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Test Report:	98311-1TRFWL
Applicant:	BainUltra Inc. 956 Chemin Olivier St-Nicolas, Québec G7A 2N1
Apparatus:	Euphonia MP3 player
FCC ID:	V4LEUPHONIAPL
In Accordance With:	FCC Part 15 Subpart C, 15.247 FHSS System and Digitally Modulated Radiators 902-928MHz, 2400 - 2483.5 MHz, 5725-5850MHz
Tested By:	Nemko Canada Inc. 303 River Road Ottawa, Ontario K1V 1H2
Authorized By:	 Jason Nixon, Wireless/Telecom Specialist
Date:	March 4, 2008
Total Number of Pages:	33

Report Summary

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart C. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

The assessment summary is as follows:

Apparatus Assessed: Euphonia MP3 player

Specification: FCC Part 15 Subpart C, 15.247

Compliance Status: Complies

Exclusions: None

Non-compliances: None

Report Release History: Original Release

Author: Andrey Adelberg EMC/Wireless Specialist

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025.

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Section 1 : Equipment Under Test

1.1 Product Identification

The Equipment Under Test was identified as follows:

MP3 Player

1.2 Samples Submitted for Assessment

The following samples of the apparatus have been submitted for type assessment:

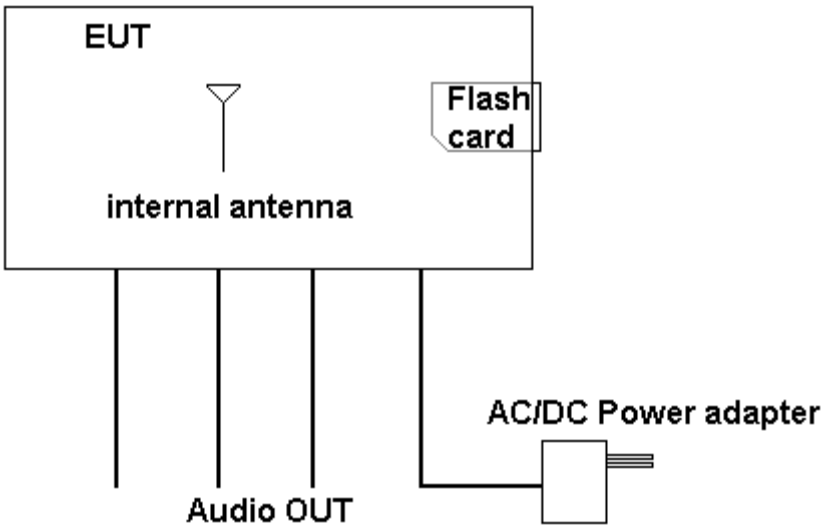
Sample No.	Description	Serial No.
1	MP3 Player	BU009
2	Switching mode power supply CY35-0500300R	None

The first samples were received on: December 17, 2007

1.3 Technical Specifications of the EUT

Operating Frequency:	2402 – 2480 MHz
Peak Output Power:	-2.18 dBm
Rated Output Power:	-1 dBm
Emission Designator	968KF1D
Modulation:	GFSK
Antenna Data:	Integrated PCB antenna, 1 dBi

1.4 Block Diagram of the EUT



Section 2 : Test Conditions

2.1 Specifications

The apparatus was assessed against the following specifications:

FCC Part 15 Subpart C, 15.247
FHSS System and Digitally Modulated Radiators
902-928MHz, 2400 - 2483.5 MHz, 5725-5850MHz

2.2 Deviations From Laboratory Test Procedures

No deviations were made from laboratory test procedures.

2.3 Test Environment

All tests were performed under the following environmental conditions:

Temperature range	:	15 – 30 ºC
Humidity range	:	20 - 75 %
Pressure range	:	86 - 106 kPa
Power supply range	:	+/- 5% of rated voltages

2.4 Test Equipment

Equipment	Manufacturer	Model No.	Asset/Serial No.	Next Cal.
Spectrum Analyzer	Rohde & Schwarz	FSP40	FA001920	Mar 19/08
Notch Filter	Microwave Circuits	2400-2483MHz	FA001940	COU
RF AMP	JCA	1-2 GHz	FA001498	Aug. 21/08
RF AMP	JCA	2-4 GHz	FA001496	Aug. 21/08
RF AMP	JCA	4-8 GHz	FA001497	Aug. 21/08
Biconical	Sunol	BC2	FA002078	July 25/08
Log Periodic Antenna	Sunol	LP5	FA002077	July 25/08
Electro-Magnetic Interference Test Chamber	TDK	SAC-3	FA002047	May 19/08
Controller	Sunol	SC104V	FA002060	NCR
Mast	Sunol	TLT2	FA002061	NCR
LISN	Rohde & Schwarz	ENV216	FA002023	Sept. 04/08
50 Ohm Coax cable	HUBER + SUHNER	None	FA002022	Sept. 19/08
Horn Antenna #2	EMCO	3115	FA000825	Jan. 30/08
Horn Antenna #1	EMCO	3115	FA000649	Feb 26/08
Transient Limiter	Hewlett-Packard	1194 7A	FA001855	July 27/08
Receiver	Rohde & Schwarz	ESVS-30	FA001447	July 23/08
Horn Antenna	ETS 18-40G	3116	FA001847	Sept 05/08
RF Amp	JCA	18-26.5 GHz	FA001550	COU
RF AMP	Narda	5 - 18GHz	FA001409	COU

COU – Calibrate on Use
NCR – No Calibration Required

2.5 Measurement Uncertainty

Nemko Canada measurement uncertainty has been calculated using guidance of UKAS LAB 34:2003 and TIA-603-B Nov 7, 2002. All calculations have been performed to provide a confidence level of 95% and can be found in Nemko Canada document MU-003.

Section 3 : Observations

3.1 Modifications Performed During Assessment

No modifications were performed during assessment.

3.2 Record Of Technical Judgements

No technical judgements were made during the assessment.

3.3 EUT Parameters Affecting Compliance

The user of the apparatus could not alter parameters that would affect compliance.

3.4 Test Deleted

No Tests were deleted from this assessment.

3.5 Additional Observations

There were no additional observations made during this assessment.

Section 4 : Results Summary

This section contains the following:

FCC Part 15 Subpart C : Test Results

The column headed 'Required' indicates whether the associated clauses were invoked for the apparatus under test. The following abbreviations are used:

N	No : not applicable / not relevant.
Y	Yes : Mandatory i.e. the apparatus shall conform to these tests.
N/T	Not Tested, mandatory but not assessed. (See section 3.4 Test deleted)

The results contained in this section are representative of the operation of the apparatus as originally submitted.

