

FCC Test Report

Report No.: RF141104C31-2

FCC ID: H9PCCHUB1

Test Model: CC5000-10

Received Date: Nov. 04, 2014

Test Date: Mar. 28 ~ Apr. 09, 2015

Issued Date: Apr. 23, 2015

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

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Release Control Record

Issue No.	Description	Date Issued
RF141104C31-2	Original release	Apr. 23, 2015

1 Certificate of Conformity

Product: Customer Concierge

Brand: Symbol

Test Model: CC5000-10


Sample Status: Engineering sample


Applicant: Symbol Technologies Inc.

Test Date: Dec. 27, 2014 ~ Jan. 19, 2015

Standards: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10:2009

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 :  , **Date:** Apr. 23, 2015
Polly Chien / Specialist

Approved by :  , **Date:** Apr. 23, 2015
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 -13.98dB at 0.42334MHz.
15.407(b)(1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.2dB at 5725.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(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	No antenna connector is used.

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) (±)
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	Customer Concierge
Brand	Symbol
Test Model	CC5000-10
HW	EV2
SW	91.2.0.27-4AJ11-030515
FW	FUSION_A_3.01.0.0.038
Status of EUT	Engineering sample
Power Supply Rating	12Vdc (Adapter) 48Vdc (PoE)
Modulation Type	64QAM, 16QAM, QPSK, BPSK
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 65Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz & 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (HT20) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (HT20) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (HT20) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n (HT20)
Output Power	5180 ~ 5240MHz: 127.057mW 5260 ~ 5320MHz: 113.501mW 5500 ~ 5700MHz: 57.016mW 5745 ~ 5825MHz: 57.148mW
Antenna Type	Refer to Note
Antenna Connector	NA
Accessory Device	Adapter
Data Cable Supplied	NA

Note:

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

Modulation Mode	TX Function
802.11a	1TX
802.11n (HT20)	1TX

2. The EUT uses following antennas.

Type	Connector	Gain (dBi)								
		5170 MHz	5180 MHz	5220 MHz	5320 MHz	5420 MHz	5520 MHz	5620 MHz	5720 MHz	5825 MHz
PCB	NA	2.76	2.95	3.33	2.81	2.29	2.18	2.81	3.36	3.08

3. The EUT uses following adapter.

Brand	HIPRO
Model	HP-A0502R3D
Input Power	100-240Vac, 50-60Hz, 2.4A
Output Power	12Vdc, 4.16A
Power Line	1.8m cable with one core

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

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

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

FOR 5745 ~ 5825MHz:

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

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

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE \geq 1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

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

NOTE:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on X-plane.
2. After pre-tested adapter and PoE mode, we found adapter mode was the worst case, therefore chosen for final tests and presented in the test report.

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)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5

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)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5

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)
-	802.11a	5180-5240	36 to 48	40	OFDM	BPSK	6.0
-	802.11a	5260-5320	52 to 64		OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140		OFDM	BPSK	6.0
-	802.11a	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)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE \geq 1G	19deg. C, 70%RH	120Vac, 60Hz	Jones Chang
RE $<$ 1G	19deg. C, 70%RH	120Vac, 60Hz	Jones Chang
PLC	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
APCM	25deg. C, 60%RH	120Vac, 60Hz	Nick Hsu

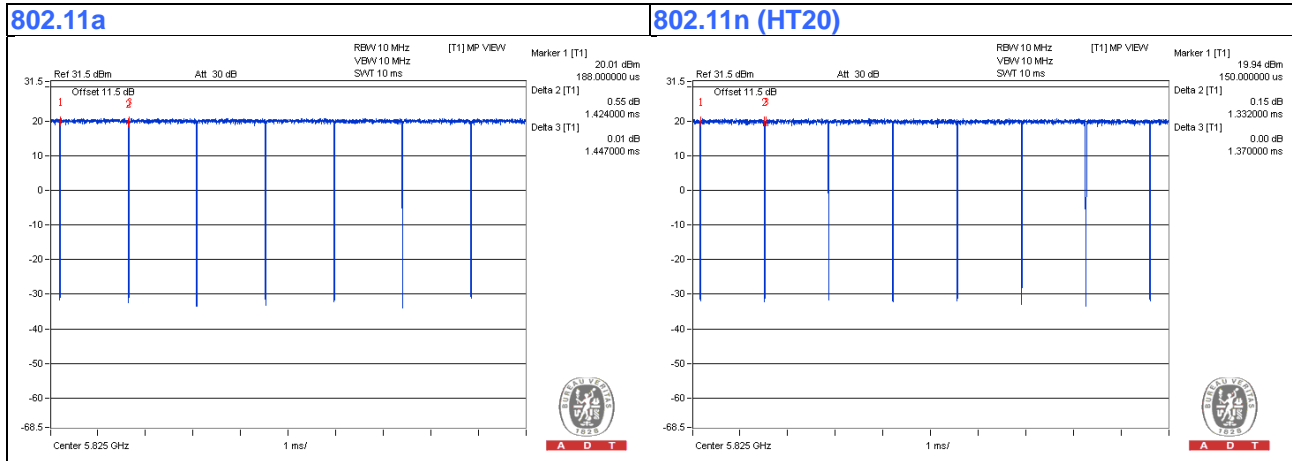
3.3 Duty Cycle of Test Signal

Duty cycle of test signal is > 98%, duty factor is not required.

802.11a: Duty cycle = $1.424/1.447 = 0.984$

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

802.11n (HT20): Duty cycle = $1.332/1.370 = 0.972$, Duty factor = $10 * \log(1/0.972) = 0.12$



3.4 Description of Support Units

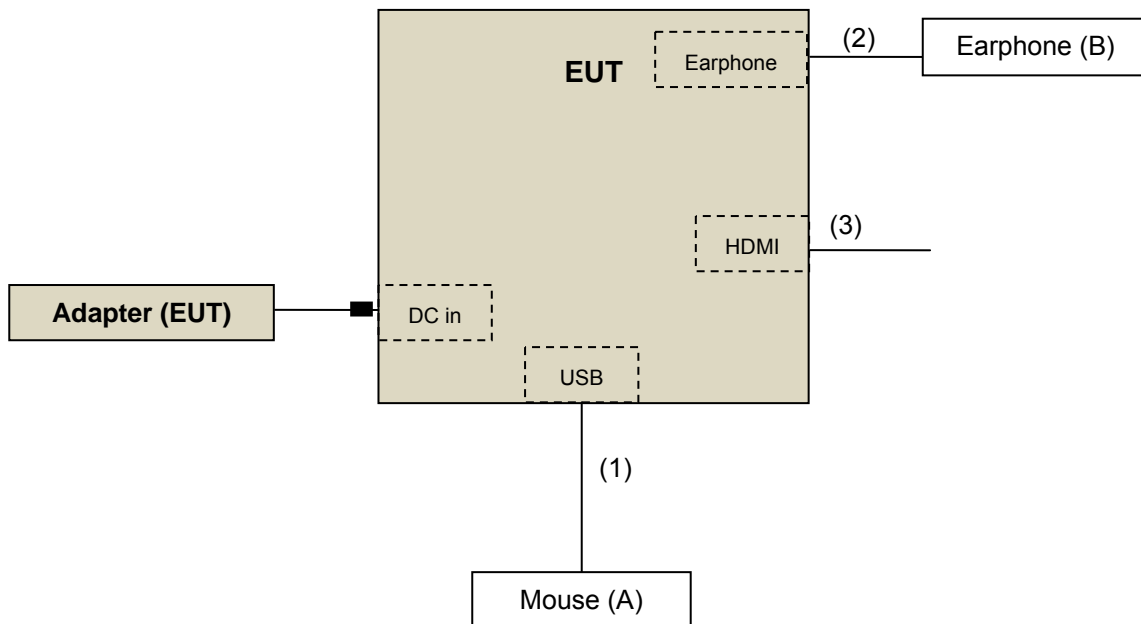
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	MOUSE	Microsoft	ITE78CJ	N/A	FCC DoC Approved	-
B.	EARPHONE	PHILIPS	HL145	N/A	N/A	-

Note: All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1.8	Y	0	-
2.	Earphone cable	1	1.2	Y	0	-
3.	HDMI cable	1	1.8	N	0	-

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedure New Rules v01

ANSI C63.10-2009

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

NOTE: The EUT 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. Other emissions shall be at least 20dB below the highest level of the desired power:

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:

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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01	FIELD STRENGTH AT 3m	
	PK:74 (dBµV/m)	AV:54 (dBµV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBµV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	PK:-27 (dBm/MHz) ^{*1} PK:-17 (dBm/MHz) ^{*2}	PK: 68.2(dBµV/m) ^{*1} PK:78.2 (dBµV/m) ^{*2}

NOTE: ^{*1} beyond 10MHz of the band edge ^{*2} within 10 MHz of band edge

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date Of Calibration	Due Date Of Calibration
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Dec. 01, 2014	Nov. 30, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 25, 2014	Jul. 24, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Feb. 06, 2015	Feb. 05, 2016
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Feb. 09, 2015	Feb. 08, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Preamplifier Agilent	8449B	3008A01911	Aug. 09, 2014	Aug. 08, 2015
Preamplifier Agilent	8447D	2944A10638	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	248780/4 309222/4 274092/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable Worken	8D-FB	Cable-CH9-01	Aug. 11, 2014	Aug. 10, 2015
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 Table Controller EMCO	2090	NA	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
High Speed Peak Power Meter	ML2495A	0824011	Jul. 26, 2014	Jul. 25, 2015
Power Sensor	MA2411B	0738171	Jul. 26, 2014	Jul. 25, 2015
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 09, 2014	Jun. 08, 2015

- 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 HP 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 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:

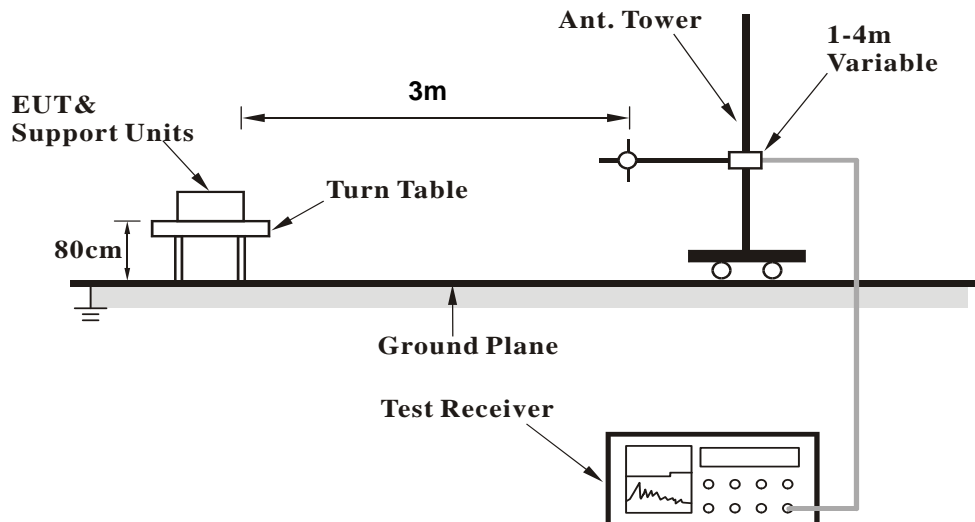
1. For emission measurements above 1 GHz, the EUT shall be placed at a height of 1.5 m above the ground at 3 meter chamber room for test
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
4. 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 ($10 \log(1/\text{duty cycle})$).
5. 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.
6. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

