FCC Part 15C

Measurement and Test Report

For

MARBLE WATCH MANUFACTURING LTD.

Block B, 17/F., Mai Wah Ind. Bldg., No.1-7 Wah Sing Street,

Kwai Chung, Hong Kong

FCC ID: UUZMPP014

Report Concerns: Original Report	**Equipment Type:** Bluetooth Mp3 Watch
Model:	MP2011 MP2010
Report No.:	STR06128028I
Test/Witness Engineer:	Innaz Lee
Test Date:	2006-12-15
Prepared By:	**Shenzhen SEM.Test Compliance Service Co., Ltd** Room 609-610, Baotong Building, Baomin 1st Road, Baoan District, Shenzhen, Guangdong, P.R.C. (518133)
Approved & Authorized By:	PSQ Manager / Jandy So

Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	MARBLE WATCH MANUFACTURING LTD.
Address of applicant:	Block B, 17/F., Mai Wah Ind. Bldg., No.1-7 Wah Sing Street, Kwai Chung, Hong Kong
Manufacturer:	MARBLE WATCH MANUFACTURING LTD.
Address of manufacturer:	Block B, 17/F., Mai Wah Ind. Bldg., No.1-7 Wah Sing Street, Kwai Chung, Hong Kong

General Description of E.U.T

Items	Description
EUT Description:	Bluetooth Mp3 Watch
Trade Name:	Power Disk
Model No.:	MP2011 MP2010
Rated Voltage:	DC 3.7V-4.2V Battery
Max. Output Power	≤10mW
Frequency range:	2402-2480MHz
Number of channels:	79
Size:	5.50 cm x 4.50 cm x 1.10 cm
Channel Separation:	1MHz
Type of Antenna:	Permanently attached antenna

The test data gathered are from a production sample with the adaptor, modelYFAF22073001. It provided by the manufacturer. Test is carried out with model MP2011 since model MP2010 has the different appearance only.

1.2 Test Standards

The following report of is prepared on behalf of MARBLE WATCH MANUFACTURING LTD. in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Related Submittal(s)/Grant(s)

No Related Submittal(s).

1.4 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted with Low Channel, Middle Channel and High Channel, accordingly in reference to the Operating Instructions.

1.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

United States of American Federal Communications Commission (**FCC**), and the registration number is **274801**(semi anechoic chamber).

Industry Canada (**IC**), and the registration number is **IC4174**.

All measurement required was performed at laboratory of Shenzhen Academy of Metrology and Quality Inspection, Bldg. of Metrology & Quality Inspection, Longzhu Road, Nanshan District, Shenzhen, Guangdong, China.

1.6 EUT Exercise Software

The EUT exercise program used during the testing was designed to exercise the system components.

1.7 Accessories Equipment List and Details

Manufacturer	Description	Model	Serial Number
Wang Huei	Adaptor	YFAF22073001	0611001128

1.8 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Cord/Without Cord
DC Power Cable	1.6	Shielded	Without Cord

2. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.247(a)(1)(iii)	Quantity of Hopping Channel	Compliant
§ 15.247(a)(1)	Channel Separation	Compliant
§ 15.247(a)(1)(iii)	Time of Occupancy (Dwell time)	Compliant
§ 15.247(a)	20dB Bandwidth	Compliant
§ 15.247(b)(1)	Power Output	Compliant
§ 15.209(a)(f)	Radiated Emission	Compliant
§ 15.205	Out of Band Emissions	Compliant

3. §15.203 - ANTENNA REQUIREMENT

3.1 Standard Applicable

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.2 Test Result

This product has a permanent PCB antenna, fulfill the requirement of this section.

4. §15.207 (a)- CONDUCTED EMISSION

4.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 0.5 dB.

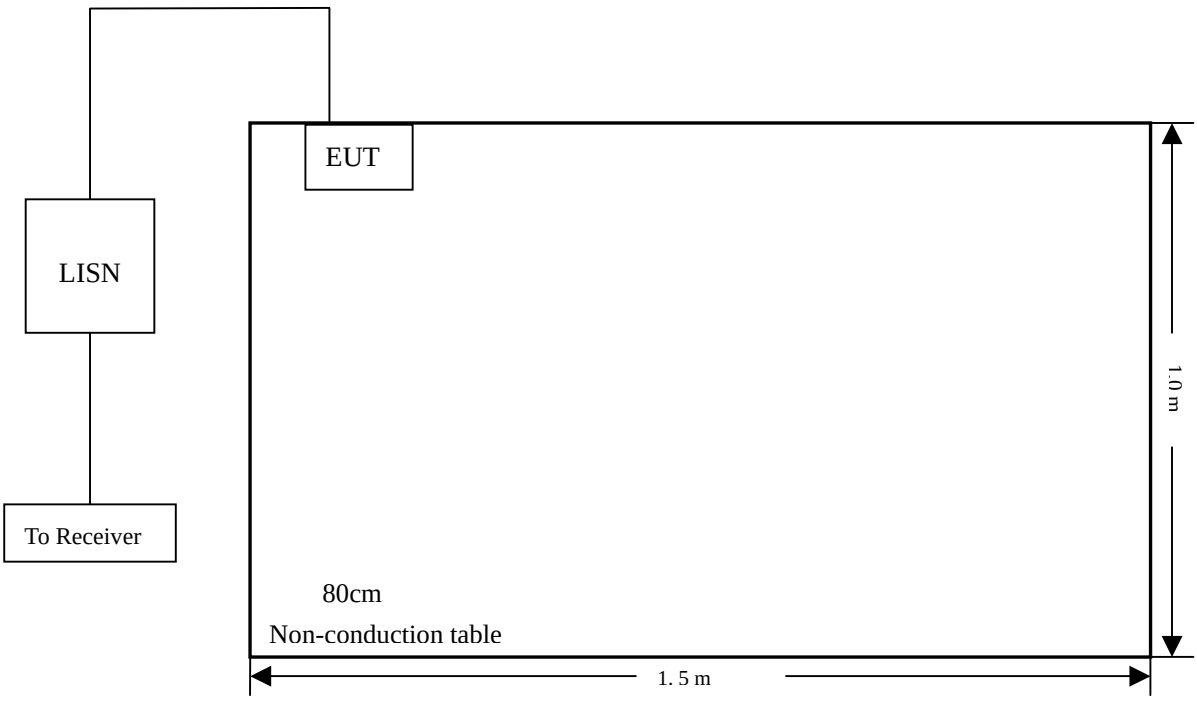
4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESCS30	830245/009	2006-1-26	2007-1-25
AMN	Rohde & Schwarz	ESH2-Z5	100002	2006-1-26	2007-1-25
Limiter	Rohde & Schwarz	ESH3-Z2	357.8810.52	2006-1-26	2007-1-25
AMN	Rohde & Schwarz	ESH3-Z5	828304/014	2006-1-26	2007-1-25

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.

4.4 Basic Test Setup Block Diagram



4.5 Environmental Conditions

Temperature:	26° C
Relative Humidity:	52%
ATM Pressure:	1020 mbar

4.7 Summary of Test Results/Plots

According to the data in section 4.8, the EUT complied with the FCC 15.207 Conducted margin for a Class B device, with the *worst* margin reading of:

-4.40 dBμV at **1.11 MHz** in the **Line** mode, 0.15-30MHz

4.8 Conducted Emissions Test Data

LINE CONDUCTED EMISSIONS				FCC 15.207	
Frequency	Amplitude	Detector	Phase	Limit	Margin
MHz	dBμV	QP/Ave/Pk	Line/Neutral	dBμV	dB
1.11	41.6	AV	Line	46.00	-4.4
1.78	41.3	AV	Line	46.00	-4.7
0.69	39.1	AV	Neutral	46.00	-6.9
1.35	36.6	AV	Neutral	46.00	-9.4
0.17	55.5	QP	Line	64.96	-9.5
0.17	44.7	AV	Line	54.96	-10.3
0.26	39.2	AV	Neutral	51.43	-12.2
1.11	43.2	QP	Line	56.00	-12.8
1.78	42.0	QP	Line	56.00	-14.0
0.26	46.2	QP	Neutral	61.43	-15.2
0.69	40.3	QP	Neutral	56.00	-15.7
1.35	38.0	QP	Neutral	56.00	-18.0

