

FCC RADIO TEST REPORT

FCC ID : TLZ-CB250NF
Equipment : IEEE 802.11 2x2 MU-MIMO a/b/g/n/ac Wireless LAN
+ Bluetooth 5.0 M.2 2230 Module
Brand Name : AzureWave
Model Name : AW-CB250NF
Applicant : AzureWave Technologies, Inc.
8F., No.94, Baozhong Rd., Xindian Dist., New Taipei
City 23144, Taiwan
Manufacturer : AzureWave Technologies, Inc.
8F., No.94, Baozhong Rd., Xindian Dist., New Taipei
City 23144, Taiwan
Standard : 47 CFR FCC Part 15.247

The product was received on Dec. 26, 2018, and testing was started from Jul. 15, 2019 and completed on Oct. 12, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.


Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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Appendix I. Test Photos

Photographs of EUT v01



TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A10_5 Ver1.0



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	20dB Bandwidth	PASS	-
3.2	15.247(a)	Carrier Frequency Separation	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(a)	Number of Hopping Frequencies and Hopping Band edge	PASS	-
3.5	15.247(a)	Time of Occupancy (Dwell Time)	PASS	-
3.6	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.7	15.247(d)	Emissions in Restricted Frequency Bands	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.

Reviewed by: Sam Chen

Report Producer: Wendy Pan

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Version	Ch. Frequency (MHz)	Channel Number
2400-2483.5	BR / EDR	2402-2480	0-78 [79]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-BR(1Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(2Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(3Mbps)	1	1TX

Note:

- Bluetooth BR uses a GFSK (1Mbps).
- Bluetooth EDR uses a combination of $\pi/4$ -DQPSK (2Mbps) and 8DPSK (3Mbps).
- Bluetooth BR/EDR uses as a system using FHSS modulation.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2, 3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

1.1.2 Antenna Information

Ant.	Port			Brand	Part No.	Antenna Type	Connector	Gain (dBi)		
	2.4GHz	5GHz	BT					2.4GHz	5GHz	BT
1	1, 2	1, 2	1	MAG.LAYERS	MSA-4008-25GC1-A2	PIFA Antenna	I-PEX	2.98	5.16	2.98
2	1, 2	1, 2	1	Cortec	AN2450-5511BRS-SMASFR8-3100 B-4AX00I	Dipole Antenna	I-PEX	2.14	3.61	2.14

Note: The above information was declared by manufacturer.

For 2.4GHz WLAN function:

For IEEE 802.11b/g/n mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz WLAN function:

For IEEE 802.11a/n/ac mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For Bluetooth function: (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

**1.1.3 Mode Test Duty Cycle**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
BT-BR(1Mbps)	0.457	3.4	2.891m	1k
BT-EDR(2Mbps)	0.459	3.38	2.889m	1k
BT-EDR(3Mbps)	0.433	3.64	2.889m	1k

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From host system
Test Software Version	Dut labtool 1.0.0.164



1.2 Applicable Standards

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

- ♦ 47 CFR FCC Part 15
- ♦ FCC KDB 558074 D01 v05r02
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location		
☐	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973
☒	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Gino Huang	26.3~27.3°C / 59~63%	Oct. 11, 2019 ~ Oct. 12, 2019
Radiated<1GHz and Radiated Emission Co-location	03CH03-CB	Stim Sung	22~24°C / 50~60%	Jul. 15, 2019 ~ Jul. 16, 2019
Radiated>1GHz	03CH04-CB	Paul Chen	23.2~23.5°C / 48~54%	Oct. 08, 2019 ~ Oct. 10, 2019
AC Conduction	CO01-CB	Wei Li	24.5~24.9°C / 57~60%	Jul. 18, 2019

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.

1.4 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))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	2.4 dB	Confidence levels of 95%
Output Power Measurement	1.5 dB	Confidence levels of 95%
Bandwidth Measurement	2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For Ant.1 and Ant.2:

Mode	PowerSetting
BT-BR(1Mbps)	-
2402MHz	Default Power
2440MHz	Default Power
2480MHz	Default Power
BT-EDR(2Mbps)	-
2402MHz	Default Power
2440MHz	Default Power
2480MHz	Default Power
BT-EDR(3Mbps)	-
2402MHz	Default Power
2440MHz	Default Power
2480MHz	Default Power

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	EUT + Ant.1 (WLAN 2.4GHz+Bluetooth)
2	EUT + Ant.1 (WLAN 5GHz+Bluetooth)
3	EUT + Ant.2 (WLAN 2.4GHz+Bluetooth)
4	EUT + Ant.2 (WLAN 5GHz+Bluetooth)
For operating mode 3 was the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains
Test Mode	1 EUT + Ant.1
	2 EUT + Ant.2

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT in Z axis + Ant.1 (WLAN 2.4GHz+Bluetooth)
2	EUT in Z axis + Ant.1 (WLAN 5GHz+Bluetooth)
3	EUT in Z axis + Ant.2 (WLAN 2.4GHz+Bluetooth)
4	EUT in Z axis + Ant.2 (WLAN 5GHz+Bluetooth)
For operating mode 4 was the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position test, and the worst case was found at X axis So the measurement will follow this same test configuration.	



1	EUT in X axis + Ant.1
2	EUT in X axis + Ant.2

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
For operating mode 2 was the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Sporton Test Report No.: FA8D2029 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

N/A



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E6430	N/A
B	Mouse	Logitech	M-U0026	N/A
C	AP Router	ASUS	RP-N53	MSQ-RPN53
D	Bluetooth Speaker	MARUS	MSK06C-RD	N/A
E	Earphone	SHYARO CHI	MIC-04	N/A
F	Fixture	AzureWave	AW-CB162NF	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Bluetooth speaker	MARUS	MSK06C-RD	N/A
C	WLAN AP	Netgear	R7500	PY314300288
D	Earphone	e-Power	S90W	N/A
E	Mouse	Logitech	M-U0026	N/A
F	Fixture	AzureWave	AW-CB162NF	N/A

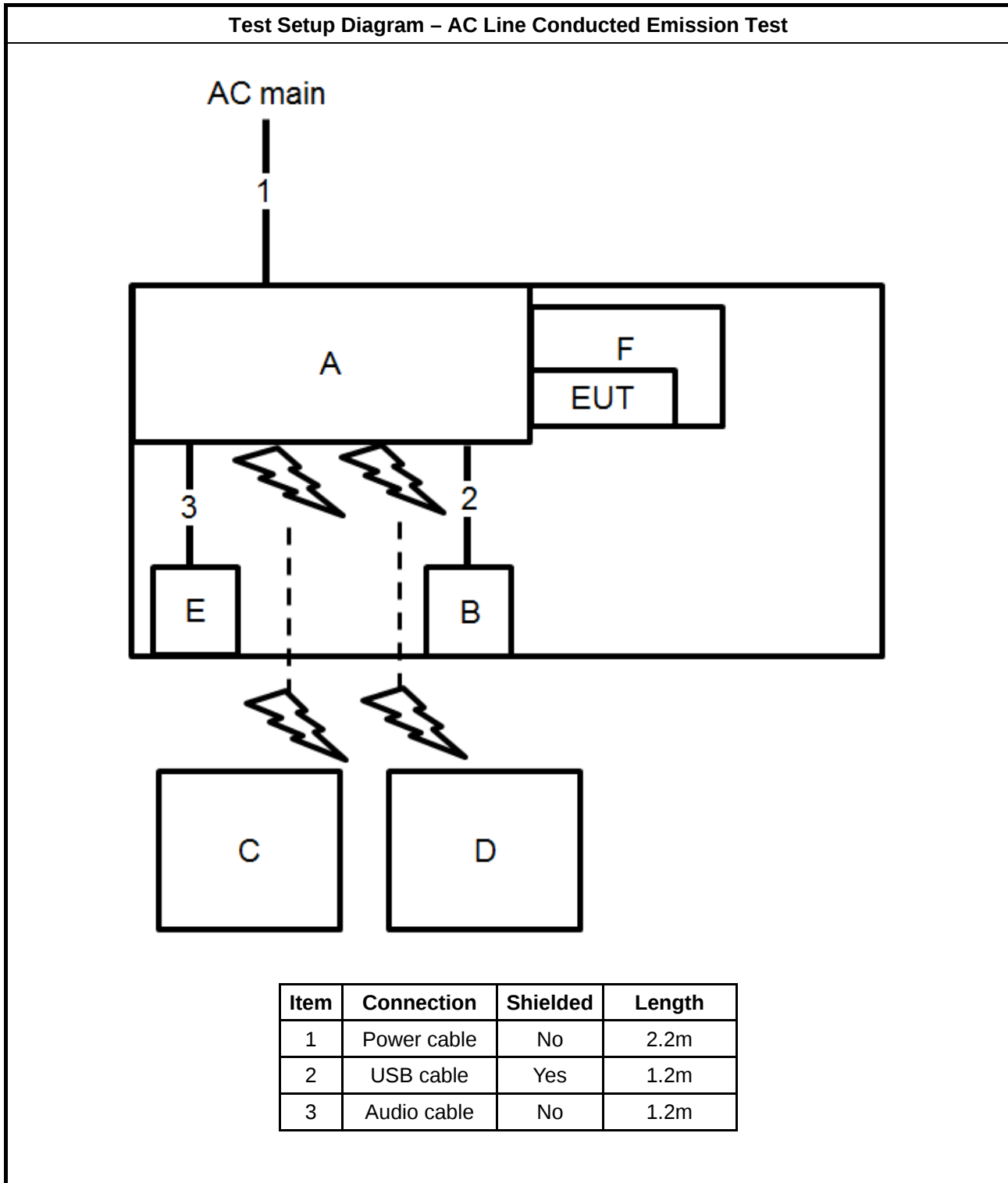
For Radiated (above 1GHz):

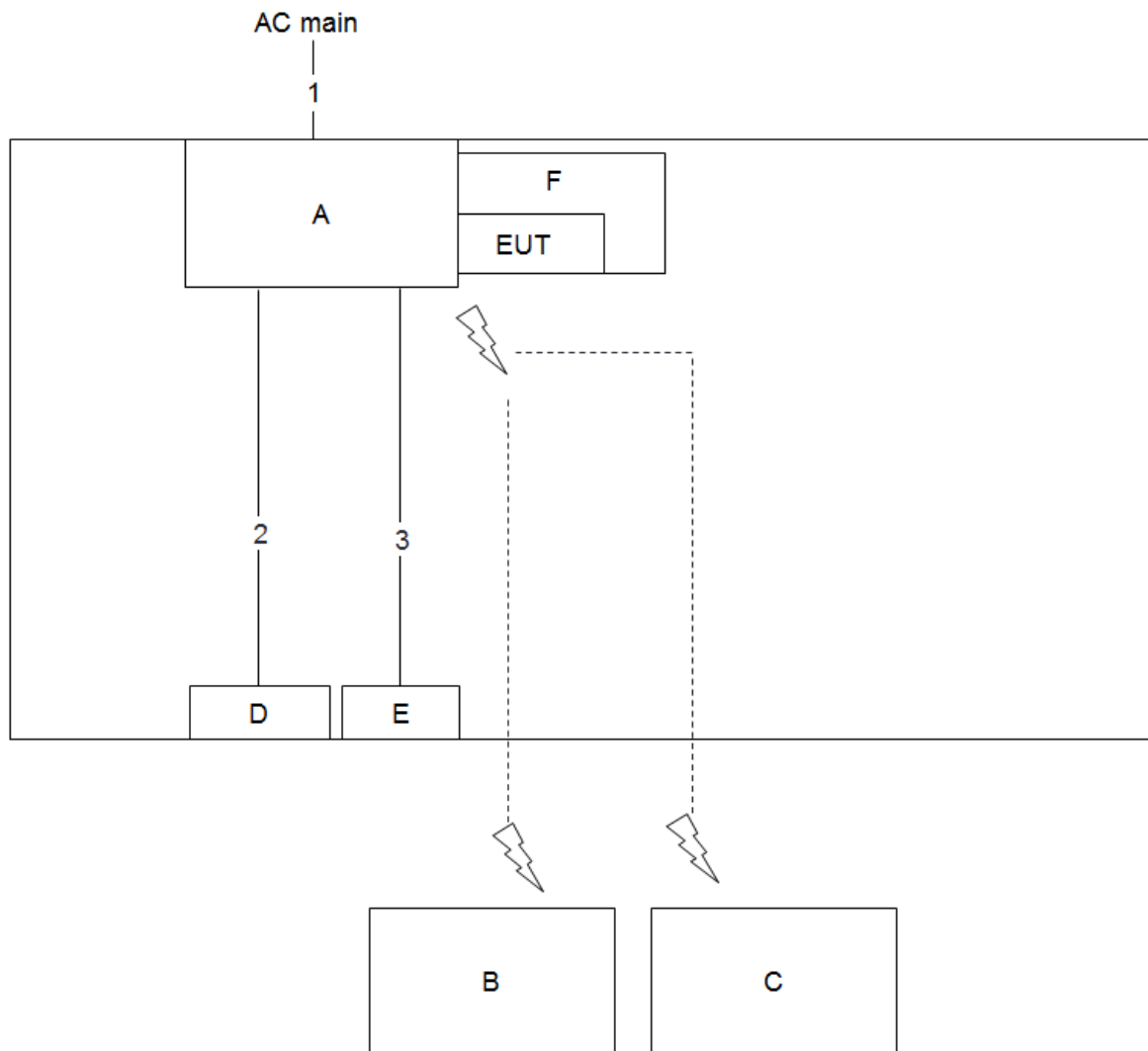
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	Fixture	AzureWave	AW-CB162NF	N/A
D	Bluetooth Test Set	Anritsu	MT8852B	N/A

For RF Conducted:

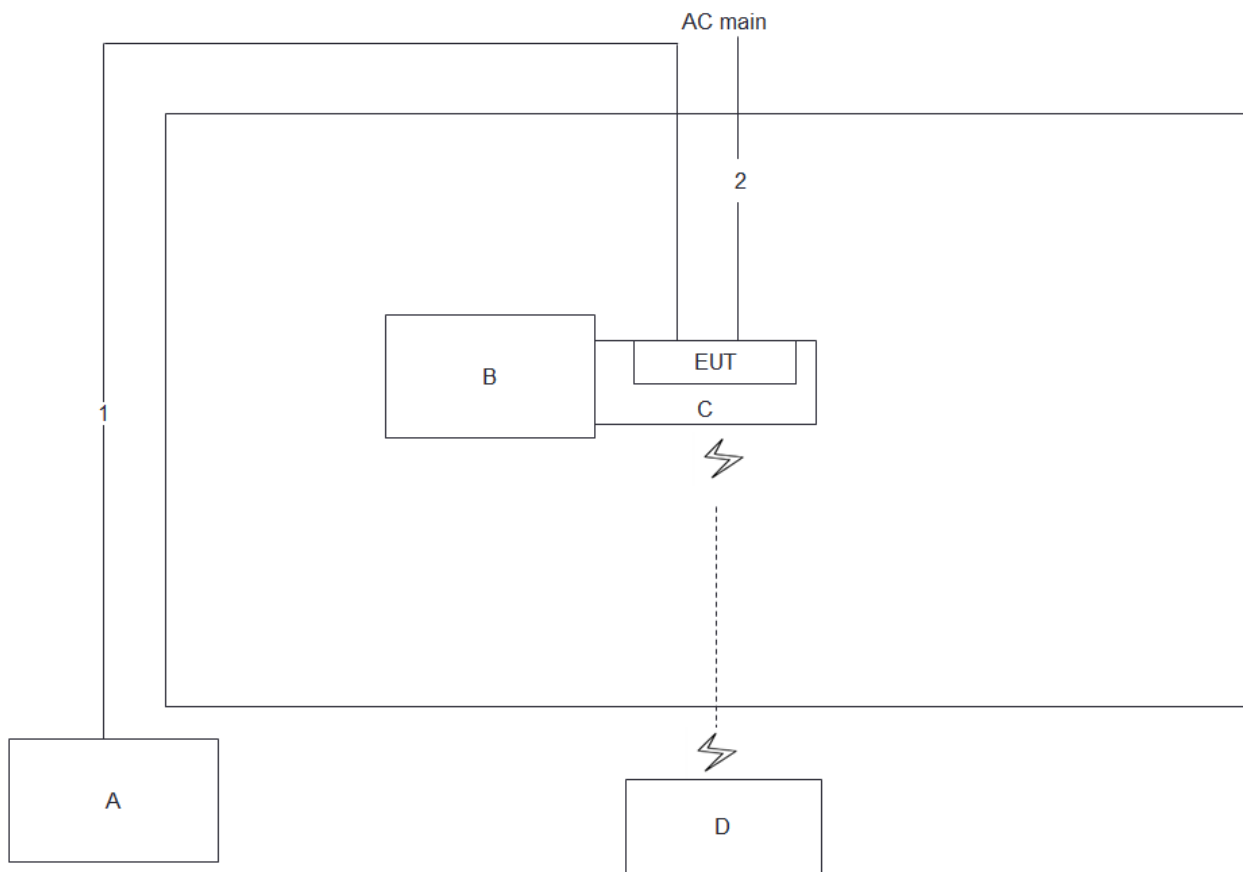
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Fixture	AzureWave	AW-CB162NF	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	Audio cable	No	1.4m
3	USB cable	Yes	1.8m

Test Setup Diagram - Radiated Test > 1GHz


Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	1.5m



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

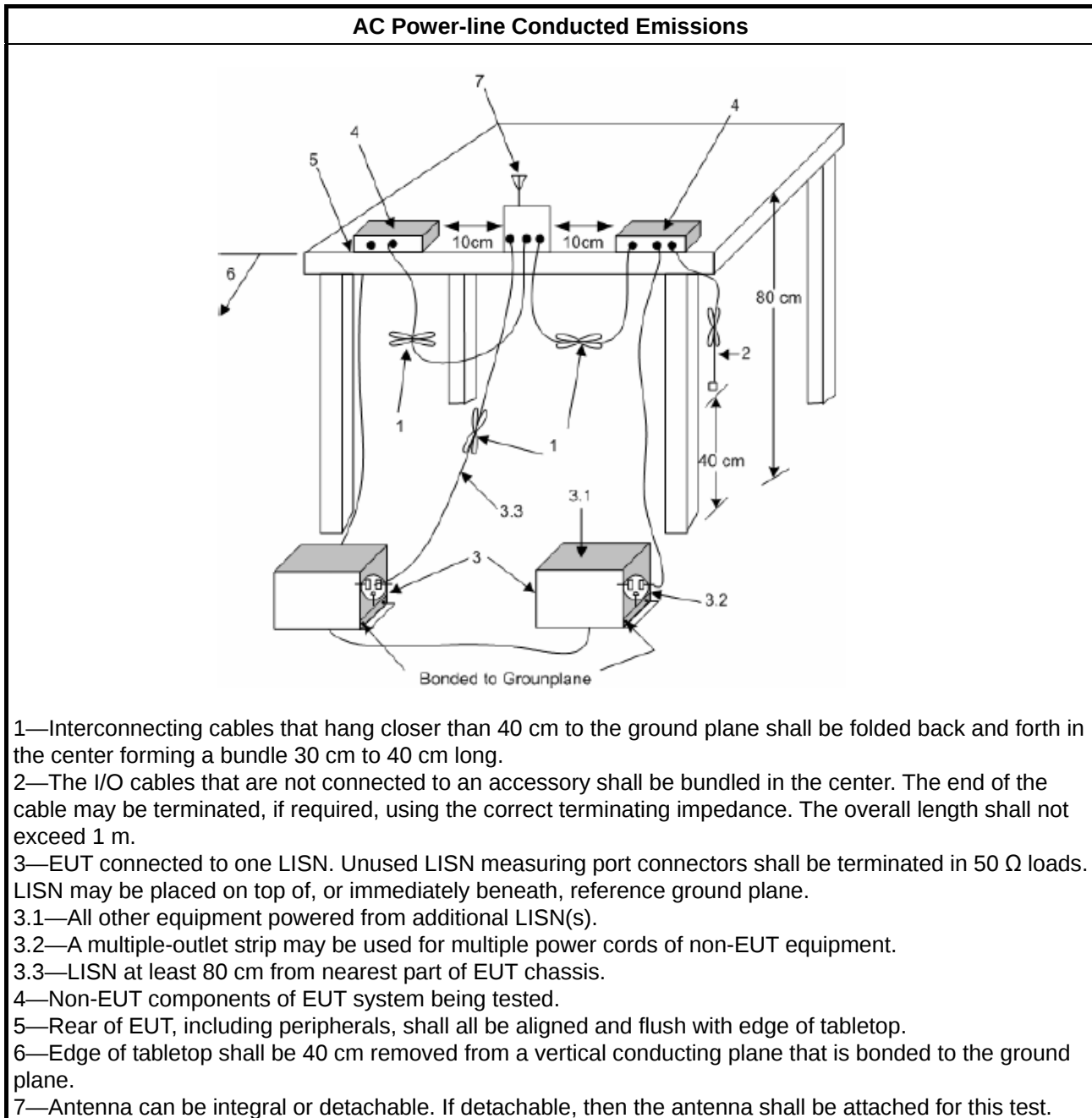
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 20dB Bandwidth and Carrier Frequency Separation

3.2.1 20dB Bandwidth and Carrier Frequency Separation Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems	
▪ 902-928 MHz Band:	
	▪ $N \geq 50$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.
	▪ $50 > N \geq 25$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ and $ChS \geq \text{MAX}$ (20 dB bandwidth 2/3, 25 kHz).
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 1 MHz.
N: Number of Hopping Frequencies; ChS: Hopping Channel Separation	

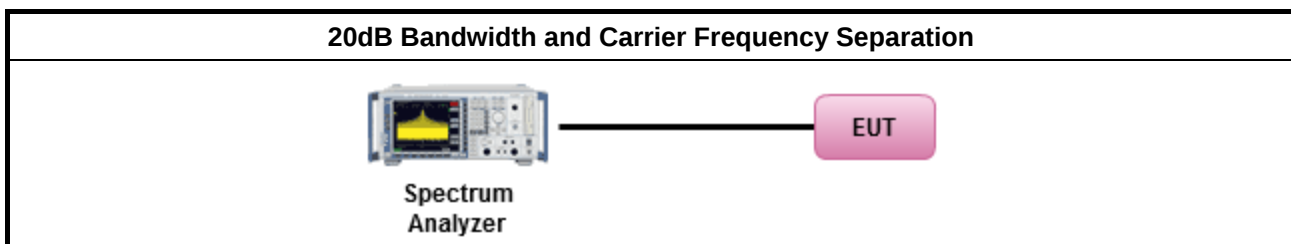
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.9.1 for 20 dB bandwidth measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.

3.2.4 Test Setup



3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
▪ 902-928 MHz Band:	
	▪ $N \geq 50$; Power 30dBm; EIRP 36dBm
	▪ $50 > N \geq 25$; Power 24dBm; EIRP 30dBm
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$; Power 30dBm; EIRP 36dBm
	▪ $75 > N \geq 15$; Power 21dBm; EIRP 27dBm
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$; Power 30dBm; EIRP 36dBm
N: Number of Hopping Frequencies	

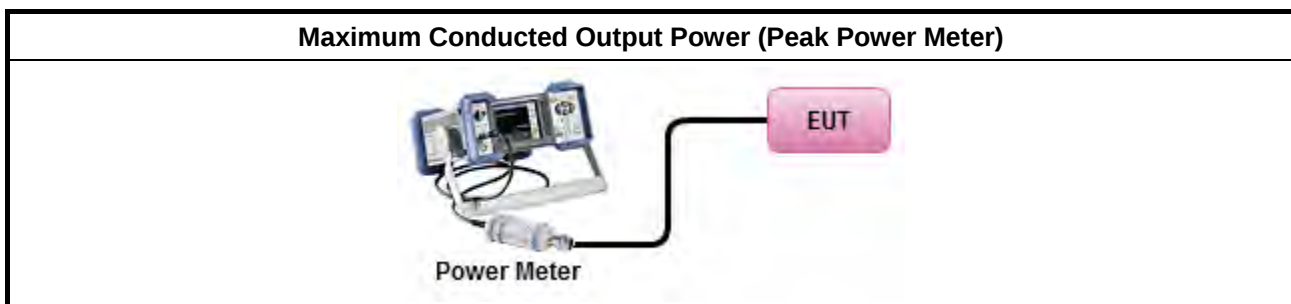
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

Number of Hopping Frequencies Limit	
▪ 902-928 MHz Band:	
	▪ $N \geq 50$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.
	▪ $50 > N \geq 25$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ and $ChS \geq \text{MAX}$ (20 dB bandwidth 2/3, 25 kHz).
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 1 MHz.
N: Number of Hopping Frequencies; ChS : Hopping Channel Separation	

3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

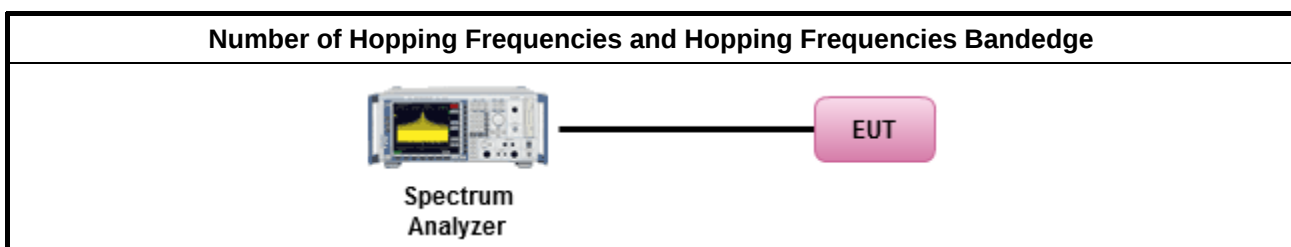
3.4.3 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.4 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.

3.4.5 Test Setup



3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems	
▪ 902-928 MHz Band:	
	▪ $N \geq 50$; 0.4s in 20s period
	▪ $50 > N \geq 25$; 0.4s in 10s period
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$; 0.4s in $N \times 0.4$ period
	▪ $75 > N \geq 15$; 0.4s in $N \times 0.4$ period
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$; 0.4s in 30s period
N: Number of Hopping Frequencies	

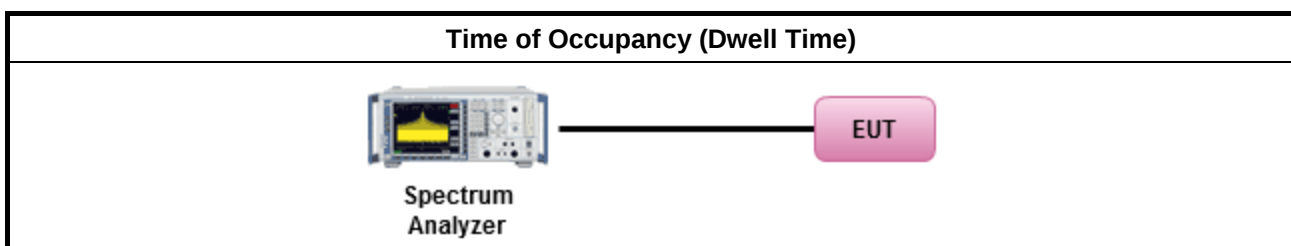
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.	
▪ Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle.	
	▪ The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is $5/1600$ seconds, or 3.125ms. DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel.

3.5.4 Test Setup



3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

3.6 Emissions in Non-restricted Frequency Bands

3.6.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dBc)
Peak output power procedure	20
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.	

