



# FCC TEST REPORT (WLAN 15.407)

**REPORT NO.:** RF140609E04-1

**MODEL NO.:** MC18N0

**FCC ID:** H9PMC18N0

**RECEIVED:** June 09, 2014

**TESTED:** June 26 to July 01, 2014

**ISSUED:** July 29, 2014

**APPLICANT:** Symbol Technologies, 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

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140609E04-1	Original release	July 29, 2014



## 1. CERTIFICATION

**PRODUCT:** MC18 Personal Shopper - Barcode Scanner  
**BRAND NAME:** Symbol  
**MODEL NO.:** MC18N0  
**TEST SAMPLE:** MASS-PRODUCTION  
**APPLICANT:** Symbol Technologies, Inc.  
**TESTED:** June 26 to July 01, 2014  
**STANDARDS:** **FCC Part 15, Subpart E (Section 15.407)**  
ANSI C63.10-2009

The above equipment (Model: MC18N0) 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** : Phoenix Huang , **DATE:** July 29, 2014  
( Phoenix Huang, Specialist )

**APPROVED BY** : May Chen , **DATE:** July 29, 2014  
( May Chen, Manager )



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## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -16.95dB at 0.59531MHz
15.407(b/1/2/3) (b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.1dB at 5470.00MHz.
15.407(a/1/2)	Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

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

## 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

Measurement	Value
Conducted emissions	2.86 dB
Radiated emissions (30MHz-1GHz)	5.37 dB
Radiated emissions (1GHz -6GHz) for Chamber G	3.65 dB
Radiated emissions (1GHz -6GHz) for Chamber H	3.72 dB
Radiated emissions (6GHz -18GHz) for Chamber G	3.88 dB
Radiated emissions (6GHz -18GHz) for Chamber H	4.00 dB
Radiated emissions (18GHz -40GHz)	4.11 dB



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### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT (WLAN)

<b>PRODUCT</b>	MC18 Personal Shopper - Barcode Scanner
<b>MODEL NO.</b>	MC18N0
<b>POWER SUPPLY</b>	DC 3.7V from battery
<b>MODULATION TYPE</b>	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
<b>MODULATION TECHNOLOGY</b>	DSSS,OFDM
<b>TRANSFER RATE</b>	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n : up to 72.2Mbps
<b>OPERATING FREQUENCY</b>	<b>For 15.407</b> <b>5GHz:</b> 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.50 ~ 5.58GHz & 5.66GHz ~ 5.70GHz
	<b>For 15.247</b> <b>2.4GHz:</b> 2.412 ~ 2.472GHz <b>5GHz:</b> 5.745 ~ 5.825GHz
<b>NUMBER OF CHANNEL</b>	<b>For 15.407</b> 16 for 802.11a, 802.11n (HT20)
	<b>For 15.247 (2.4GHz)</b> 13 for 802.11b, 802.11g, 802.11n (HT20)
	<b>For 15.247 (5GHz)</b> 5 for 802.11a, 802.11n (HT20)
<b>MAXIMUM OUTPUT POWER</b>	<b>For 15.407</b> 802.11a: 61.802mW 802.11n (HT20): 62.087mW
	<b>For 15.247 (2.4GHz)</b> 802.11b: 104.713mW 802.11g: 195.434mW 802.11n (HT20): 195.434mW
<b>For 15.247 (5GHz)</b> 802.11a: 157.036mW 802.11n (HT20): 132.739mW	
<b>ANTENNA TYPE</b>	Please see NOTE
<b>DATA CABLE</b>	NA
<b>I/O PORTS</b>	Refer to user's manual
<b>ASSOCIATED DEVICES</b>	NA





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**NOTE:**

1. There are Bluetooth 4.0 technology and WLAN 802.11 a/b/g/n technology.
2. For WLAN: 2.4GHz and 5GHz technology cannot transmit at same time.
3. 2.4GHz/5GHz WLAN + BT will timely shared at same antenna port
4. The antennas provided to the EUT, please refer to the following table:

Antenna Type	Antenna Gain(dBi)	Frequency range(MHz to MHz)	Connector Type	Cable Length
PIFA	2.7	2412~2483.5	NA	NA
	3	5150~5850		

5. The Version of EUT information are as below:

HW	Terminal	MC18 MB V2.1
SW	System	WinCE
	OS Name	Symbol MC18
	OS version	07.00.2824
	OEM version	99.45.10
Wireless (Fusion)	Part Number	31-FUSION-X2.01
	Fusion version	X_2.01.0.0.074R
	WLAN Firmware	X_2.01.0.0.180
XW2DMT (WLAN RF)	Version	X_2.01.0.0.3
	Symbol version	X_2.01.0.0.171
	WLAN Firmware	X_2.01.0.0.180
BTRegTest (WLAN BT)	Version	4.1

6. The associated devices of EUT information are as below:

Product	P/N
Y Power Cable	P/N : CBL-MC18-Y2MET-01
DC Power Cable	P/N : 25-66420-01R
Interconnect Cable	P/N : 25-66431-01R
Programming Cable	P/N : CBL-MC18-USB1-01
Cold Boot Key	P/N : KT-MC18-RBOOT-05

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

Cradle 1 (1 slot)	
Brand:	Symbol
Model No.:	CRD-MC18-1SL
Part No.:	CRD-MC18-1SL
Input power :	+12V ----- 9A
Associated Devices:	Adapter x 1 (Adapter 1: Part No.: 50-14000-241R)
Cradle 2 (3 slot)	
Brand:	Symbol
Model No.:	CRD-MC18-3SL
Part No.:	CRD-MC18-3SL
Input power :	+12V ----- 9.0A
Associated Devices:	Adapter x 1 (Adapter 1: Part No.: 50-14000-241R)
Power Adapter (for Cradle 1 (1 slot) & Cradle 2 (3 slot), and not for sale together) Brand: Motorola / Symbol Model No.: 50-14000-241R Part No.: PWRS-14000-241R Input power : 100-240V, 50-60Hz, 3.0A Output power : +12V ----- 9.0A Output cable with two type: 1. DC power cable unshielded, 0.5m with two core and Part No. is 25-66420-01R 2. Y power cable : unshielded, 2m with four core and Part No. is CBL-MC18-Y2MET-01	
Li-ion Battery	
Brand:	Symbol
Part No.:	BT000018A01
Rating:	3.7V, 2725mAh, 10.08Wh

From the above cradles, for conducted emission the Cradle 2 (3 slot) was selected as representative cradle for the test and its data was recorded in this report.

8. The EUT incorporates a SISO function.

MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
<b>802.11a</b>	6 ~ 54Mbps	1TX	1RX
<b>802.11b</b>	1 ~ 11Mbps	1TX	1RX
<b>802.11g</b>	6 ~ 54Mbps	1TX	1RX
<b>802.11n (HT20)</b>	MCS 0~7	1TX	1RX

9. 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 5150 ~ 5350MHz band:

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

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

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

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

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



### 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

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

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

- The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane** (for below 1GHz) and **X-plane** (for above 1GHz).

#### **POWER LINE CONDUCTED EMISSION TEST:**

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

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

#### **RADIATED EMISSION TEST (BELOW 1 GHz):**

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

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



**RADIATED EMISSION TEST (ABOVE 1 GHz):**

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

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

**ANTENNA PORT CONDUCTED MEASUREMENT:**

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

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

**TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
PLC	25deg. C, 64%RH	120Vac, 60Hz (SYSTEM)	Ping Liu
RE<1G	25deg. C, 65%RH	DC: 3.7V	Nelson Teng
RE≥1G	26deg. C, 75%RH	DC: 3.7V	Chilin Lee
	27deg. C, 73%RH	DC: 3.7V	Chilin Lee
APCM	25deg. C, 60%RH	DC: 3.7V	Chilin Lee



### **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 Old Rules v01r04**

**ANSI C63.10-2009**

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

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

### 3.4 DUTY CYCLE OF TEST SIGNAL

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

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

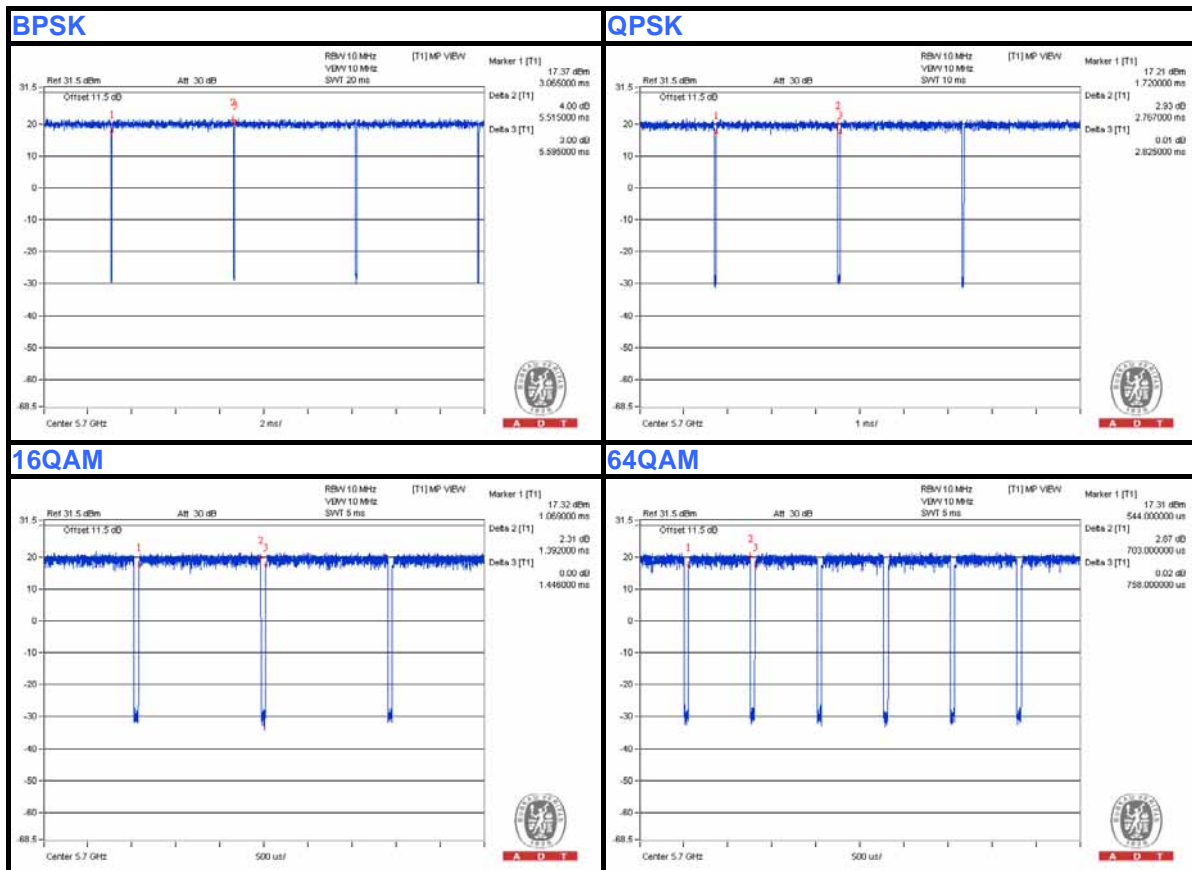
#### 802.11a

**BPSK:** Duty cycle = 5.515 ms/5.595 ms = 0.986

**QPSK:** Duty cycle = 2.767 ms/2.825 ms = 0.979, Duty factor =  $10 * \log(1/0.979) = 0.09$

**16QAM:** Duty cycle = 1.392 ms/1.446 ms = 0.963, Duty factor =  $10 * \log(1/0.963) = 0.17$

**64QAM:** Duty cycle = 0.703 ms/0.758 ms = 0.927, Duty factor =  $10 * \log(1/0.927) = 0.33$





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

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

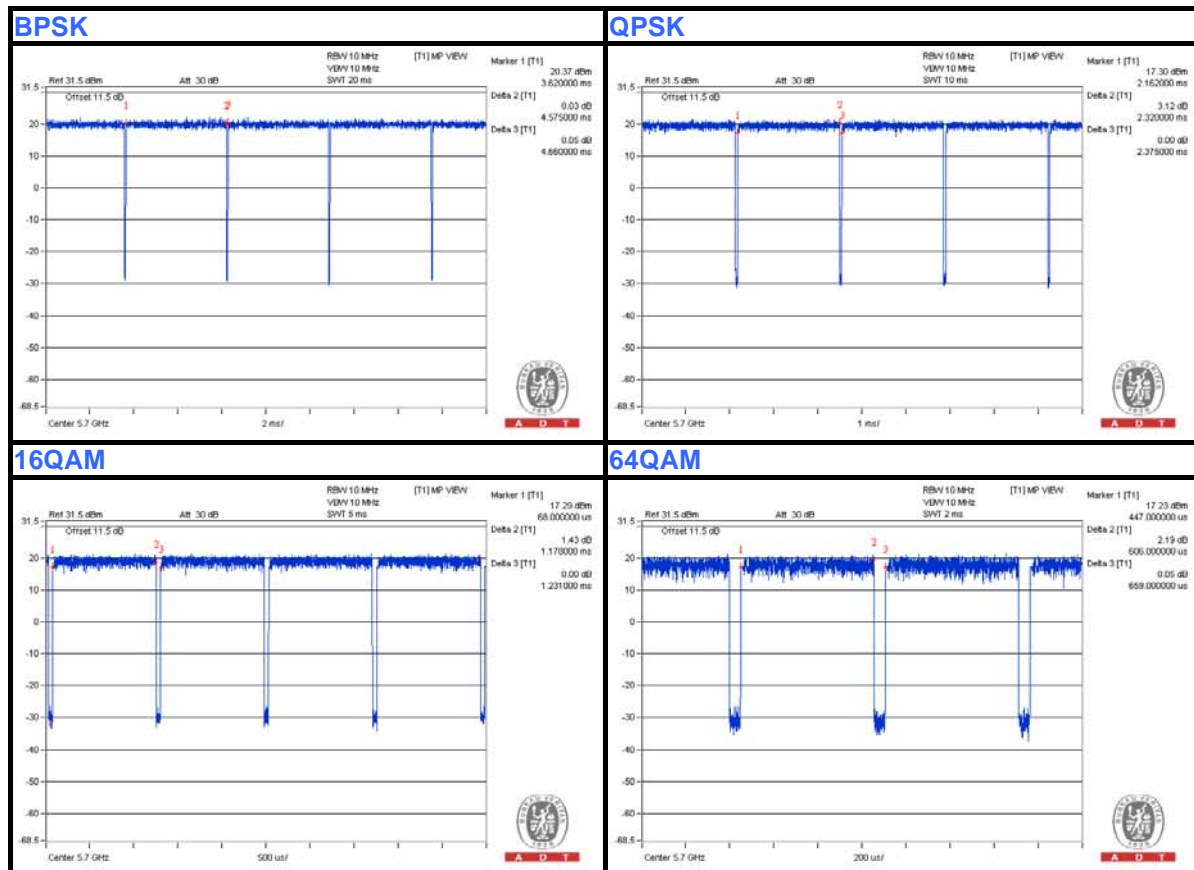
**802.11n (HT20)**

**BPSK:** Duty cycle = 4.575 ms/4.66 ms = 0.982

**QPSK:** Duty cycle = 2.32 ms/2.375 ms = 0.977, Duty factor =  $10 * \log(1/0.977) = 0.1$

**16QAM:** Duty cycle = 1.178 ms/1.231 ms = 0.957, Duty factor =  $10 * \log(1/0.957) = 0.19$

**64QAM:** Duty cycle = 0.606 ms/0.659 ms = 0.92, Duty factor =  $10 * \log(1/0.92) = 0.36$





### 3.5 DESCRIPTION OF SUPPORT UNITS

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

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	Cradle (3-slot)	Symbol	CRD-MC18-3 SL	NA	NA	Supplied by client
B	ADAPTER	Motorola / Symbol	50-14000-241 R	NA	NA	Supplied by client

