

APPLICATION FOR CERTIFICATION

On Behalf of

Futaba Corporation

2.4GHz Embedded Type Wireless Modem

Model No. : FDP03

FCC ID : AZP-FDP03

Brand: Futaba

Prepared for : Futaba Corporation
1080 Yabutsuka Chosei-son Chosei-gun
Chiba, 299-4395 Japan.

Prepared by : AUDIX Technology Corporation
EMC Department
No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,
Taipei Hsien, Taiwan

Tel : (02) 2609-9301, 2609-2133

Fax: (02) 2609-9303

File Number : C1M1005110
Report Number : EM-F990786
Date of Test : Jun. 02 ~ Jul. 26, 2010
Date of Report : Jul. 30, 2010

TABLE OF CONTENTS

Description	Page
TEST REPORT CERTIFICATION	4
1. GENERAL INFORMATION	5
1.1. Description of Device (EUT).....	5
1.2. Tested Supporting System Details.....	6
1.3. Description of Test Facility	6
1.4. Measurement Uncertainty.....	7
2. POWERLINE CONDUCTED EMISSION MEASUREMENT.....	8
2.1. Test Equipment.....	8
2.2. Block Diagram of Test Setup.....	8
2.3. Powerline Conducted Emission Limit	8
2.4. Operating Condition of EUT	9
2.5. Test Procedure	9
2.6. Powerline Conducted Emission Measurement Results.....	9
3. RADIATED EMISSION MEASUREMENT	14
3.1. Test Equipment.....	14
3.2. Test Setup	14
3.3. Radiated Emission Limits (§15.209)	16
3.4. Operating Condition of EUT	16
3.5. Test Procedure	16
3.6. Radiated Emission Measurement Results.....	17
4. 6dB BANDWIDTH MEASUREMENT	42
4.1. Test Equipment.....	42
4.2. Block Diagram of Test Setup.....	42
4.3. Specification Limits (§15.247(a)(2))	42
4.4. Operating Condition of EUT	42
4.5. Test Procedure	42
4.6. Test Results.....	43
5. MAXIMUM PEAK OUTPUT POWER MEASUREMENT	45
5.1. Test Equipment.....	45
5.2. Block Diagram of Test Setup.....	45
5.3. Specification Limits (§15.247(b)-(3)).....	45
5.4. Operating Condition of EUT	45
5.5. Test Procedure	45
5.6. Test Results.....	46
6. EMISSION LIMITATIONS MEASUREMENT	47
6.1. Test Equipment.....	47
6.2. Block Diagram of Test Setup.....	47
6.3. Specification Limits (§15.247(c)).....	47
6.4. Operating Condition of EUT	47
6.5. Test Procedure	47
6.6. Test Results.....	48
7. BAND EDGES MEASUREMENT.....	50
7.1. Test Equipment.....	50
7.2. Block Diagram of Test Setup.....	50
7.3. Specification Limits (§15.247(c)).....	50
7.4. Operating Condition of EUT	50
7.5. Test Procedure	50
7.6. Test Results.....	50

- 8. POWER SPECTRAL DENSITY MEASUREMENT52**
 - 8.1. Test Equipment 52
 - 8.2. Block Diagram of Test Setup..... 52
 - 8.3. Specification Limits (§15.247(d))..... 52
 - 8.4. Operating Condition of EUT 52
 - 8.5. Test Procedure 52
 - 8.6. Test Results..... 52
- 9. DEVIATION TO TEST SPECIFICATIONS55**
- 10. PHOTOGRAPHS56**
 - 10.1. Photos of Conducted Emission Measurement 56
 - 10.2. Photos of Radiated Emission Measurement at Semi-Anechoic Chamber..... 58
 - 10.3. Photo of 6dB Bandwidth Measurement 60
 - 10.4. Photo of Maximum Peak Output Measurement 60
 - 10.5. Photo of Emission Limitations Measurement 61
 - 10.6. Photo of Band Edges Measurement 61
 - 10.7. Photo of Power Spectral Density Measurement 62

TEST REPORT CERTIFICATION

Applicant : Futaba Corporation
 Manufacturer : Futaba Corporation
 EUT Description : 2.4GHz Embedded Type Wireless Modem
 FCC ID : AZP-FDP03
 (A) Model No. : FDP03
 (B) Serial No. : N/A
 (C) Brand : Futaba
 (D) Power Supply : DC 2.5-5.5V
 (E) Test Voltage : AC 120V, 60Hz
 (through interface board)

Measurement Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART C, July. 2008
AND ANSI C63.4/2003

(FCC CFR 47 Part 15C, §15.207 and §15.209 and §15.247)

The device described above was tested by AUDIX Technology Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart B & C limits.

The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX Technology Corporation.

Date of Test : Jun. 02 ~ Jul. 26, 2010

Date of Report : Jul. 30, 2010

Producer : Annie Yu
 (Annie Yu/Assistant Administrator)

Review : Henning Chang
 (Henning Chang/Supervisor)

Signatory : Ben Cheng
 (Ben Cheng/Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	2.4GHz Embedded Type Wireless Modem
Model Number	:	FDP03
Serial Number	:	N/A
FCC ID	:	AZP-FDP03
Applicant	:	Futaba Corporation 1080 Yabutsuka Chosei-son Chosei-gun Chiba, 299-4395 Japan.
Manufacturer	:	Futaba Corporation 1080 Yabutsuka Chosei-son Chosei-gun Chiba, 299-4395 Japan.
Radio Technology	:	FSK Modulation
Frequency Band	:	2402MHz - 2477MHz
Tested Frequency	:	2402MHz 2441MHz 2477MHz
Frequency Channel	:	76 channels
Antenna (Internal Antenna)	:	Name: Fractus Slim Reach Xtend (Chip ANT) Antenna Gain: 0dBi or less
Antenna (External Antenna)	:	Name: Pedestal Antenna Antenna Gain: 2.14dBi
This antenna connect to FDP03 shall via a cable SMA(reverse) to U.FL.		
Date of Receipt of Sample	:	May 10, 2010
Date of Test	:	Jun. 02 ~ Jul. 26, 2010

1.4. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conduction Test	150kHz~30MHz	±1.73dB
Radiation Test (Distance: 3m)	30MHz~300MHz	±2.91dB
	300MHz~1000MHz	±2.94dB
	Above 1GHz	± 5.02dB

Remark : Uncertainty = $ku_c(y)$

Test Item	Uncertainty
6dB Bandwidth	± 0.05kHz
Emission Limitations	± 0.13dB
Maximum peak output power	± 0.33dBm
Band edges	± 0.13dB
Power spectral density	± 0.13dB

2.4. Operating Condition of EUT

- 2.4.1. Set up the EUT (2.4GHz Embedded Type Wireless Modem) and simulator as shown on 2.2.
- 2.4.2. To turn on the power of all equipments.
- 2.4.3. The EUT was set the Notebook PC using test program “Futaba Term”.
- 2.4.4. The EUT was set to continuously transmit signals during the testing.

2.5. Test Procedure

The EUT (via interface board) was put on table which was above the ground by 80cm and interface board's switching power supply connected to the AC mains through an Artificial Mains Network (A.M.N.). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions simulators of the interface cables should be manipulated according to FCC ANSI C63.4-2003 during conducted measurement.

The bandwidth of the R&S Test Receiver ESCS30 was set at 9kHz.

The frequency range from 150kHz to 30MHz was checked.

All the final readings from Test Receiver were measured with the Quasi-Peak detector and Average detector. (Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

2.6. Powerline Conducted Emission Measurement Results

PASSED.

(All the emissions not reported below are too low against the prescribed limits.)

EUT (via interface board) was performed during this section testing and all the test results are attached in next pages.

EUT : 2.4GHz Embedded Type Wireless Modem M/N : FDP03

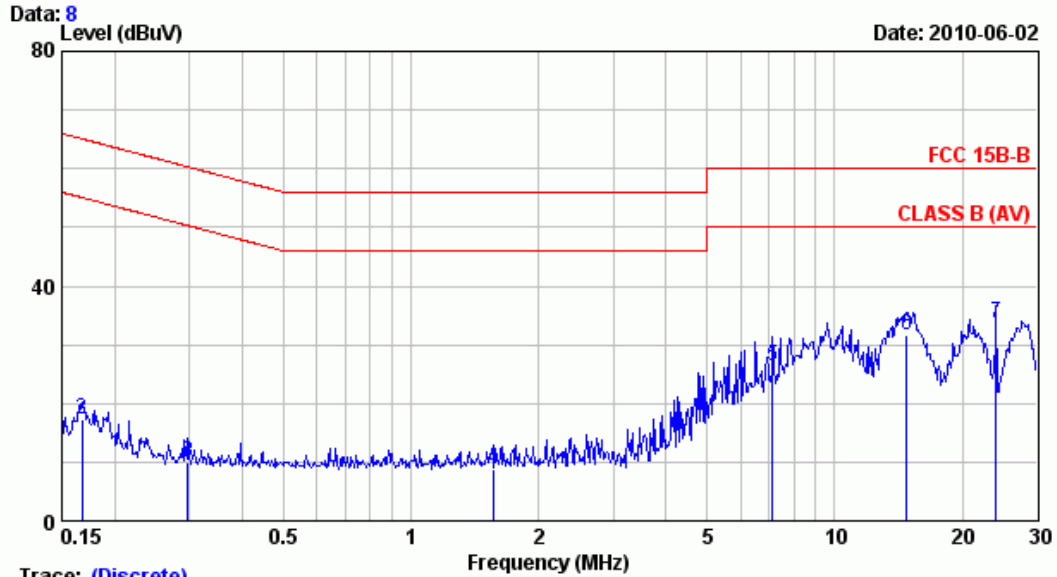
Test Date : Jun. 02, 2010 Temperature : 24°C Humidity : 65%

Reference Test Data No.:

No.	Antenna	Reference Data No.	
		Neutral	Line
1.	Fractus Slim Reach Xtend (Chip ANT)	# 8	# 7
2.	Pedestal Antenna	# 1	# 2



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code:24443
 Tel:02-26092133 Fax:02-26099303
 Email:ttemc@ttemc.com.tw



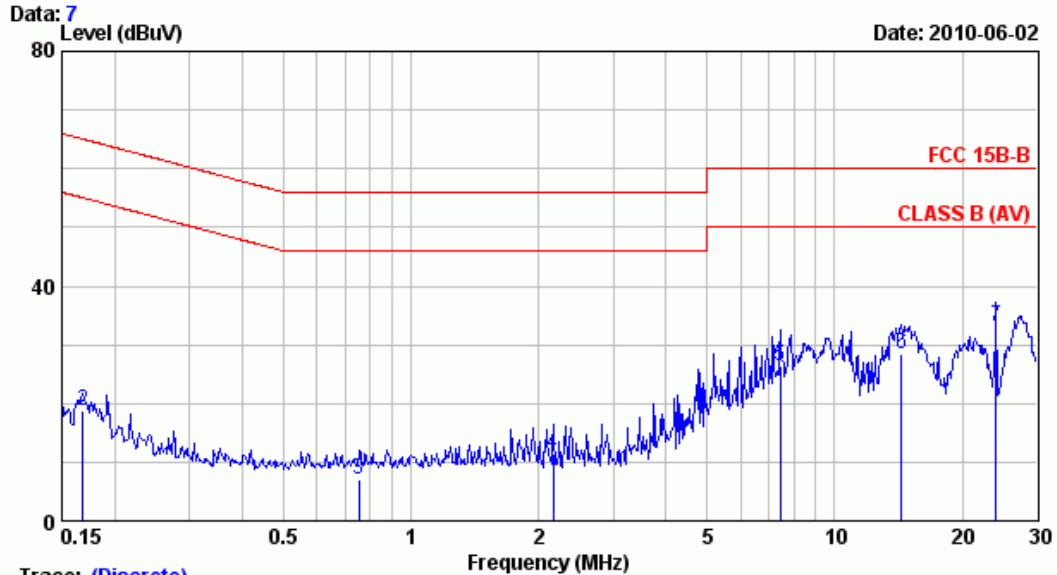
Trace: (Discrete)
 Site : No.2 Shielded room Data : 8
 Condition : ESH2-Z5 Phase : NEUTRAL
 Limit : FCC 15B-B
 Env. / Ins. : 24*C,65% / ESCS 30 (339) Engineer: Charles_Yuan
 EUT : 2.4GHz Embedded Type Wireless Module
 Power Rating : 120Vac/60Hz M/N:FDP03
 Test Mode : OPERATING(CHIP ANT)

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.150	0.10	0.24	17.87	18.21	66.00	47.79	QP
2	0.168	0.10	0.25	16.82	17.17	65.08	47.91	QP
3	0.297	0.10	0.29	9.70	10.09	60.32	50.23	QP
4	1.560	0.20	0.40	8.32	8.92	56.00	47.08	QP
5	7.137	0.26	0.59	25.53	26.38	60.00	33.62	QP
6	14.750	0.39	0.70	30.48	31.58	60.00	28.43	QP
7	24.015	0.50	0.70	32.46	33.66	60.00	26.34	QP

Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.
 2.If the average limit is met when using a quasi-peak detector
 ,the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code:24443
 Tel:02-26092133 Fax:02-26099303
 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

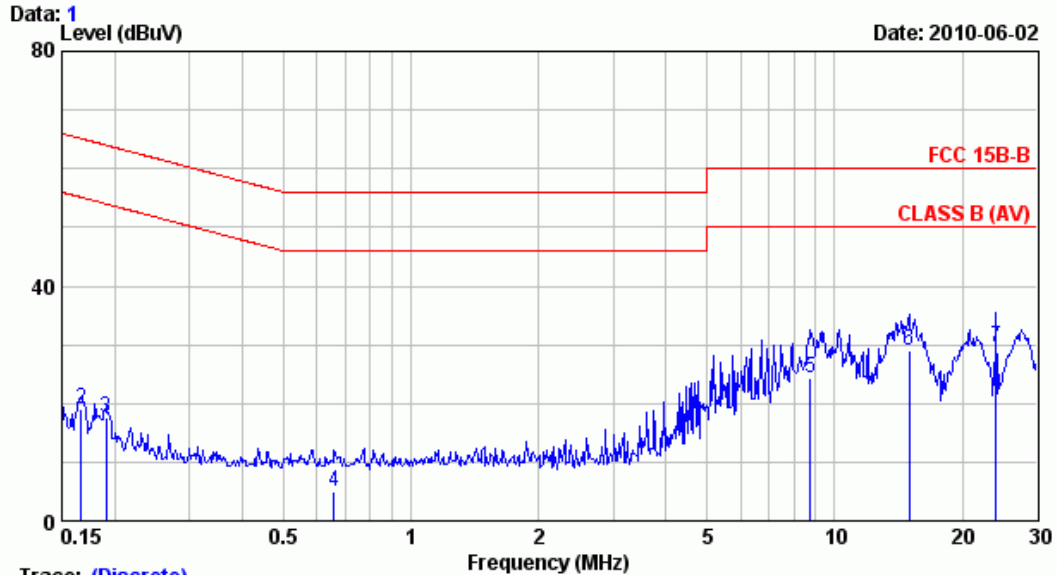
Site	: No.2 Shielded room	Data	: 7
Condition	: ESH2-Z5	Phase	: LINE
Limit	: FCC 15B-B		
Env. / Ins.	: 24*C,65% / ESCS 30 (339)	Engineer:	Charles_Yuan
EUT	: 2.4GHz Embedded Type Wireless Module		
Power Rating	: 120Vac/60Hz M/N:FDP03		
Test Mode	: OPERATING(CHIP ANT)		

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.150	0.10	0.24	18.17	18.51	66.00	47.49	QP
2	0.169	0.10	0.25	18.29	18.64	65.03	46.40	QP
3	0.755	0.17	0.38	6.37	6.91	56.00	49.09	QP
4	2.167	0.20	0.40	10.83	11.43	56.00	44.57	QP
5	7.446	0.27	0.60	25.52	26.39	60.00	33.61	QP
6	14.364	0.39	0.70	27.20	28.29	60.00	31.71	QP
7	24.015	0.86	0.70	31.52	33.08	60.00	26.92	QP

Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.
 2.If the average limit is met when using a quasi-peak detector
 ,the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code:24443
 Tel:02-26092133 Fax:02-26099303
 Email:ttemc@ttemc.com.tw



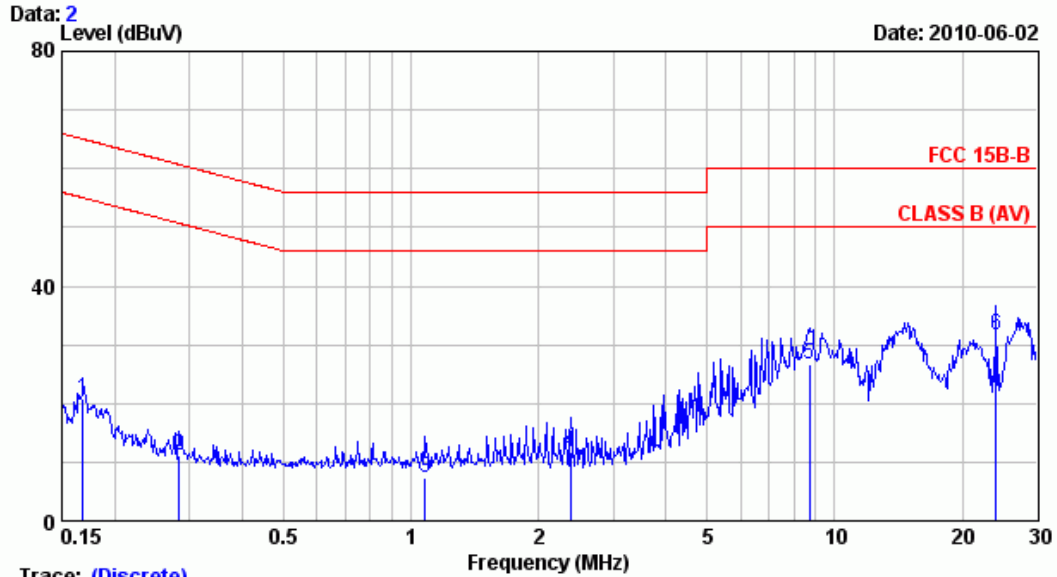
Trace: (Discrete)
 Site : No.2 Shielded room Data : 1
 Condition : ESH2-Z5 Phase : NEUTRAL
 Limit : FCC 15B-B
 Env. / Ins. : 24*C,65% / ESCS 30 (339) Engineer: Charles_Yuan
 EUT : 2.4GHz Embedded Type Wireless Module
 Power Rating : 120Vac/60Hz M/N:FDP03
 Test Mode : OPERATING(PEDSTAL ANT)

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.150	0.10	0.24	19.47	19.81	66.00	46.19	QP
2	0.167	0.10	0.24	18.78	19.12	65.12	46.00	QP
3	0.190	0.10	0.26	17.14	17.50	64.02	46.52	QP
4	0.658	0.15	0.36	4.54	5.06	56.00	50.94	QP
5	8.776	0.28	0.65	23.47	24.41	60.00	35.59	QP
6	14.986	0.40	0.70	27.99	29.09	60.00	30.91	QP
7	24.015	0.50	0.70	28.34	29.54	60.00	30.46	QP

Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.
 2.If the average limit is met when using a quasi-peak detector
 ,the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code:24443
 Tel:02-26092133 Fax:02-26099303
 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

Site : No.2 Shielded room Data : 2
 Condition : ESH2-Z5 Phase : LINE
 Limit : FCC 15B-B
 Env. / Ins. : 24*C,65% / ESCS 30 (339) Engineer: Charles_Yuan
 EUT : 2.4GHz Embedded Type Wireless Module
 Power Rating : 120Vac/60Hz M/N:FDP03
 Test Mode : OPERATING(PEDSTAL ANT)

	AMN		Cable		Emission		Limits	Margin	Remark
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)					
1	0.169	0.10	0.25	20.59	20.94	65.03	44.10	QP	
2	0.283	0.10	0.29	10.80	11.19	60.72	49.53	QP	
3	1.082	0.20	0.40	6.81	7.41	56.00	48.59	QP	
4	2.384	0.20	0.40	11.10	11.70	56.00	44.30	QP	
5	8.729	0.28	0.65	25.78	26.72	60.00	33.28	QP	
6	24.015	0.86	0.70	29.99	31.55	60.00	28.45	QP	

Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.
 2.If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipment was used during the radiated emission measurement:

3.1.1. For Frequency Range 30MHz~1000MHz (at Semi-Anechoic Chamber)

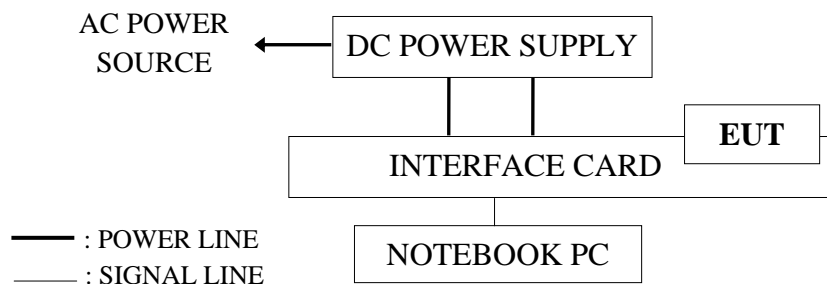
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCS30	100338	Jul. 08, 10'	Jul. 07, 11'
2.	Spectrum Analyzer	HP	8564EC	3946A00249	Oct. 27, 09'	Oct. 26, 10'
3.	Pre-Amplifier	HP	8447D	2944A06305	Feb. 03, 10'	Feb. 02, 11'
4.	Biconical Antenna	CHASE	VBA6106A	1264	Mar. 13, 10'	Mar. 12, 11'
5.	Log Periodic Antenna	Schwarzbeck	UHALP 9108-A	0810	Mar. 13, 10'	Mar. 12, 11'

3.1.2. For Frequency Above 1GHz (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8564EC	3946A00249	Oct. 27, 09'	Oct. 26, 10'
2.	Pre-Amplifier	HP	8449B	3008A00529	Dec. 15, 09'	Dec. 14, 10'
3.	3.5G High Pass Filter	HP	84300- 80038	005	Jan. 06, 10'	Jan. 05, 11'
4.	2.4G Notch Filter	EWT	ETW14-00 70-R1	G2	Dec. 05, 09'	Dec. 04, 10'
5.	Horn Antenna	EMCO	3115	9112-3775	May 10, 10'	May 09, 11'
6.	Horn Antenna	EMCO	3116	2653	Oct. 02, 09'	Oct. 01, 10'

