

FCC TEST REPORT (WLAN, 15.407)

REPORT NO.: RF131028E08-1

MODEL NO.: MC32N0

FCC ID: UZ7MC32N0

RECEIVED: Oct. 28, 2013

TESTED: Nov. 29, 2013 to Jan. 17, 2014

ISSUED: Feb. 07, 2014

APPLICANT: Motorola Solutions, Inc.

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ISSUED BY: Bureau Veritas Consumer Products Services
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Table of Contents

RELEASE CONTROL RECORD.....	4
1. CERTIFICATION.....	5
2. SUMMARY OF TEST RESULTS.....	6
2.1 MEASUREMENT UNCERTAINTY	7
3. GENERAL INFORMATION	8
3.1 GENERAL DESCRIPTION OF EUT (WLAN).....	8
3.2 DESCRIPTION OF TEST MODES.....	14
3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL	15
3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS	17
3.4 Duty cycle of test signal.....	18
3.5 DESCRIPTION OF SUPPORT UNITS	20
3.6 CONFIGURATION OF SYSTEM UNDER TEST	20
4. TEST TYPES AND RESULTS.....	21
4.1 CONDUCTED EMISSION MEASUREMENT	21
4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT.....	21
4.1.2 TEST INSTRUMENTS	21
4.1.3 TEST PROCEDURES.....	22
4.1.4 DEVIATION FROM TEST STANDARD	22
4.1.5 TEST SETUP	22
4.1.6 EUT OPERATING CONDITIONS.....	23
4.1.7 TEST RESULTS.....	24
4.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT	26
4.2.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT	26
4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS.....	26
4.2.3 TEST INSTRUMENTS	27
4.2.4 TEST PROCEDURES.....	28
4.2.5 DEVIATION FROM TEST STANDARD	28
4.2.6 TEST SETUP	29
4.2.7 EUT OPERATING CONDITION	29
4.2.8 TEST RESULTS.....	30
4.3 TRANSMIT POWER MEASUREMENT.....	57
4.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT	57
4.3.2 TEST INSTRUMENTS	57
4.3.3 TEST PROCEDURE	58
4.3.4 DEVIATION FROM TEST STANDARD	58
4.3.5 TEST SETUP	58
4.3.6 EUT OPERATING CONDITIONS.....	59
4.3.7 TEST RESULTS.....	60
4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT	64
4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT	64
4.4.2 TEST INSTRUMENTS	64
4.4.3 TEST PROCEDURES.....	64
4.4.4 DEVIATION FROM TEST STANDARD	64



A D T

4.4.5	TEST SETUP	64
4.4.6	EUT OPERATING CONDITIONS	65
4.4.7	TEST RESULTS	66
4.5	PEAK POWER EXCURSION MEASUREMENT	68
4.5.1	LIMITS OF PEAK POWER EXCURSION MEASUREMENT	68
4.5.2	TEST INSTRUMENTS	68
4.5.3	TEST PROCEDURE	68
4.5.4	DEVIATION FROM TEST STANDARD	68
4.5.5	TEST SETUP	68
4.5.6	EUT OPERATING CONDITIONS	68
4.5.7	TEST RESULTS	69
4.6	FREQUENCY STABILITY	71
4.6.1	LIMITS OF FREQUENCY STABILITY MEASUREMENT	71
4.6.2	TEST INSTRUMENTS	71
4.6.3	TEST PROCEDURE	71
4.6.4	DEVIATION FROM TEST STANDARD	72
4.6.5	TEST SETUP	72
4.6.6	EUT OPERATING CONDITION	72
4.6.7	TEST RESULTS	73
5.	PHOTOGRAPHS OF THE TEST CONFIGURATION	74
6.	INFORMATION ON THE TESTING LABORATORIES	75
7.	APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	76



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF131028E08-1	Original release	Feb. 07, 2014

1. CERTIFICATION

PRODUCT: Mobile Computer
BRAND NAME: MOTOROLA
MODEL NO.: MC32N0
TEST SAMPLE: ENGINEERING SAMPLE
APPLICANT: Motorola Solutions, Inc.
TESTED: Nov. 29, 2013 to Jan. 17, 2014
STANDARDS: FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10-2009

The above equipment (Model: MC32N0) 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 : Midoli Peng , **DATE:** Feb. 07, 2014
(Midoli Peng, Specialist)

APPROVED BY : May Chen , **DATE:** Feb. 07, 2014
(May Chen, Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -11.71dB at 0.19687MHz
15.407(b)(1/2/3) (b)(6)	Spurious Emissions(bandedge)	PASS	Meet the requirement of limit. Minimum passing margin is -1.0dB at 5350.00MHz & 5470.0MHz & 5150.00MHz & 5725.0MHz.
15.407(b)(1/2/3) (b)(6)	Spurious Emissions(Non-bandedge)	PASS	Meet the requirement of limit. Minimum passing margin is -7.5dB at 7=37.6MHz.
15.407(a)(1/2)	Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a)(1/2)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is Hirose U.FL not a standard connector.

- NOTE:** 1. For WLAN: The EUT was operating in 2400 ~ 2483.5MHz, 5.15~5.35GHz, 5.47~5.6GHz & 5.65~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 5.15~5.35GHz, 5.47~5.6GHz & 5.65~5.725GHz. For the 2400 ~ 2483.5MHz and 5.725~5.850GHz RF parameters was recorded in another test report.
2. The DFS report was recorded in another test report.

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:

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

Measurement	Value
Conducted emissions	2.98 dB
Radiated emissions (30MHz-1GHz)	5.37 dB
Radiated emissions (1GHz -6GHz)	3.65 dB
Radiated emissions (6GHz -18GHz)	3.88 dB
Radiated emissions (18GHz -40GHz)	4.11 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT (WLAN)

PRODUCT	Mobile Computer
MODEL NO.	MC32N0
POWER SUPPLY	DC 5.4V from power adapter or DC 3.7V from battery
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 72.2Mbps
OPERATING FREQUENCY	For 15.407 5GHz: 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.50 ~ 5.58GHz & 5.66GHz ~ 5.70GHz
	For 15.247 2.4GHz: 2.412 ~ 2.472GHz 5GHz: 5.745 ~ 5.825GHz
NUMBER OF CHANNEL	For 15.407 16 for 802.11a, 802.11n (HT20)
	For 15.247 (2.4GHz) 13 for 802.11b, 802.11g, 802.11n (HT20)
	For 15.247 (5GHz) 5 for 802.11a, 802.11n (HT20)
MAXIMUM OUTPUT POWER	For 15.407 802.11a: 86.099mW 802.11n (HT20): 73.451mW
	For 15.247 (2.4GHz) 802.11b: 161.065mW 802.11g: 196.789mW 802.11n (HT20): 199.986mW
	For 15.247 (5GHz) 802.11a: 123.027mW 802.11n (HT20): 123.027mW
ANTENNA TYPE	Please see NOTE
DATA CABLE	Please see NOTE
I/O PORTS	Refer to user's manual
ASSOCIATED DEVICES	Please see NOTE

NOTE:

1. There are Bluetooth 2.1 + EDR technology and WLAN 802.11 a/b/g/n technology.
2. For WLAN: 2.4GHz and 5GHz technology cannot transmit at same time.
3. WLAN & BT technology can transmit at same time.
4. EUT Configuration list:

	Feature	Straight	Rotate	Gun
OS	WIN CE 7.0	V	V	V
	Android	V	V	V
Display	Size 3", Resolution: 320x320	V	V	V
Flash/RAM	512M/2G	V	V	V
	1G/4G	V	V	V
Scanner	2D Imager SE4750	V		V
	2D Imager SE4500			V
	1D SE965	V	V	V
Keypad	28 keys	V	V	V
	38 keys	V	V	V
	48 keys	V	V	V
Battery	1X	V	V	
	2X	V	V	V
RF	WLAN 802.11 a/b/g/n (HT20)	V	V	V
	BT 2.1 EDR	V	V	V
Accessories	USB1.1 Full speed host/client	V	V	V
	Holster	V	V	V
	Headset	V	V	V

5. The associated devices(optional) of EUT information are as below:

Product	Brand	Model
Headset	MOTOROLA	RCH51
Cable (RCH51 adapter cable to MC32N0) (Part No. : 25-124411-02R)		

6.The Version of EUT information are as below:

WinCE System		
Mobile Computer	OS Version	07.00.2824
	OEM Name	Motorola MC32N0
	OEM Version	00.40.02
Wireless(Fusion)	Part Number	31-FUSION-X2.01
	Version	X_2.01.0.0.062R
	WLAN Firmware	X_2.01.0.0.166
XW2DMT	Version	X_2.01.0.0.3
	Motorola version	X_2.01.0.0.166
BTRegTest Ver4.1	Version	3.00.2.0.031R

Android System		
Android	Version	4.1.1
EA	Version	2.53
Kernal version	Version	3.0.31

7.The EUT could be supplied with the a power adapter and/or Li-ion battery as below:

Power Adapter	
Brand:	MOTOROLA
Part No.:	PWRS-14000-249R
Input power:	100~240V, 50~60Hz, 0.6A
Output power:	5.4V, 3A
US AC line cord, un-grounded and unshielded, 1.85m (Part No.: 50-16000-182R)	
USB Client Communication and Charging Cable	
Brand:	MOTOROLA
Part No.:	25-67868-03R
Associated Devices:	AC cable*1 (Part No.: 50-16000-182R) Adapter * 1 (Part No.: PWRS-14000-249R)
Li-ion Battery 1	
Brand:	MOTOROLA
Model No.:	82-000011-01
RATING:	3.7V, 2740mAh, 10.2Wh
Li-ion Battery 2	
Brand:	MOTOROLA
Model No.:	82-000012-01
RATING:	3.7V, 4800mAh, 17.8Wh

8. The antennas provided to the EUT, please refer to the following table:

For WLAN								
No.	Brand	Model	Antenna Type	Gain (dBi)	Connector Type	Frequency range (MHz)	Cable Loss(dB)	Cable Length(mm)
1	Laird	Rot - Main	PIFA	0.95 (2.4G) 5.5 (5G)	Hirose U.FL	2400~2500 4900~5850	0.1~0.15	61 +2/-1
2	Laird	Rot - Aux	PIFA	0.61 (2.4G) 5.89 (5G)	Hirose U.FL	2400~2500 4900~5850	0.1~0.15	23 +2.5/0
3	Laird	Str - Main	PIFA	1.09 (2.4G) 4.65 (5G)	Hirose U.FL	2400~2500 4900~5850	0.1~0.15	61 +2/-1
4	Laird	Str - Aux	PIFA	0.66 (2.4G) 4.19 (5G)	Hirose U.FL	2400~2500 4900~5850	0.1~0.15	23 +2.5/0
5	Laird	Gun - Main	PIFA	1.77 (2.4G) 4.82 (5G)	Hirose U.FL	2400~2500 4900~5850	0.1~0.15	61 +2/-1
6	Laird	Gun - Aux	PIFA	1.61 (2.4G) 5.82 (5G)	Hirose U.FL	2400~2500 4900~5850	0.1~0.15	23 +2.5/0
Note : 1. For 2.4G: The antenna 5 was selected as representative antenna for the test. 2. For 5G: The antenna 2 was selected as representative antenna for the test.								
For Bluetooth								
No.	Brand	Model	Antenna Type	Gain (dBi)	Connector Type	Frequency range (MHz)	Cable Loss(dB)	Cable Length(mm)
7	Aristotle	Rot	PIFA	2.6	IPEX	2400~2480	0.1~0.15	26 ± 0.5
8	Aristotle	Str	PIFA	2.71	IPEX	2400~2480	0.1~0.15	26 ± 0.5
9	Aristotle	Gun	PIFA	3.74	IPEX	2400~2480	0.1~0.15	26 ± 0.5
Note : 1. The antenna 9 was selected as representative antenna for the test.								