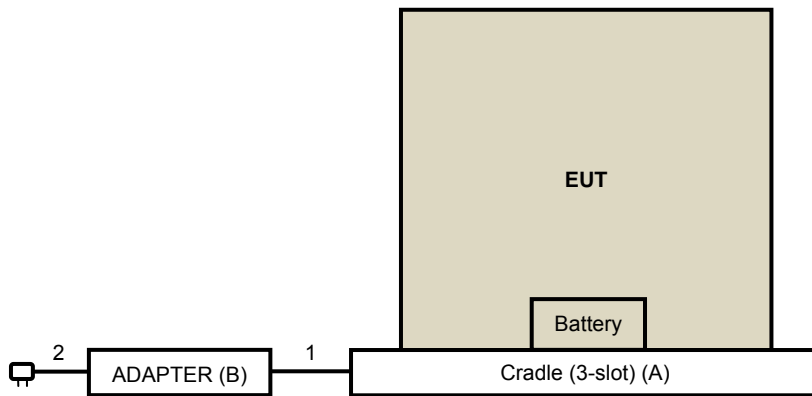
**NOTE:**

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

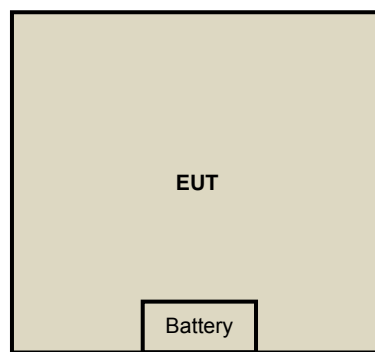
No.	Cable	Qty.	Length (m)	Shielded (Yes/ No)	Cores (Number)	Remark
1	DC	1	0.3	No	0	Supplied by client
2	AC	1	2	No	0	Supplied by client

### 3.6 CONFIGURATION OF SYSTEM UNDER TEST

For Conducted Emission Test:



For other test items:





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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 (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

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

#### 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100375	Apr. 29, 2014	Apr. 28, 2015
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK8127	8127-522	Sep. 12, 2013	Sep. 11, 2014
Line-Impedance Stabilization Network (for Peripheral)	ENV216	100071	Nov. 13, 2013	Nov. 12, 2014
RF Cable (JYEBAO)	5DFB	COCCAB-001	Mar. 10, 2014	Mar. 09, 2015
50 ohms Terminator	N/A	EMC-03	Sep. 24, 2013	Sep. 23, 2014
50 ohms Terminator	N/A	EMC-02	Oct. 01, 2013	Sep. 30, 2014
Software ADT	BV ADT_Cond_V7.3.7. 3	NA	NA	NA

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. C.
3. The VCCI Con C Registration No. is C-3611.
4. Tested Date: June 26, 2014

### 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.

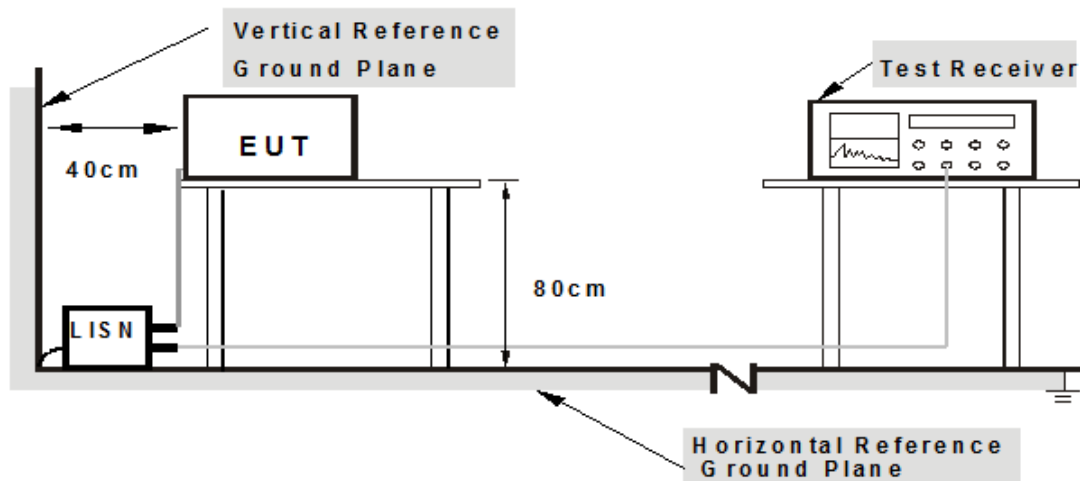
#### NOTE:

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

### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

### 4.1.5 TEST SETUP



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

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

#### 4.1.6 EUT OPERATING CONDITIONS

1. The EUT runs test program “XW2DMT[X\_2.01.0.0.3]” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

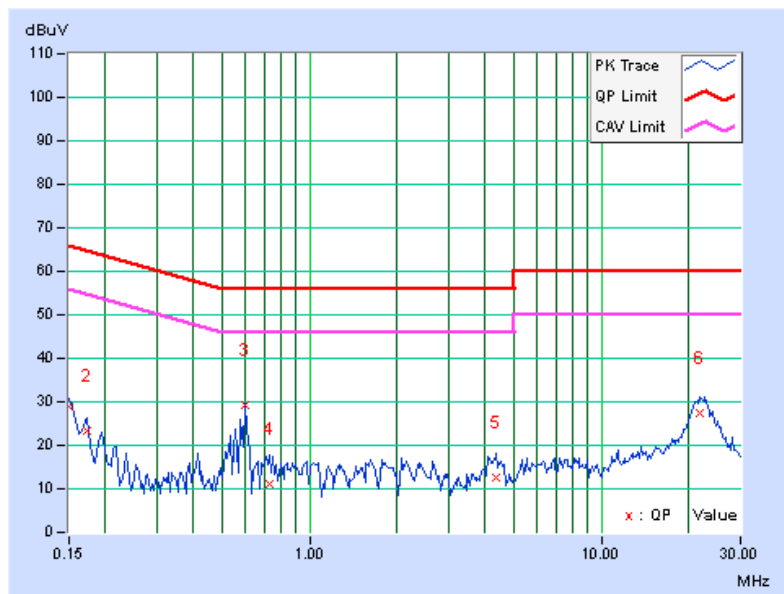
### 4.1.7 TEST RESULTS

<b>PHASE</b>	Line (L)	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP) / Average (AV)
--------------	----------	--------------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor [dB]	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.07	28.79	25.88	28.86	25.95	66.00	56.00	-37.14	-30.05
2	0.17344	0.07	23.13	18.51	23.20	18.58	64.79	54.79	-41.60	-36.22
3	0.59922	0.10	29.22	28.75	29.32	28.85	56.00	46.00	-26.68	-17.15
4	0.72813	0.11	10.99	9.26	11.10	9.37	56.00	46.00	-44.90	-36.63
5	4.37500	0.27	12.22	6.93	12.49	7.20	56.00	46.00	-43.51	-38.80
6	21.73828	0.76	26.60	22.74	27.36	23.50	60.00	50.00	-32.64	-26.50

**REMARKS:**

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

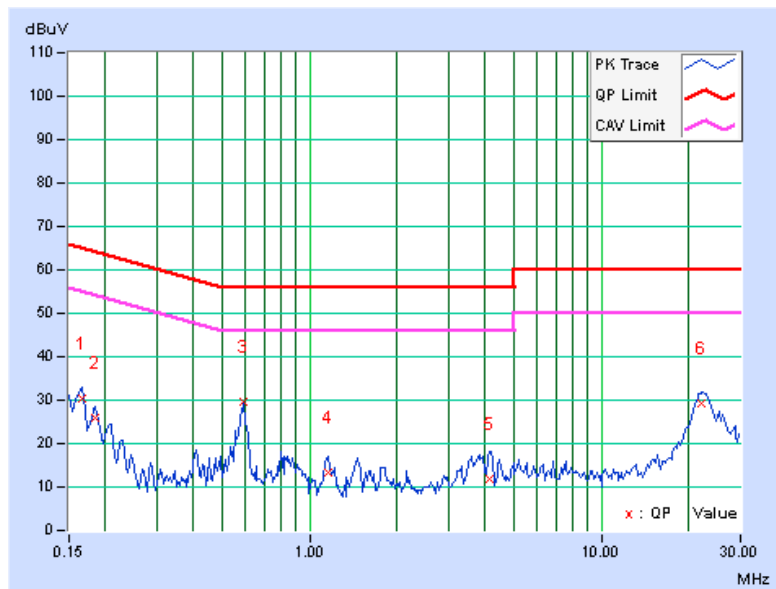


PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)
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No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	0.07	30.16	29.88	30.23	29.95	65.18	55.18	-34.94	-25.22
2	0.18516	0.07	26.02	25.97	26.09	26.04	64.25	54.25	-38.16	-28.21
<b>3</b>	<b>0.59531</b>	<b>0.10</b>	<b>29.38</b>	<b>28.95</b>	<b>29.48</b>	<b>29.05</b>	<b>56.00</b>	<b>46.00</b>	<b>-26.52</b>	<b>-16.95</b>
4	1.15234	0.14	13.34	8.34	13.48	8.48	56.00	46.00	-42.52	-37.52
5	4.15625	0.26	11.74	6.14	12.00	6.40	56.00	46.00	-44.00	-39.60
6	22.16406	0.76	28.66	25.62	29.42	26.38	60.00	50.00	-30.58	-23.62

**REMARKS:**

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





## 4.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

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

**NOTE:**

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

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

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

**NOTE:**

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

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





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### 4.2.3 TEST INSTRUMENTS

For Below 1GHz and Above 1GHz (802.11a):

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY51210105	Jan. 21,2014	Jan. 20,2015
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-03	Nov. 13, 2013	Nov. 12, 2014
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Feb. 26, 2014	Feb. 25, 2015
RF Cable	NA	CHGCAB_001	Oct. 05, 2013	Oct. 04, 2014
Spectrum Analyzer R&S	FSV40	100964	July 15, 2013	July 14, 2014
Horn_Antenna AISI	AIH.8018	0000320091110	Nov. 18, 2013	Nov. 17, 2014
Pre-Amplifier Agilent	8449B	3008A02578	June 24, 2014	June 23, 2015
RF Cable	NA	RF104-201 RF104-203 RF104-204	Dec. 12, 2013	Dec. 11, 2014
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2013	Aug. 27, 2014
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 13, 2013	Nov. 12, 2014
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 08, 2013	Oct. 07, 2014
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 966 Chamber No. G.
4. The FCC Site Registration No. is 966073.
- 5 The VCCI Site Registration No. is G-137.
- 6 The CANADA Site Registration No. is IC 7450H-2.
- 7 Tested Date: June 26 to July 01, 2014



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**For Above 1GHz (802.11n (HT20)):**

<b>DESCRIPTION &amp; MANUFACTURER</b>	<b>MODEL NO.</b>	<b>SERIAL NO.</b>	<b>CALIBRATED DATE</b>	<b>CALIBRATED UNTIL</b>
MXE EMI Receiver Agilent	N9038A	MY50010156	Jan. 15, 2014	Jan. 14, 2015
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-04	Nov. 13, 2013	Nov. 12, 2014
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Feb. 27, 2014	Feb. 26, 2015
RF Cable	NA	CHHCAB_001	Oct. 06, 2013	Oct. 05, 2014
Spectrum Analyzer R&S	FSV40	100964	July 15, 2013	July 14, 2014
Horn_Antenna AISI	AIH.8018	0000220091110	Dec. 06, 2013	Dec. 05, 2014
Pre-Amplifier Agilent	8449B	3008A01923	Oct. 29, 2013	Oct. 28, 2014
RF Cable	NA	RF104-205 RF104-207 RF104-202	Dec. 12, 2013	Dec. 11, 2014
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2013	Aug. 27, 2014
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 13, 2013	Nov. 12, 2014
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 08, 2013	Oct. 07, 2014
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in 966 Chamber No. H.
4. The FCC Site Registration No. is 797305.
5. The CANADA Site Registration No. is IC 7450H-3.
6. Tested Date: June 26, 2014

