



# FCC TEST REPORT (WLAN 15.407)

**REPORT NO.:** RF131203C43-1

**MODEL NO.:** TA-H10L-B, TA-S10L-B

**FCC ID:** APYHRO00199

**RECEIVED:** Dec. 3, 2013

**TESTED:** Dec. 12 ~ 28, 2013

**ISSUED:** Dec. 30, 2013

**APPLICANT:** Sharp Corporation

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**ISSUED BY:** Bureau Veritas Consumer Products Services  
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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF131203C43-1	Original release	Dec. 30, 2013



## 1. CERTIFICATION

**PRODUCT:** Tablet PC

**BRAND:** Sharp

**MODEL:** TA-H10L-B, TA-S10L-B

**APPLICANT:** Sharp Corporation

**TESTED:** Dec. 12 ~ 28, 2013

**TEST SAMPLE:** ENGINEERING SAMPLE

**STANDARDS:** FCC Part 15, Subpart E (Section 15.407)

ANSI C63.10-2009

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

**PREPARED BY :** Annie Chang , **DATE:** Dec. 30, 2013  
( Annie Chang / Supervisor )

**APPROVED BY :** Rex Lai , **DATE:** Dec. 30, 2013  
( Rex Lai / Assistant Manager )

## 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -15.07dB at 0.62656MHz.
15.407(b/1/2/3) (b)(6)	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.3dB at 5470.00MHz.
15.407(a/1/2)	Max Average 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.

### 2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz~30MHz	2.41 dB
Radiated emissions	30MHz ~ 1GHz	4.30 dB
	Above 1GHz	3.36 dB

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

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>EUT</b>	Tablet PC
<b>MODEL NO.</b>	TA-H10L-B, TA-S10L-B
<b>POWER SUPPLY</b>	12Vdc from AC Adapter or 3.7Vdc from Battery
<b>MODULATION TYPE</b>	64QAM, 16QAM, QPSK, BPSK
<b>MODULATION TECHNOLOGY</b>	OFDM
<b>TRANSFER RATE</b>	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300Mbps
<b>OPERATING FREQUENCY</b>	5180 ~ 5240MHz, 5260 ~ 5320MHz & 5500 ~ 5700MHz
<b>NUMBER OF CHANNEL</b>	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz)
<b>OUTPUT POWER</b>	27.4mW for 5180 ~ 5240MHz 27.6mW for 5260 ~ 5320MHz 27.4mW for 5500 ~ 5700MHz
<b>ANTENNA TYPE</b>	Refer to note below
<b>ANTENNA CONNECTOR</b>	N/A
<b>DATA CABLE</b>	Refer to user's manual
<b>I/O PORTS</b>	Refer to user's manual
<b>ACCESSORY DEVICES</b>	Refer to note below

**NOTE:**

- The EUT has several models, which are identical to each other except for the following differences:

Brand Name	Model No.	Differentiation
Sharp	TA-H10L-B	Marketing Differentiation
Sharp	TA-S10L-B	

2. The EUT used antennas listed as below:

Antenna	Antenna Type	Gain (dBi)					
		WLAN 2.4GHz & Bluetooth		WLAN 5.0GHz (Band 1~3)		WLAN 5.0GHz (Band 4)	
		Main	AUX.	Main	AUX.	Main	AUX.
A	PIFA	-2.87	-2.54	-3.16	-2.97	-3.56	-3.58
B	PIFA	-7.51	-7.44	-7.50	-7.84	-7.69	-8.08

Following antenna was selected for final test:

Antenna	Antenna Type	Gain (dBi)					
		WLAN 2.4GHz & Bluetooth		WLAN 5.0GHz (Band 1~3)		WLAN 5.0GHz (Band 4)	
		Main	AUX.	Main	AUX.	Main	AUX.
A	PIFA	-2.87	-2.54	-3.16	-2.97	-3.56	-3.58

3. The EUT was power supplied from the following power adapters and battery:

Item	Brand	Model No.	Rating
Adapter	SHARP	PEW120300UU95-1G	AC I/P: 100-240V, 50/60Hz, 0.6A DC O/P: 12V, 2.0A Non-shielded DC (1.3m)
Battery	WTE	EECM051K2002	3.7Vdc, 7800mAh

After pre-tested, the **Adapter mode** was the worst case, therefore, only its test data was recorded in this report.

4. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

Modulation Mode	Tx Function
802.11b	1TX
802.11g	1TX
802.11a	1TX
802.11n (20MHz)	2TX
802.11n (40MHz)	2TX

5. The frequency bands used in this EUT are listed as follows:

Frequency Band (MHz)	2412~2462	5180~5320	5500~5700	5745~5825
802.11b	√			
802.11g	√			
802.11a		√	√	√
802.11n (20MHz)	√	√	√	√
802.11n (40MHz)		√	√	√

6. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

### 3.2 DESCRIPTION OF TEST MODES

#### FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

#### FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

#### FOR 5500 ~ 5700MHz

8 channels are provided for 802.11a, 802.11n (20MHz):

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 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	134	5670 MHz
110	5550 MHz		

### 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE $\geq$ 1G	RE $<$ 1G	PLC	APCM	
A	√	√	√	√	1TX
B	√	-	-	√	2TX

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

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

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A & B	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
A & B	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A & B	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
A & B	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.0
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A & B	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
A & B	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.0

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (20MHz)	5180-5240	36 to 48	36	OFDM	BPSK	6.5

**POWER LINE CONDUCTED EMISSION TEST:**

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (20MHz)	5180-5240	36 to 48	36	OFDM	BPSK	6.5

**ANTENNA PORT CONDUCTED MEASUREMENT:**

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A & B	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
A & B	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A & B	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
A & B	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.0
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A & B	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
A & B	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.0

**TEST CONDITION:**

APPLICABLE TO	EUT CONFIGURE MODE	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	A & B	21deg. C, 75%RH	120Vac, 60Hz	Joey Liu
RE<1G	A	21deg. C, 75%RH	120Vac, 60Hz	Joey Liu
PLC	A	22deg. C, 78% RH	120Vac, 60Hz	Charlie Chang
APCM	A & B	25deg. C, 60% RH	120Vac, 60Hz	Dalen Dai



### 3.3 DUTY CYCLE OF TEST SIGNAL

If duty cycle is < 98%, duty factor shall be considered.

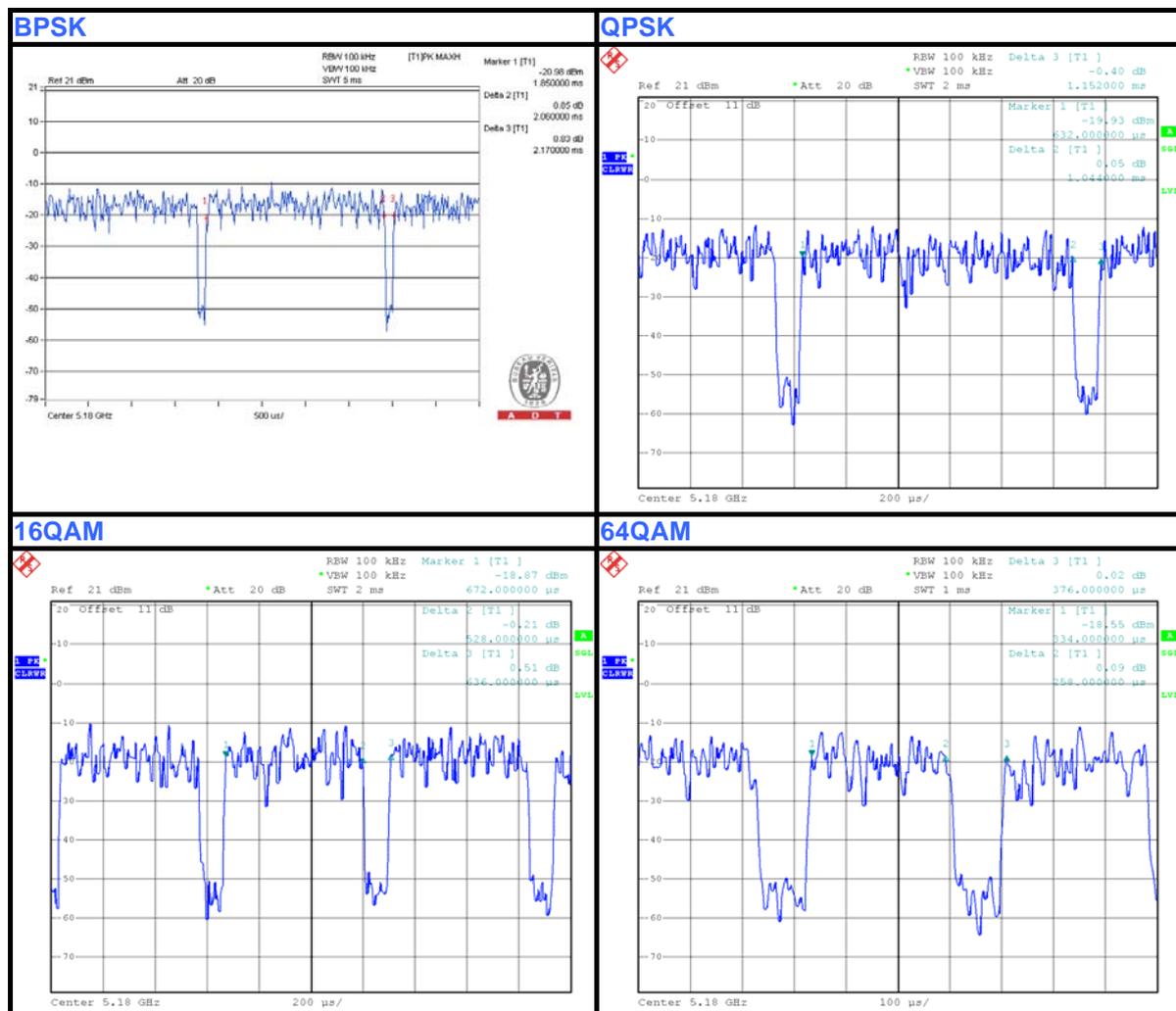
802.11a:

**BPSK:** Duty cycle = 2.060 / 2.170 = 0.949 , Duty factor = 10 \* log( 1/ 0.949 ) = 0.23

**QPSK:** Duty cycle = 1.044 / 1.152 = 0.906 , Duty factor = 10 \* log( 1/ 0.906 ) = 0.43

**16QAM:** Duty cycle = 0.528 / 0.636 = 0.830 , Duty factor = 10 \* log( 1/ 0.830 ) = 0.81

**64QAM:** Duty cycle = 0.258 / 0.376 = 0.686 , Duty factor = 10 \* log( 1/ 0.686 ) = 1.64





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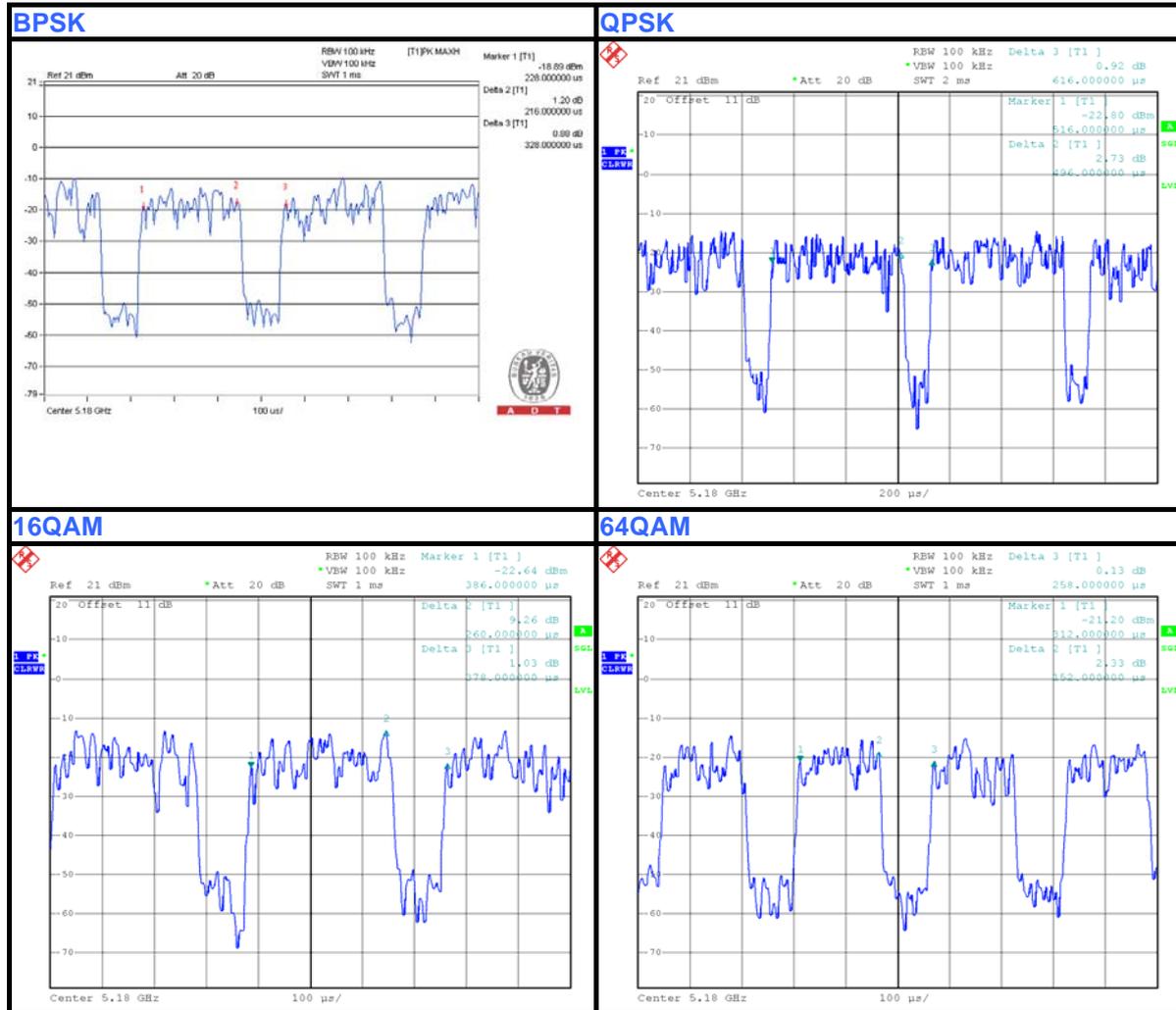
### 802.11n (20MHz)

