

FCC Test Report

(15.407 - WLAN)

Report No.: RF150630C01-3

FCC ID: AZ489FT7078

Test Model: LEX L10i

Received Date: Jun. 30, 2015

Test Date: Sep. 23 ~ Oct. 14, 2015

Issued Date: Oct. 22, 2015

Applicant: Motorola Solutions Inc

Address: 1301 East Algonquin Road, Schaumburg, Illinois 60196

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

Test Location: No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record	4
1 Certificate of Conformity	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Modification Record	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Description of Test Modes	9
3.2.1 Test Mode Applicability and Tested Channel Detail	11
3.3 Duty Cycle of Test Signal	13
3.4 Description of Support Units	14
3.4.1 Configuration of System under Test	14
3.5 General Description of Applied Standards	14
4 Test Types and Results	15
4.1 Radiated Emission and Bandedge Measurement	15
4.1.1 Limits of Radiated Emission and Bandedge Measurement	15
4.1.2 Test Instruments	16
4.1.3 Test Procedures	17
4.1.4 Deviation from Test Standard	17
4.1.5 Test Set Up	18
4.1.6 EUT Operating Conditions	18
4.1.7 Test Results	19
4.2 Conducted Emission Measurement	53
4.2.1 Limits of Conducted Emission Measurement	53
4.2.2 Test Instruments	53
4.2.3 Test Procedures	54
4.2.4 Deviation from Test Standard	54
4.2.5 Test Setup	54
4.2.6 EUT Operating Conditions	54
4.2.7 Test Results	55
4.3 Transmit Power Measurement	57
4.3.1 Limits of Transmit Power Measurement	57
4.3.2 Test Setup	57
4.3.3 Test Instruments	57
4.3.4 Test Procedure	57
4.3.5 Deviation from Test Standard	57
4.3.6 EUT Operating Conditions	57
4.3.7 Test Result	58
4.4 Peak Power Spectral Density Measurement	66
4.4.1 Limits of Peak Power Spectral Density Measurement	66
4.4.2 Test Setup	66
4.4.3 Test Instruments	66
4.4.4 Test Procedures	66
4.4.5 Deviation from Test Standard	67
4.4.6 EUT Operating Conditions	67
4.4.7 Test Results	68
4.5 Frequency Stability	72
4.5.1 Limits of Frequency Stability Measurement	72
4.5.2 Test Setup	72
4.5.3 Test Instruments	72
4.5.4 Test Procedure	72
4.5.5 Deviation from Test Standard	72
4.5.6 EUT Operating Condition	72

4.5.7 Test Results	73
4.6 6dB Bandwidth Measurement.....	74
4.6.1 Limits of 6dB Bandwidth Measurement.....	74
4.6.2 Test Setup.....	74
4.6.3 Test Instruments	74
4.6.4 Test Procedure	74
4.6.5 Deviation from Test Standard	74
4.6.6 EUT Operating Condition	74
4.6.7 Test Results	75
5 Pictures of Test Arrangements.....	76
Appendix – Information on the Testing Laboratories	77



A D T

Release Control Record

Issue No.	Description	Date Issued
RF150630C01-3	Original release	Oct. 22, 2015

1 Certificate of Conformity

Product: Smart Phone

Brand: Motorola Solutions Inc

Test Model: LEX L10i

Sample Status: Engineering sample

Applicant: Motorola Solutions Inc

Test Date: Sep. 23 ~ Oct. 14, 2015

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

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

Prepared by : Celine Chou, **Date:** Oct. 22, 2015
Celine Chou / Specialist

Approved by : Ken Liu, **Date:** Oct. 22, 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
15.207 15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -8.30dB at 0.32969MHz.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.0dB 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	Antenna connector is Coaxial connector with switch not a standard connector.

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	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.44 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.86 dB
	200MHz ~1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Smart Phone
Brand	Motorola Solutions Inc
Test Model	LEX L10i
Status of EUT	Engineering sample
Power Supply Rating	3.7Vdc (Battery) 5Vdc (Adapter) 5Vdc (Car charger)
Mode of Operation	Wireless LAN
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 150Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz & 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 5500 ~ 5700MHz: 11 for 802.11a, 802.11n (HT20) 5 for 802.11n (HT40) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40)
Output Power	5180 ~ 5240MHz: 29.648mW 5260 ~ 5320MHz: 27.990mW 5500 ~ 5700MHz: 35.318mW 5745 ~ 5825MHz: 35.237mW
Antenna Type	Inverted-L monopole antenna with 0.5dBi gain
Antenna Connector	Coaxial connector with switch
Accessory Device	Refer to Note for more details
Data Cable Supplied	Refer to Note for more details
SW Version	LEXL10-INT-R01
HW Version	Rev. A

Note:

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

Modulation Mode	TX Function
802.11a	1TX
802.11n (HT20)	1TX
802.11n (HT40)	1TX

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

Item	Brand	Model or P/N	Specification
Rechargeable Lithium ion battery	MOTOROLA	PMNN4472B	3.7Vdc, 2340mAh, 8.7Wh
Rechargeable Lithium ion battery	MOTOROLA	PMNN4475B	3.7Vdc, 4560mAh, 16.9Wh
ITE power supply	MOTOROLA	IU08-2050120-WP (P/N: HKTN4009A)	I/P: AC 100-240Vac, 50-60Hz, 0.2A O/P: 5Vdc, 1.2A
USB cable (CABLE: ES400 USB SYNC AND CHARGE)	N/A	P/N: CKN6969A	1.4m shielded cable without core
Car charger	MOTOROLA	CCA08W05-50V (P/N: CKN6968A)	I/P: 12-24Vdc, 1.3A O/P: 5.0Vdc, 1.2A 0.8m cable without core
Vehicle cradle	MOTOROLA	P/N: HKLN4621A	-
Desktop cradle	MOTOROLA	P/N: HKTN4007A	-
USB cable	N/A	P/N: CB000262A01	1.5m shielded cable without core
Holster	N/A	P/N: HKLN4618A	-

3.2 Description of Test Modes

For 5180 ~ 5240MHz

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

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

For 5260 ~ 5320MHz

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

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

For 5500 ~ 5700MHz

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

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

5 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 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		

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

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

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

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

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
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
-	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
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
-	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
-	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	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
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5

Radiated Emission Test (Below 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36	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

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	36	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

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
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
-	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
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
-	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
-	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	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
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE _≥ 1G	18deg. C, 70%RH	120Vac, 60Hz	Nick Hsu
RE _{<} 1G	18deg. C, 70%RH	120Vac, 60Hz	Nick Hsu
PLC	18deg. C, 70%RH	120Vac, 60Hz	Nick Hsu
APCM	24deg. C, 64%RH	120Vac, 60Hz	Match Tsui

3.3 Duty Cycle of Test Signal

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

802.11a: Duty cycle = $1.352/1.582 = 0.855$, Duty factor = $10 * \log(1/0.855) = 0.68$

802.11n (HT20): Duty cycle = $1.270/1.478 = 0.859$, Duty factor = $10 * \log(1/0.859) = 0.66$

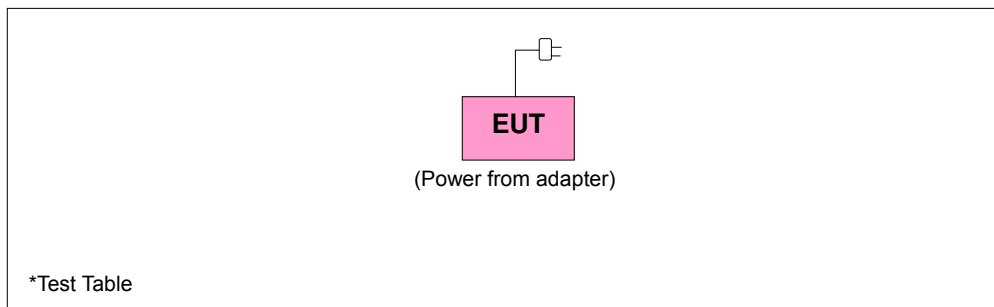
802.11n (HT40): Duty cycle = $0.634/0.852 = 0.744$, Duty factor = $10 * \log(1/0.744) = 1.28$



3.4 Description of Support Units

The EUT has been tested as an independent unit.

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 Procedures New Rules v01r01

ANSI C63.10-2013

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

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

Note:

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 v01r01	FIELD STRENGTH AT 3m	
	PK:74 (dBuV/m)	AV:54 (dBuV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBuV/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(dBuV/m) ^{*1} PK:78.2 (dBuV/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.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	Apr. 10, 2015	Apr. 09, 2016
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Sep. 02, 2015	Sep. 01, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Feb. 05, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	9120D	209	Feb. 09, 2015	Feb. 08, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Preamplifier Agilent	8447D	2944A10738	Oct. 18, 2014	Oct. 17, 2015
Preamplifier Agilent	8449B	3008A01964	Aug. 22, 2015	Aug. 21, 2016
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03(214378)	Aug. 22, 2015	Aug. 21, 2016
RF signal cable HUBER+SUHNER	SUCOFLEX 106	Cable-CH3-03(309224+ 12738)	Aug. 22, 2015	Aug. 21, 2016
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2014	Oct. 17, 2015
High Speed Peak Power Meter	ML2495A	0824011	Jul. 09, 2015	Jul. 08, 2016
Power Sensor	MA2411B	0738171	Jul. 09, 2015	Jul. 08, 2016
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2015	Jun. 07, 2016

- 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 3.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 988962.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