#### 4.2.4 TEST PROCEDURES

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

**Note:**

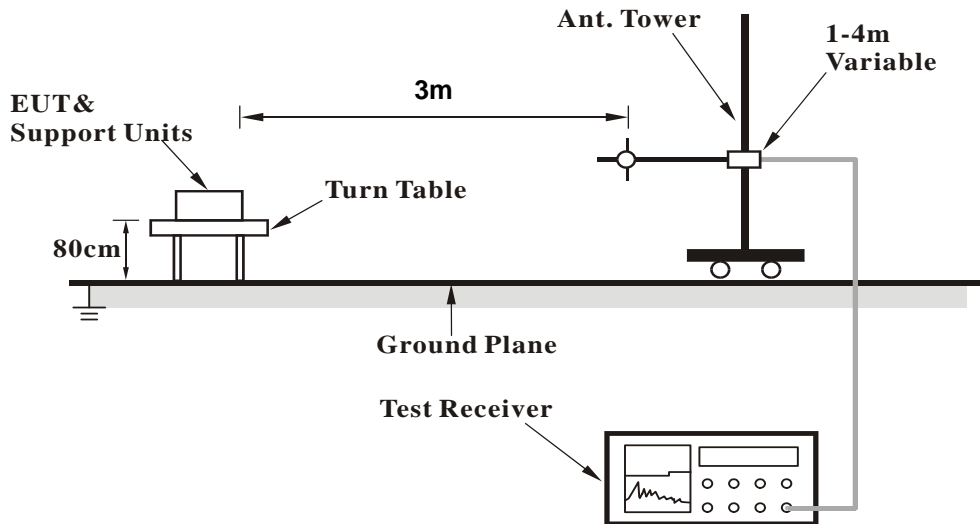
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

#### 4.2.5 DEVIATION FROM TEST STANDARD

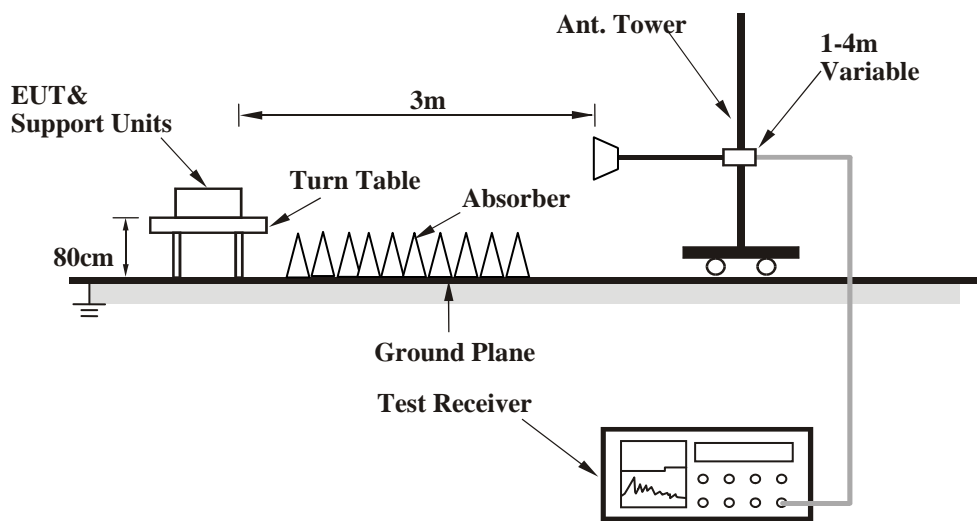
No deviation

#### 4.2.6 TEST SETUP

##### <Frequency Range below 1GHz>



##### <Frequency Range above 1GHz>



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

#### 4.2.7 EUT OPERATING CONDITION

Same as 4.1.6



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### 4.2.8 TEST RESULTS

#### BELOW 1GHz WORST-CASE DATA

##### 802.11a

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

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.50	28.2 QP	46.0	-17.8	1.79 H	199	36.72	-8.53
2	485.97	27.5 QP	46.0	-18.5	1.46 H	153	35.13	-7.64
3	588.21	29.9 QP	46.0	-16.1	1.42 H	346	35.23	-5.32
4	613.23	28.9 QP	46.0	-17.1	1.46 H	75	33.40	-4.46
5	691.23	30.6 QP	46.0	-15.5	1.24 H	215	34.19	-3.64
6	716.32	28.4 QP	46.0	-17.6	1.14 H	137	31.75	-3.31

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.03	26.5 QP	46.0	-19.5	1.49 V	150	35.01	-8.55
2	486.20	28.3 QP	46.0	-17.7	1.30 V	200	35.91	-7.63
3	589.16	29.2 QP	46.0	-16.8	1.01 V	196	34.52	-5.30
4	614.77	28.7 QP	46.0	-17.3	1.71 V	162	33.13	-4.45
5	690.98	27.2 QP	46.0	-18.8	1.40 V	255	30.86	-3.63
6	939.99	28.2 QP	46.0	-17.8	1.50 V	102	27.40	0.84

#### REMARKS:

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.50	28.3 QP	46.0	-17.7	1.70 H	202	36.85	-8.52
2	485.89	27.6 QP	46.0	-18.4	1.47 H	168	35.25	-7.64
3	588.13	30.0 QP	46.0	-16.0	1.41 H	324	35.32	-5.33
4	613.69	29.6 QP	46.0	-16.4	1.48 H	84	34.08	-4.46
5	691.56	30.9 QP	46.0	-15.2	1.21 H	210	34.49	-3.64
6	716.88	28.4 QP	46.0	-17.7	1.16 H	145	31.66	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.73	26.8 QP	46.0	-19.2	1.54 V	159	35.30	-8.53
2	486.66	29.0 QP	46.0	-17.0	1.30 V	195	36.58	-7.62
3	588.38	28.5 QP	46.0	-17.6	1.02 V	191	33.77	-5.32
4	614.38	28.2 QP	46.0	-17.8	1.71 V	180	32.62	-4.46
5	691.37	27.5 QP	46.0	-18.5	1.51 V	238	31.11	-3.64
6	940.37	28.2 QP	46.0	-17.8	1.41 V	108	27.39	0.85

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.65	29.0 QP	46.0	-17.0	1.71 H	194	37.50	-8.51
2	486.01	27.3 QP	46.0	-18.8	1.60 H	156	34.89	-7.64
3	588.84	30.3 QP	46.0	-15.8	1.44 H	340	35.55	-5.30
4	613.51	29.5 QP	46.0	-16.5	1.46 H	103	33.96	-4.46
5	691.31	30.3 QP	46.0	-15.7	1.25 H	200	33.98	-3.64
6	716.41	27.9 QP	46.0	-18.1	1.18 H	127	31.17	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.36	27.1 QP	46.0	-18.9	1.44 V	164	35.58	-8.52
2	485.84	28.1 QP	46.0	-17.9	1.27 V	213	35.72	-7.65
3	589.04	28.6 QP	46.0	-17.4	1.04 V	182	33.91	-5.30
4	613.72	28.0 QP	46.0	-18.0	1.79 V	180	32.47	-4.46
5	690.06	26.6 QP	46.0	-19.4	1.48 V	222	30.24	-3.63
6	939.66	28.0 QP	46.0	-18.0	1.37 V	118	27.16	0.85

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.68	27.9 QP	46.0	-18.1	1.77 H	201	36.47	-8.53
2	486.26	27.5 QP	46.0	-18.5	1.51 H	159	35.17	-7.63
3	588.80	29.9 QP	46.0	-16.1	1.50 H	317	35.22	-5.31
4	613.11	29.2 QP	46.0	-16.8	1.56 H	80	33.62	-4.46
5	690.31	29.3 QP	46.0	-16.7	1.23 H	215	32.93	-3.63
6	716.52	27.7 QP	46.0	-18.3	1.21 H	122	31.03	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.74	27.4 QP	46.0	-18.6	1.46 V	166	35.94	-8.51
2	485.63	28.2 QP	46.0	-17.9	1.35 V	207	35.79	-7.64
3	589.63	28.7 QP	46.0	-17.3	1.07 V	171	33.95	-5.28
4	613.79	27.6 QP	46.0	-18.4	1.75 V	178	32.02	-4.46
5	691.25	27.6 QP	46.0	-18.4	1.43 V	232	31.22	-3.64
6	940.19	28.3 QP	46.0	-17.7	1.47 V	105	27.47	0.84

**REMARKS:**

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





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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.64	28.9 QP	46.0	-17.1	1.71 H	221	37.37	-8.51
2	486.73	27.7 QP	46.0	-18.3	1.53 H	177	35.27	-7.61
3	587.92	29.4 QP	46.0	-16.7	1.40 H	328	34.68	-5.33
4	614.06	29.8 QP	46.0	-16.2	1.44 H	63	34.29	-4.46
5	691.66	30.3 QP	46.0	-15.8	1.19 H	211	33.89	-3.64
6	717.11	28.2 QP	46.0	-17.8	1.15 H	148	31.51	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.02	26.6 QP	46.0	-19.4	1.44 V	152	35.13	-8.53
2	485.51	27.6 QP	46.0	-18.5	1.34 V	194	35.19	-7.64
3	589.26	28.6 QP	46.0	-17.4	1.03 V	201	33.92	-5.29
4	613.76	28.4 QP	46.0	-17.6	1.69 V	167	32.87	-4.46
5	690.10	26.5 QP	46.0	-19.5	1.33 V	239	30.09	-3.63
6	939.75	27.6 QP	46.0	-18.4	1.48 V	107	26.75	0.84

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.00	28.4 QP	46.0	-17.6	1.75 H	193	36.91	-8.53
2	486.84	28.2 QP	46.0	-17.8	1.60 H	171	35.84	-7.61
3	588.95	30.1 QP	46.0	-15.9	1.39 H	312	35.44	-5.30
4	613.07	28.9 QP	46.0	-17.1	1.49 H	68	33.35	-4.46
5	691.21	30.6 QP	46.0	-15.4	1.13 H	210	34.25	-3.64
6	717.11	28.3 QP	46.0	-17.7	1.14 H	159	31.61	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.15	26.6 QP	46.0	-19.4	1.51 V	148	35.15	-8.53
2	485.53	27.6 QP	46.0	-18.4	1.35 V	213	35.28	-7.64
3	588.90	27.8 QP	46.0	-18.2	1.05 V	196	33.13	-5.30
4	614.27	28.1 QP	46.0	-17.9	1.71 V	153	32.57	-4.46
5	690.46	27.0 QP	46.0	-19.0	1.51 V	218	30.62	-3.63
6	940.33	28.3 QP	46.0	-17.7	1.42 V	113	27.44	0.85

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.19	29.1 QP	46.0	-16.9	1.78 H	199	37.60	-8.52
2	486.19	27.9 QP	46.0	-18.2	1.51 H	149	35.48	-7.63
3	588.58	30.0 QP	46.0	-16.0	1.50 H	323	35.33	-5.31
4	612.84	28.1 QP	46.0	-17.9	1.44 H	100	32.57	-4.46
5	691.04	30.0 QP	46.0	-16.0	1.18 H	196	33.60	-3.64
6	716.66	27.5 QP	46.0	-18.5	1.11 H	135	30.83	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.85	26.1 QP	46.0	-19.9	1.48 V	146	34.60	-8.52
2	485.84	28.0 QP	46.0	-18.0	1.39 V	222	35.66	-7.65
3	588.32	28.3 QP	46.0	-17.7	1.02 V	156	33.59	-5.32
4	613.77	27.4 QP	46.0	-18.6	1.73 V	162	31.87	-4.46
5	691.40	27.6 QP	46.0	-18.4	1.49 V	260	31.20	-3.64
6	940.03	27.9 QP	46.0	-18.1	1.49 V	127	27.02	0.84

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.92	28.6 QP	46.0	-17.4	1.70 H	197	37.11	-8.52
2	485.29	27.5 QP	46.0	-18.5	1.58 H	160	35.10	-7.64
3	588.02	29.5 QP	46.0	-16.5	1.51 H	347	34.83	-5.33
4	612.73	27.6 QP	46.0	-18.4	1.58 H	92	32.10	-4.46
5	691.29	30.3 QP	46.0	-15.7	1.19 H	196	33.93	-3.64
6	716.34	27.3 QP	46.0	-18.8	1.20 H	138	30.56	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.02	27.1 QP	46.0	-18.9	1.47 V	154	35.61	-8.53
2	485.87	28.8 QP	46.0	-17.2	1.38 V	217	36.44	-7.64
3	589.08	28.4 QP	46.0	-17.6	1.02 V	204	33.68	-5.30
4	613.66	27.6 QP	46.0	-18.4	1.72 V	158	32.04	-4.46
5	690.53	26.7 QP	46.0	-19.3	1.45 V	231	30.33	-3.63
6	941.23	28.9 QP	46.0	-17.1	1.40 V	104	27.99	0.88

**REMARKS:**

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



A D T

<b>CHANNEL</b>	TX Channel 132	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP)
<b>FREQUENCY RANGE</b>	30MHz ~ 1GHz		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.74	28.5 QP	46.0	-17.5	1.69 H	210	37.07	-8.53
2	485.93	27.7 QP	46.0	-18.3	1.51 H	142	35.34	-7.64
3	587.90	28.9 QP	46.0	-17.1	1.49 H	325	34.21	-5.33
4	612.74	27.7 QP	46.0	-18.3	1.50 H	68	32.20	-4.46
5	691.10	29.9 QP	46.0	-16.1	1.27 H	212	33.54	-3.64
6	716.70	27.4 QP	46.0	-18.6	1.22 H	134	30.74	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.11	27.1 QP	46.0	-18.9	1.53 V	152	35.64	-8.53
2	485.54	28.2 QP	46.0	-17.8	1.27 V	223	35.81	-7.64
3	589.66	29.5 QP	46.0	-16.5	1.07 V	174	34.74	-5.28
4	612.57	27.4 QP	46.0	-18.6	1.70 V	154	31.82	-4.46
5	690.54	26.7 QP	46.0	-19.3	1.38 V	250	30.37	-3.63
6	940.09	27.1 QP	46.0	-18.9	1.49 V	131	26.26	0.84

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.46	28.8 QP	46.0	-17.2	1.78 H	217	37.33	-8.52
2	486.06	27.4 QP	46.0	-18.6	1.58 H	149	35.06	-7.64
3	589.03	30.1 QP	46.0	-15.9	1.39 H	313	35.40	-5.30
4	612.90	27.8 QP	46.0	-18.2	1.52 H	66	32.29	-4.46
5	690.39	29.5 QP	46.0	-16.5	1.29 H	185	33.09	-3.63
6	716.41	26.9 QP	46.0	-19.1	1.10 H	108	30.20	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.07	26.7 QP	46.0	-19.3	1.46 V	174	35.26	-8.53
2	486.78	29.1 QP	46.0	-16.9	1.33 V	221	36.71	-7.61
3	589.76	28.6 QP	46.0	-17.5	1.00 V	195	33.83	-5.28
4	613.99	28.2 QP	46.0	-17.8	1.75 V	152	32.62	-4.46
5	691.52	27.5 QP	46.0	-18.5	1.46 V	232	31.13	-3.64
6	939.76	27.8 QP	46.0	-18.2	1.45 V	101	26.94	0.84

