

Japan Test Report

Equipment : 802.11 b/g/n WLAN, Bluetooth & BLE Module
w/Integrated MCU

Model No. : Sterling™ – EWB

Brand Name : Laird Connectivity

Applicant : Laird Connectivity

Address : W66N220 Commerce Court, Cedarburg,
Wisconsin 53012, USA

Standard : Article 2 Paragraph 1 Item 19

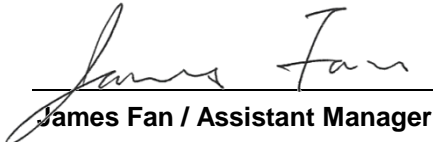
Received Date : Mar. 14, 2019

Tested Date : Apr. 23, 2019

Measurement was conducted by the following test method:
the test method of Ordinance Concerning Technical Regulations Conformity Certification
etc. of Specified Radio Equipment in Annex 1, the Ministry of Internal Affairs and
Communication notification in Annex “43” of Article 88, Paragraph 1 and ARIB STD-T66.

We, International Certification Corp., would like to declare that the tested sample has been
evaluated and in compliance with the requirement of the above standards. The test results
contained in this report refer exclusively to the product. It may be duplicated completely for
legal use with the approval of the applicant. It shall not be reproduced except in full without
the written approval of our laboratory.

Reviewed by:


James Fan / Assistant Manager

Approved by:


Gary Chang / Manager

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Test Equipment and Calibration Data	8
1.3	Testing Applied Standards	8
1.4	Deviation from Test Standard and Measurement Procedure.....	8
1.5	Measurement Uncertainty	8
2	TEST CONFIGURATION	9
2.1	Testing Location and Conditions	9
2.2	Supporting Units	9
2.3	The Worst Test Modes and Channel Details	9
3	TRANSMITTER TEST RESULTS.....	10
3.1	Antenna Power	10
3.2	Frequency Tolerance	11
3.3	Occupied Bandwidth	12
3.4	Spreading Bandwidth and Factor	13
3.5	Transmitter Spurious Emissions.....	14
3.6	Dwell time	15
3.7	Interference Prevention Function	16
4	RECEIVER TEST RESULTS	17
4.1	Receiver Spurious Emissions.....	17
5	TEST LABORATORY INFORMATION	18

APPENDIX A.1 TEST RESULTS FOR ANTENNA POWER

APPENDIX A.2 TEST RESULTS FOR ANTENNA POWER

APPENDIX B. TEST RESULTS FOR FREQUENCY TOLERANCE

APPENDIX C. TEST RESULTS FOR OCCUPIED BANDWIDTH

APPENDIX D. TEST RESULTS FOR SPREADING BANDWIDTH AND FACTOR

APPENDIX E. TEST RESULTS FOR TRANSMITTER SPURIOUS EMISSIONS

APPENDIX F. TEST RESULTS FOR DWELL TIME

APPENDIX G. TEST RESULTS FOR INTERFERENCE PREVENTION FUNCTION

APPENDIX H. TEST RESULTS FOR RECEIVER SPURIOUS EMISSIONS

Release Record

Report No.	Version	Description	Issued Date
JR931402AD	Rev. 01	Initial issue	Jul. 10, 2019

Summary of Test Results

Ref. Std. Clause	Description	Result
3.2(2)(3)	Antenna Power / Tolerances for antenna power	Pass
3.2(4)	Frequency Tolerance	Pass
3.2(6)	Transmitter Spurious Emission	Pass
3.2(7)	Occupied Bandwidth	Pass
3.2(8)	Spreading Bandwidth	Pass
3.2(9)	Spreading Factor	Pass
3.2(11)	Dwell time	Pass
3.4.1	Interference prevention function	Pass
3.3(1)	Receiver Spurious Emission	Pass

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

1.1.1 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description
Laird Connectivity	Sterling™-EWB	802.11 b/g/n WLAN, Bluetooth & BLE Module w/Integrated MCU	With Printed PCB Antenna
			With Connector Type Antenna

1.1.2 Specification of the Equipment under Test (EUT)

Power Type	3.3Vdc from host
Type(s) of Modulation / Technology	FHSS / GFSK = 1Mbps, $\pi/4$ DQPSK = 2Mbps, 8DPSK = 3Mbps
Frequency Range (MHz)	2402 ~ 2480 MHz
Total Channel Number	79
HW Version	R3.0
SW Version	R1.0

1.1.3 Accessories

N/A

1.1.4 Antenna Details

Ant. No.	Brand	Model	Laird Part Number	Type	Connector	Gain (dBi)	Remark
1	ACX	AT3216-A2R4PAA	AT3216-A2R4PAA	Chip	N/A	1.5	Printed PCB Antenna
2	Laird	001 -0001	001 -0001	Dipole	R-SMA	2	Connector Type Antenna
3	Laird	001-0014	001-0014	FlexPIFA	U.FL	2	Connector Type Antenna
4	Laird	001-0015	001-0015	FlexNotch	U.FL	2	Connector Type Antenna
5	Laird	001-0030	001-0030	PIFA	UFL	2	Connector Type Antenna
6	Laird	NanoBlue	EBL2400A1-10MH4L	PCB Dipole	UFL	2	Connector Type Antenna

Note: Please refer to antenna report for more details about antenna pattern and other information.

1.1.5 Antenna Power

Operating Mode	Rated Power (mW/MHz)	Measured Conducted Power (mW/MHz)	Radiated Power (mW/MHz)
BT-BR (1Mbps)	0.08	0.08279	0.13122
BT-EDR (3Mbps)	0.08	0.04613	0.07311
BT-BR-AFH (1Mbps)	0.32	0.31915	0.50582
BT-EDR-AFH (3Mbps)	0.32	0.17865	0.28314

1.1.6 Channel List

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

1.1.7 Test Tool and Power Index

Test Tool
cybluetool

Power Index			
Channel	Frequency (MHz)	GFSK	8DPSK
0	2402	default	default
39	2441	default	default
78	2480	default	default

1.1.8 Protection Method for High Frequency and Modulation Section

Protected Method	Description
Shielded case	RF and Modulation components are covered with shielding case and this shielding case is soldered

1.2 Test Equipment and Calibration Data

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101486	Jan. 08, 2019	Jan. 07, 2020
Power Meter	Anritsu	ML2495A	1241002	Oct. 09, 2018	Oct. 08, 2019
Power Sensor	Anritsu	MA2411B	1207366	Oct. 09, 2018	Oct. 08, 2019
Bluetooth Tester	R&S	CBT	100959	Sep. 24, 2018	Sep. 23, 2019
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note 1: Calibration Interval of instruments listed above is one year. Note 2: Above instruments are calibrated by Electronics Testing Center					

1.3 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

Article 2 Paragraph 1 Item 19

1.4 Deviation from Test Standard and Measurement Procedure

None

1.5 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$))

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.139 Hz
Conducted power	± 0.808 dB
Frequency error	$\pm 1 \times 10^{-9}$
TX Conducted emission	± 2.680 dB
RX Conducted emission	± 3.034 dB
Time	$\pm 0.1\%$

2 Test Configuration

2.1 Testing Location and Conditions

Test Site	Site Category	Ambient Condition	Tested By
TH01-WS	OVEN Room	22°C / 63%	Jack Li

2.2 Supporting Units

N/A

2.3 The Worst Test Modes and Channel Details

Test item	Mode	Test channel
Antenna Power	GFSK, 8DPSK	Hopping
Frequency Tolerance	GFSK, 8DPSK	0 / 39 / 78
Occupied Bandwidth	GFSK, 8DPSK	Hopping
Spreading Bandwidth and Factor	GFSK, 8DPSK	Hopping
Transmitter Spurious Emission	GFSK, 8DPSK	Hopping
Dwell time	GFSK, 8DPSK	Hopping
Interference Prevention Function	GFSK, 8DPSK	39
Receiver Spurious Emission	GFSK, 8DPSK	0 / 39 / 78

3 Transmitter Test Results

3.1 Antenna Power

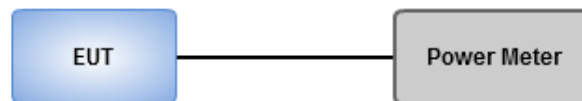
3.1.1 Limit of Antenna Power

Mode	Limit	Tolerance
1) FH, FH+DS, FH+OFDM	3 mW / MHz	+20 % , -80 %
2) OFDM(Narrow- bandwidht), DS	10 mW / MHz	
3) Other than 1) & 2)	10mW	
4) OFDM (Wide-band)	5 mW / MHz	

3.1.2 Test Procedures

1. Measure the total power by Power Meter in a state of hopping mode
2. Measure the burst ratio. Then calculate the real total power by burst ratio.
3. Calculate the mean power per 1MHz by dividing the total power by spread bandwidth
4. Output Power Density (mW/MHz) = Total Output Power (mW) / Burst Ratio / Spread Bandwidth (MHz)

3.1.3 Test Setup



3.1.4 Test Result of Maximum Transmit Power

Reference Documents	Test Mode
Appendix A1, A2	BT-BR (1Mbps)
Appendix A1, A2	BT-EDR (3Mbps)
Appendix A1, A2	BT-BR-AFH (1Mbps)
Appendix A1, A2	BT-EDR-AFH (3Mbps)

3.2 Frequency Tolerance

3.2.1 Limit of Frequency Tolerance

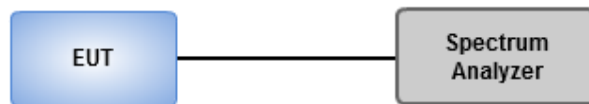
Frequency tolerance shall be +/- 50ppm.

3.2.2 Test Procedures

1. Set Span = 150kHz, RBW = 1kHz, VBW = 30kHz, Sweep time = Auto, detector = Peak.
2. Use Peak search function to find the max peak value and record this value (RF).
3. Calculate frequency tolerance by below formula
$$FT(ppm) = \{ (RF) - (MF) / (MF) \} \times 1000000$$

(FT: Frequency Tolerance, RF: Reading Frequency, MF: Measurement Frequency.)

3.2.3 Test Setup



3.2.4 Test Result of Frequency Tolerance

Reference Documents	Test Mode
Appendix B	BT-BR (1Mbps)
Appendix B	BT-EDR (3Mbps)

3.3 Occupied Bandwidth

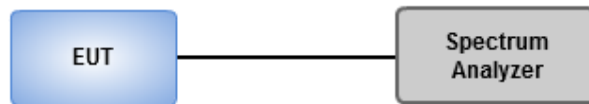
3.3.1 Limit of Occupied Bandwidth

Mode	Limit (MHz)
FH	83.5
FH+DS	83.5
FH+OFDM	83.5
OFDM(Narrow- bandwidth), DS	26
Others	26
OFDM (Wide-band)	38

3.3.2 Test Procedures

1. Set Span = 200MHz, RBW = VBW = 300kHz, detector = Peak, Sweep time = Auto.
2. Enable OBW function of spectrum analyzer to measure 99% bandwidth of total power.

3.3.3 Test Setup



3.3.4 Test Result of Occupied Bandwidth

Reference Documents	Test Mode
Appendix C	BT-BR (1Mbps)
Appendix C	BT-EDR (3Mbps)
Appendix C	BT-BR-AFH (1Mbps)
Appendix C	BT-EDR-AFH (3Mbps)

3.4 Spreading Bandwidth and Factor

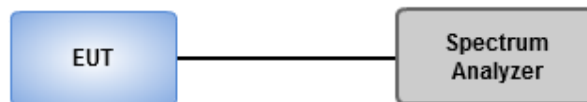
3.4.1 Limit of Spreading Bandwidth and Factor

Item	Limit
Spreading bandwidth	$\geq 500\text{kHz}$
Spreading factor for DSSS (operates at 2400~2483.5 MHz)	≥ 5
Spreading factor for DSSS (operates at 2471~2497 MHz)	≥ 10

3.4.2 Test Procedures

1. Set Span = 20MHz, RBW = VBW = 300kHz, detector = Peak, Sweep time = Auto.
2. Enable OBW (90%) function of spectrum analyzer to measure 90% bandwidth of total power.

3.4.3 Test Setup



3.4.4 Test Result of Spreading Bandwidth and Factor

Reference Documents	Test Mode
Appendix D	BT-BR (1Mbps)
Appendix D	BT-EDR (3Mbps)
Appendix D	BT-BR-AFH(1Mbps)
Appendix D	BT-EDR-AFH(3Mbps)

3.5 Transmitter Spurious Emissions

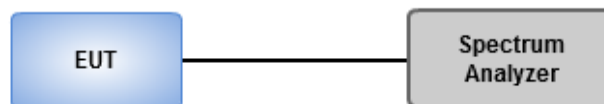
3.5.1 Limit of Transmitter Spurious Emissions

Item	Limits
Tx Spurious Emission	$\leq 2.5 \mu\text{W}$ ($2387\text{MHz} > f$; $2496.5\text{MHz} < f$).
	$\leq 25 \mu\text{W}$. ($2387\text{MHz} \leq f < 2400\text{MHz}$) and ($2483.5\text{MHz} < f \leq 2496.5\text{MHz}$).

3.5.2 Test Procedures

1. Set EUT to transmit at rated power and channel to perform test.
2. Set RBW = VBW = 1MHz, Detector type = Peak, Sweep time = Auto.
3. Following above setting of spectrum analyzer to measure spurious emission of 30~12500 MHz.

3.5.3 Test Setup



3.5.4 Test Result of Transmitter Spurious Emissions

Reference Documents	Test Mode
Appendix E	BT-BR (1Mbps)
Appendix E	BT-EDR (3Mbps)

3.6 Dwell time

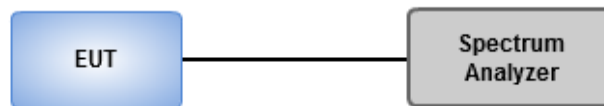
3.6.1 Limit of Dwell time

Limits	Shall be less than 0.4 second
---------------	-------------------------------

3.6.2 Test Procedures

1. Set EUT to transmit at rated power and channel to perform test.
2. Set RBW = VBW = 300kHz, Detector type = Peak, Span = Zero Span, Sweep time = 5 msec.
3. Use marker function to measure Burst on and off time.
4. Burst ratio = On Time / (On Time + Off time)

3.6.3 Test Setup



3.6.4 Test Result of Dwell time

Reference Documents	Test Mode
Appendix F	BT-BR (1Mbps)
Appendix F	BT-EDR (3Mbps)
Appendix F	BT-BR-AFH (1Mbps)
Appendix F	BT-EDR-AFH (3Mbps)

3.7 Interference Prevention Function

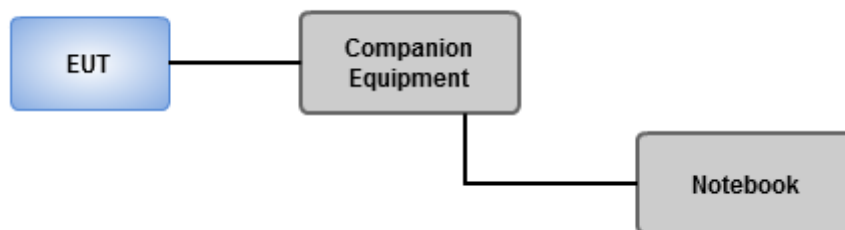
3.7.1 Limit of Interference Prevention Function

Limits
The identification code shall be 48 bits long

3.7.2 Test Procedures

1. Set EUT under operating mode and link up with companion equipment
2. Check communication status between EUT and companion equipment is normal
3. Confirm the MAC address of EUT

3.7.3 Test Setup



3.7.4 Test Result of Interference Prevention Function

Reference Documents	Test Mode
Appendix G	BT-BR (1Mbps)
Appendix G	BT-EDR (3Mbps)
Appendix G	BT-BR-AFH (1Mbps)
Appendix G	BT-EDR-AFH (3Mbps)

4 Receiver Test Results

4.1 Receiver Spurious Emissions

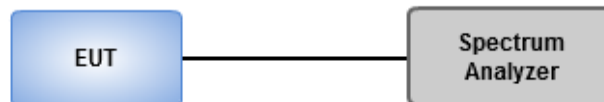
4.1.1 Limit of Receiver Spurious Emissions

Item	Limits
Rx Spurious Emission	$\leq 4\text{nW}$ ($f < 1\text{GHz}$).
	$\leq 20\text{nW}$ ($1\text{GHz} \leq f$).

4.1.2 Test Procedures

1. Set EUT under receiving condition to perform test
2. Set RBW = VBW = 100kHz, detector = Peak, Sweep time = Auto for emission measurement below 1GHz.
3. Set RBW = VBW=1MHz, detector = Peak, Sweep time = Auto for emission measurement above 1GHz.