**BPSK:** Duty cycle =  $0.972 / 1.088 = 0.893$  , Duty factor =  $10 * \log(1 / 0.893) = 0.49$

**QPSK:** Duty cycle =  $0.496 / 0.616 = 0.805$  , Duty factor =  $10 * \log(1 / 0.805) = 0.94$

**16QAM:** Duty cycle =  $0.260 / 0.378 = 0.688$  , Duty factor =  $10 * \log(1 / 0.688) = 1.63$

**64QAM:** Duty cycle =  $0.152 / 0.258 = 0.589$  , Duty factor =  $10 * \log(1 / 0.589) = 2.30$





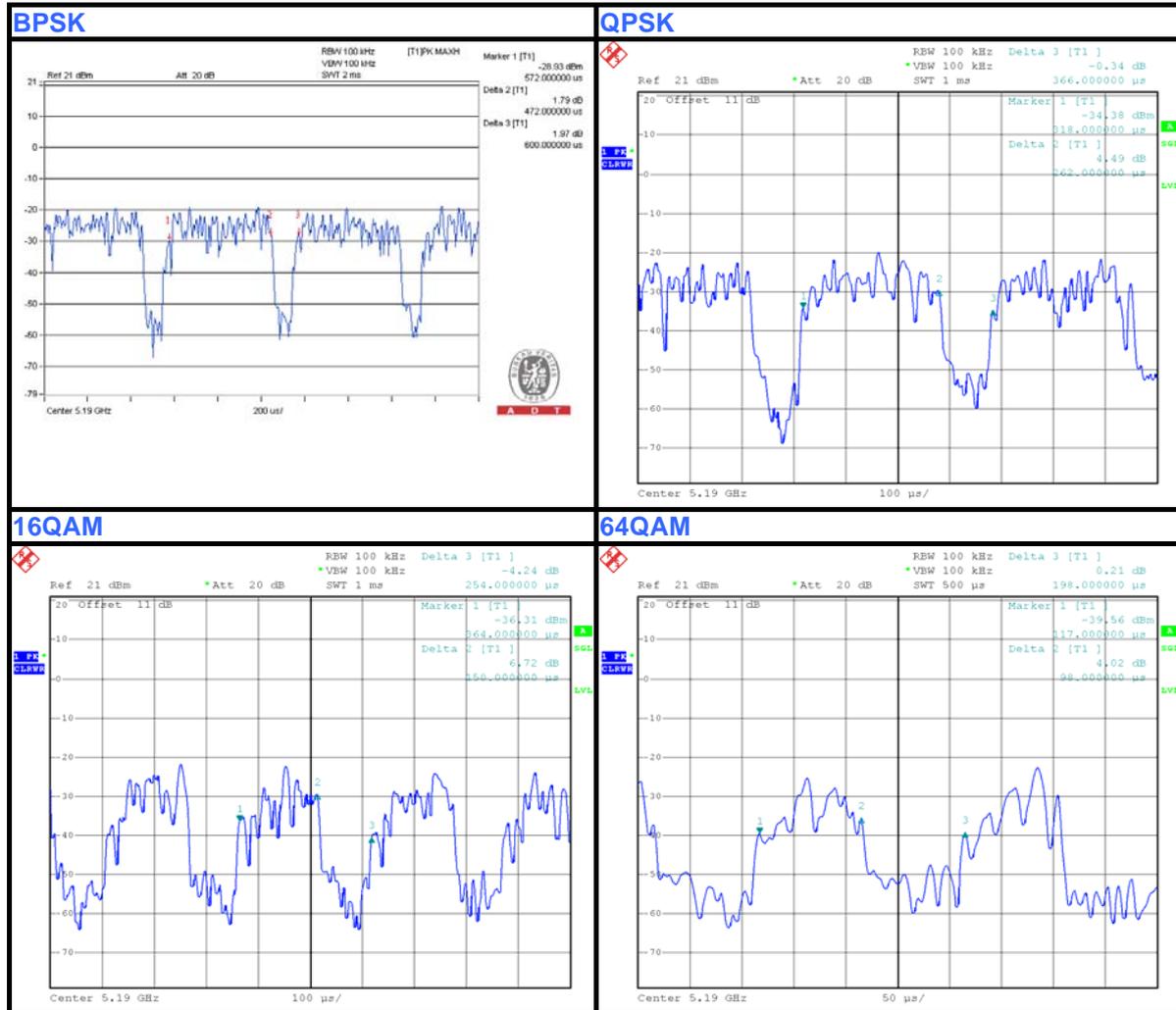
**802.11n (40MHz):**

**BPSK:** Duty cycle =  $0.472 / 0.600 = 0.787$  , Duty factor =  $10 * \log(1 / 0.787) = 1.04$

**QPSK:** Duty cycle =  $0.262 / 0.366 = 0.716$  , Duty factor =  $10 * \log(1 / 0.716) = 1.45$

**16QAM:** Duty cycle =  $0.150 / 0.254 = 0.591$  , Duty factor =  $10 * \log(1 / 0.591) = 2.29$

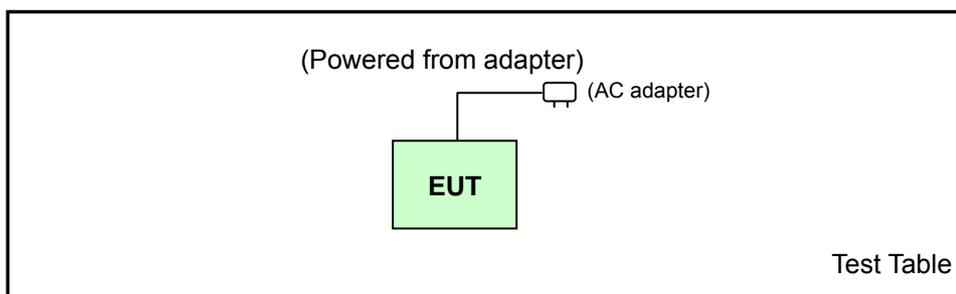
**64QAM:** Duty cycle =  $0.098 / 0.198 = 0.495$  , Duty factor =  $10 * \log(1 / 0.495) = 3.05$



### 3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together without other necessary accessories or support units.

#### 3.4.1 CONFIGURATION OF SYSTEM UNDER TEST





### **3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS**

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

**FCC Part 15, Subpart E (15.407)**

**789033 D01 General UNII Test Procedures v01 r03**

**662911 D01 Multiple Transmitter Output v02**

**ANSI C63.10-2009**

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

## 4. TEST TYPES AND RESULTS

### 4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

#### 4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

**NOTE:**

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

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

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

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

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

### 4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	Feb. 26, 2013	Feb. 25, 2014
HP Preamplifier	8449B	3008A01201	Feb. 26, 2013	Feb. 25, 2014
Agilent TEST RECEIVER	N9038A	MY51210129	Jan. 03, 2013	Jan. 02, 2014
Schwarzbeck Antenna	VULB 9168	137	Mar. 20, 2013	Mar. 19, 2014
Schwarzbeck Antenna	VHBA 9123	480	May 29, 2013	May 28, 2014
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	ADT_Radiated_V 7.6.15.9.2	NA	NA	NA
SUHNER RF cable	SF102	CABLE-CH6	Aug. 19, 2013	Aug. 18, 2014
Schwarzbeck Horn Antenna	BBHA 9120-D1	D130	May 13, 2013	May 12, 2014
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA
ROHDE & SCHWARZ Spectrum Analyzer	FSP 40	100036	May. 17, 2013	May. 16, 2014
Anritsu Power Sensor	MA2411B	0738404	Apr. 24, 2013	Apr. 23, 2014
Anritsu Power Meter	ML2495A	0842014	Apr. 25, 2013	Apr. 24, 2014

- NOTE:**
1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
  2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
  3. The test was performed in Chamber No. 6.
  4. The Industry Canada Reference No. IC 7450E-6.
  5. The FCC Site Registration No. is 447212.

#### 4.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. 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 antenna is a broadband antenna, and its height 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 Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

**NOTE:**

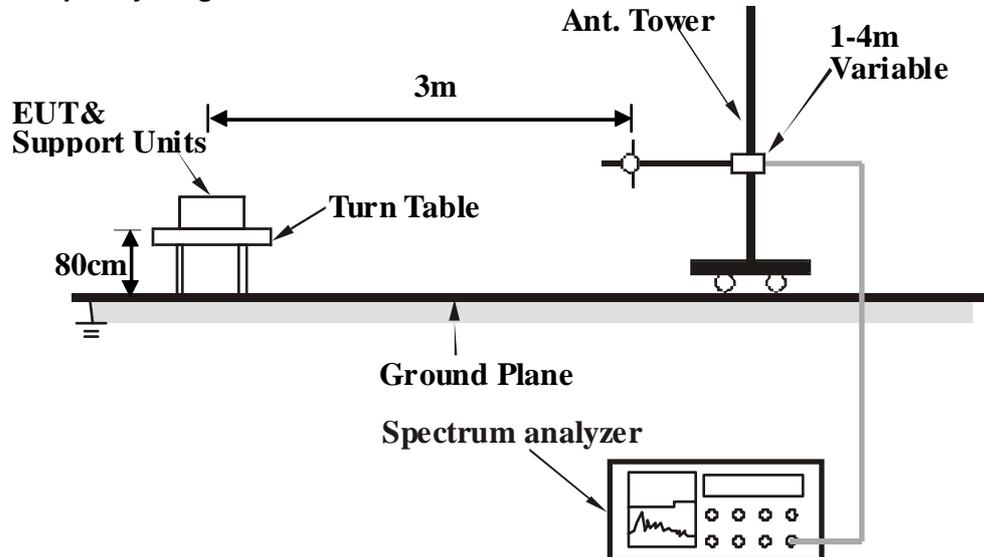
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle < 98%) or 10Hz (Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.5 DEVIATION FROM TEST STANDARD

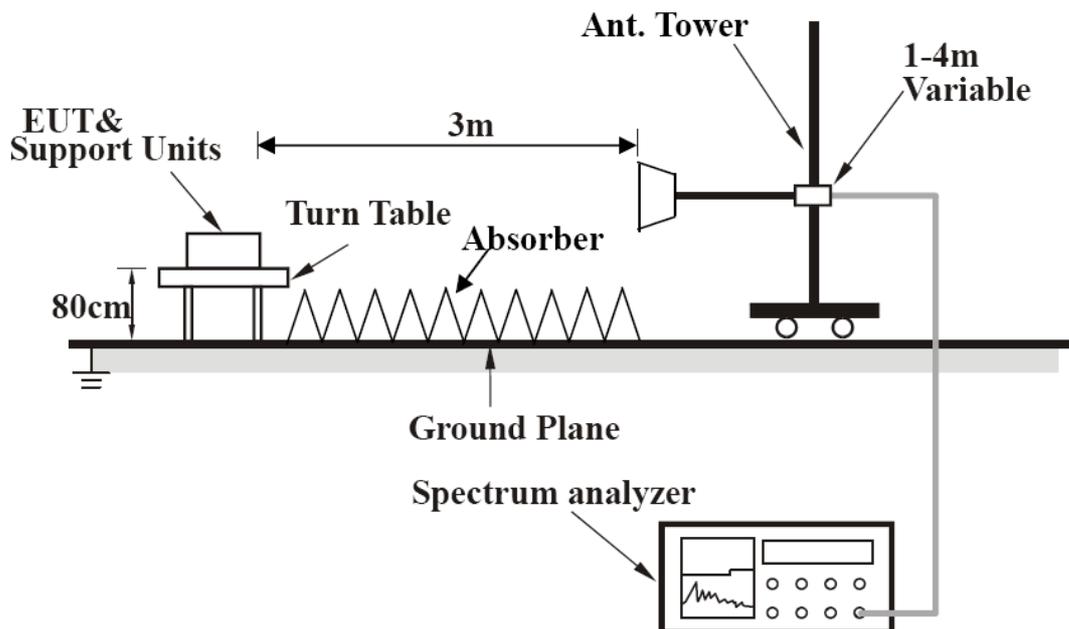
No deviation.

