

# **FCC TEST REPORT**

**REPORT NO.:** RF971230L08

MODEL NO.: Libra 5816 SS

**RECEIVED:** Feb. 04, 2009

**TESTED:** Feb. 05 ~ Feb. 25, 2009

**ISSUED:** Mar. 13, 2009

APPLICANT: GIL Technology Co., Ltd

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**ISSUED BY:** Bureau Veritas Consumer Products Services

(H.K.) Ltd., Taoyuan Branch

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Shan Hsiang, Taoyuan Hsien 333, Taiwan,

R.O.C.

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## 1. CERTIFICATION

**PRODUCT:** WiMax Outdoor CPE (A-TYPE and N-TYPE)

MODEL: Libra 5816 SS

**BRAND: GIL** 

APPLICANT: GIL Technology Co., Ltd

**TESTED:** Feb. 05 ~ Feb. 25, 2009

**TEST SAMPLE:** ENGINEERING SAMPLE

STANDARDS: FCC Part 15, Subpart C (Section 15.247)

ANSI C63.4-2003

The above equipment (Model no.: Libra 5816 SS) 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: Andrea 13, 2009

Andrea Hsia / Specialist

**TECHNICAL** 

ACCEPTANCE: LONG Chein DATE: Mar. 13, 2009

Responsible for RF Long Chen / Senior Engineer

APPROVED BY: Jay Jay , DATE: Mar. 13, 2009

Gary Chang / Assistant Manager



# 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)							
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK				
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -1.37dB at 10.793MHz				
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.				
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.				
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.02dB at 66.33MHz				
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.				
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.				

#### 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	ASUREMENT FREQUENCY	
Conducted emissions 9kHz~30MHz		2.44 dB
	30MHz ~ 200MHz	3.34 dB
Radiated emissions	200MHz ~1000MHz	3.35 dB
Naulateu emissions	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 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

PRODUCT	WiMax Outdoor CPE (A-TYPE and N-TYPE)
MODEL NO.	Libra 5816 SS
FCC ID	WRZGILSS
POWER SUPPLY	48Vdc from POE
MODULATION TYPE	BPSK, QPSK, 16QAM, 64QAM (refer to NOTE for more details)
CODING RATE	1/2, 2/3, 3/4 (refer to NOTE for more details)
MODULATION TECHNOLOGY	OFDM
DUPLEX METHOD	TDD
FREQUENCY RANGE	5729.0 ~ 5846.0MHz
CHANNEL BANDWIDTH	5MHz, 10MHz, 15MHz, 20MHz
OUTPUT POWER	511.682mW
ANTENNA TYPE	Sector antenna with 16.5dBi gain (external antenna) Array antenna with 17.5dBi gain (internal antenna)
OPERATION TEMPERATURE RANGE	-40°C ~ 70°C
DATA CABLE	1.5m shielded RJ45 cable without core
I/O PORTS	RJ45
ACCESSORY DEVICES	POE

#### NOTE:

1. The EUT was powered by the following POE:

BRAND:	PowerDsine <sup>™</sup> 3001
MODEL:	PD-3001/AC
INPUT:	100-250Vac, 50-60Hz, 0.5A
OUTPUT:	48Vdc, 0.35A
POWER LINE:	AC: 1.7 m non-shielded without core

2. For the EUT with modulation type and coding rate. After pre-testing in test items of output power and spurious emissions, BPSK was found to be worst case and was selected for the final test configuration.

DOWN	I LINK	UP LINK		
MODULATION	CODING RATE	MODULATION	CODING RATE	
BPSK	1/2	BPSK	1/2	
QPSK	1/2	QPSK	1/2	
QFOR	3/4	QFSK	3/4	
16QAM	1/2	16QAM	1/2	
IOQAW	3/4	IOQAW	3/4	
64QAM	2/3	64QAM	2/3	
OTQAIVI	3/4	UTQAM	3/4	

- 3. EUT can supports different duty cycle of transmission, max duty cycle is up to 75%. After pretesting of output power and spurious emission, 75 % duty cycle was found to be worst case and was selected for the final test configuration.
- 4. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.



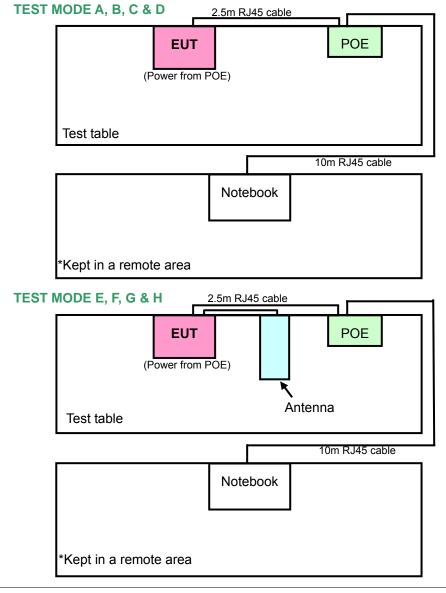
## 3.2 DESCRIPTION OF TEST MODES

3 channels had been tested for each channel bandwidth.

CHANNEL BANDWIDTH: 5MHz	CHANNEL BANDWIDTH: 10MHz
Low channel (L): 5729.0MHz.	Low channel (L): 5732.5MHz.
Middle channel (M): 5788.0MHz.	Middle channel (M): 5788.0MHz.
High channel (H): 5846.0MHz.	High channel (H): 5842.5MHz.

CHANNEL BANDWIDTH: 15MHz	CHANNEL BANDWIDTH: 20MHz	
Low channel (L): 5734.0MHz.	Low channel (L): 5736.5MHz.	
Middle channel (M): 5788.0MHz.	Middle channel (M): 5788.0MHz.	
High channel (H): 5841.0MHz.	High channel (H): 5838.5MHz.	

## 3.2.1 CONFIGURATION OF SYSTEM UNDER TEST





## 3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE	APPLICABLE TO				DESCRIPTION
MODE	RE≥1G	RE<1G	PLC	APCM	2201111 11011
Α	<b>√</b>	<b>V</b>	$\checkmark$	√	For Array ant & Channel bandwidth: 5MHz
В	<b>√</b>	<b>V</b>	$\checkmark$	√	For Array ant & Channel bandwidth: 10MHz
С	<b>√</b>	<b>V</b>	$\checkmark$	√	For Array ant & Channel bandwidth: 15MHz
D	<b>√</b>	<b>√</b>	$\checkmark$	√	For Array ant & Channel bandwidth: 20MHz
Е	<b>√</b>	<b>√</b>	$\checkmark$	√	For Sector ant & Channel bandwidth: 5MHz
F	<b>√</b>	<b>√</b>	$\checkmark$	$\checkmark$	For Sector ant & Channel bandwidth: 10MHz
G	√	√	√	V	For Sector ant & Channel bandwidth: 15MHz
Н	V	V	V	V	For Sector ant & Channel bandwidth: 20MHz

Where RE≥1G: Radiated Emission above 1GHz RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission APCM: Antenna Port Conducted Measurement

#### **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	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	CHANNEL BANDWIDTH	CODING RATE
A & E	L, M, H	OFDM	BPSK	5MHz	1/2
B & F	L, M, H	OFDM	BPSK	10MHz	1/2
C & G	L, M, H	OFDM	BPSK	15MHz	1/2
D & H	L, M, H	OFDM	BPSK	20MHz	1/2

#### **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	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	CHANNEL BANDWIDTH	CODING RATE
A & E	Н	OFDM	BPSK	5MHz	1/2
B & F	Н	OFDM	BPSK	10MHz	1/2
C & G	Н	OFDM	BPSK	15MHz	1/2
D & H	Н	OFDM	BPSK	20MHz	1/2



#### **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	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	CHANNEL BANDWIDTH	CODING RATE
A & E	Н	OFDM	BPSK	5MHz	1/2
B & F	Н	OFDM	BPSK	10MHz	1/2
C & G	Н	OFDM	BPSK	15MHz	1/2
D & H	Н	OFDM	BPSK	20MHz	1/2

#### **BANDEDGE MEASUREMENT:**

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	CHANNEL BANDWIDTH	CODING RATE
A & E	L, H	OFDM	BPSK	5MHz	1/2
B&F	L, H	OFDM	BPSK	10MHz	1/2
C & G	L, H	OFDM	BPSK	15MHz	1/2
D & H	L, H	OFDM	BPSK	20MHz	1/2

#### **ANTENNA PORT CONDUCTED MEASUREMENT:**

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	CHANNEL BANDWIDTH	CODING RATE
A & E	L, M, H	OFDM	BPSK	5MHz	1/2
B & F	L, M, H	OFDM	BPSK	10MHz	1/2
C & G	L, M, H	OFDM	BPSK	15MHz	1/2
D & H	L, M, H	OFDM	BPSK	20MHz	1/2



#### 3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C (15.247) ANSI C63.4-2003

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

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

#### 3.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	PP05L	12130898320	E2K24CLNS

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m RJ45 cable

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



# **4. TEST TYPES AND RESULTS**

## 4.1 RADIATED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

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. As shown in 15.35(b), 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 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESI7	100033	Jun. 30, 2008	Jun. 29, 2009
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	May 02, 2008	May 01, 2009
HORN Antenna SCHWARZBECK	9120D	9120D-209	Jun. 24, 2008	Jun. 23, 2009
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2008	Dec. 24, 2009
Preamplifier Agilent	8447D	2944A10633	Nov. 03, 2008	Nov. 02, 2009
Preamplifier Agilent	8449B	3008A01964	Oct. 23, 2008	Oct. 22, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238141/4	May 20, 2008	May 19, 2009
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	May 20, 2008	May 19, 2009
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	NA	NA

**NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

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



#### 4.1.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters 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 lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

#### NOTE:

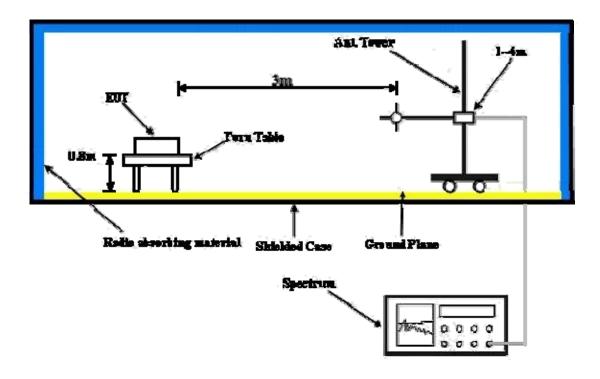
- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 100kHz and video bandwidth is 300kHz for Peak detection at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
- 4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation



#### 4.1.5 TEST SETUP



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

## 4.1.6 EUT OPERATING CONDITIONS

- a. Placed the EUT on a testing table.
- b. Prepared a notebook computer and placed it outside of testing area to act as communication partner for EUT.
- c. The EUT ran a test program (provided by manufacturer) to enable all functions under transmission condition continuously at specific channel frequency.
- d. The necessary accessories enable the EUT in full functions.



## 4.1.7 TEST RESULTS

EUT TEST CONDIT	ION	MEASUREMENT DETAIL		
CHANNEL	Low channel: 5729.0MHz	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	А	
TESTED BY	Brad Wu			

	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	4582.40	48.78 PK	74.00	-25.22	1.15 H	204	11.02	37.76
2	4582.40	36.52 AV	54.00	-17.48	1.15 H	204	-1.24	37.76
3	#5725.00	86.68 PK	96.03	-9.35	1.06 H	176	46.84	39.84
4	#5725.00	74.18 AV	84.12	-9.94	1.06 H	176	34.34	39.84
5	*5729.00	116.03 PK			1.06 H	176	76.19	39.84
6	*5729.00	104.12 AV			1.06 H	176	64.28	39.84
7	11456.00	68.00 PK	74.00	-6.00	1.00 H	215	17.99	50.01
8	11456.00	52.92 AV	54.00	-1.08	1.00 H	215	2.91	50.01
	Į.	NTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL /	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4582.40	54.69 PK	74.00	-19.31	1.22 V	168	16.93	37.76
2	4582.40	48.89 AV	54.00	-5.11	1.22 V	168	11.13	37.76
3	#5725.00	102.82 PK	112.80	-9.98	1.00 V	168	62.98	39.84
4	#5725.00	90.71 AV	100.72	-10.01	1.00 V	168	50.87	39.84
5	*5729.00	132.80 PK			1.00 V	168	92.96	39.84
6	*5729.00	120.72 AV			1.00 V	168	80.88	39.84
7	11456.00	67.55 PK	74.00	-6.45	1.40 V	216	17.54	50.01
8	11456.00	52.20 AV	54.00	-1.80	1.40 V	216	2.19	50.01

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITIO	ON	MEASUREMENT DETAIL			
CHANNEL	Mid. channel: 5788.0MHz	FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	Α		
TESTED BY	Brad Wu				

	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	4630.40	49.90 PK	74.00	-24.10	1.01 H	182	12.04	37.86
2	4630.40	38.71 AV	54.00	-15.29	1.01 H	182	0.85	37.86
3	*5788.00	115.89 PK			1.11 H	176	75.96	39.93
4	*5788.00	103.78 AV			1.11 H	176	63.85	39.93
5	11576.00	63.86 PK	74.00	-10.14	1.00 H	218	13.97	49.89
6	11576.00	50.50 AV	54.00	-3.50	1.00 H	218	0.61	49.89
	Į.	NTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL /	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4630.40	55.65 PK	74.00	-18.35	1.19 V	165	17.79	37.86
2	4630.40	50.89 AV	54.00	-3.11	1.19 V	165	13.03	37.86
3	*5788.00	132.53 PK			1.05 V	168	92.60	39.93
4	*5788.00	120.62 AV			1.05 V	168	80.69	39.93
5	11576.00	63.42 PK	74.00	-10.58	1.35 V	229	13.53	49.89
6	11576.00	50.13 AV	54.00	-3.87	1.35 V	229	0.24	49.89

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL		
CHANNEL	High channel: 5846.0MHz	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	Α	
TESTED BY	Brad Wu			

	AN	ITENNA POLA	ARITY & T	EST DIST	ANCE: HC	RIZONTAL	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4677.60	50.23 PK	74.00	-23.77	1.02 H	191	12.24	37.99
2	4677.60	38.96 AV	54.00	-15.04	1.02 H	191	0.97	37.99
3	*5846.00	115.62 PK			1.11 H	176	75.53	40.09
4	*5846.00	103.54 AV			1.11 H	176	63.45	40.09
5	#5850.00	79.16 PK	95.62	-16.46	1.11 H	176	39.06	40.10
6	#5850.00	67.08 AV	83.54	-16.46	1.11 H	176	26.98	40.10
7	11694.00	64.13 PK	74.00	-9.87	1.01 H	219	14.30	49.83
8	11694.00	50.92 AV	54.00	-3.08	1.01 H	219	1.09	49.83
	A	NTENNA PO	LARITY &	TEST DIS	TANCE: V	ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4677.60	54.26 PK	74.00	-19.74	1.18 V	168	16.27	37.99
2	4677.60	49.21 AV	54.00	-4.79	1.18 V	168	11.22	37.99
3	*5846.00	132.45 PK			1.04 V	165	92.36	40.09
4	*5846.00	120.32 AV			1.04 V	165	80.23	40.09
5	#5850.00	95.99 PK	112.45	-16.46	1.04 V	165	55.89	40.10
6	#5850.00	83.86 AV	100.32	-16.46	1.04 V	165	43.76	40.10
7	11694.00	65.18 PK	74.00	-8.82	1.23 V	215	15.35	49.83
8	11694.00	50.51 AV	54.00	-3.49	1.23 V	215	0.68	49.83

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITIO	ON	MEASUREMENT DETAIL				
CHANNEL Low channel: 5732.5MHz		FREQUENCY RANGE	1 ~ 40GHz			
INPUT POWER (SYSTEM) 120Vac, 60 Hz		DETECTOR FUNCTION	Peak (PK) Average (AV)			
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	В			
TESTED BY	Brad Wu					

	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	4586.00	48.90 PK	74.00	-25.10	1.19 H	176	11.14	37.76
2	4586.00	37.67 AV	54.00	-16.33	1.19 H	176	-0.09	37.76
3	#5725.00	76.22 PK	93.78	-17.56	1.13 H	176	36.38	39.84
4	#5725.00	63.71 AV	81.27	-17.56	1.13 H	176	23.87	39.84
5	*5732.50	113.78 PK			1.13 H	176	73.93	39.85
6	*5732.50	101.27 AV			1.13 H	176	61.42	39.85
7	11465.00	64.86 PK	74.00	-9.14	1.08 H	245	14.85	50.01
8	11465.00	51.65 AV	54.00	-2.35	1.08 H	245	1.64	50.01
		ANTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4586.00	55.95 PK	74.00	-18.05	1.22 V	169	18.19	37.76
2	4586.00	50.86 AV	54.00	-3.14	1.22 V	169	13.10	37.76
3	#5725.00	93.19 PK	111.31	-18.12	1.00 V	168	53.35	39.84
4	#5725.00	81.59 AV	99.71	-18.12	1.00 V	168	41.75	39.84
5	*5732.50	131.31 PK			1.00 V	168	91.46	39.85
6	*5732.50	119.71 AV			1.00 V	168	79.86	39.85
7	11465.00	64.30 PK	74.00	-9.70	1.15 V	174	14.29	50.01
-	11100.00							

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITIO	ON	MEASUREMENT DETAIL			
CHANNEL Mid. channel: 5788.0MHz		FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	В		
TESTED BY	Brad Wu				

	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	4630.40	49.24 PK	74.00	-24.76	1.20 H	174	11.38	37.86
2	4630.40	38.05 AV	54.00	-15.95	1.20 H	174	0.19	37.86
3	*5788.00	113.56 PK			1.14 H	182	73.63	39.93
4	*5788.00	101.04 AV			1.14 H	182	61.11	39.93
5	11576.00	64.95 PK	74.00	-9.05	1.11 H	249	15.06	49.89
6	11576.00	51.72 AV	54.00	-2.28	1.11 H	249	1.83	49.89
		ANTENNA PO	LARITY &	TEST DIS	TANCE: VE	RTICAL AT	Г 3 М	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4630.40	55.99 PK	74.00	-18.01	1.06 V	169	18.13	37.86
2	4630.40	50.69 AV	54.00	-3.31	1.06 V	169	12.83	37.86
3	*5788.00	131.17 PK			1.05 V	168	91.24	39.93
4	*5788.00	119.52 AV			1.05 V	168	79.59	39.93
5	11576.00	61.89 PK	74.00	-12.11	1.01 V	155	12.00	49.89

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL				
CHANNEL High channel: 5842.5MHz		FREQUENCY RANGE	1 ~ 40GHz			
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)			
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	В			
TESTED BY	Brad Wu					

	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	4674.00	50.11 PK	74.00	-23.89	1.14 H	168	12.13	37.98
2	4674.00	38.94 AV	54.00	-15.06	1.14 H	168	0.96	37.98
3	*5842.50	113.68 PK			1.15 H	186	73.60	40.08
4	*5842.50	101.23 AV			1.15 H	186	61.15	40.08
5	#5850.00	74.68 PK	93.68	-19.00	1.15 H	186	34.58	40.10
6	#5850.00	62.23 AV	81.23	-19.00	1.15 H	186	22.13	40.10
7	11685.00	66.09 PK	74.00	-7.91	1.00 H	230	16.26	49.83
8	11685.00	52.64 AV	54.00	-1.36	1.00 H	230	2.81	49.83
	Al	NTENNA POL	ARITY & T	EST DIST	ANCE: HO	RIZONTAL	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4674.00	55.74 PK	74.00	-18.26	1.05 V	168	17.76	37.98
2	4674.00	50.15 AV	54.00	-3.85	1.05 V	168	12.17	37.98
3	*5842.50	131.11 PK			1.06 V	168	91.03	40.08
4	*5842.50	119.58 AV			1.06 V	168	79.50	40.08
5	#5850.00	92.11 PK	111.11	-19.00	1.06 V	168	52.01	40.10
6	#5850.00	80.06 AV	99.58	-19.52	1.06 V	168	39.96	40.10
7	11685.00	62.76 PK	74.00	-11.24	1.03 V	279	12.93	49.83
8	11685.00	49.51 AV	54.00	-4.49	1.03 V	279	-0.32	49.83

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL			
CHANNEL Low channel: 5734.0MHz		FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac 60 Hz		Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	С		
TESTED BY	Brad Wu				

	AN	NTENNA POL	ARITY & T	EST DIST	ANCE: HO	ORIZONTAL	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4587.20	49.03 PK	74.00	-24.97	1.13 H	245	11.27	37.76
2	4587.20	40.45 AV	54.00	-13.55	1.13 H	245	2.69	37.76
3	#5725.00	80.04 PK	92.37	-12.33	1.14 H	173	40.20	39.84
4	#5725.00	67.68 AV	80.01	-12.33	1.14 H	173	27.84	39.84
5	*5734.00	112.37 PK			1.14 H	173	72.52	39.85
6	*5734.00	100.01 AV			1.14 H	173	60.16	39.85
7	11468.00	62.58 PK	74.00	-11.42	1.00 H	228	12.57	50.01
8	11468.00	50.74 AV	54.00	-3.26	1.00 H	228	0.73	50.01
		ANTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL /	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4587.20	51.16 PK	74.00	-22.84	1.29 V	172	13.40	37.76
2	4587.20	42.62 AV	54.00	-11.38	1.29 V	172	4.86	37.76
3	#5725.00	98.92 PK	111.25	-12.33	1.12 V	171	59.08	39.84
4	#5725.00	87.12 AV	99.45	-12.33	1.12 V	171	47.28	39.84
					1.12 V	171	04.40	39.85
5	*5734.00	131.25 PK			1.12 V	17.1	91.40	39.63
6	*5734.00 *5734.00	131.25 PK 119.45 AV			1.12 V 1.12 V	171	79.60	39.85
			74.00	-10.75				

