

## **HYPER CORP**

**"Wireless That Works"™**

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### **EMC Test Report FCC & IC**

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## Signature Page

HYPER Corporation personnel listed take responsibility for the content of this test report.

### Reviewed

/Signed/	12/10/05
Kurt Fischer	Date

### 1. List of Revisions

Version	Date	Author(s)	Description
001	10/25/2005	Tim Marquess	Initial Version
002	11/20/2005	Tim Marquess	Editorial Changes
003	12/10/2005	Tim Marquess	Editorial Changes

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## 2. Disclaimer Notice

This test report applies only to the EUT (Equipment Under Test) and the results of the specifications called out in this report. The test results contained herein relate only to the model(s) identified. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. This Report must not be used to claim product endorsement by A2LA or any agency of the U.S. Government.

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## 4. General Information

### 4.1 Identification of the EUT

Project Number	155-0507002
Manufacturer	Datalogic SpA
EUT/Model Number	Lynx
Date(s) tested	September 26 – October 25, 2005
Description of EUT	Wireless Barcode scanner and docking station
Condition of EUT	Received new production units in good quality
FCC IDs	OMJ0013 – Cradle
	OMJ0014 – Gun
Frequency Range:	2402 MHz ~ 2480 MHz
Number of Channels:	79
Frequency of Each Channel	2402 + k (MHz), k=0~78
Type of Modulation	GFSK
Hardware Version	
Software Version	N/A
Firmware Version	
Test Facilities	HYPER Corporation:
	1735 North First Street, Suite 311
	San Jose, Ca 95112-4511
	BACL Corp.
	230 Commercial Ave.
	Sunnyvale, CA

### 4.2 Antenna Information

Manufacturer.	Model Number	Freq. (MHz)	Peak Gain (dBi)	VSWR (max)	Z <sub>0</sub>
Centurion	CAF95901	2400-2500	>2.0 (0 avg)	2.0	50Ω
Phycom	4311-111-00245	2400-2500	0-1.2	2.0	50Ω

## 5. Test Summary

This test report is prepared for Datalogic SpA, Bluetooth Wireless Technology device(s).

### 5.1 Summary of Test Results

Test	FCC Ref	RSS-210 Ref	FCC Results
Line Conducted Emissions	15.207(a)	9.0	Compliant
Carrier Frequency Separation	15.247(a)(1)	6.2.2(o)(a1)	Compliant
Number of Hopping Frequencies	15.247(a)(1)(ii)	6.2.2(o)(a3)	Compliant
Time of Occupancy (Dwell Time)	15.247(a)(1)(ii)	6.2.2(o)(a3)	Compliant
20 dB Bandwidth	15.247(a)(1)(ii)	6.2.2(o)(a1)	Compliant
Peak Output Power	15.247(b)(1)	6.2.2(o)(a3)	Compliant
Band-edge Compliance of RF Conducted Emissions	15.247(c)	6.2.2(o)(d1)	Compliant
Spurious RF Conducted Emissions	15.247(c)	6.2.2(o)(e1)	Compliant
Spurious Emissions Radiated	15.209	6.2.2(o)(e1)	Compliant
RF Exposure	1.1307(b)(1) & 2.1091	(RSS-102)	Compliant <sup>1</sup>

Note:

(1) RF Exposure for IC is documented in a supplement to this report

### 5.2 Test Specifications

The EUT was tested according to the procedures in FCC Part 15 Subpart C section 15.247 and FCC Public Notice DA 00-705, and also to demonstrate compliance with Industry Canada RSS-210 6.2.2 (O).

### 5.3 Operation Mode

The EUT module was tested using the reference board as the support test host. The EUT was embedded in and received power and data I/O from the host. A PC connection allowed commands to the module to be issued to put the device into the correct test modes.

### 5.4 Documentation of test device

Documentation of the tested device has been reviewed by HYPER Corporation engineers and found to be in compliance with applicable test specifications. All documentation is kept in the Job Folder.

### 5.5 General and Special Conditions

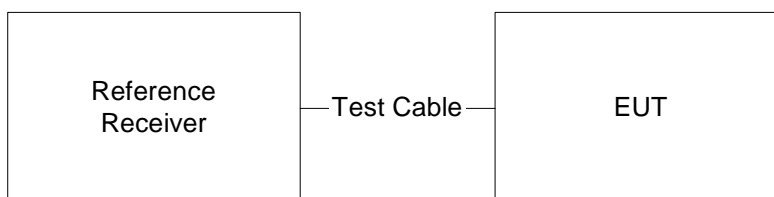
The EUT received power from the test host, which was powered using an AC adaptor plugged into the ac mains. Testing was done in an indoor controlled environment with an average temperature of 23.3° C and relative humidity of 43%, unless specified otherwise.

### 5.6 Equipment and Cable Configurations

The EUT was tested using serial connector to enable test-modes. The primary cabling considerations were the cable used to connect the antenna port to the measuring equipment.

Manufacturer	Description	Model Number	Serial Number	CAL Date
Agilent Technology	Spectrum Analyzer	8565EC	3946A00	8/6/2005
Dell	PC	Latitude	N/A	N/A

## 5.7 Test Setup Block Diagram(s)



## 6. Test Results

### 6.1 AC-Line Conducted Emissions

The results below were provided via subcontract by BACL, as dictated by their laboratory quality system.

#### 6.1.1 Measurement Procedure

**Measurement Uncertainty:** All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN. Based on NIS 81, the treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at BACL is  $\pm 2.4\text{dB}$ .

**Test Setup:** The measurement was performed in shield room, using the same setup per ANSI C63.4-2003 measurement procedure. The specification used was FCC Class B limits. External I/O cables were draped along the edge of the test table and bundled when necessary. The host was connected with LISN-1.

**Spectrum Analyzer Setup:** The spectrum analyzer was set to investigate the spectrum from 150 kHz to 30 MHz.

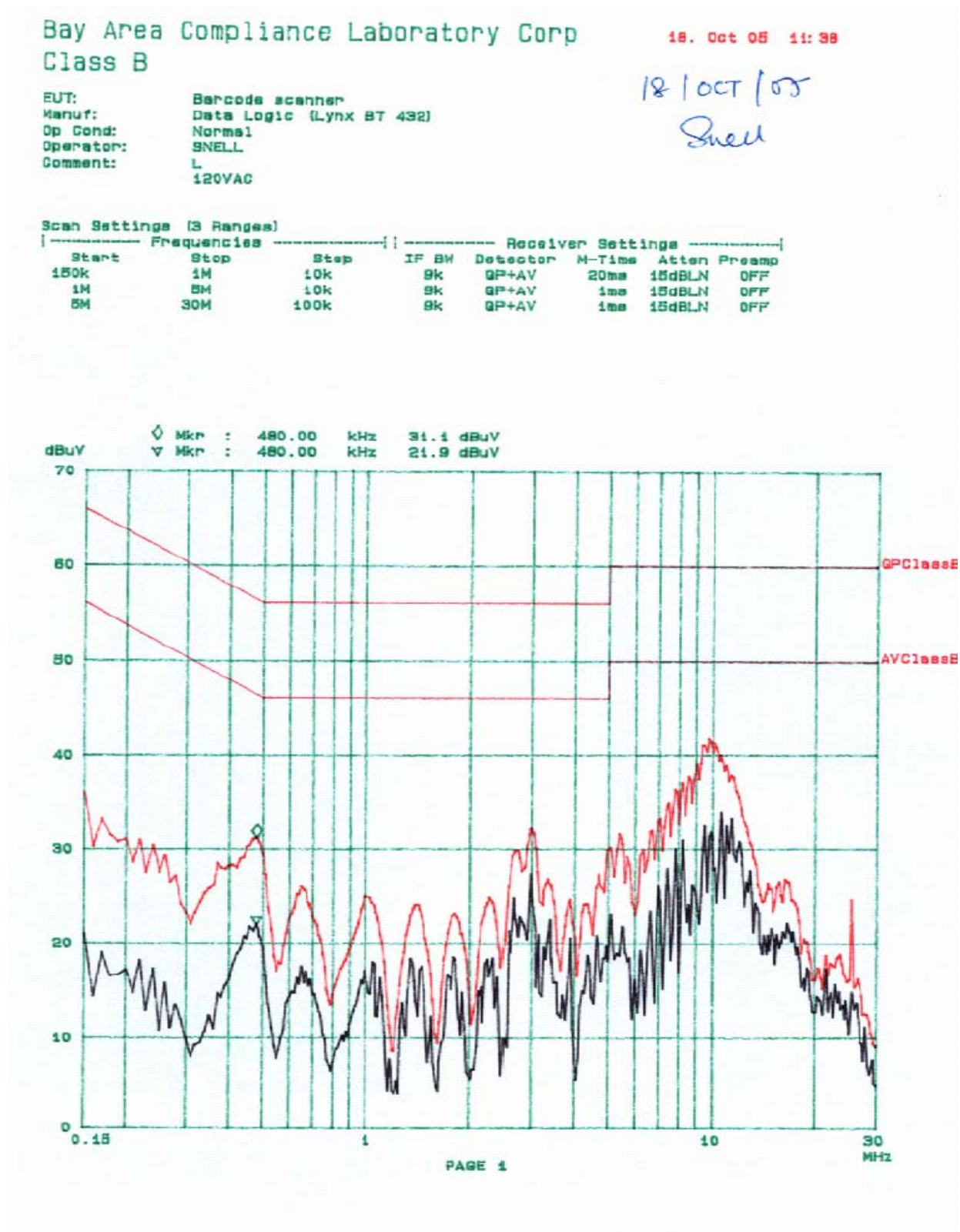
#### Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date
R&S	Receiver, EMI Test	ESCS30	100176	9/15/2005
R&S	LISN, Artificial Mains	ESH2-Z5	871884/039	8/16/2005

\* Statement of Traceability: BACL Corp. attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

**Test Procedure:** During the conducted emissions test, the power cord of the host system was connected to the mains outlet of LISN-1. Maximizing procedure was performed on the six (6) highest emissions of the EUT. All data was recorded in the following modes: peak detection quasi-peak and average. Quasi-Peak readings are distinguished with a "QP". Average readings are distinguished with an "Ave".