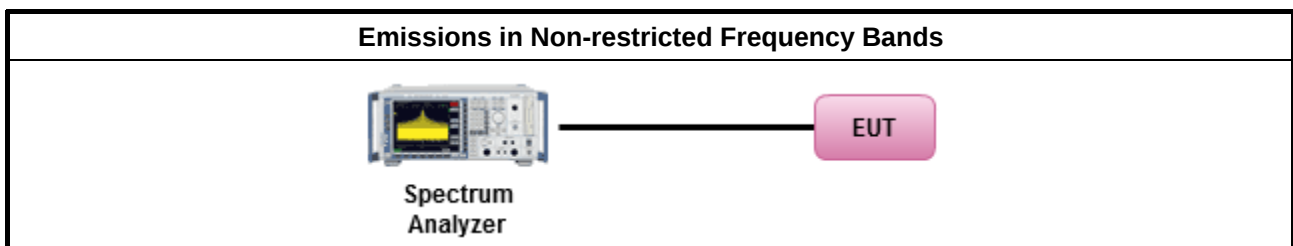
3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method
Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.

3.6.4 Test Setup



3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F



3.7 Emissions in Restricted Frequency Bands

3.7.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

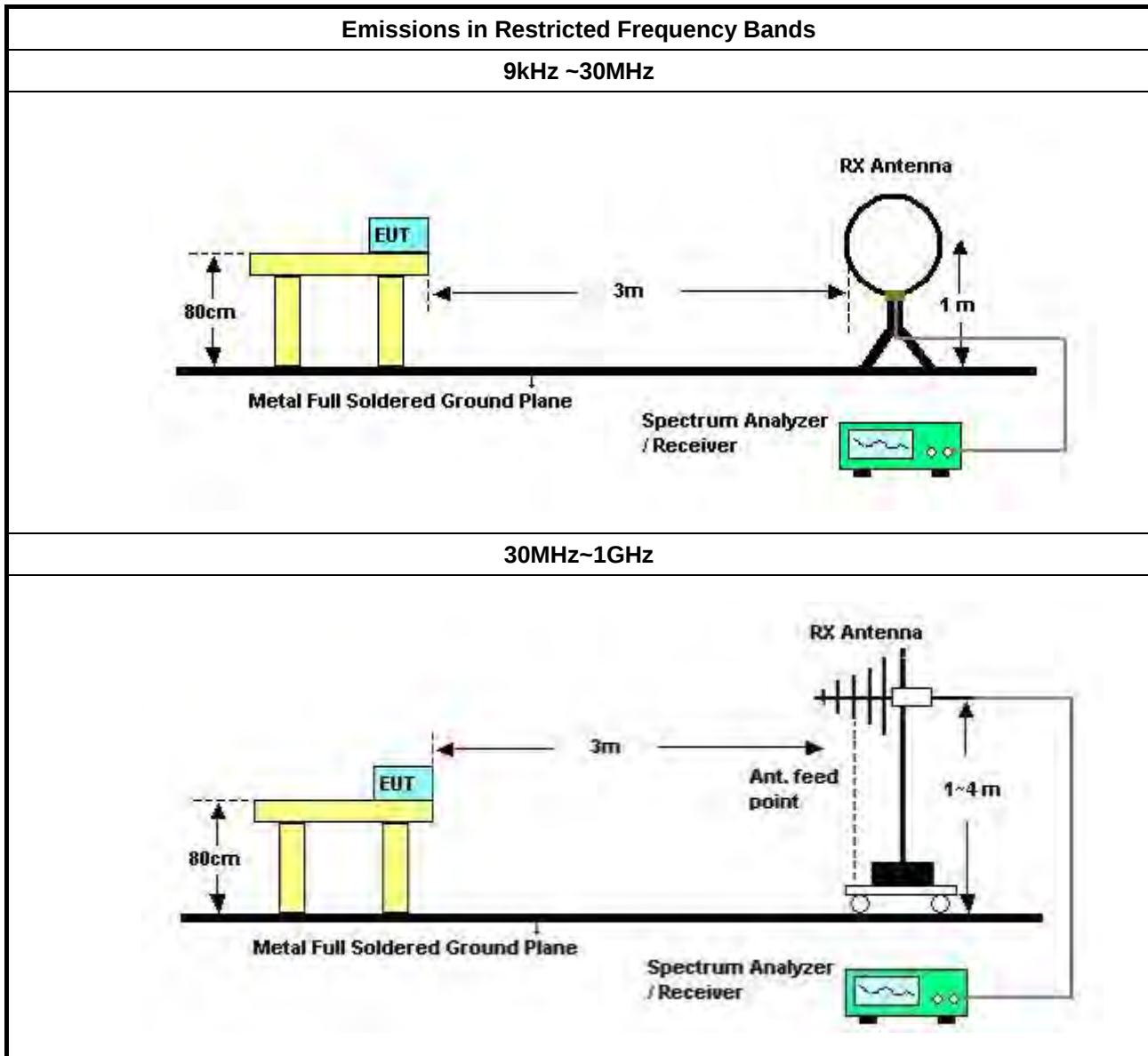
3.7.2 Measuring Instruments

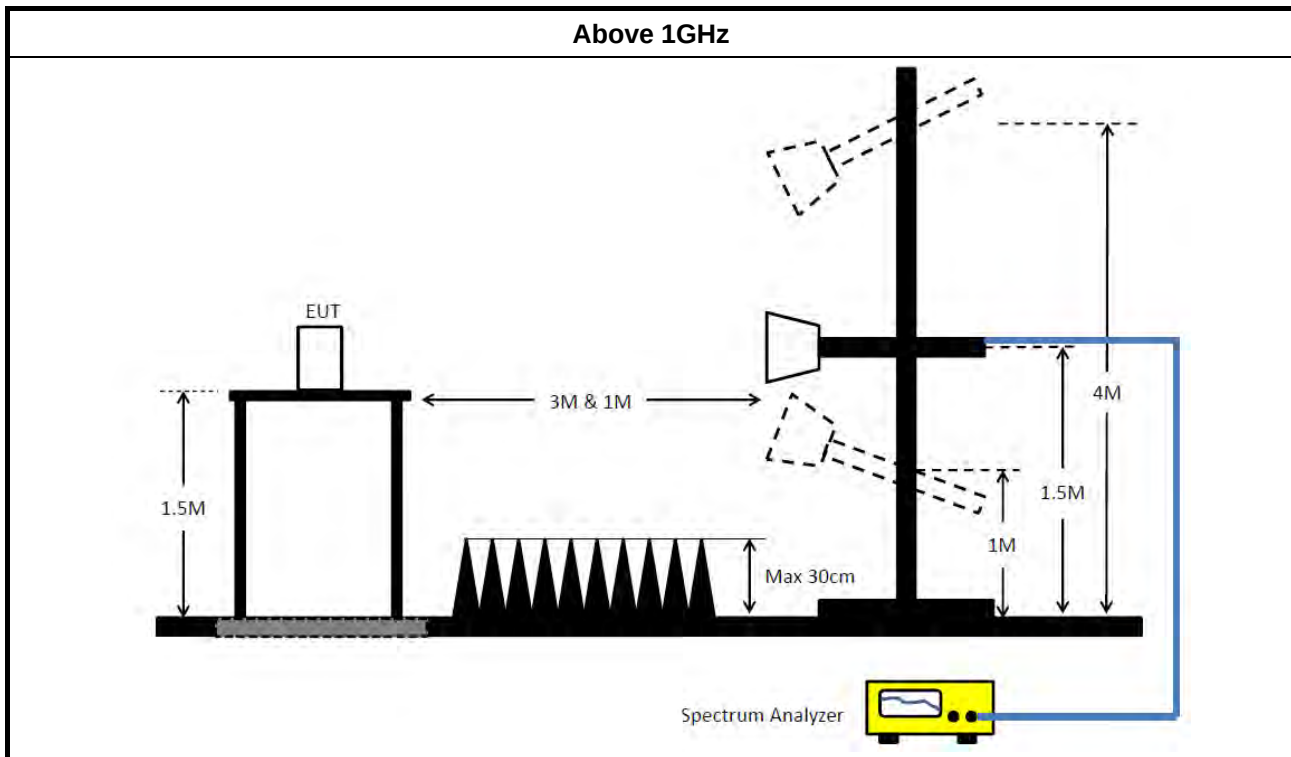
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [hopping duty factor].	
▪ Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.
	▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.
	▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.

3.7.4 Test Setup





3.7.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.7.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.7.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 28, 2019	Jan. 29, 2020	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 24, 2018	Dec. 23, 2019	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Jan. 11, 2019	Jan. 10, 2020	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 21, 2019	May 20, 2020	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Bilog Antenna with 6 dB attenuator	Schaffner	CBL6112B & N-6-06	2928 & AT-N0607	20MHz ~ 2GHz	Jan. 02, 2019	Jan. 01, 2020	Radiation (03CH03-CB)
Horn Antenna	ETS • Lindgren	3115	6821	750MHz~18GHz	Jan. 24, 2019	Jan. 23, 2020	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 27, 2019	Jun. 26, 2020	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8447D	2944A10259	9kHz ~ 1.3GHz	Jan. 16, 2019	Jan. 15, 2020	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Dec. 20, 2018	Dec. 19, 2019	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 19, 2019	Jun. 18, 2020	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH03-CB)
RF Cable-low	Woken	RG402	Low Cable-02+27	25MHz ~ 1GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+27	1GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-27	1GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH03-CB)
Horn Antenna	ETS • Lindgren	3115	00143147	750MHz~18GHz	Oct. 26, 2018	Oct. 25, 2019	Radiation (03CH04-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Mar. 19, 2019	Mar. 18, 2020	Radiation (03CH04-CB)



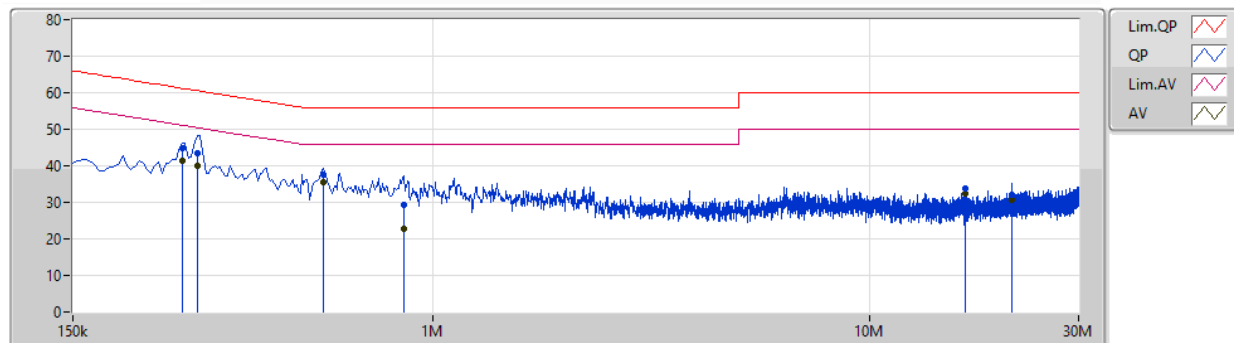
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 26, 2018	Dec. 25, 2019	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+22	1GHz - 18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 08, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 08, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 08, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 08, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~ 26.5 GHz	Oct. 07, 2019	Oct. 08, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz ~ 26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Jan. 15, 2019	Jan. 14, 2020	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Jan. 15, 2019	Jan. 14, 2020	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

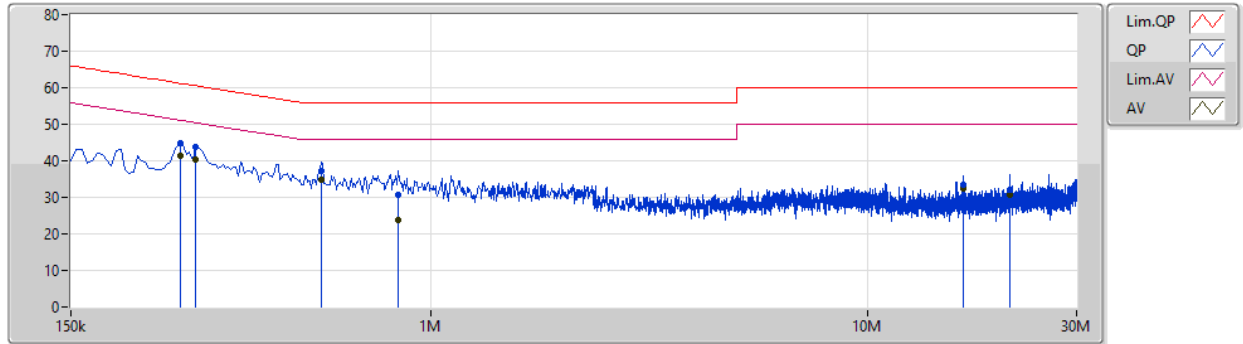
Test Mode	Mode 3	Frequency Range	0.15 MHz to 30 MHz
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Line



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)			
QP	267k	44.69	61.20	-16.51	9.92	Line	-	34.77	0.06	0.06	9.80			
AV	267k	41.32	51.20	-9.88	9.92	Line	"Worst"	31.40	0.06	0.06	9.80			
QP	289.5k	43.49	60.53	-17.04	9.92	Line	-	33.57	0.06	0.06	9.80			
AV	289.5k	39.99	50.53	-10.54	9.92	Line	-	30.07	0.06	0.06	9.80			
QP	559.5k	37.72	56.00	-18.28	9.94	Line	-	27.78	0.06	0.07	9.81			
AV	559.5k	35.53	46.00	-10.47	9.94	Line	-	25.59	0.06	0.07	9.81			
QP	856.5k	29.26	56.00	-26.74	9.97	Line	-	19.29	0.07	0.08	9.82			
AV	856.5k	22.68	46.00	-23.32	9.97	Line	-	12.71	0.07	0.08	9.82			
QP	16.463M	33.67	60.00	-26.33	10.44	Line	-	23.23	0.27	0.23	9.94			
AV	16.463M	32.49	50.00	-17.51	10.44	Line	-	22.05	0.27	0.23	9.94			
QP	21.17M	32.16	60.00	-27.84	10.58	Line	-	21.58	0.30	0.28	10.00			
AV	21.17M	30.82	50.00	-19.18	10.58	Line	-	20.24	0.30	0.28	10.00			

Neutral



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)			
QP	267k	44.66	61.20	-16.54	9.90	Neutral	-	34.76	0.04	0.06	9.80			
AV	267k	41.55	51.20	-9.65	9.90	Neutral	"Worst"	31.65	0.04	0.06	9.80			
QP	289.5k	43.70	60.53	-16.83	9.90	Neutral	-	33.80	0.04	0.06	9.80			
AV	289.5k	40.20	50.53	-10.33	9.90	Neutral	-	30.30	0.04	0.06	9.80			
QP	559.5k	37.32	56.00	-18.68	9.93	Neutral	-	27.39	0.05	0.07	9.81			
AV	559.5k	34.73	46.00	-11.27	9.93	Neutral	-	24.80	0.05	0.07	9.81			
QP	843k	30.67	56.00	-25.33	9.96	Neutral	-	20.71	0.06	0.08	9.82			
AV	843k	23.74	46.00	-22.26	9.96	Neutral	-	13.78	0.06	0.08	9.82			
QP	16.463M	33.53	60.00	-26.47	10.40	Neutral	-	23.13	0.23	0.23	9.94			
AV	16.463M	32.39	50.00	-17.61	10.40	Neutral	-	21.99	0.23	0.23	9.94			
QP	21.17M	32.03	60.00	-27.97	10.55	Neutral	-	21.48	0.27	0.28	10.00			
AV	21.17M	30.71	50.00	-19.29	10.55	Neutral	-	20.16	0.27	0.28	10.00			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	921.25k	872.064k	872KF1D	860k	859.57k
BT-EDR(2Mbps)	1.248M	1.182M	1M18G1D	1.248M	1.179M
BT-EDR(3Mbps)	1.261M	1.186M	1M19G1D	1.259M	1.182M

Max-N dB = Maximum 20dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 20dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

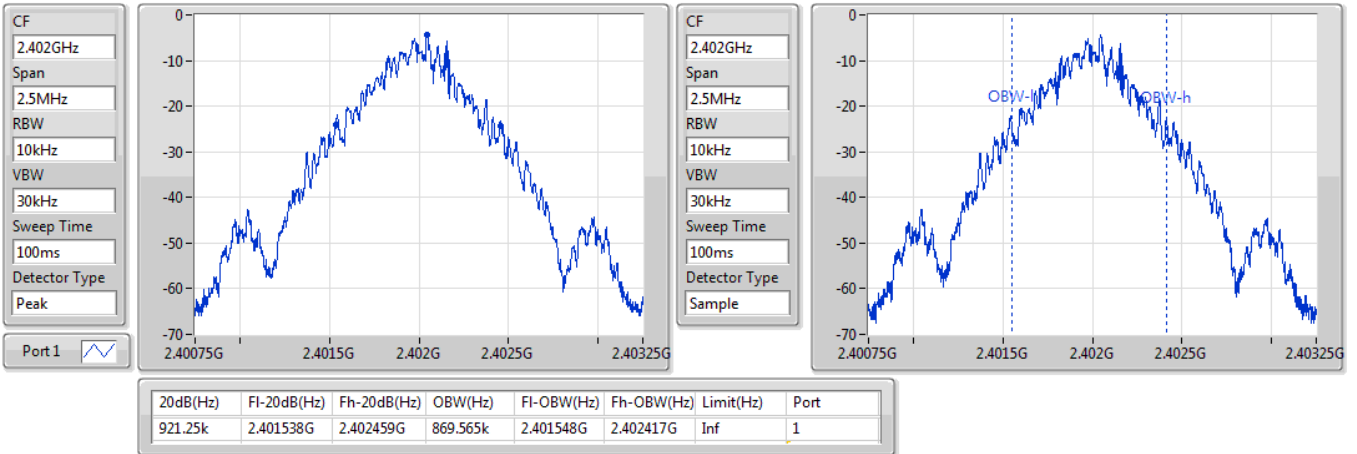
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	921.25k	869.565k
2440MHz	Pass	Inf	860k	859.57k
2480MHz	Pass	Inf	920k	872.064k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.248M	1.181M
2440MHz	Pass	Inf	1.248M	1.179M
2480MHz	Pass	Inf	1.248M	1.182M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.261M	1.182M
2440MHz	Pass	Inf	1.26M	1.186M
2480MHz	Pass	Inf	1.259M	1.186M

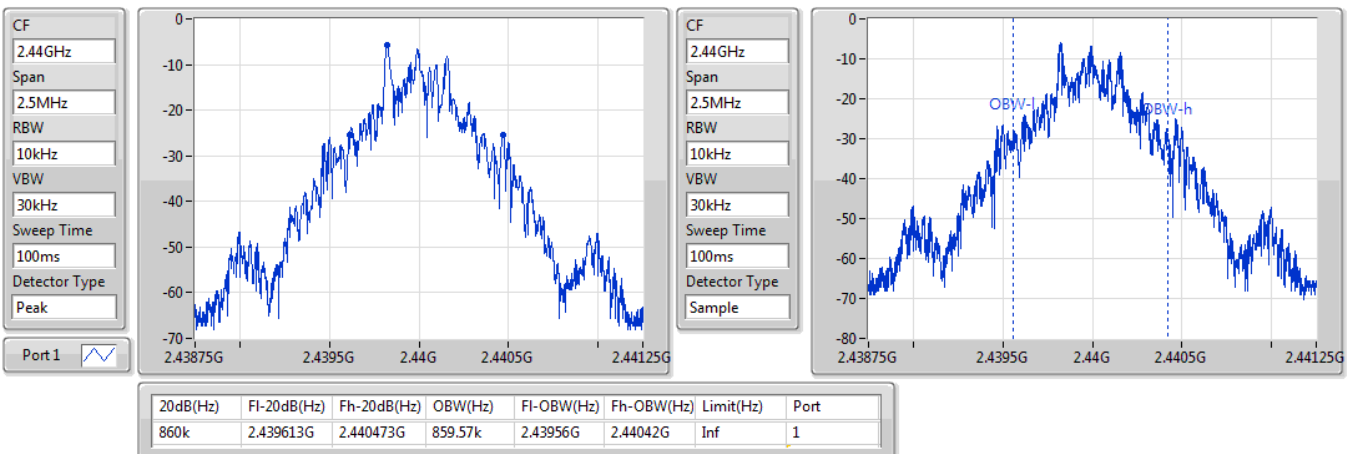
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
EBW
2402MHz