#### 4.1.6 TEST SETUP

Frequency range 30MHz~1GHz



Frequency range above 1GHz



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

#### 4.1.7 EUT OPERATING CONDITION

- Connected the EUT to AC adapter.
- Set the EUT under transmitting condition.

## 4.1.8 TEST RESULTS

### ABOVE 1GHz DATA

#### 802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.5 PK	74.0	-4.5	1.00 H	2	65.45	4.05
2	5150.00	52.2 AV	54.0	-1.8	1.00 H	2	48.13	4.05
3	*5180.00	105.0 PK			1.00 H	13	100.82	4.14
4	*5180.00	94.4 AV			1.00 H	13	90.28	4.14
5	10360.00	55.9 PK	74.0	-18.1	1.00 H	22	41.13	14.73
6	10360.00	41.7 AV	54.0	-12.3	1.00 H	22	26.95	14.73
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	70.5 PK	74.0	-3.5	1.00 V	89	66.42	4.05
2	5150.00	52.4 AV	54.0	-1.6	1.00 V	89	48.35	4.05
3	*5180.00	103.7 PK			1.00 V	89	99.53	4.14
4	*5180.00	92.8 AV			1.00 V	89	88.67	4.14
5	10360.00	54.9 PK	74.0	-19.1	1.00 V	92	40.15	14.73
6	10360.00	41.1 AV	54.0	-12.9	1.00 V	92	26.38	14.73

#### 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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	105.2 PK			1.00 H	18	101.04	4.19
2	*5200.00	94.4 AV			1.00 H	18	90.21	4.19
3	10400.00	55.7 PK	74.0	-18.3	1.00 H	22	40.57	15.12
4	10400.00	41.9 AV	54.0	-12.2	1.00 H	22	26.73	15.12
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	104.2 PK			1.00 V	88	100.04	4.19
2	*5200.00	93.1 AV			1.00 V	88	88.94	4.19
3	10400.00	55.6 PK	74.0	-18.4	1.00 V	90	40.48	15.12
4	10400.00	41.8 AV	54.0	-12.2	1.00 V	90	26.71	15.12

**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 48	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	105.3 PK			1.00 H	17	100.96	4.35
2	*5240.00	94.1 AV			1.00 H	17	89.71	4.35
3	10480.00	55.3 PK	74.0	-18.7	1.00 H	17	40.34	14.92
4	10480.00	42.1 AV	54.0	-11.9	1.00 H	17	27.16	14.92

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	104.9 PK			1.00 V	88	100.55	4.35
2	*5240.00	94.0 AV			1.00 V	88	89.64	4.35
3	10480.00	55.9 PK	74.0	-18.1	1.00 V	88	41.02	14.92
4	10480.00	42.0 AV	54.0	-12.0	1.00 V	88	27.11	14.92

**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.

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	105.3 PK			1.00 H	199	100.83	4.42
2	*5260.00	94.5 AV			1.00 H	199	90.12	4.42
3	10520.00	57.7 PK	74.0	-16.3	1.00 H	199	42.71	14.98
4	10520.00	42.9 AV	54.0	-11.1	1.00 H	199	27.91	14.98

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	104.2 PK			1.00 V	271	99.81	4.42
2	*5260.00	93.7 AV			1.00 V	271	89.28	4.42
3	10520.00	56.0 PK	74.0	-18.0	1.00 V	273	41.02	14.98
4	10520.00	43.2 AV	54.0	-10.8	1.00 V	273	28.21	14.98

**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.

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

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	106.3 PK			1.00 H	185	101.72	4.58
2	*5300.00	94.8 AV			1.00 H	185	90.26	4.58
3	10600.00	57.2 PK	74.0	-16.9	1.00 H	185	41.74	15.41
4	10600.00	44.3 AV	54.0	-9.7	1.00 H	185	28.86	15.41

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	104.1 PK			1.00 V	271	99.54	4.58
2	*5300.00	92.4 AV			1.00 V	271	87.86	4.58
3	10600.00	56.2 PK	74.0	-17.8	1.00 V	271	40.80	15.41
4	10600.00	42.2 AV	54.0	-11.8	1.00 V	271	26.81	15.41

**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.

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.5 PK			1.00 H	185	100.83	4.63
2	*5320.00	94.3 AV			1.00 H	185	89.71	4.63
3	5350.00	67.5 PK	74.0	-6.5	1.00 H	185	62.81	4.71
4	5350.00	47.9 AV	54.0	-6.1	1.00 H	185	43.21	4.71
5	10640.00	57.6 PK	74.0	-16.4	1.00 H	188	42.27	15.35
6	10640.00	43.5 AV	54.0	-10.5	1.00 H	188	28.13	15.35

**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	103.7 PK			1.00 V	270	99.04	4.63
2	*5320.00	92.2 AV			1.00 V	270	87.52	4.63
3	5350.00	67.1 PK	74.0	-6.9	1.00 V	270	62.41	4.71
4	5350.00	47.6 AV	54.0	-6.4	1.00 V	270	42.91	4.71
5	10640.00	55.3 PK	74.0	-18.7	1.00 V	270	39.95	15.35
6	10640.00	42.3 AV	54.0	-11.7	1.00 V	270	26.96	15.35

**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)
<b>TEST MODE</b>	A		

**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	68.4 PK	74.0	-5.6	1.00 H	207	63.33	5.07
2	5460.00	48.0 AV	54.0	-6.0	1.00 H	207	42.93	5.07
3	5470.00	70.5 PK	74.0	-3.5	1.00 H	207	65.38	5.10
4	5470.00	50.9 AV	54.0	-3.1	1.00 H	207	45.77	5.10
5	*5500.00	105.4 PK			1.00 H	207	100.14	5.22
6	*5500.00	93.8 AV			1.00 H	207	88.61	5.22
7	11000.00	55.1 PK	74.0	-18.9	1.00 H	207	39.02	16.11
8	11000.00	41.8 AV	54.0	-12.2	1.00 H	207	25.65	16.11

**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	5460.00	69.3 PK	74.0	-4.7	1.00 V	277	64.25	5.07
2	5460.00	49.2 AV	54.0	-4.8	1.00 V	277	44.15	5.07
3	5470.00	72.0 PK	74.0	-2.0	1.00 V	277	66.87	5.10
4	5470.00	52.3 AV	54.0	-1.7	1.00 V	277	47.23	5.10
5	*5500.00	104.2 PK			1.00 V	277	98.99	5.22
6	*5500.00	93.3 AV			1.00 V	277	88.07	5.22
7	11000.00	55.9 PK	74.0	-18.1	1.00 V	277	39.75	16.11
8	11000.00	42.2 AV	54.0	-11.8	1.00 V	277	26.13	16.11

**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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	104.8 PK			1.00 H	200	99.47	5.31
2	*5580.00	91.6 AV			1.00 H	200	86.32	5.31
3	11160.00	54.5 PK	74.0	-19.5	1.00 H	286	37.88	16.60
4	11160.00	42.1 AV	54.0	-11.9	1.00 H	286	25.54	16.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	103.5 PK			1.00 V	276	98.16	5.31
2	*5580.00	92.6 AV			1.00 V	276	87.28	5.31
3	11160.00	56.9 PK	74.0	-17.1	1.00 V	276	40.32	16.60
4	11160.00	43.0 AV	54.0	-11.0	1.00 V	276	26.39	16.60

**REMARKS:**

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

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	105.1 PK			1.00 H	193	99.70	5.35
2	*5700.00	94.0 AV			1.00 H	193	88.67	5.35
3	5725.00	71.5 PK	74.0	-2.5	1.00 H	193	66.09	5.39
4	5725.00	50.6 AV	54.0	-3.4	1.00 H	193	45.22	5.39
5	11400.00	55.1 PK	74.0	-18.9	1.00 H	193	39.01	16.10
6	11400.00	43.9 AV	54.0	-10.1	1.00 H	193	27.83	16.10

**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	*5700.00	104.0 PK			1.00 V	344	98.65	5.35
2	*5700.00	93.7 AV			1.00 V	344	88.32	5.35
3	5725.00	72.7 PK	74.0	-1.3	1.00 V	344	67.34	5.39
4	5725.00	52.1 AV	54.0	-1.9	1.00 V	344	46.71	5.39
5	11400.00	55.5 PK	74.0	-18.5	1.00 V	344	39.41	16.10
6	11400.00	44.3 AV	54.0	-9.7	1.00 V	344	28.17	16.10

**REMARKS:**

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



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### 802.11n (20MHz)

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

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	72.9 PK	74.0	-1.1	1.00 H	19	68.89	4.05
2	5150.00	52.8 AV	54.0	-1.2	1.00 H	19	48.74	4.05
3	*5180.00	106.1 PK			1.00 H	19	101.93	4.14
4	*5180.00	95.4 AV			1.00 H	19	91.30	4.14
5	10360.00	54.9 PK	74.0	-19.2	1.00 H	22	40.12	14.73
6	10360.00	40.2 AV	54.0	-13.8	1.00 H	22	25.44	14.73

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	70.2 PK	74.0	-3.8	1.00 V	98	66.18	4.05
2	5150.00	49.6 AV	54.0	-4.4	1.00 V	98	45.59	4.05
3	*5180.00	103.7 PK			1.00 V	98	99.54	4.14
4	*5180.00	92.8 AV			1.00 V	98	88.64	4.14
5	10360.00	51.2 PK	74.0	-22.8	1.00 V	100	36.45	14.73
6	10360.00	40.1 AV	54.0	-13.9	1.00 V	100	25.37	14.73

#### 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 40	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	107.4 PK			1.00 H	20	103.21	4.19
2	*5200.00	96.3 AV			1.00 H	20	92.08	4.19
3	10400.00	55.2 PK	74.0	-18.8	1.00 H	22	40.12	15.12
4	10400.00	40.8 AV	54.0	-13.2	1.00 H	22	25.68	15.12

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	103.6 PK			1.00 V	98	99.42	4.19
2	*5200.00	93.3 AV			1.00 V	98	89.15	4.19
3	10400.00	51.5 PK	74.0	-22.5	1.00 V	99	36.42	15.12
4	10400.00	40.8 AV	54.0	-13.2	1.00 V	99	25.72	15.12

**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.



A D T

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	107.5 PK			1.00 H	21	103.11	4.35
2	*5240.00	96.2 AV			1.00 H	21	91.88	4.35
3	10480.00	55.0 PK	74.0	-19.0	1.00 H	22	40.12	14.92
4	10480.00	40.2 AV	54.0	-13.8	1.00 H	22	25.28	14.92

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	104.8 PK			1.00 V	97	100.48	4.35
2	*5240.00	93.7 AV			1.00 V	97	89.37	4.35
3	10480.00	51.5 PK	74.0	-22.5	1.00 V	100	36.55	14.92
4	10480.00	40.3 AV	54.0	-13.7	1.00 V	100	25.38	14.92

**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.



A D T

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	105.3 PK			1.00 H	199	100.83	4.42
2	*5260.00	94.5 AV			1.00 H	199	90.12	4.42
3	10520.00	57.7 PK	74.0	-16.3	1.00 H	199	42.71	14.98
4	10520.00	42.9 AV	54.0	-11.1	1.00 H	199	27.91	14.98

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	104.2 PK			1.00 V	271	99.81	4.42
2	*5260.00	93.7 AV			1.00 V	271	89.28	4.42
3	10520.00	56.0 PK	74.0	-18.0	1.00 V	273	41.02	14.98
4	10520.00	43.2 AV	54.0	-10.8	1.00 V	273	28.21	14.98

**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.



A D T

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

**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	106.3 PK			1.00 H	185	101.72	4.58
2	*5300.00	94.8 AV			1.00 H	185	90.26	4.58
3	10600.00	57.2 PK	74.0	-16.9	1.00 H	185	41.74	15.41
4	10600.00	44.3 AV	54.0	-9.7	1.00 H	185	28.86	15.41

**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	104.1 PK			1.00 V	271	99.54	4.58
2	*5300.00	92.4 AV			1.00 V	271	87.86	4.58
3	10600.00	56.2 PK	74.0	-17.8	1.00 V	271	40.80	15.41
4	10600.00	42.2 AV	54.0	-11.8	1.00 V	271	26.81	15.41

**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.



A D T

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	105.5 PK			1.00 H	185	100.83	4.63
2	*5320.00	94.3 AV			1.00 H	185	89.71	4.63
3	5350.00	67.5 PK	74.0	-6.5	1.00 H	185	62.81	4.71
4	5350.00	47.9 AV	54.0	-6.1	1.00 H	185	43.21	4.71
5	10640.00	57.6 PK	74.0	-16.4	1.00 H	188	42.27	15.35
6	10640.00	43.5 AV	54.0	-10.5	1.00 H	188	28.13	15.35

