

TEST REPORT FOR FCC
Class II PERMISSIVE CHANGE
On Behalf of
Amtran Technology Co., Ltd.
Bluetooth Embedded Module
Total Model No.: BCM92046MD_EMB
FCC ID: MDZSV422XVT-BT

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File Number : EM990408B
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Date of Test : Mar. 01 ~ 11, 2010
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Appendix

TEST REPORT CERTIFICATION (Class II Permissive Change)

Applicant : Amtran Technology Co., Ltd.
 EUT Description : Bluetooth Embedded Module
 FCC ID : MDZSV422XVT-BT
 (A) MODEL NO. : BCM92046MD_EMB
 (B) SERIAL NO. : N/A
 (C) POWER SUPPLY : DC 5V
 (D) TEST VOLTAGE : AC 120V, 60Hz (Via Notebook PC)

Measurement Procedure Used:

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

(FCC CFR 47 Part 15C, §15.205, §15.207, §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 C limits.

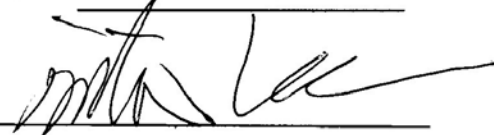
The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

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

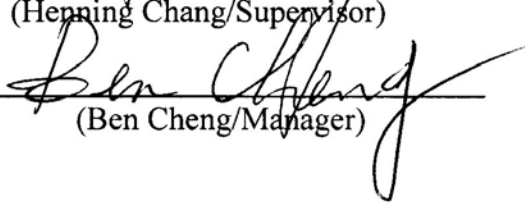
This report is based on reports of EM-F980571, EM-F980641.

Date of Test: Mar. 01 ~ 11, 2010 Date of Report: Mar. 15, 2010

Date of Test of Original: Aug. 03 ~ 05, 2009 Date of Original: Aug. 13, 2009

Producer : 
 (Nita Lee/Administrator)

Review: 
 (Henning Chang/Supervisor)

Signatory: 
 (Ben Cheng/Manager)

1. DESCRIPTION OF VERSION

Edition No.	Date of Rev.	Summary	Report No.
Rev. 0	Aug. 13, 2009	Original Report.	EM-F980571
Rev. 1	Sep. 01, 2009	<ol style="list-style-type: none"> 1. There is no hardware or electrical modification made to the applying modular transmitter itself. The changes filed under this application are adding LCD TV Model VIZIO VF552XVT collocated with Bluetooth Embedded Module, FCC ID: MDZSV422XVT-BT. 2. Supplementary test data are recorded in report EM-F980641. 	EM-F980641
Rev. 2	Mar. 15, 2010	<ol style="list-style-type: none"> 1. The changes filed under this application are adding LCD TV Model VIZIO M550NV collocated with Bluetooth Embedded Module, FCC ID: MDZSV422XVT-BT. And the PCB's electronic circuit changes are described at appendix. 2. Supplementary test data are recorded in test report. 	EM-F990210

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Description	:	Bluetooth Embedded Module
Model Number	:	BCM92046MD_EMB
FCC ID	:	MDZSV422XVT-BT
Applicant	:	Amtran Technology Co., Ltd. 17F, No.268, Lien Chen Rd., Chung Ho City, Taipei County, Taiwan, 235 R.O.C.
Fundamental Range	:	2400MHz ~ 2483.5MHz
Channel Number	:	79
Radio Technology	:	FHSS Modulation
Antenna Gain	:	1.87dBi
Date of Receipt of Sample	:	Feb. 04, 2010
Date of Test	:	Mar. 01 ~ 11, 2010

Information for Class II Permissive Change:

1. This EUT is additional version with original FCC ID MDZSV422XVT-BT.
2. The changes filed under this application are adding LCD TV Model VIZIO M550NV collocated with Bluetooth Embedded Module, FCC ID: MDZSV422XVT-BT. And the PCB's electronic circuit changes are described at appendix.
3. This report is based on reports of EM-F980571 & EM-F980641.

2.2. Tested Supporting System Details

2.2.1. LCD TV (HOST)

Model Number : VIZIO M550NV
 Serial Number : N/A
 BSMI ID : R31421
 FCC ID : FCC By DoC
 Manufacturer : VIZIO
 Power Cord : Non-Shielded, Detachable, 1.8m

2.2.2. NOTEBOOK PC

Model Number : PP2130
 Serial Number : 5Y32KSQZ40ME
 BSMI ID : 3912A556
 FCC ID : FCC By DoC
 Manufacturer : LG (Brand Compaq)
 Power Adapter : COMPAQ, M/N PA-1650-02C
 DC Power Cord: Shielded, Undetachable, 1.8m
 Bonded a ferrite core
 AC Power Cord: Non-Shielded, Undetachable, 1.8m

2.3. Description of Test Facility

Name of Firm : **AUDIX Technology Corporation**
 EMC Department
 No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,
 Taipei County, Taiwan, R.O.C.

Test Site : **Semi-Anechoic Chamber**
 No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,
 Taipei Hsien, Taiwan
 May 14, 2009 Renewal on
 Federal Communication Commission
 Registration Number: 90993

NVLAP Lab. Code : 200077-0

TAF Accreditation No : 1724

2.4. Measurement Uncertainty

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

Remark : Uncertainty = $ku_c(y)$

Test Item	Uncertainty
20dB Bandwidth	± 0.2kHz
Carrier Frequency Separation	± 0.2kHz
Time Of Occupancy	± 0.03sec
Maximum peak Output power	± 0.52dBm
Emission Limitations	± 0.13dB
Band Edges	± 0.13dB

3. CONDUCTED EMISSION MEASUREMENT

【The EUT only employs DC power for operation, no conductive emission limits are required according to FCC Part 15 Section §15.207】

4. RADIATED EMISSION MEASUREMENT

4.1. Test Equipment

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

4.1.1. For Frequency 30MHz~1000MHz (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.	Test Receiver	R&S	ESCS30	100265	Aug. 28, 09'	Aug. 27, 10'
3.	Pre-Amplifier	HP	8447D	2944A06305	Feb. 03, 10'	Feb. 02, 11'
4.	Biconical Antenna	CHASE	VBA6106A	1264	Mar. 20, 09'	Mar. 19, 10'
5.	Log Periodic Antenna	Schwarzbeck	UHALP9108 -A	0810	Mar. 20, 09'	Mar. 19, 10'

