

# FCC TEST REPORT (WLAN 15.407)

**REPORT NO.:** RF120720E09-1 R2

MODEL NO.: VC70N0

FCC ID: UZ7VC70N0

RECEIVED: July 20, 2012

**TESTED:** Sep. 10 to Nov. 07, 2012

**ISSUED:** Nov. 14, 2012

APPLICANT: Motorola Solutions, Inc.

ADDRESS: One Motorola Plaza Holtsville NY 11742-1300 USA

ISSUED BY: Bureau Veritas Consumer Products Services

(H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

LAB ADDRESS: No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen,

Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan,

R.O.C.

TEST LOCATION (1): No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen,

Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan.

R.O.C.

TEST LOCATION (2): No. 49, Ln. 206, Wende Rd., Shangshan Tsuen,

Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan,

R.O.C.

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## **RELEASE CONTROL RECORD**

ISSUE NO.	NO. REASON FOR CHANGE	
RF120720E09-1 Original release		Nov. 08, 2012
RF120720E09-1 R1	Modified the description on section 3.1, section 3.5 & section 3.6	Nov. 09, 2012
RF120720E09-1 R2	Modified the description on section 3.6	Nov. 14, 2012

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## 1. CERTIFICATION

**PRODUCT:** Vehicle Computer

**BRAND NAME:** MOTOROLA

MODEL NO.: VC70N0

**TEST SAMPLE:** ENGINEERING SAMPLE

APPLICANT: Motorola Solutions, Inc.

**TESTED:** Sep. 10 to Nov. 07, 2012

STANDARDS: FCC Part 15, subpart E (section 15.407)

ANSI C63.10-2009

The above equipment (Model: VC70N0) 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: The wine trung, DATE: Nov. 14, 2012

(Phoenix Huang, Specialist/)

APPROVED BY : , DATE: Nov. 14, 2012

(May Chen, Deputy Manager)

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## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

For 5GHz, 5180~5240MHz, 5260~5320MHz and 5500~5700MHz

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 Minimum passing marging -7.41dB at 4.44141MHz					
15.407(b/1/2/3) Spurious Emissions PASS Minimum passing m -2.1dB at 5350.00M		Meet the requirement of limit. Minimum passing margin is -2.1dB at 5350.00MHz. (band-edge)				
15.407(a/1/2)	Transmit Power PASS Meet the requirement		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	<ol> <li>No antenna connector is used. (For Internal Antenna)</li> <li>Antenna connector is RRSMA (For External Antenna)</li> </ol>			

**NOTE:** 1. The EUT was operating in 2.400 ~ 2.4835GHz, 5.15~5.35GHz, 5.47~5.725GHz and 5.725~5.850GHz frequencies band. This report was recorded the RF parameters including 5.15~5.35GHz and 5.47~5.725GHz. For the 2.400 ~ 2.4835GHz and 5.725~5.85GHz RF parameters was recorded in another test report.

2. The "Dynamic Frequency Selection" was recorded in other report.

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## 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)	4.89 dB
Radiated emissions (1GHz -18GHz)	2.49 dB
Radiated emissions (18GHz -40GHz)	2.70 dB

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## 3. GENERAL INFORMATION

## 3.1 GENERAL DESCRIPTION OF EUT (WLAN)

PRODUCT	Vehicle Computer	
MODEL NO.	VC70N0	
POWER SUPPLY	DC 12V from power supply	
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM	
MODULATION TECHNOLOGY	DSSS, OFDM	
TRANSFER RATE	802.11b: up to11Mbps 802.11g / a: up to 54Mbps 802.11n (HT20, 800ns GI): up to 65Mbps 802.11n (HT20, 400ns GI): up to 72.2Mbps	
OPERATING FREQUENCY	For 15.407 5GHz: 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.47~5.6GHz, 5.65~5.725GHz 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: 104.713mW 802.11n (HT20): 74.131mW For 15.247(2.4GHz) 802.11b: 186.209mW 802.11g: 218.776mW 802.11n (HT20): 213.796mW For 15.247(5GHz) 802.11a: 173.780mW 802.11n (HT20): 173.780mW	
ANTENNA TYPE Please see NOTE		
DATA CABLE	NA	
I/O PORTS	Refer to user's manual	
ASSOCIATED DEVICES	NA	

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## NOTE:

1. There are Bluetooth 2.1 + EDR technology and WLAN 802.11 a/b/g/n technology used for the EUT. and the report number corresponds with functions are listed as below:

Function	Report No.		
WLAN	RF120720E09 R2 (15.247)		
VVLAIN	RF120720E09-1 R2 (15.407)		
Bluetooth	RF120720E09-2 R1		

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

Accessory	Model	Part No.	Description Description	Connector
Wired Scanner 1	LS 3408	LS 3408-ER20105R	LS 3408 serial/USB laser scanner	USB
Wired Scanner 2	DS3508	DS3508-ER20005R	DS3508 USB scanner	USB
Wired Scanner 3	DS457	DS457-SR20009	DS457 USB scanner	USB
Wireless Scanner 1	RS507	RS507-IM20000CTWR	RS507 BT Hands Free Imager (FCC ID: UZ7RS507)	NA (BT wireless connection)
Wireless Scanner 2	LS3578	LS3578-ER20005WR	LS3578 BT scanner (FCC ID: H9PLMX5452)	NA (BT wireless connection)
Wireless Scanner 3	DS3578	DS3578-ER2F005WR	DS3578 BT scanner (FCC ID: H9PDS3578)	NA (BT wireless connection)
External Speaker	HSN4040A	HSN4040A	Motorola HSN4040A 13 Watt water-resistant loudspeaker	special speaker connector
PTT mic	HMN1089B	HMN1089B	Motorola HMN1089B Water-resistant Palm Microphone or equivalent	special MIC connector
Keyboard 1	KYBD-QW-V C70-01R	59-160663-01	VC70_QWERTY keyboard	USB
Keyboard 2	Keyboard 2 KYBD-NU-V C70-01R 59-160661-01		VC70_21 keys_Functional/Numeric keyboard	USB
Keyboard 3	VC5090KYB D-00R	VC5090KYBD-02R	VC50_QWERTY keyboard	USB
Printer 1	RW420	R4D-0UBA000N-00	RW420 / Zebra, Printer.	RS232
Printer 2	MF2TE	200380-100	Microflash Series MF 2T, O'Neil, Easy Print	NA (BT wireless connection)
Power Supply 1	AA27410L	PWRS-9-60VDC-01R	Input Voltage: 9-60Vdc; Output Voltage: 12Vdc	DC input connector
Power Supply 2	Power 50-14000-24 PW/PS-14000-241P		Input Voltage: 110-240Vac; Output Voltage: 12Vdc	DC input connector
Wired Scanner 1, Wireless Scanner 1 and Printer 1 were chosen for final test.				

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3. The EUT has two variants, which are identical to each other in all aspects except for the following table:

Sample	Brand	Model	Difference
1	MOTOROLA	VC70N0	Heater
2	MOTOROLA	VC70N0	Non-heater

From the above samples, test **sample 1** was selected as representative model for the test and its data was recorded in this report.

4. The EUT could be supplied from a battery, the information are listed as below:

Brand:	Palladium
Part No.:	82-161178-01
Rating:	3.7V, 1880mAh

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

No.	Brand	Model	ANT Type	Connecter Type (External only)	Freq. Range (MHz to MHz)	Gain (dBi) (Including cable loss)	Cable Loss (dB)	Cable Length
1	Aristotle	RFA-02-G78-1	PIFA	N/A	2400-2500	1.7 (for BT)	0.783	27cm
2	Aristotle	RFA-02-G78-1	PIFA	N/A	2400-2500	1.1 (for Main WLAN)	0.58	20cm
3	Aristotle	RFA-02-G78-1	PIFA	N/A	4900-5850	4.7 (for Main WLAN)	0.96 ~ 1.06	20cm
4	Aristotle	RFA-02-G78-1	PIFA	N/A	2400-2500	-0.5 (for Aux WLAN)	0.783	27cm
5	Aristotle	RFA-02-G78-1	PIFA	N/A	4900-5850	4.3 (for Aux WLAN)	1.296 ~ 1.431	27cm
6	PCTEL	GPSDBHF	Shark-shape	RRSMA	2400-2500	1.18 (for External WLAN)	2.28	12ft
7	PCTEL	GPSDBHF	Shark-shape	RRSMA	4900-5850	0.24 (for External WLAN)	3.36 ~ 3.84	12ft

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6. The EUT incorporates a SISO function without beam forming .

MODULATION MODE	TX FUNCTION
802.11b	1Tx/1Rx
802.11g	1Tx/1Rx
802.11a	1Tx/1Rx
802.11n (HT20)	1Tx/1Rx

- 7. 2.4GHz and 5GHz technology cannot transmit at same time.
- 8. Radiated and Conducted emission of the simultaneous operation (Bluetooth and WLAN technology) has been evaluated and no non-compliance was found.

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

Pre-test Mode	Description
Mode A	Power Supply 2 + Keyboard 1 (Sample: Non-heater)
Mode B	Power Supply 2 + Keyboard 1 (Sample: Heater)
Mode C	Power Supply 2 + Keyboard 2 (Sample: Heater)
Mode D	Power Supply 2 + Keyboard 3 (Sample: Heater)
Mode E	Power Supply 1 (Input: 12Vdc) + Keyboard 1 (Sample: Heater)
Mode F	Power Supply 1 (Input: 24Vdc) + Keyboard 1 (Sample: Heater)

The worse radiated emission was found in **Mode B**. Therefore only the test data of the modes were recorded in this report.

- 10. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 7.
- 11. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

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## 3.2 DESCRIPTION OF TEST MODES

## Operated in 5180 ~ 5320MHz 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

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## 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT		AP	PLICABLE	то		
CONFIGURE MODE	PLC	RE < 1G	RE 3 1G	APCM	ОВ	DESCRIPTION
1	V	√	<b>√</b>	$\sqrt{}$	√	Antenna 3+Power Supply 2 + Keyboard 1
	1	<b>V</b>	<b>√</b>	1	-	Antenna 7+Power Supply 2 + Keyboard 1
2	<b>V</b>	-	-	1	-	Antenna 3+Power Supply 1 + Keyboard 1
3	-	-	√ √	-	-	Antenna 5+Power Supply 2 + Keyboard 1

Where **PLC:** Power Line Conducted Emission

RE < 1G: Radiated Emission below 1GHz

RE <sup>3</sup> 1G: Radiated Emission above 1GHz

APCM: Antenna Port Conducted Measurement

**OB:** Conducted Out-Band Emission 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	TESTED	MODULATION	MODULATION	DATA RATE
	CHANNEL	CHANNEL	TECHNOLOGY	TYPE	(MBPS)
802.11n (HT20)	36 to 140	140	OFDM	BPSK	6.5

## **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	TESTED	MODULATION	MODULATION	DATA RATE
	CHANNEL	CHANNEL	TECHNOLOGY	TYPE	(Mbps)
802.11n (HT20)	36 to 140	140	OFDM	BPSK	6.5

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#### **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, 140	OFDM	BPSK	6
802.11n (HT20)	36 to 140	36, 40, 44, 48, 52, 60, 64, 100, 104, 116, 132, 140	OFDM	BPSK	6.5

## ANTENNA PORT CONDUCTED MEASUREMENT:

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

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, 140	OFDM	BPSK	6
802.11n (HT20)	36 to 140	36, 40, 44, 48, 52, 60, 64, 100, 104, 116, 132, 140	OFDM	BPSK	6.5

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## **TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
DI C	26deg. C,61%RH	120Vac, 60Hz	JyunChun Lin
PLC	28deg. C,56%RH	120Vac, 60Hz	Gavin Peng
RE<1G	26deg. C, 81%RH	120Vac, 60Hz	Amos Chuang
KE<1G	24deg. C, 78%RH	120Vac, 60Hz	Amos Chuang
RE <sup>3</sup> 1G	26deg. C, 77%RH	120Vac, 60Hz	Amos Chuang
RESIG	24deg. C, 68%RH	120Vac, 60Hz	Robert Cheng
APCM	25deg. C, 60%RH	120Vac, 60Hz	Nelson Teng
ОВ	25deg. C, 60%RH	120Vac, 60Hz	Nelson Teng

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## 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

ANSI C63.10-2009

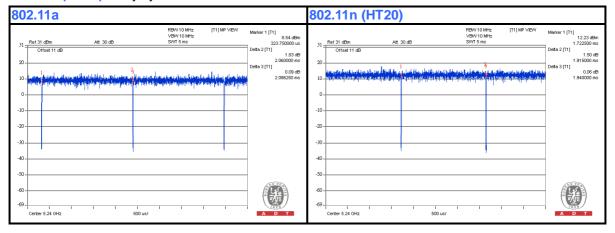
All test items have been performed and recorded as per the above standards.

## 3.4 DUTY CYCLE OF TEST SIGNAL

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

**802.11a**: Duty cycle = 2.060 ms/2.086 ms = 0.988

802.11n (HT20): Duty cycle = 1.915 ms/1.940 ms = 0.987



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## 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.
1	NOTEBOOK COMPUTER	DELL	E6420	H62T3R1
2	Wired Scanner	NA	LS 3408	LS 3408-ER20105R
3	Keyboard	NA	KYBD-QW-VC70-01R	59-160663-01
4	PTT MIC	Motorola	HSN4040A	HSN4040A
5	Printer	NA	RW420	R4D-0UBA000N-00
6	Speaker	Motorola	HSN4039A	HSN4039A
7	Power Supply 1	Motorola	AA27410L	86-149830-01
8	Power Supply 2	Motorola	50-14000-241R	PWRS-14000-241R
9	DC Power Supply	GOOD WILL INSTRUMENT CO., LTD.	GPC-3030D	7700087

No.	Signal cable description
1	UTP cable, 10m
2	USB cable, 4.5m
3	USB cable, 0.9m with one core
4	Audio cable, 2m
5	RS232 cable, 1.8m with one core
6	Audio cable, 2.15m
7	DC cable, 2m
8	DC cable, 1.8m with two cores
9	DC cable, 0.4m

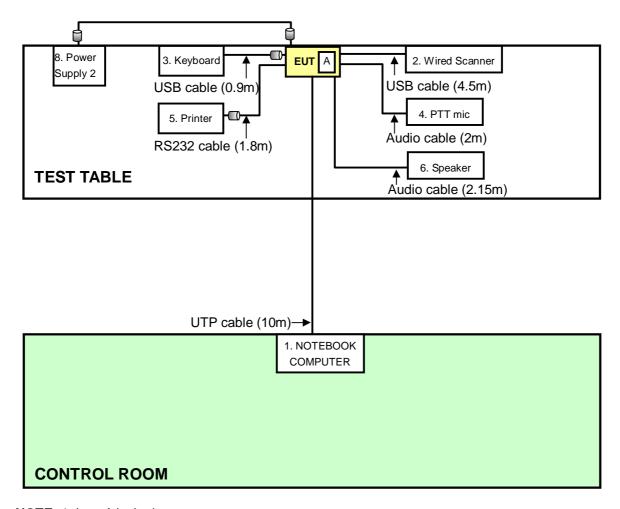
NOTE: All power cords of the above support units are non shielded (1.8m).