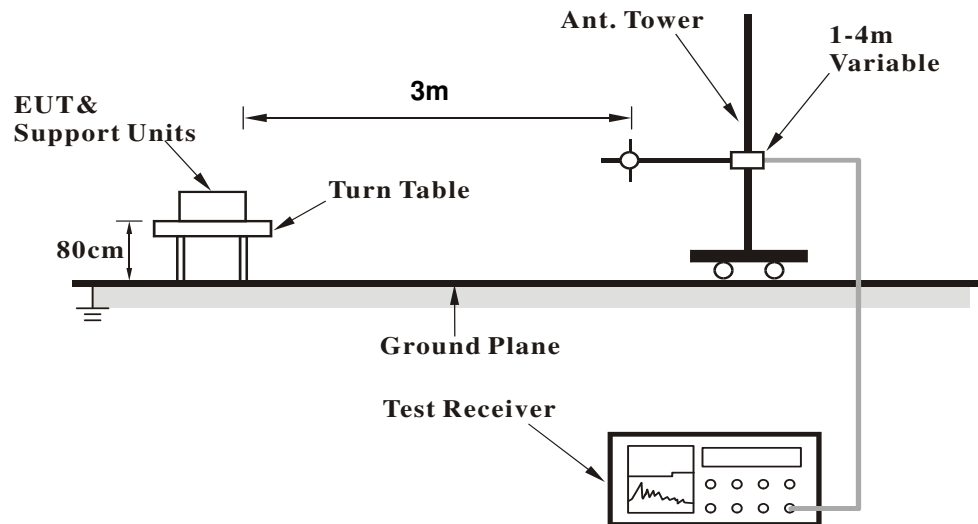
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

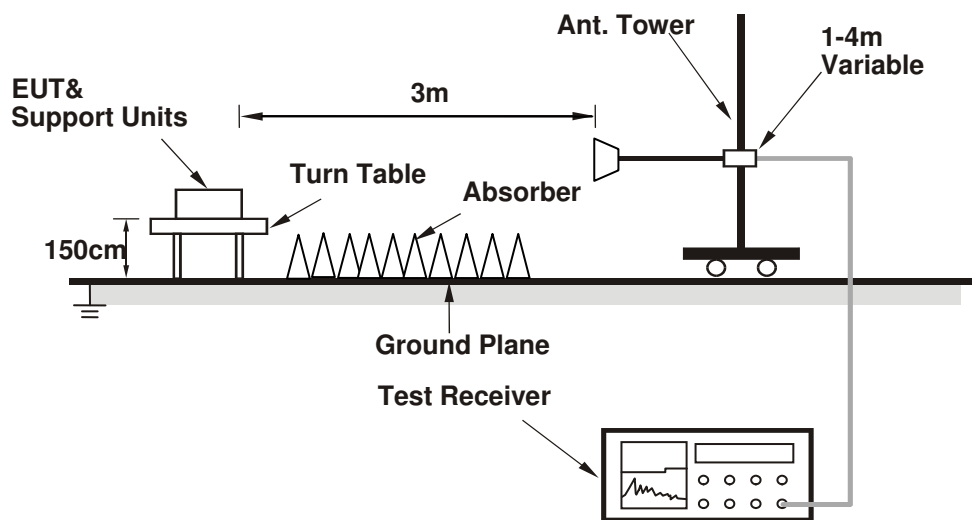
No deviation.

4.1.5 Test Set Up

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

Above 1GHz 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	59.0 PK	74.0	-15.0	1.24 H	262	52.80	6.20
2	5150.00	45.1 AV	54.0	-8.9	1.24 H	262	38.90	6.20
3	*5180.00	104.2 PK			1.15 H	274	64.70	39.50
4	*5180.00	93.8 AV			1.15 H	274	54.30	39.50
5	#10360.00	58.5 PK	74.0	-15.5	1.10 H	194	41.50	17.00
6	#10360.00	45.6 AV	54.0	-8.4	1.10 H	194	28.60	17.00
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	5150.00	57.0 PK	74.0	-17.0	1.16 V	303	50.80	6.20
2	5150.00	44.3 AV	54.0	-9.7	1.16 V	303	38.10	6.20
3	*5180.00	100.0 PK			1.06 V	187	60.50	39.50
4	*5180.00	89.2 AV			1.06 V	187	49.70	39.50
5	#10360.00	58.5 PK	74.0	-15.5	1.03 V	211	41.50	17.00
6	#10360.00	45.5 AV	54.0	-8.5	1.03 V	211	28.50	17.00

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	104.9 PK			1.15 H	277	65.30	39.60
2	*5200.00	93.7 AV			1.15 H	277	54.10	39.60
3	#10400.00	58.1 PK	74.0	-15.9	1.24 H	83	41.10	17.00
4	#10400.00	45.2 AV	54.0	-8.8	1.24 H	83	28.20	17.00
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	*5200.00	100.9 PK			1.20 V	285	61.30	39.60
2	*5200.00	90.3 AV			1.20 V	285	50.70	39.60
3	#10400.00	59.6 PK	74.0	-14.4	1.08 V	284	42.60	17.00
4	#10400.00	45.6 AV	54.0	-8.4	1.08 V	284	28.60	17.00

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	103.6 PK			1.00 H	271	64.00	39.60
2	*5240.00	93.3 AV			1.00 H	271	53.70	39.60
3	5350.00	57.6 PK	74.0	-16.4	1.08 H	258	51.20	6.40
4	5350.00	45.0 AV	54.0	-9.0	1.08 H	258	38.60	6.40
5	#10480.00	58.8 PK	74.0	-15.2	1.02 H	211	40.80	18.00
6	#10480.00	46.2 AV	54.0	-7.8	1.02 H	211	28.20	18.00
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	100.2 PK			1.11 V	284	60.60	39.60
2	*5240.00	89.7 AV			1.11 V	284	50.10	39.60
3	5350.00	57.4 PK	74.0	-16.6	1.04 V	218	51.00	6.40
4	5350.00	44.8 AV	54.0	-9.2	1.04 V	218	38.40	6.40
5	#10480.00	59.5 PK	74.0	-14.5	1.00 V	28	41.50	18.00
6	#10480.00	46.2 AV	54.0	-7.8	1.00 V	28	28.20	18.00

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	106.6 PK			1.00 H	279	66.90	39.70
2	*5260.00	95.9 AV			1.00 H	279	56.20	39.70
3	5350.00	47.1 PK	74.0	-26.9	1.10 H	289	40.70	6.40
4	5350.00	45.1 AV	54.0	-8.9	1.10 H	289	38.70	6.40
5	#10520.00	59.4 PK	74.0	-14.6	1.02 H	216	41.10	18.30
6	#10520.00	47.0 AV	54.0	-7.0	1.02 H	216	28.70	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	102.2 PK			1.18 V	282	62.50	39.70
2	*5260.00	92.0 AV			1.18 V	282	52.30	39.70
3	5350.00	57.7 PK	74.0	-16.3	1.06 V	271	51.30	6.40
4	5350.00	44.7 AV	54.0	-9.3	1.06 V	271	38.30	6.40
5	#10520.00	59.6 PK	74.0	-14.4	1.00 V	172	41.30	18.30
6	#10520.00	46.7 AV	54.0	-7.3	1.00 V	172	28.40	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	105.6 PK			1.41 H	282	65.90	39.70
2	*5300.00	95.1 AV			1.41 H	282	55.40	39.70
3	10600.00	59.1 PK	74.0	-14.9	1.23 H	226	40.90	18.20
4	10600.00	46.3 AV	54.0	-7.7	1.23 H	226	28.10	18.20
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	*5300.00	99.1 PK			1.00 V	67	59.40	39.70
2	*5300.00	88.6 AV			1.00 V	67	48.90	39.70
3	10600.00	58.9 PK	74.0	-15.1	1.12 V	73	40.70	18.20
4	10600.00	46.2 AV	54.0	-7.8	1.12 V	73	28.00	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.8 PK			1.12 H	279	66.10	39.70
2	*5320.00	94.7 AV			1.12 H	279	55.00	39.70
3	5350.00	62.9 PK	74.0	-11.1	1.17 H	269	56.50	6.40
4	5350.00	48.5 AV	54.0	-5.5	1.17 H	269	42.10	6.40
5	10640.00	59.5 PK	74.0	-14.5	1.03 H	242	41.40	18.10
6	10640.00	46.2 AV	54.0	-7.8	1.03 H	242	28.10	18.10
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	*5320.00	99.1 PK			1.05 V	67	59.40	39.70
2	*5320.00	88.0 AV			1.05 V	67	48.30	39.70
3	5350.00	58.0 PK	74.0	-16.0	1.09 V	58	51.60	6.40
4	5350.00	45.1 AV	54.0	-8.9	1.09 V	58	38.70	6.40
5	10640.00	58.2 PK	74.0	-15.8	1.02 V	84	40.10	18.10
6	10640.00	45.5 AV	54.0	-8.5	1.02 V	84	27.40	18.10