9. The EUT was pre-tested in chamber under following test modes :

For Radiated Emission (2.4GHz)								
Mode	Axis	Scanner	Keypad	Feature	Memory	Antenna	Battery	Adapter
Mode A	X-Y	SE965	48 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode B	X-Z	SE965	48 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode C	Y-Z	SE965	48 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode D	X-Y	SE965	48 keys	Gun	4GBFlash/1GB DDR	Aux	2X	Yes
Mode E	X-Z	SE965	48 keys	Gun	4GBFlash/1GB DDR	Aux	2X	Yes
Mode F	Y-Z	SE965	48 keys	Gun	4GBFlash/1GB DDR	Aux	2X	Yes
Mode G	X-Y	SE965	38 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode H	X-Y	SE965	28 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode I	X-Y	SE4750	48 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode J	X-Y	SE4500	48 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode K	X-Y	SE965	48 keys	Rotate	4GBFlash/1GB DDR	Main	2X	Yes
Mode L	X-Y	SE965	48 keys	Rotate	4GBFlash/1GB DDR	Main	1X	Yes
Mode M	X-Y	SE965	48 keys	Straight	4GBFlash/1GB DDR	Main	2X	Yes
Mode N	X-Y	SE965	48 keys	Straight	2GBFlash/512MB DDR	Main	2X	Yes
For Radiated Emission (5GHz)								
Mode	Axis	Scanner	Keypad	Feature	Memory	Antenna	Battery	Adapter
Mode O	X-Y	SE965	48 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode P	X-Z	SE965	48 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode Q	Y-Z	SE965	48 keys	Gun	4GBFlash/1GB DDR	Main	2X	Yes
Mode R	X-Y	SE965	48 keys	Gun	4GBFlash/1GB DDR	Aux	2X	Yes
Mode S	X-Z	SE965	48 keys	Gun	4GBFlash/1GB DDR	Aux	2X	Yes
Mode T	Y-Z	SE965	48 keys	Gun	4GBFlash/1GB DDR	Aux	2X	Yes
Mode U	X-Y	SE4750	48 keys	Gun	4GBFlash/1GB DDR	Aux	2X	Yes
Mode V	X-Y	SE4500	48 keys	Gun	4GBFlash/1GB DDR	Aux	2X	Yes
Mode W	X-Y	SE965	48 keys	Rotate	4GBFlash/1GB DDR	Aux	2X	Yes
Mode X	X-Y	SE965	48 keys	Straight	4GBFlash/1GB DDR	Aux	2X	Yes

The worse radiated emission (2.4GHz) was found in **Mode A** and the worse radiated emission (5GHz) was found in **Mode W**. Therefore only the test data of the modes were recorded in this report.

10. The EUT incorporates a SISO function. Both, main and diversity (aux.) antennas path can transmit but only one can transmit at given time while the other is RX only.

MODULATION MODE	TX/RX FUNCTION
802.11b	1TX/1RX(Diversity)
802.11g	1TX/1RX(Diversity)
802.11a	1TX/1RX(Diversity)
802.11n (HT20)	1TX/1RX(Diversity)

11. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 7.
12. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3.2 DESCRIPTION OF TEST MODES

Operated in 5150 ~ 5350MHz band:

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	52	5260 MHz
40	5200 MHz	56	5280 MHz
44	5220 MHz	60	5300 MHz
48	5240 MHz	64	5320 MHz

Operated in 5470MHz ~ 5600MHz & 5650MHz ~ 5725MHz bands:

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

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

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

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

Where **PLC**: Power Line Conducted Emission

RE < 1G: Radiated Emission below 1GHz

RE ≥ 1G: Radiated Emission above 1GHz

APCM: Antenna Port Conducted Measurement

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	36 to 140	60	OFDM	BPSK	6

RADIATED EMISSION TEST (BELOW 1 GHz):

- ☒ 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	36 to 140	60	OFDM	BPSK	6

RADIATED EMISSION TEST (ABOVE 1 GHz):

- ☒ 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	36 to 140	36, 40, 44, 48, 52, 60, 64, 100, 104, 116, 132, 136, 140	OFDM	BPSK	6
802.11n (HT20)	36 to 140	36, 40, 44, 48, 52, 60, 64, 100, 104, 116, 132, 136, 140	OFDM	BPSK	6.5

ANTENNA PORT CONDUCTED MEASUREMENT:

- ☒ 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	36 to 140	36, 40, 44, 48, 52, 60, 64, 100, 104, 116, 132, 136, 140	OFDM	BPSK	6
802.11n (HT20)	36 to 140	36, 40, 44, 48, 52, 60, 64, 100, 104, 116, 132, 136, 140	OFDM	BPSK	6.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
PLC	24deg. C, 58%RH	120Vac, 60Hz	Jyunchun Lin
RE<1G	24deg. C, 73%RH	120Vac, 60Hz	Jason Huang
RE ³ 1G	25deg. C, 67%RH	120Vac, 60Hz	Tim Ho
APCM	25deg. C, 60%RH	120Vac, 60Hz	Robert Cheng

3.3 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 D01 General UNII Test Procedures v01 r03

ANSI C63.10-2009

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

Note: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DUTY CYCLE OF TEST SIGNAL

If duty cycle of test signal is $\geq 98\%$, duty factor is not required.

If duty cycle of test signal is $< 98\%$, duty factor shall be considered.

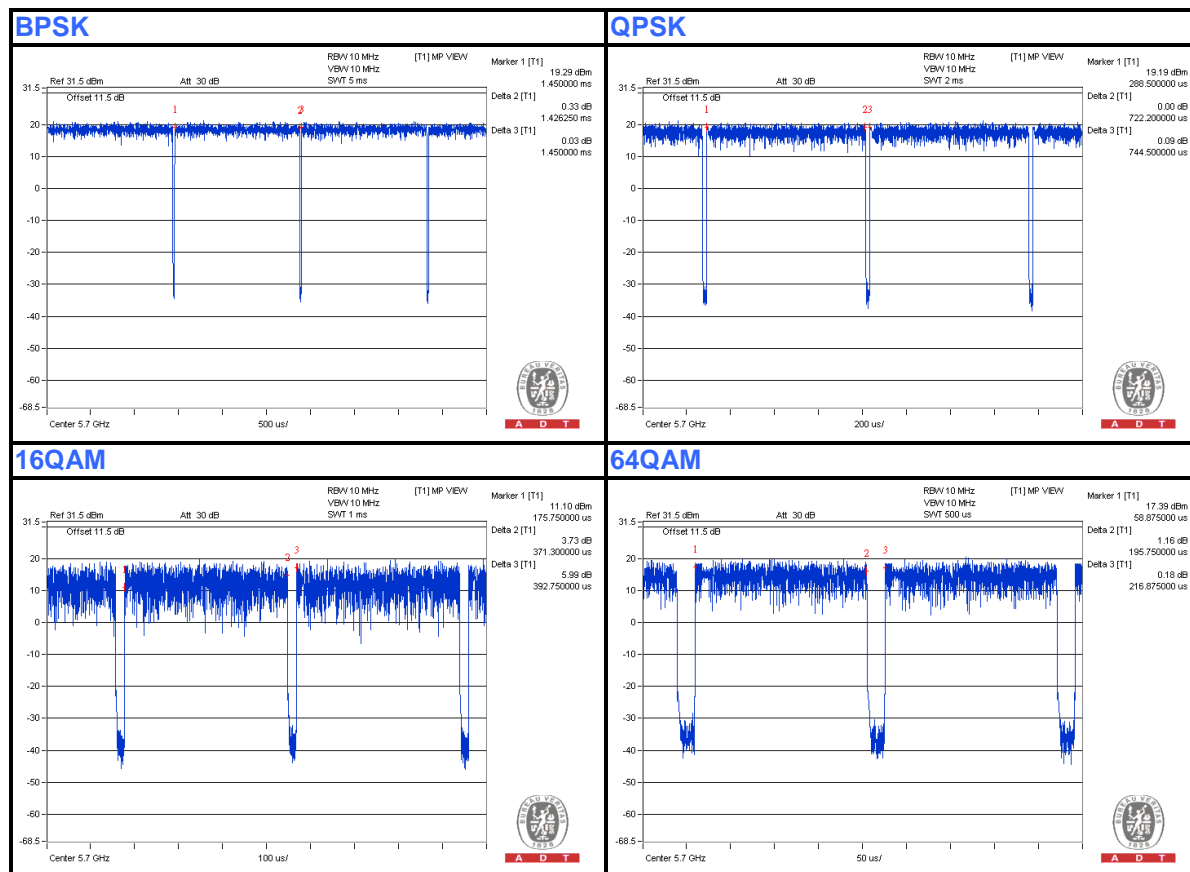
802.11a

BPSK: Duty cycle = $1.426 \text{ ms} / 1.45 \text{ ms} = 0.983$

QPSK: Duty cycle = $0.722 \text{ ms} / 0.744 \text{ ms} = 0.97$, Duty factor = $10 * \log(1/0.97) = 0.13$

16QAM: Duty cycle = $0.371 \text{ ms} / 0.393 \text{ ms} = 0.944$, Duty factor = $10 * \log(1/0.944) = 0.25$

64QAM: Duty cycle = $0.196 \text{ ms} / 0.217 \text{ ms} = 0.903$, Duty factor = $10 * \log(1/0.903) = 0.44$

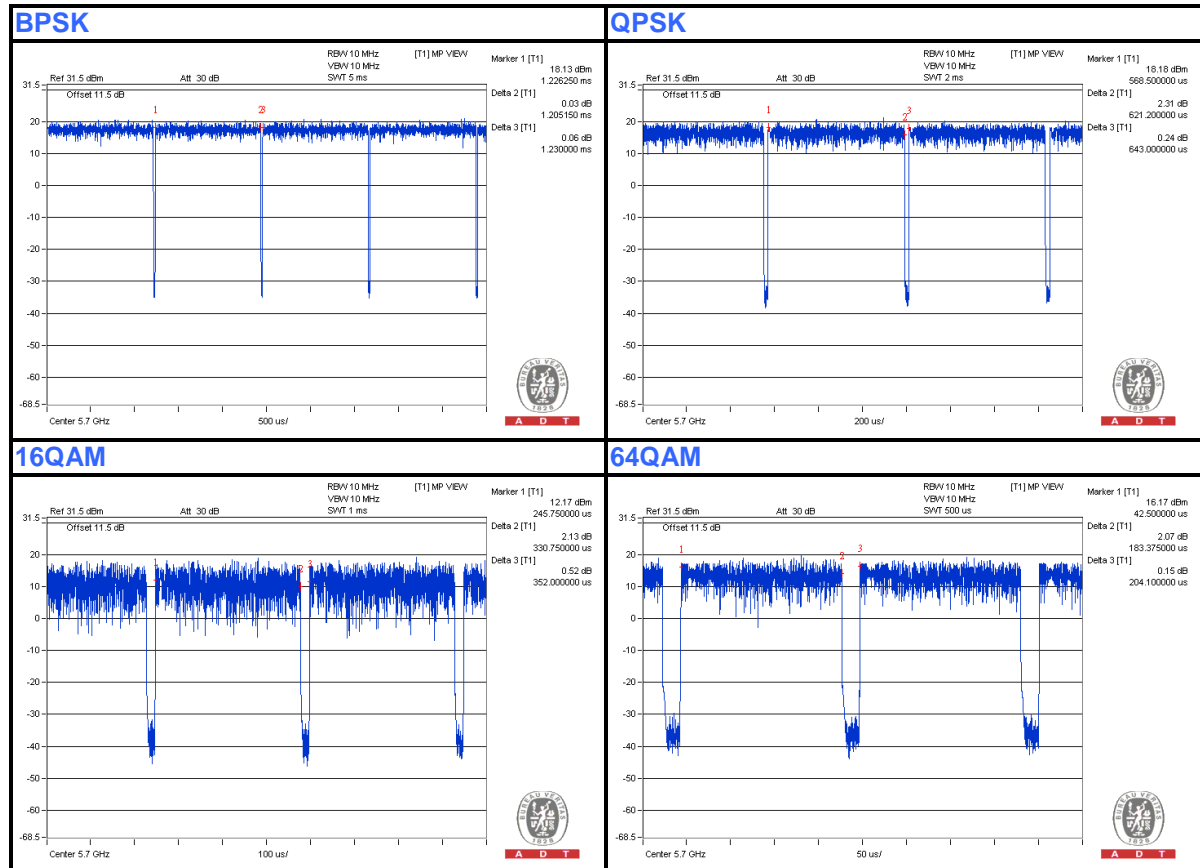


BPSK: Duty cycle = 1.205 ms/1.23 ms = 0.98

QPSK: Duty cycle = 0.621 ms/0.643 ms = 0.966, Duty factor = $10 \cdot \log(1/0.966) = 0.15$

16QAM: Duty cycle = 0.331 ms/0.352 ms = 0.94, Duty factor = $10 \cdot \log(1/0.94) = 0.27$

64QAM: Duty cycle = 0.183 ms/0.204 ms = 0.897, Duty factor = $10 \cdot \log(1/0.897) = 0.47$



