FCC TEST REPORT

REPORT NO.: RF941115L09

MODEL NO.: TR-6000

RECEIVED: Nov. 15, 2005

TESTED: Nov. 23, 2005 ~ Feb. 13, 2006

ISSUED: Feb. 15, 2006

APPLICANT: JEBSEE ELECTRONICS CO., LTD.

ADDRESS: 24-3, Sin-Lo Road, P.O. Box 57, Tainan Taiwan, R.O.C.

ISSUED BY: Advance Data Technology Corporation

LAB ADDRESS: 47 14th Lin, Chiapau Tsun, Linko, Taipei, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd., Kueishan, Taoyuan, Taiwan, R.O.C.

ACCREDITED
No. 2177-01

0528

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1 CERTIFICATION

PRODUCT :	2.4GHz Wireless AUDIO SENDER
MODEL NO.:	TR-6000
BRAND:	JEBSEE
APPLICANT :	JEBSEE ELECTRONICS CO., LTD.
TESTED:	Nov. 23, 2005 ~ Feb. 13, 2006
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS :	FCC Part 15, Subpart C (Section 15.247), ANSI C63.4-2003

The above equipment have been tested by **Advance Data Technology Corporation**, 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 : Jessie Wang , **DATE:** Feb. 15, 2006
Jessie Wang

TECHNICAL ACCEPTANCE : Long Chen , **DATE:** Feb. 15, 2006
Responsible for RF
Long Chen

APPROVED BY : Gary Chang , **DATE:** Feb. 15, 2006
Gary Chang / Supervisor

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
Standard Section	**Test Type and Limit**	**Result**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –17.69dB at 0.158MHz.
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)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is –1.29dB at 4946.00MHz.
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20 dB 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:

Measurement	Frequency	Uncertainty
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.73 dB
	200MHz ~1000MHz	3.74 dB
	1GHz ~ 18GHz	2.20 dB
	18GHz ~ 40GHz	1.88 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	2.4GHz Wireless AUDIO SENDER
MODEL NO.	TR-6000
FCC ID	DT9TR-6000
POWER SUPPLY	5Vdc from host equipment
MODULATION TYPE	FSK
FREQUENCY RANGE	2410MHz~2473MHz
NUMBER OF CHANNEL	8
MAXIMUM OUTPUT POWER	8.204mW
ANTENNA TYPE	Inverted-F antenna with 0dBi gain
I/O PORTS	USB
DATA CABLE	NA
ASSOCIATED DEVICES	NA

NOTE:

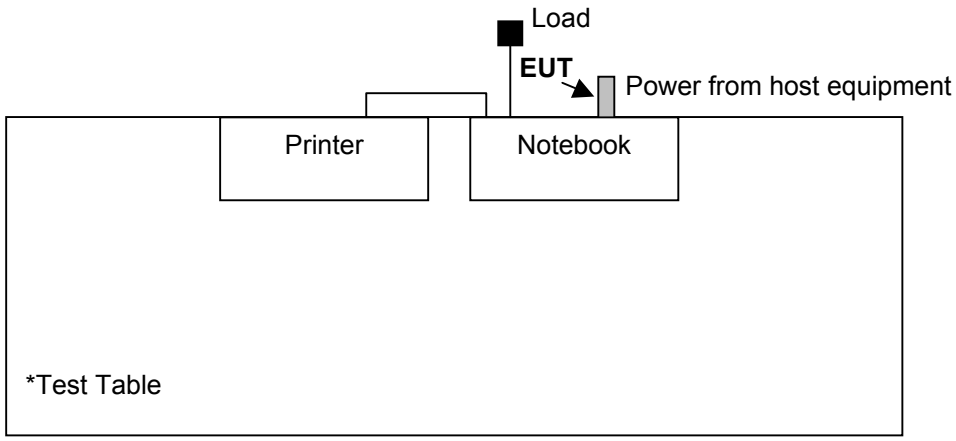
1. The EUT is the transmitter part of 2.4GHz Wireless AUDIO SENDER.
2. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

8 channels for 2.4GHz were provided to the EUT.

Channel	Frequency	Channel	Frequency
1	2410 MHz	5	2446 MHz
2	2419 MHz	6	2455 MHz
3	2428 MHz	7	2464 MHz
4	2437 MHz	8	2473 MHz

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT configure mode	Applicable to				Description
	PLC	RE<1G	RE≥1G	APCM	
-	√	√	√	√	-

Where **PLC:** Power Line Conducted Emission **RE<1G:** Radiated Emission below 1GHz

RE≥1G: Radiated Emission above 1GHz **APCM:** Antenna Port Conducted Measurement

Power Line Conducted Emission Test:

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

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

Available Channel	Tested Channel	Modulation Type
1 to 8	1, 5, 8	FSK

Radiated Emission Test (Below 1 GHz):

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

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

Available Channel	Tested Channel	Modulation Type
1 to 8	8	FSK

Radiated Emission Test (Above 1 GHz):

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

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

Available Channel	Tested Channel	Modulation Type
1 to 8	1, 5, 8	FSK

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.

Available Channel	Tested Channel	Modulation Type
1 to 8	1, 8	FSK

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.

Available Channel	Tested Channel	Modulation Type
1 to 8	1, 5, 8	FSK

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	Compaq	N800C	470048-515	FCC DoC Approved
2	PRINTER	EPSON	LQ-300+	DCGY047265	FCC DoC Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.2m shielded cable

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

4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

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

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 11, 2006
RF signal cable Woken	5D-FB	Cable-HYC01-01	Jan. 06, 2007
LISN SCHWARZBECK	NNBL 8226-2	8226-142	May 02, 2006
LISN ROHDE & SCHWARZ	ESH2-Z5	100104	Feb. 07, 2007
Software ADT	ADT_Cond_V3	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.

4.1.3 TEST PROCEDURES

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

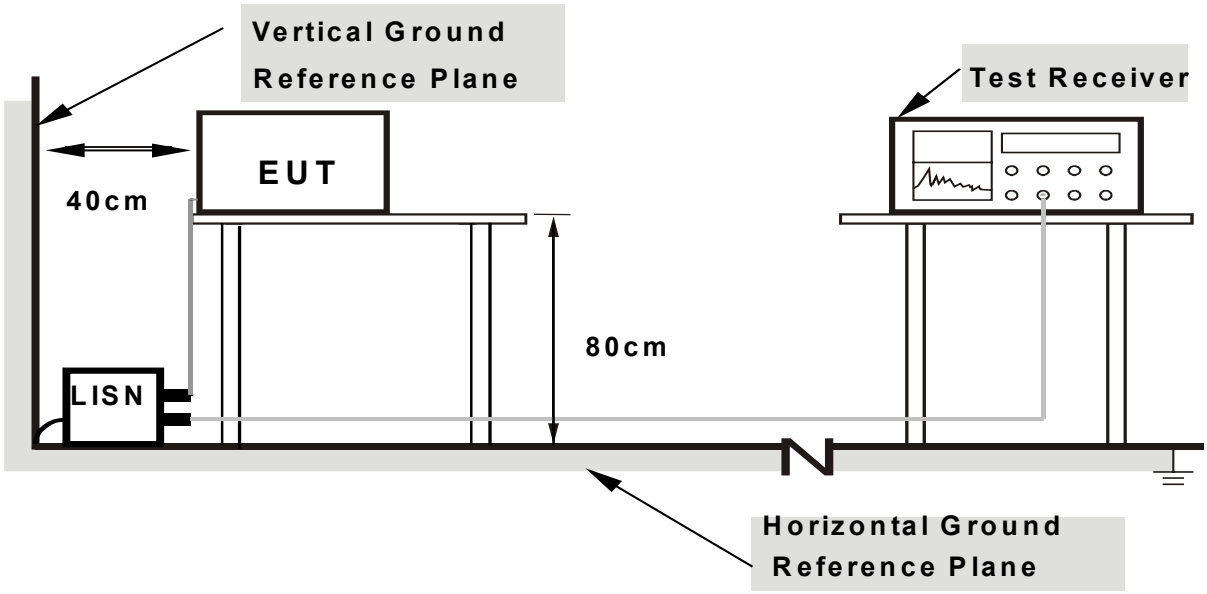
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission levels under Limit - 20dB was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.1.6 EUT OPERATING CONDITIONS

a. Plugged the EUT to a notebook system and placed on a testing table.
b. The notebook system ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
c. The notebook system sent "H" messages to its screen.
d. The notebook system sent "H" messages to printer, and the printer printed them on paper.
e. Steps c ~ d were repeated.