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL				
CHANNEL Mid. channel: 5788.0MHz		FREQUENCY RANGE	1 ~ 40GHz			
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)			
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	С			
TESTED BY	Brad Wu					

	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	4630.40	48.82 PK	74.00	-25.18	1.13 H	242	10.96	37.86
2	4630.40	37.29 AV	54.00	-16.71	1.13 H	242	-0.57	37.86
3	*5788.00	112.43 PK			1.13 H	180	72.50	39.93
4	*5788.00	99.94 AV			1.13 H	180	60.01	39.93
5	11576.00	61.89 PK	74.00	-12.11	1.03 H	182	12.00	49.89
6	11576.00	49.32 AV	54.00	-4.68	1.03 H	182	-0.57	49.89
	,	ANTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4630.40	50.90 PK	74.00	-23.10	1.11 V	174	13.04	37.86
2	4630.40	41.85 AV	54.00	-12.15	1.11 V	174	3.99	37.86
3	*5788.00	131.09 PK			1.13 V	171	91.16	39.93
4	*5788.00	119.02 AV			1.13 V	171	79.09	39.93
5	11576.00	61.12 PK	74.00	-12.88	1.01 V	179	11.23	49.89
6	11576.00	48.50 AV	54.00	-5.50	1.01 V	179	-1.39	49.89

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL				
CHANNEL High channel: 5841.0MHz		FREQUENCY RANGE	1 ~ 40GHz			
INPUT POWER (SYSTEM) 120Vac, 60 Hz		DETECTOR FUNCTION	Peak (PK) Average (AV)			
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	С			
TESTED BY	Brad Wu					

	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	4672.80	48.51 PK	74.00	-25.49	1.12 H	239	10.53	37.98
2	4672.80	36.95 AV	54.00	-17.05	1.12 H	239	-1.03	37.98
3	*5841.00	112.56 PK			1.12 H	175	72.49	40.07
4	*5841.00	100.08 AV			1.12 H	175	60.01	40.07
5	#5850.00	79.34 PK	92.56	-13.22	1.12 H	175	39.24	40.10
6	#5850.00	66.86 AV	80.08	-13.22	1.12 H	175	26.76	40.10
7	11682.00	63.95 PK	74.00	-10.05	1.04 H	186	14.12	49.83
8	11682.00	51.46 AV	54.00	-2.54	1.04 H	186	1.63	49.83
		ANTENNA PO	LARITY &	TEST DIS	STANCE: VE	RTICAL AT	Г 3 М	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4672.80	52.82 PK	74.00	-21.18	1.10 V	174	14.84	37.98
2	4672.80	44.99 AV	54.00	-9.01	1.10 V	174	7.01	37.98
3	*5841.00	131.34 PK			1.10 V	171	91.27	40.07
4	*5841.00	119.24 AV			1.10 V	171	79.17	40.07
5	#5850.00	98.12 PK	111.34	-13.22	1.10 V	171	58.02	40.10
6	#5850.00	86.02 AV	99.24	-13.22	1.10 V	171	45.92	40.10
7	11682.00	62.98 PK	74.00	-11.02	1.04 V	281	13.15	49.83
8	11682.00	49.72 AV	54.00	-4.28	1.04 V	281	-0.11	49.83

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL		
CHANNEL	Low channel: 5736.5MHz		1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	D	
TESTED BY	Brad Wu			

	AN	ITENNA POL	ARITY & T	EST DIST	ANCE: HO	RIZONTAL	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4589.20	50.13 PK	74.00	-23.87	1.09 H	246	12.36	37.77
2	4589.20	41.52 AV	54.00	-12.48	1.09 H	246	3.75	37.77
3	#5725.00	77.36 PK	92.01	-14.65	1.15 H	175	37.52	39.84
4	#5725.00	65.11 AV	79.76	-14.65	1.15 H	175	25.27	39.84
5	*5736.50	112.01 PK			1.15 H	175	72.16	39.85
6	*5736.50	99.76 AV			1.15 H	175	59.91	39.85
7	11473.00	62.42 PK	74.00	-11.58	1.01 H	13	12.41	50.01
8	11473.00	50.61 AV	54.00	-3.39	1.01 H	13	0.60	50.01
		ANTENNA PO	LARITY &	TEST DIS	TANCE: V	ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4589.20	53.42 PK	74.00	-20.58	1.73 V	171	15.65	37.77
2	4589.20	46.51 AV	54.00	-7.49	1.73 V	171	8.74	37.77
3	#5725.00	96.32 PK	110.97	-14.65	1.12 V	171	56.48	39.84
4	#5725.00	84.10 AV	98.75	-14.65	1.12 V	171	44.26	39.84
5	*5736.50	130.97 PK			1.12 V	171	91.12	39.85
6	*5736.50	118.75 AV			1.12 V	171	78.90	39.85
7	11473.00	61.73 PK	74.00	-12.27	1.06 V	195	11.72	50.01
	11470.00							

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITIO	ON	MEASUREMENT DETAIL		
CHANNEL	CHANNEL Mid. channel: 5788.0MHz		1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	D	
TESTED BY	Brad Wu			

	AN	ITENNA POL	ARITY & T	EST DIST	ANCE: HO	DRIZONTA	AL AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4630.40	50.49 PK	74.00	-23.51	1.12 H	253	12.63	37.86
2	4630.40	41.88 AV	54.00	-12.12	1.12 H	253	4.02	37.86
3	*5788.00	111.95 PK			1.14 H	179	72.02	39.93
4	*5788.00	99.62 AV			1.14 H	179	59.69	39.93
5	11576.00	62.15 PK	74.00	-11.85	1.03 H	19	12.26	49.89
6	11576.00	50.28 AV	54.00	-3.72	1.03 H	19	0.39	49.89
	Į.	NTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL	. AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4630.40	53.52 PK	74.00	-20.48	1.20 V	166	15.66	37.86
2	4630.40	48.65 AV	54.00	-5.35	1.20 V	166	10.79	37.86
3	*5788.00	130.85 PK			1.13 V	172	90.92	39.93
4	*5788.00	118.68 AV			1.13 V	172	78.75	39.93
5	11576.00	61.68 PK	74.00	-12.32	1.08 V	169	11.79	49.89
6	11576.00	49.52 AV	54.00	-4.48	1.08 V	169	-0.37	49.89

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL					
CHANNEL	CHANNEL High channel: 5838.5MHz		1 ~ 40GHz				
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)				
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	D				
TESTED BY	Brad Wu	Brad Wu					

	AN	ITENNA POLA	ARITY & T	EST DIST	ANCE: HO	ORIZONTAL	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4670.80	50.65 PK	74.00	-23.35	1.09 H	261	12.68	37.97
2	4670.80	42.05 AV	54.00	-11.95	1.09 H	261	4.08	37.97
3	*5838.50	112.14 PK			1.16 H	176	72.07	40.07
4	*5838.50	99.98 AV			1.16 H	176	59.91	40.07
5	#5850.00	77.18 PK	92.14	-14.96	1.16 H	176	37.08	40.10
6	#5850.00	65.02 AV	79.98	-14.96	1.16 H	176	24.92	40.10
7	11677.00	62.46 PK	74.00	-11.54	1.09 H	24	12.63	49.83
8	11677.00	50.35 AV	54.00	-3.65	1.09 H	24	0.52	49.83
	P	NTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4670.80	53.02 PK	74.00	-20.98	1.68 V	170	15.05	37.97
2	4670.80	47.32 AV	54.00	-6.68	1.68 V	170	9.35	37.97
3	*5838.50	131.31 PK			1.21 V	172	91.24	40.07
4	*5838.50	118.87 AV			1.21 V	172	78.80	40.07
5	#5850.00	96.35 PK	111.31	-14.96	1.21 V	172	56.25	40.10
6	#5850.00	83.91 AV	98.87	-14.96	1.21 V	172	43.81	40.10
7	11677.00	61.95 PK	74.00	-12.05	1.10 V	172	12.12	49.83
8	11677.00	49.86 AV	54.00	-4.14	1.10 V	172	0.03	49.83

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL		
CHANNEL	Low channel: 5729.0MHz		1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	Е	
TESTED BY	Brad Wu			

	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	#5725.00	82.94 PK	96.04	-13.10	1.38 H	22	42.91	40.03
2	#5725.00	72.94 AV	86.04	-13.10	1.38 H	22	32.91	40.03
3	*5729.00	116.04 PK			1.38 H	22	76.00	40.04
4	*5729.00	106.04 AV			1.38 H	22	66.00	40.04
5	11458.00	64.62 PK	74.00	-9.38	1.86 H	321	13.48	51.14
6	11458.00	50.03 AV	54.00	-3.97	1.86 H	321	-1.11	51.14
	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
	ļ.	ANTENNA PO	LARITY &	TEST DIS	STANCE: \	/ERTICAL /	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
No.	Freq.	Emission Level	Limit	Margin	Antenna Height	Table Angle	Raw Value	Factor
	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Factor (dB/m)
1	Freq. (MHz) #5725.00	Emission Level (dBuV/m) 93.73 PK	Limit (dBuV/m) 106.83	Margin (dB) -13.10	Antenna Height (m) 1.15 V	Table Angle (Degree)	Raw Value (dBuV) 53.70	Factor (dB/m) 40.03
1 2	Freq. (MHz) #5725.00 #5725.00	Emission Level (dBuV/m) 93.73 PK 83.83 AV	Limit (dBuV/m) 106.83	Margin (dB) -13.10	Antenna Height (m) 1.15 V	Table Angle (Degree) 1	Raw Value (dBuV) 53.70 43.80	Factor (dB/m) 40.03 40.03
1 2 3	Freq. (MHz) #5725.00 #5725.00 *5729.00	Emission Level (dBuV/m) 93.73 PK 83.83 AV 126.83 PK	Limit (dBuV/m) 106.83	Margin (dB) -13.10	Antenna Height (m) 1.15 V 1.15 V	Table Angle (Degree) 1 1	Raw Value (dBuV) 53.70 43.80 86.79	Factor (dB/m) 40.03 40.03 40.04

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITIO	ON	MEASUREMENT DETAIL		
CHANNEL	CHANNEL Mid. channel: 5788.0MHz		1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	E	
TESTED BY	Brad Wu			

	AN	ITENNA POLA	ARITY & T	EST DIST	ANCE: HO	ORIZONTAL	. AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5788.00	118.30 PK			1.34 H	27	78.14	40.16
2	*5788.00	108.69 AV			1.34 H	27	68.53	40.16
3	11576.00	66.19 PK	74.00	-7.81	1.48 H	300	15.16	51.02
4	11576.00	51.86 AV	54.00	-2.14	1.48 H	300	0.83	51.02
	A	NTENNA POI	LARITY &	TEST DIS	TANCE: \	/ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5788.00	128.63 PK			1.14 V	6	88.47	40.16
2	*5788.00	118.97 AV			1.14 V	6	78.81	40.16
3	11576.00	67.13 PK	74.00	-6.87	1.02 V	3	16.10	51.02
4	11576.00	52.05 AV	54.00	-1.95	1.02 V	3	1.02	51.02

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL		
CHANNEL	CHANNEL High channel: 5846.0MHz		1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	E	
TESTED BY	Brad Wu			

	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	*5846.00	120.95 PK			1.42 H	347	80.66	40.29
2	*5846.00	110.93 AV			1.42 H	347	70.64	40.29
3	#5850.00	81.66 PK	100.95	-19.29	1.42 H	347	41.36	40.30
4	#5850.00	71.64 AV	90.93	-19.29	1.42 H	347	31.34	40.30
5	11692.00	66.25 PK	74.00	-7.75	1.45 H	79	15.44	50.81
6	11692.00	50.57 AV	54.00	-3.43	1.45 H	79	-0.24	50.81
	Į.	NTENNA PO	LARITY &	TEST DIS	TANCE: V	ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5846.00	130.40 PK			1.13 V	8	90.11	40.29
2	*5846.00	120.56 AV			1.13 V	8	80.27	40.29
3	#5850.00	91.11 PK	110.40	-19.29	1.13 V	8	50.81	40.30
4	#5850.00	81.27 AV	100.56	-19.29	1.13 V	8	40.97	40.30
5	11692.00	64.68 PK	74.00	-9.32	1.18 V	17	13.87	50.81
6	11692.00	50.21 AV	54.00	-3.79	1.18 V	17	-0.60	50.81

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL			
CHANNEL Low channel: 5732.5MHz		FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	F		
TESTED BY	Brad Wu				

	AN	ITENNA POL	ARITY & T	EST DIST	ANCE: HO	ORIZONTAL	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5725.00	79.55 PK	94.75	-15.20	1.36 H	30	39.52	40.03
2	#5725.00	68.49 AV	83.69	-15.20	1.36 H	30	28.46	40.03
3	*5732.50	114.75 PK			1.36 H	30	74.70	40.05
4	*5732.50	103.69 AV			1.36 H	30	63.64	40.05
5	11465.00	62.34 PK	74.00	-11.66	1.00 H	306	11.20	51.14
6	11465.00	50.12 AV	54.00	-3.88	1.00 H	306	-1.02	51.14
		NTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5725.00	89.63 PK	104.83	-15.20	1.11 V	4	49.60	40.03
2	#5725.00	78.58 AV	93.78	-15.20	1.11 V	4	38.55	40.03
3	*5732.50	124.83 PK			1.11 V	4	84.78	40.05
4	*5732.50	113.78 AV			1.11 V	4	73.73	40.05
5	11465.00	62.45 PK	74.00	-11.55	1.03 V	25	11.31	51.14
6	11465.00	50.26 AV	54.00	-3.74	1.03 V	25	-0.88	51.14

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITIO	ON	MEASUREMENT DETAIL			
CHANNEL Mid. channel: 5788.0MHz		FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	F		
TESTED BY	Brad Wu				

	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	*5788.00	116.26 PK			1.38 H	27	76.10	40.16
2	*5788.00	95.83 AV			1.38 H	27	55.67	40.16
3	11576.00	63.70 PK	74.00	-10.30	1.00 H	292	12.67	51.02
4	11576.00	50.05 AV	54.00	-3.95	1.00 H	292	-0.98	51.02
		ANTENNA POI	LARITY &	TEST DIS	TANCE: VE	RTICAL AT	Г 3 М	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5788.00	126.28 PK			1.12 V	23	86.12	40.16
2	*5788.00	115.89 AV			1.12 V	23	75.73	40.16
3	11576.00	62.64 PK	74.00	-11.36	1.07 V	3	11.61	51.02
4	11576.00	49.91 AV	54.00	-4.09	1.07 V	3	-1.12	51.02

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL				
CHANNEL High channel: 5842.5MHz		FREQUENCY RANGE	1 ~ 40GHz			
INPUT POWER (SYSTEM)	1120Vac 60 Hz		Peak (PK) Average (AV)			
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	F			
TESTED BY	Brad Wu					

	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	*5842.50	118.89 PK			1.42 H	26	78.61	40.28
2	*5842.50	107.86 AV			1.42 H	26	67.58	40.28
3	#5850.00	76.19 PK	98.89	-22.70	1.42 H	26	35.89	40.30
4	#5850.00	65.16 AV	87.86	-22.70	1.42 H	26	24.86	40.30
5	11685.00	60.42 PK	74.00	-13.58	1.28 H	50	9.59	50.83
6	11685.00	46.90 AV	54.00	-7.10	1.28 H	50	-3.93	50.83
	Al	NTENNA POLA	ARITY & T	EST DIST	ANCE: HO	RIZONTAL	. AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5842.50	128.86 PK			1.18 V	10	88.58	40.28
2	*5842.50	117.78 AV			1.18 V	10	77.50	40.28
3	#5850.00	86.16 PK	108.86	-22.70	1.18 V	10	45.86	40.30
4	#5850.00	75.08 AV	97.78	-22.70	1.18 V	10	34.78	40.30
5	11685.00	60.45 PK	74.00	-13.55	1.27 V	208	9.62	50.83
6	11685.00	48.14 AV	54.00	-5.86	1.27 V	208	-2.69	50.83

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL				
CHANNEL Low channel: 5734.0MHz		FREQUENCY RANGE	1 ~ 40GHz			
INPUT POWER (SYSTEM)	TIZUVAC BU HZ		Peak (PK) Average (AV)			
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	G			
TESTED BY	Brad Wu					

	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	#5725.00	82.95 PK	94.35	-11.40	1.35 H	26	42.92	40.03
2	#5725.00	71.38 AV	82.78	-11.40	1.35 H	26	31.35	40.03
3	*5734.00	114.35 PK			1.35 H	26	74.30	40.05
4	*5734.00	102.78 AV			1.35 H	26	62.73	40.05
5	11468.00	62.17 PK	74.00	-11.83	1.19 H	297	11.03	51.14
6	11468.00	50.33 AV	54.00	-3.67	1.19 H	297	-0.81	51.14
	A	ANTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL /	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5725.00	93.12 PK	104.52	-11.40	1.12 V	6	53.09	40.03
2	#5725.00	81.53 AV	92.93	-11.40	1.12 V	6	41.50	40.03
3	*5734.00	124.52 PK			1.12 V	6	84.47	40.05
4	*5734.00	112.93 AV			1.12 V	6	72.88	40.05
							10.01	
5	11468.00	63.48 PK	74.00	-10.52	1.06 V	6	12.34	51.14

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL				
CHANNEL Mid. channel: 5788.0MHz		FREQUENCY RANGE	1 ~ 40GHz			
INPUT POWER (SYSTEM)	120Vac 60 Hz		Peak (PK) Average (AV)			
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	G			
TESTED BY	Brad Wu					

	AN	ITENNA POLA	ARITY & T	EST DIST	ANCE: HO	ORIZONTAL	. AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5788.00	115.95 PK			1.32 H	24	75.79	40.16
2	*5788.00	104.39 AV			1.32 H	24	64.23	40.16
3	11576.00	62.04 PK	74.00	-11.96	1.16 H	287	11.02	51.02
4	11576.00	50.58 AV	54.00	-3.42	1.16 H	287	-0.44	51.02
	Į.	NTENNA POI	LARITY &	TEST DIS	TANCE: \	/ERTICAL A	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5788.00	126.04 PK			1.13 V	5	85.88	40.16
2	*5788.00	114.51 AV			1.13 V	5	74.35	40.16
3	11576.00	63.55 PK	74.00	-10.45	1.04 V	3	12.53	51.02
4	11576.00	51.04 AV	54.00	-2.96	1.04 V	3	0.02	51.02

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.



EUT TEST CONDITION	ON	MEASUREMENT DETAIL				
CHANNEL High channel: 5841.0MHz		FREQUENCY RANGE	1 ~ 40GHz			
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)			
ENVIRONMENTAL CONDITIONS	, , , , , , , , , , , , , , , , , , ,		G			
TESTED BY	Brad Wu					

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	*5841.00	117.29 PK			1.32 H	25	77.01	40.28
2	*5841.00	105.87 AV			1.32 H	25	65.59	40.28
3	#5850.00	84.19 PK	97.29	-13.10	1.32 H	25	43.89	40.30
4	#5850.00	72.77 AV	85.87	-13.10	1.32 H	25	32.47	40.30
5	11682.00	61.57 PK	74.00	-12.43	1.25 H	304	10.74	50.83
6	11682.00	49.71 AV	54.00	-4.29	1.25 H	304	-1.12	50.83
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
		<u>ANTENNA PO</u>	LARITY &	TEST DIS	TANCE: VE	RTICAL AT	Г 3 М	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
No.	Freq.	Emission Level	Limit	Margin	Antenna Height	Table Angle	Raw Value	Factor
	Freq. (MHz)	Emission Level (dBuV/m)	Limit	Margin	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Factor (dB/m)
1	Freq. (MHz) *5841.00	Emission Level (dBuV/m) 127.43 PK	Limit	Margin	Antenna Height (m) 1.14 V	Table Angle (Degree)	Raw Value (dBuV) 87.15	Factor (dB/m) 40.28
1 2	Freq. (MHz) *5841.00 *5841.00	Emission Level (dBuV/m) 127.43 PK 116.08 AV	Limit (dBuV/m)	Margin (dB)	Antenna Height (m) 1.14 V 1.14 V	Table Angle (Degree) 4 4	Raw Value (dBuV) 87.15 75.80	Factor (dB/m) 40.28 40.28
1 2 3	Freq. (MHz) *5841.00 *5841.00 #5850.00	Emission Level (dBuV/m) 127.43 PK 116.08 AV 94.33 PK	Limit (dBuV/m)	Margin (dB)	Antenna Height (m) 1.14 V 1.14 V	Table Angle (Degree) 4 4 4	Raw Value (dBuV) 87.15 75.80 54.03	Factor (dB/m) 40.28 40.28 40.30

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



Report Format Version 3.0.0

EUT TEST CONDITIO	ON	MEASUREMENT DETAIL			
CHANNEL	Low channel: 5736.5MHz	FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	Н		
TESTED BY	D BY Brad Wu				

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	#5725.00	80.58 PK	93.78	-13.20	1.34 H	26	40.55	40.03	
2	#5725.00	68.82 AV	82.02	-13.20	1.34 H	26	28.79	40.03	
3	*5736.50	113.78 PK			1.34 H	26	73.72	40.06	
4	*5736.50	102.02 AV			1.34 H	26	61.96	40.06	
5	11473.00	62.48 PK	74.00	-11.52	1.79 H	231	11.34	51.14	
6	11473.00	50.07 AV	54.00	-3.93	1.79 H	231	-1.07	51.14	
	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	#5725.00	90.75 PK	103.95	-13.20	1.11 V	5	50.72	40.03	
2	#5725.00	78.93 AV	92.13	-13.20	1.11 V	5	38.90	40.03	
3	*5736.50	123.95 PK			1.11 V	5	83.89	40.06	
4	*5736.50	112.13 AV			1.11 V	5	72.07	40.06	
5	11473.00	62.94 PK	74.00	-11.06	1.12 V	4	11.80	51.14	
6	11473.00	50.45 AV	54.00	-3.55	1.12 V	4	-0.69	51.14	

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



EUT TEST CONDITIO	ON	MEASUREMENT DETAIL			
CHANNEL	Mid. channel: 5788.0MHz	FREQUENCY RANGE	1 ~ 40GHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	Н		
TESTED BY	Brad Wu				

	AN	ITENNA POLA	ARITY & T	EST DIST	ANCE: HO	ORIZONTA	AL AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5788.00	115.53 PK			1.28 H	27	75.37	40.16
2	*5788.00	103.64 AV			1.28 H	27	63.48	40.16
3	11576.00	63.12 PK	74.00	-10.88	1.25 H	234	12.10	51.02
4	11576.00	50.79 AV	54.00	-3.21	1.25 H	234	-0.23	51.02
	Į.	NTENNA POI	LARITY &	TEST DIS	TANCE: \	/ERTICAL	. AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5788.00	125.68 PK			1.10 V	5	85.52	40.16
2	*5788.00	113.75 AV			1.10 V	5	73.59	40.16
3	11576.00	63.58 PK	74.00	-10.42	1.10 V	3	12.56	51.02
4	11576.00	51.03 AV	54.00	-2.97	1.10 V	3	0.01	51.02

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.