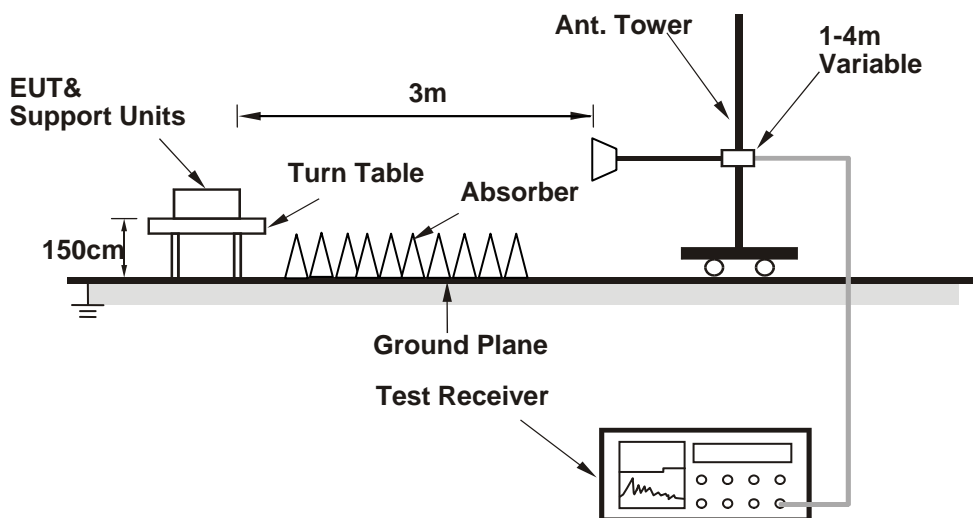
No deviation.

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

- Placed the EUT with earphone on testing table.
- The necessary accessories enable the system in full functions.
- Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

ABOVE 1GHz DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.8 PK	74.0	-4.2	1.08 H	96	63.80	6.00
2	5150.00	52.6 AV	54.0	-1.4	1.08 H	96	46.60	6.00
3	*5180.00	112.2 PK			1.08 H	95	72.70	39.50
4	*5180.00	102.2 AV			1.08 H	95	62.70	39.50
5	#10360.00	60.6 PK	74.0	-13.4	1.11 H	127	42.20	18.40
6	#10360.00	47.2 AV	54.0	-6.8	1.11 H	127	28.80	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.1 PK	74.0	-9.9	1.08 V	348	58.10	6.00
2	5150.00	49.2 AV	54.0	-4.8	1.08 V	348	43.20	6.00
3	*5180.00	106.1 PK			1.00 V	2	66.60	39.50
4	*5180.00	96.0 AV			1.00 V	2	56.50	39.50
5	#10360.00	60.6 PK	74.0	-13.4	1.18 V	243	42.20	18.40
6	#10360.00	47.4 AV	54.0	-6.6	1.18 V	243	29.00	18.40

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	114.8 PK			1.00 H	94	75.20	39.60
2	*5200.00	104.8 AV			1.00 H	94	65.20	39.60
3	#10400.00	60.8 PK	74.0	-13.2	1.40 H	337	42.30	18.50
4	#10400.00	47.5 AV	54.0	-6.5	1.40 H	337	29.00	18.50

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	108.0 PK			1.00 V	320	68.40	39.60
2	*5200.00	98.6 AV			1.00 V	320	59.00	39.60
3	#10400.00	62.0 PK	74.0	-12.0	1.01 V	103	43.50	18.50
4	#10400.00	48.0 AV	54.0	-6.0	1.01 V	103	29.50	18.50

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	113.5 PK			1.20 H	101	73.90	39.60
2	*5240.00	103.4 AV			1.20 H	101	63.80	39.60
3	5350.00	57.4 PK	74.0	-16.6	1.07 H	96	51.30	6.10
4	5350.00	45.0 AV	54.0	-9.0	1.07 H	96	38.90	6.10
5	#10480.00	60.0 PK	74.0	-14.0	1.24 H	193	41.00	19.00
6	#10480.00	47.2 AV	54.0	-6.8	1.24 H	193	28.20	19.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.7 PK			1.01 V	350	70.10	39.60
2	*5240.00	99.5 AV			1.01 V	350	59.90	39.60
3	5350.00	57.1 PK	74.0	-16.9	1.12 V	8	51.00	6.10
4	5350.00	44.6 AV	54.0	-9.4	1.12 V	8	38.50	6.10
5	#10480.00	59.9 PK	74.0	-14.1	1.05 V	83	40.90	19.00
6	#10480.00	47.4 AV	54.0	-6.6	1.05 V	83	28.40	19.00

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	113.9 PK			1.13 H	96	74.20	39.70
2	*5260.00	103.4 AV			1.13 H	96	63.70	39.70
3	5350.00	57.8 PK	74.0	-16.2	1.23 H	100	51.70	6.10
4	5350.00	44.8 AV	54.0	-9.2	1.23 H	100	38.70	6.10
5	#10520.00	60.4 PK	74.0	-13.6	1.35 H	173	41.20	19.20
6	#10520.00	46.8 AV	54.0	-7.2	1.35 H	173	27.60	19.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	109.5 PK			1.00 V	352	69.80	39.70
2	*5260.00	99.8 AV			1.00 V	352	60.10	39.70
3	5350.00	57.7 PK	74.0	-16.3	1.06 V	343	51.60	6.10
4	5350.00	43.9 AV	54.0	-10.1	1.06 V	343	37.80	6.10
5	#10520.00	60.7 PK	74.0	-13.3	1.10 V	282	41.50	19.20
6	#10520.00	48.2 AV	54.0	-5.8	1.10 V	282	29.00	19.20

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	113.9 PK			1.57 H	125	74.20	39.70
2	*5300.00	103.7 AV			1.57 H	125	64.00	39.70
3	10600.00	60.7 PK	74.0	-13.3	1.75 H	90	41.60	19.10
4	10600.00	47.6 AV	54.0	-6.4	1.75 H	90	28.50	19.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	109.4 PK			1.00 V	353	69.70	39.70
2	*5300.00	99.4 AV			1.00 V	353	59.70	39.70
3	10600.00	60.6 PK	74.0	-13.4	1.07 V	95	41.50	19.10
4	10600.00	48.1 AV	54.0	-5.9	1.07 V	95	29.00	19.10

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.8 PK			1.40 H	126	73.10	39.70
2	*5320.00	102.8 AV			1.40 H	126	63.10	39.70
3	5350.00	69.9 PK	74.0	-4.1	1.65 H	126	63.80	6.10
4	5350.00	52.6 AV	54.0	-1.4	1.65 H	126	46.50	6.10
5	10640.00	59.1 PK	74.0	-14.9	1.48 H	76	40.20	18.90
6	10640.00	45.7 AV	54.0	-8.3	1.48 H	76	26.80	18.90

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	106.9 PK			1.00 V	70	67.20	39.70
2	*5320.00	96.6 AV			1.00 V	70	56.90	39.70
3	5350.00	63.4 PK	74.0	-10.6	1.00 V	72	57.30	6.10
4	5350.00	48.5 AV	54.0	-5.5	1.00 V	72	42.40	6.10
5	10640.00	60.1 PK	74.0	-13.9	1.14 V	76	41.20	18.90
6	10640.00	45.8 AV	54.0	-8.2	1.14 V	76	26.90	18.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": 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	63.6 PK	74.0	-10.4	1.65 H	132	57.20	6.40
2	5460.00	48.0 AV	54.0	-6.0	1.65 H	132	41.60	6.40
3	#5470.00	70.0 PK	74.0	-4.0	1.68 H	125	63.60	6.40
4	#5470.00	52.3 AV	54.0	-1.7	1.68 H	125	45.90	6.40
5	*5500.00	111.1 PK			1.58 H	127	71.10	40.00
6	*5500.00	101.0 AV			1.58 H	127	61.00	40.00
7	11000.00	59.5 PK	74.0	-14.5	1.68 H	61	39.90	19.60
8	11000.00	45.7 AV	54.0	-8.3	1.68 H	61	26.10	19.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.7 PK	74.0	-12.3	1.05 V	260	55.30	6.40
2	5460.00	45.8 AV	54.0	-8.2	1.05 V	260	39.40	6.40
3	#5470.00	66.4 PK	74.0	-7.6	1.07 V	263	60.00	6.40
4	#5470.00	50.0 AV	54.0	-4.0	1.07 V	263	43.60	6.40
5	*5500.00	108.1 PK			1.01 V	263	68.10	40.00
6	*5500.00	98.0 AV			1.01 V	263	58.00	40.00
7	11000.00	59.1 PK	74.0	-14.9	1.28 V	63	39.50	19.60
8	11000.00	45.9 AV	54.0	-8.1	1.28 V	63	26.30	19.60

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": 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	110.8 PK			1.54 H	126	70.70	40.10
2	*5580.00	100.4 AV			1.54 H	126	60.30	40.10
3	11160.00	58.8 PK	74.0	-15.2	1.46 H	255	39.60	19.20
4	11160.00	46.3 AV	54.0	-7.7	1.46 H	255	27.10	19.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	108.2 PK			1.00 V	266	68.10	40.10
2	*5580.00	98.3 AV			1.00 V	266	58.20	40.10
3	11160.00	58.3 PK	74.0	-15.7	1.13 V	302	39.10	19.20
4	11160.00	45.9 AV	54.0	-8.1	1.13 V	302	26.70	19.20

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.2 PK			1.13 H	231	67.90	40.30
2	*5700.00	97.7 AV			1.13 H	231	57.40	40.30
3	#5725.00	68.9 PK	74.0	-5.1	1.11 H	229	62.10	6.80
4	#5725.00	52.4 AV	54.0	-1.6	1.11 H	229	45.60	6.80
5	11400.00	59.0 PK	74.0	-15.0	1.26 H	146	40.50	18.50
6	11400.00	45.7 AV	54.0	-8.3	1.26 H	146	27.20	18.50

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	107.2 PK			1.00 V	78	66.90	40.30
2	*5700.00	97.2 AV			1.00 V	78	56.90	40.30
3	#5725.00	70.0 PK	74.0	-4.0	1.00 V	78	63.20	6.80
4	#5725.00	51.9 AV	54.0	-2.1	1.00 V	78	45.10	6.80
5	11400.00	59.6 PK	74.0	-14.4	1.06 V	83	41.10	18.50
6	11400.00	45.9 AV	54.0	-8.1	1.06 V	83	27.40	18.50

REMARKS:

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



CHANNEL	TX Channel 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	#5714.00	70.9 PK	74.0	-3.1	1.24 H	247	64.10	6.80
2	#5714.00	50.7 AV	54.0	-3.3	1.24 H	247	43.90	6.80
3	#5722.00	74.9 PK	78.2	-3.3	1.48 H	225	68.10	6.80
4	#5725.00	63.3 PK	78.2	-14.9	1.48 H	223	56.50	6.80
5	*5745.00	107.2 PK			1.13 H	242	66.80	40.40
6	*5745.00	97.1 AV			1.13 H	242	56.70	40.40
7	11490.00	57.5 PK	74.0	-16.5	1.30 H	93	39.10	18.40
8	11490.00	44.7 AV	54.0	-9.3	1.30 H	93	26.30	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	69.7 PK	74.0	-4.3	1.00 V	75	62.90	6.80
2	#5714.00	50.7 AV	54.0	-3.3	1.00 V	75	43.90	6.80
3	#5722.00	75.1 PK	78.2	-3.1	1.00 V	76	68.30	6.80
4	#5725.00	61.9 PK	78.2	-16.3	1.00 V	78	55.10	6.80
5	*5745.00	107.7 PK			1.00 V	77	67.30	40.40
6	*5745.00	97.8 AV			1.00 V	77	57.40	40.40
7	11490.00	57.5 PK	74.0	-16.5	1.09 V	124	39.10	18.40
8	11490.00	45.6 AV	54.0	-8.4	1.09 V	124	27.20	18.40

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	108.1 PK			1.13 H	99	67.60	40.50
2	*5785.00	97.7 AV			1.13 H	99	57.20	40.50
3	11570.00	60.4 PK	74.0	-13.6	1.28 H	192	42.00	18.40
4	11570.00	46.3 AV	54.0	-7.7	1.28 H	192	27.90	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	107.0 PK			1.00 V	77	66.50	40.50
2	*5785.00	97.5 AV			1.00 V	77	57.00	40.50
3	11570.00	60.9 PK	74.0	-13.1	1.06 V	241	42.50	18.40
4	11570.00	47.2 AV	54.0	-6.8	1.06 V	241	28.80	18.40

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	107.5 PK			1.13 H	243	67.00	40.50
2	*5825.00	97.6 AV			1.13 H	243	57.10	40.50
3	#5850.00	53.5 PK	78.2	-24.7	1.21 H	247	46.60	6.90
4	#5853.00	70.9 PK	78.2	-7.3	1.37 H	247	63.90	7.00
5	#5861.00	63.3 PK	74.0	-10.7	1.34 H	248	56.30	7.00
6	#5861.00	47.8 AV	54.0	-6.2	1.34 H	248	40.80	7.00
7	11650.00	59.0 PK	74.0	-15.0	1.41 H	157	40.10	18.90
8	11650.00	45.5 AV	54.0	-8.5	1.41 H	157	26.60	18.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	105.6 PK			1.12 V	76	65.10	40.50
2	*5825.00	95.5 AV			1.12 V	76	55.00	40.50
3	#5850.00	52.0 PK	78.2	-26.2	1.11 V	77	45.10	6.90
4	#5853.00	67.7 PK	78.2	-10.5	1.02 V	77	60.70	7.00
5	#5861.00	61.8 PK	74.0	-12.2	1.10 V	77	54.80	7.00
6	#5861.00	46.8 AV	54.0	-7.2	1.10 V	77	39.80	7.00
7	11650.00	60.1 PK	74.0	-13.9	1.03 V	142	41.20	18.90
8	11650.00	47.0 AV	54.0	-7.0	1.03 V	142	28.10	18.90

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": The radiated frequency is out of the restricted band.

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	71.1 PK	74.0	-2.9	1.04 H	96	65.10	6.00
2	5150.00	52.4 AV	54.0	-1.6	1.04 H	96	46.40	6.00
3	*5180.00	112.0 PK			1.08 H	96	72.50	39.50
4	*5180.00	101.9 AV			1.08 H	96	62.40	39.50
5	#10360.00	59.5 PK	74.0	-14.5	1.18 H	64	41.10	18.40
6	#10360.00	46.8 AV	54.0	-7.2	1.18 H	64	28.40	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.1 PK	74.0	-6.9	1.03 V	349	61.10	6.00
2	5150.00	49.9 AV	54.0	-4.1	1.03 V	349	43.90	6.00
3	*5180.00	107.8 PK			1.02 V	354	68.30	39.50
4	*5180.00	98.0 AV			1.02 V	354	58.50	39.50
5	#10360.00	60.2 PK	74.0	-13.8	1.06 V	221	41.80	18.40
6	#10360.00	46.9 AV	54.0	-7.1	1.06 V	221	28.50	18.40

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": 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	114.0 PK			1.00 H	96	74.40	39.60
2	*5200.00	103.6 AV			1.00 H	96	64.00	39.60
3	#10400.00	60.1 PK	74.0	-13.9	1.20 H	171	41.60	18.50
4	#10400.00	46.9 AV	54.0	-7.1	1.20 H	171	28.40	18.50

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	108.7 PK			1.00 V	350	69.10	39.60
2	*5200.00	99.3 AV			1.00 V	350	59.70	39.60
3	#10400.00	60.1 PK	74.0	-13.9	1.06 V	241	41.60	18.50
4	#10400.00	46.4 AV	54.0	-7.6	1.06 V	241	27.90	18.50

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	113.8 PK			1.04 H	96	74.20	39.60
2	*5240.00	103.5 AV			1.04 H	96	63.90	39.60
3	5350.00	57.8 PK	74.0	-16.2	1.19 H	90	51.70	6.10
4	5350.00	44.7 AV	54.0	-9.3	1.19 H	90	38.60	6.10
5	#10480.00	59.4 PK	74.0	-14.6	1.25 H	60	40.40	19.00
6	#10480.00	46.6 AV	54.0	-7.4	1.25 H	60	27.60	19.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.5 PK			1.00 V	0	69.90	39.60
2	*5240.00	99.9 AV			1.00 V	0	60.30	39.60
3	5350.00	57.7 PK	74.0	-16.3	1.12 V	356	51.60	6.10
4	5350.00	44.5 AV	54.0	-9.5	1.12 V	356	38.40	6.10
5	#10480.00	59.9 PK	74.0	-14.1	1.03 V	272	40.90	19.00
6	#10480.00	47.5 AV	54.0	-6.5	1.03 V	272	28.50	19.00

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	113.5 PK			1.20 H	94	73.80	39.70
2	*5260.00	103.0 AV			1.20 H	94	63.30	39.70
3	5350.00	57.4 PK	74.0	-16.6	1.31 H	87	51.30	6.10
4	5350.00	44.3 AV	54.0	-9.7	1.31 H	87	38.20	6.10
5	#10520.00	59.4 PK	74.0	-14.6	1.24 H	39	40.20	19.20
6	#10520.00	46.6 AV	54.0	-7.4	1.24 H	39	27.40	19.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	110.2 PK			1.00 V	355	70.50	39.70
2	*5260.00	100.0 AV			1.00 V	355	60.30	39.70
3	5350.00	56.7 PK	74.0	-17.3	1.15 V	341	50.60	6.10
4	5350.00	43.7 AV	54.0	-10.3	1.15 V	341	37.60	6.10
5	#10520.00	59.7 PK	74.0	-14.3	1.00 V	241	40.50	19.20
6	#10520.00	47.5 AV	54.0	-6.5	1.00 V	241	28.30	19.20

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	112.8 PK			1.41 H	94	73.10	39.70
2	*5300.00	102.7 AV			1.41 H	94	63.00	39.70
3	10600.00	59.4 PK	74.0	-14.6	1.30 H	124	40.30	19.10
4	10600.00	46.8 AV	54.0	-7.2	1.30 H	124	27.70	19.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	109.8 PK			1.00 V	355	70.10	39.70
2	*5300.00	99.9 AV			1.00 V	355	60.20	39.70
3	10600.00	61.1 PK	74.0	-12.9	1.01 V	243	42.00	19.10
4	10600.00	47.3 AV	54.0	-6.7	1.01 V	243	28.20	19.10

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	111.2 PK			1.03 H	95	71.50	39.70
2	*5320.00	101.2 AV			1.03 H	95	61.50	39.70
3	5350.00	68.4 PK	74.0	-5.6	1.10 H	96	62.30	6.10
4	5350.00	52.4 AV	54.0	-1.6	1.10 H	96	46.30	6.10
5	10640.00	59.3 PK	74.0	-14.7	1.23 H	53	40.40	18.90
6	10640.00	46.0 AV	54.0	-8.0	1.23 H	53	27.10	18.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	107.7 PK			1.00 V	356	68.00	39.70
2	*5320.00	97.9 AV			1.00 V	356	58.20	39.70
3	5350.00	65.2 PK	74.0	-8.8	1.00 V	352	59.10	6.10
4	5350.00	50.1 AV	54.0	-3.9	1.00 V	352	44.00	6.10
5	10640.00	59.6 PK	74.0	-14.4	1.00 V	281	40.70	18.90
6	10640.00	46.1 AV	54.0	-7.9	1.00 V	281	27.20	18.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": 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	63.2 PK	74.0	-10.8	1.53 H	120	56.80	6.40
2	5460.00	48.6 AV	54.0	-5.4	1.53 H	120	42.20	6.40
3	#5470.00	71.1 PK	74.0	-2.9	1.66 H	132	64.70	6.40
4	#5470.00	52.7 AV	54.0	-1.3	1.66 H	132	46.30	6.40
5	*5500.00	110.6 PK			1.65 H	137	70.60	40.00
6	*5500.00	100.6 AV			1.65 H	137	60.60	40.00
7	11000.00	59.2 PK	74.0	-14.8	1.49 H	211	39.60	19.60
8	11000.00	46.4 AV	54.0	-7.6	1.49 H	211	26.80	19.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.7 PK	74.0	-12.3	1.10 V	266	55.30	6.40
2	5460.00	47.1 AV	54.0	-6.9	1.10 V	266	40.70	6.40
3	#5470.00	67.2 PK	74.0	-6.8	1.08 V	262	60.80	6.40
4	#5470.00	51.1 AV	54.0	-2.9	1.08 V	262	44.70	6.40
5	*5500.00	107.9 PK			1.08 V	265	67.90	40.00
6	*5500.00	97.5 AV			1.08 V	265	57.50	40.00
7	11000.00	59.3 PK	74.0	-14.7	1.00 V	195	39.70	19.60
8	11000.00	47.3 AV	54.0	-6.7	1.00 V	195	27.70	19.60

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": 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	109.6 PK			1.49 H	143	69.50	40.10
2	*5580.00	98.7 AV			1.49 H	143	58.60	40.10
3	11160.00	57.4 PK	74.0	-16.6	1.56 H	26	38.20	19.20
4	11160.00	45.0 AV	54.0	-9.0	1.56 H	26	25.80	19.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	107.7 PK			1.06 V	265	67.60	40.10
2	*5580.00	97.7 AV			1.06 V	265	57.60	40.10
3	11160.00	58.6 PK	74.0	-15.4	1.00 V	68	39.40	19.20
4	11160.00	45.7 AV	54.0	-8.3	1.00 V	68	26.50	19.20