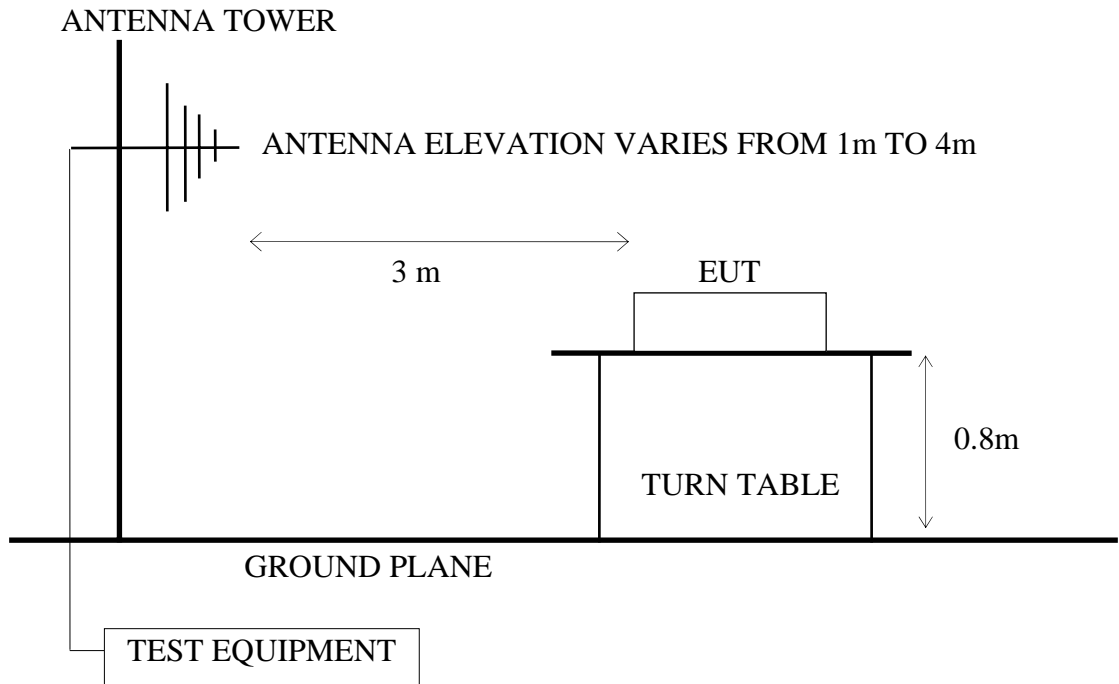
3.2. Test Setup

3.2.1. Block Diagram of connection between EUT and simulators

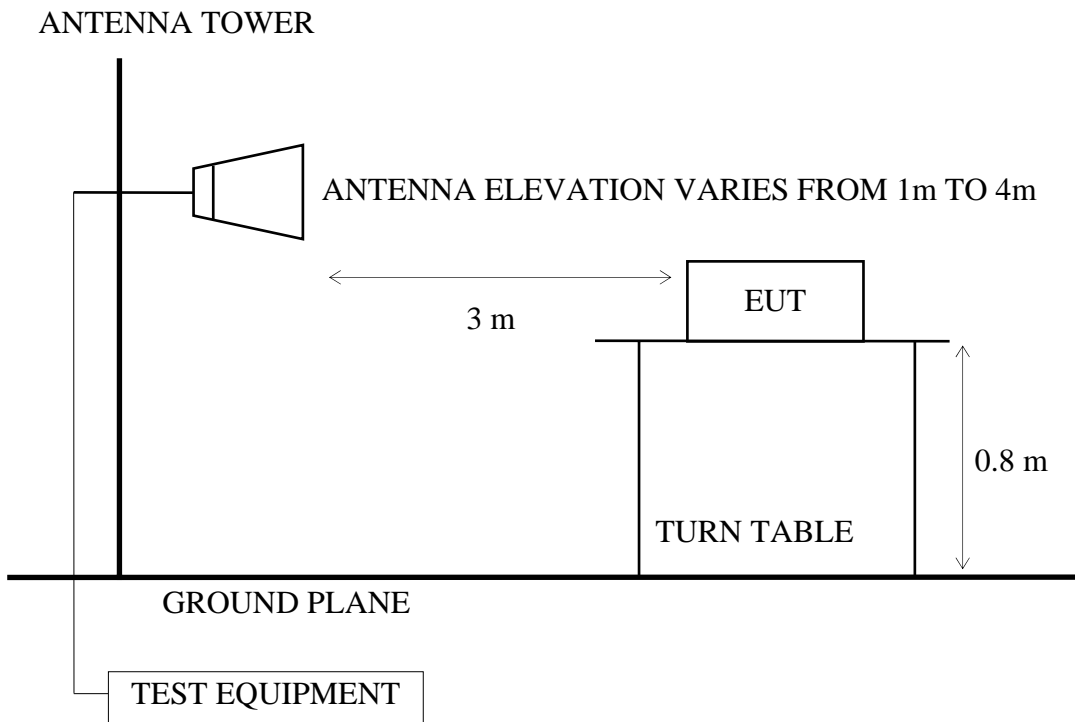


EUT: 2.4GHZ EMBEDDED TYPE WIRELESS MODEM

3.2.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000MHz



3.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



3.3. Radiated Emission Limits (§15.209)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMITS	
		$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0
Above 1000	3	74.0 $\text{dB}\mu\text{V/m}$ (Peak) 54.0 $\text{dB}\mu\text{V/m}$ (Average)	

- Remark :
- (1) Emission level ($\text{dB}\mu\text{V/m}$) = 20 log Emission level ($\mu\text{V/m}$)
 - (2) The tighter limit applies at the edge between two frequency bands.
 - (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 - (4) The limits in this table are based on CFR 47 Part 15.205(a)(b) and Part 15.209 (a).
 - (5) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.205(b) & Part 15.209(e) and Part 15.207(c).

3.4. Operating Condition of EUT

- 3.4.1. Set up the EUT (2.4GHz Embedded Type Wireless Modem) as shown on 3.2.
- 3.4.2. To turn on the power of all equipment.
- 3.4.3. The EUT was set the Notebook PC using test program “Futaba Term”.
- 3.4.4. Transmit Mode: The EUT was set to continuously transmit signals at 2402MHz、2441MHz and 2477MHz during testing.
- 3.4.5. Receive Mode: The EUT was set to continuously receive signals at 2441MHz during testing.

3.5. Test Procedure

The EUT and its simulators were placed on a turn table which was 0.8 meter above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna could be moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna such as calibrated biconical and log-periodical antenna or horn antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC ANSI C63.4-2003 regulation.

The bandwidth of the R&S Test Receiver ESCS30 was set at 120kHz. (For 30MHz to 1000MHz)

The resolution bandwidth and video bandwidth of test spectrum analyzer is 1MHz for peak detection (PK) at frequency above 1GHz.

The resolution bandwidth of test spectrum analyzer is 1MHz and the video bandwidth is 10Hz for average detection (AV) at frequency above 1GHz.

The frequency range from 30MHz to 25GHz (Up to 10th harmonics from fundamental frequency) was checked. 30MHz to 1000MHz was measured with Quasi-Peak detector. Above 1GHz was measured with peak and average detector. For average reading in frequency from 5.5G to 25GHz, we checked it in 1 meter distance and with a shorter cable 2 meter instead of original's. There is no signal exist.

3.6. Radiated Emission Measurement Results

PASSED.

(All emissions not reported below are too low against the prescribed limits.)

EUT : 2.4GHz Embedded Type Wireless Modem M/N : FDP03

Test Date : Jul. 26, 2010 Temperature : 26°C Humidity : 53%

For Frequency Range 30MHz~1000MHz:

The EUT with following test modes was performed during this section testing and all the test results are listed in section 3.6.1.

Mode	Antenna	Frequency	Test Mode	Reference Test Data	
				Horizontal	Vertical
1.	Fractus Slim Reach Xtend (Chip ANT)	2402MHz	Transmit	# 12	# 11
2.		2441MHz		# 11	# 12
3.		2477MHz		# 12	# 11
4.		2441MHz	Receive	# 7	# 8
5.	Pedestal Antenna	2402MHz	Transmit	# 11	# 12
6.		2441MHz		# 10	# 9
7.		2477MHz		# 11	# 12
8.		2441MHz	Receive	# 10	# 9

Remark 1 : Type of modulation: FSK.

Remark 2 : All above final readings were measured with Quasi-Peak detector.

For Frequency above 1GHz:

The EUT with following test modes was performed during this section testing and all the test results are listed in section 3.6.2.

Mode	Antenna	Frequency	Test Mode	Test Frequency Range
1.	Fractus Slim Reach Xtend (Chip ANT)	2402MHz	Transmit	1000-2680MHz
2.				2680-4400MHz
3.				4400-5500MHz
4.				5500-18000MHz
5.				18000-25000MHz
6.		2441MHz	Transmit	1000-2680MHz
7.				2680-4400MHz
8.				4400-5500MHz
9.				5500-18000MHz
10.				18000-25000MHz
11.		2477MHz	Transmit	1000-2680MHz
12.				2680-4400MHz
13.				4400-5500MHz
14.				5500-18000MHz
15.				18000-25000MHz
16.		2441MHz	Receive	1000-2680MHz
17.				2680-5500MHz
18.				5500-18000MHz
19.				18000-25000MHz
20.	Pedestal Antenna	2402MHz	Transmit	1000-2680MHz*
21.				2680-4400MHz
22.				4400-5500MHz
23.				5500-18000MHz
24.				18000-25000MHz
25.		2441MHz	Transmit	1000-2680MHz*
26.				2680-4400MHz
27.				4400-5500MHz
28.				5500-18000MHz
29.				18000-25000MHz
30.		2477MHz	Transmit	1000-2680MHz*
31.				2680-4400MHz
32.				4400-5500MHz
33.				5500-18000MHz
34.				18000-25000MHz
35.		2441MHz	Receive	1000-2680MHz
36.	2680-5500MHz			
37.	5500-18000MHz			
38.	18000-25000MHz			

Remark 1 : Type of modulation: FSK.

Remark 2 : The emissions level were too low against the official limit and not report.

Remark 3 : "*" means there is spurious emission falling the frequency band and be measures.

For Restricted Bands:

The EUT was tested in restricted bands and all the test results are listed in section 3.6.3. (The restricted bands defined in part 15.205(a))

Mode	Antenna	Frequency	Test Mode	Reference Test Data	
				Horizontal	Vertical
1.	Fractus Slim Reach Xtend (Chip ANT)	2402MHz	Transmit	# 2, # 3	# 1, # 4
2.		2477MHz	Transmit	# 7, # 6	# 8, # 5
3.	Pedestal Antenna	2402MHz	Transmit	# 2, # 3	# 1, # 4
4.		2477MHz	Transmit	# 7, # 6	# 8, # 5

Remark : Type of modulation: FSK.

3.6.1. 30MHz ~ 1000MHz Frequency Range Measurement Result

Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Fractus Slim Reach Xtend
(Chip ANT)
 Test Mode : Transmitting Mode,
Frequency: 2402MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Emission Level Limits dB	Margin
251.160	23.90	3.50	0.70	28.10	46.00	17.90
291.900	26.17	3.90	-0.90	29.17	46.00	16.83
400.540	17.66	4.80	0.47	22.93	46.00	23.07
569.320	21.17	6.50	-0.30	27.38	46.00	18.62
712.880	23.30	6.53	0.15	29.98	46.00	16.02
908.820	25.01	7.40	0.63	33.04	46.00	12.96
969.930	26.83	7.69	-0.01	34.52	54.00	19.48

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Emission Level Limits dB	Margin
285.110	25.54	3.80	0.22	29.56	46.00	16.44
400.540	17.66	4.80	0.79	23.25	46.00	22.75
471.350	18.37	5.80	1.51	25.68	46.00	20.32
518.880	20.01	6.90	0.16	27.07	46.00	18.93
861.290	26.09	7.20	0.14	33.43	46.00	12.57
910.760	25.03	7.40	0.72	33.16	46.00	12.84
967.990	26.90	7.69	-0.53	34.06	54.00	19.94

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Fractus Slim Reach Xtend
(Chip ANT)

Test Mode : Transmitting Mode,
Frequency: 2441MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
199.750	22.09	3.00	1.41	26.49	43.50	17.01
211.390	21.75	3.20	1.28	26.23	43.50	17.27
400.540	17.66	4.80	0.45	22.91	46.00	23.09
855.470	25.87	7.10	1.49	34.46	46.00	11.54
956.350	26.33	7.60	1.45	35.38	46.00	10.62
971.870	26.79	7.70	-0.01	34.48	54.00	19.52

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Limits dB	Margin
215.270	21.82	3.20	29.75	28.99	43.50	14.51
260.860	24.58	3.60	24.99	27.44	46.00	18.56
281.230	25.34	3.80	26.27	29.69	46.00	16.31
513.060	19.95	6.80	27.88	27.77	46.00	18.23
551.860	19.23	6.80	28.93	27.94	46.00	18.06
964.110	26.80	7.60	27.36	34.96	54.00	19.04

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem
ANT: Fractus Slim Reach Xtend
(Chip ANT) Humidity : 53%

Test Mode : Transmitting Mode, Frequency:
2477MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Horizontal dB μ V/m	Emission Level Horizontal dB μ V/m	Emission Level Limits dB	Margin
251.160	23.90	3.50	0.08	27.48	46.00	18.52
288.990	25.97	3.80	-0.62	29.15	46.00	16.85
400.540	17.66	4.80	2.31	24.77	46.00	21.23
493.660	18.67	6.40	1.43	26.50	46.00	19.50
571.260	21.14	6.50	0.20	27.84	46.00	18.16
674.080	22.87	6.40	0.52	29.79	46.00	16.21
967.990	26.90	7.69	-0.58	34.01	54.00	19.99

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Emission Level Limits dB	Margin
208.480	21.85	3.12	0.80	25.76	43.50	17.74
237.580	22.86	3.40	0.48	26.74	46.00	19.26
266.680	24.74	3.70	0.23	28.67	46.00	17.33
612.970	21.36	6.30	0.47	28.13	46.00	17.87
773.990	24.21	6.80	0.02	31.02	46.00	14.98
971.870	26.79	7.70	-0.11	34.38	54.00	19.62

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Fractus Slim Reach Xtend
(Chip ANT)

Test Mode : Receiving Mode, Frequency:
2441MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Emission Level Limits dB	Margin
267.650	24.79	3.70	-0.06	28.43	46.00	17.57
290.930	26.14	3.90	-1.00	29.04	46.00	16.96
571.260	21.14	6.50	-0.03	27.61	46.00	18.39
674.080	22.87	6.40	-0.27	29.00	46.00	17.00
802.120	24.17	6.90	0.18	31.25	46.00	14.75
966.050	26.89	7.70	-0.59	34.00	54.00	20.00

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Emission Level Limits dB	Margin
275.410	25.25	3.70	-0.19	28.75	46.00	17.25
285.110	25.54	3.80	0.24	29.58	46.00	16.42
456.800	17.77	5.52	1.23	24.52	46.00	21.48
526.640	19.67	6.90	0.58	27.15	46.00	18.85
569.320	21.17	6.50	-0.26	27.42	46.00	18.58
971.870	26.79	7.70	0.45	34.94	54.00	19.06

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna
 Test Mode : Transmitting Mode,
Frequency: 2402MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Emission Level Limits dB	Margin
274.440	25.19	3.70	0.87	29.76	46.00	16.24
446.130	17.59	5.40	1.25	24.24	46.00	21.76
691.540	23.22	6.50	-0.41	29.30	46.00	16.70
855.470	25.87	7.10	0.26	33.23	46.00	12.77
886.510	25.19	7.30	0.50	32.99	46.00	13.01
963.140	26.63	7.60	-0.42	33.81	54.00	20.19