6.1.2 Test Data:



# Bay Area Compliance Laboratory Corp

## Class B

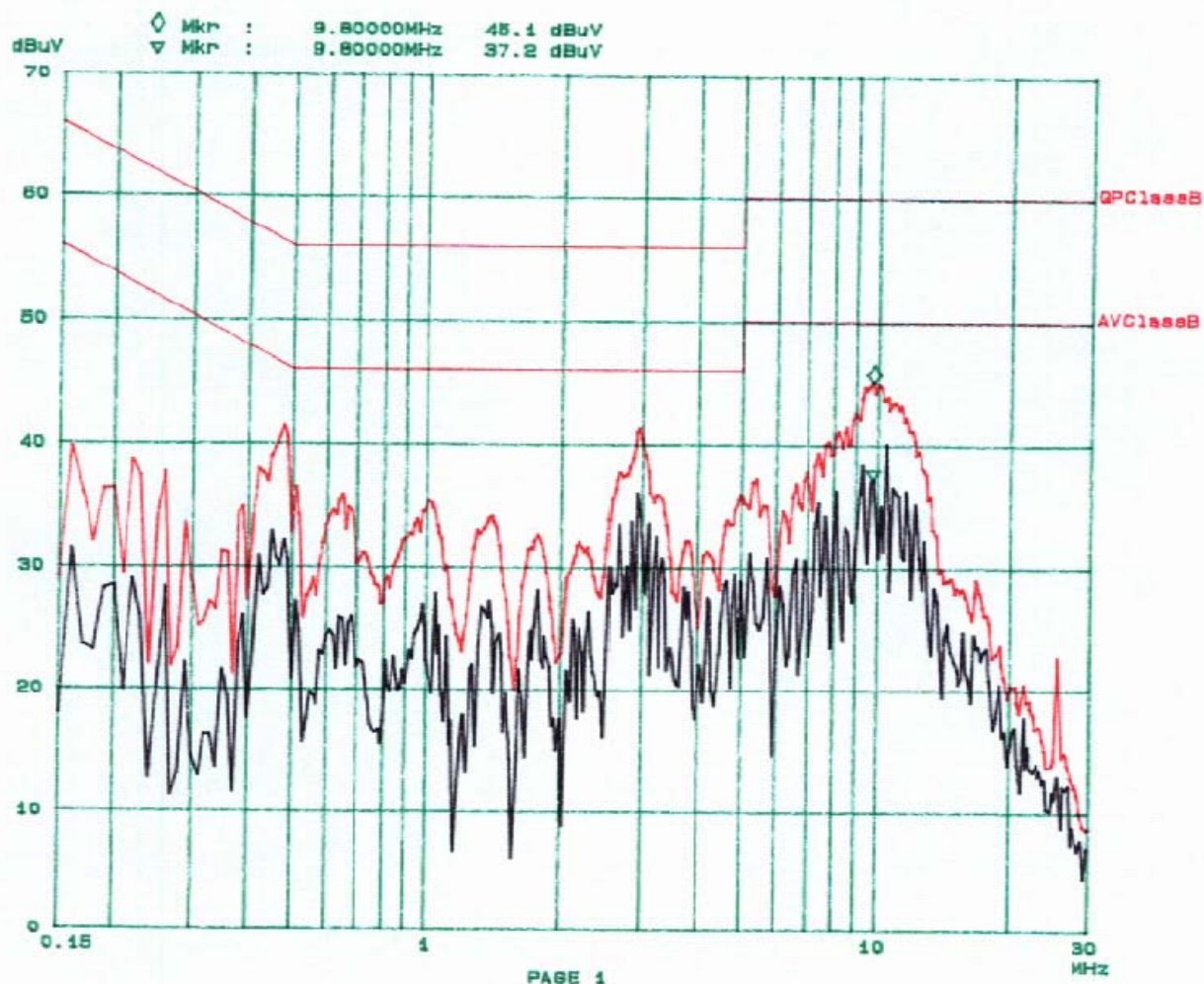
18. Oct 05 11:05

18/OCT/05  
Snell

EUT: Barcode scanner  
Manuf: Data Logic (Lynx BT 432)  
Op Cond: Normal  
Operator: SNELL  
Comment: N  
120VAC

### Scan Settings (3 Ranges)

Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
150k	1M	10k	9k	QP+AV	20ms	15dB LN	OFF
1M	5M	10k	9k	QP+AV	1ms	15dB LN	OFF
5M	30M	100k	9k	QP+AV	1ms	15dB LN	OFF





## 6.2 Carrier Frequency Separation

### 6.2.1 Operation Environment

Temperature: 23.3°C  
Relative Humidity: 43%

### 6.2.2 Test procedure

The carrier frequency separation per FCC 15.247(a)(1) / IC RSS210 6.2.2(o)(a1) was measured using a spectrum analyzer with the resolution (or IF) bandwidth (RBW)  $\geq 1\%$  of the span, the span should be wide enough to capture the peaks of two adjacent channels, and the video (or average) bandwidth (VBW) should be  $\geq$  RBW. The carrier frequency separation result is described as below:

