32.2	1.4
6	955.38	35.7 QP	46.0	-10.3	2.00 H	169	31.3	4.4

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	33.88	34.0 QP	40.0	-6.0	1.00 V	357	49.4	-15.4
2	53.28	26.0 QP	40.0	-14.0	1.49 V	202	39.9	-13.9
3	62.98	23.8 QP	40.0	-16.2	1.24 V	225	38.8	-15.0
4	152.22	16.9 QP	43.5	-26.6	1.49 V	13	30.3	-13.4
5	674.08	28.7 QP	46.0	-17.3	1.49 V	165	31.0	-2.3
6	984.48	36.0 QP	54.0	-18.0	1.00 V	62	31.2	4.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	27.2 QP	40.0	-12.8	1.00 H	259	42.8	-15.6
2	51.34	23.2 QP	40.0	-16.8	2.00 H	3	37.1	-13.9
3	171.62	17.3 QP	43.5	-26.2	1.25 H	240	30.9	-13.6
4	608.12	28.5 QP	46.0	-17.5	2.00 H	20	31.9	-3.4
5	864.20	33.8 QP	46.0	-12.2	2.00 H	267	31.5	2.3
6	957.32	36.2 QP	46.0	-9.8	1.25 H	185	31.9	4.3

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	31.94	32.6 QP	40.0	-7.4	1.24 V	348	48.5	-15.9
2	53.28	23.8 QP	40.0	-16.2	1.01 V	12	37.7	-13.9
3	68.80	20.9 QP	40.0	-19.1	1.01 V	194	36.5	-15.6
4	156.10	18.1 QP	43.5	-25.4	1.24 V	120	31.5	-13.4
5	449.04	24.5 QP	46.0	-21.5	1.01 V	78	32.0	-7.5
6	963.14	35.9 QP	54.0	-18.1	1.49 V	12	31.3	4.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

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
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 16, 2015	Nov. 15, 2016
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Dec. 26, 2015	Dec. 25, 2016
LISN/AMN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 26, 2016	Feb. 25, 2017
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 28, 2016	Jul. 27, 2017
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

- Note:** 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 HwaYa Shielded Room 1.
 3. The VCCI Site Registration No. is C-2040.

4.2.3 Test Procedures

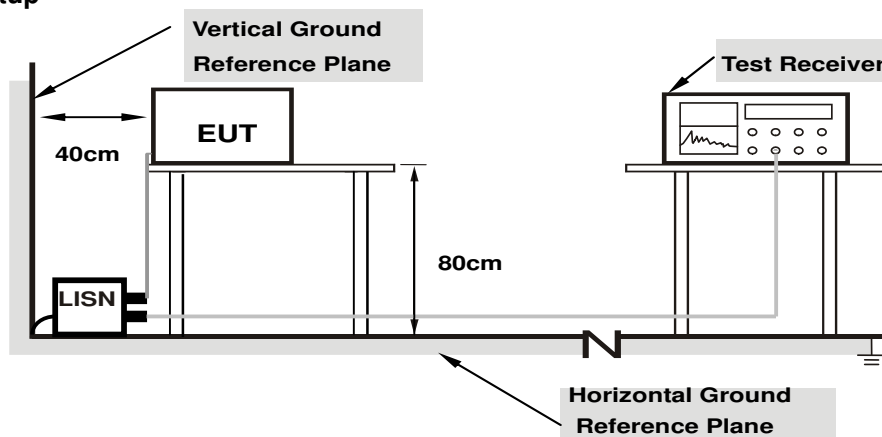
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

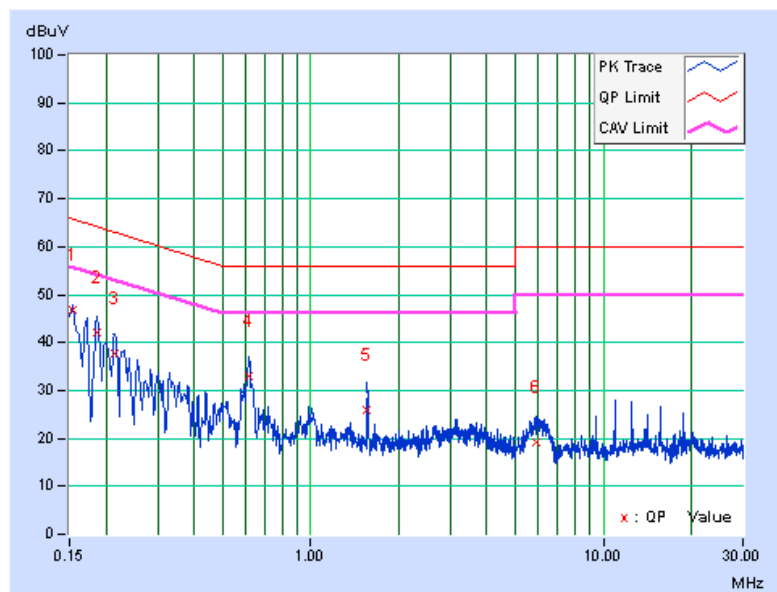
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A		

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	0.15391	10.08	36.75	24.97	46.83	35.05	65.79
2	0.18557	10.08	31.91	18.93	41.99	29.01	64.23	54.23	-22.24	-25.22
3	0.21282	10.09	27.73	13.78	37.82	23.87	63.09	53.09	-25.27	-29.22
4	0.61529	10.21	22.85	16.91	33.06	27.12	56.00	46.00	-22.94	-18.88
5	1.56151	10.33	15.49	8.56	25.82	18.89	56.00	46.00	-30.18	-27.11
6	5.88597	10.56	8.51	2.12	19.07	12.68	60.00	50.00	-40.93	-37.32

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.

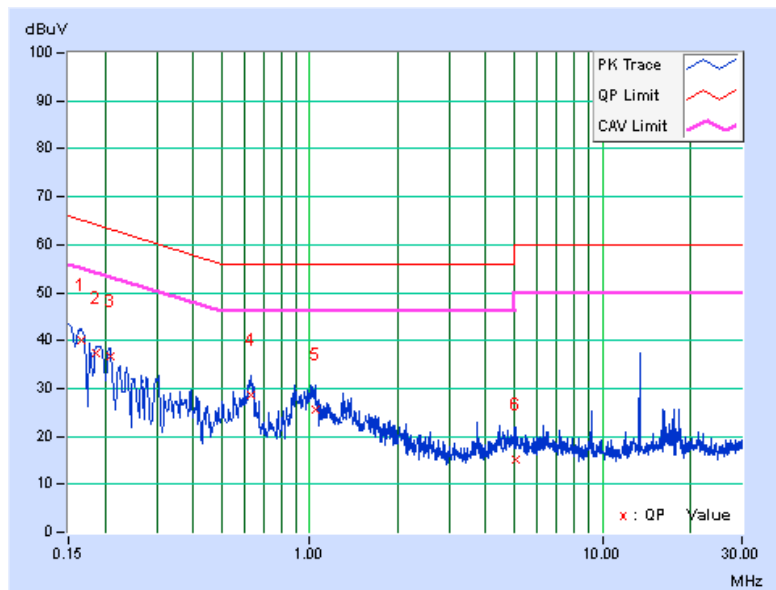


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A		

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	0.16526	10.08	30.00	17.49	40.08	27.57	65.20
2	0.18557	10.08	27.37	13.89	37.45	23.97	64.23	54.23	-26.78	-30.26
3	0.20783	10.09	26.62	14.56	36.71	24.65	63.29	53.29	-26.58	-28.64
4	0.62689	10.26	18.26	11.62	28.52	21.88	56.00	46.00	-27.48	-24.12
5	1.04148	10.29	15.28	9.85	25.57	20.14	56.00	46.00	-30.43	-25.86
6	5.09615	10.64	4.35	-0.79	14.99	9.85	60.00	50.00	-45.01	-40.15

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.