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

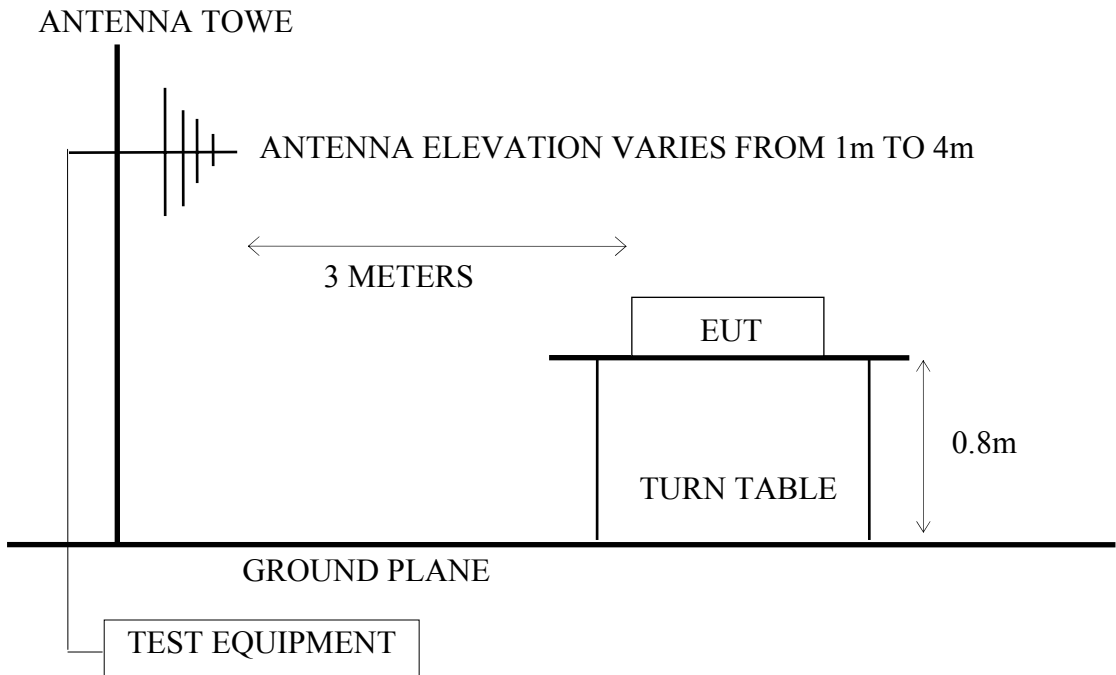
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8564EC	3946A00249	Oct. 27, 09'	Oct. 26, 10'
2.	Amplifier	HP	8449B	3008A01284	Jun. 17, 09'	Jun. 16, 10'
3.	Horn Antenna	EMCO	3115	9112-3775	May 15, 09'	May 14, 10'
4.	Horn Antenna	EMCO	3116	2653	Oct. 02, 09'	Oct. 01, 10'

4.2. Test Setup

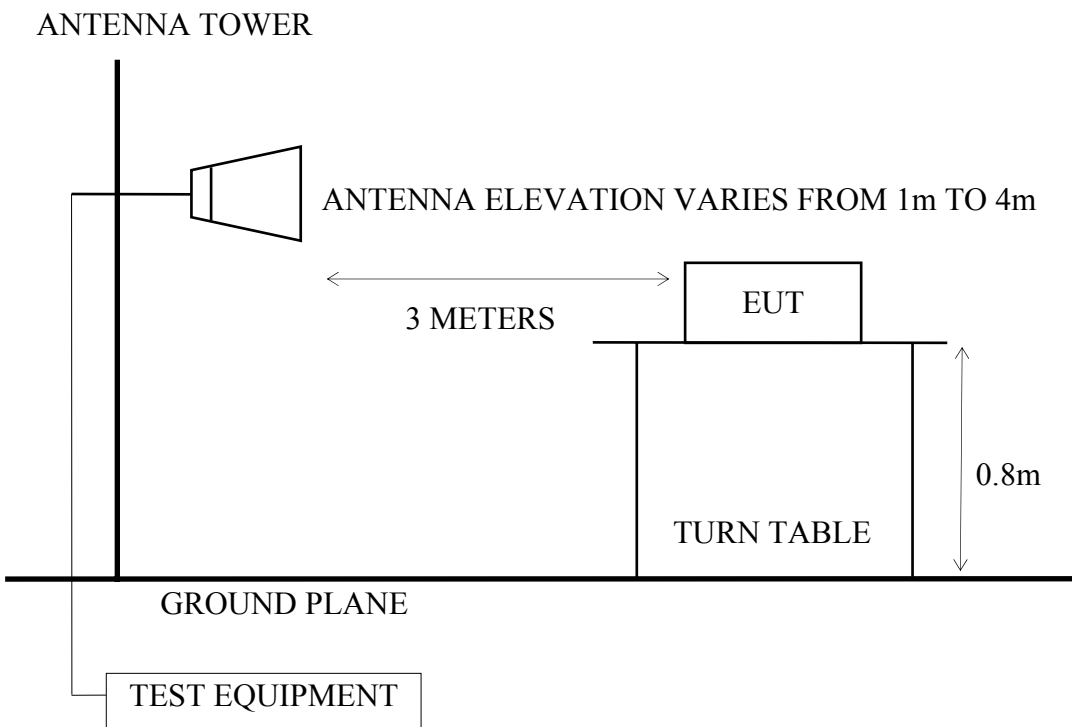
4.2.1. Block Diagram of connection between EUT and simulators



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



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



4.3. 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).

4.4. Operating Condition of EUT

- 4.4.1. Set up the EUT (Bluetooth Embedded Module) and simulator as shown on 3.2.1.
- 4.4.2. To turn on the power of all equipment.
- 4.4.3. The EUT was set to continuously transmit signals at 2402MHz, 2441MHz and 2480MHz during testing.
- 4.4.4. The EUT was set to continuously receive signals at 2441MHz during testing.