**REMARKS:**

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



A D T

## 802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.97	28.6 QP	46.0	-17.4	1.65 H	212	37.16	-8.52
2	486.62	28.3 QP	46.0	-17.7	1.50 H	170	35.93	-7.62
3	588.27	30.0 QP	46.0	-16.0	1.42 H	308	35.29	-5.32
4	613.11	28.2 QP	46.0	-17.9	1.51 H	70	32.61	-4.46
5	689.68	28.8 QP	46.0	-17.2	1.20 H	223	32.40	-3.63
6	716.80	27.2 QP	46.0	-18.9	1.20 H	154	30.46	-3.31

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.56	27.0 QP	46.0	-19.0	1.44 V	156	35.47	-8.51
2	486.14	29.0 QP	46.0	-17.0	1.36 V	220	36.64	-7.64
3	589.66	29.0 QP	46.0	-17.1	1.00 V	176	34.23	-5.28
4	613.18	27.8 QP	46.0	-18.2	1.70 V	154	32.23	-4.46
5	690.44	27.1 QP	46.0	-18.9	1.43 V	231	30.69	-3.63
6	940.28	27.7 QP	46.0	-18.3	1.45 V	107	26.81	0.85

## REMARKS:

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.76	28.6 QP	46.0	-17.4	1.67 H	206	37.14	-8.53
2	486.09	27.5 QP	46.0	-18.5	1.50 H	167	35.16	-7.64
3	588.23	29.4 QP	46.0	-16.6	1.46 H	336	34.75	-5.32
4	612.75	28.3 QP	46.0	-17.7	1.57 H	91	32.73	-4.46
5	691.46	30.2 QP	46.0	-15.8	1.22 H	213	33.87	-3.64
6	716.46	27.4 QP	46.0	-18.6	1.17 H	115	30.72	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.36	27.1 QP	46.0	-18.9	1.50 V	126	35.66	-8.52
2	486.65	29.3 QP	46.0	-16.7	1.36 V	201	36.96	-7.62
3	590.21	29.3 QP	46.0	-16.7	1.17 V	179	34.60	-5.26
4	614.03	28.0 QP	46.0	-18.0	1.68 V	162	32.49	-4.46
5	690.42	26.7 QP	46.0	-19.3	1.49 V	242	30.31	-3.63
6	940.53	28.0 QP	46.0	-18.0	1.49 V	95	27.15	0.85

**REMARKS:**

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





A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.18	28.9 QP	46.0	-17.1	1.67 H	193	37.40	-8.52
2	486.43	28.1 QP	46.0	-18.0	1.46 H	141	35.67	-7.62
3	588.77	30.0 QP	46.0	-16.0	1.40 H	322	35.30	-5.31
4	612.30	27.1 QP	46.0	-18.9	1.56 H	94	31.59	-4.47
5	690.25	29.1 QP	46.0	-16.9	1.26 H	216	32.71	-3.63
6	716.14	26.2 QP	46.0	-19.8	1.21 H	154	29.47	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.93	26.2 QP	46.0	-19.9	1.45 V	110	34.67	-8.52
2	486.02	28.6 QP	46.0	-17.4	1.38 V	194	36.26	-7.64
3	589.13	28.5 QP	46.0	-17.5	1.11 V	169	33.81	-5.30
4	613.81	27.6 QP	46.0	-18.4	1.65 V	151	32.10	-4.46
5	690.38	26.7 QP	46.0	-19.3	1.55 V	217	30.36	-3.63
6	940.41	28.0 QP	46.0	-18.0	1.52 V	89	27.16	0.85

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.88	29.6 QP	46.0	-16.5	1.76 H	206	38.05	-8.50
2	485.55	26.8 QP	46.0	-19.2	1.59 H	170	34.43	-7.64
3	588.54	30.0 QP	46.0	-16.1	1.30 H	322	35.26	-5.31
4	613.13	27.8 QP	46.0	-18.2	1.42 H	83	32.22	-4.46
5	691.21	30.0 QP	46.0	-16.0	1.26 H	221	33.61	-3.64
6	716.60	27.0 QP	46.0	-19.0	1.21 H	148	30.28	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	434.90	26.1 QP	46.0	-19.9	1.46 V	131	34.65	-8.52
2	486.33	29.3 QP	46.0	-16.7	1.31 V	192	36.97	-7.63
3	589.19	29.0 QP	46.0	-17.0	1.12 V	169	34.27	-5.29
4	613.21	26.8 QP	46.0	-19.2	1.69 V	148	31.30	-4.46
5	690.71	27.2 QP	46.0	-18.9	1.42 V	216	30.78	-3.63
6	940.04	27.5 QP	46.0	-18.5	1.47 V	101	26.70	0.84

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	433.99	27.6 QP	46.0	-18.4	1.76 H	218	36.13	-8.55
2	486.12	27.6 QP	46.0	-18.4	1.54 H	178	35.20	-7.64
3	588.04	29.4 QP	46.0	-16.6	1.50 H	313	34.72	-5.33
4	612.09	27.4 QP	46.0	-18.6	1.55 H	91	31.90	-4.47
5	691.50	30.2 QP	46.0	-15.8	1.17 H	225	33.80	-3.64
6	716.88	27.9 QP	46.0	-18.1	1.18 H	150	31.20	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.14	26.5 QP	46.0	-19.5	1.52 V	104	35.07	-8.53
2	486.72	29.2 QP	46.0	-16.8	1.34 V	205	36.79	-7.61
3	588.59	28.1 QP	46.0	-17.9	1.15 V	162	33.38	-5.31
4	613.73	27.6 QP	46.0	-18.4	1.74 V	174	32.09	-4.46
5	690.97	26.9 QP	46.0	-19.1	1.48 V	248	30.52	-3.63
6	940.56	27.9 QP	46.0	-18.1	1.52 V	83	27.03	0.85

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.89	29.6 QP	46.0	-16.4	1.70 H	201	38.12	-8.50
2	486.12	27.6 QP	46.0	-18.4	1.49 H	170	35.28	-7.64
3	587.65	28.8 QP	46.0	-17.2	1.38 H	329	34.13	-5.34
4	613.04	28.7 QP	46.0	-17.3	1.46 H	66	33.18	-4.46
5	690.87	30.1 QP	46.0	-15.9	1.24 H	215	33.70	-3.63
6	717.30	28.2 QP	46.0	-17.8	1.13 H	152	31.47	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.49	26.8 QP	46.0	-19.2	1.48 V	132	35.32	-8.52
2	486.03	28.0 QP	46.0	-18.0	1.35 V	208	35.66	-7.64
3	589.47	28.3 QP	46.0	-17.7	1.12 V	167	33.58	-5.29
4	613.96	28.2 QP	46.0	-17.8	1.73 V	177	32.63	-4.46
5	690.94	27.1 QP	46.0	-18.9	1.44 V	238	30.70	-3.63
6	940.11	27.7 QP	46.0	-18.3	1.49 V	77	26.89	0.84

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.16	29.4 QP	46.0	-16.7	1.68 H	184	37.88	-8.53
2	486.29	27.4 QP	46.0	-18.6	1.60 H	164	35.06	-7.63
3	588.50	29.9 QP	46.0	-16.1	1.40 H	347	35.17	-5.31
4	612.22	26.8 QP	46.0	-19.2	1.50 H	74	31.28	-4.47
5	691.11	30.1 QP	46.0	-15.9	1.27 H	201	33.73	-3.64
6	716.43	27.0 QP	46.0	-19.0	1.18 H	130	30.33	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.65	27.3 QP	46.0	-18.7	1.52 V	134	35.83	-8.51
2	485.83	28.5 QP	46.0	-17.5	1.31 V	202	36.16	-7.65
3	589.54	28.3 QP	46.0	-17.7	1.12 V	169	33.54	-5.28
4	613.70	28.3 QP	46.0	-17.8	1.68 V	169	32.71	-4.46
5	690.63	26.9 QP	46.0	-19.2	1.53 V	227	30.48	-3.63
6	940.67	28.4 QP	46.0	-17.7	1.55 V	98	27.49	0.86

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.40	29.7 QP	46.0	-16.4	1.78 H	220	38.17	-8.52
2	485.19	27.3 QP	46.0	-18.7	1.56 H	156	34.93	-7.63
3	588.04	29.6 QP	46.0	-16.4	1.48 H	322	34.92	-5.33
4	613.35	28.4 QP	46.0	-17.6	1.49 H	72	32.88	-4.46
5	690.98	29.6 QP	46.0	-16.4	1.28 H	194	33.24	-3.63
6	715.98	27.0 QP	46.0	-19.0	1.18 H	141	30.34	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.53	27.1 QP	46.0	-19.0	1.47 V	118	35.56	-8.51
2	486.65	28.7 QP	46.0	-17.3	1.32 V	184	36.34	-7.62
3	589.35	28.1 QP	46.0	-17.9	1.13 V	170	33.43	-5.29
4	614.06	27.9 QP	46.0	-18.1	1.68 V	149	32.39	-4.46
5	690.61	27.1 QP	46.0	-18.9	1.50 V	256	30.76	-3.63
6	940.69	28.3 QP	46.0	-17.7	1.50 V	101	27.46	0.86

**REMARKS:**

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



A D T

<b>CHANNEL</b>	TX Channel 132	<b>DETECTOR FUNCTION</b>	Quasi-Peak (QP)
<b>FREQUENCY RANGE</b>	30MHz ~ 1GHz		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.07	28.6 QP	46.0	-17.4	1.77 H	211	37.17	-8.53
2	486.45	28.2 QP	46.0	-17.8	1.53 H	158	35.86	-7.62
3	588.59	30.5 QP	46.0	-15.5	1.41 H	331	35.85	-5.31
4	613.16	28.2 QP	46.0	-17.8	1.51 H	85	32.65	-4.46
5	690.94	29.7 QP	46.0	-16.3	1.17 H	183	33.32	-3.63
6	715.80	27.3 QP	46.0	-18.7	1.20 H	125	30.59	-3.32

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.44	27.1 QP	46.0	-18.9	1.56 V	127	35.62	-8.52
2	486.59	28.9 QP	46.0	-17.1	1.36 V	190	36.49	-7.62
3	589.41	28.8 QP	46.0	-17.2	1.16 V	180	34.12	-5.29
4	612.93	27.9 QP	46.0	-18.1	1.63 V	148	32.33	-4.46
5	690.89	27.2 QP	46.0	-18.8	1.44 V	254	30.84	-3.63
6	940.37	27.7 QP	46.0	-18.3	1.44 V	79	26.88	0.85

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.06	29.1 QP	46.0	-16.9	1.71 H	211	37.62	-8.53
2	485.85	27.2 QP	46.0	-18.9	1.57 H	163	34.80	-7.65
3	588.54	30.1 QP	46.0	-16.0	1.41 H	343	35.36	-5.31
4	612.71	27.5 QP	46.0	-18.5	1.49 H	83	32.00	-4.46
5	690.55	29.2 QP	46.0	-16.9	1.28 H	211	32.78	-3.63
6	716.42	27.0 QP	46.0	-19.0	1.14 H	147	30.35	-3.31

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	435.17	26.8 QP	46.0	-19.2	1.45 V	120	35.29	-8.52
2	485.48	28.5 QP	46.0	-17.5	1.36 V	182	36.10	-7.64
3	589.57	28.1 QP	46.0	-17.9	1.11 V	192	33.41	-5.28
4	614.08	28.0 QP	46.0	-18.0	1.59 V	165	32.47	-4.46
5	690.85	27.2 QP	46.0	-18.8	1.52 V	241	30.79	-3.63
6	940.22	28.4 QP	46.0	-17.7	1.43 V	107	27.50	0.85

**REMARKS:**

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





A D T

**ABOVE 1GHZ WORST-CASE DATA**

**802.11a**

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.5 PK	74.0	-3.5	1.14 H	356	63.70	6.80
2	5150.00	52.1 AV	54.0	-1.9	1.14 H	356	45.30	6.80
3	*5180.00	113.4 PK			1.14 H	356	106.45	6.95
4	*5180.00	102.1 AV			1.14 H	356	95.15	6.95
5	#10360.00	55.0 PK	74.0	-19.0	1.02 H	360	41.89	13.11
6	#10360.00	44.7 AV	54.0	-9.3	1.02 H	360	31.59	13.11
7	15540.00	60.8 PK	74.0	-13.2	1.00 H	254	42.11	18.69
8	15540.00	50.8 AV	54.0	-3.2	1.00 H	254	32.11	18.69

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.1 PK	74.0	-14.9	1.03 V	240	52.30	6.80
2	5150.00	45.3 AV	54.0	-8.7	1.03 V	240	38.50	6.80
3	*5180.00	107.5 PK			1.03 V	240	100.55	6.95
4	*5180.00	96.2 AV			1.03 V	240	89.25	6.95
5	#10360.00	56.1 PK	74.0	-17.9	1.00 V	214	42.99	13.11
6	#10360.00	44.2 AV	54.0	-9.8	1.00 V	214	31.09	13.11
7	15540.00	60.4 PK	74.0	-13.6	1.24 V	0	41.71	18.69
8	15540.00	50.4 AV	54.0	-3.6	1.24 V	0	31.71	18.69

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.4 PK	74.0	-18.6	1.13 H	346	48.60	6.80
2	5150.00	46.5 AV	54.0	-7.5	1.13 H	346	39.70	6.80
3	*5200.00	113.2 PK			1.13 H	346	106.15	7.05
4	*5200.00	102.3 AV			1.13 H	346	95.25	7.05
5	#10400.00	55.6 PK	74.0	-18.4	1.00 H	360	42.38	13.22
6	#10400.00	45.2 AV	54.0	-8.8	1.00 H	360	31.98	13.22
7	15600.00	60.6 PK	74.0	-13.4	1.02 H	256	41.90	18.70
8	15600.00	50.5 AV	54.0	-3.5	1.02 H	256	31.80	18.70