11/10/2019

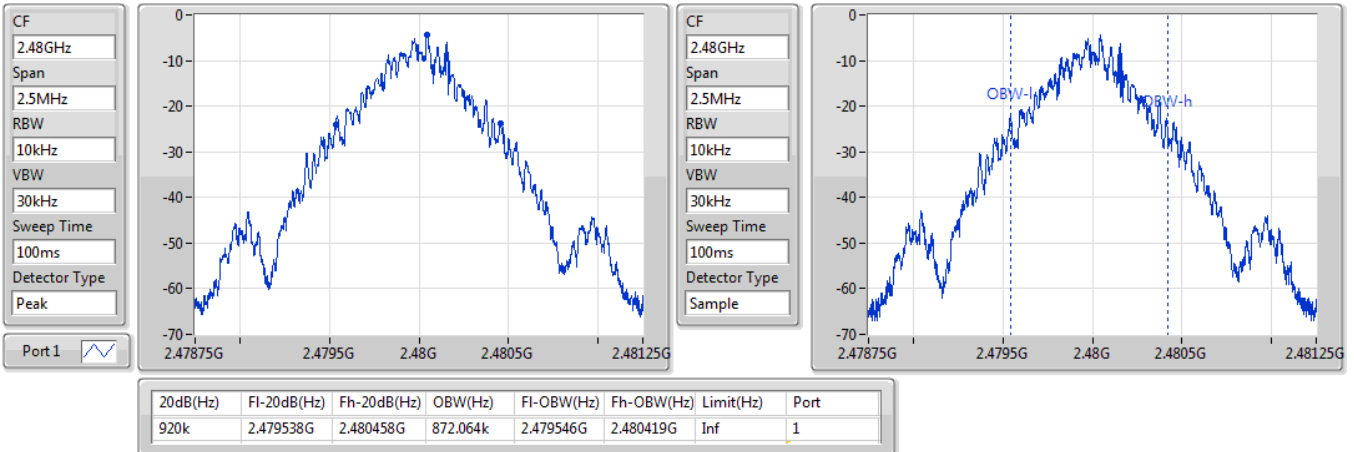

BT-BR(1Mbps)
EBW
2440MHz

11/10/2019

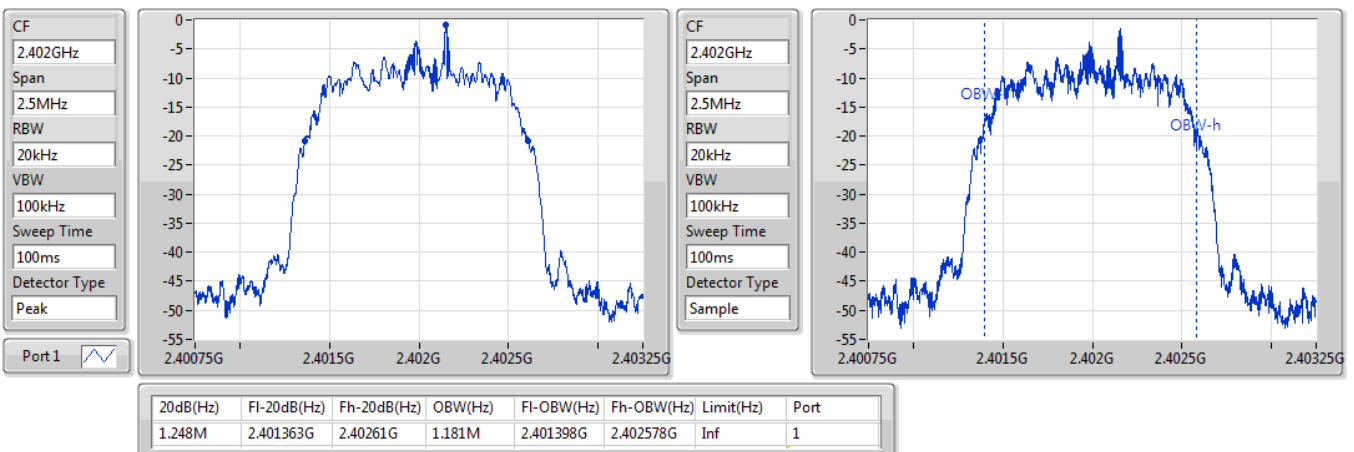


BT-BR(1Mbps)
2480MHz
EBW

11/10/2019

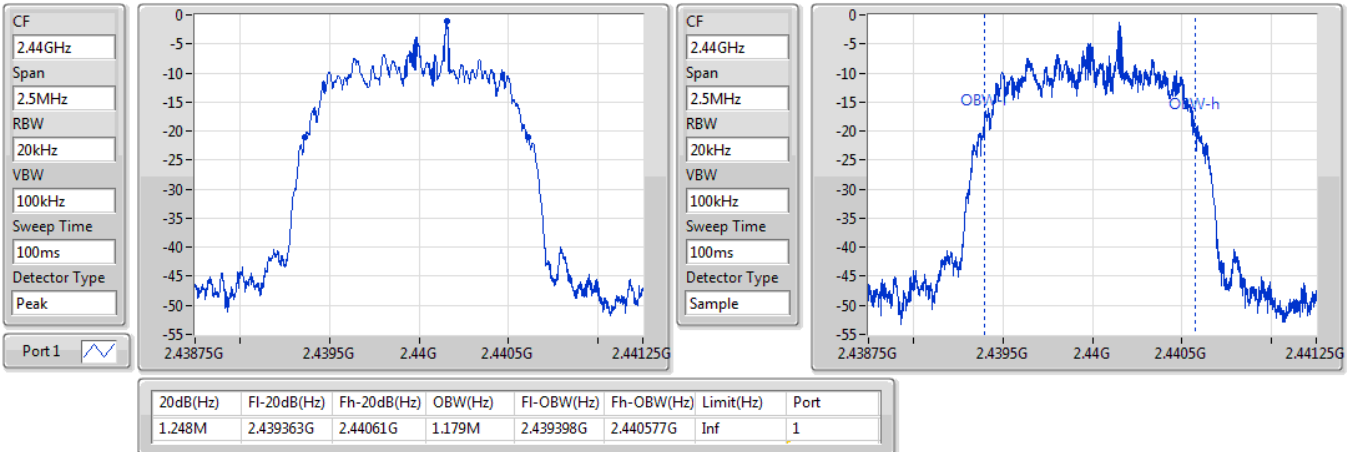

BT-EDR(2Mbps)
2402MHz
EBW

11/10/2019

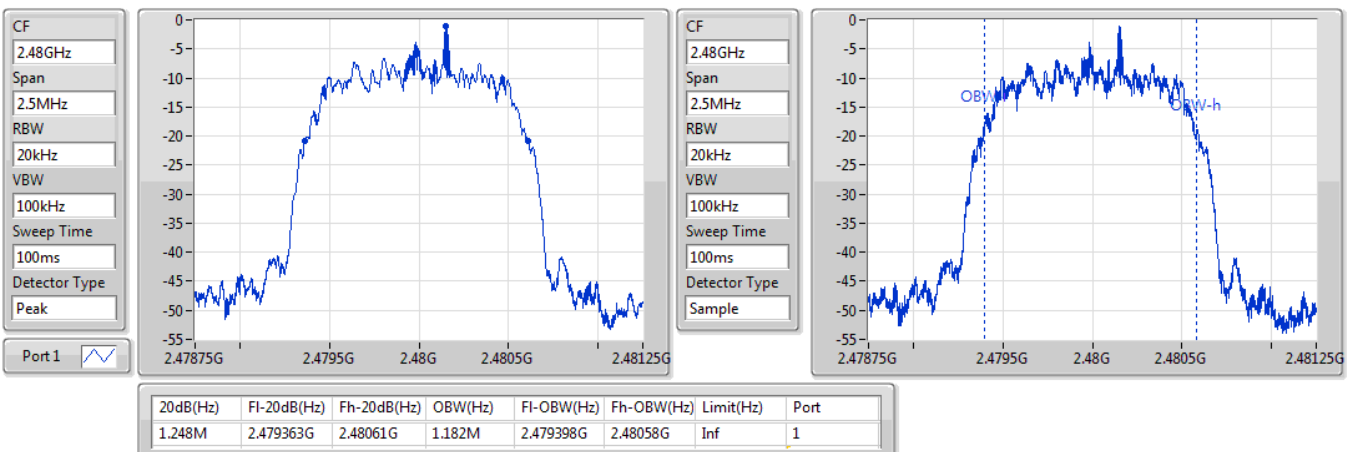


BT-EDR(2Mbps)
EBW
2440MHz

11/10/2019

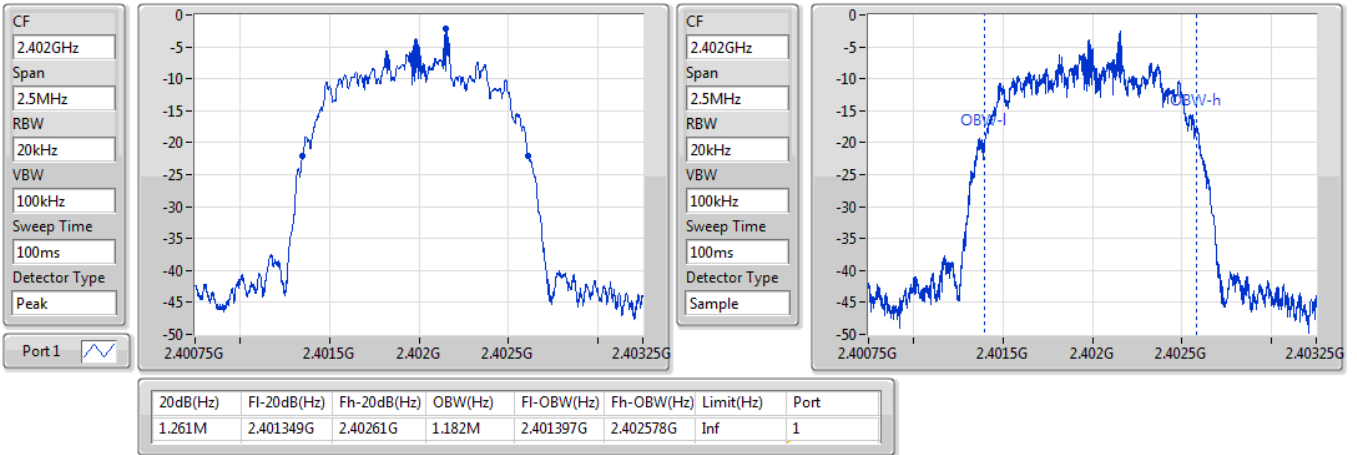

BT-EDR(2Mbps)
EBW
2480MHz

11/10/2019

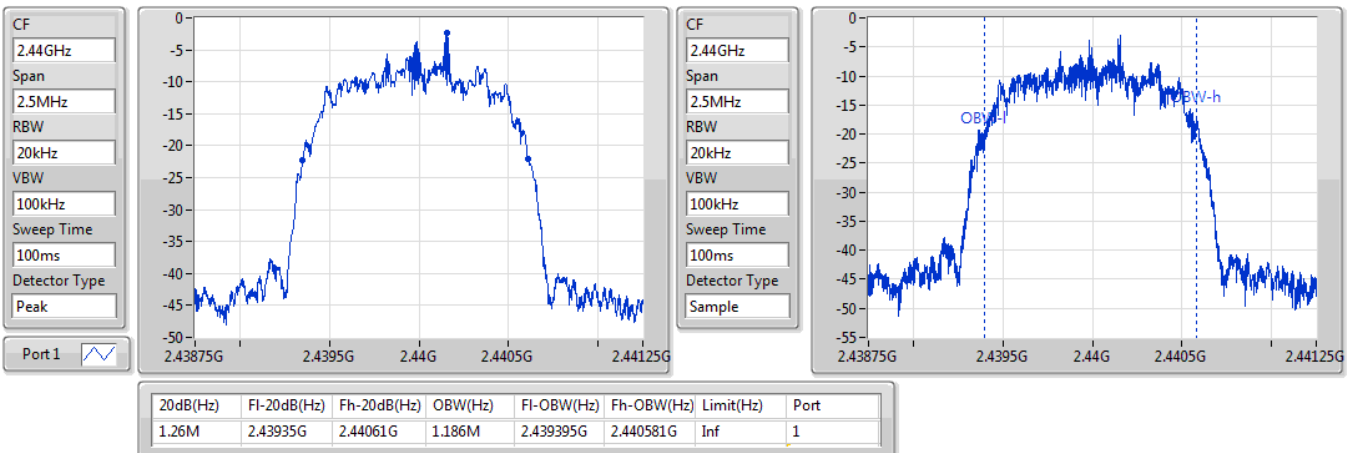


BT-EDR(3Mbps)
EBW
2402MHz

11/10/2019


BT-EDR(3Mbps)
EBW
2440MHz

11/10/2019

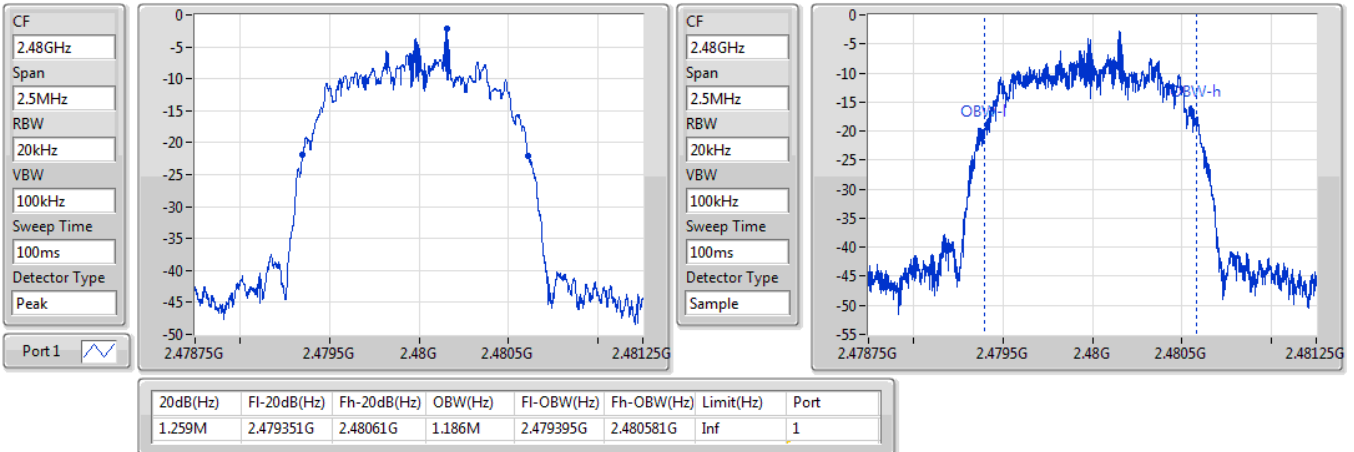


BT-EDR(3Mbps)

2480MHz

EBW

11/10/2019



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	921.25k	872.064k	872KF1D	860k	859.57k
BT-EDR(2Mbps)	1.248M	1.182M	1M18G1D	1.248M	1.179M
BT-EDR(3Mbps)	1.261M	1.186M	1M19G1D	1.259M	1.182M

Max-N dB = Maximum 20dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 20dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

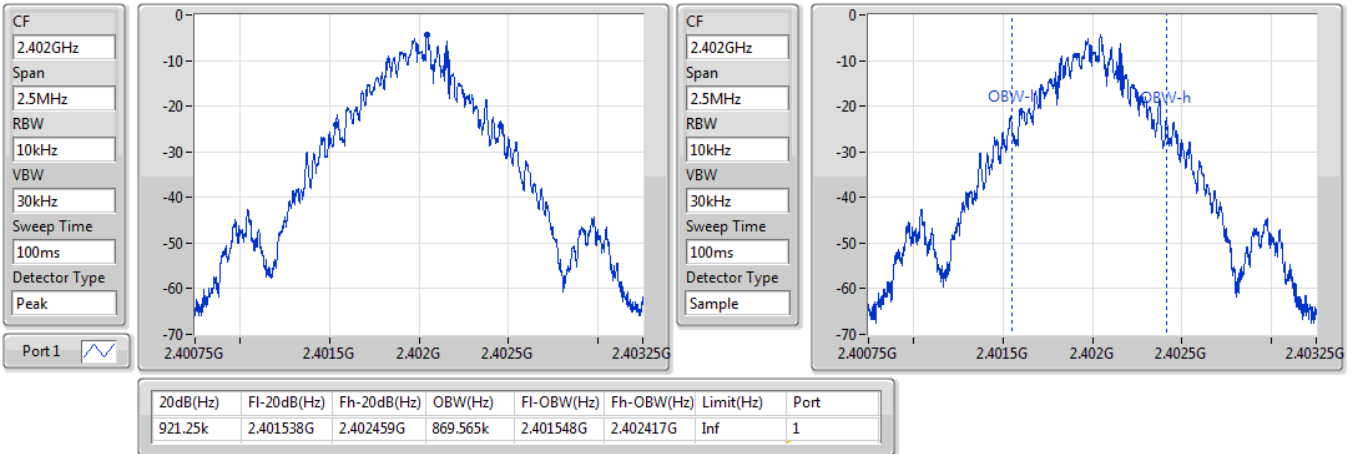
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	921.25k	869.565k
2440MHz	Pass	Inf	860k	859.57k
2480MHz	Pass	Inf	920k	872.064k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.248M	1.181M
2440MHz	Pass	Inf	1.248M	1.179M
2480MHz	Pass	Inf	1.248M	1.182M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.261M	1.182M
2440MHz	Pass	Inf	1.26M	1.186M
2480MHz	Pass	Inf	1.259M	1.186M

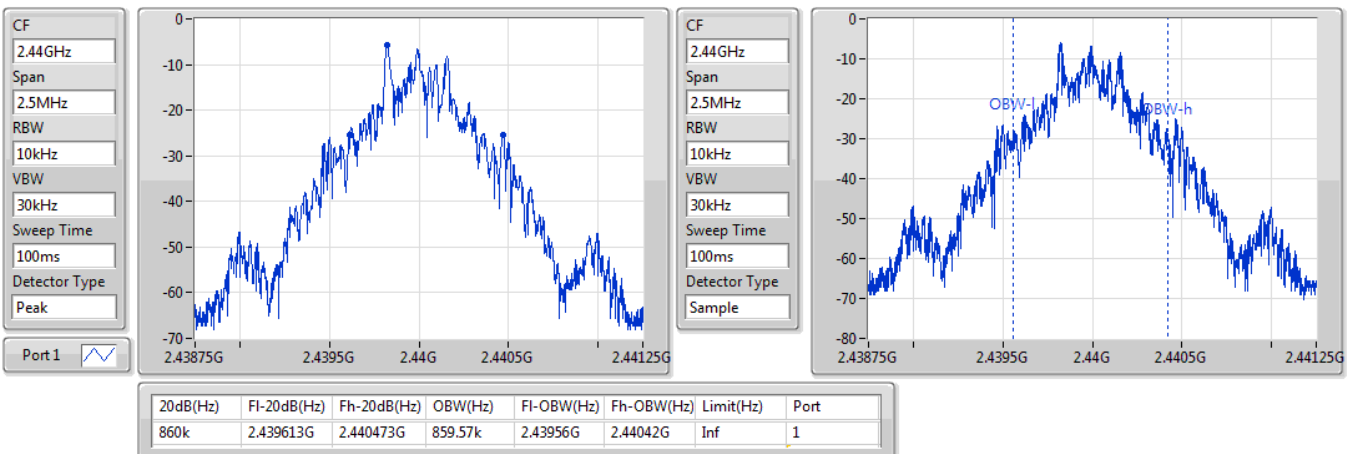
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
EBW
2402MHz

11/10/2019

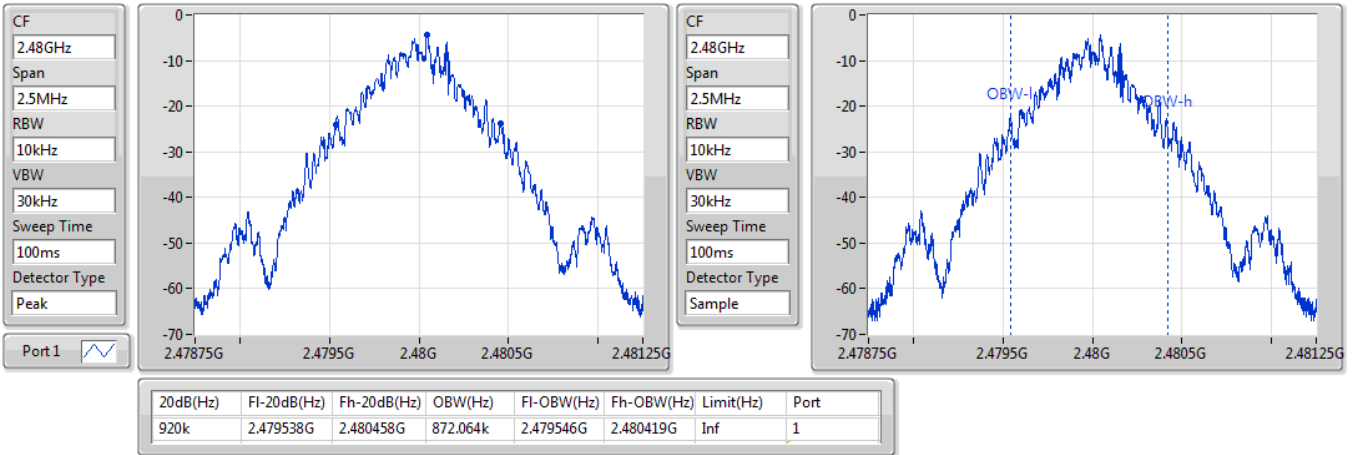

BT-BR(1Mbps)
EBW
2440MHz

11/10/2019

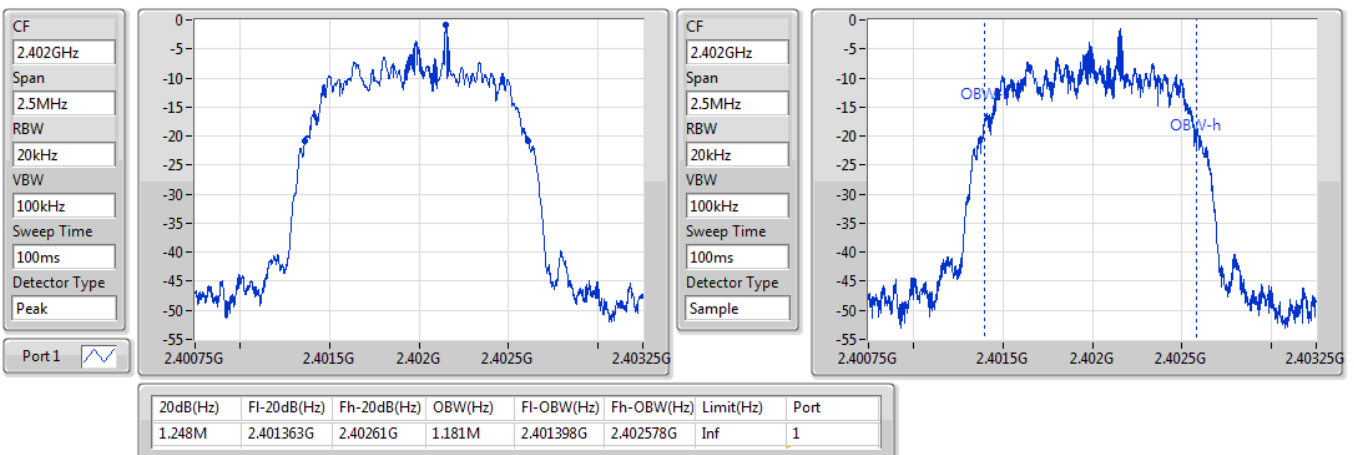


BT-BR(1Mbps)
2480MHz
EBW

11/10/2019

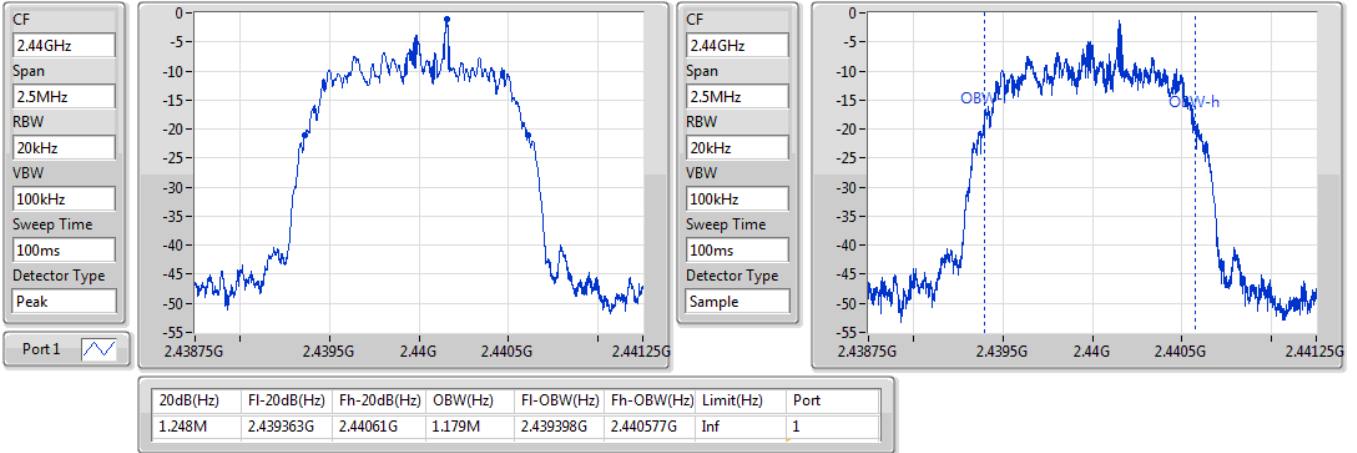

BT-EDR(2Mbps)
2402MHz
EBW

11/10/2019

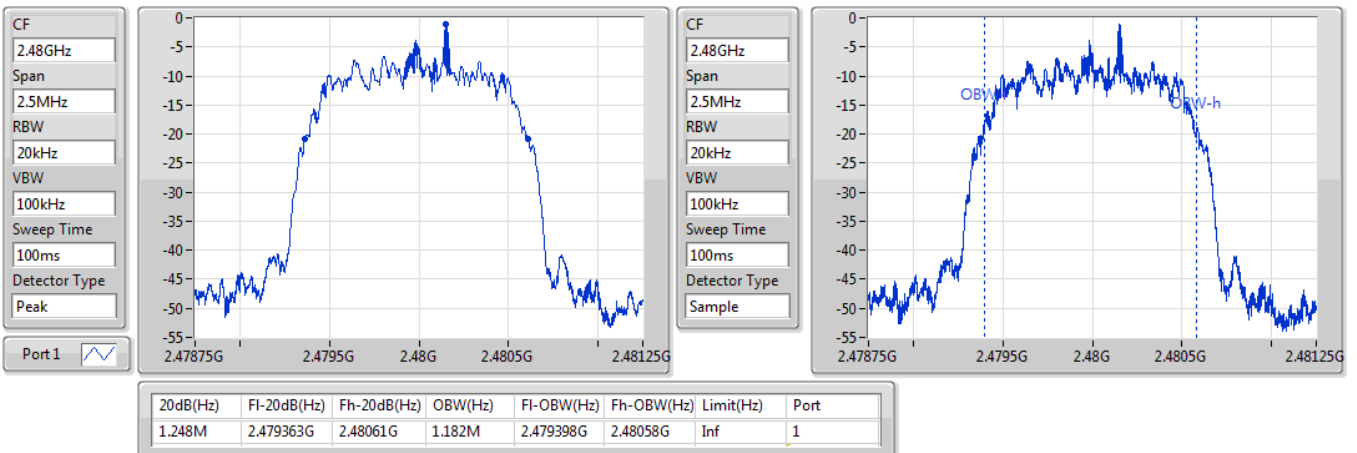


BT-EDR(2Mbps)
EBW
2440MHz

11/10/2019

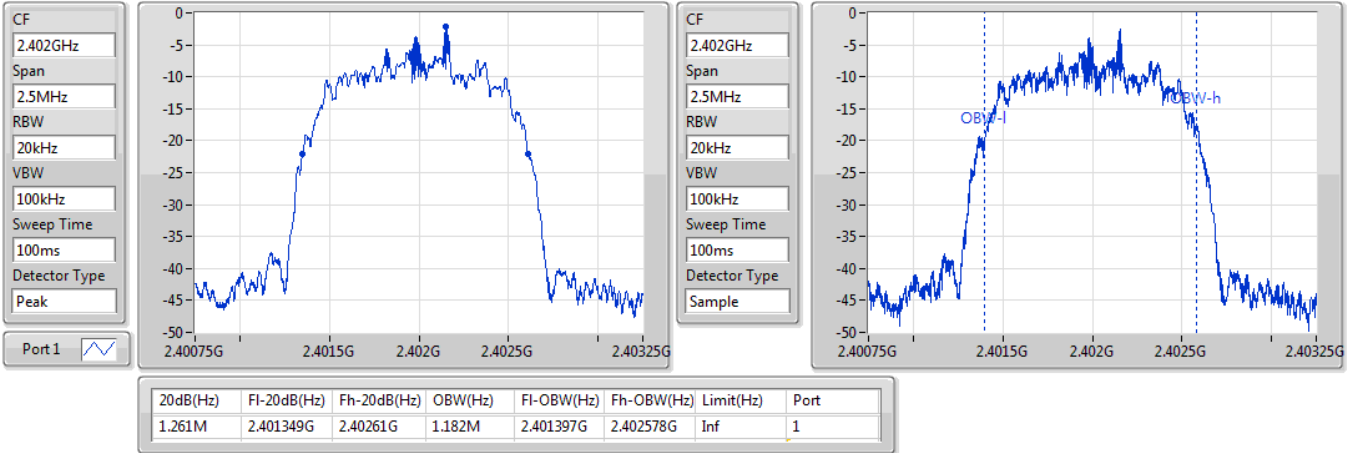

BT-EDR(2Mbps)
EBW
2480MHz

11/10/2019

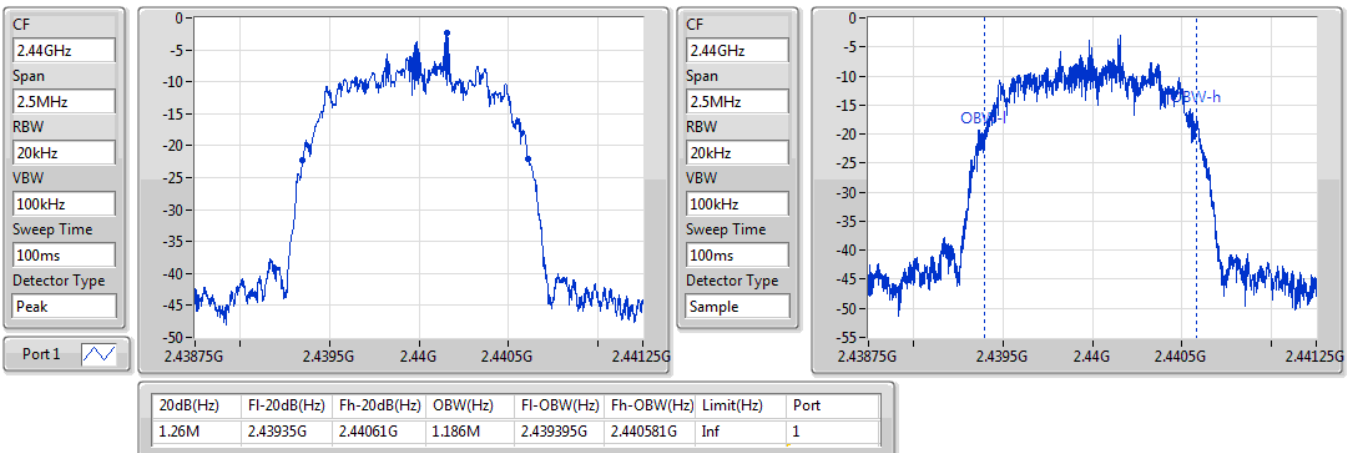


BT-EDR(3Mbps)
EBW
2402MHz

11/10/2019


BT-EDR(3Mbps)
EBW
2440MHz

11/10/2019

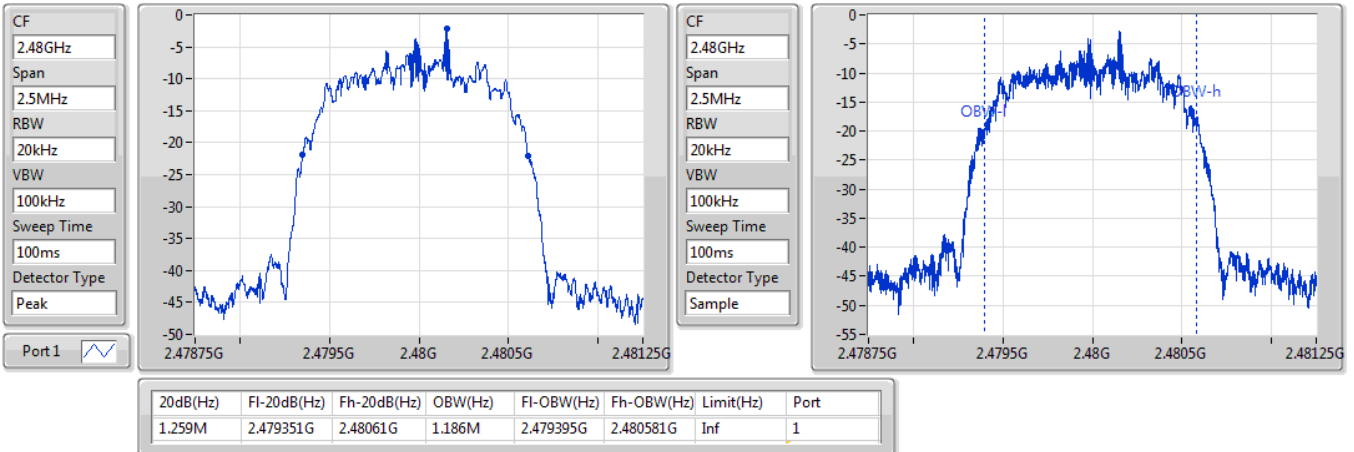


BT-EDR(3Mbps)

2480MHz

EBW

11/10/2019



**Summary**

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.3305M	672k
BT-EDR(2Mbps)	1.332M	999k
BT-EDR(3Mbps)	1.329M	996k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402152G	2.403148G	996k	613.5525k
2440MHz	Pass	2.440154G	2.440826G	672k	612.72k
2480MHz	Pass	2.478824G	2.480154G	1.3305M	612.72k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402148G	2.403154G	1.0065M	831.168k
2440MHz	Pass	2.439824G	2.441156G	1.332M	831.168k
2480MHz	Pass	2.479154G	2.480153G	999k	831.168k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.40216G	2.403156G	996k	839.826k
2440MHz	Pass	2.439827G	2.441144G	1.317M	839.16k
2480MHz	Pass	2.478824G	2.480153G	1.329M	838.494k

BT-BR(1Mbps)

2.402G/2.403GHz

Channel Separation



BT-BR(1Mbps)

2.44G/2.441GHz

Channel Separation



BT-BR(1Mbps)