### 6.2.3 Test data

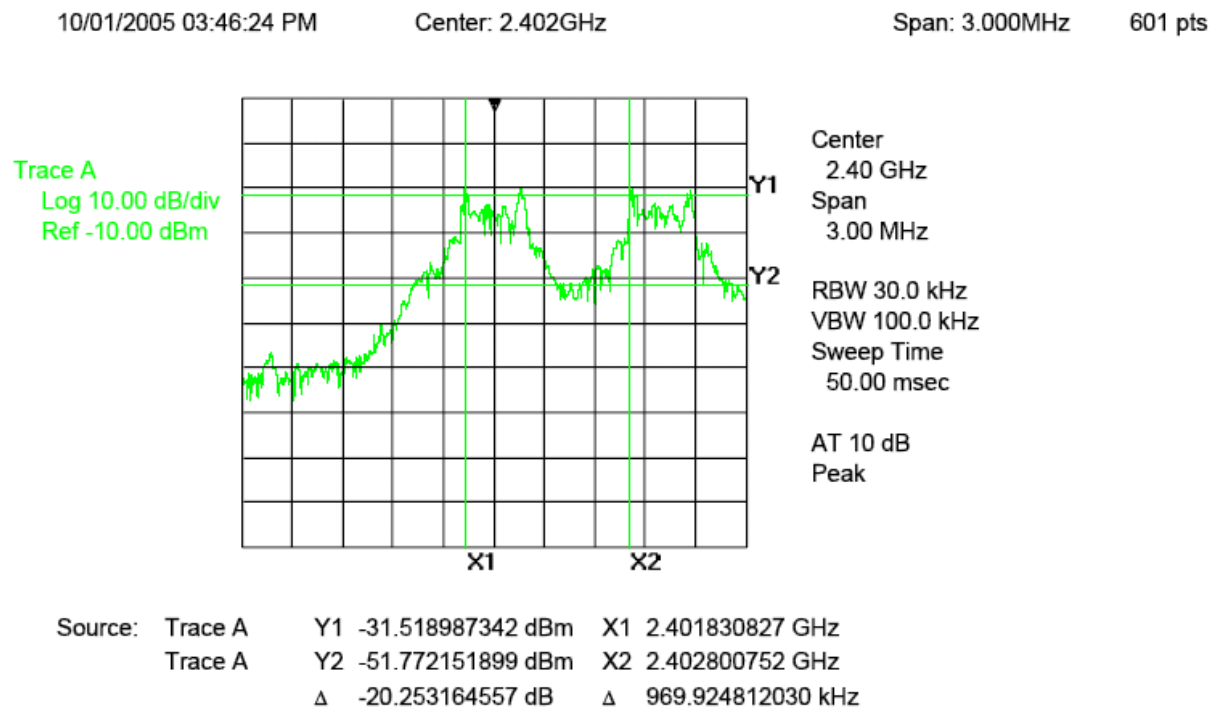


Figure 6.2-1: Carrier Frequency Separation – Low – DH5

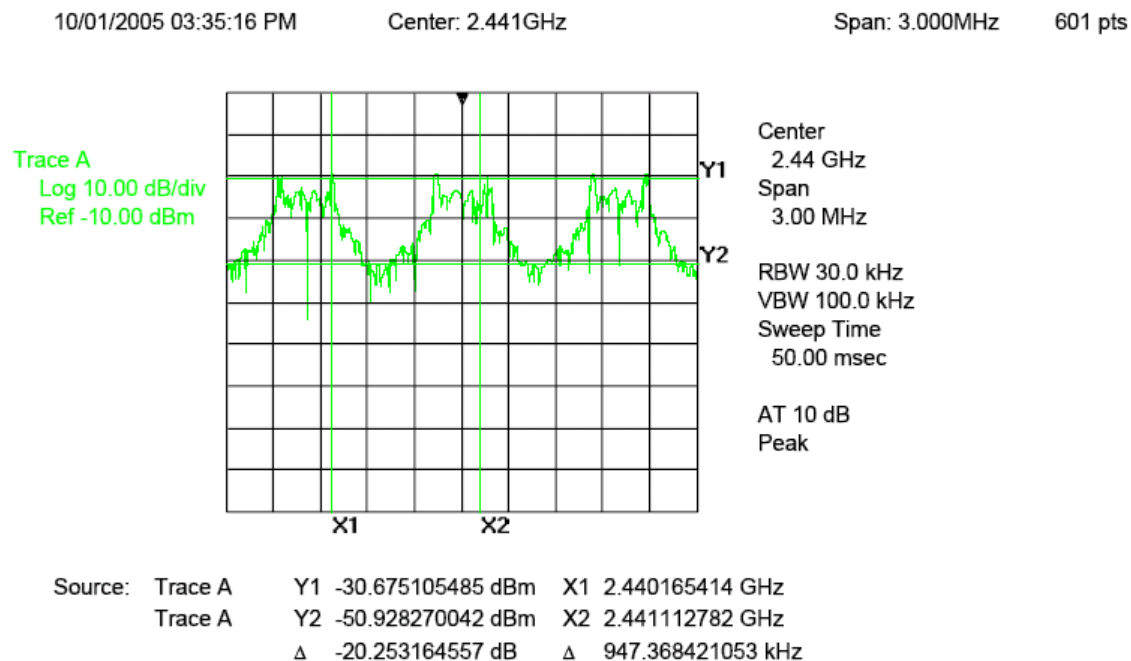


Figure 6.2-2: Carrier Frequency Separation – Mid – DH5

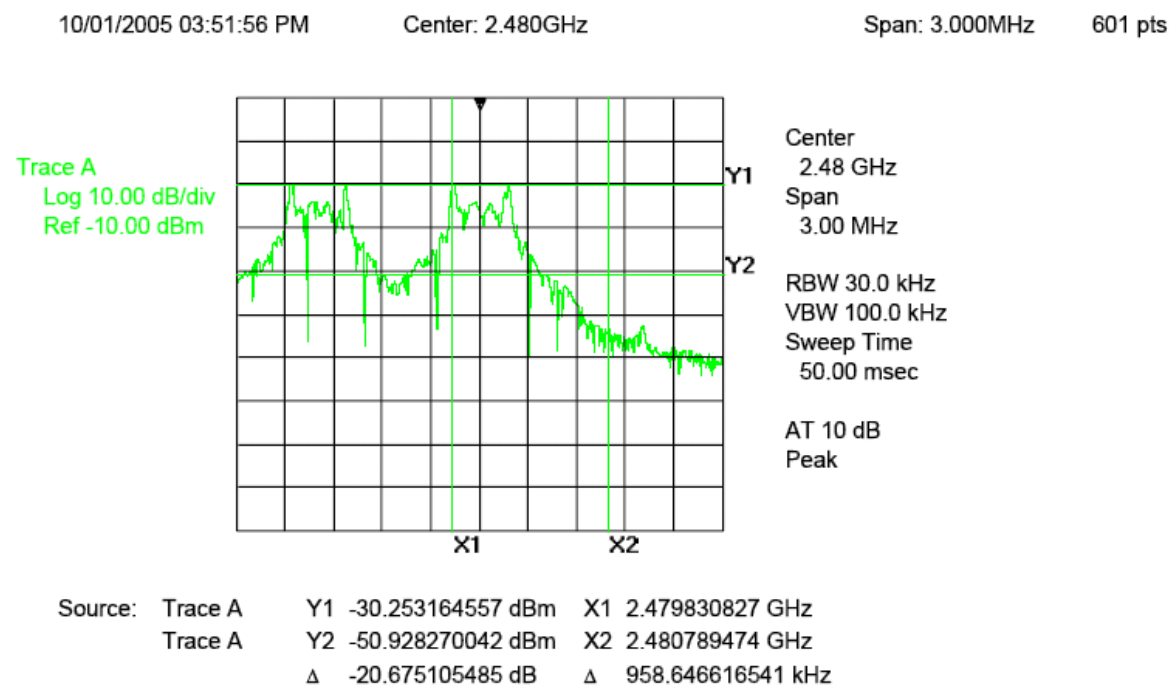


Figure 6.2-3: Carrier Frequency Separation – High – DH5

#### Summary of Carrier Frequency Separation Data

	Frequency (MHz)	Measurement Frequency Separation (kHz)	Limit (kHz) Min
Low	2402	969	25
Mid	2441	947	25
High	2480	958	25

### 6.3 Number of Hopping Frequencies

#### 6.3.1 Operation Environment

Temperature: 23.3°C  
Relative Humidity: 43%

#### 6.3.2 Test procedure

The carrier frequency separation per FCC 15.247(a)(1)(ii)/ IC RSS210 6.2.2(o)(a3) was measured using a spectrum analyzer with  $RBW \geq 1\%$  of the span. The VBW is  $\geq RBW$  and the span shall be equal to the frequency band of operation. The number of hopping frequencies measured data is shown below.

#### 6.3.3 Test data

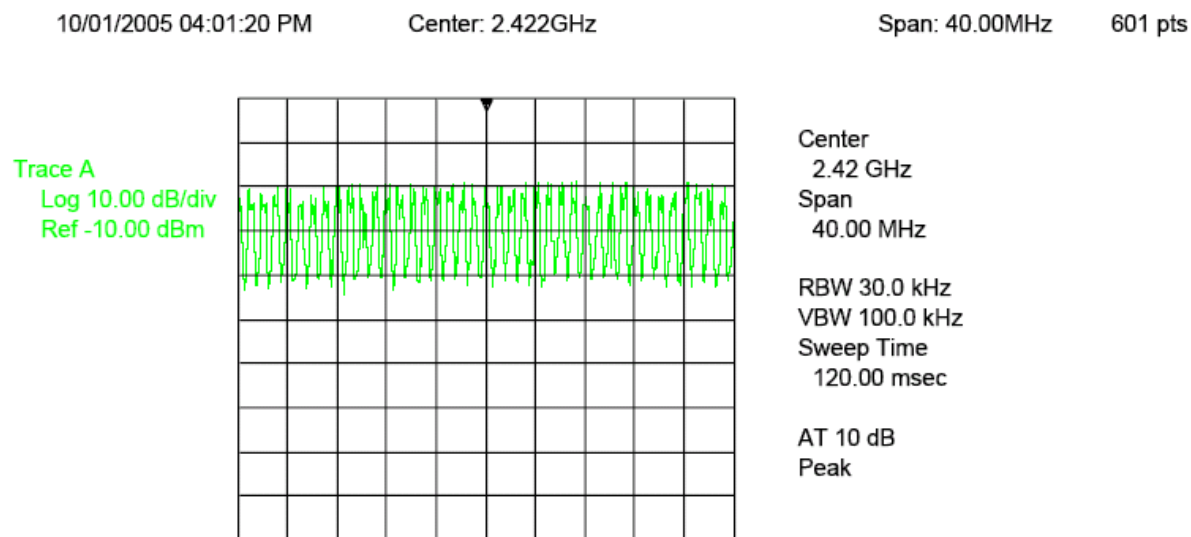


Figure 6.3-1 Channels in the Frequency range 2.400-2.441GHz

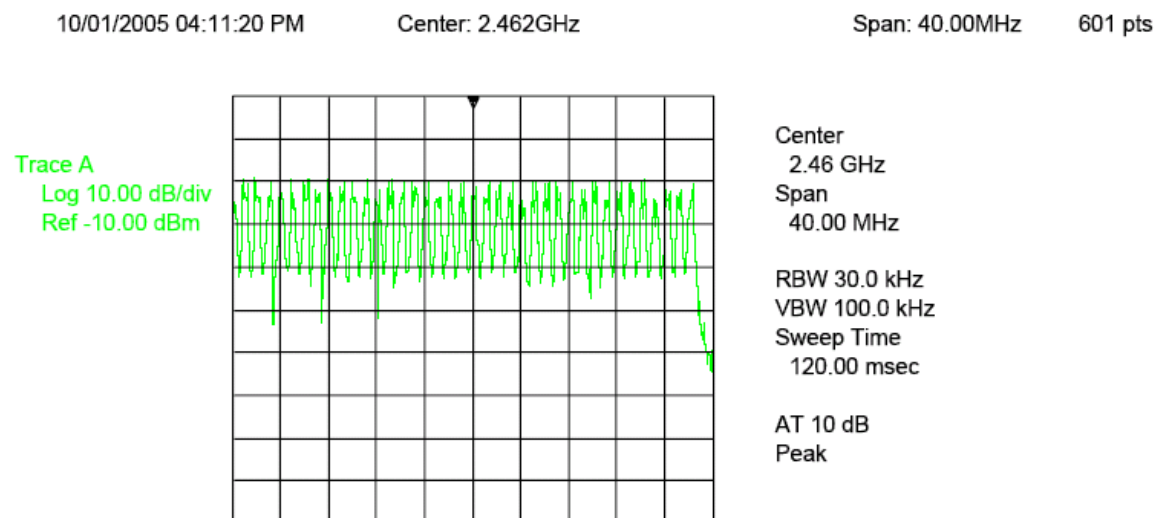


Figure 6.3-2 Channels in the Frequency range 2.440-2.4835GHz

Frequency Range (GHz)	Number of hopping frequencies	Total hopping channels
2.400 ~ 2.441	39.5	79
2.441 ~ 2.4835	39.5	