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.3 PK	74.0	-14.7	1.40 H	262	52.50	6.80
2	5460.00	46.7 AV	54.0	-7.3	1.40 H	262	39.90	6.80
3	#5470.00	69.7 PK	74.0	-4.3	1.33 H	263	62.90	6.80
4	#5470.00	49.3 AV	54.0	-4.7	1.33 H	263	42.50	6.80
5	*5500.00	104.6 PK			1.22 H	256	64.60	40.00
6	*5500.00	94.7 AV			1.22 H	256	54.70	40.00
7	11000.00	60.1 PK	74.0	-13.9	1.20 H	211	41.00	19.10
8	11000.00	46.7 AV	54.0	-7.3	1.20 H	211	27.60	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	5460.00	59.2 PK	74.0	-14.8	1.14 V	311	52.40	6.80
2	5460.00	45.6 AV	54.0	-8.4	1.14 V	311	38.80	6.80
3	#5470.00	67.4 PK	74.0	-6.6	1.07 V	314	60.60	6.80
4	#5470.00	47.5 AV	54.0	-6.5	1.07 V	314	40.70	6.80
5	*5500.00	102.3 PK			1.06 V	312	62.30	40.00
6	*5500.00	91.3 AV			1.06 V	312	51.30	40.00
7	11000.00	59.6 PK	74.0	-14.4	1.05 V	241	40.50	19.10
8	11000.00	46.8 AV	54.0	-7.2	1.05 V	241	27.70	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	105.3 PK			1.14 H	264	65.20	40.10
2	*5580.00	94.4 AV			1.14 H	264	54.30	40.10
3	11160.00	58.3 PK	74.0	-15.7	1.07 H	217	39.60	18.70
4	11160.00	45.7 AV	54.0	-8.3	1.07 H	217	27.00	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	101.0 PK			1.24 V	285	60.90	40.10
2	*5580.00	90.5 AV			1.24 V	285	50.40	40.10
3	11160.00	58.6 PK	74.0	-15.4	1.09 V	211	39.90	18.70
4	11160.00	46.0 AV	54.0	-8.0	1.09 V	211	27.30	18.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.9 PK			1.41 H	265	64.60	40.30
2	*5700.00	94.4 AV			1.41 H	265	54.10	40.30
3	#5725.00	71.4 PK	74.0	-2.6	1.41 H	264	64.20	7.20
4	#5725.00	52.5 AV	54.0	-1.5	1.41 H	264	45.30	7.20
5	11400.00	59.5 PK	74.0	-14.5	1.10 H	202	41.20	18.30
6	11400.00	46.7 AV	54.0	-7.3	1.10 H	202	28.40	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	100.6 PK			1.07 V	212	60.30	40.30
2	*5700.00	89.5 AV			1.07 V	212	49.20	40.30
3	#5725.00	64.4 PK	74.0	-9.6	1.07 V	214	57.20	7.20
4	#5725.00	48.1 AV	54.0	-5.9	1.07 V	214	40.90	7.20
5	11400.00	60.5 PK	74.0	-13.5	1.43 V	228	42.20	18.30
6	11400.00	46.9 AV	54.0	-7.1	1.43 V	228	28.60	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	68.8 PK	74.0	-5.2	1.34 H	273	61.60	7.20
2	#5714.90	49.6 AV	54.0	-4.4	1.34 H	273	42.40	7.20
3	#5722.90	76.9 PK	78.2	-1.3	1.31 H	281	69.70	7.20
4	#5725.00	59.5 PK	78.2	-18.7	1.43 H	275	52.30	7.20
5	*5745.00	106.3 PK			1.38 H	281	65.90	40.40
6	*5745.00	95.3 AV			1.38 H	281	54.90	40.40
7	11490.00	59.6 PK	74.0	-14.4	1.25 H	212	41.30	18.30
8	11490.00	46.0 AV	54.0	-8.0	1.25 H	212	27.70	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	63.4 PK	74.0	-10.6	1.22 V	281	56.20	7.20
2	#5714.90	46.7 AV	54.0	-7.3	1.22 V	281	39.50	7.20
3	#5722.90	71.0 PK	78.2	-7.2	1.22 V	282	63.80	7.20
4	#5725.00	56.3 PK	78.2	-21.9	1.21 V	285	49.10	7.20
5	*5745.00	101.3 PK			1.27 V	282	60.90	40.40
6	*5745.00	90.3 AV			1.27 V	282	49.90	40.40
7	11490.00	58.7 PK	74.0	-15.3	1.10 V	238	40.40	18.30
8	11490.00	46.1 AV	54.0	-7.9	1.10 V	238	27.80	18.30

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	107.1 PK			1.27 H	274	66.60	40.50
2	*5785.00	96.0 AV			1.27 H	274	55.50	40.50
3	11570.00	60.0 PK	74.0	-14.0	1.10 H	284	41.80	18.20
4	11570.00	46.7 AV	54.0	-7.3	1.10 H	284	28.50	18.20
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	*5785.00	101.3 PK			1.27 V	285	60.80	40.50
2	*5785.00	91.1 AV			1.27 V	285	50.60	40.50
3	11570.00	59.0 PK	74.0	-15.0	1.06 V	211	40.80	18.20
4	11570.00	46.5 AV	54.0	-7.5	1.06 V	211	28.30	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	106.5 PK			1.28 H	280	66.00	40.50
2	*5825.00	95.5 AV			1.28 H	280	55.00	40.50
3	#5850.00	56.6 PK	78.2	-21.6	1.15 H	280	49.10	7.50
4	#5852.10	74.8 PK	78.2	-3.4	1.15 H	279	67.20	7.60
5	#5860.10	69.2 PK	74.0	-4.8	1.15 H	277	61.60	7.60
6	#5860.10	50.4 AV	54.0	-3.6	1.15 H	277	42.80	7.60
7	11650.00	60.3 PK	74.0	-13.7	1.17 H	211	41.60	18.70
8	11650.00	46.7 AV	54.0	-7.3	1.17 H	211	28.00	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	102.0 PK			1.01 V	284	61.50	40.50
2	*5825.00	91.1 AV			1.01 V	284	50.60	40.50
3	#5850.00	52.0 PK	78.2	-26.2	1.00 V	286	44.50	7.50
4	#5852.10	68.8 PK	78.2	-9.4	1.00 V	289	61.20	7.60
5	#5860.10	63.2 PK	74.0	-10.8	1.01 V	294	55.60	7.60
6	#5860.10	47.9 AV	54.0	-6.1	1.01 V	294	40.30	7.60
7	11650.00	59.0 PK	74.0	-15.0	1.11 V	252	40.30	18.70
8	11650.00	46.7 AV	54.0	-7.3	1.11 V	252	28.00	18.70

Remarks:

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

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.4 PK	74.0	-16.6	1.22 H	276	51.20	6.20
2	5150.00	45.4 AV	54.0	-8.6	1.22 H	276	39.20	6.20
3	*5180.00	103.9 PK			1.15 H	274	64.40	39.50
4	*5180.00	93.0 AV			1.15 H	274	53.50	39.50
5	#10360.00	58.5 PK	74.0	-15.5	1.14 H	200	41.50	17.00
6	#10360.00	45.8 AV	54.0	-8.2	1.14 H	200	28.80	17.00
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	5150.00	55.8 PK	74.0	-18.2	1.04 V	275	49.60	6.20
2	5150.00	43.9 AV	54.0	-10.1	1.04 V	275	37.70	6.20
3	*5180.00	98.2 PK			1.00 V	309	58.70	39.50
4	*5180.00	87.8 AV			1.00 V	309	48.30	39.50
5	#10360.00	58.4 PK	74.0	-15.6	1.00 V	69	41.40	17.00
6	#10360.00	45.6 AV	54.0	-8.4	1.00 V	69	28.60	17.00

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	104.1 PK			1.01 H	277	64.50	39.60
2	*5200.00	93.4 AV			1.01 H	277	53.80	39.60
3	#10400.00	59.4 PK	74.0	-14.6	1.14 H	211	42.40	17.00
4	#10400.00	45.6 AV	54.0	-8.4	1.14 H	211	28.60	17.00
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	*5200.00	99.7 PK			1.12 V	290	60.10	39.60
2	*5200.00	88.6 AV			1.12 V	290	49.00	39.60
3	#10400.00	58.4 PK	74.0	-15.6	1.03 V	296	41.40	17.00
4	#10400.00	45.6 AV	54.0	-8.4	1.03 V	296	28.60	17.00

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	103.3 PK			1.00 H	253	63.70	39.60
2	*5240.00	92.9 AV			1.00 H	253	53.30	39.60
3	5350.00	47.4 PK	74.0	-26.6	1.08 H	236	41.00	6.40
4	5350.00	45.0 AV	54.0	-9.0	1.08 H	236	38.60	6.40
5	#10480.00	58.8 PK	74.0	-15.2	1.02 H	186	40.80	18.00
6	#10480.00	46.2 AV	54.0	-7.8	1.02 H	186	28.20	18.00
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	99.5 PK			1.18 V	285	59.90	39.60
2	*5240.00	88.5 AV			1.18 V	285	48.90	39.60
3	5350.00	57.3 PK	74.0	-16.7	1.03 V	274	50.90	6.40
4	5350.00	44.9 AV	54.0	-9.1	1.03 V	274	38.50	6.40
5	#10480.00	58.2 PK	74.0	-15.8	1.00 V	184	40.20	18.00
6	#10480.00	46.3 AV	54.0	-7.7	1.00 V	184	28.30	18.00

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	104.5 PK			1.00 H	284	64.80	39.70
2	*5260.00	94.6 AV			1.00 H	284	54.90	39.70
3	5350.00	57.4 PK	74.0	-16.6	1.10 H	271	51.00	6.40
4	5350.00	44.6 AV	54.0	-9.4	1.10 H	271	38.20	6.40
5	#10520.00	58.8 PK	74.0	-15.2	1.02 H	184	40.50	18.30
6	#10520.00	46.6 AV	54.0	-7.4	1.02 H	184	28.30	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	98.4 PK			1.00 V	67	58.70	39.70
2	*5260.00	87.3 AV			1.00 V	67	47.60	39.70
3	5350.00	57.5 PK	74.0	-16.5	1.10 V	53	51.10	6.40
4	5350.00	44.6 AV	54.0	-9.4	1.10 V	53	38.20	6.40
5	#10520.00	59.1 PK	74.0	-14.9	1.02 V	54	40.80	18.30
6	#10520.00	46.7 AV	54.0	-7.3	1.02 V	54	28.40	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.1 PK			1.28 H	273	64.40	39.70
2	*5300.00	93.7 AV			1.28 H	273	54.00	39.70
3	10600.00	58.8 PK	74.0	-15.2	1.15 H	218	40.60	18.20
4	10600.00	46.3 AV	54.0	-7.7	1.15 H	218	28.10	18.20
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	*5300.00	96.3 PK			1.12 V	68	56.60	39.70
2	*5300.00	85.8 AV			1.12 V	68	46.10	39.70
3	10600.00	59.1 PK	74.0	-14.9	1.03 V	64	40.90	18.20
4	10600.00	45.7 AV	54.0	-8.3	1.03 V	64	27.50	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	104.2 PK			1.14 H	267	64.50	39.70
2	*5320.00	92.8 AV			1.14 H	267	53.10	39.70
3	5350.00	61.6 PK	74.0	-12.4	1.25 H	265	55.20	6.40
4	5350.00	48.1 AV	54.0	-5.9	1.25 H	265	41.70	6.40
5	10640.00	58.6 PK	74.0	-15.4	1.10 H	201	40.50	18.10
6	10640.00	45.6 AV	54.0	-8.4	1.10 H	201	27.50	18.10
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	*5320.00	97.5 PK			1.05 V	68	57.80	39.70
2	*5320.00	86.4 AV			1.05 V	68	46.70	39.70
3	5350.00	57.2 PK	74.0	-16.8	1.10 V	62	50.80	6.40
4	5350.00	44.6 AV	54.0	-9.4	1.10 V	62	38.20	6.40
5	10640.00	58.4 PK	74.0	-15.6	1.03 V	53	40.30	18.10
6	10640.00	45.9 AV	54.0	-8.1	1.03 V	53	27.80	18.10