2.48G/2.479GHz

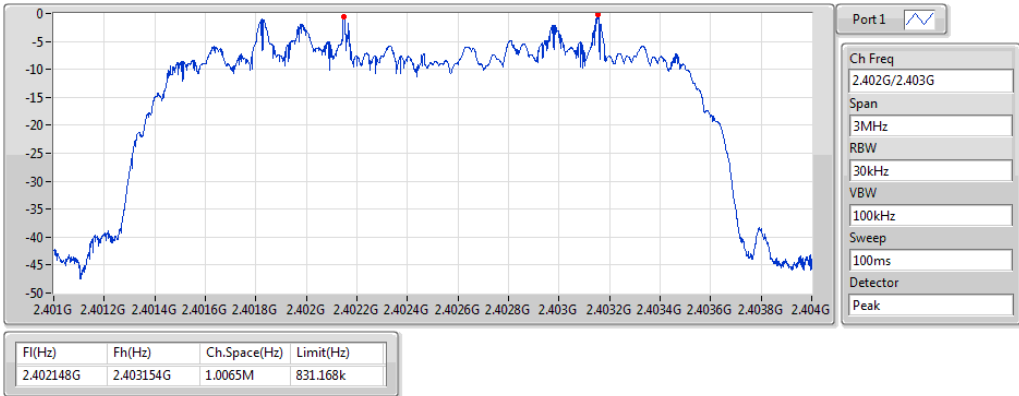
Channel Separation



BT-EDR(2Mbps)

2.402G/2.403GHz

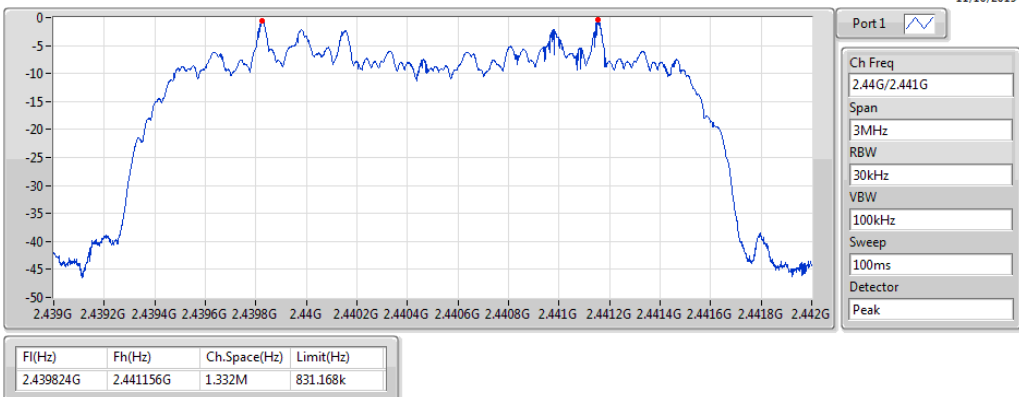
Channel Separation



BT-EDR(2Mbps)

2.44G/2.441GHz

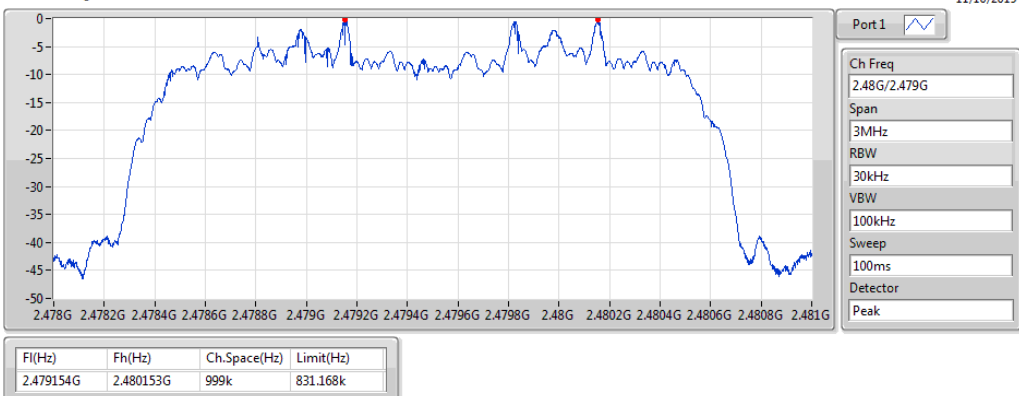
Channel Separation



BT-EDR(2Mbps)

2.48G/2.479GHz

Channel Separation



BT-EDR(3Mbps)

2.402G/2.403GHz

Channel Separation



BT-EDR(3Mbps)

2.44G/2.441GHz

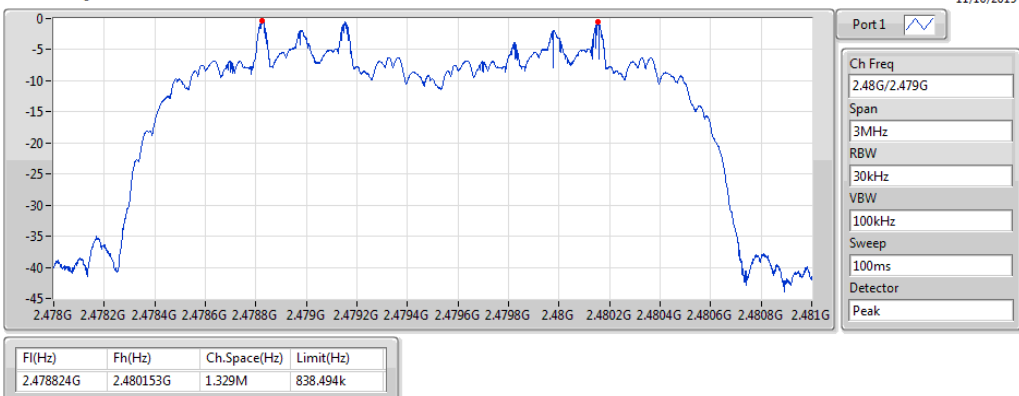
Channel Separation



BT-EDR(3Mbps)

2.48G/2.479GHz

Channel Separation



Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.3305M	672k
BT-EDR(2Mbps)	1.332M	999k
BT-EDR(3Mbps)	1.329M	996k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402152G	2.403148G	996k	613.5525k
2440MHz	Pass	2.440154G	2.440826G	672k	612.72k
2480MHz	Pass	2.478824G	2.480154G	1.3305M	612.72k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402148G	2.403154G	1.0065M	831.168k
2440MHz	Pass	2.439824G	2.441156G	1.332M	831.168k
2480MHz	Pass	2.479154G	2.480153G	999k	831.168k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.40216G	2.403156G	996k	839.826k
2440MHz	Pass	2.439827G	2.441144G	1.317M	839.16k
2480MHz	Pass	2.478824G	2.480153G	1.329M	838.494k

BT-BR(1Mbps)

2.402G/2.403GHz

Channel Separation



BT-BR(1Mbps)

2.44G/2.441GHz

Channel Separation



BT-BR(1Mbps)

2.48G/2.479GHz

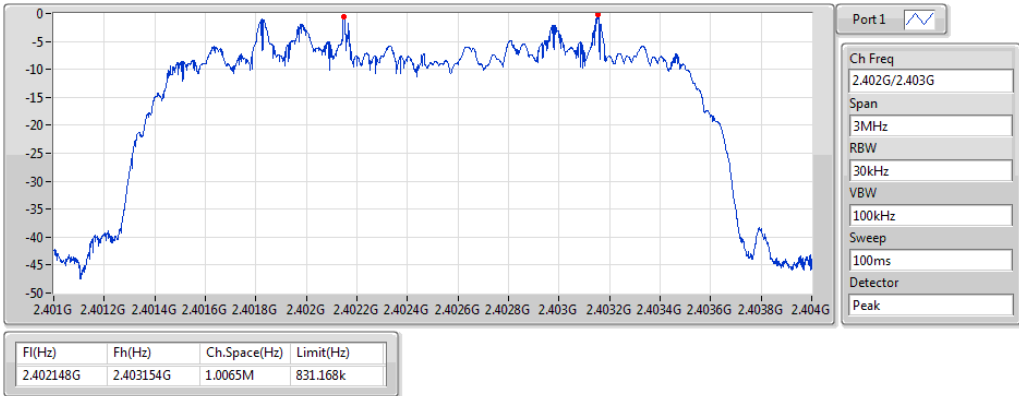
Channel Separation



BT-EDR(2Mbps)

2.402G/2.403GHz

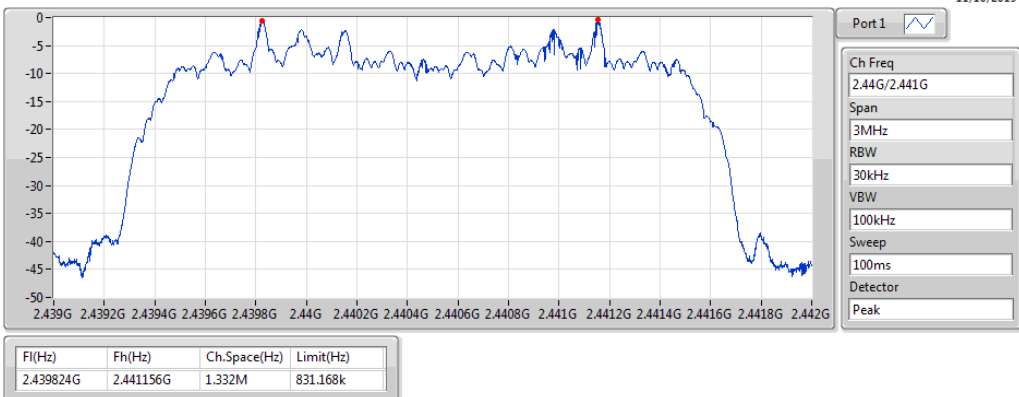
Channel Separation



BT-EDR(2Mbps)

2.44G/2.441GHz

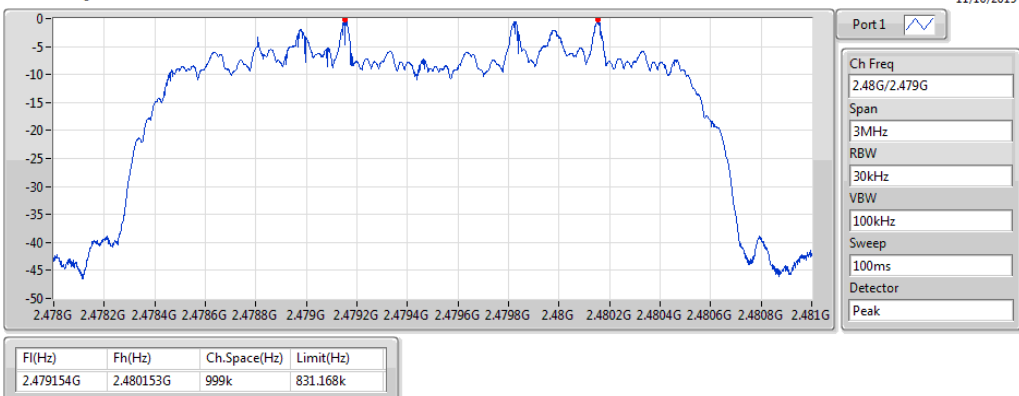
Channel Separation



BT-EDR(2Mbps)

2.48G/2.479GHz

Channel Separation



BT-EDR(3Mbps)

2.402G/2.403GHz

Channel Separation



BT-EDR(3Mbps)

2.44G/2.441GHz

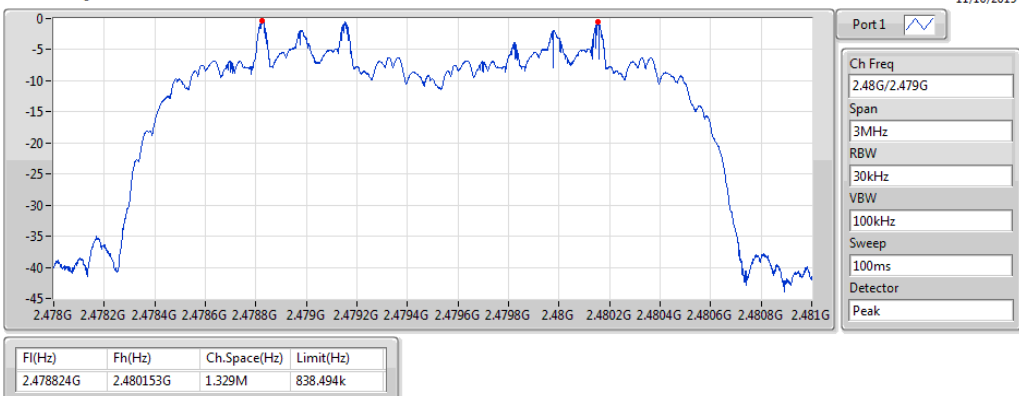
Channel Separation



BT-EDR(3Mbps)

2.48G/2.479GHz

Channel Separation



**Summary**

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.47	0.00140
BT-EDR(2Mbps)	1.29	0.00135
BT-EDR(3Mbps)	1.66	0.00147

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.98	1.09	21.00
2440MHz	Pass	2.98	1.30	21.00
2480MHz	Pass	2.98	1.47	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.98	0.70	21.00
2440MHz	Pass	2.98	1.16	21.00
2480MHz	Pass	2.98	1.29	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.98	1.66	21.00
2440MHz	Pass	2.98	1.56	21.00
2480MHz	Pass	2.98	1.65	21.00

DG = Directional Gain; **Port X** = Port X output power

**Summary**

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.47	0.00140
BT-EDR(2Mbps)	1.29	0.00135
BT-EDR(3Mbps)	1.66	0.00147

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.14	1.09	21.00
2440MHz	Pass	2.14	1.30	21.00
2480MHz	Pass	2.14	1.47	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.14	0.70	21.00
2440MHz	Pass	2.14	1.16	21.00
2480MHz	Pass	2.14	1.29	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.14	1.66	21.00
2440MHz	Pass	2.14	1.56	21.00
2480MHz	Pass	2.14	1.65	21.00

DG = Directional Gain; **Port X** = Port X output power

**Summary**

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.64	0.00146
BT-EDR(2Mbps)	4.04	0.00254
BT-EDR(3Mbps)	4.50	0.00282

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.98	1.64	21.00
2440MHz	Pass	2.98	1.38	21.00
2480MHz	Pass	2.98	1.54	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.98	4.04	21.00
2440MHz	Pass	2.98	3.77	21.00
2480MHz	Pass	2.98	3.93	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.98	4.50	21.00
2440MHz	Pass	2.98	4.23	21.00
2480MHz	Pass	2.98	4.34	21.00

DG = Directional Gain; **Port X** = Port X output power

**Summary**

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.64	0.00146
BT-EDR(2Mbps)	4.04	0.00254
BT-EDR(3Mbps)	4.50	0.00282

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.14	1.64	21.00
2440MHz	Pass	2.14	1.38	21.00
2480MHz	Pass	2.14	1.54	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.14	4.04	21.00
2440MHz	Pass	2.14	3.77	21.00
2480MHz	Pass	2.14	3.93	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.14	4.50	21.00
2440MHz	Pass	2.14	4.23	21.00
2480MHz	Pass	2.14	4.34	21.00

DG = Directional Gain; **Port X** = Port X output power

Summary

Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

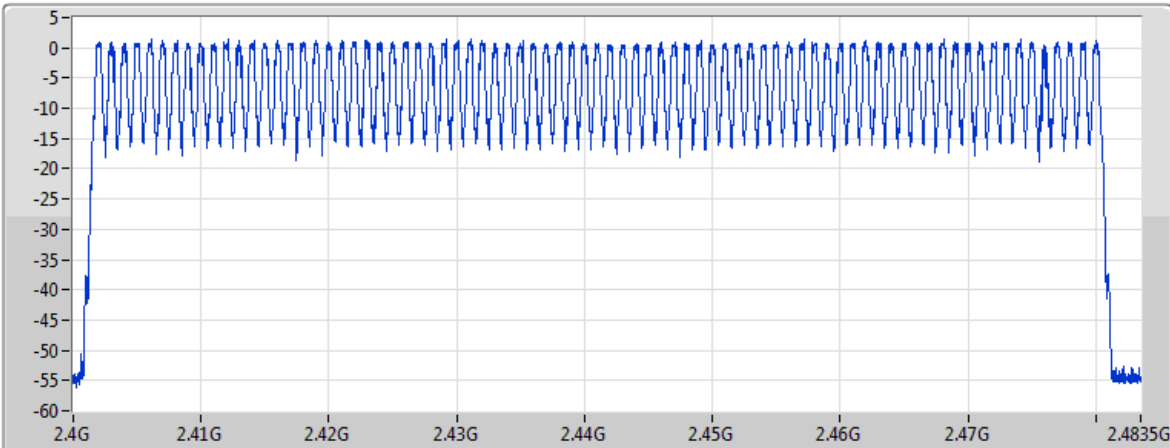
Result

Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

BT-BR(1Mbps) 2440MHz

Hopping Ch

11/10/2019



Port 1 

Hopping No
79

Span
83.5MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

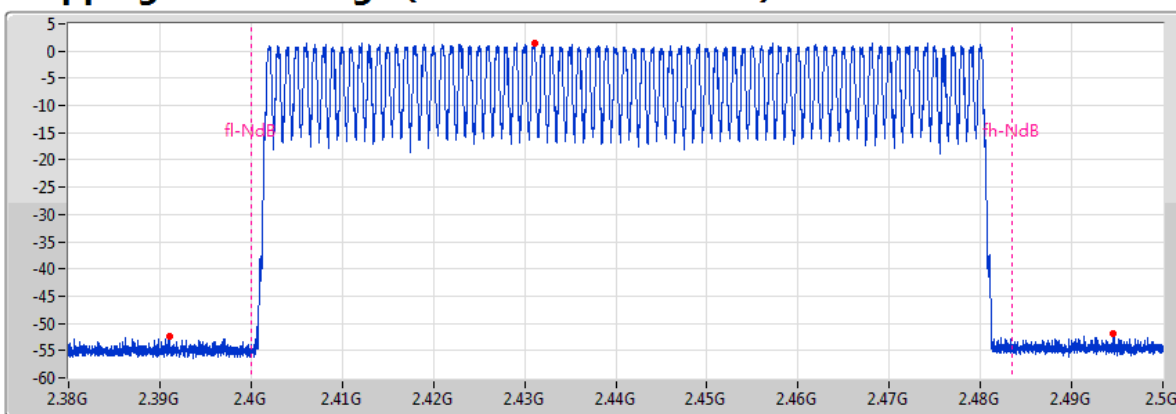
Detector
Peak

Hopping No	Limit
79	15

BT-BR(1Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)

11/10/2019



Port 1 

Span
120MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

Detector
Peak

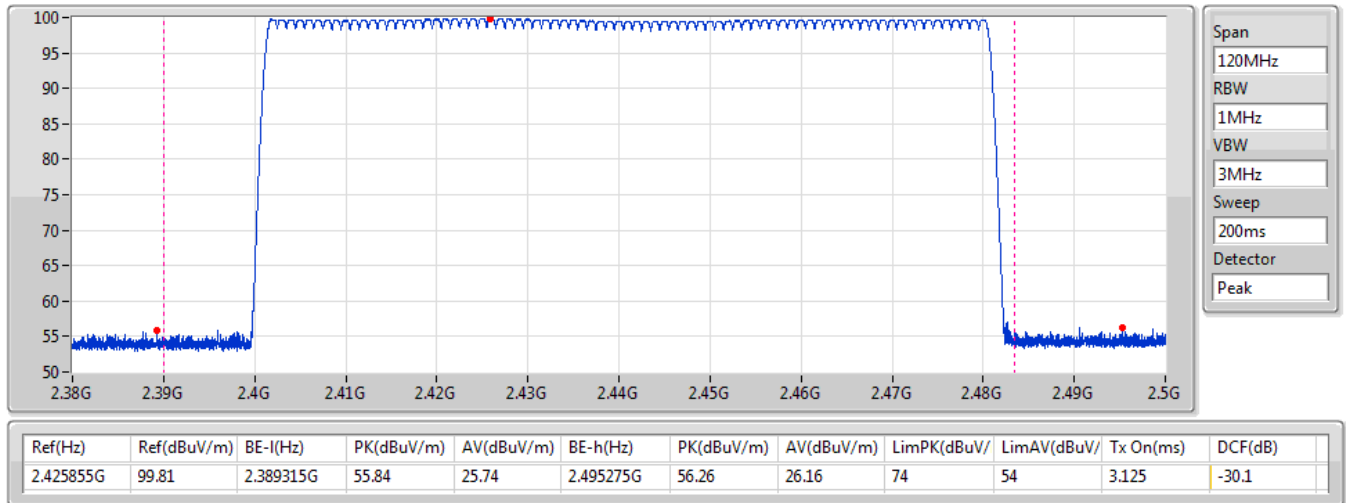
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-18.56	2.431165G	1.44	2.39101G	-52.37	2.494465G	-51.81

BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

11/10/2019

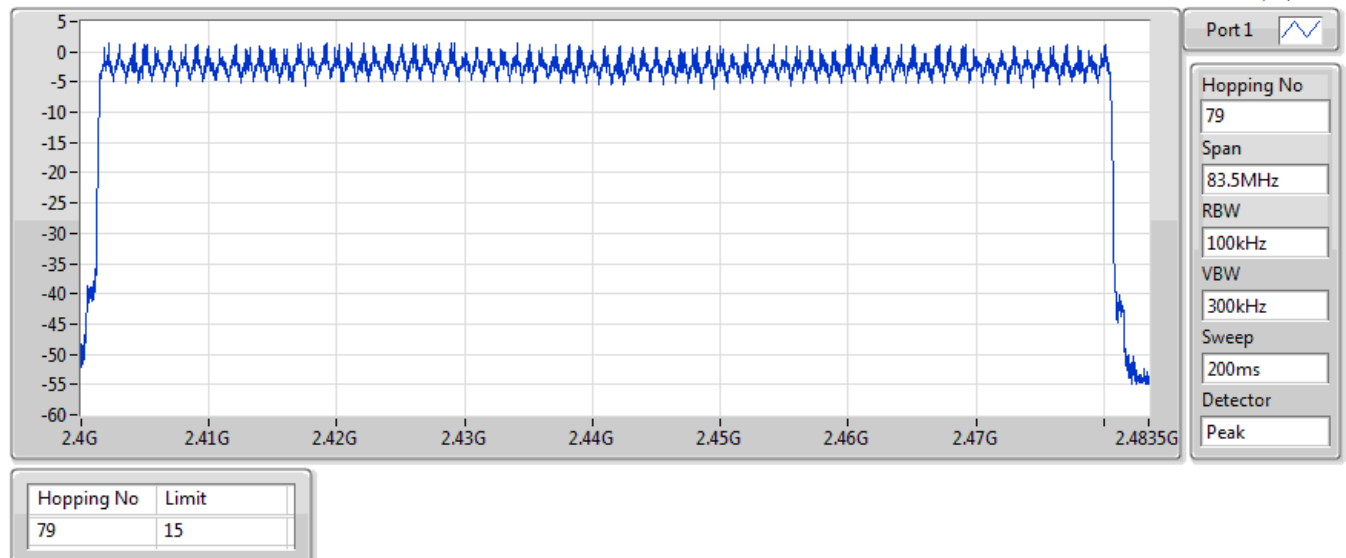


BT-EDR(2Mbps)

2440MHz

Hopping Ch

11/10/2019

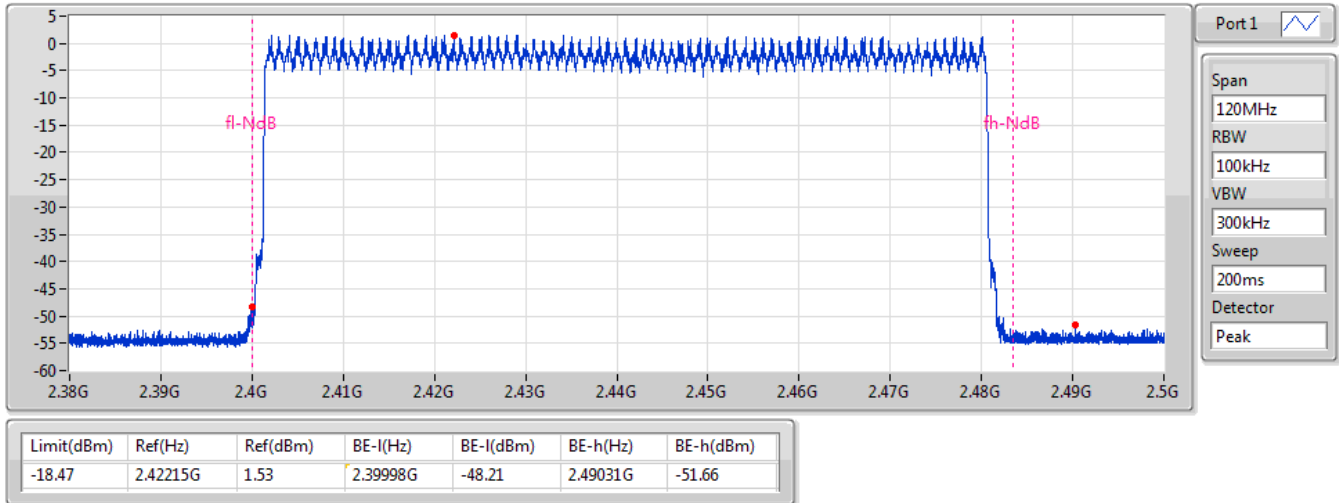


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

11/10/2019

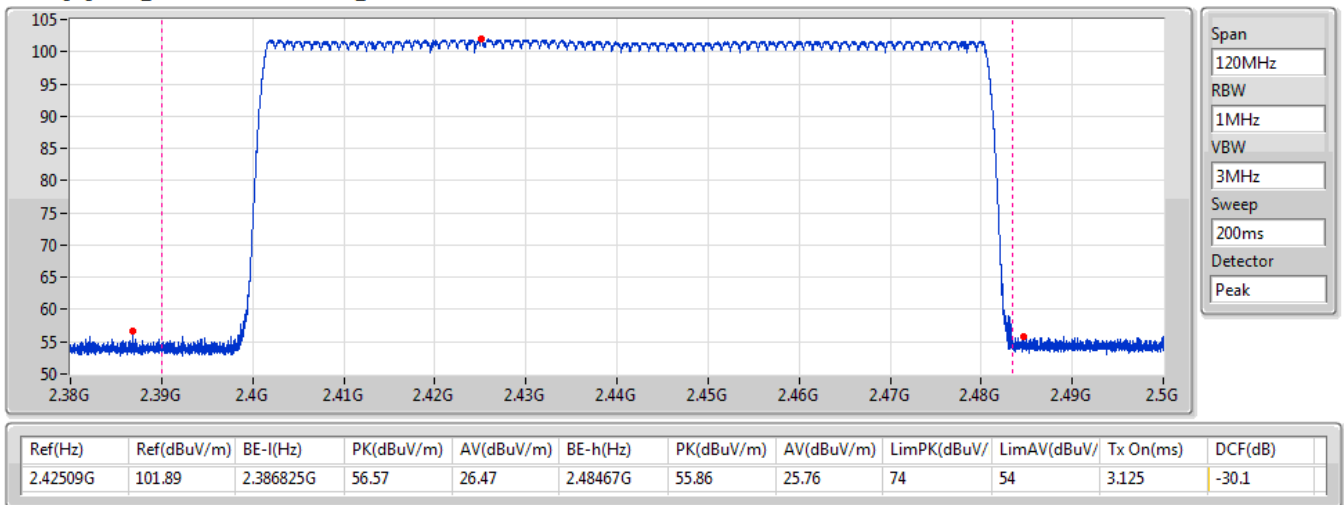


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

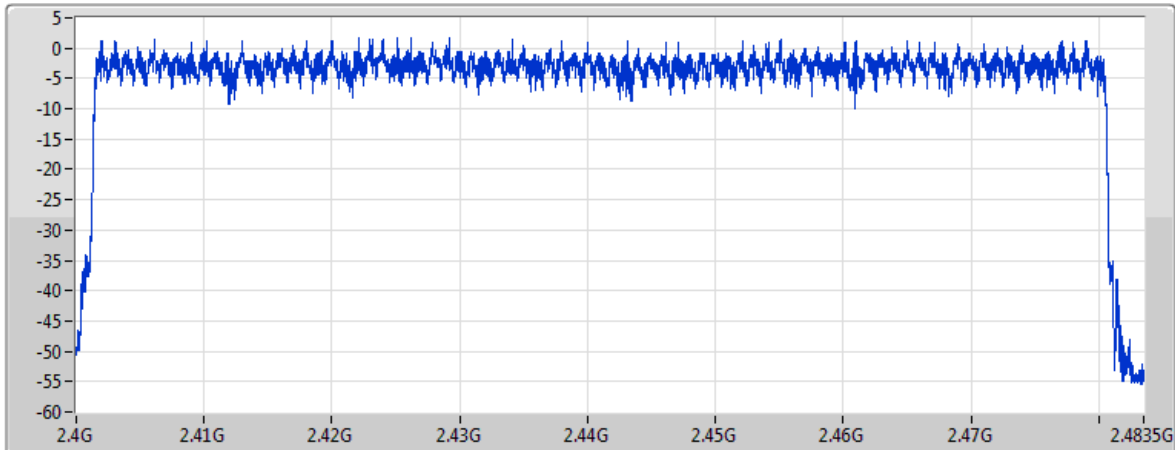
11/10/2019



BT-EDR(3Mbps) 2440MHz

Hopping Ch

11/10/2019



Port 1 

Hopping No
79

Span
83.5MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

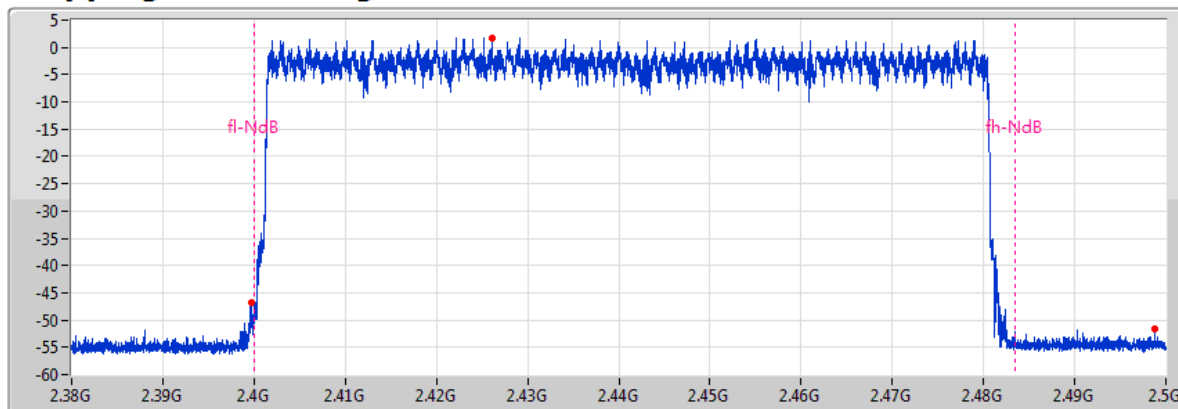
Detector
Peak

Hopping No	Limit
79	15

BT-EDR(3Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)