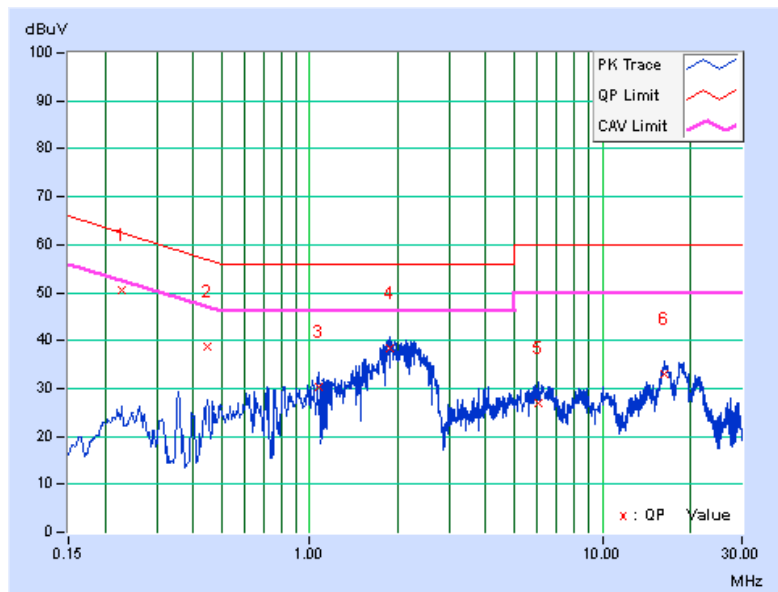


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B		

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	0.22820	10.04	40.57	13.14	50.61	23.18	62.51
2	0.44742	10.13	28.71	11.13	38.84	21.26	56.92	46.92	-18.08	-25.66
3	1.07276	10.21	20.19	13.42	30.40	23.63	56.00	46.00	-25.60	-22.37
4	1.88995	10.26	28.29	19.20	38.55	29.46	56.00	46.00	-17.45	-16.54
5	6.01891	10.52	16.28	10.38	26.80	20.90	60.00	50.00	-33.20	-29.10
6	16.30221	11.10	21.90	14.72	33.00	25.82	60.00	50.00	-27.00	-24.18

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.

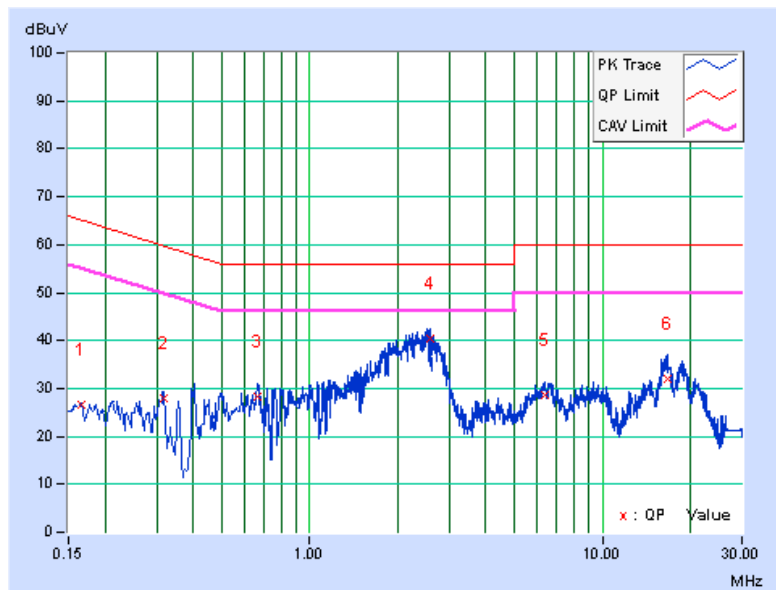


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B		

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	0.16526	10.03	16.65	10.19	26.68	20.22	65.20
2	0.31599	10.09	17.77	13.40	27.86	23.49	59.81	49.81	-31.95	-26.32
3	0.66605	10.17	18.04	12.51	28.21	22.68	56.00	46.00	-27.79	-23.32
4	2.57029	10.32	30.06	21.16	40.38	31.48	56.00	46.00	-15.62	-14.52
5	6.34735	10.57	17.96	10.47	28.53	21.04	60.00	50.00	-31.47	-28.96
6	16.72449	11.24	20.80	14.35	32.04	25.59	60.00	50.00	-27.96	-24.41

Remarks:

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



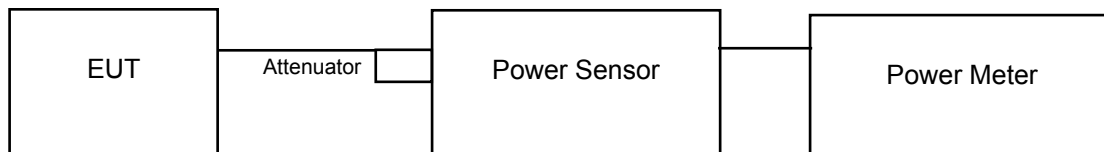
4.3 Transmit Power Measurement

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



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

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

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)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	48.978	16.90	24	Pass
40	5200	49.204	16.92	24	Pass
48	5240	49.545	16.95	24	Pass
52	5260	49.659	16.96	24	Pass
60	5300	48.641	16.87	24	Pass
64	5320	48.306	16.84	24	Pass
100	5500	40.458	16.07	24	Pass
116	5580	54.075	17.33	24	Pass
140	5700	42.855	16.32	24	Pass
149	5745	45.920	16.62	30	Pass
157	5785	45.082	16.54	30	Pass
165	5825	44.875	16.52	30	Pass

Note:

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

1. $11\text{dBm} + 10\log (42.34) = 27.27 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (42.82) = 27.32 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (41.19) = 27.15 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (40.07) = 27.03 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (42.40) = 27.27 > 24\text{dBm}$
6. $11\text{dBm} + 10\log (38.47) = 26.85 > 24\text{dBm}$

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	52.000	17.16	24	Pass
40	5200	51.642	17.13	24	Pass
48	5240	39.264	15.94	24	Pass
52	5260	49.317	16.93	24	Pass
60	5300	48.641	16.87	24	Pass
64	5320	47.973	16.81	24	Pass
100	5500	33.806	15.29	24	Pass
116	5580	34.119	15.33	24	Pass
140	5700	29.992	14.77	24	Pass
149	5745	44.978	16.53	30	Pass
157	5785	45.082	16.54	30	Pass
165	5825	44.978	16.53	30	Pass

Note:

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

1. $11\text{dBm} + 10\log (45.27) = 27.56 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (43.70) = 27.40 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (43.46) = 27.38 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (42.74) = 27.31 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (42.21) = 27.25 > 24\text{dBm}$
6. $11\text{dBm} + 10\log (34.95) = 26.43 > 24\text{dBm}$