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.6 PK	74.0	-15.4	1.02 V	254	51.80	6.80
2	5150.00	44.8 AV	54.0	-9.2	1.02 V	254	38.00	6.80
3	*5200.00	107.6 PK			1.02 V	254	100.55	7.05
4	*5200.00	96.6 AV			1.02 V	254	89.55	7.05
5	#10400.00	55.5 PK	74.0	-18.5	1.00 V	225	42.28	13.22
6	#10400.00	43.8 AV	54.0	-10.2	1.00 V	225	30.58	13.22
7	15600.00	60.0 PK	74.0	-14.0	1.18 V	16	41.30	18.70
8	15600.00	50.2 AV	54.0	-3.8	1.18 V	16	31.50	18.70

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.8 PK	74.0	-17.2	1.12 H	350	50.00	6.80
2	5150.00	43.9 AV	54.0	-10.1	1.12 H	350	37.10	6.80
3	*5220.00	112.7 PK			1.12 H	350	105.60	7.10
4	*5220.00	101.8 AV			1.12 H	350	94.70	7.10
5	#10440.00	55.8 PK	74.0	-18.2	1.00 H	360	42.62	13.18
6	#10440.00	45.3 AV	54.0	-8.7	1.00 H	360	32.12	13.18
7	15660.00	60.9 PK	74.0	-13.1	1.02 H	249	42.42	18.48
8	15660.00	50.6 AV	54.0	-3.4	1.02 H	249	32.12	18.48

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.3 PK	74.0	-15.7	1.01 V	242	51.50	6.80
2	5150.00	44.3 AV	54.0	-9.7	1.01 V	242	37.50	6.80
3	*5220.00	107.5 PK			1.01 V	242	100.40	7.10
4	*5220.00	96.7 AV			1.01 V	242	89.60	7.10
5	#10440.00	55.7 PK	74.0	-18.3	1.02 V	214	42.52	13.18
6	#10440.00	43.8 AV	54.0	-10.2	1.02 V	214	30.62	13.18
7	15660.00	60.6 PK	74.0	-13.4	1.18 V	31	42.12	18.48
8	15660.00	50.6 AV	54.0	-3.4	1.18 V	31	32.12	18.48

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.1 PK	74.0	-19.9	1.12 H	350	47.30	6.80
2	5150.00	43.7 AV	54.0	-10.3	1.12 H	350	36.90	6.80
3	*5240.00	112.8 PK			1.12 H	350	105.64	7.16
4	*5240.00	102.4 AV			1.12 H	350	95.24	7.16
5	#10480.00	55.7 PK	74.0	-18.3	1.00 H	360	42.54	13.16
6	#10480.00	45.0 AV	54.0	-9.0	1.00 H	360	31.84	13.16
7	15720.00	60.0 PK	74.0	-14.0	1.00 H	261	41.60	18.40
8	15720.00	50.1 AV	54.0	-3.9	1.00 H	261	31.70	18.40

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.0 PK	74.0	-16.0	1.01 V	242	51.20	6.80
2	5150.00	44.0 AV	54.0	-10.0	1.01 V	242	37.20	6.80
3	*5240.00	106.9 PK			1.01 V	242	99.74	7.16
4	*5240.00	96.2 AV			1.01 V	242	89.04	7.16
5	#10480.00	55.4 PK	74.0	-18.6	1.03 V	200	42.24	13.16
6	#10480.00	43.8 AV	54.0	-10.2	1.03 V	200	30.64	13.16
7	15720.00	60.2 PK	74.0	-13.8	1.21 V	32	41.80	18.40
8	15720.00	50.3 AV	54.0	-3.7	1.21 V	32	31.90	18.40

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	53.0 PK	74.0	-21.0	1.12 H	350	46.20	6.80
2	5150.00	43.2 AV	54.0	-10.8	1.12 H	350	36.40	6.80
3	*5260.00	113.7 PK			1.12 H	350	106.52	7.18
4	*5260.00	103.6 AV			1.12 H	350	96.42	7.18
5	5350.00	53.5 PK	74.0	-20.5	1.12 H	350	46.01	7.49
6	5350.00	43.9 AV	54.0	-10.1	1.12 H	350	36.41	7.49
7	#10520.00	55.1 PK	74.0	-18.9	1.00 H	360	41.88	13.22
8	#10520.00	44.8 AV	54.0	-9.2	1.00 H	360	31.58	13.22
9	15780.00	60.0 PK	74.0	-14.0	1.01 H	271	41.49	18.51
10	15780.00	50.2 AV	54.0	-3.8	1.01 H	271	31.69	18.51

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.6 PK	74.0	-15.4	1.01 V	237	51.80	6.80
2	5150.00	44.8 AV	54.0	-9.2	1.01 V	237	38.00	6.80
3	*5260.00	107.8 PK			1.01 V	237	100.62	7.18
4	*5260.00	96.9 AV			1.01 V	237	89.72	7.18
5	5350.00	50.6 PK	74.0	-23.4	1.01 V	237	43.11	7.49
6	5350.00	41.3 AV	54.0	-12.7	1.01 V	237	33.81	7.49
7	#10520.00	55.7 PK	74.0	-18.3	1.04 V	204	42.48	13.22
8	#10520.00	43.6 AV	54.0	-10.4	1.04 V	204	30.38	13.22
9	15780.00	60.5 PK	74.0	-13.5	1.22 V	38	41.99	18.51
10	15780.00	50.7 AV	54.0	-3.3	1.22 V	38	32.19	18.51

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	113.2 PK			1.10 H	350	105.91	7.29
2	*5300.00	103.5 AV			1.10 H	350	96.21	7.29
3	5350.00	58.8 PK	74.0	-15.2	1.10 H	350	51.31	7.49
4	5350.00	45.0 AV	54.0	-9.0	1.10 H	350	37.51	7.49
5	10600.00	54.6 PK	74.0	-19.4	1.00 H	360	41.07	13.53
6	10600.00	44.4 AV	54.0	-9.6	1.00 H	360	30.87	13.53
7	15900.00	60.2 PK	74.0	-13.8	1.04 H	266	41.55	18.65
8	15900.00	50.5 AV	54.0	-3.5	1.04 H	266	31.85	18.65

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	107.8 PK			1.04 V	233	100.51	7.29
2	*5300.00	97.1 AV			1.04 V	233	89.81	7.29
3	5350.00	50.7 PK	74.0	-23.3	1.04 V	233	43.21	7.49
4	5350.00	41.2 AV	54.0	-12.8	1.04 V	233	33.71	7.49
5	10600.00	55.1 PK	74.0	-18.9	1.01 V	210	41.57	13.53
6	10600.00	43.3 AV	54.0	-10.7	1.01 V	210	29.77	13.53
7	15900.00	60.2 PK	74.0	-13.8	1.28 V	43	41.55	18.65
8	15900.00	50.5 AV	54.0	-3.5	1.28 V	43	31.85	18.65

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.5 PK			1.10 H	352	105.12	7.38
2	*5320.00	102.6 AV			1.10 H	352	95.22	7.38
3	5350.00	69.5 PK	74.0	-4.5	1.10 H	352	62.01	7.49
4	5350.00	52.6 AV	54.0	-1.4	1.10 H	352	45.11	7.49
5	10640.00	55.0 PK	74.0	-19.0	1.03 H	360	41.37	13.63
6	10640.00	44.8 AV	54.0	-9.2	1.03 H	360	31.17	13.63
7	15960.00	60.7 PK	74.0	-13.3	1.07 H	266	42.09	18.61
8	15960.00	50.9 AV	54.0	-3.1	1.07 H	266	32.29	18.61

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	108.3 PK			1.03 V	236	100.92	7.38
2	*5320.00	97.6 AV			1.03 V	236	90.22	7.38
3	5350.00	68.3 PK	74.0	-5.7	1.03 V	236	60.81	7.49
4	5350.00	50.6 AV	54.0	-3.4	1.03 V	236	43.11	7.49
5	10640.00	55.0 PK	74.0	-19.0	1.03 V	220	41.37	13.63
6	10640.00	43.5 AV	54.0	-10.5	1.03 V	220	29.87	13.63
7	15960.00	60.4 PK	74.0	-13.6	1.25 V	45	41.79	18.61
8	15960.00	50.9 AV	54.0	-3.1	1.25 V	45	32.29	18.61

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.1 PK	74.0	-12.9	1.06 H	347	53.20	7.90
2	5460.00	46.9 AV	54.0	-7.1	1.06 H	347	39.00	7.90
3	#5470.00	71.1 PK	74.0	-2.9	1.06 H	347	63.17	7.93
4	#5470.00	<b>52.9 AV</b>	<b>54.0</b>	<b>-1.1</b>	<b>1.06 H</b>	<b>347</b>	<b>44.97</b>	<b>7.93</b>
5	*5500.00	112.0 PK			1.06 H	347	103.98	8.02
6	*5500.00	102.3 AV			1.06 H	347	94.28	8.02
7	11000.00	55.1 PK	74.0	-18.9	1.05 H	360	40.68	14.42
8	11000.00	44.7 AV	54.0	-9.3	1.05 H	360	30.28	14.42
9	#16500.00	59.9 PK	74.0	-14.1	1.09 H	264	38.96	20.94
10	#16500.00	50.5 AV	54.0	-3.5	1.09 H	264	29.56	20.94

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.5 PK	74.0	-18.5	1.03 V	159	14.66	40.84
2	5460.00	43.9 AV	54.0	-10.1	1.03 V	159	3.06	40.84
3	#5470.00	62.9 PK	74.0	-11.1	1.03 V	159	22.02	40.88
4	#5470.00	46.9 AV	54.0	-7.1	1.03 V	159	6.02	40.88
5	*5500.00	107.3 PK			1.03 V	159	66.33	40.97
6	*5500.00	97.1 AV			1.03 V	159	56.13	40.97
7	11000.00	54.9 PK	74.0	-19.1	1.04 V	227	8.06	46.84
8	11000.00	43.6 AV	54.0	-10.4	1.04 V	227	-3.24	46.84
9	#16500.00	60.9 PK	74.0	-13.1	1.20 V	49	8.12	52.78
10	#16500.00	50.7 AV	54.0	-3.3	1.20 V	49	-2.08	52.78

**REMARKS:**

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





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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	60.1 PK	74.0	-13.9	1.06 H	351	52.17	7.93
2	#5470.00	47.6 AV	54.0	-6.4	1.06 H	351	39.67	7.93
3	*5520.00	113.6 PK			1.06 H	351	105.54	8.06
4	*5520.00	103.2 AV			1.06 H	351	95.14	8.06
5	11040.00	54.5 PK	74.0	-19.5	1.00 H	360	40.16	14.34
6	11040.00	44.1 AV	54.0	-9.9	1.00 H	360	29.76	14.34
7	#16560.00	60.0 PK	74.0	-14.0	1.01 H	280	39.10	20.90
8	#16560.00	50.1 AV	54.0	-3.9	1.01 H	280	29.20	20.90

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	63.0 PK	74.0	-11.0	1.06 V	148	22.12	40.88
2	#5470.00	47.0 AV	54.0	-7.0	1.06 V	148	6.12	40.88
3	*5520.00	108.0 PK			1.06 V	148	66.97	41.03
4	*5520.00	97.5 AV			1.06 V	148	56.47	41.03
5	11040.00	55.2 PK	74.0	-18.8	1.08 V	214	8.37	46.83
6	11040.00	43.9 AV	54.0	-10.1	1.08 V	214	-2.93	46.83
7	#16560.00	61.3 PK	74.0	-12.7	1.19 V	53	8.61	52.69
8	#16560.00	50.9 AV	54.0	-3.1	1.19 V	53	-1.79	52.69

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.7 PK	74.0	-19.3	1.06 H	352	46.77	7.93
2	#5470.00	42.7 AV	54.0	-11.3	1.06 H	352	34.77	7.93
3	*5580.00	113.4 PK			1.06 H	352	105.23	8.17
4	*5580.00	103.5 AV			1.06 H	352	95.33	8.17
5	11160.00	54.1 PK	74.0	-19.9	1.04 H	360	39.87	14.23
6	11160.00	44.0 AV	54.0	-10.0	1.04 H	360	29.77	14.23
7	#16740.00	60.2 PK	74.0	-13.8	1.00 H	285	39.09	21.11
8	#16740.00	50.2 AV	54.0	-3.8	1.00 H	285	29.09	21.11

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.2 PK	74.0	-22.8	1.08 V	156	10.32	40.88
2	#5470.00	40.3 AV	54.0	-13.7	1.08 V	156	-0.58	40.88
3	*5580.00	108.1 PK			1.08 V	156	66.90	41.20
4	*5580.00	97.5 AV			1.08 V	156	56.30	41.20
5	11160.00	55.3 PK	74.0	-18.7	1.06 V	202	8.48	46.82
6	11160.00	43.8 AV	54.0	-10.2	1.06 V	202	-3.02	46.82
7	#16740.00	60.6 PK	74.0	-13.4	1.23 V	62	7.90	52.70
8	#16740.00	50.3 AV	54.0	-3.7	1.23 V	62	-2.40	52.70

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5660.00	113.9 PK			1.03 H	348	105.61	8.29
2	*5660.00	103.4 AV			1.03 H	348	95.11	8.29
3	#5725.00	54.8 PK	74.0	-19.2	1.03 H	348	46.41	8.39
4	#5725.00	45.1 AV	54.0	-8.9	1.03 H	348	36.71	8.39
5	11320.00	54.4 PK	74.0	-19.6	1.00 H	360	40.12	14.28
6	11320.00	43.6 AV	54.0	-10.4	1.00 H	360	29.32	14.28
7	#16980.00	60.3 PK	74.0	-13.7	1.02 H	275	38.82	21.48
8	#16980.00	50.1 AV	54.0	-3.9	1.02 H	275	28.62	21.48

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5660.00	107.8 PK			1.08 V	169	66.42	41.38
2	*5660.00	97.3 AV			1.08 V	169	55.92	41.38
3	#5725.00	51.4 PK	74.0	-22.6	1.08 V	169	9.89	41.51
4	#5725.00	40.4 AV	54.0	-13.6	1.08 V	169	-1.11	41.51
5	11320.00	54.9 PK	74.0	-19.1	1.09 V	209	8.02	46.88
6	11320.00	43.3 AV	54.0	-10.7	1.09 V	209	-3.58	46.88
7	#16980.00	60.6 PK	74.0	-13.4	1.17 V	41	8.08	52.52
8	#16980.00	50.6 AV	54.0	-3.4	1.17 V	41	-1.92	52.52