11/10/2019



Port 1 

Span
120MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

Detector
Peak

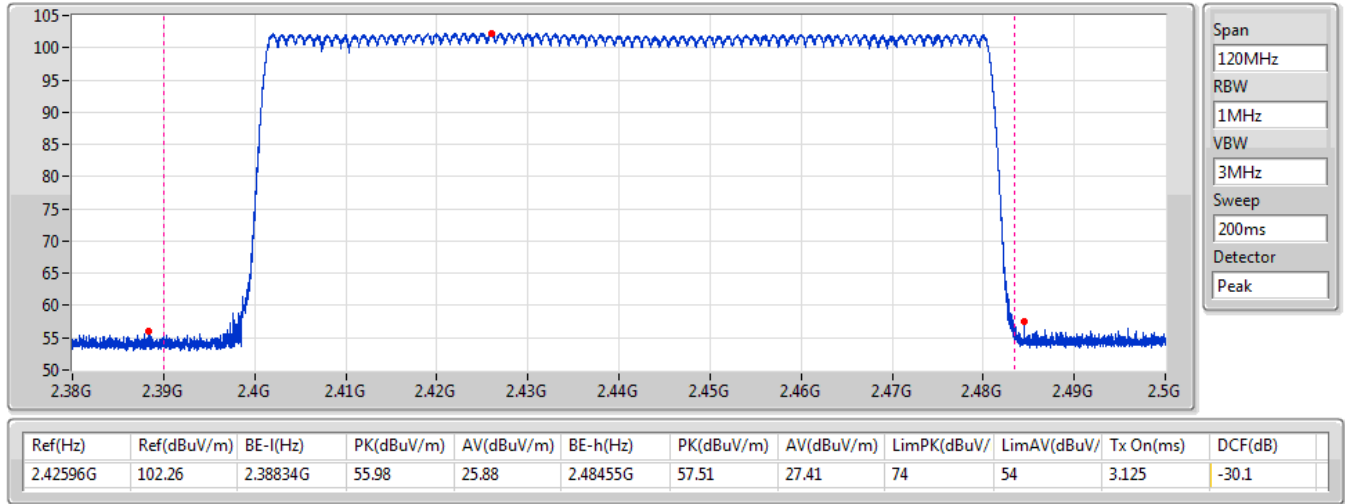
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-18.31	2.426155G	1.69	2.399755G	-46.89	2.49883G	-51.51

BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

11/10/2019



Summary

Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

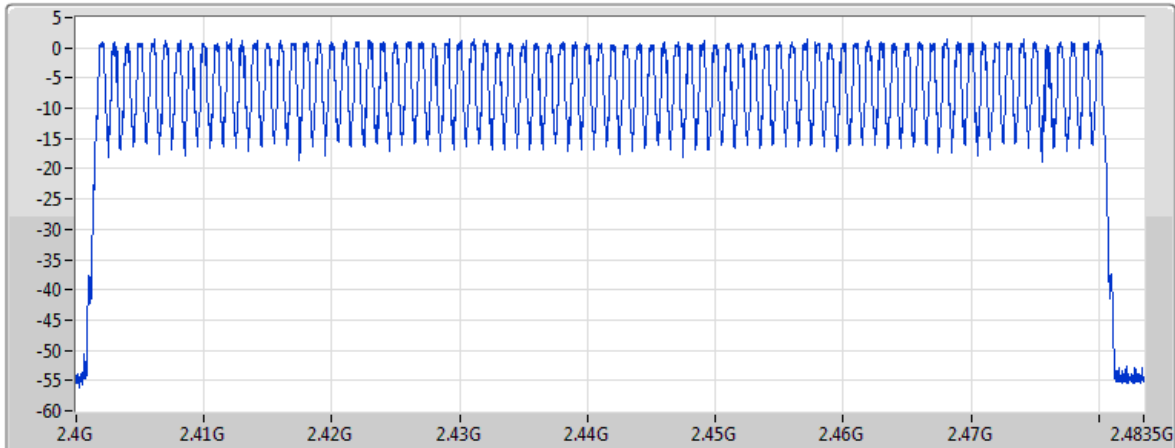
Result

Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

BT-BR(1Mbps) 2440MHz

Hopping Ch

11/10/2019



Port 1 

Hopping No
79

Span
83.5MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

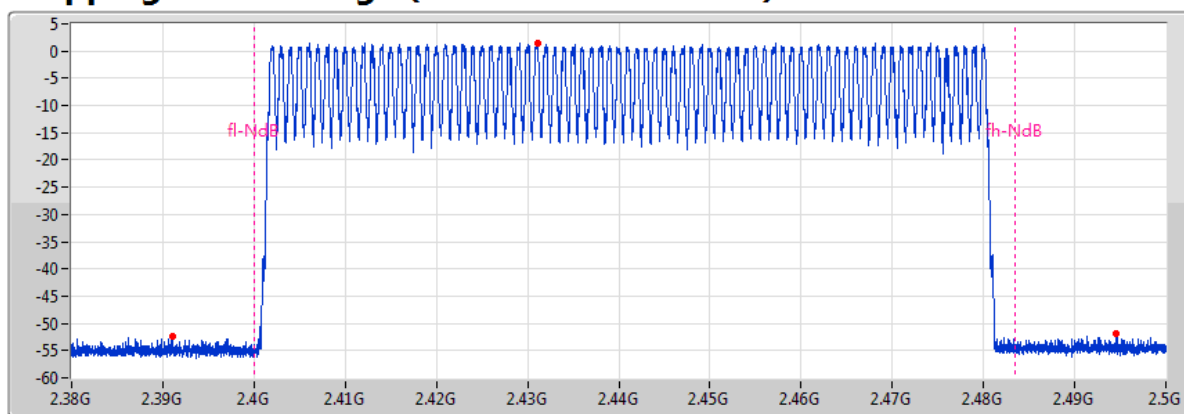
Detector
Peak

Hopping No	Limit
79	15

BT-BR(1Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)

11/10/2019



Port 1 

Span
120MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

Detector
Peak

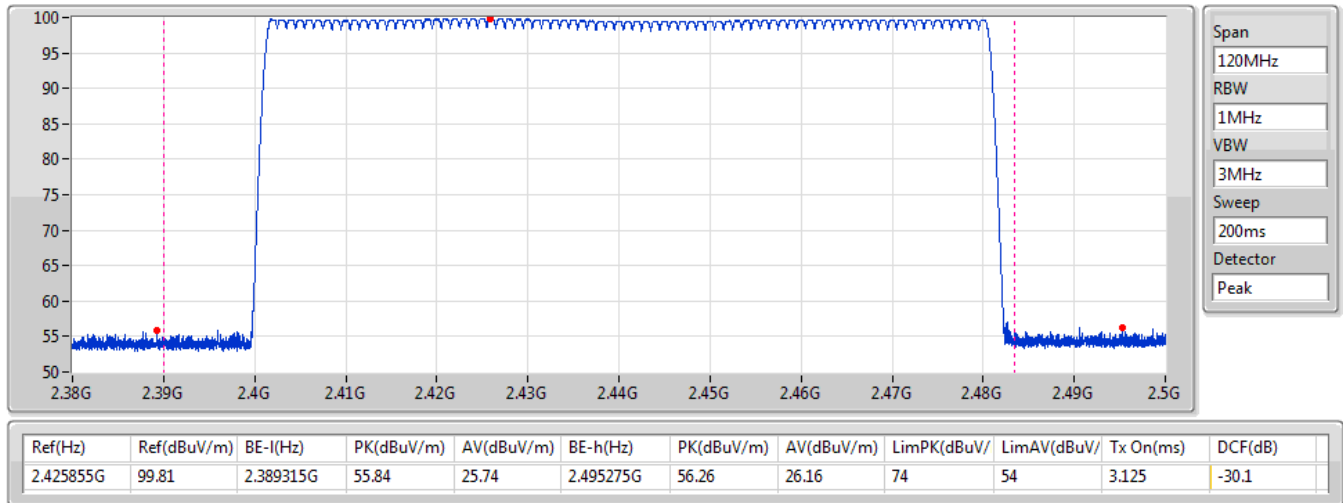
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-18.56	2.431165G	1.44	2.39101G	-52.37	2.494465G	-51.81

BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

11/10/2019

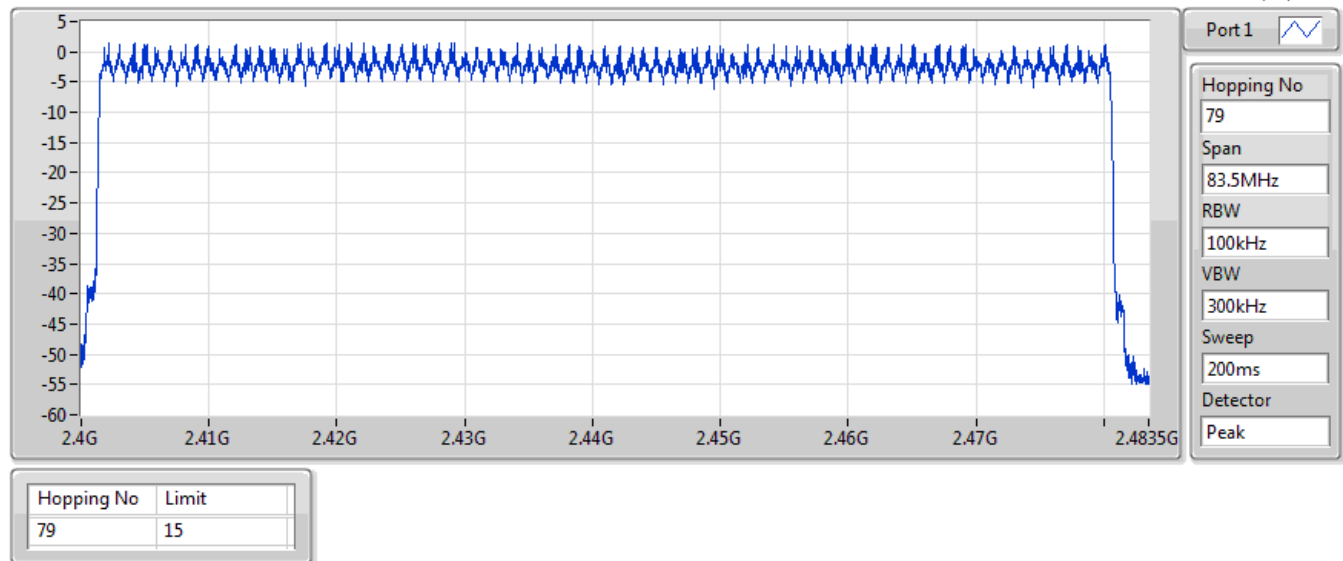


BT-EDR(2Mbps)

2440MHz

Hopping Ch

11/10/2019

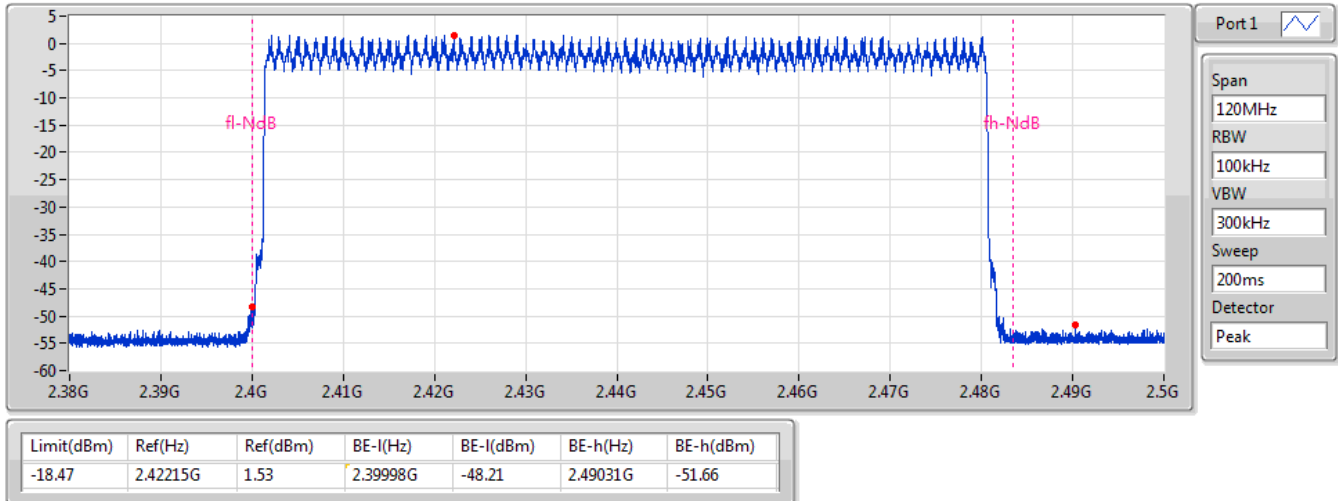


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

11/10/2019

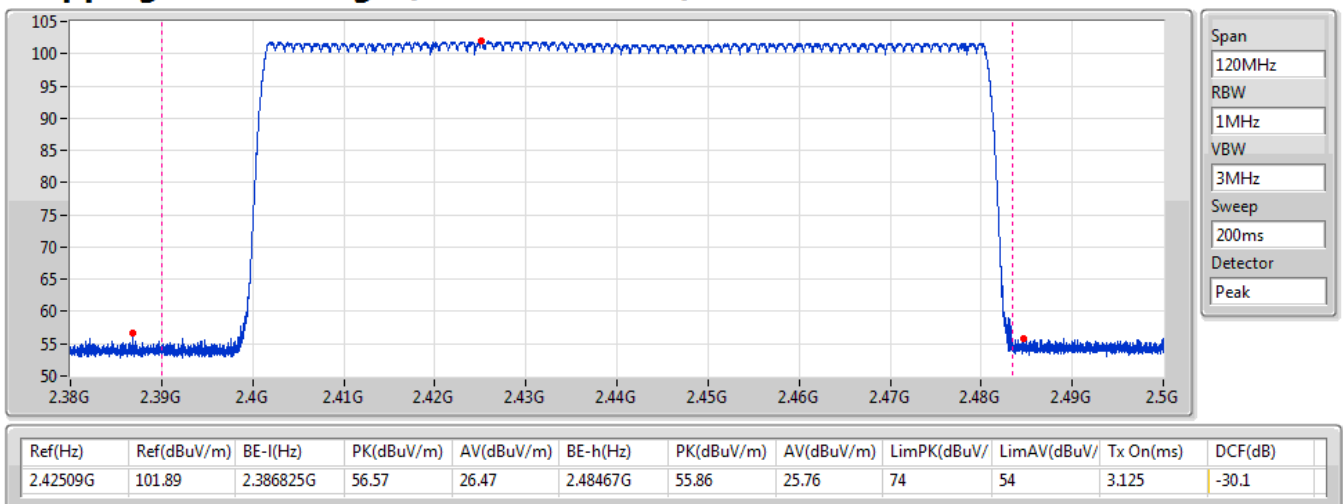


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

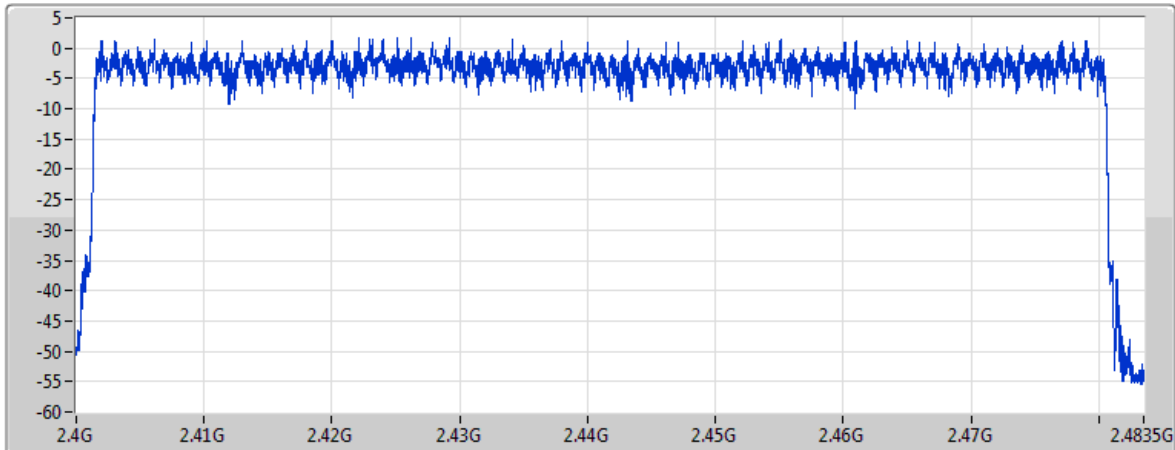
11/10/2019



BT-EDR(3Mbps) 2440MHz

Hopping Ch

11/10/2019



Port 1 

Hopping No
79

Span
83.5MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

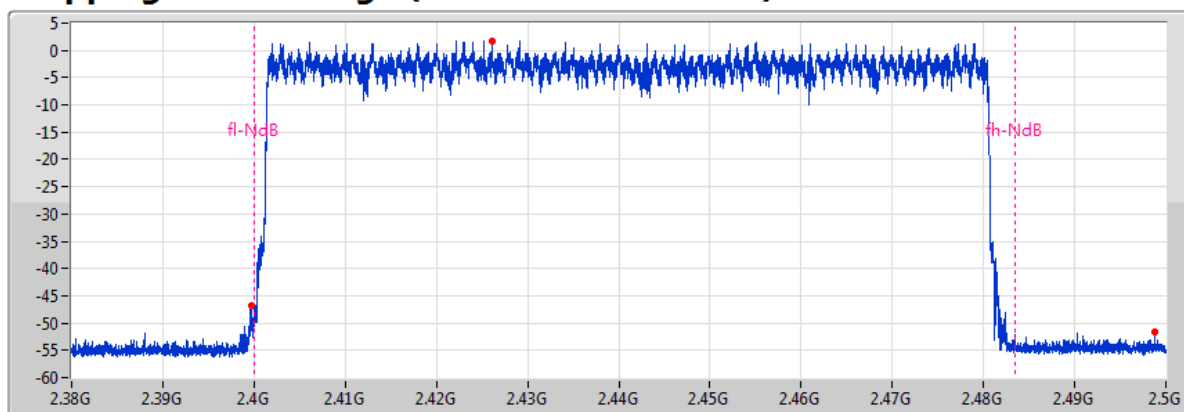
Detector
Peak

Hopping No	Limit
79	15

BT-EDR(3Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)

11/10/2019



Port 1 

Span
120MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

Detector
Peak

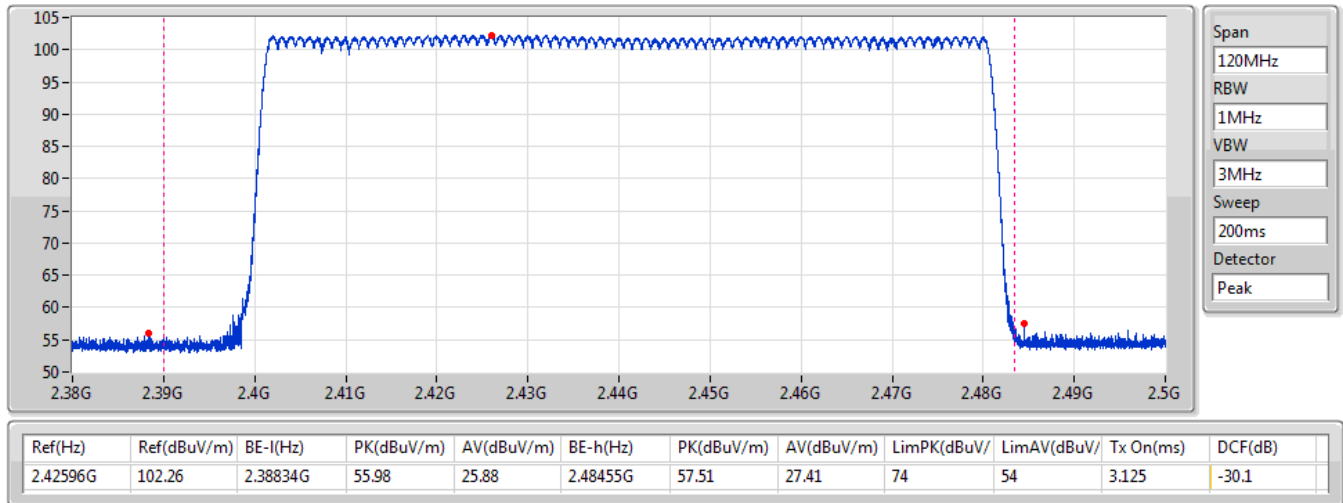
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-18.31	2.426155G	1.69	2.399755G	-46.89	2.49883G	-51.51

BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

11/10/2019



Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.2872m
BT-EDR(2Mbps)	308.2872m
BT-EDR(3Mbps)	308.3938m

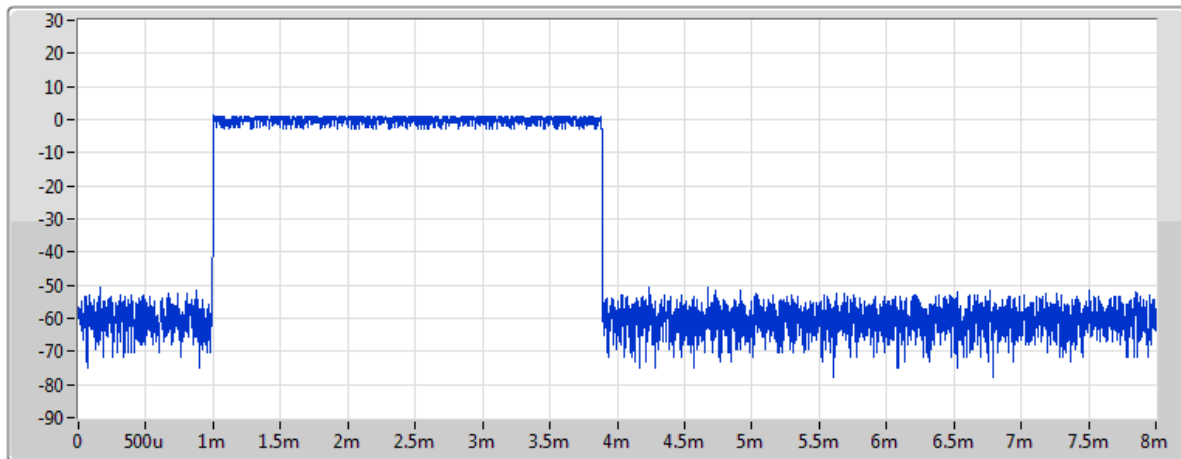
Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.2872m	400m	2.892m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.2872m	400m	2.892m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.3938m	400m	2.893m

BT-BR(1Mbps)

2440MHz

11/10/2019



Port1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.892ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.2872m	400m	2.892m

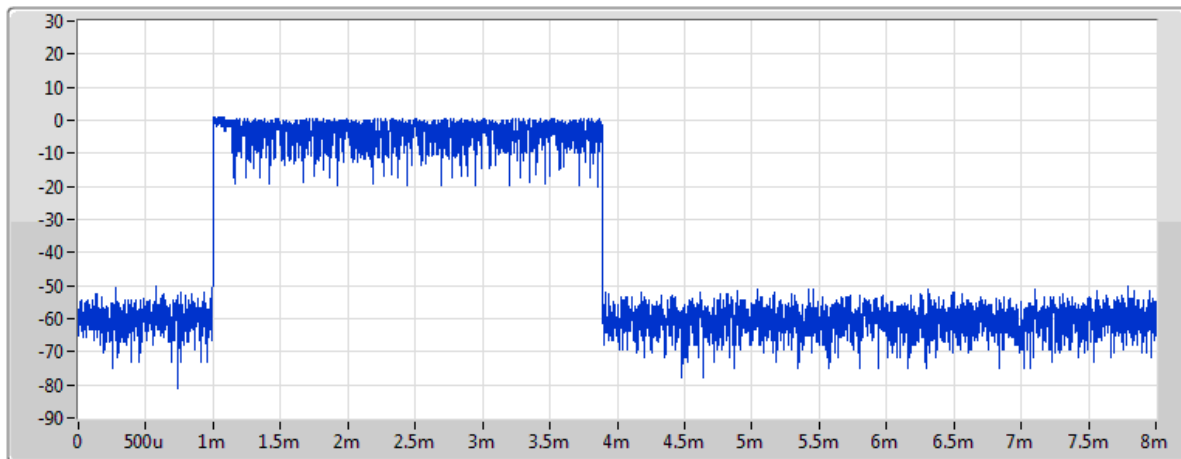
AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
0	154.1436m	400m	2.892m