Plot of Conducted Emissions Test Data

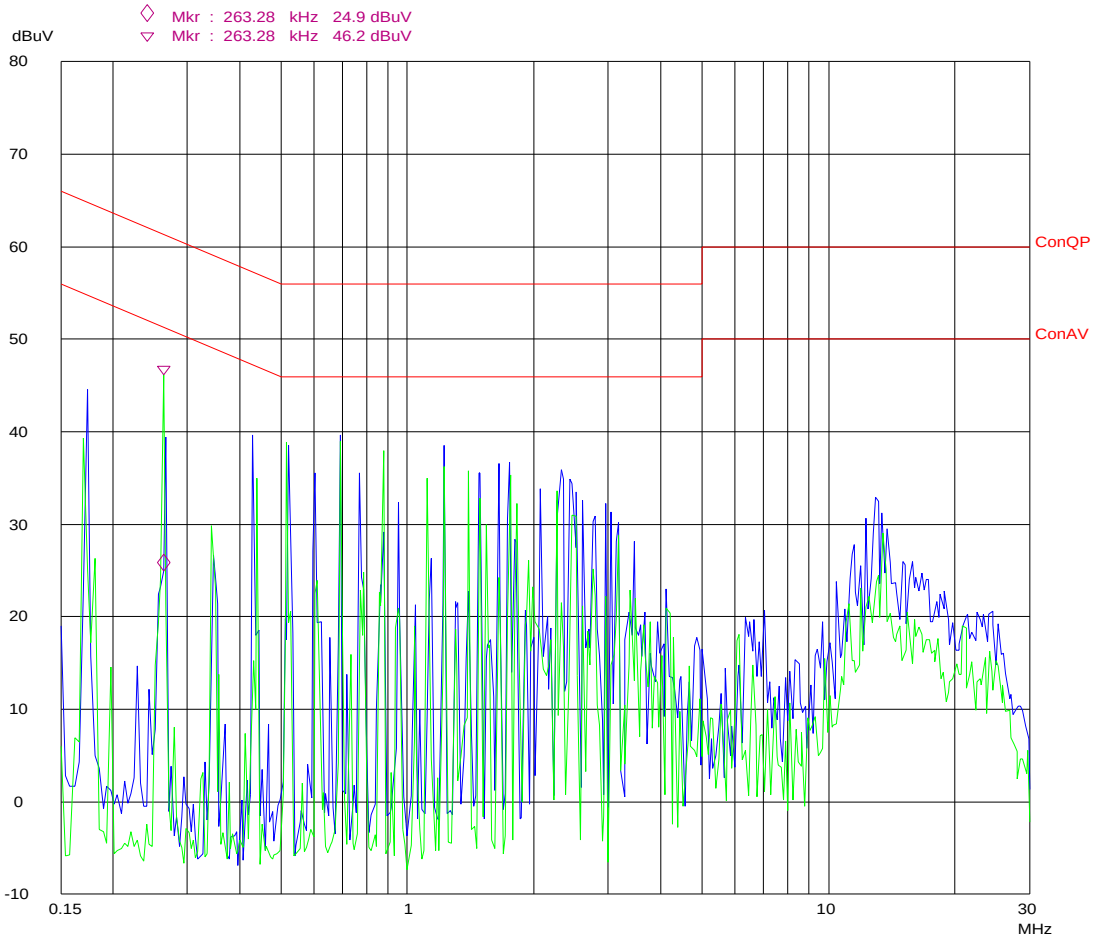
Conducted Disturbance

EUT: Bluetooth Mp3 Watch M/N: MP2011

Operating Condition: Charging

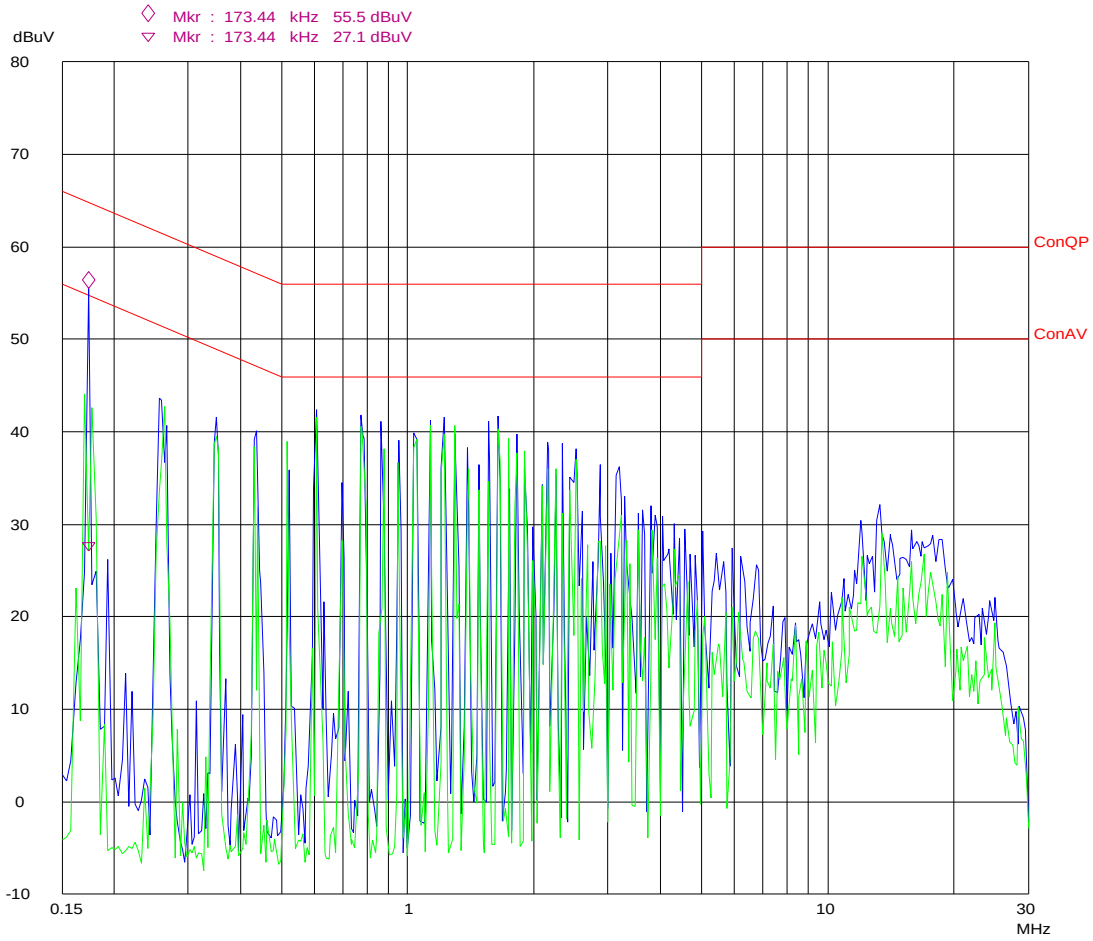
Test Specification: N

Comment: AC 110V/60Hz



Plot of Conducted Emissions Test Data

Conducted Disturbance
EUT: Bluetooth Mp3 Watch M/N: MP2011
Operating Condition: Charging
Test Specification: L
Comment: AC 110V/60Hz



5. NUMBER OF HOPPING CHANNELS AND CHANNEL SPACING

5.1 Standard Applicable

According to FCC 15.247(a)(1), the number of hops is 79 hops at a separation of 1 MHz, the requirement in the 2400 – 2483.5 MHz band is a minimum of 75 hops.

5.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Agilent	Spectrum Analyzer	E4402B	US41192821	2006-06-30	2007-06-29
ETS	50 ohm Coaxial Cable	SUCOFLEX 104	25498514	2006-1-26	2007-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

5.3 Test Procedure

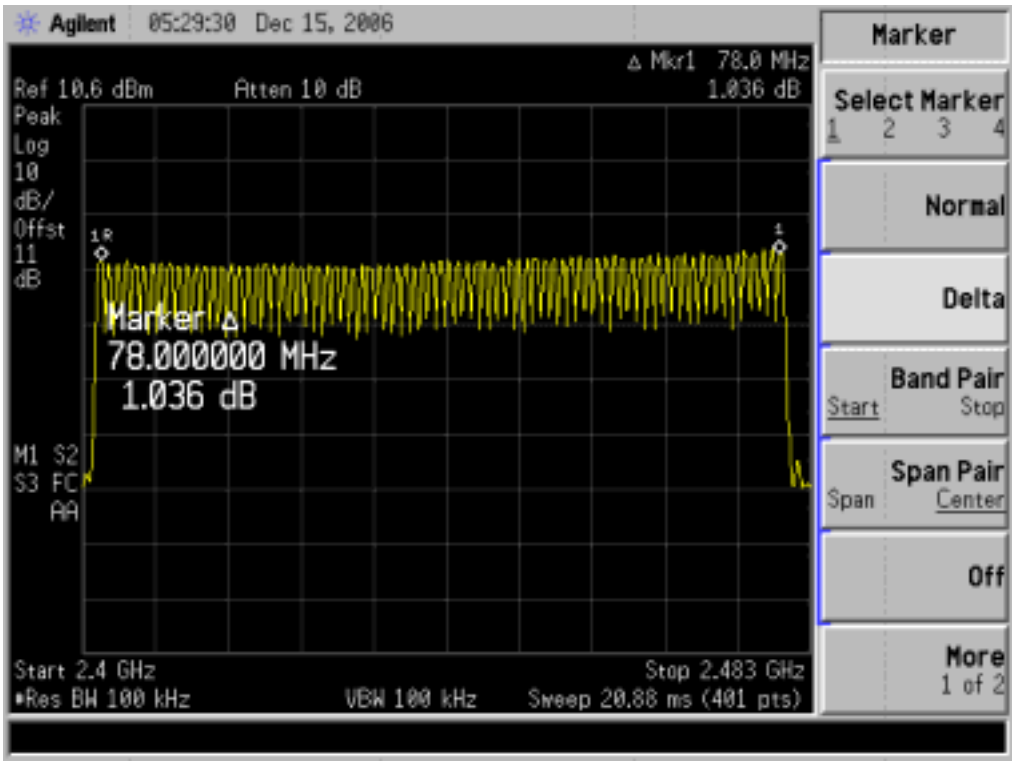
Set the Lowest channel to the Highest Channel, observed the band of 2400MHz to 2438.5MHz, than count it out the number of channels for comparing with the FCC rules. Adjust channel spacing can be read by adjusting the Analyzer SPAN.