#### 6.4 Time of Occupancy (Dwell Time)

##### 6.4.1 Operation Environment

Temperature: 23.3°C  
Relative Humidity: 43%

##### 6.4.2 Test Procedure

The Time of Occupancy test case per FCC 15.247(a)(1)(ii)/ IC RSS210 6.2.2(o)(a3) was measured using a spectrum analyzer with RBW = 1 MHz. The VBW  $\geq$  RBW and the zero span function of spectrum analyzer were enabled.

##### 6.4.3 Test data

The worst case time of occupancy (Dwell Time) is (DH5 packet) (4 X 2.933 ms) (dwell time in 1 sec) x 30 seconds = 351.96 ms = 0.35196 sec < 0.4s in 30 sec. – Compliant

Summary Table		
Frequency	Dwell Time (Sec)	Limit (Sec)
Low	172.93 usec	0.4
Mid	169.17 usec	0.4
High	180.45 usec	0.4
Packets in 30 seconds	684 msec	0.4

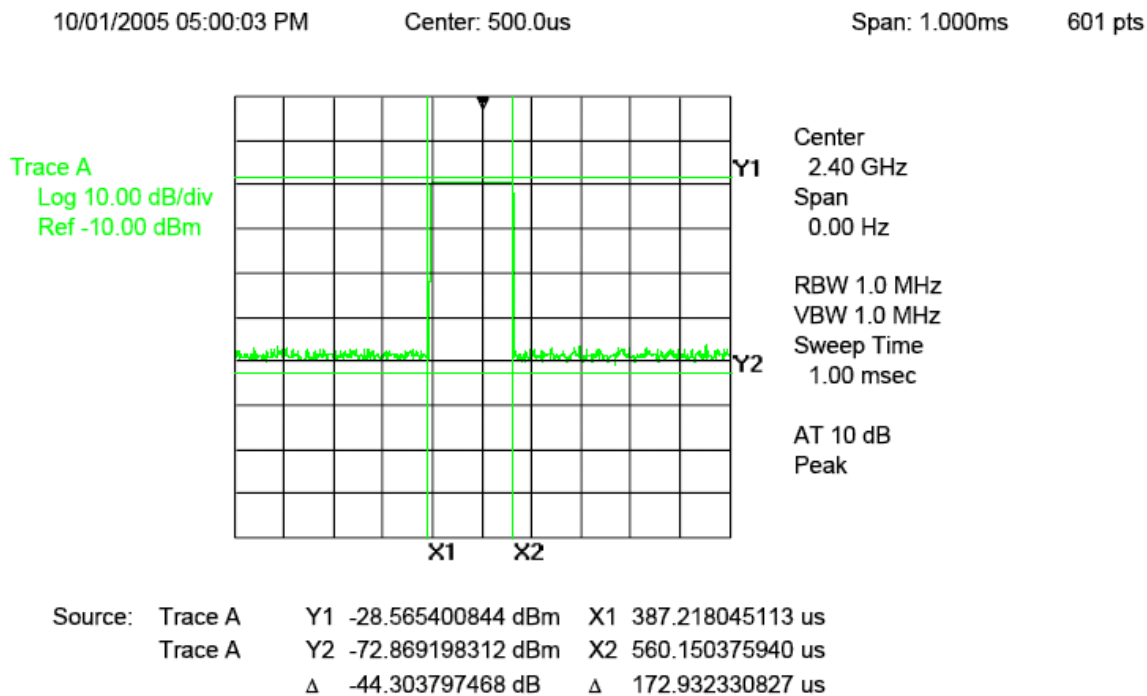


Figure 6.4-1: Dwell Time = 172.93 usec (Low Channel)

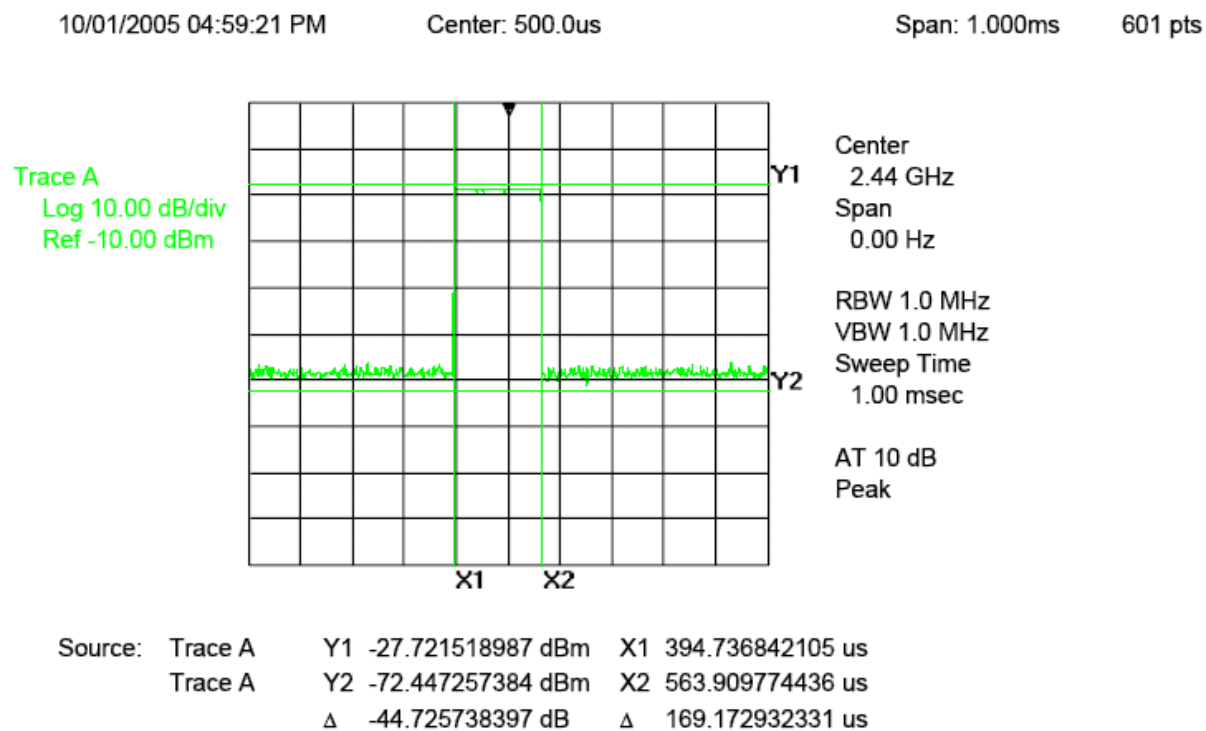


Figure 6.4-2: Dwell Time (Mid Channel)

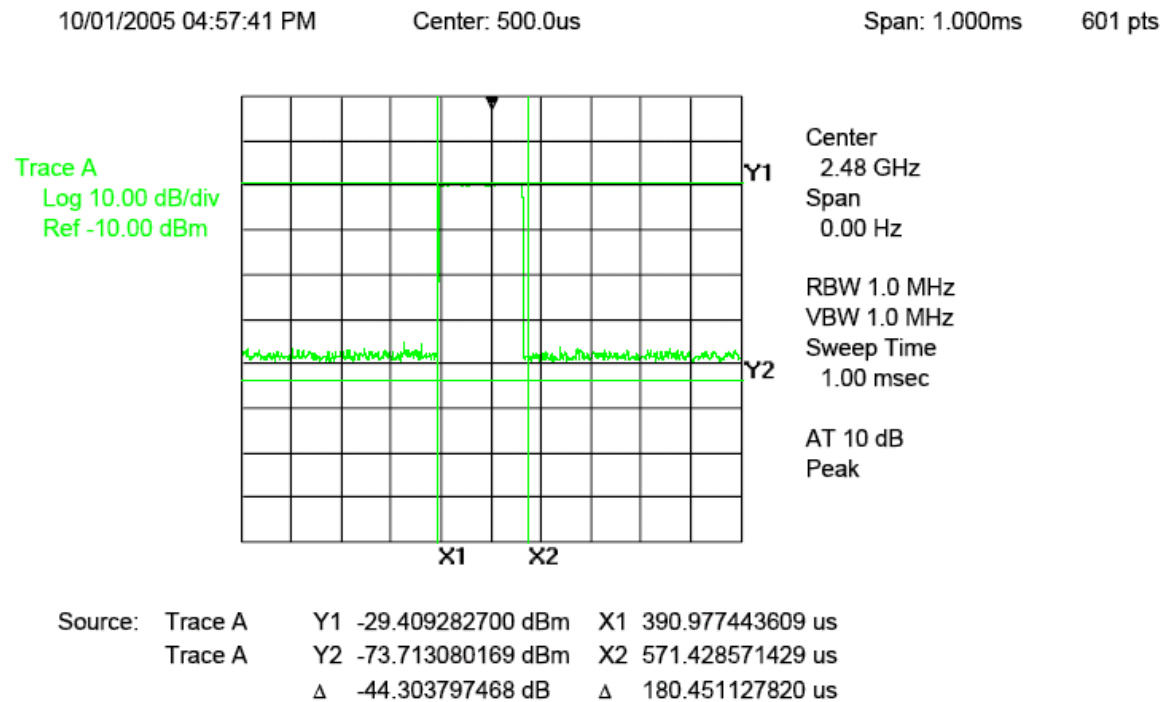


Figure 6.4-3: Dwell Time (High Channel)