4.5. 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 to 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna 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 antennas 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 3kHz 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.

4.6. Radiated Emission Measurement Results

PASSED. All the emissions not reported below are too low against the official limits.

EUT : Bluetooth Embedded Module M/N : BCM92046MD_EMB

Test Date : Mar. 11, 2010 Temperature : 23 Humidity : 43 %

For Frequency Range 30MHz~1000MHz:

[Note: Three types of modulation (GFSK and 8-DPSK and $\pi/4$ -DQPSK) were evaluated but only the worst case (GFSK) was reported in section 4.6.1 & 4.6.2]

The EUT (Bluetooth Embedded Module) with following test modes was performed during this section testing and all the test results are listed in section 4.6.1.

Mode	Host (LCD TV)	Test Mode and Frequency	
1.	VIZIO M550NV	Transmitting	2402MHz (CH0)
2.			2441MHz (CH39)
3.			2480MHz (CH78)
4.		Receiving	2441MHz (CH39)

Remark 1 : Type of modulation: GFSK.

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

For Frequency above 1GHz:

The EUT (Bluetooth Embedded Module) with following test modes was performed during this section testing and all the test results are listed in section 4.6.2.

Mode	Host (LCD TV)	Test Mode and Frequency		Test Frequency Range
1.	VIZIO M550NV	Transmitting	2402MHz (CH0)	1000-2680MHz
2.				2680-5500MHz
3.				5500-18000MHz
4.				18000-25000MHz
5.		Transmitting	2441MHz (CH39)	1000-2680MHz
6.				2680-5500MHz
7.				5500-18000MHz
8.				18000-25000MHz
9.		Transmitting	2480MHz (CH78)	1000-2680MHz
10.				2680-5500MHz
11.				5500-18000MHz
12.				18000-25000MHz
13.		Receiving	2441MHz (CH39)	1000-2680MHz
14.				2680-5500MHz
15.				5500-18000MHz
16.				18000-25000MHz

Remark 1 : The emissions level were too low against the official limit and not report.

Remark 2 : Type of modulation: GFSK.

For Restricted Bands:

The EUT (Bluetooth Embedded Module) with following test modes was tested in restricted bands and all the test results are listed in section 4.6.3. (The restricted bands defined in part 15.205(a))

Mode	Host (LCD TV)	Type of Modulation	Test Mode and Frequency	Reference Test Data No.		
				Horizontal	Vertical	
1.	VIZIO M550NV	GFSK	Transmitting	2402MHz (CH0)	# 1, # 4	# 2 , # 3
2.				2480MHz (CH78)	# 8, # 5	# 7, # 6
3.		8-DPSK	Transmitting	2402MHz (CH0)	# 16, # 13	# 15 , # 14
4.				2480MHz (CH78)	# 9, # 12	# 10, # 11

[Note: Two types of modulation (GFSK and 8-DPSK) were reported in section 4.6.3]

4.6.1. 30MHz~ 1000MHz Frequency Range Measurement Result

Date of Test : Mar. 11, 2010 Temperature : 23

EUT : Bluetooth Embedded Module
(With Host LCD TV: VIZIO M550NV) Humidity : 43%

Test Mode : Transmitting Mode, Frequency:
2402MHz (CH0)
Type of Modulation: GFSK

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
62.010	12.28	1.60	16.47	30.35	40.00	9.65
156.100	20.70	2.70	11.28	34.68	43.50	8.82
224.000	21.96	3.30	7.60	32.86	46.00	13.14
350.100	15.44	4.30	11.30	31.04	46.00	14.96
523.730	19.76	6.90	13.29	39.95	46.00	6.05
712.880	23.30	6.53	10.00	39.83	46.00	6.17
749.740	23.25	6.70	7.68	37.63	46.00	8.37

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 : Mar. 11, 2010 Temperature : 23

EUT : Bluetooth Embedded Module
(With Host LCD TV: VIZIO M550NV) Humidity : 43%

Test Mode : Transmitting Mode, Frequency:
2402MHz (CH0)
Type of Modulation: GFSK

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
44.550	19.10	1.36	13.82	34.28	40.00	5.72
156.100	20.70	2.70	12.28	35.68	43.50	7.82
223.030	21.94	3.30	12.13	37.37	46.00	8.63
521.790	19.91	6.90	9.12	35.93	46.00	10.07
712.880	23.30	6.53	0.18	30.01	46.00	15.99
747.800	23.11	6.70	0.77	30.58	46.00	15.42
770.110	23.93	6.80	3.05	33.78	46.00	12.22

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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2441MHz (CH39)
Type of Modulation: GFSK

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
62.010	12.28	1.60	16.61	30.49	40.00	9.51
157.070	20.70	2.70	10.20	33.60	43.50	9.90
224.970	21.95	3.30	7.68	32.93	46.00	13.07
357.860	15.90	4.40	12.44	32.74	46.00	13.26
519.850	19.99	6.90	12.96	39.85	46.00	6.15
712.880	23.30	6.53	10.44	40.27	46.00	5.73
749.740	23.25	6.70	9.43	39.38	46.00	6.62
918.520	24.82	7.40	0.44	32.66	46.00	13.34

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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2441MHz (CH39)
Type of Modulation: GFSK

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
38.730	21.21	1.20	12.75	35.16	40.00	4.84
157.070	20.70	2.70	13.13	36.53	43.50	6.97
223.030	21.94	3.30	12.00	37.24	46.00	8.76
369.500	16.93	4.60	8.99	30.52	46.00	15.48
519.850	19.99	6.90	11.74	38.63	46.00	7.37
670.200	22.83	6.40	2.92	32.15	46.00	13.85
739.070	22.32	6.60	2.89	31.81	46.00	14.19
770.110	23.93	6.80	3.50	34.23	46.00	11.77
918.520	24.82	7.40	-2.17	30.05	46.00	15.95

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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2480MHz (CH78)
Type of Modulation: GFSK