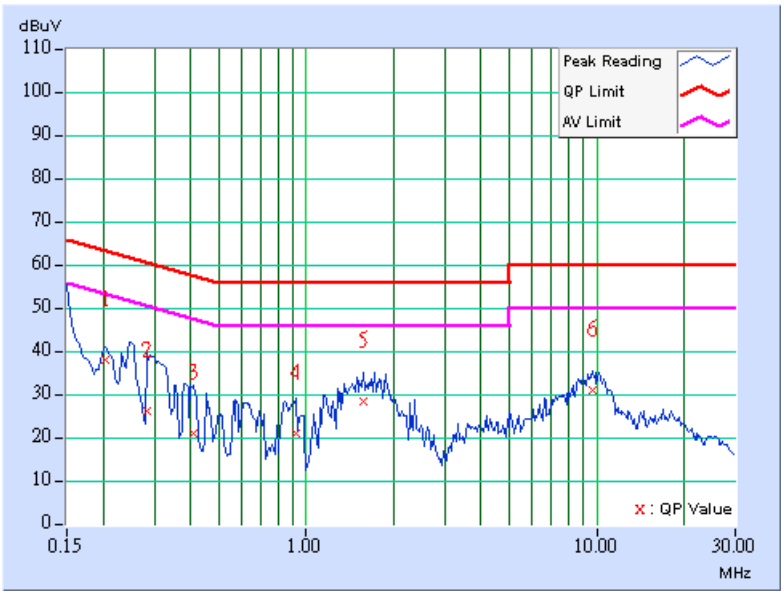
4.1.7 TEST RESULTS

CONDUCTED WORST-CASE DATA

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**PHASE**	Line 1
MODULATION TYPE	FSK	**6dB BANDWIDTH**	9 kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Lori Chiu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.205	0.10	37.56	-	37.66	-	63.42	53.42	-25.76	-
2	0.283	0.10	25.64	-	25.74	-	60.73	50.73	-34.99	-
3	0.412	0.10	20.56	-	20.66	-	57.61	47.61	-36.95	-
4	0.920	0.10	20.43	-	20.53	-	56.00	46.00	-35.47	-
5	1.566	0.16	27.89	-	28.05	-	56.00	46.00	-27.95	-
6	9.688	0.64	30.29	-	30.93	-	60.00	50.00	-29.07	-

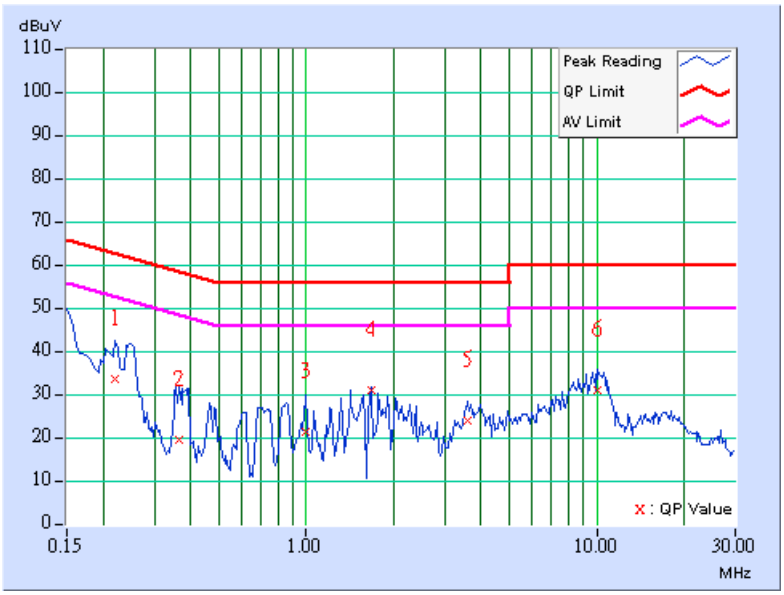
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	PHASE	Line 2
MODULATION TYPE	FSK	6dB BANDWIDTH	9 kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Lori Chiu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.220	0.10	33.39	-	33.49	-	62.81	52.81	-29.32	-
2	0.365	0.10	19.20	-	19.30	-	58.62	48.62	-39.32	-
3	0.998	0.10	21.06	-	21.16	-	56.00	46.00	-34.84	-
4	1.668	0.10	30.58	-	30.68	-	56.00	46.00	-25.32	-
5	3.582	0.31	23.51	-	23.82	-	56.00	46.00	-32.18	-
6	10.035	0.46	30.54	-	31.00	-	60.00	50.00	-29.00	-

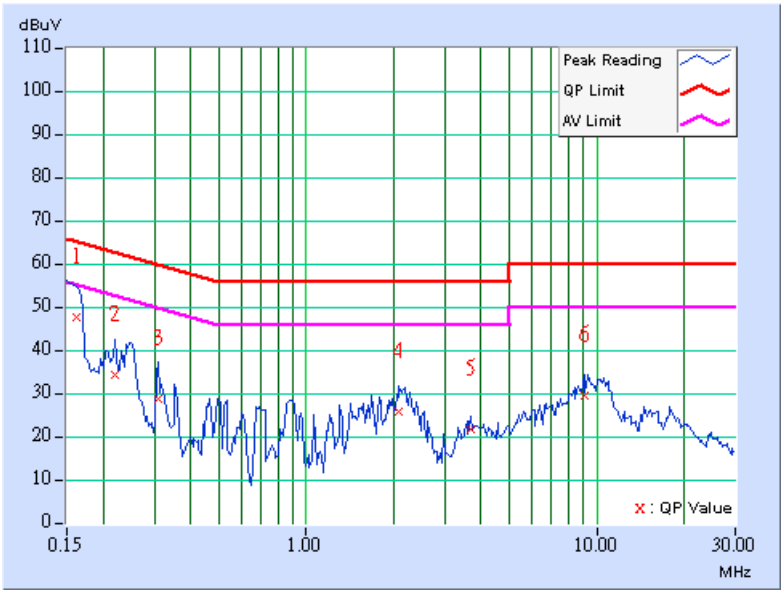
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	PHASE	Line 1
MODULATION TYPE	FSK	6dB BANDWIDTH	9 kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Lori Chiu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.10	47.28	-	47.38	-	65.38	55.38	-18.00	-
2	0.220	0.10	33.89	-	33.99	-	62.81	52.81	-28.82	-
3	0.310	0.10	28.16	-	28.26	-	59.97	49.97	-31.71	-
4	2.094	0.21	25.29	-	25.50	-	56.00	46.00	-30.50	-
5	3.680	0.34	21.06	-	21.40	-	56.00	46.00	-34.60	-
6	9.031	0.61	28.94	-	29.55	-	60.00	50.00	-30.45	-

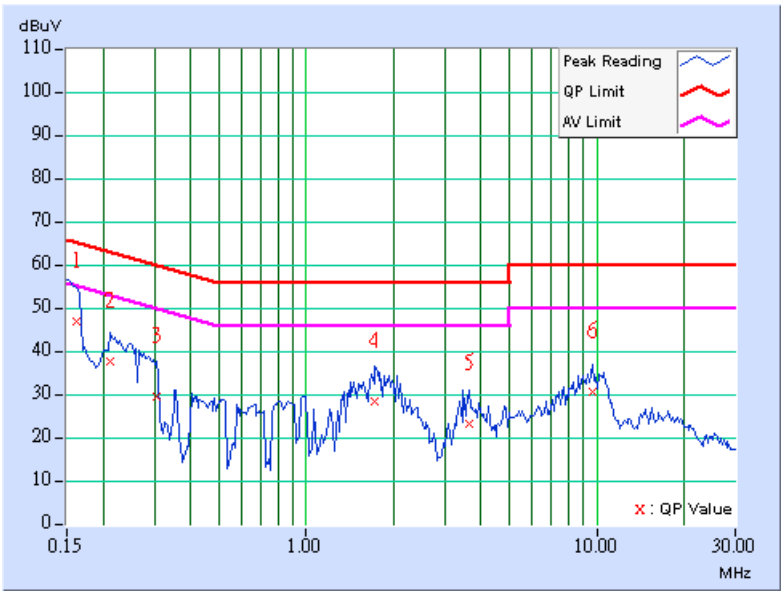
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	PHASE	Line 2
MODULATION TYPE	FSK	6dB BANDWIDTH	9 kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Lori Chiu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.10	46.70	-	46.80	-	65.38	55.38	-18.58	-
2	0.213	0.10	37.27	-	37.37	-	63.11	53.11	-25.74	-
3	0.306	0.10	29.17	-	29.27	-	60.07	50.07	-30.80	-
4	1.730	0.10	27.92	-	28.02	-	56.00	46.00	-27.98	-
5	3.637	0.32	23.02	-	23.34	-	56.00	46.00	-32.66	-
6	9.730	0.46	30.11	-	30.57	-	60.00	50.00	-29.43	-

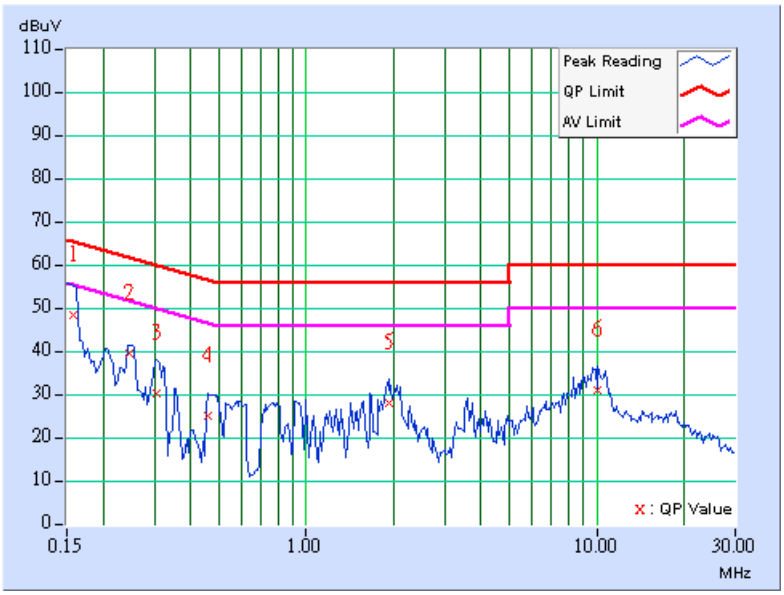
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	**PHASE**	Line 1
MODULATION TYPE	FSK	**6dB BANDWIDTH**	9 kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Lori Chiu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.158**	**0.10**	**47.79**	**-**	**47.89**	**-**	**65.58**	**55.58**	**-17.69**	**-**
2	0.248	0.10	39.02	-	39.12	-	61.84	51.84	-22.72	-
3	0.306	0.10	29.79	-	29.89	-	60.07	50.07	-30.18	-
4	0.459	0.10	24.47	-	24.57	-	56.72	46.72	-32.15	-
5	1.934	0.19	27.32	-	27.51	-	56.00	46.00	-28.49	-
6	10.004	0.66	30.54	-	31.20	-	60.00	50.00	-28.80	-