3.5 DESCRIPTION OF SUPPORT UNITS

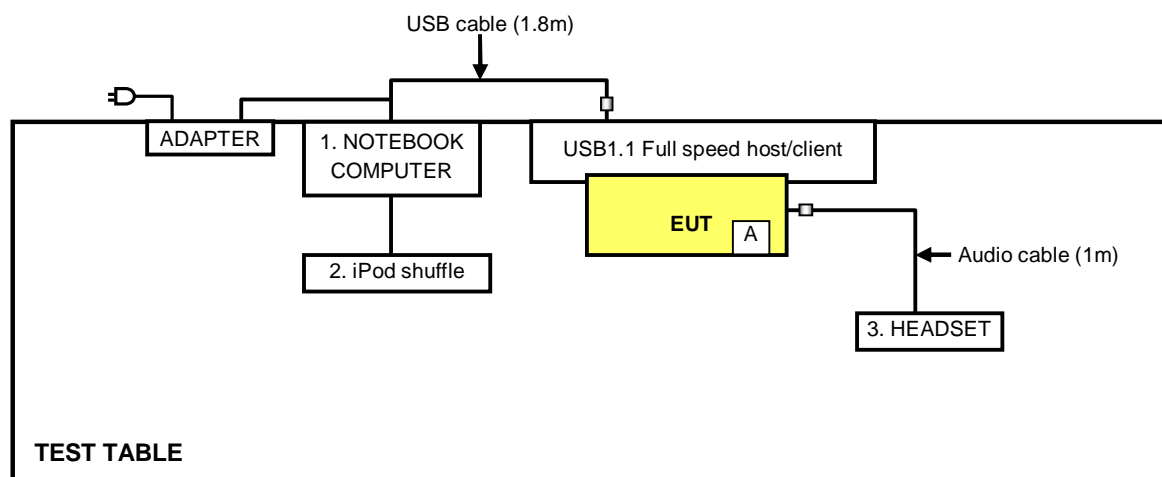
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP32LA	FSLB32S	FCC DoC
2	iPod shuffle	Apple	MC749TA/A	CC4DN25WDFDM	NA
3	HEADSET	MOTOROLA	RCH51	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB cable (1.8m with 1 core)
2	USB cable (0.1m)
3	Audio cable (1m with 1 core)

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

3.6 CONFIGURATION OF SYSTEM UNDER TEST



NOTE: 1. Item A is the Micro SD Card.

4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100287	Feb. 28, 2013	Feb. 27, 2014
Line-Impedance Stabilization Network (for EUT) ROHDE & SCHWARZ	NSLK-8127	5127-523	Oct. 02, 2013	Oct. 01, 2014
Line-Impedance Stabilization Network (for Peripheral) ROHDE & SCHWARZ	ENV216	100071	Nov. 13, 2013	Nov. 12, 2014
RF Cable (JYEBAO)	5DFB	COACAB-001	May 27, 2013	May 26, 2014
50 ohms Terminator	50	3	Oct. 17, 2013	Oct. 16, 2014
50 ohms Terminator	N/A	EMC-04	Oct. 17, 2013	Oct. 16, 2014
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 Shielded Room No. A.
3. The VCCI Con A Registration No. is C-817.
4. Tested Date: Dec. 13, 2013

4.1.3 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 level under (Limit – 20dB) was not recorded.

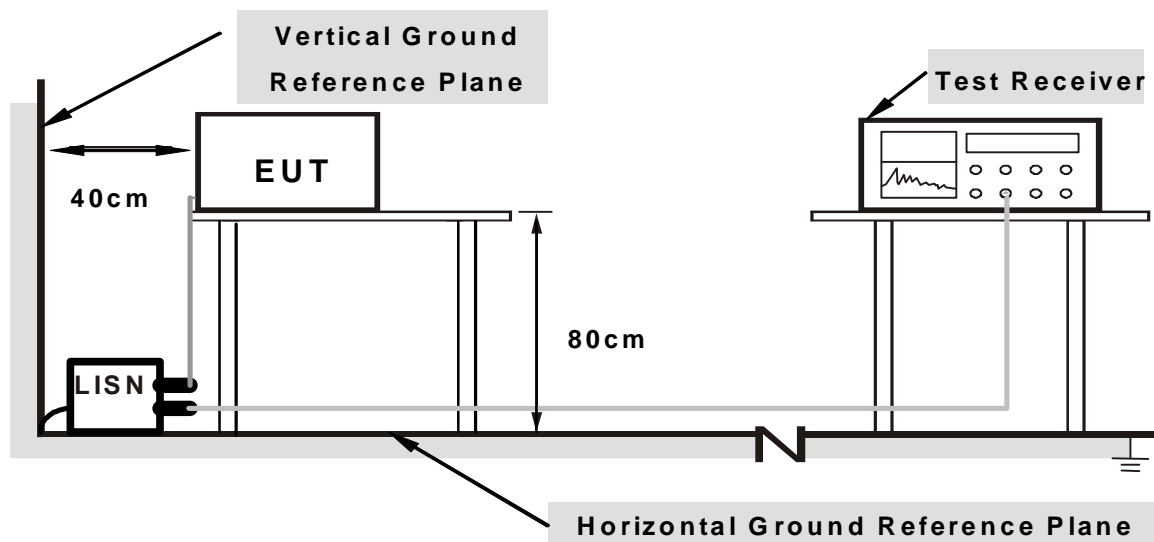
NOTE:

- The resolution bandwidth of test receiver is 9kHz for Quasi-peak detection (QP) & Average detection (AV).

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



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

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.



A D T

4.1.6 EUT OPERATING CONDITIONS

1. Turn on the power of EUT.
2. The communication partner run test program "XW2DMT.exe" to enable EUT under transmission/receiving condition continuously at specific channel frequency.

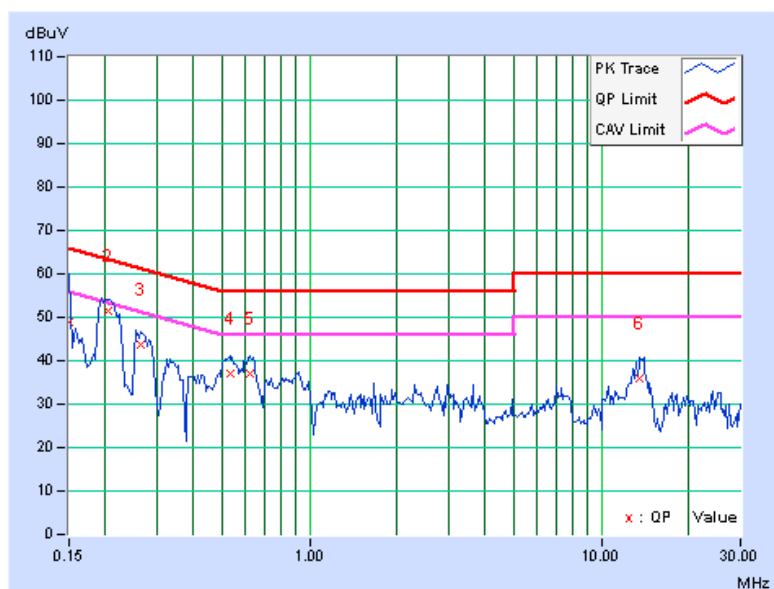
4.1.7 TEST RESULTS

PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.05	48.96	36.51	49.01	36.56	66.00	56.00	-16.99	-19.44
2	0.20469	0.06	51.40	38.39	51.46	38.45	63.42	53.42	-11.96	-14.97
3	0.26328	0.08	43.58	28.80	43.66	28.88	61.33	51.33	-17.67	-22.45
4	0.53281	0.11	36.84	25.65	36.95	25.76	56.00	46.00	-19.05	-20.24
5	0.62656	0.12	36.96	25.23	37.08	25.35	56.00	46.00	-18.92	-20.65
6	13.56641	0.59	35.28	29.03	35.87	29.62	60.00	50.00	-24.13	-20.38

REMARKS:

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

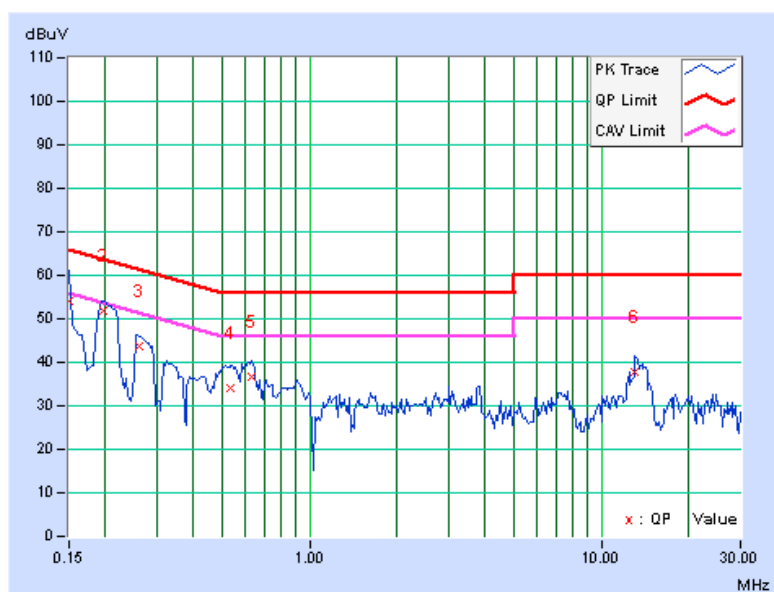


PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)
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	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.05	54.12	36.27	54.17	36.32	66.00	56.00	-11.83	-19.68
2	0.19687	0.05	51.98	37.29	52.03	37.34	63.74	53.74	-11.71	-16.40
3	0.26222	0.07	43.49	27.64	43.56	27.71	61.36	51.36	-17.80	-23.65
4	0.53672	0.12	33.86	24.04	33.98	24.16	56.00	46.00	-22.02	-21.84
5	0.63047	0.12	36.56	24.48	36.68	24.60	56.00	46.00	-19.32	-21.40
6	13.05078	0.55	37.15	30.34	37.70	30.89	60.00	50.00	-22.30	-19.11

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



4.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.2.1 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.

4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
√	FIELD STRENGTH AT 3m (dBμV/m)	
	PK	AV
	74	54
	EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
	PK	PK
	-27	68.3

NOTE:

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

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



A D T

4.2.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY51210105	Jan. 29, 2013	Jan. 28, 2014
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-03	Nov. 13, 2013	Nov. 12, 2014
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Mar. 19, 2013	Mar. 18, 2014
RF Cable	NA	CHGCAB_001	Oct. 05, 2013	Oct. 04, 2014
Spectrum Analyzer R&S	FSV40	100964	July 15, 2013	July 14, 2014
Horn_Antenna AISI	AIH.8018	0000320091110	Nov. 18, 2013	Nov. 17, 2014
Pre-Amplifier Agilent	8449B	3008A02578	June 25, 2013	June 24, 2014
RF Cable	NA	RF104-201 RF104-203 RF104-204	Dec. 25, 2012	Dec. 24, 2013
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2013	Aug. 27, 2014
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 13, 2013	Nov. 12, 2014
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 08, 2013	Oct. 07, 2014
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 966 Chamber No. G.
4. The FCC Site Registration No. is 966073.
- 5 The VCCI Site Registration No. is G-137.
- 6 The CANADA Site Registration No. is IC 7450H-2.
- 7 Tested Date: Nov. 29 to Dec. 11, 2013

4.2.4 TEST PROCEDURES

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

Note:

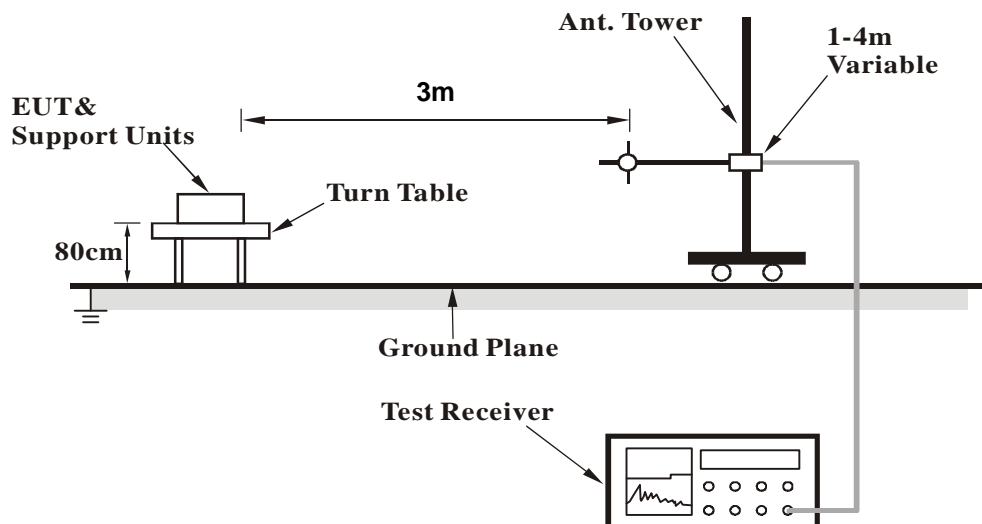
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.2.5 DEVIATION FROM TEST STANDARD