Report Format Version 3.0.0

EUT TEST CONDITION	ON	MEASUREMENT DETAIL		
CHANNEL	High channel: 5838.5MHz	FREQUENCY RANGE	1 ~ 40GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	Н	
TESTED BY	Brad Wu			

	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	*5838.50	116.95 PK			1.32 H	31	76.68	40.27		
2	*5838.50	106.03 AV			1.32 H	31	65.76	40.27		
3	#5850.00	82.65 PK	96.95	-14.30	1.32 H	31	42.35	40.30		
4	#5850.00	71.73 AV	86.03	-14.30	1.32 H	31	31.43	40.30		
5	11677.00	62.75 PK	74.00	-11.25	1.26 H	214	11.91	50.84		
6	11677.00	50.23 AV	54.00	-3.77	1.26 H	214	-0.61	50.84		
	A	ANTENNA PO	LARITY &	TEST DIS	TANCE: \	/ERTICAL /	AT 3 M			
							_			
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
No.	•	Level		Ū	Height	Angle	Value	Factor		
	(MHz)	Level (dBuV/m)		Ū	Height (m)	Angle (Degree)	Value (dBuV)	Factor (dB/m)		
1	(MHz) *5838.50	Level (dBuV/m) 127.14 PK		Ū	Height (m) 1.12 V	Angle (Degree) 7	Value (dBuV) 86.87	Factor (dB/m) 40.27		
1 2	*5838.50	Level (dBuV/m) 127.14 PK 116.27 AV	(dBuV/m)	(dB)	Height (m) 1.12 V 1.12 V	Angle (Degree) 7 7	Value (dBuV) 86.87 76.00	Factor (dB/m) 40.27 40.27		
1 2 3	*5838.50 *5838.50 #5850.00	Level (dBuV/m) 127.14 PK 116.27 AV 92.84 PK	(dBuV/m)	(dB)	Height (m) 1.12 V 1.12 V 1.12 V	Angle (Degree) 7 7 7	Value (dBuV) 86.87 76.00 52.54	Factor (dB/m) 40.27 40.27 40.30		

- 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.
- 5. " \* ": Fundamental frequency.
- 6. The limit value is defined as per 15.247.
- 7. "#":The radiated frequency is out the restricted band.



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

EUT TEST CONDITION	ON	MEASUREMENT DETAIL			
CHANNEL High channel: 5846.0MHz		FREQUENCY RANGE	Below 1000MHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	А		
TESTED BY	Brad Wu				

	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	101.84	35.34 QP	43.50	-8.16	1.00 H	40	23.76	11.58		
2	599.58	34.21 QP	46.00	-11.79	1.50 H	349	11.81	22.39		
3	650.13	40.83 QP	46.00	-5.17	1.00 H	79	17.03	23.80		
4	700.68	36.88 QP	46.00	-9.12	1.50 H	13	11.84	25.04		
5	720.12	38.75 QP	46.00	-7.25	1.50 H	37	13.52	25.22		
6	799.84	35.83 QP	46.00	-10.17	1.00 H	10	9.81	26.02		
	,	ANTENNA POI	LARITY &	TEST DIS	TANCE: VE	RTICAL AT	Г 3 М			
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
1	30.20	34.20 QP	40.00	-5.80	1.50 V	181	21.71	12.49		
2	64.90	36.46 QP	40.00	-3.54	1.00 V	106	23.40	13.06		
3	599.58	34.26 QP	46.00	-11.74	1.50 V	148	11.87	22.39		
4	650.13	40.48 QP	46.00	-5.52	2.00 V	49	16.68	23.80		
5	720.12	38.77 QP	46.00	-7.23	1.50 V	67	13.55	25.22		
6	799.84	37.80 QP	46.00	-8.20	1.50 V	10	11.78	26.02		

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



EUT TEST CONDITION	ON	MEASUREMENT DETAIL			
CHANNEL	High channel: 5842.5MHz	FREQUENCY RANGE	Below 1000MHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	В		
TESTED BY	Brad Wu				

	AN	ITENNA POLA	ARITY & T	EST DIST	ANCE: HO	DRIZONTAL	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	101.84	36.73 QP	43.50	-6.77	1.50 H	40	25.15	11.58
2	599.58	33.65 QP	46.00	-12.35	1.50 H	307	11.26	22.39
3	650.13	39.47 QP	46.00	-6.53	1.00 H	142	15.68	23.80
4	700.68	38.09 QP	46.00	-7.91	1.00 H	79	13.05	25.04
5	720.12	38.80 QP	46.00	-7.20	1.50 H	43	13.58	25.22
6	799.84	36.20 QP	46.00	-9.80	1.50 H	1	10.18	26.02
	Į.	ANTENNA POI	LARITY &	TEST DIS	TANCE: \	/ERTICAL /	AT 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	55.18	33.16 QP	40.00	-6.84	1.00 V	310	20.13	13.03
2	500.42	32.46 QP	46.00	-13.54	1.00 V	28	12.02	20.44
3	599.58	34.73 QP	46.00	-11.27	1.50 V	139	12.34	22.39
4	650.13	37.80 QP	46.00	-8.20	1.00 V	58	14.00	23.80
5	720.12	38.76 QP	46.00	-7.24	1.50 V	76	13.53	25.22
6	799.84	38.62 QP	46.00	-7.38	1.50 V	10	12.60	26.02

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



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	High channel: 5841.0MHz	FREQUENCY RANGE	Below 1000MHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	С	
TESTED BY	Brad Wu			

	AN	TENNA POL	ARITY & T	EST DIST	ANCE: HOR	IZONTAL A	T 3 M	
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	101.84	36.80 QP	43.50	-6.70	1.00 H	28	25.22	11.58
2	599.58	35.90 QP	46.00	-10.10	1.50 H	346	13.50	22.39
3	650.13	39.13 QP	46.00	-6.87	1.00 H	148	15.33	23.80
4	700.68	39.43 QP	46.00	-6.57	1.50 H	97	14.39	25.04
5	720.12	38.32 QP	46.00	-7.68	1.50 H	31	13.10	25.22
6	799.84	36.92 QP	46.00	-9.08	1.00 H	10	10.90	26.02
	Α	NTENNA PO	LARITY &	TEST DIS	TANCE: VE	RTICAL AT	3 M	
No.	Freq. (MHz)	Emission Level	Limit	Margin	Antenna Height	Table Angle	Raw Value	Correction Factor
	( ,	(dBuV/m)	(dBuV/m)	(dB)	(m)	(Degree)	(dBuV)	(dB/m)
1	64.90	(dBuV/m) 31.32 QP	40.00	-8.68				
1	· ·	,	,	. ,	(m)	(Degree)	(dBuV)	(dB/m)
$\vdash$	64.90	31.32 QP	40.00	-8.68	(m) 1.00 V	(Degree) 130	(dBuV) 18.26	(dB/m) 13.06
2	64.90 599.58	31.32 QP 35.10 QP	40.00 46.00	-8.68 -10.90	(m) 1.00 V 1.50 V	(Degree) 130 136	(dBuV) 18.26 12.71	(dB/m) 13.06 22.39
3	64.90 599.58 650.13	31.32 QP 35.10 QP 38.04 QP	40.00 46.00 46.00	-8.68 -10.90 -7.96	(m) 1.00 V 1.50 V 1.00 V	(Degree) 130 136 55	(dBuV) 18.26 12.71 14.24	(dB/m) 13.06 22.39 23.80

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



EUT TEST CONDITION	ON	MEASUREMENT DETAIL			
CHANNEL	High channel: 5838.5MHz	FREQUENCY RANGE	Below 1000MHz		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	D		
TESTED BY	Brad Wu				

	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	101.84	36.95 QP	43.50	-6.55	2.00 H	16	25.37	11.58		
2	500.42	33.44 QP	46.00	-12.56	2.00 H	328	13.00	20.44		
3	599.58	35.09 QP	46.00	-10.91	1.50 H	307	12.69	22.39		
4	650.13	39.94 QP	46.00	-6.06	1.00 H	76	16.14	23.80		
5	720.12	39.62 QP	46.00	-6.38	1.50 H	25	14.40	25.22		
6	799.84	38.06 QP	46.00	-7.94	2.00 H	337	12.04	26.02		
	Į.	ANTENNA POI	LARITY &	TEST DIS	TANCE: \	/ERTICAL /	AT 3 M			
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
1	101.84	31.50 QP	43.50	-12.00	1.50 V	91	19.92	11.58		
2	599.58	34.04 QP	46.00	-11.96	1.00 V	31	11.64	22.39		
3	650.13	38.32 QP	46.00	-7.68	1.50 V	49	14.52	23.80		
4	720.12	38.62 QP	46.00	-7.38	1.50 V	67	13.40	25.22		
5	799.84	41.69 QP	46.00	-4.31	1.50 V	25	15.67	26.02		
6	881.50	34.01 QP	46.00	-11.99	1.00 V	34	6.46	27.54		

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



EUT TEST CONDITIO	ON	MEASUREMENT DETAIL		
CHANNEL	High channel: 5846.0MHz	FREQUENCY RANGE	Below 1000MHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	E	
TESTED BY	Brad Wu			

	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	101.84	40.09 QP	43.50	-3.41	1.50 H	235	28.51	11.58	
2	399.31	30.99 QP	46.00	-15.01	1.00 H	16	12.97	18.02	
3	498.47	38.48 QP	46.00	-7.52	1.50 H	298	18.09	20.39	
4	650.13	42.35 QP	46.00	-3.65	1.25 H	193	18.55	23.80	
5	700.68	39.71 QP	46.00	-6.29	1.00 H	196	14.67	25.04	
6	799.84	41.40 QP	46.00	-4.60	1.00 H	190	15.38	26.02	
	,	ANTENNA POI	LARITY &	TEST DIS	TANCE: VE	RTICAL AT	Г 3 М		
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)	
1	56.03	38.41 QP	40.00	-1.59	1.25 V	56	25.41	13.00	
2	66.33	38.98 QP	40.00	-1.02	1.06 V	231	25.86	13.12	
3	97.95	39.67 QP	43.50	-3.83	1.25 V	169	28.83	10.84	
4	650.13	40.10 QP	46.00	-5.90	1.25 V	223	16.30	23.80	
5	799.84	44.23 QP	46.00	-1.77	1.25 V	28	18.21	26.02	
6	850.39	36.18 QP	46.00	-9.82	1.25 V	31	9.24	26.94	

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



EUT TEST CONDITION	ON	MEASUREMENT DETAIL		
CHANNEL	High channel: 5842.5MHz	FREQUENCY RANGE	Below 1000MHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	F	
TESTED BY	Brad Wu			

	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	103.78	39.86 QP	43.50	-3.64	1.25 H	250	28.31	11.55	
2	399.31	32.67 QP	46.00	-13.33	2.00 H	211	14.66	18.02	
3	650.13	42.93 QP	46.00	-3.07	1.00 H	196	19.13	23.80	
4	700.68	39.43 QP	46.00	-6.57	1.00 H	190	14.39	25.04	
5	799.84	40.65 QP	46.00	-5.35	1.50 H	193	14.63	26.02	
6	908.72	40.19 QP	46.00	-5.81	1.25 H	235	12.17	28.02	
	A	NTENNA POI	LARITY &	TEST DIS	TANCE: \	/ERTICAL /	AT 3 M		
No	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)	
1	55.89	37.95 QP	40.00	-2.05	1.06 V	11	24.95	13.00	
2	66.31	38.97 QP	40.00	-1.03	1.06 V	171	25.85	13.12	
3	97.95	39.16 QP	43.50	-4.34	1.50 V	130	28.32	10.84	
4	650.13	39.92 QP	46.00	-6.08	1.00 V	208	16.12	23.80	
5	700.68	34.72 QP	46.00	-11.28	1.25 V	214	9.68	25.04	
6	799.84	43.86 QP	46.00	-2.14	1.00 V	13	17.84	26.02	

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



EUT TEST CONDITION	ON	MEASUREMENT DETAIL		
CHANNEL	High channel: 5841.0MHz	FREQUENCY RANGE	Below 1000MHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	G	
TESTED BY	Brad Wu			

	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	64.90	32.84 QP	40.00	-7.16	1.50 H	205	19.78	13.06		
2	103.78	40.63 QP	43.50	-2.87	1.25 H	235	29.08	11.55		
3	599.58	34.21 QP	46.00	-11.79	1.25 H	199	11.82	22.39		
4	650.13	42.46 QP	46.00	-3.54	1.00 H	199	18.66	23.80		
5	700.68	38.55 QP	46.00	-7.45	1.00 H	196	13.51	25.04		
6	799.84	40.97 QP	46.00	-5.03	1.00 H	196	14.95	26.02		
	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									
	A	<u>NTENNA PO</u>	LARITY &	TEST DIS	TANCE: VE	RTICAL AT	3 M			
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)		
No.	Freq.	Emission Level	Limit	Margin	Antenna Height	Table Angle	Raw Value	Factor		
	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Factor (dB/m)		
1	Freq. (MHz) 56.01	Emission Level (dBuV/m) 37.92 QP	Limit (dBuV/m) 40.00	Margin (dB) -2.08	Antenna Height (m) 1.00 V	Table Angle (Degree)	Raw Value (dBuV) 24.92	Factor (dB/m) 13.00		
1 2	Freq. (MHz) 56.01 64.32	Emission Level (dBuV/m) 37.92 QP 38.35 QP	Limit (dBuV/m) 40.00 40.00	Margin (dB) -2.08 -1.65	Antenna Height (m) 1.00 V 1.00 V	Table Angle (Degree) 0	Raw Value (dBuV) 24.92 25.31	Factor (dB/m) 13.00 13.04		
1 2 3	Freq. (MHz) 56.01 64.32 97.95	Emission Level (dBuV/m) 37.92 QP 38.35 QP 40.26 QP	Limit (dBuV/m) 40.00 40.00 43.50	Margin (dB) -2.08 -1.65 -3.24	Antenna Height (m) 1.00 V 1.00 V	Table Angle (Degree) 0 0 157	Raw Value (dBuV) 24.92 25.31 29.41	Factor (dB/m) 13.00 13.04 10.84		

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



EUT TEST CONDITION	ON	MEASUREMENT DETAIL		
CHANNEL	High channel: 5838.5MHz	FREQUENCY RANGE	Below 1000MHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1024hPa	TEST MODE	Н	
TESTED BY	Brad Wu			

	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	64.90	31.52 QP	40.00	-8.48	1.25 H	226	18.46	13.06	
2	101.84	39.91 QP	43.50	-3.59	1.50 H	247	28.33	11.58	
3	500.42	33.57 QP	46.00	-12.43	1.50 H	178	13.14	20.44	
4	650.13	42.74 QP	46.00	-3.26	1.25 H	202	18.94	23.80	
5	700.68	39.35 QP	46.00	-6.65	1.00 H	199	14.31	25.04	
6	799.84	41.54 QP	46.00	-4.46	1.00 H	193	15.52	26.02	
	Α	NTENNA PO	LARITY &	TEST DIS	TANCE: VE	RTICAL AT	3 M		
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height	Table Angle	Raw Value	Correction Factor	
		(abav,)			(m)	(Degree)	(dBuV)	(dB/m)	
1	55.26	36.64 QP	40.00	-3.36	1.00 V	(Degree) 26	(dBuV) 23.62	13.02	
2	55.26 65.14	,	40.00 40.00	-3.36 -1.06	` /	`	\ /	` ′	
$\vdash$		36.64 QP			1.00 V	26	23.62	13.02	
2	65.14	36.64 QP 38.94 QP	40.00	-1.06	1.00 V 1.00 V	26 0	23.62 25.87	13.02 13.07	
2	65.14 97.95	36.64 QP 38.94 QP 39.01 QP	40.00 43.50	-1.06 -4.49	1.00 V 1.00 V 1.50 V	26 0 184	23.62 25.87 28.17	13.02 13.07 10.84	

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



## 4.2 CONDUCTED EMISSION MEASUREMENT

# 4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

- 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
- 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

## 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 19, 2008	Nov. 18, 2009
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 31, 2008	Dec. 30, 2009
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jun. 13, 2008	Jun. 12, 2009
LISN ROHDE & SCHWARZ	ESH2-Z5	100104	Dec. 04, 2008	Dec. 03, 2009
Software ADT	ADT_Cond_ V7.3.7	NA	NA	NA

**NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

- 2. The test was performed in HwaYa Shielded Room 1.
- 3. The VCCI Site Registration No. is C-2040.



## 4.2.3 TEST PROCEDURES

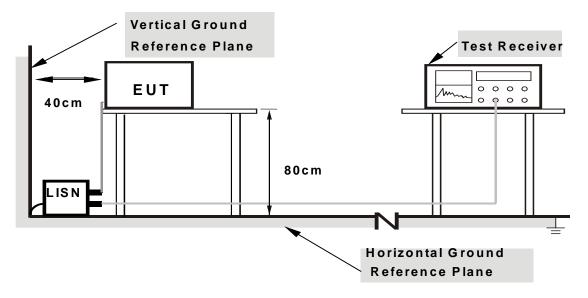
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

424	DE/	$I \Delta I \setminus \Delta I$	ION	$FR \cap M$	TEST	STAND	ΔRD
7.4.7	DL	$v$ $i$ $\frown$ $i$	ICJI V		$I \perp \cup I$	$o$ in $\Box$	$\Delta$

No deviation



## 4.2.5 TEST SETUP



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

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

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

# 4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6



# 4.2.7 TEST RESULTS

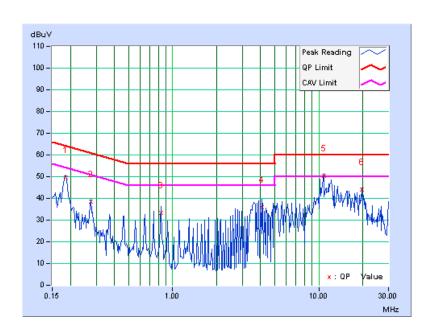
## **CONDUCTED WORST-CASE DATA:**

EUT TEST CONDIT	ION	MEASUREMENT DETAIL		
CHANNEL	High channel: 5846.0MHz	PHASE	Line 1	
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz	
TEST MODE	А	TESTED BY	Mark Liao	

	Freq.	Corr.	Readin	g Value		ssion vel	Lir	nit	Mar	gin
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	49.60	-	49.73	-	64.25	54.25	-14.52	-
2	0.275	0.13	38.23	-	38.36	-	60.97	50.97	-22.60	-
3	0.834	0.16	33.21	-	33.37	-	56.00	46.00	-22.63	-
4	4.066	0.28	35.54	-	35.82	-	56.00	46.00	-20.18	_
5	10.793	0.45	49.93	47.71	50.38	48.16	60.00	50.00	-9.62	-1.84
6	19.707	0.66	43.56	-	44.22	-	60.00	50.00	-15.78	-

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.

  3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.