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## 3.6 CONFIGURATION OF SYSTEM UNDER TEST

For Conducted emission (Mode 1) / Radiated emission (Mode 1~3) test:

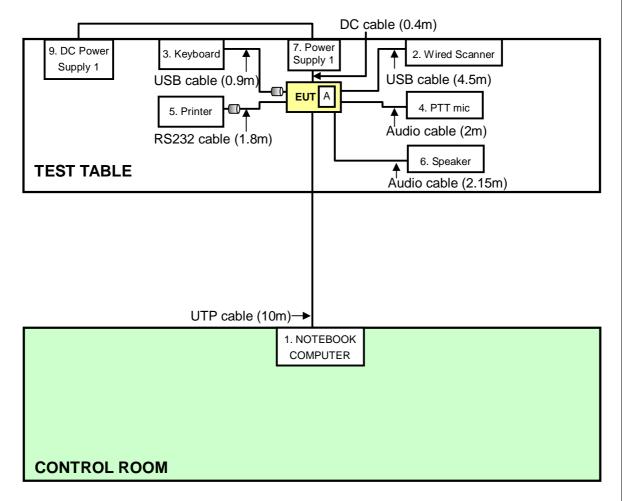


**NOTE:** 1. Item A is the battery.

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## For Conducted emission (Mode 2) test:



**NOTE:** 1. Item A is the battery.

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## 4. TEST TYPES AND RESULTS

## 4.1 CONDUCTED EMISSION MEASUREMENT

## 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED	LIMIT (dBµV)
	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

## For Mode 1:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100287	Feb. 29, 2012	Feb. 28, 2013
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK 8127	8127-523	Sep. 19, 2012	Sep. 20, 2013
Line-Impedance Stabilization Network (for Peripheral) ROHDE & SCHWARZ	ESH3-Z5	848773/004	Nov. 01, 2011	Oct. 31, 2012
RF Cable (JYEBAO)	5DFB	COACAB-002	Aug. 05, 2012	Aug. 04, 2013
50 ohms Terminator	50	4	Nov. 12, 2011	Nov. 11, 2012
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: Oct. 09, 2012

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## For Mode 2:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100287	Feb. 29, 2012	Feb. 28, 2013
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK 8127	8127-523	Sep. 20, 2011	Sep. 19, 2012
Line-Impedance Stabilization Network (for Peripheral) ROHDE & SCHWARZ	ESH3-Z5	848773/004	Nov. 01, 2011	Oct. 31, 2012
RF Cable (JYEBAO)	5DFB	COACAB-002	Aug. 05, 2012	Aug. 04, 2013
50 ohms Terminator	50	4	Nov. 12, 2011	Nov. 11, 2012
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: Sep. 10, 2012

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## 4.1.3 TEST PROCEDURES

- a. 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.
- b. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- d. The frequency range from 150kHz to 30MHz was searched. Emission level under (Limit – 20dB) was not recorded.

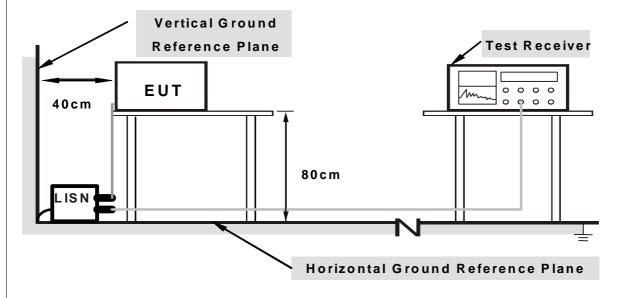
414	DEVIATI	ION FRO	OM TEST	<sup>-</sup> STANDARD

No deviation

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#### 4.1.5 TEST SETUP



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

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

## 4.1.6 EUT OPERATING CONDITIONS

- 1. Turn on the power of EUT.
- 2. The communication partner run test program "XW2DMT version X 2.00.0.0.28.exe" to enable EUT under transmission/receiving condition continuously at specific channel frequency.

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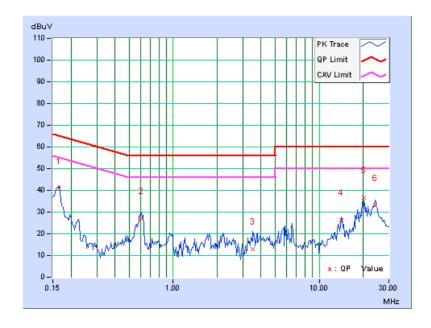
## 4.1.7 TEST RESULTS (MODE 1)

PHASE	Line (L)	6dB BANDWIDTH	9 kHz
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	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(d	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	0.09	40.69	40.01	40.78	40.10	65.18	55.18	-24.40	-15.08
2	0.60313	0.16	27.00	24.38	27.16	24.54	56.00	46.00	-28.84	-21.46
3	3.51172	0.31	12.58	5.31	12.89	5.62	56.00	46.00	-43.11	-40.38
4	14.21094	0.61	25.74	24.24	26.35	24.85	60.00	50.00	-33.65	-25.15
5	20.25922	0.72	35.83	33.08	36.55	33.80	60.00	50.00	-23.45	-16.20
6	24.15234	0.82	31.98	26.84	32.80	27.66	60.00	50.00	-27.20	-22.34

## **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.



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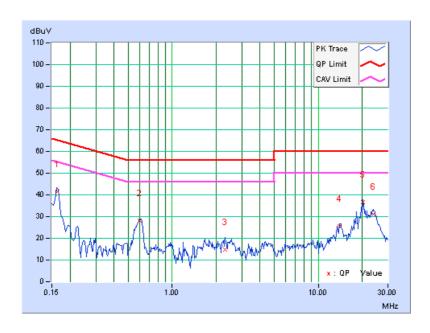


PHASE Neutral (N)	6dB BANDWIDTH	9 kHz
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	Freq.	Corr.		Reading Emission Value Level				nit	Margin	
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(d	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16422	0.10	41.30	40.58	41.40	40.68	65.25	55.25	-23.85	-14.57
2	0.59922	0.17	28.01	26.57	28.18	26.74	56.00	46.00	-27.82	-19.26
3	2.29688	0.25	14.44	11.10	14.69	11.35	56.00	46.00	-41.31	-34.65
4	14.03125	0.59	25.04	22.35	25.63	22.94	60.00	50.00	-34.37	-27.06
5	20.25781	0.70	35.97	33.19	36.67	33.89	60.00	50.00	-23.33	-16.11
6	23.72656	0.79	30.20	24.82	30.99	25.61	60.00	50.00	-29.01	-24.39

## **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.



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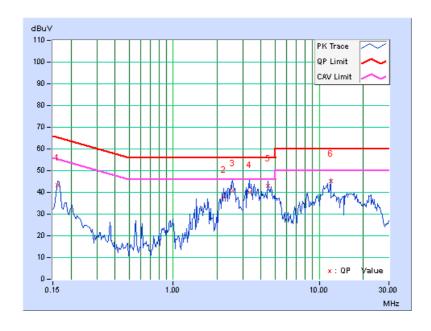
## 4.1.8 TEST RESULTS (MODE 2)

PHASE	Line (L)	6dB BANDWIDTH	9 kHz
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	Freq.	Corr.	Corr. Reading Emission Limit		<u> </u>		nit	Mar	gin	
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(d	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	0.09	43.24	42.41	43.33	42.50	65.38	55.38	-22.05	-12.88
2	2.21484	0.26	37.41	30.45	37.67	30.71	56.00	46.00	-18.33	-15.29
3	2.55469	0.27	40.47	33.52	40.74	33.79	56.00	46.00	-15.26	-12.21
4	3.31250	0.30	39.60	31.61	39.90	31.91	56.00	46.00	-16.10	-14.09
5	4.44141	0.34	42.53	38.25	42.87	38.59	56.00	46.00	-13.13	-7.41
6	11.94531	0.56	44.53	40.06	45.09	40.62	60.00	50.00	-14.91	-9.38

## **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.



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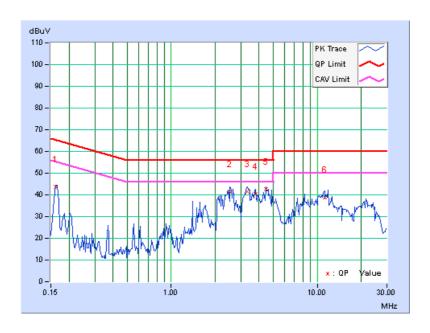


PHASE Neutral (N)	6dB BANDWIDTH	9 kHz
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	Freq.	Corr.		Reading Emiss Value Leve			Limit		Margin	
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(d	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	0.10	43.58	42.80	43.68	42.90	65.38	55.38	-21.70	-12.48
2	2.52734	0.26	41.24	34.76	41.50	35.02	56.00	46.00	-14.50	-10.98
3	3.32422	0.29	41.18	32.66	41.47	32.95	56.00	46.00	-14.53	-13.05
4	3.78516	0.30	39.97	35.47	40.27	35.77	56.00	46.00	-15.73	-10.23
5	4.43750	0.32	42.45	38.21	42.77	38.53	56.00	46.00	-13.23	-7.47
6	11.24609	0.53	38.47	34.46	39.00	34.99	60.00	50.00	-21.00	-15.01

## **REMARKS:**

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



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#### 4.2 RADIATED EMISSION MEASUREMENT

## 4.2.1 LIMITS OF RADIATED EMISSION 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.

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## 4.2.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBµV/m) *Note 3
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27 *Note 1	68.3
5725~5625	-17 *Note 2	78.3

#### Note:

- 1. For frequencies 10MHz or greater above or below the band edge.
- 2. All emissions within the frequency range from the band edge to 10MHz above or below the band edge.
- 3. The following formula is used to convert the equipment isotropic radiated power (EIRP) to field strength

$$E = \frac{1000000\sqrt{30P}}{3}$$
 µV/m, where P is the EIRP (Watts)

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## 4.2.3 TEST INSTRUMENTS

#### For Mode 1 ~ 2:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 19, 2011	Dec. 18, 2012
Spectrum Analyzer Agilent PSA	E4446A	MY48250113	Nov. 30 , 2011	Nov. 29 , 2012
Pre_Amplifier HP	8449B	300801923	Oct. 31, 2011	Oct. 30, 2012
TRILOG Broadband Antenna SCHWARZBECK	VULB 9168	138	Apr. 02, 2012	Apr. 01, 2013
Horn_Antenna SCHWARZBECK	BBHA9120	D124	Dec. 16, 2011	Dec. 15, 2012
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170153	Jan. 17, 2012	Jan. 16, 2013
RF Cable (Chaintek)	Sucoflex 106	RF106-102	Jan. 19, 2012	Jan. 18, 2013
RF Cable	8DFB	STCCAB-30M -1GHz	Sep. 23, 2012	Sep. 22, 2013
Software	ADT_Radiated _V7.6.15.9.2	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 Open Site No. C.
- 4. The FCC Site Registration No. is 656396.
- 5 The VCCI Site Registration No. is R-1626.
- 6 The CANADA Site Registration No. is IC 7450G-3.
- 7 Tested Date: Sep. 25 to 26, 2012

Report No.: RF120720E09-1 R2 30 of 127 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



## For Mode 3:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 19, 2011	Dec. 18, 2012
Spectrum Analyzer Agilent PSA	E4446A	MY48250113	Nov. 30, 2011	Nov. 29, 2012
Pre_Amplifier HP	8449B	300801923	Oct. 30, 2012	Oct. 29, 2013
Test Receiver ROHDE & SCHWARZ	ESCS30	847124/029	Sep. 07, 2012	Sep. 06, 2013
TRILOG Broadband Antenna SCHWARZBECK	VULB 9168	138	Apr. 02, 2012	Apr. 01, 2013
Horn_Antenna SCHWARZBECK	BBHA9120	D124	Dec. 16, 2011	Dec. 15, 2012
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170153	Jan. 17, 2012	Jan. 16, 2013
RF Cable (Chaintek)	Sucoflex 106	RF106-102	Jan. 19, 2012	Jan. 18, 2013
RF Cable	8DFB	STCCAB-30M -1GHz	Sep. 23, 2012	Sep. 22, 2013
Software	ADT_Radiated _V7.6.15.9.2	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) and Spectrum Analyzer (model: FSP40) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in Open Site No. C.
- 4. The FCC Site Registration No. is 656396.
- 5 The VCCI Site Registration No. is R-1626.
- 6 The CANADA Site Registration No. is IC 7450G-3.7 Tested Date: Nov. 07, 2012

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#### 4.2.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meters open site test. The table was rotated 360 degrees to determine the position of the highest radiation.
- 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 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.
- 4. All modes of operation were investigated and the worst-case emissions are reported.

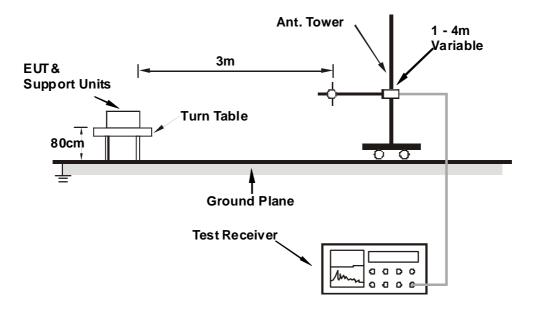
#### 4.2.5 DEVIATION FROM TEST STANDARD

No deviation

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## 4.2.6 TEST SETUP



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

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## 4.2.8 TEST RESULTS (MODE 1)

## **BELOW 1GHz WORST-CASE DATA**

## 802.11n (HT20)

CHANNEL	TX Channel 140	DETECTOR	Ougsi Pools (OP)
FREQUENCY RANGE	Below 1GHz	FUNCTION	Quasi-Peak (QP)

	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	54.52	30.2 QP	40.0	-9.8	1.02 H	80	15.95	14.29	
2	211.00	27.9 QP	43.5	-15.6	1.09 H	311	15.48	12.43	
3	320.00	38.9 QP	46.0	-7.2	1.37 H	35	21.98	16.87	
4	448.00	33.8 QP	46.0	-12.2	1.78 H	211	13.19	20.59	
5	704.00	38.2 QP	46.0	-7.8	1.08 H	265	11.08	27.08	
6	1000.00	32.5 QP	54.0	-21.5	1.12 H	155	2.09	30.45	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	120.00	22.3 QP	43.5	-21.2	1.73 V	32	9.51	12.75	
2	172.01	29.3 QP	43.5	-14.2	1.32 V	221	14.98	14.32	
3	320.00	32.5 QP	46.0	-13.5	1.31 V	194	15.60	16.87	
4	448.01	37.0 QP	46.0	-9.0	1.12 V	12	16.39	20.59	
5	576.00	34.2 QP	46.0	-11.8	1.01 V	248	9.50	24.73	
6	704.01	31.4 QP	46.0	-14.6	1.12 V	330	4.36	27.08	

#### **REMARKS:**

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

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#### **ABOVE 1GHz DATA**

## 802.11a

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	5150.00	51.8 PK	74.0	-22.2	1.27 H	112	15.27	36.53		
2	5150.00	41.7 AV	54.0	-12.3	1.27 H	112	5.17	36.53		
3	*5180.00	100.5 PK			1.27 H	112	63.93	36.57		
4	*5180.00	92.4 AV			1.27 H	112	55.83	36.57		
5	#10360.00	52.5 PK	68.3	-15.8	1.00 H	155	5.88	46.62		
6	15540.00	55.4 PK	74.0	-18.6	1.00 H	37	6.90	48.50		
7	15540.00	45.2 AV	54.0	-8.8	1.00 H	37	-3.30	48.50		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	5150.00	55.5 PK	74.0	-18.5	1.44 V	184	18.97	36.53		
2	5150.00	45.3 AV	54.0	-8.7	1.44 V	184	8.77	36.53		
3	*5180.00	108.5 PK			1.44 V	184	71.93	36.57		
4	*5180.00	101.1 AV			1.44 V	184	64.53	36.57		
5	#10360.00	52.3 PK	68.3	-16.0	1.00 V	352	5.68	46.62		
6	15540.00	55.3 PK	74.0	-18.7	1.00 V	69	6.80	48.50		
7	15540.00	44.8 AV	54.0	-9.2	1.00 V	69	-3.70	48.50		

## **REMARKS:**

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

Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	103.3 PK			1.47 H	223	66.70	36.60		
2	*5200.00	95.2 AV			1.47 H	223	58.60	36.60		
3	#10400.00	52.1 PK	68.3	-16.2	1.03 H	155	5.58	46.52		
4	15600.00	54.9 PK	74.0	-19.1	1.01 H	38	6.56	48.34		
5	15600.00	44.9 AV	54.0	-9.1	1.01 H	38	-3.44	48.34		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT	TABLE ANGLE	RAW VALUE	CORRECTION FACTOR		
		(dBuV/m)	(42417111)	(==)	(m)	(Degree)	(dBuV)	(dB/m)		
1	*5200.00	(dBuV/m) 113.6 PK	(===:/)	(4.2)	(m) 1.00 V	<b>(Degree)</b> 183	(dBuV) 77.00	( <b>dB/m</b> ) 36.60		
1 2	*5200.00 *5200.00	,	(===,,,,,,	()	. ,	, ,		, ,		
		113.6 PK	68.3	-15.9	1.00 V	183	77.00	36.60		
2	*5200.00	113.6 PK 105.8 AV	,		1.00 V 1.00 V	183 183	77.00 69.20	36.60 36.60		

## **REMARKS:**

- 1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 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.