BT-EDR(2Mbps)

2440MHz

11/10/2019



Port1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.892ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.2872m	400m	2.892m

AFH Mode

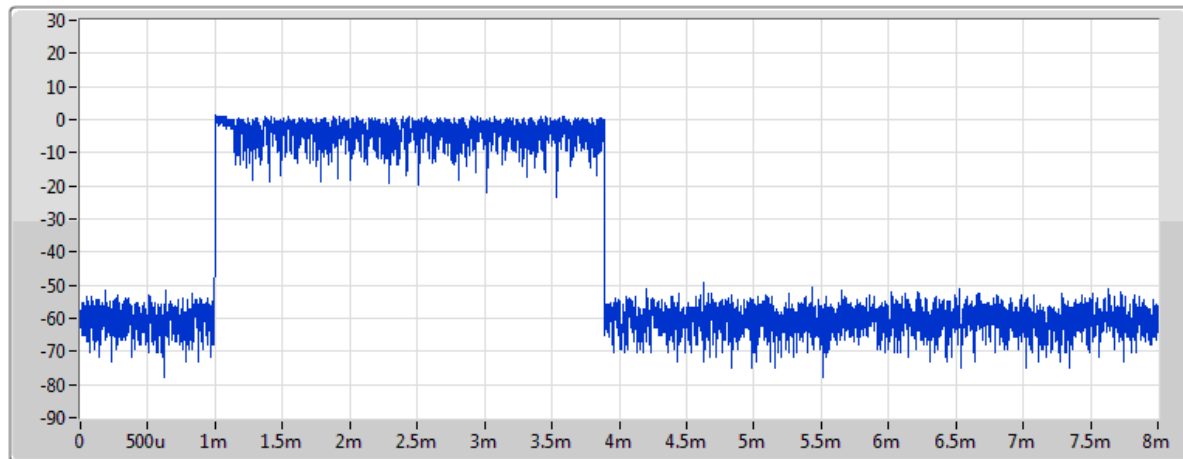
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
0	154.1436m	400m	2.892m

BT-EDR(3Mbps)

2440MHz

Dwell

11/10/2019



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.893ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.3938m	400m	2.893m

AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
0	154.1969m	400m	2.893m

Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.2872m
BT-EDR(2Mbps)	308.2872m
BT-EDR(3Mbps)	308.3938m

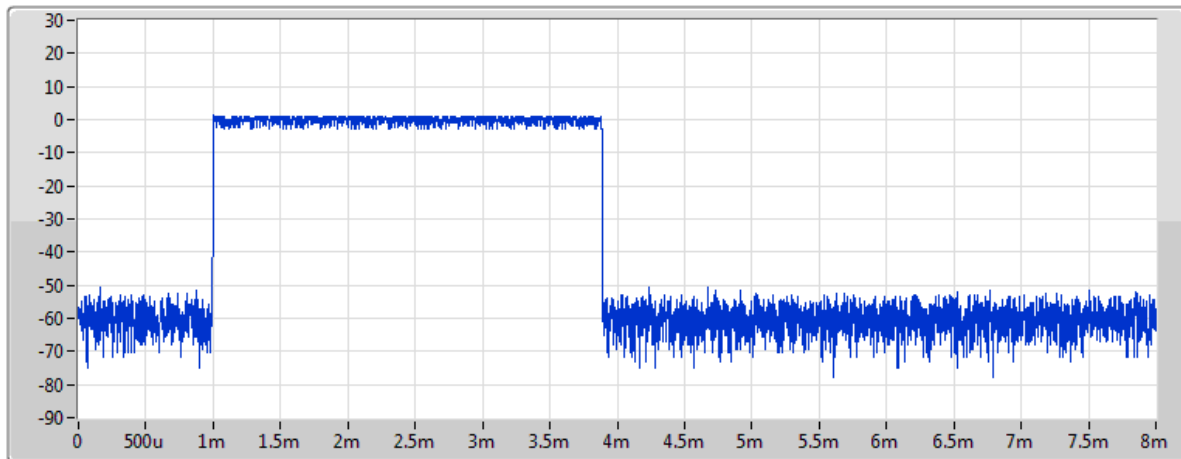
Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.2872m	400m	2.892m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.2872m	400m	2.892m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.3938m	400m	2.893m

BT-BR(1Mbps)

2440MHz

11/10/2019



Port1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.892ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.2872m	400m	2.892m

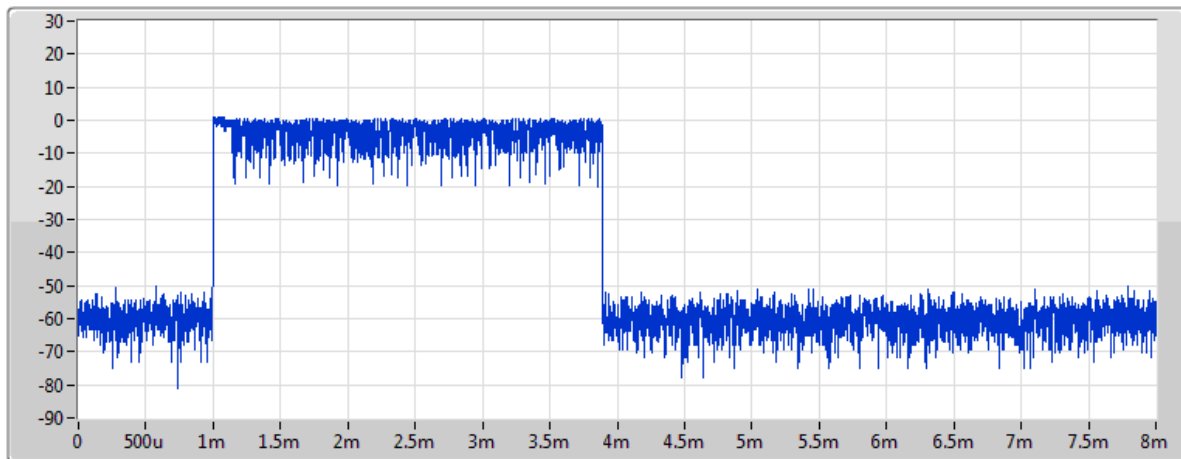
AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
0	154.1436m	400m	2.892m

BT-EDR(2Mbps)

2440MHz

11/10/2019



Port1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.892ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.2872m	400m	2.892m

AFH Mode

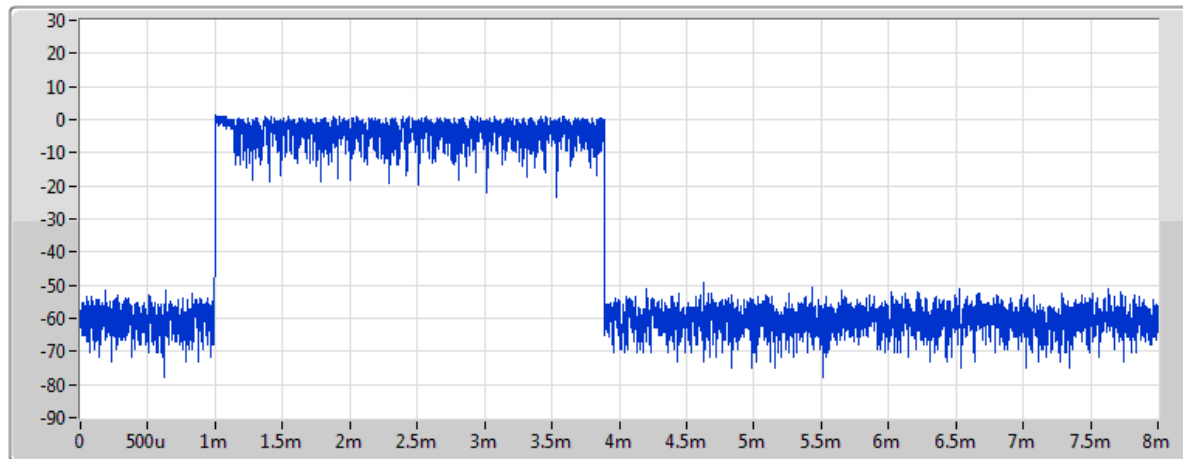
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
0	154.1436m	400m	2.892m

BT-EDR(3Mbps)

2440MHz

Dwell

11/10/2019



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.893ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.3938m	400m	2.893m

AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
0	154.1969m	400m	2.893m



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.44G	1.06	-18.94	1.97946G	-62.32	2.39998G	-61.14	2.48512G	-61.75	2.54179G	-54.07	1
BT-EDR(2Mbps)	Pass	2.40213G	1.38	-18.62	2.3021G	-57.26	2.39982G	-48.88	2.48475G	-61.64	15.07392G	-55.14	1
BT-EDR(3Mbps)	Pass	2.40205G	-0.49	-20.49	2.39652G	-60.46	2.39961G	-47.44	2.48416G	-62.58	24.78048G	-55.40	1

Result

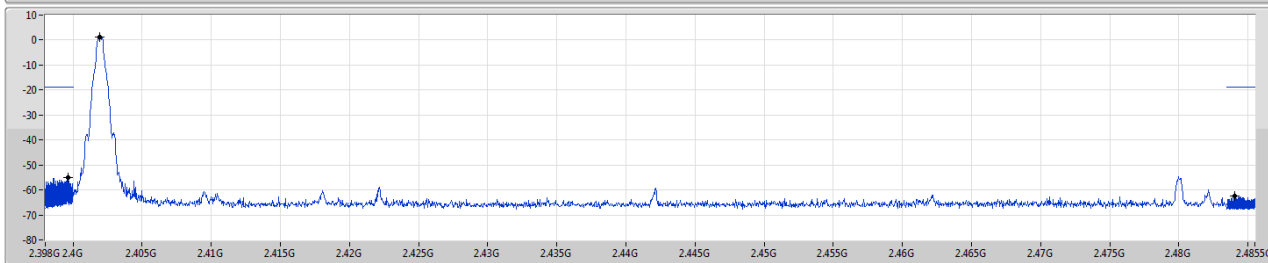
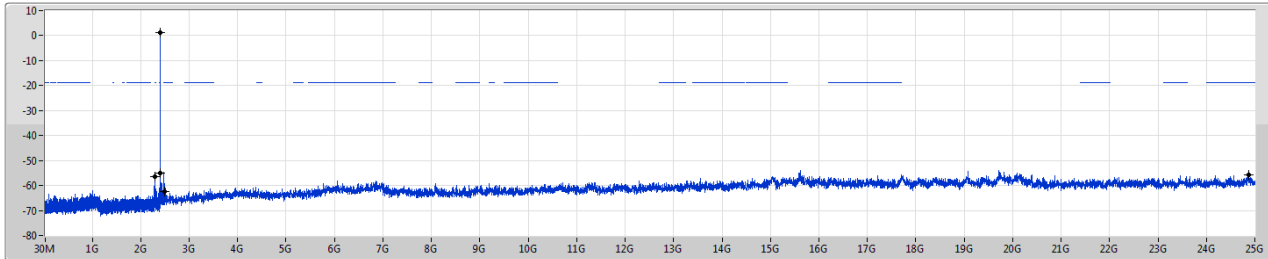
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	1.20	-18.80	2.30239G	-56.55	2.39967G	-55.05	2.48401G	-62.57	24.86491G	-55.77	1
2440MHz	Pass	2.44G	1.06	-18.94	1.97946G	-62.32	2.39998G	-61.14	2.48512G	-61.75	2.54179G	-54.07	1
2480MHz	Pass	2.48003G	1.20	-18.80	931.02M	-63.99	2.39998G	-59.76	2.48513G	-56.02	2.584G	-54.44	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	1.38	-18.62	2.3021G	-57.26	2.39982G	-48.88	2.48475G	-61.64	15.07392G	-55.14	1
2440MHz	Pass	2.44004G	-0.03	-20.03	1.82761G	-64.25	2.39964G	-62.19	2.4844G	-62.74	17.69123G	-54.80	1
2480MHz	Pass	2.4802G	1.06	-18.94	951.15M	-63.97	2.39949G	-62.20	2.48408G	-57.98	24.87054G	-54.62	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40205G	-0.49	-20.49	2.39652G	-60.46	2.39961G	-47.44	2.48416G	-62.58	24.78048G	-55.40	1
2440MHz	Pass	2.43987G	-0.60	-20.60	549.78M	-63.94	2.39979G	-62.33	2.48523G	-60.91	17.69404G	-55.57	1
2480MHz	Pass	2.47987G	0.68	-19.32	1.8501G	-64.41	2.39837G	-63.01	2.48352G	-57.39	14.98949G	-55.30	1

BT-BR(1Mbps)

2402MHz

CSE NdB

11/10/2019



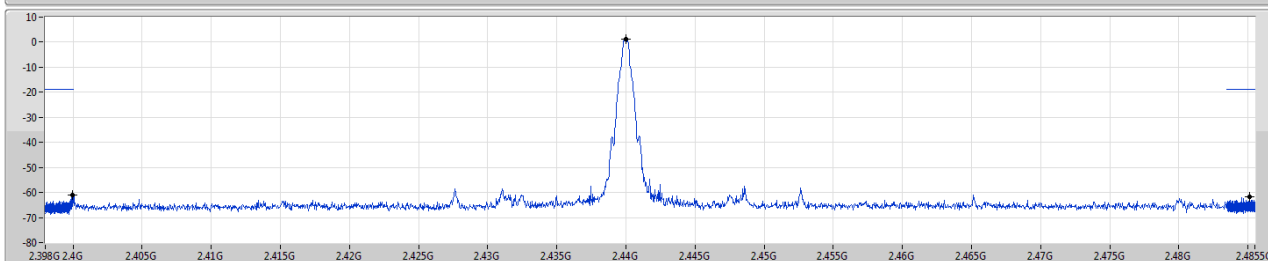
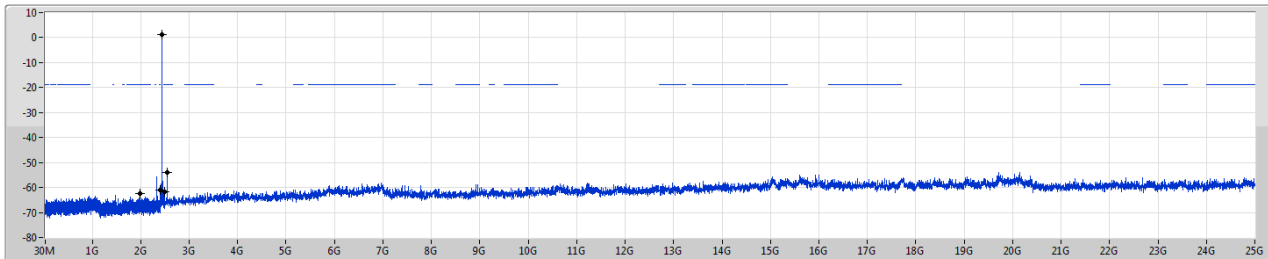
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
240196G	1.20	-18.80	2.30239G	-56.55	2.39967G	-55.05	2.48401G	-62.57	2.486491G	-55.77	1

BT-BR(1Mbps)

2440MHz

CSE NdB

11/10/2019



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	1.06	-18.94	1.97946G	-62.32	2.39998G	-61.14	2.48512G	-61.75	2.54179G	-54.07	1

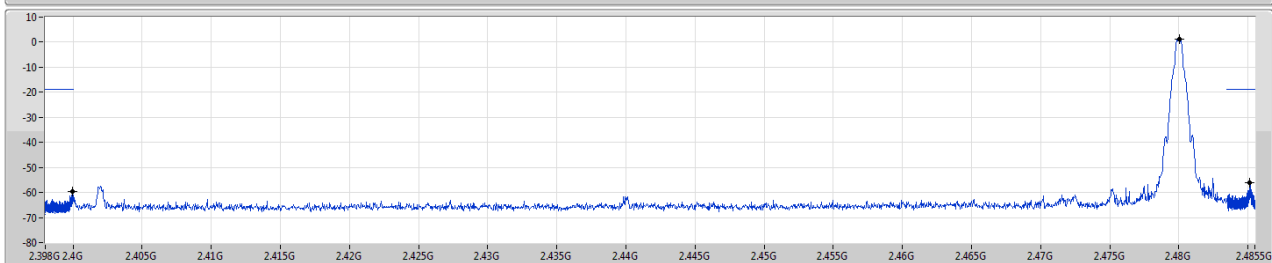
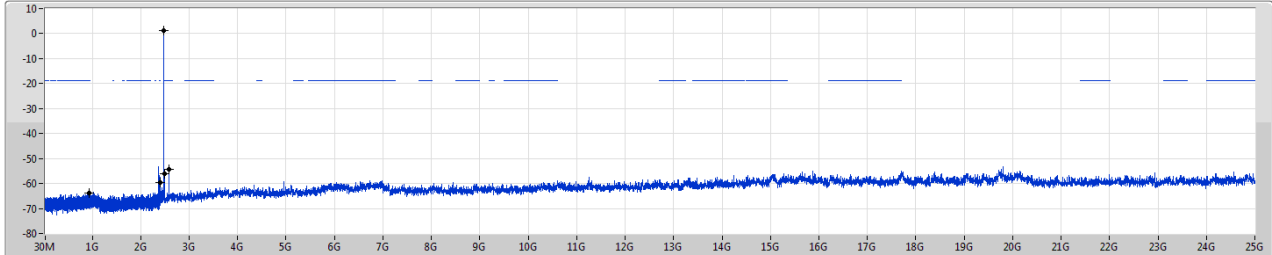
BT-BR(1Mbps)

2480MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
248003G	1.20	-18.80	931.02M	-63.99	2.39998G	-59.76	2.48513G	-56.02	2.584G	-54.44	1

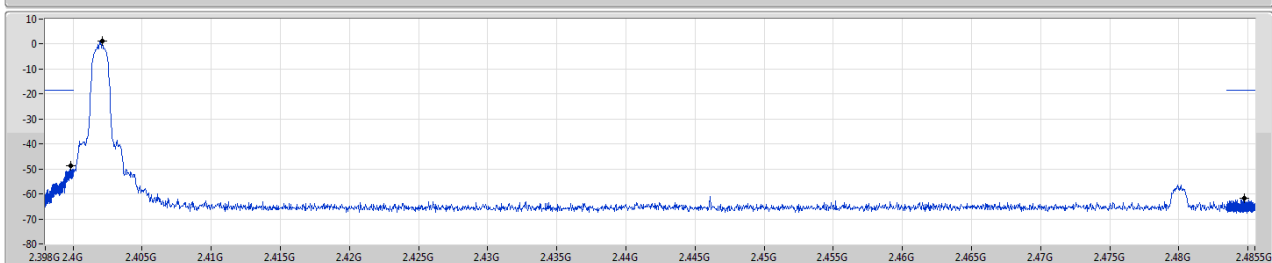
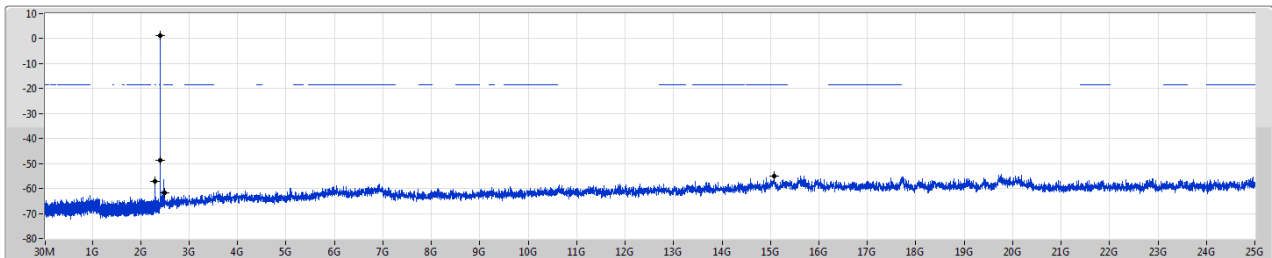
BT-EDR(2Mbps)

2402MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
240213G	1.38	-18.82	2.3021G	-57.26	2.39982G	-48.88	2.48475G	-61.64	15.07392G	-55.14	1

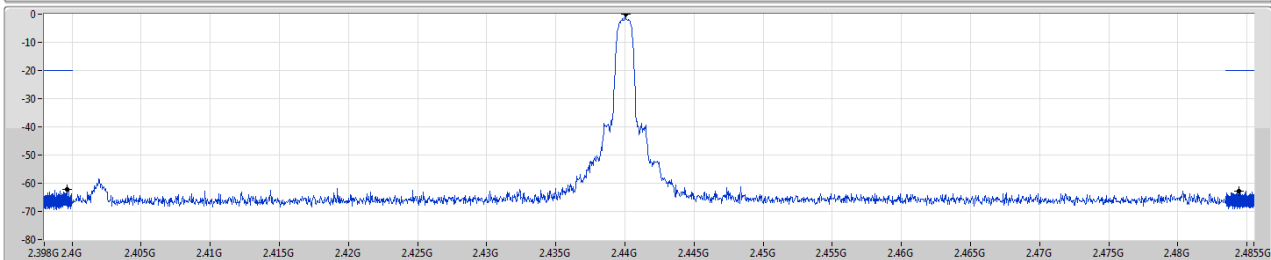
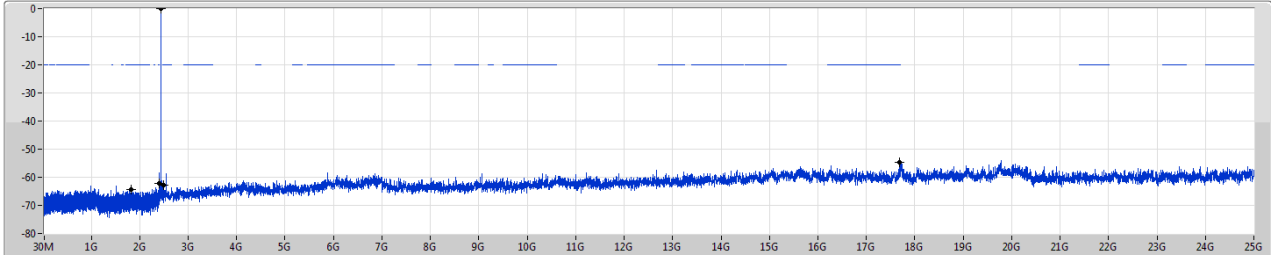
BT-EDR(2Mbps)

2440MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44004G	-0.03	-20.03	1.82761G	-64.25	2.39964G	-62.19	2.4844G	-62.74	17.69123G	-54.80	1

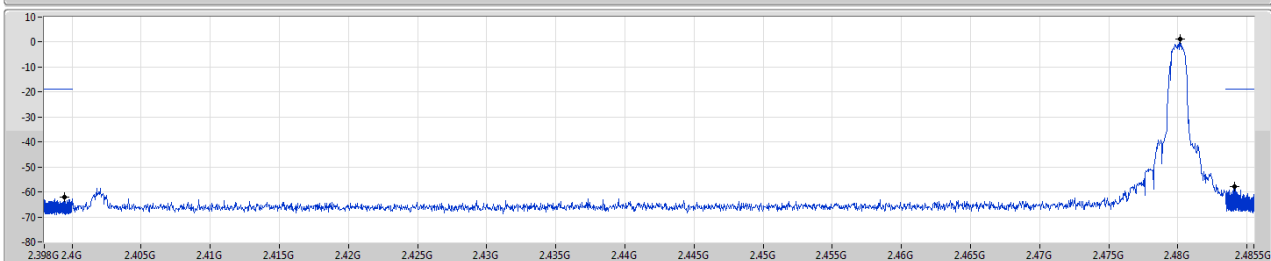
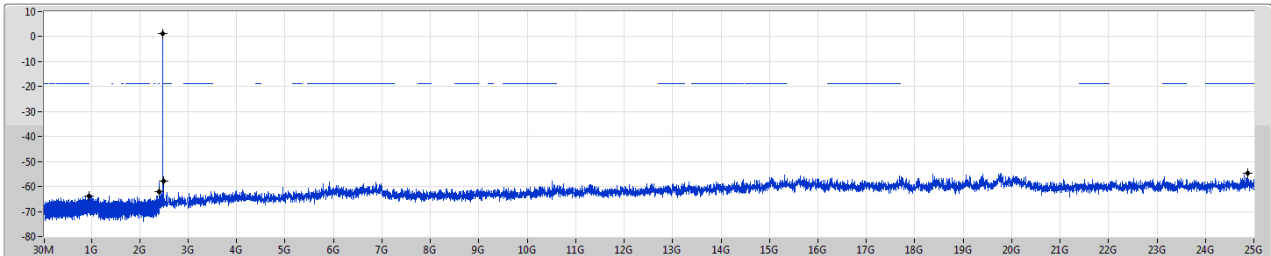
BT-EDR(2Mbps)

2480MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4802G	1.06	-18.94	951.15M	-63.97	2.39949G	-62.20	2.48408G	-57.98	24.87054G	-54.62	1

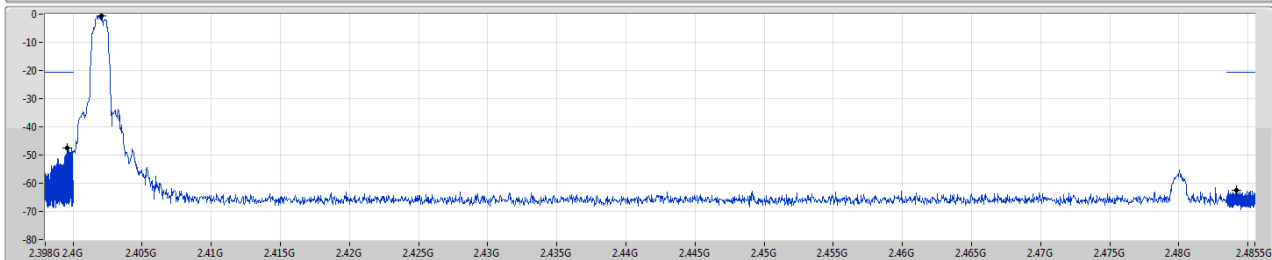
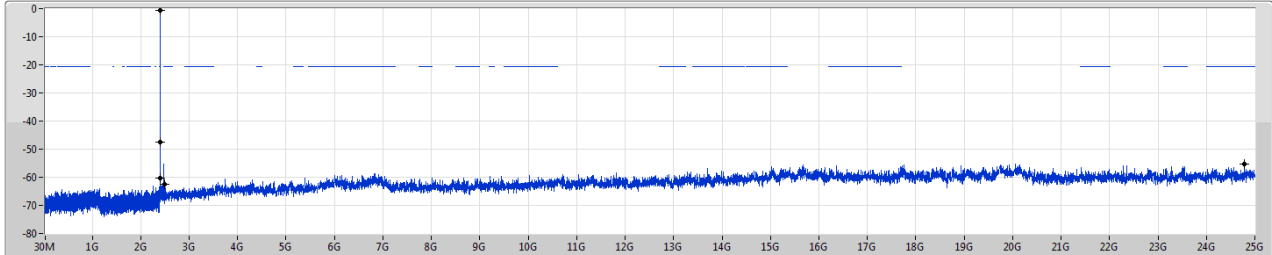
BT-EDR(3Mbps)

2402MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
240205G	-0.49	-20.49	2.39652G	-60.46	2.39961G	-47.44	2.48416G	-62.58	2.478048G	-55.40	1