4.1.3 Test Setup



4.1.4 Test Result of Receiver Spurious Emissions

Reference Documents	Test Mode
Appendix H	BT-BR (1Mbps)
Appendix H	BT-EDR (3Mbps)

5 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

Linkou

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin Kou
District, New Taipei City, Taiwan,
R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd
St., Kwei Shan District, Tao Yuan
City 333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd
St., Kwei Shan District, Tao Yuan
City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information

Tel: 886-3-271-8666

Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

==END==



Power Tolerance-FHSS Result

Appendix A.1

Summary

Mode	Result	Power (dBm/MHz)	Power (mW/MHz)	Declare (mW/MHz)	Tolerance (%)	Limit+ (%)	Limit- (%)
2.4-2.4835GHz	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	-10.82	0.08279	0.08	3.49	20	-80
BT-EDR(3Mbps)	Pass	-13.36	0.04613	0.08	-42.34	20	-80
BT-BR-AFH(1Mbps)	Pass	-4.96	0.31915	0.32	-0.27	20	-80
BT-EDR-AFH(3Mbps)	Pass	-7.48	0.17865	0.32	-44.17	20	-80

Result

Mode	Result	Power (dBm/MHz)	Power (mW/MHz)	Declare (mW/MHz)	Tolerance (%)	Limit+ (%)	Limit- (%)
BT-BR(1Mbps)	-	-	-	-	-	-	-
2441MHz_TnomVnom	Pass	-10.87	0.08185	0.08	2.31	20	-80
2441MHz_TnomVmin	Pass	-10.82	0.08279	0.08	3.49	20	-80
2441MHz_TnomVmax	Pass	-10.83	0.08260	0.08	3.25	20	-80
BT-EDR(3Mbps)	-	-	-	-	-	-	-
2441MHz_TnomVnom	Pass	-13.36	0.04613	0.08	-42.34	20	-80
2441MHz_TnomVmin	Pass	-13.39	0.04581	0.08	-42.74	20	-80
2441MHz_TnomVmax	Pass	-13.36	0.04613	0.08	-42.34	20	-80
BT-BR-AFH(1Mbps)	-	-	-	-	-	-	-
2441MHz_TnomVnom	Pass	-5.01	0.31550	0.32	-1.41	20	-80
2441MHz_TnomVmin	Pass	-4.96	0.31915	0.32	-0.27	20	-80
2441MHz_TnomVmax	Pass	-4.97	0.31842	0.32	-0.49	20	-80
BT-EDR-AFH(3Mbps)	-	-	-	-	-	-	-
2441MHz_TnomVnom	Pass	-7.51	0.17742	0.32	-44.56	20	-80
2441MHz_TnomVmin	Pass	-7.51	0.17742	0.32	-44.56	20	-80
2441MHz_TnomVmax	Pass	-7.48	0.17865	0.32	-44.17	20	-80



Power-FHSS Result

Appendix A.2

Summary

Mode	Power (dBm/MHz)	Power (mW/MHz)	EIRP (dBm/MHz)	EIRP (mW/MHz)
2.4-2.4835GHz	-	-	-	-
BT-BR(1Mbps)	-10.82	0.08279	-8.82	0.13122
BT-EDR(3Mbps)	-13.36	0.04613	-11.36	0.07311
BT-BR-AFH(1Mbps)	-4.96	0.31915	-2.96	0.50582
BT-EDR-AFH(3Mbps)	-7.48	0.17865	-5.48	0.28314

Result

Mode	Result	Gain (dBi)	Power (dBm/MHz)	Power (mW/MHz)	Power Lim. (mW/MHz)	EIRP (dBm/MHz)	EIRP (mW/MHz)	EIRP Lim. (mW/MHz)
BT-BR(1Mbps)	-	-	-	-	-	-	-	-
2441MHz_TnomVnom	Pass	2.00	-10.87	0.08185	3	-8.87	0.12972	4.91
2441MHz_TnomVmin	Pass	2.00	-10.82	0.08279	3	-8.82	0.13122	4.91
2441MHz_TnomVmax	Pass	2.00	-10.83	0.08260	3	-8.83	0.13092	4.91
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-
2441MHz_TnomVnom	Pass	2.00	-13.36	0.04613	3	-11.36	0.07311	4.91
2441MHz_TnomVmin	Pass	2.00	-13.39	0.04581	3	-11.39	0.07261	4.91
2441MHz_TnomVmax	Pass	2.00	-13.36	0.04613	3	-11.36	0.07311	4.91
BT-BR-AFH(1Mbps)	-	-	-	-	-	-	-	-
2441MHz_TnomVnom	Pass	2.00	-5.01	0.31550	3	-3.01	0.50003	4.91
2441MHz_TnomVmin	Pass	2.00	-4.96	0.31915	3	-2.96	0.50582	4.91
2441MHz_TnomVmax	Pass	2.00	-4.97	0.31842	3	-2.97	0.50466	4.91
BT-EDR-AFH(3Mbps)	-	-	-	-	-	-	-	-
2441MHz_TnomVnom	Pass	2.00	-7.51	0.17742	3	-5.51	0.28119	4.91
2441MHz_TnomVmin	Pass	2.00	-7.51	0.17742	3	-5.51	0.28119	4.91
2441MHz_TnomVmax	Pass	2.00	-7.48	0.17865	3	-5.48	0.28314	4.91



Frequency Tolerance-FHSS Result

Appendix B

Summary

Mode	Result	Ch (Hz)	Center (Hz)	ppm	Limit (ppm)	Port	Remark
2.4-2.4835GHz	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.48G	2.48001861G	7.504	±50	1	-
BT-EDR(3Mbps)	Pass	2.48G	2.48001848G	7.451	±50	1	-



Frequency Tolerance-FHSS Result

Appendix B

Result

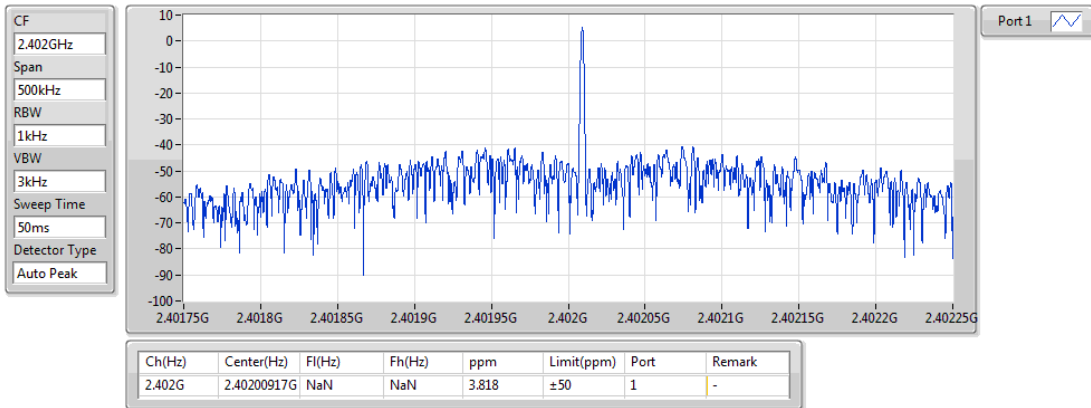
Mode	Result	Ch (Hz)	Center (Hz)	ppm	Limit (ppm)	Port	Remark
BT-BR(1Mbps)	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402G	2.40200917G	3.818	±50	1	-
2402MHz_TnomVmin	Pass	2.402G	2.40200917G	3.817	±50	1	-
2402MHz_TnomVmax	Pass	2.402G	2.40200917G	3.818	±50	1	-
2441MHz_TnomVnom	Pass	2.441G	2.441014G	5.737	±50	1	-
2441MHz_TnomVmin	Pass	2.441G	2.44101402G	5.742	±50	1	-
2441MHz_TnomVmax	Pass	2.441G	2.44101404G	5.753	±50	1	-
2480MHz_TnomVnom	Pass	2.48G	2.48001861G	7.504	±50	1	-
2480MHz_TnomVmin	Pass	2.48G	2.48001858G	7.49	±50	1	-
2480MHz_TnomVmax	Pass	2.48G	2.48001854G	7.476	±50	1	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402G	2.40200916G	3.812	±50	1	-
2402MHz_TnomVmin	Pass	2.402G	2.40200916G	3.813	±50	1	-
2402MHz_TnomVmax	Pass	2.402G	2.40200915G	3.811	±50	1	-
2441MHz_TnomVnom	Pass	2.441G	2.44101389G	5.689	±50	1	-
2441MHz_TnomVmin	Pass	2.441G	2.44101392G	5.701	±50	1	-
2441MHz_TnomVmax	Pass	2.441G	2.44101394G	5.712	±50	1	-
2480MHz_TnomVnom	Pass	2.48G	2.48001848G	7.451	±50	1	-
2480MHz_TnomVmin	Pass	2.48G	2.48001847G	7.448	±50	1	-
2480MHz_TnomVmax	Pass	2.48G	2.48001845G	7.441	±50	1	-



BT-BR(1Mbps)

Freq. Stability

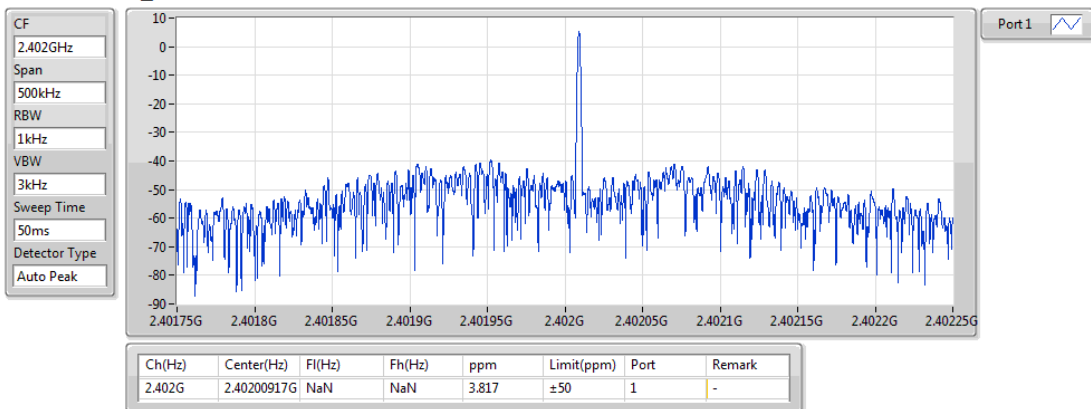
2402MHz_TnomVnom



BT-BR(1Mbps)

Freq. Stability

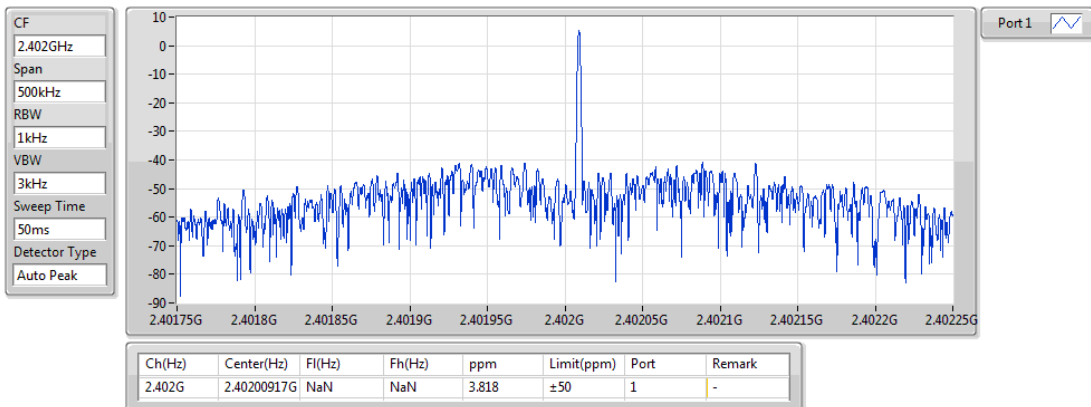
2402MHz_TnomVmin



BT-BR(1Mbps)

Freq. Stability

2402MHz_TnomVmax

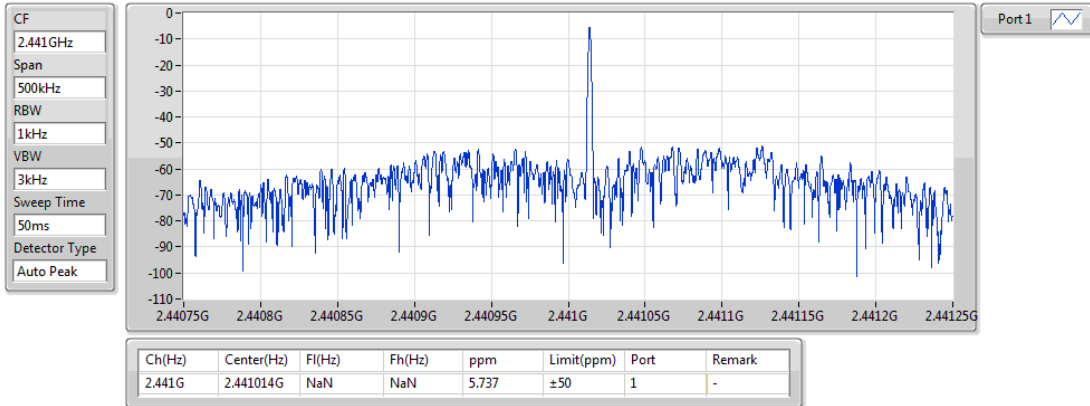




BT-BR(1Mbps)

Freq. Stability

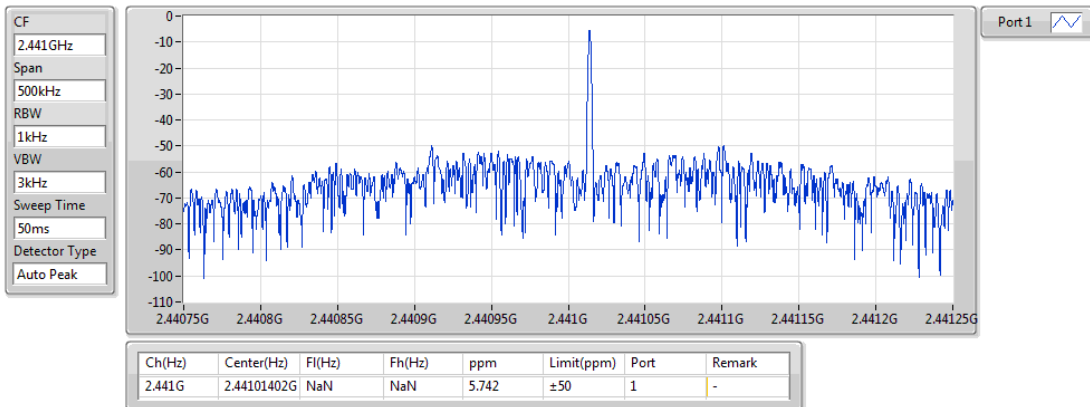
2441MHz_TnomVnom



BT-BR(1Mbps)

Freq. Stability

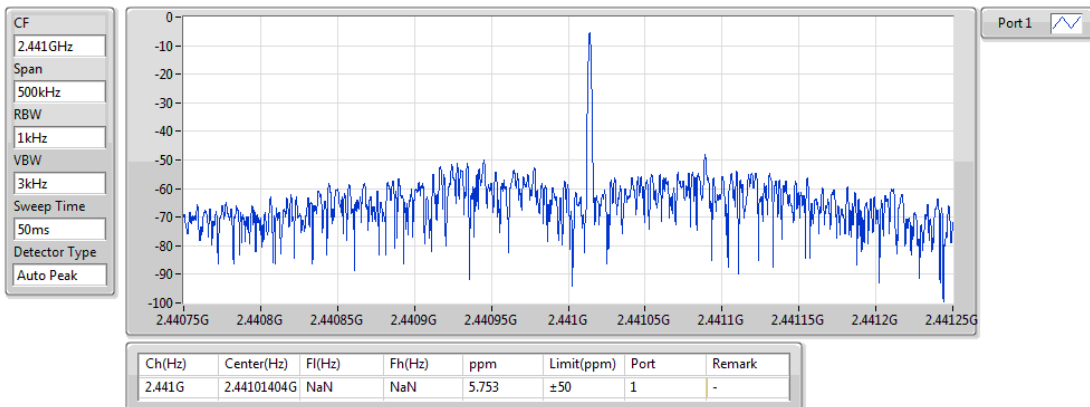
2441MHz_TnomVmin



BT-BR(1Mbps)

Freq. Stability

2441MHz_TnomVmax

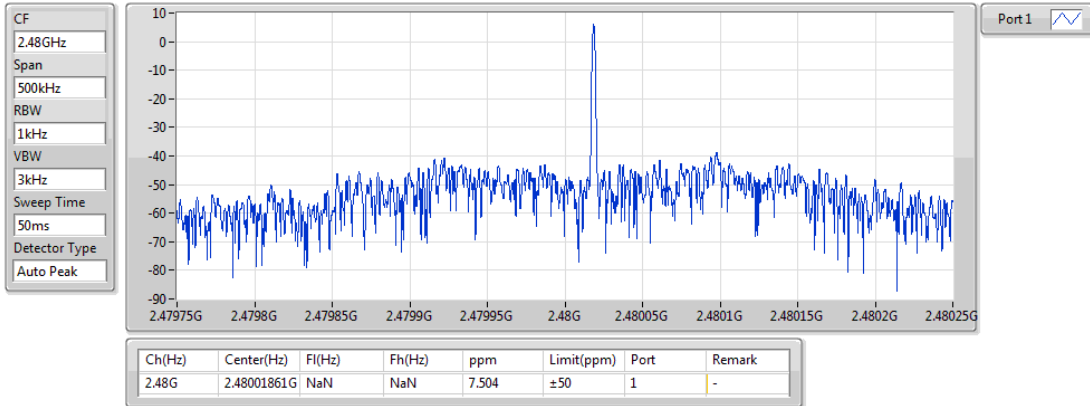




BT-BR(1Mbps)

Freq. Stability

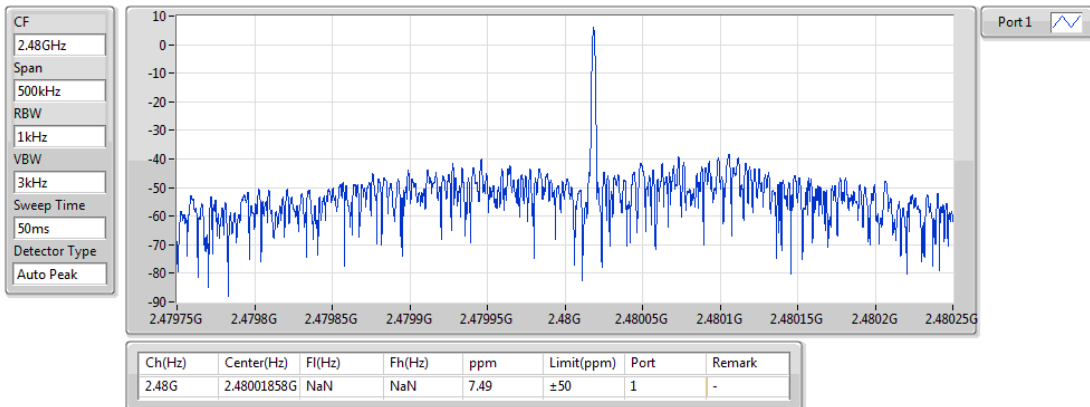
2480MHz_TnomVnom



BT-BR(1Mbps)

Freq. Stability

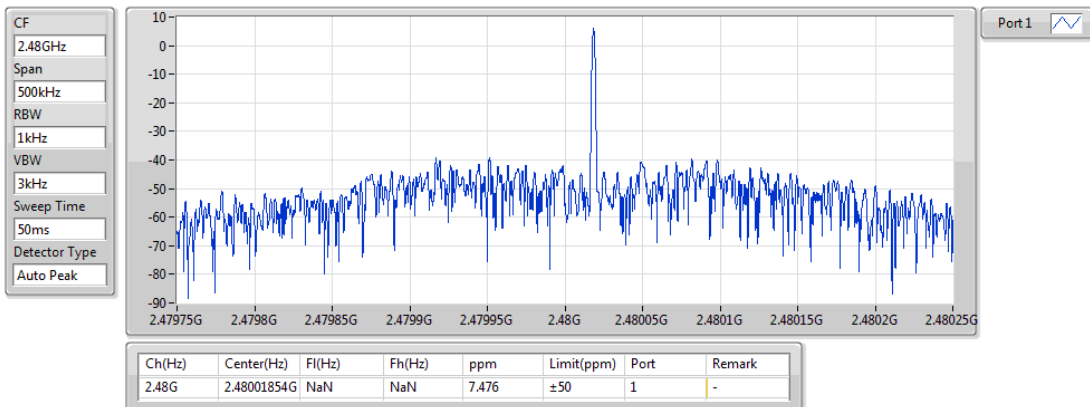
2480MHz_TnomVmin



BT-BR(1Mbps)

Freq. Stability

2480MHz_TnomVmax

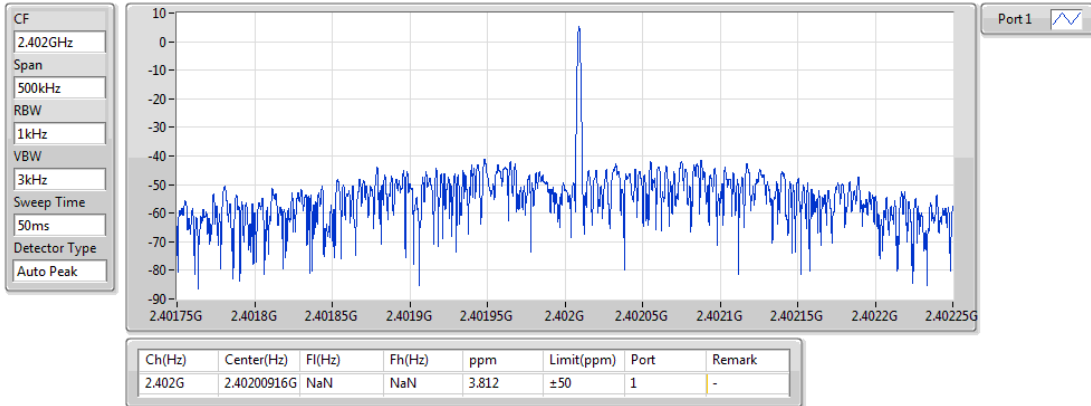




BT-EDR(3Mbps)