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
62.010	12.28	1.60	16.47	30.35	40.00	9.65
157.070	20.70	2.70	9.85	33.25	43.50	10.25
224.000	21.96	3.30	7.22	32.48	46.00	13.52
357.860	15.90	4.40	11.56	31.86	46.00	14.14
523.730	19.76	6.90	13.43	40.09	46.00	5.91
712.880	23.30	6.53	9.82	39.65	46.00	6.35
750.710	23.35	6.70	10.28	40.33	46.00	5.67
935.010	25.42	7.50	-0.69	32.23	46.00	13.77

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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2480MHz (CH78) Ant. Position : Vertical
Type of Modulation: GFSK

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
37.760	21.58	1.20	9.86	32.64	40.00	7.36
157.070	20.70	2.70	10.66	34.06	43.50	9.44
223.030	21.94	3.30	12.34	37.58	46.00	8.42
400.540	17.66	4.80	9.00	31.46	46.00	14.54
519.850	19.99	6.90	10.96	37.85	46.00	8.15
745.860	22.91	6.65	3.18	32.74	46.00	13.26
770.110	23.93	6.80	1.72	32.45	46.00	13.55
971.870	26.79	7.70	-4.09	30.40	54.00	23.60

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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Receiving Mode, Frequency:
2441MHz (CH39)
Type of Modulation: GFSK

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
62.010	12.28	1.60	18.15	32.04	40.00	7.96
157.070	20.70	2.70	10.87	34.27	43.50	9.23
357.860	15.90	4.40	11.18	31.48	46.00	14.52
521.790	19.91	6.90	12.76	39.57	46.00	6.43
712.880	23.30	6.53	9.43	39.26	46.00	6.74
745.860	22.91	6.65	8.29	37.85	46.00	8.15
918.520	24.82	7.40	0.32	32.54	46.00	13.46

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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Receiving Mode, Frequency:
2441MHz (CH39)
Type of Modulation: GFSK

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
40.670	20.36	1.30	10.99	32.65	40.00	7.35
157.070	20.70	2.70	11.34	34.74	43.50	8.76
228.850	22.01	3.30	6.88	32.19	46.00	13.81
369.500	16.93	4.60	8.83	30.36	46.00	15.64
448.070	17.63	5.40	8.20	31.23	46.00	14.77
519.850	19.99	6.90	10.79	37.68	46.00	8.32
743.920	22.66	6.70	2.33	31.69	46.00	14.31
770.110	23.93	6.80	5.85	36.58	46.00	9.42

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

4.6.2. Above 1GHz Frequency Range Measurement Results

Date of Test : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2402MHz (CH0)
Type of Modulation: GFSK

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dBμV	Meter Reading Horizontal dBμV/m	Emission Level Horizontal dBμV/m	Limits dB	Margin
1557.760	25.97	5.85	19.93	51.75	74.00	22.25
1734.160	26.63	7.07	18.14	51.84	74.00	22.16
2053.360	27.75	5.92	24.62	58.30	74.00	15.70
2078.560	27.77	5.96	24.71	58.44	74.00	15.56
2140.720	27.84	6.04	27.42	61.30	74.00	12.70
2170.960	27.87	6.08	26.57	60.52	74.00	13.48
2569.120	28.45	6.58	14.56	49.59	74.00	24.41

- 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
1557.760	25.97	5.85	10.35	42.17	54.00	11.83
1734.160	26.63	7.07	6.48	40.19	54.00	13.81
2053.360	27.75	5.92	8.79	42.47	54.00	11.53
2078.560	27.77	5.96	9.20	42.93	54.00	11.07
2140.720	27.84	6.04	7.51	41.39	54.00	12.61
2170.960	27.87	6.08	6.75	40.70	54.00	13.30
2569.120	28.45	6.58	6.35	41.38	54.00	12.62

- 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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2402MHz (CH0)
Type of Modulation: GFSK

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
1216.720	24.93	4.61	21.96	51.50	74.00	22.50
1532.560	25.83	5.67	17.50	49.00	74.00	25.00
1675.360	26.43	6.65	17.11	50.19	74.00	23.81
2137.360	27.84	6.04	18.63	52.50	74.00	21.50
2258.320	27.96	6.17	19.65	53.78	74.00	20.22
2611.120	28.64	6.64	10.92	46.21	74.00	27.79

- 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
1216.720	24.93	4.61	11.11	40.65	54.00	13.35
1532.560	25.83	5.67	6.97	38.47	54.00	15.53
1675.360	26.43	6.65	8.03	41.11	54.00	12.89
2137.360	27.84	6.04	9.31	43.19	54.00	10.81
2258.320	27.96	6.17	8.46	42.59	54.00	11.41
2611.120	28.64	6.64	5.00	40.29	54.00	13.71

- 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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2441MHz (CH39)
Type of Modulation: GFSK

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
1073.920	24.49	4.34	19.78	48.61	74.00	25.39
1619.920	26.17	6.29	20.24	52.70	74.00	21.30
2019.760	27.72	5.89	21.32	54.92	74.00	19.08
2137.360	27.84	6.04	29.70	63.57	74.00	10.43
2254.960	27.96	6.17	24.66	58.79	74.00	15.21
2569.120	28.45	6.58	9.67	44.70	74.00	29.30

- 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
1073.920	24.49	4.34	11.52	40.35	54.00	13.65
1619.920	26.17	6.29	8.68	41.14	54.00	12.86
2019.760	27.72	5.89	7.90	41.50	54.00	12.50
2137.360	27.84	6.04	8.38	42.25	54.00	11.75
2254.960	27.96	6.17	6.25	40.38	54.00	13.62
2569.120	28.45	6.58	5.07	40.10	54.00	13.90

- 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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2441MHz (CH39)
Type of Modulation: GFSK

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
1188.160	24.83	4.56	24.26	53.65	74.00	20.35
1283.920	25.12	4.78	17.76	47.66	74.00	26.34
1540.960	25.90	5.70	19.07	50.68	74.00	23.32
2137.360	27.84	6.04	18.56	52.43	74.00	21.57
2221.360	27.92	6.13	17.04	51.10	74.00	22.90
2565.760	28.45	6.58	12.36	47.39	74.00	26.61