4.1 FCC Part 15 Subpart C: Test Results

Part 15	Test Description	Required	Result
15.31(e)	Variation of power supply	Y	PASS
15.207(a)	Powerline Conducted Emissions	Y	PASS
15.209(a)	Radiated Emissions within Restricted Bands	Y	PASS
15.247(a)(1)	Frequency hopping systems	Y	PASS
15.247(a)(1)(i)	Frequency hopping systems operating in the 902-928 MHz band	N	
15.247(a)(1)(ii)	Frequency hopping systems operating in the 5725-5850 MHz band	N	
15.247(a)(1)(iii)	Frequency hopping systems operating in the 2400-2483.5 MHz band	Y	PASS
15.247(a)(2)	Systems using digital modulation techniques	N	
15.247(b)(1)	Maximum peak output power of Frequency hopping systems operating in the 2400-2483.5 MHz band and 5725-5850 MHz band	Y	PASS
15.247(b)(2)	Maximum peak output power of Frequency hopping systems operating in the 902-928 MHz band	N	
15.247(b)(3)	Maximum peak output power of systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands	N	
15.247(b)(4)	Maximum peak output power	Y	PASS
15.247(c)(1)	Fixed point-to-point Operation with directional antenna gains greater than 6 dBi	N	
15.247(c)(2)	Transmitters operating in the 2400-2483.5 MHz band that emit multiple directional beams	N	
15.247(d)	Radiated Emissions Not in Restricted Bands	Y	PASS
15.247(e)	Power Spectral Density for Digitally Modulated Devices	N	
15.247(f)	Time of Occupancy for Hybrid Systems	N	

Appendix A: Test Results

Clause 15.207(a) Powerline Conducted Emissions

Frequency of Conducted limit (dBµV)

Emission (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test Conditions:

Sample Number:	1	**Temperature (°C):**	22
Date:	December 21, 2007	**Humidity (%):**	35
Modification State:	0	**Tester:**	Andrey Adelberg
		Laboratory:	Ottawa

Test Results: See Attached Plots.

Additional Observations:

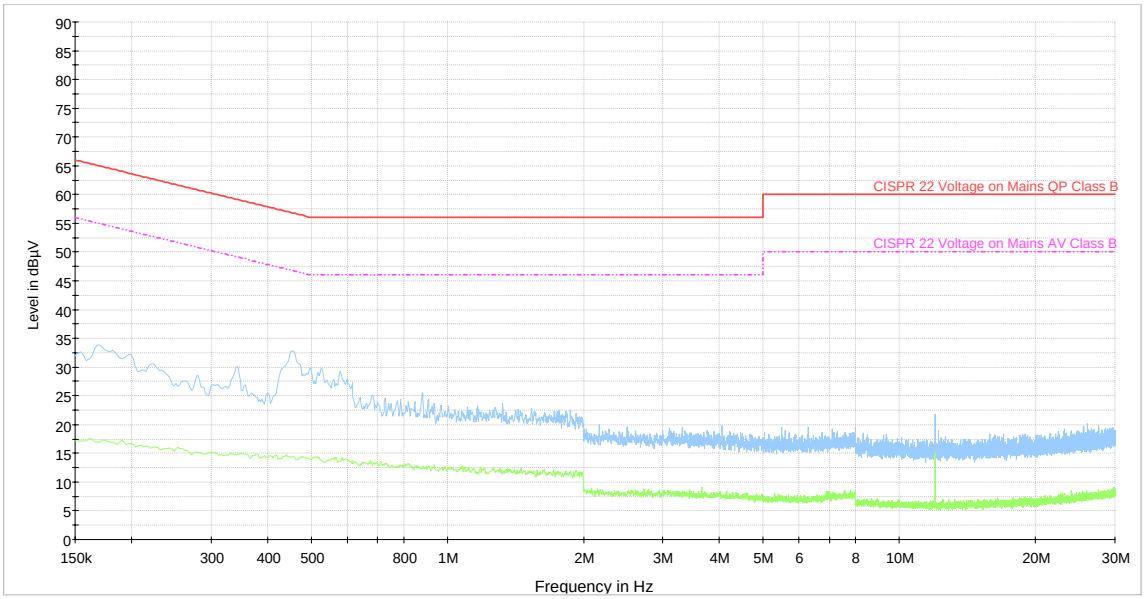
Preview measurements:
0.15MHz to 30MHz
Receiver settings:
- Peak Detector, Max Hold and Average
- 10kHz RBW

Final measurement:
0.15MHz to 30MHz
Receiver settings:
- Q-Peak Detector and Average
- 10kHz RBW

Spectral plots have been corrected for transducer factors: cable loss and LISN.

All peak emissions found were more that 6 dB below the average limit

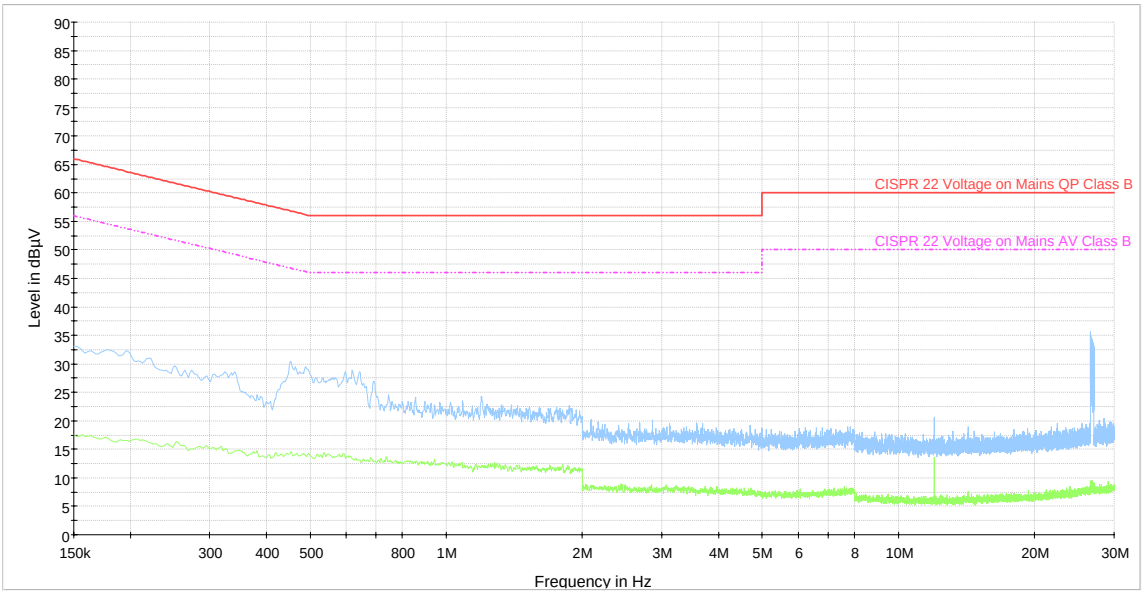
Conducted Emissions on AC mains test



Conducted Emissions on mainst on Line wire

- Voltage on Mains QP Class B Limit Line
- Voltage on Mains AV Class B Limit Line
- Peak Detector trace
- Average Detector trace

Conducted Emissions on AC mains test



Conducted Emissions on mains on Neutral wire

- Voltage on Mains QP Class B Limit Line
- Voltage on Mains AV Class B Limit Line
- Peak Detector trace
- Average Detector trace

Clause 15.209(a) Radiated Emissions within Restricted Bands

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvoltsmeter)	Measurement Distance (meters)
0.009-0.490	2400/F (kHz)	300
0.490-1.705	24000/F (kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Test Conditions:

Sample Number:	1	**Temperature (°C):**	24
Date:	Dec 20/07 and Feb 20/08	**Humidity (%):**	34
Modification State:	0	**Tester:**	Andrey Adelberg
		Laboratory:	Ottawa / Almonte

Test Results:

See Attached Table for Results

Additional Observations:

The Spectrum was searched from 30MHz to the 10th Harmonic.