Freq. Stability

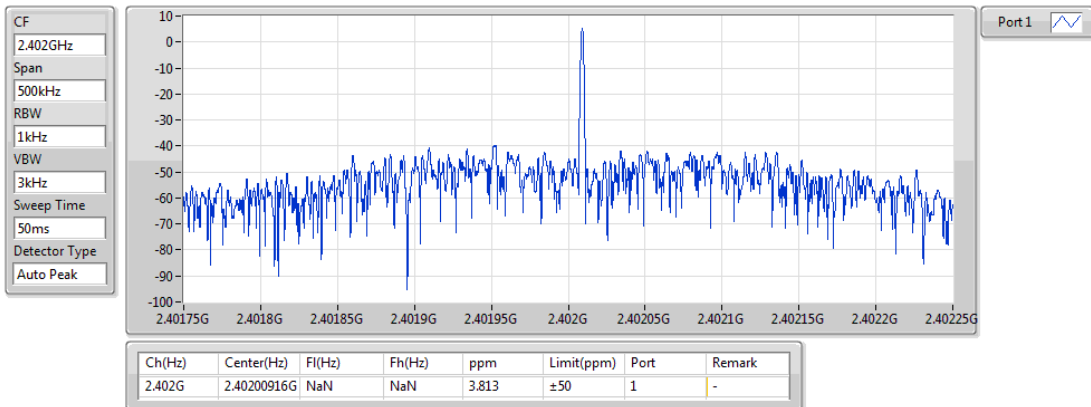
2402MHz_TnomVnom



BT-EDR(3Mbps)

Freq. Stability

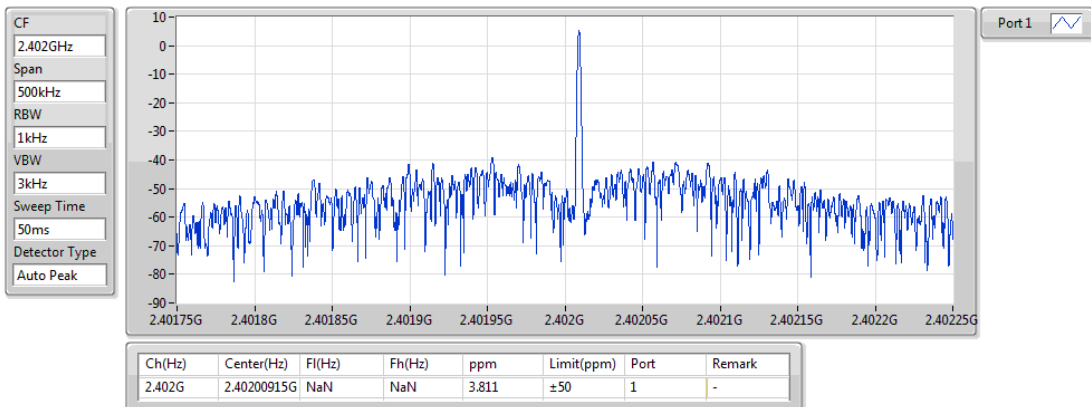
2402MHz_TnomVmin



BT-EDR(3Mbps)

Freq. Stability

2402MHz_TnomVmax

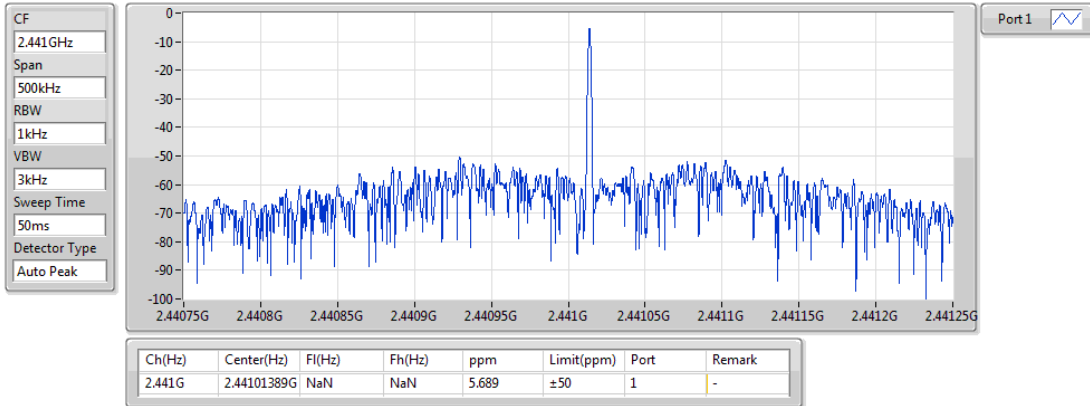




BT-EDR(3Mbps)

Freq. Stability

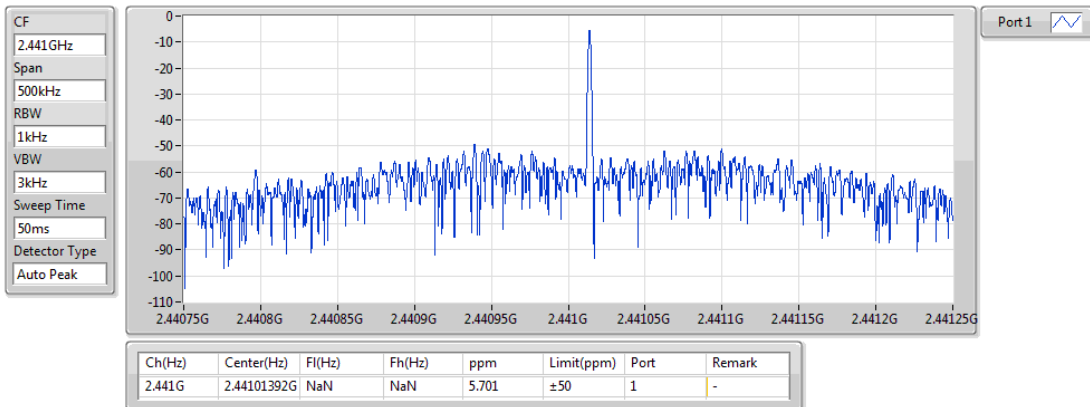
2441MHz_TnomVnom



BT-EDR(3Mbps)

Freq. Stability

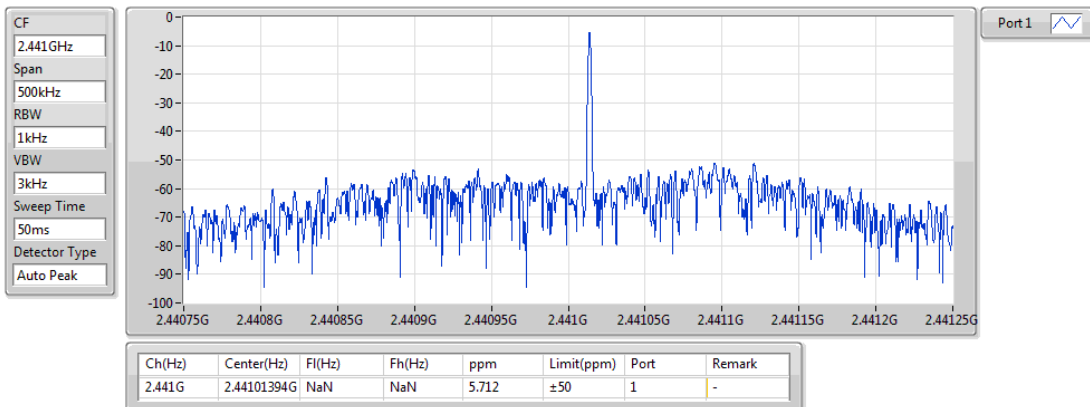
2441MHz_TnomVmin



BT-EDR(3Mbps)

Freq. Stability

2441MHz_TnomVmax

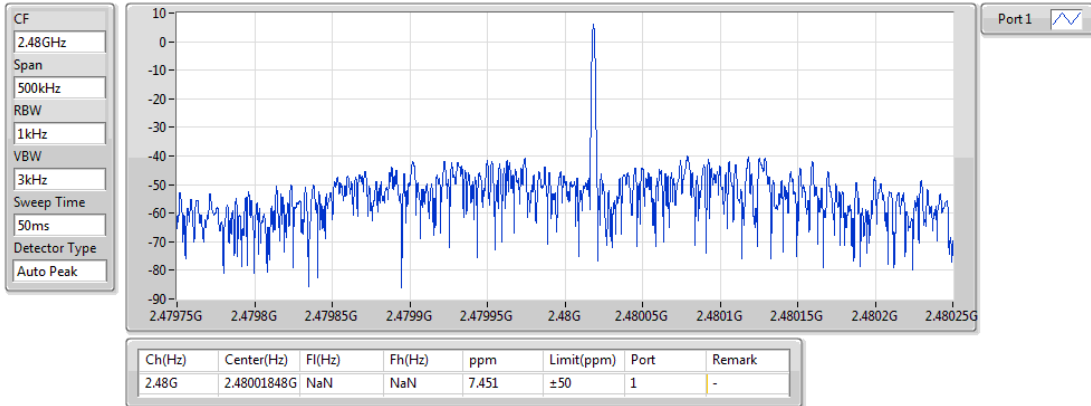




BT-EDR(3Mbps)

Freq. Stability

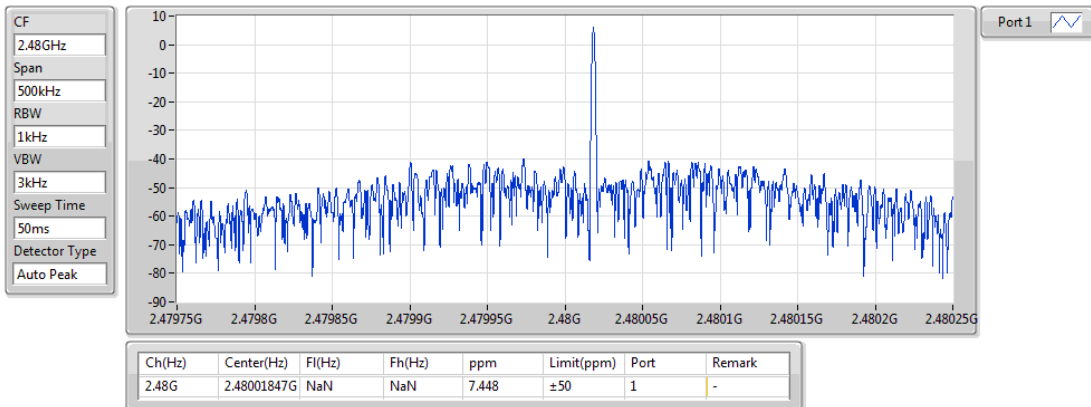
2480MHz_TnomVnom



BT-EDR(3Mbps)

Freq. Stability

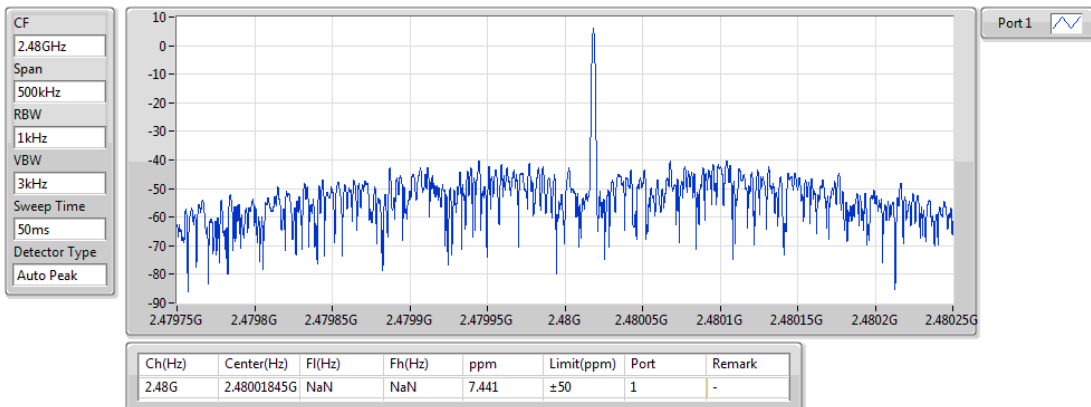
2480MHz_TnomVmin



BT-EDR(3Mbps)

Freq. Stability

2480MHz_TnomVmax





Occupied Bandwidth-FHSS Result

Appendix C

Summary

Mode	Max-OBW (Hz)	ITU-Code	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-
BT-BR(1Mbps)	78.761M	78M71D	78.761M
BT-EDR(3Mbps)	78.961M	78M9G1D	78.861M
BT-BR-AFH(1Mbps)	20.49M	20M4F1D	20.49M
BT-EDR-AFH(3Mbps)	20.79M	20M7G1D	20.69M

Max-OBW = Maximum 99% occupied bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

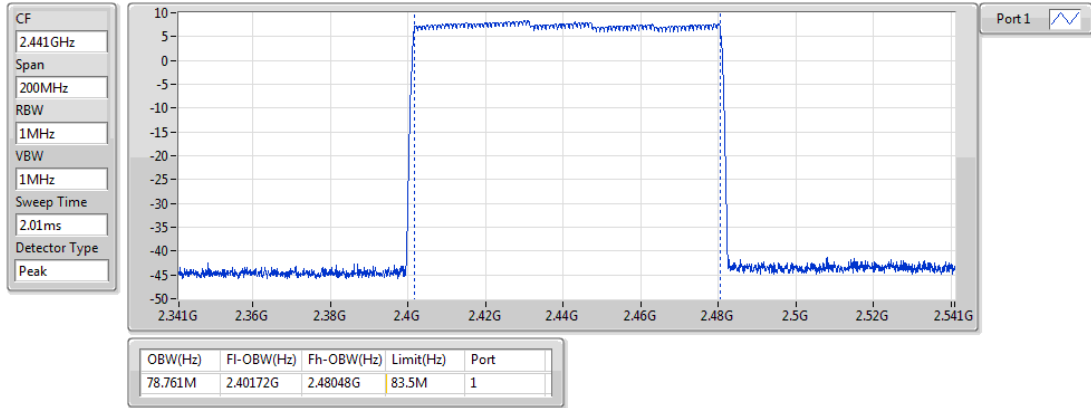
Mode	Result	Limit (Hz)	P1-OBW (Hz)
BT-BR(1Mbps)	-	-	-
Hopping mode_TnomVnom	Pass	83.5M	78.761M
Hopping mode_TnomVmin	Pass	83.5M	78.761M
Hopping mode_TnomVmax	Pass	83.5M	78.761M
BT-EDR(3Mbps)	-	-	-
Hopping mode_TnomVnom	Pass	83.5M	78.861M
Hopping mode_TnomVmin	Pass	83.5M	78.961M
Hopping mode_TnomVmax	Pass	83.5M	78.961M
BT-BR-AFH(1Mbps)	-	-	-
Hopping mode_TnomVnom	Pass	83.5M	20.49M
Hopping mode_TnomVmin	Pass	83.5M	20.49M
Hopping mode_TnomVmax	Pass	83.5M	20.49M
BT-EDR-AFH(3Mbps)	-	-	-
Hopping mode_TnomVnom	Pass	83.5M	20.79M
Hopping mode_TnomVmin	Pass	83.5M	20.69M
Hopping mode_TnomVmax	Pass	83.5M	20.79M

P1-OBW = Port 1 99% occupied bandwidth;

BT-BR(1Mbps)

OBW

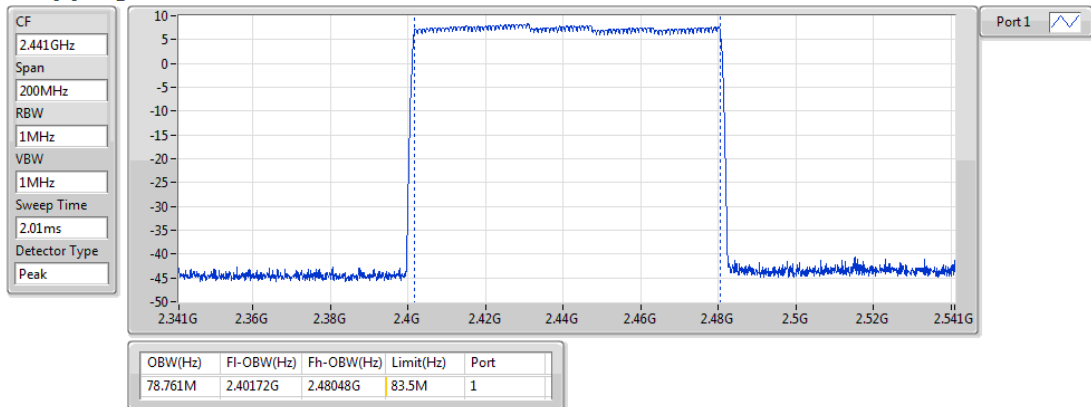
Hopping Mode_TnomVnom



BT-BR(1Mbps)

OBW

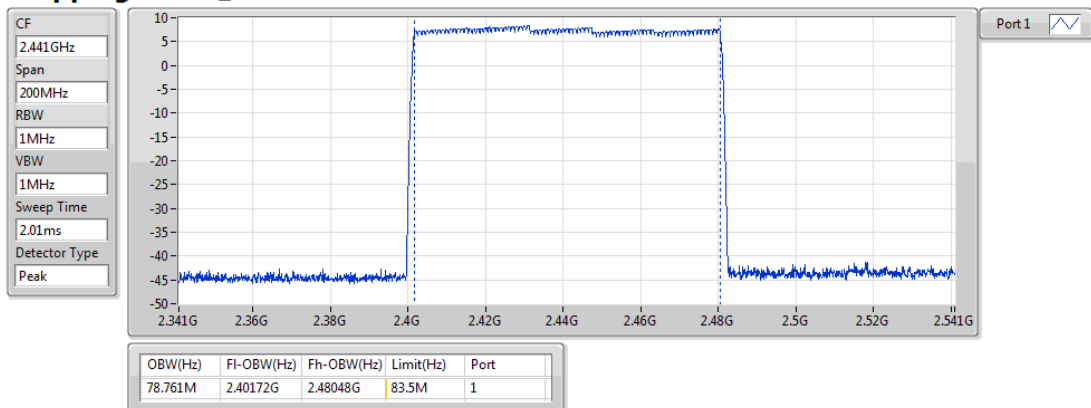
Hopping Mode_TnomVmin



BT-BR(1Mbps)