Report No.: RF120720E09-1 R2 36 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



CHANNEL	TX Channel 44	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	103.1 PK			1.47 H	228	66.46	36.64		
2	*5220.00	95.2 AV			1.47 H	228	58.56	36.64		
3	#10440.00	52.1 PK	68.3	-16.2	1.01 H	158	5.43	46.67		
4	15660.00	55.5 PK	74.0	-18.5	1.07 H	29	7.33	48.17		
5	15660.00	45.2 AV	54.0	-8.8	1.07 H	29	-2.97	48.17		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. EMISSION LIMIT MARGIN ANTENNA TABLE RAW CORRECTION									
	, ,	(dBuV/m)	(abaviii)	(45)	(m)	(Degree)	(dBuV)	(dB/m)		
1	*5220.00	(dBuV/m) 113.9 PK	(ubuv/iii)	(42)	(m) 1.06 V	<b>(Degree)</b> 190	(dBuV) 77.26	(dB/m) 36.64		
1 2	*5220.00 *5220.00	,	(uzuviii)	(ab)	` ,	, ,	, ,	` ,		
		113.9 PK	68.3	-15.8	1.06 V	190	77.26	36.64		
2	*5220.00	113.9 PK 106.1 AV	,		1.06 V 1.06 V	190 190	77.26 69.46	36.64 36.64		

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

Report No.: RF120720E09-1 R2 37 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	104.2 PK			1.41 H	325	67.52	36.68		
2	*5240.00	95.6 AV			1.41 H	325	58.92	36.68		
3	#10480.00	52.8 PK	68.3	-15.5	1.03 H	164	5.98	46.82		
4	15720.00	55.6 PK	74.0	-18.4	1.05 H	53	7.53	48.07		
5	15720.00	45.4 AV	54.0	-8.6	1.05 H	53	-2.67	48.07		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	112.6 PK			1.42 V	187	75.92	36.68		
2	*5240.00	104.6 AV			1.42 V	187	67.92	36.68		
3	#10480.00	52.3 PK	68.3	-16.0	1.00 V	351	5.48	46.82		
3	#10480.00 15720.00	52.3 PK 55.6 PK	68.3 74.0	-16.0 -18.4	1.00 V 1.00 V	351 57	5.48 7.53	46.82 48.07		

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

Report No.: RF120720E09-1 R2 38 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	104.2 PK			1.36 H	322	67.48	36.72		
2	*5260.00	95.7 AV			1.36 H	322	58.98	36.72		
3	#10520.00	52.3 PK	68.3	-16.0	1.00 H	148	5.41	46.89		
4	15780.00	55.0 PK	74.0	-19.0	1.06 H	36	6.91	48.09		
5	15780.00	44.9 AV	54.0	-9.1	1.06 H	36	-3.19	48.09		
		ANTENNA	A POLARITY	/ & TEST D	ISTANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. EMISSION LIMIT MARGIN ANTENNA TABLE RAW CORRECTION									
1	*5260.00	112.2 PK			1.40 V	198	75.48	36.72		
2	*5260.00	104.1 AV			1.40 V	198	67.38	36.72		
2	*5260.00 #10520.00	104.1 AV 52.5 PK	68.3	-15.8	1.40 V 1.00 V	198 355	67.38 5.61	36.72 46.89		
		-	68.3 74.0	-15.8 -18.9	-			1		

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

Report No.: RF120720E09-1 R2 39 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.0 PK			1.38 H	317	67.20	36.80
2	*5300.00	95.5 AV			1.38 H	317	58.70	36.80
3	10600.00	52.5 PK	74.0	-21.5	1.00 H	167	5.59	46.91
4	10600.00	41.2 AV	54.0	-12.8	1.00 H	167	-5.71	46.91
5	15900.00	55.8 PK	74.0	-18.2	1.03 H	49	8.39	47.41
6	15900.00	45.4 AV	54.0	-8.6	1.03 H	49	-2.01	47.41
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	112.5 PK			1.45 V	181	75.70	36.80
2	*5300.00	104.5 AV			1.45 V	181	67.70	36.80
3	10600.00	54.0 PK	74.0	-20.0	1.00 V	354	7.09	46.91
4	10600.00	43.2 AV	54.0	-10.8	1.00 V	354	-3.71	46.91
5	15900.00	55.2 PK	74.0	-18.8	1.00 V	62	7.79	47.41
6	15900.00	45.1 AV	54.0	-8.9	1.00 V	62	-2.31	47.41

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

Report No.: RF120720E09-1 R2 40 of 127 Report Format Version 5.0.0



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

		<b>ANTENNA</b>	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	102.7 PK			1.22 H	249	65.86	36.84
2	*5320.00	94.3 AV			1.22 H	249	57.46	36.84
3	5350.00	57.2 PK	74.0	-16.8	1.22 H	249	20.31	36.89
4	5350.00	44.4 AV	54.0	-9.6	1.22 H	249	7.51	36.89
5	10640.00	52.4 PK	74.0	-21.6	1.01 H	157	5.40	47.00
6	10640.00	40.8 AV	54.0	-13.2	1.01 H	157	-6.20	47.00
7	15960.00	55.9 PK	74.0	-18.1	1.09 H	59	8.33	47.57
8	15960.00	45.6 AV	54.0	-8.4	1.09 H	59	-1.97	47.57
		ANTENNA	A POLARITY	/ & TEST DI	ISTANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	108.9 PK			1.31 V	359	72.06	36.84
2	*5320.00	100.1 AV			1.31 V	359	63.26	36.84
3	5350.00	59.9 PK	74.0	-14.1	1.31 V	359	23.01	36.89
4	5350.00	48.3 AV	54.0	-5.7	1.31 V	359	11.41	36.89
5	10640.00	53.9 PK	74.0	-20.1	1.00 V	351	6.90	47.00
6	10640.00	43.1 AV	54.0	-10.9	1.00 V	351	-3.90	47.00
7	15960.00	55.1 PK	74.0	-18.9	1.00 V	69	7.53	47.57
8	15960.00	44.9 AV	54.0	-9.1	1.00 V	69	-2.67	47.57

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

Report No.: RF120720E09-1 R2 41 of 127 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	52.8 PK	74.0	-21.2	1.40 H	323	15.65	37.15
2	5460.00	43.2 AV	54.0	-10.8	1.40 H	323	6.05	37.15
3	#5470.00	56.3 PK	68.3	-12.0	1.40 H	323	19.13	37.17
4	*5500.00	100.5 PK			1.40 H	323	63.25	37.25
5	*5500.00	92.4 AV			1.40 H	323	55.15	37.25
6	11000.00	52.2 PK	74.0	-21.8	1.05 H	149	4.49	47.71
7	11000.00	40.4 AV	54.0	-13.6	1.05 H	149	-7.31	47.71
8	#16500.00	55.4 PK	68.3	-12.9	1.15 H	44	7.18	48.22
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	56.2 PK	74.0	-17.8	1.27 V	354	19.05	37.15
2	5460.00	44.6 AV	54.0	-9.4	1.27 V	354	7.45	37.15
3	#5470.00	61.5 PK	68.3	-6.8	1.27 V	354	24.33	37.17
4	*5500.00	105.7 PK			1.27 V	354	68.45	37.25
5	*5500.00	97.1 AV			1.27 V	354	59.85	37.25
6	11000.00	53.6 PK	74.0	-20.4	1.00 V	356	5.89	47.71
7	11000.00	42.8 AV	54.0	-11.2	1.00 V	356	-4.91	47.71
8	#16500.00	56.1 PK	68.3	-12.2	1.00 V	71	7.88	48.22

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

Report No.: RF120720E09-1 R2 42 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5520.00	102.6 PK			1.22 H	246	65.32	37.28		
2	*5520.00	94.6 AV			1.22 H	246	57.32	37.28		
3	11040.00	52.1 PK	74.0	-21.9	1.04 H	149	4.44	47.66		
4	11040.00	40.3 AV	54.0	-13.7	1.04 H	149	-7.36	47.66		
5	#16560.00	55.0 PK	68.3	-13.3	1.17 H	51	6.77	48.23		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5520.00	107.6 PK			1.49 V	280	70.32	37.28		
2	*5520.00	99.1 AV			1.49 V	280	61.82	37.28		
3	11040.00	54.0 PK	74.0	-20.0	1.01 V	344	6.34	47.66		
4	11040.00	43.0 AV	54.0	-11.0	1.01 V	344	-4.66	47.66		

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5580.00	103.1 PK			1.23 H	254	65.71	37.39		
2	*5580.00	95.0 AV			1.23 H	254	57.61	37.39		
3	11160.00	52.3 PK	74.0	-21.7	1.04 H	144	4.67	47.63		
4	11160.00	40.8 AV	54.0	-13.2	1.04 H	144	-6.83	47.63		
5	#16740.00	55.2 PK	68.3	-13.1	1.21 H	32	6.49	48.71		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5580.00	107.2 PK			1.51 V	294	69.81	37.39		
2	*5580.00	98.7 AV			1.51 V	294	61.31	37.39		
3	11160.00	54.0 PK	74.0	-20.0	1.00 V	345	6.37	47.63		
4	11160.00	43.0 AV	54.0	-11.0	1.00 V	345	-4.63	47.63		
5	#16740.00	56.3 PK	68.3	-12.0	1.00 V	58	7.59	48.71		

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

Report No.: RF120720E09-1 R2 44 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5660.00	102.9 PK			1.25 H	253	65.29	37.61		
2	*5660.00	94.7 AV			1.25 H	253	57.09	37.61		
3	11320.00	52.0 PK	74.0	-22.0	1.06 H	163	4.23	47.77		
4	11320.00	40.0 AV	54.0	-14.0	1.06 H	163	-7.77	47.77		
5	#16980.00	55.3 PK	68.3	-13.0	1.09 H	51	6.34	48.96		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	107.3 PK			1.53 V	265	69.69	37.61		
2	*5660.00	98.7 AV			1.53 V	265	61.09	37.61		
3	11320.00	53.3 PK	74.0	-20.7	1.00 V	341	5.53	47.77		
4	11320.00	42.3 AV	54.0	-11.7	1.00 V	341	-5.47	47.77		
5	#16980.00	56.9 PK	68.3	-11.4	1.00 V	75	7.94	48.96		

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

Report No.: RF120720E09-1 R2 45 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5700.00	102.9 PK			1.23 H	296	65.17	37.73		
2	*5700.00	94.6 AV			1.23 H	296	56.87	37.73		
3	#5725.00	61.3 PK	68.3	-7.0	1.23 H	296	23.50	37.80		
4	11400.00	52.0 PK	74.0	-22.0	1.08 H	144	4.45	47.55		
5	11400.00	40.4 AV	54.0	-13.6	1.08 H	144	-7.15	47.55		
6	#17100.00	55.4 PK	68.3	-12.9	1.11 H	57	5.59	49.81		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5700.00	104.4 PK			1.50 V	277	66.67	37.73		
2	*5700.00	96.1 AV			1.50 V	277	58.37	37.73		
3	#5725.00	61.4 PK	68.3	-6.9	1.50 V	277	23.60	37.80		
4	11400.00	53.3 PK	74.0	-20.7	1.00 V	348	5.75	47.55		
5	11400.00	42.4 AV	54.0	-11.6	1.00 V	348	-5.15	47.55		
6	#17100.00	56.2 PK	68.3	-12.1	1.00 V	78	6.39	49.81		

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

Report No.: RF120720E09-1 R2 46 of 127 Re Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



# 802.11n (HT20)

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

		ANTENNA	POLARITY &	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	1.21 H	97	14.97	36.53
2	5150.00	41.4 AV	54.0	-12.6	1.21 H	97	4.87	36.53
3	*5180.00	100.6 PK			1.26 H	120	64.03	36.57
4	*5180.00	92.3 AV			1.26 H	120	55.73	36.57
5	#10360.00	52.2 PK	68.3	-16.1	1.03 H	168	5.58	46.62
6	15540.00	55.7 PK	74.0	-18.3	1.00 H	40	7.20	48.50
7	15540.00	45.2 AV	54.0	-8.8	1.00 H	40	-3.30	48.50
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.5 PK	74.0	-18.5	1.44 V	184	18.97	36.53
2	5150.00	45.1 AV	54.0	-8.9	1.44 V	184	8.57	36.53
3	*5180.00	108.8 PK			1.44 V	184	72.23	36.57
4	*5180.00	100.0 AV			1.44 V	184	63.43	36.57
5	#10360.00	52.7 PK	68.3	-15.6	1.01 V	355	6.08	46.62
J	#10000.00	JZ.7 1 IX	00.0	10.0				
6	15540.00	55.7 PK	74.0	-18.3	1.02 V	59	7.20	48.50

## **REMARKS:**

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

Report No.: RF120720E09-1 R2 47 of 127
Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	103.6 PK			1.44 H	226	67.00	36.60		
2	*5200.00	95.4 AV			1.44 H	226	58.80	36.60		
3	#10400.00	52.2 PK	68.3	-16.1	1.02 H	164	5.68	46.52		
4	15600.00	54.7 PK	74.0	-19.3	1.04 H	53	6.36	48.34		
5	15600.00	45.0 AV	54.0	-9.0	1.04 H	53	-3.34	48.34		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	113.9 PK			1.00 V	197	77.30	36.60		
2	*5200.00	105.9 AV			1.00 V	197	69.30	36.60		
3	#10400.00	52.9 PK	68.3	-15.4	1.00 V	341	6.38	46.52		
4	15600.00	54.4 PK	74.0	-19.6	1.00 V	85	6.06	48.34		
5	15600.00	44.5 AV	54.0	-9.5	1.00 V	85	-3.84	48.34		

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

Report No.: RF120720E09-1 R2 48 of 127 Report Format Version 5.0.0



CHANNEL	TX Channel 44	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	103.3 PK			1.44 H	233	66.66	36.64		
2	*5220.00	95.3 AV			1.44 H	233	58.66	36.64		
3	#10440.00	52.6 PK	68.3	-15.7	1.04 H	155	5.93	46.67		
4	15660.00	55.8 PK	74.0	-18.2	1.02 H	15	7.63	48.17		
5	15660.00	45.6 AV	54.0	-8.4	1.02 H	15	-2.57	48.17		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	113.7 PK			1.04 V	204	77.06	36.64		
2	*5220.00	106.2 AV			1.04 V	204	69.56	36.64		
3	#10440.00	53.1 PK	68.3	-15.2	1.06 V	329	6.43	46.67		
	15660.00	55.1 PK	74.0	-18.9	1.04 V	78	6.93	48.17		
4	13000.00	33.1 FK	74.0	10.5	1.04 V	70	0.5	40.17		

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

Report No.: RF120720E09-1 R2 49 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	104.0 PK			1.42 H	340	67.32	36.68		
2	*5240.00	95.6 AV			1.42 H	340	58.92	36.68		
3	#10480.00	53.2 PK	68.3	-15.1	1.08 H	166	6.38	46.82		
4	15720.00	55.3 PK	74.0	-18.7	1.05 H	42	7.23	48.07		
5	15720.00	45.2 AV	54.0	-8.8	1.05 H	42	-2.87	48.07		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	112.6 PK			1.40 V	190	75.92	36.68		
2	*5240.00	104.6 AV			1.40 V	190	67.92	36.68		
3	#10480.00	53.0 PK	68.3	-15.3	1.00 V	333	6.18	46.82		
4	15720.00	54.8 PK	74.0	-19.2	1.00 V	64	6.73	48.07		
5	15720.00	44.5 AV	54.0	-9.5	1.00 V	64	-3.57	48.07		