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Emission Level Limits dB	Margin
216.240	21.86	3.20	4.10	29.16	46.00	16.84
297.720	26.68	3.98	-0.03	30.63	46.00	15.37
397.630	17.64	4.80	0.90	23.34	46.00	22.66
532.460	19.64	7.00	1.19	27.83	46.00	18.17
686.690	23.18	6.50	0.57	30.25	46.00	15.75
866.140	25.97	7.20	-0.35	32.82	46.00	13.18
961.200	26.50	7.60	0.74	34.84	54.00	19.16

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna

Test Mode : Transmitting Mode,
Frequency: 2441MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
256.010	24.28	3.50	-0.07	27.70	46.00	18.30
285.110	25.54	3.80	0.06	29.40	46.00	16.60
486.870	18.67	6.20	1.51	26.38	46.00	19.62
705.120	23.56	6.60	-0.27	29.89	46.00	16.11
865.170	26.00	7.20	-0.32	32.88	46.00	13.12
966.050	26.89	7.70	-0.57	34.02	54.00	19.98

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Limits dB	Margin
278.320	25.25	3.80	-0.22	28.83	46.00	17.17
295.780	26.48	4.00	0.60	31.07	46.00	14.93
525.670	19.66	6.90	0.46	27.02	46.00	18.98
774.960	24.26	6.80	0.34	31.40	46.00	14.60
865.170	26.00	7.20	-0.14	33.06	46.00	12.94
971.870	26.79	7.70	-0.63	33.86	54.00	20.14

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna

Test Mode : Transmitting Mode, Frequency:
2477MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
260.860	24.58	3.60	-0.41	27.77	46.00	18.23
288.020	25.85	3.80	0.18	29.83	46.00	16.17
667.290	22.80	6.40	0.61	29.81	46.00	16.19
679.900	22.97	6.40	0.36	29.72	46.00	16.28
838.010	24.96	7.10	0.45	32.51	46.00	13.49
956.350	26.33	7.60	0.87	34.80	46.00	11.20
973.810	26.64	7.70	-0.37	33.98	54.00	20.02

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Limits dB	Margin
202.660	22.04	3.10	0.47	25.61	43.50	17.89
373.380	17.13	4.60	3.72	25.46	46.00	20.54
486.870	18.67	6.20	5.95	30.82	46.00	15.18
551.860	19.23	6.80	4.13	30.16	46.00	15.84
858.380	25.98	7.20	0.82	34.00	46.00	12.00
956.350	26.33	7.60	0.99	34.92	46.00	11.08
969.930	26.83	7.69	0.29	34.82	54.00	19.18

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna

Test Mode : Receiving Mode, Frequency:
2441MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Emission Level Limits dB	Margin
241.460	23.16	3.40	0.37	26.93	46.00	19.07
257.950	24.44	3.50	0.09	28.02	46.00	17.98
287.050	25.69	3.80	0.89	30.38	46.00	15.62
581.930	20.91	6.30	0.30	27.51	46.00	18.49
747.800	23.11	6.70	0.77	30.58	46.00	15.42
841.890	25.11	7.10	1.02	33.24	46.00	12.76
963.140	26.63	7.60	-0.22	34.01	54.00	19.99

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Emission Level Limits dB	Margin
268.620	24.86	3.70	-0.93	27.63	46.00	18.37
408.300	17.28	4.90	0.70	22.88	46.00	23.12
530.520	19.70	6.90	1.71	28.31	46.00	17.69
571.260	21.14	6.50	0.24	27.88	46.00	18.12
863.230	26.09	7.20	-0.31	32.98	46.00	13.02
966.050	26.89	7.70	0.21	34.80	54.00	19.20

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

3.6.2. Above 1GHz Frequency Range Measurement Results

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna

Test Mode : Transmitting Mode,
Frequency: 2402MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
1734.160	26.63	7.07	7.72	41.42	74.00	32.58

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Peak values.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
1734.160	26.63	7.07	2.35	36.05	54.00	17.95

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Average values.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna

Test Mode : Transmitting Mode,
Frequency: 2402MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Limits dB	Margin
1734.160	26.63	7.07	11.67	45.37	74.00	28.63
2350.720	28.04	6.29	13.72	48.05	74.00	25.95

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Peak values.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Limits dB	Margin
1734.160	26.63	7.07	7.11	40.82	54.00	13.18
2350.720	28.04	6.29	9.36	43.69	54.00	10.31

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Average values.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna

Test Mode : Transmitting Mode,
Frequency: 2441MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Horizontal dB μ V/m	Emission Level Horizontal dB μ V/m	Limits dB	Margin
2350.720	28.04	6.29	8.31	42.64	74.00	31.36

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Peak values.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Horizontal dB μ V/m	Emission Level Horizontal dB μ V/m	Limits dB	Margin
2350.720	28.04	6.29	2.04	36.37	54.00	17.63

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Average values.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna

Test Mode : Transmitting Mode,
Frequency: 2441MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Limits dB	Margin
2350.720	28.04	6.29	12.08	46.41	74.00	27.59

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Peak values.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Vertical dBμV/m	Emission Level Vertical dBμV/m	Limits dB	Margin
2350.720	28.04	6.29	8.49	42.82	54.00	11.18

- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Average values.

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna

Test Mode : Transmitting Mode,
Frequency: 2477MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
2532.160	28.33	6.52	2.20	37.05	74.00	36.95

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

3. All final readings of measurement were with Peak values.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
2532.160	28.33	6.52	-0.88	33.96	54.00	20.04

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

3. All final readings of measurement were with Average values.

Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 53%
ANT: Pedestal Antenna
 Test Mode : Transmitting Mode,
Frequency: 2477MHz
Type of Modulation: FSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Limits dB	Margin
2532.160	28.33	6.52	11.21	46.06	74.00	27.94
2599.360	28.58	6.63	7.85	43.06	74.00	30.94

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

3. All final readings of measurement were with Peak values.

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Limits dB	Margin
2532.160	28.33	6.52	7.12	41.96	54.00	12.04
2599.360	28.58	6.63	2.43	37.64	54.00	16.36

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

3. All final readings of measurement were with Average values.

3.6.3. Restricted Bands Measurement Results

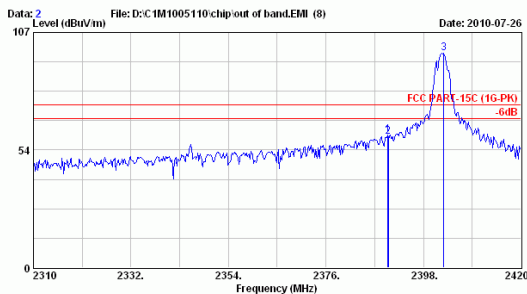
Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 63%
ANT: Fractus Slim Reach Xtend
(Chip ANT)
 Test Mode : Transmitting Mode,
Frequency: 2402MHz
Type of Modulation: FSK

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Horizontal dB μ V/m	Emission Level Horizontal dB μ V/m	Limits dB	Margin
Fundamental	2402.000	28.11	6.36	63.16	97.63		
Peak *	2389.970	28.10	6.34	25.80	60.24	74.00	13.76
Fundamental	2402.290	28.10	6.36	63.18	97.64		
Average *	2326.720	28.03	6.26	1.90	36.19	54.00	17.81

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2420MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



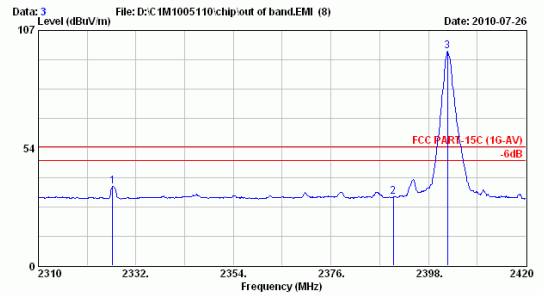
AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:ttenc@ttenc.com.tw



Site no. : A/C Chamber Data no. : 2
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:PDP03
 Test Mode : TX2402



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:ttenc@ttenc.com.tw



Site no. : A/C Chamber Data no. : 3
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:PDP03
 Test Mode : TX2402

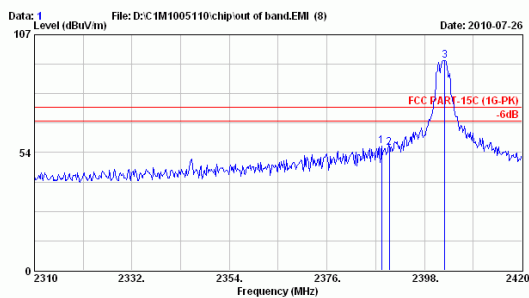
Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 63%
ANT: Fractus Slim Reach Xtend
(Chip ANT)
 Test Mode : Transmitting Mode,
Frequency: 2402MHz
Type of Modulation: FSK

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Limits dB	Margin
Fundamental	2420.620	28.11	6.36	60.92	95.39		
Peak *	2388.320	28.10	6.34	22.08	56.52	74.00	17.48
Fundamental	2402.290	28.10	6.36	60.18	94.64		
Average *	2326.720	28.03	6.26	-1.35	32.94	54.00	21.06

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2420MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



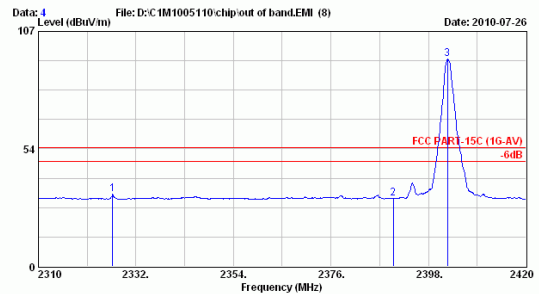
AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-Ru Tsun, Lin-Kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:temc@ttemc.com.tw



Site no. : A/C Chamber Data no. : 1
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N: FDP03
 Test Mode : TX2402



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-Ru Tsun, Lin-Kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:temc@ttemc.com.tw



Site no. : A/C Chamber Data no. : 4
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N: FDP03
 Test Mode : TX2402

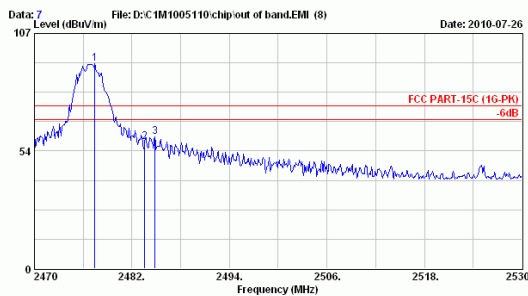
Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 63%
 ANT: Fractus Slim Reach Xtend (Chip ANT)
 Test Mode : Transmitting Mode,
 Frequency: 2477MHz
 Type of Modulation: FSK

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
Fundamental	2477.440	28.18	6.44	58.79	93.41		
Peak *	2484.820	28.18	6.45	25.33	59.96	74.00	14.04
Fundamental	2477.020	28.18	6.44	57.23	91.85		
Average *	2483.560	28.18	6.45	-2.19	32.44	54.00	21.56

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. High frequency section (spurious in the restricted band 2470-2530MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



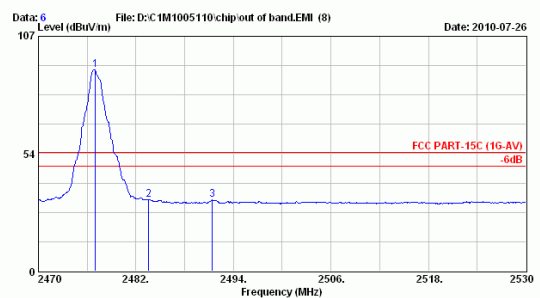
AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code:24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:temc@temc.com.tw



Site no. : A/C Chamber Data no. : 7
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 26°C /53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N: FDP03
 Test Mode : TX2477



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code:24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:temc@temc.com.tw



Site no. : A/C Chamber Data no. : 6
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 26°C /53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N: FDP03
 Test Mode : TX2477

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 63%
 ANT: Fractus Slim Reach Xtend
 (Chip ANT)

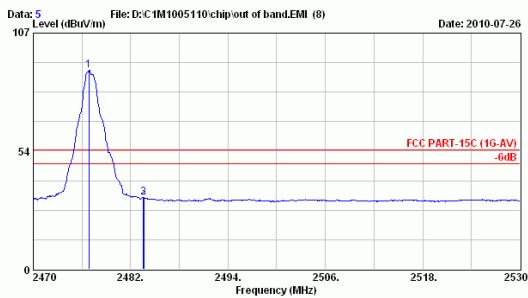
Test Mode : Transmitting Mode,
 Frequency: 2477MHz
 Type of Modulation: FSK