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	31.623	15.00	24	Pass
46	5230	39.084	15.92	24	Pass
54	5270	26.607	14.25	24	Pass
62	5310	21.038	13.23	24	Pass
102	5510	15.959	12.03	24	Pass
110	5550	19.187	12.83	24	Pass
134	5670	20.184	13.05	24	Pass
151	5755	44.978	16.53	30	Pass
159	5795	45.082	16.54	30	Pass

Note:

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

1. $11\text{dBm} + 10\log (69.54) = 29.42 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (52.41) = 28.19 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (46.52) = 27.68 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (62.75) = 28.98 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (60.05) = 28.79 > 24\text{dBm}$

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	40.11	Pass
40	5200	41.62	Pass
48	5240	40.79	Pass
52	5260	42.34	Pass
60	5300	42.82	Pass
64	5320	41.19	Pass
100	5500	40.07	Pass
116	5580	42.40	Pass
140	5700	38.47	Pass

802.11n (HT20)

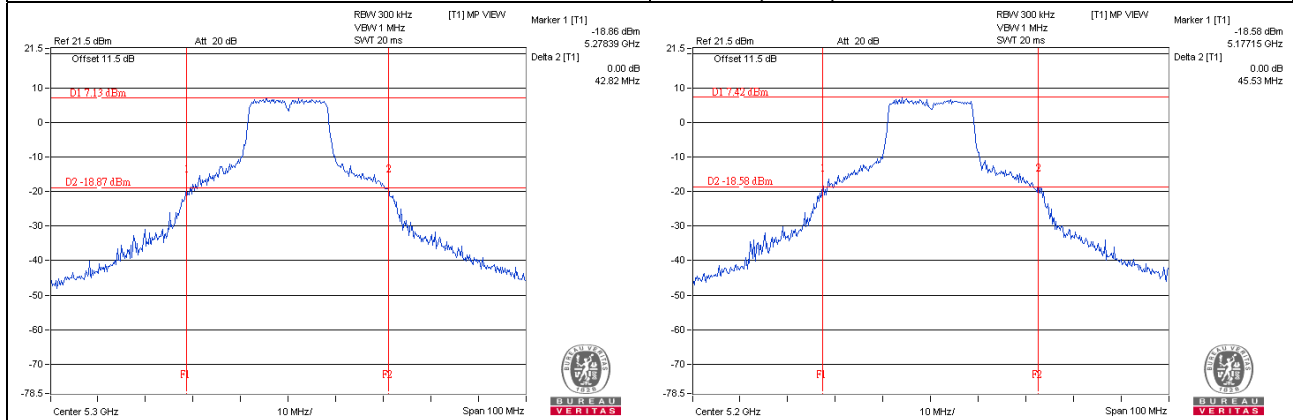
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	44.49	Pass
40	5200	45.53	Pass
48	5240	44.12	Pass
52	5260	45.27	Pass
60	5300	43.70	Pass
64	5320	43.46	Pass
100	5500	42.74	Pass
116	5580	42.21	Pass
140	5700	34.95	Pass

802.11n (HT40)

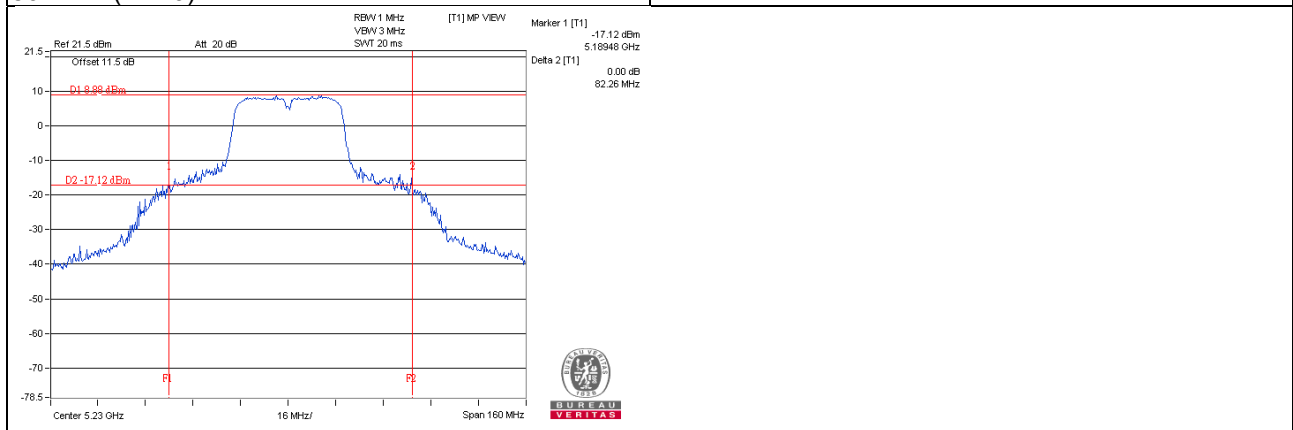
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
38	5190	75.24	Pass
46	5230	82.26	Pass
54	5270	69.54	Pass
62	5310	52.41	Pass
102	5510	46.52	Pass
110	5550	62.75	Pass
134	5670	60.05	Pass

Spectrum Plot of Worst Value

802.11a 802.11n (HT20)

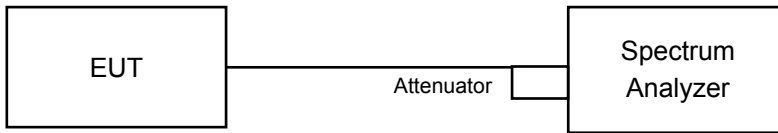


802.11n (HT40)



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 Sample. 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

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	19.56
40	5200	19.92
48	5240	20.28
52	5260	20.52
60	5300	19.92
64	5320	20.40
100	5500	20.40
116	5580	26.64
140	5700	20.16
149	5745	20.43
157	5785	20.28
165	5825	20.28

802.11n (HT20)

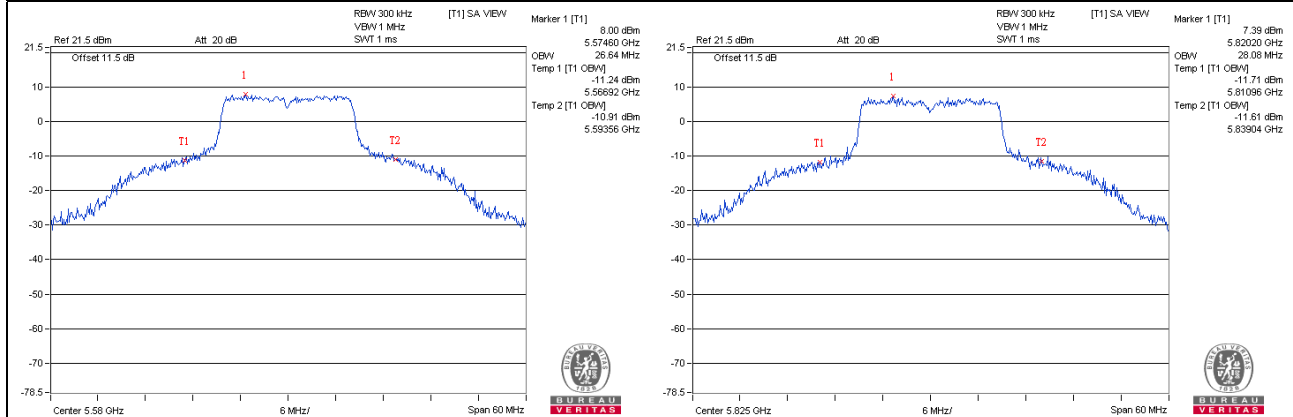
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	21.84
40	5200	21.84
48	5240	19.47
52	5260	22.20
60	5300	21.36
64	5320	21.00
100	5500	18.72
116	5580	19.20
140	5700	18.60
149	5745	22.68
157	5785	21.96
165	5825	28.08