- 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
1188.160	24.83	4.56	11.89	41.29	54.00	12.71
1283.920	25.12	4.78	8.78	38.68	54.00	15.32
1540.960	25.90	5.70	8.54	40.14	54.00	13.86
2137.360	27.84	6.04	6.59	40.47	54.00	13.53
2221.360	27.92	6.13	8.51	42.57	54.00	11.43
2565.760	28.45	6.58	4.82	39.85	54.00	14.15

- 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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2480MHz (CH78)
Type of Modulation: GFSK

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
1283.920	25.12	4.78	20.07	49.97	74.00	24.03
1540.960	25.90	5.70	21.72	53.33	74.00	20.67
2031.520	27.73	5.90	20.96	54.60	74.00	19.40
2137.360	27.84	6.04	27.29	61.16	74.00	12.84
2569.120	28.45	6.58	14.68	49.71	74.00	24.29

- 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
1283.920	25.12	4.78	10.12	40.02	54.00	13.98
1540.960	25.90	5.70	8.90	40.50	54.00	13.50
2031.520	27.73	5.90	5.72	39.36	54.00	14.64
2137.360	27.84	6.04	6.66	40.54	54.00	13.46
2569.120	28.45	6.58	6.68	41.71	54.00	12.29

- 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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency:
2480MHz (CH78)
Type of Modulation: GFSK

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
1216.720	24.93	4.61	22.24	51.78	74.00	22.22
1734.160	26.63	7.07	16.90	50.60	74.00	23.40
1947.520	27.50	6.11	15.20	48.81	74.00	25.19
2246.560	27.94	6.16	17.98	52.08	74.00	21.92

- 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
1216.720	24.93	4.61	10.93	40.47	54.00	13.53
1734.160	26.63	7.07	5.54	39.25	54.00	14.75
1947.520	27.50	6.11	4.52	38.13	54.00	15.87
2246.560	27.94	6.16	6.79	40.90	54.00	13.10

- 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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Receiving Mode, Frequency:
2441MHz (CH39)
Type of Modulation: GFSK

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
1216.720	24.93	4.61	18.89	48.43	74.00	25.57
1611.520	26.17	6.21	19.73	52.11	74.00	21.89
1964.320	27.57	6.06	21.40	55.02	74.00	18.98
2137.360	27.84	6.04	29.56	63.43	74.00	10.57
2254.960	27.96	6.17	23.61	57.74	74.00	16.26
2569.120	28.45	6.58	11.63	46.66	74.00	27.34

- 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
1216.720	24.93	4.61	7.92	37.46	54.00	16.54
1611.520	26.17	6.21	6.16	38.54	54.00	15.46
1964.320	27.57	6.06	5.02	38.65	54.00	15.35
2137.360	27.84	6.04	9.32	43.20	54.00	10.80
2254.960	27.96	6.17	6.41	40.54	54.00	13.46
2569.120	28.45	6.58	5.33	40.36	54.00	13.64

- 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 : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Receiving Mode, Frequency:
2441MHz (CH39)
Type of Modulation: GFSK

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
1216.720	24.93	4.61	20.95	50.49	74.00	23.51
1527.520	25.83	5.61	17.46	48.90	74.00	25.10
1784.560	26.83	7.01	16.08	49.93	74.00	24.07
2140.720	27.84	6.04	18.26	52.14	74.00	21.86
2258.320	27.96	6.17	18.45	52.58	74.00	21.42
2602.720	28.58	6.63	9.29	44.50	74.00	29.50

- 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
1216.720	24.93	4.61	11.09	40.63	54.00	13.37
1527.520	25.83	5.61	7.89	39.34	54.00	14.66
1784.560	26.83	7.01	6.39	40.23	54.00	13.77
2140.720	27.84	6.04	6.81	40.69	54.00	13.31
2258.320	27.96	6.17	6.54	40.67	54.00	13.33
2602.720	28.58	6.63	3.80	39.01	54.00	14.99

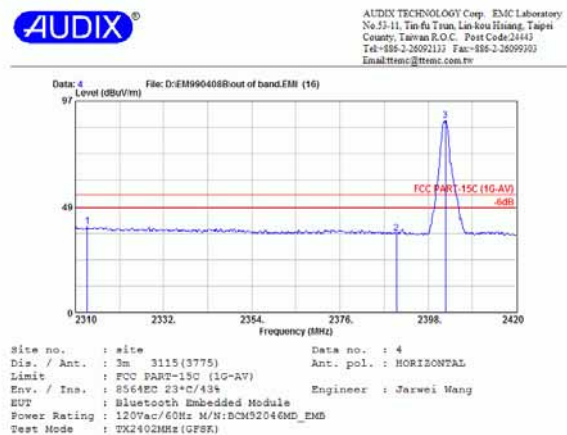
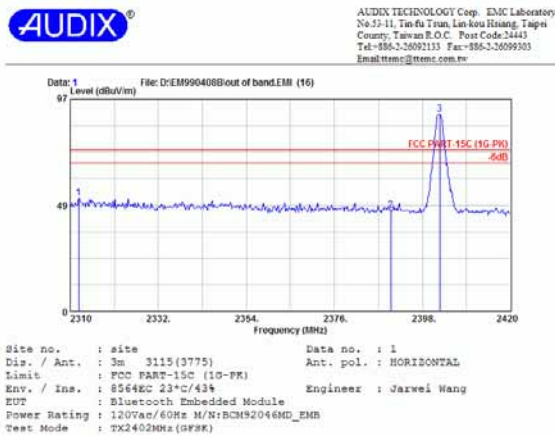
- Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. All final readings of measurement were with Average values.

4.6.3. Restricted Bands Measurement Results

Date of Test :	Mar. 11, 2010	Temperature :	23
EUT :	Bluetooth Embedded Module (With Host LCD TV: VIZIO M550NV)	Humidity :	43%
Test Mode :	Transmitting Mode, Frequency: 2402MHz (CH0) Type of Modulation: GFSK	Test Voltage :	DC 5V

	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	55.91	90.37		
Peak *	2312.090	28.01	6.24	17.56	51.81	74.00	22.19
Fundamental	2402.290	28.10	6.36	53.77	88.23		
Average *	2312.970	28.01	6.24	5.32	39.57	54.00	14.43

- 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.