These results apply to emissions found in the Restricted Bands defined in FCC Part 15 Subpart C, 15.205.

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 100 kHz / 300 kHz - RBW / VBW below 1GHz and a Peak and Average Detector with 1 MHz / 3 MHz - RBW / VBW above 1GHz at a distance of 3 meters.

Only emissions within 20 dB below the limit line were reported.

Radiated Emissions within restricted bands test results

	Frequency (MHz)	Antenna	Polarity	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr.	Cable Loss (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
Low Channel												
1	4804.0000	Horn	Vert.	62.8	32.9	53.1	-21.7	20.1	62.7	74.0	11.3	Peak
									41.0	54.0	13.0	Average
2	4804.0000	Horn	Horiz.	62.7	32.8	53.1	-21.7	20.1	62.5	74.0	11.5	Peak
									40.8	54.0	13.2	Average
Mid Channel												
3	4882.0000	Horn	Vert.	62.0	33.0	52.9	-21.7	19.8	61.9	74.0	12.1	Peak
									40.2	54.0	13.8	Average
4	4882.0000	Horn	Horiz.	62.3	32.9	52.9	-21.7	19.8	62.1	74.0	11.9	Peak
									40.4	54.0	13.6	Average
High Channel												
5	4960.0000	Horn	Vert.	61.2	33.1	52.7	-21.7	18.2	59.8	74.0	14.2	Peak
									38.1	54.0	15.9	Average
6	4960.0000	Horn	Horiz.	60.4	33.0	52.7	-21.7	18.2	58.9	74.0	15.1	Peak
									37.2	54.0	16.8	Average

Note:

Antenna Legend: BC = Biconical, BL = Bilog, LP = Log Periodic, Horn = Horn, ED = EMCO Dipole
Detector Legend: Below 1GHz, Peak detector with 100 kHz RBW
Above 1GHz, Peak detector with 1 MHz RBW
The spectrum was investigated for radiated emissions from 30 MHz to 10th Harmonic.

	Frequency (MHz)	Antenna	Polarity	Correction (dB)	Duty Cycle Corr. (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	1653.402	Horn	Horiz.	17.8	-21.7	43.2	74.0	30.8	Peak
						21.5	54.0	32.5	Average
2	3285.164	Horn	Horiz.	20.2	-21.7	52.8	74.0	21.2	Peak
						31.1	54.0	22.9	Average

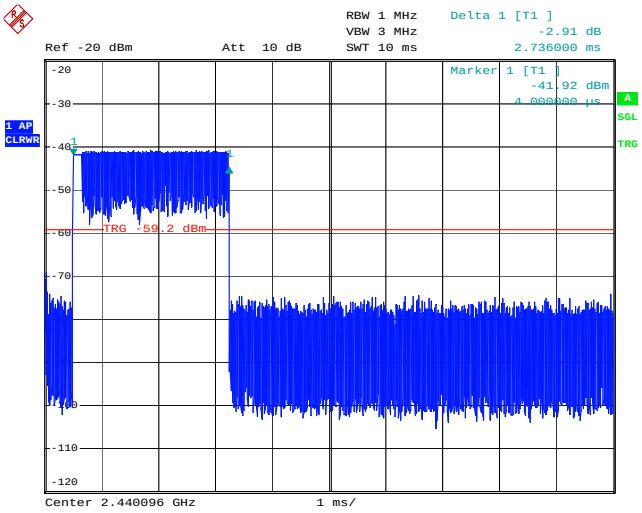
Note:

Antenna Legend: BC = Biconical, BL = Bilog, LP = Log Periodic, Horn = Horn, ED = EMCO Dipole
Detector Legend: Below 1GHz, Peak detector with 100 kHz RBW
Above 1GHz, Peak detector with 1 MHz RBW
The spectrum was investigated for radiated emissions from 30 MHz to 10th Harmonic.
Both vertical and horizontal polarizations were scanned and worst case was reported.
The Correction value includes Cable loss; Antenna Factors and any Amplifier gain if required. This value is included in Emission Level measurement result.

Sample calculation: at 1653.402 MHz Peak Emission Level was measured 43.2 dBµV/m (including correction of 17.8 dB from antenna and cable losses). 74 – 43.2 = 30.8 dB margin below the Peak Limit (74 dBµV/m). Average Level was obtained by adding Duty Cycle correction factor of –21.7 dB to Peak Level: 43.2 – 21.7 = 21.7 dBµV/m. 54 – 21.5 = 32.5 dB margin below the Average Limit (54 dBµV/m).

Duty Cycle Correction Factor:

Transmission On Time



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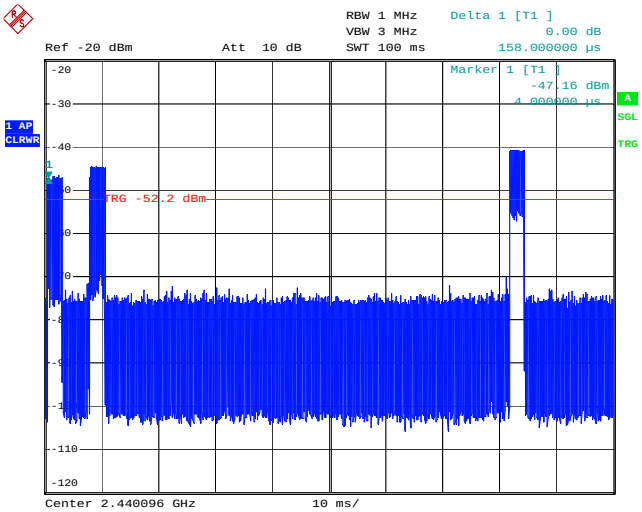
Transmission within 100msec



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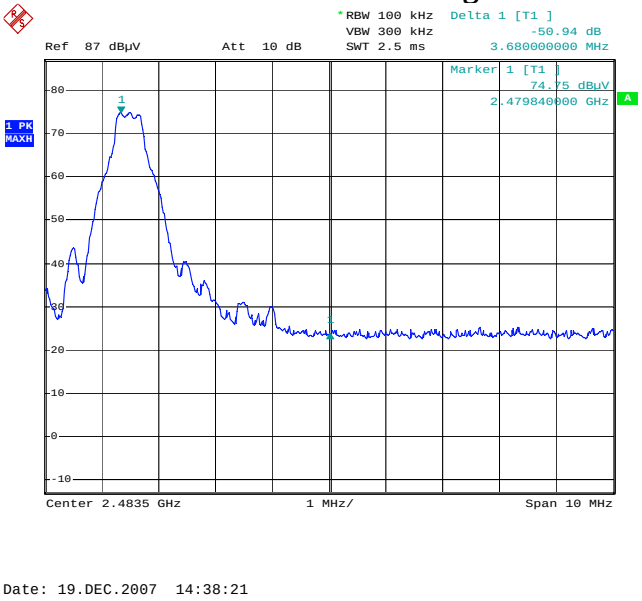
T_{ON} (msec)	Maximum Number of pulses within 100msec	T_{ON} (msec) within 100msec	Average factor (dB)
2.736	3	8.208	-21.72