OBW

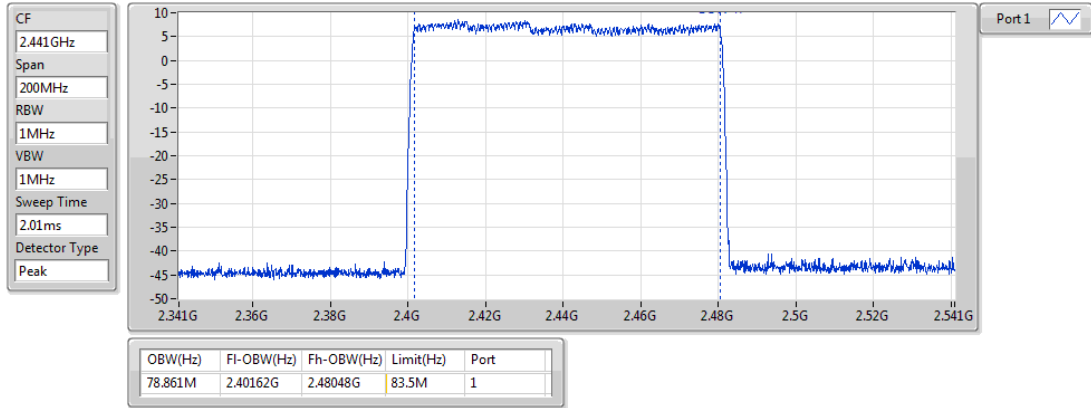
Hopping Mode_TnomVmax



BT-EDR(3Mbps)

OBW

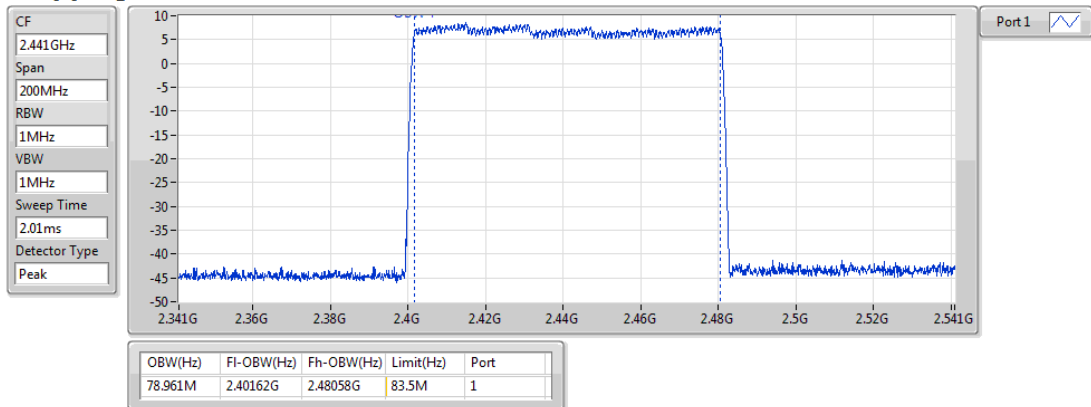
Hopping Mode_TnomVnom



BT-EDR(3Mbps)

OBW

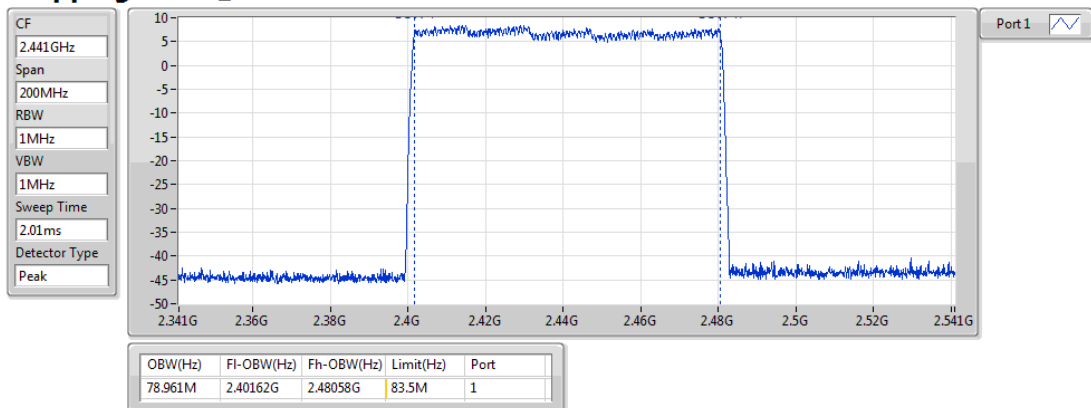
Hopping Mode_TnomVmin



BT-EDR(3Mbps)

OBW

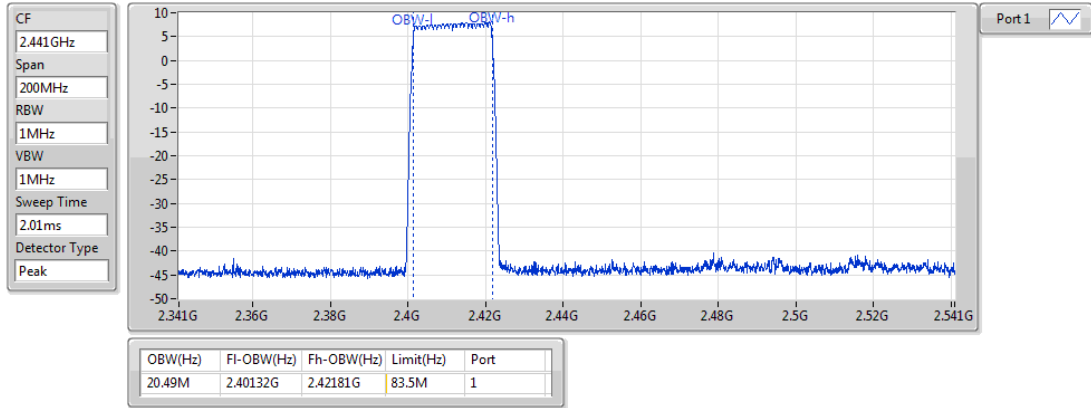
Hopping Mode_TnomVmax



BT-BR-AFH(1Mbps)

OBW

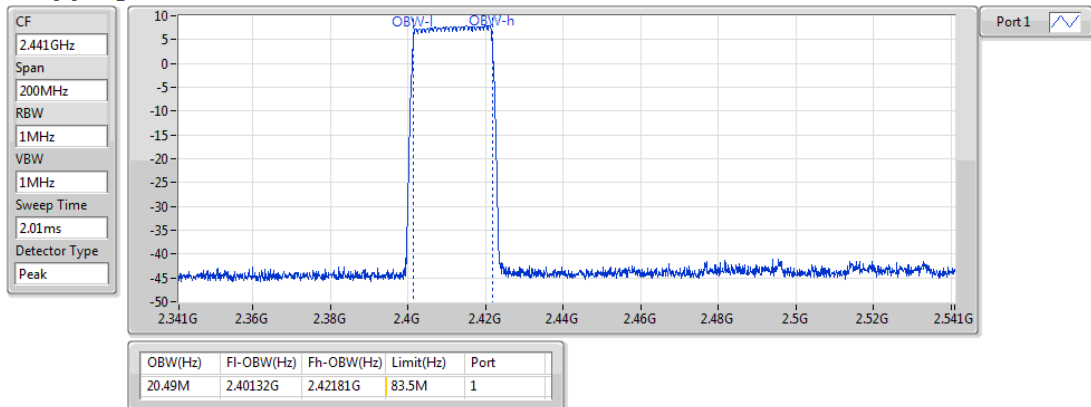
Hopping Mode_TnomVnom



BT-BR-AFH(1Mbps)

OBW

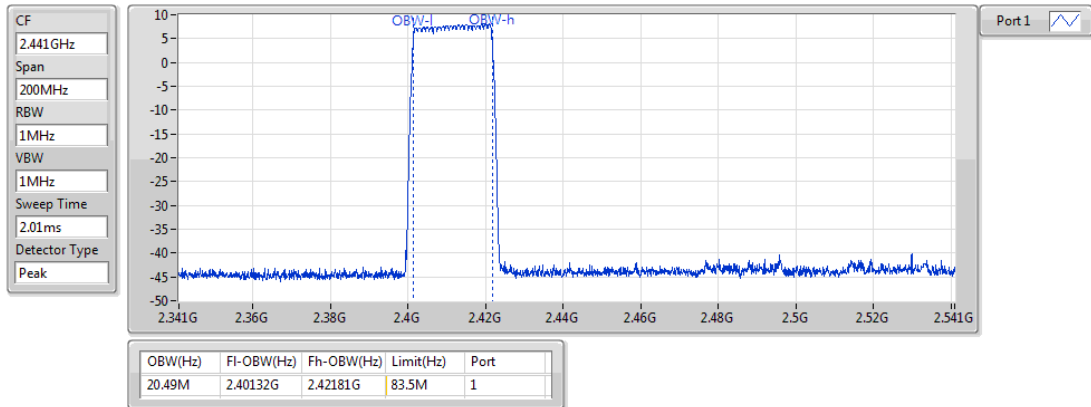
Hopping Mode_TnomVmin



BT-BR-AFH(1Mbps)

OBW

Hopping Mode_TnomVmax

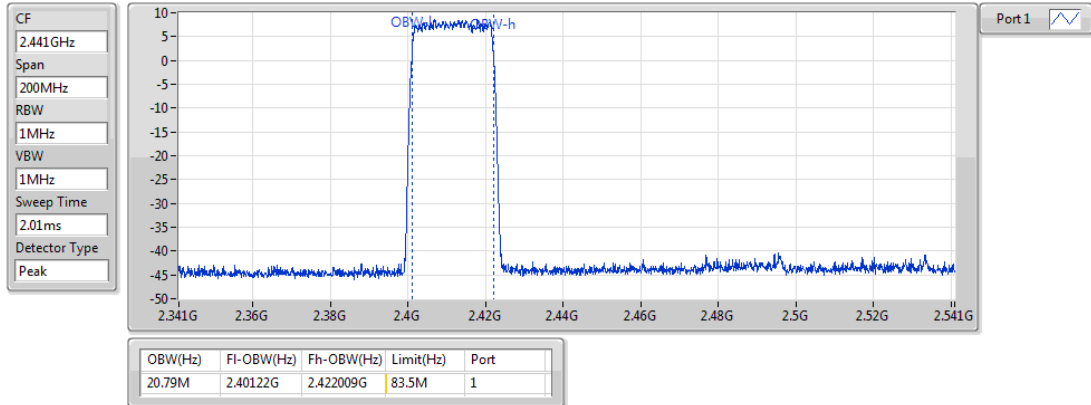




BT-EDR-AFH(3Mbps)

OBW

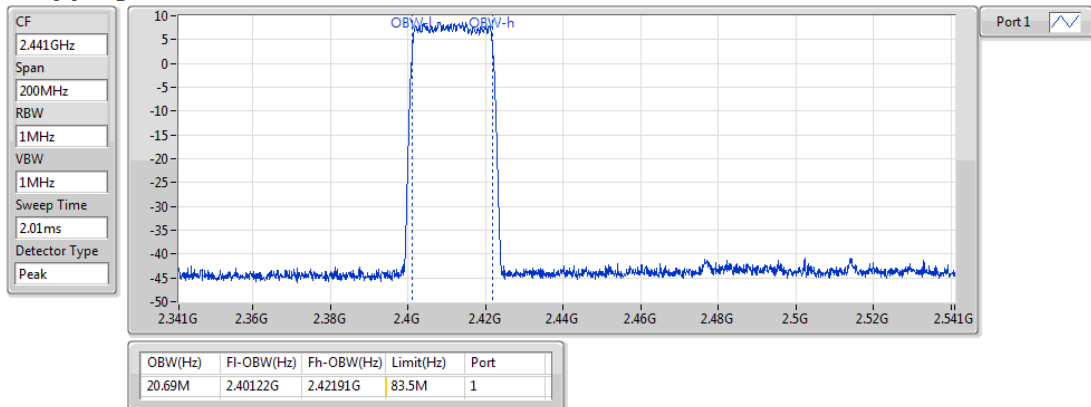
Hopping Mode_TnomVnom



BT-EDR-AFH(3Mbps)

OBW

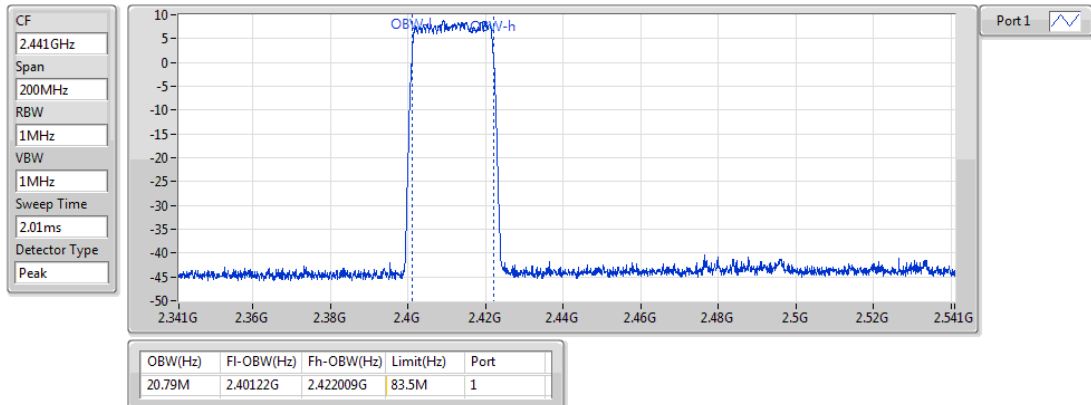
Hopping Mode_TnomVmin



BT-EDR-AFH(3Mbps)

OBW

Hopping Mode_TnomVmax





Spread Bandwidth-FHSS Result

Appendix D

Summary

Mode	Max-SBW (Hz)	Min-SBW (Hz)	Max-SF	Min-SF
2.4-2.4835GHz	-	-	-	-
BT-BR(1Mbps)	71.364M	71.364M	71.364	71.364
BT-EDR(3Mbps)	71.964M	71.864M	71.964	71.864
BT-BR-AFH(1Mbps)	18.491M	18.491M	18.491	18.491
BT-EDR-AFH(3Mbps)	18.691M	18.591M	18.691	18.591

Max-SBW = Maximum spreading bandwidth; **Min-SBW** = Minimum spreading bandwidth;
Max-SF = Maximum spreading factor; **Min-SF** = Minimum spreading factor;



Spread Bandwidth-FHSS Result

Appendix D

Result

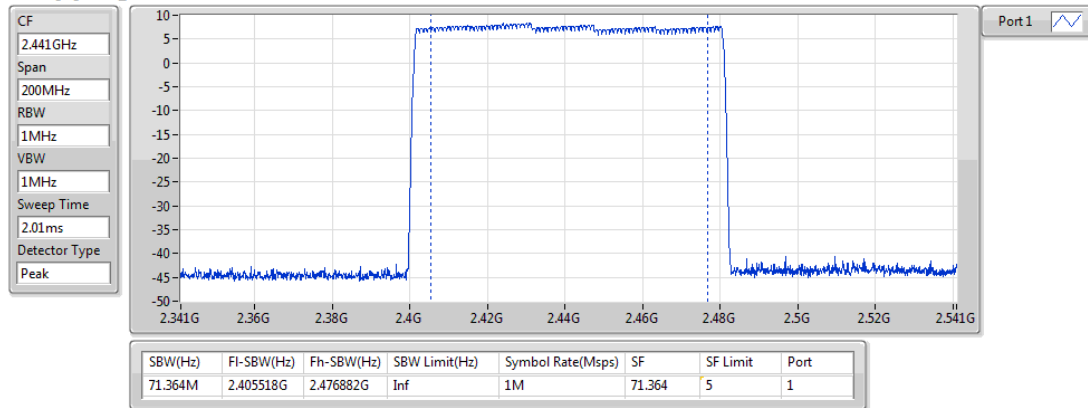
Mode	Result	Symbol Rate (Msps)	SF Limit	P1-SBW (Hz)	P1-SF
BT-BR(1Mbps)	-	-	-	-	-
Hopping mode_TnomVnom	Pass	1M	5	71.364M	71.364
Hopping mode_TnomVmin	Pass	1M	5	71.364M	71.364
Hopping mode_TnomVmax	Pass	1M	5	71.364M	71.364
BT-EDR(3Mbps)	-	-	-	-	-
Hopping mode_TnomVnom	Pass	1M	5	71.964M	71.964
Hopping mode_TnomVmin	Pass	1M	5	71.864M	71.864
Hopping mode_TnomVmax	Pass	1M	5	71.964M	71.964
BT-BR-AFH(1Mbps)	-	-	-	-	-
Hopping mode_TnomVnom	Pass	1M	5	18.491M	18.491
Hopping mode_TnomVmin	Pass	1M	5	18.491M	18.491
Hopping mode_TnomVmax	Pass	1M	5	18.491M	18.491
BT-EDR-AFH(3Mbps)	-	-	-	-	-
Hopping mode_TnomVnom	Pass	1M	5	18.691M	18.691
Hopping mode_TnomVmin	Pass	1M	5	18.591M	18.591
Hopping mode_TnomVmax	Pass	1M	5	18.591M	18.591

P1-SBW = Port 1 spreading bandwidth**P1-SF** = Port 1 spreading factor;

BT-BR(1Mbps)

SBW

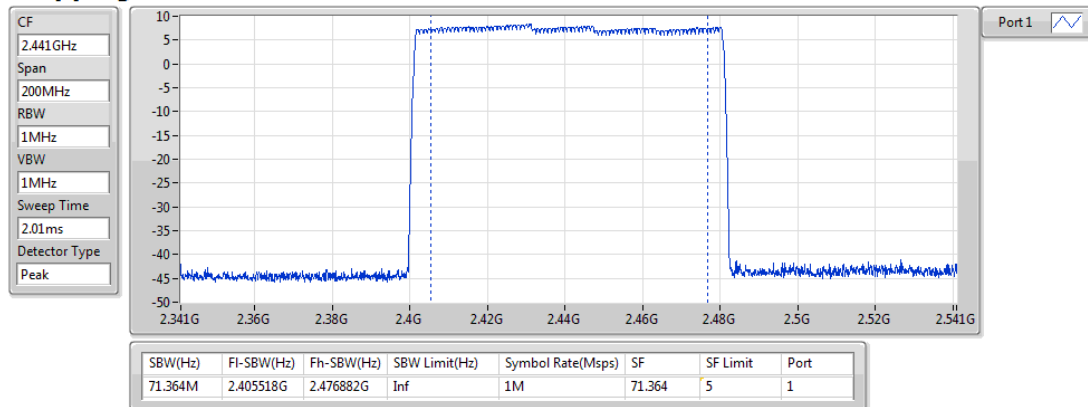
Hopping Mode_TnomVnom



BT-BR(1Mbps)