**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	103.7 PK			1.00 V	270	99.04	4.63
2	*5320.00	92.2 AV			1.00 V	270	87.52	4.63
3	5350.00	67.1 PK	74.0	-6.9	1.00 V	270	62.41	4.71
4	5350.00	47.6 AV	54.0	-6.4	1.00 V	270	42.91	4.71
5	10640.00	55.3 PK	74.0	-18.7	1.00 V	270	39.95	15.35
6	10640.00	42.3 AV	54.0	-11.7	1.00 V	270	26.96	15.35

**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.



A D T

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

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	68.4 PK	74.0	-5.6	1.00 H	207	63.33	5.07
2	5460.00	48.0 AV	54.0	-6.0	1.00 H	207	42.93	5.07
3	5470.00	70.5 PK	74.0	-3.5	1.00 H	207	65.38	5.10
4	5470.00	50.9 AV	54.0	-3.1	1.00 H	207	45.77	5.10
5	*5500.00	103.4 PK			1.00 H	207	98.14	5.22
6	*5500.00	91.8 AV			1.00 H	207	86.61	5.22
7	11000.00	55.1 PK	74.0	-18.9	1.00 H	207	39.02	16.11
8	11000.00	41.8 AV	54.0	-12.2	1.00 H	207	25.65	16.11

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	5460.00	69.3 PK	74.0	-4.7	1.00 V	277	64.25	5.07
2	5460.00	49.2 AV	54.0	-4.8	1.00 V	277	44.15	5.07
3	5470.00	72.0 PK	74.0	-2.0	1.00 V	277	66.87	5.10
4	5470.00	52.3 AV	54.0	-1.7	1.00 V	277	47.23	5.10
5	*5500.00	104.2 PK			1.00 V	277	98.99	5.22
6	*5500.00	93.3 AV			1.00 V	277	88.07	5.22
7	11000.00	55.9 PK	74.0	-18.1	1.00 V	277	39.75	16.11
8	11000.00	42.2 AV	54.0	-11.8	1.00 V	277	26.13	16.11

**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.



A D T

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	102.8 PK			1.00 H	200	97.47	5.31
2	*5580.00	91.6 AV			1.00 H	200	86.32	5.31
3	11160.00	54.5 PK	74.0	-19.5	1.00 H	286	37.88	16.60
4	11160.00	42.1 AV	54.0	-11.9	1.00 H	286	25.54	16.60

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	103.5 PK			1.00 V	276	98.16	5.31
2	*5580.00	92.6 AV			1.00 V	276	87.28	5.31
3	11160.00	56.9 PK	74.0	-17.1	1.00 V	276	40.32	16.60
4	11160.00	43.0 AV	54.0	-11.0	1.00 V	276	26.39	16.60

**REMARKS:**

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

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.1 PK			1.00 H	193	98.70	5.35
2	*5700.00	93.0 AV			1.00 H	193	87.67	5.35
3	5725.00	71.5 PK	74.0	-2.5	1.00 H	193	66.09	5.39
4	5725.00	50.6 AV	54.0	-3.4	1.00 H	193	45.22	5.39
5	11400.00	55.1 PK	74.0	-18.9	1.00 H	193	39.01	16.10
6	11400.00	43.9 AV	54.0	-10.1	1.00 H	193	27.83	16.10

**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	*5700.00	105.0 PK			1.00 V	344	99.65	5.35
2	*5700.00	94.7 AV			1.00 V	344	89.32	5.35
3	5725.00	72.7 PK	74.0	-1.3	1.00 V	344	67.34	5.39
4	5725.00	52.1 AV	54.0	-1.9	1.00 V	344	46.71	5.39
5	11400.00	55.5 PK	74.0	-18.5	1.00 V	344	39.41	16.10
6	11400.00	44.3 AV	54.0	-9.7	1.00 V	344	28.17	16.10

**REMARKS:**

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



A D T

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.6 PK	74.0	-4.4	1.00 H	13	65.54	4.05
2	5150.00	52.0 AV	54.0	-2.0	1.00 H	13	47.95	4.05
3	*5180.00	106.4 PK			1.00 H	13	102.29	4.14
4	*5180.00	95.1 AV			1.00 H	13	90.92	4.14
5	10360.00	54.9 PK	74.0	-19.1	1.00 H	16	40.13	14.73
6	10360.00	40.5 AV	54.0	-13.5	1.00 H	16	25.79	14.73

**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	69.0 PK	74.0	-5.0	1.00 V	88	64.98	4.05
2	5150.00	52.0 AV	54.0	-2.0	1.00 V	88	47.93	4.05
3	*5180.00	105.4 PK			1.00 V	88	101.21	4.14
4	*5180.00	94.2 AV			1.00 V	88	90.03	4.14
5	10360.00	52.9 PK	74.0	-21.1	1.00 V	90	38.17	14.73
6	10360.00	40.4 AV	54.0	-13.7	1.00 V	90	25.62	14.73

**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.



**A D T**

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	108.2 PK			1.00 H	14	104.05	4.19
2	*5200.00	95.9 AV			1.00 H	14	91.71	4.19
3	10400.00	55.2 PK	74.0	-18.8	1.00 H	18	40.12	15.12
4	10400.00	40.8 AV	54.0	-13.2	1.00 H	18	25.67	15.12

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	106.7 PK			1.00 V	88	102.51	4.19
2	*5200.00	95.6 AV			1.00 V	88	91.42	4.19
3	10400.00	51.9 PK	74.0	-22.1	1.00 V	90	36.78	15.12
4	10400.00	40.3 AV	54.0	-13.7	1.00 V	90	25.17	15.12

**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.



A D T

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.0 PK			1.00 H	3	104.65	4.35
2	*5240.00	97.4 AV			1.00 H	3	93.03	4.35
3	10480.00	54.9 PK	74.0	-19.1	1.00 H	8	40.01	14.92
4	10480.00	40.3 AV	54.0	-13.7	1.00 H	8	25.35	14.92

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	108.2 PK			1.00 V	87	103.83	4.35
2	*5240.00	95.5 AV			1.00 V	87	91.11	4.35
3	10480.00	52.4 PK	74.0	-21.6	1.00 V	92	37.47	14.92
4	10480.00	40.1 AV	54.0	-13.9	1.00 V	92	25.18	14.92

**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.



A D T

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	104.9 PK			1.00 H	190	100.48	4.42
2	*5260.00	94.3 AV			1.00 H	190	89.88	4.42
3	10520.00	58.1 PK	74.0	-15.9	1.00 H	190	43.15	14.98
4	10520.00	43.6 AV	54.0	-10.4	1.00 H	190	28.62	14.98

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	104.6 PK			1.00 V	266	100.13	4.42
2	*5260.00	93.5 AV			1.00 V	266	89.08	4.42
3	10520.00	55.6 PK	74.0	-18.4	1.00 V	266	40.58	14.98
4	10520.00	42.2 AV	54.0	-11.8	1.00 V	266	27.21	14.98

**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 60	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	B		

**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	107.7 PK			1.00 H	184	103.08	4.58
2	*5300.00	95.7 AV			1.00 H	184	91.10	4.58
3	10600.00	61.5 PK	74.0	-12.5	1.00 H	184	46.07	15.41
4	10600.00	47.1 AV	54.0	-6.9	1.00 H	184	31.69	15.41

**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	105.1 PK			1.00 V	270	100.53	4.58
2	*5300.00	92.8 AV			1.00 V	270	88.24	4.58
3	10600.00	56.5 PK	74.0	-17.5	1.00 V	270	41.13	15.41
4	10600.00	42.9 AV	54.0	-11.1	1.00 V	270	27.48	15.41

**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.

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

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	102.0 PK			1.00 H	267	97.40	4.63
2	*5320.00	89.5 AV			1.00 H	267	84.87	4.63
3	5350.00	65.7 PK	74.0	-8.3	1.00 H	267	61.01	4.71
4	5350.00	47.9 AV	54.0	-6.1	1.00 H	267	43.18	4.71
5	10640.00	53.2 PK	74.0	-20.8	1.00 H	267	37.81	15.35
6	10640.00	41.1 AV	54.0	-12.9	1.00 H	267	25.71	15.35
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	102.0 PK			1.00 V	192	97.32	4.63
2	*5320.00	90.6 AV			1.00 V	192	85.95	4.63
3	5350.00	66.5 PK	74.0	-7.5	1.00 V	192	61.83	4.71
4	5350.00	48.7 AV	54.0	-5.3	1.00 V	192	43.96	4.71
5	10640.00	54.1 PK	74.0	-19.9	1.00 V	192	38.78	15.35
6	10640.00	41.2 AV	54.0	-12.8	1.00 V	192	25.82	15.35

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

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	71.2 PK	74.0	-2.8	1.00 H	200	66.11	5.07
2	5460.00	52.3 AV	54.0	-1.7	1.00 H	200	47.22	5.07
3	5470.00	72.3 PK	74.0	-1.8	1.00 H	200	67.15	5.10
4	5470.00	53.0 AV	54.0	-1.0	1.00 H	200	47.86	5.10
5	*5500.00	104.7 PK			1.00 H	200	99.44	5.22
6	*5500.00	92.8 AV			1.00 H	200	87.54	5.22
7	11000.00	57.6 PK	74.0	-16.4	1.00 H	200	41.45	16.11
8	11000.00	44.9 AV	54.0	-9.1	1.00 H	200	28.78	16.11

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	5460.00	66.6 PK	74.0	-7.4	1.00 V	179	61.49	5.07
2	5460.00	49.3 AV	54.0	-4.7	1.00 V	179	44.27	5.07
3	5470.00	72.1 PK	74.0	-1.9	1.00 V	179	66.99	5.10
4	<b>5470.00</b>	<b>53.7 AV</b>	<b>54.0</b>	<b>-0.3</b>	<b>1.00 V</b>	<b>179</b>	<b>48.58</b>	<b>5.10</b>
5	*5500.00	106.2 PK			1.00 V	179	100.96	5.22
6	*5500.00	93.9 AV			1.00 V	179	88.66	5.22
7	11000.00	58.2 PK	74.0	-15.8	1.00 V	179	42.11	16.11
8	11000.00	45.4 AV	54.0	-8.6	1.00 V	179	29.25	16.11

**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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	104.1 PK			1.00 H	200	98.81	5.31
2	*5580.00	92.9 AV			1.00 H	200	87.58	5.31
3	11160.00	58.2 PK	74.0	-15.9	1.00 H	200	41.55	16.60
4	11160.00	44.7 AV	54.0	-9.3	1.00 H	200	28.06	16.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	106.9 PK			1.00 V	276	101.62	5.31
2	*5580.00	95.6 AV			1.00 V	276	90.24	5.31
3	11160.00	56.8 PK	74.0	-17.2	1.00 V	276	40.21	16.60
4	11160.00	43.3 AV	54.0	-10.7	1.00 V	276	26.68	16.60

**REMARKS:**

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

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

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.3 PK			1.00 H	195	98.94	5.35
2	*5700.00	92.7 AV			1.00 H	195	87.36	5.35
3	5725.00	72.8 PK	74.0	-1.2	1.00 H	195	67.42	5.39
4	5725.00	52.8 AV	54.0	-1.2	1.00 H	195	47.37	5.39
5	11400.00	57.8 PK	74.0	-16.2	1.00 H	195	41.66	16.10
6	11400.00	44.5 AV	54.0	-9.5	1.00 H	195	28.36	16.10

**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	*5700.00	106.2 PK			1.00 V	276	100.88	5.35
2	*5700.00	94.9 AV			1.00 V	276	89.59	5.35
3	5725.00	71.3 PK	74.0	-2.8	1.00 V	276	65.86	5.39
4	5725.00	52.7 AV	54.0	-1.3	1.00 V	276	47.29	5.39
5	11400.00	53.6 PK	74.0	-20.4	1.00 V	276	37.54	16.10
6	11400.00	41.8 AV	54.0	-12.2	1.00 V	276	25.69	16.10

**REMARKS:**

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

802.11n (40MHz)

<b>CHANNEL</b>	TX Channel 38	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

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	70.7 PK	74.0	-3.3	1.00 H	20	66.65	4.05
2	5150.00	52.8 AV	54.0	-1.2	1.00 H	20	48.72	4.05
3	*5190.00	104.1 PK			1.00 H	20	99.92	4.16
4	*5190.00	92.5 AV			1.00 H	20	88.29	4.16
5	10380.00	55.2 PK	74.0	-18.8	1.00 H	21	40.24	14.92
6	10380.00	40.7 AV	54.0	-13.3	1.00 H	21	25.74	14.92

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	68.7 PK	74.0	-5.3	1.00 V	97	64.61	4.05
2	5150.00	48.2 AV	54.0	-5.8	1.00 V	97	44.15	4.05
3	*5190.00	97.1 PK			1.00 V	97	92.95	4.16
4	*5190.00	86.3 AV			1.00 V	97	82.12	4.16
5	10380.00	51.5 PK	74.0	-22.6	1.00 V	99	36.53	14.92
6	10380.00	40.1 AV	54.0	-13.9	1.00 V	99	25.19	14.92