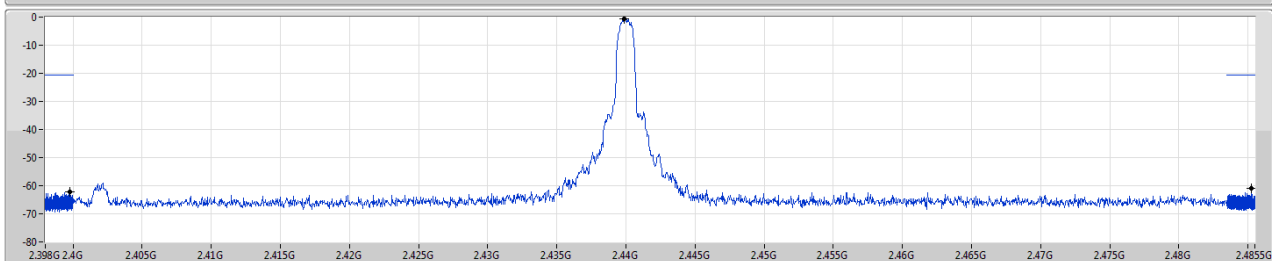
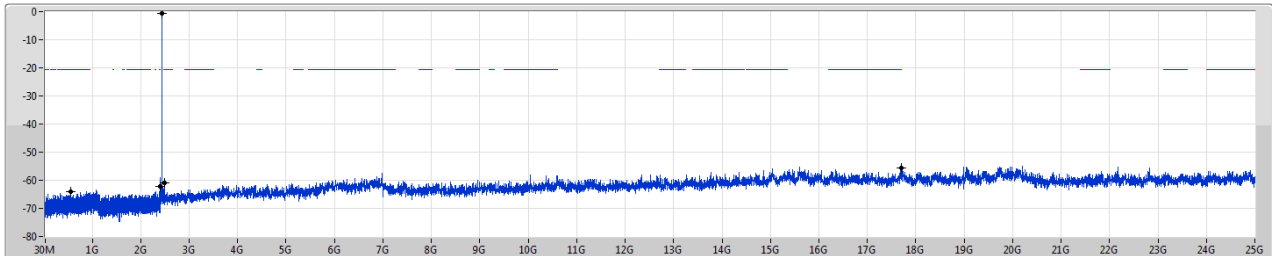
BT-EDR(3Mbps)

2440MHz

CSE NdB

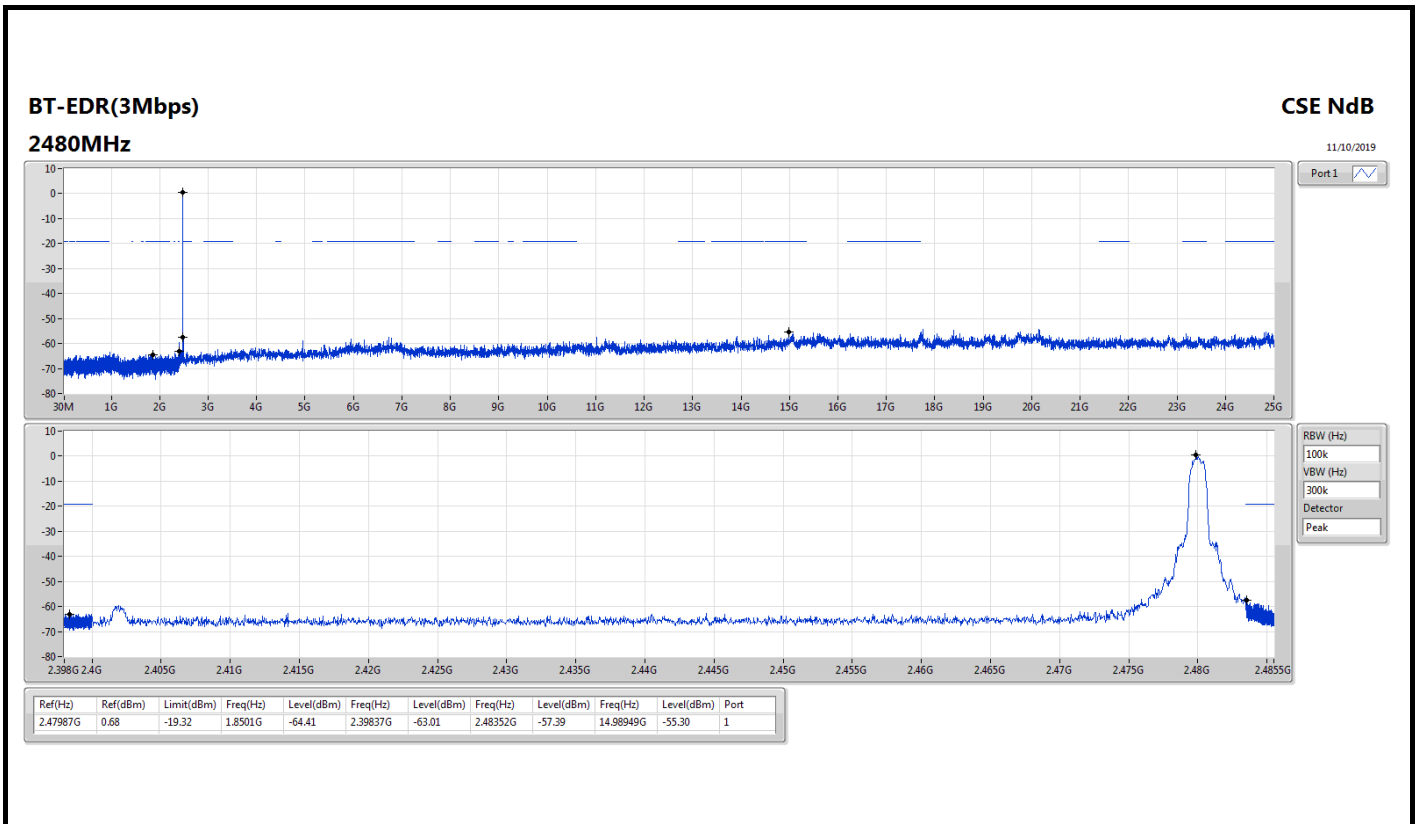
11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
243987G	-0.60	-20.60	549.78M	-63.94	2.39979G	-62.33	2.48523G	-60.91	17.69404G	-55.57	1



**Summary**

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.44G	1.06	-18.94	1.97946G	-62.32	2.39998G	-61.14	2.48512G	-61.75	2.54179G	-54.07	1
BT-EDR(2Mbps)	Pass	2.40213G	1.38	-18.62	2.3021G	-57.26	2.39982G	-48.88	2.48475G	-61.64	15.07392G	-55.14	1
BT-EDR(3Mbps)	Pass	2.40205G	-0.49	-20.49	2.39652G	-60.46	2.39961G	-47.44	2.48416G	-62.58	24.78048G	-55.40	1

Result

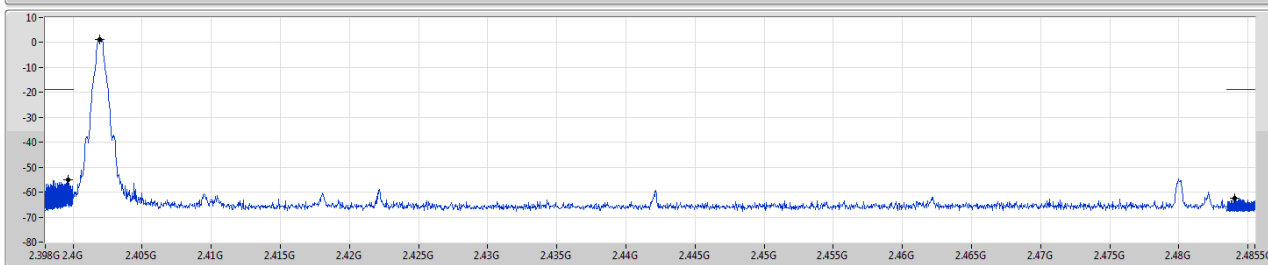
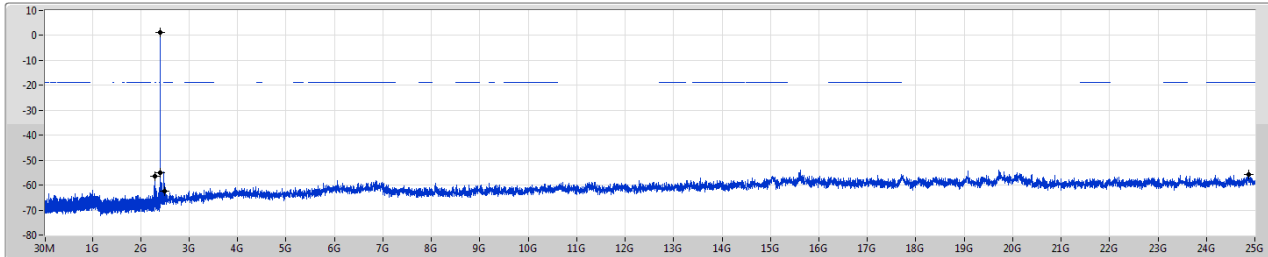
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	1.20	-18.80	2.30239G	-56.55	2.39967G	-55.05	2.48401G	-62.57	24.86491G	-55.77	1
2440MHz	Pass	2.44G	1.06	-18.94	1.97946G	-62.32	2.39998G	-61.14	2.48512G	-61.75	2.54179G	-54.07	1
2480MHz	Pass	2.48003G	1.20	-18.80	931.02M	-63.99	2.39998G	-59.76	2.48513G	-56.02	2.584G	-54.44	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	1.38	-18.62	2.3021G	-57.26	2.39982G	-48.88	2.48475G	-61.64	15.07392G	-55.14	1
2440MHz	Pass	2.44004G	-0.03	-20.03	1.82761G	-64.25	2.39964G	-62.19	2.4844G	-62.74	17.69123G	-54.80	1
2480MHz	Pass	2.4802G	1.06	-18.94	951.15M	-63.97	2.39949G	-62.20	2.48408G	-57.98	24.87054G	-54.62	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40205G	-0.49	-20.49	2.39652G	-60.46	2.39961G	-47.44	2.48416G	-62.58	24.78048G	-55.40	1
2440MHz	Pass	2.43987G	-0.60	-20.60	549.78M	-63.94	2.39979G	-62.33	2.48523G	-60.91	17.69404G	-55.57	1
2480MHz	Pass	2.47987G	0.68	-19.32	1.8501G	-64.41	2.39837G	-63.01	2.48352G	-57.39	14.98949G	-55.30	1

BT-BR(1Mbps)

2402MHz

CSE NdB

11/10/2019



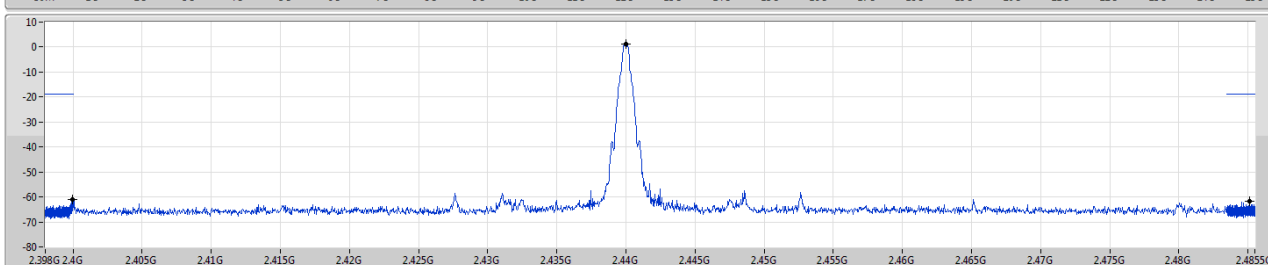
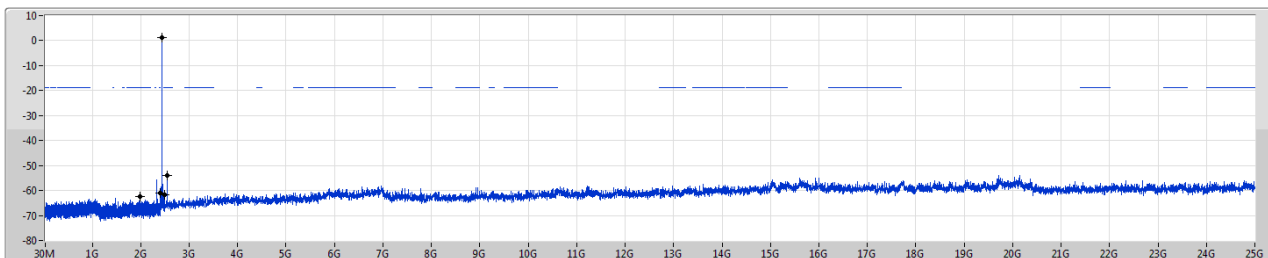
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
240196G	1.20	-18.80	230239G	-56.55	239967G	-55.05	248401G	-62.57	2486491G	-55.77	1

BT-BR(1Mbps)

2440MHz

CSE NdB

11/10/2019



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
244G	1.06	-18.94	197946G	-62.32	239998G	-61.14	248512G	-61.75	254179G	-54.07	1

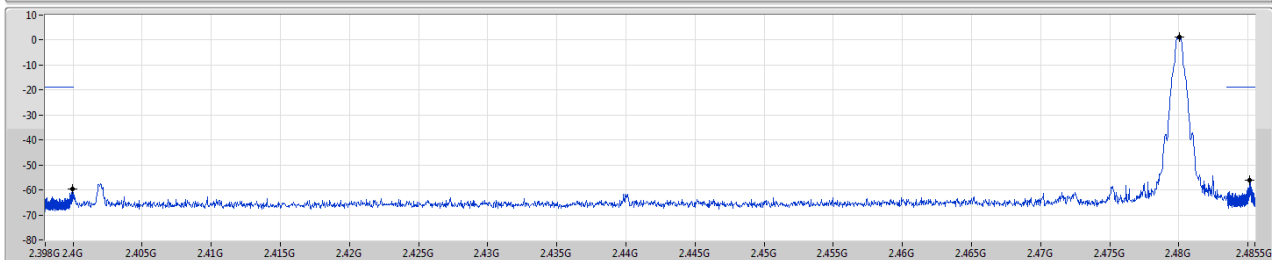
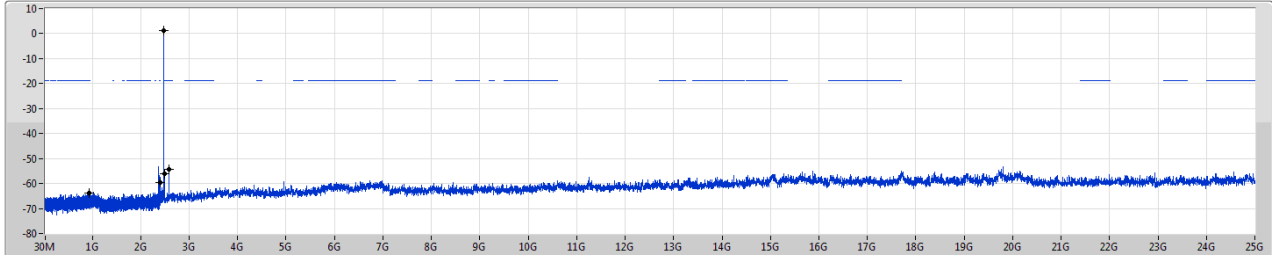
BT-BR(1Mbps)

2480MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
248003G	1.20	-18.80	931.02M	-63.99	2.39998G	-59.76	2.48513G	-56.02	2.584G	-54.44	1

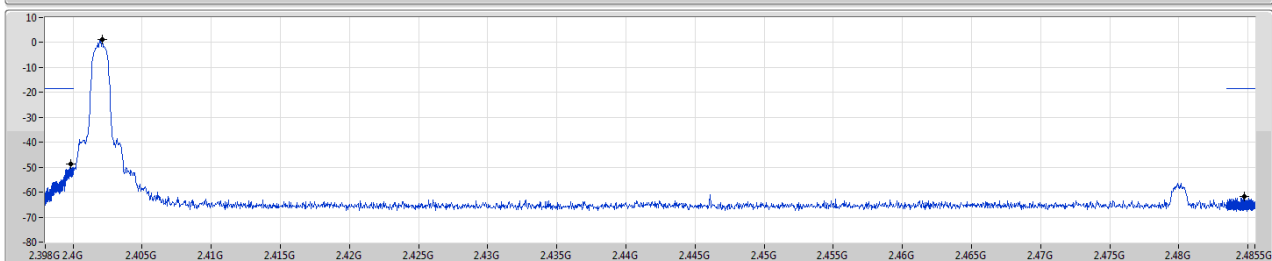
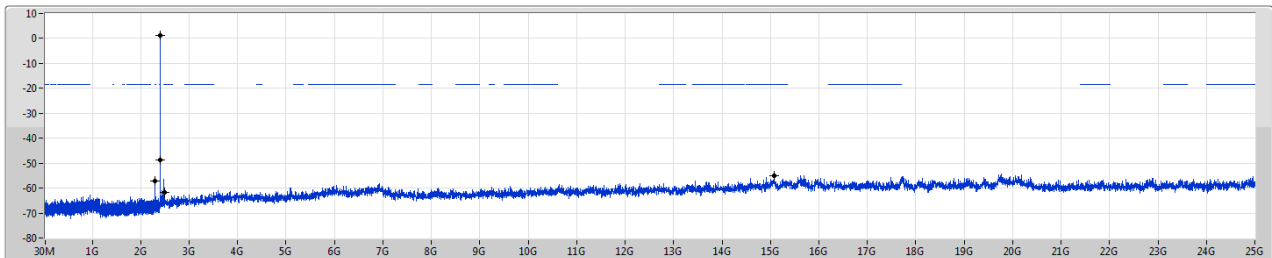
BT-EDR(2Mbps)

2402MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
240213G	1.38	-18.82	2.3021G	-57.26	2.39982G	-48.88	2.48475G	-61.64	15.07392G	-55.14	1

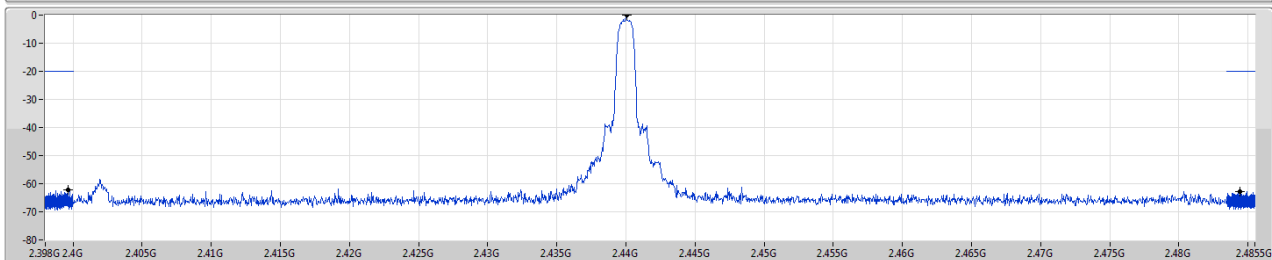
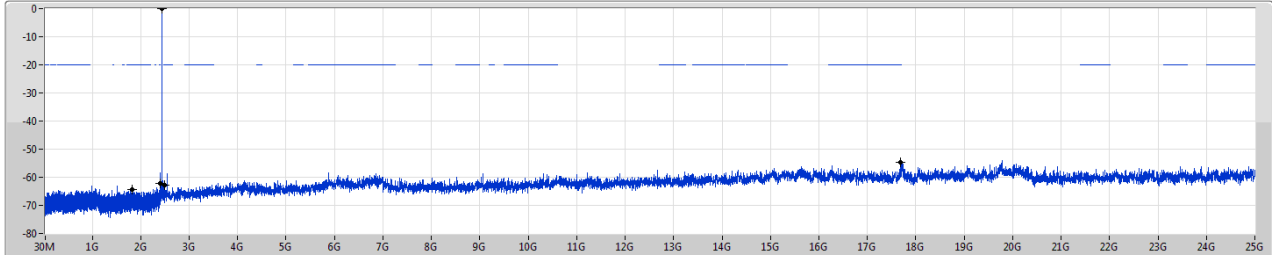
BT-EDR(2Mbps)

2440MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44004G	-0.03	-20.03	1.82761G	-64.25	2.39964G	-62.19	2.4844G	-62.74	17.69123G	-54.80	1

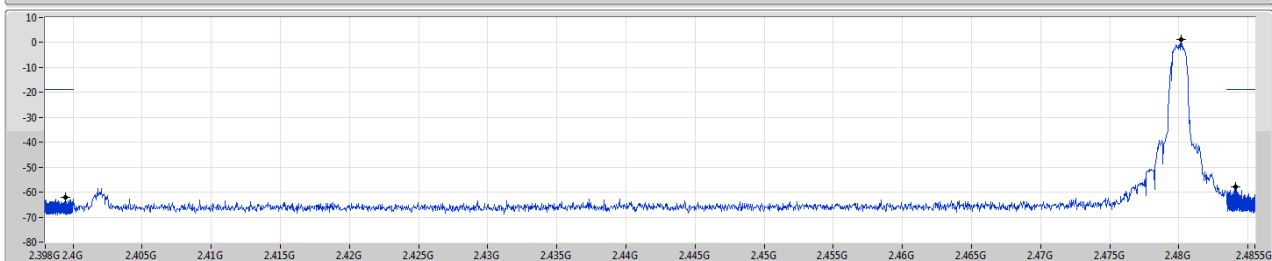
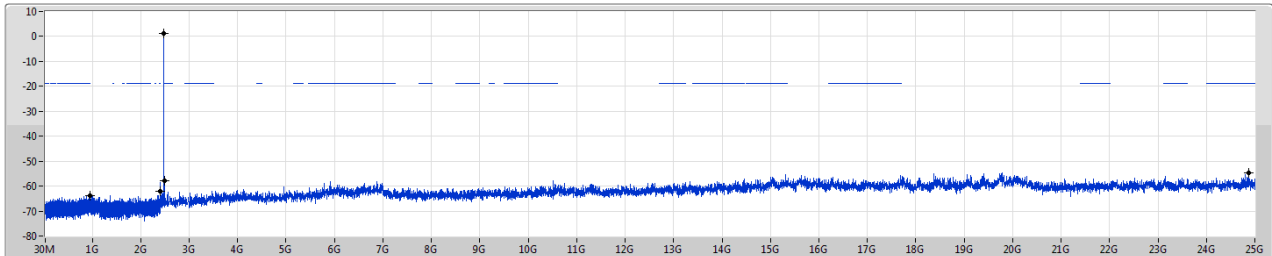
BT-EDR(2Mbps)

2480MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4802G	1.06	-18.94	951.15M	-63.97	2.39949G	-62.20	2.48408G	-57.98	24.87054G	-54.62	1

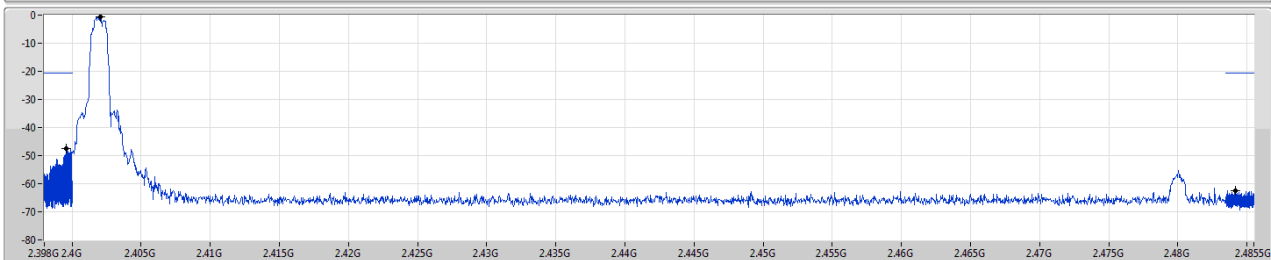
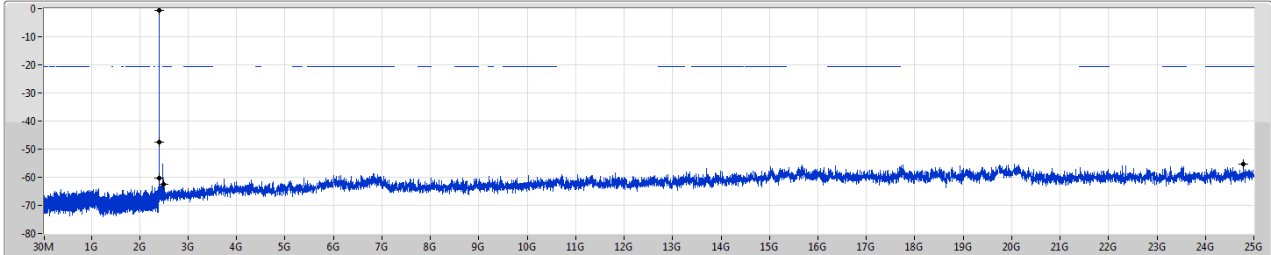
BT-EDR(3Mbps)

2402MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40205G	-0.49	-20.49	2.39652G	-60.46	2.39961G	-47.44	2.48416G	-62.58	2.478048G	-55.40	1

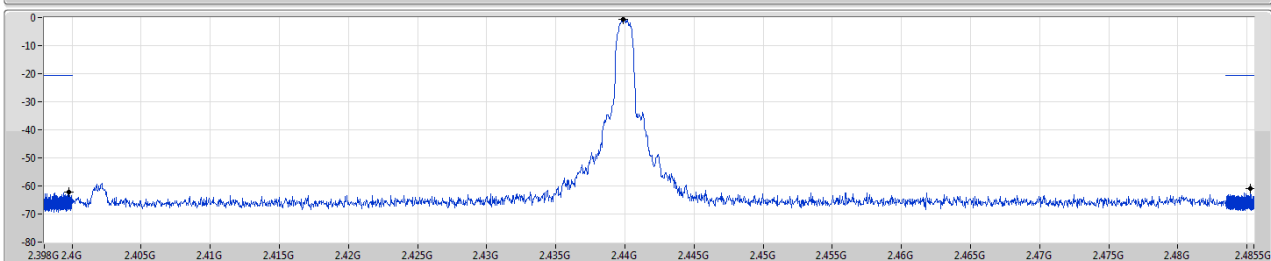
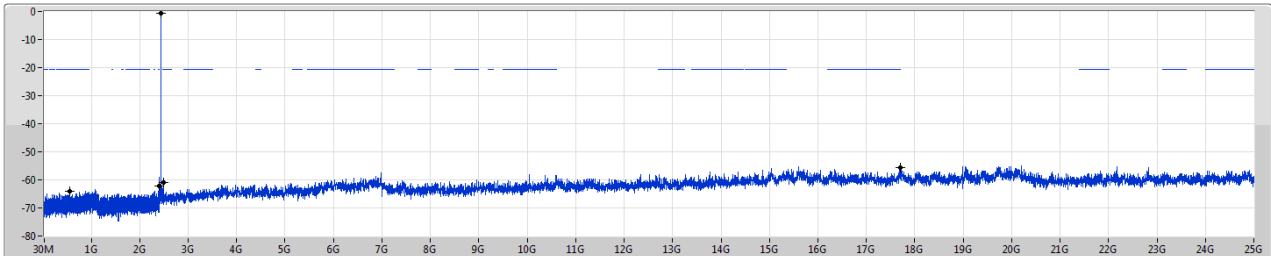
BT-EDR(3Mbps)

2440MHz

CSE NdB

11/10/2019

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43987G	-0.60	-20.60	549.78M	-63.94	2.39979G	-62.33	2.48523G	-60.91	17.69404G	-55.57	1