SBW

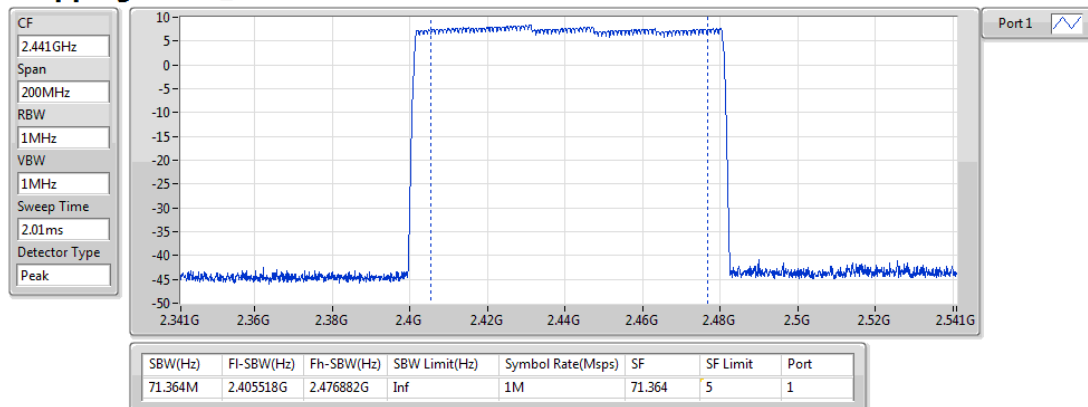
Hopping Mode_TnomVmin



BT-BR(1Mbps)

SBW

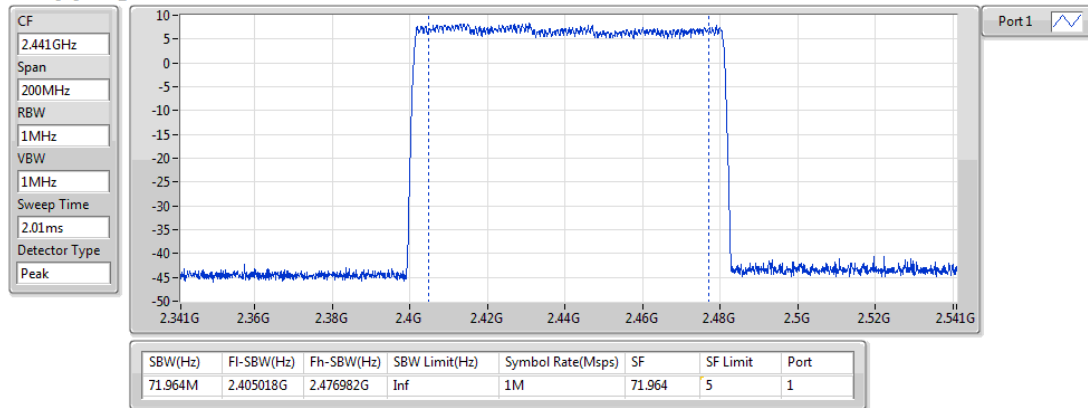
Hopping Mode_TnomVmax



BT-EDR(3Mbps)

SBW

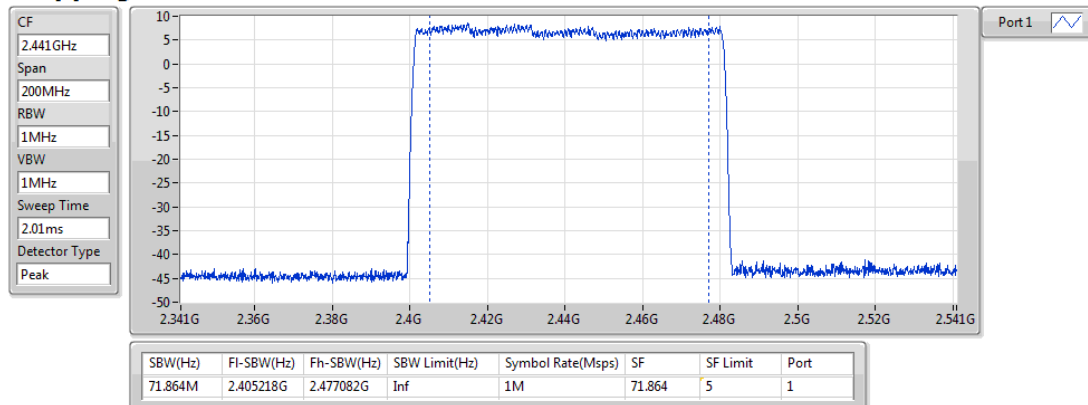
Hopping Mode_TnomVnom



BT-EDR(3Mbps)

SBW

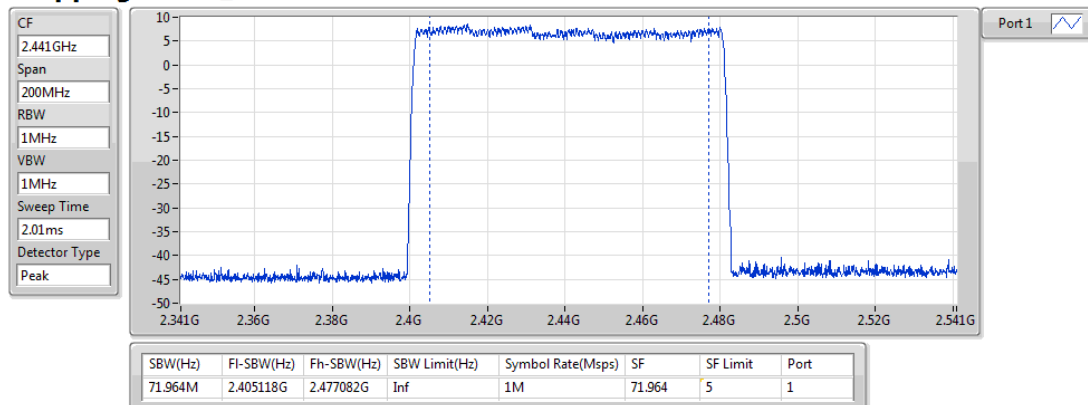
Hopping Mode_TnomVmin



BT-EDR(3Mbps)

SBW

Hopping Mode_TnomVmax

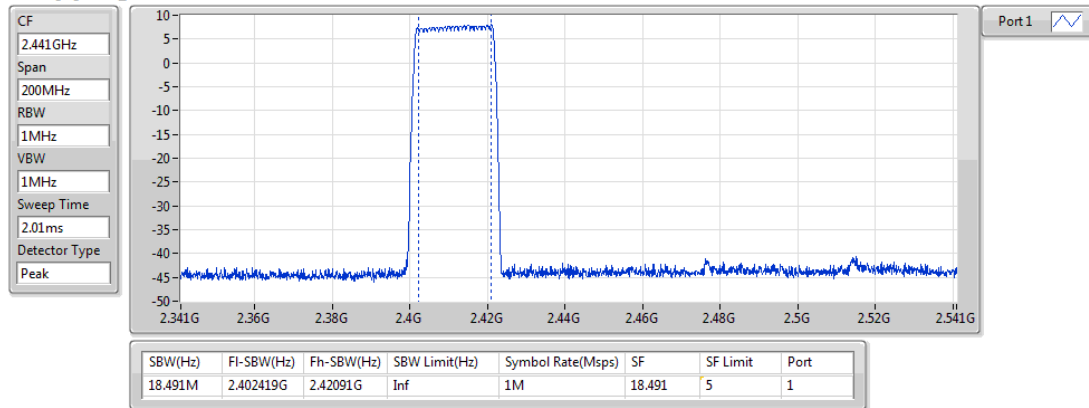




BT-BR-AFH(1Mbps)

SBW

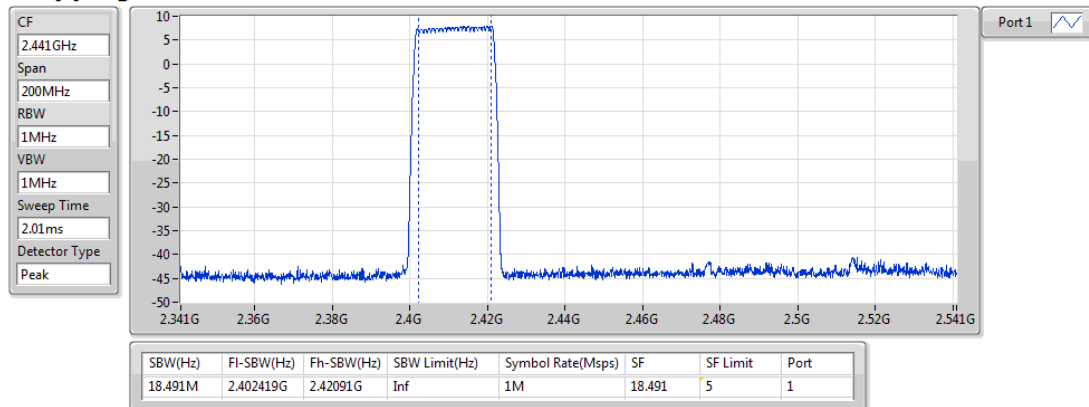
Hopping Mode_TnomVnom



BT-BR-AFH(1Mbps)

SBW

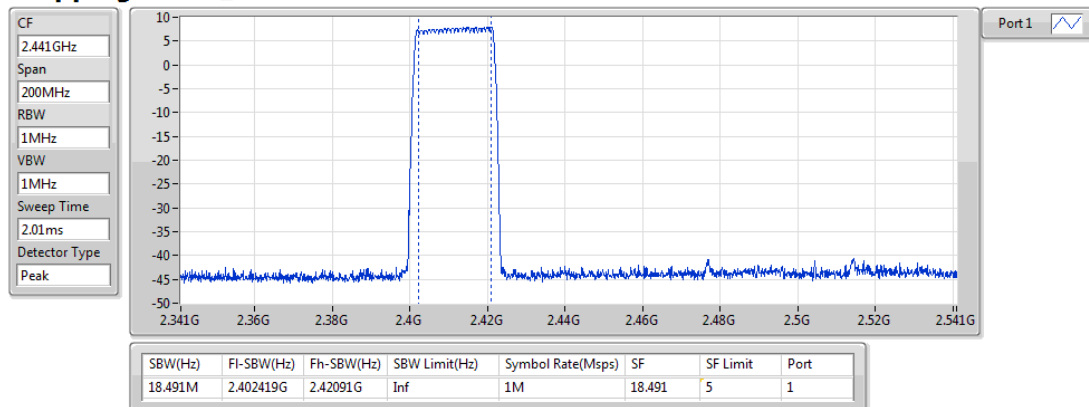
Hopping Mode_TnomVmin



BT-BR-AFH(1Mbps)

SBW

Hopping Mode_TnomVmax

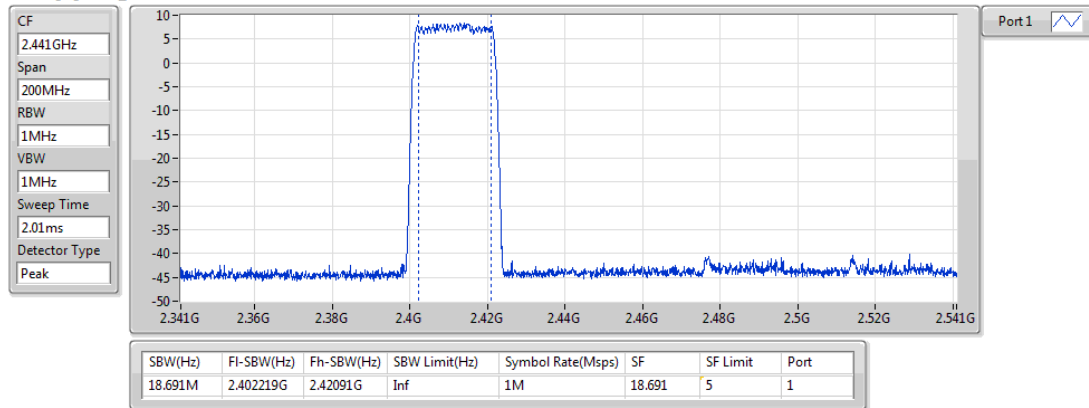




BT-EDR-AFH(3Mbps)

SBW

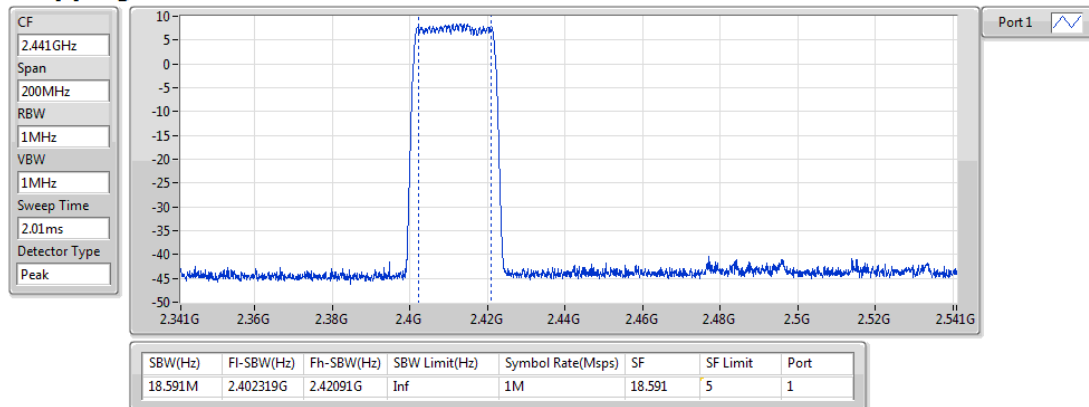
Hopping Mode_TnomVnom



BT-EDR-AFH(3Mbps)

SBW

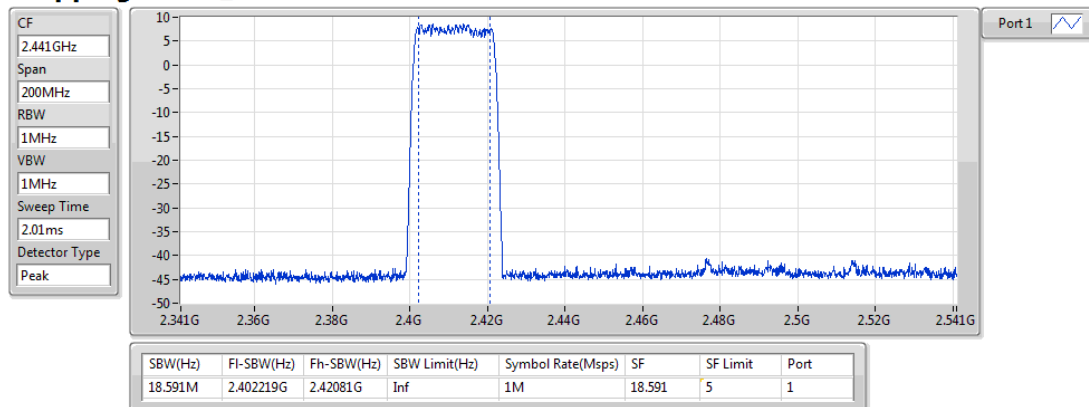
Hopping Mode_TnomVmin



BT-EDR-AFH(3Mbps)

SBW

Hopping Mode_TnomVmax



**CSE-TX Unwanted Emission Strength-FHSS Result**

Appendix E

Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Freq (Hz)	Psum (dBm)	Psum (uW/MHz)	Limit (dBm)	Limit (uW/MHz)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.4965G	12.5G	1M	10.51681G	-43.38	0.04592	-26.02	2.5
BT-EDR(3Mbps)	Pass	2.387G	2.4G	1M	2.39997G	-29.06	1.24165	-16.02	25

**CSE-TX Unwanted Emission Strength-FHSS Result****Appendix E****Result**

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Freq (Hz)	Psum (dBm)	Psum (uW/MHz)	Limit (dBm)	Limit (uW/MHz)
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-
Hopping mode_TnomVnom	Pass	30M	2.387G	1M	2.36107G	-55.52	0.00281	-26.02	2.5
Hopping mode_TnomVnom	Pass	2.387G	2.4G	1M	2.39997G	-34.89	0.32434	-16.02	25
Hopping mode_TnomVnom	Pass	2.4835G	2.4965G	1M	2.48771G	-49.06	0.01242	-16.02	25
Hopping mode_TnomVnom	Pass	2.4965G	12.5G	1M	10.53306G	-43.76	0.04207	-26.02	2.5
Hopping mode_TnomVmin	Pass	30M	2.387G	1M	1.45599G	-55.19	0.00303	-26.02	2.5
Hopping mode_TnomVmin	Pass	2.387G	2.4G	1M	2.39997G	-35.13	0.3069	-16.02	25
Hopping mode_TnomVmin	Pass	2.4835G	2.4965G	1M	2.48875G	-48.78	0.01324	-16.02	25
Hopping mode_TnomVmin	Pass	2.4965G	12.5G	1M	12.47874G	-43.79	0.04178	-26.02	2.5
Hopping mode_TnomVmax	Pass	30M	2.387G	1M	1.46777G	-55.71	0.00269	-26.02	2.5
Hopping mode_TnomVmax	Pass	2.387G	2.4G	1M	2.39997G	-35.10	0.30903	-16.02	25
Hopping mode_TnomVmax	Pass	2.4835G	2.4965G	1M	2.4887G	-48.93	0.01279	-16.02	25
Hopping mode_TnomVmax	Pass	2.4965G	12.5G	1M	10.51681G	-43.38	0.04592	-26.02	2.5
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-
Hopping mode_TnomVnom	Pass	30M	2.387G	1M	2.31747G	-55.72	0.00268	-26.02	2.5
Hopping mode_TnomVnom	Pass	2.387G	2.4G	1M	2.39997G	-29.08	1.23595	-16.02	25
Hopping mode_TnomVnom	Pass	2.4835G	2.4965G	1M	2.49486G	-47.77	0.01671	-16.02	25
Hopping mode_TnomVnom	Pass	2.4965G	12.5G	1M	12.45623G	-43.74	0.04227	-26.02	2.5
Hopping mode_TnomVmin	Pass	30M	2.387G	1M	2.38346G	-55.58	0.00277	-26.02	2.5
Hopping mode_TnomVmin	Pass	2.387G	2.4G	1M	2.39997G	-29.06	1.24165	-16.02	25
Hopping mode_TnomVmin	Pass	2.4835G	2.4965G	1M	2.48576G	-47.86	0.01637	-16.02	25
Hopping mode_TnomVmin	Pass	2.4965G	12.5G	1M	11.28207G	-43.70	0.04266	-26.02	2.5
Hopping mode_TnomVmax	Pass	30M	2.387G	1M	2.30097G	-55.86	0.00259	-26.02	2.5
Hopping mode_TnomVmax	Pass	2.387G	2.4G	1M	2.39997G	-29.23	1.19399	-16.02	25
Hopping mode_TnomVmax	Pass	2.4835G	2.4965G	1M	2.48982G	-48.09	0.01552	-16.02	25
Hopping mode_TnomVmax	Pass	2.4965G	12.5G	1M	10.54807G	-43.90	0.04074	-26.02	2.5