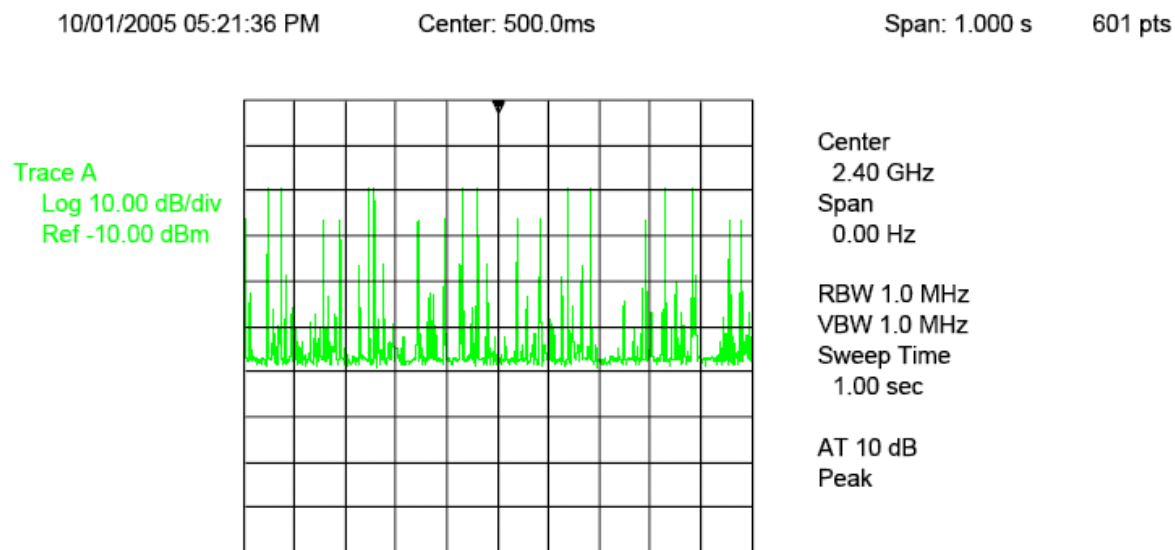


Figure 6.4-4: Plot showing numbers of pulses in 1 second in DH5 Mode

## 6.5 20 dB Bandwidth

### 6.5.1 Operation Environment

Temperature: 23.3°C  
Relative Humidity: 43%

### 6.5.2 Test procedure

The 20dB bandwidth per FCC 15.247(a)(1)(ii)/IC RSS210 6.2.2(o)(a1) was measured using spectrum analyzer with the resolution bandwidth > 1% of the 20 dB bandwidth. The VBW shall be  $\geq$  RBW, and the span shall equal to approximately 2 to 3 times the 20 dB bandwidth. This test was performed at 3 different channels (low, mid and high), and the maximum 20dB modulation bandwidth is listed below:

### 6.5.3 Test data

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit
Low	2402	985	(1000 kHz) 1 MHz
Middle	2441	955	1 MHz
High	2480	895	1 MHz