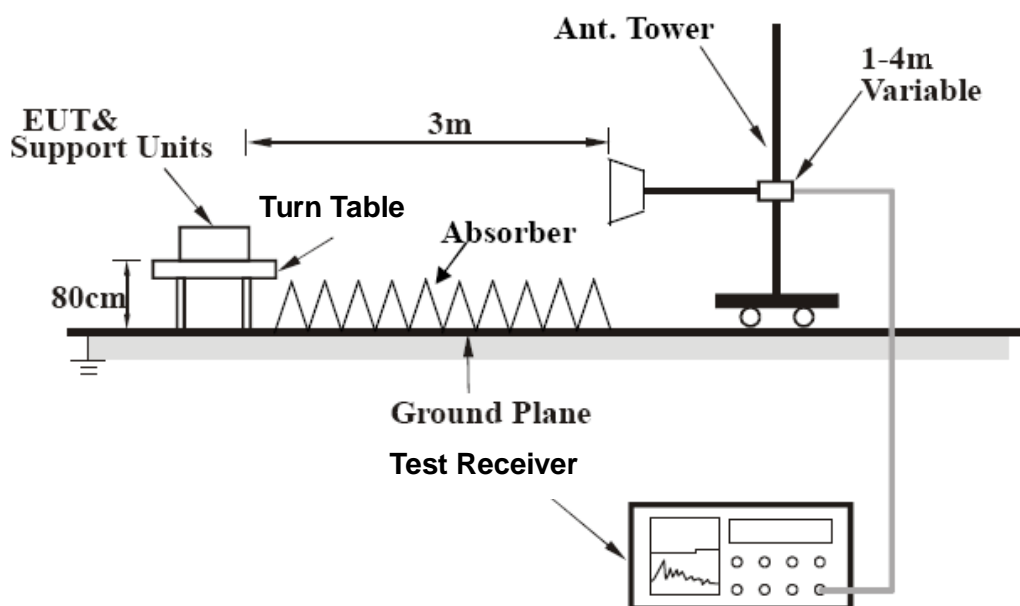
No deviation

4.2.6 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.7 EUT OPERATING CONDITION

Same as 4.1.6

4.2.8 TEST RESULTS

BELOW 1GHz WORST-CASE DATA

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	110.56	30.2 QP	43.5	-13.3	2.00 H	220	46.16	-16.00
2	128.65	31.0 QP	43.5	-12.6	1.56 H	187	45.60	-14.65
3	150.00	32.7 QP	43.5	-10.8	1.50 H	220	46.07	-13.33
4	166.38	33.1 QP	43.5	-10.4	1.00 H	203	47.01	-13.92
5	240.01	30.6 QP	46.0	-15.4	1.00 H	166	45.34	-14.76
6	322.07	27.1 QP	46.0	-18.9	1.00 H	117	38.79	-11.71
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.61	32.5 QP	40.0	-7.5	1.10 V	284	46.49	-13.96
2	126.08	32.5 QP	43.5	-11.0	1.00 V	302	47.06	-14.58
3	133.16	35.0 QP	43.5	-8.5	1.00 V	112	49.19	-14.19
4	150.09	33.6 QP	43.5	-10.0	1.00 V	303	46.86	-13.31
5	161.63	34.5 QP	43.5	-9.0	1.50 V	248	47.64	-13.11
6	306.94	32.2 QP	46.0	-13.8	2.00 V	118	44.55	-12.31

REMARKS:

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

ABOVE 1GHz WORST-CASE 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	70.5 PK	74.0	-3.5	1.17 H	270	62.27	8.23
2	5150.00	50.8 AV	54.0	-3.2	1.17 H	270	42.57	8.23
3	*5180.00	111.3 PK			1.17 H	270	103.07	8.23
4	*5180.00	99.5 AV			1.17 H	270	91.27	8.23
5	#10360.00	52.0 PK	74.0	-22.0	1.00 H	194	37.12	14.88
6	#10360.00	40.7 AV	54.0	-13.3	1.00 H	194	25.82	14.88
7	15540.00	50.7 PK	74.0	-23.3	1.00 H	117	29.85	20.85
8	15540.00	40.6 AV	54.0	-13.4	1.00 H	117	19.75	20.85
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	72.9 PK	74.0	-1.1	1.06 V	145	64.67	8.23
2	5150.00	52.7 AV	54.0	-1.3	1.06 V	145	44.47	8.23
3	*5180.00	112.4 PK			1.06 V	145	104.17	8.23
4	*5180.00	100.5 AV			1.06 V	145	92.27	8.23
5	#10360.00	53.7 PK	74.0	-20.3	1.00 V	186	38.82	14.88
6	#10360.00	42.0 AV	54.0	-12.0	1.00 V	186	27.12	14.88
7	15540.00	50.3 PK	74.0	-23.7	1.00 V	220	29.45	20.85
8	15540.00	41.0 AV	54.0	-13.0	1.00 V	220	20.15	20.85

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.9 PK	74.0	-15.1	1.17 H	270	50.67	8.23
2	5150.00	42.3 AV	54.0	-11.7	1.17 H	270	34.07	8.23
3	*5200.00	110.5 PK			1.17 H	270	102.26	8.24
4	*5200.00	99.0 AV			1.17 H	270	90.76	8.24
5	#10400.00	52.2 PK	74.0	-21.8	1.02 H	187	36.97	15.23
6	#10400.00	40.8 AV	54.0	-13.2	1.02 H	187	25.57	15.23
7	15600.00	50.8 PK	74.0	-23.2	1.00 H	101	29.92	20.88
8	15600.00	40.9 AV	54.0	-13.1	1.00 H	101	20.02	20.88
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.5 PK	74.0	-8.5	1.17 V	145	57.27	8.23
2	5150.00	43.6 AV	54.0	-10.4	1.17 V	145	35.37	8.23
3	*5200.00	111.9 PK			1.17 V	145	103.66	8.24
4	*5200.00	100.2 AV			1.17 V	145	91.96	8.24
5	#10400.00	53.4 PK	74.0	-20.6	1.00 V	215	38.17	15.23
6	#10400.00	41.7 AV	54.0	-12.3	1.00 V	215	26.47	15.23
7	15600.00	50.6 PK	74.0	-23.4	1.00 V	206	29.72	20.88
8	15600.00	41.1 AV	54.0	-12.9	1.00 V	206	20.22	20.88

REMARKS:

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

CHANNEL	TX Channel 44	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	50.2 PK	74.0	-23.8	1.22 H	271	41.97	8.23
2	5150.00	40.1 AV	54.0	-13.9	1.22 H	271	31.87	8.23
3	*5220.00	110.6 PK			1.22 H	271	102.28	8.32
4	*5220.00	99.4 AV			1.22 H	271	91.08	8.32
5	5350.00	51.9 PK	74.0	-22.1	1.22 H	271	43.10	8.80
6	5350.00	38.4 AV	54.0	-15.6	1.22 H	271	29.60	8.80
7	#10440.00	52.6 PK	74.0	-21.4	1.00 H	184	37.39	15.21
8	#10440.00	41.3 AV	54.0	-12.7	1.00 H	184	26.09	15.21
9	15660.00	51.0 PK	74.0	-23.0	1.01 H	104	30.10	20.90
10	15660.00	41.7 AV	54.0	-12.3	1.01 H	104	20.80	20.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.9 PK	74.0	-21.1	1.05 V	143	44.67	8.23
2	5150.00	41.4 AV	54.0	-12.6	1.05 V	143	33.17	8.23
3	*5220.00	112.7 PK			1.05 V	143	104.38	8.32
4	*5220.00	100.5 AV			1.05 V	143	92.18	8.32
5	5350.00	53.6 PK	74.0	-20.4	1.05 V	143	44.80	8.80
6	5350.00	39.7 AV	54.0	-14.3	1.05 V	143	30.90	8.80
7	#10440.00	53.2 PK	74.0	-20.8	1.00 V	222	37.99	15.21
8	#10440.00	41.3 AV	54.0	-12.7	1.00 V	222	26.09	15.21
9	15660.00	50.8 PK	74.0	-23.2	1.00 V	194	29.90	20.90
10	15660.00	41.1 AV	54.0	-12.9	1.00 V	194	20.20	20.90

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.8 PK	74.0	-24.2	1.21 H	271	41.57	8.23
2	5150.00	40.4 AV	54.0	-13.6	1.21 H	271	32.17	8.23
3	*5240.00	110.4 PK			1.21 H	271	102.00	8.40
4	*5240.00	99.8 AV			1.21 H	271	91.40	8.40
5	5350.00	51.4 PK	74.0	-22.6	1.21 H	271	42.60	8.80
6	5350.00	38.1 AV	54.0	-15.9	1.21 H	271	29.30	8.80
7	#10480.00	52.8 PK	74.0	-21.2	1.00 H	191	37.59	15.21
8	#10480.00	41.2 AV	54.0	-12.8	1.00 H	191	25.99	15.21
9	15720.00	50.4 PK	74.0	-23.6	1.00 H	129	29.53	20.87
10	15720.00	42.1 AV	54.0	-11.9	1.00 H	129	21.23	20.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	51.9 PK	74.0	-22.1	1.15 V	152	43.67	8.23
2	5150.00	40.5 AV	54.0	-13.5	1.15 V	152	32.27	8.23
3	*5240.00	112.6 PK			1.15 V	152	104.20	8.40
4	*5240.00	100.9 AV			1.15 V	152	92.50	8.40
5	5350.00	52.2 PK	74.0	-21.8	1.15 V	152	43.40	8.80
6	5350.00	39.8 AV	54.0	-14.2	1.15 V	152	31.00	8.80
7	#10480.00	53.7 PK	74.0	-20.3	1.00 V	215	38.49	15.21
8	#10480.00	41.6 AV	54.0	-12.4	1.00 V	215	26.39	15.21
9	15720.00	51.0 PK	74.0	-23.0	1.05 V	193	30.13	20.87
10	15720.00	41.5 AV	54.0	-12.5	1.05 V	193	20.63	20.87

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4931.00	50.3 PK	74.0	-23.7	1.17 H	278	42.82	7.48
2	4931.00	39.9 AV	54.0	-14.1	1.17 H	278	32.42	7.48
3	*5260.00	109.8 PK			1.17 H	278	101.34	8.46
4	*5260.00	99.7 AV			1.17 H	278	91.24	8.46
5	5350.00	51.2 PK	74.0	-22.8	1.17 H	278	42.40	8.80
6	5350.00	39.1 AV	54.0	-14.9	1.17 H	278	30.30	8.80
7	#10520.00	52.3 PK	74.0	-21.7	1.04 H	208	37.04	15.26
8	#10520.00	40.8 AV	54.0	-13.2	1.04 H	208	25.54	15.26
9	15780.00	50.7 PK	74.0	-23.3	1.00 H	116	29.95	20.75
10	15780.00	42.6 AV	54.0	-11.4	1.00 H	116	21.85	20.75
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	4931.00	51.1 PK	74.0	-22.9	1.13 V	158	43.62	7.48
2	4931.00	39.8 AV	54.0	-14.2	1.13 V	158	32.32	7.48
3	*5260.00	111.4 PK			1.13 V	158	102.94	8.46
4	*5260.00	100.0 AV			1.13 V	158	91.54	8.46
5	5350.00	51.8 PK	74.0	-22.2	1.13 V	158	43.00	8.80
6	5350.00	39.9 AV	54.0	-14.1	1.13 V	158	31.10	8.80
7	#10520.00	53.4 PK	74.0	-20.6	1.00 V	211	38.14	15.26
8	#10520.00	41.2 AV	54.0	-12.8	1.00 V	211	25.94	15.26
9	15780.00	51.6 PK	74.0	-22.4	1.04 V	213	30.85	20.75
10	15780.00	41.8 AV	54.0	-12.2	1.04 V	213	21.05	20.75