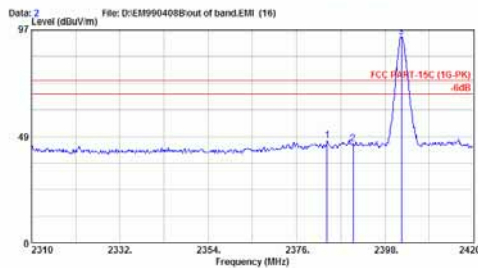
Date of Test : Mar. 11, 2010 Temperature : 23

EUT : Bluetooth Embedded Module
(With Host LCD TV: VIZIO M550NV) Humidity : 43%

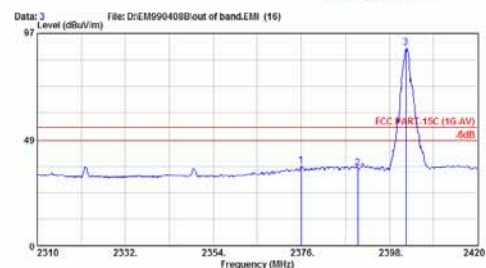
Test Mode : Transmitting Mode, Frequency:
2402MHz (CH0) Test Voltage : DC 5V
Type of Modulation: GFSK

	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	2402.070	28.10	6.36	59.31	93.77		
Peak *	2383.590	28.08	6.33	12.27	46.68	74.00	27.32
Fundamental	2402.070	28.10	6.36	56.26	90.72		
Average *	2375.890	28.08	6.32	2.25	36.65	54.00	17.35

- 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.



Site no. : site Data no. : 2
 Dia. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-FK)
 Env. / Ins. : 8564EC 23°C/43% Engineer : Jarwei Wang
 EUT : Bluetooth Embedded Module
 Power Rating : 120Vac/60Hz M/N:BCM92046HD_EMB
 Test Mode : TX2402MHz (GFSK)



Site no. : site Data no. : 3
 Dia. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 23°C/43% Engineer : Jarwei Wang
 EUT : Bluetooth Embedded Module
 Power Rating : 120Vac/60Hz M/N:BCM92046HD_EMB
 Test Mode : TX2402MHz (GFSK)

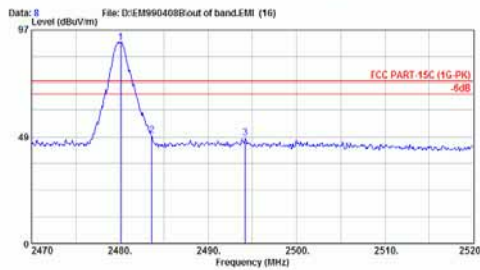
Date of Test : Mar. 11, 2010 Temperature : 23

EUT : Bluetooth Embedded Module (With Host LCD TV: VIZIO M550NV) Humidity : 43%

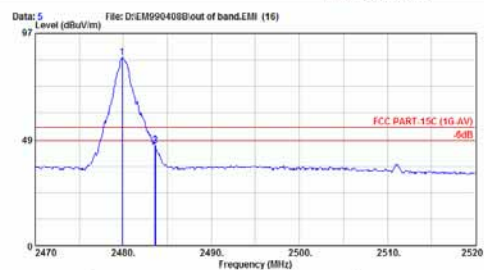
Test Mode : Transmitting Mode, Frequency: 2480MHz (CH78) Test Voltage : DC 5V
Type of Modulation: GFSK

	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	2480.100	28.18	6.44	56.70	91.32		
Peak *	2483.600	28.18	6.45	14.24	48.87	74.00	25.13
Fundamental	2479.850	28.18	6.44	51.45	86.07		
Average *	2483.600	28.18	6.45	11.38	46.01	54.00	7.99

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2470-2520MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



Site no. : site Data no. : 8
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 23°C/43% Engineer : Jarwei Wang
 EUT : Bluetooth Embedded Module
 Power Rating : 120Vvac/60Hz M/N:BCN92046MD_EMB
 Test Mode : TX2480MHz (GFSK)

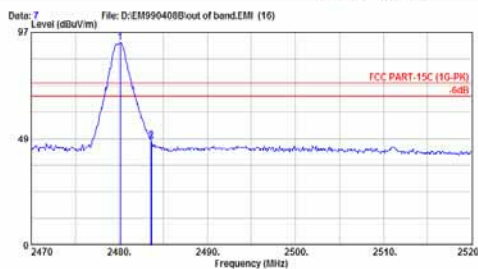


Site no. : site Data no. : 5
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 23°C/43% Engineer : Jarwei Wang
 EUT : Bluetooth Embedded Module
 Power Rating : 120Vvac/60Hz M/N:BCN92046MD_EMB
 Test Mode : TX2480MHz (GFSK)

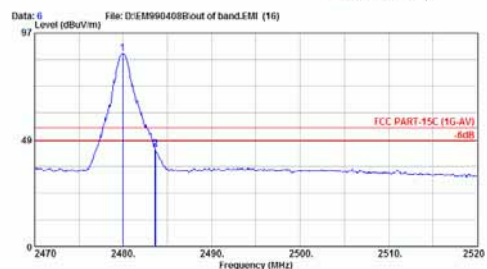
Date of Test : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
(With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency: Test Voltage : DC 5V
2480MHz (CH78)
Type of Modulation: GFSK

	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	2480.100	28.18	6.44	57.65	92.27		
Peak *	2483.600	28.18	6.45	12.89	47.52	74.00	26.48
Fundamental	2479.950	28.18	6.44	53.18	87.80		
Average *	2483.600	28.18	6.45	9.68	44.31	54.00	9.69

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2470-2520MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



Site no. : site Data no. : 7
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 23°C/43% Engineer : Jarwei Wang
 EUT : Bluetooth Embedded Module
 Power Rating : 120Vac/60Hz M/N:BCM9204GMD_EMB
 Test Mode : TX2480MHz (GFSK)