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

Report No.: RF120720E09-1 R2 50 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	104.4 PK			1.39 H	319	67.68	36.72		
2	*5260.00	96.0 AV			1.39 H	319	59.28	36.72		
3	#10520.00	51.9 PK	68.3	-16.4	1.00 H	133	5.01	46.89		
4	15780.00	54.5 PK	74.0	-19.5	1.10 H	27	6.41	48.09		
5	15780.00	44.6 AV	54.0	-9.4	1.10 H	27	-3.49	48.09		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	112.5 PK			1.44 V	195	75.78	36.72		
2	*5260.00	104.5 AV			1.44 V	195	67.78	36.72		
3	#10520.00	52.8 PK	68.3	-15.5	1.00 V	339	5.91	46.89		
4	15780.00	54.9 PK	74.0	-19.1	1.00 V	65	6.81	48.09		
5	15780.00	44.5 AV	54.0	-9.5	1.00 V	65	-3.59	48.09		

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

Report No.: RF120720E09-1 R2 51 of 127 Report Format Version 5.0.0



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	104.0 PK			1.34 H	315	67.20	36.80
2	*5300.00	95.8 AV			1.34 H	315	59.00	36.80
3	10600.00	52.6 PK	74.0	-21.4	1.04 H	181	5.69	46.91
4	10600.00	41.0 AV	54.0	-13.0	1.04 H	181	-5.91	46.91
5	15900.00	55.5 PK	74.0	-18.5	1.02 H	47	8.09	47.41
6	15900.00	44.9 AV	54.0	-9.1	1.02 H	47	-2.51	47.41
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	112.0 PK			1.51 V	190	75.20	36.80
2	*5300.00	104.2 AV			1.51 V	190	67.40	36.80
3	10600.00	53.4 PK	74.0	-20.6	1.02 V	347	6.49	46.91
4	10600.00	42.8 AV	54.0	-11.2	1.02 V	347	-4.11	46.91
5	15900.00	55.2 PK	74.0	-18.8	1.00 V	81	7.79	47.41
6	15900.00	45.2 AV	54.0	-8.8	1.00 V	81	-2.21	47.41

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

Report No.: RF120720E09-1 R2 52 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	102.5 PK			1.17 H	257	65.66	36.84
2	*5320.00	94.0 AV			1.17 H	257	57.16	36.84
3	5350.00	57.2 PK	74.0	-16.8	1.28 H	251	20.31	36.89
4	5350.00	44.3 AV	54.0	-9.7	1.28 H	251	7.41	36.89
5	10640.00	52.8 PK	74.0	-21.2	1.00 H	150	5.80	47.00
6	10640.00	41.1 AV	54.0	-12.9	1.00 H	150	-5.90	47.00
7	15960.00	56.5 PK	74.0	-17.5	1.11 H	58	8.93	47.57
8	15960.00	46.1 AV	54.0	-7.9	1.11 H	58	-1.47	47.57
		ANTENNA	A POLARITY	/ & TEST DI	ISTANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	110.9 PK			1.30 V	234	74.06	36.84
2	*5320.00	101.4 AV			1.30 V	234	64.56	36.84
3	5350.00	65.5 PK	74.0	-8.5	1.30 V	358	28.61	36.89
4	5350.00	51.9 AV	54.0	-2.1	1.30 V	358	15.01	36.89
5	10640.00	53.6 PK	74.0	-20.4	1.06 V	353	6.60	47.00
6	10640.00	43.0 AV	54.0	-11.0	1.06 V	353	-4.00	47.00
7	15960.00	54.8 PK	74.0	-19.2	1.03 V	80	7.23	47.57
8	15960.00	44.6 AV	54.0	-9.4	1.03 V	80	-2.97	47.57

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

Report No.: RF120720E09-1 R2 53 of 127 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	<u>AT 3 M</u>	
NO.	FREQ. (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	52.7 PK	74.0	-21.3	1.38 H	330	15.55	37.15
2	5460.00	43.1 AV	54.0	-10.9	1.38 H	330	5.95	37.15
3	#5470.00	56.8 PK	68.3	-11.5	1.37 H	327	19.63	37.17
4	*5500.00	100.2 PK			1.37 H	335	62.95	37.25
5	*5500.00	91.9 AV			1.37 H	335	54.65	37.25
6	11000.00	52.2 PK	74.0	-21.8	1.08 H	154	4.49	47.71
7	11000.00	40.3 AV	54.0	-13.7	1.08 H	154	-7.41	47.71
8	#16500.00	55.7 PK	68.3	-12.6	1.19 H	48	7.48	48.22
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.7 PK	74.0	-14.3	1.27 V	353	22.55	37.15
2	5460.00	45.8 AV	54.0	-8.2	1.27 V	353	8.65	37.15
3	#5470.00	65.3 PK	68.3	-3.0	1.27 V	353	28.13	37.17
4	*5500.00	106.7 PK			1.27 V	294	69.45	37.25
5	*5500.00	97.9 AV			1.27 V	294	60.65	37.25
6	11000.00	53.7 PK	74.0	-20.3	1.05 V	360	5.99	47.71
7	11000.00	43.2 AV	54.0	-10.8	1.05 V	360	-4.51	47.71
8	#16500.00	56.1 PK	68.3	-12.2	1.03 V	58	7.88	48.22

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

Report No.: RF120720E09-1 R2 54 of 127 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5520.00	103.0 PK			1.17 H	237	65.72	37.28	
2	*5520.00	94.8 AV			1.17 H	237	57.52	37.28	
3	11040.00	52.1 PK	74.0	-21.9	1.05 H	146	4.44	47.66	
4	11040.00	40.2 AV	54.0	-13.8	1.05 H	146	-7.46	47.66	
5	#16560.00	54.6 PK	68.3	-13.7	1.11 H	56	6.37	48.23	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5520.00	107.5 PK			1.00 V	298	70.22	37.28	
2	*5520.00	98.3 AV			1.00 V	298	61.02	37.28	
3	11040.00	53.7 PK	74.0	-20.3	1.04 V	329	6.04	47.66	
				44.4	4.04.1/	220	F 00	47.00	
4	11040.00	42.6 AV	54.0	-11.4	1.04 V	329	-5.06	47.66	

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

Report No.: RF120720E09-1 R2 55 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5580.00	103.0 PK			1.18 H	241	65.61	37.39		
2	*5580.00	94.8 AV			1.18 H	241	57.41	37.39		
3	11160.00	52.2 PK	74.0	-21.8	1.04 H	128	4.57	47.63		
4	11160.00	40.8 AV	54.0	-13.2	1.04 H	128	-6.83	47.63		
5	#16740.00	55.4 PK	68.3	-12.9	1.25 H	42	6.69	48.71		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5580.00	107.7 PK			1.55 V	298	70.31	37.39		
2	*5580.00	99.0 AV			1.55 V	298	61.61	37.39		
3	11160.00	53.0 PK	74.0	-21.0	1.03 V	328	5.37	47.63		
4	11160.00	42.2 AV	54.0	-11.8	1.03 V	328	-5.43	47.63		
5	#16740.00	56.3 PK	68.3	-12.0	1.00 V	89	7.59	48.71		

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5660.00	103.0 PK			1.29 H	237	65.39	37.61		
2	*5660.00	94.6 AV			1.29 H	237	56.99	37.61		
3	11320.00	51.7 PK	74.0	-22.3	1.01 H	150	3.93	47.77		
4	11320.00	39.7 AV	54.0	-14.3	1.01 H	150	-8.07	47.77		
5	#16980.00	54.8 PK	68.3	-13.5	1.15 H	56	5.84	48.96		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	107.5 PK			1.57 V	278	69.89	37.61		
2	*5660.00	98.6 AV			1.57 V	278	60.99	37.61		
3	11320.00	53.5 PK	74.0	-20.5	1.05 V	351	5.73	47.77		
4	11320.00	42.8 AV	54.0	-11.2	1.05 V	351	-4.97	47.77		
5	#16980.00	55.9 PK	68.3	-12.4	1.06 V	71	6.94	48.96		

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

Report No.: RF120720E09-1 R2 57 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5700.00	103.3 PK			1.29 H	301	65.57	37.73		
2	*5700.00	94.7 AV			1.29 H	301	56.97	37.73		
3	#5725.00	61.7 PK	68.3	-6.6	1.18 H	312	23.90	37.80		
4	11400.00	52.2 PK	74.0	-21.8	1.03 H	135	4.65	47.55		
5	11400.00	40.6 AV	54.0	-13.4	1.03 H	135	-6.95	47.55		
6	#17100.00	55.9 PK	68.3	-12.4	1.14 H	69	6.09	49.81		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	105.2 PK			1.50 V	277	67.47	37.73		
2	*5700.00	96.1 AV			1.50 V	277	58.37	37.73		
3	#5725.00	66.1 PK	68.3	-2.2	1.50 V	277	28.30	37.80		
4	11400.00	54.0 PK	74.0	-20.0	1.04 V	346	6.45	47.55		
5	11400.00	42.8 AV	54.0	-11.2	1.04 V	346	-4.75	47.55		
6	#17100.00	56.7 PK	68.3	-11.6	1.05 V	79	6.89	49.81		

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

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# 4.2.9 TEST RESULTS (MODE 2)

# **BELOW 1GHz WORST-CASE DATA**

# 802.11n (HT20)

CHANNEL	TX Channel 140	DETECTOR	Ounci Book (OB)
FREQUENCY RANGE	Below 1GHz	FUNCTION	Quasi-Peak (QP)

-									
	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	192.00	35.4 QP	43.5	-8.1	1.61 H	292	22.82	12.54	
2	320.00	37.5 QP	46.0	-8.5	1.17 H	56	20.64	16.87	
3	448.00	37.6 QP	46.0	-8.4	1.18 H	244	17.05	20.59	
4	576.00	31.6 QP	46.0	-14.4	1.24 H	62	6.89	24.73	
5	640.00	38.8 QP	46.0	-7.3	1.27 H	44	12.44	26.31	
6	704.00	37.2 QP	46.0	-8.8	1.08 H	63	10.16	27.08	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	128.00	34.2 QP	43.5	-9.3	1.03 V	111	20.78	13.40	
2	192.00	31.7 QP	43.5	-11.8	1.05 V	32	19.18	12.54	
3	320.00	34.7 QP	46.0	-11.3	1.46 V	87	17.83	16.87	
4	448.00	35.4 QP	46.0	-10.6	1.09 V	198	14.78	20.59	
5	576.00	30.3 QP	46.0	-15.7	1.26 V	200	5.61	24.73	
6	640.00	38.5 QP	46.0	-7.5	1.03 V	178	12.15	26.31	

## **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).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.

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### **ABOVE 1GHz DATA**

## 802.11a

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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.1 PK	74.0	-14.9	1.51 H	229	22.57	36.53
2	5150.00	46.8 AV	54.0	-7.2	1.51 H	229	10.27	36.53
3	*5180.00	102.1 PK			1.51 H	229	65.53	36.57
4	*5180.00	91.2 AV			1.51 H	229	54.63	36.57
5	#10360.00	53.9 PK	68.3	-14.4	1.00 H	215	7.28	46.62
6	15540.00	54.6 PK	74.0	-19.4	1.00 H	25	6.10	48.50
7	15540.00	43.1 AV	54.0	-10.9	1.00 H	25	-5.40	48.50
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	66.7 PK	74.0	-7.3	1.43 V	64	30.17	36.53
2	5150.00	51.7 AV	54.0	-2.3	1.43 V	64	15.17	36.53
3	*5180.00	108.5 PK			1.43 V	64	71.93	36.57
4	*5180.00	100.7 AV			1.43 V	64	64.13	36.57
5	#10360.00	54.3 PK	68.3	-14.0	1.05 V	22	7.68	46.62
6	15540.00	55.3 PK	74.0	-18.7	1.00 V	151	6.80	48.50
7	15540.00	45.1 AV	54.0	-8.9	1.00 V	151	-3.40	48.50

# **REMARKS:**

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

Report No.: RF120720E09-1 R2 60 of 127 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	103.3 PK			1.52 H	227	66.70	36.60		
2	*5200.00	91.9 AV			1.52 H	227	55.30	36.60		
3	#10400.00	54.1 PK	68.3	-14.2	1.00 H	221	7.58	46.52		
4	15600.00	54.5 PK	74.0	-19.5	1.00 H	29	6.16	48.34		
5	15600.00	43.3 AV	54.0	-10.7	1.00 H	29	-5.04	48.34		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	109.1 PK			1.43 V	66	72.50	36.60		
2	*5200.00	101.4 AV			1.43 V	66	64.80	36.60		
				4.4.=	4.00.14	04	7.00	40.50		
3	#10400.00	53.6 PK	68.3	-14.7	1.00 V	21	7.08	46.52		
3	#10400.00 15600.00	53.6 PK 55.1 PK	68.3 74.0	-14. <i>7</i> -18.9	1.00 V 1.00 V	155	6.76	48.34		

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

Report No.: RF120720E09-1 R2 61 of 127 Report Format Version 5.0.0



CHANNEL	TX Channel 44	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	102.7 PK			1.53 H	225	66.06	36.64		
2	*5220.00	91.6 AV			1.53 H	225	54.96	36.64		
3	#10440.00	54.6 PK	68.3	-13.7	1.00 H	218	7.93	46.67		
4	15660.00	54.2 PK	74.0	-19.8	1.00 H	31	6.03	48.17		
5	15660.00	43.5 AV	54.0	-10.5	1.00 H	31	-4.67	48.17		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	108.9 PK			1.43 V	67	72.26	36.64		
2	*5220.00	101.1 AV			1.43 V	67	64.46	36.64		
3	#10440.00	53.3 PK	68.3	-15.0	1.00 V	24	6.63	46.67		
4	15660.00	55.3 PK	74.0	-18.7	1.00 V	153	7.13	48.17		
5	15660.00	45.7 AV	54.0	-8.3	1.00 V	153	-2.47	48.17		

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

Report No.: RF120720E09-1 R2 62 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	102.6 PK			1.51 H	226	65.92	36.68		
2	*5240.00	91.8 AV			1.51 H	226	55.12	36.68		
3	#10480.00	54.3 PK	68.3	-14.0	1.00 H	219	7.48	46.82		
4	15720.00	54.3 PK	74.0	-19.7	1.00 H	32	6.23	48.07		
5	15720.00	43.1 AV	54.0	-10.9	1.00 H	32	-4.97	48.07		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	109.0 PK			1.42 V	65	72.32	36.68		
2	*5240.00	101.3 AV			1.42 V	65	64.62	36.68		
3	#10480.00	53.2 PK	68.3	-15.1	1.00 V	31	6.38	46.82		
4	15720.00	55.4 PK	74.0	-18.6	1.00 V	153	7.33	48.07		
5	15720.00	45.9 AV	54.0	-8.1	1.00 V	153	-2.17	48.07		

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

Report No.: RF120720E09-1 R2 63 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	102.6 PK			1.53 H	224	65.88	36.72		
2	*5260.00	91.6 AV			1.53 H	224	54.88	36.72		
3	#10520.00	54.2 PK	68.3	-14.1	1.00 H	217	7.31	46.89		
4	15780.00	55.1 PK	74.0	-18.9	1.00 H	33	7.01	48.09		
5	15780.00	43.5 AV	54.0	-10.5	1.00 H	33	-4.59	48.09		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	108.9 PK			1.43 V	63	72.18	36.72		
2	*5260.00	101.2 AV			1.43 V	63	64.48	36.72		
3	#10520.00	53.3 PK	68.3	-15.0	1.00 V	25	6.41	46.89		
4	15780.00	55.9 PK	74.0	-18.1	1.00 V	155	7.81	48.09		
5	15780.00	46.1 AV	54.0	-7.9	1.00 V	155	-1.99	48.09		