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	109.6 PK			1.12 H	272	100.98	8.62
2	*5300.00	99.0 AV			1.12 H	272	90.38	8.62
3	5350.00	50.7 PK	74.0	-23.3	1.12 H	272	41.90	8.80
4	5350.00	42.1 AV	54.0	-11.9	1.12 H	272	33.30	8.80
5	10600.00	52.5 PK	74.0	-21.5	1.00 H	205	36.97	15.53
6	10600.00	40.7 AV	54.0	-13.3	1.00 H	205	25.17	15.53
7	15900.00	50.2 PK	74.0	-23.8	1.00 H	115	28.90	21.30
8	15900.00	42.2 AV	54.0	-11.8	1.00 H	115	20.90	21.30
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	*5300.00	110.6 PK			1.04 V	152	101.98	8.62
2	*5300.00	99.3 AV			1.04 V	152	90.68	8.62
3	5350.00	57.3 PK	74.0	-16.7	1.04 V	152	48.50	8.80
4	5350.00	43.4 AV	54.0	-10.6	1.04 V	152	34.60	8.80
5	10600.00	52.9 PK	74.0	-21.1	1.00 V	206	37.37	15.53
6	10600.00	40.8 AV	54.0	-13.2	1.00 V	206	25.27	15.53
7	15900.00	52.4 PK	74.0	-21.6	1.00 V	211	31.10	21.30
8	15900.00	42.3 AV	54.0	-11.7	1.00 V	211	21.00	21.30

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	109.6 PK			1.19 H	273	100.91	8.69
2	*5320.00	98.7 AV			1.19 H	273	90.01	8.69
3	5350.00	66.8 PK	74.0	-7.2	1.19 H	273	58.00	8.80
4	5350.00	51.4 AV	54.0	-2.6	1.19 H	273	42.60	8.80
5	10640.00	52.0 PK	74.0	-22.0	1.01 H	183	36.46	15.54
6	10640.00	40.5 AV	54.0	-13.5	1.01 H	183	24.96	15.54
7	15960.00	51.0 PK	74.0	-23.0	1.00 H	129	30.18	20.82
8	15960.00	42.0 AV	54.0	-12.0	1.00 H	129	21.18	20.82
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	110.1 PK			1.02 V	145	101.41	8.69
2	*5320.00	99.0 AV			1.02 V	145	90.31	8.69
3	5350.00	69.6 PK	74.0	-4.4	1.02 V	145	60.80	8.80
4	5350.00	53.0 AV	54.0	-1.0	1.02 V	145	44.20	8.80
5	10640.00	51.9 PK	74.0	-22.1	1.00 V	200	36.36	15.54
6	10640.00	40.2 AV	54.0	-13.8	1.00 V	200	24.66	15.54
7	15960.00	52.6 PK	74.0	-21.4	1.00 V	197	31.78	20.82
8	15960.00	42.7 AV	54.0	-11.3	1.00 V	197	21.88	20.82

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.1 PK	74.0	-15.9	1.11 H	289	48.91	9.19
2	5460.00	45.3 AV	54.0	-8.7	1.11 H	289	36.11	9.19
3	#5470.00	70.4 PK	74.0	-3.6	1.11 H	269	61.18	9.22
4	#5470.00	51.2 AV	54.0	-2.8	1.11 H	269	41.98	9.22
5	*5500.00	109.4 PK			1.11 H	289	100.07	9.33
6	*5500.00	98.2 AV			1.11 H	289	88.87	9.33
7	11000.00	51.7 PK	74.0	-22.3	1.00 H	173	34.75	16.95
8	11000.00	40.3 AV	54.0	-13.7	1.00 H	173	23.35	16.95
9	#16500.00	50.7 PK	74.0	-23.3	1.00 H	115	27.66	23.04
10	#16500.00	41.8 AV	54.0	-12.2	1.00 H	115	18.76	23.04
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	64.7 PK	74.0	-9.3	1.19 V	139	55.51	9.19
2	5460.00	46.7 AV	54.0	-7.3	1.19 V	139	37.51	9.19
3	#5470.00	73.0 PK	74.0	-1.0	1.19 V	139	63.78	9.22
4	#5470.00	52.0 AV	54.0	-2.0	1.19 V	139	42.78	9.22
5	*5500.00	110.0 PK			1.18 V	269	100.67	9.33
6	*5500.00	99.6 AV			1.18 V	269	90.27	9.33
7	11000.00	51.5 PK	74.0	-22.5	1.00 V	189	34.55	16.95
8	11000.00	39.7 AV	54.0	-14.3	1.00 V	189	22.75	16.95
9	#16500.00	52.4 PK	74.0	-21.6	1.00 V	188	29.36	23.04
10	#16500.00	42.9 AV	54.0	-11.1	1.00 V	188	19.86	23.04

REMARKS:

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

CHANNEL	TX Channel 104	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.7 PK	74.0	-17.3	1.13 H	291	47.48	9.22
2	#5470.00	44.1 AV	54.0	-9.9	1.13 H	291	34.88	9.22
3	*5520.00	111.0 PK			1.13 H	291	101.63	9.37
4	*5520.00	99.6 AV			1.13 H	291	90.23	9.37
5	11040.00	51.6 PK	74.0	-22.4	1.00 H	173	34.90	16.70
6	11040.00	39.9 AV	54.0	-14.1	1.00 H	173	23.20	16.70
7	#16560.00	50.7 PK	74.0	-23.3	1.03 H	129	27.43	23.27
8	#16560.00	41.6 AV	54.0	-12.4	1.03 H	129	18.33	23.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	63.3 PK	74.0	-10.7	1.16 V	268	54.08	9.22
2	#5470.00	45.5 AV	54.0	-8.5	1.16 V	268	36.28	9.22
3	*5520.00	111.6 PK			1.16 V	268	102.23	9.37
4	*5520.00	101.0 AV			1.16 V	268	91.63	9.37
5	11040.00	51.7 PK	74.0	-22.3	1.01 V	170	35.00	16.70
6	11040.00	39.8 AV	54.0	-14.2	1.01 V	170	23.10	16.70
7	#16560.00	52.1 PK	74.0	-21.9	1.00 V	177	28.83	23.27
8	#16560.00	42.7 AV	54.0	-11.3	1.00 V	177	19.43	23.27

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	52.5 PK	74.0	-21.5	1.18 H	273	43.28	9.22
2	#5470.00	38.6 AV	54.0	-15.4	1.18 H	273	29.38	9.22
3	*5580.00	111.3 PK			1.18 H	273	101.83	9.47
4	*5580.00	100.5 AV			1.18 H	273	91.03	9.47
5	11160.00	50.9 PK	74.0	-23.1	1.00 H	164	34.69	16.21
6	11160.00	39.3 AV	54.0	-14.7	1.00 H	164	23.09	16.21
7	#16740.00	51.3 PK	74.0	-22.7	1.09 H	125	27.62	23.68
8	#16740.00	41.0 AV	54.0	-13.0	1.09 H	125	17.32	23.68
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	53.1 PK	74.0	-20.9	1.15 V	268	43.88	9.22
2	#5470.00	39.3 AV	54.0	-14.7	1.15 V	268	30.08	9.22
3	*5580.00	113.4 PK			1.15 V	268	103.93	9.47
4	*5580.00	101.9 AV			1.15 V	268	92.43	9.47
5	11160.00	51.4 PK	74.0	-22.6	1.00 V	156	35.19	16.21
6	11160.00	39.7 AV	54.0	-14.3	1.00 V	156	23.49	16.21
7	#16740.00	51.5 PK	74.0	-22.5	1.00 V	169	27.82	23.68
8	#16740.00	42.2 AV	54.0	-11.8	1.00 V	169	18.52	23.68

REMARKS:

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



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CHANNEL	TX Channel 132	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5660.00	111.1 PK			1.14 H	287	101.37	9.73
2	*5660.00	100.0 AV			1.14 H	287	90.27	9.73
3	#5725.00	52.5 PK	74.0	-21.5	1.17 H	281	42.59	9.91
4	#5725.00	38.8 AV	54.0	-15.2	1.17 H	281	28.89	9.91
5	11320.00	50.5 PK	74.0	-23.5	1.05 H	156	33.58	16.92
6	11320.00	39.2 AV	54.0	-14.8	1.05 H	156	22.28	16.92
7	#16980.00	51.1 PK	74.0	-22.9	1.13 H	134	26.90	24.20
8	#16980.00	41.1 AV	54.0	-12.9	1.13 H	134	16.90	24.20
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	*5660.00	113.3 PK			1.17 V	254	103.57	9.73
2	*5660.00	101.6 AV			1.17 V	254	91.87	9.73
3	#5725.00	52.7 PK	74.0	-21.3	1.14 V	274	42.79	9.91
4	#5725.00	39.1 AV	54.0	-14.9	1.14 V	274	29.19	9.91
5	11320.00	50.9 PK	74.0	-23.1	1.00 V	151	33.98	16.92
6	11320.00	39.2 AV	54.0	-14.8	1.00 V	151	22.28	16.92
7	#16980.00	51.8 PK	74.0	-22.2	1.02 V	171	27.60	24.20
8	#16980.00	42.2 AV	54.0	-11.8	1.02 V	171	18.00	24.20

REMARKS:

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

CHANNEL	TX Channel 136	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	*5680.00	111.1 PK			1.03 H	284	101.28	9.82
2	*5680.00	101.3 AV			1.03 H	284	91.48	9.82
3	#5725.00	66.5 PK	74.0	-7.5	1.03 H	284	56.59	9.91
4	#5725.00	50.8 AV	54.0	-3.2	1.03 H	284	40.89	9.91
5	11360.00	50.4 PK	74.0	-23.6	1.00 H	163	33.57	16.83
6	11360.00	38.8 AV	54.0	-15.2	1.00 H	163	21.97	16.83
7	#17040.00	50.3 PK	74.0	-23.7	1.02 H	130	25.78	24.52
8	#17040.00	40.8 AV	54.0	-13.2	1.02 H	130	16.28	24.52
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5680.00	113.7 PK			1.13 V	284	103.88	9.82
2	*5680.00	102.3 AV			1.13 V	284	92.48	9.82
3	#5725.00	67.5 PK	74.0	-6.5	1.13 V	284	57.59	9.91
4	#5725.00	51.6 AV	54.0	-2.4	1.13 V	284	41.69	9.91
5	11360.00	51.5 PK	74.0	-22.5	1.02 V	166	34.67	16.83
6	11360.00	39.8 AV	54.0	-14.2	1.02 V	166	22.97	16.83
7	#17040.00	51.4 PK	74.0	-22.6	1.00 V	174	26.88	24.52
8	#17040.00	42.0 AV	54.0	-12.0	1.00 V	174	17.48	24.52

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	110.1 PK			1.19 H	274	100.22	9.88
2	*5700.00	100.4 AV			1.19 H	274	90.52	9.88
3	#5725.00	69.8 PK	74.0	-4.2	1.19 H	274	59.89	9.91
4	#5725.00	51.5 AV	54.0	-2.5	1.19 H	274	41.59	9.91
5	11400.00	50.4 PK	74.0	-23.6	1.00 H	136	33.65	16.75
6	11400.00	39.0 AV	54.0	-15.0	1.00 H	136	22.25	16.75
7	#17100.00	50.4 PK	74.0	-23.6	1.00 H	121	25.34	25.06
8	#17100.00	40.0 AV	54.0	-14.0	1.00 H	121	14.94	25.06
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	112.4 PK			1.13 V	279	102.52	9.88
2	*5700.00	101.3 AV			1.13 V	279	91.42	9.88
3	#5725.00	72.8 PK	74.0	-1.2	1.13 V	279	62.89	9.91
4	#5725.00	52.9 AV	54.0	-1.1	1.13 V	279	42.99	9.91
5	11400.00	51.7 PK	74.0	-22.3	1.00 V	153	34.95	16.75
6	11400.00	39.8 AV	54.0	-14.2	1.00 V	153	23.05	16.75
7	#17100.00	51.2 PK	74.0	-22.8	1.00 V	159	26.14	25.06
8	#17100.00	42.1 AV	54.0	-11.9	1.00 V	159	17.04	25.06

REMARKS:

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

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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	70.4 PK	74.0	-3.6	1.13 H	124	62.17	8.23
2	5150.00	51.1 AV	54.0	-2.9	1.13 H	124	42.87	8.23
3	*5180.00	110.4 PK			1.13 H	124	102.17	8.23
4	*5180.00	98.3 AV			1.13 H	124	90.07	8.23
5	#10360.00	49.6 PK	74.0	-24.4	1.00 H	113	34.72	14.88
6	#10360.00	38.4 AV	54.0	-15.6	1.00 H	113	23.52	14.88
7	15540.00	50.6 PK	74.0	-23.4	1.04 H	129	29.75	20.85
8	15540.00	39.6 AV	54.0	-14.4	1.04 H	129	18.75	20.85
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	73.0 PK	74.0	-1.0	1.16 V	152	64.77	8.23
2	5150.00	53.0 AV	54.0	-1.0	1.16 V	152	44.77	8.23
3	*5180.00	112.2 PK			1.16 V	152	103.97	8.23
4	*5180.00	99.5 AV			1.16 V	152	91.27	8.23
5	#10360.00	52.0 PK	74.0	-22.0	1.00 V	154	37.12	14.88
6	#10360.00	40.0 AV	54.0	-14.0	1.00 V	154	25.12	14.88
7	15540.00	50.6 PK	74.0	-23.4	1.00 V	170	29.75	20.85
8	15540.00	41.6 AV	54.0	-12.4	1.00 V	170	20.75	20.85

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.6 PK	74.0	-16.4	1.10 H	129	49.37	8.23
2	5150.00	41.5 AV	54.0	-12.5	1.10 H	129	33.27	8.23
3	*5200.00	110.1 PK			1.10 H	129	101.86	8.24
4	*5200.00	98.4 AV			1.10 H	129	90.16	8.24
5	#10400.00	49.4 PK	74.0	-24.6	1.00 H	122	34.17	15.23
6	#10400.00	38.1 AV	54.0	-15.9	1.00 H	122	22.87	15.23
7	15600.00	50.2 PK	74.0	-23.8	1.00 H	103	29.32	20.88
8	15600.00	39.8 AV	54.0	-14.2	1.00 H	103	18.92	20.88
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.2 PK	74.0	-13.8	1.16 V	151	51.97	8.23
2	5150.00	43.4 AV	54.0	-10.6	1.16 V	151	35.17	8.23
3	*5200.00	111.8 PK			1.16 V	151	103.56	8.24
4	*5200.00	99.6 AV			1.16 V	151	91.36	8.24
5	#10400.00	51.5 PK	74.0	-22.5	1.00 V	152	36.27	15.23
6	#10400.00	39.5 AV	54.0	-14.5	1.00 V	152	24.27	15.23
7	15600.00	50.1 PK	74.0	-23.9	1.03 V	166	29.22	20.88
8	15600.00	41.4 AV	54.0	-12.6	1.03 V	166	20.52	20.88

REMARKS:

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



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CHANNEL	TX Channel 44	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	50.8 PK	74.0	-23.2	1.02 H	136	42.57	8.23
2	5150.00	37.9 AV	54.0	-16.1	1.02 H	136	29.67	8.23
3	*5220.00	109.7 PK			1.02 H	136	101.38	8.32
4	*5220.00	98.0 AV			1.02 H	136	89.68	8.32
5	#10440.00	49.2 PK	74.0	-24.8	1.03 H	130	33.99	15.21
6	#10440.00	38.3 AV	54.0	-15.7	1.03 H	130	23.09	15.21
7	15660.00	50.4 PK	74.0	-23.6	1.02 H	107	29.50	20.90
8	15660.00	39.0 AV	54.0	-15.0	1.02 H	107	18.10	20.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	53.4 PK	74.0	-20.6	1.17 V	145	45.17	8.23
2	5150.00	39.8 AV	54.0	-14.2	1.17 V	145	31.57	8.23
3	*5220.00	112.4 PK			1.17 V	145	104.08	8.32
4	*5220.00	99.5 AV			1.17 V	145	91.18	8.32
5	#10440.00	51.2 PK	74.0	-22.8	1.00 V	168	35.99	15.21
6	#10440.00	39.2 AV	54.0	-14.8	1.00 V	168	23.99	15.21
7	15660.00	49.4 PK	74.0	-24.6	1.00 V	158	28.50	20.90
8	15660.00	41.1 AV	54.0	-12.9	1.00 V	158	20.20	20.90

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.9 PK	74.0	-23.1	1.04 H	130	42.67	8.23
2	5150.00	38.1 AV	54.0	-15.9	1.04 H	130	29.87	8.23
3	*5240.00	110.0 PK			1.04 H	130	101.60	8.40
4	*5240.00	98.3 AV			1.04 H	130	89.90	8.40
5	#10480.00	49.5 PK	74.0	-24.5	1.01 H	117	34.29	15.21
6	#10480.00	38.6 AV	54.0	-15.4	1.01 H	117	23.39	15.21
7	15720.00	50.8 PK	74.0	-23.2	1.07 H	120	29.93	20.87
8	15720.00	38.9 AV	54.0	-15.1	1.07 H	120	18.03	20.87
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	53.4 PK	74.0	-20.6	1.04 V	149	45.17	8.23
2	5150.00	40.0 AV	54.0	-14.0	1.04 V	149	31.77	8.23
3	*5240.00	112.0 PK			1.04 V	149	103.60	8.40
4	*5240.00	99.8 AV			1.04 V	149	91.40	8.40
5	#10480.00	50.5 PK	74.0	-23.5	1.04 V	172	35.29	15.21
6	#10480.00	39.0 AV	54.0	-15.0	1.04 V	172	23.79	15.21
7	15720.00	49.0 PK	74.0	-25.0	1.00 V	148	28.13	20.87
8	15720.00	40.7 AV	54.0	-13.3	1.00 V	148	19.83	20.87

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	48.9 PK	74.0	-25.1	1.01 H	123	40.67	8.23
2	5150.00	36.4 AV	54.0	-17.6	1.01 H	123	28.17	8.23
3	*5260.00	110.7 PK			1.01 H	123	102.24	8.46
4	*5260.00	98.6 AV			1.01 H	123	90.14	8.46
5	#10520.00	48.3 PK	74.0	-25.7	1.02 H	107	33.04	15.26
6	#10520.00	37.7 AV	54.0	-16.3	1.02 H	107	22.44	15.26
7	15780.00	50.7 PK	74.0	-23.3	1.08 H	120	29.95	20.75
8	15780.00	38.0 AV	54.0	-16.0	1.08 H	120	17.25	20.75
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	51.4 PK	74.0	-22.6	1.14 V	156	43.17	8.23
2	5150.00	38.2 AV	54.0	-15.8	1.14 V	156	29.97	8.23
3	*5260.00	112.7 PK			1.14 V	156	104.24	8.46
4	*5260.00	100.1 AV			1.14 V	156	91.64	8.46
5	#10520.00	50.5 PK	74.0	-23.5	1.00 V	161	35.24	15.26
6	#10520.00	38.7 AV	54.0	-15.3	1.00 V	161	23.44	15.26
7	15780.00	49.1 PK	74.0	-24.9	1.00 V	144	28.35	20.75
8	15780.00	41.0 AV	54.0	-13.0	1.00 V	144	20.25	20.75

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.1 PK	74.0	-24.9	1.00 H	135	40.87	8.23
2	5150.00	36.7 AV	54.0	-17.3	1.00 H	135	28.47	8.23
3	*5300.00	109.7 PK			1.00 H	135	101.08	8.62
4	*5300.00	98.4 AV			1.00 H	135	89.78	8.62
5	5350.00	58.2 PK	74.0	-15.8	1.00 H	135	49.40	8.80
6	5350.00	41.7 AV	54.0	-12.3	1.00 H	135	32.90	8.80
7	10600.00	48.0 PK	74.0	-26.0	1.00 H	119	32.47	15.53
8	10600.00	37.4 AV	54.0	-16.6	1.00 H	119	21.87	15.53
9	15900.00	50.2 PK	74.0	-23.8	1.00 H	123	28.90	21.30
10	15900.00	38.4 AV	54.0	-15.6	1.00 H	123	17.10	21.30
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	5150.00	51.5 PK	74.0	-22.5	1.15 V	148	43.27	8.23
2	5150.00	38.5 AV	54.0	-15.5	1.15 V	148	30.27	8.23
3	*5300.00	111.7 PK			1.15 V	148	103.08	8.62
4	*5300.00	99.9 AV			1.15 V	148	91.28	8.62
5	5350.00	60.6 PK	74.0	-13.4	1.15 V	148	51.80	8.80
6	5350.00	43.5 AV	54.0	-10.5	1.15 V	148	34.70	8.80
7	10600.00	50.3 PK	74.0	-23.7	1.03 V	145	34.77	15.53
8	10600.00	38.6 AV	54.0	-15.4	1.03 V	145	23.07	15.53
9	15900.00	48.2 PK	74.0	-25.8	1.00 V	136	26.90	21.30
10	15900.00	40.4 AV	54.0	-13.6	1.00 V	136	19.10	21.30

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	108.3 PK			1.03 H	131	99.61	8.69
2	*5320.00	95.8 AV			1.03 H	131	87.11	8.69
3	5350.00	66.8 PK	74.0	-7.2	1.03 H	131	58.00	8.80
4	5350.00	50.3 AV	54.0	-3.7	1.03 H	131	41.50	8.80
5	10640.00	48.0 PK	74.0	-26.0	1.00 H	110	32.46	15.54
6	10640.00	37.1 AV	54.0	-16.9	1.00 H	110	21.56	15.54
7	15960.00	50.8 PK	74.0	-23.2	1.00 H	118	29.98	20.82
8	15960.00	37.8 AV	54.0	-16.2	1.00 H	118	16.98	20.82
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	110.3 PK			1.02 V	207	101.61	8.69
2	*5320.00	97.3 AV			1.02 V	207	88.61	8.69
3	5350.00	69.2 PK	74.0	-4.8	1.02 V	207	60.40	8.80
4	5350.00	52.1 AV	54.0	-1.9	1.02 V	207	43.30	8.80
5	10640.00	50.4 PK	74.0	-23.6	1.01 V	135	34.86	15.54
6	10640.00	38.8 AV	54.0	-15.2	1.01 V	135	23.26	15.54
7	15960.00	48.0 PK	74.0	-26.0	1.00 V	129	27.18	20.82
8	15960.00	40.4 AV	54.0	-13.6	1.00 V	129	19.58	20.82

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	63.1 PK	74.0	-10.9	1.00 H	126	53.91	9.19
2	5460.00	43.8 AV	54.0	-10.2	1.00 H	126	34.61	9.19
3	#5470.00	70.6 PK	74.0	-3.4	1.00 H	126	61.38	9.22
4	#5470.00	50.3 AV	54.0	-3.7	1.00 H	126	41.08	9.22
5	*5500.00	107.2 PK			1.00 H	126	97.87	9.33
6	*5500.00	96.4 AV			1.00 H	126	87.07	9.33
7	11000.00	47.5 PK	74.0	-26.5	1.00 H	110	30.55	16.95
8	11000.00	36.9 AV	54.0	-17.1	1.00 H	110	19.95	16.95
9	#16500.00	50.8 PK	74.0	-23.2	1.03 H	117	27.76	23.04
10	#16500.00	37.7 AV	54.0	-16.3	1.03 H	117	14.66	23.04
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.5 PK	74.0	-8.5	1.12 V	147	56.31	9.19
2	5460.00	45.6 AV	54.0	-8.4	1.12 V	147	36.41	9.19
3	#5470.00	73.0 PK	74.0	-1.0	1.12 V	147	63.78	9.22
4	#5470.00	52.1 AV	54.0	-1.9	1.12 V	147	42.88	9.22
5	*5500.00	110.2 PK			1.12 V	147	100.87	9.33
6	*5500.00	97.9 AV			1.12 V	147	88.57	9.33
7	11000.00	50.6 PK	74.0	-23.4	1.01 V	147	33.65	16.95
8	11000.00	39.1 AV	54.0	-14.9	1.01 V	147	22.15	16.95
9	#16500.00	47.5 PK	74.0	-26.5	1.05 V	113	24.46	23.04
10	#16500.00	40.1 AV	54.0	-13.9	1.05 V	113	17.06	23.04

REMARKS:

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

CHANNEL	TX Channel 104	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.2 PK	74.0	-15.8	1.00 H	108	48.98	9.22
2	#5470.00	43.5 AV	54.0	-10.5	1.00 H	108	34.28	9.22
3	*5520.00	107.8 PK			1.00 H	108	98.43	9.37
4	*5520.00	96.7 AV			1.00 H	108	87.33	9.37
5	#5725.00	49.4 PK	74.0	-24.6	1.00 H	108	39.49	9.91
6	#5725.00	37.1 AV	54.0	-16.9	1.00 H	108	27.19	9.91
7	11040.00	46.3 PK	74.0	-27.7	1.00 H	100	29.60	16.70
8	11040.00	35.9 AV	54.0	-18.1	1.00 H	100	19.20	16.70
9	#16560.00	50.5 PK	74.0	-23.5	1.00 H	80	27.23	23.27
10	#16560.00	37.6 AV	54.0	-16.4	1.00 H	80	14.33	23.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	60.6 PK	74.0	-13.4	1.10 V	147	51.38	9.22
2	#5470.00	45.3 AV	54.0	-8.7	1.10 V	147	36.08	9.22
3	*5520.00	110.8 PK			1.10 V	147	101.43	9.37
4	*5520.00	98.2 AV			1.10 V	147	88.83	9.37
5	#5725.00	51.3 PK	74.0	-22.7	1.10 V	147	41.39	9.91
6	#5725.00	38.7 AV	54.0	-15.3	1.10 V	147	28.79	9.91
7	11040.00	50.2 PK	74.0	-23.8	1.00 V	141	33.50	16.70
8	11040.00	39.3 AV	54.0	-14.7	1.00 V	141	22.60	16.70
9	#16560.00	47.4 PK	74.0	-26.6	1.01 V	117	24.13	23.27
10	#16560.00	40.0 AV	54.0	-14.0	1.01 V	117	16.73	23.27

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.6 PK	74.0	-25.4	1.00 H	95	39.38	9.22
2	#5470.00	37.1 AV	54.0	-16.9	1.00 H	95	27.88	9.22
3	*5580.00	107.7 PK			1.00 H	95	98.23	9.47
4	*5580.00	96.6 AV			1.00 H	95	87.13	9.47
5	#5725.00	49.8 PK	74.0	-24.2	1.00 H	95	39.89	9.91
6	#5725.00	37.4 AV	54.0	-16.6	1.00 H	95	27.49	9.91
7	11160.00	46.3 PK	74.0	-27.7	1.00 H	111	30.09	16.21
8	11160.00	35.8 AV	54.0	-18.2	1.00 H	111	19.59	16.21
9	#16740.00	50.3 PK	74.0	-23.7	1.05 H	78	26.62	23.68
10	#16740.00	37.3 AV	54.0	-16.7	1.05 H	78	13.62	23.68
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.0 PK	74.0	-23.0	1.09 V	145	41.78	9.22
2	#5470.00	38.9 AV	54.0	-15.1	1.09 V	145	29.68	9.22
3	*5580.00	110.7 PK			1.09 V	145	101.23	9.47
4	*5580.00	98.1 AV			1.09 V	145	88.63	9.47
5	#5725.00	51.7 PK	74.0	-22.3	1.09 V	145	41.79	9.91
6	#5725.00	39.0 AV	54.0	-15.0	1.09 V	145	29.09	9.91
7	11160.00	50.1 PK	74.0	-23.9	1.00 V	142	33.89	16.21
8	11160.00	39.3 AV	54.0	-14.7	1.00 V	142	23.09	16.21
9	#16740.00	46.9 PK	74.0	-27.1	1.00 V	125	23.22	23.68
10	#16740.00	39.8 AV	54.0	-14.2	1.00 V	125	16.12	23.68

REMARKS:

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

CHANNEL	TX Channel 132	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	48.6 PK	74.0	-25.4	1.00 H	103	39.38	9.22
2	#5470.00	37.2 AV	54.0	-16.8	1.00 H	103	27.98	9.22
3	*5660.00	108.3 PK			1.00 H	81	98.57	9.73
4	*5660.00	96.9 AV			1.00 H	81	87.17	9.73
5	#5725.00	49.8 PK	74.0	-24.2	1.01 H	104	39.89	9.91
6	#5725.00	37.4 AV	54.0	-16.6	1.01 H	104	27.49	9.91
7	11320.00	46.9 PK	74.0	-27.1	1.05 H	110	29.98	16.92
8	11320.00	36.2 AV	54.0	-17.8	1.05 H	110	19.28	16.92
9	#16980.00	50.7 PK	74.0	-23.3	1.08 H	74	26.50	24.20
10	#16980.00	37.6 AV	54.0	-16.4	1.08 H	74	13.40	24.20
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	#5470.00	50.4 PK	74.0	-23.6	1.06 V	157	41.18	9.22
2	#5470.00	38.5 AV	54.0	-15.5	1.06 V	157	29.28	9.22
3	*5660.00	111.0 PK			1.03 V	146	101.27	9.73
4	*5660.00	98.3 AV			1.03 V	146	88.57	9.73
5	#5725.00	51.9 PK	74.0	-22.1	1.08 V	151	41.99	9.91
6	#5725.00	39.4 AV	54.0	-14.6	1.08 V	151	29.49	9.91
7	11320.00	49.8 PK	74.0	-24.2	1.00 V	128	32.88	16.92
8	11320.00	39.2 AV	54.0	-14.8	1.00 V	128	22.28	16.92
9	#16980.00	46.9 PK	74.0	-27.1	1.01 V	113	22.70	24.20
10	#16980.00	40.0 AV	54.0	-14.0	1.01 V	113	15.80	24.20

REMARKS:

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

CHANNEL	TX Channel 136	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.4 PK	74.0	-23.6	1.03 H	95	41.18	9.22
2	#5470.00	37.1 AV	54.0	-16.9	1.03 H	95	27.88	9.22
3	*5680.00	108.8 PK			1.03 H	95	98.98	9.82
4	*5680.00	97.7 AV			1.03 H	95	87.88	9.82
5	#5725.00	63.4 PK	74.0	-10.6	1.03 H	95	53.49	9.91
6	#5725.00	46.7 AV	54.0	-7.3	1.03 H	95	36.79	9.91
7	11360.00	45.9 PK	74.0	-28.1	1.00 H	102	29.07	16.83
8	11360.00	35.7 AV	54.0	-18.3	1.00 H	102	18.87	16.83
9	#17040.00	50.5 PK	74.0	-23.5	1.10 H	77	25.98	24.52
10	#17040.00	37.7 AV	54.0	-16.3	1.10 H	77	13.18	24.52
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.1 PK	74.0	-22.9	1.07 V	145	41.88	9.22
2	#5470.00	38.7 AV	54.0	-15.3	1.07 V	145	29.48	9.22
3	*5680.00	111.8 PK			1.07 V	145	101.98	9.82
4	*5680.00	99.2 AV			1.07 V	145	89.38	9.82
5	#5725.00	65.8 PK	74.0	-8.2	1.07 V	145	55.89	9.91
6	#5725.00	48.5 AV	54.0	-5.5	1.07 V	145	38.59	9.91
7	11360.00	49.7 PK	74.0	-24.3	1.00 V	135	32.87	16.83
8	11360.00	39.1 AV	54.0	-14.9	1.00 V	135	22.27	16.83
9	#17040.00	47.0 PK	74.0	-27.0	1.00 V	132	22.48	24.52
10	#17040.00	39.7 AV	54.0	-14.3	1.00 V	132	15.18	24.52

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	105.4 PK			1.00 H	86	95.52	9.88
2	*5700.00	94.3 AV			1.00 H	86	84.42	9.88
3	#5725.00	68.2 PK	74.0	-5.8	1.00 H	86	58.29	9.91
4	#5725.00	51.2 AV	54.0	-2.8	1.00 H	86	41.29	9.91
5	11400.00	45.9 PK	74.0	-28.1	1.00 H	104	29.15	16.75
6	11400.00	35.7 AV	54.0	-18.3	1.00 H	104	18.95	16.75
7	#17100.00	50.7 PK	74.0	-23.3	1.14 H	72	25.64	25.06
8	#17100.00	37.2 AV	54.0	-16.8	1.14 H	72	12.14	25.06
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.4 PK			1.16 V	140	98.52	9.88
2	*5700.00	95.8 AV			1.16 V	140	85.92	9.88
3	#5725.00	70.6 PK	74.0	-3.4	1.16 V	140	60.69	9.91
4	#5725.00	53.0 AV	54.0	-1.0	1.16 V	140	43.09	9.91
5	11400.00	49.1 PK	74.0	-24.9	1.00 V	137	32.35	16.75
6	11400.00	38.5 AV	54.0	-15.5	1.00 V	137	21.75	16.75
7	#17100.00	47.1 PK	74.0	-26.9	1.00 V	130	22.04	25.06
8	#17100.00	39.5 AV	54.0	-14.5	1.00 V	130	14.44	25.06

REMARKS:

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

4.3 TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.47 – 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 10logB

Note: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST INSTRUMENTS

FOR POWER OUTPUT MEASUREMENT

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power Meter	ML2495A	1014008	Apr. 23, 2013	Apr. 22, 2014
Power Sensor	MA2411B	0917122	Apr. 23, 2013	Apr. 22, 2014

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. Tested date : Jan. 17, 2014

FOR 26dB BANDWIDTH

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S Spectrum Analyzer	FSP40	100036	Jan. 21, 2013	Jan. 20, 2014

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. Tested date : Dec. 31, 2013

4.3.3 TEST PROCEDURE

FOR POWER OUTPUT MEASUREMENT

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

FOR 26dB BANDWIDTH

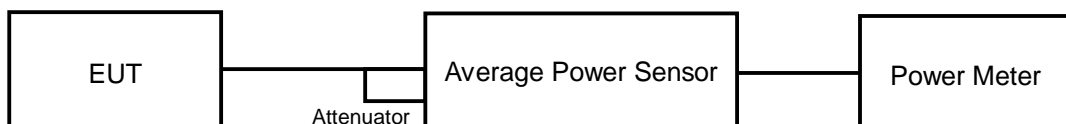
1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.4 DEVIATION FROM TEST STANDARD

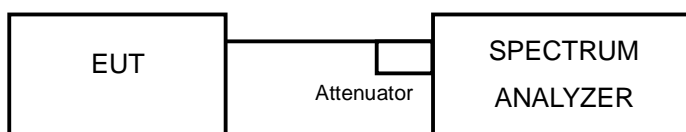
No deviation

4.3.5 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 26dB BANDWIDTH



4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.3.7 TEST RESULTS

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	38.019	15.80	17.00	PASS
40	5200	37.154	15.70	17.00	PASS
44	5220	38.019	15.80	17.00	PASS
48	5240	38.019	15.80	17.00	PASS
52	5260	83.946	19.24	24.00	PASS
60	5300	86.099	19.35	24.00	PASS
64	5320	62.087	17.93	24.00	PASS
100	5500	44.771	16.51	24.00	PASS
104	5520	69.984	18.45	24.00	PASS
116	5580	67.608	18.30	24.00	PASS
132	5660	64.714	18.11	24.00	PASS
136	5680	62.230	17.94	24.00	PASS
140	5700	26.303	14.20	24.00	PASS

26dB BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
36	5180	24.60
40	5200	25.33
44	5220	26.30
48	5240	27.26
52	5260	37.39
60	5300	37.17
64	5320	32.87
100	5500	31.45
104	5520	35.63
116	5580	36.89
132	5660	35.05
136	5680	37.24
140	5700	32.75

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 4dBm + 10logB < UNII Band 1>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
36	5180	24.60	17.9 > 17
40	5200	25.33	18.03 > 17
44	5220	26.30	18.19 > 17
48	5240	27.26	18.35 > 17
Power Limit = 11dBm + 10logB < UNII Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	37.39	26.72 > 24
60	5300	37.17	26.7 > 24
64	5320	32.87	26.16 > 24
100	5500	31.45	25.97 > 24
104	5520	35.63	26.51 > 24
116	5580	36.89	26.66 > 24
132	5660	35.05	26.44 > 24
136	5680	37.24	26.71 > 24
140	5700	32.75	26.15 > 24



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802.11n(HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	35.727	15.53	17.00	PASS
40	5200	38.019	15.80	17.00	PASS
44	5220	38.019	15.80	17.00	PASS
48	5240	38.019	15.80	17.00	PASS
52	5260	71.450	18.54	24.00	PASS
60	5300	73.451	18.66	24.00	PASS
64	5320	47.973	16.81	24.00	PASS
100	5500	40.087	16.03	24.00	PASS
104	5520	66.069	18.20	24.00	PASS
116	5580	63.096	18.00	24.00	PASS
132	5660	62.661	17.97	24.00	PASS
136	5680	64.565	18.10	24.00	PASS
140	5700	27.353	14.37	24.00	PASS

26dB BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
36	5180	25.56
40	5200	25.58
44	5220	26.84
48	5240	26.95
52	5260	37.95
60	5300	35.73
64	5320	33.93
100	5500	30.55
104	5520	34.98
116	5580	38.11
132	5660	33.11
136	5680	38.89
140	5700	28.22