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.5 PK	74.0	-14.5	1.16 H	261	52.70	6.80
2	5460.00	47.1 AV	54.0	-6.9	1.16 H	261	40.30	6.80
3	#5470.00	69.5 PK	74.0	-4.5	1.18 H	261	62.70	6.80
4	#5470.00	50.8 AV	54.0	-3.2	1.18 H	261	44.00	6.80
5	*5500.00	105.0 PK			1.22 H	271	65.00	40.00
6	*5500.00	94.3 AV			1.22 H	271	54.30	40.00
7	11000.00	58.8 PK	74.0	-15.2	1.06 H	211	39.70	19.10
8	11000.00	45.7 AV	54.0	-8.3	1.06 H	211	26.60	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	5460.00	57.2 PK	74.0	-16.8	1.05 V	319	50.40	6.80
2	5460.00	45.3 AV	54.0	-8.7	1.05 V	319	38.50	6.80
3	#5470.00	65.8 PK	74.0	-8.2	1.07 V	315	59.00	6.80
4	#5470.00	48.1 AV	54.0	-5.9	1.07 V	315	41.30	6.80
5	*5500.00	101.9 PK			1.06 V	312	61.90	40.00
6	*5500.00	91.7 AV			1.06 V	312	51.70	40.00
7	11000.00	59.5 PK	74.0	-14.5	1.01 V	215	40.40	19.10
8	11000.00	46.6 AV	54.0	-7.4	1.01 V	215	27.50	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	105.1 PK			1.45 H	258	65.00	40.10
2	*5580.00	94.4 AV			1.45 H	258	54.30	40.10
3	11160.00	58.4 PK	74.0	-15.6	1.20 H	192	39.70	18.70
4	11160.00	45.9 AV	54.0	-8.1	1.20 H	192	27.20	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	100.8 PK			1.24 V	279	60.70	40.10
2	*5580.00	90.1 AV			1.24 V	279	50.00	40.10
3	11160.00	58.4 PK	74.0	-15.6	1.10 V	216	39.70	18.70
4	11160.00	46.0 AV	54.0	-8.0	1.10 V	216	27.30	18.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.5 PK			1.03 H	278	64.20	40.30
2	*5700.00	93.5 AV			1.03 H	278	53.20	40.30
3	#5725.00	69.3 PK	74.0	-4.7	1.10 H	280	62.10	7.20
4	#5725.00	53.0 AV	54.0	-1.0	1.10 H	280	45.80	7.20
5	11400.00	59.8 PK	74.0	-14.2	1.02 H	224	41.50	18.30
6	11400.00	46.7 AV	54.0	-7.3	1.02 H	224	28.40	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	97.7 PK			1.49 V	326	57.40	40.30
2	*5700.00	87.7 AV			1.49 V	326	47.40	40.30
3	#5725.00	64.5 PK	74.0	-9.5	1.48 V	327	57.30	7.20
4	#5725.00	48.1 AV	54.0	-5.9	1.48 V	327	40.90	7.20
5	11400.00	59.7 PK	74.0	-14.3	1.27 V	241	41.40	18.30
6	11400.00	46.6 AV	54.0	-7.4	1.27 V	241	28.30	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	64.8 PK	74.0	-9.2	1.12 H	273	57.60	7.20
2	#5714.90	47.8 AV	54.0	-6.2	1.12 H	273	40.60	7.20
3	#5722.90	76.8 PK	78.2	-1.4	1.04 H	270	69.60	7.20
4	#5725.00	57.8 PK	78.2	-20.4	1.21 H	270	50.60	7.20
5	*5745.00	105.2 PK			1.04 H	278	64.80	40.40
6	*5745.00	94.5 AV			1.04 H	278	54.10	40.40
7	11490.00	58.8 PK	74.0	-15.2	1.06 H	179	40.50	18.30
8	11490.00	46.0 AV	54.0	-8.0	1.06 H	179	27.70	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	60.8 PK	74.0	-13.2	1.28 V	281	53.60	7.20
2	#5714.90	46.3 AV	54.0	-7.7	1.28 V	281	39.10	7.20
3	#5722.90	72.0 PK	78.2	-6.2	1.21 V	283	64.80	7.20
4	#5725.00	54.3 PK	78.2	-23.9	1.21 V	283	47.10	7.20
5	*5745.00	100.0 PK			1.27 V	283	59.60	40.40
6	*5745.00	88.9 AV			1.27 V	283	48.50	40.40
7	11490.00	59.3 PK	74.0	-14.7	1.10 V	214	41.00	18.30
8	11490.00	46.2 AV	54.0	-7.8	1.10 V	214	27.90	18.30

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	106.3 PK			1.28 H	278	65.80	40.50
2	*5785.00	96.1 AV			1.28 H	278	55.60	40.50
3	11570.00	59.4 PK	74.0	-14.6	1.27 H	205	41.20	18.20
4	11570.00	46.3 AV	54.0	-7.7	1.27 H	205	28.10	18.20
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	*5785.00	100.9 PK			1.26 V	287	60.40	40.50
2	*5785.00	90.7 AV			1.26 V	287	50.20	40.50
3	11570.00	59.5 PK	74.0	-14.5	1.07 V	219	41.30	18.20
4	11570.00	46.6 AV	54.0	-7.4	1.07 V	219	28.40	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	106.3 PK			1.35 H	279	65.80	40.50
2	*5825.00	95.8 AV			1.35 H	279	55.30	40.50
3	#5850.00	57.6 PK	78.2	-20.6	1.28 H	273	50.10	7.50
4	#5852.10	74.5 PK	78.2	-3.7	1.25 H	278	66.90	7.60
5	#5860.10	70.0 PK	74.0	-4.0	1.21 H	277	62.40	7.60
6	#5860.10	51.1 AV	54.0	-2.9	1.21 H	277	43.50	7.60
7	11650.00	59.4 PK	74.0	-14.6	1.09 H	224	40.70	18.70
8	11650.00	46.6 AV	54.0	-7.4	1.09 H	224	27.90	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	101.7 PK			1.26 V	284	61.20	40.50
2	*5825.00	90.6 AV			1.26 V	284	50.10	40.50
3	#5850.00	53.3 PK	78.2	-24.9	1.25 V	286	45.80	7.50
4	#5852.10	68.3 PK	78.2	-9.9	1.25 V	285	60.70	7.60
5	#5860.10	64.5 PK	74.0	-9.5	1.26 V	282	56.90	7.60
6	#5860.10	48.5 AV	54.0	-5.5	1.26 V	282	40.90	7.60
7	11650.00	59.3 PK	74.0	-14.7	1.07 V	212	40.60	18.70
8	11650.00	46.9 AV	54.0	-7.1	1.07 V	212	28.20	18.70

Remarks:

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

802.11n (HT40)

CHANNEL	TX Channel 38	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.0 PK	74.0	-18.0	1.01 H	270	49.80	6.20
2	5150.00	51.5 AV	54.0	-2.5	1.01 H	270	45.30	6.20
3	*5190.00	101.6 PK			1.02 H	269	62.10	39.50
4	*5190.00	91.1 AV			1.02 H	269	51.60	39.50
5	#10380.00	57.7 PK	74.0	-16.3	1.24 H	234	40.70	17.00
6	#10380.00	46.5 AV	54.0	-7.5	1.24 H	234	29.50	17.00
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	5150.00	63.5 PK	74.0	-10.5	1.08 V	64	57.30	6.20
2	5150.00	47.7 AV	54.0	-6.3	1.08 V	64	41.50	6.20
3	*5190.00	96.5 PK			1.00 V	64	57.00	39.50
4	*5190.00	86.6 AV			1.00 V	64	47.10	39.50
5	#10380.00	58.4 PK	74.0	-15.6	1.00 V	216	41.40	17.00
6	#10380.00	46.2 AV	54.0	-7.8	1.00 V	216	29.20	17.00

Remarks:

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

CHANNEL	TX Channel 46	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	100.5 PK			1.00 H	280	60.90	39.60
2	*5230.00	91.0 AV			1.00 H	280	51.40	39.60
3	5350.00	57.0 PK	74.0	-17.0	1.04 H	267	50.60	6.40
4	5350.00	45.5 AV	54.0	-8.5	1.04 H	267	39.10	6.40
5	#10460.00	58.5 PK	74.0	-15.5	1.06 H	194	40.70	17.80
6	#10460.00	46.7 AV	54.0	-7.3	1.06 H	194	28.90	17.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	96.8 PK			1.19 V	286	57.20	39.60
2	*5230.00	85.7 AV			1.19 V	286	46.10	39.60
3	5350.00	57.0 PK	74.0	-17.0	1.09 V	273	50.60	6.40
4	5350.00	45.5 AV	54.0	-8.5	1.09 V	273	39.10	6.40
5	#10460.00	58.5 PK	74.0	-15.5	1.00 V	211	40.70	17.80
6	#10460.00	46.0 AV	54.0	-8.0	1.00 V	211	28.20	17.80

Remarks:

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

CHANNEL	TX Channel 54	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	101.2 PK			1.00 H	281	61.50	39.70
2	*5270.00	90.8 AV			1.00 H	281	51.10	39.70
3	5350.00	57.1 PK	74.0	-16.9	1.09 H	292	50.70	6.40
4	5350.00	45.3 AV	54.0	-8.7	1.09 H	292	38.90	6.40
5	#10540.00	60.3 PK	74.0	-13.7	1.00 H	222	41.90	18.40
6	#10540.00	47.2 AV	54.0	-6.8	1.00 H	222	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	*5270.00	94.1 PK			1.00 V	66	54.40	39.70
2	*5270.00	84.4 AV			1.00 V	66	44.70	39.70
3	5350.00	47.3 PK	74.0	-26.7	1.10 V	53	40.90	6.40
4	5350.00	45.2 AV	54.0	-8.8	1.10 V	53	38.80	6.40
5	#10540.00	58.9 PK	74.0	-15.1	1.02 V	91	40.50	18.40
6	#10540.00	47.3 AV	54.0	-6.7	1.02 V	91	28.90	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	100.1 PK			1.35 H	264	60.40	39.70
2	*5310.00	89.7 AV			1.35 H	264	50.00	39.70
3	5350.00	65.7 PK	74.0	-8.3	1.45 H	270	59.30	6.40
4	5350.00	52.4 AV	54.0	-1.6	1.45 H	270	46.00	6.40
5	10620.00	58.8 PK	74.0	-15.2	1.25 H	211	40.60	18.20
6	10620.00	46.9 AV	54.0	-7.1	1.25 H	211	28.70	18.20
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	*5310.00	92.2 PK			1.00 V	64	52.50	39.70
2	*5310.00	82.9 AV			1.00 V	64	43.20	39.70
3	5350.00	56.9 PK	74.0	-17.1	1.03 V	51	50.50	6.40
4	5350.00	45.7 AV	54.0	-8.3	1.03 V	51	39.30	6.40
5	10620.00	58.7 PK	74.0	-15.3	1.12 V	63	40.50	18.20
6	10620.00	47.1 AV	54.0	-6.9	1.12 V	63	28.90	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.8 PK	74.0	-15.2	1.35 H	276	52.00	6.80
2	5460.00	47.1 AV	54.0	-6.9	1.35 H	276	40.30	6.80
3	#5470.00	67.3 PK	74.0	-6.7	1.30 H	281	60.50	6.80
4	#5470.00	51.7 AV	54.0	-2.3	1.30 H	281	44.90	6.80
5	*5510.00	98.5 PK			1.31 H	271	58.50	40.00
6	*5510.00	88.9 AV			1.31 H	271	48.90	40.00
7	11020.00	59.0 PK	74.0	-15.0	1.06 H	221	40.00	19.00
8	11020.00	47.2 AV	54.0	-6.8	1.06 H	221	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	5460.00	57.6 PK	74.0	-16.4	1.01 V	70	50.80	6.80
2	5460.00	46.2 AV	54.0	-7.8	1.01 V	70	39.40	6.80
3	#5470.00	63.8 PK	74.0	-10.2	1.00 V	65	57.00	6.80
4	#5470.00	49.1 AV	54.0	-4.9	1.00 V	65	42.30	6.80
5	*5510.00	95.1 PK			1.00 V	58	55.10	40.00
6	*5510.00	84.9 AV			1.00 V	58	44.90	40.00
7	11020.00	59.9 PK	74.0	-14.1	1.00 V	143	40.90	19.00
8	11020.00	47.0 AV	54.0	-7.0	1.00 V	143	28.00	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	100.1 PK			1.22 H	281	60.00	40.10
2	*5550.00	89.4 AV			1.22 H	281	49.30	40.10
3	11100.00	58.5 PK	74.0	-15.5	1.11 H	201	40.00	18.50
4	11100.00	46.5 AV	54.0	-7.5	1.11 H	201	28.00	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	*5550.00	96.1 PK			1.00 V	59	56.00	40.10
2	*5550.00	86.8 AV			1.00 V	59	46.70	40.10
3	11100.00	58.3 PK	74.0	-15.7	1.00 V	84	39.80	18.50
4	11100.00	46.5 AV	54.0	-7.5	1.00 V	84	28.00	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	100.0 PK			1.27 H	274	59.80	40.20
2	*5670.00	90.1 AV			1.27 H	274	49.90	40.20
3	#5725.00	59.2 PK	74.0	-14.8	1.20 H	269	52.00	7.20
4	#5725.00	47.7 AV	54.0	-6.3	1.20 H	269	40.50	7.20
5	11340.00	59.3 PK	74.0	-14.7	1.11 H	184	40.60	18.70
6	11340.00	48.0 AV	54.0	-6.0	1.11 H	184	29.30	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	96.6 PK			1.04 V	44	56.40	40.20
2	*5670.00	86.6 AV			1.04 V	44	46.40	40.20
3	#5725.00	57.9 PK	74.0	-16.1	1.09 V	44	50.70	7.20
4	#5725.00	46.2 AV	54.0	-7.8	1.09 V	44	39.00	7.20
5	11340.00	59.4 PK	74.0	-14.6	1.02 V	107	40.70	18.70
6	11340.00	47.3 AV	54.0	-6.7	1.02 V	107	28.60	18.70

Remarks:

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

CHANNEL	TX Channel 151	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	70.3 PK	74.0	-3.7	1.31 H	270	63.10	7.20
2	#5714.90	52.3 AV	54.0	-1.7	1.31 H	270	45.10	7.20
3	#5722.90	74.3 PK	78.2	-3.9	1.10 H	281	67.10	7.20
4	#5725.00	54.6 PK	78.2	-23.6	1.18 H	280	47.40	7.20
5	*5755.00	101.5 PK			1.22 H	277	61.00	40.50
6	*5755.00	90.7 AV			1.22 H	277	50.20	40.50
7	11510.00	59.1 PK	74.0	-14.9	1.07 H	198	40.90	18.20
8	11510.00	47.0 AV	54.0	-7.0	1.07 H	198	28.80	18.20
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	#5714.90	65.5 PK	74.0	-8.5	1.29 V	283	58.30	7.20
2	#5714.90	47.9 AV	54.0	-6.1	1.29 V	283	40.70	7.20
3	#5722.90	69.1 PK	78.2	-9.1	1.20 V	285	61.90	7.20
4	#5725.00	50.7 PK	78.2	-27.5	1.22 V	286	43.50	7.20
5	*5755.00	96.1 PK			1.27 V	282	55.60	40.50
6	*5755.00	86.5 AV			1.27 V	282	46.00	40.50
7	11510.00	59.0 PK	74.0	-15.0	1.06 V	231	40.80	18.20
8	11510.00	47.0 AV	54.0	-7.0	1.06 V	231	28.80	18.20

Remarks:

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

CHANNEL	TX Channel 159	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	102.1 PK			1.30 H	277	61.60	40.50
2	*5795.00	91.9 AV			1.30 H	277	51.40	40.50
3	#5850.00	49.2 PK	78.2	-29.0	1.27 H	279	41.70	7.50
4	#5852.10	64.9 PK	78.2	-13.3	1.26 H	279	57.30	7.60
5	#5860.10	62.3 PK	74.0	-11.7	1.16 H	273	54.70	7.60
6	#5860.10	48.2 AV	54.0	-5.8	1.16 H	273	40.60	7.60
7	11590.00	59.5 PK	74.0	-14.5	1.04 H	213	41.20	18.30
8	11590.00	47.4 AV	54.0	-6.6	1.04 H	213	29.10	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	97.0 PK			1.00 V	289	56.50	40.50
2	*5795.00	87.6 AV			1.00 V	289	47.10	40.50
3	#5850.00	48.3 PK	78.2	-29.9	1.00 V	287	40.80	7.50
4	#5852.10	61.6 PK	78.2	-16.6	1.00 V	285	54.00	7.60
5	#5860.10	59.4 PK	74.0	-14.6	1.13 V	288	51.80	7.60
6	#5860.10	47.2 AV	54.0	-6.8	1.13 V	288	39.60	7.60
7	11590.00	59.1 PK	74.0	-14.9	1.05 V	219	40.80	18.30
8	11590.00	47.4 AV	54.0	-6.6	1.05 V	219	29.10	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The 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 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	30.0 QP	40.0	-10.0	1.99 H	4	44.80	-14.80
2	117.39	24.1 QP	43.5	-19.4	1.49 H	63	40.70	-16.60
3	140.72	24.3 QP	43.5	-19.2	1.99 H	63	38.90	-14.60
4	177.67	30.7 QP	43.5	-12.8	1.49 H	256	45.80	-15.10
5	249.60	31.4 QP	46.0	-14.6	1.00 H	232	45.80	-14.40
6	305.99	31.9 QP	46.0	-14.1	1.00 H	195	44.30	-12.40
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	31.84	26.4 QP	40.0	-13.6	1.51 V	358	42.50	-16.10
2	57.12	26.6 QP	40.0	-13.4	1.01 V	289	41.40	-14.80
3	117.39	27.0 QP	43.5	-16.5	1.01 V	261	43.60	-16.60
4	177.67	24.7 QP	43.5	-18.8	1.01 V	194	39.80	-15.10
5	249.60	26.8 QP	46.0	-19.2	1.51 V	185	41.20	-14.40
6	305.99	27.3 QP	46.0	-18.7	1.51 V	195	39.70	-12.40

Remarks:

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS 30	100288	Apr. 27, 2015	Apr. 26, 2016
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Dec. 26, 2014	Dec. 25, 2015
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 30, 2014	Dec. 29, 2015
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 21, 2015	Jul. 20, 2016
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 2.