**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 46	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	104.7 PK			1.00 H	20	100.35	4.31
2	*5230.00	93.0 AV			1.00 H	20	88.73	4.31
3	10460.00	55.1 PK	74.0	-18.9	1.00 H	20	40.12	14.97
4	10460.00	40.1 AV	54.0	-13.9	1.00 H	20	25.11	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	*5230.00	101.2 PK			1.00 V	89	96.86	4.31
2	*5230.00	89.7 AV			1.00 V	89	85.42	4.31
3	10460.00	51.4 PK	74.0	-22.6	1.00 V	89	36.44	14.97
4	10460.00	40.1 AV	54.0	-13.9	1.00 V	89	25.17	14.97

**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 54	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	98.5 PK			1.00 H	186	94.04	4.47
2	*5270.00	87.5 AV			1.00 H	186	83.06	4.47
3	10540.00	53.3 PK	74.0	-20.7	1.00 H	186	38.23	15.08
4	10540.00	40.9 AV	54.0	-13.1	1.00 H	186	25.82	15.08

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	98.0 PK			1.00 V	214	93.49	4.47
2	*5270.00	86.8 AV			1.00 V	214	82.31	4.47
3	10540.00	53.5 PK	74.0	-20.5	1.00 V	214	38.43	15.08
4	10540.00	40.9 AV	54.0	-13.1	1.00 V	214	25.86	15.08

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 62	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	100.7 PK			1.00 H	201	96.06	4.60
2	*5310.00	88.0 AV			1.00 H	201	83.41	4.60
3	5350.00	71.1 PK	74.0	-2.9	1.00 H	201	66.40	4.71
4	5350.00	51.0 AV	54.0	-3.1	1.00 H	201	46.24	4.71
5	10620.00	54.2 PK	74.0	-19.8	1.00 H	201	38.84	15.39
6	10620.00	40.6 AV	54.0	-13.4	1.00 H	201	25.19	15.39
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	98.6 PK			1.00 V	260	94.03	4.60
2	*5310.00	85.0 AV			1.00 V	260	80.42	4.60
3	5350.00	67.0 PK	74.0	-7.0	1.00 V	260	62.31	4.71
4	5350.00	47.5 AV	54.0	-6.5	1.00 V	260	42.83	4.71
5	10620.00	54.0 PK	74.0	-20.1	1.00 V	260	38.56	15.39
6	10620.00	40.8 AV	54.0	-13.2	1.00 V	260	25.39	15.39

**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 102	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

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	60.1 PK	74.0	-13.9	1.00 H	181	55.02	5.07
2	5460.00	42.0 AV	54.0	-12.1	1.00 H	181	36.88	5.07
3	5470.00	63.6 PK	74.0	-10.4	1.00 H	181	58.53	5.10
4	5470.00	44.9 AV	54.0	-9.1	1.00 H	181	39.81	5.10
5	*5510.00	96.9 PK			1.00 H	181	91.64	5.22
6	*5510.00	83.6 AV			1.00 H	181	78.33	5.22
7	11020.00	53.9 PK	74.0	-20.1	1.00 H	181	37.76	16.17
8	11020.00	42.2 AV	54.0	-11.8	1.00 H	181	25.99	16.17

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	60.2 PK	74.0	-13.8	1.00 V	277	55.16	5.07
2	5460.00	42.3 AV	54.0	-11.7	1.00 V	277	37.26	5.07
3	5470.00	63.5 PK	74.0	-10.5	1.00 V	277	58.43	5.10
4	5470.00	45.4 AV	54.0	-8.6	1.00 V	277	40.26	5.10
5	*5510.00	98.0 PK			1.00 V	277	92.82	5.22
6	*5510.00	84.8 AV			1.00 V	277	79.58	5.22
7	11020.00	53.3 PK	74.0	-20.7	1.00 V	277	37.16	16.17
8	11020.00	41.2 AV	54.0	-12.8	1.00 V	277	25.03	16.17

**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.



A D T

<b>CHANNEL</b>	TX Channel 110	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	96.0 PK			1.00 H	183	90.69	5.27
2	*5550.00	82.7 AV			1.00 H	183	77.43	5.27
3	11100.00	54.8 PK	74.0	-19.2	1.00 H	183	38.36	16.47
4	11100.00	41.9 AV	54.0	-12.1	1.00 H	183	25.45	16.47

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	97.1 PK			1.00 V	277	91.83	5.27
2	*5550.00	83.9 AV			1.00 V	277	78.60	5.27
3	11100.00	53.8 PK	74.0	-20.2	1.00 V	277	37.31	16.47
4	11100.00	41.9 AV	54.0	-12.1	1.00 V	277	25.41	16.47

**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.



A D T

<b>CHANNEL</b>	TX Channel 134	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	97.1 PK			1.00 H	203	91.75	5.35
2	*5670.00	84.1 AV			1.00 H	203	78.74	5.35
3	5725.00	57.5 PK	74.0	-16.5	1.00 H	203	52.12	5.39
4	5725.00	41.6 AV	54.0	-12.4	1.00 H	203	36.25	5.39
5	11340.00	53.8 PK	74.0	-20.2	1.00 H	203	37.62	16.15
6	11340.00	41.9 AV	54.0	-12.1	1.00 H	203	25.78	16.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	98.2 PK			1.00 V	345	92.87	5.35
2	*5670.00	85.4 AV			1.00 V	345	80.01	5.35
3	5725.00	59.4 PK	74.0	-14.6	1.00 V	345	54.01	5.39
4	5725.00	40.6 AV	54.0	-13.4	1.00 V	345	35.24	5.39
5	11340.00	53.2 PK	74.0	-20.8	1.00 V	345	37.08	16.15
6	11340.00	41.2 AV	54.0	-12.8	1.00 V	345	25.02	16.15

**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.



A D T

<b>CHANNEL</b>	TX Channel 38	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.8 PK	74.0	-4.2	1.00 H	17	65.78	4.05
2	5150.00	52.9 AV	54.0	-1.1	1.00 H	17	48.89	4.05
3	*5190.00	102.4 PK			1.00 H	15	98.24	4.16
4	*5190.00	90.8 AV			1.00 H	15	86.62	4.16
5	10380.00	55.1 PK	74.0	-18.9	1.00 H	20	40.15	14.92
6	10380.00	40.6 AV	54.0	-13.4	1.00 H	20	25.68	14.92
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	69.4 PK	74.0	-4.6	1.00 V	96	65.33	4.05
2	5150.00	53.0 AV	54.0	-1.0	1.00 V	96	48.93	4.05
3	*5190.00	101.3 PK			1.00 V	96	97.11	4.16
4	*5190.00	88.4 AV			1.00 V	96	84.24	4.16
5	10380.00	51.7 PK	74.0	-22.3	1.00 V	100	36.78	14.92
6	10380.00	40.7 AV	54.0	-13.3	1.00 V	100	25.78	14.92

**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.



A D T

<b>CHANNEL</b>	TX Channel 46	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	103.0 PK			1.00 H	212	98.70	4.31
2	*5230.00	90.8 AV			1.00 H	212	86.51	4.31
3	10460.00	55.6 PK	74.0	-18.5	1.00 H	218	40.58	14.97
4	10460.00	40.1 AV	54.0	-13.9	1.00 H	218	25.10	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	*5230.00	102.7 PK			1.00 V	185	98.42	4.31
2	*5230.00	90.5 AV			1.00 V	185	86.20	4.31
3	10460.00	51.9 PK	74.0	-22.1	1.00 V	182	36.94	14.97
4	10460.00	40.8 AV	54.0	-13.3	1.00 V	182	25.78	14.97

**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.



A D T

<b>CHANNEL</b>	TX Channel 54	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	100.4 PK			1.00 H	200	95.97	4.47
2	*5270.00	87.6 AV			1.00 H	200	83.12	4.47
3	10540.00	55.8 PK	74.0	-18.2	1.00 H	200	40.71	15.08
4	10540.00	40.8 AV	54.0	-13.2	1.00 H	200	25.75	15.08
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	99.8 PK			1.00 V	265	95.34	4.47
2	*5270.00	86.5 AV			1.00 V	265	82.05	4.47
3	10540.00	53.7 PK	74.0	-20.3	1.00 V	265	38.66	15.08
4	10540.00	40.3 AV	54.0	-13.7	1.00 V	265	25.21	15.08

**REMARKS:**

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



A D T

<b>CHANNEL</b>	TX Channel 62	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	99.8 PK			1.00 H	200	95.23	4.60
2	*5310.00	87.9 AV			1.00 H	200	83.28	4.60
3	5350.00	70.2 PK	74.0	-3.8	1.00 H	200	65.51	4.71
4	5350.00	49.7 AV	54.0	-4.3	1.00 H	200	45.03	4.71
5	10620.00	54.2 PK	74.0	-19.8	1.00 H	201	38.78	15.39
6	10620.00	40.5 AV	54.0	-13.5	1.00 H	201	25.08	15.39
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	98.0 PK			1.00 V	270	93.36	4.60
2	*5310.00	85.5 AV			1.00 V	270	80.92	4.60
3	5350.00	68.3 PK	74.0	-5.7	1.00 V	270	63.62	4.71
4	5350.00	48.1 AV	54.0	-5.9	1.00 V	270	43.37	4.71
5	10620.00	53.6 PK	74.0	-20.4	1.00 V	271	38.21	15.39
6	10620.00	40.8 AV	54.0	-13.2	1.00 V	271	25.45	15.39

**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.



A D T

<b>CHANNEL</b>	TX Channel 102	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	B		

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.3 PK	74.0	-14.8	1.00 H	180	54.18	5.07
2	5460.00	42.1 AV	54.0	-11.9	1.00 H	180	37.01	5.07
3	5470.00	64.1 PK	74.0	-9.9	1.00 H	180	58.97	5.10
4	5470.00	44.9 AV	54.0	-9.1	1.00 H	180	39.82	5.10
5	*5510.00	97.0 PK			1.00 H	180	91.82	5.22
6	*5510.00	83.9 AV			1.00 H	180	78.67	5.22
7	11020.00	53.5 PK	74.0	-20.5	1.00 H	182	37.31	16.17
8	11020.00	42.2 AV	54.0	-11.8	1.00 H	182	25.99	16.17

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.4 PK	74.0	-14.6	1.00 V	277	54.32	5.07
2	5460.00	42.6 AV	54.0	-11.4	1.00 V	277	37.56	5.07
3	5470.00	63.4 PK	74.0	-10.6	1.00 V	277	58.31	5.10
4	5470.00	45.4 AV	54.0	-8.6	1.00 V	277	40.28	5.10
5	*5510.00	97.7 PK			1.00 V	277	92.51	5.22
6	*5510.00	83.9 AV			1.00 V	277	78.72	5.22
7	11020.00	53.9 PK	74.0	-20.1	1.00 V	277	37.73	16.17
8	11020.00	42.1 AV	54.0	-11.9	1.00 V	277	25.94	16.17

**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.



A D T

<b>CHANNEL</b>	TX Channel 110	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	B		

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	96.1 PK			1.00 H	183	90.86	5.27
2	*5550.00	82.7 AV			1.00 H	183	77.44	5.27
3	11100.00	54.3 PK	74.0	-19.7	1.00 H	183	37.83	16.47
4	11100.00	41.9 AV	54.0	-12.1	1.00 H	183	25.45	16.47

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	96.5 PK			1.00 V	276	91.21	5.27
2	*5550.00	83.0 AV			1.00 V	276	77.72	5.27
3	11100.00	54.0 PK	74.0	-20.0	1.00 V	276	37.56	16.47
4	11100.00	42.1 AV	54.0	-11.9	1.00 V	276	25.63	16.47

**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.



A D T

<b>CHANNEL</b>	TX Channel 134	<b>DETECTOR FUNCTION</b>	Peak (PK)
<b>FREQUENCY RANGE</b>	1GHz ~ 40GHz		Average (AV)
<b>TEST MODE</b>	A		

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	96.9 PK			1.00 H	203	91.59	5.35
2	*5670.00	83.8 AV			1.00 H	203	78.49	5.35
3	5725.00	57.7 PK	74.0	-16.3	1.00 H	203	52.35	5.39
4	5725.00	40.7 AV	54.0	-13.4	1.00 H	203	35.26	5.39
5	11340.00	53.7 PK	74.0	-20.3	1.00 H	203	37.51	16.15
6	11340.00	41.9 AV	54.0	-12.1	1.00 H	203	25.72	16.15

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

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	97.6 PK			1.00 V	177	92.25	5.35
2	*5670.00	84.7 AV			1.00 V	177	79.35	5.35
3	5725.00	54.1 PK	74.0	-19.9	1.00 V	177	48.75	5.39
4	5725.00	40.2 AV	54.0	-13.8	1.00 V	177	34.81	5.39
5	11340.00	53.5 PK	74.0	-20.5	1.00 V	180	37.32	16.15
6	11340.00	41.9 AV	54.0	-12.1	1.00 V	180	25.72	16.15