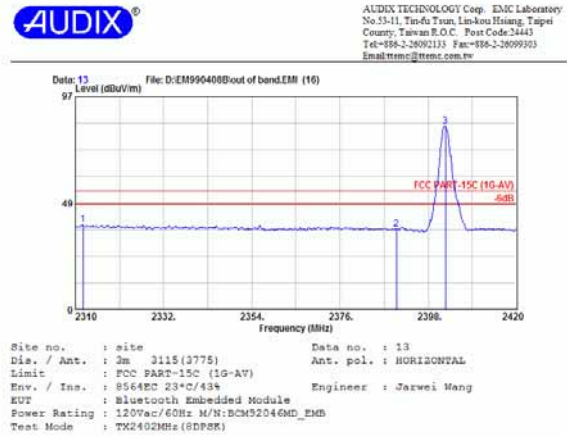
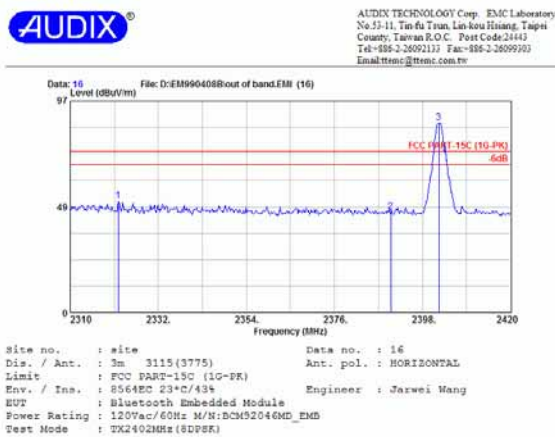


Site no. : site Data no. : 6
 Dis. / Ant. : 3m 3115 (3775) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 23°C/43% Engineer : Jarwei Wang
 EUT : Bluetooth Embedded Module
 Power Rating : 120Vac/60Hz M/N:BCM9204GMD_EMB
 Test Mode : TX2480MHz (GFSK)

Date of Test : Mar. 11, 2010 Temperature : 23
 EUT : Bluetooth Embedded Module Humidity : 43%
 (With Host LCD TV: VIZIO M550NV)
 Test Mode : Transmitting Mode, Frequency: Test Voltage : DC 5V
2402MHz (CH0)
Type of Modulation: 8-DPSK

	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	2402.070	28.10	6.36	52.49	86.95		
Peak *	2321.990	28.03	6.25	16.74	51.02	74.00	22.98
Fundamental	2402.290	28.10	6.36	49.02	83.48		
Average *	2311.870	28.01	6.24	4.33	38.58	54.00	15.42

- 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.



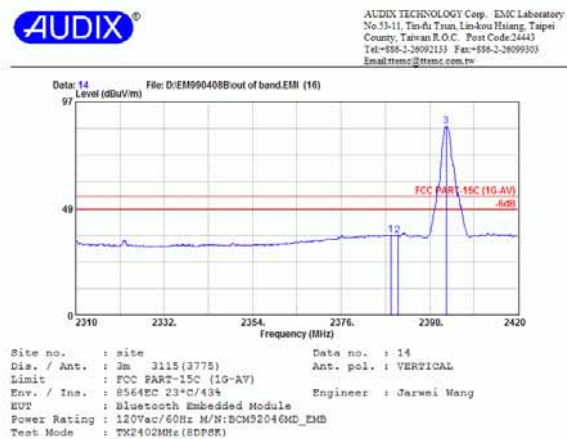
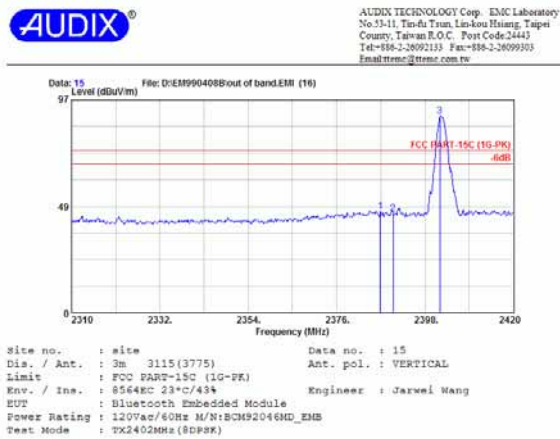
Date of Test : Mar. 11, 2010 Temperature : 23

EUT : Bluetooth Embedded Module
(With Host LCD TV: VIZIO M550NV) Humidity : 43%

Test Mode : Transmitting Mode, Frequency:
2402MHz (CH0) Test Voltage : DC 5V
Type of Modulation: 8-DPSK

	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	2401.740	28.10	6.35	55.12	89.57		
Peak *	2386.890	28.10	6.33	11.79	46.22	74.00	27.78
Fundamental	2402.070	28.10	6.36	51.47	85.93		
Average *	2388.320	28.10	6.34	2.17	36.61	54.00	17.39

- 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.



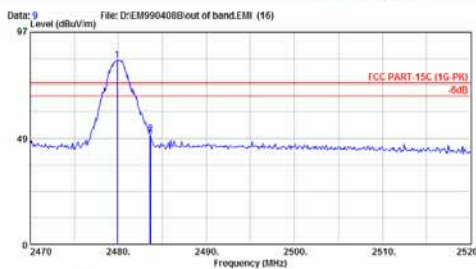
Date of Test : Mar. 11, 2010 Temperature : 23

EUT : Bluetooth Embedded Module Humidity : 43%
(With Host LCD TV: VIZIO M550NV)

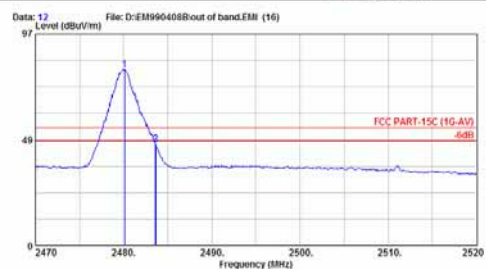
Test Mode : Transmitting Mode, Frequency: Test Voltage : DC 5V
2480MHz (CH78)
Type of Modulation: 8-DPSK