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	107.3 PK			1.23 H	244	67.00	40.30
2	*5700.00	97.0 AV			1.23 H	244	56.70	40.30
3	#5725.00	70.7 PK	74.0	-3.3	1.30 H	244	63.90	6.80
4	#5725.00	52.8 AV	54.0	-1.2	1.30 H	244	46.00	6.80
5	11400.00	56.9 PK	74.0	-17.1	1.24 H	178	38.40	18.50
6	11400.00	44.6 AV	54.0	-9.4	1.24 H	178	26.10	18.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	106.8 PK			1.00 V	78	66.50	40.30
2	*5700.00	97.0 AV			1.00 V	78	56.70	40.30
3	#5725.00	68.1 PK	74.0	-5.9	1.00 V	77	61.30	6.80
4	#5725.00	51.8 AV	54.0	-2.2	1.00 V	77	45.00	6.80
5	11400.00	58.7 PK	74.0	-15.3	1.00 V	53	40.20	18.50
6	11400.00	45.5 AV	54.0	-8.5	1.00 V	53	27.00	18.50

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	69.0 PK	74.0	-5.0	1.20 H	242	62.20	6.80
2	#5714.00	50.2 AV	54.0	-3.8	1.20 H	242	43.40	6.80
3	#5722.00	76.6 PK	78.2	-1.6	1.31 H	246	69.80	6.80
4	#5725.00	64.1 PK	78.2	-14.1	1.30 H	244	57.30	6.80
5	*5745.00	106.8 PK			1.14 H	243	66.40	40.40
6	*5745.00	96.9 AV			1.14 H	243	56.50	40.40
7	11490.00	57.2 PK	74.0	-16.8	1.44 H	152	38.80	18.40
8	11490.00	44.3 AV	54.0	-9.7	1.44 H	152	25.90	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	68.6 PK	74.0	-5.4	1.00 V	76	61.80	6.80
2	#5714.00	50.5 AV	54.0	-3.5	1.00 V	76	43.70	6.80
3	#5722.00	76.7 PK	78.2	-1.5	1.00 V	78	69.90	6.80
4	#5725.00	63.9 PK	78.2	-14.3	1.00 V	78	57.10	6.80
5	*5745.00	107.0 PK			1.00 V	77	66.60	40.40
6	*5745.00	97.5 AV			1.00 V	77	57.10	40.40
7	11490.00	57.6 PK	74.0	-16.4	1.00 V	19	39.20	18.40
8	11490.00	45.9 AV	54.0	-8.1	1.00 V	19	27.50	18.40

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": 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	107.8 PK			1.15 H	242	67.30	40.50
2	*5785.00	97.4 AV			1.15 H	242	56.90	40.50
3	11570.00	60.0 PK	74.0	-14.0	1.25 H	321	41.60	18.40
4	11570.00	46.3 AV	54.0	-7.7	1.25 H	321	27.90	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	106.0 PK			1.00 V	78	65.50	40.50
2	*5785.00	96.4 AV			1.00 V	78	55.90	40.50
3	11570.00	59.5 PK	74.0	-14.5	1.00 V	132	41.10	18.40
4	11570.00	46.2 AV	54.0	-7.8	1.00 V	132	27.80	18.40

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	107.5 PK			1.45 H	244	67.00	40.50
2	*5825.00	96.9 AV			1.45 H	244	56.40	40.50
3	#5850.00	53.9 PK	78.2	-24.3	1.52 H	244	47.00	6.90
4	#5853.00	69.9 PK	78.2	-8.3	1.48 H	240	62.90	7.00
5	#5861.00	62.8 PK	74.0	-11.2	1.25 H	243	55.80	7.00
6	#5861.00	47.7 AV	54.0	-6.3	1.25 H	243	40.70	7.00
7	11650.00	59.0 PK	74.0	-15.0	1.29 H	183	40.10	18.90
8	11650.00	46.0 AV	54.0	-8.0	1.29 H	183	27.10	18.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	105.1 PK			1.04 V	78	64.60	40.50
2	*5825.00	95.1 AV			1.04 V	78	54.60	40.50
3	#5850.00	53.9 PK	78.2	-24.3	1.03 V	73	47.00	6.90
4	#5853.00	67.8 PK	78.2	-10.4	N/A V	N/A	60.80	7.00
5	#5861.00	61.3 PK	74.0	-12.7	1.04 V	79	54.30	7.00
6	#5861.00	47.0 AV	54.0	-7.0	1.04 V	79	40.00	7.00
7	11650.00	58.8 PK	74.0	-15.2	1.15 V	132	39.90	18.90
8	11650.00	46.7 AV	54.0	-7.3	1.15 V	132	27.80	18.90

REMARKS:

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

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	57.12	31.5 QP	40.0	-8.5	1.49 H	16	46.10	-14.60
2	216.55	31.9 QP	46.0	-14.1	1.49 H	75	48.30	-16.40
3	296.27	37.9 QP	46.0	-8.1	1.00 H	220	50.50	-12.60
4	582.08	37.6 QP	46.0	-8.4	1.49 H	4	44.30	-6.70
5	665.68	36.9 QP	46.0	-9.1	1.00 H	18	42.00	-5.10
6	959.21	41.8 QP	46.0	-4.2	1.49 H	247	41.30	0.50

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	57.12	28.2 QP	40.0	-11.8	1.01 V	206	42.80	-14.60
2	103.78	26.3 QP	43.5	-17.2	1.01 V	16	44.60	-18.30
3	383.76	36.4 QP	46.0	-9.6	1.50 V	10	47.30	-10.90
4	584.02	32.8 QP	46.0	-13.2	1.50 V	155	39.50	-6.70
5	722.07	35.9 QP	46.0	-10.1	1.50 V	157	40.00	-4.10
6	961.21	41.7 QP	54.0	-12.3	1.01 V	279	41.20	0.50

REMARKS:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.0 QP	40.0	-9.0	1.50 H	66	45.60	-14.60
2	296.27	34.7 QP	46.0	-11.3	1.01 H	216	47.30	-12.60
3	389.59	37.8 QP	46.0	-8.2	1.01 H	35	48.40	-10.60
4	500.42	35.9 QP	46.0	-10.1	1.50 H	301	44.30	-8.40
5	749.29	39.7 QP	46.0	-6.3	1.01 H	289	43.00	-3.30
6	961.21	41.7 QP	54.0	-12.3	2.00 H	251	41.20	0.50

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	57.12	28.4 QP	40.0	-11.6	1.50 V	15	43.00	-14.60
2	381.82	36.2 QP	46.0	-9.8	1.50 V	15	47.10	-10.90
3	665.68	36.9 QP	46.0	-9.1	1.00 V	92	42.00	-5.10
4	724.01	35.8 QP	46.0	-10.2	1.50 V	150	39.80	-4.00
5	829.00	37.1 QP	46.0	-8.9	1.00 V	198	39.00	-1.90
6	961.21	41.5 QP	54.0	-12.5	1.00 V	280	41.00	0.50

REMARKS:

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

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.0 QP	40.0	-9.0	1.49 H	26	45.60	-14.60
2	216.55	31.3 QP	46.0	-14.7	1.00 H	84	47.70	-16.40
3	296.27	35.0 QP	46.0	-11.0	1.00 H	206	47.60	-12.60
4	420.70	38.8 QP	46.0	-7.2	1.00 H	84	48.90	-10.10
5	825.11	39.9 QP	46.0	-6.1	1.49 H	13	41.80	-1.90
6	959.27	40.7 QP	46.0	-5.3	1.49 H	247	40.20	0.50

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	57.12	28.0 QP	40.0	-12.0	1.00 V	3	42.60	-14.60
2	379.87	36.8 QP	46.0	-9.2	1.00 V	7	47.70	-10.90
3	500.42	33.5 QP	46.0	-12.5	1.50 V	168	41.90	-8.40
4	729.84	35.9 QP	46.0	-10.1	1.00 V	17	39.60	-3.70
5	825.11	42.1 QP	46.0	-3.9	1.00 V	7	44.00	-1.90
6	959.27	42.3 QP	46.0	-3.7	1.00 V	279	41.80	0.50

REMARKS:

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

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.2 QP	40.0	-8.8	1.50 H	293	45.80	-14.60
2	387.65	38.5 QP	46.0	-7.5	1.01 H	35	49.20	-10.70
3	500.42	36.5 QP	46.0	-9.5	1.50 H	69	44.90	-8.40
4	584.02	36.9 QP	46.0	-9.1	1.50 H	10	43.60	-6.70
5	825.11	38.6 QP	46.0	-7.4	1.01 H	150	40.50	-1.90
6	961.21	41.5 QP	54.0	-12.5	2.00 H	257	41.00	0.50

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	57.12	28.7 QP	40.0	-11.3	1.00 V	286	43.30	-14.60
2	383.76	35.9 QP	46.0	-10.1	1.49 V	15	46.80	-10.90
3	500.42	33.3 QP	46.0	-12.7	1.49 V	166	41.70	-8.40
4	727.90	35.2 QP	46.0	-10.8	1.00 V	29	39.00	-3.80
5	825.11	42.4 QP	46.0	-3.6	1.00 V	17	44.30	-1.90
6	961.21	41.7 QP	54.0	-12.3	1.00 V	279	41.20	0.50

REMARKS:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.1 QP	40.0	-8.9	1.49 H	57	45.70	-14.60
2	300.16	36.2 QP	46.0	-9.8	1.00 H	226	48.60	-12.40
3	420.70	38.2 QP	46.0	-7.8	1.00 H	266	48.30	-10.10
4	665.68	40.4 QP	46.0	-5.6	1.49 H	15	45.50	-5.10
5	825.11	38.9 QP	46.0	-7.1	1.00 H	203	40.80	-1.90
6	959.27	42.8 QP	46.0	-3.2	2.00 H	263	42.30	0.50

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	292.38	29.1 QP	46.0	-16.9	1.00 V	178	41.80	-12.70
2	372.09	30.6 QP	46.0	-15.4	1.50 V	10	41.60	-11.00
3	500.42	31.4 QP	46.0	-14.6	1.00 V	195	39.80	-8.40
4	624.85	33.0 QP	46.0	-13.0	1.00 V	167	38.60	-5.60
5	825.11	42.8 QP	46.0	-3.2	1.00 V	30	44.70	-1.90
6	961.21	41.9 QP	54.0	-12.1	1.00 V	151	41.40	0.50

REMARKS:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	29.4 QP	40.0	-10.6	1.01 H	9	44.00	-14.60
2	267.10	35.3 QP	46.0	-10.7	1.01 H	181	49.00	-13.70
3	420.70	37.4 QP	46.0	-8.6	2.01 H	102	47.50	-10.10
4	582.08	35.8 QP	46.0	-10.2	1.50 H	61	42.50	-6.70
5	801.78	38.2 QP	46.0	-7.8	1.01 H	208	40.40	-2.20
6	961.21	42.9 QP	54.0	-11.1	1.50 H	287	42.40	0.50

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	57.12	19.3 QP	40.0	-20.7	1.00 V	296	33.90	-14.60
2	370.15	34.3 QP	46.0	-11.7	1.49 V	271	45.40	-11.10
3	500.42	32.0 QP	46.0	-14.0	1.49 V	5	40.40	-8.40
4	624.85	33.4 QP	46.0	-12.6	1.00 V	153	39.00	-5.60
5	722.07	33.2 QP	46.0	-12.8	1.49 V	156	37.30	-4.10
6	959.27	42.9 QP	46.0	-3.1	1.49 V	168	42.40	0.50