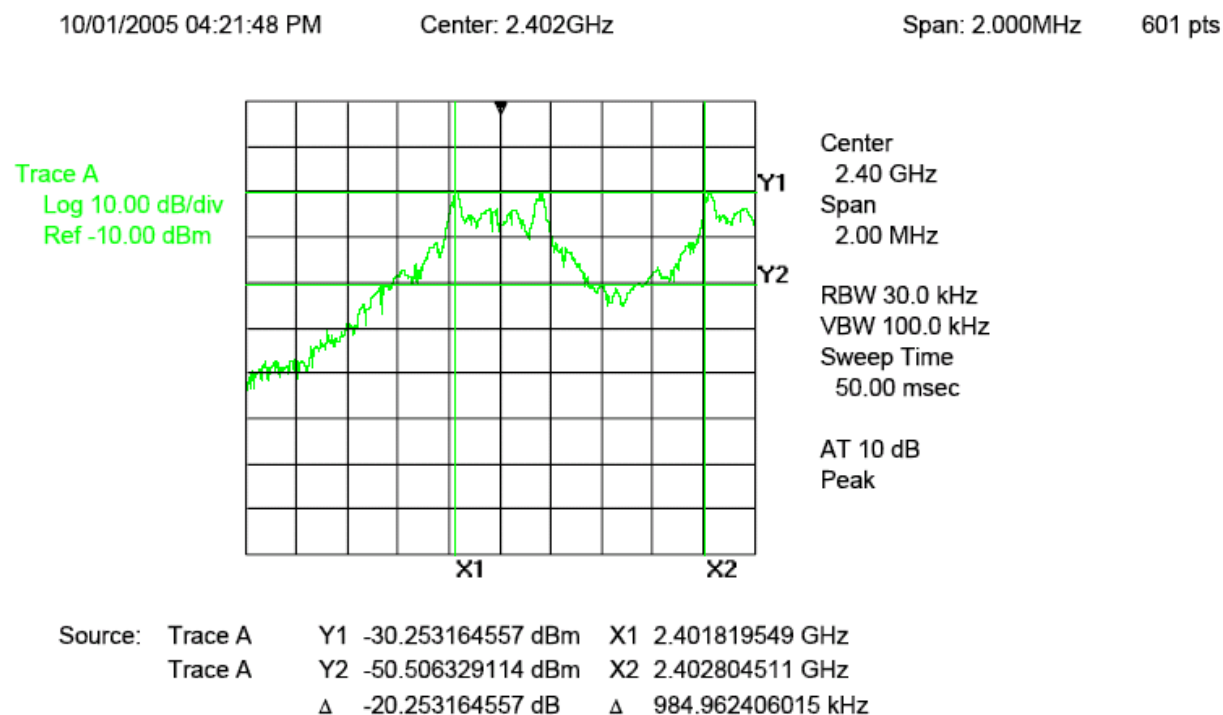


Figure 6.5-1: Bandwidth of the 2402 MHz channel



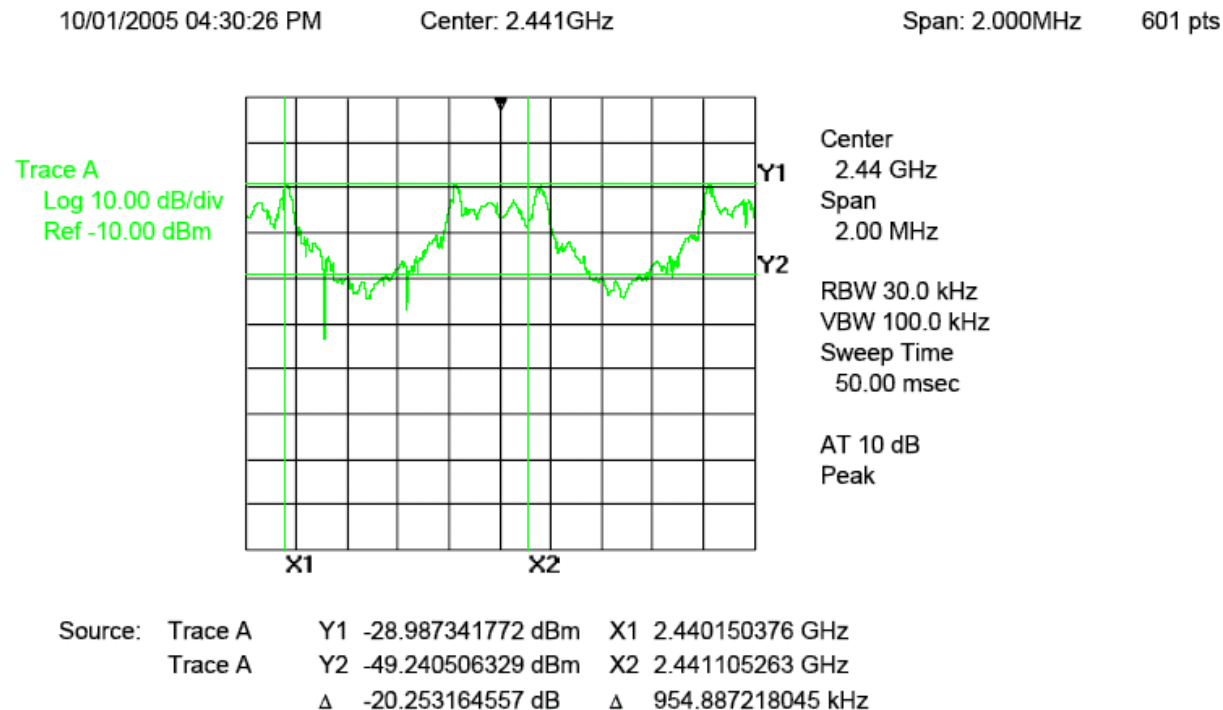


Figure 6.5-2: Bandwidth of the 2441 MHz channel

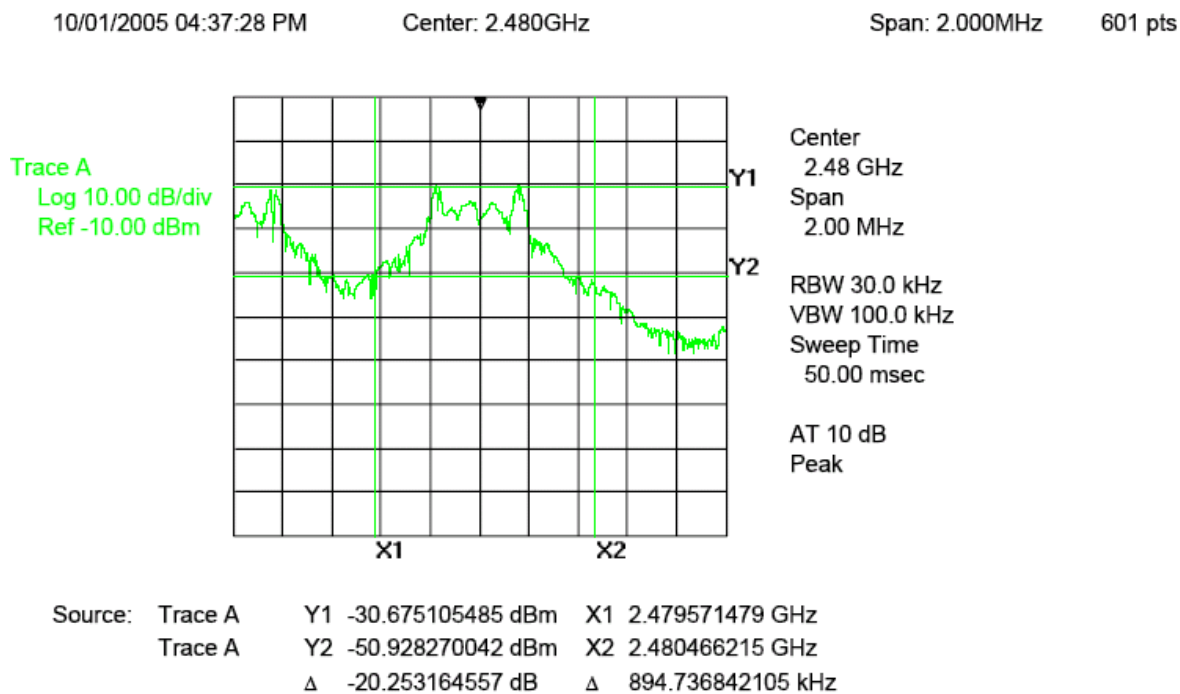


Figure 6.5-3: Bandwidth of the 2480 MHz channel

## 6.6 Peak Output Power

### 6.6.1 Operation Environment

Temperature: 23.3°C  
Relative Humidity: 43%

### 6.6.2 Test procedure:

#### Corrected Amplitude & Margin Calculation

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

$$\text{Corr. Ampl} = \text{Indicated Reading} + \text{Antenna Factor} = \text{Cable Factor} - \text{Amplifier Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of –7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:  $\text{Margin} = \text{Corr. Ampl.} - \text{FCC 15.209 Limit}$ .

### 6.6.3 Test data

Channel	Frequency (MHz)	Transmitter Peak Output Power (dBm)	Limit (dBm)
Low	2402	-8.5087	20.97
Middle	2441	-12.220	20.97
High	2480	-6.608	20.97
			20.97dBm = 0.125 W

Antenna gain : = 1.2 dBi (worst case for eirp) = 1.318  
Peak Field strength = 91.7 dBuV/m = 0.03846 V/m

$$P = (F * D)^2 / (30 * \text{ant gain}) = (.03846 * 9)^2 / (30 * 1.318) \\ = 0.3367 \text{ mW} = -8.5087 \text{ dBm}$$

**EIRP = -8.5087 dBm**

Peak Output Power on 2402 MHz

Middle CH : 88.5 dBuV/m = 0.02661 V/m

power = 0.1612 mW = **-12.22dBm**  
Peak Output Power on 2441 MHz

High CH : 84.9 dBuV/m = 0.01758 V/m  
EIRP = 0.0672 mW = **-6.608 dBm**  
Peak Output Power on 2480 MHz

## 6.7 Band-Edge Compliance of RF Conducted Emissions

### 6.7.1 Operation Environment

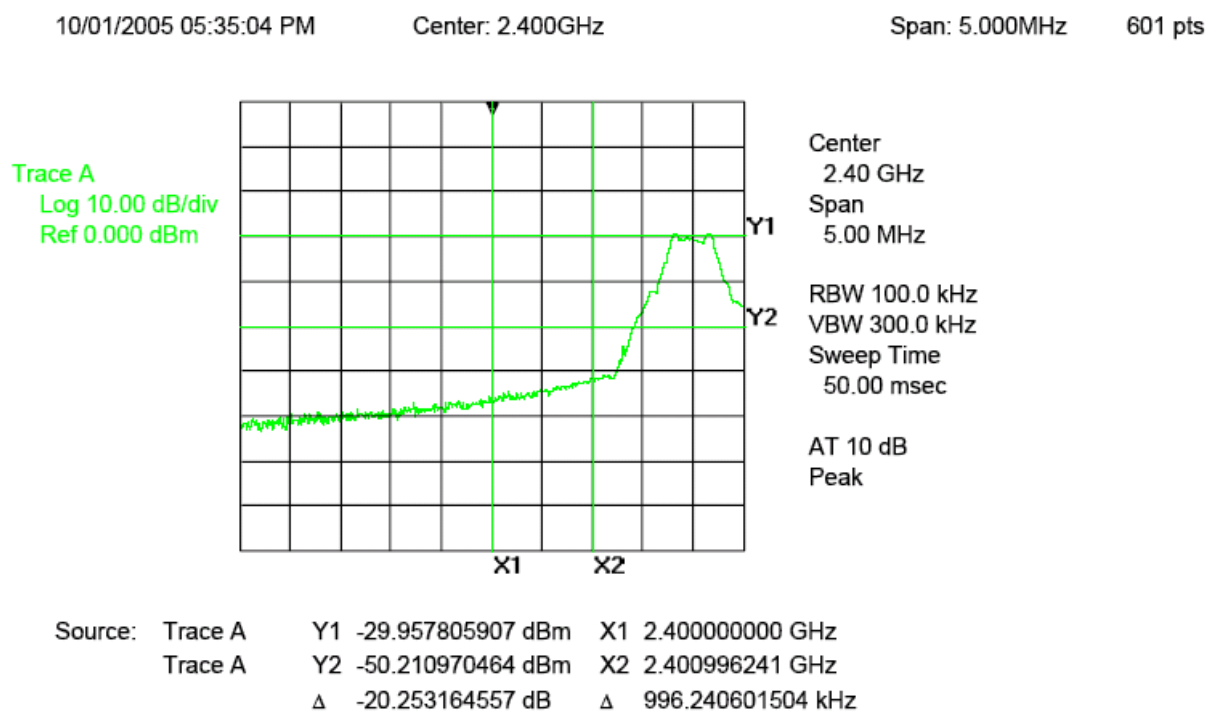
Temperature: 23.3°C  
Relative Humidity: 43%