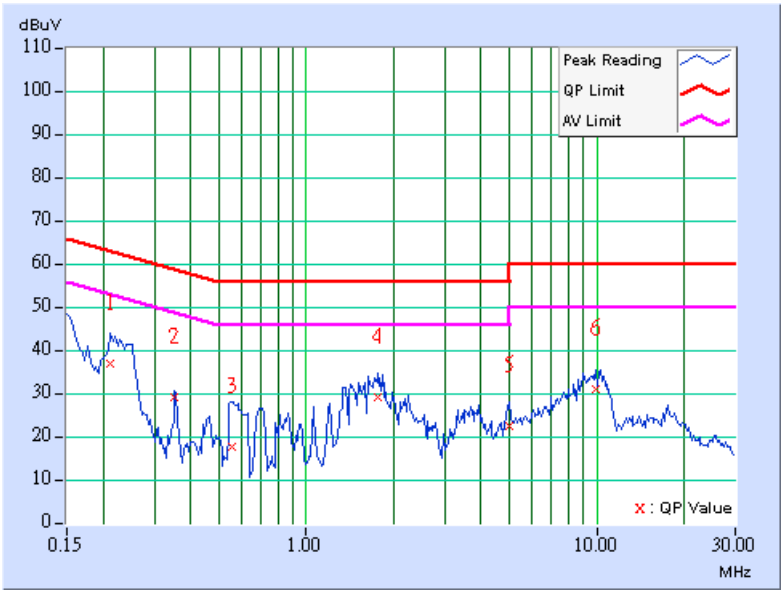
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	PHASE	Line 2
MODULATION TYPE	FSK	6dB BANDWIDTH	9 kHz
ENVIRONMENTAL CONDITIONS	20deg. C, 60%RH, 991hPa	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Lori Chiu		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.213	0.10	36.57	-	36.67	-	63.11	53.11	-26.44	-
2	0.353	0.10	28.91	-	29.01	-	58.89	48.89	-29.88	-
3	0.556	0.10	17.15	-	17.25	-	56.00	46.00	-38.75	-
4	1.770	0.10	28.93	-	29.03	-	56.00	46.00	-26.97	-
5	4.980	0.38	22.07	-	22.45	-	56.00	46.00	-33.55	-
6	9.879	0.46	30.59	-	31.05	-	60.00	50.00	-28.95	-

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.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 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.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 20, 2006
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Nov. 27, 2006
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Jan. 15, 2007
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Jan. 22, 2007
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170147	Jan. 26, 2007
Preamplifier Agilent	8449B	3008A01961	Oct. 23, 2006
Preamplifier Agilent	8447D	2944A10629	Oct. 27, 2006
RF signal cable HUBER+SUHNER	SUCOFLEX 104	214380/4	Jan. 16, 2007
RF signal cable HUBER+SUHNER	SUCOFLEX 104	219266/4	Jan. 16, 2007
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	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 1.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The IC Site Registration No. is IC4924-2.

4.2.3 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.

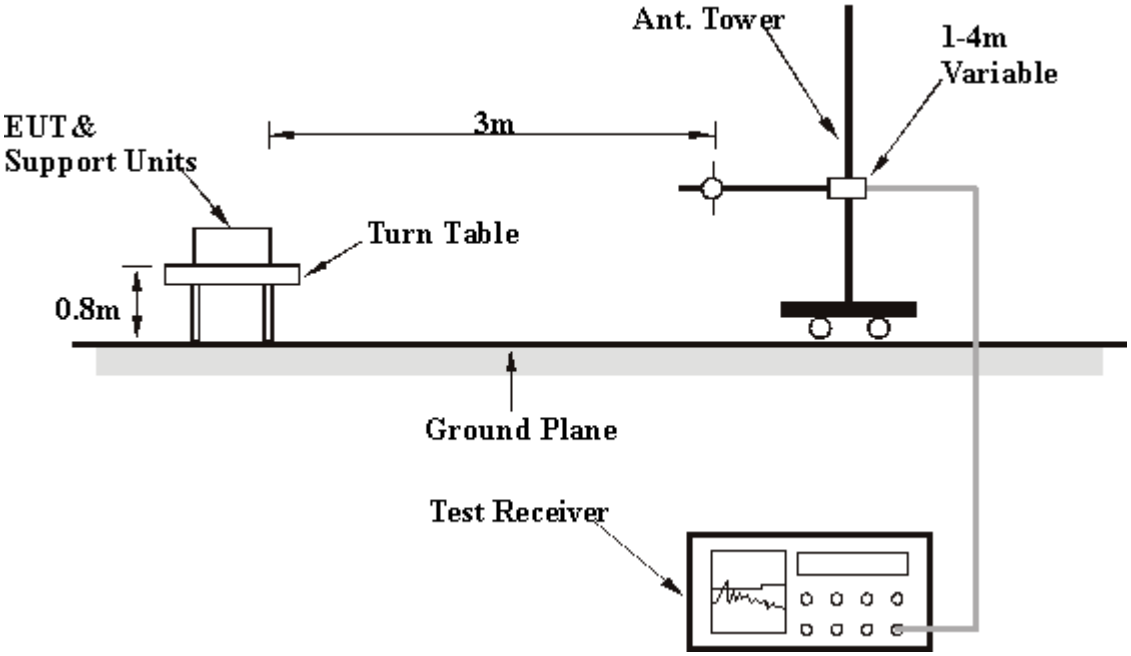
NOTE:

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS

RADIATED WORST-CASE DATA: BELOW 1GHz

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	**FREQUENCY RANGE**	Below 1000MHz
MODULATION TYPE	FSK	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 70%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Match Tsui		

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	109.70	31.43 QP	43.50	-12.07	1.50 H	28	19.69	11.74
2	158.30	31.51 QP	43.50	-11.99	2.50 H	10	16.89	14.62
3	166.07	30.42 QP	43.50	-13.08	1.00 H	334	16.36	14.07
4	199.12	28.42 QP	43.50	-15.08	1.00 H	334	17.22	11.20
5	424.61	33.59 QP	46.00	-12.41	1.50 H	328	16.32	17.26
6	455.71	31.83 QP	46.00	-14.17	2.50 H	10	13.84	17.99
7	500.42	29.73 QP	46.00	-16.27	1.00 H	346	11.13	18.59
8	599.56	29.93 QP	46.00	-16.07	1.00 H	346	9.05	20.88
9	700.64	28.40 QP	46.00	-17.60	1.50 H	40	6.14	22.26
10	731.74	30.28 QP	46.00	-15.72	1.50 H	40	7.29	22.99

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	33.89	24.53 QP	40.00	-15.47	1.00 V	94	10.52	14.00
2	70.82	28.35 QP	40.00	-11.65	1.50 V	121	16.23	12.12
3	109.70	32.85 QP	43.50	-10.65	1.00 V	13	21.11	11.74
4	152.46	27.59 QP	43.50	-15.91	1.50 V	172	13.10	14.49
5	387.68	28.46 QP	46.00	-17.54	1.50 V	118	12.11	16.35
6	397.39	30.10 QP	46.00	-15.90	1.00 V	94	13.53	16.58
7	455.71	33.46 QP	46.00	-12.54	1.00 V	13	15.48	17.99
8	465.43	28.55 QP	46.00	-17.45	1.00 V	13	10.43	18.12
9	731.74	31.21 QP	46.00	-14.79	1.50 V	172	8.22	22.99

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

RADIATED WORST-CASE DATA: ABOVE 1GHz

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	FSK	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 57%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Morgan Chen		

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	2390.00	54.64 PK	74.00	-19.36	1.25 H	311	22.73	31.91
1	2390.00	44.69 AV	54.00	-9.31	1.25 H	311	12.78	31.91
2	*2410.00	104.59 PK			1.25 H	311	72.56	32.03
2	*2410.00	103.19 AV			1.25 H	311	71.16	32.03
3	4820.00	55.48 PK	74.00	-18.52	1.00 H	326	17.97	37.51
3	4820.00	48.64 AV	54.00	-5.36	1.00 H	326	11.13	37.51
4	7230.00	58.93 PK	84.59	-25.66	1.25 H	32	15.02	43.91
4	7230.00	48.79 AV	83.19	-34.40	1.25 H	32	4.88	43.91

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	2390.00	53.93 PK	74.00	-20.07	1.20 V	5	22.02	31.91
1	2390.00	44.51 AV	54.00	-9.49	1.20 V	5	12.60	31.91
2	*2410.00	106.20 PK			1.22 V	8	74.17	32.03
2	*2410.00	104.84 AV			1.22 V	8	72.81	32.03
3	4820.00	53.22 PK	74.00	-20.78	1.23 V	340	15.71	37.51
3	4820.00	48.33 AV	54.00	-5.67	1.23 V	340	10.82	37.51
4	7230.00	57.46 PK	86.20	-28.74	1.28 V	335	13.54	43.91
4	7230.00	47.45 AV	84.84	-37.39	1.28 V	335	3.53	43.91

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 5	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	FSK	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 57%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Morgan Chen		

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	*2446.00	104.50 PK			1.28 H	321	72.24	32.26
1	*2446.00	103.11 AV			1.28 H	321	70.85	32.26
2	4892.00	55.53 PK	74.00	-18.47	1.28 H	31	17.97	37.56
2	4892.00	50.55 AV	54.00	-3.45	1.28 H	31	12.99	37.56
3	7338.00	57.85 PK	74.00	-16.15	1.15 H	322	13.84	44.01
3	7338.00	47.83 AV	54.00	-6.17	1.15 H	322	3.82	44.01