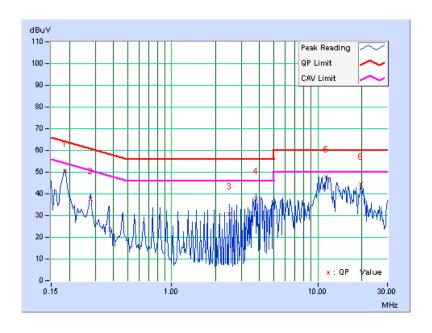




EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5846.0MHz	PHASE	Line 2		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	А	TESTED BY	Mark Liao		

	Freq.	Corr.	Readin	g Value		ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	50.30	-	50.43	-	64.25	54.25	-13.82	-
2	0.279	0.14	37.51	-	37.65	-	60.85	50.85	-23.20	-
3	2.500	0.22	30.54	-	30.76	-	56.00	46.00	-25.24	-
4	3.793	0.29	37.53	-	37.82	-	56.00	46.00	-18.18	-
5	11.465	0.55	47.09	-	47.64	-	60.00	50.00	-12.36	-
6	19.707	0.81	43.58	-	44.39	-	60.00	50.00	-15.61	-

- "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



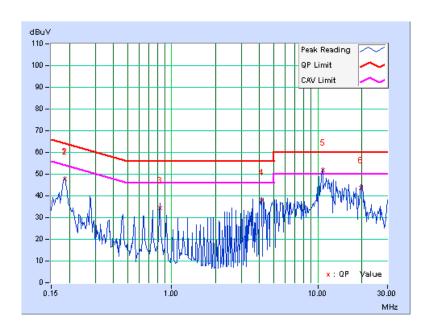


EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5842.5MHz	PHASE	Line 1		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	В	TESTED BY	Mark Liao		

	Freq.	Corr.	Readin	g Value		ssion vel	Lir	nit	Mar	gin
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	47.59	-	47.72	-	64.25	54.25	-16.53	-
2	0.185	0.13	47.53	-	47.66	-	64.25	54.25	-16.59	-
3	0.830	0.16	34.36	-	34.52	-	56.00	46.00	-21.48	-
4	4.152	0.28	37.87	-	38.15	-	56.00	46.00	-17.85	-
5	10.793	0.45	51.33	48.18	51.78	48.63	60.00	50.00	-8.22	-1.37
6	19.711	0.66	43.13	-	43.79	-	60.00	50.00	-16.21	_

**REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually. 2. "-": The Quasi-peak reading value also meets average limit and

- measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



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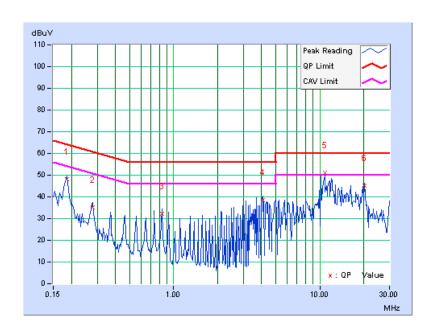


EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5842.5MHz	PHASE	Line 2		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	В	TESTED BY	Mark Liao		

	Freq.	Corr.	Readin	g Value	Emis Le	ssion vel	Lir	nit	Mar	gin
No		Factor	[dB	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	48.06	-	48.19	-	64.25	54.25	-16.06	-
2	0.279	0.14	35.19	-	35.33	-	60.85	50.85	-25.52	-
3	0.830	0.16	32.20	-	32.36	-	56.00	46.00	-23.64	-
4	4.059	0.30	38.36	-	38.66	-	56.00	46.00	-17.34	-
5	10.793	0.53	50.71	47.69	51.24	48.22	60.00	50.00	-8.76	-1.78
6	20.258	0.82	44.21	-	45.03	-	60.00	50.00	-14.97	-

**REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually. 2. "-": The Quasi-peak reading value also meets average limit and

- measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.

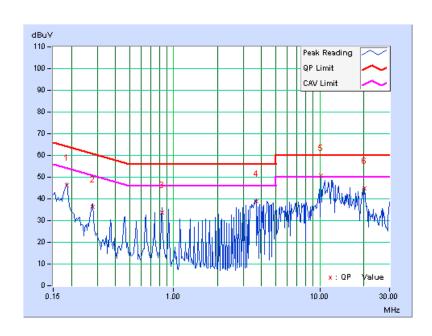




EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5841.0MHz	PHASE	Line 1		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	С	TESTED BY	Mark Liao		

	Freq.	Corr.	Readin	g Value		ssion vel	Lir	nit	Mar	gin
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	46.17	-	46.30	-	64.25	54.25	-17.95	_
2	0.279	0.13	36.31	-	36.44	-	60.85	50.85	-24.40	-
3	0.830	0.16	33.40	-	33.56	-	56.00	46.00	-22.44	-
4	3.695	0.27	38.72	-	38.99	-	56.00	46.00	-17.01	_
5	10.246	0.44	50.46	47.81	50.90	48.25	60.00	50.00	-9.10	-1.75
6	20.258	0.67	44.15	-	44.82	-	60.00	50.00	-15.18	-

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



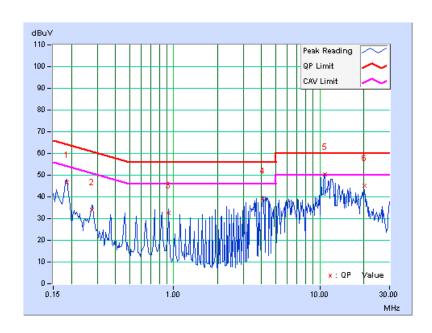


EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5841.0MHz	PHASE	Line 2		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	С	TESTED BY	Mark Liao		

	Freq.	Corr.	Readin	g Value		ssion vel	Lir	nit	Mar	gin
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	46.51	-	46.64	-	64.25	54.25	-17.61	-
2	0.275	0.14	33.83	-	33.97	-	60.97	50.97	-27.00	-
3	0.923	0.17	32.34	-	32.51	-	56.00	46.00	-23.49	-
4	4.063	0.30	38.82	-	39.12	-	56.00	46.00	-16.88	-
5	10.793	0.53	49.71	47.49	50.24	48.02	60.00	50.00	-9.76	-1.98
6	20.258	0.82	44.19	-	45.01	-	60.00	50.00	-14.99	-

**REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually. 2. "-": The Quasi-peak reading value also meets average limit and

- measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



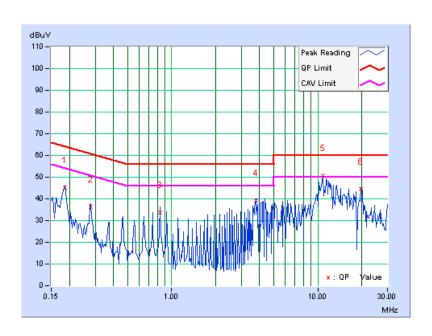
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EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5838.5MHz	PHASE	Line 1		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	D	TESTED BY	Mark Liao		

	Freq.	Corr.	Readin	g Value	Emis Le	ssion vel	Lir	nit	Mar	gin
No		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	45.13	-	45.26	-	64.25	54.25	-18.99	-
2	0.279	0.13	36.14	-	36.27	-	60.85	50.85	-24.57	-
3	0.834	0.16	33.37	-	33.53	-	56.00	46.00	-22.47	-
4	3.797	0.27	39.00	-	39.27	-	56.00	46.00	-16.73	-
5	10.793	0.45	50.15	47.90	50.60	48.35	60.00	50.00	-9.40	-1.65
6	19.707	0.66	43.74	-	44.40	-	60.00	50.00	-15.60	-

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



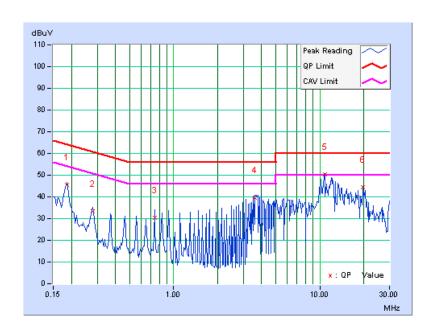


EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5838.5MHz	PHASE	Line 2		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	D	TESTED BY	Mark Liao		

	Freq.	Corr.	Readin	g Value		ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	В)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	45.46	-	45.59	-	64.25	54.25	-18.66	-
2	0.279	0.14	33.13	-	33.27	-	60.85	50.85	-27.58	-
3	0.740	0.16	30.25	-	30.41	-	56.00	46.00	-25.59	-
4	3.609	0.28	39.34	-	39.62	-	56.00	46.00	-16.38	-
5	10.793	0.53	49.75	47.53	50.28	48.06	60.00	50.00	-9.72	-1.94
6	19.707	0.81	43.74	-	44.55	-	60.00	50.00	-15.45	-

**REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually. 2. "-": The Quasi-peak reading value also meets average limit and

- measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.

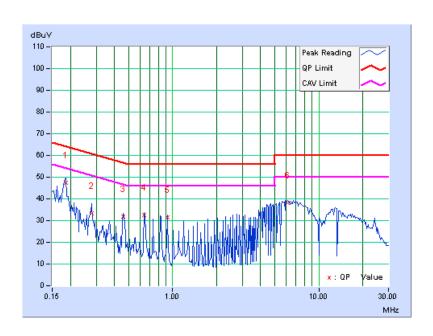




EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5846.0MHz	PHASE	Line 1		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	Е	TESTED BY	Sun Lin		

	Freq.	Corr.	Readin	g Value		ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	47.15	-	47.28	-	64.25	54.25	-16.97	-
2	0.279	0.13	33.17	-	33.30	-	60.85	50.85	-27.54	-
3	0.459	0.14	31.62	-	31.76	-	56.72	46.72	-24.95	-
4	0.642	0.16	32.26	-	32.42	-	56.00	46.00	-23.58	-
5	0.920	0.17	31.43	-	31.60	-	56.00	46.00	-24.40	-
6	6.160	0.47	37.58	-	38.05	-	60.00	50.00	-21.95	-

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



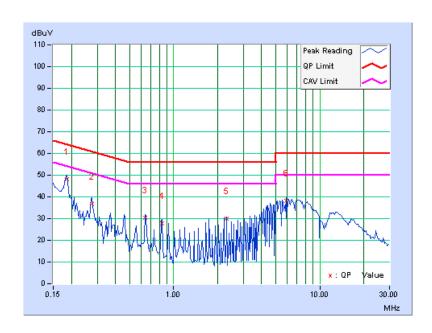
58



EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5846.0MHz	PHASE	Line 2		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	Е	TESTED BY	Sun Lin		

	Freq.	Corr.	Readin	g Value	Emis Le	ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	3)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.15	48.00	-	48.15	-	64.25	54.25	-16.10	_
2	0.275	0.15	36.36	-	36.51	-	60.97	50.97	-24.45	-
3	0.642	0.18	30.04	-	30.22	-	56.00	46.00	-25.78	-
4	0.830	0.19	27.49	-	27.68	-	56.00	46.00	-28.32	-
5	2.297	0.27	29.59	-	29.86	-	56.00	46.00	-26.14	-
6	5.884	0.47	37.55	-	38.02	-	60.00	50.00	-21.98	-

- **REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually. 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  - 3. The emission levels of other frequencies were very low against the limit.
  - 4. Margin value = Emission level Limit value
  - 5. Correction factor = Insertion loss + Cable loss
  - 6. Emission Level = Correction Factor + Reading Value.

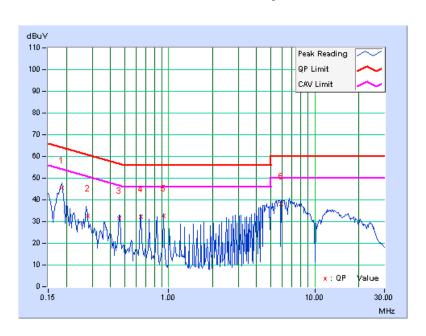




EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5842.5MHz	PHASE	Line 1		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	F	TESTED BY	Sun Lin		

	Freq.	Corr.	Readin	g Value	Emis Le	sion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	45.42	-	45.55	-	64.25	54.25	-18.70	-
2	0.279	0.13	32.33	-	32.46	-	60.85	50.85	-28.39	-
3	0.459	0.14	31.38	-	31.52	-	56.72	46.72	-25.19	-
4	0.646	0.16	32.14	-	32.30	-	56.00	46.00	-23.70	-
5	0.920	0.17	32.27	-	32.44	-	56.00	46.00	-23.56	-
6	5.895	0.46	37.59	-	38.05	-	60.00	50.00	-21.95	-

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



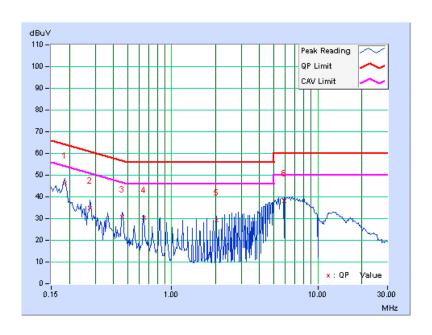


EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5842.5MHz	PHASE	Line 2		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	F	TESTED BY	Sun Lin		

	Freq.	Corr.	Readin	g Value		ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.15	46.06	-	46.21	-	64.25	54.25	-18.04	-
2	0.275	0.15	34.75	-	34.90	-	60.97	50.97	-26.06	-
3	0.459	0.16	30.62	-	30.78	-	56.72	46.72	-25.93	-
4	0.646	0.18	30.04	-	30.22	-	56.00	46.00	-25.78	-
5	2.027	0.25	29.09	-	29.34	-	56.00	46.00	-26.66	-
6	5.893	0.48	37.77	-	38.25	-	60.00	50.00	-21.75	-

**REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually. 2. "-": The Quasi-peak reading value also meets average limit and

- measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



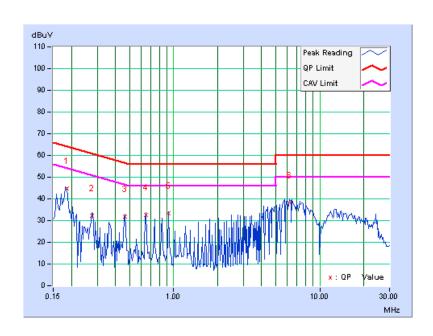


EUT TEST CONDIT	ION	MEASUREMENT DETAIL			
CHANNEL	High channel: 5841.0MHz	PHASE	Line 1		
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz		
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz		
TEST MODE	G	TESTED BY	Sun Lin		

	Freq.	Corr.	Readin	g Value	Emis Le	sion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.14	44.81	-	44.95	-	64.25	54.25	-19.30	-
2	0.275	0.14	31.93	-	32.07	-	60.97	50.97	-28.90	-
3	0.463	0.14	31.75	-	31.89	-	56.65	46.65	-24.76	-
4	0.646	0.15	32.28	-	32.43	-	56.00	46.00	-23.57	-
5	0.923	0.16	33.11	-	33.27	-	56.00	46.00	-22.73	-
6	6.184	0.44	37.74	-	38.18	-	60.00	50.00	-21.82	-

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.

  3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



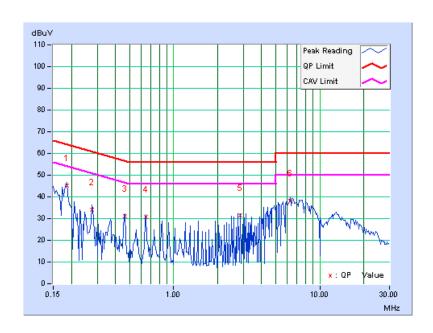


EUT TEST CONDIT	ION	MEASUREMENT DETAIL		
CHANNEL High channel: 5841.0MHz		PHASE	Line 2	
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz	
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz	
TEST MODE	G	TESTED BY	Sun Lin	

	Freq.	Corr.	Reading	g Value	Emis Le	ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	3)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.07	45.28	-	45.35	-	64.25	54.25	-18.90	_
2	0.275	0.07	33.87	-	33.94	-	60.97	50.97	-27.03	-
3	0.463	0.07	30.95	-	31.02	-	56.65	46.65	-25.63	_
4	0.646	0.08	30.50	-	30.58	-	56.00	46.00	-25.42	_
5	2.859	0.16	31.48	-	31.64	-	56.00	46.00	-24.36	-
6	6.275	0.33	37.88	-	38.21	-	60.00	50.00	-21.79	-

**REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually. 2. "-": The Quasi-peak reading value also meets average limit and

- measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.

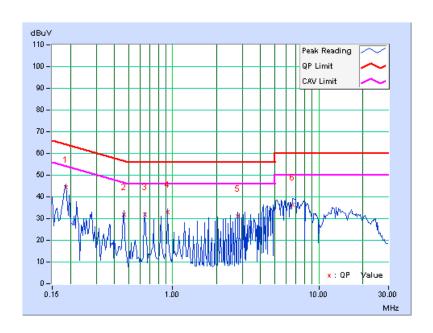




EUT TEST CONDIT	ION	MEASUREMENT DETAIL		
CHANNEL High channel: 5838.5MHz		PHASE	Line 1	
MODULATION TYPE BPSK		INPUT POWER (SYSTEM)	120Vac, 60Hz	
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz	
TEST MODE	Н	TESTED BY	Sun Lin	

	Freq.	Corr.	Readin	g Value	Emis Le	ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.14	44.18	-	44.32	-	64.25	54.25	-19.93	-
2	0.463	0.14	31.71	-	31.85	-	56.65	46.65	-24.80	-
3	0.646	0.15	31.86	-	32.01	-	56.00	46.00	-23.99	-
4	0.923	0.16	32.95	-	33.11	-	56.00	46.00	-22.89	-
5	2.773	0.24	30.97	-	31.21	-	56.00	46.00	-24.79	-
6	6.656	0.47	36.00	-	36.47	-	60.00	50.00	-23.53	-

- 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. Margin value = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.

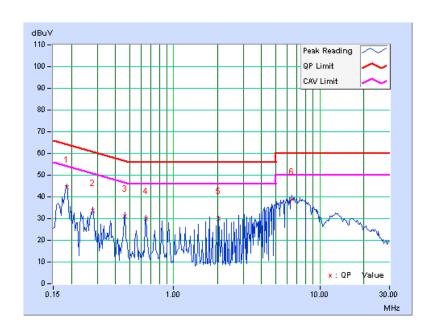




EUT TEST CONDIT	ION	MEASUREMENT DETAIL		
CHANNEL High channel: 5838.5MHz		PHASE	Line 2	
MODULATION TYPE	BPSK	INPUT POWER (SYSTEM)	120Vac, 60Hz	
ENVIRONMENTAL CONDITIONS	23deg. C, 65%RH, 1026hPa	6dB BANDWIDTH	9kHz	
TEST MODE	Н	TESTED BY	Sun Lin	

	Freq.	Corr.	Readin	g Value	Emis Le	ssion vel	Lir	nit	Mar	gin
No		Factor	[dB (	(uV)]	[dB (	(uV)]	[dB	(uV)]	(dl	3)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.07	44.55	-	44.62	-	64.25	54.25	-19.63	_
2	0.279	0.07	33.63	-	33.70	-	60.85	50.85	-27.15	-
3	0.463	0.07	31.15	-	31.22	-	56.65	46.65	-25.43	-
4	0.646	0.08	29.98	-	30.06	-	56.00	46.00	-25.94	-
5	2.035	0.11	29.75	-	29.86	-	56.00	46.00	-26.14	-
6	6.477	0.34	38.39	-	38.73	-	60.00	50.00	-21.27	-

- **REMARKS:** 1. Q.P. and AV. are abbreviations of quasi-peak and average individually. 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  - 3. The emission levels of other frequencies were very low against the limit.
  - 4. Margin value = Emission level Limit value
  - 5. Correction factor = Insertion loss + Cable loss
  - 6. Emission Level = Correction Factor + Reading Value.





# 4.3 6dB BANDWIDTH MEASUREMENT

## 4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

## 4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

# 4.3.3 TEST PROCEDURE

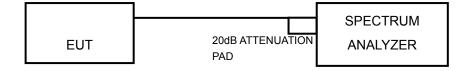
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.