REMARKS:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.2 QP	40.0	-7.8	1.99 H	243	46.80	-14.60
2	119.34	38.5 QP	43.5	-5.0	1.49 H	257	55.20	-16.70
3	420.70	41.1 QP	46.0	-4.9	1.99 H	124	51.20	-10.10
4	500.42	41.3 QP	46.0	-4.7	1.99 H	124	49.70	-8.40
5	729.84	42.0 QP	46.0	-4.0	1.00 H	309	45.70	-3.70
6	960.00	42.9 QP	46.0	-3.1	1.49 H	280	42.40	0.50

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	57.12	24.8 QP	40.0	-15.2	2.00 V	192	39.40	-14.60
2	383.76	34.1 QP	46.0	-11.9	1.00 V	4	45.00	-10.90
3	498.47	35.4 QP	46.0	-10.6	1.49 V	156	43.80	-8.40
4	722.07	40.8 QP	46.0	-5.2	1.49 V	313	44.90	-4.10
5	893.16	38.8 QP	46.0	-7.2	2.00 V	16	39.70	-0.90
6	960.00	40.6 QP	46.0	-5.4	1.00 V	309	40.10	0.50

REMARKS:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.7 QP	40.0	-7.3	2.00 H	163	47.30	-14.60
2	119.34	37.6 QP	43.5	-5.9	1.50 H	238	54.30	-16.70
3	420.70	40.7 QP	46.0	-5.3	2.00 H	255	50.80	-10.10
4	500.42	39.5 QP	46.0	-6.5	1.50 H	119	47.90	-8.40
5	725.96	39.7 QP	46.0	-6.3	1.00 H	124	43.50	-3.80
6	959.21	42.9 QP	46.0	-3.1	1.50 H	280	42.40	0.50

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	57.12	27.1 QP	40.0	-12.9	1.00 V	258	41.70	-14.60
2	119.34	26.2 QP	43.5	-17.3	1.99 V	163	42.90	-16.70
3	420.70	35.1 QP	46.0	-10.9	1.99 V	339	45.20	-10.10
4	498.47	34.9 QP	46.0	-11.1	1.49 V	159	43.30	-8.40
5	893.16	37.6 QP	46.0	-8.4	1.49 V	197	38.50	-0.90
6	960.00	41.7 QP	46.0	-4.3	1.00 V	310	41.20	0.50

REMARKS:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.4 QP	40.0	-7.6	1.99 H	122	47.00	-14.60
2	119.34	37.3 QP	43.5	-6.2	1.50 H	241	54.00	-16.70
3	420.70	41.2 QP	46.0	-4.8	1.99 H	248	51.30	-10.10
4	500.42	38.5 QP	46.0	-7.5	1.99 H	108	46.90	-8.40
5	722.07	40.3 QP	46.0	-5.7	1.00 H	130	44.40	-4.10
6	959.21	42.3 QP	46.0	-3.7	1.50 H	281	41.80	0.50

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	57.12	27.6 QP	40.0	-12.4	1.01 V	221	42.20	-14.60
2	119.34	26.3 QP	43.5	-17.2	2.00 V	170	43.00	-16.70
3	420.70	35.1 QP	46.0	-10.9	2.00 V	340	45.20	-10.10
4	500.42	33.4 QP	46.0	-12.6	1.50 V	141	41.80	-8.40
5	891.22	39.4 QP	46.0	-6.6	1.01 V	347	40.30	-0.90
6	960.00	41.3 QP	46.0	-4.7	1.01 V	307	40.80	0.50

REMARKS:

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

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.2 QP	40.0	-8.8	1.99 H	4	45.80	-14.60
2	119.34	37.0 QP	43.5	-6.5	1.49 H	269	53.70	-16.70
3	420.70	38.3 QP	46.0	-7.7	1.00 H	266	48.40	-10.10
4	498.47	36.3 QP	46.0	-9.7	1.49 H	122	44.70	-8.40
5	729.84	38.9 QP	46.0	-7.1	1.00 H	133	42.60	-3.70
6	959.21	42.1 QP	46.0	-3.9	1.49 H	283	41.60	0.50

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	57.12	26.1 QP	40.0	-13.9	1.01 V	7	40.70	-14.60
2	294.32	27.3 QP	46.0	-18.7	1.50 V	194	39.90	-12.60
3	420.70	34.5 QP	46.0	-11.5	2.00 V	359	44.60	-10.10
4	498.47	32.3 QP	46.0	-13.7	1.50 V	178	40.70	-8.40
5	813.45	34.1 QP	46.0	-11.9	1.50 V	16	36.20	-2.10
6	959.21	39.4 QP	46.0	-6.6	2.00 V	318	38.90	0.50

REMARKS:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.1 QP	40.0	-7.9	1.99 H	16	46.70	-14.60
2	119.34	37.0 QP	43.5	-6.5	1.49 H	267	53.70	-16.70
3	420.70	40.9 QP	46.0	-5.1	1.99 H	115	51.00	-10.10
4	533.47	38.2 QP	46.0	-7.8	1.49 H	243	46.10	-7.90
5	725.96	39.9 QP	46.0	-6.1	1.00 H	132	43.70	-3.80
6	961.21	42.5 QP	54.0	-11.5	1.49 H	285	42.00	0.50

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	57.12	26.9 QP	40.0	-13.1	1.00 V	304	41.50	-14.60
2	286.55	28.5 QP	46.0	-17.5	1.00 V	147	41.30	-12.80
3	381.82	34.1 QP	46.0	-11.9	1.00 V	10	45.00	-10.90
4	498.47	31.9 QP	46.0	-14.1	1.49 V	178	40.30	-8.40
5	815.39	34.4 QP	46.0	-11.6	1.49 V	16	36.40	-2.00
6	961.21	40.0 QP	54.0	-14.0	1.00 V	306	39.50	0.50

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.2 QP	40.0	-7.8	2.00 H	289	46.80	-14.60
2	119.34	37.7 QP	43.5	-5.8	1.50 H	249	54.40	-16.70
3	420.70	40.7 QP	46.0	-5.3	2.00 H	115	50.80	-10.10
4	731.79	39.0 QP	46.0	-7.0	1.01 H	123	42.70	-3.70
5	891.22	42.4 QP	46.0	-3.6	1.50 H	306	43.30	-0.90
6	959.21	41.9 QP	46.0	-4.1	1.50 H	282	41.40	0.50

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	57.12	28.0 QP	40.0	-12.0	1.00 V	230	42.60	-14.60
2	385.70	33.0 QP	46.0	-13.0	1.00 V	33	43.70	-10.70
3	498.47	32.4 QP	46.0	-13.6	1.49 V	165	40.80	-8.40
4	665.68	33.5 QP	46.0	-12.5	1.00 V	176	38.60	-5.10
5	815.39	34.0 QP	46.0	-12.0	1.49 V	13	36.00	-2.00
6	959.27	40.2 QP	46.0	-5.8	1.00 V	308	39.70	0.50

REMARKS:

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

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.2 QP	40.0	-8.8	2.00 H	71	45.80	-14.60
2	119.34	36.5 QP	43.5	-7.0	1.50 H	262	53.20	-16.70
3	362.37	37.8 QP	46.0	-8.2	1.00 H	102	49.20	-11.40
4	582.08	35.9 QP	46.0	-10.1	1.50 H	54	42.60	-6.70
5	665.68	38.1 QP	46.0	-7.9	1.00 H	28	43.20	-5.10
6	959.21	42.9 QP	46.0	-3.1	1.50 H	294	42.40	0.50

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	57.12	27.7 QP	40.0	-12.3	1.00 V	198	42.30	-14.60
2	292.38	28.5 QP	46.0	-17.5	1.00 V	167	41.20	-12.70
3	374.04	32.7 QP	46.0	-13.3	1.49 V	269	43.70	-11.00
4	624.85	32.7 QP	46.0	-13.3	1.49 V	346	38.30	-5.60
5	724.01	33.0 QP	46.0	-13.0	1.00 V	165	37.00	-4.00
6	961.21	43.6 QP	54.0	-10.4	1.00 V	276	43.10	0.50

REMARKS:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	30.9 QP	40.0	-9.1	1.49 H	290	45.50	-14.60
2	119.34	37.0 QP	43.5	-6.5	1.49 H	239	53.70	-16.70
3	420.70	37.9 QP	46.0	-8.1	1.00 H	62	48.00	-10.10
4	665.68	39.3 QP	46.0	-6.7	1.49 H	32	44.40	-5.10
5	809.56	37.9 QP	46.0	-8.1	1.00 H	211	40.00	-2.10
6	959.21	43.0 QP	46.0	-3.0	1.99 H	295	42.50	0.50

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	57.12	28.1 QP	40.0	-11.9	1.01 V	292	42.70	-14.60
2	103.78	26.9 QP	43.5	-16.6	1.01 V	287	45.20	-18.30
3	294.32	28.4 QP	46.0	-17.6	1.01 V	159	41.00	-12.60
4	374.04	31.9 QP	46.0	-14.1	1.50 V	248	42.90	-11.00
5	805.67	34.9 QP	46.0	-11.1	1.01 V	169	37.00	-2.10
6	959.21	42.7 QP	46.0	-3.3	1.01 V	156	42.20	0.50

REMARKS:

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

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.1 QP	40.0	-8.9	1.50 H	182	45.70	-14.60
2	119.34	37.3 QP	43.5	-6.2	1.50 H	239	54.00	-16.70
3	420.70	39.1 QP	46.0	-6.9	1.01 H	62	49.20	-10.10
4	500.42	36.8 QP	46.0	-9.2	1.50 H	104	45.20	-8.40
5	844.56	40.3 QP	46.0	-5.7	1.50 H	218	42.00	-1.70
6	960.00	42.7 QP	46.0	-3.3	2.00 H	293	42.20	0.50

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	57.12	28.0 QP	40.0	-12.0	1.00 V	257	42.60	-14.60
2	103.78	27.2 QP	43.5	-16.3	1.00 V	285	45.50	-18.30
3	374.04	32.8 QP	46.0	-13.2	1.49 V	249	43.80	-11.00
4	500.42	32.9 QP	46.0	-13.1	1.00 V	208	41.30	-8.40
5	844.56	42.2 QP	46.0	-3.8	1.49 V	11	43.90	-1.70
6	960.00	43.0 QP	46.0	-3.0	1.00 V	149	42.50	0.50

REMARKS:

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

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.1 QP	40.0	-8.9	1.49 H	230	45.70	-14.60
2	119.34	37.0 QP	43.5	-6.5	1.49 H	277	53.70	-16.70
3	420.70	39.0 QP	46.0	-7.0	1.00 H	76	49.10	-10.10
4	584.02	37.4 QP	46.0	-8.6	1.49 H	65	44.10	-6.70
5	844.56	39.5 QP	46.0	-6.5	1.00 H	96	41.20	-1.70
6	959.21	42.5 QP	46.0	-3.5	1.49 H	292	42.00	0.50