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	*2446.00	106.05 PK			1.13 V	22	73.79	32.26
1	*2446.00	104.71 AV			1.13 V	22	72.45	32.26
2	4892.00	56.15 PK	74.00	-17.85	1.22 V	12	18.59	37.56
2	4892.00	50.11 AV	54.00	-3.89	1.22 V	12	12.55	37.56
3	7338.00	58.22 PK	74.00	-15.78	1.22 V	314	14.21	44.01
3	7338.00	48.35 AV	54.00	-5.65	1.22 V	314	4.34	44.01

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 8	**FREQUENCY RANGE**	1 ~ 25GHz
MODULATION TYPE	FSK	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	22deg. C, 57%RH, 991hPa	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Morgan Chen		

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	*2473.00	104.73 PK			1.25 H	301	72.31	32.42
1	*2473.00	103.32 AV			1.25 H	301	70.90	32.42
2	2484.50	57.53 PK	74.00	-16.47	1.20 H	299	25.04	32.49
2	2484.50	49.97 AV	54.00	-4.03	1.20 H	299	17.48	32.49
3	4946.00	58.88 PK	74.00	-15.12	1.40 H	77	21.29	37.59
3	4946.00	51.66 AV	54.00	-2.34	1.40 H	77	14.07	37.59
4	7419.00	59.36 PK	74.00	-14.64	1.19 H	24	15.38	43.98
4	7419.00	49.11 AV	54.00	-4.89	1.19 H	24	5.13	43.98

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2473.00	106.23 PK			1.19 V	15	73.81	32.42
1	*2473.00	104.89 AV			1.19 V	15	72.47	32.42
2	2484.50	57.48 PK	74.00	-16.52	1.18 V	11	24.99	32.49
2	2484.50	48.45 AV	54.00	-5.55	1.18 V	11	15.96	32.49
3	4946.00	58.01 PK	74.00	-15.99	1.22 V	322	20.42	37.59
3	**4946.00**	**52.71 AV**	**54.00**	**-1.29**	**1.22 V**	**322**	**15.12**	**37.59**
4	7419.00	60.12 PK	74.00	-13.88	1.32 V	348	16.14	43.98
4	7419.00	50.01 AV	54.00	-3.99	1.32 V	348	6.03	43.98

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

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

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

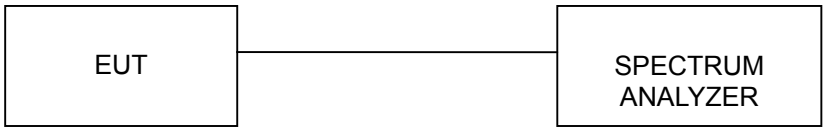
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100 kHz RBW and 100kHz 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



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

4.3.6 EUT OPERATING CONDITIONS

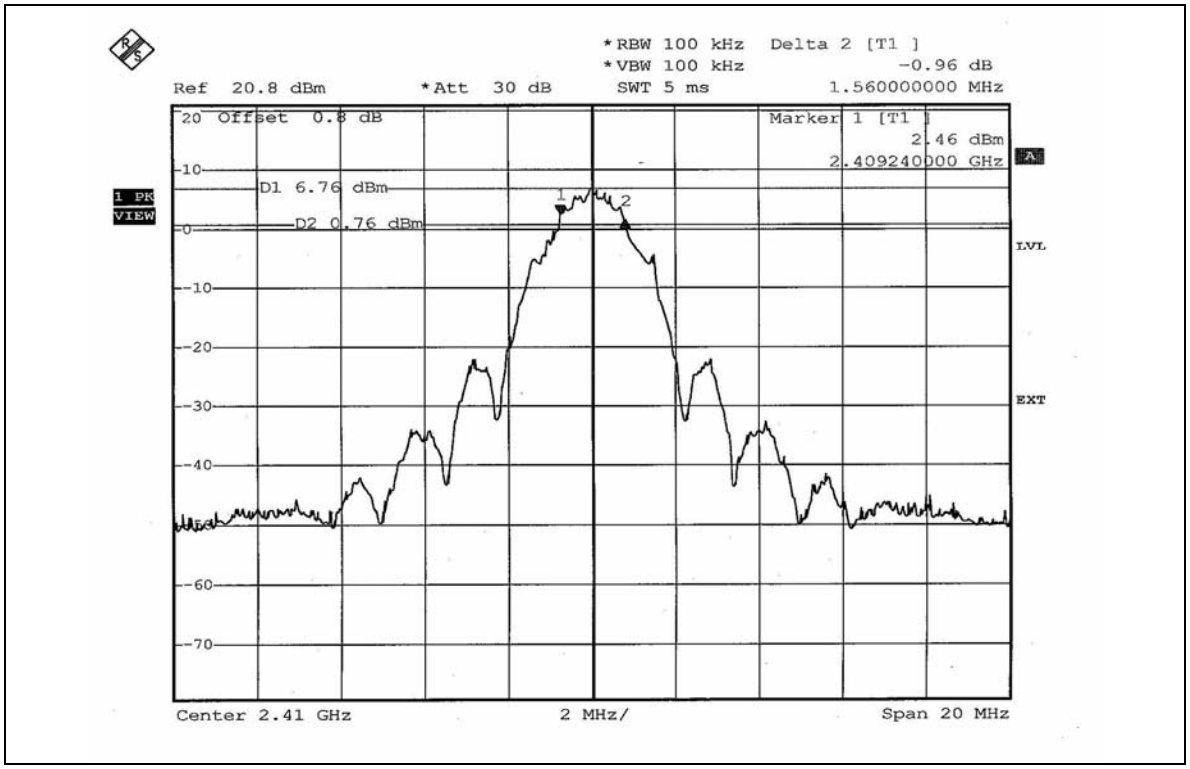
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

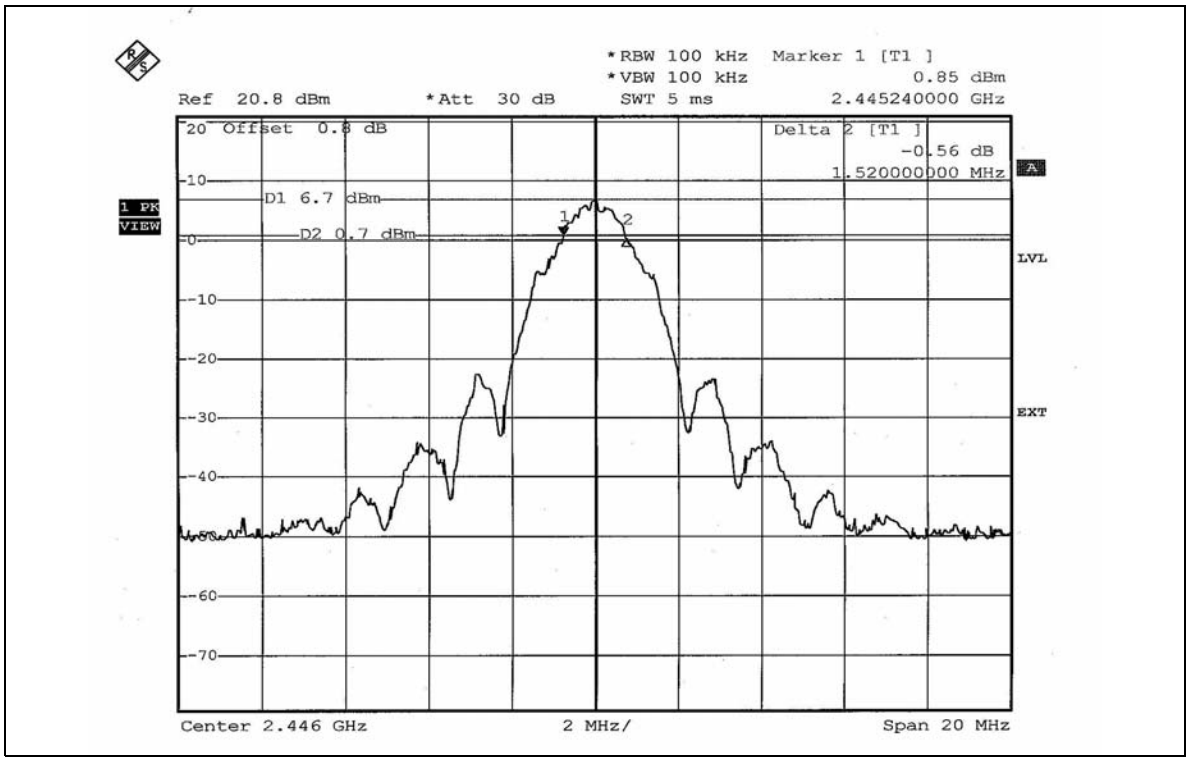
MODULATION TYPE	FSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg.C, 68%RH, 991hPa	TESTED BY	Morgan Chen

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2410	1.56	0.5	PASS
5	2446	1.52	0.5	PASS
8	2473	1.52	0.5	PASS