# 4.3.4 DEVIATION FROM TEST STANDARD

No deviation

# 4.3.5 TEST SETUP



# 4.3.6 EUT OPERATING CONDITIONS

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

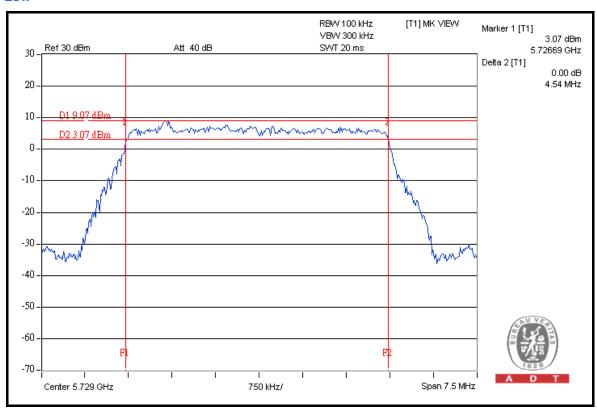


# 4.3.7 TEST RESULTS

MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 66%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	А
TESTED BY	Brad Wu		

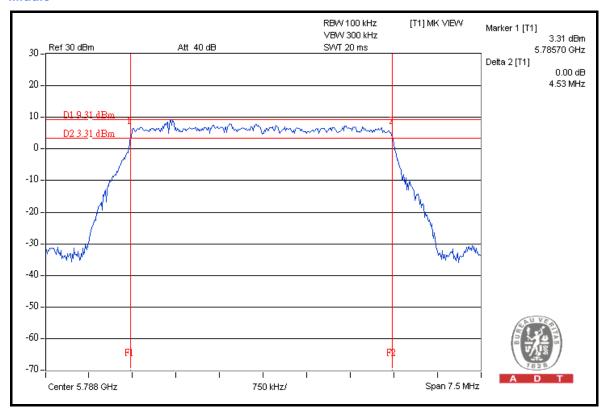
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
Low	5729	4.54	0.5	PASS
Middle	5788	4.53	0.5	PASS
High	5846	4.54	0.5	PASS

## Low

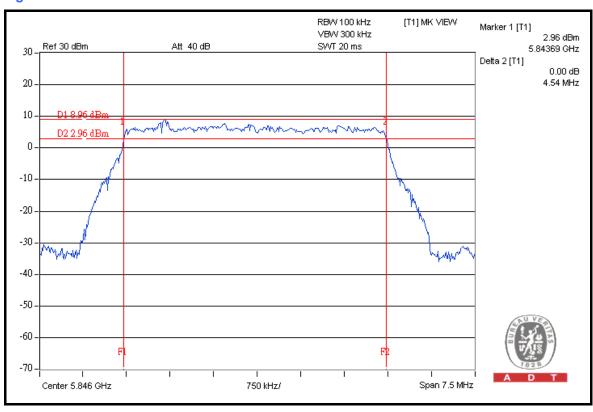




## Middle



# High

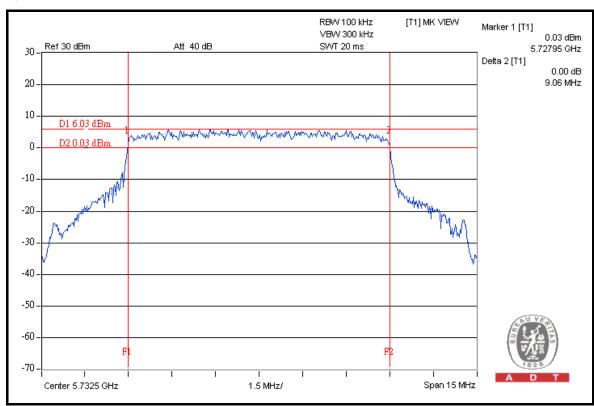




MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	В
TESTED BY	Brad Wu		

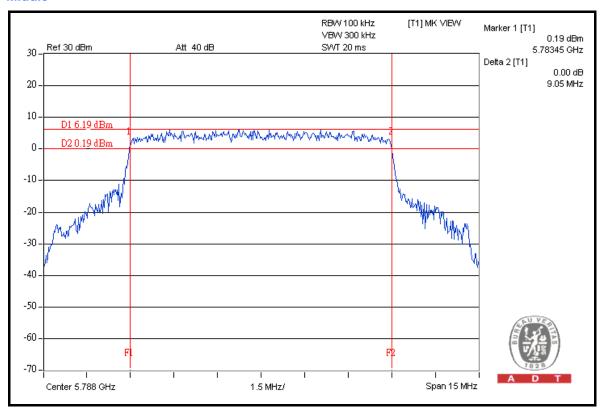
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
Low	5732.5	9.06	0.5	PASS
Middle	5788.0	9.05	0.5	PASS
High	5842.5	9.03	0.5	PASS

## Low

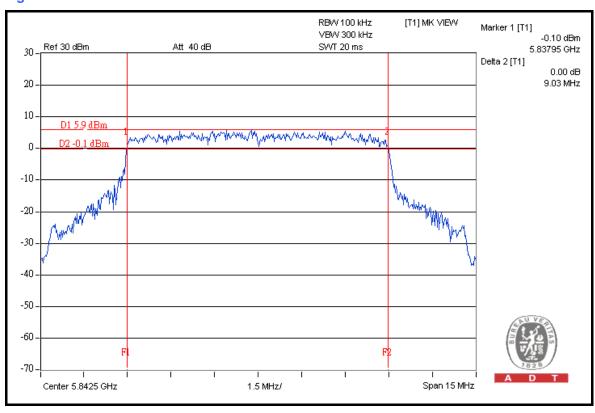




## Middle



# High

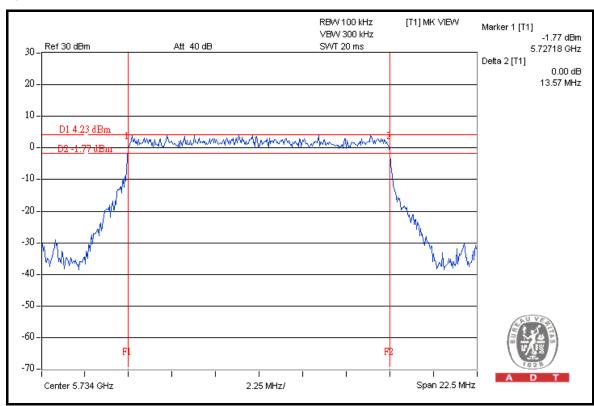




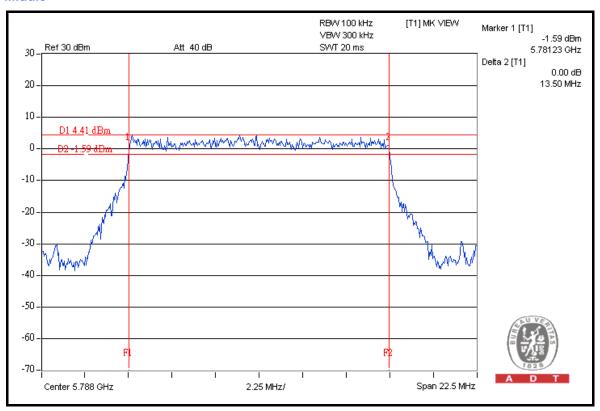
MODULATION TYPE	BPSK		25deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	С
TESTED BY	Brad Wu		

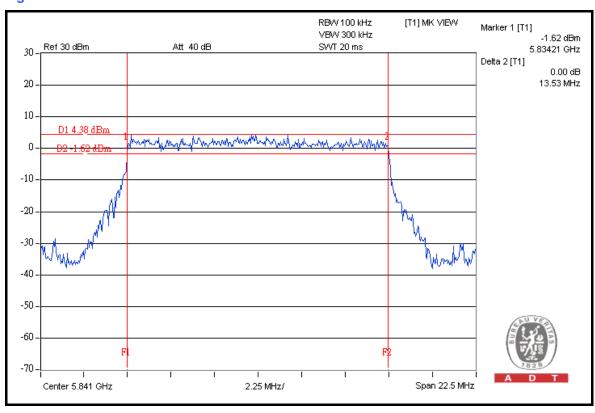
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
Low	5734.0	13.57	0.5	PASS
Middle	5788.0	13.50	0.5	PASS
High	5841.0	13.53	0.5	PASS

# Low





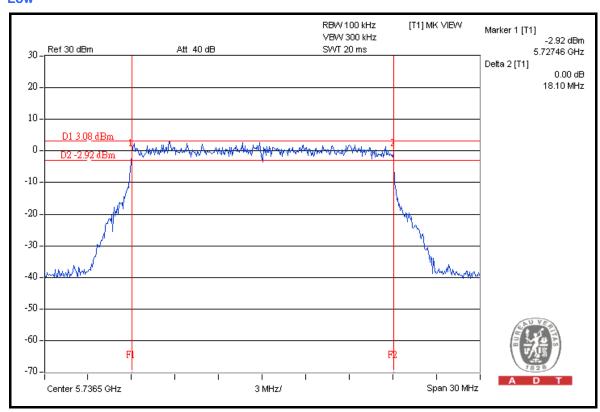




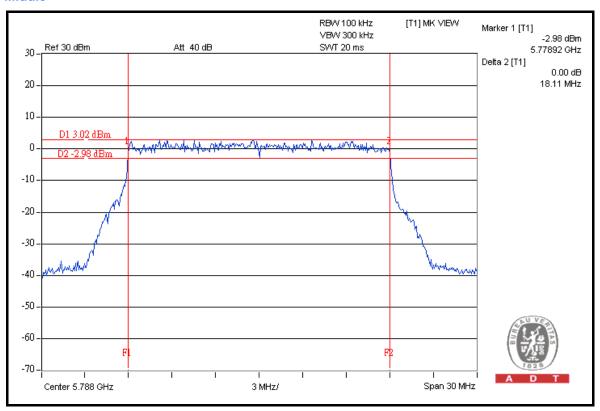


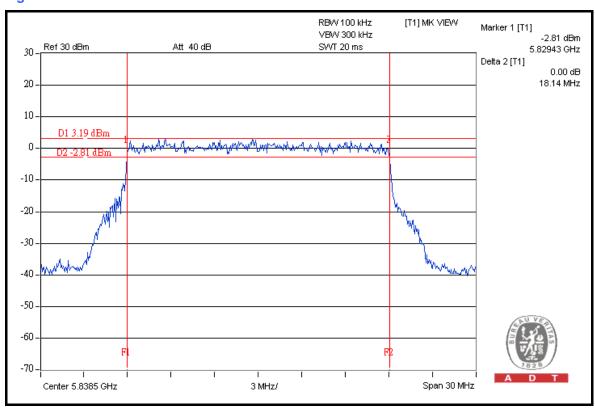
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	D
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
Low	5736.5	18.10	0.5	PASS
Middle	5788.0	18.11	0.5	PASS
High	5838.5	18.14	0.5	PASS





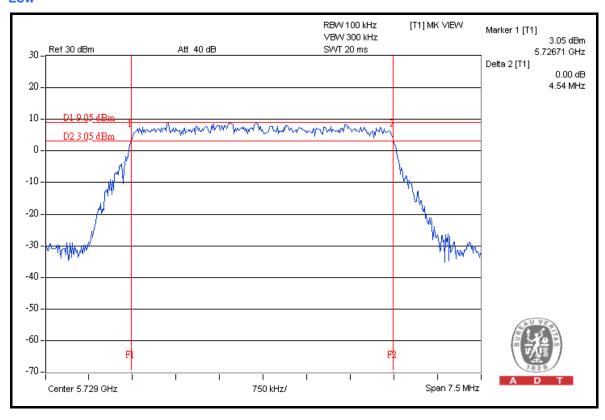




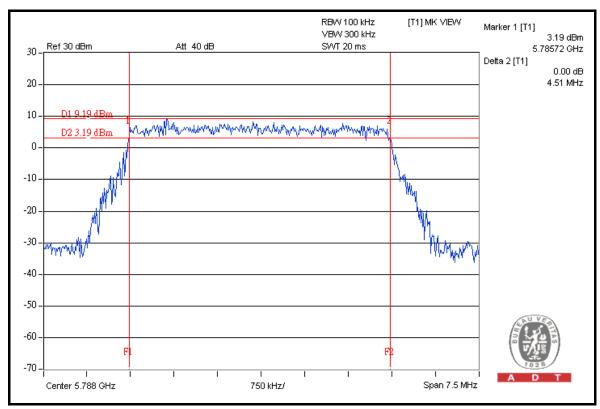


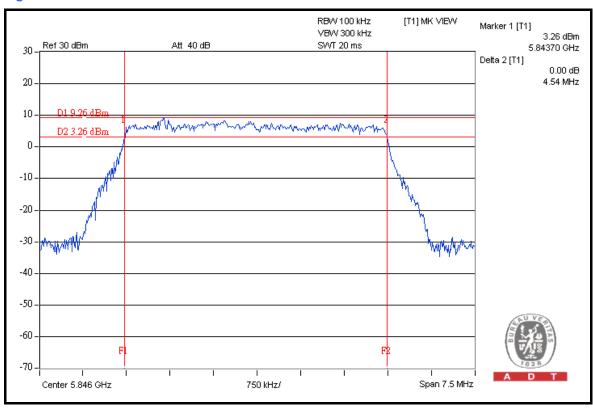
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 66%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	E
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
Low	5729	4.54	0.5	PASS
Middle	5788	4.51	0.5	PASS
High	5846	4.54	0.5	PASS





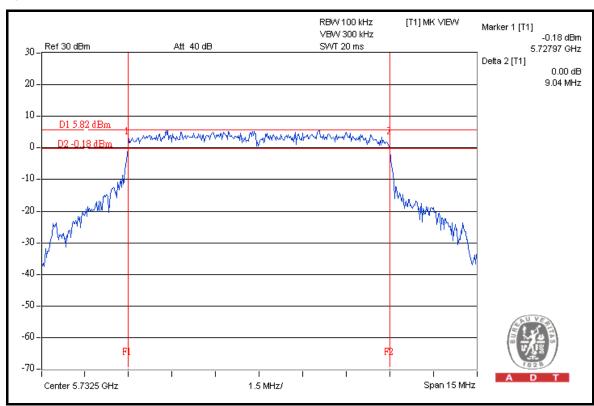




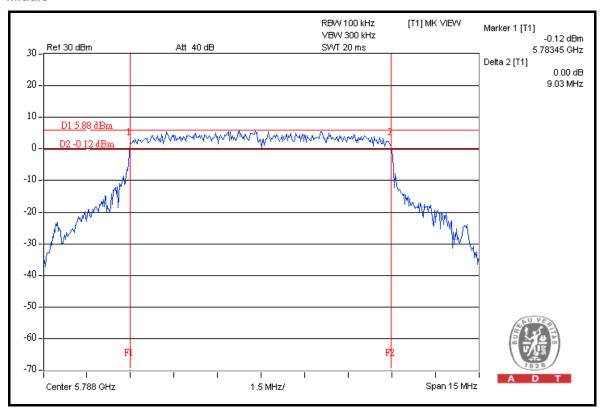


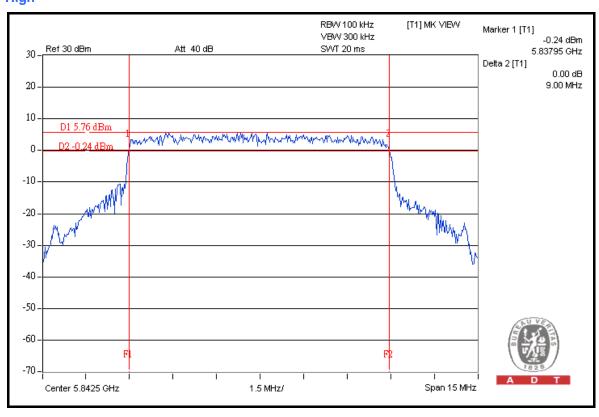
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	F
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
Low	5732.5	9.04	0.5	PASS
Middle	5788.0	9.03	0.5	PASS
High	5842.5	9.00	0.5	PASS





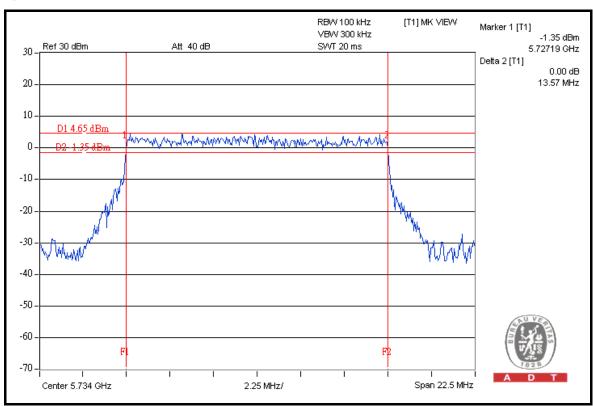




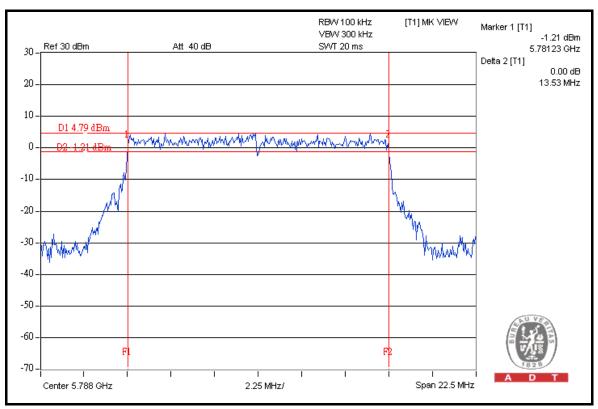


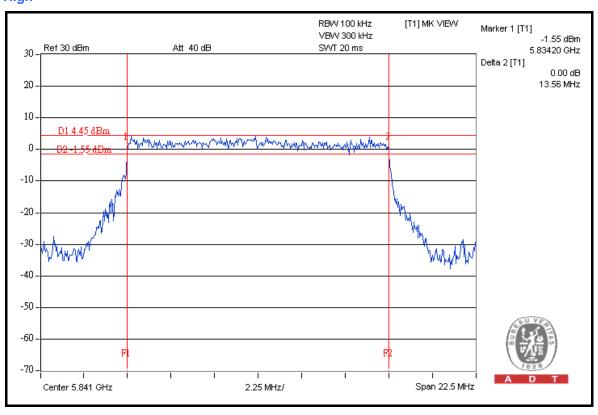
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	G
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
Low	5734.0	13.57	0.5	PASS
Middle	5788.0	13.53	0.5	PASS
High	5841.0	13.56	0.5	PASS





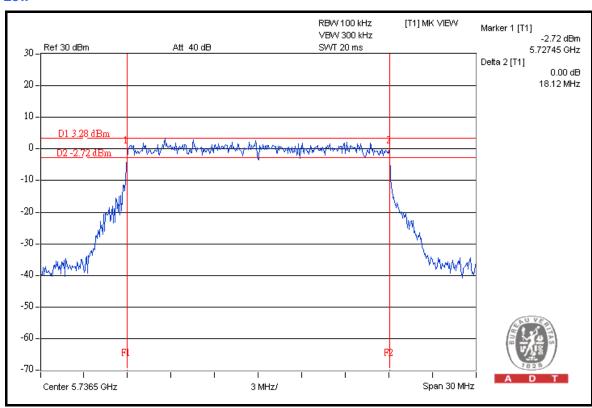




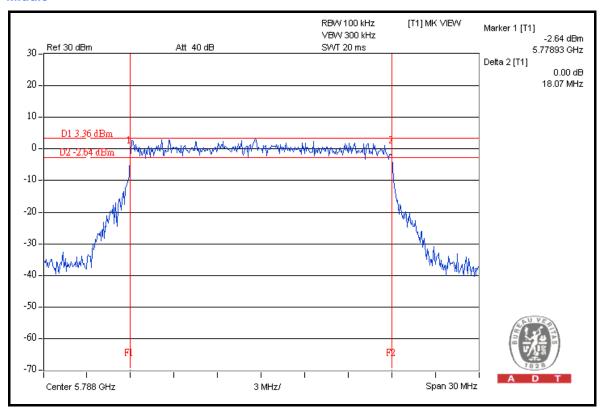


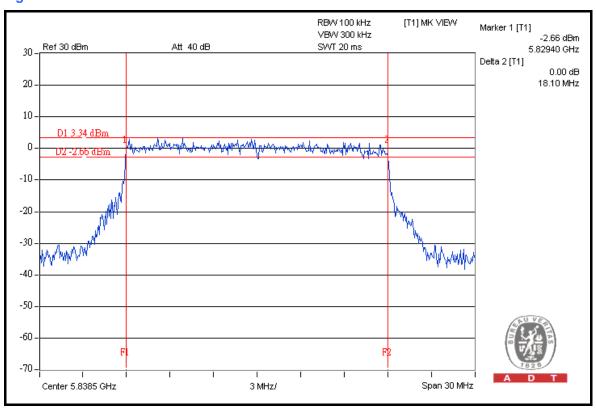
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	Н
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
Low	5736.5	18.12	0.5	PASS
Middle	5788.0	18.07	0.5	PASS
High	5838.5	18.10	0.5	PASS











## 4.4 MAXIMUM PEAK OUTPUT POWER

## 4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

## 4.4.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
High Speed Peak Power Meter	ML2495A	0824012	Aug. 04, 2008	Aug. 03, 2009
Power Sensor	MA2444B	0738138	Aug. 04, 2008	Aug. 03, 2009

#### 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. Measurement Bandwidth of ML2495A is 65MHz greater than 6dB bandwidth of emission.

## 4.4.3 TEST PROCEDURES

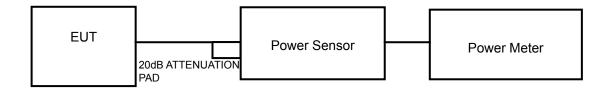
A power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.



## 4.4.4 DEVIATION FROM TEST STANDARD

No deviation

## 4.4.5 TEST SETUP



## 4.4.6 EUT OPERATING CONDITIONS

Same as Item 5.3.6



# 4.4.7 TEST RESULTS

MODULATION TYPE	RPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	А
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
Low	5729.0	322.107	25.08	30.00	PASS
Middle	5788.0	319.154	25.04	30.00	PASS
High	5846.0	322.849	25.09	30.00	PASS

MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	В
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
Low	5732.5	502.343	27.01	30.00	PASS
Middle	5788.0	508.159	27.06	30.00	PASS
High	5842.5	511.682	27.09	30.00	PASS



MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	С
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
Low	5734.0	506.991	27.05	30.00	PASS
Middle	5788.0	508.159	27.06	30.00	PASS
High	5841.0	503.501	27.02	30.00	PASS

MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	D
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
Low	5736.5	505.825	27.04	30.00	PASS
Middle	5788.0	504.661	27.03	30.00	PASS
High	5838.5	510.505	27.08	30.00	PASS



MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	Е
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
Low	5729.0	405.509	26.08	30.00	PASS
Middle	5788.0	401.791	26.04	30.00	PASS
High	5846.0	403.645	26.06	30.00	PASS

MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	F
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
Low	5732.5	403.645	26.06	30.00	PASS
Middle	5788.0	404.576	26.07	30.00	PASS
High	5842.5	401.791	26.04	30.00	PASS



MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	G
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
Low	5734.0	402.717	26.05	30.00	PASS
Middle	5788.0	404.576	26.07	30.00	PASS
High	5841.0	400.867	26.03	30.00	PASS

MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	Н
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS / FAIL
Low	5736.5	403.645	26.06	30.00	PASS
Middle	5788.0	401.791	26.04	30.00	PASS
High	5838.5	404.576	26.07	30.00	PASS



#### 4.5 POWER SPECTRAL DENSITY MEASUREMENT

#### 4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

## 4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

#### 4.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

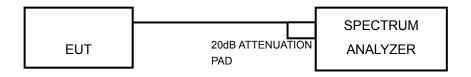
The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.