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5680.00	113.1 PK			1.04 H	348	108.18	4.92
2	*5680.00	103.2 AV			1.04 H	348	98.28	4.92
3	#5725.00	57.0 PK	74.0	-17.0	1.04 H	348	52.07	4.93
4	#5725.00	45.2 AV	54.0	-8.8	1.04 H	348	40.27	4.93
5	11360.00	54.7 PK	74.0	-19.3	1.00 H	360	43.98	10.72
6	11360.00	43.8 AV	54.0	-10.2	1.00 H	360	33.08	10.72
7	#17040.00	59.9 PK	74.0	-14.1	1.06 H	283	41.47	18.43
8	#17040.00	49.9 AV	54.0	-4.1	1.06 H	283	31.47	18.43

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5680.00	107.3 PK			1.02 V	157	65.88	41.42
2	*5680.00	97.0 AV			1.02 V	157	55.58	41.42
3	#5725.00	51.4 PK	74.0	-22.6	1.02 V	157	9.89	41.51
4	#5725.00	40.5 AV	54.0	-13.5	1.02 V	157	-1.01	41.51
5	11360.00	54.8 PK	74.0	-19.2	1.12 V	194	7.90	46.90
6	11360.00	43.1 AV	54.0	-10.9	1.12 V	194	-3.80	46.90
7	#17040.00	60.8 PK	74.0	-13.2	1.23 V	43	8.13	52.67
8	#17040.00	50.4 AV	54.0	-3.6	1.23 V	43	-2.27	52.67

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	111.1 PK			1.02 H	348	106.19	4.91
2	*5700.00	101.4 AV			1.02 H	348	96.49	4.91
3	#5725.00	65.2 PK	74.0	-8.8	1.02 H	348	60.27	4.93
4	#5725.00	52.6 AV	54.0	-1.4	1.02 H	348	47.67	4.93
5	11400.00	54.6 PK	74.0	-19.4	1.05 H	360	43.97	10.63
6	11400.00	43.6 AV	54.0	-10.4	1.05 H	360	32.97	10.63
7	#17100.00	60.0 PK	74.0	-14.0	1.02 H	285	41.45	18.55
8	#17100.00	50.3 AV	54.0	-3.7	1.02 H	285	31.75	18.55

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	106.1 PK			1.08 V	160	64.64	41.46
2	*5700.00	94.5 AV			1.08 V	160	53.04	41.46
3	#5725.00	61.0 PK	74.0	-13.0	1.08 V	160	19.49	41.51
4	#5725.00	48.3 AV	54.0	-5.7	1.08 V	160	6.79	41.51
5	11400.00	55.0 PK	74.0	-19.0	1.11 V	200	8.09	46.91
6	11400.00	43.4 AV	54.0	-10.6	1.11 V	200	-3.51	46.91
7	#17100.00	60.6 PK	74.0	-13.4	1.15 V	51	7.71	52.89
8	#17100.00	50.7 AV	54.0	-3.3	1.15 V	51	-2.19	52.89

**REMARKS:**

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



A D T

802.11n (HT20)

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.4 PK	74.0	-3.6	1.20 H	359	66.12	4.28
2	5150.00	52.8 AV	54.0	-1.2	1.20 H	359	48.52	4.28
3	*5180.00	112.5 PK			1.20 H	359	108.11	4.39
4	*5180.00	101.8 AV			1.20 H	359	97.41	4.39
5	#10360.00	54.1 PK	74.0	-19.9	1.02 H	360	44.04	10.06
6	#10360.00	43.2 AV	54.0	-10.8	1.02 H	360	33.14	10.06
7	15540.00	59.8 PK	74.0	-14.2	1.07 H	288	44.96	14.84
8	15540.00	50.1 AV	54.0	-3.9	1.07 H	288	35.26	14.84

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.1 PK	74.0	-12.9	1.10 V	163	20.54	40.56
2	5150.00	48.3 AV	54.0	-5.7	1.10 V	163	7.74	40.56
3	*5180.00	106.3 PK			1.10 V	163	65.66	40.64
4	*5180.00	94.9 AV			1.10 V	163	54.26	40.64
5	#10360.00	55.1 PK	74.0	-18.9	1.12 V	188	8.35	46.75
6	#10360.00	43.5 AV	54.0	-10.5	1.12 V	188	-3.25	46.75
7	15540.00	60.8 PK	74.0	-13.2	1.15 V	59	9.60	51.20
8	15540.00	50.5 AV	54.0	-3.5	1.15 V	59	-0.70	51.20

**REMARKS:**

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



A D T

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.7 PK	74.0	-17.3	1.10 H	345	52.42	4.28
2	5150.00	46.6 AV	54.0	-7.4	1.10 H	345	42.32	4.28
3	*5200.00	113.2 PK			1.10 H	345	108.76	4.44
4	*5200.00	102.3 AV			1.10 H	345	97.86	4.44
5	#10400.00	54.3 PK	74.0	-19.7	1.07 H	349	44.23	10.07
6	#10400.00	43.3 AV	54.0	-10.7	1.07 H	349	33.23	10.07
7	15600.00	60.1 PK	74.0	-13.9	1.09 H	275	45.04	15.06
8	15600.00	50.4 AV	54.0	-3.6	1.09 H	275	35.34	15.06

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.1 PK	74.0	-19.9	1.06 V	173	13.54	40.56
2	5150.00	44.3 AV	54.0	-9.7	1.06 V	173	3.74	40.56
3	*5200.00	107.3 PK			1.06 V	173	66.62	40.68
4	*5200.00	95.7 AV			1.06 V	173	55.02	40.68
5	#10400.00	54.8 PK	74.0	-19.2	1.07 V	193	8.09	46.71
6	#10400.00	43.3 AV	54.0	-10.7	1.07 V	193	-3.41	46.71
7	15600.00	60.6 PK	74.0	-13.4	1.15 V	39	9.32	51.28
8	15600.00	50.4 AV	54.0	-3.6	1.15 V	39	-0.88	51.28

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.7 PK	74.0	-14.3	1.12 H	345	55.42	4.28
2	5150.00	46.2 AV	54.0	-7.8	1.12 H	345	41.92	4.28
3	*5220.00	112.7 PK			1.12 H	345	108.28	4.42
4	*5220.00	102.1 AV			1.12 H	345	97.68	4.42
5	#10440.00	54.1 PK	74.0	-19.9	1.05 H	360	43.94	10.16
6	#10440.00	43.0 AV	54.0	-11.0	1.05 H	360	32.84	10.16
7	15660.00	59.9 PK	74.0	-14.1	1.12 H	275	45.10	14.80
8	15660.00	50.5 AV	54.0	-3.5	1.12 H	275	35.70	14.80

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.3 PK	74.0	-18.7	1.01 V	182	14.74	40.56
2	5150.00	44.6 AV	54.0	-9.4	1.01 V	182	4.04	40.56
3	*5220.00	107.4 PK			1.01 V	182	66.69	40.71
4	*5220.00	96.0 AV			1.01 V	182	55.29	40.71
5	#10440.00	54.8 PK	74.0	-19.2	1.02 V	180	8.04	46.76
6	#10440.00	43.6 AV	54.0	-10.4	1.02 V	180	-3.16	46.76
7	15660.00	60.7 PK	74.0	-13.3	1.24 V	61	9.41	51.29
8	15660.00	50.5 AV	54.0	-3.5	1.24 V	61	-0.79	51.29

**REMARKS:**

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





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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.7 PK	74.0	-18.3	1.17 H	360	51.42	4.28
2	5150.00	45.2 AV	54.0	-8.8	1.17 H	360	40.92	4.28
3	*5240.00	112.2 PK			1.17 H	360	107.79	4.41
4	*5240.00	102.4 AV			1.17 H	360	97.99	4.41
5	#10480.00	54.8 PK	74.0	-19.2	1.06 H	352	44.54	10.26
6	#10480.00	43.6 AV	54.0	-10.4	1.06 H	352	33.34	10.26
7	15720.00	60.1 PK	74.0	-13.9	1.12 H	276	45.43	14.67
8	15720.00	50.2 AV	54.0	-3.8	1.12 H	276	35.53	14.67

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.6 PK	74.0	-19.4	1.10 V	124	14.04	40.56
2	5150.00	43.1 AV	54.0	-10.9	1.10 V	124	2.54	40.56
3	*5240.00	106.8 PK			1.10 V	124	66.05	40.75
4	*5240.00	95.6 AV			1.10 V	124	54.85	40.75
5	#10480.00	54.8 PK	74.0	-19.2	1.01 V	191	8.00	46.80
6	#10480.00	43.3 AV	54.0	-10.7	1.01 V	191	-3.50	46.80
7	15720.00	60.6 PK	74.0	-13.4	1.24 V	51	9.26	51.34
8	15720.00	50.3 AV	54.0	-3.7	1.24 V	51	-1.04	51.34

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.5 PK	74.0	-19.5	1.09 H	347	50.22	4.28
2	5150.00	44.6 AV	54.0	-9.4	1.09 H	347	40.32	4.28
3	*5260.00	113.9 PK			1.09 H	347	109.51	4.39
4	*5260.00	103.6 AV			1.09 H	347	99.21	4.39
5	5350.00	54.0 PK	74.0	-20.0	1.09 H	347	49.49	4.51
6	5350.00	44.4 AV	54.0	-9.6	1.09 H	347	39.89	4.51
7	#10520.00	54.8 PK	74.0	-19.2	1.05 H	357	44.43	10.37
8	#10520.00	43.5 AV	54.0	-10.5	1.05 H	357	33.13	10.37
9	15780.00	60.5 PK	74.0	-13.5	1.08 H	266	45.78	14.72
10	15780.00	50.6 AV	54.0	-3.4	1.08 H	266	35.88	14.72

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	51.6 PK	74.0	-22.4	1.11 V	177	11.04	40.56
2	5150.00	42.1 AV	54.0	-11.9	1.11 V	177	1.54	40.56
3	*5260.00	107.8 PK			1.11 V	177	67.01	40.79
4	*5260.00	96.2 AV			1.11 V	177	55.41	40.79
5	5350.00	51.4 PK	74.0	-22.6	1.11 V	177	10.46	40.94
6	5350.00	42.6 AV	54.0	-11.4	1.11 V	177	1.66	40.94
7	#10520.00	54.5 PK	74.0	-19.5	1.06 V	181	7.64	46.86
8	#10520.00	43.4 AV	54.0	-10.6	1.06 V	181	-3.46	46.86
9	15780.00	61.0 PK	74.0	-13.0	1.18 V	59	9.56	51.44
10	15780.00	51.0 AV	54.0	-3.0	1.18 V	59	-0.44	51.44

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	113.3 PK			1.11 H	356	108.94	4.36
2	*5300.00	103.0 AV			1.11 H	356	98.64	4.36
3	5350.00	59.5 PK	74.0	-14.5	1.11 H	356	54.99	4.51
4	5350.00	45.7 AV	54.0	-8.3	1.11 H	356	41.19	4.51
5	10600.00	54.3 PK	74.0	-19.7	1.04 H	356	43.62	10.68
6	10600.00	43.5 AV	54.0	-10.5	1.04 H	356	32.82	10.68
7	15900.00	60.1 PK	74.0	-13.9	1.06 H	273	45.05	15.05
8	15900.00	50.4 AV	54.0	-3.6	1.06 H	273	35.35	15.05

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	107.4 PK			1.12 V	163	66.54	40.86
2	*5300.00	96.4 AV			1.12 V	163	55.54	40.86
3	5350.00	53.4 PK	74.0	-20.6	1.12 V	163	12.46	40.94
4	5350.00	42.3 AV	54.0	-11.7	1.12 V	163	1.36	40.94
5	10600.00	54.6 PK	74.0	-19.4	1.05 V	180	7.54	47.06
6	10600.00	43.3 AV	54.0	-10.7	1.05 V	180	-3.76	47.06
7	15900.00	60.8 PK	74.0	-13.2	1.16 V	62	9.25	51.55
8	15900.00	50.5 AV	54.0	-3.5	1.16 V	62	-1.05	51.55

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.3 PK			1.14 H	351	107.88	4.42
2	*5320.00	101.6 AV			1.14 H	351	97.18	4.42
3	5350.00	69.9 PK	74.0	-4.1	1.14 H	351	65.39	4.51
4	5350.00	52.6 AV	54.0	-1.4	1.14 H	351	48.09	4.51
5	10640.00	54.0 PK	74.0	-20.0	1.06 H	336	43.37	10.63
6	10640.00	43.1 AV	54.0	-10.9	1.06 H	336	32.47	10.63
7	15960.00	59.7 PK	74.0	-14.3	1.14 H	283	44.73	14.97
8	15960.00	50.3 AV	54.0	-3.7	1.14 H	283	35.33	14.97

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	106.2 PK			1.10 V	125	65.31	40.89
2	*5320.00	95.2 AV			1.10 V	125	54.31	40.89
3	5350.00	66.4 PK	74.0	-7.6	1.10 V	125	25.46	40.94
4	5350.00	50.6 AV	54.0	-3.4	1.10 V	125	9.66	40.94
5	10640.00	54.8 PK	74.0	-19.2	1.00 V	181	7.76	47.04
6	10640.00	43.4 AV	54.0	-10.6	1.00 V	181	-3.64	47.04
7	15960.00	60.4 PK	74.0	-13.6	1.15 V	68	8.87	51.53
8	15960.00	50.3 AV	54.0	-3.7	1.15 V	68	-1.23	51.53

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.6 PK	74.0	-12.4	1.02 H	360	56.98	4.62
2	5460.00	46.7 AV	54.0	-7.3	1.02 H	360	42.08	4.62
3	#5470.00	67.6 PK	74.0	-6.4	1.02 H	360	62.99	4.61
4	#5470.00	52.8 AV	54.0	-1.2	1.02 H	360	48.19	4.61
5	*5500.00	112.3 PK			1.02 H	360	107.71	4.59
6	*5500.00	101.3 AV			1.02 H	360	96.71	4.59
7	11000.00	54.1 PK	74.0	-19.9	1.10 H	335	43.25	10.85
8	11000.00	43.1 AV	54.0	-10.9	1.10 H	335	32.25	10.85
9	#16500.00	60.6 PK	74.0	-13.4	1.09 H	271	43.61	16.99
10	#16500.00	50.7 AV	54.0	-3.3	1.09 H	271	33.71	16.99