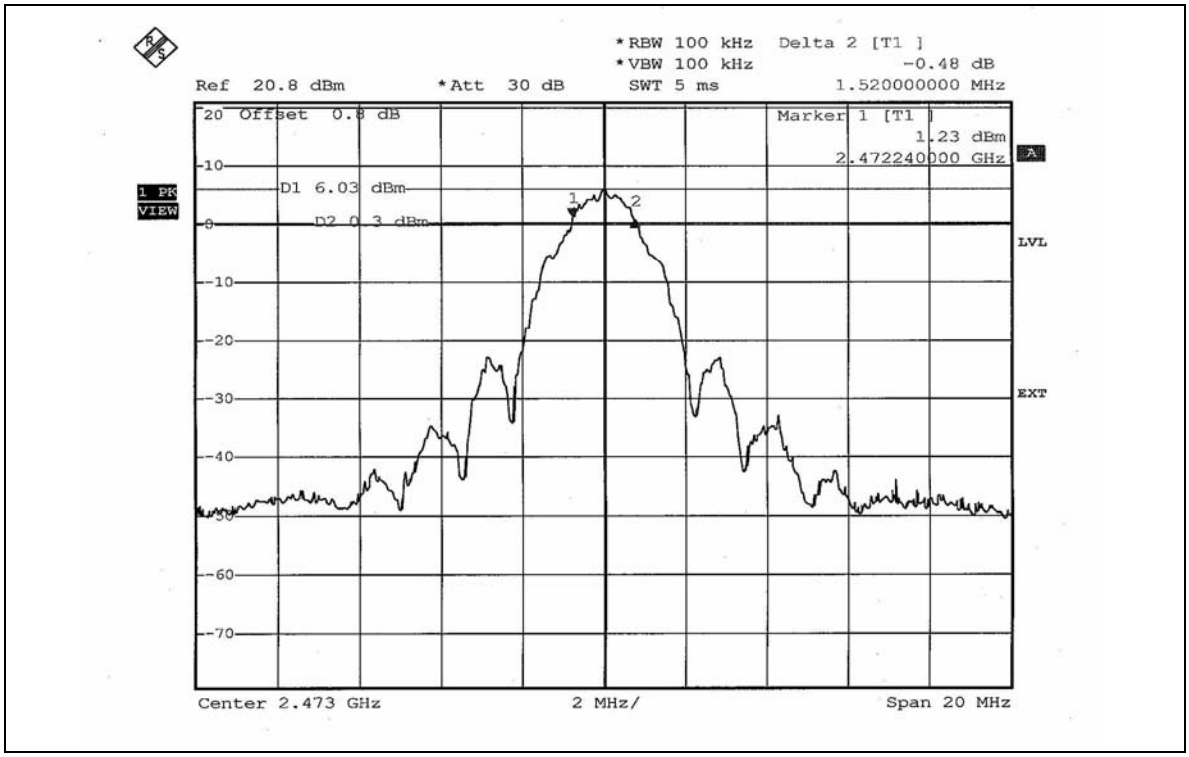
CH1


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 2 [T1]
-0.96 dB
1.560000000 MHz
Ref 20.8 dBm
*Att 30 dB
20 Offset 0.8 dB
Marker 1 [T1]
2.46 dBm
2.409240000 GHz
D1 6.76 dBm
D2 0.76 dBm
1 PK VIEW
A
LVL
EXT
Center 2.41 GHz
2 MHz/
Span 20 MHz

CH5


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Marker 1 [T1]
0.85 dBm
2.445240000 GHz
Ref 20.8 dBm
*Att 30 dB
20 Offset 0.8 dB
Delta 2 [T1]
-0.56 dB
1.520000000 MHz
D1 6.7 dBm
D2 0.7 dBm
1 PK VIEW
A
LVL
EXT
Center 2.446 GHz
2 MHz/
Span 20 MHz

CH8


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 2 [T1]
-0.48 dB
1.520000000 MHz
Ref 20.8 dBm
*Att 30 dB
Offset 0.8 dB
Marker 1 [T1]
1.23 dBm
2.472240000 GHz
D1 6.03 dBm
D2 0.3 dBm
1 PK VIEW
A
LVL
EXT
Center 2.473 GHz
2 MHz/
Span 20 MHz

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 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006
AGILENT SIGNAL GENERATOR	E8257C	MY43320668	Dec. 07, 2006
DIGITAL RT OSCILLOSCOPE	TDS1012	C037299	Nov. 28, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

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

4.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to peak the response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same peak reading on oscilloscope. 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 4.3.6

4.4.7 TEST RESULTS

MODULATION TYPE	FSK	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg.C, 68%RH, 991hPa	**TESTED BY**	Morgan Chen

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2410	8.204	9.14	30	PASS
5	2446	7.079	8.50	30	PASS
8	2473	6.109	7.86	30	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.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

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 CONDITIONS

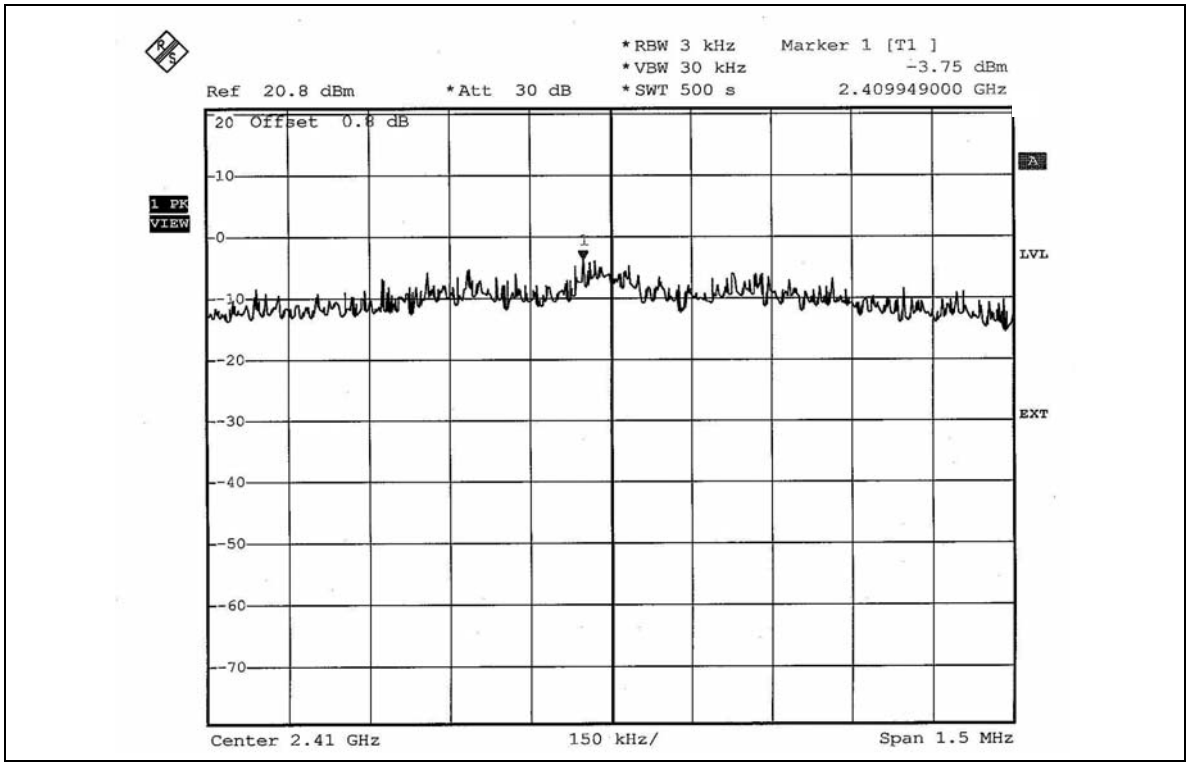
Same as 4.3.6

4.5.7 TEST RESULTS

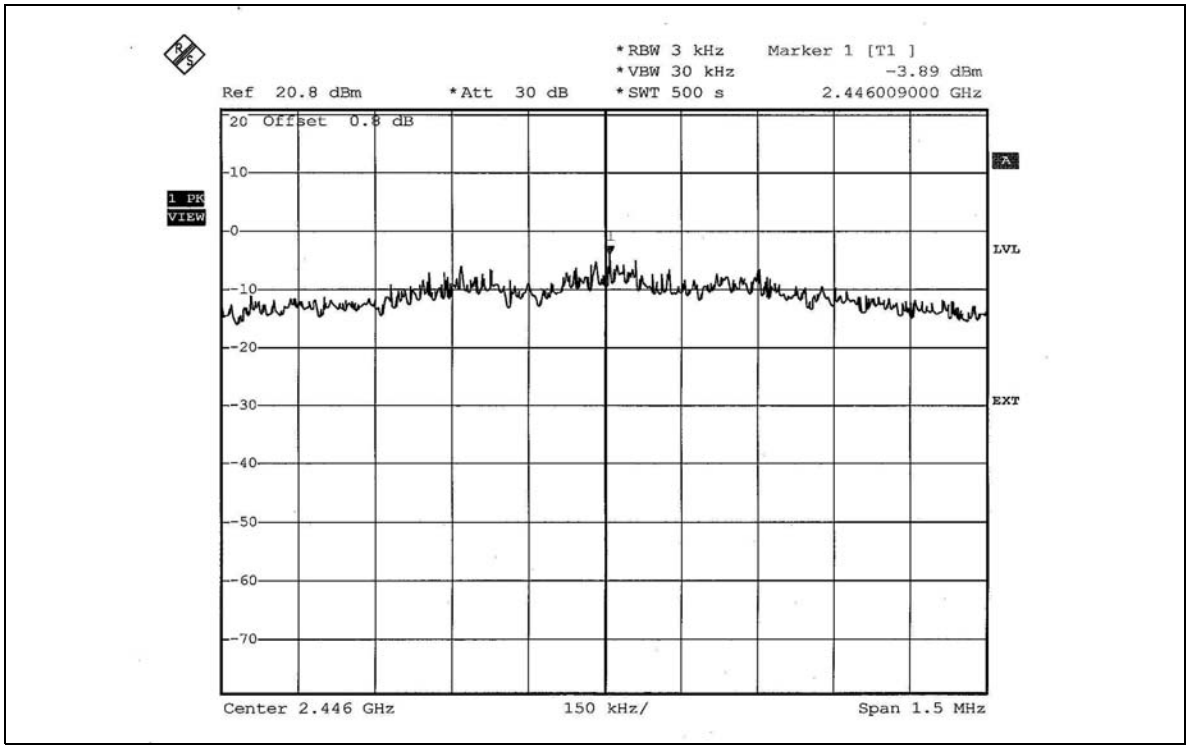
MODULATION TYPE	FSK	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg.C, 68%RH, 991hPa	**TESTED BY**	Morgan Chen