	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	2479.850	28.18	6.44	49.63	84.25		
Peak *	2483.600	28.18	6.45	15.76	50.39	74.00	23.61
Fundamental	2480.100	28.18	6.44	45.90	80.52		
Average *	2483.600	28.18	6.45	11.94	46.57	54.00	7.43

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2470-2520MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



Data no. : 9
 Site no. : site
 Dir. / Ant. : 3m 3115(3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-FR)
 Env. / Ins. : E564EC 23°C/43% Engineer : Jarwei Wang
 EUT : Bluetooth Embedded Module
 Power Rating : 1207m/60Hz M/N:BCM52046MD_EMB
 Test Mode : TX2480MHz (8DPSK)



Data no. : 12
 Site no. : site
 Dir. / Ant. : 3m 3115(3775) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : E564EC 23°C/43% Engineer : Jarwei Wang
 EUT : Bluetooth Embedded Module
 Power Rating : 1207m/60Hz M/N:BCM52046MD_EMB
 Test Mode : TX2480MHz (8DPSK)

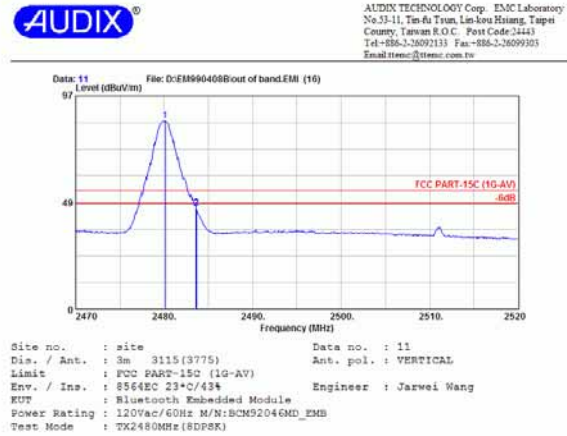
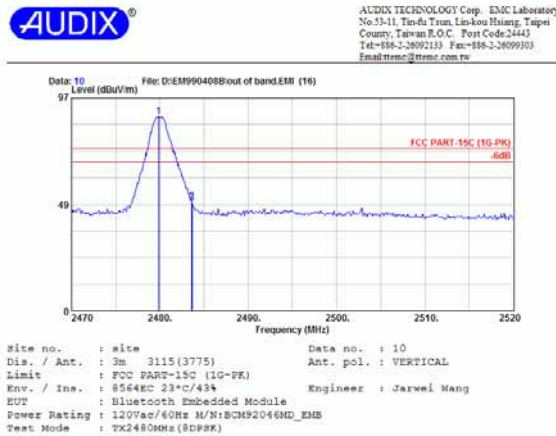
Date of Test : Mar. 11, 2010 Temperature : 23

EUT : Bluetooth Embedded Module (With Host LCD TV: VIZIO M550NV) Humidity : 43%

Test Mode : Transmitting Mode, Frequency: 2480MHz (CH78) Test Voltage : DC 5V
Type of Modulation: 8-DPSK

	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	2479.850	28.18	6.44	53.88	88.50		
Peak *	2483.600	28.18	6.45	15.22	49.85	74.00	24.15
Fundamental	2480.100	28.18	6.44	51.14	85.76		
Average *	2483.600	28.18	6.45	11.38	46.01	54.00	7.99

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2470-2520MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



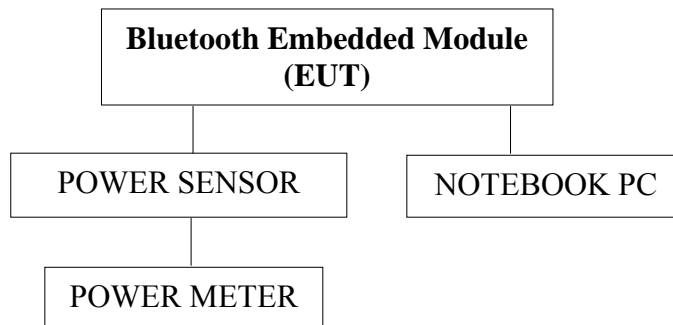
5. MAXIMUM PEAK OUTPUT POWER MEASUREMENT

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	Antrisu	ML2487A	6K00005406	Feb. 11, 10'	Feb. 10, 11'
2.	Power Sensor	Antrisu	MA2491A	030873	Feb. 11, 10'	Feb. 10, 11'

5.2. Block Diagram of Test Setup



5.3. Specification Limits (§15.247(b)-(1))

The Limits of maximum Peak Output Power for frequency hopping systems in 2400-2483.5MHz is: 0.125Watt. (21dBm)

5.4. Operating Condition of EUT

- 5.4.1. Set up the EUT and simulator as shown on 5.2.
- 5.4.2. To turn on the power of all equipment.
- 5.4.3. The EUT (Bluetooth Embedded Module) was on transmitting frequency function during the testing.

5.5. Test Procedure follow DA00-705

The transmitter output was connected to the spectrum analyzer.
 Span can encompass the waveform
 RBW=VBW=1MHz
 Sweep=Auto

5.6. Test Results

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

[Note: Two types of modulation (GFSK and 8-DPSK) were reported in this report.]

EUT : Bluetooth Embedded Module M/N : BCM92046MD_EMB

Test Date : Mar. 01, 2010 Temperature : 23 Humidity : 46 %

5.6.1.Type of Modulation: GFSK

No.	Channel	Test Frequency	Peak Output Power	Limit
1.	0	2402MHz	1.26dBm	21dBm
2.	39	2441MHz	1.18dBm	21dBm
3.	78	2480MHz	0.80dBm	21dBm

5.6.2.Type of Modulation: 8-DPSK

No.	Channel	Test Frequency	Peak Output Power	Limit
1.	0	2402MHz	-1.44dBm	21dBm
2.	39	2441MHz	-2.29dBm	21dBm
3.	78	2480MHz	-4.88dBm	21dBm

6. DEVIATION TO TEST SPECIFICATIONS

【NONE】