**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.

**BELOW 1GHz WORST-CASE DATA**

**802.11n (20MHz)**

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

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	38.39	30.8 QP	40.0	-9.2	1.61 H	85	45.49	-14.66
2	91.50	29.6 QP	43.5	-13.9	1.14 H	134	48.73	-19.14
3	128.89	24.3 QP	43.5	-19.2	1.36 H	81	39.18	-14.91
4	172.40	27.5 QP	43.5	-16.0	1.27 H	96	41.15	-13.68
5	280.99	30.1 QP	46.0	-15.9	1.18 H	134	42.02	-11.89
6	330.21	30.0 QP	46.0	-16.0	1.67 H	275	40.53	-10.57
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	38.92	33.4 QP	40.0	-6.6	1.37 V	117	48.10	-14.70
2	59.39	33.5 QP	40.0	-6.5	1.27 V	81	47.67	-14.18
3	91.21	33.5 QP	43.5	-10.0	1.48 V	123	52.64	-19.16
4	130.40	28.5 QP	43.5	-15.0	1.35 V	123	43.36	-14.88
5	280.99	22.2 QP	46.0	-23.8	1.11 V	273	34.12	-11.89
6	327.31	21.9 QP	46.0	-24.1	1.27 V	143	32.61	-10.69

**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

## 4.2 CONDUCTED EMISSION MEASUREMENT

### 4.2.1 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 0.50MHz.

### 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ TEST RECEIVER	ESCS 30	100276	Jan. 07, 2013	Jan. 06, 2014
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	100219	Nov. 17, 2013	Nov. 16, 2014
LISN With Adapter (for EUT)	AD10	C10Ada-001	Nov. 17, 2013	Nov. 16, 2014
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	100218	Nov. 25, 2013	Nov. 24, 2014
Software	ADT_Cond_V7.3.7	NA	NA	NA
Software	ADT_ISN_V7.3.7	NA	NA	NA
RF cable (JYEBAO)	5D-FB	Cable-C10.01	Feb. 19, 2013	Feb. 18, 2014
SUHNER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-010773	Feb. 06, 2013	Feb. 05, 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. The test was performed in Shielded Room No. 10.  
 3. The VCCI Site Registration No. C-1852.

### 4.2.3 TEST PROCEDURES

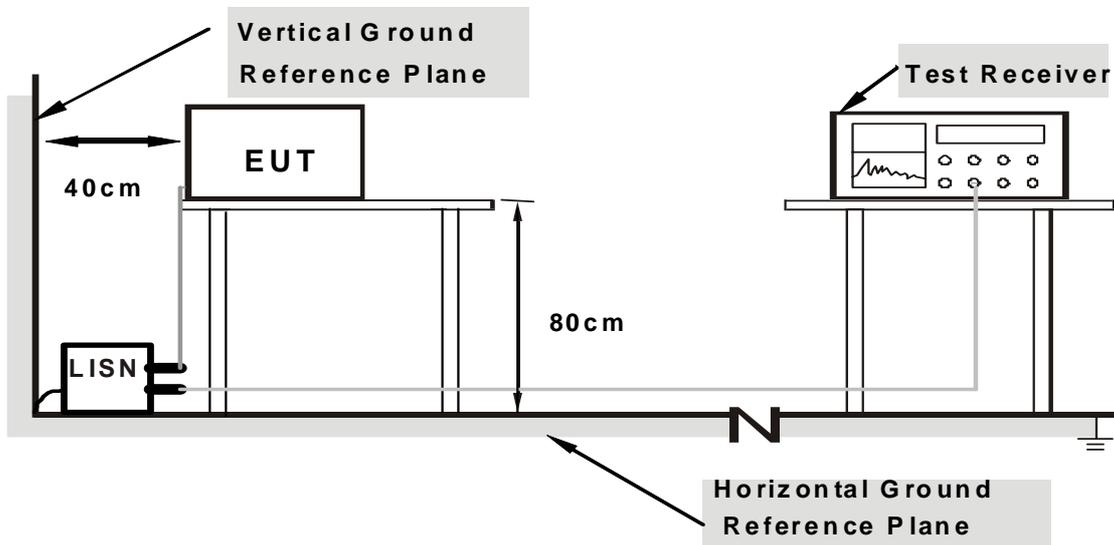
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

**NOTE:** All modes of operation were investigated and the worst-case emissions are reported.

### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

### 4.2.5 TEST SETUP



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

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

### 4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

## 4.2.7 TEST RESULTS

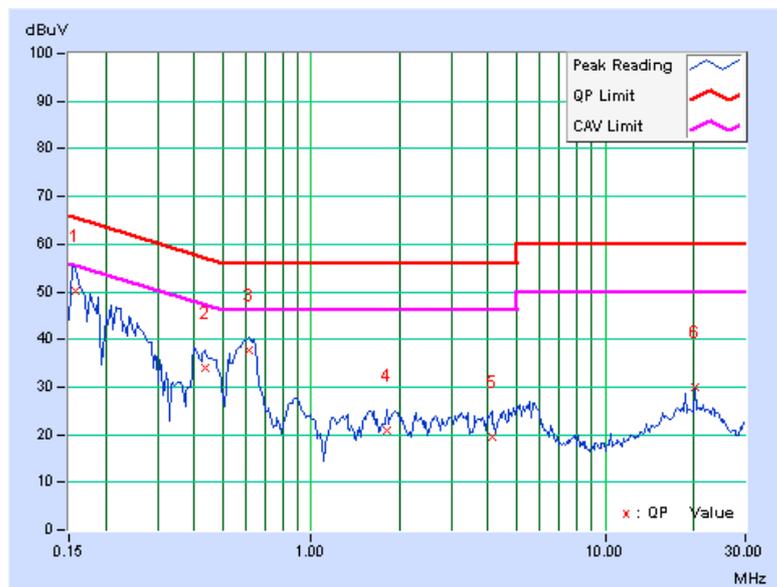
CONDUCTED WORST-CASE DATA : 802.11n (20MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz
-------	--------	---------------	------

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	0.15781	0.13	50.10	33.02	50.23	33.15	65.58	55.58	-15.35	-22.43
2	0.43516	0.16	33.80	24.64	33.96	24.80	57.15	47.15	-23.19	-22.35
3	0.61094	0.16	37.49	29.53	37.65	29.69	56.00	46.00	-18.35	-16.31
4	1.80469	0.18	20.59	13.58	20.77	13.76	56.00	46.00	-35.23	-32.24
5	4.11328	0.29	19.29	11.67	19.58	11.96	56.00	46.00	-36.42	-34.04
6	20.26172	1.18	28.90	26.86	30.08	28.04	60.00	50.00	-29.92	-21.96

### 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

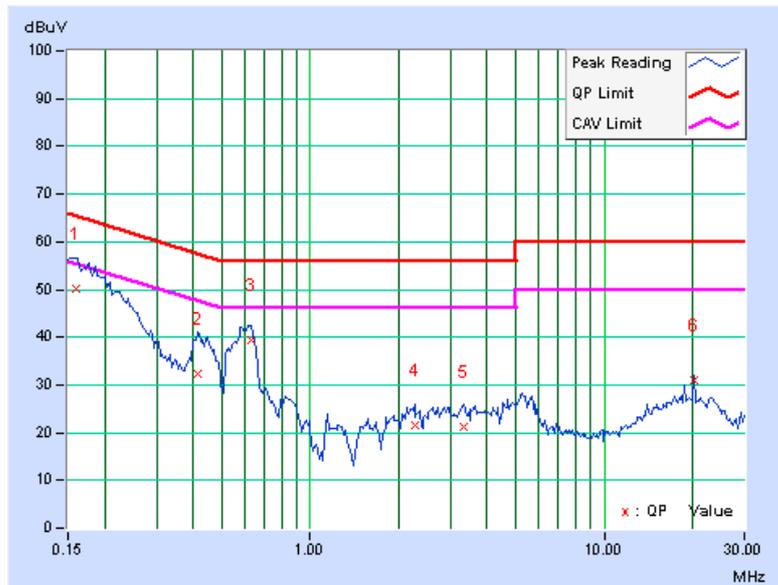


<b>PHASE</b>	Line 2	<b>6dB BANDWIDTH</b>	9kHz
--------------	--------	----------------------	------

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	0.16044	0.52	49.49	31.96	50.01	32.48	65.44
2	0.41563	0.52	31.90	23.49	32.42	24.01	57.54	47.54	-25.11	-23.52
<b>3</b>	<b>0.62656</b>	<b>0.53</b>	<b>38.73</b>	<b>30.40</b>	<b>39.26</b>	<b>30.93</b>	<b>56.00</b>	<b>46.00</b>	<b>-16.74</b>	<b>-15.07</b>
4	2.26563	0.55	21.02	14.16	21.57	14.71	56.00	46.00	-34.43	-31.29
5	3.34375	0.48	20.88	14.24	21.36	14.72	56.00	46.00	-34.64	-31.28
6	20.26172	1.13	29.76	28.12	30.89	29.25	60.00	50.00	-29.11	-20.75

**REMARKS:**

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



### 4.3 PEAK TRANSMIT POWER MEASUREMENT

#### 4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.250 ~ 5.350GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.470 ~ 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB

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

Per KDB 662911 D01 Multiple Transmitter Output v02 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;

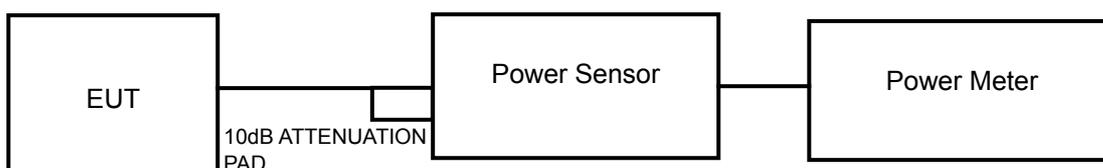
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;

Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5.

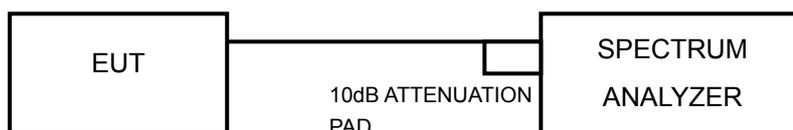
For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

#### 4.3.2 TEST SETUP

##### FOR POWER OUTPUT MEASUREMENT



##### FOR 26dB BANDWIDTH



#### 4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

#### 4.3.4 TEST PROCEDURE

##### FOR AVERAGE POWER MEASUREMENT

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

##### FOR 26dB BANDWIDTH

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

#### 4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.3.6 EUT OPERATING CONDITIONS

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

### 4.3.7 TEST RESULTS

#### POWER OUTPUT (Mode A):

##### 802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)	AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS / FAIL
36	5180	12.34	17.1	16.95	PASS
40	5200	12.38	17.3	17.00	PASS
48	5240	12.44	17.5	17.00	PASS
52	5260	11.26	13.4	23.99	PASS
60	5300	11.11	12.9	23.97	PASS
64	5320	12.45	17.6	24.00	PASS
100	5500	12.41	17.4	24.00	PASS
116	5580	12.32	17.1	24.00	PASS
140	5700	12.29	16.9	23.99	PASS

1.  $4\text{dBm} + 10\log( 19.72 ) = 16.95 \text{ dBm} < 17\text{dBm}.$
2.  $4\text{dBm} + 10\log( 20.02 ) = 17.01 \text{ dBm} > 17\text{dBm}.$
3.  $4\text{dBm} + 10\log( 19.93 ) = 17.00 \text{ dBm} = 17\text{dBm}.$
4.  $11\text{dBm} + 10\log( 19.90 ) = 23.99 \text{ dBm} < 24\text{dBm}.$
5.  $11\text{dBm} + 10\log( 19.83 ) = 23.97 \text{ dBm} < 24\text{dBm}.$
6.  $11\text{dBm} + 10\log( 19.98 ) = 24.01 \text{ dBm} > 24\text{dBm}.$
7.  $11\text{dBm} + 10\log( 20.11 ) = 24.03 \text{ dBm} > 24\text{dBm}.$
8.  $11\text{dBm} + 10\log( 20.20 ) = 24.05 \text{ dBm} > 24\text{dBm}.$
9.  $11\text{dBm} + 10\log( 19.91 ) = 23.99 \text{ dBm} < 24\text{dBm}.$

### 802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)	AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS / FAIL
36	5180	14.38	<b>27.4</b>	17.00	PASS
40	5200	14.31	27.0	17.00	PASS
48	5240	14.23	26.5	17.00	PASS
52	5260	11.01	12.6	24.00	PASS
60	5300	10.98	12.5	24.00	PASS
64	5320	11.02	12.6	24.00	PASS
100	5500	11.10	12.9	24.00	PASS
116	5580	11.04	12.7	24.00	PASS
140	5700	11.04	12.7	24.00	PASS