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.4 PK	74.0	-15.6	1.09 V	118	17.28	41.12
2	5460.00	44.3 AV	54.0	-9.7	1.09 V	118	3.18	41.12
3	#5470.00	65.2 PK	74.0	-8.8	1.09 V	118	24.06	41.14
4	#5470.00	50.3 AV	54.0	-3.7	1.09 V	118	9.16	41.14
5	*5500.00	106.7 PK			1.09 V	118	65.50	41.20
6	*5500.00	95.2 AV			1.09 V	118	54.00	41.20
7	11000.00	54.9 PK	74.0	-19.1	1.00 V	189	7.49	47.41
8	11000.00	43.5 AV	54.0	-10.5	1.00 V	189	-3.91	47.41
9	#16500.00	61.0 PK	74.0	-13.0	1.20 V	65	8.04	52.96
10	#16500.00	50.7 AV	54.0	-3.3	1.20 V	65	-2.26	52.96

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	59.8 PK	74.0	-14.2	1.03 H	346	55.19	4.61
2	#5470.00	47.3 AV	54.0	-6.7	1.03 H	346	42.69	4.61
3	*5520.00	112.2 PK			1.03 H	346	107.53	4.67
4	*5520.00	101.3 AV			1.03 H	346	96.63	4.67
5	11040.00	54.3 PK	74.0	-19.7	1.12 H	360	43.51	10.79
6	11040.00	43.2 AV	54.0	-10.8	1.12 H	360	32.41	10.79
7	#16560.00	60.1 PK	74.0	-13.9	1.11 H	281	43.00	17.10
8	#16560.00	50.2 AV	54.0	-3.8	1.11 H	281	33.10	17.10

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	57.1 PK	74.0	-16.9	1.07 V	133	15.96	41.14
2	#5470.00	45.3 AV	54.0	-8.7	1.07 V	133	4.16	41.14
3	*5520.00	106.1 PK			1.07 V	133	64.86	41.24
4	*5520.00	94.9 AV			1.07 V	133	53.66	41.24
5	11040.00	54.7 PK	74.0	-19.3	1.00 V	192	7.43	47.27
6	11040.00	43.1 AV	54.0	-10.9	1.00 V	192	-4.17	47.27
7	#16560.00	61.1 PK	74.0	-12.9	1.13 V	69	8.07	53.03
8	#16560.00	50.8 AV	54.0	-3.2	1.13 V	69	-2.23	53.03

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.2 PK	74.0	-19.8	1.03 H	343	49.59	4.61
2	#5470.00	42.2 AV	54.0	-11.8	1.03 H	343	37.59	4.61
3	*5580.00	111.9 PK			1.03 H	343	107.02	4.88
4	*5580.00	101.0 AV			1.03 H	343	96.12	4.88
5	11160.00	53.7 PK	74.0	-20.3	1.01 H	340	42.98	10.72
6	11160.00	42.8 AV	54.0	-11.2	1.01 H	340	32.08	10.72
7	#16740.00	60.6 PK	74.0	-13.4	1.11 H	264	42.72	17.88
8	#16740.00	50.8 AV	54.0	-3.2	1.11 H	264	32.92	17.88

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.6 PK	74.0	-22.4	1.09 V	121	10.46	41.14
2	#5470.00	40.3 AV	54.0	-13.7	1.09 V	121	-0.84	41.14
3	*5580.00	106.3 PK			1.09 V	121	64.98	41.32
4	*5580.00	95.3 AV			1.09 V	121	53.98	41.32
5	11160.00	54.5 PK	74.0	-19.5	1.00 V	203	7.40	47.10
6	11160.00	42.9 AV	54.0	-11.1	1.00 V	203	-4.20	47.10
7	#16740.00	61.5 PK	74.0	-12.5	1.12 V	48	7.93	53.57
8	#16740.00	51.0 AV	54.0	-3.0	1.12 V	48	-2.57	53.57

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5660.00	113.6 PK			1.03 H	360	108.67	4.93
2	*5660.00	102.2 AV			1.03 H	360	97.27	4.93
3	#5725.00	53.4 PK	74.0	-20.6	1.03 H	360	48.47	4.93
4	#5725.00	43.7 AV	54.0	-10.3	1.03 H	360	38.77	4.93
5	11320.00	53.9 PK	74.0	-20.1	1.02 H	334	43.09	10.81
6	11320.00	43.0 AV	54.0	-11.0	1.02 H	334	32.19	10.81
7	#16980.00	60.3 PK	74.0	-13.7	1.10 H	275	41.96	18.34
8	#16980.00	50.4 AV	54.0	-3.6	1.10 H	275	32.06	18.34

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5660.00	106.6 PK			1.21 V	109	65.18	41.42
2	*5660.00	95.7 AV			1.21 V	109	54.28	41.42
3	#5725.00	51.8 PK	74.0	-22.2	1.21 V	109	10.32	41.48
4	#5725.00	40.5 AV	54.0	-13.5	1.21 V	109	-0.98	41.48
5	11320.00	54.2 PK	74.0	-19.8	1.00 V	231	7.11	47.09
6	11320.00	42.4 AV	54.0	-11.6	1.00 V	231	-4.69	47.09
7	#16980.00	60.9 PK	74.0	-13.1	1.21 V	77	6.72	54.18
8	#16980.00	50.7 AV	54.0	-3.3	1.21 V	77	-3.48	54.18

**REMARKS:**

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





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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5680.00	113.0 PK			1.08 H	356	108.08	4.92
2	*5680.00	102.2 AV			1.08 H	356	97.28	4.92
3	#5725.00	66.8 PK	74.0	-7.2	1.08 H	356	61.87	4.93
4	#5725.00	43.5 AV	54.0	-10.5	1.08 H	356	38.57	4.93
5	11360.00	53.8 PK	74.0	-20.2	1.05 H	352	43.08	10.72
6	11360.00	43.0 AV	54.0	-11.0	1.05 H	352	32.28	10.72
7	#17040.00	60.2 PK	74.0	-13.8	1.09 H	285	41.77	18.43
8	#17040.00	50.5 AV	54.0	-3.5	1.09 H	285	32.07	18.43

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5680.00	106.8 PK			1.10 V	104	65.37	41.43
2	*5680.00	95.8 AV			1.10 V	104	54.37	41.43
3	#5725.00	60.4 PK	74.0	-13.6	1.10 V	104	18.92	41.48
4	#5725.00	40.3 AV	54.0	-13.7	1.10 V	104	-1.18	41.48
5	11360.00	54.4 PK	74.0	-19.6	1.00 V	214	7.31	47.09
6	11360.00	42.8 AV	54.0	-11.2	1.00 V	214	-4.29	47.09
7	#17040.00	60.0 PK	74.0	-14.0	1.17 V	77	5.73	54.27
8	#17040.00	50.0 AV	54.0	-4.0	1.17 V	77	-4.27	54.27

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	111.7 PK			1.02 H	347	106.79	4.91
2	*5700.00	100.4 AV			1.02 H	347	95.49	4.91
3	#5725.00	67.2 PK	74.0	-6.8	1.02 H	347	62.27	4.93
4	#5725.00	52.8 AV	54.0	-1.2	1.02 H	347	47.87	4.93
5	11400.00	54.0 PK	74.0	-20.0	1.10 H	344	43.37	10.63
6	11400.00	43.2 AV	54.0	-10.8	1.10 H	344	32.57	10.63
7	#17100.00	59.7 PK	74.0	-14.3	1.11 H	271	41.15	18.55
8	#17100.00	50.3 AV	54.0	-3.7	1.11 H	271	31.75	18.55

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.2 PK			1.15 V	104	62.75	41.45
2	*5700.00	94.3 AV			1.15 V	104	52.85	41.45
3	#5725.00	65.3 PK	74.0	-8.7	1.15 V	104	23.82	41.48
4	#5725.00	51.0 AV	54.0	-3.0	1.15 V	104	9.52	41.48
5	11400.00	54.2 PK	74.0	-19.8	1.00 V	222	7.11	47.09
6	11400.00	42.4 AV	54.0	-11.6	1.00 V	222	-4.69	47.09
7	#17100.00	60.9 PK	74.0	-13.1	1.16 V	55	6.54	54.36
8	#17100.00	50.5 AV	54.0	-3.5	1.16 V	55	-3.86	54.36

**REMARKS:**

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



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### 4.3 TRANSMIT POWER MEASUREMENT

#### 4.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

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

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

#### 4.3.2 TEST INSTRUMENTS

##### FOR POWER OUTPUT MEASUREMENT

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power meter Anritsu	ML2495A	1014008	Apr. 30, 2014	Apr. 29, 2015
Power sensor Anritsu	MA2411B	0917122	Apr. 30, 2014	Apr. 29, 2015

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. Tested date : June 29, 2014

##### FOR 26dB OCCUPIED BANDWIDTH

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
SPECTRUM ANALYZER R&S	FSV 40	100964	July 15, 2013	July 14, 2014

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. Tested date : June 29, 2014

### 4.3.3 TEST PROCEDURE

#### FOR POWER OUTPUT MEASUREMENT

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

#### FOR 26dB OCCUPIED BANDWIDTH

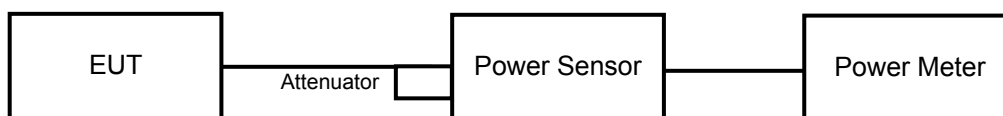
1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement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

### 4.3.4 DEVIATION FROM TEST STANDARD

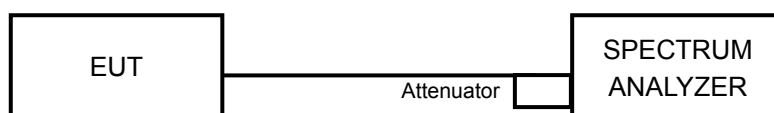
No deviation

### 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.



### 4.3.7 TEST RESULTS

#### 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	38.282	15.83	17	PASS
40	5200	38.107	15.81	17	PASS
44	5220	39.084	15.92	17	PASS
48	5240	38.282	15.83	17	PASS
52	5260	61.235	17.87	24	PASS
60	5300	61.802	17.91	24	PASS
64	5320	41.783	16.21	24	PASS
100	5500	50.35	17.02	24	PASS
104	5520	59.156	17.72	24	PASS
116	5580	59.979	17.78	24	PASS
132	5660	59.156	17.72	24	PASS
136	5680	61.235	17.87	24	PASS
140	5700	38.282	15.83	24	PASS

#### 26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
36	5180	28.49
40	5200	27.90
44	5220	25.59
48	5240	28.46
52	5260	34.07
60	5300	34.86
64	5320	29.31
100	5500	31.48
104	5520	36.05
116	5580	35.99
132	5660	37.28
136	5680	35.96
140	5700	29.94

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



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Power Limit = 4dBm + 10logB < UNII Band 1>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
36	5180	28.49	18.54 > 17
40	5200	27.90	18.45 > 17
44	5220	25.59	18.08 > 17
48	5240	28.46	18.54 > 17
Power Limit = 11dBm + 10logB < UNII Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	34.07	26.32 > 24
60	5300	34.86	26.42 > 24
64	5320	29.31	25.67 > 24
100	5500	31.48	25.98 > 24
104	5520	36.05	26.56 > 24
116	5580	35.99	26.56 > 24
132	5660	37.28	26.71 > 24
136	5680	35.96	26.55 > 24
140	5700	29.94	25.76 > 24



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### 802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	38.194	15.82	17	PASS
40	5200	38.548	15.86	17	PASS
44	5220	37.67	15.76	17	PASS
48	5240	37.325	15.72	17	PASS
52	5260	60.395	17.81	24	PASS
60	5300	59.704	17.76	24	PASS
64	5320	40.551	16.08	24	PASS
100	5500	43.752	16.41	24	PASS
104	5520	60.534	17.82	24	PASS
116	5580	62.087	17.93	24	PASS
132	5660	56.624	17.53	24	PASS
136	5680	59.293	17.73	24	PASS
140	5700	37.67	15.76	24	PASS

### 26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
36	5180	28.06
40	5200	26.20
44	5220	27.71
48	5240	26.61
52	5260	37.97
60	5300	35.82
64	5320	29.17
100	5500	31.98
104	5520	37.11
116	5580	37.36
132	5660	36.69
136	5680	37.86
140	5700	28.99

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





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Power Limit = 4dBm + 10logB < UNII Band 1>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
36	5180	28.06	18.48 > 17
40	5200	26.20	18.18 > 17
44	5220	27.71	18.42 > 17
48	5240	26.61	18.25 > 17
Power Limit = 11dBm + 10logB < UNII Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	37.97	26.79 > 24
60	5300	35.82	26.54 > 24
64	5320	29.17	25.64 > 24
100	5500	31.98	26.04 > 24
104	5520	37.11	26.69 > 24
116	5580	37.36	26.72 > 24
132	5660	36.69	26.64 > 24
136	5680	37.86	26.78 > 24
140	5700	28.99	25.62 > 24



※Add test for each data rate output power (require by manufacturer):

802.11a

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)							
		Data rate							
		6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
36	5180	15.83	15.62	15.8	15.74	15.75	15.78	15.81	15.39
40	5200	15.81	15.6	15.77	15.6	15.31	15.35	15.31	15.53
44	5220	15.92	15.81	15.78	15.44	15.52	15.88	15.65	15.78
48	5240	15.83	15.82	15.43	15.53	15.41	15.38	15.45	15.41
52	5260	17.87	17.72	17.81	17.66	17.41	17.68	17.46	17.6
60	5300	17.91	17.67	17.52	17.78	17.85	17.56	17.6	17.54
64	5320	16.21	15.97	15.75	16.05	15.87	15.96	15.86	15.91
100	5500	17.02	16.89	16.78	16.92	16.63	16.59	16.68	16.71
104	5520	17.72	17.42	17.69	17.47	17.57	17.41	17.26	17.42
116	5580	17.78	17.65	17.43	17.63	17.66	17.55	17.45	17.45
132	5660	17.72	17.23	17.47	17.67	17.32	17.32	17.36	17.31
136	5680	17.87	17.48	17.49	17.55	17.55	17.53	17.82	17.39
140	5700	15.83	15.41	15.51	15.46	15.51	15.82	15.56	15.48