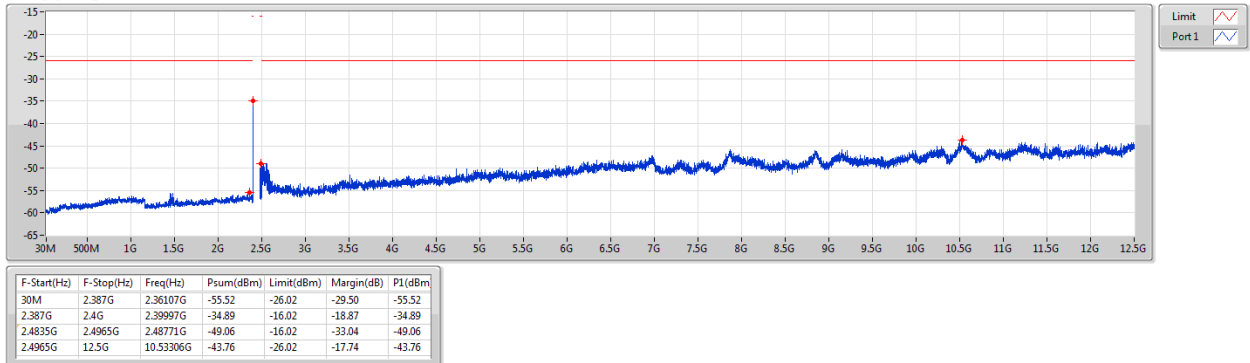
CSE-TX Unwanted Emission Strength-FHSS Result

Appendix E

BT-BR(1Mbps)

CSE-TX-FS

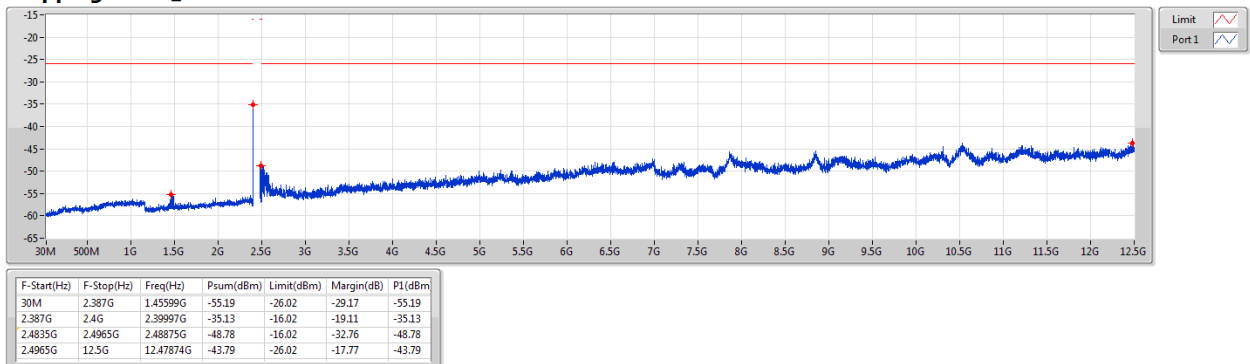
Hopping Mode_TnomVnom



BT-BR(1Mbps)

CSE-TX-FS

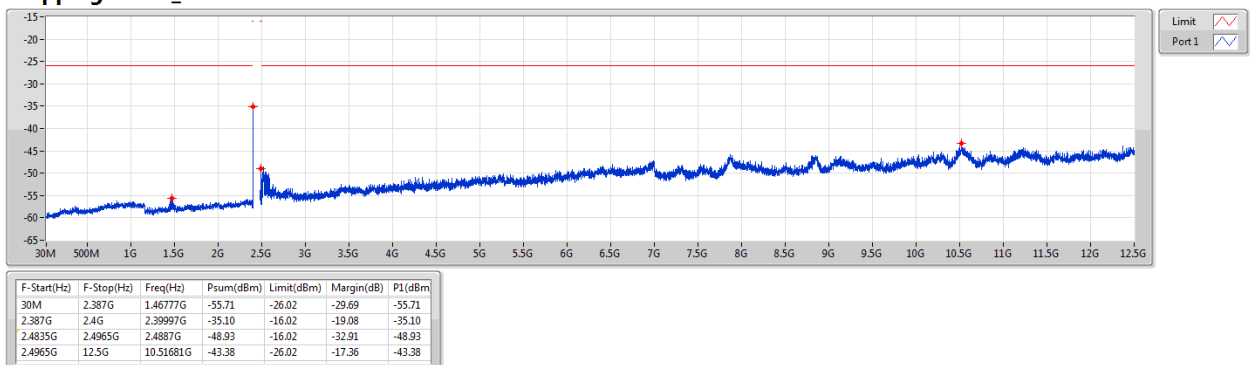
Hopping Mode_TnomVmin



BT-BR(1Mbps)

CSE-TX-FS

Hopping Mode_TnomVmax





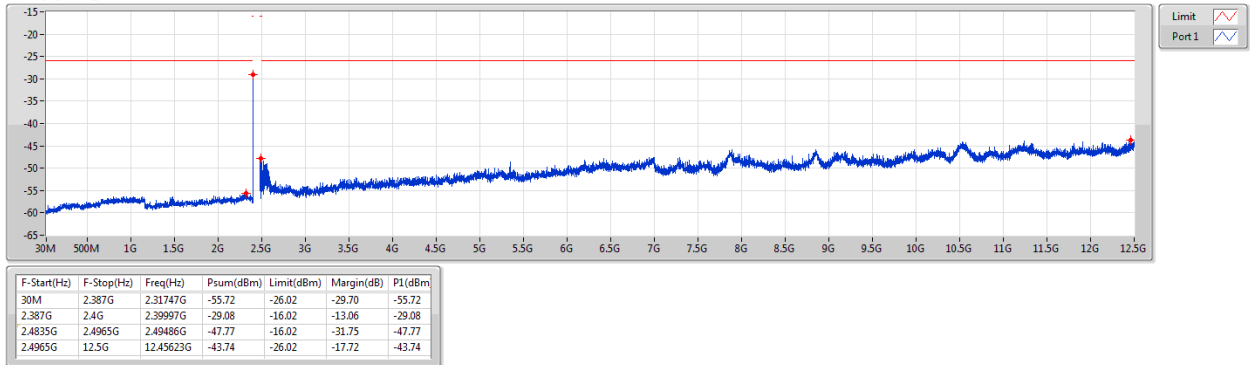
CSE-TX Unwanted Emission Strength-FHSS Result

Appendix E

BT-EDR(3Mbps)

CSE-TX-FS

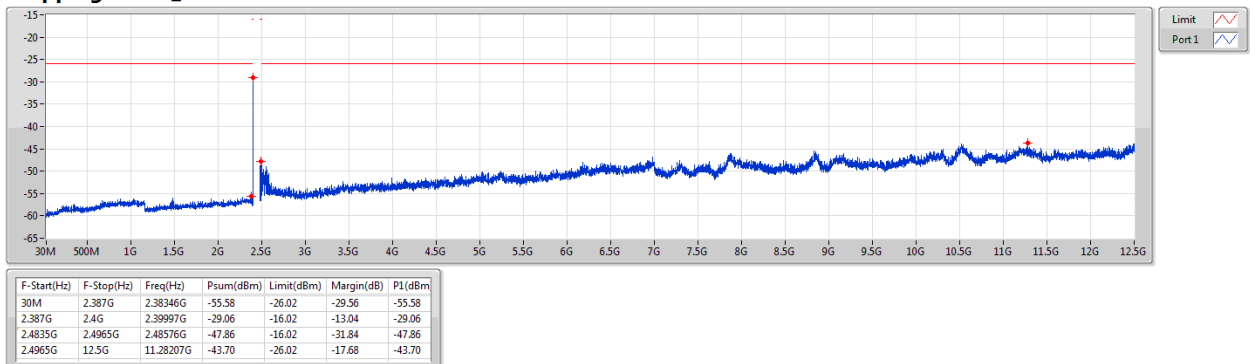
Hopping Mode_TnomVnom



BT-EDR(3Mbps)

CSE-TX-FS

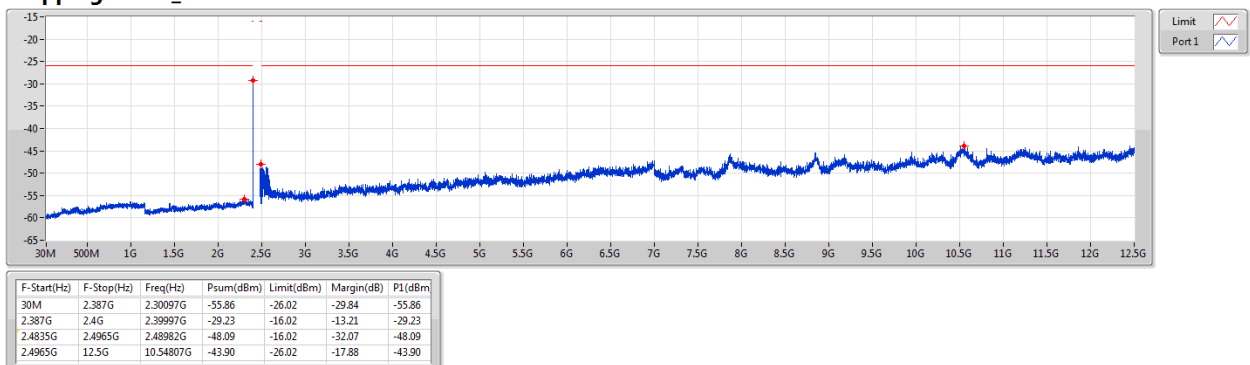
Hopping Mode_TnomVmin



BT-EDR(3Mbps)

CSE-TX-FS

Hopping Mode_TnomVmax





Dwell Time-FHSS Result

Appendix F

Summary

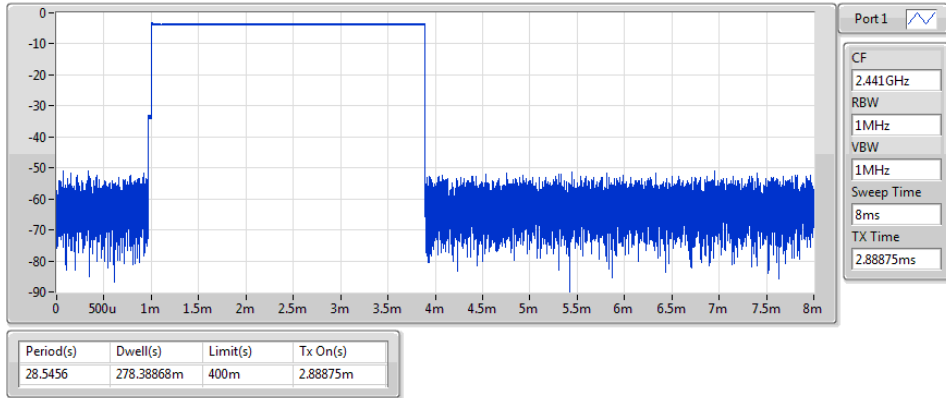
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	278.38868m
BT-EDR(3Mbps)	284.106273m
BT-BR-AFH(1Mbps)	143.115168m
BT-EDR-AFH(3Mbps)	25.91715m

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
Hopping mode_TnomVnom	Pass	28.5456	278.38868m	400m	2.88875m
Hopping mode_TnomVmin	Pass	28.5456	278.364588m	400m	2.8885m
Hopping mode_TnomVmax	Pass	28.5456	278.38868m	400m	2.88875m
BT-EDR(3Mbps)	-	-	-	-	-
Hopping mode_TnomVnom	Pass	28.7856	282.5028m	400m	2.907m
Hopping mode_TnomVmin	Pass	28.7456	283.638699m	400m	2.92275m
Hopping mode_TnomVmax	Pass	28.7856	284.106273m	400m	2.9235m
BT-BR-AFH(1Mbps)	-	-	-	-	-
Hopping mode_TnomVnom	Pass	7.3964	142.572738m	400m	2.89125m
Hopping mode_TnomVmin	Pass	7.3964	143.115168m	400m	2.90225m
Hopping mode_TnomVmax	Pass	7.3964	143.065856m	400m	2.90125m
BT-EDR-AFH(3Mbps)	-	-	-	-	-
Hopping mode_TnomVnom	Pass	7.4764	25.433492m	400m	510.25u
Hopping mode_TnomVmin	Pass	7.4364	25.904755m	400m	522.5u
Hopping mode_TnomVmax	Pass	7.4364	25.91715m	400m	522.75u

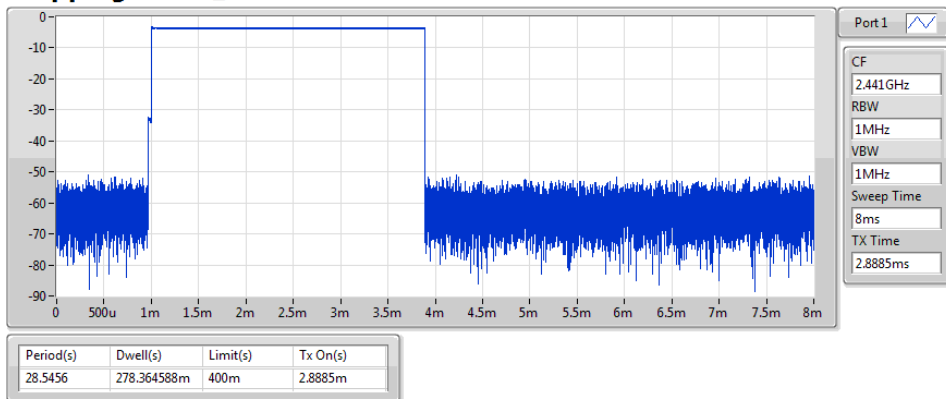
BT-BR(1Mbps)

Hopping Mode_TnomVnom



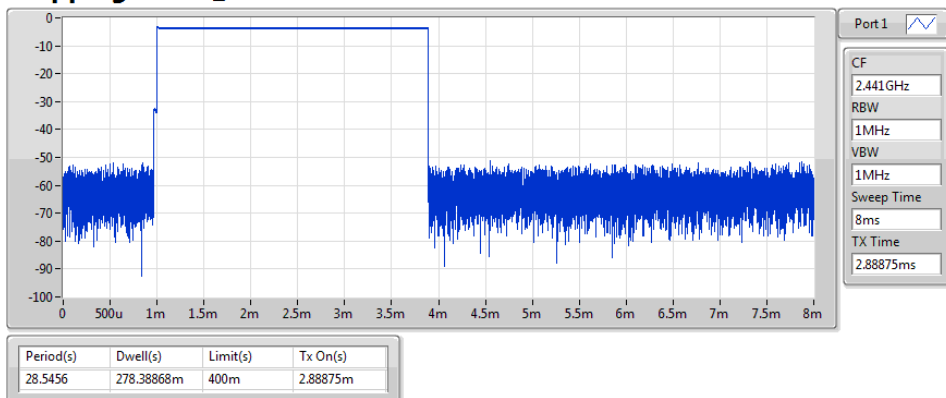
BT-BR(1Mbps)

Hopping Mode_TnomVmin



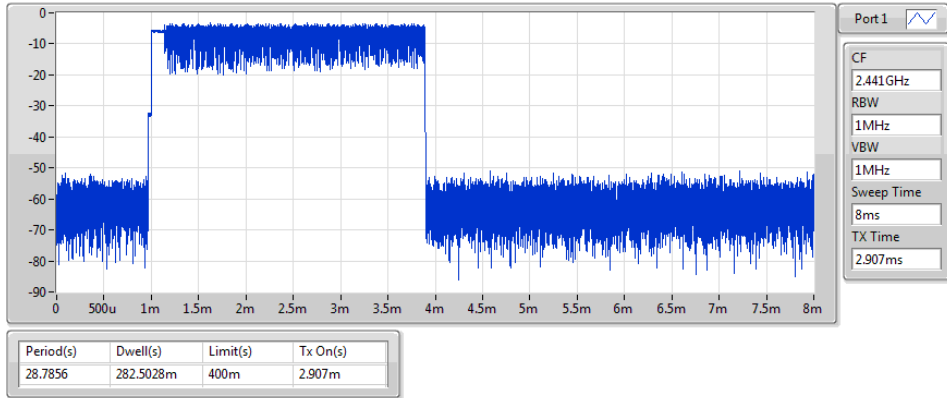
BT-BR(1Mbps)

Hopping Mode_TnomVmax



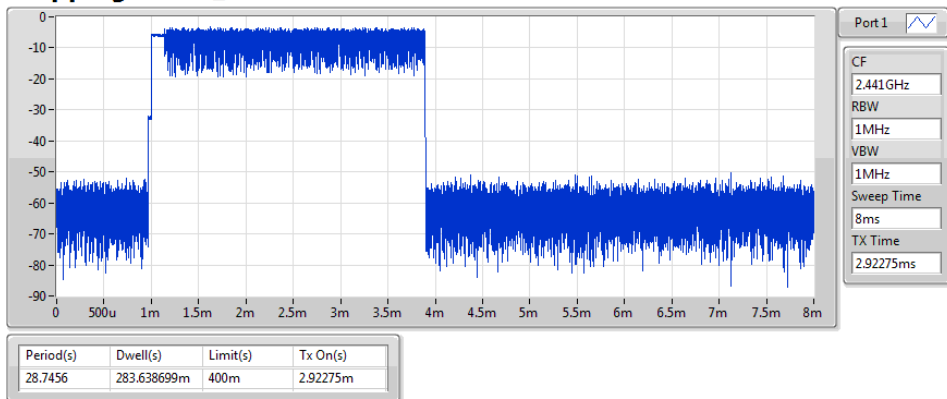
BT-EDR(3Mbps)

Hopping Mode_TnomVnom



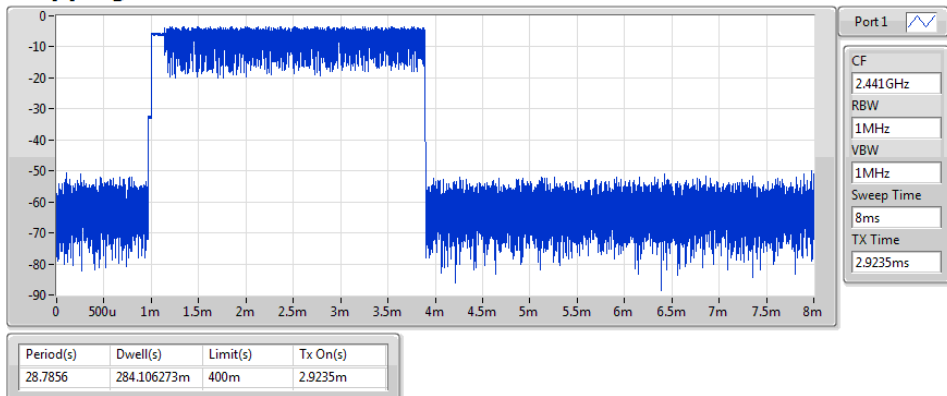
BT-EDR(3Mbps)

Hopping Mode_TnomVmin



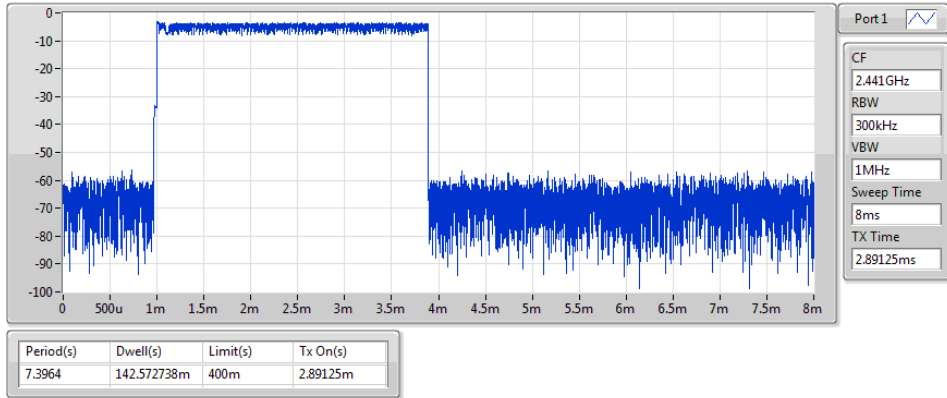
BT-EDR(3Mbps)