1.  $4\text{dBm} + 10\log( 20.42 ) = 17.10 \text{ dBm} >17\text{dBm}.$
2.  $4\text{dBm} + 10\log( 20.91 ) = 17.20 \text{ dBm} >17\text{dBm}.$
3.  $4\text{dBm} + 10\log( 20.70 ) = 17.16 \text{ dBm} >17\text{dBm}.$
4.  $11\text{dBm} + 10\log( 20.24 ) = 24.06 \text{ dBm} >24\text{dBm}.$
5.  $11\text{dBm} + 10\log( 20.24 ) = 24.06 \text{ dBm} >24\text{dBm}.$
6.  $11\text{dBm} + 10\log( 20.44 ) = 24.10 \text{ dBm} >24\text{dBm}.$
7.  $11\text{dBm} + 10\log( 20.61 ) = 24.14 \text{ dBm} >24\text{dBm}.$
8.  $11\text{dBm} + 10\log( 20.62 ) = 24.14 \text{ dBm} >24\text{dBm}.$
9.  $11\text{dBm} + 10\log( 20.52 ) = 24.12 \text{ dBm} >24\text{dBm}.$



802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)	AVERAGE POWER (mW)	POWER LIMIT (dBm)	PASS / FAIL
38	5190	12.32	17.1	17.00	PASS
46	5230	12.44	17.5	17.00	PASS
54	5270	10.98	12.5	24.00	PASS
62	5310	10.93	12.4	24.00	PASS
102	5510	10.97	12.5	24.00	PASS
110	5550	11.02	12.6	24.00	PASS
134	5670	10.78	12.0	24.00	PASS

1.  $4\text{dBm} + 10\log(46.82) = 20.70 \text{ dBm} > 17\text{dBm}$ .
2.  $4\text{dBm} + 10\log(46.83) = 20.71 \text{ dBm} > 17\text{dBm}$ .
3.  $11\text{dBm} + 10\log(45.16) = 27.55 \text{ dBm} > 24\text{dBm}$ .
4.  $11\text{dBm} + 10\log(48.35) = 27.84 \text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(46.10) = 27.64 \text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(46.86) = 27.71 \text{ dBm} > 24\text{dBm}$ .
7.  $11\text{dBm} + 10\log(45.89) = 27.62 \text{ dBm} > 24\text{dBm}$ .

**POWER OUTPUT (Mode B):**

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
<b>802.11n (20MHz)</b>							
36	5180	10.54	11.73	26.2	14.19	17.00	PASS
40	5200	10.43	12.05	27.1	14.33	17.00	PASS
48	5240	10.34	11.99	26.6	14.25	17.00	PASS
52	5260	10.38	12.08	27.1	14.32	24.00	PASS
60	5300	10.21	12.02	26.4	14.22	24.00	PASS
64	5320	10.40	12.21	<b>27.6</b>	14.41	24.00	PASS
100	5500	10.98	11.24	25.8	14.12	24.00	PASS
116	5580	10.81	11.47	26.1	14.16	24.00	PASS
140	5700	10.49	11.57	25.5	14.07	24.00	PASS

**CHAIN 0**

1.  $4\text{dBm} + 10\log(20.13) = 17.04 \text{ dBm} > 17\text{dBm}$ .
2.  $4\text{dBm} + 10\log(20.21) = 17.06 \text{ dBm} > 17\text{dBm}$ .
3.  $4\text{dBm} + 10\log(20.24) = 17.06 \text{ dBm} > 17\text{dBm}$ .
4.  $11\text{dBm} + 10\log(20.94) = 24.21 \text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(20.67) = 24.15 \text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(20.69) = 24.16 \text{ dBm} > 24\text{dBm}$ .
7.  $11\text{dBm} + 10\log(20.39) = 24.09 \text{ dBm} > 24\text{dBm}$ .
8.  $11\text{dBm} + 10\log(20.35) = 24.09 \text{ dBm} > 24\text{dBm}$ .
9.  $11\text{dBm} + 10\log(20.51) = 24.12 \text{ dBm} > 24\text{dBm}$ .

**CHAIN 1**

1.  $4\text{dBm} + 10\log(20.20) = 17.05 \text{ dBm} > 17\text{dBm}$ .
2.  $4\text{dBm} + 10\log(20.25) = 17.06 \text{ dBm} > 17\text{dBm}$ .
3.  $4\text{dBm} + 10\log(20.17) = 17.05 \text{ dBm} > 17\text{dBm}$ .
4.  $11\text{dBm} + 10\log(20.18) = 24.05 \text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(20.12) = 24.04 \text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(20.25) = 24.06 \text{ dBm} > 24\text{dBm}$ .
7.  $11\text{dBm} + 10\log(20.23) = 24.06 \text{ dBm} > 24\text{dBm}$ .
8.  $11\text{dBm} + 10\log(20.26) = 24.07 \text{ dBm} > 24\text{dBm}$ .
9.  $11\text{dBm} + 10\log(20.33) = 24.08 \text{ dBm} > 24\text{dBm}$ .



CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
<b>802.11n (40MHz)</b>							
38	5190	7.93	10.14	16.5	12.18	17.00	PASS
46	5230	8.05	10.41	17.4	12.40	17.00	PASS
54	5270	7.78	10.52	17.3	12.37	24.00	PASS
62	5310	7.64	10.60	17.3	12.38	24.00	PASS
102	5510	9.49	9.39	17.6	12.45	24.00	PASS
110	5550	9.32	9.37	17.2	12.36	24.00	PASS
134	5670	8.88	9.32	16.3	12.12	24.00	PASS

**CHAIN 0**

1.  $4\text{dBm} + 10\log( 46.00 ) = 20.63 \text{ dBm} >17\text{dBm}.$
2.  $4\text{dBm} + 10\log( 46.58 ) = 20.68 \text{ dBm} >17\text{dBm}.$
3.  $11\text{dBm} + 10\log( 45.26 ) = 27.56 \text{ dBm} >24\text{dBm}.$
4.  $11\text{dBm} + 10\log( 44.84 ) = 27.52 \text{ dBm} >24\text{dBm}.$
5.  $11\text{dBm} + 10\log( 45.27 ) = 27.56 \text{ dBm} >24\text{dBm}.$
6.  $11\text{dBm} + 10\log( 46.10 ) = 27.64 \text{ dBm} >24\text{dBm}.$
7.  $11\text{dBm} + 10\log( 45.94 ) = 27.62 \text{ dBm} >24\text{dBm}.$

**CHAIN 1**

1.  $4\text{dBm} + 10\log( 47.00 ) = 20.72 \text{ dBm} >17\text{dBm}.$
2.  $4\text{dBm} + 10\log( 45.80 ) = 20.61 \text{ dBm} >17\text{dBm}.$
3.  $11\text{dBm} + 10\log( 45.83 ) = 27.61 \text{ dBm} >24\text{dBm}.$
4.  $11\text{dBm} + 10\log( 44.01 ) = 27.44 \text{ dBm} >24\text{dBm}.$
5.  $11\text{dBm} + 10\log( 45.87 ) = 27.62 \text{ dBm} >24\text{dBm}.$
6.  $11\text{dBm} + 10\log( 45.65 ) = 27.59 \text{ dBm} >24\text{dBm}.$
7.  $11\text{dBm} + 10\log( 45.87 ) = 27.62 \text{ dBm} >24\text{dBm}.$



A D T

26dB BANDWIDTH (Mode A):

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
<b>802.11a</b>			
36	5180	19.72	PASS
40	5200	20.02	PASS
48	5240	19.93	PASS
52	5260	19.90	PASS
60	5300	19.83	PASS
64	5320	19.98	PASS
100	5500	20.11	PASS
116	5580	20.20	PASS
140	5700	19.91	PASS
<b>802.11n (20MHz)</b>			
36	5180	20.42	PASS
40	5200	20.91	PASS
48	5240	20.70	PASS
52	5260	20.24	PASS
60	5300	20.24	PASS
64	5320	20.44	PASS
100	5500	20.61	PASS
116	5580	20.62	PASS
140	5700	20.52	PASS
<b>802.11n (40MHz)</b>			
38	5190	46.82	PASS
46	5230	46.83	PASS
54	5270	45.16	PASS
62	5310	48.35	PASS
102	5510	46.10	PASS
110	5550	46.86	PASS
134	5670	45.89	PASS



**26dB BANDWIDTH (Mode B):**

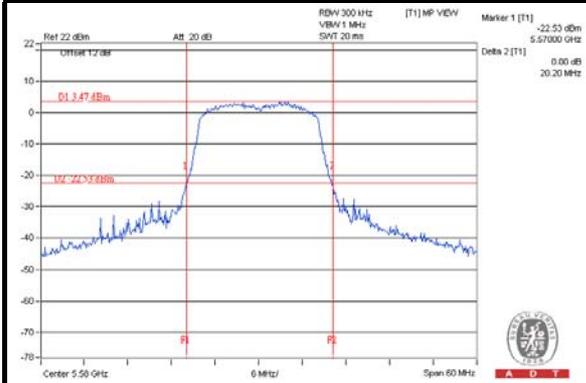
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
<b>802.11n (20MHz)</b>				
36	5180	20.13	20.20	PASS
40	5200	20.21	20.25	PASS
48	5240	20.24	20.17	PASS
52	5260	20.94	20.18	PASS
60	5300	20.67	20.12	PASS
64	5320	20.69	20.25	PASS
100	5500	20.39	20.23	PASS
116	5580	20.35	20.26	PASS
140	5700	20.51	20.33	PASS
<b>802.11n (40MHz)</b>				
38	5190	46.00	47.00	PASS
46	5230	45.58	45.80	PASS
54	5270	45.26	45.83	PASS
62	5310	44.84	44.01	PASS
102	5510	45.27	45.87	PASS
110	5550	46.10	45.65	PASS
134	5670	45.94	45.87	PASS



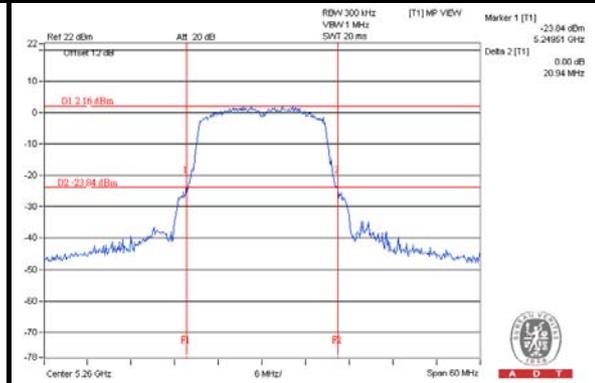
A D T

### SPECTRUM PLOT OF WORST VALUE

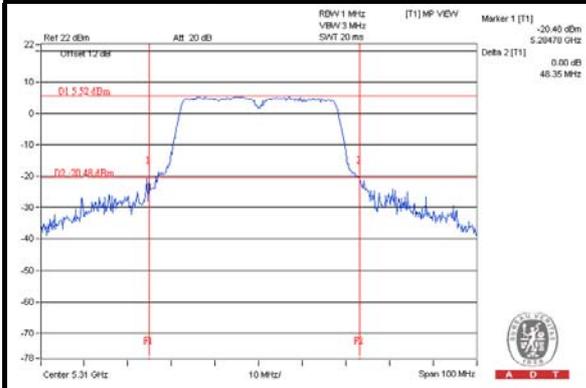
#### 802.11a



#### 802.11n (20MHz)



#### 802.11n (40MHz)

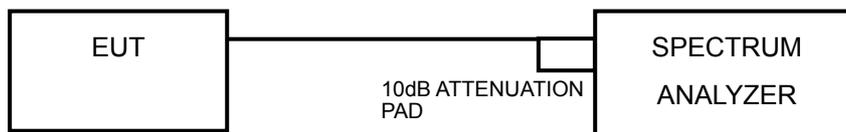


## 4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

### 4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	4dBm
5.250 ~ 5.350GHz	11dBm
5.470 ~ 5.725GHz	11dBm

### 4.4.2 TEST SETUP



### 4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

### 4.4.4 TEST PROCEDURES

- The transmitter output was connected to the spectrum analyzer.
- Set RBW = 1MHz, VBW = 3MHz. The PPSD is the highest level found across the emission in any 1MHz band.

Follow method 2 of KDB 662911 D01 Multiple Transmitter Output v01 to calculate total power density of 2 TX port.

### 4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

### 4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

## 4.4.7 TEST RESULTS

### Mode A:

CHANNEL	FREQUENCY (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
<b>802.11a</b>				
36	5180	-0.05	4	PASS
40	5200	0.07	4	PASS
48	5240	0.11	4	PASS
52	5260	0.69	11	PASS
60	5300	0.61	11	PASS
64	5320	0.48	11	PASS
100	5500	0.21	11	PASS
116	5580	0.27	11	PASS
140	5700	0.08	11	PASS
<b>802.11n (20MHz)</b>				
36	5180	1.02	4	PASS
40	5200	0.81	4	PASS
48	5240	1.06	4	PASS
52	5260	-1.66	11	PASS
60	5300	-1.40	11	PASS
64	5320	-1.37	11	PASS
100	5500	-1.83	11	PASS
116	5580	-1.83	11	PASS
140	5700	-2.17	11	PASS
<b>802.11n (40MHz)</b>				
36	5180	-4.12	4	PASS
40	5200	-4.08	4	PASS
54	5270	-3.24	11	PASS
62	5310	-3.44	11	PASS
102	5510	-3.62	11	PASS
110	5550	-3.56	11	PASS
134	5670	-3.74	11	PASS

#### NOTE:

1. Method a of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain =  $-2.97\text{dBi} + 10\log(2) = 0.04\text{dBi} < 6\text{dBi}$ , so the power spectral density limit is not reduced.