5.4 Environmental Conditions

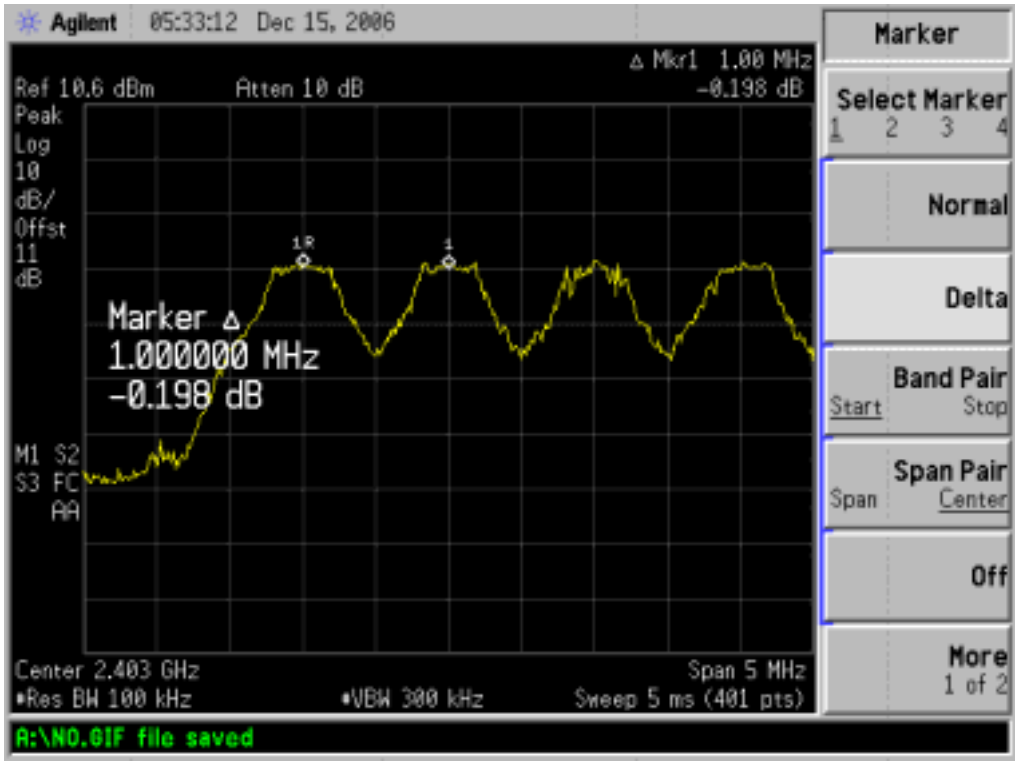
Temperature:	28° C
Relative Humidity:	54%
ATM Pressure:	1018 mbar

5.5 Summary of Test Results/Plots

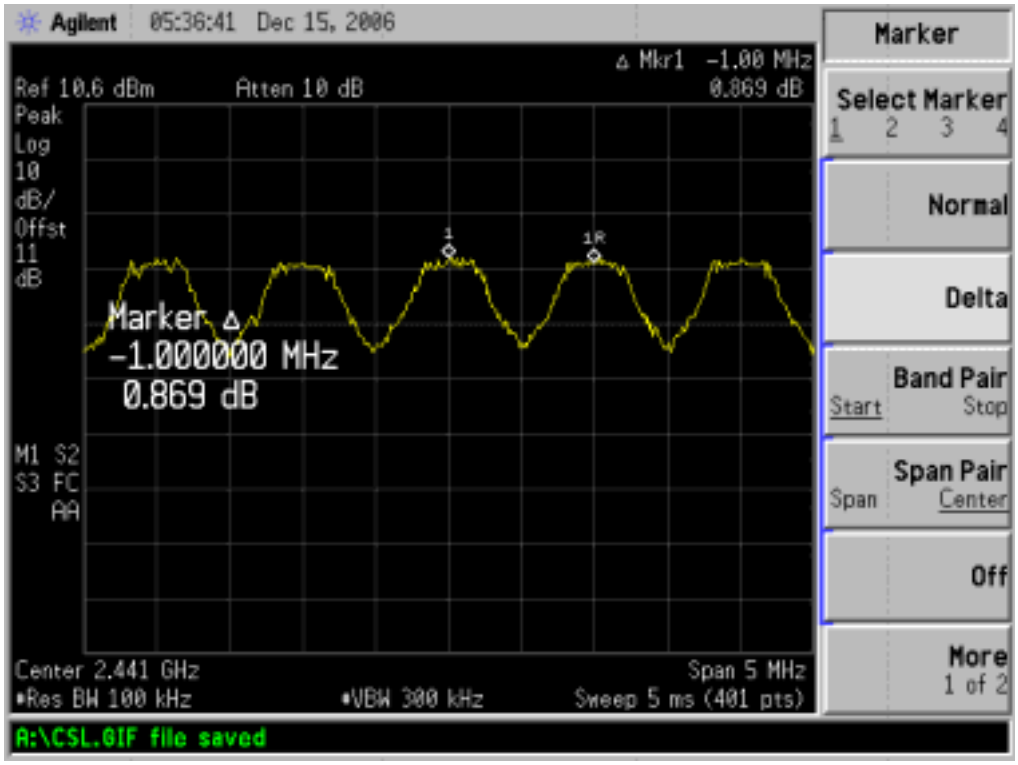
No. of Channel=79



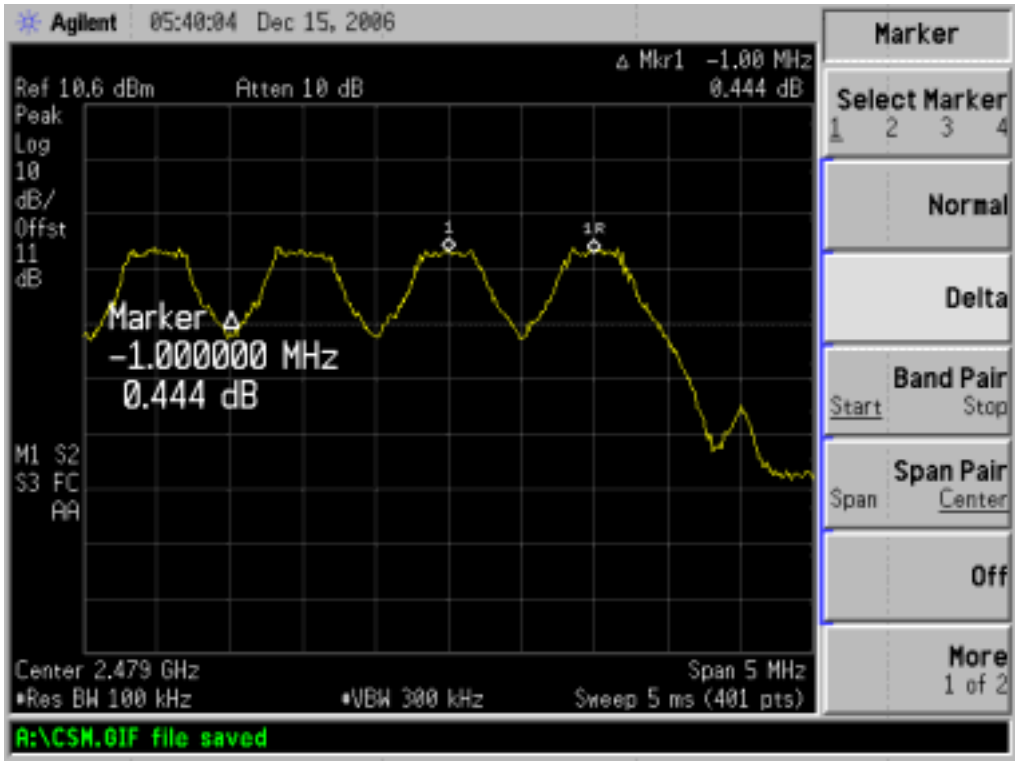
Channel Spacing (Low CH=1MHz)



Channel Spacing (Middle CH=1MHz)



Channel Spacing (High CH=1MHz)



6. DWELL TIME OF A HOPPING CHANNEL

6.1 Standard Applicable

According to 15.247(a)(1)(iii), Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

6.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Agilent	Spectrum Analyzer	E4402B	US41192821	2006-06-30	2007-06-29
ETS	50 ohm Coaxial Cable	SUCOFLEX 104	25498514	2006-1-26	2007-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

6.3 Test Procedure

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set center frequency of spectrum analyzer = operating frequency.
3. Set the spectrum analyzer as RBW, VBW=100KHz, Span = 0Hz.
4. Repeat above procedures until all frequency measured was complete.

6.4 Environmental Conditions

Temperature:	22° C
Relative Humidity:	54%
ATM Pressure:	1017 mbar

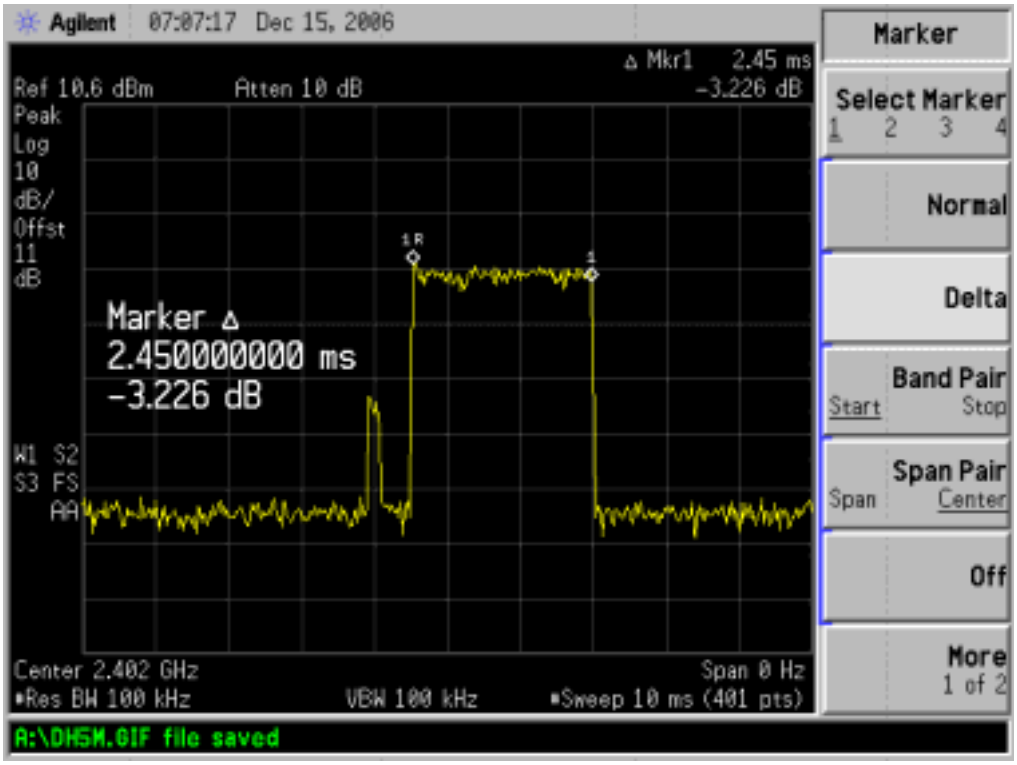
6.5 Summary of Test Results/Plots

The dwell time within a 31.6 second period in data mode is independent from the packet type (packet length). The calculation for a 31.6 second period is a follows:

Dwell time = time slot length * hop rate / number of hopping channels *31.6s

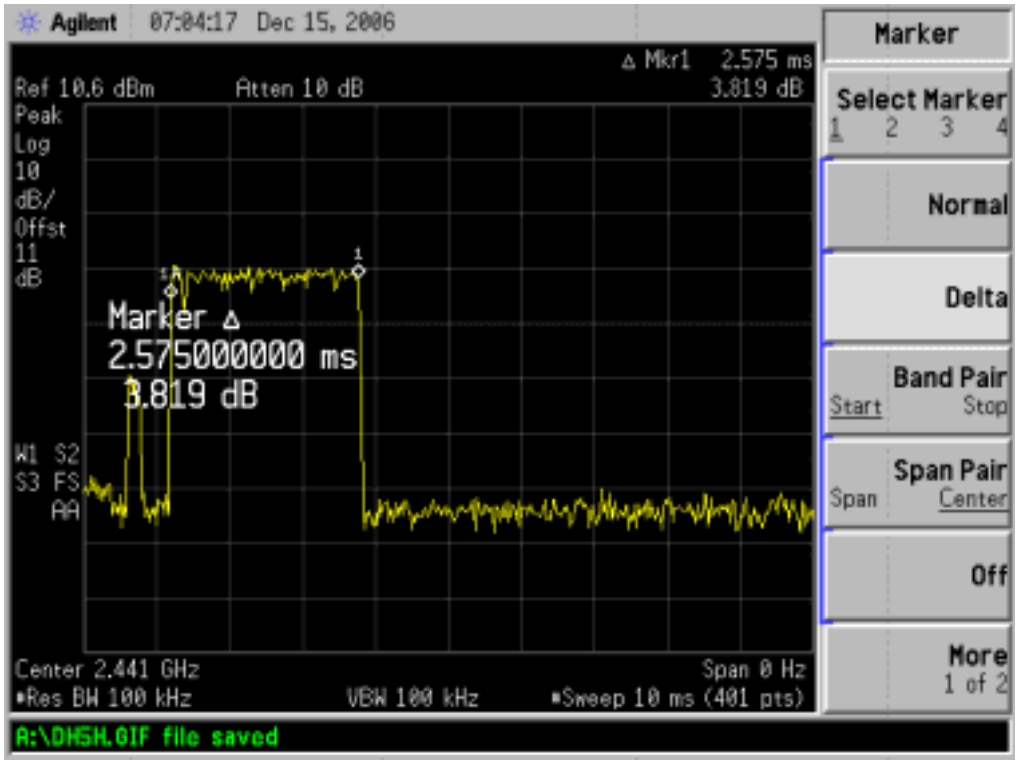
Test data is corrected with the worse case, which the packet length is DH5.

CH Low:



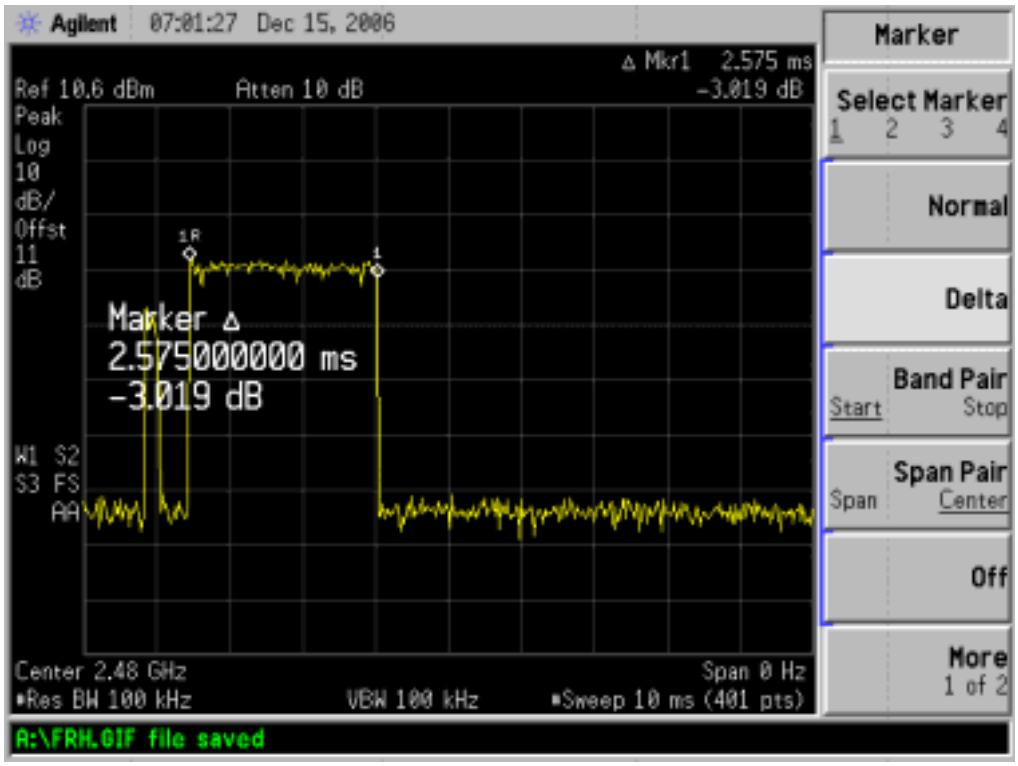
DH5 time slot = 2.45 (ms) * (1600/(5*79)) * 31.6 = 313.6 (ms) < 400 (ms)

CH Mid:



DH5 time slot = 2.575 (ms) * (1600/(5*79)) * 31.6 = 329.6 (ms) < 400 (ms)

CH High:



DH5 time slot = 2.575 (ms) * (1600/(5*79)) * 31.6 = 353.0 (ms) < 400 (ms)

7. 20-dB BANDWIDTH

7.1 Standard Applicable

According to 15.247(a)(1)(iii). For frequency hopping systems operating in the 2400MHz-2483.5 MHz no limit for 20dB bandwidth.

7.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Rohde & Schwarz	EMI Test Receiver	ESI26	830245/009	2006-1-26	2007-1-25
ETS	50 ohm Coaxial Cable	SUCOFLEX 104	25498514	2006-1-26	2007-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

7.3 Test Procedure

1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set center frequency of spectrum analyzer = operating frequency.
3. The spectrum analyzer as RBW=10KHz (1 % of Bandwidth.), Sweep=auto
4. Mark the peak frequency and –20dB (upper and lower) frequency.