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 4dBm + 10logB < UNII Band 1>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
36	5180	25.56	18.07 > 17
40	5200	25.58	18.07 > 17
44	5220	26.84	18.28 > 17
48	5240	26.95	18.3 > 17
Power Limit = 11dBm + 10logB < UNII Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	37.95	26.79 > 24
60	5300	35.73	26.53 > 24
64	5320	33.93	26.3 > 24
100	5500	30.55	25.85 > 24
104	5520	34.98	26.43 > 24
116	5580	38.11	26.81 > 24
132	5660	33.11	26.19 > 24
136	5680	38.89	26.89 > 24
140	5700	28.22	25.5 > 24

4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.15 ~ 5.25GHz	4dBm
5.25 ~ 5.35GHz	11dBm
5.47 ~ 5.725GHz	11dBm
5.725 ~ 5.825GHz	17dBm

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S Spectrum Analyzer	FSP40	100036	Jan. 21, 2013	Jan. 20, 2014

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. Tested date : Dec. 31, 2013

4.4.3 TEST PROCEDURES

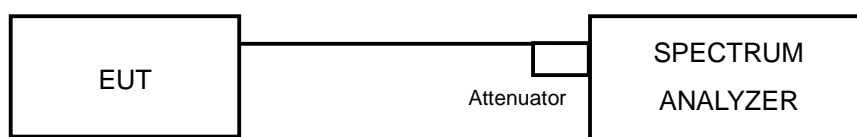
Using method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW \geq 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to "free run".
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6

4.4.7 TEST RESULTS

802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	2.91	4	PASS
40	5200	3.21	4	PASS
44	5220	3.27	4	PASS
48	5240	3.31	4	PASS
52	5260	6.62	11	PASS
60	5300	6.53	11	PASS
64	5320	5.45	11	PASS
100	5500	4.64	11	PASS
104	5520	5.95	11	PASS
116	5580	5.96	11	PASS
132	5660	5.37	11	PASS
136	5680	5.25	11	PASS
140	5700	3.44	11	PASS

802.11n (HT20)

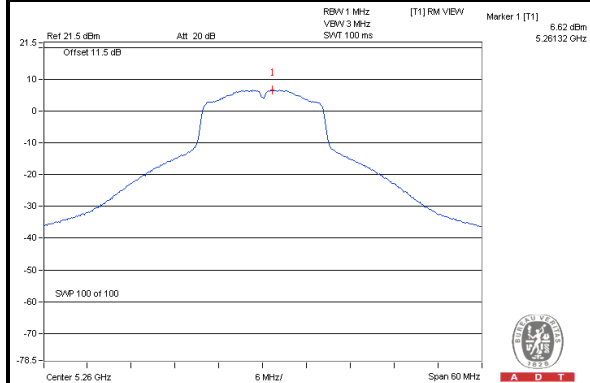
CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	2.69	4	PASS
40	5200	2.91	4	PASS
44	5220	2.88	4	PASS
48	5240	3.22	4	PASS
52	5260	5.99	11	PASS
60	5300	5.96	11	PASS
64	5320	4.71	11	PASS
100	5500	4.44	11	PASS
104	5520	5.38	11	PASS
116	5580	5.29	11	PASS
132	5660	4.89	11	PASS
136	5680	4.74	11	PASS
140	5700	2.18	11	PASS



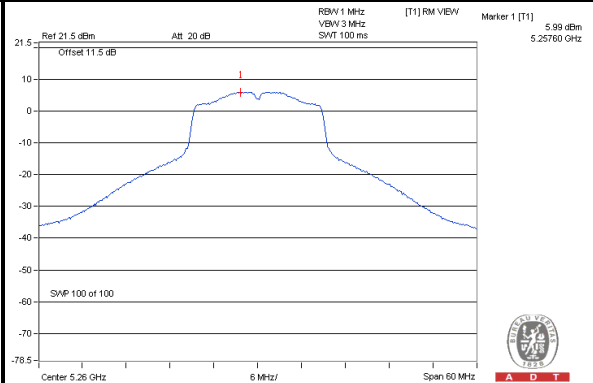
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SPECTRUM PLOT OF WORST VALUE

802.11a / CH52



802.11n (HT20) / CH52



4.5 PEAK POWER EXCURSION MEASUREMENT

4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S Spectrum Analyzer	FSP40	100036	Jan. 21, 2013	Jan. 20, 2014

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. Tested date : Dec. 31, 2013

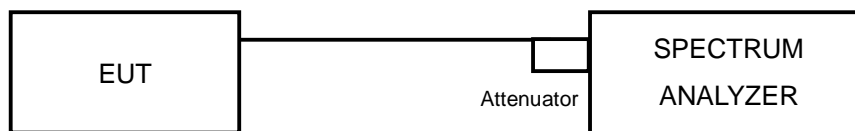
4.5.3 TEST PROCEDURE

1. Set RBW = 1 MHz, VBW \geq 3 MHz, Detector = peak.
2. Trace mode = max-hold. Allow the sweeps to continue until the trace stabilizes.
3. Use the peak search function to find the peak of the spectrum.
4. Measure the PPSD.
5. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.5.7 TEST RESULTS

MODULATION MODE	MODULATION TYPE	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/ FAIL
802.11a	BPSK	5700	12.05	3.44	8.61	13	PASS
802.11n (HT20)	BPSK	5700	12.22	2.18	10.04	13	PASS

MODULATION MODE	MODULATION TYPE	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS /FAIL
802.11a	QPSK	5700	13.27	3.63	3.76	9.51	13	PASS
	16QAM		12.11	2.34	2.59	9.52	13	PASS
	64QAM		12.66	2.39	2.83	9.83	13	PASS
802.11n (HT20)	QPSK	5700	12.48	2.41	2.56	9.92	13	PASS
	16QAM		11.37	1.19	1.46	9.91	13	PASS
	64QAM		11.34	1.19	1.66	9.68	13	PASS

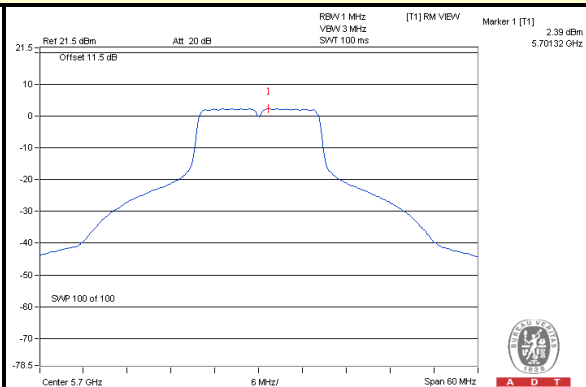
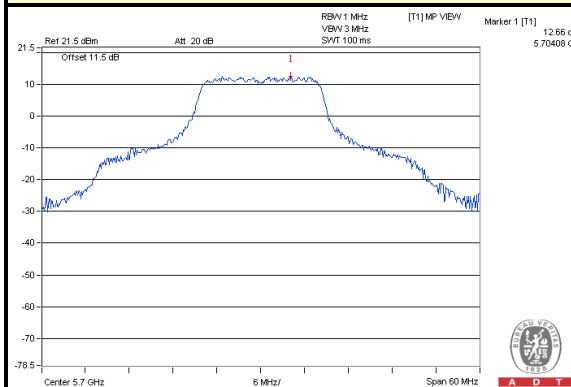
NOTE: Refer to section 3.4 for duty cycle spectrum plot.



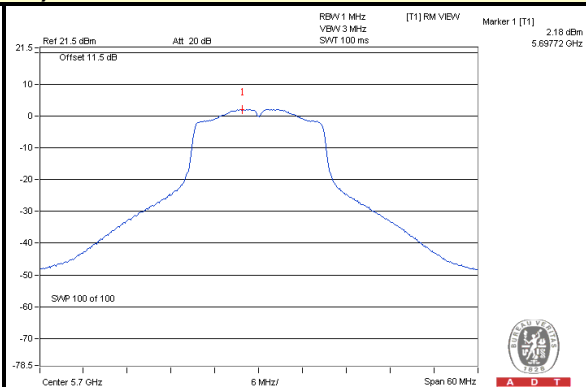
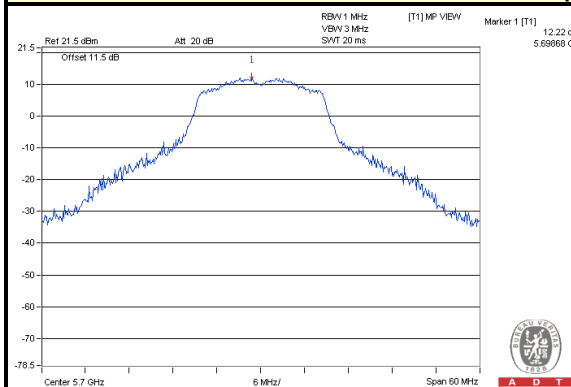
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SPECTRUM PLOT OF WORST VALUE

802.11a / 64QAM



802.11n (HT20) / BPSK



4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
R&S Spectrum Analyzer	FSP40	100036	Jan. 21, 2013	Jan. 20, 2014
Temperature & Humidity Chamber GIANTFORCE	GTH-150-40-S P-AR	MAA0812-008	Jan. 17, 2013	Jan. 16, 2014

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. Tested date : Dec. 31, 2013

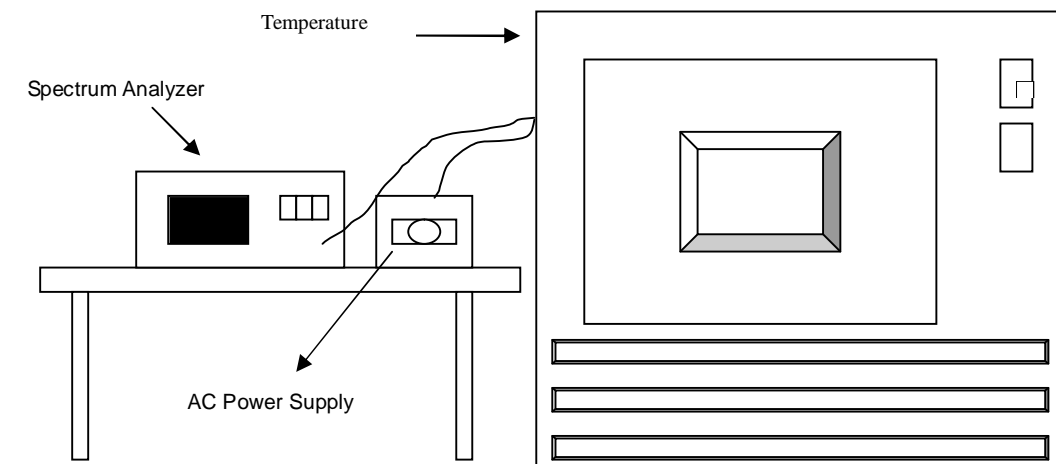
4.6.3 TEST PROCEDURE

1. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. 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.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



4.6.6 EUT OPERATING CONDITION

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



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4.6.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	%	(MHz)	%	(MHz)	%	(MHz)	%
50	120	5320.0004	0.00001	5320.0022	0.00004	5320.004	0.00008	5320.0057	0.00011
40	120	5320.0014	0.00003	5320.0024	0.00005	5320.0047	0.00009	5320.0041	0.00008
30	120	5319.9947	-0.00010	5319.9925	-0.00014	5319.9936	-0.00012	5319.9972	-0.00005
20	120	5319.9764	-0.00044	5319.9847	-0.00029	5319.9803	-0.00037	5319.9804	-0.00037
10	120	5319.9915	-0.00016	5319.9946	-0.00010	5319.9965	-0.00007	5319.9886	-0.00021
0	120	5320.009	0.00017	5320.0089	0.00017	5320.0175	0.00033	5320.0089	0.00017
-10	120	5319.9964	-0.00007	5319.9958	-0.00008	5319.9897	-0.00019	5319.9938	-0.00012
-20	120	5319.9709	-0.00055	5319.9715	-0.00054	5319.9775	-0.00042	5319.9791	-0.00039
-30	120	5319.9927	-0.00014	5319.9983	-0.00003	5319.997	-0.00006	5319.9937	-0.00012

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	%	(MHz)	%	(MHz)	%	(MHz)	%
20	138	5319.9769	-0.00043	5319.9854	-0.00027	5319.9803	-0.00037	5319.98	-0.00038
	120	5319.9764	-0.00044	5319.9847	-0.00029	5319.9803	-0.00037	5319.9804	-0.00037
	102	5319.9754	-0.00046	5319.9855	-0.00027	5319.9803	-0.00037	5319.9795	-0.00039

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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6. 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: 886-2-26052943

Hsin Chu EMC/RF Lab:

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Web Site: www.bureauveritas-adt.com

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



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7.APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

--- END ---