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	57.12	25.2 QP	40.0	-14.8	1.50 V	15	39.80	-14.60
2	420.70	33.2 QP	46.0	-12.8	1.50 V	238	43.30	-10.10
3	500.42	32.8 QP	46.0	-13.2	1.00 V	11	41.20	-8.40
4	722.07	34.5 QP	46.0	-11.5	1.50 V	149	38.60	-4.10
5	844.56	41.8 QP	46.0	-4.2	1.50 V	206	43.50	-1.70
6	960.00	43.0 QP	46.0	-3.0	1.00 V	155	42.50	0.50

REMARKS:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.4 QP	40.0	-8.6	1.50 H	216	46.00	-14.60
2	119.34	37.0 QP	43.5	-6.5	1.50 H	279	53.70	-16.70
3	420.70	39.2 QP	46.0	-6.8	1.01 H	85	49.30	-10.10
4	500.42	37.8 QP	46.0	-8.2	1.50 H	109	46.20	-8.40
5	582.08	36.9 QP	46.0	-9.1	1.50 H	74	43.60	-6.70
6	959.21	42.5 QP	46.0	-3.5	1.50 H	293	42.00	0.50

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	119.34	20.9 QP	43.5	-22.6	1.49 V	230	37.60	-16.70
2	292.38	28.6 QP	46.0	-17.4	1.00 V	150	41.30	-12.70
3	374.04	32.0 QP	46.0	-14.0	1.49 V	278	43.00	-11.00
4	500.42	30.8 QP	46.0	-15.2	1.49 V	14	39.20	-8.40
5	768.73	33.9 QP	46.0	-12.1	1.00 V	161	36.70	-2.80
6	960.00	42.7 QP	46.0	-3.3	1.49 V	163	42.20	0.50

REMARKS:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.6 QP	40.0	-8.4	1.49 H	218	46.20	-14.60
2	119.34	37.1 QP	43.5	-6.4	1.49 H	243	53.80	-16.70
3	370.15	37.9 QP	46.0	-8.1	1.00 H	122	49.00	-11.10
4	584.02	36.4 QP	46.0	-9.6	1.49 H	70	43.10	-6.70
5	803.73	39.2 QP	46.0	-6.8	1.00 H	208	41.30	-2.10
6	959.21	42.5 QP	46.0	-3.5	1.49 H	293	42.00	0.50

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	374.04	32.9 QP	46.0	-13.1	1.50 V	267	43.90	-11.00
2	500.42	34.4 QP	46.0	-11.6	1.50 V	28	42.80	-8.40
3	624.85	32.8 QP	46.0	-13.2	1.50 V	351	38.40	-5.60
4	725.96	33.2 QP	46.0	-12.8	1.50 V	149	37.00	-3.80
5	840.67	34.0 QP	46.0	-12.0	1.50 V	155	35.80	-1.80
6	960.00	42.7 QP	46.0	-3.3	1.00 V	283	42.20	0.50

REMARKS:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.2 QP	40.0	-7.8	1.99 H	359	46.80	-14.60
2	119.34	37.5 QP	43.5	-6.0	1.49 H	257	54.20	-16.70
3	420.70	40.5 QP	46.0	-5.5	1.99 H	103	50.60	-10.10
4	498.47	37.0 QP	46.0	-9.0	1.99 H	137	45.40	-8.40
5	724.01	39.7 QP	46.0	-6.3	1.00 H	130	43.70	-4.00
6	960.00	42.7 QP	46.0	-3.3	1.49 H	285	42.20	0.50

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	57.12	27.5 QP	40.0	-12.5	1.00 V	70	42.10	-14.60
2	420.70	35.0 QP	46.0	-11.0	2.00 V	5	45.10	-10.10
3	500.42	34.3 QP	46.0	-11.7	1.51 V	142	42.70	-8.40
4	722.07	33.8 QP	46.0	-12.2	1.00 V	154	37.90	-4.10
5	895.11	38.0 QP	46.0	-8.0	1.00 V	331	38.70	-0.70
6	960.00	41.1 QP	46.0	-4.9	1.00 V	309	40.60	0.50

REMARKS:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	119.34	36.9 QP	43.5	-6.6	1.50 H	237	53.60	-16.70
2	420.70	40.1 QP	46.0	-5.9	2.00 H	248	50.20	-10.10
3	444.03	40.6 QP	46.0	-5.4	2.00 H	99	49.90	-9.30
4	498.47	39.7 QP	46.0	-6.3	1.50 H	106	48.10	-8.40
5	727.90	39.2 QP	46.0	-6.8	1.00 H	135	43.00	-3.80
6	959.21	41.8 QP	46.0	-4.2	1.50 H	287	41.30	0.50

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	57.12	26.8 QP	40.0	-13.2	1.49 V	182	41.40	-14.60
2	284.60	31.3 QP	46.0	-14.7	1.00 V	135	44.20	-12.90
3	383.76	32.7 QP	46.0	-13.3	1.00 V	10	43.60	-10.90
4	498.47	34.7 QP	46.0	-11.3	1.49 V	148	43.10	-8.40
5	714.29	36.7 QP	46.0	-9.3	1.49 V	249	41.00	-4.30
6	959.21	41.1 QP	46.0	-4.9	1.00 V	307	40.60	0.50

REMARKS:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	27.8 QP	40.0	-12.2	2.00 H	10	42.40	-14.60
2	119.34	34.5 QP	43.5	-9.0	1.00 H	258	51.20	-16.70
3	420.70	39.0 QP	46.0	-7.0	1.00 H	107	49.10	-10.10
4	727.90	39.5 QP	46.0	-6.5	1.00 H	130	43.30	-3.80
5	799.84	38.4 QP	46.0	-7.6	1.00 H	207	40.60	-2.20
6	959.21	38.5 QP	46.0	-7.5	2.00 H	139	38.00	0.50

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	57.12	27.0 QP	40.0	-13.0	1.00 V	204	41.60	-14.60
2	379.87	33.2 QP	46.0	-12.8	1.00 V	6	44.10	-10.90
3	498.47	31.7 QP	46.0	-14.3	1.50 V	154	40.10	-8.40
4	751.23	33.4 QP	46.0	-12.6	1.00 V	154	36.60	-3.20
5	891.22	37.0 QP	46.0	-9.0	1.00 V	249	37.90	-0.90
6	961.21	40.8 QP	54.0	-13.2	1.00 V	309	40.30	0.50

REMARKS:

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

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.5 QP	40.0	-7.5	1.99 H	2	47.10	-14.60
2	119.34	37.8 QP	43.5	-5.7	1.49 H	263	54.50	-16.70
3	420.70	40.8 QP	46.0	-5.2	1.99 H	261	50.90	-10.10
4	498.47	38.5 QP	46.0	-7.5	1.99 H	127	46.90	-8.40
5	725.96	39.1 QP	46.0	-6.9	1.00 H	311	42.90	-3.80
6	959.21	41.7 QP	46.0	-4.3	1.49 H	281	41.20	0.50

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	57.12	27.5 QP	40.0	-12.5	1.00 V	183	42.10	-14.60
2	379.87	33.3 QP	46.0	-12.7	1.00 V	9	44.20	-10.90
3	498.47	32.9 QP	46.0	-13.1	1.50 V	183	41.30	-8.40
4	665.68	35.4 QP	46.0	-10.6	1.00 V	174	40.50	-5.10
5	813.45	34.1 QP	46.0	-11.9	1.50 V	27	36.20	-2.10
6	959.21	39.7 QP	46.0	-6.3	1.00 V	314	39.20	0.50

REMARKS:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.1 QP	40.0	-7.9	2.00 H	112	46.70	-14.60
2	119.34	37.1 QP	43.5	-6.4	1.50 H	231	53.80	-16.70
3	420.70	41.8 QP	46.0	-4.2	2.00 H	102	51.90	-10.10
4	442.09	41.2 QP	46.0	-4.8	2.00 H	110	50.60	-9.40
5	500.42	39.7 QP	46.0	-6.3	2.00 H	127	48.10	-8.40
6	959.21	42.3 QP	46.0	-3.7	1.50 H	278	41.80	0.50

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	57.12	26.5 QP	40.0	-13.5	1.49 V	159	41.10	-14.60
2	282.66	28.0 QP	46.0	-18.0	1.00 V	151	40.90	-12.90
3	389.59	33.4 QP	46.0	-12.6	1.00 V	39	44.00	-10.60
4	500.42	31.8 QP	46.0	-14.2	1.49 V	145	40.20	-8.40
5	809.56	33.8 QP	46.0	-12.2	1.49 V	28	35.90	-2.10
6	961.21	40.4 QP	54.0	-13.6	1.00 V	307	39.90	0.50

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	32.5 QP	40.0	-7.5	1.99 H	35	47.10	-14.60
2	119.34	36.4 QP	43.5	-7.1	1.49 H	258	53.10	-16.70
3	436.26	39.9 QP	46.0	-6.1	1.99 H	117	49.40	-9.50
4	498.47	38.6 QP	46.0	-7.4	1.99 H	114	47.00	-8.40
5	724.01	39.5 QP	46.0	-6.5	1.00 H	127	43.50	-4.00
6	959.21	41.9 QP	46.0	-4.1	1.49 H	287	41.40	0.50

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	70.73	27.9 QP	40.0	-12.1	1.01 V	212	44.10	-16.20
2	282.66	28.5 QP	46.0	-17.5	1.01 V	134	41.40	-12.90
3	385.70	33.7 QP	46.0	-12.3	1.01 V	6	44.40	-10.70
4	498.47	31.8 QP	46.0	-14.2	1.50 V	150	40.20	-8.40
5	803.73	33.9 QP	46.0	-12.1	1.01 V	6	36.00	-2.10
6	959.27	39.5 QP	46.0	-6.5	1.01 V	310	39.00	0.50

REMARKS:

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

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.	Date Of Calibration	Due Date Of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 11, 2014	Nov. 10, 2015
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 26, 2014	Dec. 25, 2015
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 02, 2015	Mar. 01, 2016
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 21, 2014	Jul. 20, 2015
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

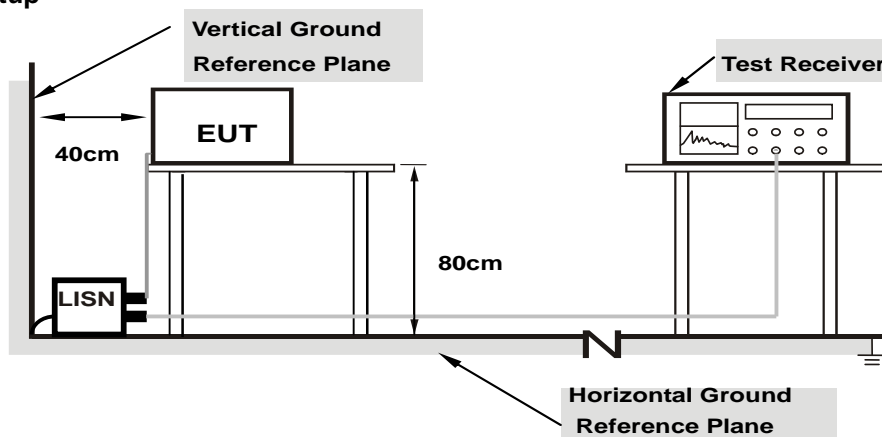
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