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Limits dB	Margin
Fundamental	2476.720	28.18	6.44	57.86	92.48		
Peak *	2483.620	28.18	6.45	24.56	59.19	74.00	14.81
Fundamental	2476.840	28.18	6.44	55.37	89.99		
Average *	2483.560	28.18	6.45	-2.20	32.43	54.00	21.57

- Remark :
1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. High frequency section (spurious in the restricted band 2470-2530MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



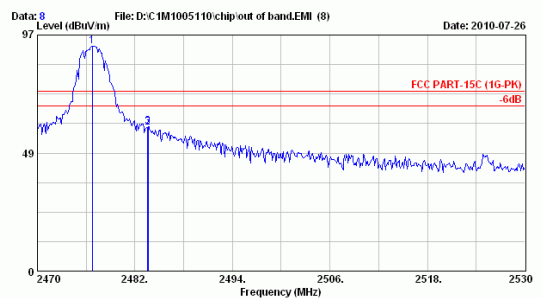
AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:temc@temc.com.tw



Site no. : A/C Chamber Data no. : 5
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:PDP03
 Test Mode : TX2477



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:temc@temc.com.tw



Site no. : A/C Chamber Data no. : 8
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:PDP03
 Test Mode : TX2477

Date of Test : Jul. 26, 2010 Temperature : 26°C

EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 63%
 ANT: Pedestal Antenna

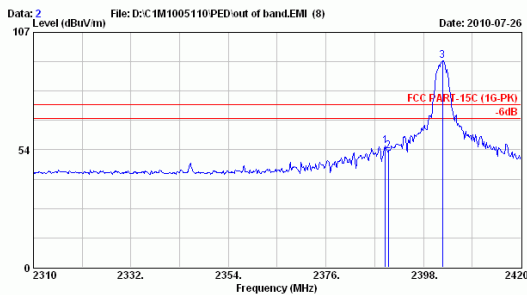
Test Mode : Transmitting Mode,
 Frequency: 2402MHz
 Type of Modulation: FSK

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Horizontal dB μ V/m	Emission Level Horizontal dB μ V/m	Limits dB	Margin
Fundamental	2402.290	28.10	6.36	59.51	93.97		
Peak *	2389.420	28.10	6.34	20.73	55.17	74.00	18.83
Fundamental	2402.290	28.10	6.36	59.74	94.20		
Average *	2386.340	28.10	6.33	-0.15	34.28	54.00	19.72

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2420MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



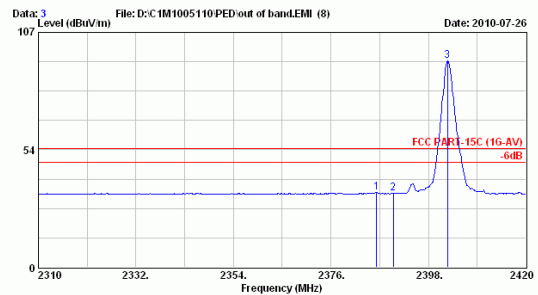
AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Teun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:ttmc@ttmc.com.tw



Site no. : A/C Chamber Data no. : 2
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (16-PK)
 Env. / Ins. : 8564EC 26°C / 538 Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:FDP03
 Test Mode : TX2402



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Teun, Lin-kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:ttmc@ttmc.com.tw



Site no. : A/C Chamber Data no. : 3
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (16-AV)
 Env. / Ins. : 8564EC 26°C / 538 Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:FDP03
 Test Mode : TX2402

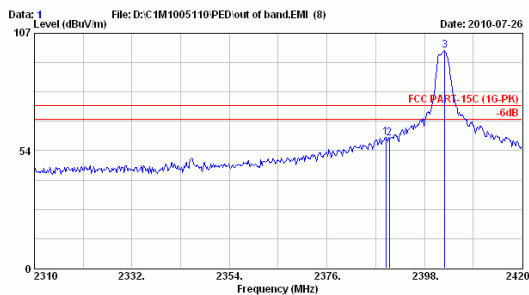
Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 63%
ANT: Pedestal Antenna
 Test Mode : Transmitting Mode,
Frequency: 2402MHz
Type of Modulation: FSK

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Limits dB	Margin
Fundamental	2402.620	28.11	6.36	64.62	99.09		
Peak *	2389.310	28.10	6.34	25.13	59.57	74.00	14.43
Fundamental	2402.070	28.10	6.36	63.14	97.60		
Average *	2386.340	28.10	6.33	0.65	35.08	54.00	18.92

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2420MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



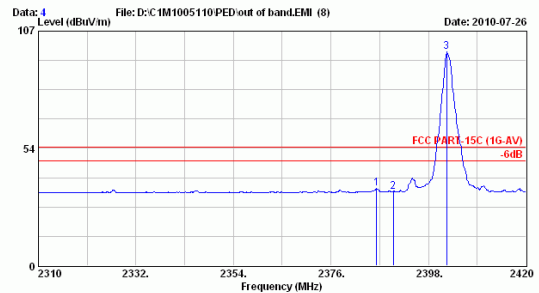
AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:ttmc@ttmc.com.tw



Site no. : A/C Chamber Data no. : 1
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:FDP03
 Test Mode : TX2402



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:ttmc@ttmc.com.tw



Site no. : A/C Chamber Data no. : 4
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:FDP03
 Test Mode : TX2402

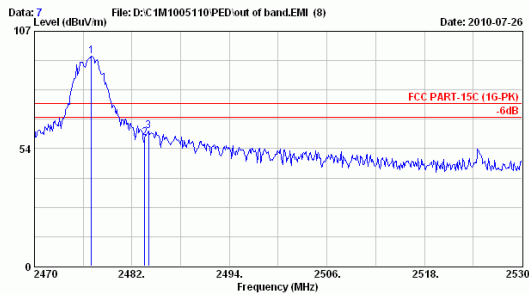
Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 63%
ANT: Pedestal Antenna
 Test Mode : Transmitting Mode,
Frequency: 2477MHz
Type of Modulation: FSK

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
Fundamental	2477.020	28.18	6.44	60.99	95.61		
Peak *	2484.040	28.18	6.45	27.05	61.68	74.00	12.32
Fundamental	2477.020	28.18	6.44	60.46	95.08		
Average *	2491.420	28.20	6.46	0.83	35.49	54.00	18.51

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. High frequency section (spurious in the restricted band 2470-2530MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



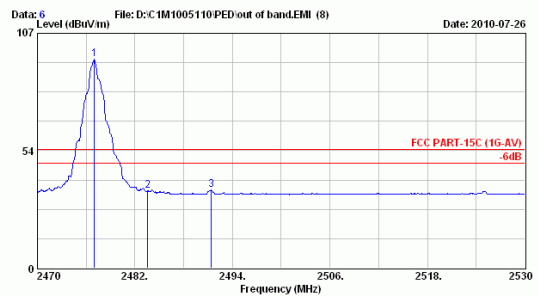
AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code:24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:temc@temc.com.tw



Site no. : A/C Chamber Data no. : 7
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:FDP03
 Test Mode : TX2477



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei
 County, Taiwan R.O.C. Post Code:24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:temc@temc.com.tw



Site no. : A/C Chamber Data no. : 6
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:FDP03
 Test Mode : TX2477

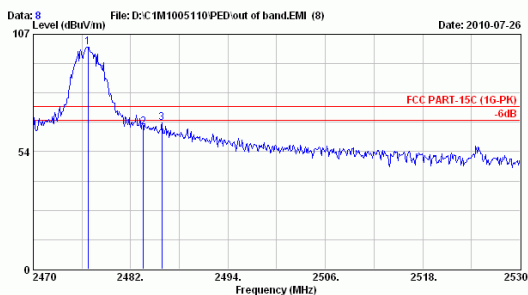
Date of Test : Jul. 26, 2010 Temperature : 26°C
 EUT : 2.4GHz Embedded Type Wireless Modem Humidity : 63%
ANT: Pedestal Antenna
 Test Mode : Transmitting Mode,
Frequency: 2477MHz
Type of Modulation: FSK

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB μ V	Meter Reading Vertical dB μ V/m	Emission Level Vertical dB μ V/m	Limits dB	Margin
Fundamental	2476.720	28.18	6.44	66.49	101.11		
Peak *	2485.840	28.18	6.45	32.15	66.78	74.00	7.22
Fundamental	2477.020	28.18	6.44	64.19	98.81		
Average *	2485.120	28.18	6.45	2.73	37.36	54.00	16.64

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. High frequency section (spurious in the restricted band 2470-2530MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



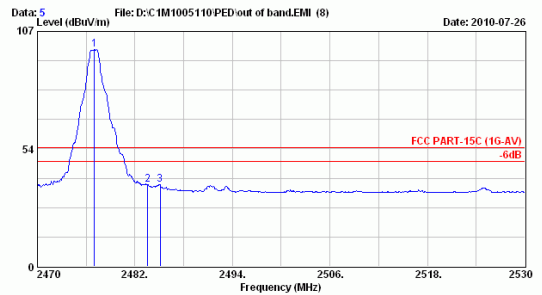
AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:ttenc@ttenc.com.tw



Site no. : A/C Chamber Data no. : 8
 Dis. / Ant. : 3m 3115(3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:FDP03
 Test Mode : TX2477



AUDIX TECHNOLOGY Corp. EMC Laboratory
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei County, Taiwan R.O.C. Post Code 24443
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:ttenc@ttenc.com.tw



Site no. : A/C Chamber Data no. : 5
 Dis. / Ant. : 3m 3115(3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 26°C / 53% Engineer : Jarwei Wang
 EUT : 2.4GHz Embedded Type Wireless Modem
 Power Rating : DC 4.5V M/N:FDP03
 Test Mode : TX2477

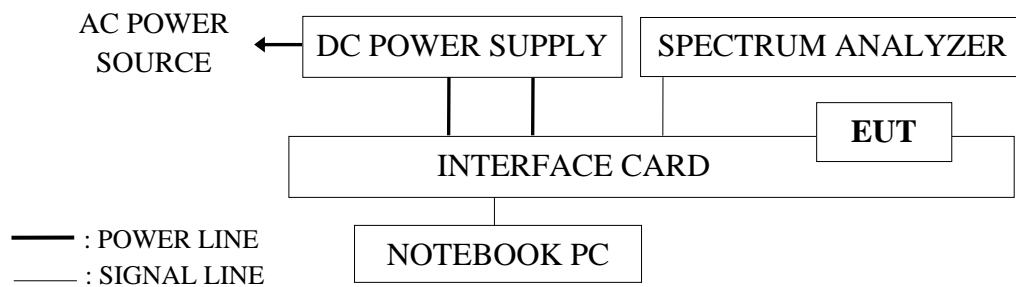
4. 6dB BANDWIDTH MEASUREMENT

4.1. Test Equipment

The following test equipment was used during the 6dB bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Jul. 23, 09'	Jul. 22, 10'

4.2. Block Diagram of Test Setup



EUT: 2.4GHZ EMBEDDED TYPE WIRELESS MODEM

4.3. Specification Limits (§15.247(a)(2))

The minimum 6dB bandwidth shall be at least 500kHz.

4.4. Operating Condition of EUT

- 4.4.1. Set up the EUT (2.4GHz Embedded Type Wireless Modem) as shown on 4.2.
- 4.4.2. To turn on the power of all equipment.
- 4.4.3. The EUT was set the Notebook PC using test program “Futaba Term”.
- 4.4.4. The EUT was set to continuously transmit signals at 2402MHz、2441MHz and 2477MHz during testing.

4.5. Test Procedure

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

The measurement guideline was according to KDB 558074.