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2410	-3.75	8	PASS
5	2446	-3.89	8	PASS
8	2473	-4.74	8	PASS

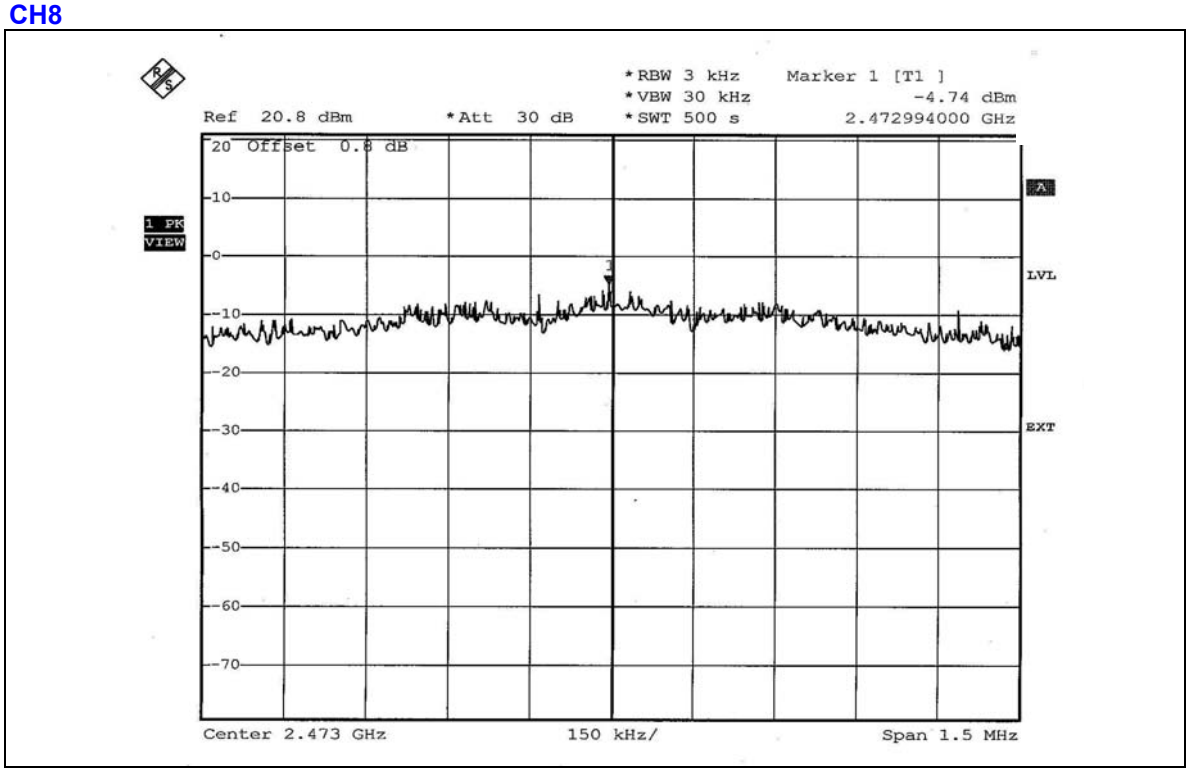
CH1


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-3.75 dBm
2.409949000 GHz
Ref 20.8 dBm
*Att 30 dB
Offset 0.8 dB
1 PK
VIEW
A
LVL
EXT
Center 2.41 GHz
150 kHz/
Span 1.5 MHz

CH5


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-3.89 dBm
2.446009000 GHz
Ref 20.8 dBm
*Att 30 dB
Offset 0.8 dB
1 PK
VIEW
A
LVL
EXT
Center 2.446 GHz
150 kHz/
Span 1.5 MHz

CH8


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-4.74 dBm
2.472994000 GHz
Ref 20.8 dBm
*Att 30 dB
20 Offset 0.8 dB
1 PK
VIEW
A
LVL
EXT
Center 2.473 GHz
150 kHz/
Span 1.5 MHz

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.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

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 with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded. The spectrum plots (Peak RBW=VBW=100kHz; Average RBW=1MHz, VBW=1kHz) are attached on the following pages.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6

4.6.6 TEST RESULTS

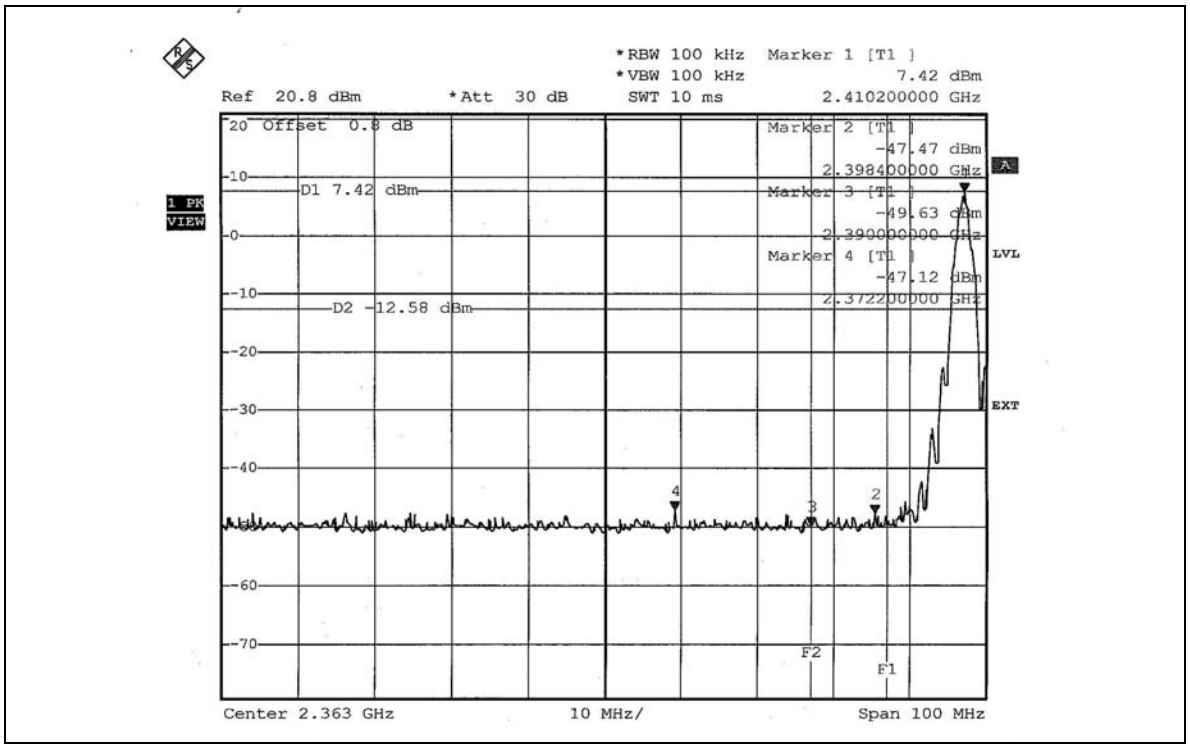
The spectrum plots are attached on the following 12 images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

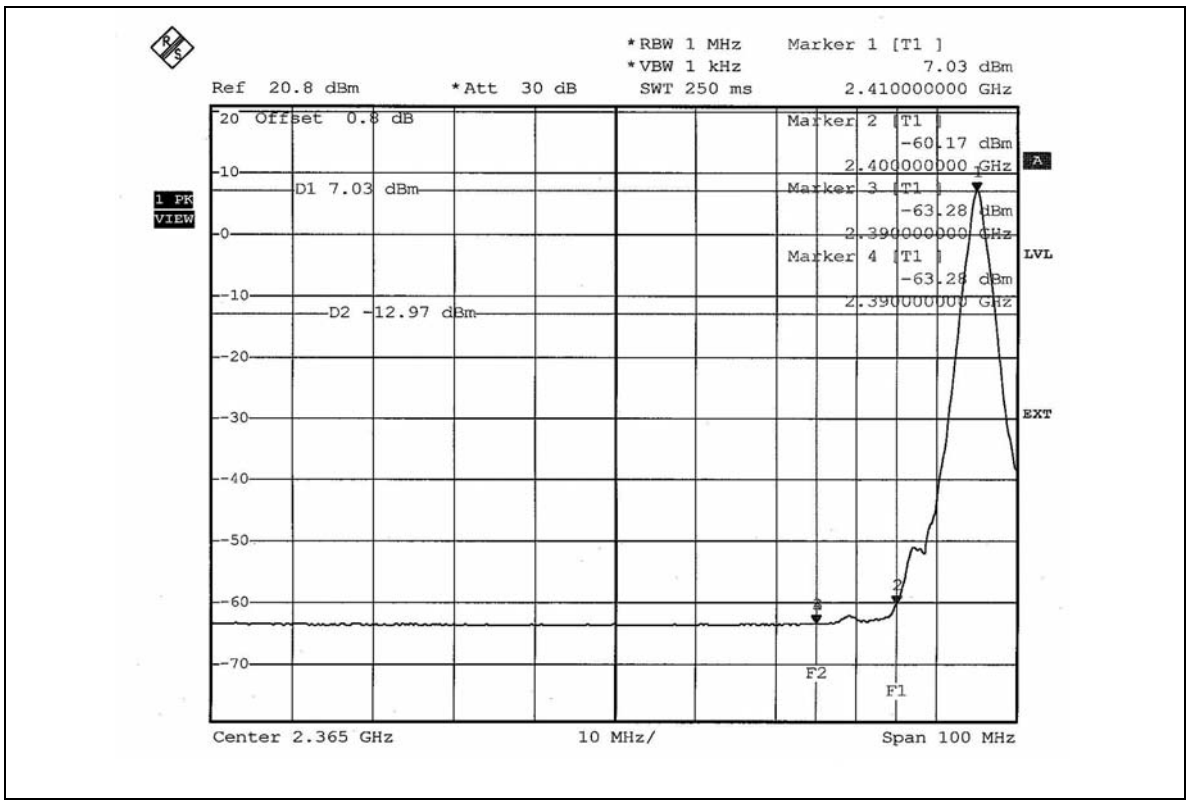
NOTE 1: The band edge emission plot on the next page shows 54.54dBc between carrier maximum power and local maximum emission in restrict band (2.37220GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 106.20dBuV/m (Peak), so the maximum field strength in restrict band is 106.20 – 54.54 = 51.66dBuV/m which is under 74dBuV/m limit.