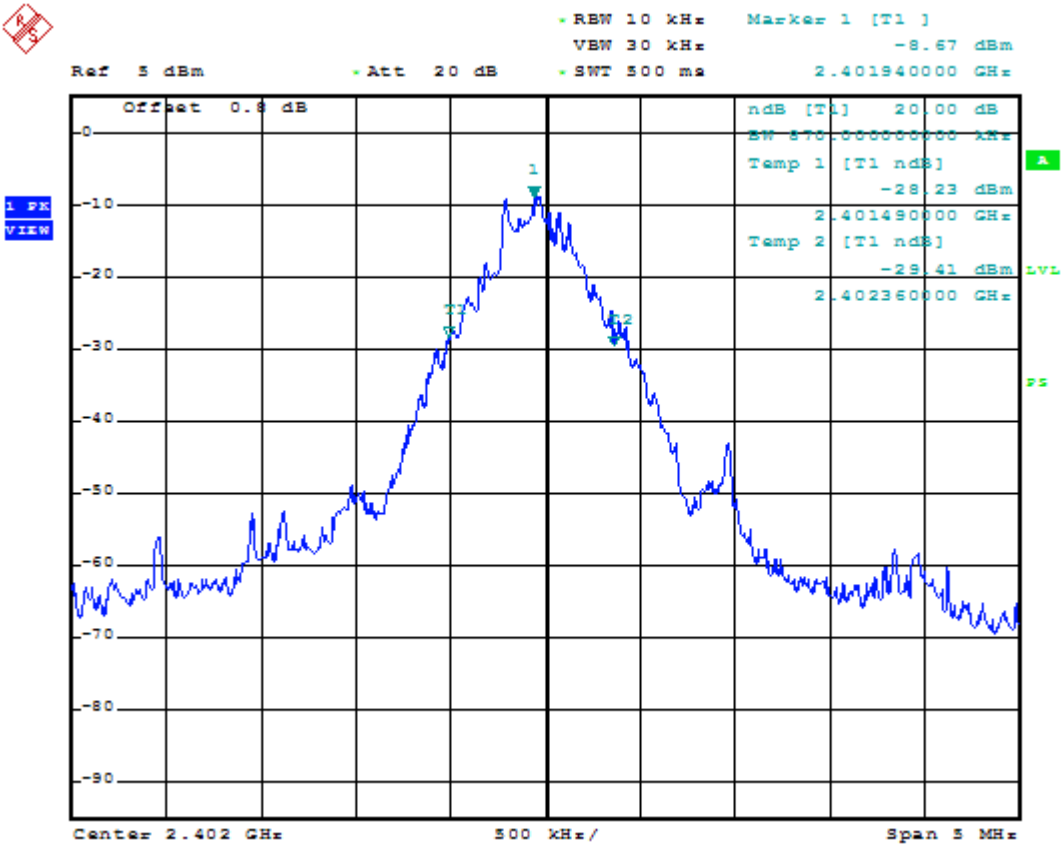
7.4 Environmental Conditions

Temperature:	24° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

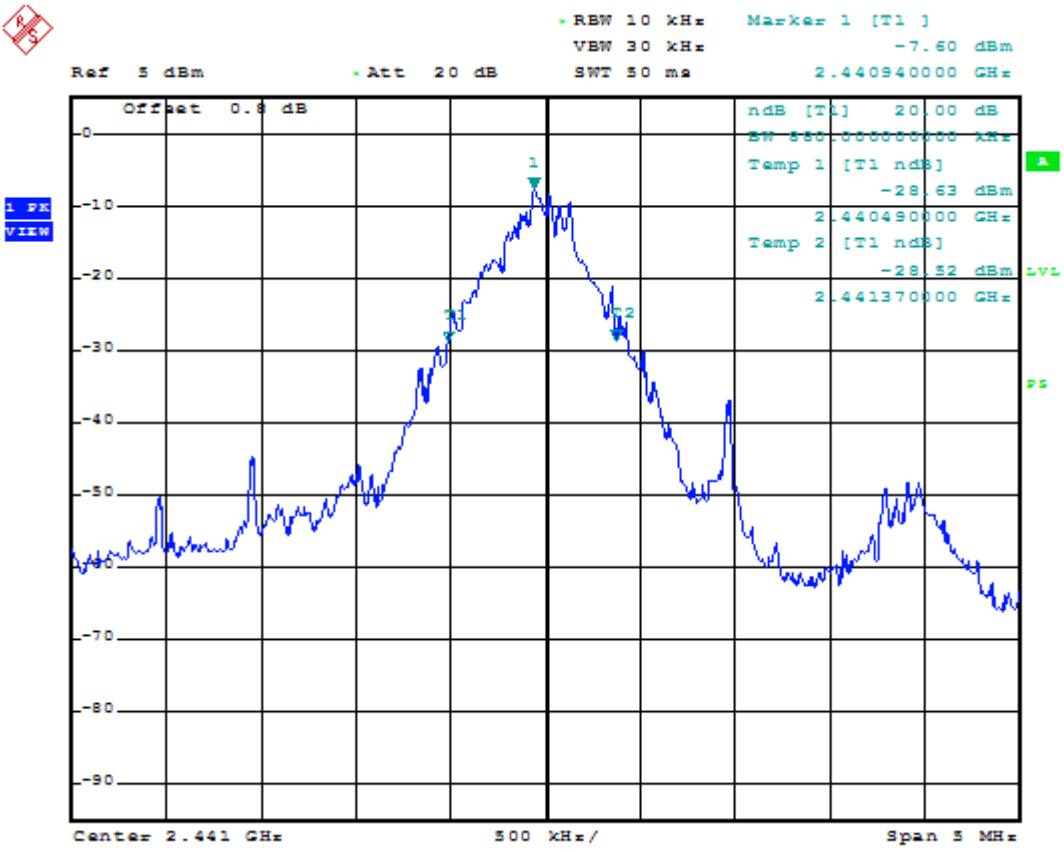
7.5 Summary of Test Results/Plots

Frequency MHz	20 dB Bandwidth kHz	Limit dB
2402	870.00	/
2441	880.00	/
2480	810.00	/

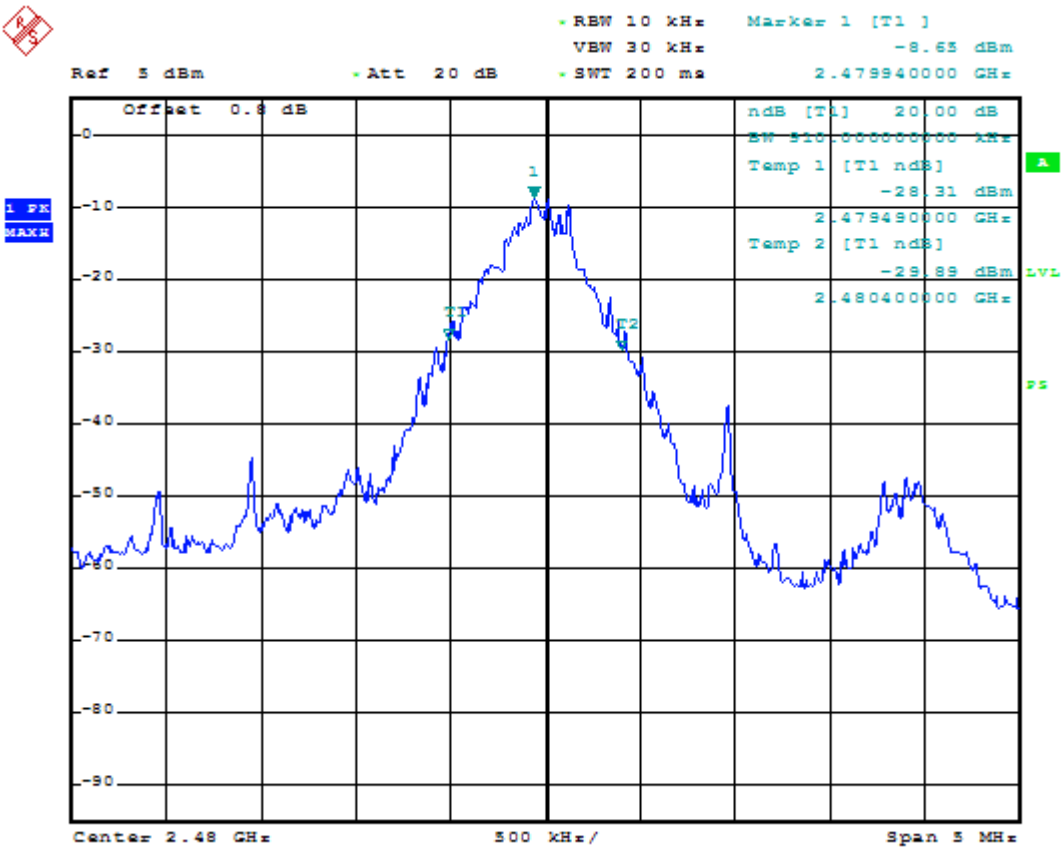
CH Low:


RBW 10 kHz
VBW 30 kHz
SWT 500 ms
Marker 1 [T1]
-8.67 dBm
2.401940000 GHz
Ref 5 dBm
Att 20 dB
Offset 0.8 dB
ndB [T1] 20.00 dB
Temp 1 [T1 ndB]
-28.23 dBm
2.401490000 GHz
Temp 2 [T1 ndB]
-29.41 dBm
2.402360000 GHz
1 PK
VIEW
A
LVL
PS
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
Center 2.402 GHz
500 kHz/
Span 5 MHz

CH Mid:


RBW 10 kHz
VBW 30 kHz
SWT 50 ms
Marker 1 [T1]
-7.60 dBm
2.440940000 GHz
Ref 5 dBm
Att 20 dB
Offset 0.8 dB
ndB [T1] 20.00 dB
Temp 1 [T1 ndB]
-28.63 dBm
2.440490000 GHz
Temp 2 [T1 ndB]
-28.52 dBm
2.441370000 GHz
1 PK VIEW
Center 2.441 GHz
500 kHz/
Span 5 MHz

CH High:


RBW 10 kHz
VBW 30 kHz
SWT 200 ms
Marker 1 [T1]
-8.65 dBm
2.479940000 GHz
Ref 5 dBm
Att 20 dB
Offset 0.8 dB
ndB [T1] 20.00 dB
Temp 1 [T1 ndB]
-28.31 dBm
2.479490000 GHz
Temp 2 [T1 ndB]
-29.89 dBm
2.480400000 GHz
1 PK
MAXH
A
LVL
PS
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
Center 2.48 GHz
500 kHz/
Span 5 MHz

8. POWER OUTPUT

8.1 Standard Applicable

According to 15.247(b)(1). For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

8.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Rohde & Schwarz	EMI Test Receiver	ESI26	830245/009	2006-1-26	2007-1-25
ETS	Multi_Device Controller	2090	57230	2006-1-26	2007-1-25
ETS	Receiver Antenna	2175	57337	2006-1-26	2007-1-25
ETS	50 ohm Coaxial Cable	SUCOFLEX 104	25498514	2006-1-26	2007-1-25
Rohde & Schwarz	Horn Antenna	HF906	100014	2006-1-26	2007-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

8.3 Test Procedure

The device under test has an integral antenna and the power was measured on a radiated basis.

8.4 Environmental Conditions

Temperature:	24° C
Relative Humidity:	55%
ATM Pressure:	1016 mbar

8.5 Summary of Test Results/Plots

2402 MHz 0.67 mW EIRP
2441 MHz 0.71 mW EIRP
2480 MHz 0.58 mW EIRP

Antenna Gain = 1.00dBi (Max)

9. FIELD STRENGTH OF SPURIOUS EMISSIONS

9.1 Measurement Uncertainty

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is ±3.0 dB.