Duty Cycle Correction (Average Factor) = 20 $\log_{10}$(T / 100ms) =
20 $\log_{10}$(8.208 ms / 100 ms) = -21.72 dB

Delta Marker Measurement for 2.4835GHz Band Edge



Measured Field Strength for High Channel in 1MHz RBW = 91.60 dBµV/m

Delta Marker = -50.94 dB

Therefore, Peak Field Strength = 91.60 dBµV/m – 50.94 dB = 40.66 dBµV/m
Limit = 74 dBµV/m
Average Field Strength = 40.66 dBµV/m – 32.62 dB(Duty Cycle) = 8.04 dBµV/m
Limit = 54 dB µV/m

Peak Field Strength (dBµV/m)	**Peak Field Strength Limit (dBµV/m)**	**Margin (dB)**
40.66	74.00	33.34
Average Field Strength (dBµV/m)	**Average Field Strength Limit (dBµV/m)**	**Margin (dB)**
8.04	54.00	45.96

Clause 15.247(a)(1) Frequency hopping systems

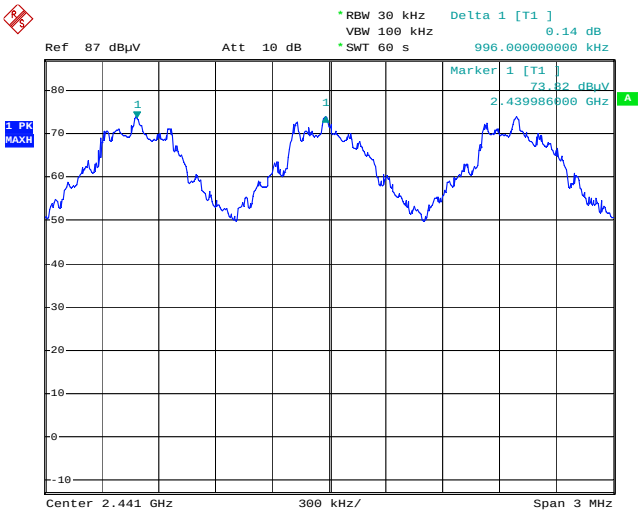
Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

Test Conditions:

Sample Number:	1	**Temperature (°C):**	22
Date:	December 19, 2007	**Humidity (%):**	35
Modification State:	0	**Tester:**	Andrey Adelberg
		Laboratory:	Ottawa

Test Results:

Channel Spacing:



Channel Spacing (kHz)	20 dB Bandwidth measured (kHz)	Margin (kHz)
996	880	-116

Clause 15.247(a)(1)(iii) Frequency hopping systems operating in the 2400-2483.5 MHz band

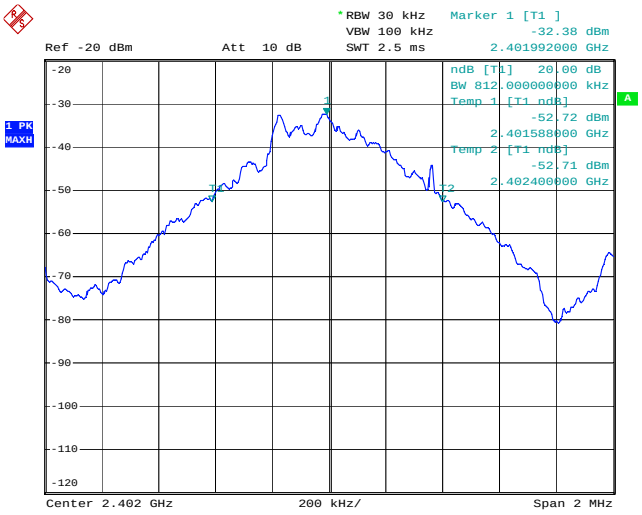
Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used

Test Conditions:

Sample Number:	1	**Temperature (°C):**	22
Date:	December 19, 2007	**Humidity (%):**	35
Modification State:	0	**Tester:**	Andrey Adelberg
		Laboratory:	Ottawa

Test Results:
20dB Bandwidth:

Low Channel Bandwidth



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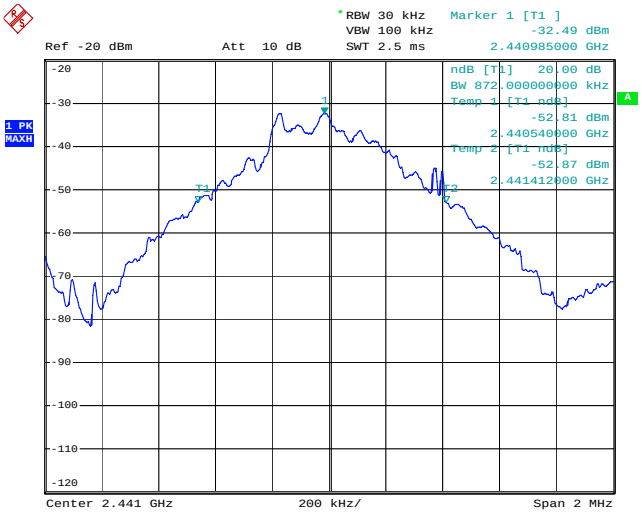
Mid Channel Bandwidth



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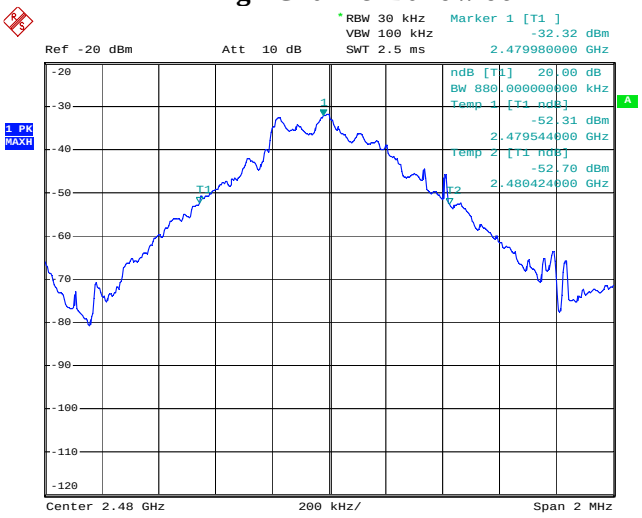
High Channel Bandwidth



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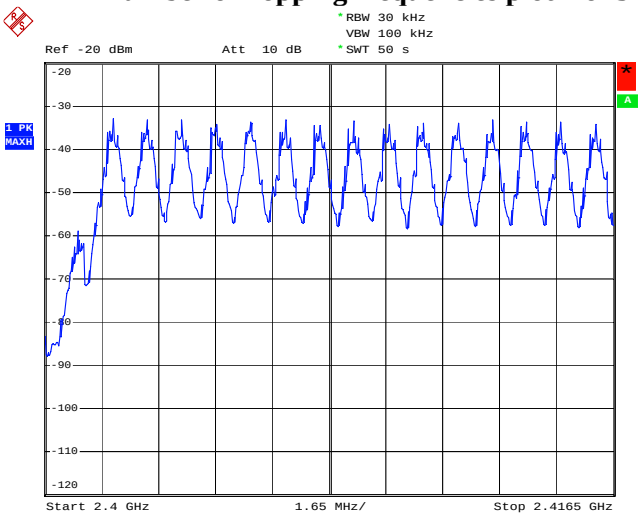
Low Channel 20 dB Bandwidth (kHz)	Mid Channel 20 dB Bandwidth (kHz)	High Channel 20 dB Bandwidth (kHz)
812	872	880