Mode B:

802.11n (20MHz)

CHAIN	CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
			MEASURED	10 log (N=2) dB			
0	36	5180	-2.13	3.01	0.88	4	PASS
	40	5200	-2.04	3.01	0.97	4	PASS
	48	5240	-1.95	3.01	1.06	4	PASS
	52	5260	-1.47	3.01	1.54	11	PASS
	60	5300	-1.46	3.01	1.55	11	PASS
	64	5320	-1.41	3.01	1.60	11	PASS
	100	5500	-0.88	3.01	2.13	11	PASS
	116	5580	-0.86	3.01	2.15	11	PASS
1	140	5700	-1.37	3.01	1.64	11	PASS
	36	5180	-0.75	3.01	2.26	4	PASS
	40	5200	-0.62	3.01	2.39	4	PASS
	48	5240	-0.44	3.01	2.57	4	PASS
	52	5260	-0.13	3.01	2.88	11	PASS
	60	5300	0.01	3.01	3.02	11	PASS
	64	5320	0.17	3.01	3.18	11	PASS
	100	5500	-0.95	3.01	2.06	11	PASS
116	5580	-0.60	3.01	2.41	11	PASS	
	140	5700	-0.82	3.01	2.19	11	PASS

**NOTE:**

1. Method a of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain =  $-2.97\text{dBi} + 10\log(2) = 0.04\text{dBi} < 6\text{dBi}$ , so the power spectral density limit is not reduced.



802.11n (40MHz)

CHAIN	CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
			MEASURED	10 log (N=2) dB			
0	38	5190	-7.99	3.01	-4.98	4	PASS
	46	5230	-7.87	3.01	-4.86	4	PASS
	54	5270	-7.67	3.01	-4.66	11	PASS
	62	5310	-7.57	3.01	-4.56	11	PASS
	102	5510	-5.88	3.01	-2.87	11	PASS
	110	5550	-5.94	3.01	-2.93	11	PASS
	134	5670	-6.42	3.01	-3.41	11	PASS
1	36	5180	-5.76	3.01	-2.75	4	PASS
	40	5200	-5.66	3.01	-2.65	4	PASS
	54	5270	-5.20	3.01	-2.19	11	PASS
	62	5310	-5.12	3.01	-2.11	11	PASS
	102	5510	-6.86	3.01	-3.85	11	PASS
	110	5550	-6.88	3.01	-3.87	11	PASS
	134	5670	-7.07	3.01	-4.06	11	PASS

**NOTE:**

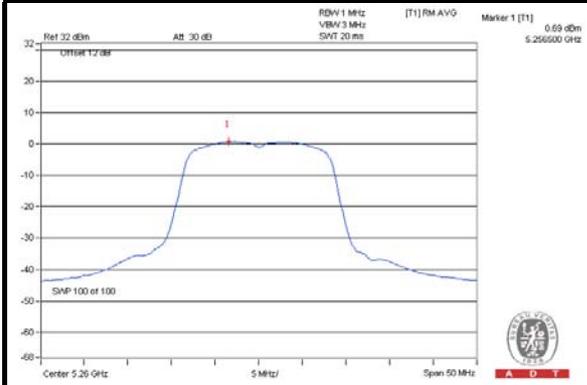
1. Method a of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain =  $-2.97\text{dBi} + 10\log(2) = 0.04\text{dBi} < 6\text{dBi}$ , so the power spectral density limit is not reduced.



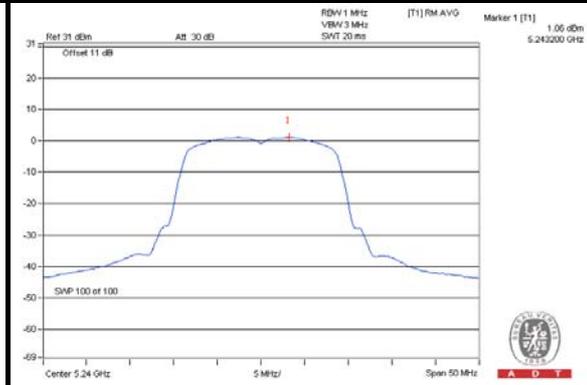
A D T

### SPECTRUM PLOT OF WORST VALUE

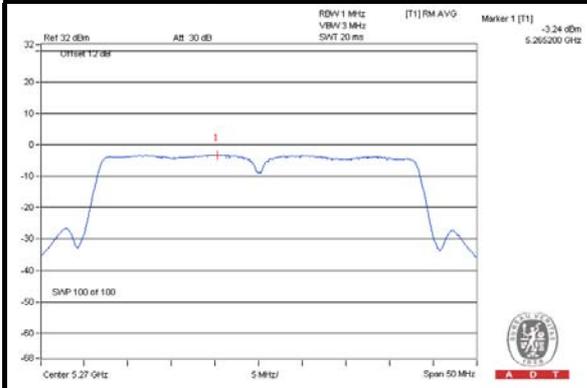
802.11a



802.11n (20MHz)



802.11n (40MHz)

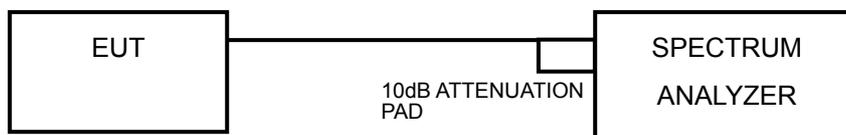


## 4.5 PEAK POWER EXCURSION MEASUREMENT

### 4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB.

### 4.5.2 TEST SETUP



### 4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

### 4.5.4 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. Find the worst channel and modulation mode as above test procedure, and follow KDB 789033 D01 General UNII Test Procedures v01r03 and repeat step 1 to 5 for final testing of each modulation mode on a single channel ( all modulation types ) in a single operating band to compliance with the peak excursion requirement.

### 4.5.5 DEVIATION FROM TEST STANDARD

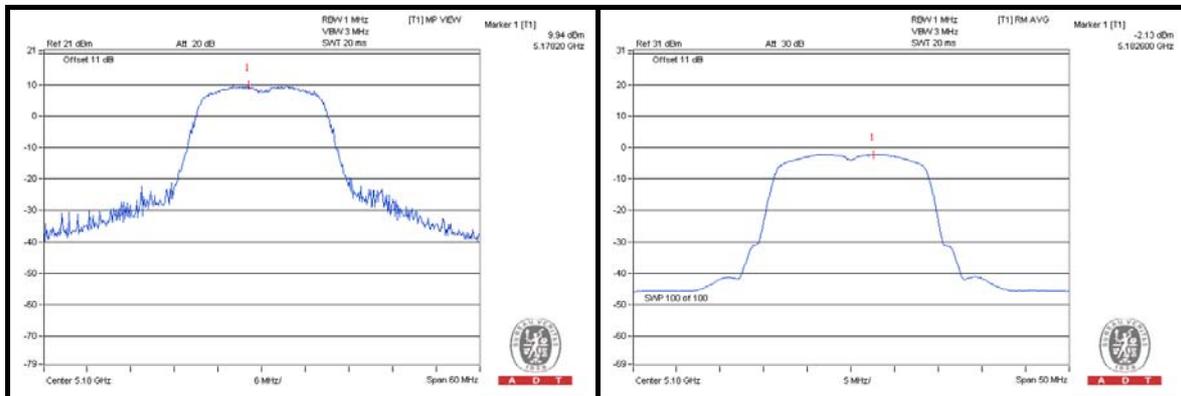
No deviation.

### 4.5.6 EUT OPERATING CONDITIONS

Same as 4.2.6

### 4.5.7 TEST RESULTS

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	BPSK	5180	9.90	-0.05	0.18	9.72	13	PASS
	QPSK		10.05	0.05	0.48	9.57	13	PASS
	16QAM		10.10	-0.03	0.78	9.32	13	PASS
	64QAM		10.01	-0.48	1.16	8.85	13	PASS
802.11n (20MHz)	BPSK	5180	9.94	-2.13	-1.64	11.58	13	PASS
	QPSK		9.79	-2.33	-1.39	11.18	13	PASS
	16QAM		7.78	-2.28	-0.65	8.43	13	PASS
	64QAM		8.16	-2.48	-0.18	8.34	13	PASS
802.11n (40MHz)	BPSK	5190	2.45	-7.99	-6.95	9.40	13	PASS
	QPSK		2.05	-7.90	-6.45	8.50	13	PASS
	16QAM		2.28	-8.31	-6.02	8.30	13	PASS
	64QAM		2.41	-8.56	-5.51	7.92	13	PASS

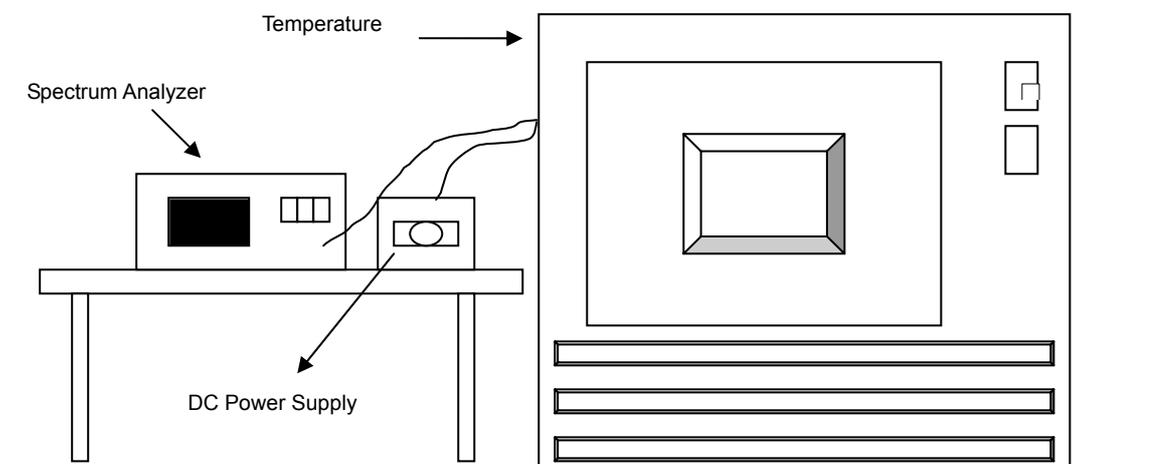


## 4.6 FREQUENCY STABILITY

### 4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

### 4.6.2 TEST SETUP



### 4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

#### **4.6.4 TEST PROCEDURE**

- a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- b. Turn the EUT on and couple its output to a spectrum analyzer.
- c. Turn the EUT off and set the chamber to the highest temperature specified.
- d. 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.
- e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- f. 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.

#### **4.6.5 DEVIATION FROM TEST STANDARD**

No deviation.

#### **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: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)						
50	120.0	5180.042962	8.2937369	5180.042878	8.2776860	5180.042632	8.2300874	5180.042831	8.2685698
40	120.0	5180.042845	8.2711764	5180.042835	8.2692659	5180.042586	8.2211556	5180.042837	8.2697519
30	120.0	5180.043364	8.3715198	5180.043188	8.3374174	5180.042847	8.2715564	5180.042659	8.2353962
20	120.0	5180.042877	8.2773571	5180.042701	8.2434270	5180.042947	8.2909298	5180.043025	8.3058999
10	120.0	5180.042777	8.2581466	5180.042906	8.2830865	5180.042890	8.2798777	5180.04288	8.2780467
0	120.0	5180.042754	8.2537465	5180.042881	8.2782573	5180.042827	8.2677891	5180.042887	8.2793498
-10	120.0	5180.042647	8.2330448	5180.042699	8.2431349	5180.042817	8.2657467	5180.042753	8.2535231
-20	120.0	5180.042598	8.2235154	5180.042863	8.2747316	5180.042870	8.2761437	5180.042917	8.2850872

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)						
20	138.0	5180.042867	8.2754056	5180.042949	8.2912942	5180.042978	8.2969702	5180.042509	8.2064285
	120.0	5180.042877	8.2773571	5180.042701	8.2434270	5180.042947	8.2909298	5180.043025	8.3058999
	102.0	5180.042531	8.2106069	5180.04278	8.2587705	5180.042566	8.2172990	5180.042719	8.2470005

## 5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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



## 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: 886-2-26051924

**Hsin Chu EMC/RF Lab:**  
Tel: 886-3-5935343  
Fax: 886-3-5935342

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

**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.

## **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---**