3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedures

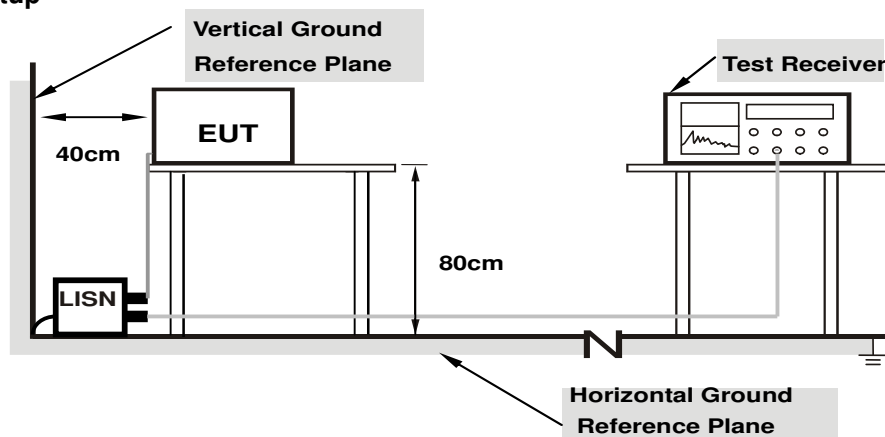
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

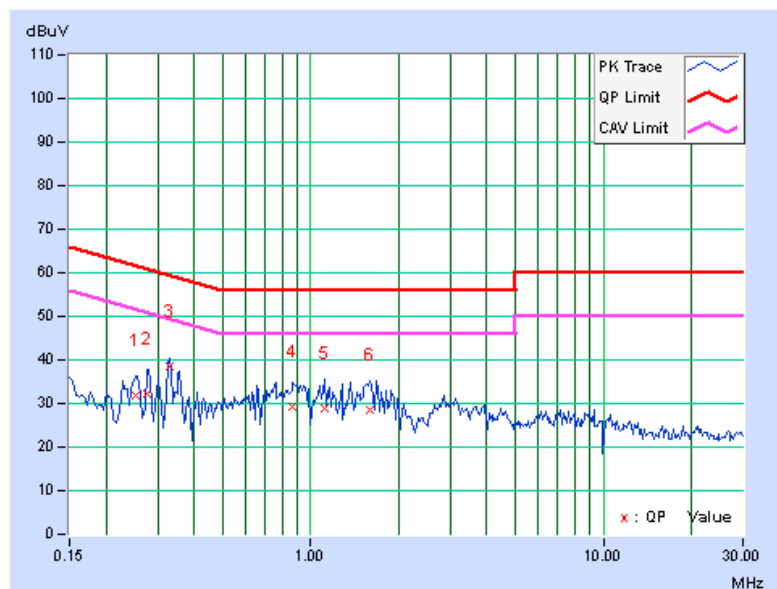
4.2.7 Test Results

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

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	0.25156	9.95	21.95	10.77	31.90	20.72	61.71	51.71	-29.81	-30.99
2	0.27500	9.95	22.33	12.59	32.28	22.54	60.97	50.97	-28.69	-28.43
3	0.32969	9.95	28.50	27.75	38.45	37.70	59.46	49.46	-21.01	-11.76
4	0.86484	10.04	19.24	11.00	29.28	21.04	56.00	46.00	-26.72	-24.96
5	1.11328	10.08	18.98	9.64	29.06	19.72	56.00	46.00	-26.94	-26.28
6	1.58594	10.12	18.38	8.93	28.50	19.05	56.00	46.00	-27.50	-26.95

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.

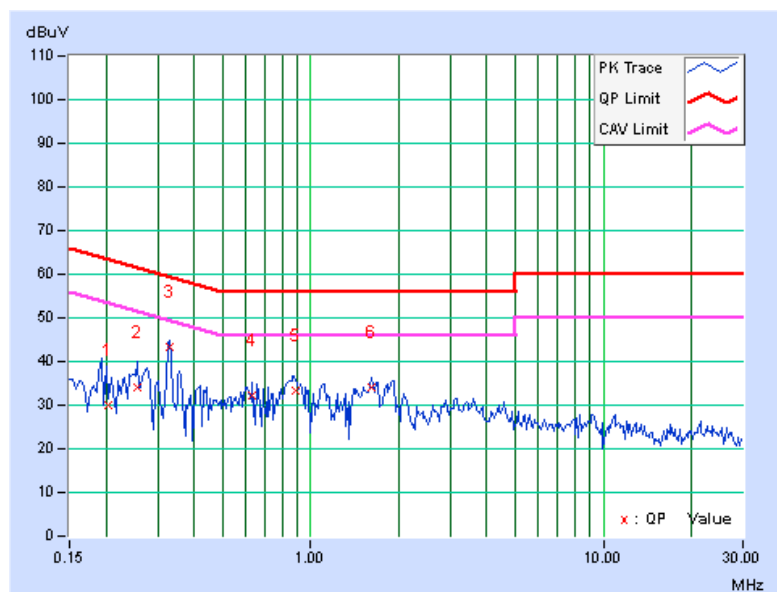


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

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	0.20441	9.97	20.07	14.99	30.04	24.96	63.43	53.43	-33.39	-28.47
2	0.25547	9.98	24.07	11.50	34.05	21.48	61.58	51.58	-27.53	-30.10
3	0.32969	9.99	33.43	31.17	43.42	41.16	59.46	49.46	-16.04	-8.30
4	0.63047	10.03	22.36	16.53	32.39	26.56	56.00	46.00	-23.61	-19.44
5	0.88731	10.06	23.26	16.21	33.32	26.27	56.00	46.00	-22.68	-19.73
6	1.62109	10.15	23.92	19.15	34.07	29.30	56.00	46.00	-21.93	-16.70

Remarks:

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



4.3 Transmit Power Measurement

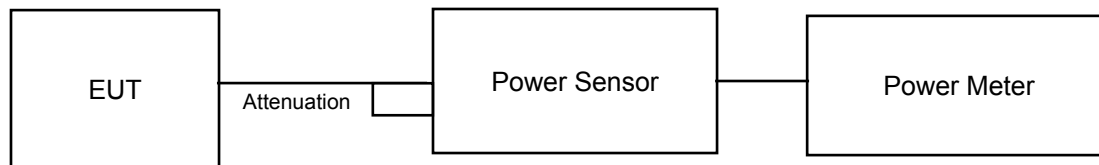
4.3.1 Limits of Transmit Power Measurement

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

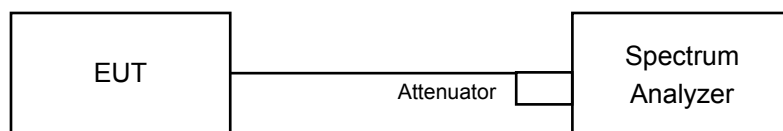
*B is the 26 dB emission bandwidth in megahertz

4.3.2 Test Setup

For Power Output Measurement



For 26dB and Occupied Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	28.445	14.54	24.00	Pass
40	5200	29.580	14.71	24.00	Pass
48	5240	29.648	14.72	24.00	Pass
52	5260	26.730	14.27	24.00	Pass
60	5300	27.606	14.41	24.00	Pass
64	5320	27.606	14.41	24.00	Pass
100	5500	33.343	15.23	24.00	Pass
116	5580	33.189	15.21	24.00	Pass
140	5700	35.318	15.48	24.00	Pass
149	5745	35.237	15.47	30.00	Pass
157	5785	33.884	15.30	30.00	Pass
165	5825	32.211	15.08	30.00	Pass

Note:

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

1. $11\text{dBm} + 10\log (32.47) = 26.11 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (30.44) = 25.83 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (36.63) = 26.64 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (33.81) = 26.29 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (35.70) = 26.53 > 24\text{dBm}$
6. $11\text{dBm} + 10\log (33.79) = 26.29 > 24\text{dBm}$

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	27.669	14.42	24.00	Pass
40	5200	26.792	14.28	24.00	Pass
48	5240	26.424	14.22	24.00	Pass
52	5260	27.990	14.47	24.00	Pass
60	5300	27.669	14.42	24.00	Pass
64	5320	26.242	14.19	24.00	Pass
100	5500	27.797	14.44	24.00	Pass
116	5580	27.606	14.41	24.00	Pass
140	5700	27.861	14.45	24.00	Pass
149	5745	26.062	14.16	30.00	Pass
157	5785	27.925	14.46	30.00	Pass
165	5825	26.607	14.25	30.00	Pass

Note:

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

1. $11\text{dBm} + 10\log (35.89) = 26.55 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (37.96) = 26.79 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (41.66) = 27.20 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (40.53) = 27.08 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (38.69) = 26.88 > 24\text{dBm}$
6. $11\text{dBm} + 10\log (37.89) = 26.79 > 24\text{dBm}$

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	23.227	13.66	24.00	Pass
46	5230	25.882	14.13	24.00	Pass
54	5270	27.227	14.35	24.00	Pass
62	5310	23.281	13.67	24.00	Pass
102	5510	16.520	12.18	24.00	Pass
110	5550	23.933	13.79	24.00	Pass
134	5670	24.831	13.95	24.00	Pass
151	5755	24.547	13.90	30.00	Pass
159	5795	26.607	14.25	30.00	Pass

Note:

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

1. $11\text{dBm} + 10\log (64.29) = 29.08 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (77.31) = 29.88 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (71.92) = 29.57 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (71.69) = 29.55 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (76.58) = 29.84 > 24\text{dBm}$

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	29.66	Pass
40	5200	32.22	Pass
48	5240	38.31	Pass
52	5260	32.47	Pass
60	5300	30.44	Pass
64	5320	36.63	Pass
100	5500	33.81	Pass
116	5580	35.70	Pass
140	5700	33.79	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	41.47	Pass
40	5200	34.58	Pass
48	5240	39.30	Pass
52	5260	35.89	Pass
60	5300	37.96	Pass
64	5320	41.66	Pass
100	5500	40.53	Pass
116	5580	38.69	Pass
140	5700	37.89	Pass

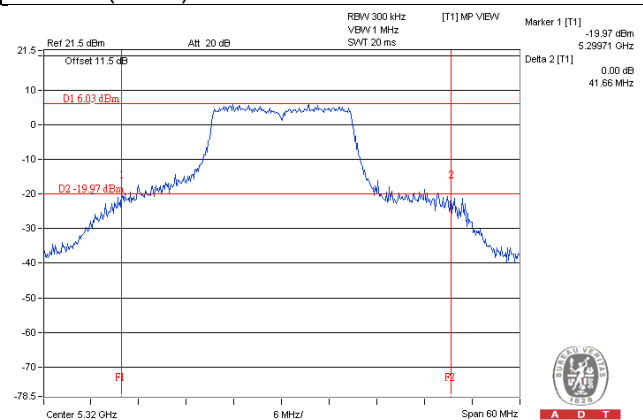
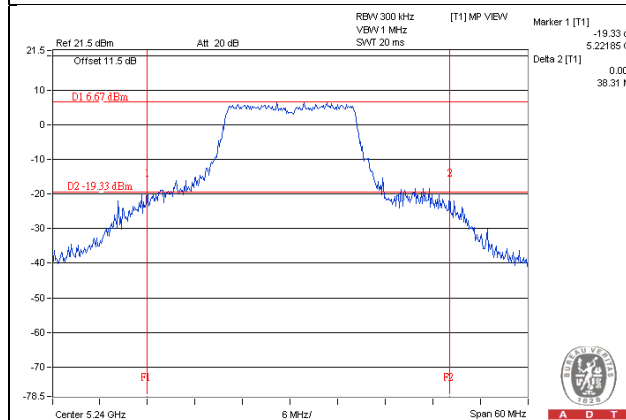
802.11n (HT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
38	5190	64.06	Pass
46	5230	77.60	Pass
54	5270	64.29	Pass
62	5310	77.31	Pass
102	5510	71.92	Pass
110	5550	71.69	Pass
134	5670	76.58	Pass