Number of Hopping Channels:

Number of hopping frequencies plot 1 of 5



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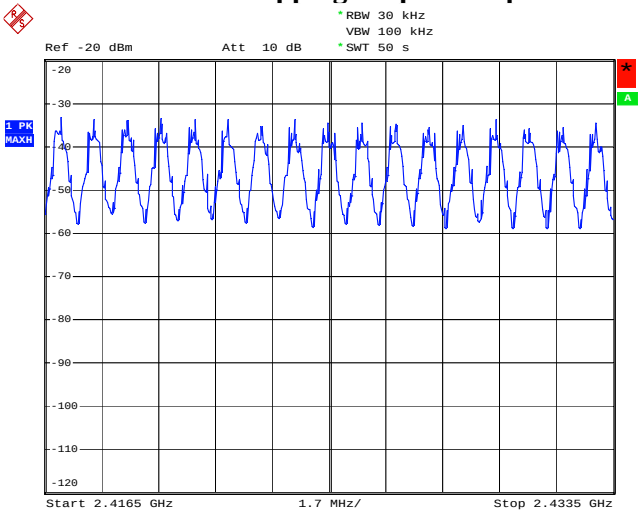
Number of channels: 15

Number of hopping frequencies plot 2 of 5



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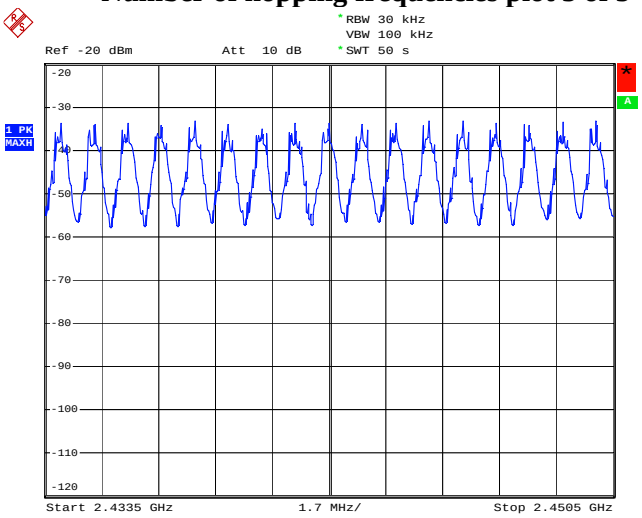
Number of channels: 17

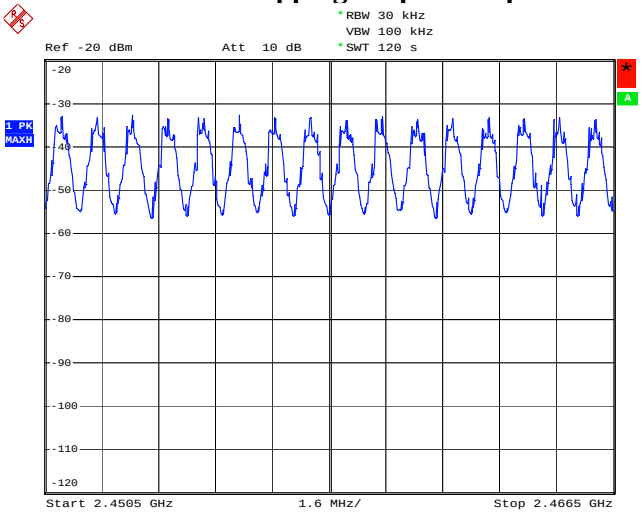
Number of hopping frequencies plot 3 of 5



Date: 19.DEC.2007 14:00:00

Number of channels: 17

Number of hopping frequencies plot 4 of 5



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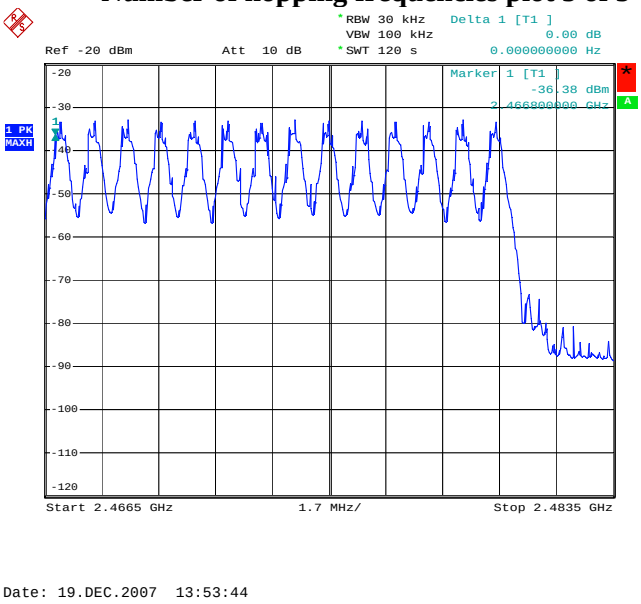
Number of channels: 16

Number of hopping frequencies plot 5 of 5



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Number of channels: 14

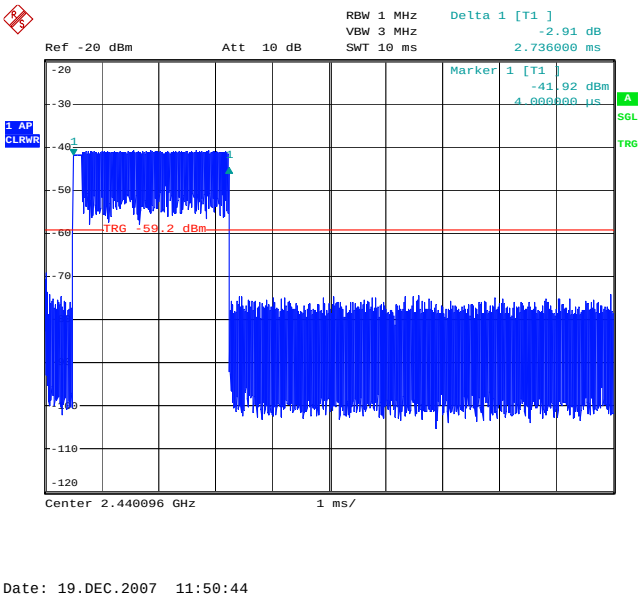
Total number of hopping channels: 15 + 17 + 17 + 16 + 14 = 79

Time of Occupancy (Dwell time):

For DH5 Packets it needs 5 time slots for transmission and 1 for reception, so the system makes in worst case 1600_{hops} / 5 = 320 hops per second with 79 channels. Therefore each channel has 4.05 times per second; it yields 128 times of appearance within 31.6 seconds (79 channels times 0.4 sec).