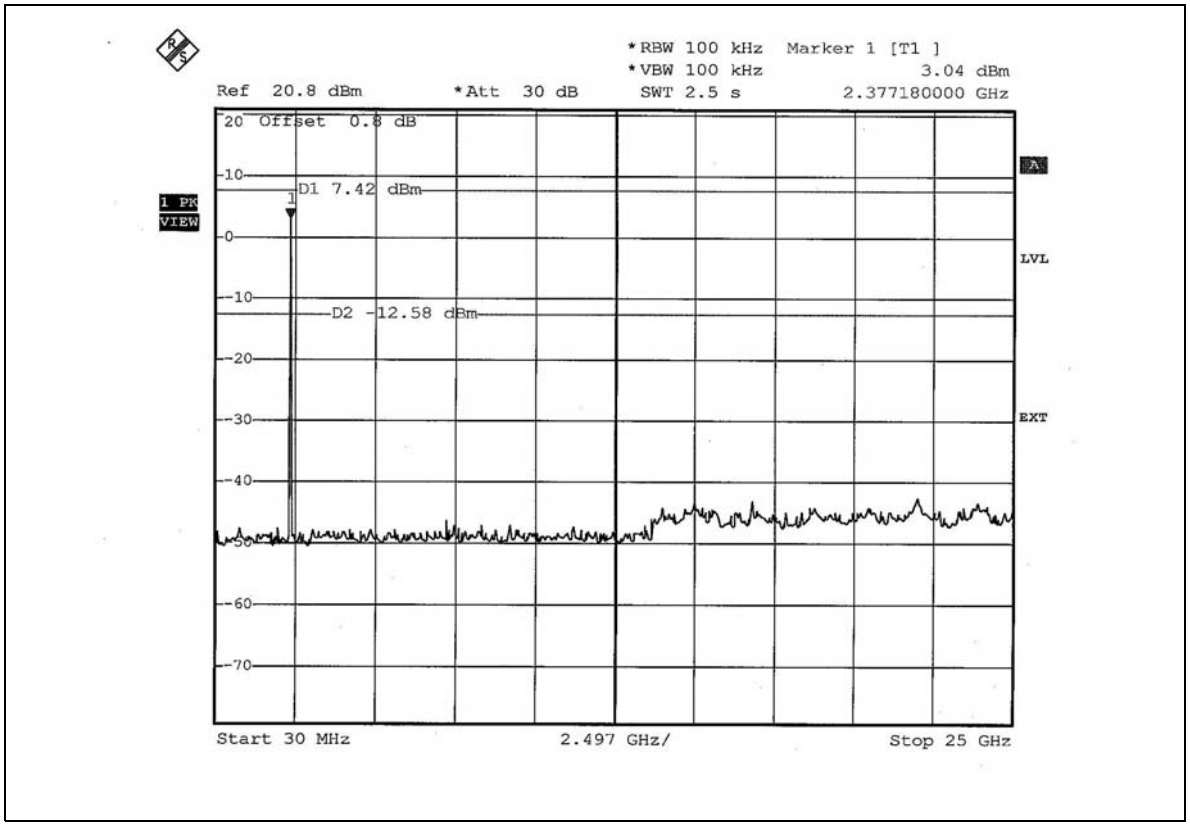
The band edge emission plot on the next page shows 70.31dBc between carrier maximum power and local maximum emission in restrict band (2.39000GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 104.84dBuV/m (Average), so the maximum field strength in restrict band is 104.84 – 70.31 = 34.53dBuV/m which is under 54dBuV/m limit.

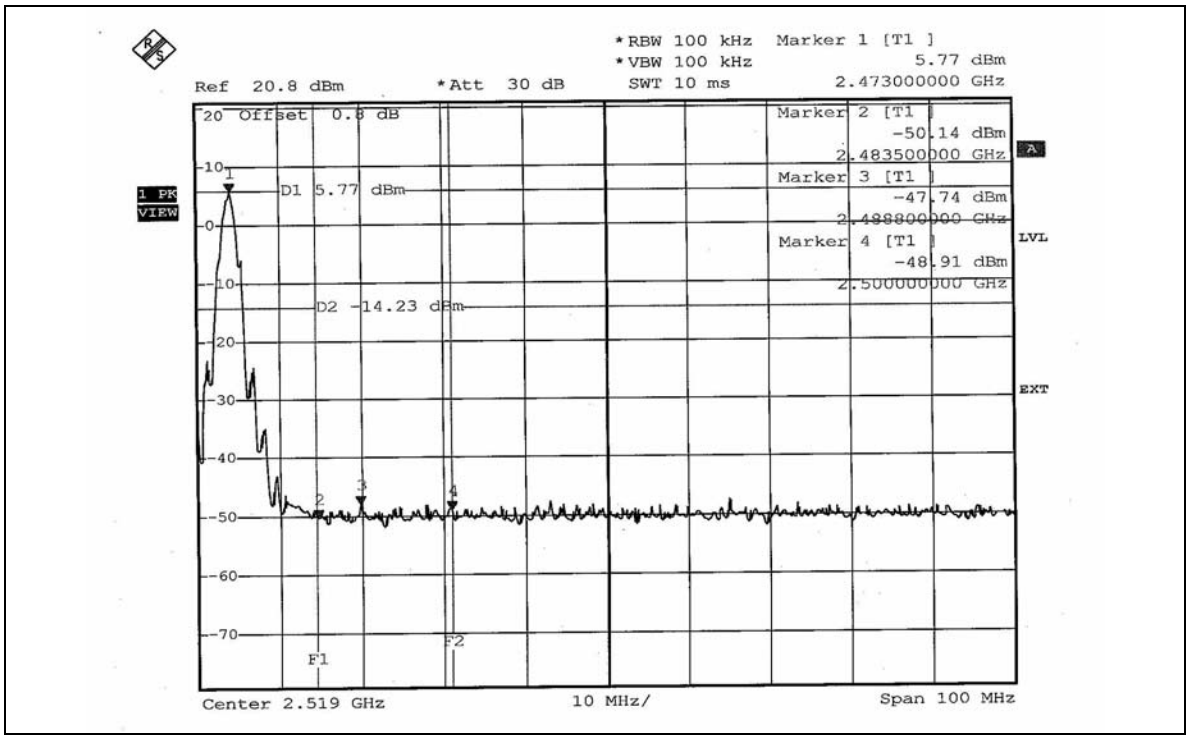
NOTE 2: The band edge emission plot on the next second page shows 53.51dBc between carrier maximum power and local maximum emission in restrict band (2.48880GHz). The emission of carrier strength list in the test result of channel 8 at the item 4.2.7 is 106.23dBuV/m (Peak), so the maximum field strength in restrict band is 106.23 – 53.51 = 52.72dBuV/m which is under 74dBuV/m limit.

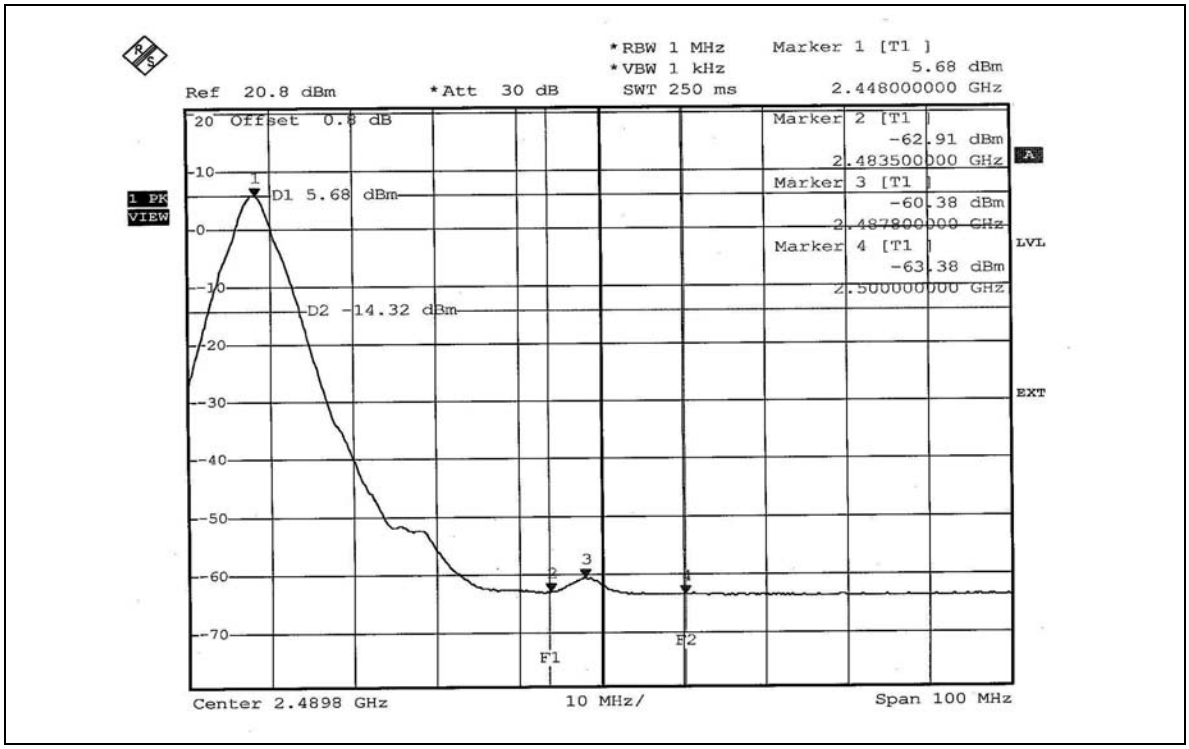
The band edge emission plot on the next third page shows 66.06dBc between carrier maximum power and local maximum emission in restrict band (2.48780GHz). The emission of carrier strength list in the test result of channel 8 at the item 4.2.7 is 104.89dBuV/m (Average), so the maximum field strength in restrict band is 104.89 – 66.06 = 38.83dBuV/m which is under 54dBuV/m limit.