9.2 Standard Applicable

According to §15.247(c), 15.205 15.209(b) &15.35 (b), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

FIELD STRENGTH of Fundamental:	FIELD STRENGTH of Harmonics:	Section 15.209:
902-928MHz		30 - 88 MHz 40 dBuV/m @3M
2.4-2.4835GHz	127.37dBuV/m @3m	88 -216 MHz 43.5 dBuV/m @3M
127.38dBuV/m @3m	54 dBuV/m @3m	216 -960 MHz 46 dBuV/m @3M
		Above 960 MHz 54dBuV/m @3M

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply.

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 20 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS IN 15.209,WHICHEVER IS THE LESSER ATTENUATION.

Emissions that fall in the restricted bands (15.205) must be less than 54dBuV/m otherwise the spurious and harmonics must be attenuated by at least 20dB.

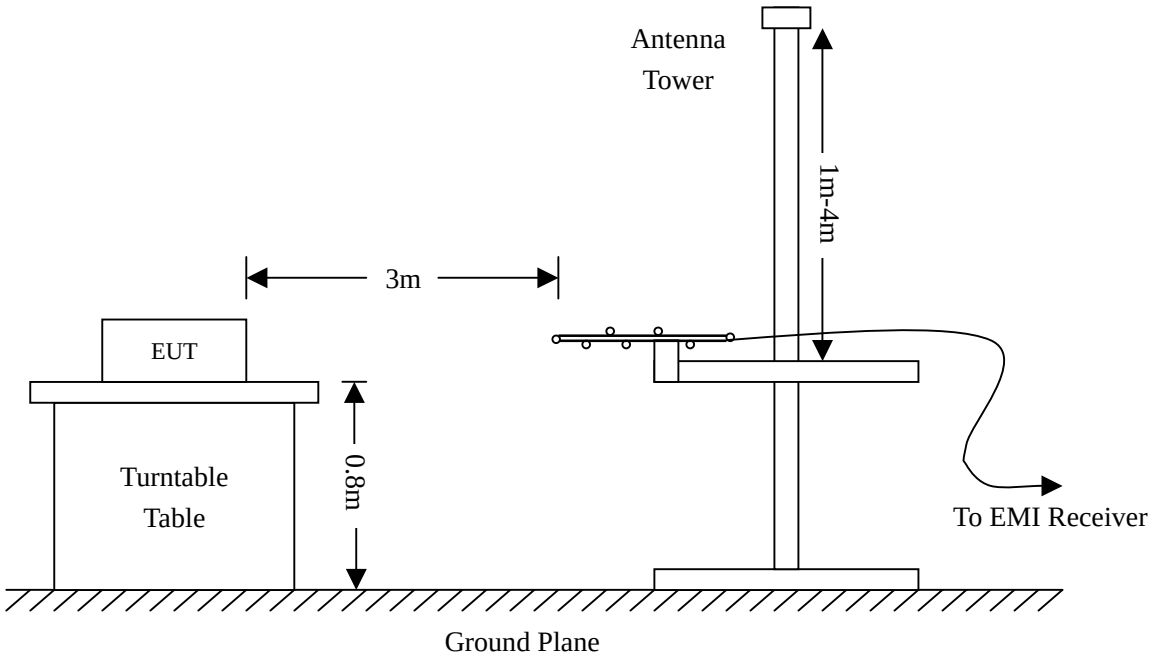
9.3 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Rohde & Schwarz	EMI Test Receiver	ESI26	830245/009	2006-1-26	2007-1-25
ETS	Multi_Device Controller	2090	57230	2006-1-26	2007-1-25
ETS	Receiver Antenna	2175	57337	2006-1-26	2007-1-25
ETS	50 ohm Coaxial Cable	SUCOFLEX 104	25498514	2006-1-26	2007-1-25
Rohde & Schwarz	Horn Antenna	HF906	100014	2006-1-26	2007-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

9.4 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.



9.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading + Ant. Factor + Cable Loss – Ampl. Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for Class B. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15 Limit

9.6 Environmental Conditions

Temperature:	22° C
Relative Humidity:	52%
ATM Pressure:	1018 mbar

9.7 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.249 standards, and had the worst margin of:

-5.40 dBμV at **7323.00 MHz** in the **Vertical** polarization, **30 MHz to 25 GHz, 3Meters**

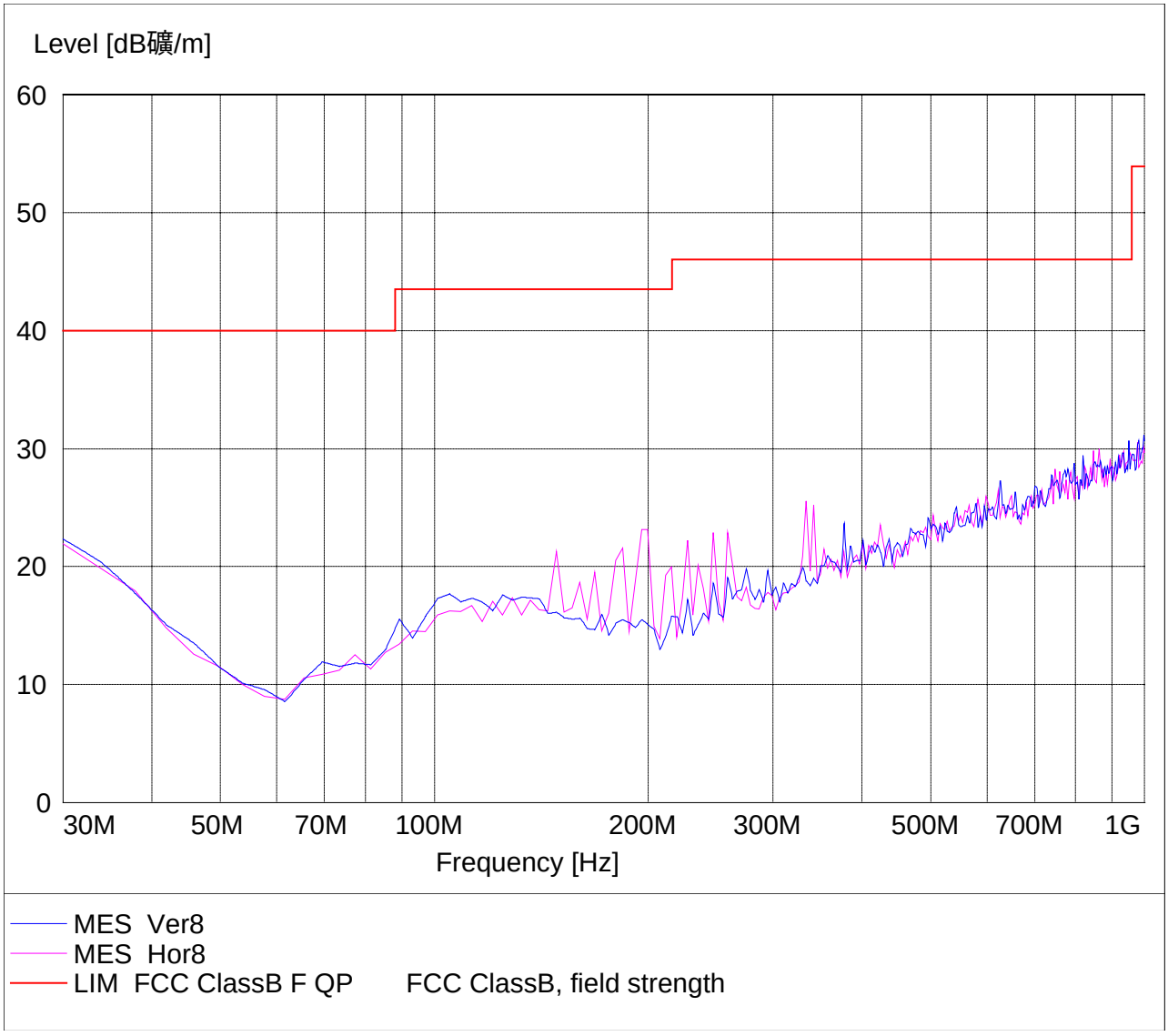
Frequency MHz	Detector	Meter Reading dBuV	Direction Degree	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Correction Amplitude dBuV/m	Limit dBuV/m	Margin dB
Low Channel (1G to 25GHz)										
4804.0R	AV	40.0	1.1	H	34.1	5.2	33.00	46.3	54	-7.7
4804.0R	AV	37.5	1.2	V	34.1	5.2	33.00	43.8	54	-10.2
7206.0	AV	36.2	1.0	H	37.4	6.1	33.50	46.2	54	-7.8
7206.0	AV	34.9	1.0	V	37.4	6.1	33.50	44.9	54	-9.1
2402.0	AV	101.0	1.4	H	29.1	3.7	34.00	99.8		(Fund.)
2402.0	AV	98.6	1.2	V	29.1	3.7	34.00	97.4		(Fund.)
4804.0R	PK	48.0	1.0	H	34.1	5.2	33.00	54.3	74	-19.7
4804.0R	PK	45.1	1.2	V	34.1	5.2	33.00	51.4	74	-22.6
7206.0	PK	45.2	1.3	H	37.4	6.1	33.50	55.2	74	-18.8
7206.0	PK	42.7	1.2	V	37.4	6.1	33.50	52.7	74	-21.3
2402.0	PK	103.9	1.2	H	29.1	3.7	34.00	102.7		(Fund.)
2402.0	PK	101.7	1.1	V	29.1	3.7	34.00	100.5		(Fund.)
Middle Channel (1G to 25GHz)										
4882.0R	AV	40.3	1.0	H	34.1	5.2	33.00	46.6	54	-6.4
4882.0R	AV	40.9	1.0	V	34.1	5.2	33.00	47.2	54	-6.8
7323.0	AV	37.0	1.4	H	37.4	6.1	33.50	47.0	54	-7.0
7323.0	AV	38.6	1.2	V	37.4	6.1	33.50	48.6	54	-5.4
2441.0	AV	102.7	1.4	H	29.1	3.7	34.00	101.5		(Fund.)
2441.0	AV	99.4	1.2	V	29.1	3.7	34.00	98.2		(Fund.)
4882.0R	PK	50.2	1.0	H	34.1	5.2	33.00	56.5	74	-17.5
4882.0R	PK	47.7	1.2	V	34.1	5.2	33.00	54.0	74	-20.0
7323.0	PK	44.2	1.2	H	37.4	6.1	33.50	54.2	74	-19.8
7323.0	PK	45.1	1.4	V	37.4	6.1	33.50	55.1	74	-18.9
2441.0	PK	104.2	1.2	H	29.1	3.7	34.00	103.0		(Fund.)
2441.0	PK	101.6	1.0	V	29.1	3.7	34.00	100.4		(Fund.)