# 4.5.4 DEVIATION FROM TEST STANDARD

No deviation

# 4.5.5 TEST SETUP



# 4.5.6 EUT OPERATING CONDITION

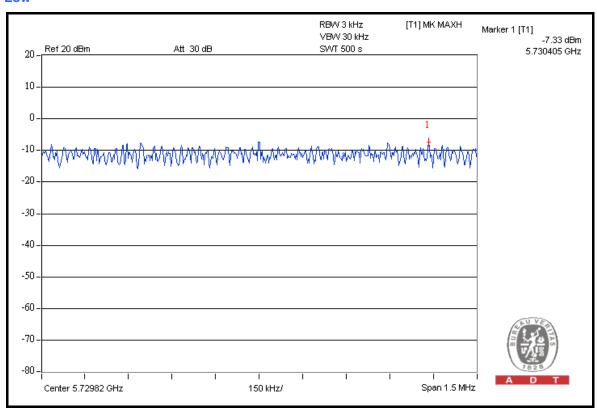
Same as Item 5.3.6



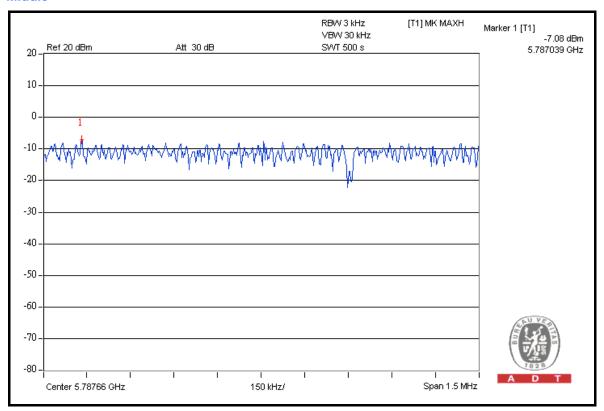
# 4.5.7 TEST RESULTS

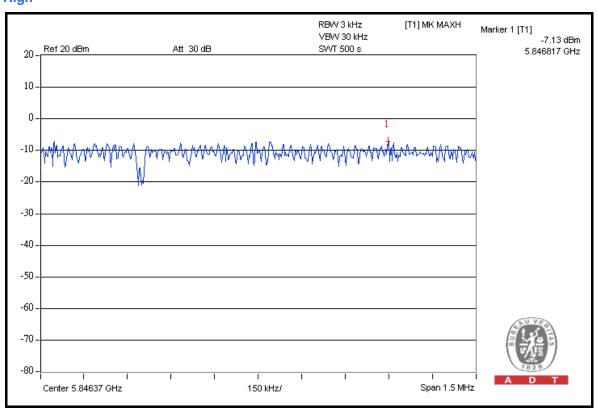
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	А
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz )	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
Low	5729	-7.33	8	PASS
Middle	5788	-7.08	8	PASS
High	5846	-7.13	8	PASS





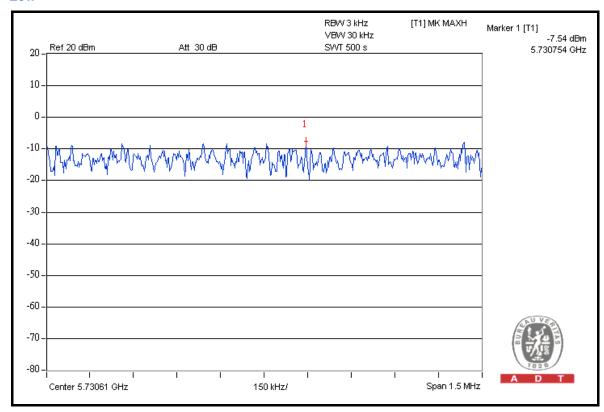




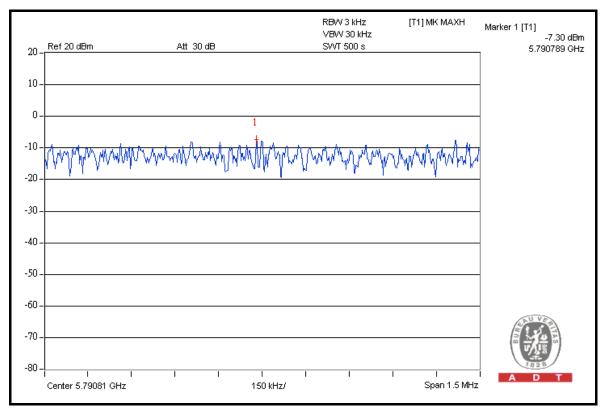


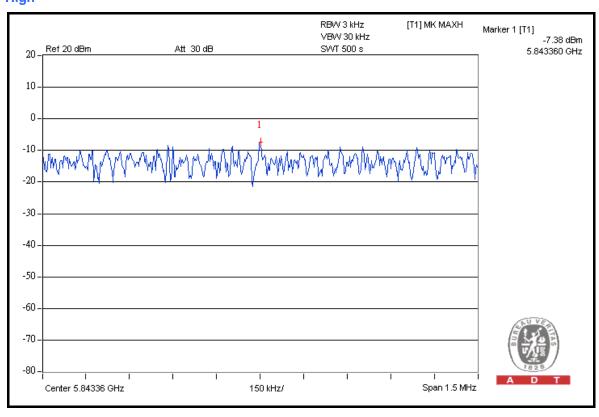
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	В
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
Low	5732.5	-7.54	8	PASS
Middle	5788.0	-7.30	8	PASS
High	5842.5	-7.38	8	PASS





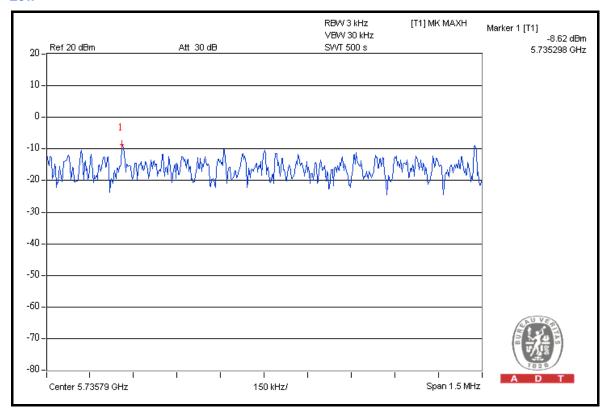




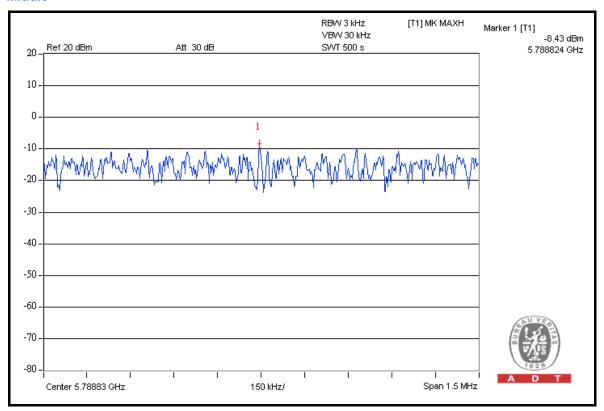


MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	С
TESTED BY	Brad Wu		

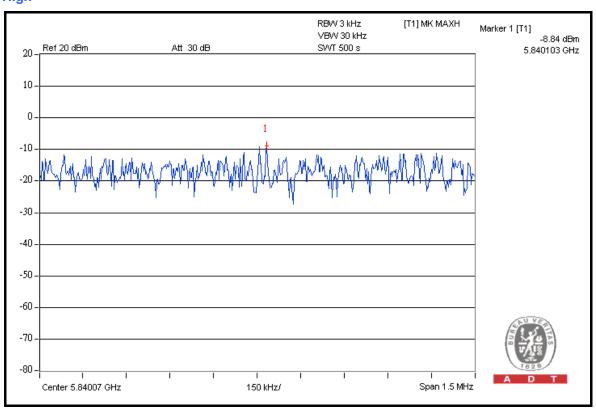
CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
Low	5734.0	-8.62	8	PASS
Middle	5788.0	-8.43	8	PASS
High	5841.0	-8.84	8	PASS







## High

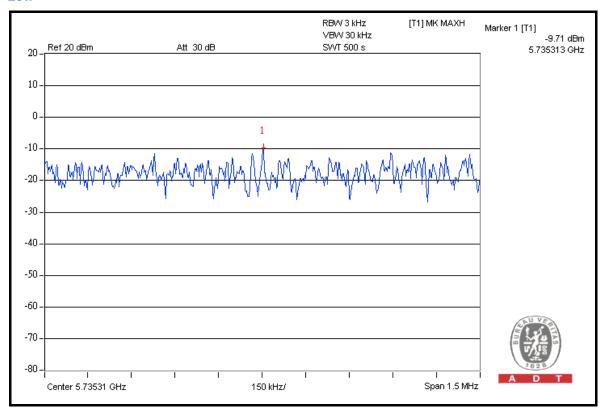


97

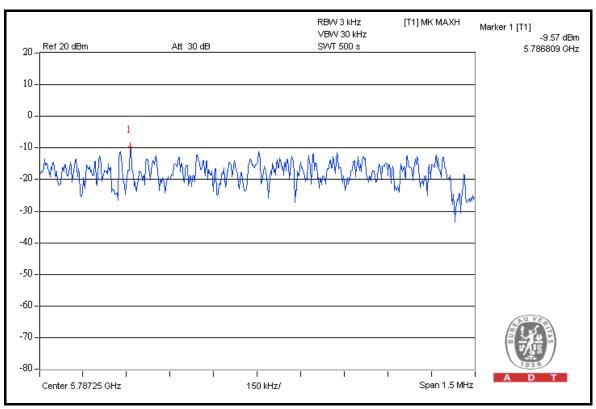


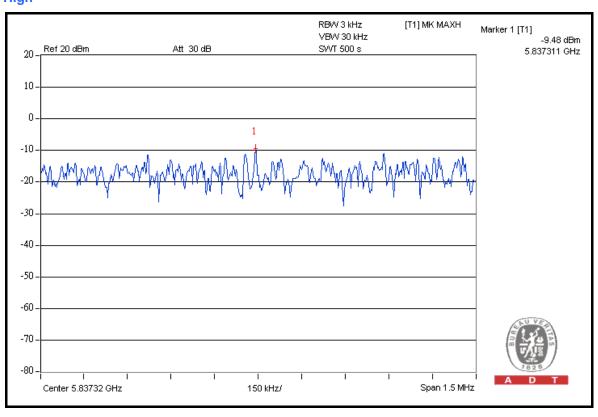
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	D
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
Low	5736.5	-9.71	8	PASS
Middle	5788.0	-9.57	8	PASS
High	5838.5	-9.48	8	PASS





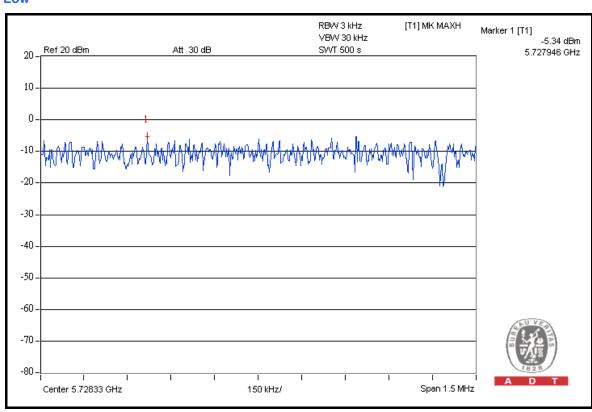




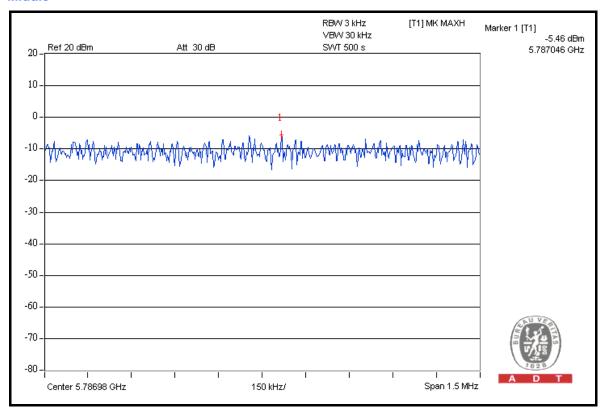


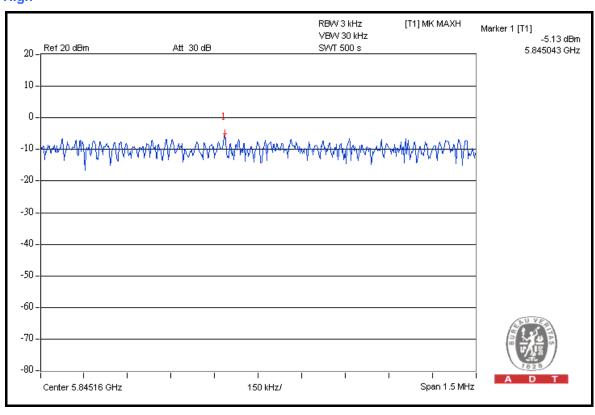
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	E
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
Low	5729	-5.34	8	PASS
Middle	5788	-5.46	8	PASS
High	5846	-5.13	8	PASS





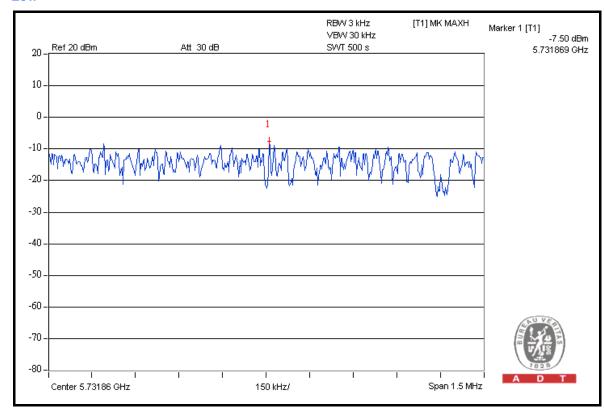




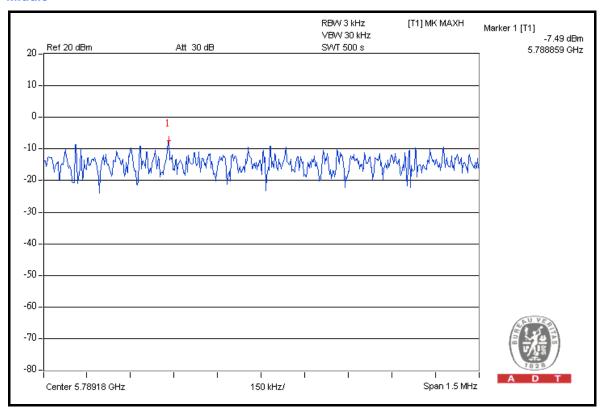


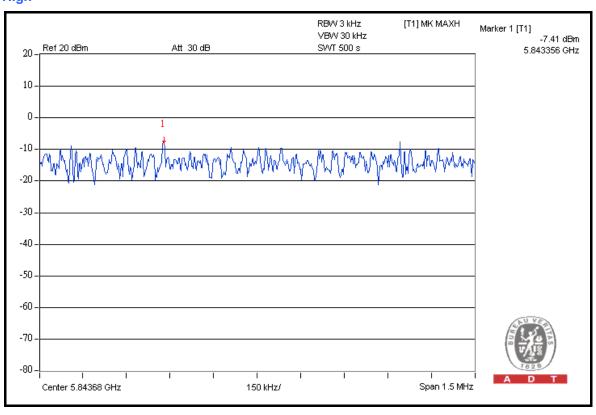
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	F
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
Low	5732.5	-7.50	8	PASS
Middle	5788.0	-7.49	8	PASS
High	5842.5	-7.41	8	PASS





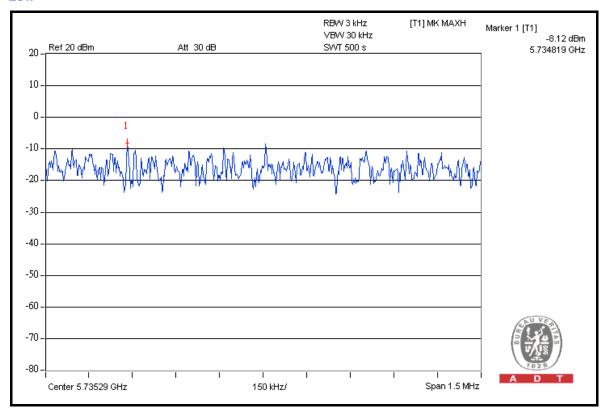




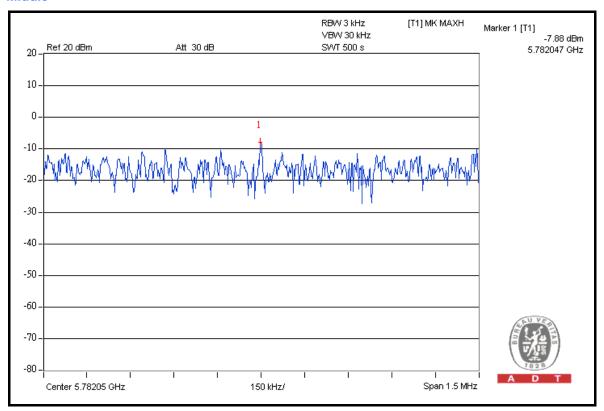


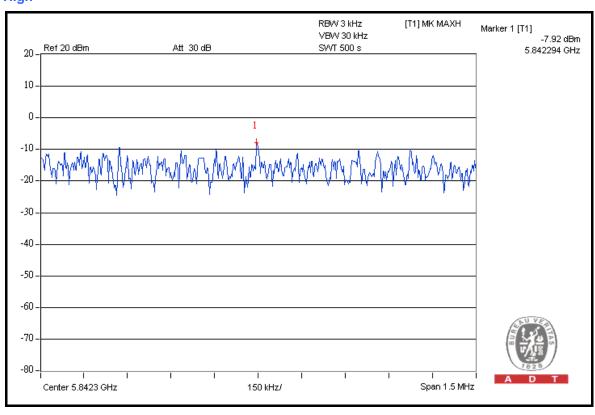
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	G
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
Low	5734.0	-8.12	8	PASS
Middle	5788.0	-7.88	8	PASS
High	5841.0	-7.92	8	PASS





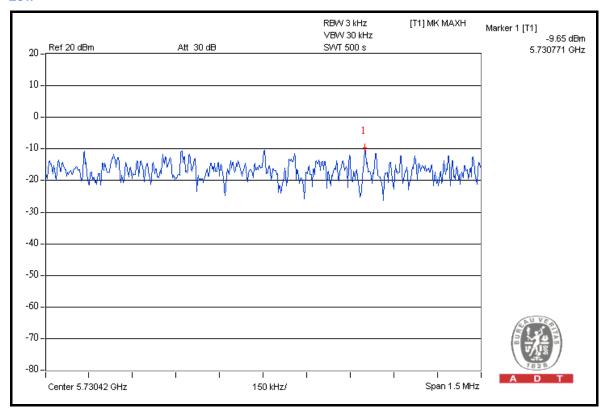




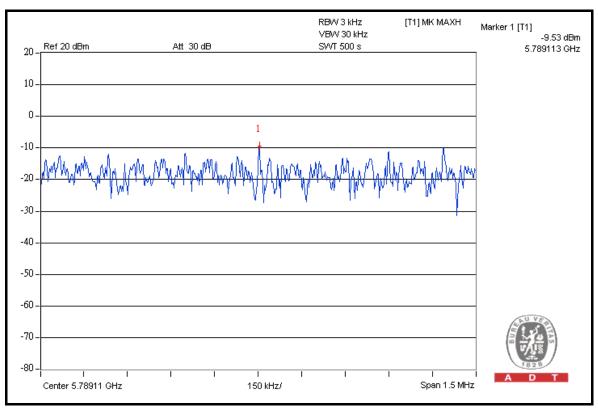


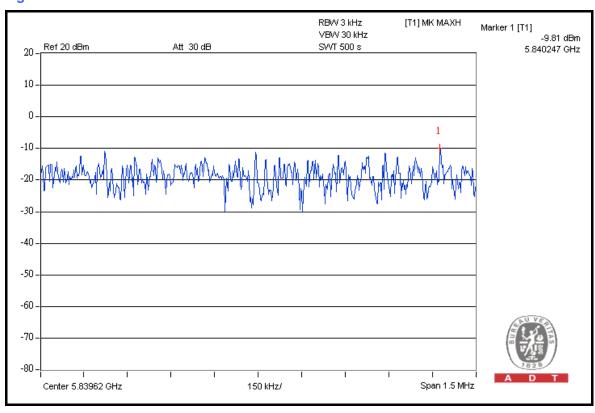
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25 deg.C, 65%RH, 1024hPa
INPUT POWER (SYSTEM)	120Vac, 60Hz	TEST MODE	Н
TESTED BY	Brad Wu		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
Low	5736.5	-9.65	8	PASS
Middle	5788.0	-9.53	8	PASS
High	5838.5	-9.81	8	PASS











#### 4.6 BAND EDGES MEASUREMENT

#### 4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

#### 4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100041	Apr. 22, 2008	Apr. 21, 2009

**NOTE:** The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

#### 4.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100kHz and 300kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW=100kHz, VBW=300kHz; Average RBW=1MHz, VBW= 10Hz are attached on the following pages.