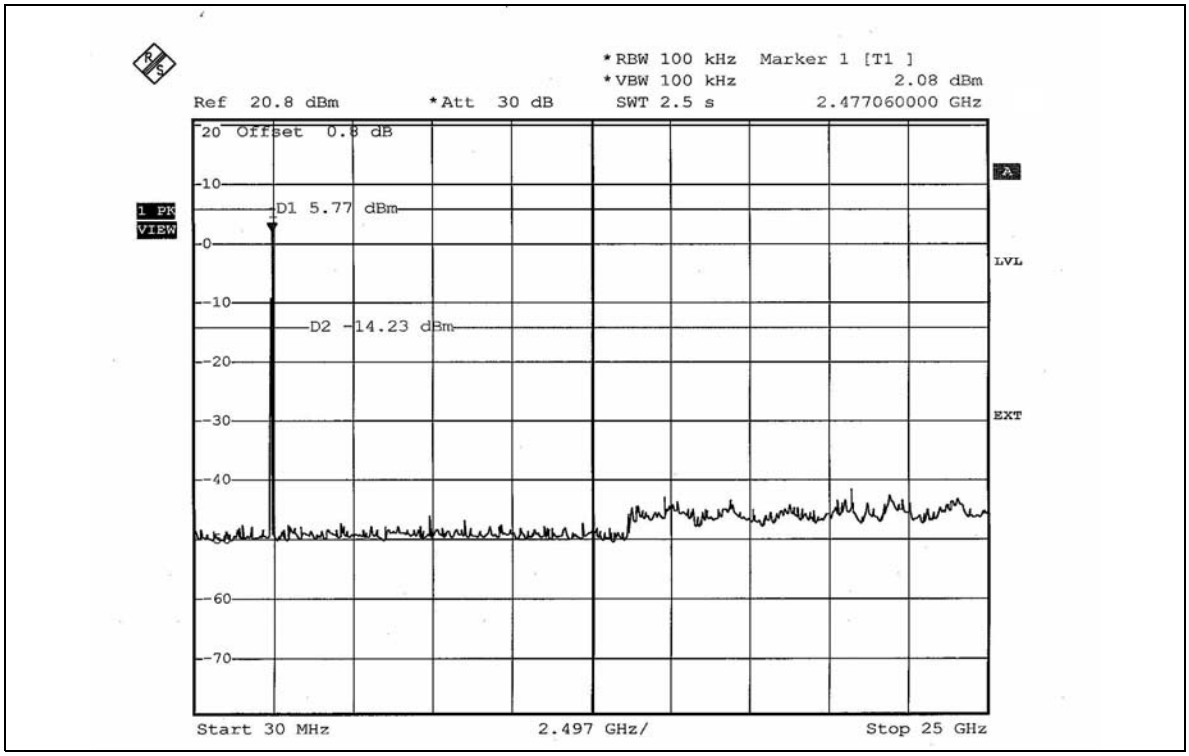

*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
7.42 dBm
2.410200000 GHz
Ref 20.8 dBm
*Att 30 dB
20 Offset 0.8 dB
D1 7.42 dBm
D2 -12.58 dBm
Marker 2 [T1]
-47.47 dBm
2.398400000 GHz
Marker 3 [T1]
-49.63 dBm
2.390000000 GHz
Marker 4 [T1]
-47.12 dBm
2.372200000 GHz
1 PK
VIEW
A
LVL
EXT
F2
F1
Center 2.363 GHz
10 MHz/
Span 100 MHz


*RBW 1 MHz
*VBW 1 kHz
SWT 250 ms
Marker 1 [T1]
7.03 dBm
2.410000000 GHz
Ref 20.8 dBm
*Att 30 dB
20 Offset 0.8 dB
D1 7.03 dBm
D2 -12.97 dBm
Marker 2 [T1]
-60.17 dBm
2.400000000 GHz
Marker 3 [T1]
-63.28 dBm
2.390000000 GHz
Marker 4 [T1]
-63.28 dBm
2.390000000 GHz
1 PK
VIEW
A
LVL
EXT
F2
F1
Center 2.365 GHz
10 MHz/
Span 100 MHz


*RBW 100 kHz
*VBW 100 kHz
SWT 2.5 s
Marker 1 [T1]
3.04 dBm
2.377180000 GHz
Ref 20.8 dBm
*Att 30 dB
20 Offset 0.8 dB
D1 7.42 dBm
D2 -12.58 dBm
1 PK
VIEW
A
LVL
EXT
Start 30 MHz
2.497 GHz/
Stop 25 GHz


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
5.77 dBm
2.473000000 GHz
Ref 20.8 dBm
*Att 30 dB
20 Offset 0.8 dB
Marker 2 [T1]
-50.14 dBm
2.483500000 GHz
Marker 3 [T1]
-47.74 dBm
2.488800000 GHz
Marker 4 [T1]
-48.91 dBm
2.500000000 GHz
D1 5.77 dBm
D2 -14.23 dBm
1 PK
VIEW
A
LVL
EXT
F1
F2
Center 2.519 GHz
10 MHz/
Span 100 MHz


*RBW 1 MHz
*VBW 1 kHz
SWT 250 ms
Marker 1 [T1]
5.68 dBm
2.448000000 GHz
Ref 20.8 dBm
*Att 30 dB
Offset 0.8 dB
Marker 2 [T1]
-62.91 dBm
2.483500000 GHz
Marker 3 [T1]
-60.38 dBm
2.487800000 GHz
Marker 4 [T1]
-63.38 dBm
2.500000000 GHz
1 PK VIEW
D1 5.68 dBm
D2 -14.32 dBm
A
LVL
EXT
F1
F2
Center 2.4898 GHz
10 MHz/
Span 100 MHz


*RBW 100 kHz
*VBW 100 kHz
SWT 2.5 s
Marker 1 [T1]
2.08 dBm
2.477060000 GHz
Ref 20.8 dBm
*Att 30 dB
Offset 0.8 dB
1 PK VIEW
D1 5.77 dBm
D2 -14.23 dBm
A
LVL
EXT
Start 30 MHz
2.497 GHz/
Stop 25 GHz

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 (b), 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

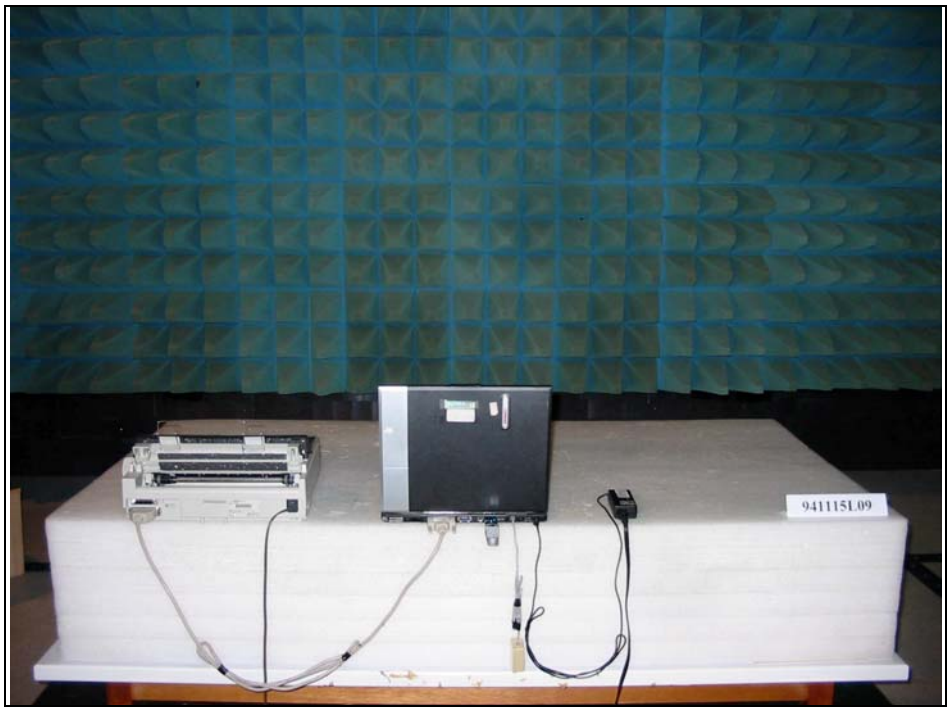
The antenna used in this product is Inverted-F antenna without antenna connector.

The maximum Gain of the antenna is 0dBi.

5 PHOTOGRAPHS OF THE TEST CONFIGURATIONP

CONDUCTED EMISSION TEST

RADIATED EMISSION TEST



6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., 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, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
Russia	CERTIS(MOU)

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

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26052943

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

Hwa Ya EMC/RF/Safety/Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Linko RF Lab.
Tel: 886-3-3270910
Fax: 886-3-3270892

Web Site: www.adt.com.tw

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

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.