High Channel (1G to 25GHz)										
4960.0R	AV	39.8	54	H	34.1	5.2	33.00	46.1	54	-7.9
4960.0R	AV	38.6	55	V	34.1	5.2	33.00	44.9	54	-9.1
7440.0	AV	35.3	125	H	37.4	6.1	33.50	45.3	54	-8.7
7440.0	AV	32.6	145	V	37.4	6.1	33.50	42.6	54	-11.4
2480.0	AV	100.4	270	H	29.1	3.7	34.00	99.2		(Fund.)
2480.0	AV	98.6	145	V	29.1	3.7	34.00	97.4		(Fund.)
4960.0R	PK	46.1	45	H	34.1	5.2	33.00	52.4	74	-21.6
4960.0R	PK	44.7	178	V	34.1	5.2	33.00	51.0	74	-23.0
7440.0	PK	41.9	55	H	37.4	6.1	33.50	51.9	74	-22.1
7440.0	PK	40.3	125	V	37.4	6.1	33.50	50.3	74	-23.7
2480.0	PK	102.9	145	H	29.1	3.7	34.00	101.7		(Fund.)
2480.0	PK	101.0	160	V	29.1	3.7	34.00	99.8		(Fund.)

Note: Testing is carried out with frequency rang 30MHz to the tenth harmonics, which above 5th Harmonics is close to the noise base even antenna close up to 1meter distance according the measurement of ANSI C63.4.

Test Result/Plots: from 30 MHz to 1 GHz

Indicated		Table	Antenna		Correction Factor			Corrected Amplitude	FCC 15	
Freq. MHz	Ampl. dBµV/m	Angle Degree	Height Meter	Polar H/ V	Antenna dBµV/m	Cable dB	Amp. dB	Corr. Ampl. dBµV/m	Limit dBµV/m	Margin dB
198.2	35.8	66	1.0	H	12.0	1.3	25.15	23.9	43.5	-19.6
336.4	35.1	45	1.2	H	14.6	1.7	25.17	26.2	46.0	-19.8
184.1	35.1	45	1.0	H	11.8	1.3	25.24	23.0	43.5	-20.5
168	34.3	135	1.2	H	12.5	1.2	25.45	22.5	43.5	-21.0
384	32.1	98	1.2	V	15.6	1.9	25.31	24.3	46.0	-21.7
240.2	35.1	60	1.3	H	12.3	1.3	24.94	23.8	46.0	-22.2



10. OUT OF BAND EMISSIONS

10.1 Standard Applicable

According to §15.205 Emissions that fall in the restricted bands (15.205). These emissions must be less than or equal to 500 uV/m (54 dBuV/m).

10.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Rohde & Schwarz	EMI Test Receiver	ESI26	830245/009	2006-1-26	2007-1-25
ETS	Receiver Antenna	2175	57337	2006-1-26	2007-1-25
ETS	50 ohm Coaxial Cable	SUCOFLEX 104	25498514	2006-1-26	2007-1-25
Rohde & Schwarz	Horn Antenna	HF906	100014	2006-1-26	2007-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

10.3 Test Procedure

An in band field strength measurement of the fundamental Emission using the RBW and detector function required by C63.4-2003 and FCC Rules. The procedure was repeated with an average detector and the edge emission was made.

10.4 Environmental Conditions

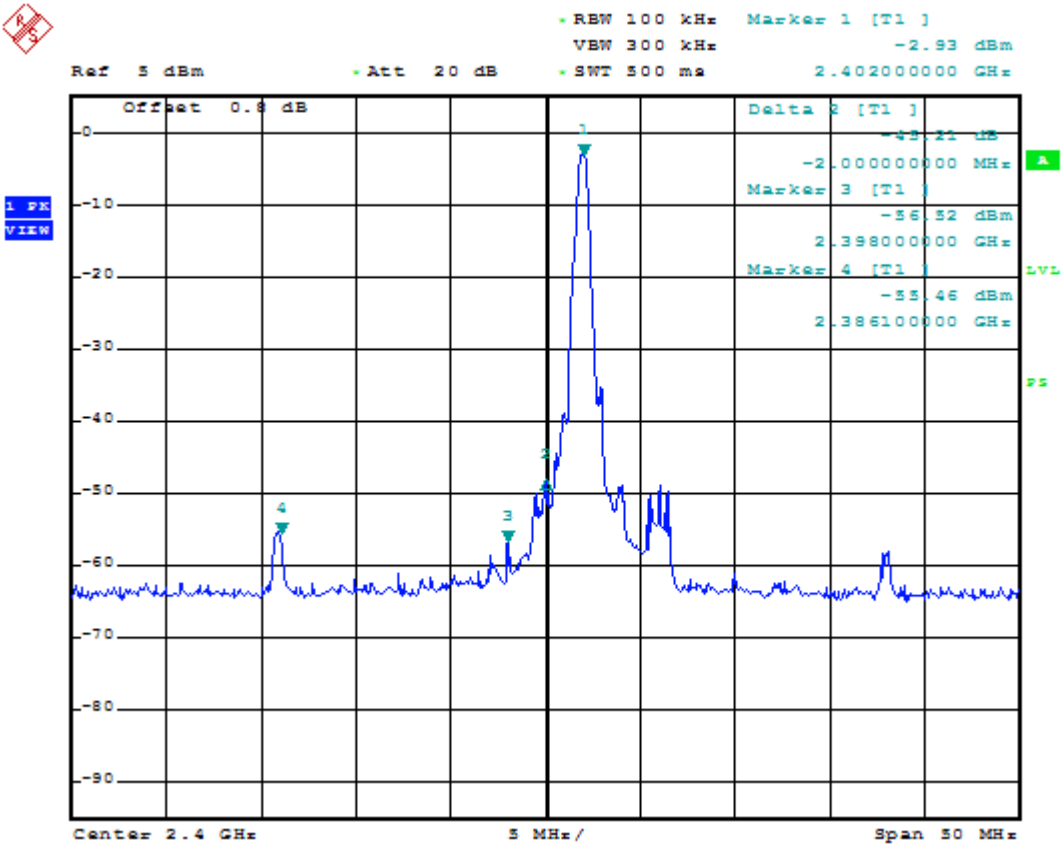
Temperature:	28° C
Relative Humidity:	54%
ATM Pressure:	1018 mbar

10.5 Summary of Test Results

Frequency MHz	Detector	Measured Result dBuV/m	Limit dB
2400.00	AV	52.4	<54
2483.50	AV	48.1	<54

Note: The edge point is measured base on 3m radiated field strength and the polts hereby is measured with conducted method (PK detector) for reference only. Other emission fall into restrict band close to the base noise dose not reported.

Lowest Bandedge



Highest Bandedge

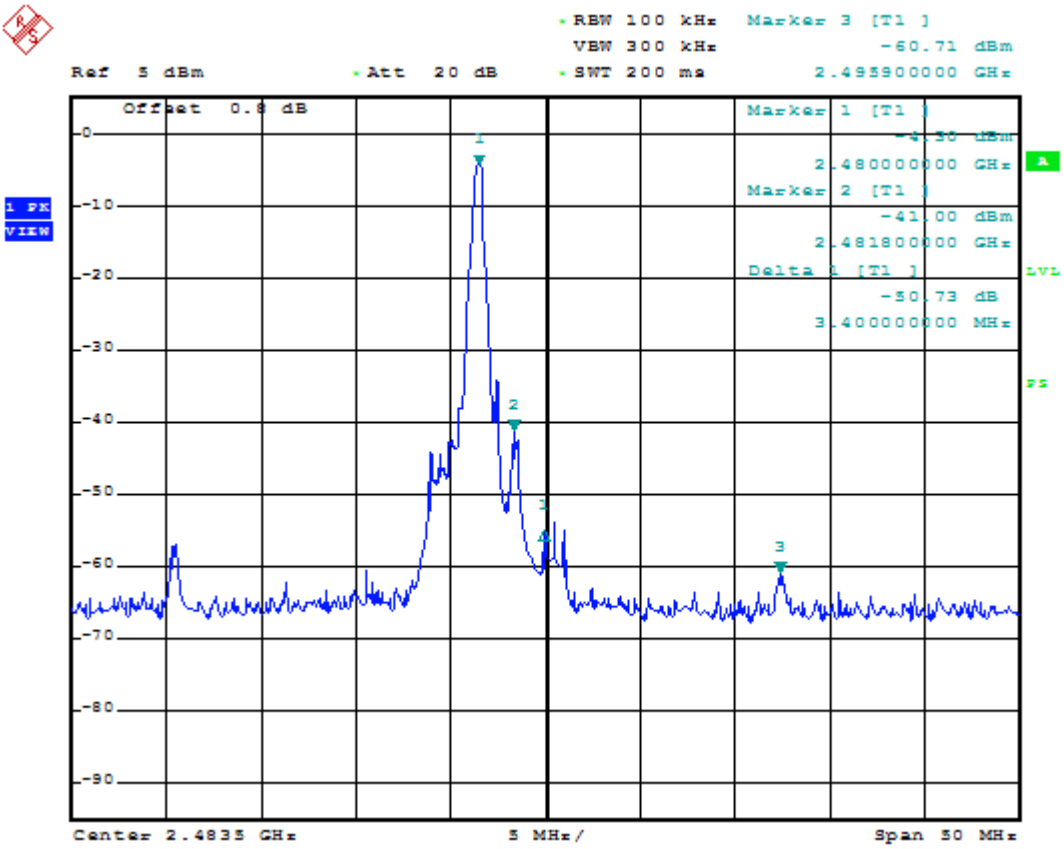


EXHIBIT 1- PRODUCT LABELING

Proposed FCC ID Label Format

FCC ID: UUZMPP014

Specifications: Text is Black in color. Labels are printed in indelible ink on permanent adhesive silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT.