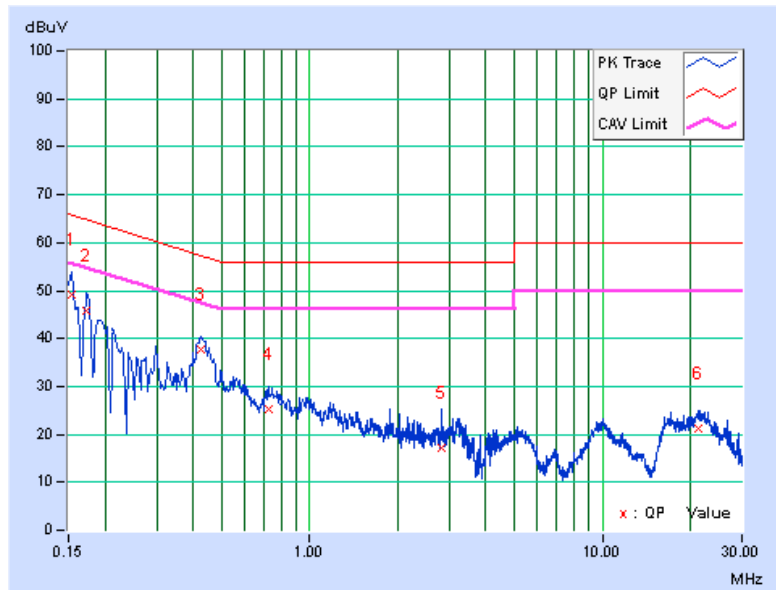
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15391	0.19	48.81	36.27	49.00	36.46	65.79
2	0.17346	0.20	45.56	32.97	45.76	33.17	64.79	54.79	-19.03	-21.62
3	0.42334	0.22	37.60	33.18	37.82	33.40	57.38	47.38	-19.56	-13.98
4	0.72084	0.23	25.01	18.46	25.24	18.69	56.00	46.00	-30.76	-27.31
5	2.82835	0.27	16.96	10.74	17.23	11.01	56.00	46.00	-38.77	-34.99
6	21.24445	0.79	20.53	15.49	21.32	16.28	60.00	50.00	-38.68	-33.72

REMARKS:

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

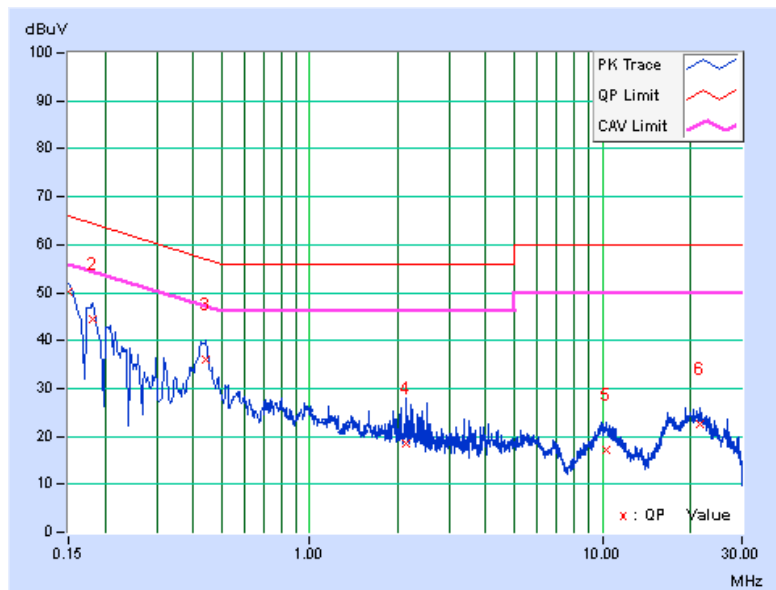


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15000	0.08	49.99	36.78	50.07	36.86	66.00
2	0.18075	0.08	44.24	30.83	44.32	30.91	64.45	54.45	-20.13	-23.54
3	0.44325	0.09	36.06	31.50	36.15	31.59	57.00	47.00	-20.85	-15.41
4	2.14410	0.13	18.48	12.11	18.61	12.24	56.00	46.00	-37.39	-33.76
5	10.29645	0.35	16.68	10.60	17.03	10.95	60.00	50.00	-42.97	-39.05
6	21.59244	0.63	21.82	17.36	22.45	17.99	60.00	50.00	-37.55	-32.01

REMARKS:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

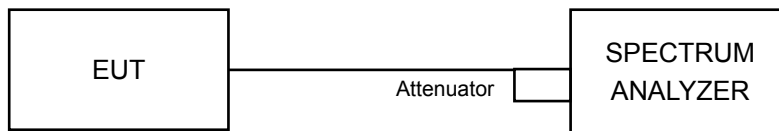
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

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

FOR AVERAGE POWER MEASUREMENT

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

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

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	87.902	19.44	24	Pass
40	5200	127.057	21.04	24	Pass
48	5240	78.343	18.94	24	Pass
52	5260	112.46	20.51	24	Pass
60	5300	113.501	20.55	24	Pass
64	5320	62.951	17.99	24	Pass
100	5500	42.17	16.25	24	Pass
116	5580	57.016	17.56	24	Pass
140	5700	44.055	16.44	24	Pass
149	5745	53.703	17.30	30	Pass
157	5785	51.642	17.13	30	Pass
165	5825	57.148	17.57	30	Pass

NOTE:

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

1. $11\text{dBm} + 10\log(39.44) = 26.96\text{ dBm} > 24\text{dBm}$.
2. $11\text{dBm} + 10\log(37.61) = 26.75\text{ dBm} > 24\text{dBm}$.
3. $11\text{dBm} + 10\log(30.35) = 25.82\text{ dBm} > 24\text{dBm}$.
4. $11\text{dBm} + 10\log(25.78) = 25.11\text{ dBm} > 24\text{dBm}$.
5. $11\text{dBm} + 10\log(31.25) = 25.95\text{ dBm} > 24\text{dBm}$.
6. $11\text{dBm} + 10\log(31.67) = 26.01\text{ dBm} > 24\text{dBm}$.

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	88.105	19.45	24	Pass
40	5200	120.504	20.81	24	Pass
48	5240	76.208	18.82	24	Pass
52	5260	111.173	20.46	24	Pass
60	5300	110.662	20.44	24	Pass
64	5320	59.979	17.78	24	Pass
100	5500	39.994	16.02	24	Pass
116	5580	55.719	17.46	24	Pass
140	5700	41.783	16.21	24	Pass
149	5745	48.529	16.86	30	Pass
157	5785	49.204	16.92	30	Pass
165	5825	54.702	17.38	30	Pass

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

1. $11\text{dBm} + 10\log(41.42) = 27.17\text{ dBm} > 24\text{dBm}$.
2. $11\text{dBm} + 10\log(41.49) = 27.18\text{ dBm} > 24\text{dBm}$.
3. $11\text{dBm} + 10\log(29.55) = 25.71\text{ dBm} > 24\text{dBm}$.
4. $11\text{dBm} + 10\log(27.01) = 25.32\text{ dBm} > 24\text{dBm}$.
5. $11\text{dBm} + 10\log(34.16) = 26.34\text{ dBm} > 24\text{dBm}$.
6. $11\text{dBm} + 10\log(32.97) = 26.18\text{ dBm} > 24\text{dBm}$.

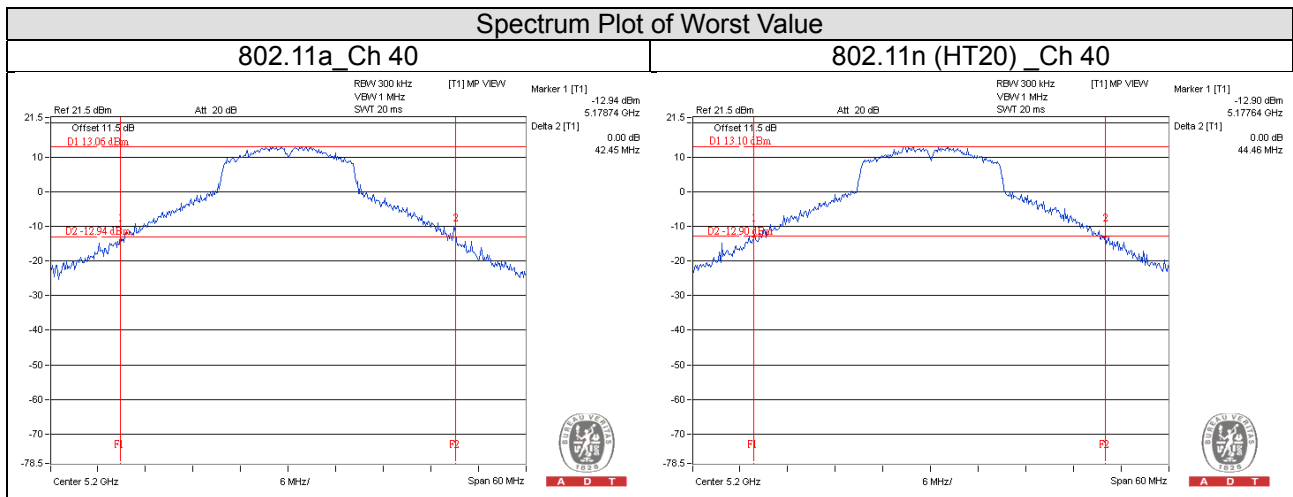
26dB BANDWIDTH:

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	36.18	Pass
40	5200	42.45	Pass
48	5240	34.15	Pass
52	5260	39.44	Pass
60	5300	37.61	Pass
64	5320	30.35	Pass
100	5500	25.78	Pass
116	5580	31.25	Pass
140	5700	31.67	Pass

802.11n (HT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	38.08	Pass
40	5200	44.46	Pass
48	5240	35.10	Pass
52	5260	41.42	Pass
60	5300	41.49	Pass
64	5320	29.55	Pass
100	5500	27.01	Pass
116	5580	34.16	Pass
140	5700	32.97	Pass



EUT MAXIMUM CONDUCTED POWER**802.11a**

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	113.501	20.55
5470~5725	57.016	17.56

NOTE: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	111.173	20.46
5470~5725	55.719	17.46

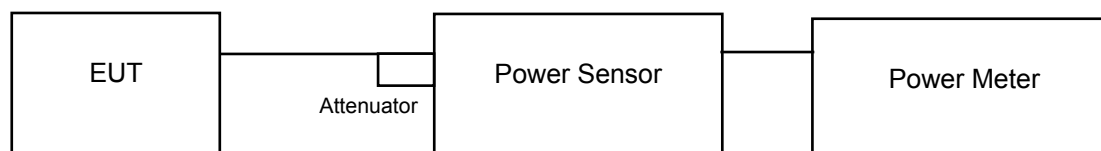
NOTE: Manufacturer provides Transmit Power Control description to meet this requirement.