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

Report No.: RF120720E09-1 R2 64 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5300.00	102.2 PK			1.52 H	226	65.40	36.80		
2	*5300.00	91.5 AV			1.52 H	226	54.70	36.80		
3	10600.00	54.1 PK	74.0	-19.9	1.00 H	213	7.19	46.91		
4	10600.00	42.9 AV	54.0	-11.1	1.00 H	213	-4.01	46.91		
5	15900.00	55.5 PK	74.0	-18.5	1.00 H	36	8.09	47.41		
6	15900.00	43.6 AV	54.0	-10.4	1.00 H	36	-3.81	47.41		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	109.2 PK			1.41 V	61	72.40	36.80		
2	*5300.00	101.0 AV			1.41 V	61	64.20	36.80		
3	10600.00	53.1 PK	74.0	-20.9	1.00 V	20	6.19	46.91		
4	10600.00	42.8 AV	54.0	-11.2	1.00 V	20	-4.11	46.91		
5	15900.00	55.8 PK	74.0	-18.2	1.00 V	153	8.39	47.41		
6	15900.00	45.5 AV	54.0	-8.5	1.00 V	153	-1.91	47.41		

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

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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	102.3 PK			1.50 H	225	65.46	36.84
2	*5320.00	91.3 AV			1.50 H	225	54.46	36.84
3	5350.00	58.7 PK	74.0	-15.3	1.50 H	225	21.81	36.89
4	5350.00	45.7 AV	54.0	-8.3	1.50 H	225	8.81	36.89
5	10640.00	54.3 PK	74.0	-19.7	1.00 H	216	7.30	47.00
6	10640.00	42.1 AV	54.0	-11.9	1.00 H	216	-4.90	47.00
7	15960.00	55.6 PK	74.0	-18.4	1.00 H	34	8.03	47.57
8	15960.00	43.5 AV	54.0	-10.5	1.00 H	34	-4.07	47.57
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	109.1 PK			1.40 V	58	72.26	36.84
2	*5320.00	101.1 AV			1.40 V	58	64.26	36.84
3	5350.00	64.9 PK	74.0	-9.1	1.40 V	58	28.01	36.89
4	5350.00	50.9 AV	54.0	-3.1	1.40 V	58	14.01	36.89
5	10640.00	53.3 PK	74.0	-20.7	1.00 V	21	6.30	47.00
6	10640.00	42.9 AV	54.0	-11.1	1.00 V	21	-4.10	47.00
7	15960.00	55.6 PK	74.0	-18.4	1.00 V	156	8.03	47.57
8	15960.00	45.3 AV	54.0	-8.7	1.00 V	156	-2.27	47.57

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

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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	53.3 PK	74.0	-20.7	1.48 H	275	16.15	37.15
2	5460.00	41.3 AV	54.0	-12.7	1.48 H	275	4.15	37.15
3	#5470.00	56.7 PK	68.3	-11.6	1.48 H	275	19.53	37.17
4	*5500.00	97.2 PK			1.48 H	275	59.95	37.25
5	*5500.00	87.6 AV			1.48 H	275	50.35	37.25
6	11000.00	54.2 PK	74.0	-19.8	1.00 H	212	6.49	47.71
7	11000.00	42.3 AV	54.0	-11.7	1.00 H	212	-5.41	47.71
8	#16500.00	55.4 PK	68.3	-12.9	1.00 H	33	7.18	48.22
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	53.5 PK	74.0	-20.5	1.21 V	306	16.35	37.15
2	5460.00	42.6 AV	54.0	-11.4	1.21 V	306	5.45	37.15
3	#5470.00	65.9 PK	68.3	-2.4	1.21 V	306	28.73	37.17
4	*5500.00	107.7 PK			1.21 V	306	70.45	37.25
5	*5500.00	99.7 AV			1.21 V	306	62.45	37.25
6	11000.00	53.3 PK	74.0	-20.7	1.00 V	23	5.59	47.71
7	11000.00	42.7 AV	54.0	-11.3	1.00 V	23	-5.01	47.71
8	#16500.00	55.6 PK	68.3	-12.7	1.00 V	151	7.38	48.22

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5520.00	98.8 PK			1.50 H	277	61.52	37.28	
2	*5520.00	88.9 AV			1.50 H	277	51.62	37.28	
3	11040.00	53.9 PK	74.0	-20.1	1.00 H	213	6.24	47.66	
4	11040.00	41.9 AV	54.0	-12.1	1.00 H	213	-5.76	47.66	
5	#16560.00	55.6 PK	68.3	-12.7	1.00 H	31	7.37	48.23	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5520.00	108.0 PK			1.25 V	233	70.72	37.28	
2	*5520.00	100.1 AV			1.25 V	233	62.82	37.28	
3	11040.00	53.6 PK	74.0	-20.4	1.00 V	51	5.94	47.66	
4	11040.00	43.3 AV	54.0	-10.7	1.00 V	51	-4.36	47.66	
5	#16560.00	55.3 PK	68.3	-13.0	1.00 V	149	7.07	48.23	

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5580.00	98.4 PK			1.48 H	116	61.01	37.39	
2	*5580.00	88.8 AV			1.48 H	116	51.41	37.39	
3	11160.00	53.4 PK	74.0	-20.6	1.00 H	216	5.77	47.63	
4	11160.00	42.2 AV	54.0	-11.8	1.00 H	216	-5.43	47.63	
5	#16740.00	55.8 PK	68.3	-12.5	1.00 H	33	7.09	48.71	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5580.00	107.9 PK			1.25 V	239	70.51	37.39	
2	*5580.00	100.3 AV			1.25 V	239	62.91	37.39	
3	11160.00	53.3 PK	74.0	-20.7	1.00 V	55	5.67	47.63	
4	11160.00	43.5 AV	54.0	-10.5	1.00 V	55	-4.13	47.63	

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5660.00	98.6 PK			1.45 H	114	60.99	37.61		
2	*5660.00	89.1 AV			1.45 H	114	51.49	37.61		
3	11320.00	53.2 PK	74.0	-20.8	1.00 H	215	5.43	47.77		
4	11320.00	41.2 AV	54.0	-12.8	1.00 H	215	-6.57	47.77		
5	#16980.00	55.1 PK	68.3	-13.2	1.00 H	31	6.14	48.96		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	108.3 PK			1.25 V	238	70.69	37.61		
2	*5660.00	100.4 AV			1.25 V	238	62.79	37.61		
3	11320.00	53.1 PK	74.0	-20.9	1.00 V	53	5.33	47.77		
4	11320.00	43.7 AV	54.0	-10.3	1.00 V	53	-4.07	47.77		
5	#16980.00	55.3 PK	68.3	-13.0	1.00 V	155	6.34	48.96		

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5700.00	96.5 PK			1.49 H	118	58.77	37.73		
2	*5700.00	87.3 AV			1.49 H	118	49.57	37.73		
3	#5725.00	58.1 PK	68.3	-10.2	1.49 H	118	20.30	37.80		
4	11400.00	53.3 PK	74.0	-20.7	1.00 H	221	5.75	47.55		
5	11400.00	41.9 AV	54.0	-12.1	1.00 H	221	-5.65	47.55		
6	#17100.00	55.9 PK	68.3	-12.4	1.00 H	35	6.09	49.81		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5700.00	107.9 PK			1.24 V	316	70.17	37.73		
2	*5700.00	99.3 AV			1.24 V	316	61.57	37.73		
3	#5725.00	65.9 PK	68.3	-2.4	1.24 V	316	28.10	37.80		
4	11400.00	53.2 PK	74.0	-20.8	1.00 V	56	5.65	47.55		
5	11400.00	43.6 AV	54.0	-10.4	1.00 V	56	-3.95	47.55		
6	#17100.00	55.9 PK	68.3	-12.4	1.00 V	156	6.09	49.81		

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

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# 802.11n (HT20)

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

		<b>ANTENNA</b>	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.3 PK	74.0	-14.7	1.45 H	228	22.77	36.53
2	5150.00	46.6 AV	54.0	-7.4	1.45 H	228	10.07	36.53
3	*5180.00	102.1 PK			1.45 H	228	65.53	36.57
4	*5180.00	90.3 AV			1.45 H	228	53.73	36.57
5	#10360.00	53.6 PK	68.3	-14.7	1.00 H	217	6.98	46.62
6	15540.00	55.6 PK	74.0	-18.4	1.00 H	36	7.10	48.50
7	15540.00	45.8 AV	54.0	-8.2	1.00 H	36	-2.70	48.50
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.4 PK	74.0	-5.6	1.43 V	64	31.87	36.53
2	5150.00	51.3 AV	54.0	-2.7	1.43 V	64	14.77	36.53
3	*5180.00	109.3 PK			1.43 V	64	72.73	36.57
4	*5180.00	100.1 AV			1.43 V	64	63.53	36.57
5	#10360.00	53.9 PK	68.3	-14.4	1.00 V	54	7.28	46.62
6	15540.00	55.6 PK	74.0	-18.4	1.00 V	151	7.10	48.50
7	15540.00	45.7 AV	54.0	-8.3	1.00 V	151	-2.80	48.50

## **REMARKS:**

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

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Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	102.9 PK			1.48 H	225	66.30	36.60		
2	*5200.00	91.1 AV			1.48 H	225	54.50	36.60		
3	#10400.00	53.1 PK	68.3	-15.2	1.00 H	216	6.58	46.52		
4	15600.00	55.1 PK	74.0	-18.9	1.00 H	33	6.76	48.34		
5	15600.00	45.6 AV	54.0	-8.4	1.00 H	33	-2.74	48.34		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	110.2 PK			1.45 V	61	73.60	36.60		
2	*5200.00	101.2 AV			1.45 V	61	64.60	36.60		
3	#10400.00	53.6 PK	68.3	-14.7	1.00 V	53	7.08	46.52		
4	15600.00	55.1 PK	74.0	-18.9	1.00 V	156	6.76	48.34		
5	15600.00	45.3 AV	54.0	-8.7	1.00 V	156	-3.04	48.34		

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

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CHANNEL	TX Channel 44	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	102.6 PK			1.48 H	229	65.96	36.64		
2	*5220.00	91.3 AV			1.48 H	229	54.66	36.64		
3	#10440.00	53.4 PK	68.3	-14.9	1.00 H	215	6.73	46.67		
4	15660.00	56.1 PK	74.0	-17.9	1.00 H	31	7.93	48.17		
5	15660.00	45.7 AV	54.0	-8.3	1.00 H	31	-2.47	48.17		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	109.6 PK			1.43 V	62	72.96	36.64		
2	*5220.00	101.1 AV			1.43 V	62	64.46	36.64		
3	#10440.00	54.0 PK	68.3	-14.3	1.00 V	55	7.33	46.67		
4	15660.00	55.3 PK	74.0	-18.7	1.00 V	157	7.13	48.17		
5	15660.00	45.1 AV	54.0	-8.9	1.00 V	157	-3.07	48.17		

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	102.5 PK			1.46 H	224	65.82	36.68		
2	*5240.00	91.2 AV			1.46 H	224	54.52	36.68		
3	#10480.00	53.3 PK	68.3	-15.0	1.00 H	219	6.48	46.82		
4	15720.00	55.6 PK	74.0	-18.4	1.00 H	33	7.53	48.07		
5	15720.00	45.9 AV	54.0	-8.1	1.00 H	33	-2.17	48.07		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	109.8 PK			1.44 V	65	73.12	36.68		
2	*5240.00	101.3 AV			1.44 V	65	64.62	36.68		
3	#10480.00	53.2 PK	68.3	-15.1	1.00 V	51	6.38	46.82		
4	15720.00	55.5 PK	74.0	-18.5	1.00 V	159	7.43	48.07		
5	15720.00	45.6 AV	54.0	-8.4	1.00 V	159	-2.47	48.07		

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	102.7 PK			1.44 H	229	65.98	36.72		
2	*5260.00	91.3 AV			1.44 H	229	54.58	36.72		
3	#10520.00	53.2 PK	68.3	-15.1	1.00 H	210	6.31	46.89		
4	15780.00	55.7 PK	74.0	-18.3	1.00 H	29	7.61	48.09		
5	15780.00	45.8 AV	54.0	-8.2	1.00 H	29	-2.29	48.09		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	111.1 PK			1.43 V	63	74.38	36.72		
2	*5260.00	101.5 AV			1.43 V	63	64.78	36.72		
3	#10520.00	53.6 PK	68.3	-14.7	1.00 V	55	6.71	46.89		
4	15780.00	55.1 PK	74.0	-18.9	1.00 V	153	7.01	48.09		
5	15780.00	45.2 AV	54.0	-8.8	1.00 V	153	-2.89	48.09		

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

Report No.: RF120720E09-1 R2 76 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	102.5 PK			1.45 H	230	65.70	36.80
2	*5300.00	91.1 AV			1.45 H	230	54.30	36.80
3	10600.00	53.3 PK	74.0	-20.7	1.00 H	211	6.39	46.91
4	10600.00	43.2 AV	54.0	-10.8	1.00 H	211	-3.71	46.91
5	15900.00	55.8 PK	74.0	-18.2	1.00 H	23	8.39	47.41
6	15900.00	45.6 AV	54.0	-8.4	1.00 H	23	-1.81	47.41
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	110.9 PK			1.42 V	61	74.10	36.80
2	*5300.00	101.2 AV			1.42 V	61	64.40	36.80
3	10600.00	53.6 PK	74.0	-20.4	1.00 V	53	6.69	46.91
4	10600.00	43.9 AV	54.0	-10.1	1.00 V	53	-3.01	46.91
5	15900.00	55.6 PK	74.0	-18.4	1.00 V	156	8.19	47.41
6	15900.00	45.3 AV	54.0	-8.7	1.00 V	156	-2.11	47.41

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

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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	100.6 PK			1.43 H	228	63.76	36.84
2	*5320.00	90.5 AV			1.43 H	228	53.66	36.84
3	5350.00	58.9 PK	74.0	-15.1	1.43 H	228	22.01	36.89
4	5350.00	45.7 AV	54.0	-8.3	1.43 H	228	8.81	36.89
5	10640.00	53.3 PK	74.0	-20.7	1.00 H	212	6.30	47.00
6	10640.00	43.7 AV	54.0	-10.3	1.00 H	212	-3.30	47.00
7	15960.00	55.6 PK	74.0	-18.4	1.00 H	25	8.03	47.57
8	15960.00	45.5 AV	54.0	-8.5	1.00 H	25	-2.07	47.57
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	109.5 PK			1.41 V	60	72.66	36.84
2	*5320.00	100.3 AV			1.41 V	60	63.46	36.84
3	5350.00	65.3 PK	74.0	-8.7	1.41 V	60	28.41	36.89
4	5350.00	50.8 AV	54.0	-3.2	1.41 V	60	13.91	36.89
5	10640.00	53.2 PK	74.0	-20.8	1.00 V	51	6.20	47.00
6	10640.00	43.2 AV	54.0	-10.8	1.00 V	51	-3.80	47.00
7	15960.00	55.6 PK	74.0	-18.4	1.00 V	153	8.03	47.57
8	15960.00	45.3 AV	54.0	-8.7	1.00 V	153	-2.27	47.57

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

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Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	52.4 PK	74.0	-21.6	1.44 H	223	15.25	37.15
2	5460.00	41.8 AV	54.0	-12.2	1.44 H	223	4.65	37.15
3	#5470.00	60.9 PK	68.3	-7.4	1.44 H	223	23.73	37.17
4	*5500.00	97.9 PK			1.44 H	223	60.65	37.25
5	*5500.00	87.6 AV			1.44 H	223	50.35	37.25
6	11000.00	53.6 PK	74.0	-20.4	1.00 H	222	5.89	47.71
7	11000.00	43.6 AV	54.0	-10.4	1.00 H	222	-4.11	47.71
8	#16500.00	55.9 PK	68.3	-12.4	1.00 H	26	7.68	48.22
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	52.9 PK	74.0	-21.1	1.21 V	301	15.75	37.15
2	5460.00	42.1 AV	54.0	-11.9	1.21 V	301	4.95	37.15
3	#5470.00	65.6 PK	68.3	-2.7	1.21 V	301	28.43	37.17
4	*5500.00	107.3 PK			1.21 V	301	70.05	37.25
5	*5500.00	98.3 AV			1.21 V	301	61.05	37.25
6	11000.00	53.5 PK	74.0	-20.5	1.00 V	50	5.79	47.71
7	11000.00	43.5 AV	54.0	-10.5	1.00 V	50	-4.21	47.71
8	#16500.00	55.6 PK	68.3	-12.7	1.00 V	151	7.38	48.22