Proposed Label Location on EUT

FCC ID Label Location

EXHIBIT 2 - EUT EXTERNAL PHOTOGRAPHS

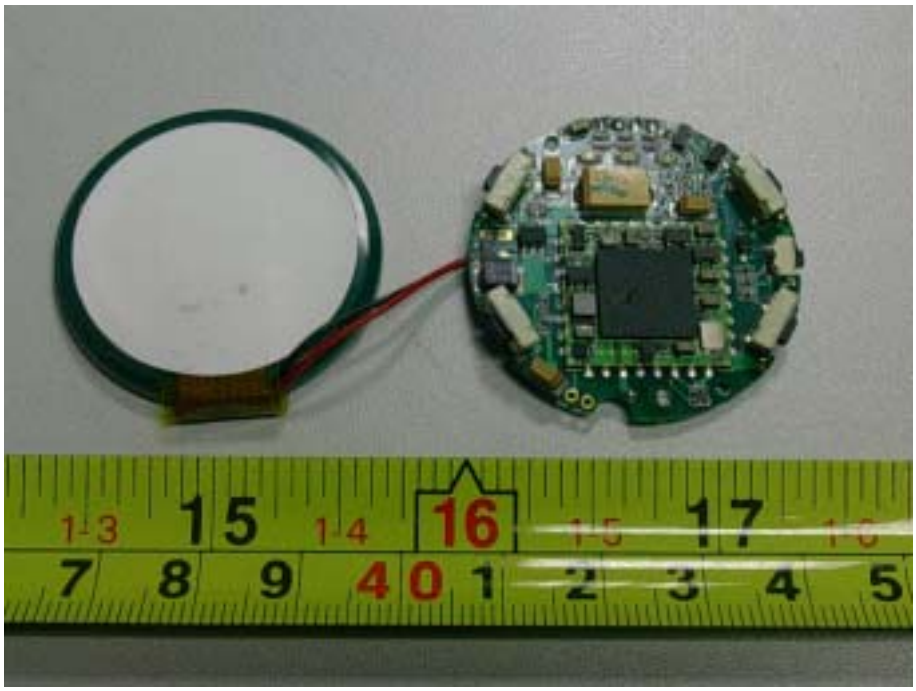
EUT View 1

EUT View 2

EXHIBIT 3 - EUT INTERNAL PHOTOGRAPHS

EUT Housing and Board View

Solder Board-Component View 1



Solder Board-Component View 2

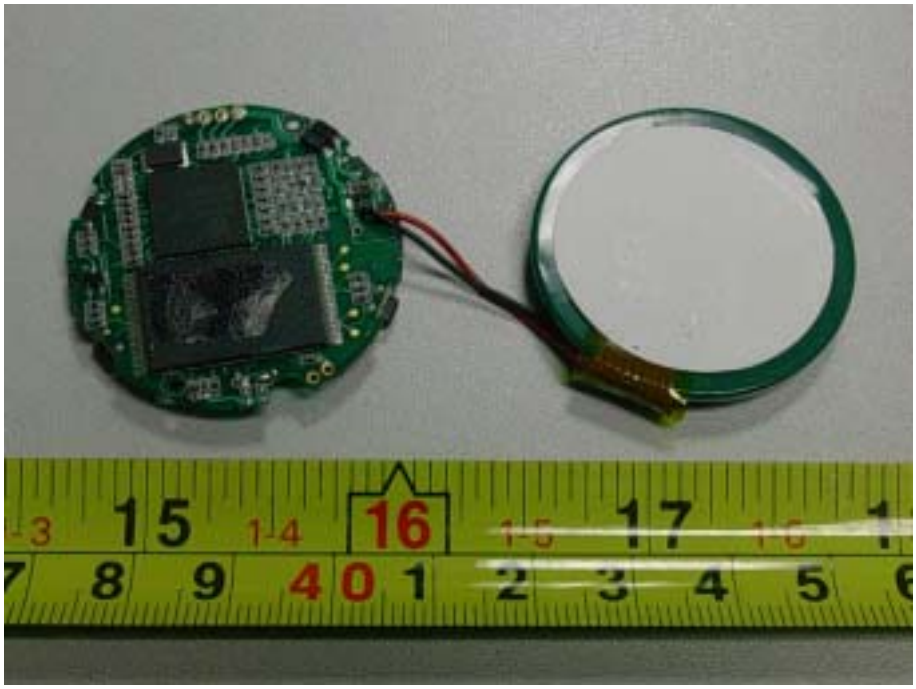
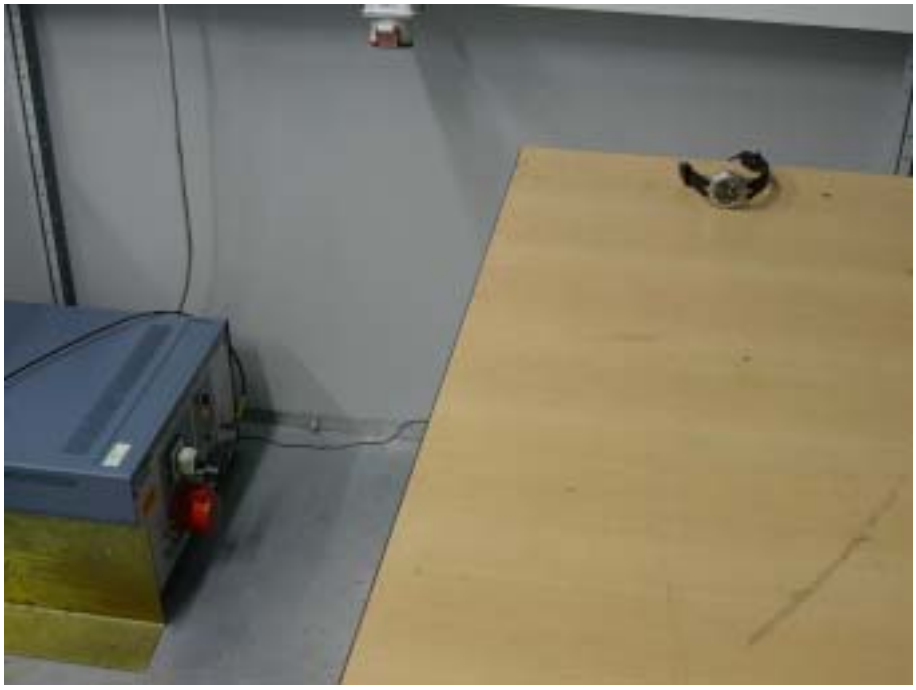
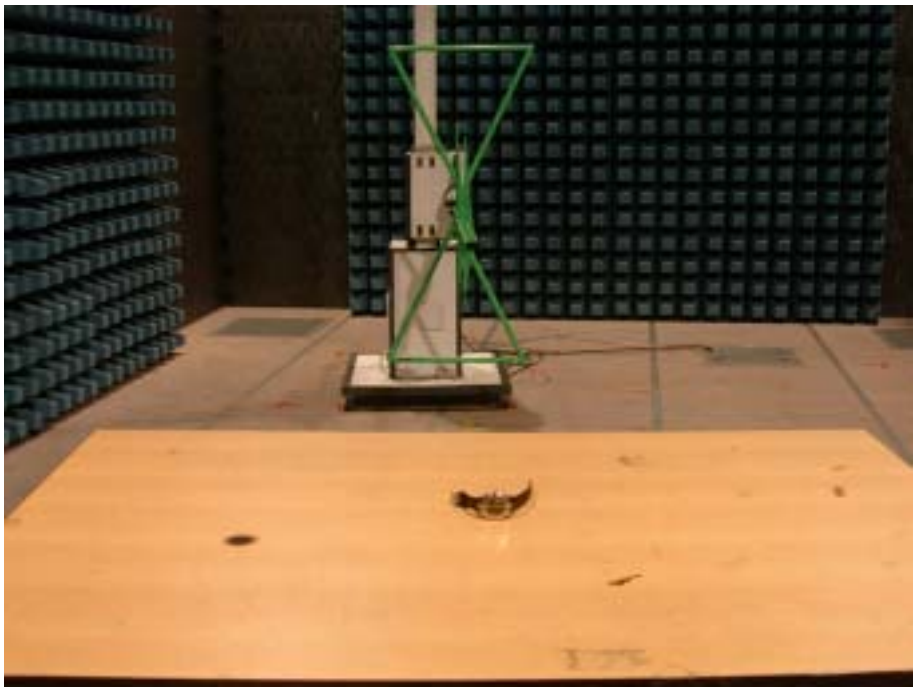


EXHIBIT 4 - TEST SETUP PHOTOGRAPHS

Conducted Emission Test Setup



Radiated Emission Test Setup (30MHz to 1GHz)



Radiation Emission Test Setup (Above 1GHz)