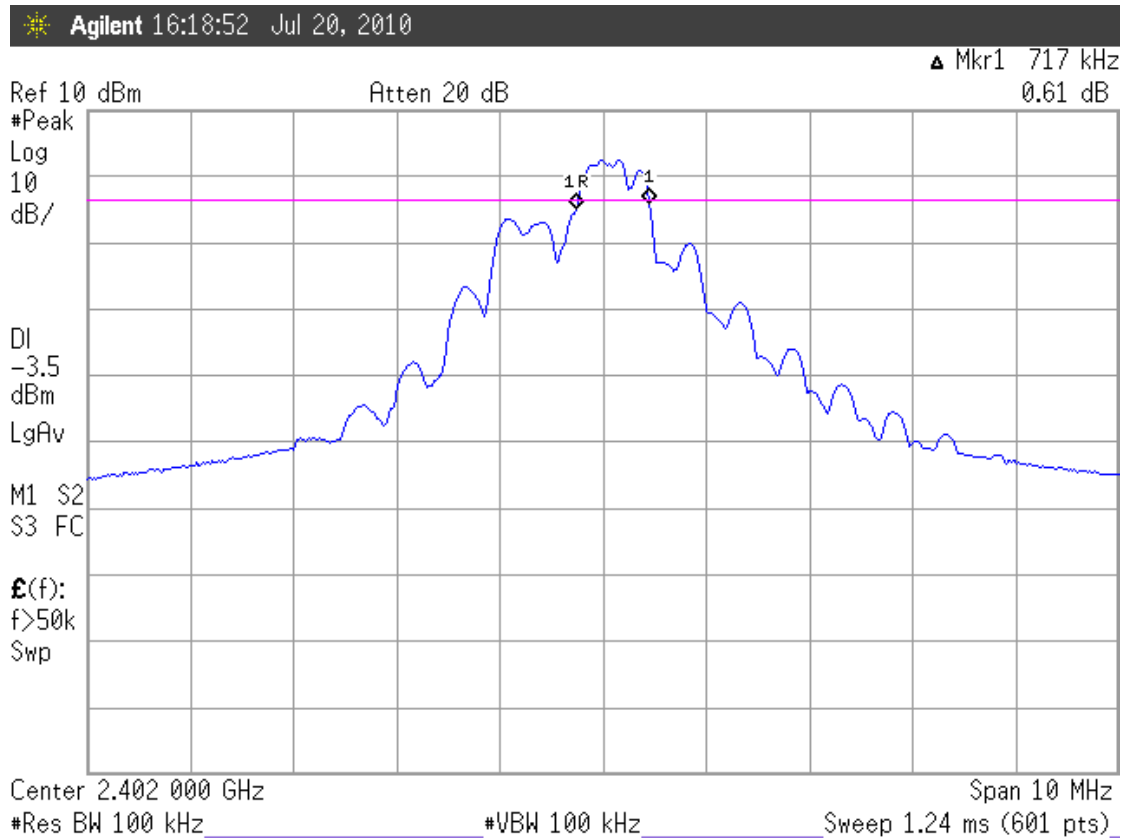
4.6. Test Results

PASSED. All the test results are attached in next pages.

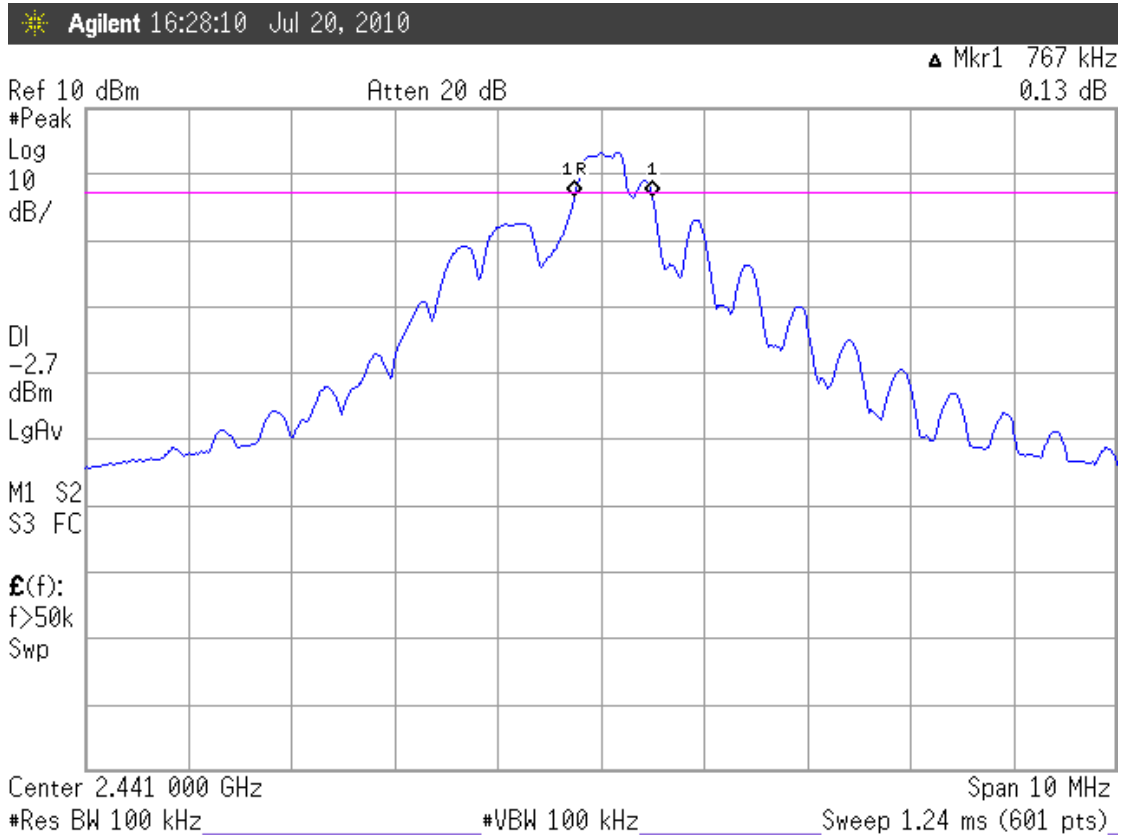
Test Date : Jul. 20, 2010 Temperature : 28°C Humidity : 58%

No.	Test Frequency	6dB Bandwidth
1.	2402MHz	717kHz
2.	2441MHz	767kHz
3.	2477MHz	783kHz

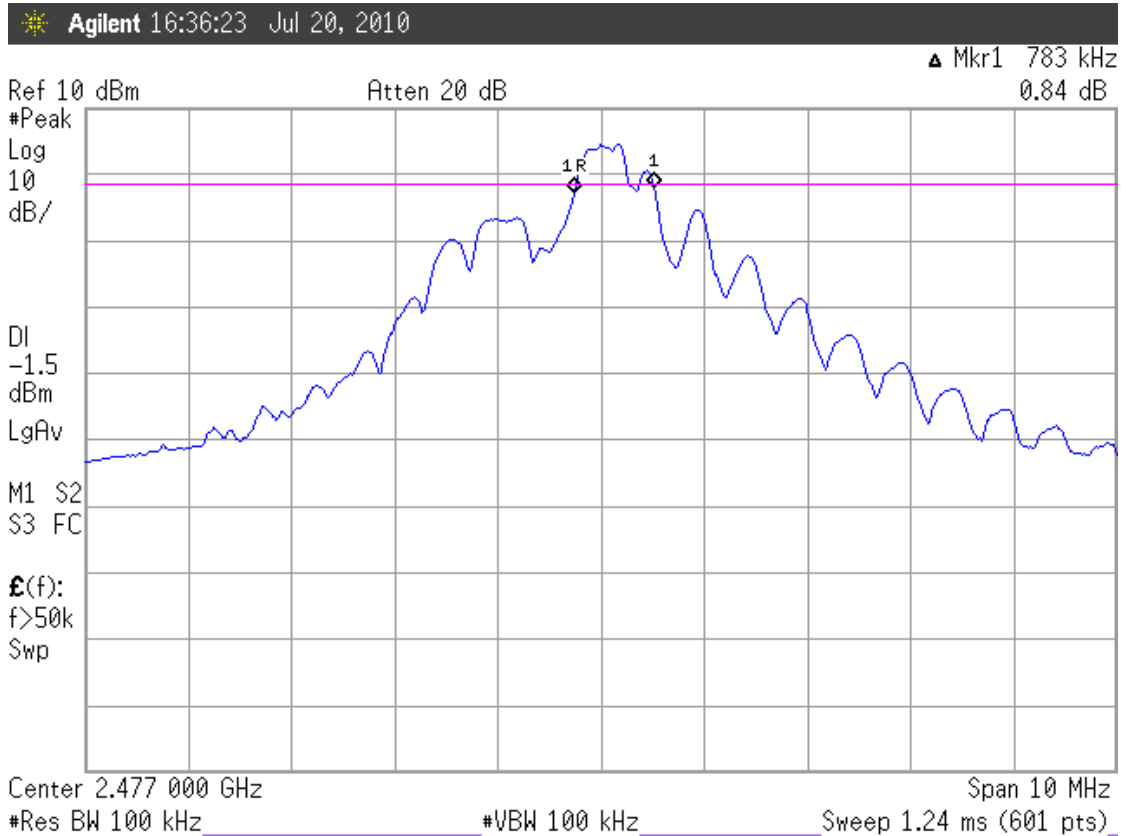
4.6.1. Frequency: 2402MHz



4.6.2. Frequency: 2441MHz



4.6.3. Frequency: 2477MHz



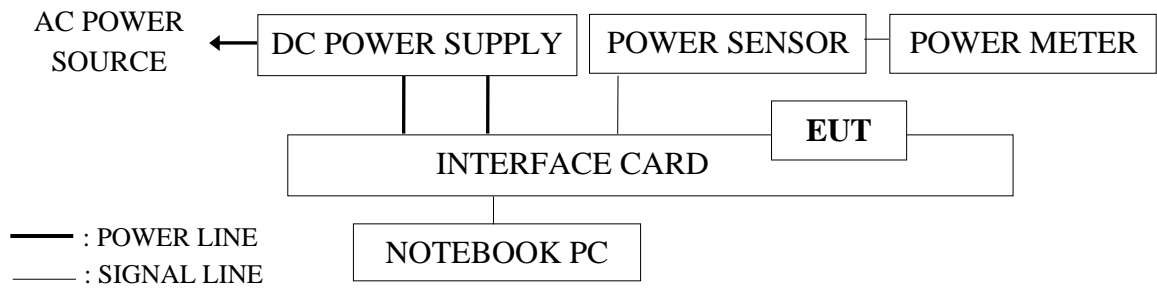
5. MAXIMUM PEAK OUTPUT POWER MEASUREMENT

5.1. Test Equipment

The following test equipment was used during the maximum peak output power measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Power Meter	Anritsu	ML2487A	6K00005406	Feb. 11, 10'	Feb. 10, 11'
2.	Power Sensor	Anritsu	MA2491A	030873	Feb. 11, 10'	Feb. 10, 11'

5.2. Block Diagram of Test Setup



EUT: 2.4GHz Embedded Type Wireless Modem

5.3. Specification Limits (§15.247(b)-(3))

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5MHz is : 1Watt. (30dBm)

5.4. Operating Condition of EUT

- 5.4.1. Set up the EUT (2.4GHz Embedded Type Wireless Modem) as shown on 4.2.
- 5.4.2. To turn on the power of all equipment.
- 5.4.3. The EUT was set the Notebook PC using test program “Futaba Term”.
- 5.4.4. The EUT was set to continuously transmit signals at 2402MHz、2441MHz and 2477MHz during testing.

5.5. Test Procedure

The transmitter output was connected to the power meter that was designed to detect peak value automatically.

The measurement guideline was according to KDB 558074.

5.6. Test Results

PASSED. All the test results are listed below.

Test Date : Jul. 20, 2010 Temperature : 28°C Humidity : 58%

No.	Test Frequency	Peak Output Power	Limit
1.	2402MHz	2.88dBm	30dBm
2.	2441MHz	4.24dBm	30dBm
3.	2477MHz	5.32dBm	30dBm

6. EMISSION LIMITATIONS MEASUREMENT

6.1. Test Equipment

The following test equipment was used during the emission limitations test :

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Jul. 23, 09'	Jul. 22, 10'

6.2. Block Diagram of Test Setup

The same as section.4.2.

6.3. Specification Limits (§15.247(c))

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (See Section 15.205(c)).(※
This test result attaching to §3.6.3)

6.4. Operating Condition of EUT

The test program “Futaba Term” was used to enable the EUT to transmit data at different channel frequency individually.

6.5. Test Procedure

The transmitter output was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with 100kHz RBW and 100kHz VBW.

The measurement guideline was according to KDB 558074.