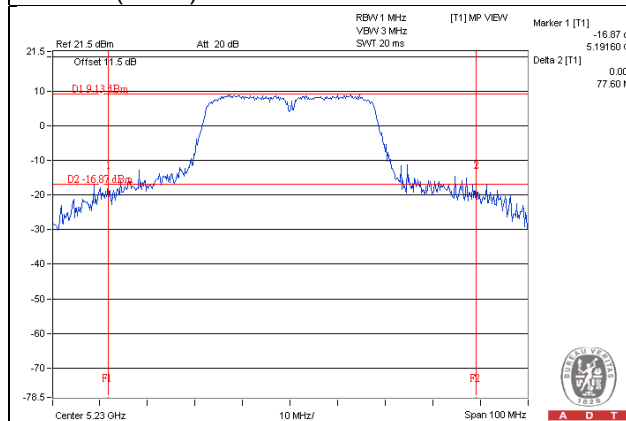
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)



802.11n (HT40)



Occupied Bandwidth:

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	17.16
40	5200	17.16
48	5240	17.28
52	5260	17.28
60	5300	17.16
64	5320	17.40
100	5500	17.28
116	5580	17.40
140	5700	17.40
149	5745	18.72
157	5785	18.72
165	5825	19.68

802.11n (HT20)

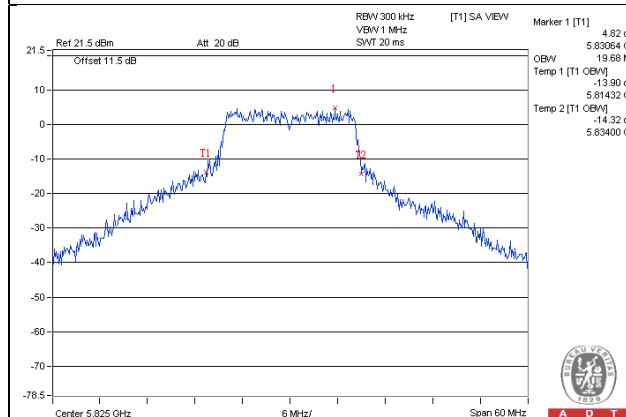
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	18.36
40	5200	18.24
48	5240	18.12
52	5260	18.36
60	5300	18.36
64	5320	18.36
100	5500	18.36
116	5580	18.48
140	5700	18.36
149	5745	19.56
157	5785	20.76
165	5825	20.28

802.11n (HT40)

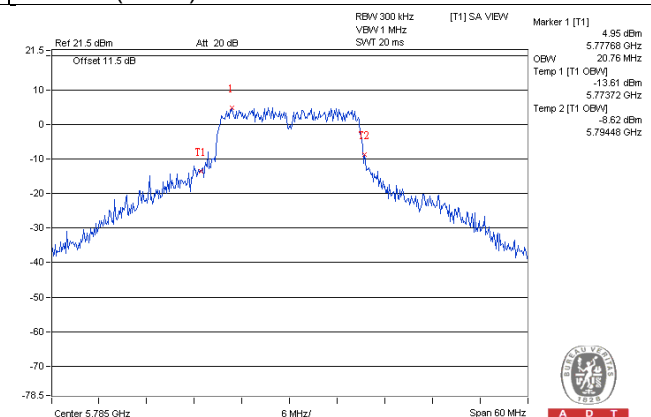
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
38	5190	36.48
46	5230	36.60
54	5270	36.60
62	5310	36.96
102	5510	36.60
110	5550	36.60
134	5670	36.72
151	5755	36.84
159	5795	37.20

Spectrum Plot of Worst Value

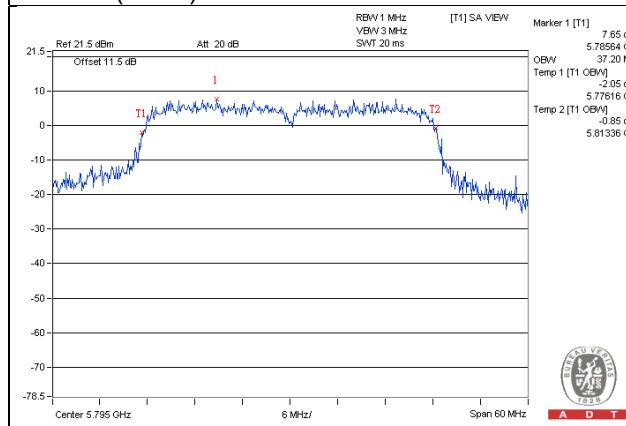
802.11a



802.11n (HT20)



802.11n (HT40)



EUT MAXIMUM CONDUCTED POWER

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	27.606	14.41
5470~5725	35.318	15.48

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	27.990	14.47
5470~5725	27.861	14.45

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

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	27.227	14.35
5470~5725	24.831	13.95

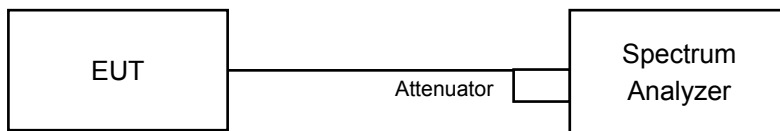
Note: Manufacturer provides Transmit Power Control description to meet this requirement.

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

For U-NII-3 band:

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

4.4.5 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

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	0.60	0.68	1.28	11.00	Pass
40	5200	0.63	0.68	1.31	11.00	Pass
48	5240	0.66	0.68	1.34	11.00	Pass
52	5260	0.25	0.68	0.93	11.00	Pass
60	5300	0.24	0.68	0.92	11.00	Pass
64	5320	0.27	0.68	0.95	11.00	Pass
100	5500	0.48	0.68	1.16	11.00	Pass
116	5580	0.53	0.68	1.21	11.00	Pass
140	5700	0.60	0.68	1.28	11.00	Pass

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

802.11n (HT20)

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	0.25	0.66	0.91	11.00	Pass
40	5200	0.41	0.66	1.07	11.00	Pass
48	5240	0.43	0.66	1.09	11.00	Pass
52	5260	0.09	0.66	0.75	11.00	Pass
60	5300	-0.23	0.66	0.43	11.00	Pass
64	5320	-0.23	0.66	0.43	11.00	Pass
100	5500	0.04	0.66	0.70	11.00	Pass
116	5580	0.23	0.66	0.89	11.00	Pass
140	5700	0.21	0.66	0.87	11.00	Pass

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

802.11n (HT40)

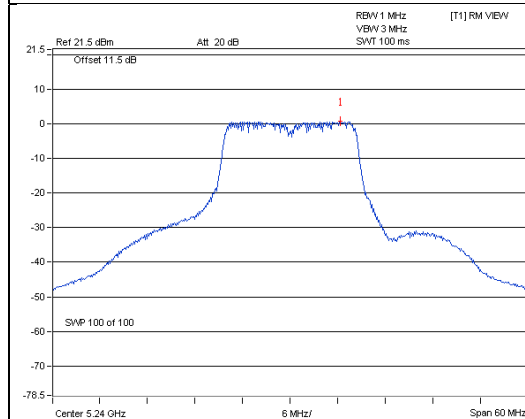
Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
38	5190	-4.16	1.28	-2.88	11.00	Pass
46	5230	-3.69	1.28	-2.41	11.00	Pass
54	5270	-3.57	1.28	-2.29	11.00	Pass
62	5310	-3.72	1.28	-2.44	11.00	Pass
102	5510	-4.93	1.28	-3.65	11.00	Pass
110	5550	-4.56	1.28	-3.28	11.00	Pass
134	5670	-4.23	1.28	-2.95	11.00	Pass

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

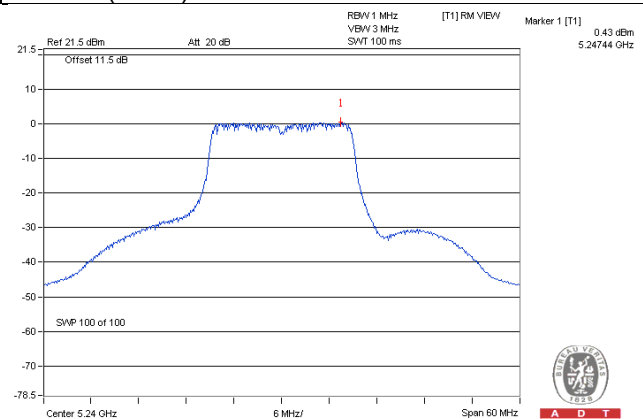
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)

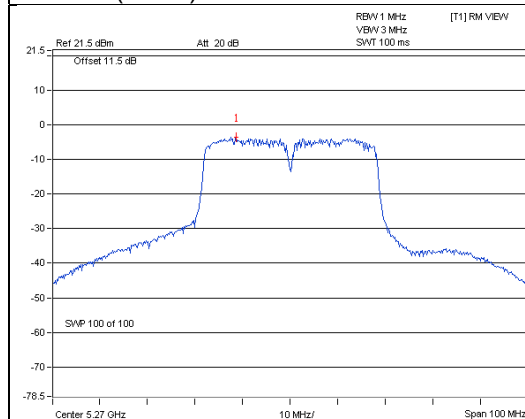


A D T



A D T

802.11n (HT40)



A D T

For U-NII-3 Band

802.11a

Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
149	5745	-6.87	-4.65	0.68	-3.97	30.00	Pass
157	5785	-7.60	-5.38	0.68	-4.70	30.00	Pass
165	5825	-7.54	-5.32	0.68	-4.64	30.00	Pass