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5520.00	97.4 PK			1.51 H	225	60.12	37.28	
2	*5520.00	88.4 AV			1.51 H	225	51.12	37.28	
3	11040.00	53.3 PK	74.0	-20.7	1.00 H	223	5.64	47.66	
4	11040.00	42.1 AV	54.0	-11.9	1.00 H	223	-5.56	47.66	
5	#16560.00	55.8 PK	68.3	-12.5	1.00 H	30	7.57	48.23	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	NO. FREQ. LEVEL LIMIT MARGIN HEIGHT ANGLE VALUE FAC							CORRECTION FACTOR (dB/m)	
					(,	(= - 3)	( ,	` ,	
1	*5520.00	108.7 PK			1.21 V	302	71.42	37.28	
1	*5520.00 *5520.00	108.7 PK 99.3 AV			` '	· • ,	` ′	37.28 37.28	
			74.0	-20.9	1.21 V	302	71.42	<del></del>	
2	*5520.00	99.3 AV	74.0 54.0	-20.9 -11.7	1.21 V 1.21 V	302 302	71.42 62.02	37.28	

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

Report No.: RF120720E09-1 R2 80 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5580.00	97.6 PK			1.47 H	115	60.21	37.39	
2	*5580.00	87.6 AV			1.47 H	115	50.21	37.39	
3	11160.00	53.2 PK	74.0	-20.8	1.00 H	225	5.57	47.63	
4	11160.00	42.3 AV	54.0	-11.7	1.00 H	225	-5.33	47.63	
5	#16740.00	55.6 PK	68.3	-12.7	1.00 H	28	6.89	48.71	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5580.00	108.9 PK			1.26 V	305	71.51	37.39	
2	*5580.00	99.6 AV			1.26 V	305	62.21	37.39	
3	11160.00	53.6 PK	74.0	-20.4	1.00 V	52	5.97	47.63	
4	11160.00	42.1 AV	54.0	-11.9	1.00 V	52	-5.53	47.63	

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

Report No.: RF120720E09-1 R2 81 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5660.00	97.5 PK			1.43 H	117	59.89	37.61	
2	*5660.00	87.8 AV			1.43 H	117	50.19	37.61	
3	11320.00	53.3 PK	74.0	-20.7	1.00 H	216	5.53	47.77	
4	11320.00	42.2 AV	54.0	-11.8	1.00 H	216	-5.57	47.77	
5	#16980.00	55.7 PK	68.3	-12.6	1.00 H	30	6.74	48.96	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (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	108.6 PK			1.25 V	312	70.99	37.61	
2	*5660.00	99.7 AV			1.25 V	312	62.09	37.61	
3	11320.00	53.3 PK	74.0	-20.7	1.00 V	51	5.53	47.77	
				44.5	4.00.1/	E4	F 07	47.77	
4	11320.00	42.5 AV	54.0	-11.5	1.00 V	51	-5.27	47.77	

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5700.00	97.2 PK			1.45 H	118	59.47	37.73		
2	*5700.00	86.9 AV			1.45 H	118	49.17	37.73		
3	#5725.00	58.7 PK	68.3	-9.6	1.45 H	118	20.90	37.80		
4	11400.00	53.3 PK	74.0	-20.7	1.00 H	217	5.75	47.55		
5	11400.00	43.3 AV	54.0	-10.7	1.00 H	217	-4.25	47.55		
6	#17100.00	55.4 PK	68.3	-12.9	1.00 H	24	5.59	49.81		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5700.00	107.3 PK			1.23 V	316	69.57	37.73		
2	*5700.00	98.6 AV			1.23 V	316	60.87	37.73		
3	#5725.00	65.7 PK	68.3	-2.6	1.23 V	316	27.90	37.80		
4	11400.00	53.1 PK	74.0	-20.9	1.00 V	49	5.55	47.55		
5	11400.00	43.1 AV	54.0	-10.9	1.00 V	49	-4.45	47.55		
6	#17100.00	55.8 PK	68.3	-12.5	1.00 V	153	5.99	49.81		

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

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# 4.2.10 TEST RESULTS (MODE 3)

# **ABOVE 1GHz DATA**

### 802.11a

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	5150.00	51.2 PK	74.0	-22.8	1.36 H	87	8.90	42.30		
2	5150.00	41.0 AV	54.0	-13.0	1.36 H	87	-1.30	42.30		
3	*5180.00	97.8 PK			1.37 H	105	55.40	42.40		
4	*5180.00	90.7 AV			1.37 H	105	48.30	42.40		
5	#10360.00	51.2 PK	68.3	-17.1	1.00 H	138	1.99	49.21		
6	15540.00	53.2 PK	74.0	-20.8	1.02 H	38	-1.90	55.10		
7	15540.00	44.4 AV	54.0	-9.6	1.02 H	38	-10.70	55.10		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	54.9 PK	74.0	-19.1	1.42 V	170	12.60	42.30		
2	5150.00	44.8 AV	54.0	-9.2	1.42 V	170	2.50	42.30		
3	*5180.00	105.7 PK			1.46 V	173	63.30	42.40		
4	*5180.00	99.9 AV			1.46 V	173	57.50	42.40		
5	#10360.00	52.9 PK	68.3	-15.4	1.00 V	349	3.69	49.21		
6	15540.00	54.5 PK	74.0	-19.5	1.05 V	73	-0.60	55.10		
7	15540.00	44.5 AV	54.0	-9.5	1.05 V	73	-10.60	55.10		

# **REMARKS:**

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	102.3 PK			1.42 H	217	59.83	42.47		
2	*5200.00	94.6 AV			1.42 H	217	52.13	42.47		
3	#10400.00	52.1 PK	68.3	-16.2	1.03 H	155	3.27	48.83		
4	15600.00	53.6 PK	74.0	-20.4	1.06 H	47	-1.37	54.97		
5	15600.00	44.4 AV	54.0	-9.6	1.06 H	47	-10.57	54.97		
		ANTENNA	A POLARITY	/ & TEST D	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	111.2 PK			1.00 V	191	68.73	42.47		
2	*5200.00	104.6 AV			1.00 V	191	62.13	42.47		
3	#10400.00	52.5 PK	68.3	-15.8	1.00 V	345	3.67	48.83		
3	#10400.00 15600.00	52.5 PK 53.5 PK	68.3 74.0	-15.8 -20.5	1.00 V 1.07 V	345 86	3.67 -1.47	48.83 54.97		

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

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CHANNEL	TX Channel 44	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	102.2 PK			1.46 H	232	59.71	42.49		
2	*5220.00	94.7 AV			1.46 H	232	52.21	42.49		
3	#10440.00	51.7 PK	68.3	-16.6	1.01 H	158	2.59	49.11		
4	15660.00	54.8 PK	74.0	-19.2	1.06 H	37	0.03	54.77		
5	15660.00	45.0 AV	54.0	-9.0	1.06 H	37	-9.77	54.77		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.   FREQ.   EMISSION   LIMIT   MARGIN   HEIGHT   ANGLE   VALUE   FACTOR   CORRECT   CORRECT										
NO.	•	LEVEL			HEIGHT	ANGLE	VALUE	CORRECTION FACTOR (dB/m)		
<b>NO.</b>	•	LEVEL			HEIGHT	ANGLE	VALUE	FACTOR		
	(MHz)	LEVEL (dBuV/m)			HEIGHT (m)	ANGLE (Degree)	VALUE (dBuV)	FACTOR (dB/m)		
1	(MHz) *5220.00	LEVEL (dBuV/m) 113.2 PK			HEIGHT (m)	ANGLE (Degree)	<b>VALUE</b> (dBuV) 70.71	FACTOR (dB/m) 42.49		
1 2	*5220.00 *5220.00	LEVEL (dBuV/m) 113.2 PK 105.8 AV	(dBuV/m)	(dB)	HEIGHT (m)  1.11 V  1.11 V	ANGLE (Degree)  180	VALUE (dBuV) 70.71 63.31	FACTOR (dB/m) 42.49 42.49		

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

Report No.: RF120720E09-1 R2 86 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	100.9 PK			1.47 H	221	58.39	42.51		
2	*5240.00	94.3 AV			1.47 H	221	51.79	42.51		
3	#10480.00	50.7 PK	68.3	-17.6	1.03 H	164	1.31	49.39		
4	15720.00	53.9 PK	74.0	-20.1	1.01 H	43	-0.80	54.70		
5	15720.00	44.5 AV	54.0	-9.5	1.01 H	43	-10.20	54.70		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	111.3 PK			1.43 V	185	68.79	42.51		
2	*5240.00	104.1 AV			1.43 V	185	61.59	42.51		
3	#10480.00	51.3 PK	68.3	-17.0	1.00 V	351	1.91	49.39		
4	15720.00	54.4 PK	74.0	-19.6	1.04 V	73	-0.30	54.70		
5	15720.00	44.8 AV	54.0	-9.2	1.04 V	73	-9.90	54.70		

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	101.5 PK			1.38 H	321	58.96	42.54		
2	*5260.00	94.4 AV			1.38 H	321	51.86	42.54		
3	#10520.00	52.3 PK	68.3	-16.0	1.12 H	172	2.81	49.49		
4	15780.00	52.3 PK	74.0	-21.7	1.03 H	34	-2.59	54.89		
5	15780.00	43.7 AV	54.0	-10.3	1.03 H	34	-11.19	54.89		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5260.00	109.9 PK			1.41 V	172	67.36	42.54		
2	*5260.00	103.4 AV			1.41 V	172	60.86	42.54		
3	#10520.00	52.5 PK	68.3	-15.8	1.00 V	360	3.01	49.49		
4	15780.00	53.3 PK	74.0	-20.7	1.00 V	58	-1.59	54.89		
5	15780.00	44.3 AV	54.0	-9.7	1.00 V	58	-10.59	54.89		

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

Report No.: RF120720E09-1 R2 88 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5300.00	102.7 PK			1.36 H	330	60.12	42.58		
2	*5300.00	94.8 AV			1.36 H	330	52.22	42.58		
3	10600.00	51.9 PK	74.0	-22.1	1.00 H	180	2.55	49.35		
4	10600.00	40.8 AV	54.0	-13.2	1.00 H	180	-8.55	49.35		
5	15900.00	54.7 PK	74.0	-19.3	1.01 H	43	-0.39	55.09		
6	15900.00	44.7 AV	54.0	-9.3	1.01 H	43	-10.39	55.09		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5300.00	108.8 PK			1.38 V	167	66.22	42.58		
2	*5300.00	102.8 AV			1.38 V	167	60.22	42.58		
3	10600.00	54.4 PK	74.0	-19.6	1.00 V	339	5.05	49.35		
4	10600.00	43.6 AV	54.0	-10.4	1.00 V	339	-5.75	49.35		
5	15900.00	53.5 PK	74.0	-20.5	1.02 V	64	-1.59	55.09		
6	15900.00	44.2 AV	54.0	-9.8	1.02 V	64	-10.89	55.09		

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

Report No.: RF120720E09-1 R2 89 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.2 PK			1.28 H	260	58.61	42.59
2	*5320.00	93.5 AV			1.28 H	260	50.91	42.59
3	5350.00	56.7 PK	74.0	-17.3	1.19 H	251	14.11	42.59
4	5350.00	43.8 AV	54.0	-10.2	1.19 H	251	1.21	42.59
5	10640.00	52.7 PK	74.0	-21.3	1.07 H	146	3.24	49.46
6	10640.00	41.2 AV	54.0	-12.8	1.07 H	146	-8.26	49.46
7	15960.00	55.1 PK	74.0	-18.9	1.08 H	73	0.27	54.83
8	15960.00	45.3 AV	54.0	-8.7	1.08 H	73	-9.53	54.83
		ANTENNA	A POLARITY	/ & TEST D	ISTANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	106.7 PK			1.30 V	353	64.11	42.59
2	*5320.00	98.6 AV			1.30 V	353	56.01	42.59
3	5350.00	58.5 PK	74.0	-15.5	1.31 V	360	15.91	42.59
4	5350.00	47.7 AV	54.0	-6.3	1.31 V	360	5.11	42.59
5	10640.00	53.8 PK	74.0	-20.2	1.00 V	344	4.34	49.46
6	10640.00	43.6 AV	54.0	-10.4	1.00 V	344	-5.86	49.46
7	15960.00	54.5 PK	74.0	-19.5	1.00 V	63	-0.33	54.83
8	15960.00	44.7 AV	54.0	-9.3	1.00 V	63	-10.13	54.83

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

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Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	52.0 PK	74.0	-22.0	1.37 H	320	9.18	42.82
2	5460.00	42.6 AV	54.0	-11.4	1.37 H	320	-0.22	42.82
3	#5470.00	55.8 PK	68.3	-12.5	1.35 H	316	12.95	42.85
4	*5500.00	99.8 PK			1.43 H	339	56.84	42.96
5	*5500.00	92.0 AV			1.43 H	339	49.04	42.96
6	11000.00	51.7 PK	74.0	-22.3	1.06 H	156	1.69	50.01
7	11000.00	40.5 AV	54.0	-13.5	1.06 H	156	-9.51	50.01
8	#16500.00	54.1 PK	68.3	-14.2	1.20 H	47	-2.27	56.37
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	56.0 PK	74.0	-18.0	1.25 V	360	13.18	42.82
2	5460.00	44.6 AV	54.0	-9.4	1.25 V	360	1.78	42.82
3	#5470.00	61.8 PK	68.3	-6.5	1.27 V	360	18.95	42.85
4	*5500.00	104.6 PK			1.26 V	359	61.64	42.96
5	*5500.00	96.7 AV			1.26 V	359	53.74	42.96
6	11000.00	52.5 PK	74.0	-21.5	1.01 V	360	2.49	50.01
7	11000.00	42.3 AV	54.0	-11.7	1.01 V	360	-7.71	50.01
8	#16500.00	55.5 PK	68.3	-12.8	1.00 V	72	-0.87	56.37

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

Report No.: RF120720E09-1 R2 91 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5520.00	101.4 PK			1.24 H	245	58.39	43.01		
2	*5520.00	94.2 AV			1.24 H	245	51.19	43.01		
3	11040.00	51.4 PK	74.0	-22.6	1.08 H	142	1.51	49.89		
4	11040.00	40.2 AV	54.0	-13.8	1.08 H	142	-9.69	49.89		
5	#16560.00	55.0 PK	68.3	-13.3	1.18 H	59	-1.90	56.90		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5520.00	107.2 PK			1.49 V	280	64.19	43.01		
2	*5520.00	98.5 AV			1.49 V	280	55.49	43.01		
3	11040.00	54.0 PK	74.0	-20.0	1.01 V	344	4.11	49.89		
4	11040.00	43.0 AV	54.0	-11.0	1.01 V	344	-6.89	49.89		
4	110-10.00	45.0 AV	01.0	11.0	1.01 0	011	0.00	10.00		

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

Report No.: RF120720E09-1 R2 92 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5580.00	101.9 PK			1.18 H	270	58.76	43.14	
2	*5580.00	94.6 AV			1.18 H	270	51.46	43.14	
3	11160.00	51.4 PK	74.0	-22.6	1.02 H	146	1.69	49.71	
4	11160.00	40.3 AV	54.0	-13.7	1.02 H	146	-9.41	49.71	
5	#16740.00	54.1 PK	68.3	-14.2	1.23 H	33	-2.32	56.42	
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5580.00	105.5 PK			1.49 V	293	62.36	43.14	
2	*5580.00	97.8 AV			1.49 V	293	54.66	43.14	
3	11160.00	54.4 PK	74.0	-19.6	1.01 V	329	4.69	49.71	
4	11160.00	43.4 AV	54.0	-10.6	1.01 V	329	-6.31	49.71	
	#16740.00	54.7 PK	68.3	-13.6	1.06 V	63	-1.72	56.42	