4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

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

Using method SA-2

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 30 kHz, Set VBW \geq 1 MHz, Detector = RMS
- Set Channel power measure = 1MHz
- 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 = 500 kHz, Set VBW \geq 3 RBW, 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)
- 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 $BWCF = 10\log(500\text{ kHz}/300\text{kHz})$

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

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

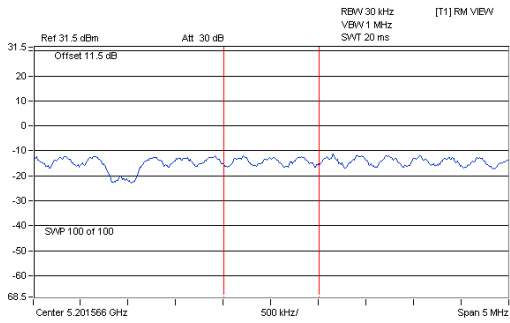
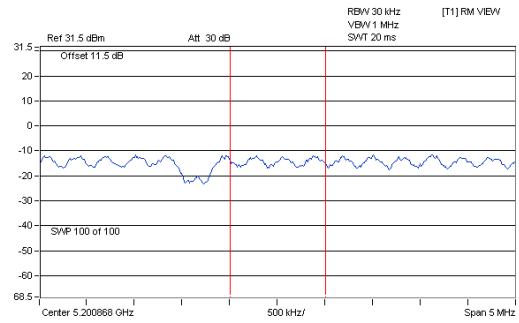
802.11a

Channel	Frequency (MHz)	PSD (dBm)	Maximum Limit (dBm)	Pass / Fail
36	5180	6.19	11	Pass
40	5200	7.52	11	Pass
48	5240	5.65	11	Pass
52	5260	7.24	11	Pass
60	5300	7.23	11	Pass
64	5320	4.70	11	Pass
100	5500	3.04	11	Pass
116	5580	4.27	11	Pass
140	5700	3.43	11	Pass

802.11n (HT20)

Channel	Frequency (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Maximum Limit (dBm)	Pass / Fail
36	5180	6.05	0.12	6.17	11	PASS
40	5200	7.47	0.12	7.59	11	PASS
48	5240	5.30	0.12	5.42	11	PASS
52	5260	6.85	0.12	6.97	11	PASS
60	5300	6.88	0.12	7.00	11	PASS
64	5320	4.42	0.12	4.54	11	PASS
100	5500	2.62	0.12	2.74	11	PASS
116	5580	4.13	0.12	4.25	11	PASS
140	5700	3.23	0.12	3.35	11	PASS

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

Spectrum Plot of Worst Value**802.11a Ch 40****802.11n (HT20) Ch 40**TX Channel
Bandwidth 1 MHz Power 7.52 dBm**A D T**TX Channel
Bandwidth 1 MHz Power 7.47 dBm**A D T**

For U-NII-3 Band

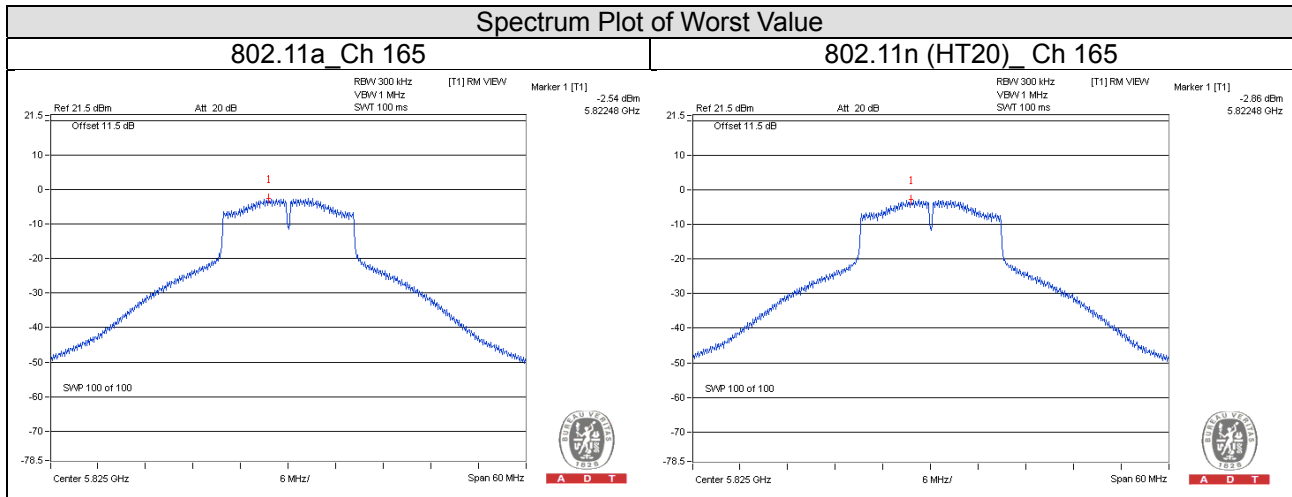
802.11a

Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
149	5745	-3.45	-1.23	30	Pass
157	5785	-2.94	-0.72	30	Pass
165	5825	-2.54	-0.32	30	Pass

802.11n (HT20)

Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty factor	PSD with duty factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
149	5745	-3.35	-1.13	0.12	-1.01	30	Pass
157	5785	-3.31	-1.09	0.12	-0.97	30	Pass
165	5825	-2.86	-0.64	0.12	-0.52	30	Pass

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

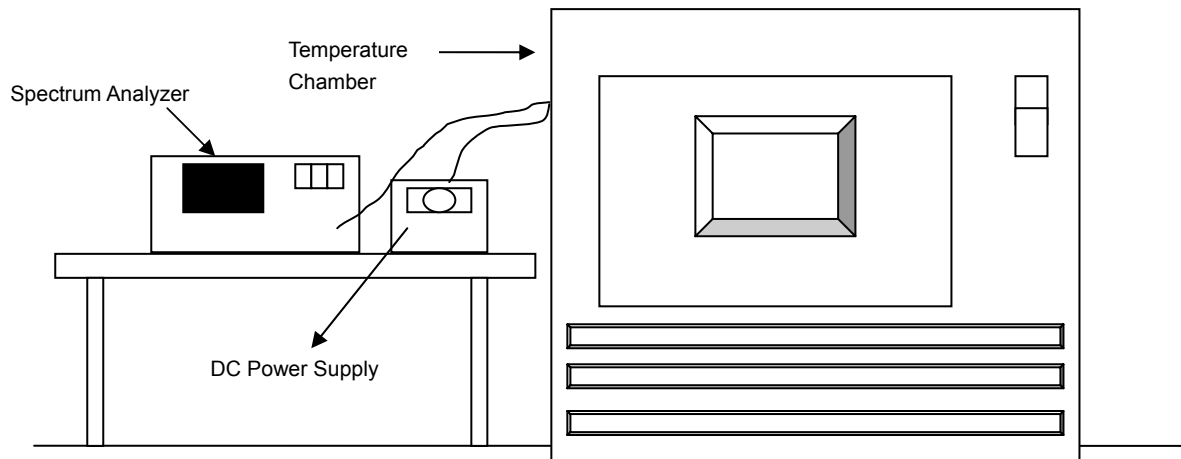


4.5 Frequency Stability

4.5.1 Limits of Frequency Stability Measurement

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

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 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.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5320MHz									
Temp. (°C)	Power Supply (Vdc)	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 (%)
40	12	5319.9958	-0.00008	5319.9928	-0.00014	5319.9949	-0.00010	5319.9967	-0.00006
30	12	5319.9761	-0.00045	5319.9779	-0.00042	5319.9762	-0.00045	5319.9757	-0.00046
20	12	5320.0121	0.00023	5320.0085	0.00016	5320.0094	0.00018	5320.0106	0.00020
10	12	5319.9812	-0.00035	5319.9825	-0.00033	5319.9829	-0.00032	5319.9817	-0.00034
0	12	5319.9832	-0.00032	5319.9816	-0.00035	5319.9825	-0.00033	5319.9843	-0.00030

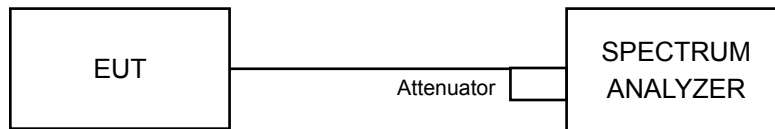
Frequency Stability Versus Temp.									
Operating Frequency: 5320MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	13.8	5319.9815	-0.00035	5319.9821	-0.00034	5319.9837	-0.00031	5319.982	-0.00034
	12.0	5319.9812	-0.00035	5319.9825	-0.00033	5319.9829	-0.00032	5319.9817	-0.00034
	10.2	5319.9814	-0.00035	5319.9816	-0.00035	5319.9826	-0.00033	5319.9812	-0.00035

4.6 6dB Bandwidth Measurement

4.6.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

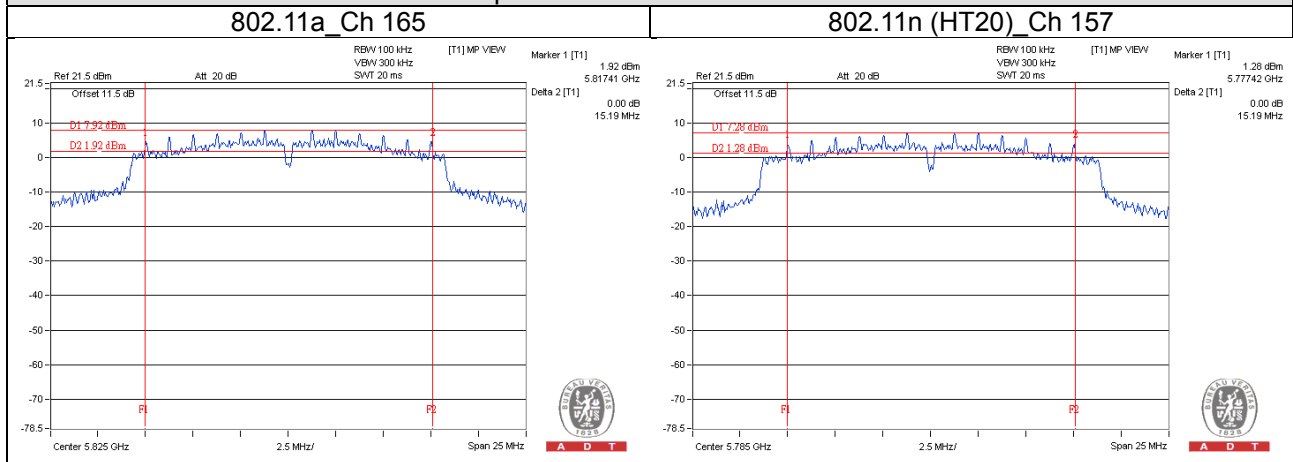
802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	15.16	0.5	Pass
157	5785	15.18	0.5	Pass
165	5825	15.19	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	15.18	0.5	Pass
157	5785	15.19	0.5	Pass
165	5825	15.18	0.5	Pass

Spectrum Plot of Worst Value



5 Pictures of Test Arrangements

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

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:

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Fax: 886-2-26051924

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Tel: 886-3-3183232

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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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