802.11n (HT40)

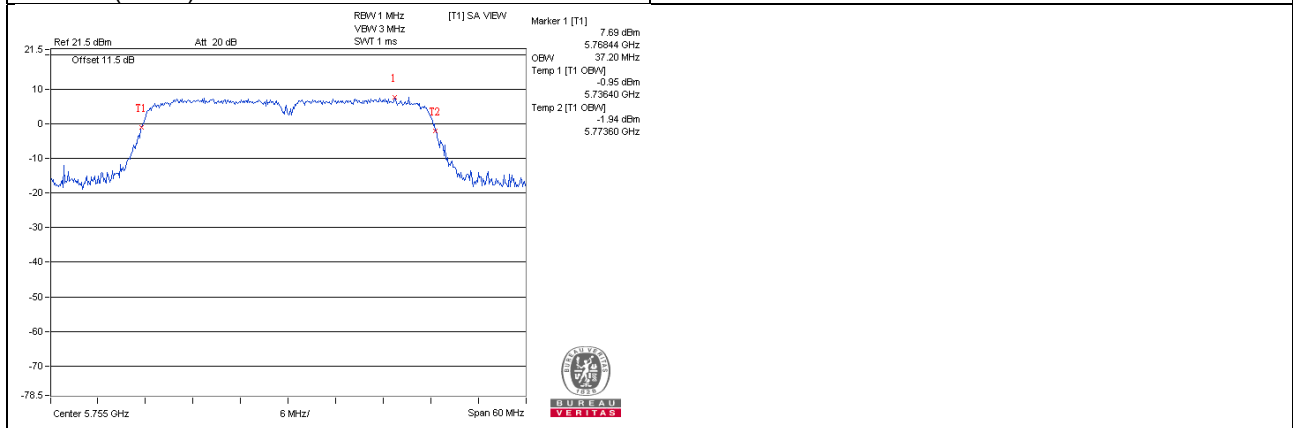
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
38	5190	36.84
46	5230	37.20
54	5270	36.72
62	5310	36.72
102	5510	36.72
110	5550	36.84
134	5670	36.96
151	5755	37.20
159	5795	37.08

Spectrum Plot of Worst Value

802.11a 802.11n (HT20)



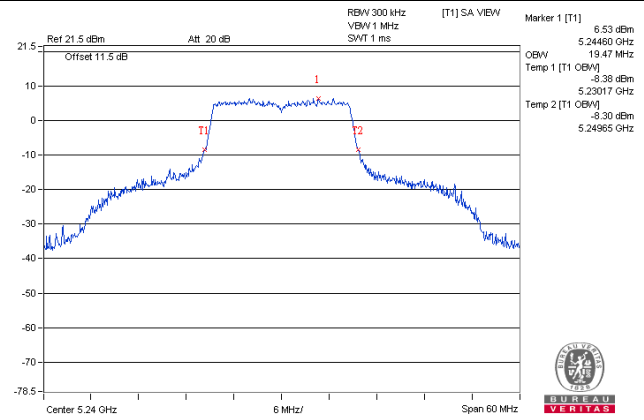
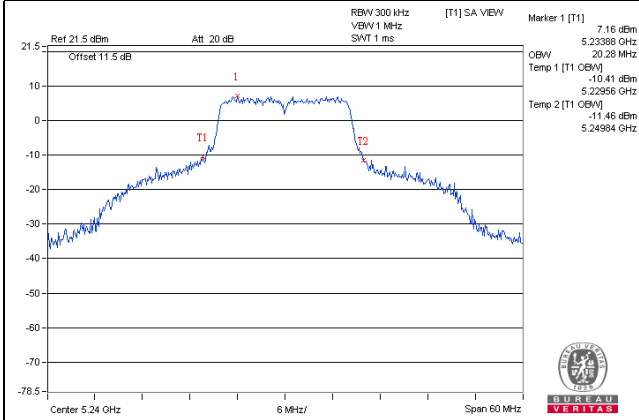
802.11n (HT40)



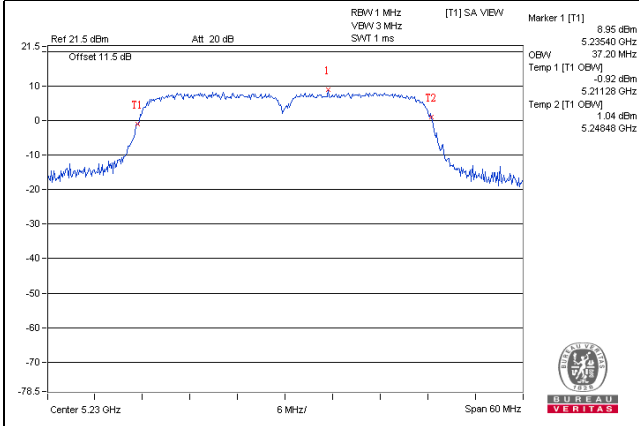
Spectrum Plot for U-NII-1 Band High Channel

802.11a / CH 48

802.11n (HT20) / CH 48



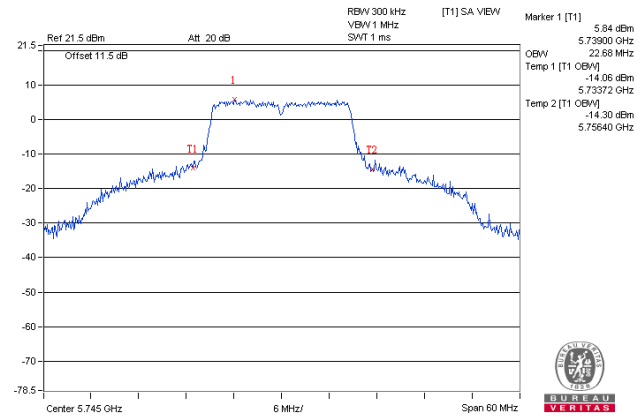
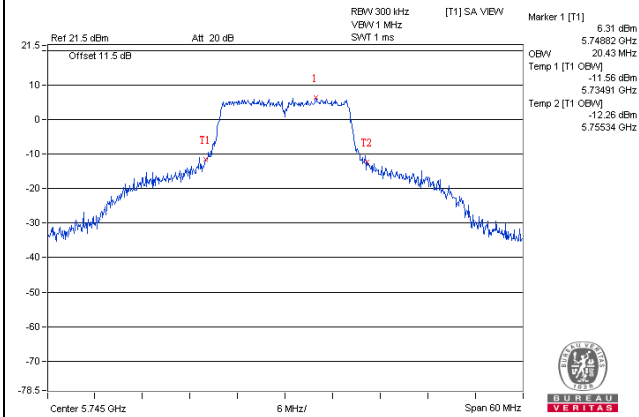
802.11n (HT40) / CH 46