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

Report No.: RF120720E09-1 R2 93 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5660.00	101.6 PK			1.21 H	248	58.36	43.24		
2	*5660.00	94.2 AV			1.21 H	248	50.96	43.24		
3	11320.00	51.3 PK	74.0	-22.7	1.10 H	154	1.20	50.10		
4	11320.00	39.7 AV	54.0	-14.3	1.10 H	154	-10.40	50.10		
5	#16980.00	54.1 PK	68.3	-14.2	1.04 H	36	-3.08	57.18		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	105.7 PK			1.47 V	256	62.46	43.24		
2	*5660.00	97.9 AV			1.47 V	256	54.66	43.24		
3	11320.00	53.5 PK	74.0	-20.5	1.01 V	350	3.40	50.10		
4	11320.00	42.6 AV	54.0	-11.4	1.01 V	350	-7.50	50.10		
5	#16980.00	55.3 PK	68.3	-13.0	1.00 V	79	-1.88	57.18		

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

Report No.: RF120720E09-1 R2 94 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5700.00	101.9 PK			1.25 H	306	58.63	43.27		
2	*5700.00	94.0 AV			1.25 H	306	50.73	43.27		
3	#5725.00	61.3 PK	68.3	-7.0	1.23 H	300	18.00	43.30		
4	11400.00	50.9 PK	74.0	-23.1	1.05 H	135	0.98	49.92		
5	11400.00	40.0 AV	54.0	-14.0	1.05 H	135	-9.92	49.92		
6	#17100.00	54.5 PK	68.3	-13.8	1.10 H	50	-2.58	57.08		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	103.1 PK			1.45 V	291	59.83	43.27		
2	*5700.00	95.5 AV			1.45 V	291	52.23	43.27		
3	#5725.00	61.4 PK	68.3	-6.9	1.50 V	277	18.10	43.30		
4	11400.00	53.4 PK	74.0	-20.6	1.04 V	348	3.48	49.92		
5	11400.00	42.5 AV	54.0	-11.5	1.04 V	348	-7.42	49.92		
6	#17100.00	54.4 PK	68.3	-13.9	1.00 V	91	-2.68	57.08		

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

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Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



# 802.11n (HT20)

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	5150.00	51.0 PK	74.0	-23.0	1.16 H	107	8.70	42.30		
2	5150.00	41.0 AV	54.0	-13.0	1.16 H	107	-1.30	42.30		
3	*5180.00	99.3 PK			1.29 H	125	56.90	42.40		
4	*5180.00	91.5 AV			1.29 H	125	49.10	42.40		
5	#10360.00	52.2 PK	68.3	-16.1	1.02 H	160	2.99	49.21		
6	15540.00	54.1 PK	74.0	-19.9	1.00 H	35	-1.00	55.10		
7	15540.00	44.5 AV	54.0	-9.5	1.00 H	35	-10.60	55.10		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (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	54.4 PK	74.0	-19.6	1.44 V	195	12.10	42.30		
2	5150.00	44.4 AV	54.0	-9.6	1.44 V	195	2.10	42.30		
3	*5180.00	107.5 PK			1.49 V	196	65.10	42.40		
4	*5180.00	99.2 AV			1.49 V	196	56.80	42.40		
5	#10360.00	52.4 PK	68.3	-15.9	1.03 V	359	3.19	49.21		
6	15540.00	54.6 PK	74.0	-19.4	1.07 V	66	-0.50	55.10		
7	15540.00	44.9 AV	54.0	-9.1	1.07 V	66	-10.20	55.10		

# **REMARKS:**

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	102.7 PK			1.46 H	240	60.23	42.47		
2	*5200.00	94.9 AV			1.46 H	240	52.43	42.47		
3	#10400.00	51.0 PK	68.3	-17.3	1.04 H	171	2.17	48.83		
4	15600.00	53.4 PK	74.0	-20.6	1.10 H	60	-1.57	54.97		
5	15600.00	44.3 AV	54.0	-9.7	1.10 H	60	-10.67	54.97		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5200.00	113.0 PK			1.03 V	202	70.53	42.47		
2	*5200.00 *5200.00	113.0 PK 105.3 AV			1.03 V 1.03 V	202 202	70.53 62.83	42.47 42.47		
			68.3	-16.3		-				
2	*5200.00	105.3 AV	68.3 74.0	-16.3 -20.4	1.03 V	202	62.83	42.47		

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

Report No.: RF120720E09-1 R2 97 of 127 Report Format Version 5.0.0



CHANNEL	TX Channel 44	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	101.7 PK			1.41 H	238	59.21	42.49		
2	*5220.00	94.6 AV			1.41 H	238	52.11	42.49		
3	#10440.00	52.6 PK	68.3	-15.7	1.08 H	151	3.49	49.11		
4	15660.00	55.0 PK	74.0	-19.0	1.00 H	19	0.23	54.77		
5	15660.00	45.1 AV	54.0	-8.9	1.00 H	19	-9.67	54.77		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5220.00	112.3 PK			1.07 V	200	69.81	42.49		
2	*5220.00	105.4 AV			1.07 V	200	62.91	42.49		
3	#10440.00	52.5 PK	68.3	-15.8	1.09 V	329	3.39	49.11		
4	15660.00	53.6 PK	74.0	-20.4	1.03 V	86	-1.17	54.77		
5	15660.00	44.2 AV	54.0	-9.8	1.03 V	86	-10.57	54.77		

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

Report No.: RF120720E09-1 R2 98 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	102.9 PK			1.41 H	347	60.39	42.51		
2	*5240.00	95.2 AV			1.41 H	347	52.69	42.51		
3	#10480.00	52.6 PK	68.3	-15.7	1.06 H	177	3.21	49.39		
4	15720.00	53.9 PK	74.0	-20.1	1.04 H	46	-0.80	54.70		
5	15720.00	44.4 AV	54.0	-9.6	1.04 H	46	-10.30	54.70		
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M			
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)		
1	*5240.00	111.1 PK			1.36 V	203	68.59	42.51		
2	*5240.00	103.7 AV			1.36 V	203	61.19	42.51		
3	#10480.00	52.5 PK	68.3	-15.8	1.00 V	324	3.11	49.39		
4	15720.00	53.2 PK	74.0	-20.8	1.01 V	75	-1.50	54.70		
5	15720.00	43.7 AV	54.0	-10.3	1.01 V	75	-11.00	54.70		

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

Report No.: RF120720E09-1 R2 99 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5260.00	103.4 PK			1.36 H	329	60.86	42.54	
2	*5260.00	95.4 AV			1.36 H	329	52.86	42.54	
3	#10520.00	51.9 PK	68.3	-16.4	1.01 H	143	2.41	49.49	
4	15780.00	53.4 PK	74.0	-20.6	1.14 H	23	-1.49	54.89	
5	15780.00	43.9 AV	54.0	-10.1	1.14 H	23	-10.99	54.89	
		ANTENNA	A POLARITY	/ & TEST D	STANCE: V	ERTICAL A	T 3 M		
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)	
1	*5260.00	111.5 PK			1.48 V	207	68.96	42.54	
2	*5260.00	104.1 AV			1.48 V	207	61.56	42.54	
3	#10520.00	52.7 PK	68.3	-15.6	1.02 V	339	3.21	49.49	
	15780.00	53.9 PK	74.0	-20.1	1.00 V	54	-0.99	54.89	
4	13700.00	33.9 F K	74.0	20.1	1.00 V	5	0.55	54.05	

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

Report No.: RF120720E09-1 R2 100 of 127 Report Format Version 5.0.0



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	103.2 PK			1.36 H	326	60.62	42.58
2	*5300.00	95.4 AV			1.36 H	326	52.82	42.58
3	10600.00	51.7 PK	74.0	-22.3	1.00 H	193	2.35	49.35
4	10600.00	40.6 AV	54.0	-13.4	1.00 H	193	-8.75	49.35
5	15900.00	54.7 PK	74.0	-19.3	1.00 H	51	-0.39	55.09
6	15900.00	44.7 AV	54.0	-9.3	1.00 H	51	-10.39	55.09
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	110.7 PK			1.52 V	179	68.12	42.58
2	*5300.00	103.6 AV			1.52 V	179	61.02	42.58
3	10600.00	53.0 PK	74.0	-21.0	1.05 V	348	3.65	49.35
4	10600.00	43.0 AV	54.0	-11.0	1.05 V	348	-6.35	49.35
5	15900.00	53.6 PK	74.0	-20.4	1.01 V	79	-1.49	55.09
6	15900.00	44.3 AV	54.0	-9.7	1.01 V	79	-10.79	55.09

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

Report No.: RF120720E09-1 R2 101 of 127 Report Format Version 5.0.0



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.2 PK			1.18 H	257	58.61	42.59
2	*5320.00	93.4 AV			1.18 H	257	50.81	42.59
3	5350.00	56.9 PK	74.0	-17.1	1.23 H	256	14.31	42.59
4	5350.00	44.1 AV	54.0	-9.9	1.23 H	256	1.51	42.59
5	10640.00	52.3 PK	74.0	-21.7	1.00 H	143	2.84	49.46
6	10640.00	41.2 AV	54.0	-12.8	1.00 H	143	-8.26	49.46
7	15960.00	55.6 PK	74.0	-18.4	1.14 H	43	0.77	54.83
8	15960.00	45.7 AV	54.0	-8.3	1.14 H	43	-9.13	54.83
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (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	109.9 PK			1.26 V	240	67.31	42.59
2	*5320.00	100.8 AV			1.26 V	240	58.21	42.59
3	5350.00	64.9 PK	74.0	-9.1	1.28 V	348	22.31	42.59
4	5350.00	51.8 AV	54.0	-2.2	1.28 V	348	9.21	42.59
5	10640.00	53.3 PK	74.0	-20.7	1.02 V	351	3.84	49.46
6	10640.00	42.7 AV	54.0	-11.3	1.02 V	351	-6.76	49.46
7	15960.00	53.0 PK	74.0	-21.0	1.09 V	81	-1.83	54.83
8	15960.00	43.7 AV	54.0	-10.3	1.09 V	81	-11.13	54.83

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

Report No.: RF120720E09-1 R2 102 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

		ANTENNA	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	AT 3 M	
NO.	FREQ. (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	51.9 PK	74.0	-22.1	1.33 H	318	9.08	42.82
2	5460.00	43.1 AV	54.0	-10.9	1.33 H	318	0.28	42.82
3	#5470.00	57.2 PK	68.3	-11.1	1.36 H	316	14.35	42.85
4	*5500.00	100.3 PK			1.22 H	271	57.34	42.96
5	*5500.00	91.2 AV			1.22 H	271	48.24	42.96
6	11000.00	51.8 PK	74.0	-22.2	1.00 H	136	1.79	50.01
7	11000.00	40.2 AV	54.0	-13.8	1.00 H	136	-9.81	50.01
8	#16500.00	54.6 PK	68.3	-13.7	1.16 H	62	-1.77	56.37
		ANTENNA	A POLARITY	/ & TEST DI	ISTANCE: V	ERTICAL A	T 3 M	
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.8 PK	74.0	-15.2	1.28 V	339	15.98	42.82
2	5460.00	45.7 AV	54.0	-8.3	1.28 V	339	2.88	42.82
3	#5470.00	65.8 PK	68.3	-2.5	1.27 V	348	22.95	42.85
4	*5500.00	105.1 PK			1.25 V	288	62.14	42.96
5	*5500.00	97.0 AV			1.25 V	288	54.04	42.96
6	11000.00	53.7 PK	74.0	-20.3	1.04 V	353	3.69	50.01
7	11000.00	43.3 AV	54.0	-10.7	1.04 V	353	-6.71	50.01
8	#16500.00	54.6 PK	68.3	-13.7	1.00 V	65	-1.77	56.37

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

Report No.: RF120720E09-1 R2 103 of 127 Report Format Version 5.0.0



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5520.00	101.6 PK			1.13 H	243	58.59	43.01			
2	*5520.00	94.2 AV			1.13 H	243	51.19	43.01			
3	11040.00	51.8 PK	74.0	-22.2	1.05 H	121	1.91	49.89			
4	11040.00	40.7 AV	54.0	-13.3	1.05 H	121	-9.19	49.89			
5	#16560.00	53.3 PK	68.3	-15.0	1.11 H	56	-3.60	56.90			
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M				
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5520.00	106.6 PK			1.04 V	284	63.59	43.01			
2	*5520.00 *5520.00	106.6 PK 97.8 AV			1.04 V 1.04 V	284 284	63.59 54.79	43.01 43.01			
			74.0	-20.6	-	-					
2	*5520.00	97.8 AV	74.0 54.0	-20.6 -11.6	1.04 V	284	54.79	43.01			

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

Report No.: RF120720E09-1 R2 104 of 127 Report Format Version 5.0.0 Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012



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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5580.00	100.2 PK			1.09 H	239	57.06	43.14			
2	*5580.00	93.5 AV			1.09 H	239	50.36	43.14			
3	11160.00	51.2 PK	74.0	-22.8	1.09 H	108	1.49	49.71			
4	11160.00	40.4 AV	54.0	-13.6	1.09 H	108	-9.31	49.71			
5	#16740.00	54.2 PK	68.3	-14.1	1.25 H	42	-2.22	56.42			
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M				
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5580.00	106.3 PK			1.61 V	307	63.16	43.14			
2	*5580.00	98.1 AV			1.61 V	307	54.96	43.14			
3	11160.00	53.0 PK	74.0	-21.0	1.00 V	326	3.29	49.71			
4	11160.00	42.4 AV	54.0	-11.6	1.00 V	326	-7.31	49.71			

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5660.00	101.7 PK			1.26 H	242	58.46	43.24			
2	*5660.00	93.9 AV			1.26 H	242	50.66	43.24			
3	11320.00	51.6 PK	74.0	-22.4	1.05 H	161	1.50	50.10			
4	11320.00	39.7 AV	54.0	-14.3	1.05 H	161	-10.40	50.10			
5	#16980.00	54.8 PK	68.3	-13.5	1.20 H	41	-2.38	57.18			
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M				
NO.	FREQ. (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	106.4 PK			1.54 V	272	63.16	43.24			
2	*5660.00	98.3 AV			1.54 V	272	55.06	43.24			
3	*5660.00 11320.00	98.3 AV 53.3 PK	74.0	-20.7	1.54 V 1.00 V	272 343	55.06 3.20	43.24 50.10			
			74.0 54.0	-20.7 -11.4				_			

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

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

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5700.00	100.9 PK			1.22 H	244	57.63	43.27			
2	*5700.00	93.6 AV			1.22 H	244	50.33	43.27			
3	#5725.00	61.7 PK	68.3	-6.6	1.18 H	312	18.40	43.30			
4	11400.00	51.3 PK	74.0	-22.7	1.09 H	150	1.38	49.92			
5	11400.00	40.0 AV	54.0	-14.0	1.09 H	150	-9.92	49.92			
6	#17100.00	55.9 PK	68.3	-12.4	1.14 H	69	-1.18	57.08			
		ANTENNA	A POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 3 M				
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)			
1	*5700.00	104.0 PK			1.53 V	288	60.73	43.27			
2	*5700.00	95.6 AV			1.53 V	288	52.33	43.27			
3	#5725.00	65.2 PK	68.3	-3.1	1.54 V	277	21.90	43.30			
4	11400.00	53.3 PK	74.0	-20.7	1.07 V	335	3.38	49.92			
5	11400.00	42.6 AV	54.0	-11.4	1.07 V	335	-7.32	49.92			
6	#17100.00	55.5 PK	68.3	-12.8	1.03 V	72	-1.58	57.08			

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

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### 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 &	MODEL NO.	SERIAL	CALIBRATED	CALIBRATED
MANUFACTURER	WIODEL NO.	NO.	DATE	UNTIL
Peak Power Meter	ML2495A	0824006	May 10, 2012	May 09, 2013
Power Sensor	MA2411B	0738172	May 10, 2012	May 09, 2013

#### 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: Sep. 25, 2012

### FOR 26dB OCCUPIED BANDWIDTH

DESCRIPTION &	MODEL NO.	SERIAL NO.	CALIBRATED	CALIBRATED
MANUFACTURER			DATE	UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 09, 2012	July 08, 2013

#### 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: Sep. 25, 2012

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### 4.3.3 TEST PROCEDURE

### FOR POWER OUTPUT MEASUREMENT

An average power sensor was used on the output port of the EUT. A power meter was used to read the response of the average power sensor. Record the power level.