6.6. Test Results

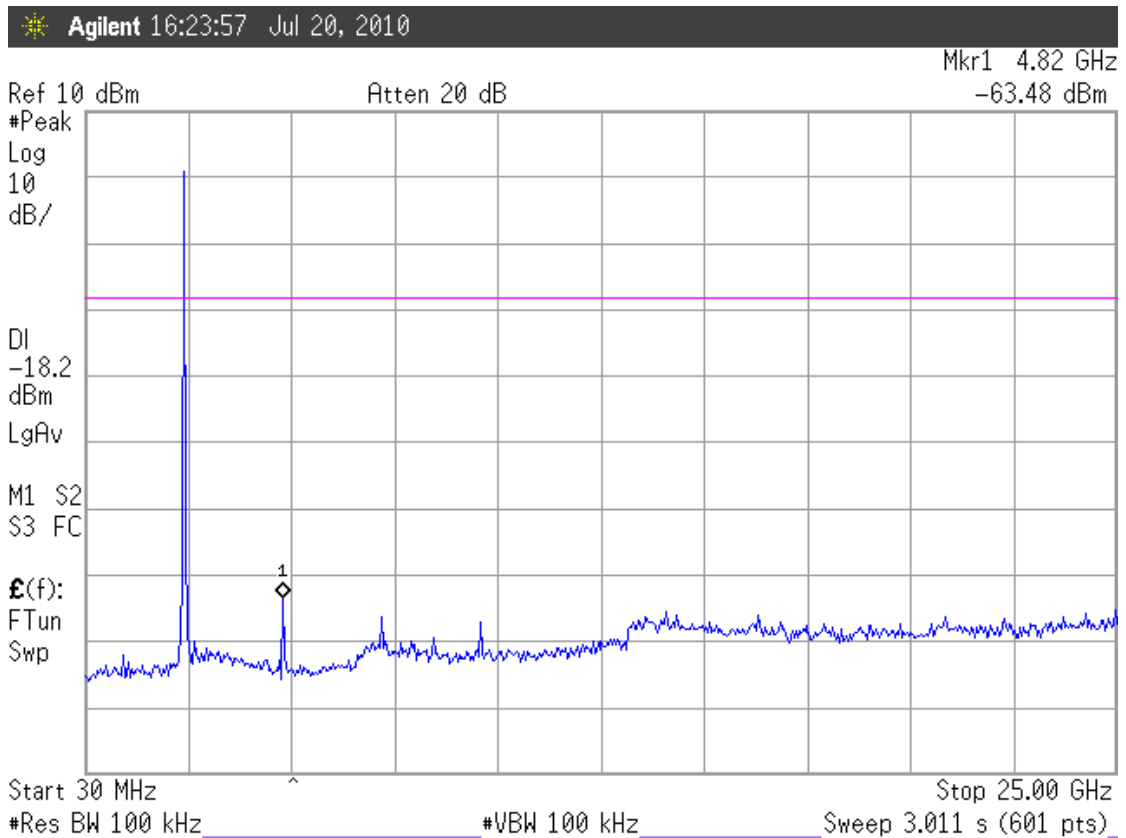
PASSED. The testing data was attached in the next pages.

Test Date : Jul. 20, 2010 Temperature : 28°C Humidity : 58%

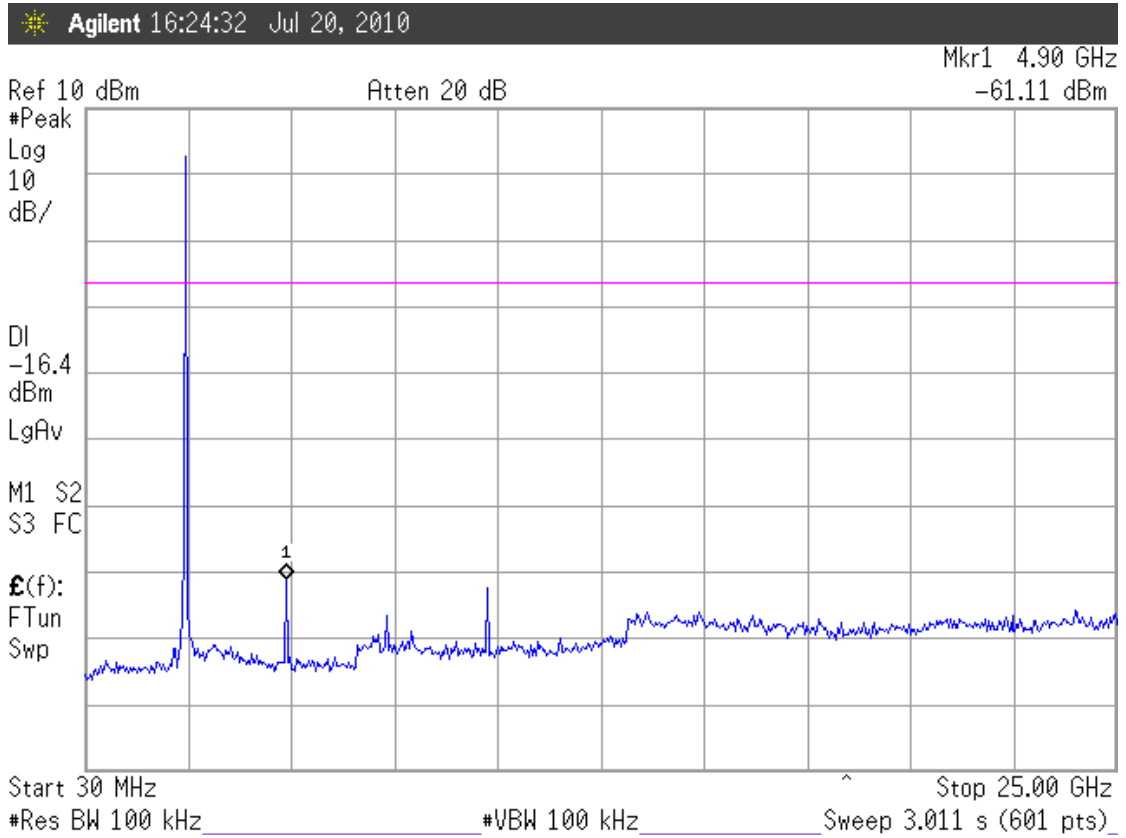
1. 2402MHz: During 30MHz~25GHz bandwidth. In the 4.82GHz, the -63.48dBm is max value that is lower than 20dB of primary channel.
2. 2441MHz: During 30MHz~25GHz bandwidth. In the 4.90GHz, the -61.11dBm is max value that is lower than 20dB of primary channel.
3. 2477MHz: During 30MHz~25GHz bandwidth. In the 9.89GHz, the -47.06dBm is max value that is lower than 20dB of primary channel.

Note: The peak above the limit line is the carrier frequency.

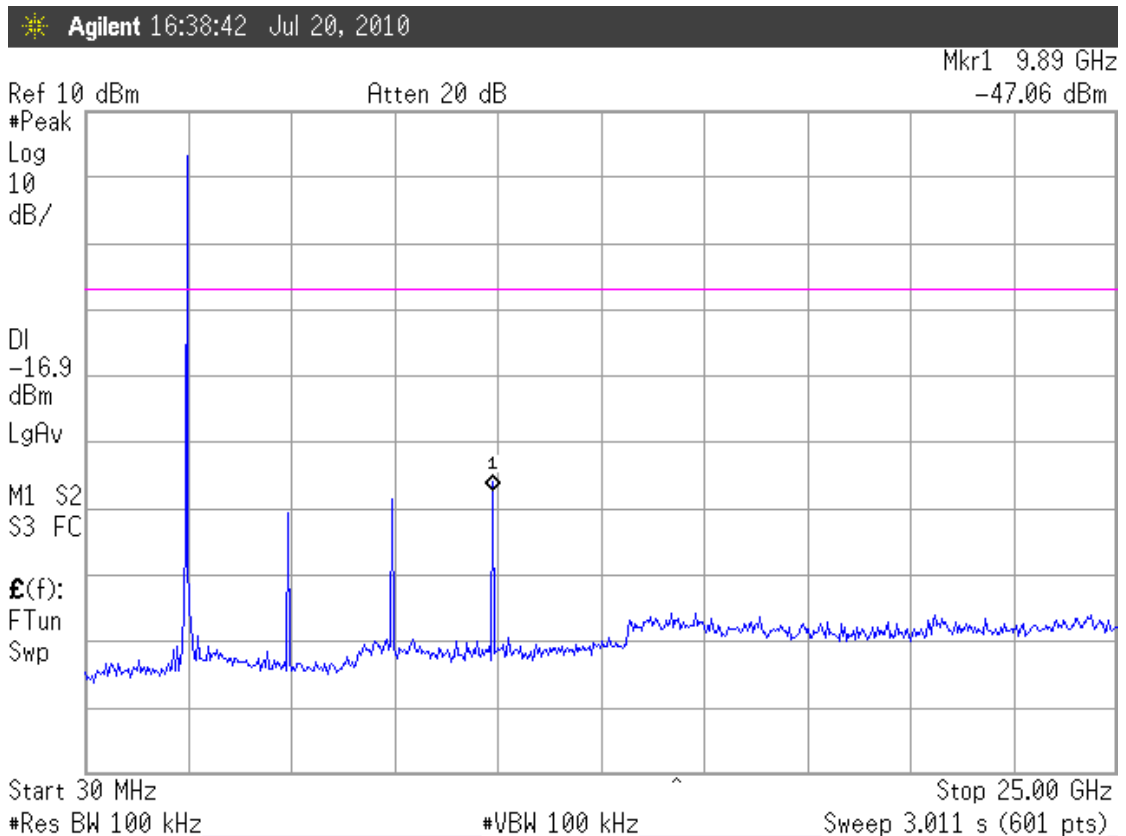
6.6.1. Frequency: 2402MHz



6.6.2. Frequency: 2441MHz



6.6.3. Frequency: 2477MHz



7. BAND EDGES MEASUREMENT

7.1. Test Equipment

The following test equipment was used during the band edges measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Jul. 23, 09'	Jul. 22, 10'

7.2. Block Diagram of Test Setup

The same as section.4.2.

7.3. Specification Limits (§15.247(c))

The highest level should be at least 20 dB below that in the 100kHz bandwidth.

7.4. Operating Condition of EUT

The test program “Futaba Term” was used to enable the EUT to transmit data at different channel frequency individually.

7.5. Test Procedure

The transmitter output was connected to the spectrum analyzer. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100kHz bandwidth from band edge.

The measurement guideline was according to KDB 558074.

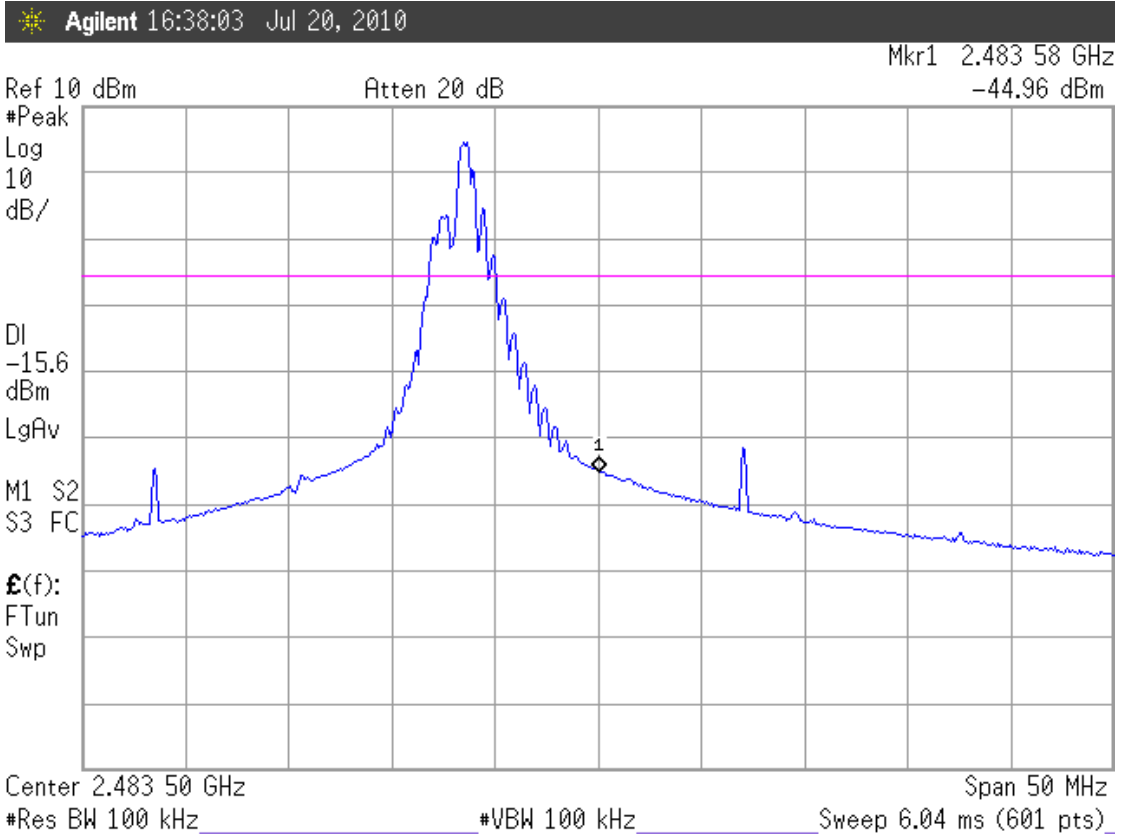
7.6. Test Results

PASSED. All the test results are attached in next pages.