Time of occupancy: 128 x 2.736 ms = 350.208 ms per 31.6 sec

Transmission On Time



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Clause 15.247(b)(1) Maximum peak output power of Frequency hopping systems operating in the 2400-2483.5 MHz band and 5725-5850 MHz band

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.

Test Conditions:

Sample Number:	1	**Temperature (°C):**	21
Date:	February 20, 2008	**Humidity (%):**	31
Modification State:	0	**Tester:**	Andrey Adelberg
		Laboratory:	Almonte

Test Results:

Channel	Measured Output Power	
Low	-9.33 dBm	0.117 mW
Mid	-8.02 dBm	0.158 mW
High	-2.06 dBm	0.622 mW

EUT Antenna Gain = 1dBi

The supplied voltage was altered by ±15% (102 – 138VAC). No noticeable difference was observed.

Field Strength measurements were performed using peak detector function of Spectrum Analyzer.

Radiated EIRP Measurement:

Channel	Frequency (MHz)	Polarity V/H	Antenna type	Rx (dBµV)	Cable loss(dB)	Ant Factor (dB/m)	F.S. (dBµV/m)	Limit* (dBµV/m)	Margin (dB)
Low	2402.000	V	Horn	45.1	13.4	28.2	86.7	132.2	45.5
	2402.000	H	Horn	45.2	13.4	28.3	86.9	132.2	45.3
Mid	2441.000	V	Horn	45.2	13.1	28.3	86.6	132.2	45.6
	2441.000	H	Horn	46.7	13.1	28.4	88.2	132.2	44.0
High	2480.000	V	Horn	47.8	18.0	28.4	94.2	132.2	38.0
	2480.000	H	Horn	47.5	18.0	28.5	94.0	132.2	38.2

* - Equivalent Field Strength Limit = Output Power Limit + Conversion factor = 36(dBm) + 96.23 = 132.23(dBµV/m)@3m

$$P = \frac{P_t G}{4\pi r^2} \;;\quad P = \frac{E^2}{120\pi}$$

$$E = \sqrt{\frac{30 \cdot P_t G}{r^2}} = \frac{1}{r} \cdot \sqrt{30 P_t G}$$

$$E[V/m] = \frac{1}{r[m]} \sqrt{30 P[W] G}$$

$$E \cdot 10^{-6}[\mu V/m] = \frac{1}{r[m]} \sqrt{30 P[mW] \cdot 10^{-3} G}$$

$$20 \log E[\mu V/m] + 20 \log\left(1 \times 10^{-6}\right) = 20 \log\left(r^{-1}[m] \cdot \left(30 \cdot P[mW] \cdot G \cdot 1 \times 10^{-3}\right)^{\frac{1}{2}} \right)$$

$$20 \log E[\mu V/m] - 120 \log(10) = 20 \log\left(r^{-1}[m]\right) + 10 \log\left(30 \cdot G \cdot P[mW] \cdot 1 \times 10^{-3}\right)$$

$$20 \log E[\mu V/m] - 120 = 10 \log(30 \times 10^{-3}) + 10 \log P[mW] - 20 \log r[m] + 10 \log G$$

$$E[dB\mu V/m] = 120 - 15.23 + P[dBm] - 20 \log r[m] + G[dBi]$$

$$E[dB\mu V/m] = 104.77 + P[dBm] - 20 \log r[m] + G[dBi]$$

$$E[dB\mu V/m] = 104.77 + P[dBm] - 20 \log 3[m] + 1[dBi] = 104.77 + P[dBm] - 9.54 + 1$$

$$E[dB\mu V/m] = 96.23 + P[dBm] \Rightarrow r = 3m; G = 1dBi$$

Additional Observations:

All Measurements were performed at 3m using a 1MHz RBW and 3MHz VBW.

Conducted Output power Calculation:

Channel	Frequency (MHz)	F.S. (dBµV/m)	E (V/m)	AG (numeric)	Output Power (W)	Output Power (mW)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402.000	86.7	0.02173602	1.2589254	0.00011259	0.113	-9.49	30.00	39.49
	2402.000	86.9	0.02211974	1.2589254	0.0001166	0.117	-9.33	30.00	39.33
Mid	2441.000	86.6	0.02136437	1.2589254	0.00010877	0.109	-9.63	30.00	39.63
	2441.000	88.2	0.02571817	1.2589254	0.00015762	0.158	-8.02	30.00	38.02
High	2480.000	94.2	0.05107402	1.2589254	0.00062161	0.622	-2.06	30.00	32.06
	2480.000	94.0	0.05037325	1.2589254	0.00060467	0.605	-2.18	30.00	32.18

$$Measured\ value[V/m] = \frac{10^{F.S/20}}{1\times10^{6}}$$

$$Antenna\ Gain[numeric] = 10^{AG/10}$$

$$Output\ Power[W] = \frac{E^2 \cdot R^2}{30 \cdot G}$$

E = Measured Value (V/m)
R = Measurement distance
G = Antenna Gain (numeric)

Clause 15.247(d) Radiated Emissions Not in Restricted Bands

In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions that fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

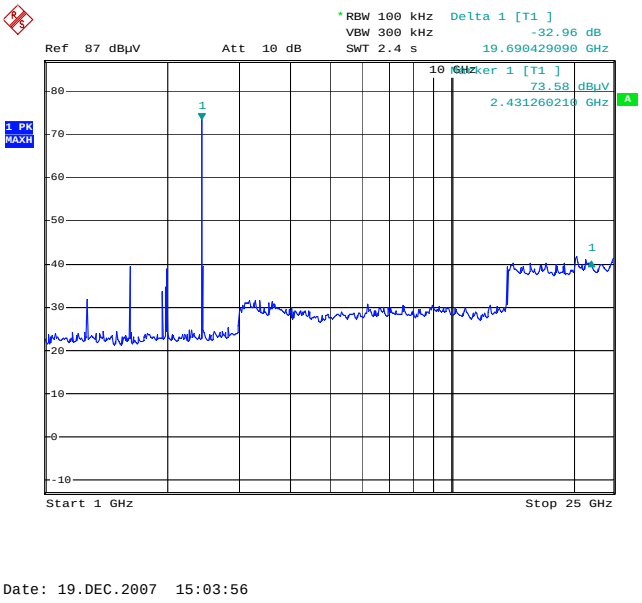
Test Conditions:

Sample Number:	1	**Temperature (°C):**	20
Date:	December 19, 2007	**Humidity (%):**	30
Modification State:	0	**Tester:**	Andrey Adelberg
		Laboratory:	Ottawa

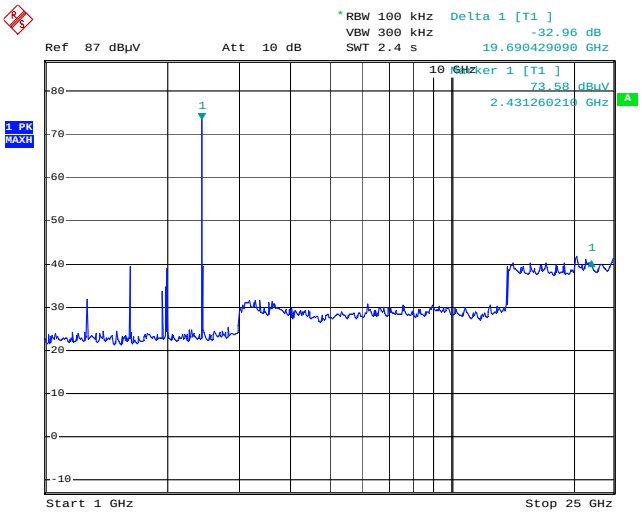
Test Results:

See Attached Table and Plots.