802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	AVERAGE POWER (dBm)							
		Data rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
36	5180	15.82	15.55	15.53	15.57	15.61	15.52	15.75	15.67
40	5200	15.86	15.81	15.4	15.81	15.82	15.43	15.45	15.82
44	5220	15.76	15.42	15.62	15.36	15.65	15.75	15.27	15.49
48	5240	15.72	15.6	15.6	15.63	15.49	15.65	15.49	15.58
52	5260	17.81	17.42	17.53	17.69	17.65	17.49	17.56	17.7
60	5300	17.76	17.36	17.74	17.75	17.61	17.75	17.36	17.71
64	5320	16.08	16.04	15.82	15.71	15.91	15.66	16.01	15.99
100	5500	16.41	16.34	16.02	16.3	16.11	16.26	16.09	16.29
104	5520	17.82	17.49	17.65	17.52	17.42	17.63	17.46	17.38
116	5580	17.93	17.85	17.6	17.83	17.87	17.75	17.8	17.49
132	5660	17.53	17.04	17.16	17.23	17.18	17.07	17.26	17.22
136	5680	17.73	17.42	17.4	17.64	17.38	17.6	17.4	17.44
140	5700	15.76	15.61	15.39	15.27	15.35	15.67	15.72	15.65



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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 & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
SPECTRUM ANALYZER R&S	FSV 40	100964	July 15, 2013	July 14, 2014

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. Tested date : June 29, 2014

##### 4.4.3 TEST PROCEDURES

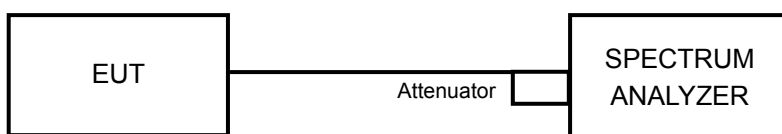
Using method SA-1

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

##### 4.4.4 DEVIATION FROM TEST STANDARD

No deviation

##### 4.4.5 TEST SETUP



#### 4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6



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## 4.4.7 TEST RESULTS

### 802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	3.80	4	PASS
40	5200	3.77	4	PASS
44	5220	3.89	4	PASS
48	5240	3.88	4	PASS
52	5260	6.05	11	PASS
60	5300	5.98	11	PASS
64	5320	3.66	11	PASS
100	5500	4.49	11	PASS
104	5520	5.71	11	PASS
116	5580	5.75	11	PASS
132	5660	5.54	11	PASS
136	5680	5.66	11	PASS
140	5700	3.72	11	PASS

### 802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	3.83	4	PASS
40	5200	3.76	4	PASS
44	5220	3.77	4	PASS
48	5240	3.77	4	PASS
52	5260	5.91	11	PASS
60	5300	5.95	11	PASS
64	5320	3.45	11	PASS
100	5500	4.44	11	PASS
104	5520	5.60	11	PASS
116	5580	5.56	11	PASS
132	5660	5.47	11	PASS
136	5680	5.63	11	PASS
140	5700	3.49	11	PASS

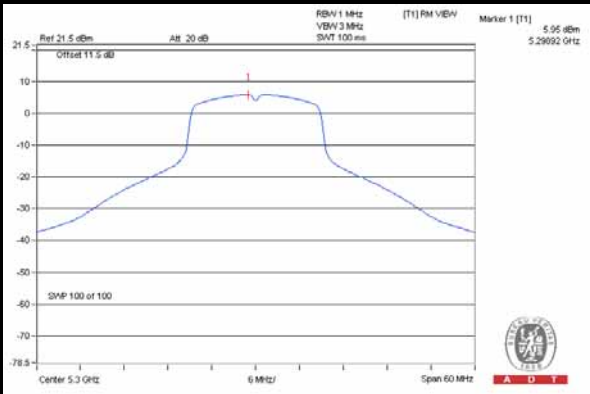
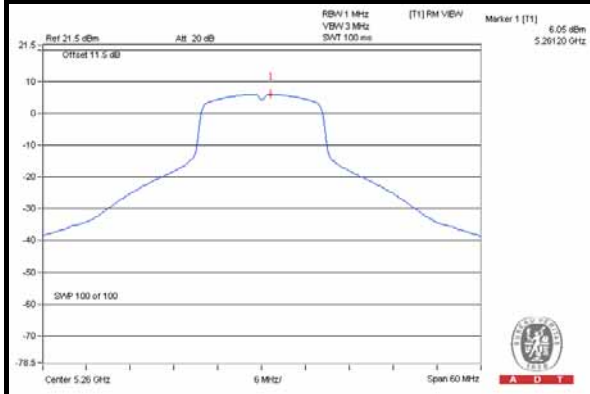


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### SPECTRUM PLOT OF WORST VALUE

802.11a : CH52

802.11n (HT20) : CH60





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## 4.5 PEAK POWER EXCURSION MEASUREMENT

### 4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB

### 4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
SPECTRUM ANALYZER R&S	FSV 40	100964	July 15, 2013	July 14, 2014

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. Tested date : June 29, 2014

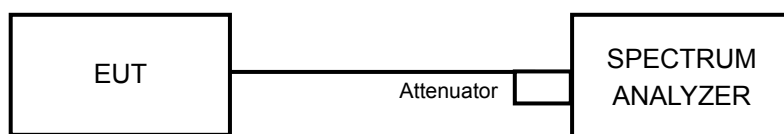
### 4.5.3 TEST PROCEDURE

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

### 4.5.4 DEVIATION FROM TEST STANDARD

No deviation

### 4.5.5 TEST SETUP





#### 4.5.6 EUT OPERATING CONDITIONS

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



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## 4.5.7 TEST RESULTS

### Without duty factor

MODULATION MODE	MODULATION TYPE	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/ FAIL
802.11a	BPSK	5700	12.66	3.72	8.94	13	PASS
802.11n (HT20)	BPSK	5700	12.76	3.49	9.27	13	PASS

### With duty factor

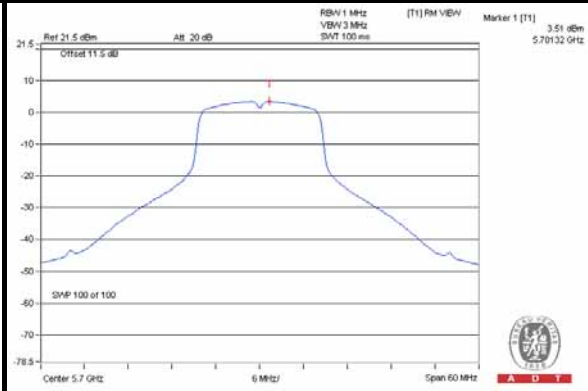
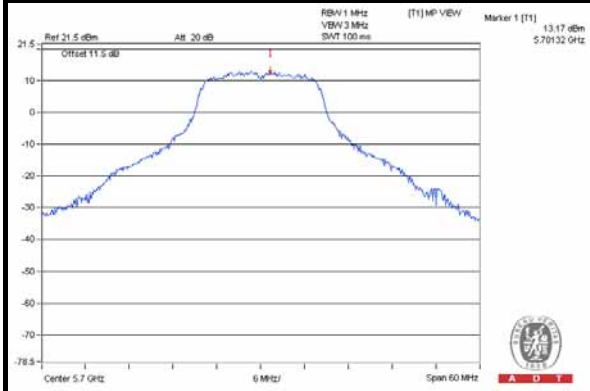
MODULATION MODE	MODULATION TYPE	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS /FAIL
802.11a	QPSK	5700	12.95	3.53	3.62	9.33	13	PASS
	16QAM		13.17	3.51	3.68	9.49	13	PASS
	64QAM		12.97	3.45	3.78	9.19	13	PASS
802.11n (HT20)	QPSK	5700	13.17	3.24	3.34	9.83	13	PASS
	16QAM		13.29	3.19	3.38	9.91	13	PASS
	64QAM		12.21	3.01	3.37	8.84	13	PASS



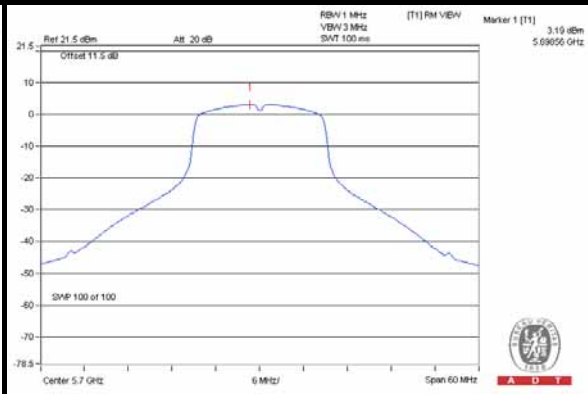
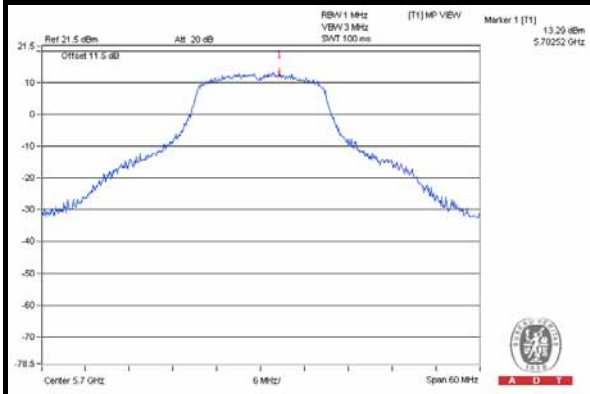
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### SPECTRUM PLOT OF WORST VALUE

#### 802.11a / 16QAM



#### 802.11n (HT20) / 16QAM





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## 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
SPECTRUM ANALYZER R&S	FSV 40	100964	July 15, 2013	July 14, 2014
Temperature Humidity Chamber GIANTFORCE &	GTH-150-40-SP-AR	MAA0812-008	Jan. 13, 2014	Jan. 12, 2015

**Note:**

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. Tested date : June 29, 2014

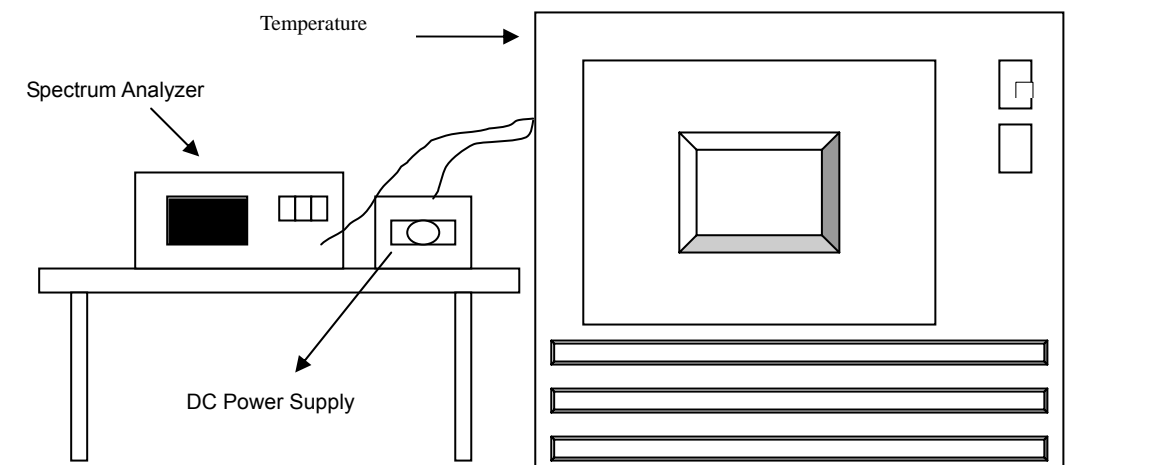
### 4.6.3 TEST PROCEDURE

1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

#### 4.6.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.6.5 TEST SETUP



#### 4.6.6 EUT OPERATING CONDITION

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



### 4.6.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	%	(MHz)	%	(MHz)	%	(MHz)	%
50	3.8	5319.9894	-0.00020	5319.99	-0.00019	5319.988	-0.00023	5319.9875	-0.00023
40	3.8	5319.9858	-0.00027	5319.9871	-0.00024	5319.9826	-0.00033	5319.9865	-0.00025
30	3.8	5319.9863	-0.00026	5319.9852	-0.00028	5319.9853	-0.00028	5319.9848	-0.00029
20	3.8	5320.0214	0.00040	5320.0212	0.00040	5320.0169	0.00032	5320.0203	0.00038
10	3.8	5320.0138	0.00026	5320.013	0.00024	5320.0129	0.00024	5320.0137	0.00026
0	3.8	5320.0005	0.00001	5320.0024	0.00005	5319.9984	-0.00003	5319.9997	-0.00001
-10	3.8	5320.0119	0.00022	5320.0135	0.00025	5320.0131	0.00025	5320.0128	0.00024
-20	3.8	5320.0093	0.00017	5320.0094	0.00018	5320.0077	0.00014	5320.0087	0.00016
-30	3.8	5320.024	0.00045	5320.0254	0.00048	5320.024	0.00045	5320.0239	0.00045

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	%	(MHz)	%	(MHz)	%	(MHz)	%
20	4.2	5320.0216	0.00041	5320.0209	0.00039	5320.0176	0.00033	5320.021	0.00039
	3.8	5320.0214	0.00040	5320.0212	0.00040	5320.0169	0.00032	5320.0203	0.00038
	3.65	5320.0216	0.00041	5320.0208	0.00039	5320.0166	0.00031	5320.0197	0.00037

**NOTE:** As per client requests, the Input power for testing is 3.8Vdc.

## 5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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## 6. INFORMATION ON THE TESTING LABORATORIES

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

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

**Linko EMC/RF Lab:**

Tel: 886-2-26052180  
Fax: 886-2-26052943

**Hsin Chu EMC/RF Lab:**

Tel: 886-3-5935343  
Fax: 886-3-5935342

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

Tel: 886-3-3183232  
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**Email:** [service.adt@tw.bureauveritas.com](mailto:service.adt@tw.bureauveritas.com)

**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

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





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

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

**--- END ---**