### 6.7.2 Test procedure

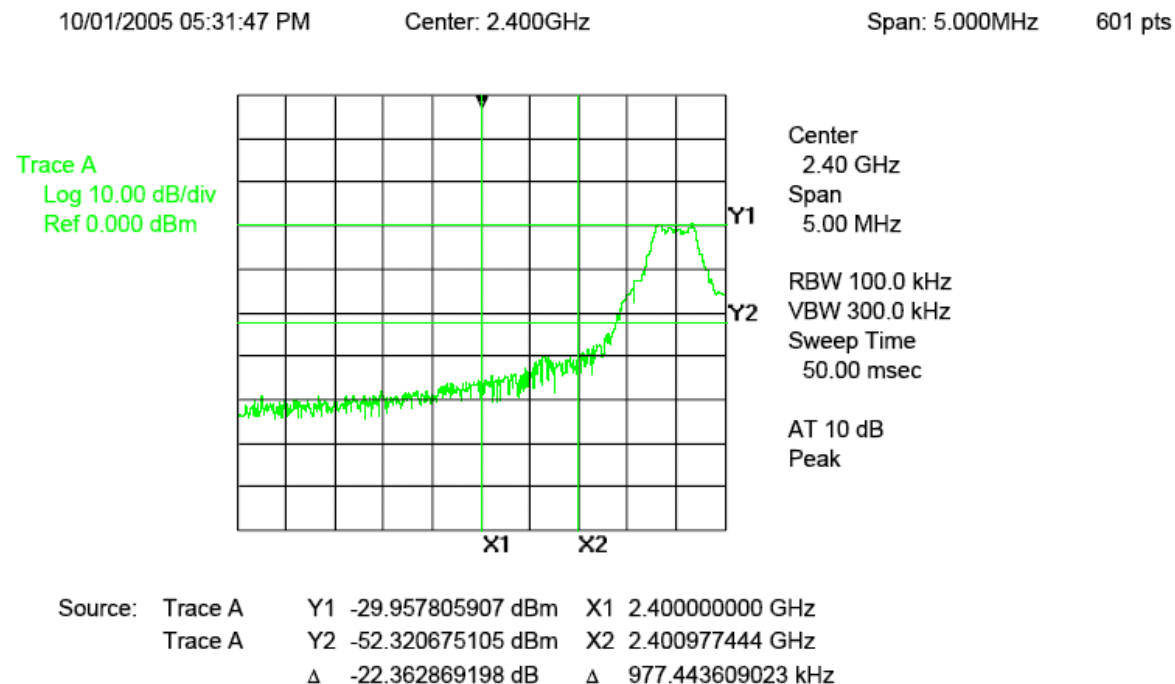
The band-edge compliance of RF conducted emissions of the EUT was measured per FCC 15.247(c)/IC RSS210 6.2.2(o)(d1). The EUT was set to operate on the lowest operating frequency and the level at the lower band-edge was measured. The upper band-edge level was then measured with the EUT operating on the highest operating frequency.

### 6.7.3 Test data

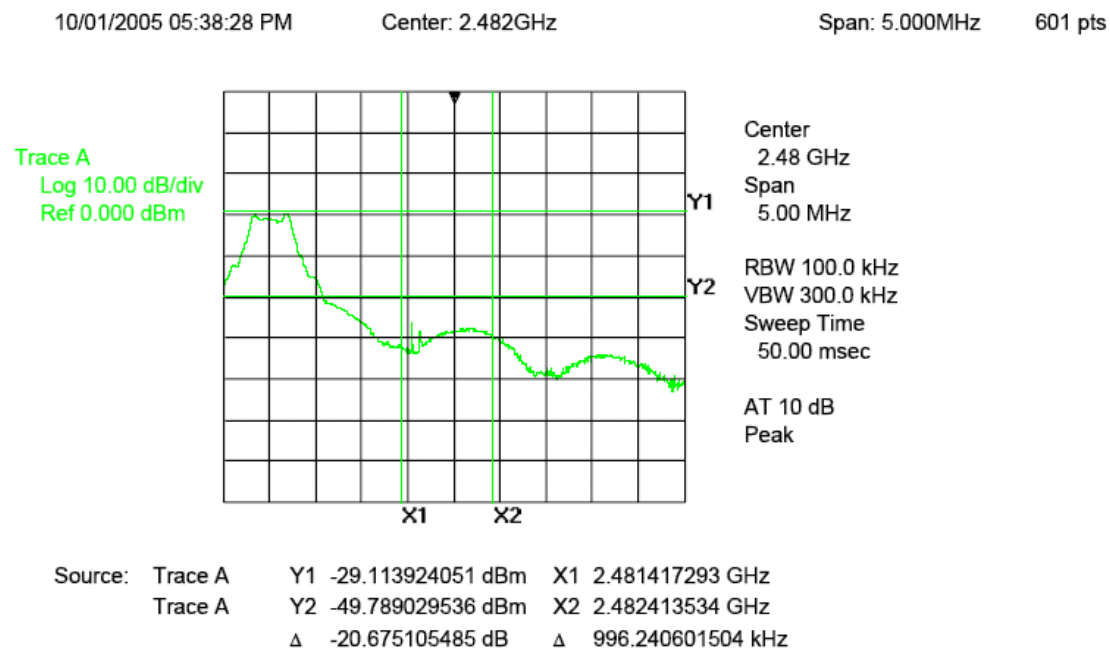
Band-edge Frequency (MHz)	Attenuation (dB) Relative to Peak	Limit (dB) - Minimum
2400 (Hopping Off)	-20.25	-20
2400 (Hopping On)	-22.67	-20
2483.5 (Hopping Off)	-20.67	-20
2483.5 (Hopping On)	-20.67	-20



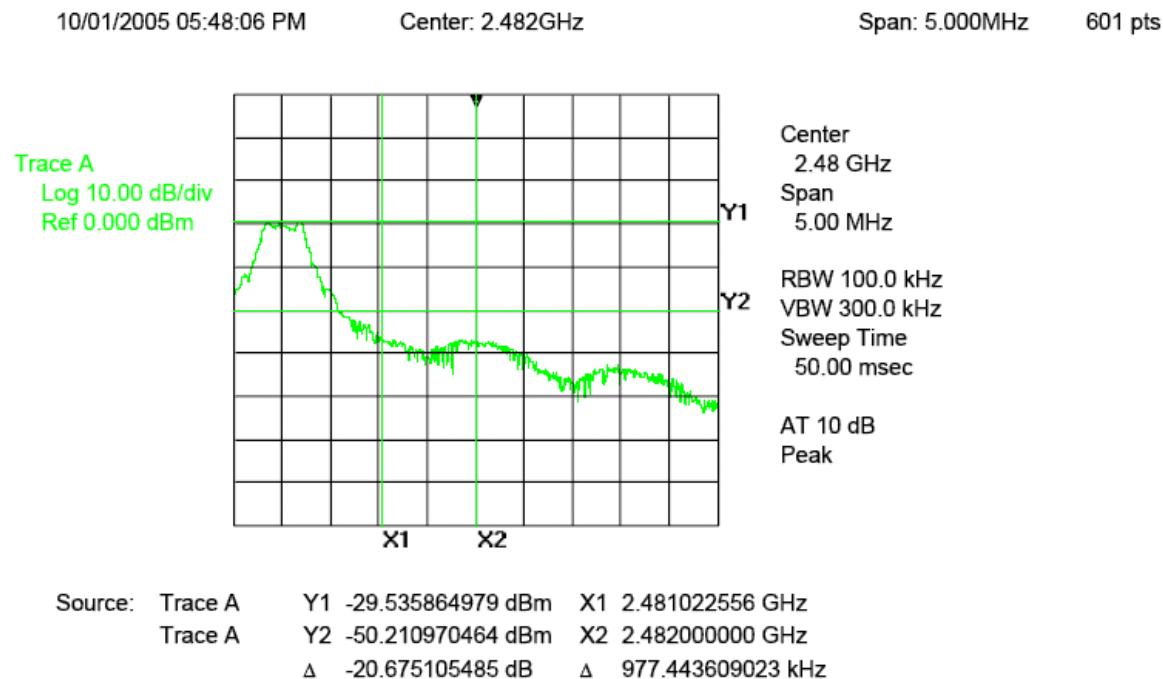
**Figure 6.7-1: Band-Edge Compliance – Lower Band-Edge (2400MHz) – Hopping Off**



**Figure 6.7-2: Band-Edge Compliance – Lower Band-Edge (2400MHz) – Hopping On**



**Figure 6.7-3: Band-Edge Compliance – Upper Band-Edge (2483.5MHz) Hopping Off**



**Figure 6.7-4: Band-Edge Compliance – Upper Band-Edge (2483.5MHz) Hopping On**

#### 6.8 Radiated Spurious Emission (15.205, 15.209, 15.247)

The results below were provided via subcontract by BACL. The testing was performed as dictated by the laboratory's ISO/IEC 17025-quality system.

##### 6.8.1 Measurement Procedure

The radiated emission tests were performed in the open area 3-meter test site, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC 15.209 limits. The spacing between the peripherals was 10 centimeters. External I/O cables were draped along the edge of the test table and bundled when necessary. The EUT was connected to the power adapter, which was connected with 120 Vac/60Hz power source.

##### Corrected Amplitude & Margin Calculation

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

$$\text{Corr. Ampl} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:  $\text{Margin} = \text{Corr. Ampl.} - \text{FCC 15.209 Limit}$ .