Hopping Mode_TnomVmax



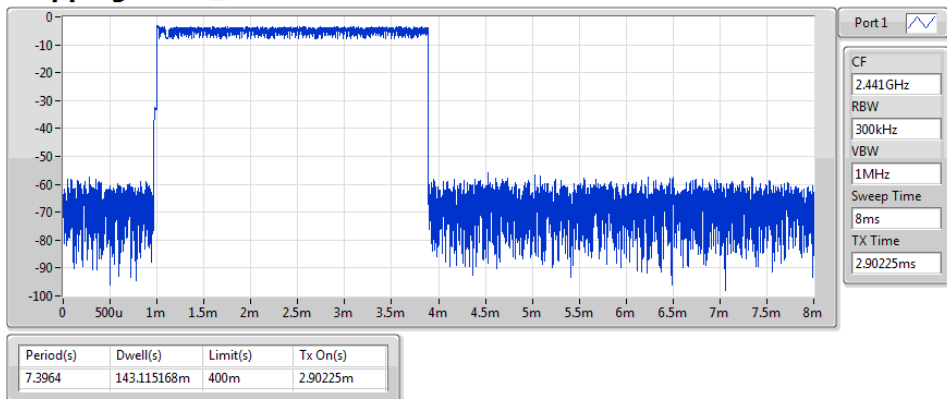
BT-BR-AFH(1Mbps)

Hopping Mode_TnomVnom



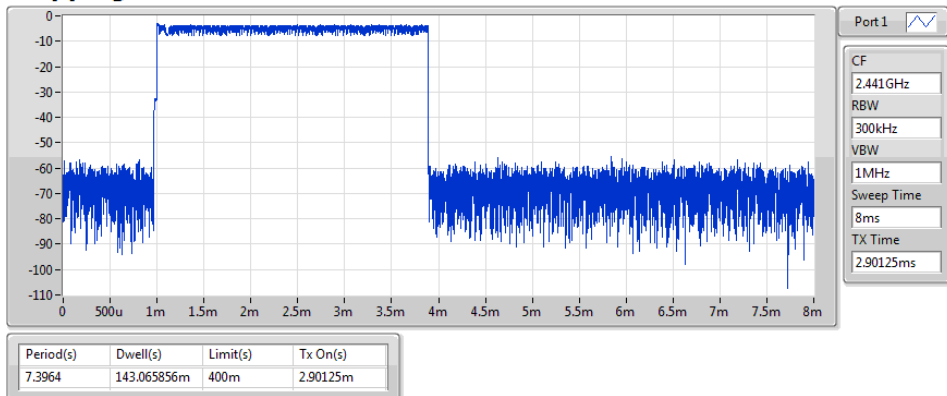
BT-BR-AFH(1Mbps)

Hopping Mode_TnomVmin



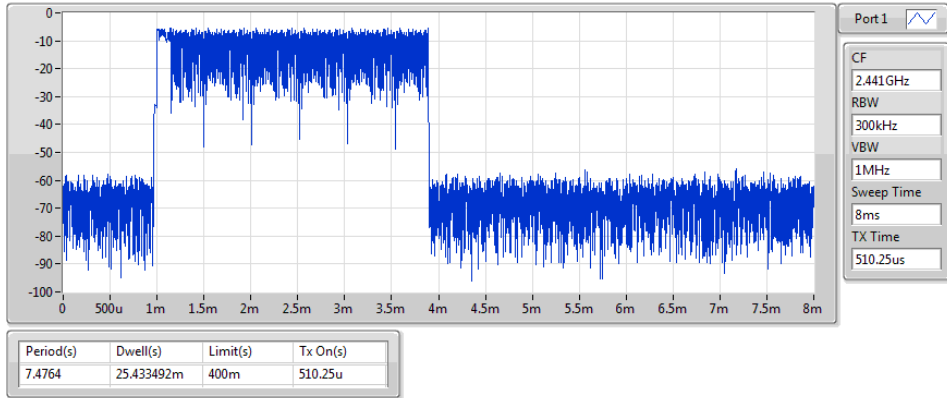
BT-BR-AFH(1Mbps)

Hopping Mode_TnomVmax



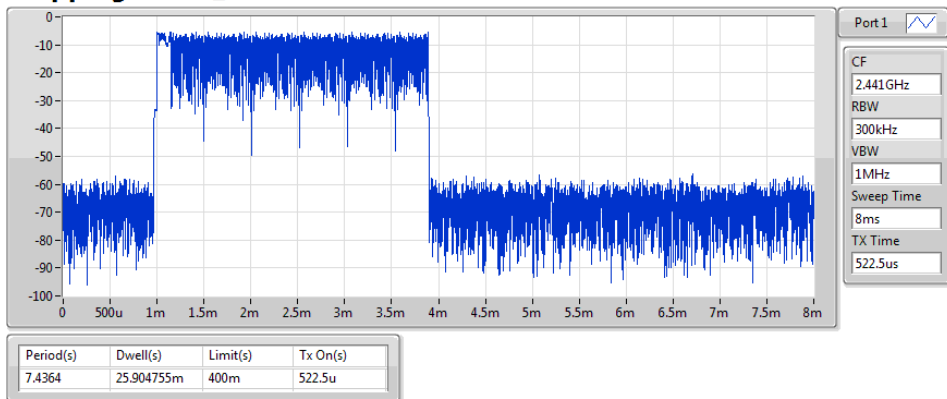
BT-EDR-AFH(3Mbps)

Hopping Mode_TnomVnom



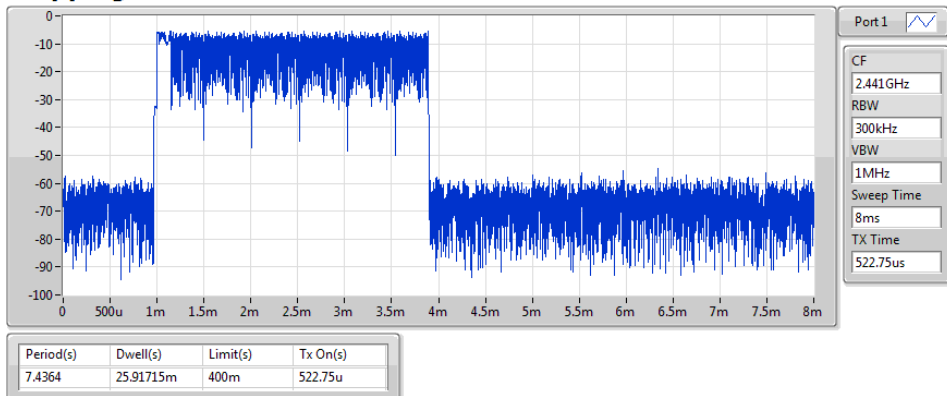
BT-EDR-AFH(3Mbps)

Hopping Mode_TnomVmin



BT-EDR-AFH(3Mbps)

Hopping Mode_TnomVmax





Interference Prevention Function-FHSSResult

Appendix G

Summary

Mode	Result	ID Length	ID Limit	Function
2.4-2.4835GHz	-	-	-	-
BT-BR(1Mbps)	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
BT-EDR(3Mbps)	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
BT-BR-AFH(1Mbps)	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
BT-EDR-AFH(3Mbps)	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good

**Interference Prevention Function-FHSSResult****Appendix G****Result**

Mode	Result	ID Length	ID Limit	Function
BT-BR(1Mbps)	-	-	-	-
2441MHz_TnomVnom	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
2441MHz_TnomVmin	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
2441MHz_TnomVmax	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
BT-EDR(3Mbps)	-	-	-	-
2441MHz_TnomVnom	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
2441MHz_TnomVmin	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
2441MHz_TnomVmax	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
BT-BR-AFH(1Mbps)	-	-	-	-
2441MHz_TnomVnom	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
2441MHz_TnomVmin	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
2441MHz_TnomVmax	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
BT-EDR-AFH(3Mbps)	-	-	-	-
2441MHz_TnomVnom	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
2441MHz_TnomVmin	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good
2441MHz_TnomVmax	Pass	AA:AA:AA:AA:AA:AA	48 bits	Good

**CSE-RX Secondary Radiated Emissions-FHSS Result**

Appendix H

Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Freq (Hz)	Psum (dBm)	Psum (nW/MHz)	Limit (dBm)	Limit (nW/MHz)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	1G	12.5G	1M	10.52344G	-74.27	0.03741	-46.99	20
BT-EDR(3Mbps)	Pass	1G	12.5G	1M	10.52344G	-74.13	0.03864	-46.99	20



CSE-RX Secondary Radiated Emissions-FHSS Result

Appendix H

Result

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Freq (Hz)	Psum (dBm)	Psum (nW/MHz)	Limit (dBm)	Limit (nW/MHz)
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	30M	1G	100k	952.96M	-92.34	0.00058	-53.98	4
2402MHz_TnomVnom	Pass	1G	12.5G	1M	10.52488G	-75.09	0.03097	-46.99	20
2402MHz_TnomVmin	Pass	30M	1G	100k	938.89M	-93.11	0.00049	-53.98	4
2402MHz_TnomVmin	Pass	1G	12.5G	1M	10.52488G	-74.99	0.0317	-46.99	20
2402MHz_TnomVmax	Pass	30M	1G	100k	952.96M	-94.05	0.00039	-53.98	4
2402MHz_TnomVmax	Pass	1G	12.5G	1M	10.52488G	-75.65	0.02723	-46.99	20
2441MHz_TnomVnom	Pass	30M	1G	100k	952.96M	-90.68	0.00086	-53.98	4
2441MHz_TnomVnom	Pass	1G	12.5G	1M	10.522G	-76.32	0.02333	-46.99	20
2441MHz_TnomVmin	Pass	30M	1G	100k	952.96M	-91.33	0.00074	-53.98	4
2441MHz_TnomVmin	Pass	1G	12.5G	1M	10.52631G	-76.02	0.025	-46.99	20
2441MHz_TnomVmax	Pass	30M	1G	100k	952.96M	-89.03	0.00125	-53.98	4
2441MHz_TnomVmax	Pass	1G	12.5G	1M	10.52488G	-74.42	0.03614	-46.99	20
2480MHz_TnomVnom	Pass	30M	1G	100k	952.96M	-91.77	0.00067	-53.98	4
2480MHz_TnomVnom	Pass	1G	12.5G	1M	10.52488G	-74.72	0.03373	-46.99	20
2480MHz_TnomVmin	Pass	30M	1G	100k	99.84M	-92.10	0.00062	-53.98	4
2480MHz_TnomVmin	Pass	1G	12.5G	1M	10.52344G	-74.27	0.03741	-46.99	20
2480MHz_TnomVmax	Pass	30M	1G	100k	952.96M	-90.07	0.00098	-53.98	4
2480MHz_TnomVmax	Pass	1G	12.5G	1M	10.52488G	-74.35	0.03673	-46.99	20
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	30M	1G	100k	952.96M	-92.50	0.00056	-53.98	4
2402MHz_TnomVnom	Pass	1G	12.5G	1M	10.49756G	-76.41	0.02286	-46.99	20
2402MHz_TnomVmin	Pass	30M	1G	100k	952.96M	-92.43	0.00057	-53.98	4
2402MHz_TnomVmin	Pass	1G	12.5G	1M	12.49713G	-76.46	0.02259	-46.99	20
2402MHz_TnomVmax	Pass	30M	1G	100k	952.96M	-92.23	0.0006	-53.98	4
2402MHz_TnomVmax	Pass	1G	12.5G	1M	10.52631G	-76.08	0.02466	-46.99	20
2441MHz_TnomVnom	Pass	30M	1G	100k	952.96M	-90.84	0.00082	-53.98	4
2441MHz_TnomVnom	Pass	1G	12.5G	1M	10.52344G	-74.13	0.03864	-46.99	20
2441MHz_TnomVmin	Pass	30M	1G	100k	952.96M	-90.44	0.0009	-53.98	4
2441MHz_TnomVmin	Pass	1G	12.5G	1M	12.48563G	-76.59	0.02193	-46.99	20
2441MHz_TnomVmax	Pass	30M	1G	100k	952.96M	-91.26	0.00075	-53.98	4
2441MHz_TnomVmax	Pass	1G	12.5G	1M	10.52775G	-76.25	0.02371	-46.99	20
2480MHz_TnomVnom	Pass	30M	1G	100k	952.96M	-90.86	0.00082	-53.98	4
2480MHz_TnomVnom	Pass	1G	12.5G	1M	10.50619G	-76.40	0.02291	-46.99	20

**CSE-RX Secondary Radiated Emissions-FHSS Result**

Appendix H

Mode	Result	F-Start (Hz)	F-Stop (Hz)	RBW (Hz)	Freq (Hz)	Psum (dBm)	Psum (nW/MHz)	Limit (dBm)	Limit (nW/MHz)
2480MHz_TnomVmin	Pass	30M	1G	100k	952.96M	-91.81	0.00066	-53.98	4
2480MHz_TnomVmin	Pass	1G	12.5G	1M	10.53206G	-76.28	0.02355	-46.99	20
2480MHz_TnomVmax	Pass	30M	1G	100k	952.96M	-91.17	0.00076	-53.98	4
2480MHz_TnomVmax	Pass	1G	12.5G	1M	10.52488G	-75.61	0.02748	-46.99	20



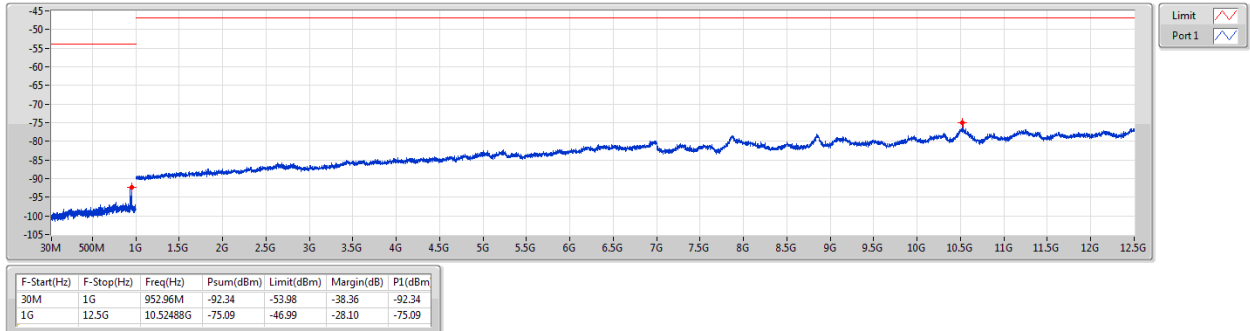
CSE-RX Secondary Radiated Emissions-FHSS Result

Appendix H

BT-BR(1Mbps)

CSE-RX-FS

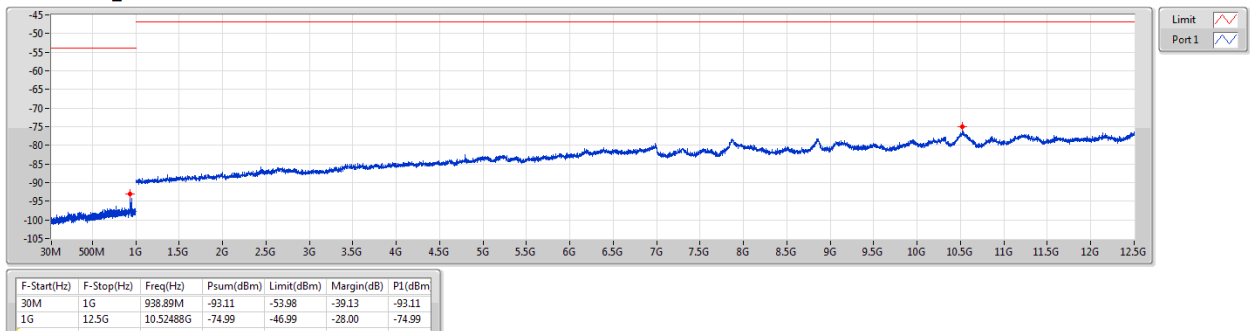
2402MHz_TnomVnom



BT-BR(1Mbps)

CSE-RX-FS

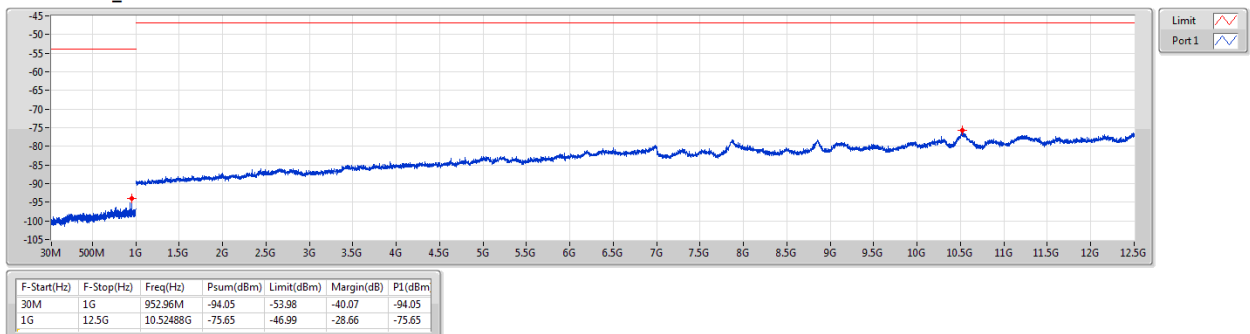
2402MHz_TnomVmin



BT-BR(1Mbps)

CSE-RX-FS

2402MHz_TnomVmax





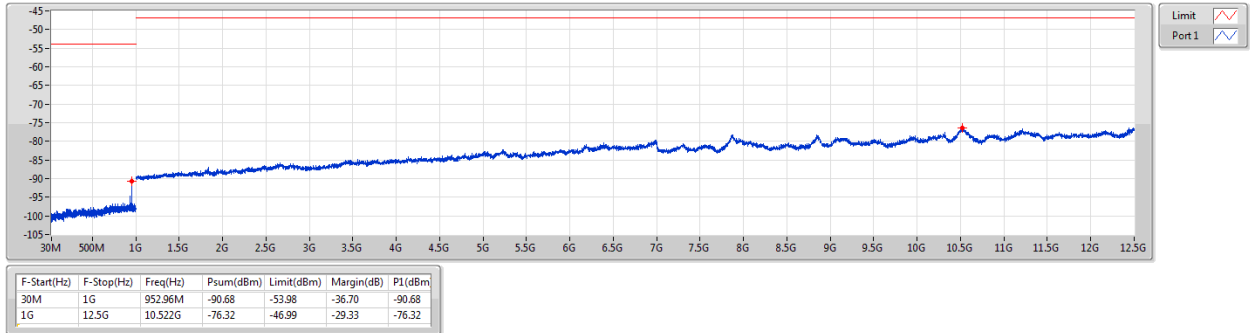
CSE-RX Secondary Radiated Emissions-FHSS Result