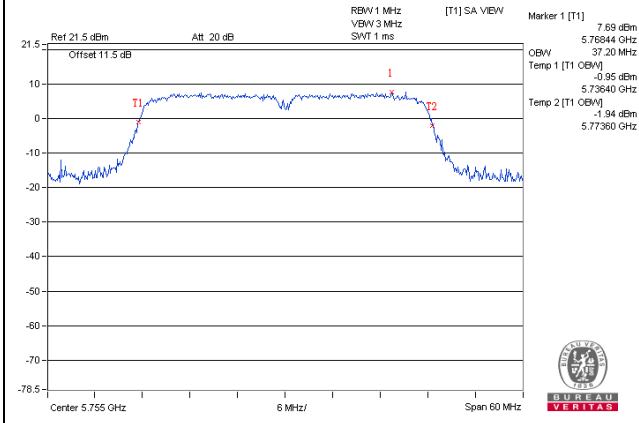
Spectrum Plot for U-NII-3 Band Low Channel

802.11a / CH 149

802.11n (HT20) / CH 149



802.11n (HT40) / CH 151

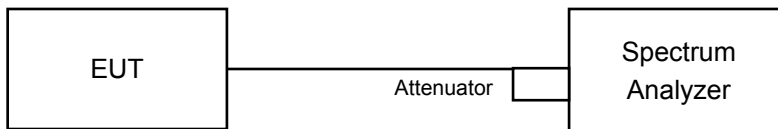


4.5 Peak Power Spectral Density Measurement

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:

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

For U-NII-3 band:

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
- Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
- 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 $BWCF = 10\log(500\text{ kHz}/300\text{ kHz})$
- Sweep time = auto, trigger set to “free run”.
- Trace average at least 100 traces in power averaging mode.
- Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as Item 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)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	2.30	0.66	2.97	11.00	Pass
40	5200	2.06	0.66	2.72	11.00	Pass
48	5240	2.01	0.66	2.68	11.00	Pass
52	5260	2.13	0.66	2.80	11.00	Pass
60	5300	2.01	0.66	2.68	11.00	Pass
64	5320	2.11	0.66	2.77	11.00	Pass
100	5500	1.85	0.66	2.52	11.00	Pass
116	5580	2.92	0.66	3.59	11.00	Pass
140	5700	1.85	0.66	2.52	11.00	Pass

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

802.11n (HT20)

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	1.90	0.69	2.59	11.00	Pass
40	5200	1.89	0.69	2.58	11.00	Pass
48	5240	1.74	0.69	2.43	11.00	Pass
52	5260	1.70	0.69	2.39	11.00	Pass
60	5300	1.55	0.69	2.24	11.00	Pass
64	5320	1.54	0.69	2.23	11.00	Pass
100	5500	-0.06	0.69	0.63	11.00	Pass
116	5580	0.12	0.69	0.81	11.00	Pass
140	5700	-0.35	0.69	0.34	11.00	Pass

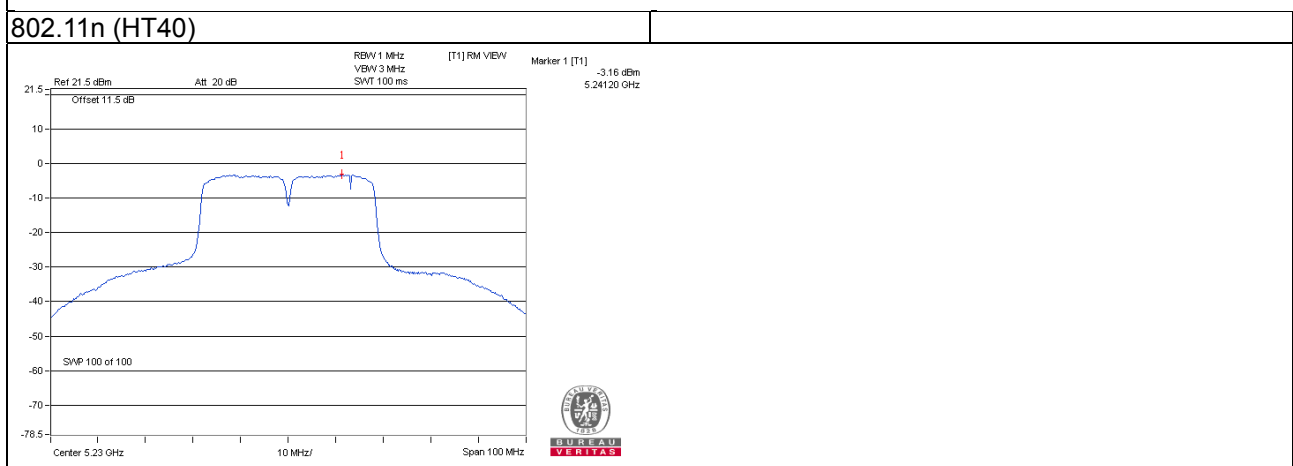
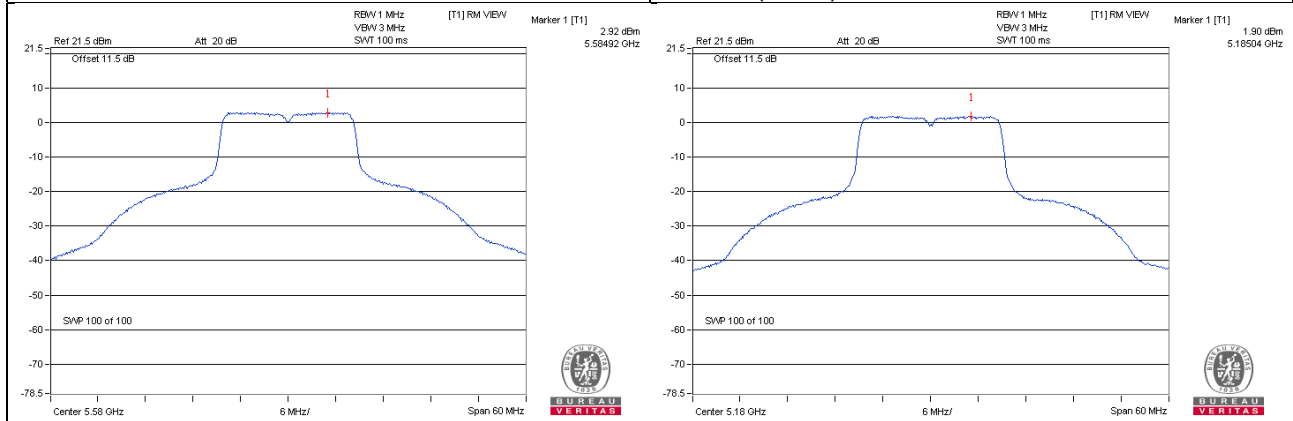
Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
38	5190	-4.07	1.22	-2.84	11.00	Pass
46	5230	-3.16	1.22	-1.93	11.00	Pass
54	5270	-4.25	1.22	-3.02	11.00	Pass
62	5310	-5.74	1.22	-4.51	11.00	Pass
102	5510	-5.90	1.22	-4.68	11.00	Pass
110	5550	-5.69	1.22	-4.46	11.00	Pass
134	5670	-5.53	1.22	-4.30	11.00	Pass

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

Spectrum Plot of Worst Value



For U-NII-3 Band

802.11a

Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
149	5745	-6.91	-4.69	0.66	-4.03	30.00	Pass
157	5785	-7.15	-4.93	0.66	-4.27	30.00	Pass
165	5825	-7.27	-5.05	0.66	-4.39	30.00	Pass