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

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
149	5745	-7.17	-4.95	0.66	-4.29	30.00	Pass
157	5785	-7.86	-5.64	0.66	-4.98	30.00	Pass
165	5825	-8.31	-6.09	0.66	-5.43	30.00	Pass

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

802.11n (HT40)

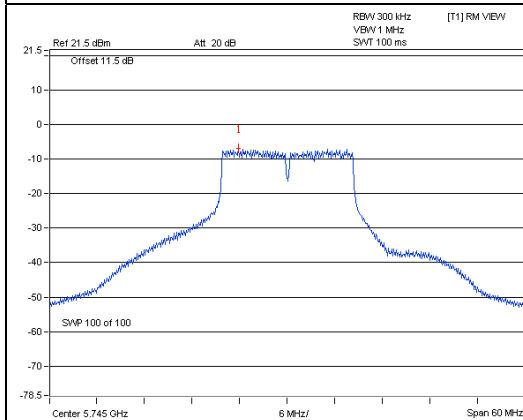
Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
151	5755	-12.10	-9.88	1.28	-8.60	30.00	Pass
159	5795	-12.22	-10.00	1.28	-8.72	30.00	Pass

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

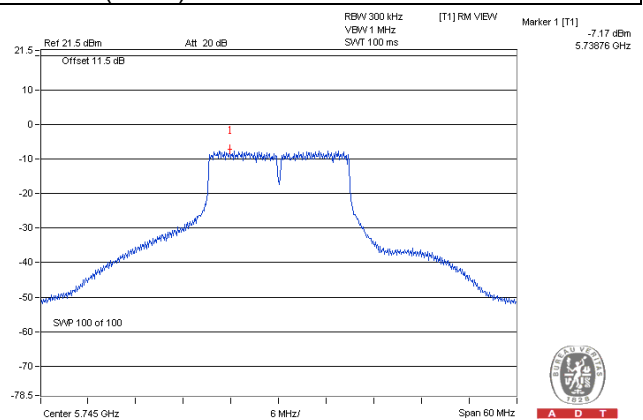
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)

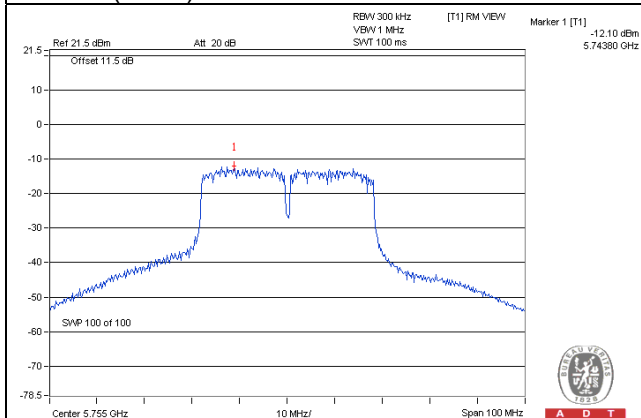


A D T



A D T

802.11n (HT40)



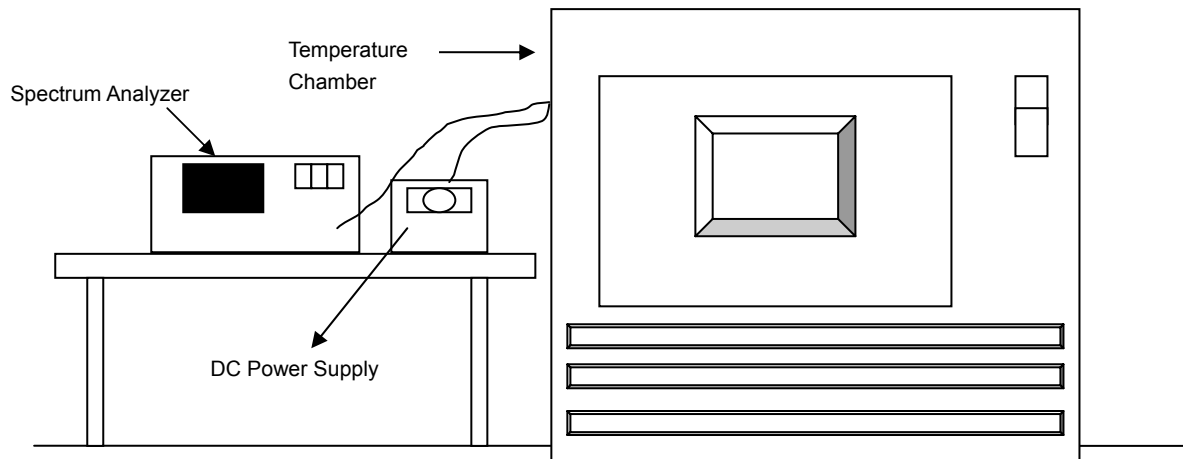
A D T

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 DC 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: 5180MHz									
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 (%)
50	3.7	5180.0061	0.00012	5180.0072	0.00014	5180.0044	0.00008	5180.0044	0.00008
40	3.7	5180.0223	0.00043	5180.0227	0.00044	5180.0244	0.00047	5180.0208	0.00040
30	3.7	5180.0002	0.00000	5180.0007	0.00001	5180.002	0.00004	5180.0013	0.00003
20	3.7	5179.9888	-0.00022	5179.99	-0.00019	5179.99	-0.00019	5179.9916	-0.00016
10	3.7	5180.002	0.00004	5180.001	0.00002	5180.0023	0.00004	5180.0022	0.00004
0	3.7	5179.9851	-0.00029	5179.9844	-0.00030	5179.981	-0.00037	5179.9815	-0.00036
-10	3.7	5180.0136	0.00026	5180.0145	0.00028	5180.0169	0.00033	5180.0168	0.00032
-20	3.7	5179.9776	-0.00043	5179.9783	-0.00042	5179.9782	-0.00042	5179.975	-0.00048
-30	3.7	5180.0061	0.00012	5180.0092	0.00018	5180.0083	0.00016	5180.0102	0.00020

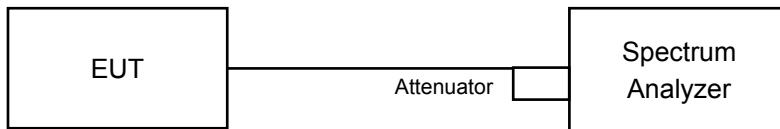
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	4.1	5179.9881	-0.00023	5179.9905	-0.00018	5179.9906	-0.00018	5179.9912	-0.00017
	3.7	5179.9888	-0.00022	5179.99	-0.00019	5179.99	-0.00019	5179.9916	-0.00016
	3.5	5179.9895	-0.00020	5179.9909	-0.00018	5179.9891	-0.00021	5179.9925	-0.00014

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	16.42	0.5	Pass
157	5785	16.41	0.5	Pass
165	5825	16.47	0.5	Pass

802.11n (HT20)

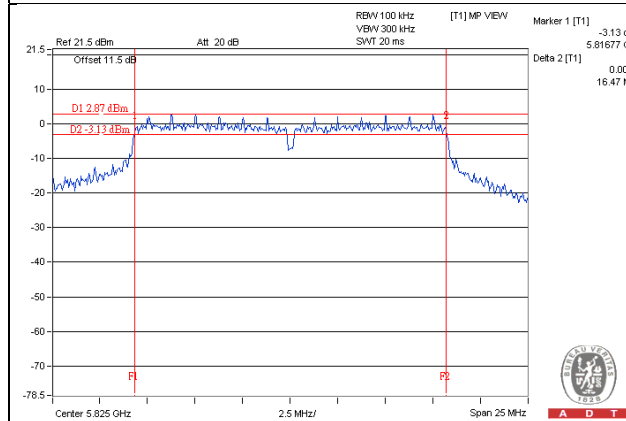
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	17.66	0.5	Pass
157	5785	17.69	0.5	Pass
165	5825	17.68	0.5	Pass

802.11n (HT40)

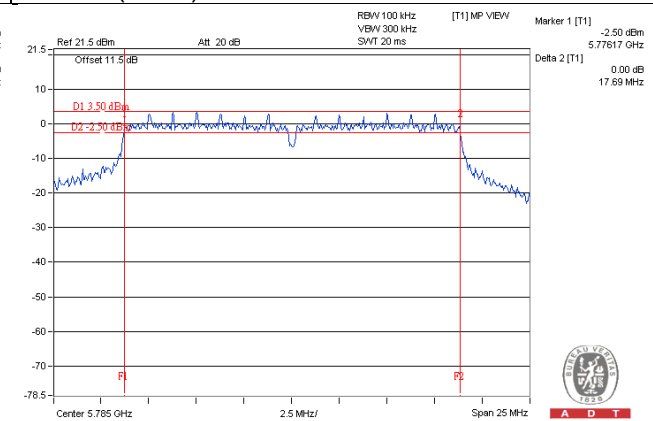
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
151	5755	35.35	0.5	Pass
159	5795	35.46	0.5	Pass

Spectrum Plot of Worst Value

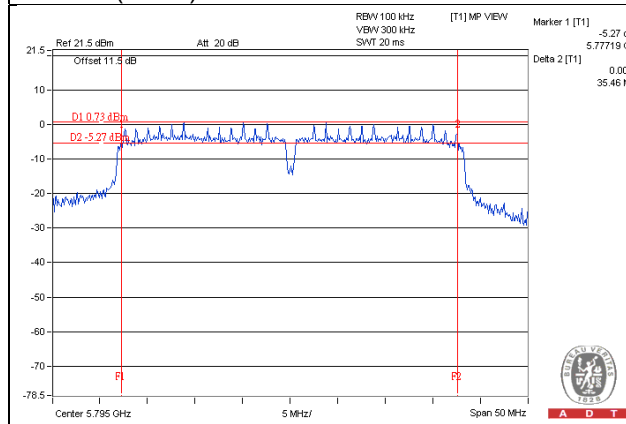
802.11a



802.11n (HT20)



802.11n (HT40)



5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

--- END ---