# 4.6.4 DEVIATION FROM TEST STANDARD

No deviation

# 4.6.5 EUT OPERATING CONDITION

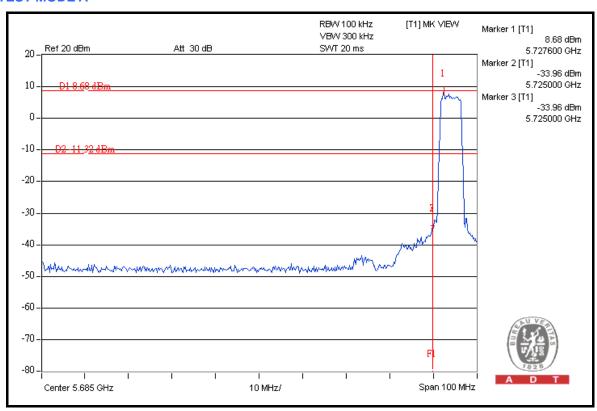
Same as Item 5.3.6

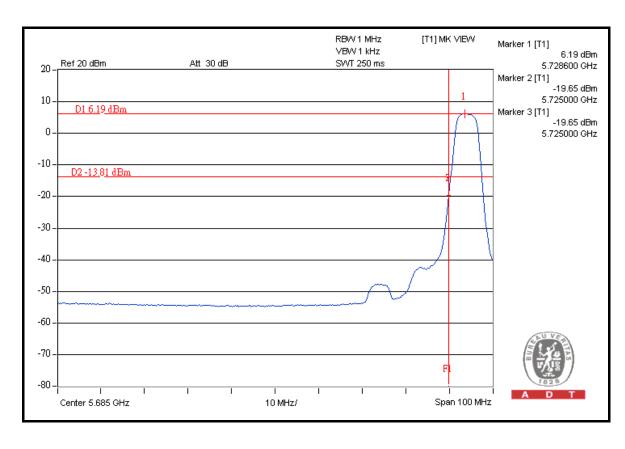
# 4.6.6 TEST RESULTS

The spectrum plots are attached on the following pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).