Appendix H

BT-BR(1Mbps)

CSE-RX-FS

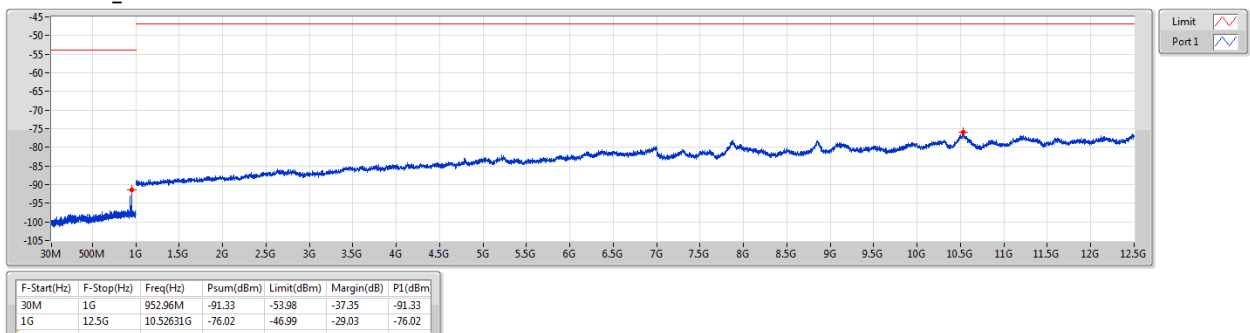
2441MHz_TnomVnom



BT-BR(1Mbps)

CSE-RX-FS

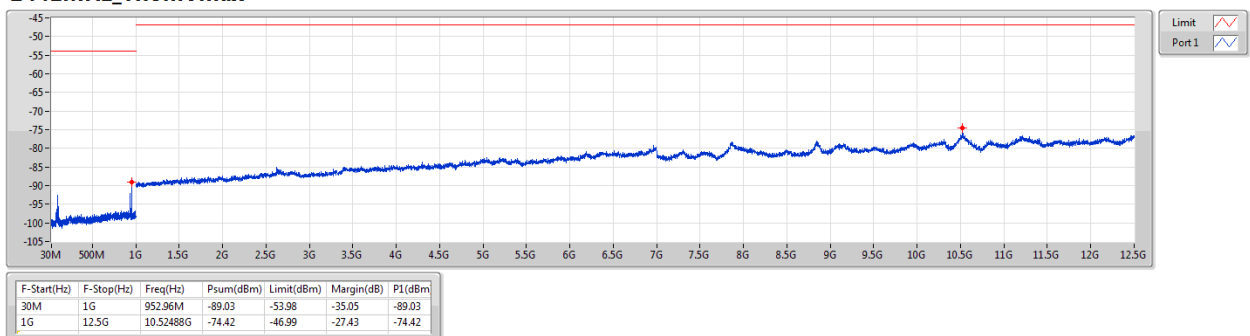
2441MHz_TnomVmin



BT-BR(1Mbps)

CSE-RX-FS

2441MHz_TnomVmax





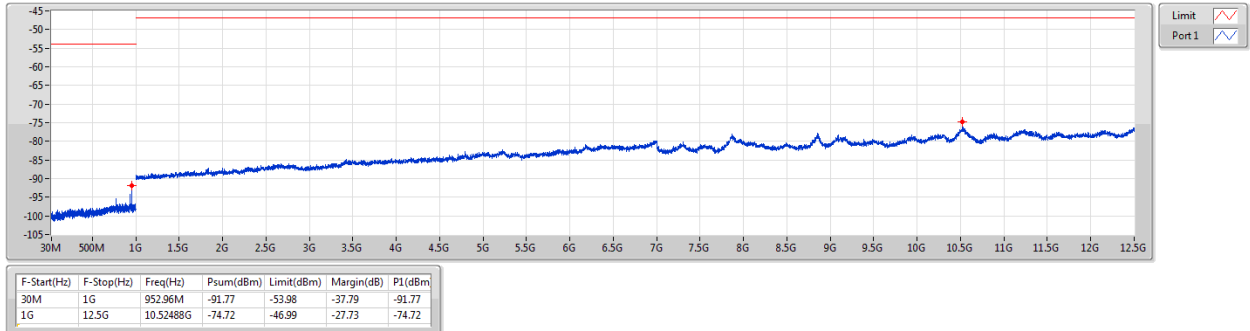
CSE-RX Secondary Radiated Emissions-FHSS Result

Appendix H

BT-BR(1Mbps)

CSE-RX-FS

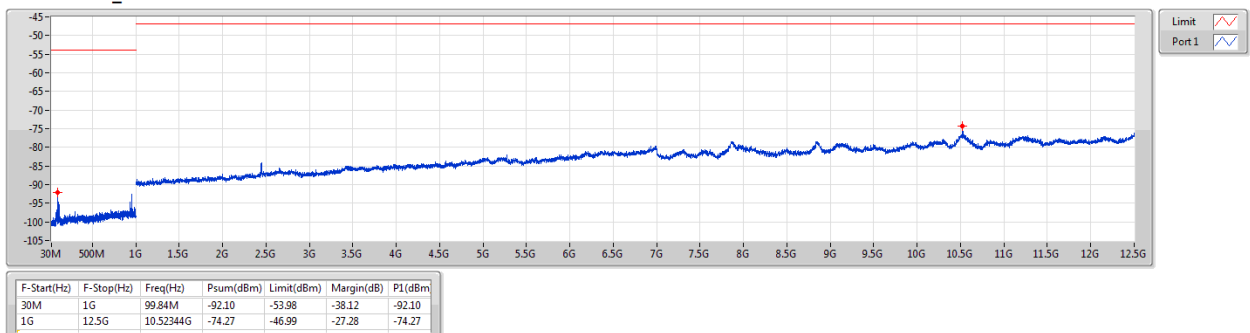
2480MHz_TnomVnom



BT-BR(1Mbps)

CSE-RX-FS

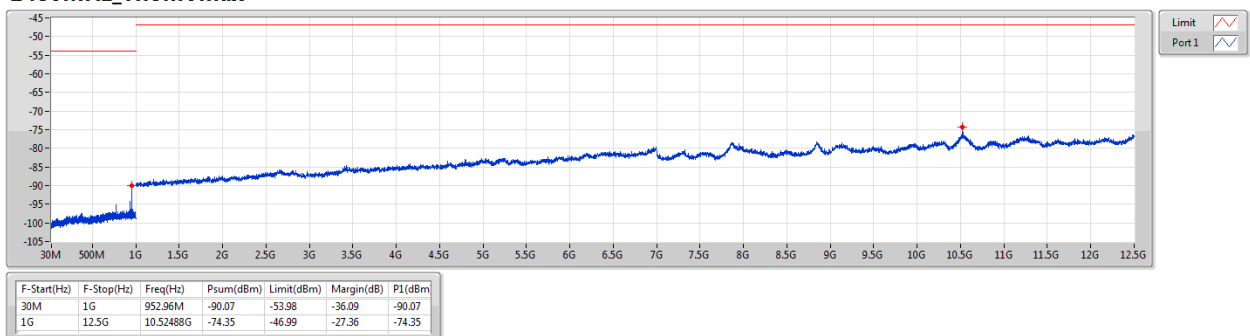
2480MHz_TnomVmin



BT-BR(1Mbps)

CSE-RX-FS

2480MHz_TnomVmax





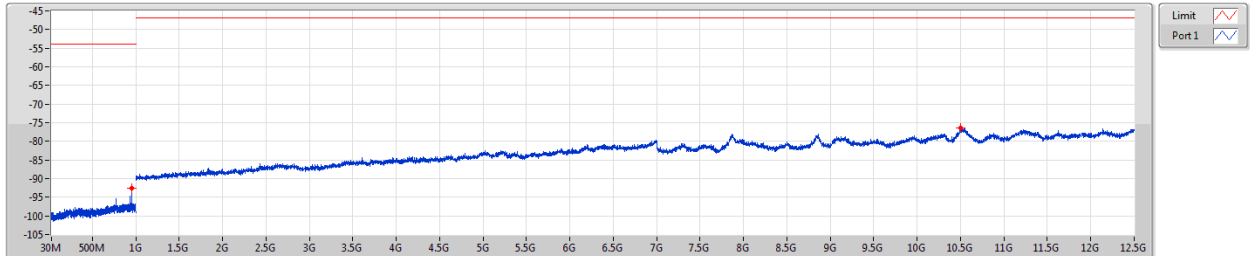
CSE-RX Secondary Radiated Emissions-FHSS Result

Appendix H

BT-EDR(3Mbps)

CSE-RX-FS

2402MHz_TnomVnom

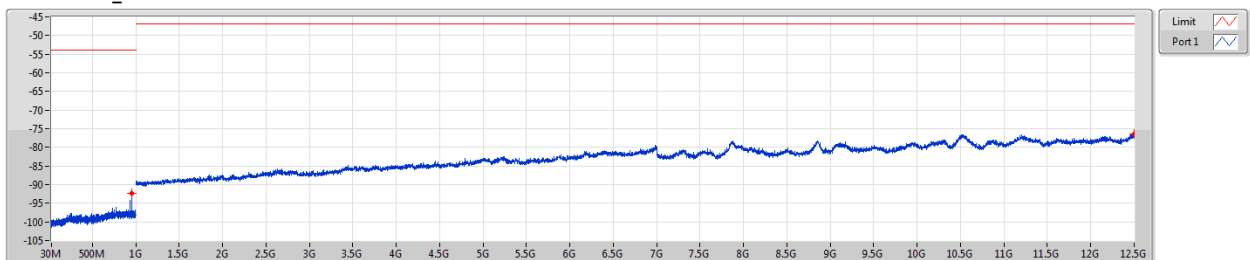


F-Start(Hz)	F-Stop(Hz)	Freq(Hz)	Psum(dBm)	Limit(dBm)	Margin(dB)	P1(dBm)
30M	1G	952.96M	-92.50	-53.98	-38.52	-92.50
1G	12.5G	10.49756G	-76.41	-46.99	-29.42	-76.41

BT-EDR(3Mbps)

CSE-RX-FS

2402MHz_TnomVmin

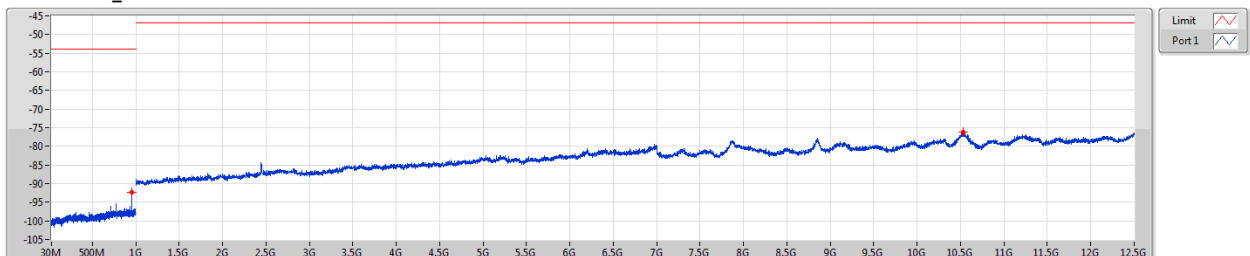


F-Start(Hz)	F-Stop(Hz)	Freq(Hz)	Psum(dBm)	Limit(dBm)	Margin(dB)	P1(dBm)
30M	1G	952.96M	-92.43	-53.98	-38.45	-92.43
1G	12.5G	12.49713G	-76.46	-46.99	-29.47	-76.46

BT-EDR(3Mbps)

CSE-RX-FS

2402MHz_TnomVmax



F-Start(Hz)	F-Stop(Hz)	Freq(Hz)	Psum(dBm)	Limit(dBm)	Margin(dB)	P1(dBm)
30M	1G	952.96M	-92.23	-53.98	-38.25	-92.23
1G	12.5G	10.52631G	-76.08	-46.99	-29.09	-76.08



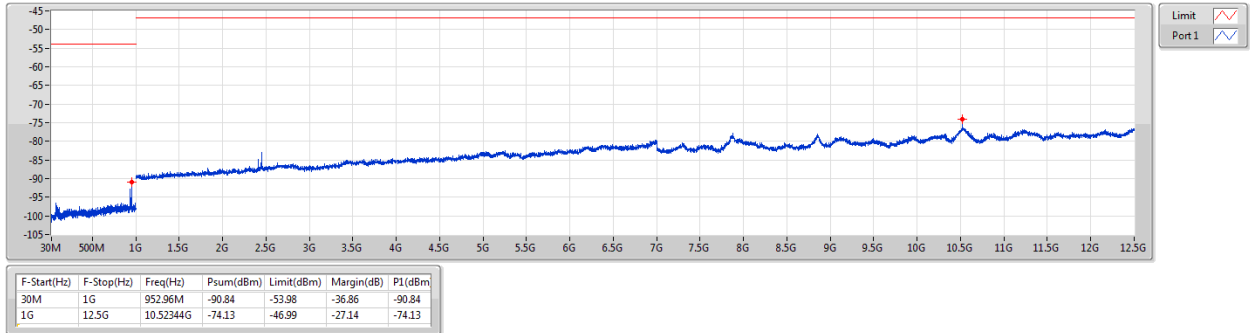
CSE-RX Secondary Radiated Emissions-FHSS Result

Appendix H

BT-EDR(3Mbps)

CSE-RX-FS

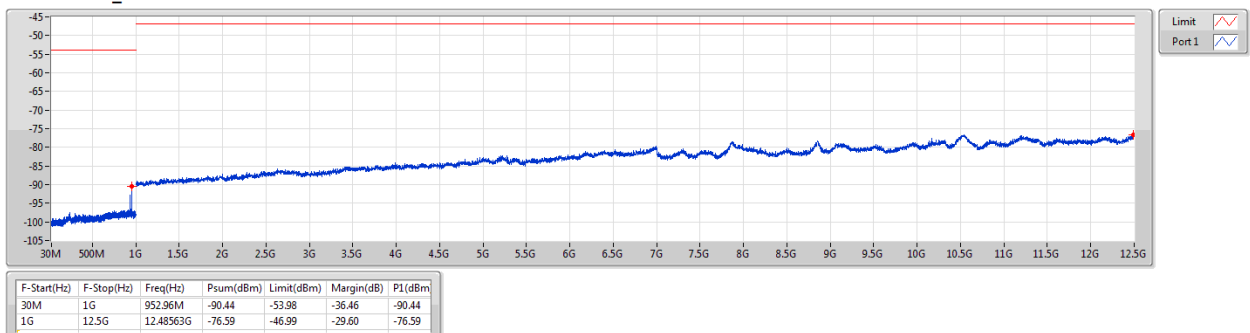
2441MHz_TnomVnom



BT-EDR(3Mbps)

CSE-RX-FS

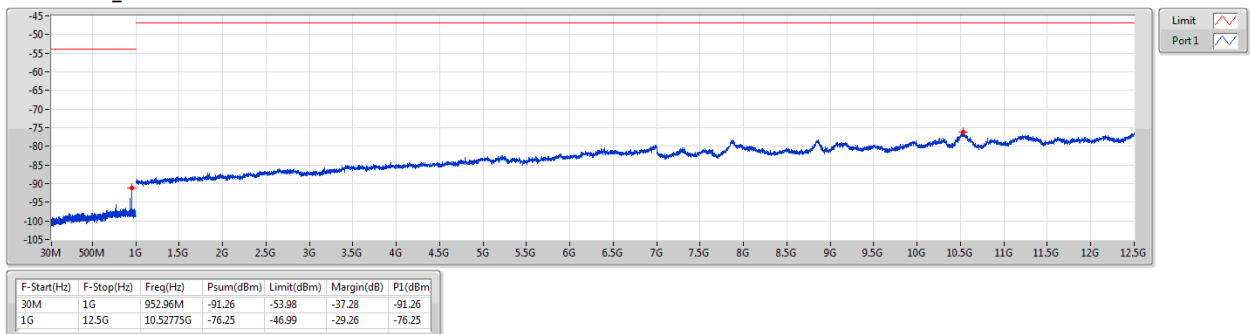
2441MHz_TnomVmin



BT-EDR(3Mbps)

CSE-RX-FS

2441MHz_TnomVmax





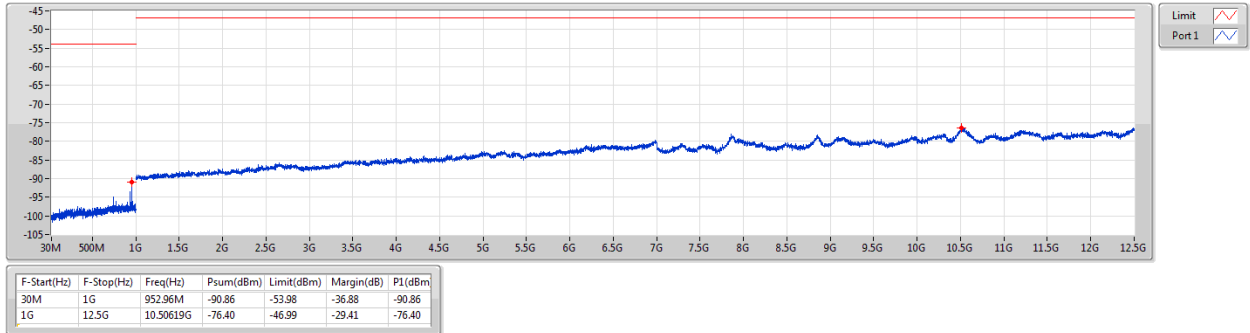
CSE-RX Secondary Radiated Emissions-FHSS Result

Appendix H

BT-EDR(3Mbps)

CSE-RX-FS

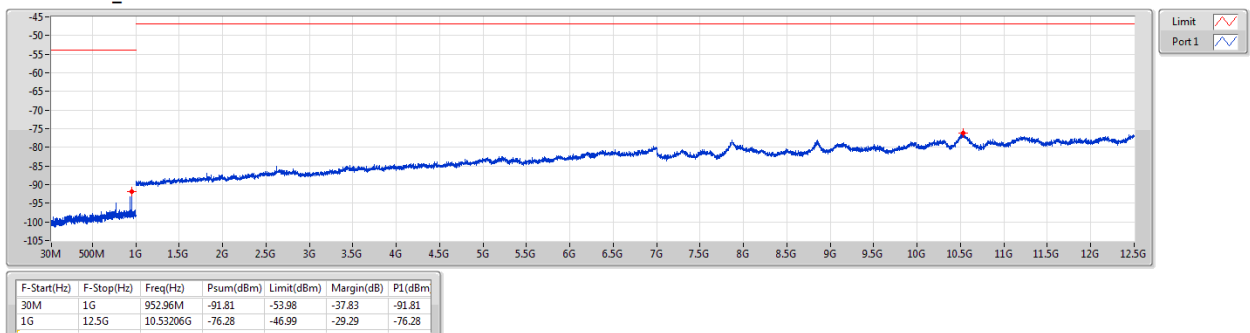
2480MHz_TnomVnom



BT-EDR(3Mbps)

CSE-RX-FS

2480MHz_TnomVmin



BT-EDR(3Mbps)

CSE-RX-FS

2480MHz_TnomVmax