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

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
149	5745	-7.03	-4.81	0.69	-4.12	30.00	Pass
157	5785	-7.22	-5.00	0.69	-4.31	30.00	Pass
165	5825	-6.46	-4.24	0.69	-3.55	30.00	Pass

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

802.11n (HT40)

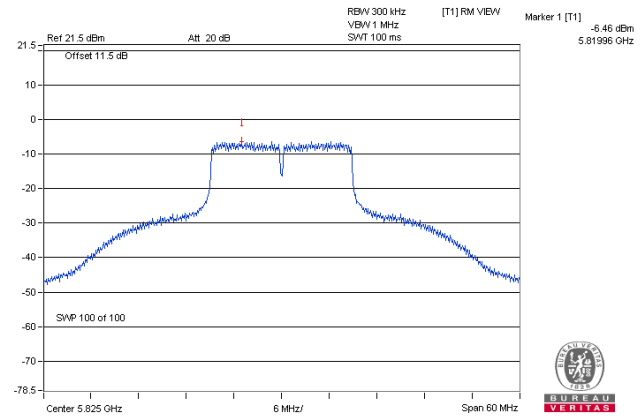
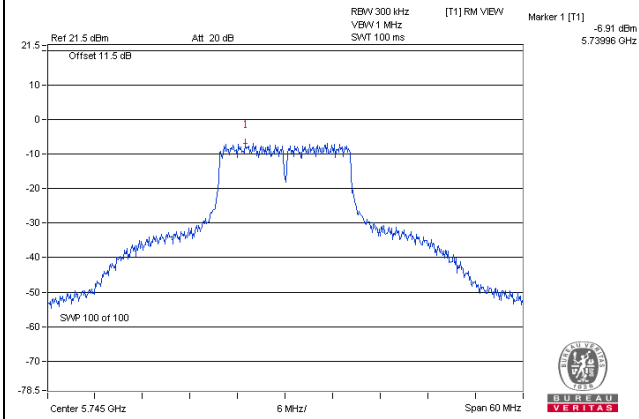
Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
151	5755	-12.65	-10.43	1.22	-9.21	30.00	Pass
159	5795	-12.64	-10.42	1.22	-9.20	30.00	Pass

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

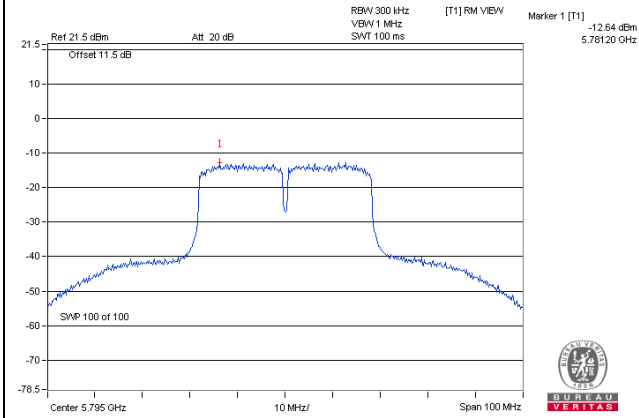
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)



802.11n (HT40)

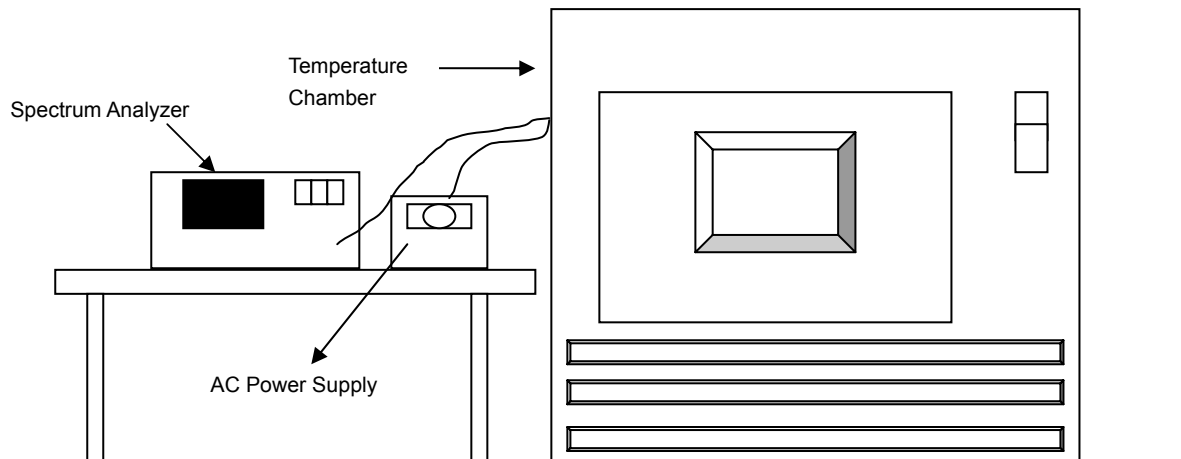


4.6 Frequency Stability

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 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 2 and 3 with the temperature chamber set to the lowest temperature.
- 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.

4.6.4 Deviation from Test Standard

No deviation.

4.6.5 EUT Operating Condition

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

4.6.6 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)
50	120	5180.0076	0.00015	5180.0074	0.00014	5180.0071	0.00014	5180.0035	0.00007
40	120	5180.0056	0.00011	5180.0042	0.00008	5180.0047	0.00009	5180.0034	0.00007
30	120	5180.0211	0.00041	5180.0172	0.00033	5180.02	0.00039	5180.0187	0.00036
20	120	5180.0015	0.00003	5180.0043	0.00008	5180.0033	0.00006	5180.0015	0.00003
10	120	5180.0017	0.00003	5180.0015	0.00003	5179.999	-0.00002	5179.9986	-0.00003
0	120	5180.0239	0.00046	5180.0226	0.00044	5180.0248	0.00048	5180.0228	0.00044
-10	120	5179.9859	-0.00027	5179.9875	-0.00024	5179.9862	-0.00027	5179.9854	-0.00028
-20	120	5179.9842	-0.00031	5179.981	-0.00037	5179.9807	-0.00037	5179.9821	-0.00035
-30	120	5179.9834	-0.00032	5179.984	-0.00031	5179.9792	-0.00040	5179.981	-0.00037

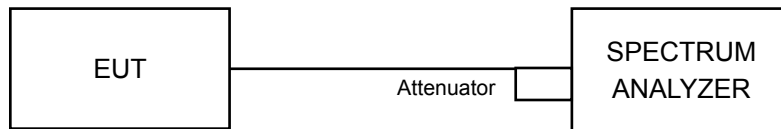
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)	Measured Frequency(MHz)	Frequency Drift (%)
20	138	5180.0016	0.00003	5180.0052	0.00010	5180.0024	0.00005	5180.0016	0.00003
	120	5180.0015	0.00003	5180.0043	0.00008	5180.0033	0.00006	5180.0015	0.00003
	102	5180.002	0.00004	5180.0052	0.00010	5180.0028	0.00005	5180.0021	0.00004

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	16.42	0.5	Pass
157	5785	16.40	0.5	Pass
165	5825	16.41	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	17.63	0.5	Pass
157	5785	17.65	0.5	Pass
165	5825	17.61	0.5	Pass