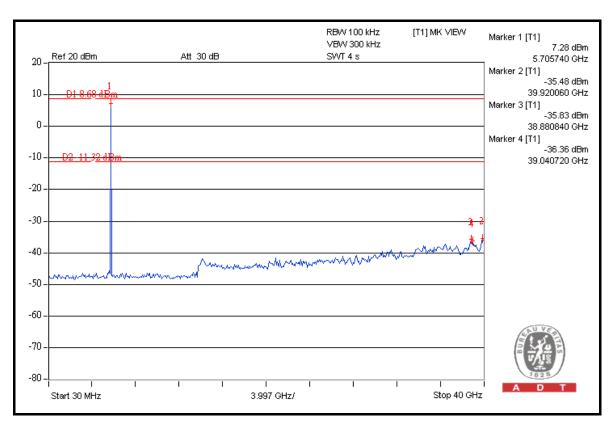
## **TEST MODE A**

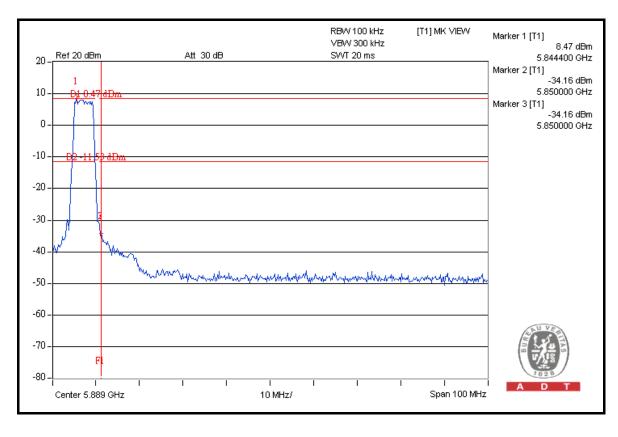




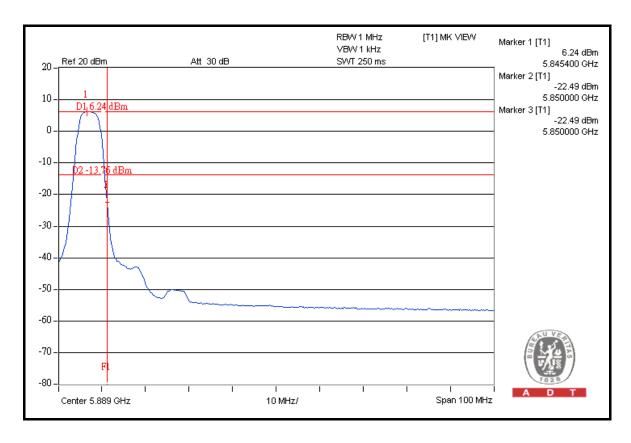
110

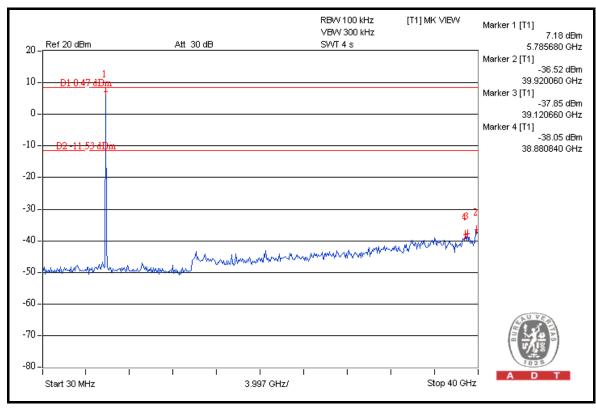






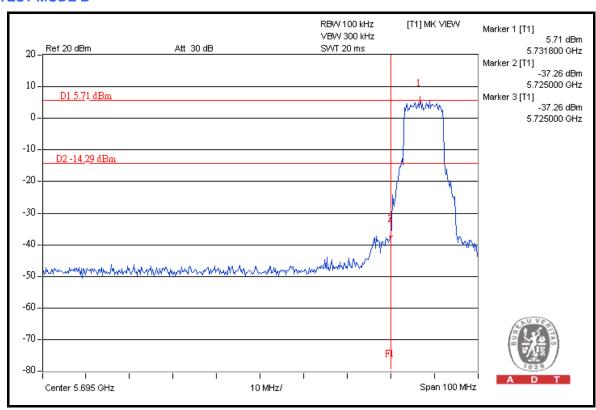


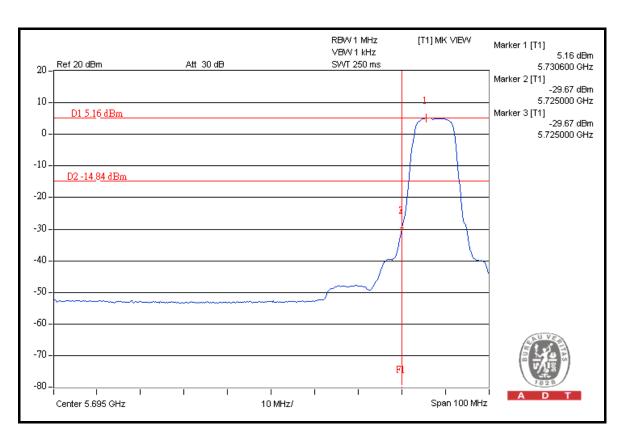




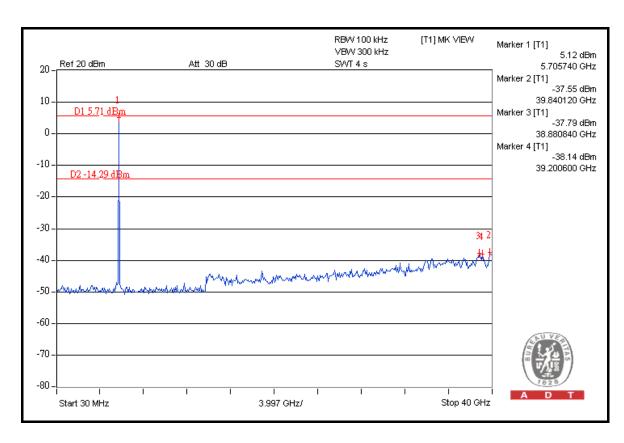


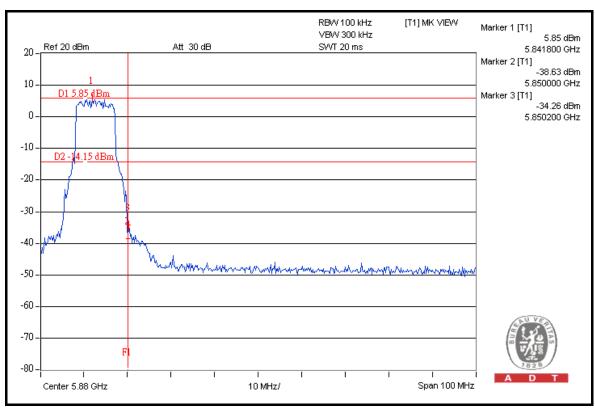
#### **TEST MODE B**



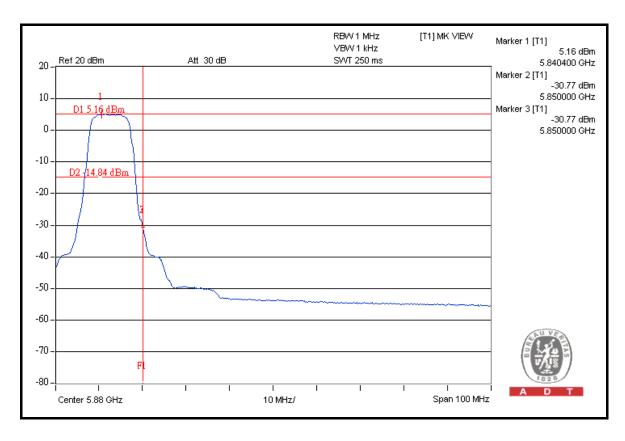


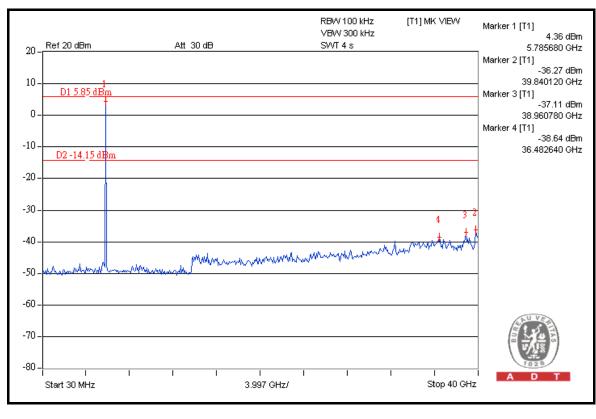






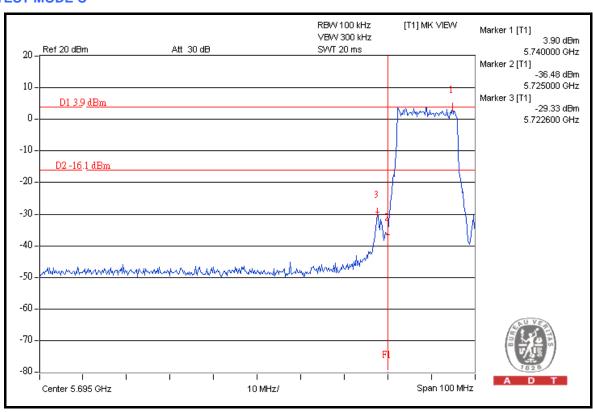


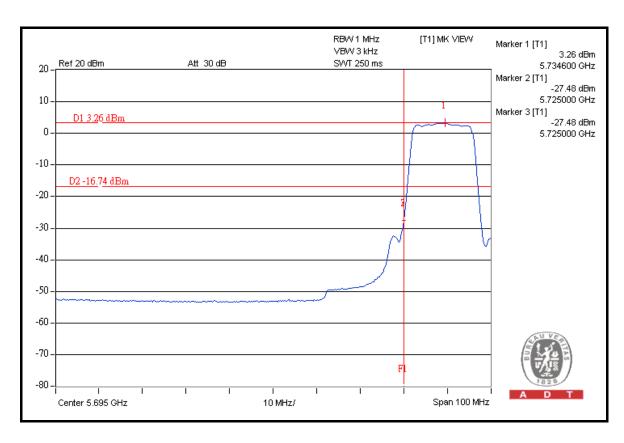




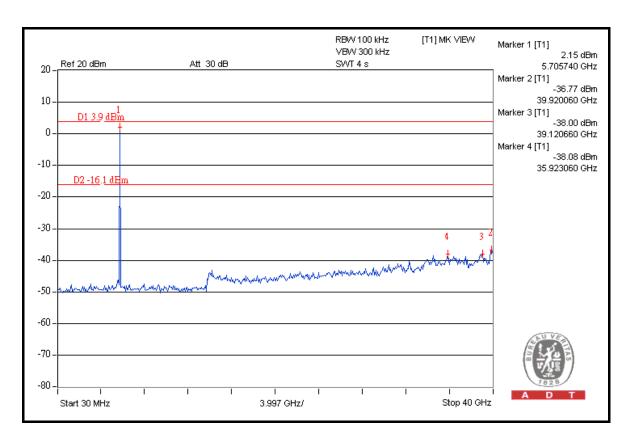


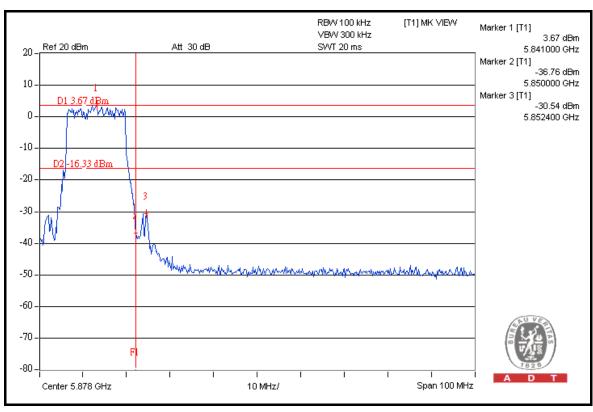
#### **TEST MODE C**



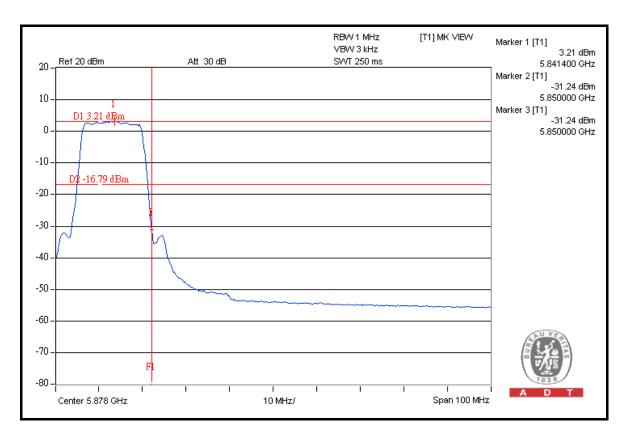


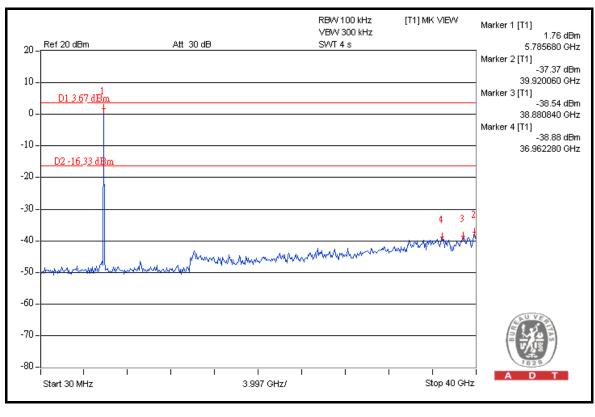






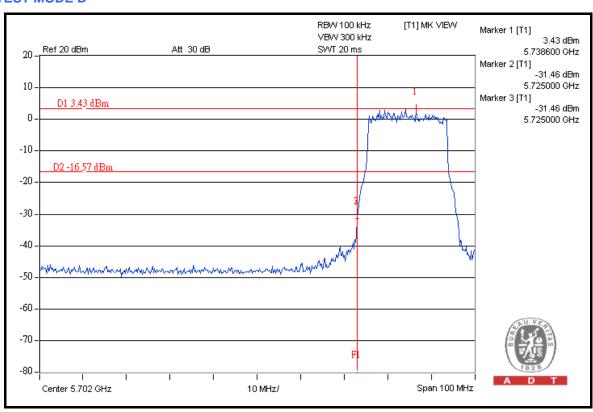


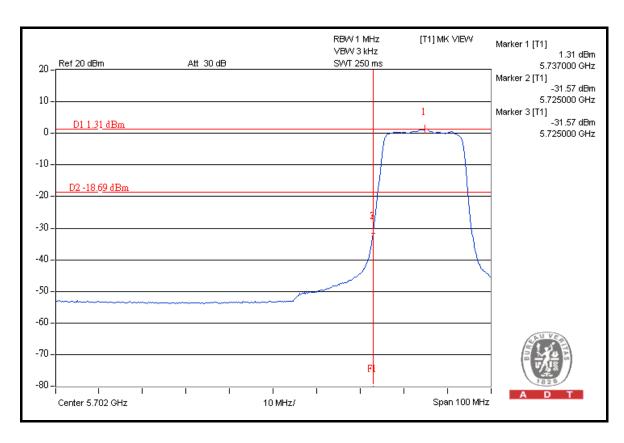




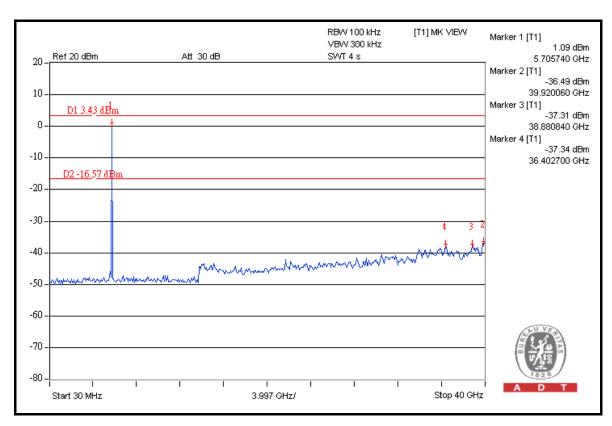


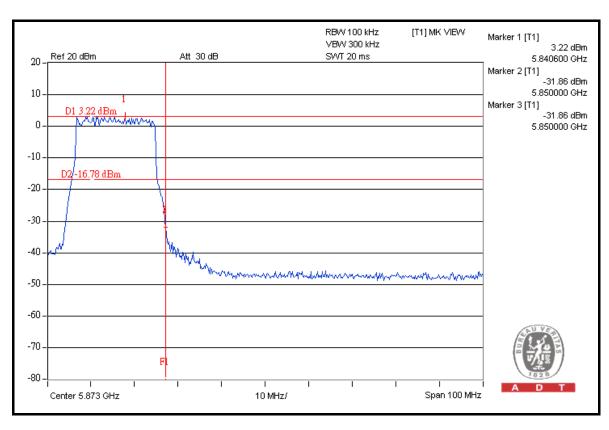
#### **TEST MODE D**



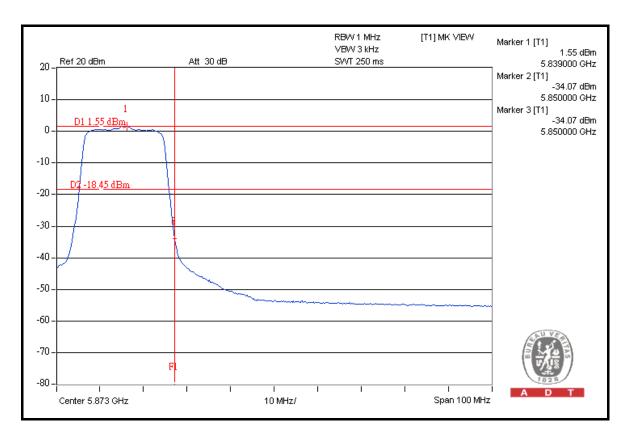


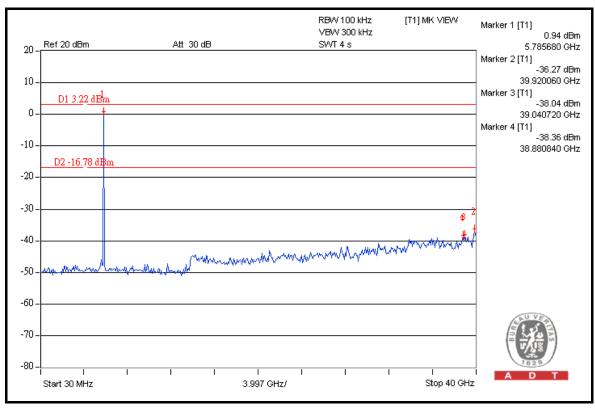






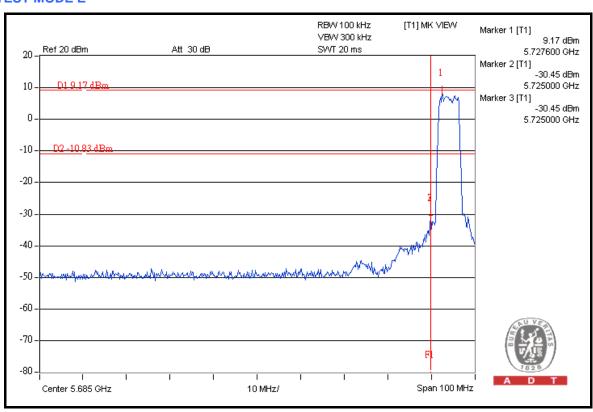


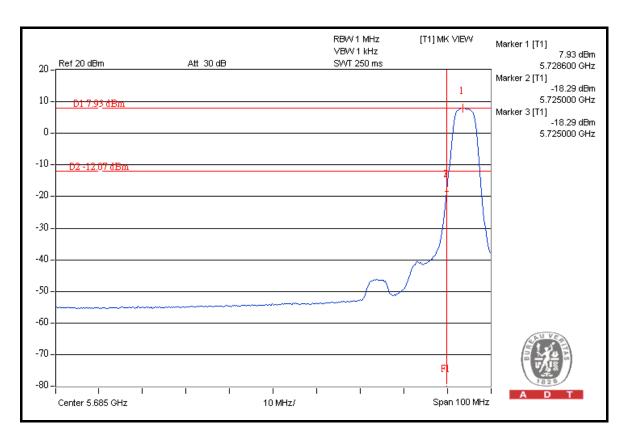




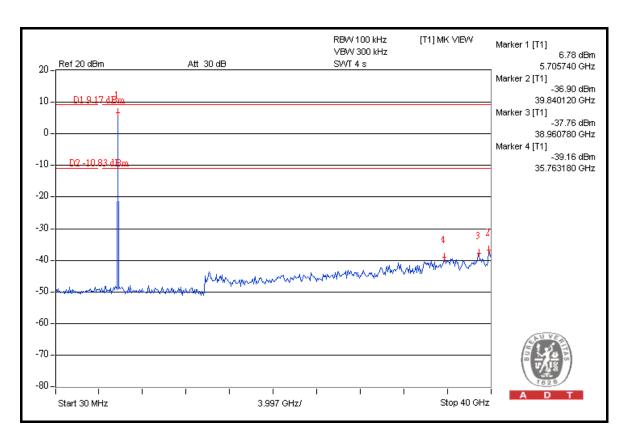


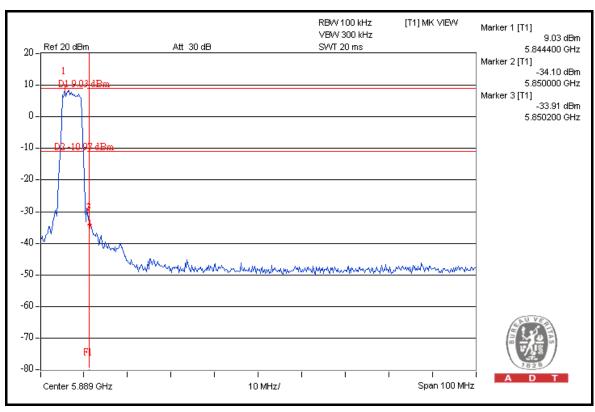
#### **TEST MODE E**



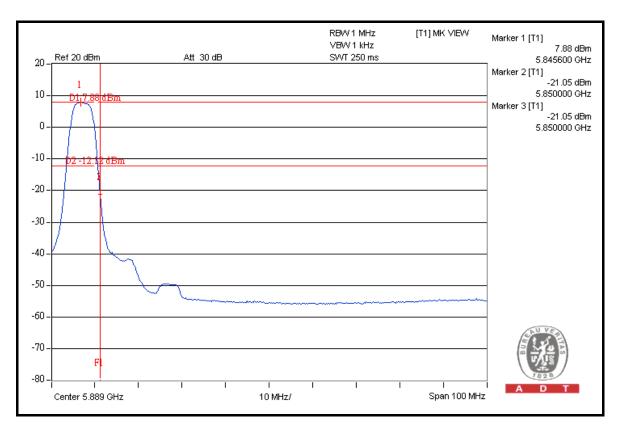


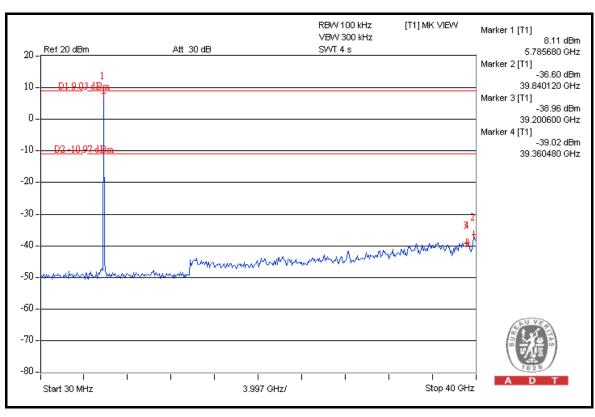






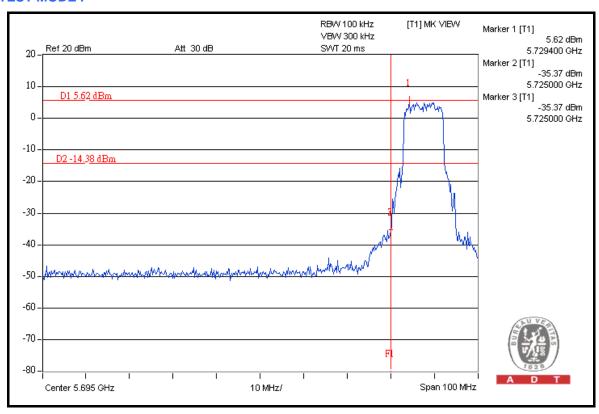


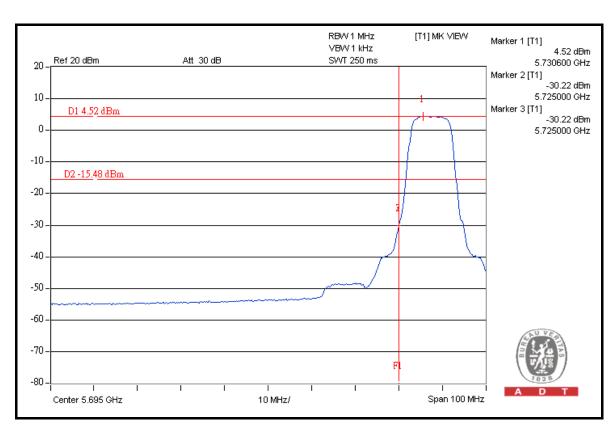




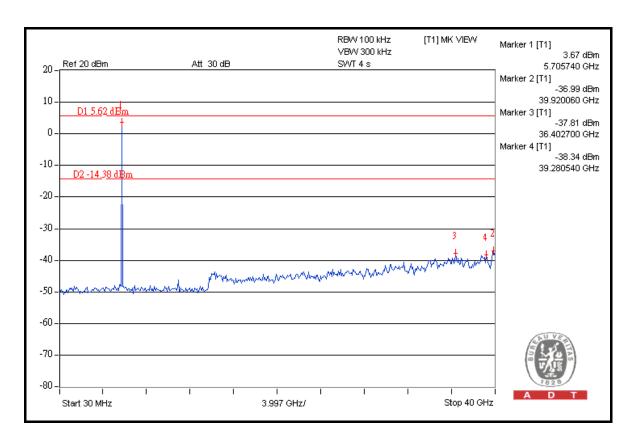


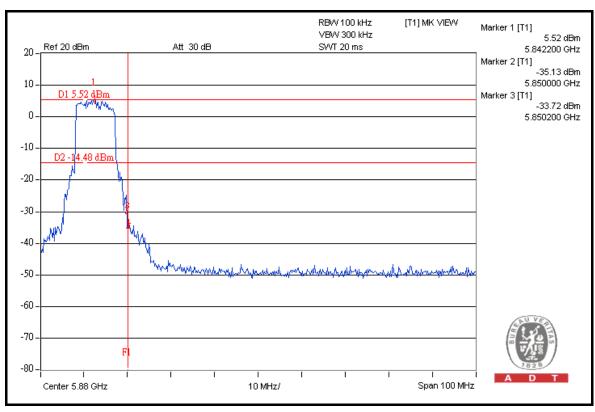
#### **TEST MODE F**



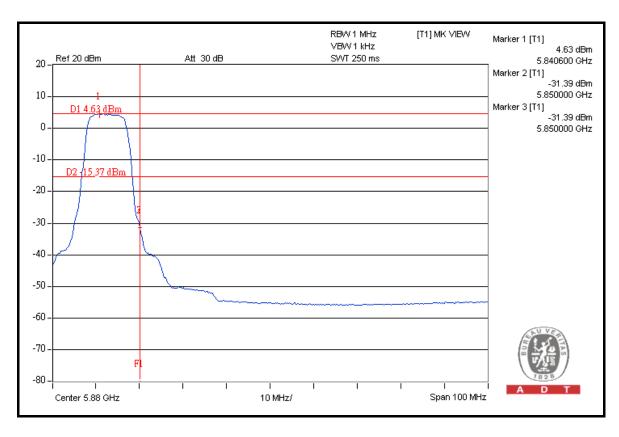


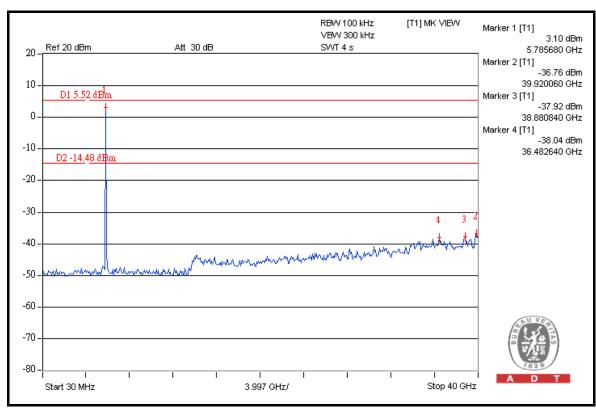






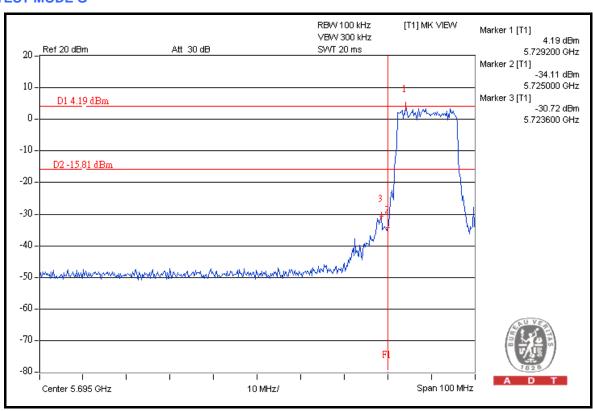


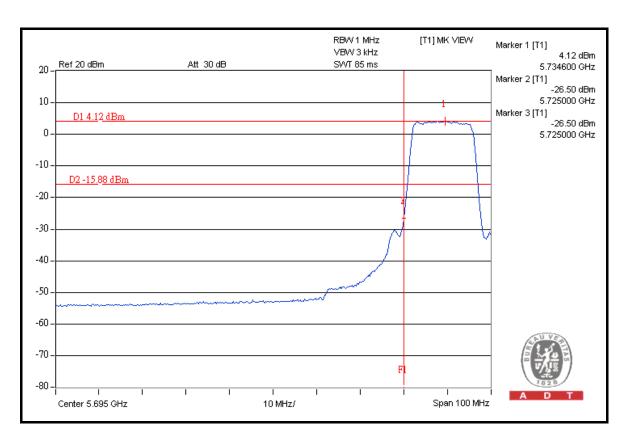




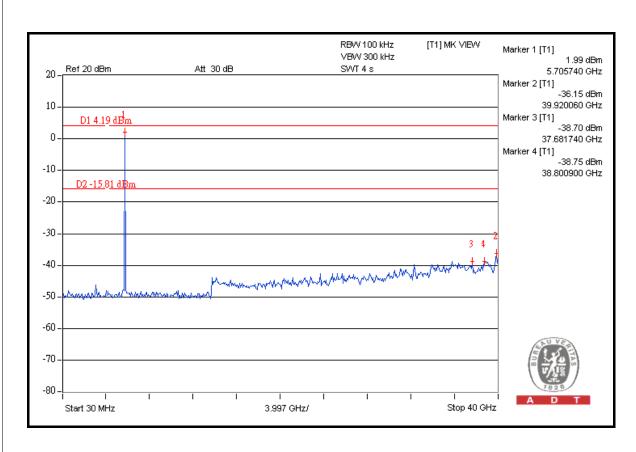


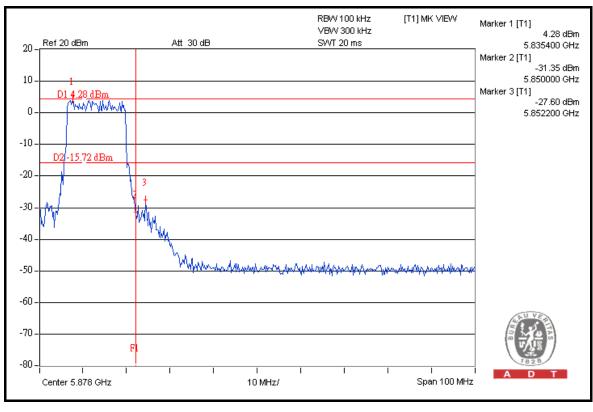
#### **TEST MODE G**



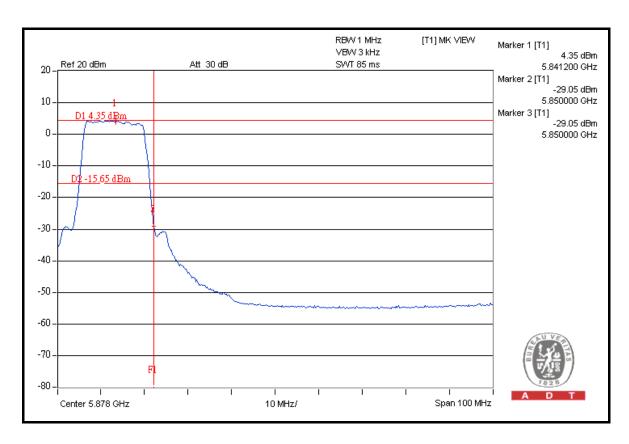


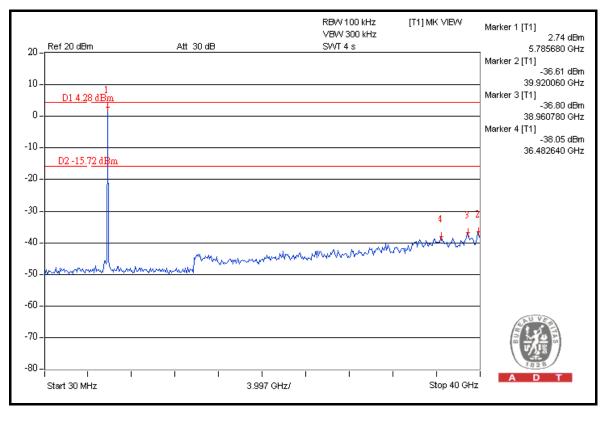






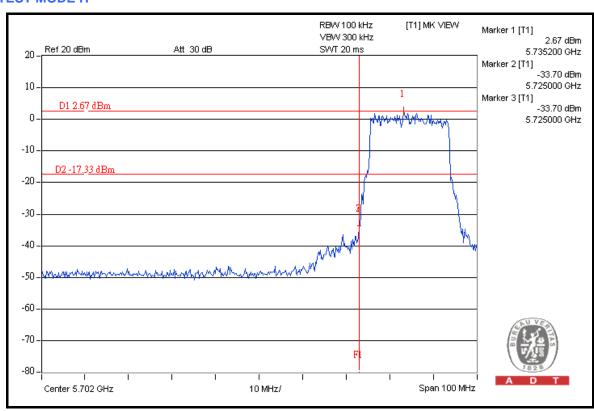


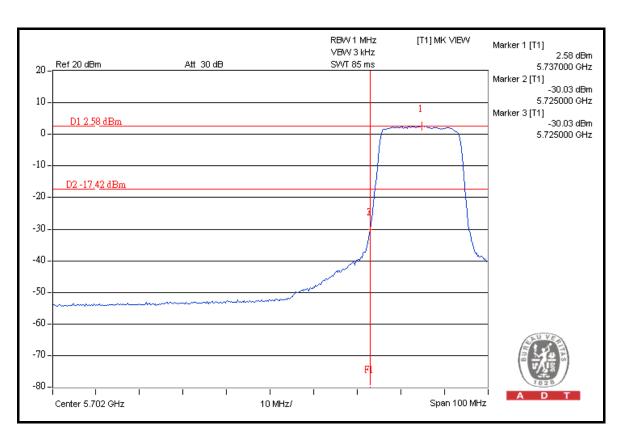




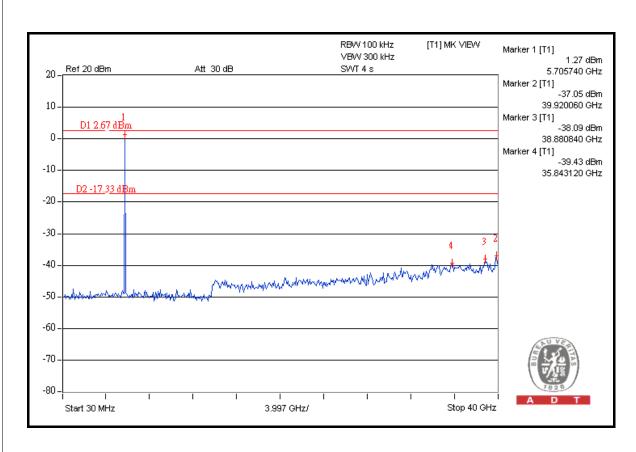


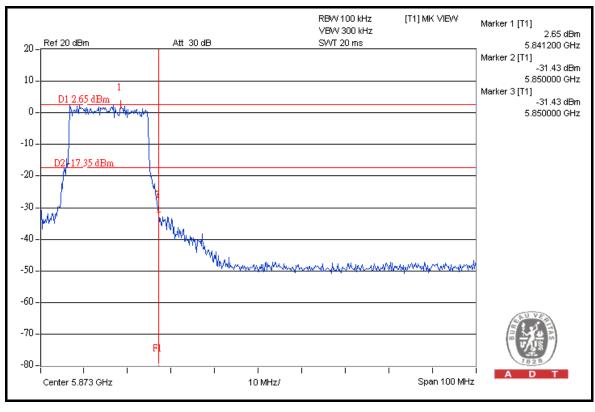
#### **TEST MODE H**



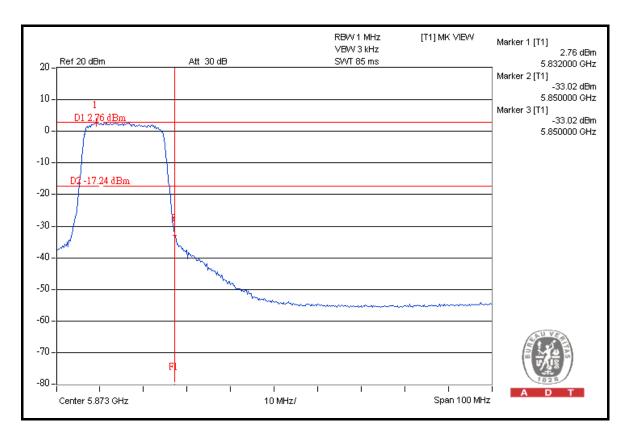


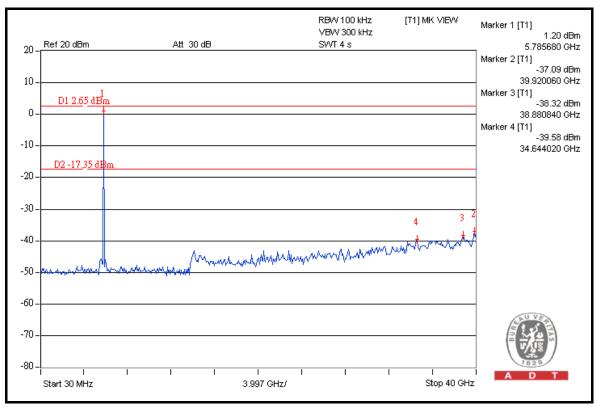














## 4.7 ANTENNA REQUIREMENT

## 4.7.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247(a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

## 4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antennas used in this product are Sector antenna with N-Female connector and Array antenna with MCX connector. The maximum Gain of the antenna is 17.5dBi.



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 by the following approval agencies according to ISO/IEC 17025.

USA FCC, NVLAP
Germany TUV Rheinland

Japan VCCI Norway NEMKO

Canada INDUSTRY CANADA, CSA

**R.O.C.** TAF, BSMI, NCC

**Netherlands** Telefication

Singapore GOST-ASIA(MOU)

Russia CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: <a href="https://www.adt.com.tw/index.5/phtml">www.adt.com.tw/index.5/phtml</a>. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:Hsin Chu EMC/RF Lab:Tel: 886-2-26052180Tel: 886-3-5935343Fax: 886-2-26051924Fax: 886-3-5935342

# Hwa Ya EMC/RF/Safety Telecom Lab:

Tel: 886-3-3183232 Fax: 886-3-3185050

Web Site: www.adt.com.tw

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 any modifications are made to the EUT by the lab during the test.

---END---