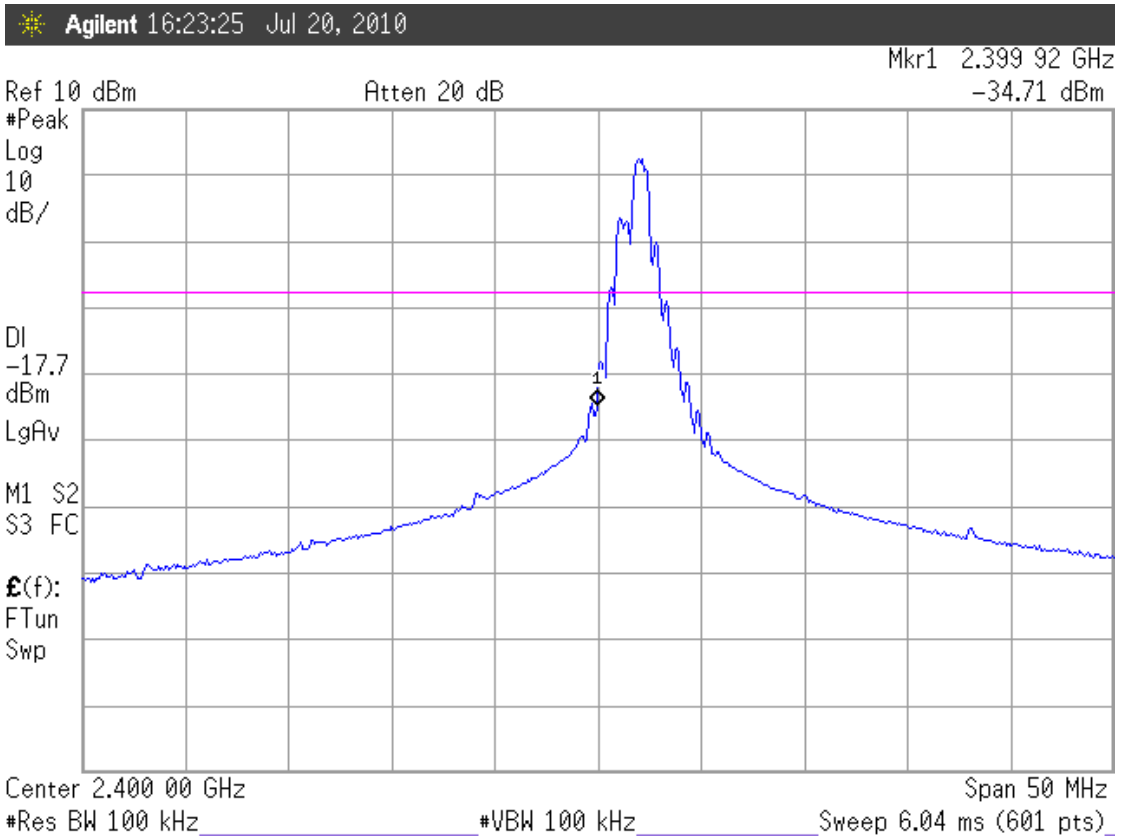
Test Date : Jul. 20, 2010 Temperature : 28°C Humidity : 58%

1. Upper Band edge: The highest emission level is -44.96dBm on 2.48358GHz ◦
2. Below Band edge : The highest emission level is -34.71dBm on 2.39992GHz ◦

Upper Band edge



Below Band edge



8. POWER SPECTRAL DENSITY MEASUREMENT

8.1. Test Equipment

The following test equipment was used during the power spectral density measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Jul. 23, 09'	Jul. 22, 10'

8.2. Block Diagram of Test Setup

The same as section.4.2.

8.3. Specification Limits (§15.247(d))

The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band.

8.4. Operating Condition of EUT

The test program “Futaba Term” was used to enable the EUT to transmit data at different channel frequency individually.

8.5. Test Procedure

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

The measurement guideline was according to KDB 558074.

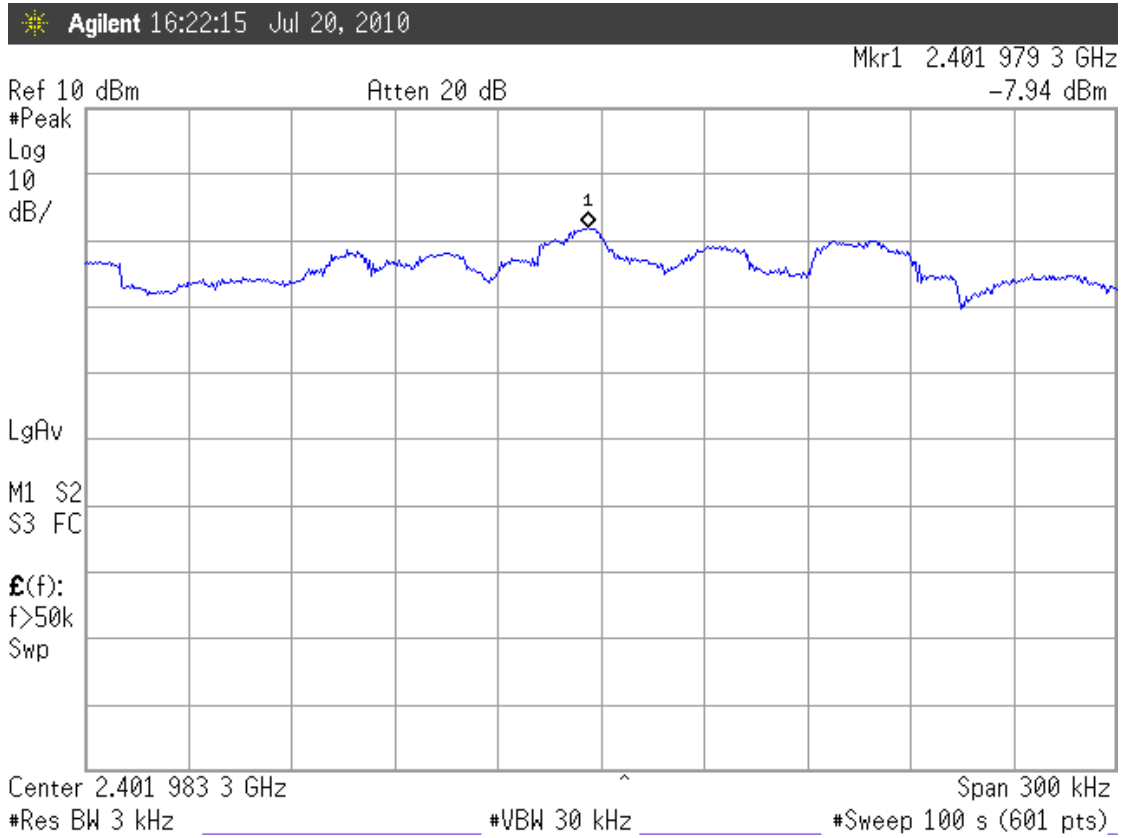
8.6. Test Results

PASSED. All the test results are attached in next pages.

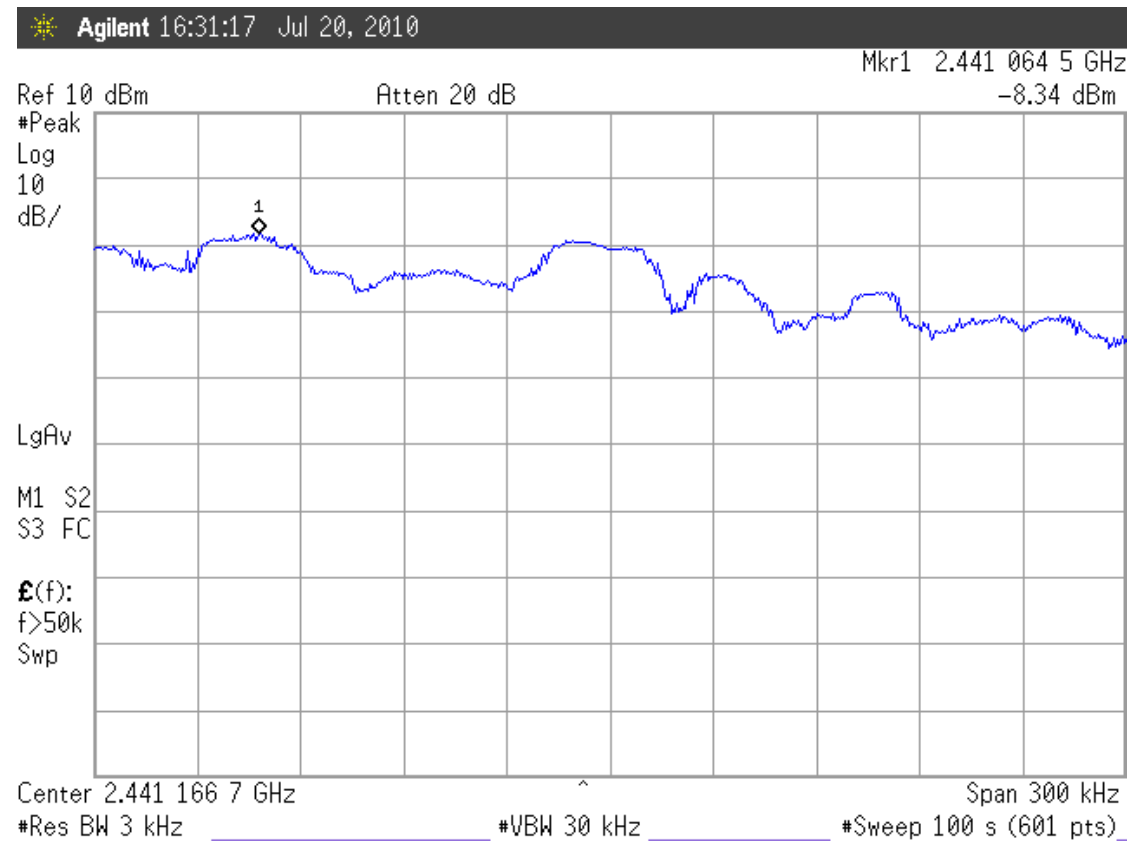
Test Date : Jul. 20, 2010 Temperature : 28°C Humidity : 58%

No.	Test Frequency	Power Spectral Density	Limit
1.	2402MHz	-7.94dBm	8dBm
2.	2441MHz	-8.34dBm	8dBm
3.	2477MHz	-6.99dBm	8dBm

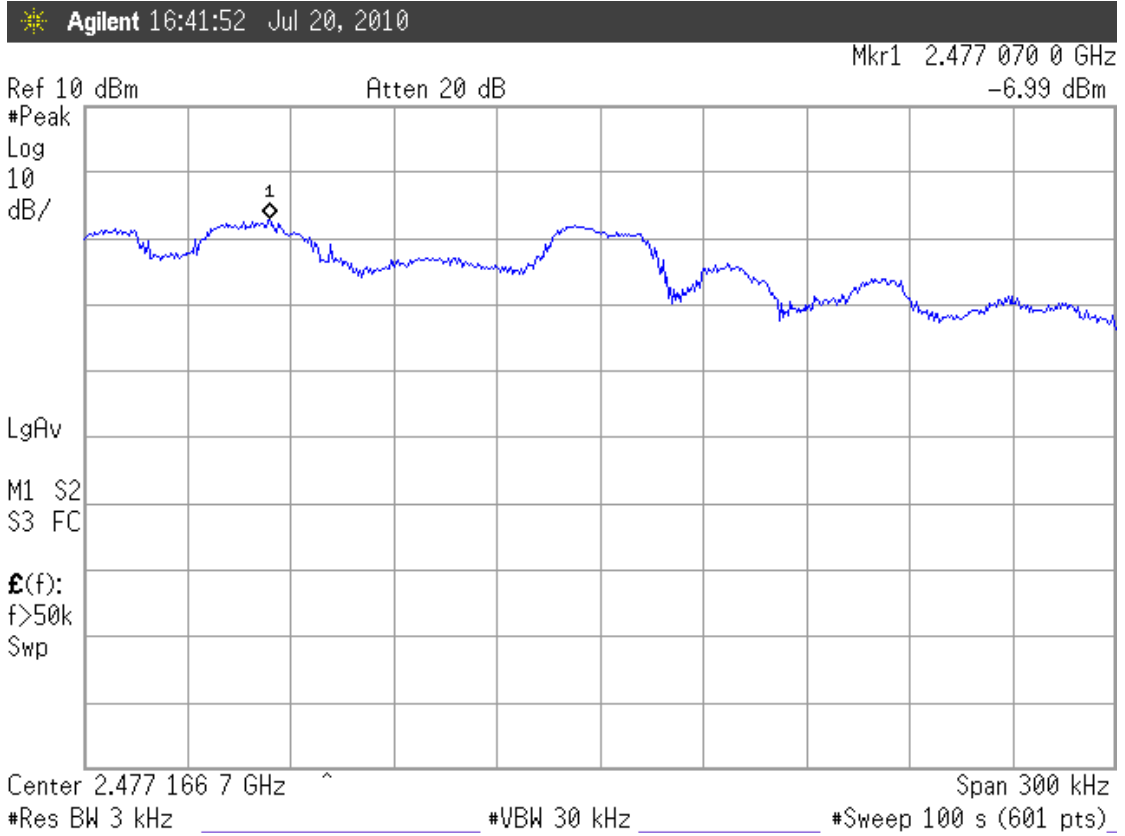
8.6.1. Frequency: 2402MHz



8.6.2. Frequency: 2441MHz



8.6.3. Frequency: 2477MHz



9. DEVIATION TO TEST SPECIFICATIONS

【NONE】