## 6.8.2 Test data

### Bay Area Compliance Laboratory, Corp.

Company Name : Data Logic  
EUT Description: BT Barcode Scanner  
Date: 10/18/05  
Test Setup: EUT / Laptop  
Report #: R0510072  
File Name: 051810B1.DataLogic

LC = 2402 MHz  
MC = 2442 MHz  
HC = 2480 MHz

Antenna Gain= 1.2 1.3183  
OutPut Power (LC) = -8.508787 dBm  
OutPut Power (MC) = -12.220000 dBm  
OutPut Power (HC) = -6.608787 dBm

1

#### Run#1 Radiated Harmonic and Spur Emission

Run # 1-1 :Primary scan 1GHz -25GHz , ( Lowest channel : 2402 MHz)

Measured at 1 Meter

Frequency MHz	Reading dBuV/m	Direction Degree	Height Meter	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Distance Factor dB	Correction Factor dBuV/m	15.247 Limit (dBuV/m)	15.247 Margin	Comment	Testing Condition
2402.0000	103.1	90	1.0	v	28.7	2.0	35.8	10.0	87.9				Bursting
2402.0000	98.9	180	2.3	h	28.7	2.0	35.8	10.0	83.7				Bursting
2402.0000	85.6	90	1.0	v	28.7	2.0	35.8	10.0	70.4				Bursting
2402.0000	80.6	180	2.3	h	28.7	2.0	35.8	10.0	65.4				Bursting
4804.0000	51.7	90	1.0	v	32.5	3.1	34.8	10.0	42.5	74	-31.5		Bursting
4804.0000	46.9	180	2.3	h	32.5	3.1	34.8	10.0	37.7	74	-36.3		Bursting
4804.0000	42.5	90	1.0	v	32.5	3.1	34.8	10.0	33.3	54	-20.7		Bursting
4804.0000	38.7	180	2.3	h	32.5	3.1	34.8	10.0	29.5	54	-24.5		Bursting
7206.0000	46.3	90	1.0	v	36.7	4.3	34.7	10.0	42.6	74	-31.4		Bursting
7206.0000	42.7	180	2.3	h	36.7	4.3	34.7	10.0	38.0	74	-35.0		Bursting
7206.0000	30.5	90	1.0	v	36.7	4.3	34.7	10.0	26.8	54	-27.2		Bursting
7206.0000	28.6	180	2.3	h	36.7	4.3	34.7	10.0	24.9	54	-19.1		Bursting

Run # 1-1 :Primary scan 1GHz -25GHz , ( Middle channel : 2442 MHz)

Frequency MHz	Reading dBuV/m	Direction Degree	Height Meter	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Distance Factor dB	Correction Factor dBuV/m	15.247 Limit (dBuV/m)	15.247 Margin	Comment	Testing Condition
2442.0000	104.2	90	1.0	v	28.7	2.0	35.8	10.0	89.0				Bursting
2442.0000	100.6	180	2.3	h	28.7	2.0	35.8	10.0	85.4				Bursting
2442.0000	99.3	90	1.0	v	28.7	2.0	35.8	10.0	84.1				Bursting
2442.0000	96.4	180	2.3	h	28.7	2.0	35.8	10.0	81.2				Bursting
4884.0000	52.0	90	1.0	v	32.5	3.1	34.8	10.0	42.8	74	-31.2		Bursting
4884.0000	47.0	180	2.3	h	32.5	3.1	34.8	10.0	37.8	74	-36.2		Bursting
4884.0000	42.7	90	1.0	v	32.5	3.1	34.8	10.0	33.5	54	-20.5		Bursting
4884.0000	38.9	180	2.3	h	32.5	3.1	34.8	10.0	29.7	54	-24.3		Bursting
7326.0000	44.0	90	1.0	v	36.7	4.3	34.7	10.0	40.3	74	-33.7		Bursting
7326.0000	43.8	180	2.3	h	36.7	4.3	34.7	10.0	40.2	74	-33.8		Bursting
7326.0000	30.1	90	1.0	v	36.7	4.3	34.7	10.0	26.4	54	-27.6		Bursting
7326.0000	29.8	180	2.3	h	36.7	4.3	34.7	10.0	26.1	54	-17.9		Bursting

**Run # 1- 1:Primary scan 1GHz -25GHz , ( Highest channel. : 2480 MHz)**

Frequency MHz	Reading dBuV/m	Direction Degree	Height Meter	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Distance Factor dB	Correction Factor dBuV/m	15.247 Limit (dBuV/m)	15.247 Margin	Comment	Testing Condition
2480.0000	105.0	90	1.0	v	28.7	2.0	35.8	10.0	89.8				Bursting
2480.0000	100.7	180	2.3	h	28.7	2.0	35.8	10.0	85.5				Bursting
2480.0000	100.2	90	1.0	v	28.7	2.0	35.8	10.0	85.0				Bursting
2480.0000	98.5	180	2.3	h	28.7	2.0	35.8	10.0	81.3				Bursting
4960.0000	54.4	90	1.0	v	32.5	3.1	34.8	10.0	45.2	74	-28.9		Bursting
4960.0000	47.5	180	2.3	h	32.5	3.1	34.8	10.0	38.3	74	-35.7		Bursting
4960.0000	43.8	90	1.0	v	32.5	3.1	34.8	10.0	34.6	54	-19.4		Bursting
4960.0000	44.3	180	2.3	h	32.5	3.1	34.8	10.0	35.1	54	-18.9		Bursting
7440.0000	43.6	90	1.0	v	36.7	4.3	34.7	10.0	39.9	74	-34.1		Bursting
7440.0000	42.9	180	2.3	h	36.7	4.3	34.7	10.0	39.2	74	-34.8		Bursting
7440.0000	30.5	90	1.0	v	36.7	4.3	34.7	10.0	26.8	54	-27.2		Bursting
7440.0000	30.2	180	2.3	h	36.7	4.3	34.7	10.0	26.5	54	-17.5		Bursting

**Run # 1- 4:Primary scan 30MHz -1GHz ,**

Gun Measured at 1 meter													
Frequency MHz	Reading dBuV	Direction Degree	Height Meter	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Distance Factor dB	Correction Factor dBuV/m	15B Limit	15B Margin	Comments	
240.50	38.2	270	3.2	H	11.5	3.3	27.5	10.0	15.5	46	-30.5		
240.50	36.2	75	1.8	V	11.5	3.3	27.5	10.0	13.5	46	-32.5		
249.90	42.0	270	2.1	H	11.8	3.4	27.5	10.0	19.7	46	-26.3		
249.90	39.1	330	1.2	V	11.8	3.4	27.5	10.0	16.8	46	-29.2		
144.20	47.5	280	2.8	H	13.3	2.4	28.1	10.0	25.1	43.5	-18.4		
144.20	45.9	250	1.0	V	13.3	2.4	28.1	10.0	23.5	43.5	-20.0		

Base Measured at 1 meter													
Frequency MHz	Reading dBuV	Direction Degree	Height Meter	Polar H / V	Antenna Loss dB	Cable loss dB	Amplifier dB	Distance Factor dB	Correction Factor dBuV/m	15B Limit	15B Margin	Comments	
240.50	38.2	270	3.2	H	11.5	3.3	27.5	10.0	15.5	46	-30.5		
240.50	36.2	75	1.8	V	11.5	3.3	27.5	10.0	13.5	46	-32.5		
249.90	42.0	270	2.1	H	11.8	3.4	27.5	10.0	19.7	46	-26.3		
249.90	39.1	330	1.2	V	11.8	3.4	27.5	10.0	16.8	46	-29.2		
144.20	47.5	280	2.8	H	13.3	2.4	28.1	10.0	25.1	43.5	-18.4		
144.20	45.9	250	1.0	V	13.3	2.4	28.1	10.0	23.5	43.5	-20.0		

### **Run#2 Conducted Emission**

Frequency MHz	Reading dBuV	Detector Qp/Ave	Phase L/N	FCC B Limits	FCC B Margin
9.800	45.1	QP	Neutral	60.00	-14.9
2.980	41.2	QP	Neutral	56.00	-14.8
0.480	41.3	QP	Neutral	56.34	-15.0
9.800	41.6	QP	Line	60.00	-18.4
2.980	32.1	QP	Line	56.00	-23.9
0.480	31.2	QP	Line	56.34	-25.1
9.800	37.2	Ave	Neutral	50.00	-12.8
2.980	34.7	Ave	Neutral	46.00	-11.3
0.480	32.1	Ave	Neutral	46.34	-14.2
9.800	31.2	Ave	Line	50.00	-18.8
2.980	27.4	Ave	Line	46.00	-18.6
0.480	21.9	Ave	Line	46.34	-24.4

### **Run#3 Maximum Peak Output Power**

Channel	Frequency MHz	Peak Output Pow (dBm)	Limit (m Watt)	Result
Low	2402	1.00	1000	pass
Mid	2442	1.00	1000	pass
High	2480	1.00	1000	pass

### **Run #4 Dwell Time**

Channel	Frequency MHz	Pulse Wid uSec	Occupied time	well Tin Sec	Limit Sec
Low	2402			0.000	0.4
Mid	2442			0.000	0.4
High	2480			0.000	0.4

### **Run #5 Number Of Hopping Channel**

See Plots

Channels

limit > 15 channels



**Run #6 20 dB Channel Bandwidth**

Channel	Frequency MHz	Channel Bandwidth (KHz)	Limit KHz
Low	2402		<1000
Mid	2442		<1000
High	2480		<1000

**Run #7 Channel Separation**

Channel	Frequency MHz	Channel Separation (KHz)
Low	2402	
Mid	2442	
High	2480	

**Run #8 Antenna Port Emission**

See Plots

**Run #9 99% BW (for RSS 210 only)**

Channel	Frequency MHz	99% BW (KHz)
Low	2402	
Mid	2442	
High	2480	