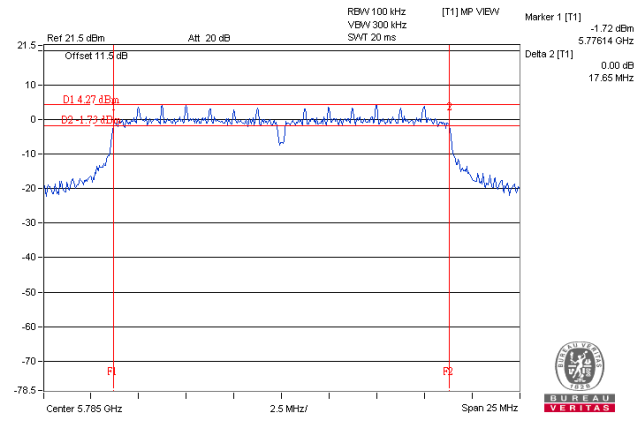
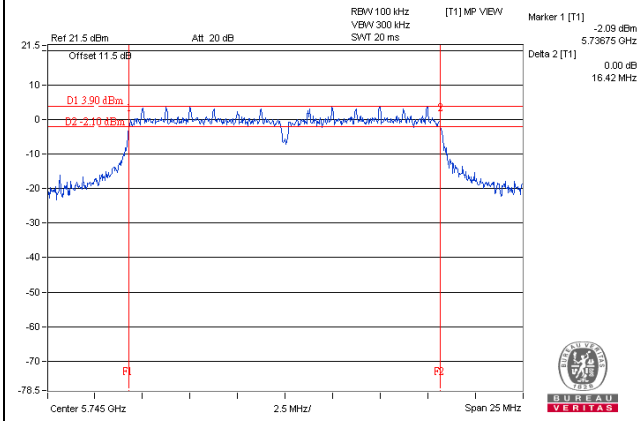
802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
151	5755	35.37	0.5	Pass
159	5795	35.33	0.5	Pass

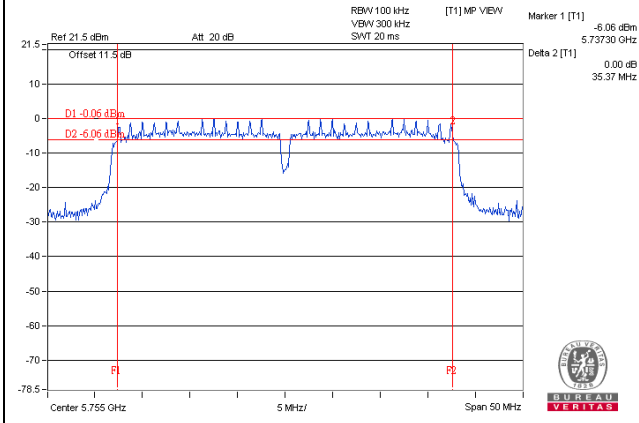
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)



802.11n (HT40)