### FOR 26dB OCCUPIED 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

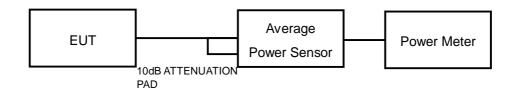
Report No.: RF120720E09-1 R2 109 of 127 Report Format Version 5.0.0

Cancels and replaces the report No.: RF120720E09-1 R1 dated Nov. 09, 2012

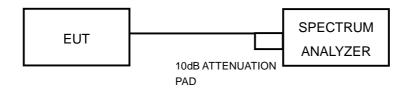


### 4.3.5 TEST SETUP

### FOR POWER OUTPUT MEASUREMENT



### FOR 26dB OCCUPIED 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.

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### 4.3.7 TEST RESULTS

### **POWER OUTPUT: 802.11a**

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	24.547	13.9	17	PASS
40	5200	33.884	15.3	17	PASS
44	5220	33.884	15.3	17	PASS
48	5240	31.623	15.0	17	PASS
52	5260	87.096	19.4	24	PASS
60	5300	87.096	19.4	24	PASS
64	5320	37.154	15.7	24	PASS
100	5500	45.709	16.6	24	PASS
104	5520	102.329	20.1	24	PASS
116	5580	104.713	20.2	24	PASS
132	5660	87.096	19.4	24	PASS
140	5700	41.687	16.2	24	PASS

# 802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	25.704	14.1	17	PASS
40	5200	32.359	15.1	17	PASS
44	5220	33.113	15.2	17	PASS
48	5240	33.884	15.3	17	PASS
52	5260	64.565	18.1	24	PASS
60	5300	64.565	18.1	24	PASS
64	5320	54.954	17.4	24	PASS
100	5500	54.954	17.4	24	PASS
104	5520	74.131	18.7	24	PASS
116	5580	74.131	18.7	24	PASS
132	5660	69.183	18.4	24	PASS
140	5700	39.811	16.0	24	PASS



### **26dB BANDWIDTH:**

### 802.11a

CHANNEL	FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
36	5180	20.02
40	5200	19.60
44	5220	20.44
48	5240	19.78
52	5260	30.73
60	5300	29.47
64	5320	21.64
100	5500	24.99
104	5520	33.14
116	5580	31.87
132	5660	30.09
140	5700	22.62

# 802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
36	5180	20.61
40	5200	21.59
44	5220	20.62
48	5240	21.51
52	5260	27.91
60	5300	28.28
64	5320	27.45
100	5500	25.65
104	5520	31.93
116	5580	31.05
132	5660	29.11
140	5700	23.78

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### 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 &	MODEL NO.	SERIAL NO.	CALIBRATED	CALIBRATED
MANUFACTURER	WODEL NO.	SERIAL NO.	DATE	UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 09, 2012	July 08, 2013

### 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: Sep. 25, 2012

### 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 ≥ 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

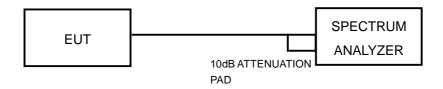
### 4.4.4 DEVIATION FROM TEST STANDARD

No deviation

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### 4.4.5 TEST SETUP



# 4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6

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### 4.4.7 TEST RESULTS

### 802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	2.03	4	PASS
40	5200	2.92	4	PASS
44	5220	2.99	4	PASS
48	5240	2.56	4	PASS
52	5260	6.37	11	PASS
60	5300	6.27	11	PASS
64	5320	3.68	11	PASS
100	5500	4.01	11	PASS
104	5520	6.46	11	PASS
116	5580	6.51	11	PASS
132	5660	5.78	11	PASS
140	5700	3.71	11	PASS

### 802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	1.40	4	PASS
40	5200	2.64	4	PASS
44	5220	2.60	4	PASS
48	5240	2.78	4	PASS
52	5260	5.85	11	PASS
60	5300	5.75	11	PASS
64	5320	5.02	11	PASS
100	5500	4.73	11	PASS
104	5520	5.83	11	PASS
116	5580	6.04	11	PASS
132	5660	5.73	11	PASS
140	5700	3.75	11	PASS



### 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 & MODEL NO.		SERIAL NO.	CALIBRATED	CALIBRATED
MANUFACTURER	WODEL NO.	SERIAL NO.	DATE	UNTIL
Spectrum Analyzer	E4446A	MY48250254	July 09, 2012	July 08, 2013

### 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: Sep. 25, 2012

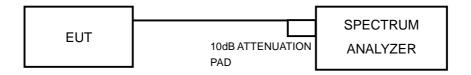
### 4.5.3 TEST PROCEDURE

- 1) Set RBW = 1 MHz, VBW ≥ 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.

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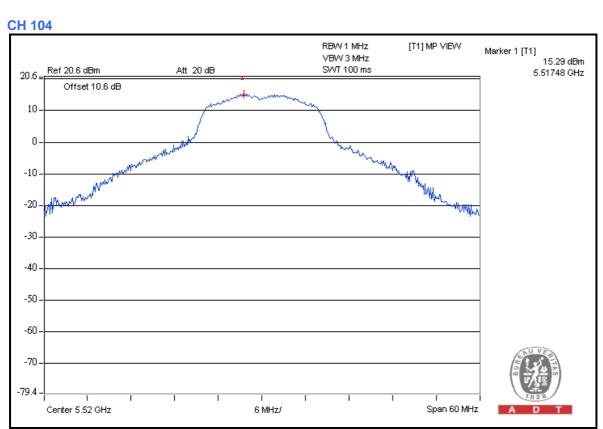
# 4.5.7 TEST RESULTS

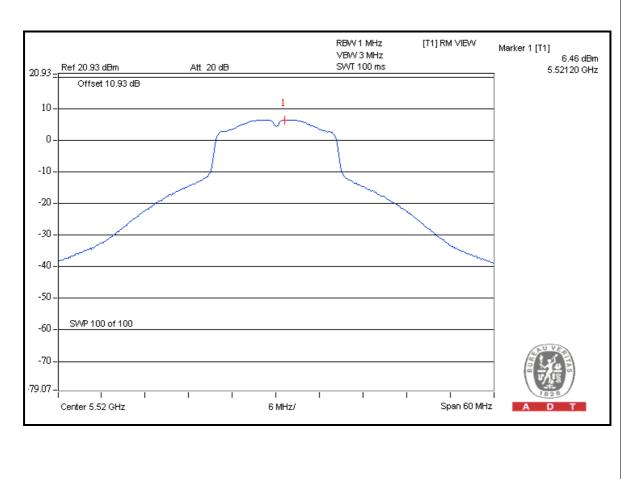
### 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK Excursion (dB)	LIMIT (dB)	PASS/FAIL
36	5180	10.72	2.03	8.69	13	PASS
40	5200	11.42	2.92	8.50	13	PASS
44	5220	11.75	2.99	8.76	13	PASS
48	5240	11.34	2.56	8.78	13	PASS
52	5260	15.14	6.37	8.77	13	PASS
60	5300	14.86	6.27	8.59	13	PASS
64	5320	12.36	3.68	8.68	13	PASS
100	5500	12.77	4.01	8.76	13	PASS
104	5520	15.29	6.46	8.83	13	PASS
116	5580	15.02	6.51	8.51	13	PASS
132	5660	14.35	5.78	8.57	13	PASS
140	5700	12.34	3.71	8.63	13	PASS

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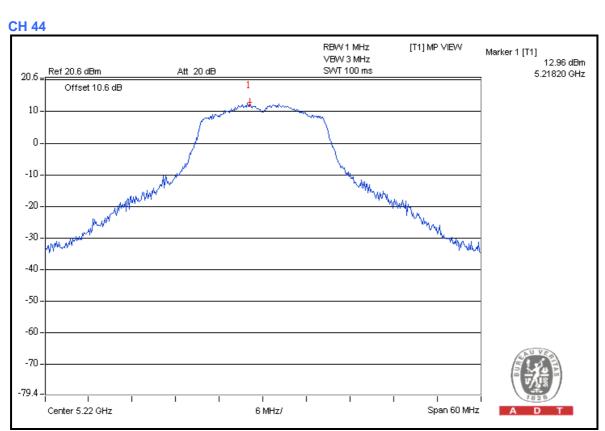


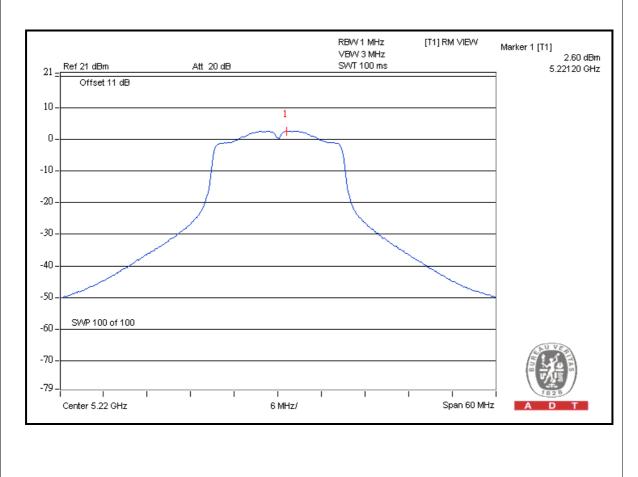


# 802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK Excursion (dB)	LIMIT (dB)	PASS/FAIL
36	5180	11.24	1.40	9.84	13	PASS
40	5200	12.38	2.64	9.74	13	PASS
44	5220	12.96	2.60	10.36	13	PASS
48	5240	12.42	2.78	9.64	13	PASS
52	5260	15.65	5.85	9.80	13	PASS
60	5300	15.65	5.75	9.90	13	PASS
64	5320	15.24	5.02	10.22	13	PASS
100	5500	14.45	4.73	9.72	13	PASS
104	5520	15.85	5.83	10.02	13	PASS
116	5580	15.93	6.04	9.89	13	PASS
132	5660	15.57	5.73	9.84	13	PASS
140	5700	13.83	3.75	10.08	13	PASS









### 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	FSP 40	100060	May 10, 2012	May 09, 2013

### 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: Sep. 25, 2012

### 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.

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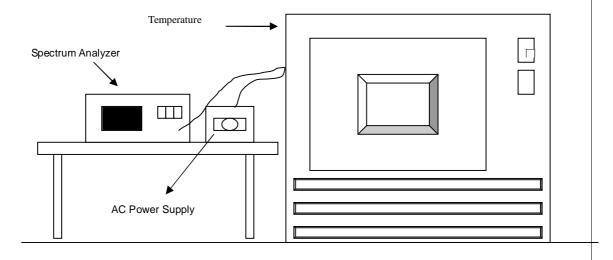
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### 4.6.4 DEVIATION FROM TEST STANDARD

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 (HEATER)

EDECHEMOV CTARILITY VERGUE TEMP									
	FREQUEMCY STABILITY VERSUS TEMP.								
OPERATING FREQUENCY: 5320MHz									
		0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
TEMP. (°C)	POWER SUPPLY (Vac)	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	ppm	(MHz)	ppm	(MHz)	ppm	(MHz)	ppm
50	120	5320.0148	2.7820	5320.0085	1.5977	5320.0097	1.8233	5320.0091	1.7105
40	120	5320.0224	4.2105	5320.0214	4.0226	5320.0242	4.5489	5320.028	5.2632
30	120	5320.0277	5.2068	5320.0231	4.3421	5320.0258	4.8496	5320.0274	5.1504
20	120	5320.0058	1.0902	5320.0047	0.8835	5319.9996	-0.0752	5320.0018	0.3383
10	120	5319.9981	-0.3571	5320.0037	0.6955	5319.9981	-0.3571	5319.9964	-0.6767
0	120	5320.0082	1.5414	5320.006	1.1278	5320.0034	0.6391	5320.0078	1.4662
-10	120	5320.0078	1.4662	5320.0127	2.3872	5320.007	1.3158	5320.0127	2.3872
-20	120	5319.9904	-1.8045	5319.9966	-0.6391	5319.9983	-0.3195	5319.9885	-2.1617
-30	120	5320.0204	3.8346	5320.0165	3.1015	5320.0237	4.4549	5320.0156	2.9323

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
		0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
<b>TEMP.</b> (℃)	POWER SUPPLY (Vac)	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	ppm	(MHz)	ppm	(MHz)	ppm	(MHz)	ppm
	138	5320.0042	0.7895	5320.0039	0.7331	5319.9983	-0.3195	5320.0024	0.4511
20	120	5320.0058	1.0902	5320.0047	0.8835	5319.9996	-0.0752	5320.0018	0.3383
	102	5320.0054	1.0150	5320.0045	0.8459	5319.998	-0.3759	5320.0034	0.6391

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# 4.6.8 TEST RESULTS (NON-HEATER)

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
		0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
TEMP. (°C)	POWER SUPPLY (Vac)	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	ppm	(MHz)	ppm	(MHz)	ppm	(MHz)	ppm
50	120	5320.0029	0.5451	5320.0022	0.4135	5320.0014	0.2632	5320.0006	0.1128
40	120	5319.978	-4.1353	5319.9831	-3.1767	5319.9745	-4.7932	5319.9774	-4.2481
30	120	5320.0185	3.4774	5320.0196	3.6842	5320.0203	3.8158	5320.0198	3.7218
20	120	5319.994	-1.1278	5319.9827	-3.2519	5319.9877	-2.3120	5319.9887	-2.1241
10	120	5320.0121	2.2744	5320.0137	2.5752	5320.008	1.5038	5320.0095	1.7857
0	120	5320.012	2.2556	5320.0125	2.3496	5320.0122	2.2932	5320.0105	1.9737
-10	120	5320.0117	2.1992	5320.0064	1.2030	5320.0052	0.9774	5320.0102	1.9173
-20	120	5319.9954	-0.8647	5319.9961	-0.7331	5320.0021	0.3947	5319.994	-1.1278
-30	120	5319.9961	-0.7331	5320.0031	0.5827	5320.0032	0.6015	5319.9946	-1.0150

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
		0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
<b>TEMP.</b> (℃)	POWER SUPPLY (Vac)	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	ppm	(MHz)	ppm	(MHz)	ppm	(MHz)	ppm
	138	5319.9922	-1.4662	5319.9833	-3.1391	5319.9876	-2.3308	5319.99	-1.8797
20	120	5319.994	-1.1278	5319.9827	-3.2519	5319.9877	-2.3120	5319.9887	-2.1241
	102	5319.9931	-1.2970	5319.9827	-3.2519	5319.9877	-2.3120	5319.9881	-2.2368

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# 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: Hsin Chu EMC/RF Lab:

Tel: 886-2-26052180 Tel: 886-3-5935343 Fax: 886-2-26052943 Fax: 886-3-5935342

### Hwa Ya EMC/RF/Safety/Telecom Lab:

Tel: 886-3-3183232 Fax: 886-3-3270892

**Email**: <a href="mailto:service.adt@tw.bureauveritas.com">service.adt@tw.bureauveritas.com</a> **Web Site**: <a href="mailto:www.bureauveritas-adt.com">www.bureauveritas-adt.com</a>

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

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