Low Channel:

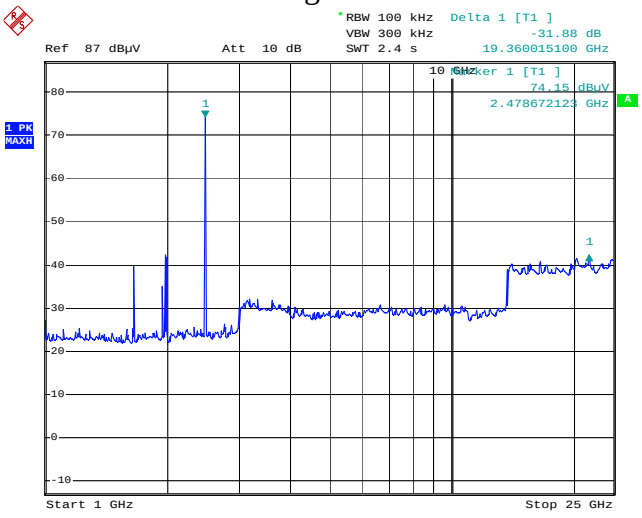


Mid Channel:



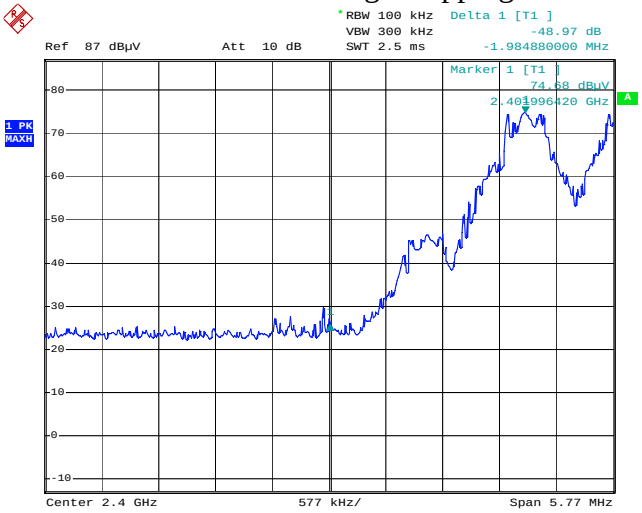
Date: 19.DEC.2007 15:03:56

High Channel:



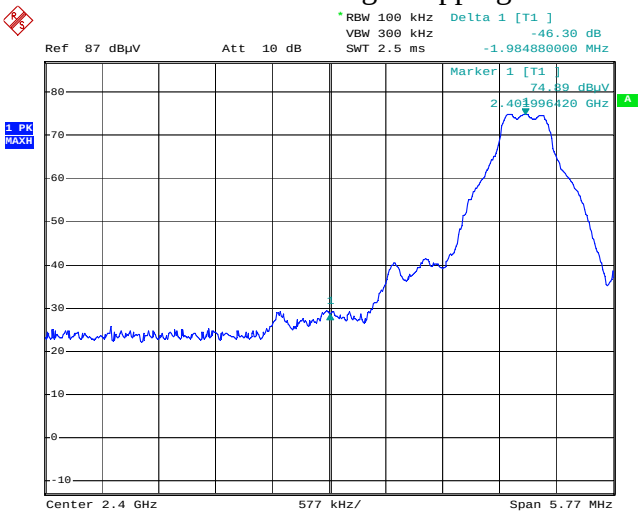
Date: 19.DEC.2007 15:03:13

Lower Band Edge Hopping On:



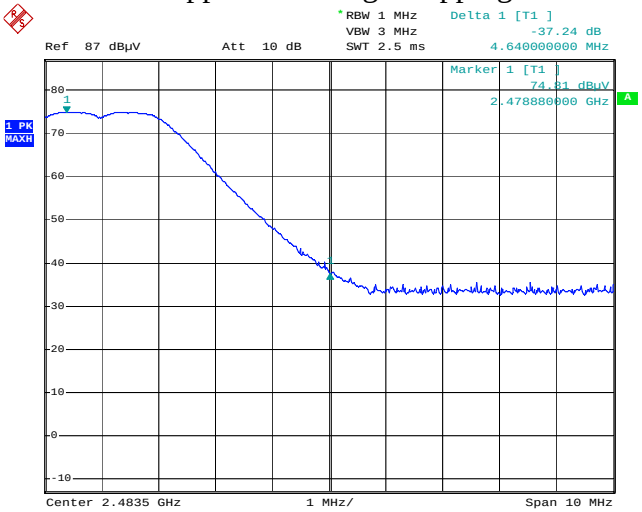
Date: 19.DEC.2007 14:35:42

Lower Band Edge Hopping Off:



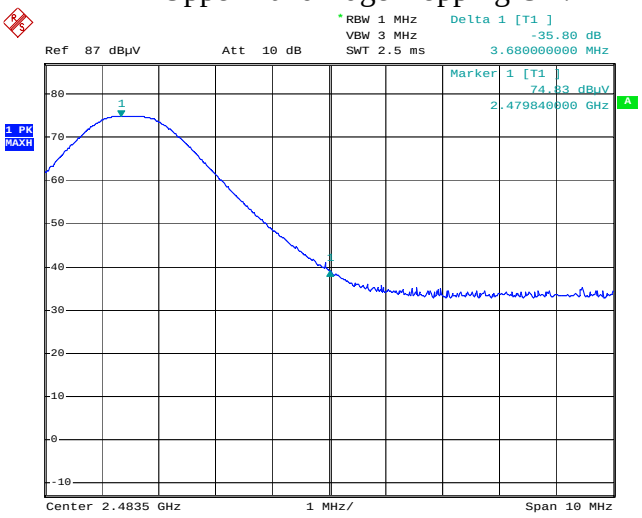
Date: 19.DEC.2007 14:34:11

Upper Band Edge Hopping On:



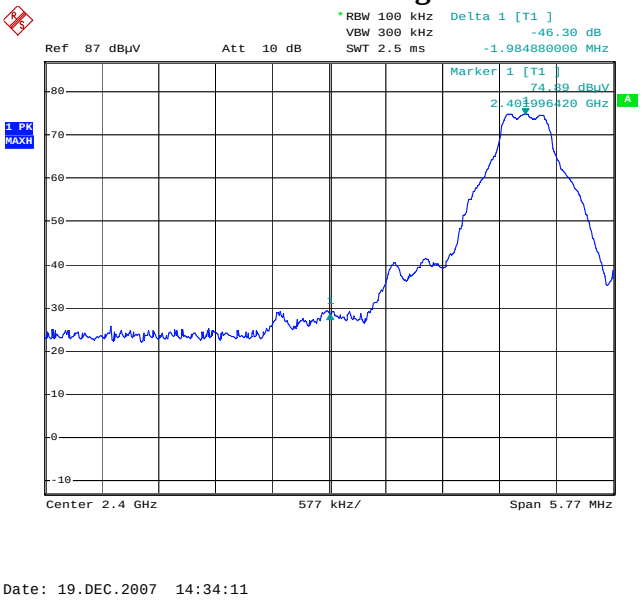
Date: 19.DEC.2007 14:40:38

Upper Band Edge Hopping Off:



Date: 19.DEC.2007 14:39:32

Delta Marker Measurement for 2.4GHz Band Edge



Measured Field Strength for High Channel in 100kHz RBW = 90.30 dBµV/m

Delta Marker = -46.30 dB

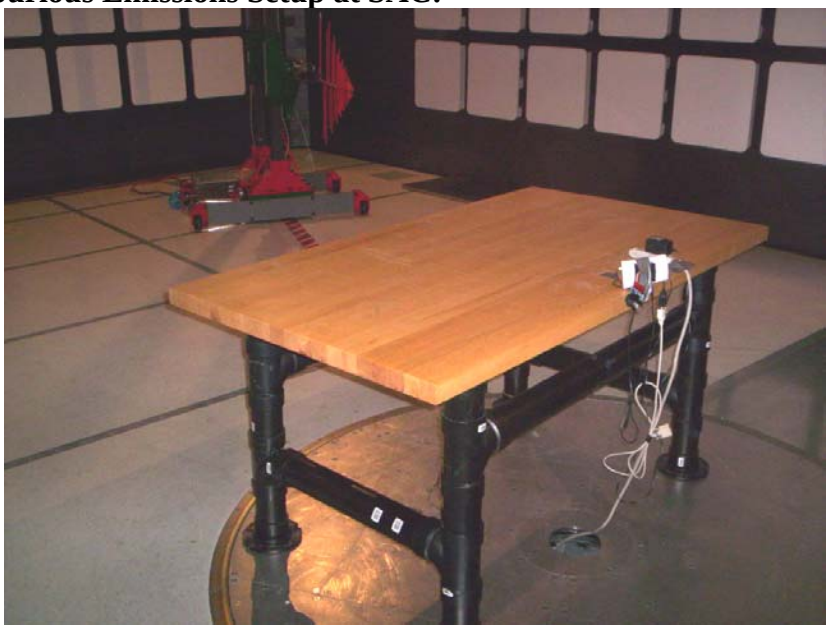
Therefore, Peak Field Strength = 90.30 dBµV/m – 46.30 dB = 44.0 dBµV/m
Limit = 20 dBc@100kHz = 90.30 – 20 dB = 70.30 dBµV/m

Peak Field Strength (dBµV/m)	Peak Field Strength Limit (dBµV/m)	Margin (dB)
44.00	70.30	26.30

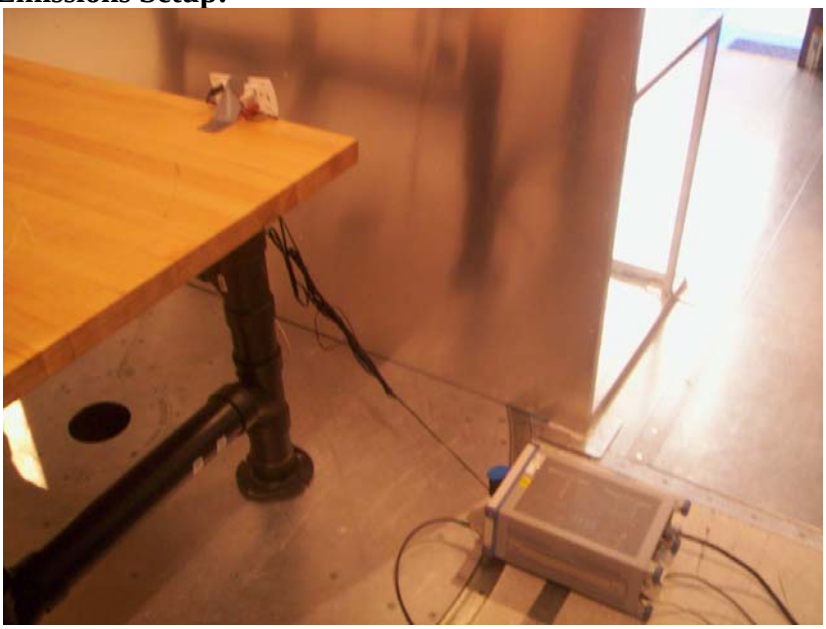
Appendix B : Setup Photographs

Radiated Spurious Emissions Setup at OATS:

Radiated Spurious Emissions Setup at SAC:

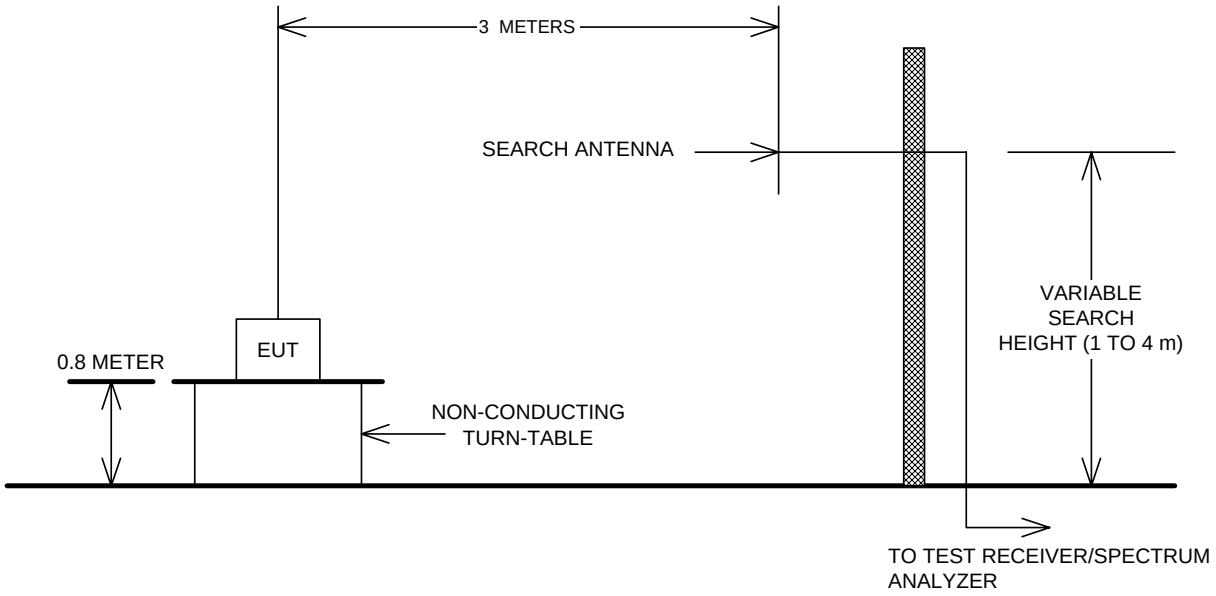


Conducted Emissions Setup:



Appendix C : Block Diagram of Test Setups

Test Site For Radiated Emissions



Conducted Emissions