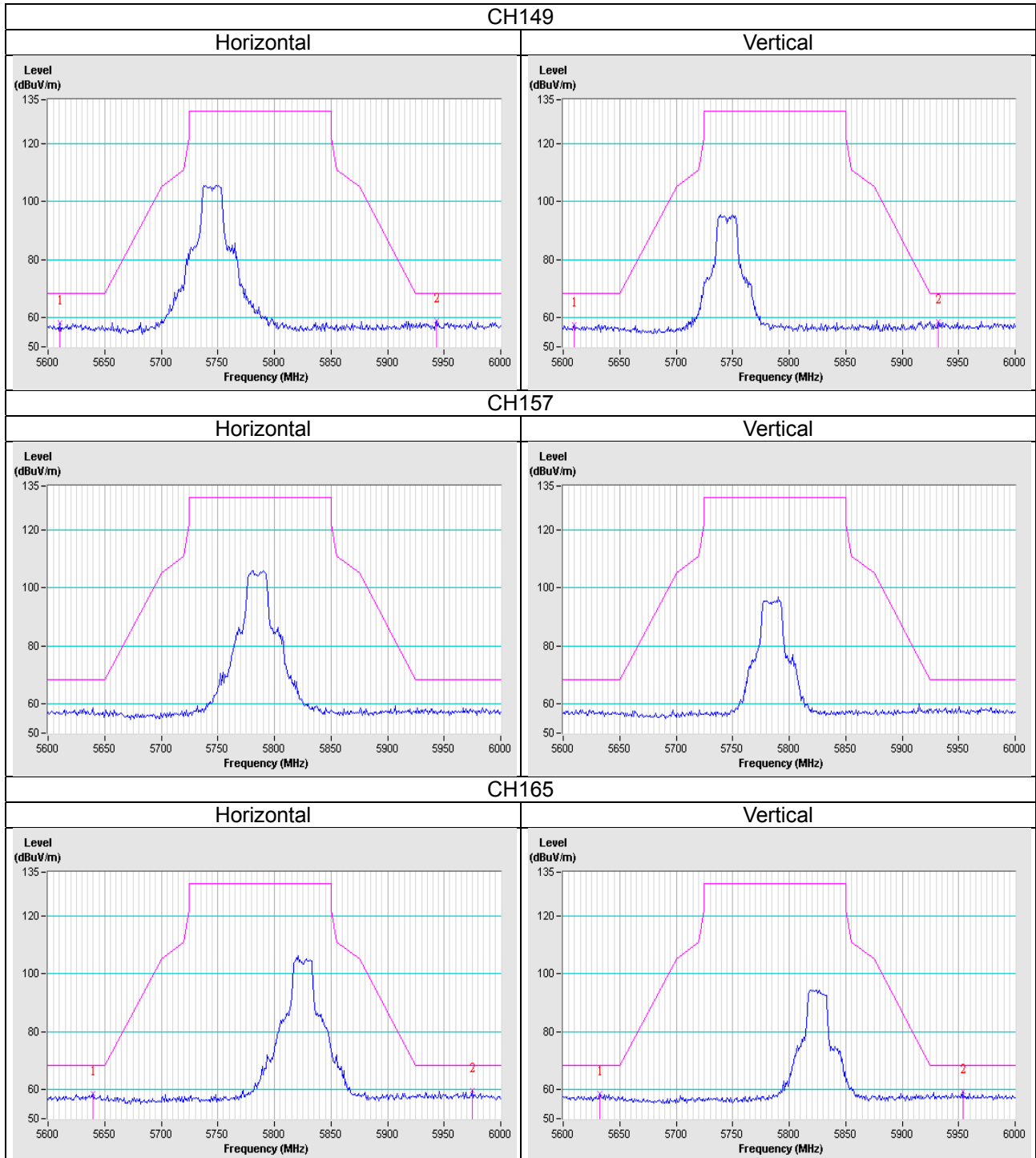


5 Pictures of Test Arrangements

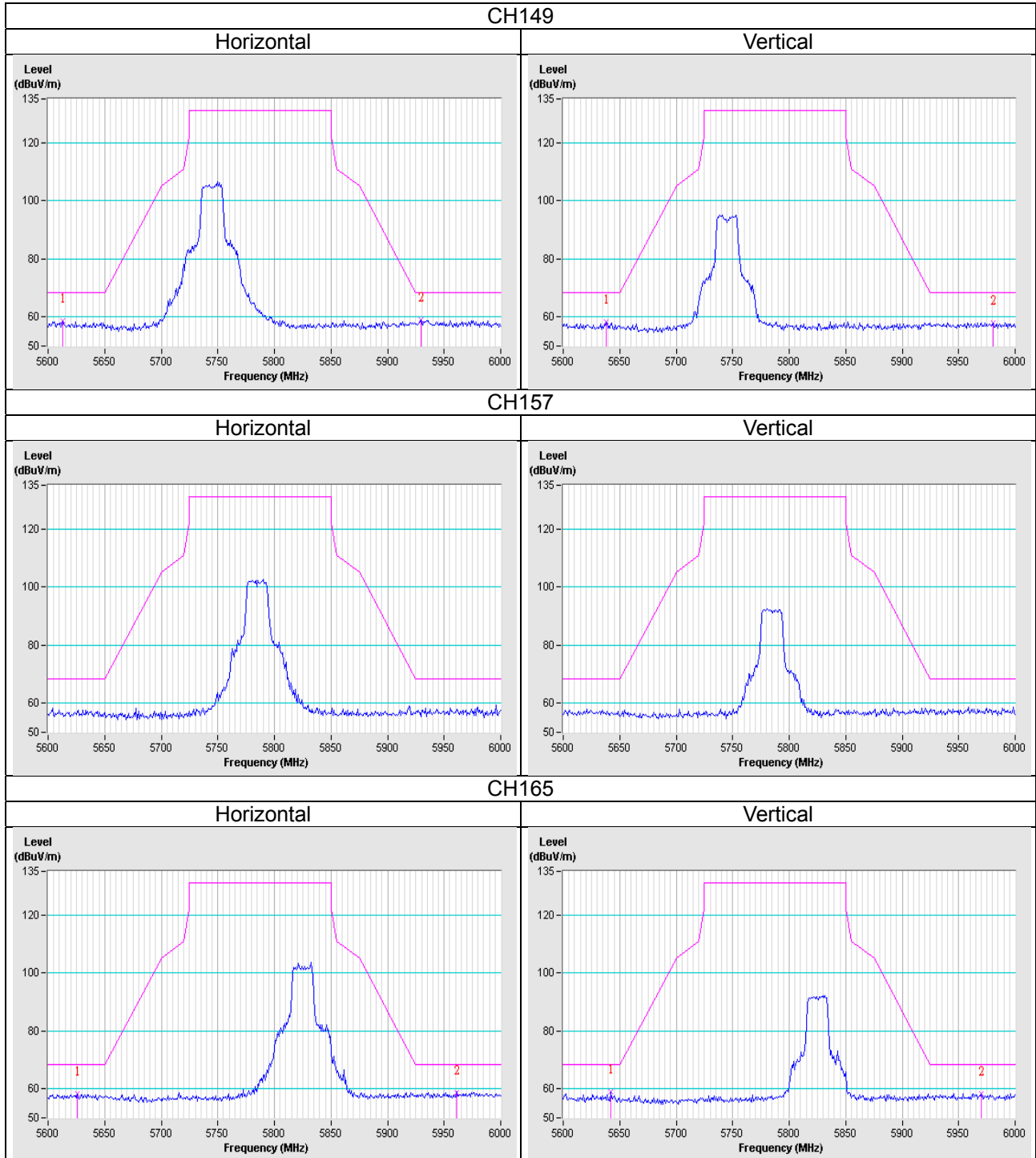
Please refer to the attached file (Test Setup Photo).

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

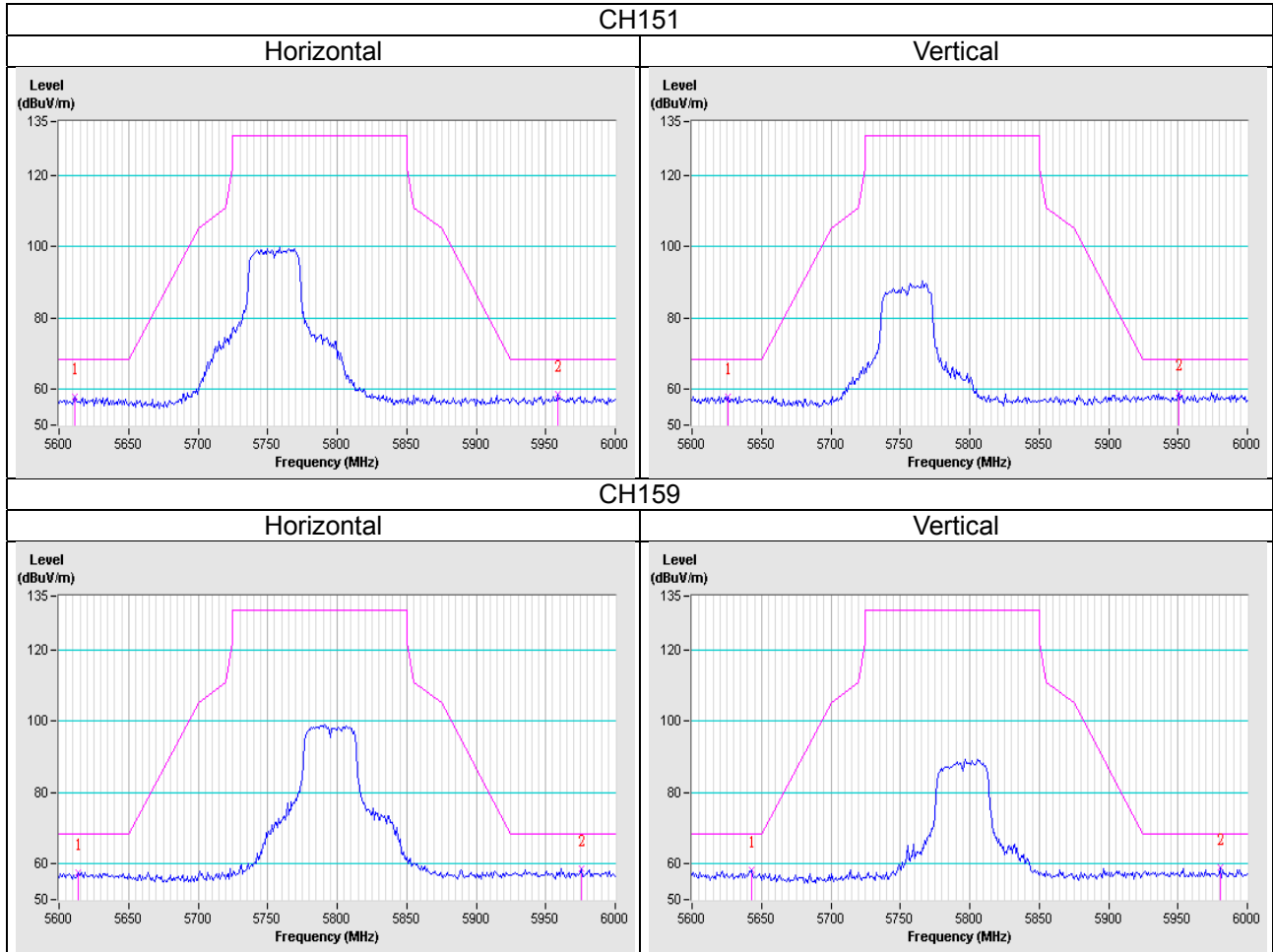
802.11a



802.11n (HT20)



802.11n (HT40)



Appendix – Information on 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.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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