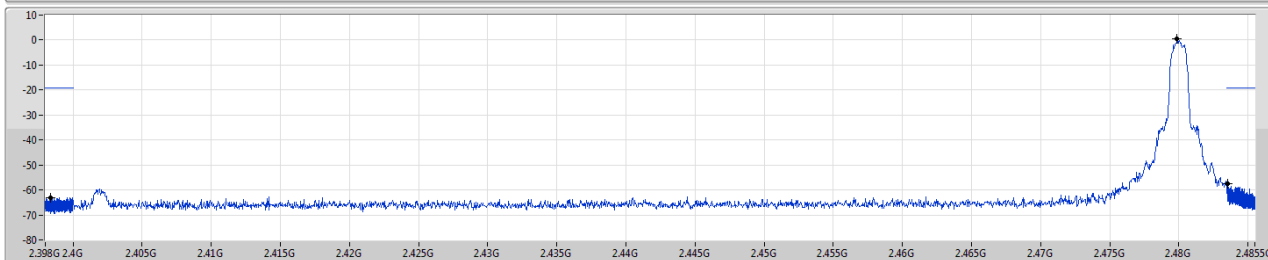
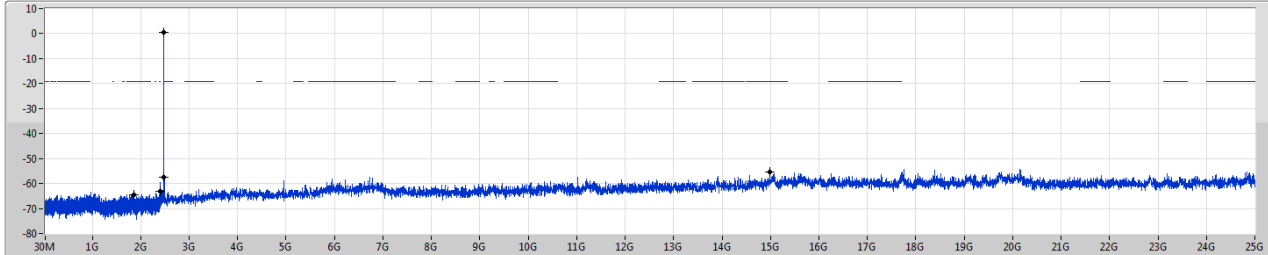
BT-EDR(3Mbps)

2480MHz

CSE NdB

11/10/2019

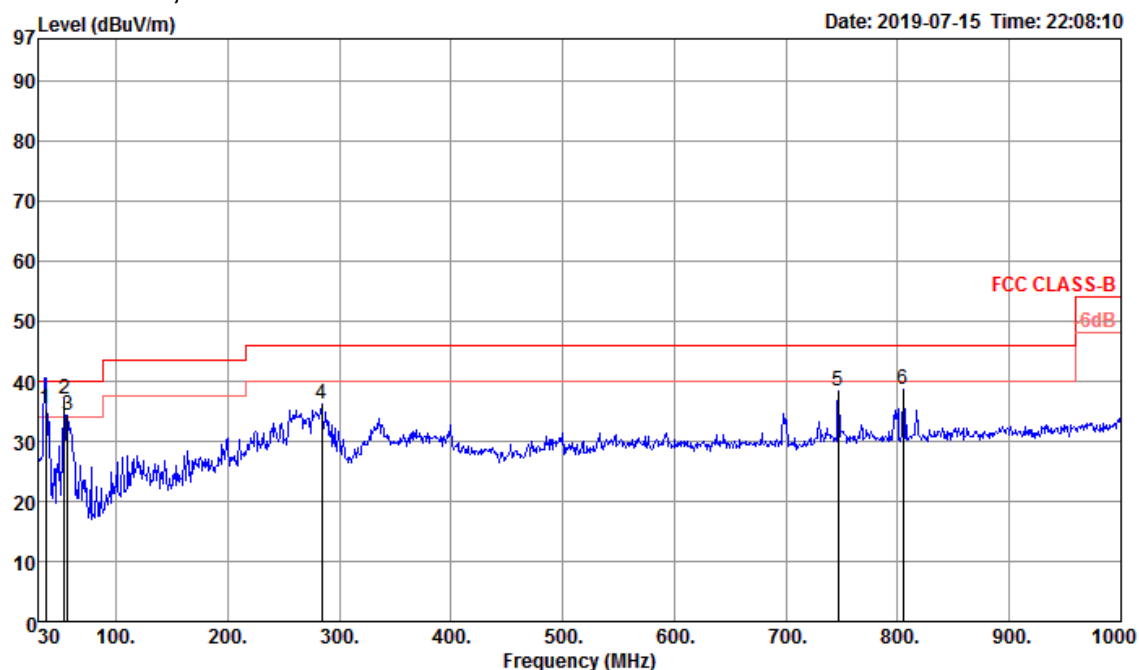
Port 1

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47987G	0.68	-19.32	1.8501G	-64.41	2.39837G	-63.01	2.48352G	-57.39	14.98949G	-55.30	1

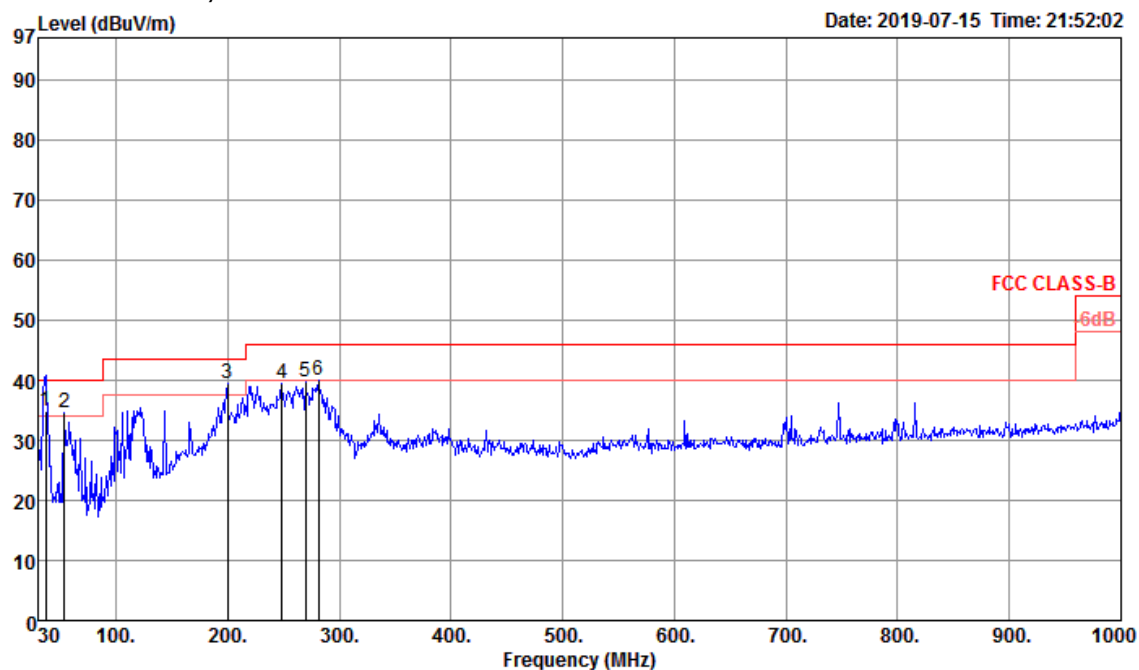
Test Mode	Mode 4	Frequency Range	30 MHz to 1,000 MHz
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Vertical 30 MHz to 1,000 MHz



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	36.79	35.42	40.00	-4.58	42.50	0.71	20.78	28.57	100	116 QP	VERTICAL
2	53.28	36.95	40.00	-3.05	51.60	0.85	13.05	28.55	100	360 Peak	VERTICAL
3	56.19	34.39	40.00	-5.61	49.45	0.87	12.61	28.54	100	360 Peak	VERTICAL
4	284.14	36.24	46.00	-9.76	43.41	1.97	18.81	27.95	100	360 Peak	VERTICAL
5	746.83	38.46	46.00	-7.54	38.75	3.22	25.90	29.41	100	360 Peak	VERTICAL
6	805.03	38.69	46.00	-7.31	38.61	3.36	26.05	29.33	100	360 Peak	VERTICAL

Horizontal 30 MHz to 1,000 MHz



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	36.79	34.82	40.00	-5.18	41.90	0.71	20.78	28.57	100	124 QP	HORIZONTAL
2	53.28	34.65	40.00	-5.35	49.30	0.85	13.05	28.55	400	360 Peak	HORIZONTAL
3	199.75	39.32	43.50	-4.18	50.62	1.65	15.11	28.06	400	360 Peak	HORIZONTAL
4	248.25	39.51	46.00	-6.49	47.53	1.84	18.14	28.00	400	360 Peak	HORIZONTAL
5	269.59	39.73	46.00	-6.27	47.04	1.92	18.74	27.97	400	360 Peak	HORIZONTAL
6	281.23	39.91	46.00	-6.09	47.16	1.96	18.74	27.95	400	360 Peak	HORIZONTAL



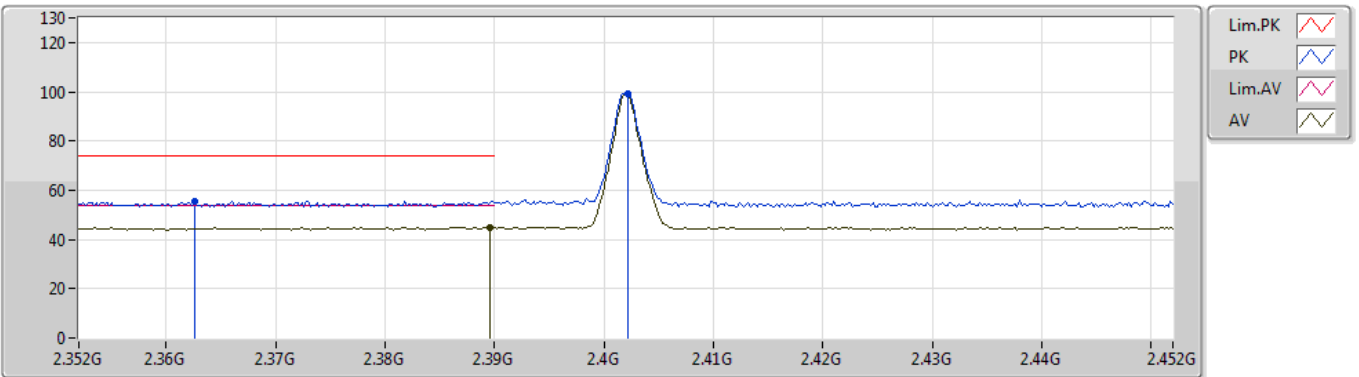
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-EDR(3Mbps)	Pass	AV	2.4835G	48.67	54.00	-5.33	30.96	3	Horizontal	350	1.15	-

BT-BR(1Mbps)

2402MHz_TX

11/10/2019



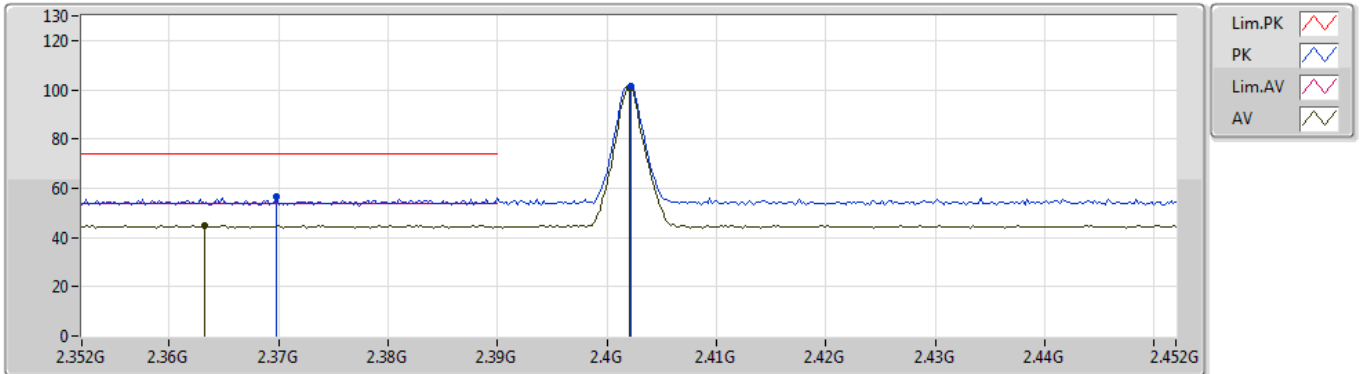
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.3626G	55.47	74.00	-18.53	30.70	3	Vertical	26	1.28	-	24.77			
AV	2.3896G	45.02	54.00	-8.98	30.80	3	Vertical	26	1.28	-	14.22			
PK	2.4022G	99.36	Inf	-Inf	30.84	3	Vertical	26	1.28	-	68.52			
AV	2.4022G	99.01	Inf	-Inf	30.84	3	Vertical	26	1.28	-	68.17			

BT-BR(1Mbps)

11/10/2019

2402MHz_TX



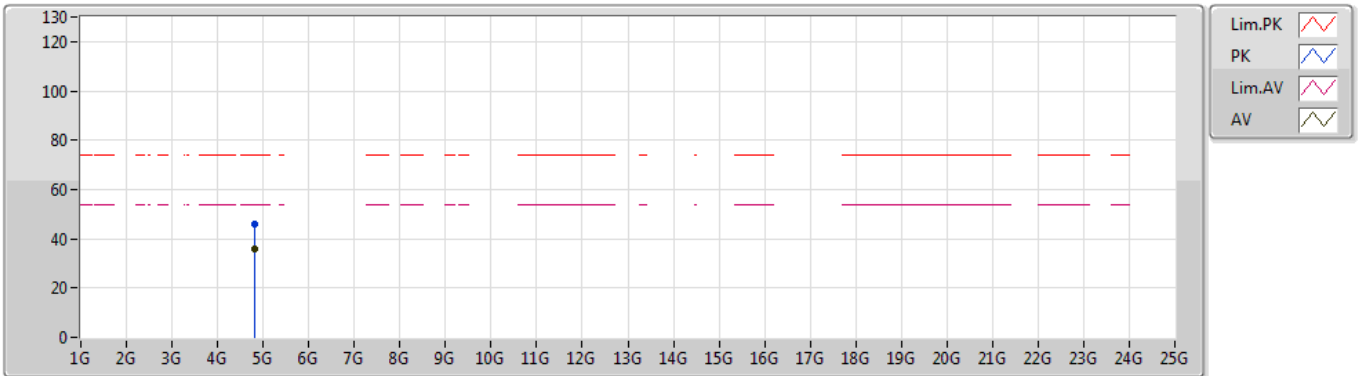
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.3698G	56.38	74.00	-17.62	30.73	3	Horizontal	345	1.01	-	25.65			
AV	2.3632G	44.79	54.00	-9.21	30.70	3	Horizontal	345	1.01	-	14.09			
PK	2.4022G	101.38	Inf	-Inf	30.84	3	Horizontal	345	1.01	-	70.54			
AV	2.402G	100.86	Inf	-Inf	30.84	3	Horizontal	345	1.01	-	70.02			

BT-BR(1Mbps)

2402MHz_TX

11/10/2019



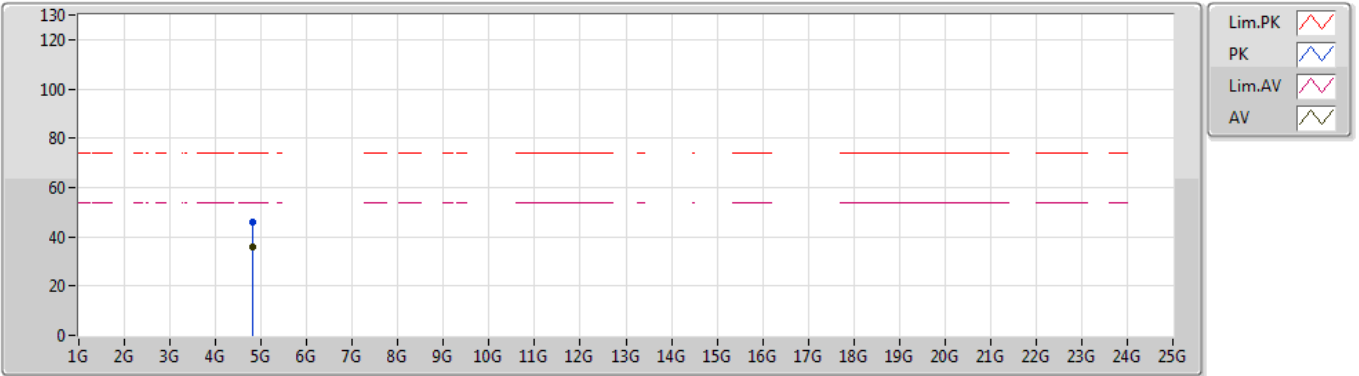
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.80008G	45.99	74.00	-28.01	3.48	3	Vertical	35	1.49	-	42.51			
AV	4.80048G	35.95	54.00	-18.05	3.48	3	Vertical	35	1.49	-	32.47			

BT-BR(1Mbps)

2402MHz_TX

11/10/2019



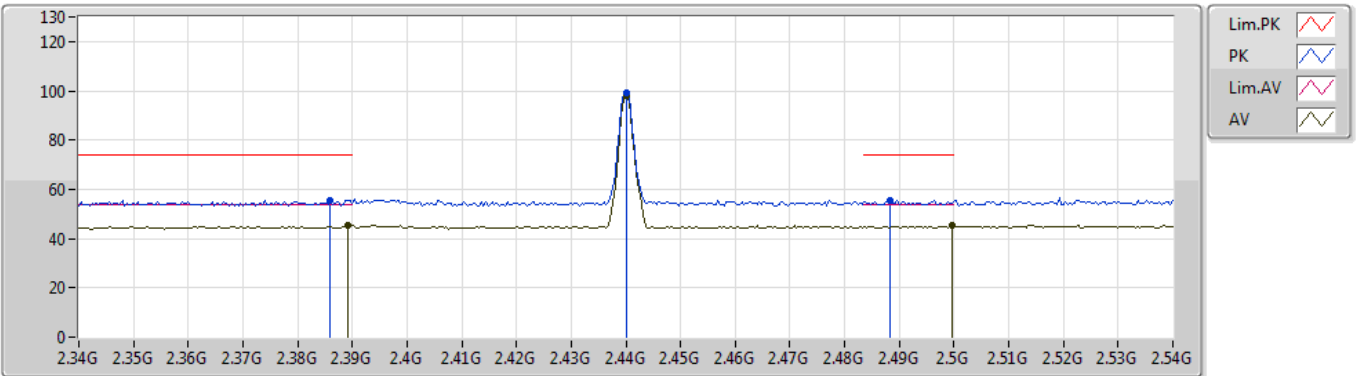
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Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.80422G	45.74	74.00	-28.26	3.50	3	Horizontal	56	2.27	-	42.24			
AV	4.80412G	35.93	54.00	-18.07	3.49	3	Horizontal	56	2.27	-	32.44			

BT-BR(1Mbps)

2440MHz_TX

11/10/2019



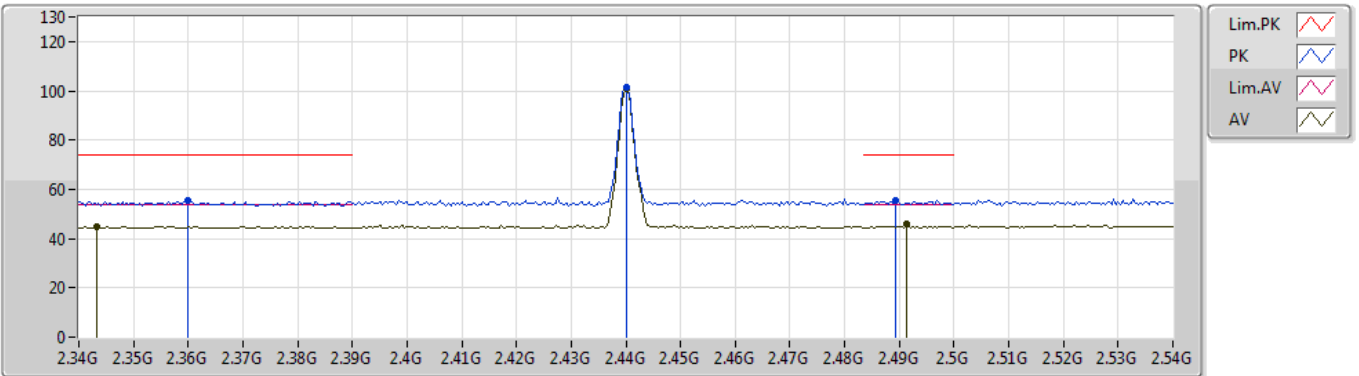
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.386G	55.70	74.00	-18.30	30.79	3	Vertical	32	1.45	-	24.91			
AV	2.3892G	45.15	54.00	-8.85	30.80	3	Vertical	32	1.45	-	14.35			
PK	2.44G	99.20	Inf	-Inf	30.90	3	Vertical	32	1.45	-	68.30			
AV	2.44G	98.27	Inf	-Inf	30.90	3	Vertical	32	1.45	-	67.37			
PK	2.4884G	55.49	74.00	-18.51	30.97	3	Vertical	32	1.45	-	24.52			
AV	2.4996G	45.20	54.00	-8.80	30.99	3	Vertical	32	1.45	-	14.21			

BT-BR(1Mbps)

2440MHz_TX

11/10/2019



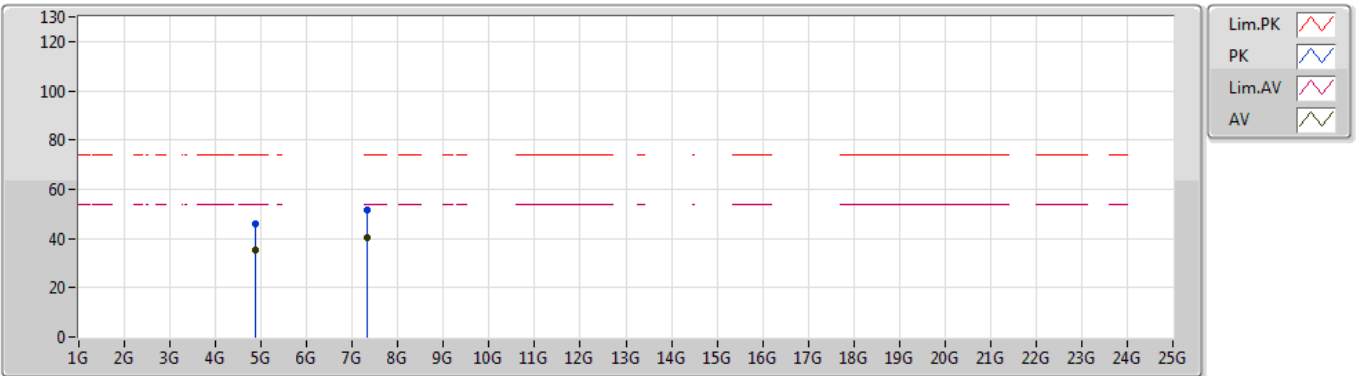
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.36G	55.40	74.00	-18.60	30.69	3	Horizontal	347	1.00	-	24.71			
AV	2.3432G	44.91	54.00	-9.09	30.62	3	Horizontal	347	1.00	-	14.29			
PK	2.44G	101.25	Inf	-Inf	30.90	3	Horizontal	347	1.00	-	70.35			
AV	2.44G	100.76	Inf	-Inf	30.90	3	Horizontal	347	1.00	-	69.86			
PK	2.4892G	55.62	74.00	-18.38	30.97	3	Horizontal	347	1.00	-	24.65			
AV	2.4912G	45.97	54.00	-8.03	30.98	3	Horizontal	347	1.00	-	14.99			

BT-BR(1Mbps)

2440MHz_TX

11/10/2019



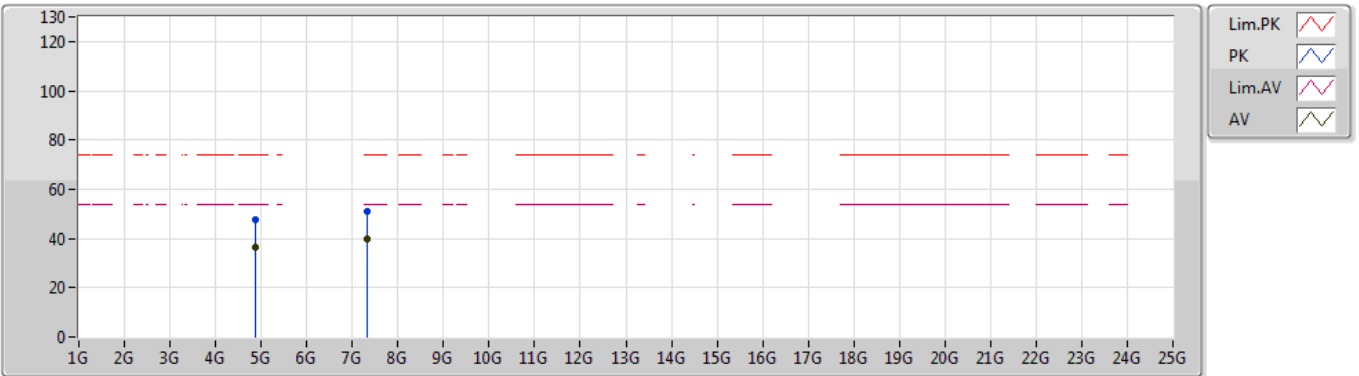
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.87768G	45.67	74.00	-28.33	3.82	3	Vertical	200	2.58	-	41.85			
AV	4.87968G	35.52	54.00	-18.48	3.84	3	Vertical	200	2.58	-	31.68			
PK	7.31802G	51.30	74.00	-22.70	9.25	3	Vertical	83	1.50	-	42.05			
AV	7.31994G	40.20	54.00	-13.80	9.25	3	Vertical	83	1.50	-	30.95			

BT-BR(1Mbps)

2440MHz_TX

11/10/2019



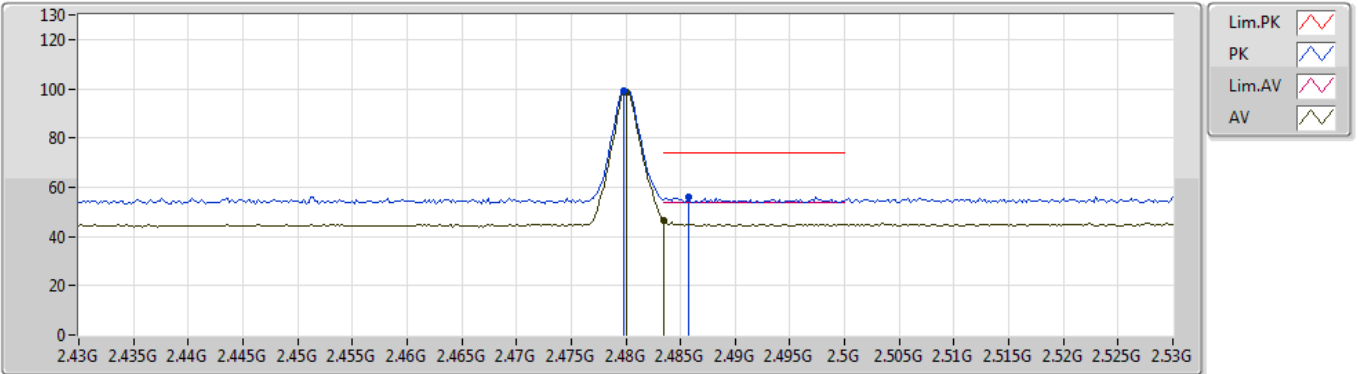
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.88006G	47.42	74.00	-26.58	3.84	3	Horizontal	121	2.56	-	43.58			
AV	4.87982G	36.67	54.00	-17.33	3.84	3	Horizontal	121	2.56	-	32.83			
PK	7.32434G	51.19	74.00	-22.81	9.25	3	Horizontal	175	1.50	-	41.94			
AV	7.31628G	39.97	54.00	-14.03	9.26	3	Horizontal	175	1.50	-	30.71			

BT-BR(1Mbps)

2480MHz_TX

11/10/2019



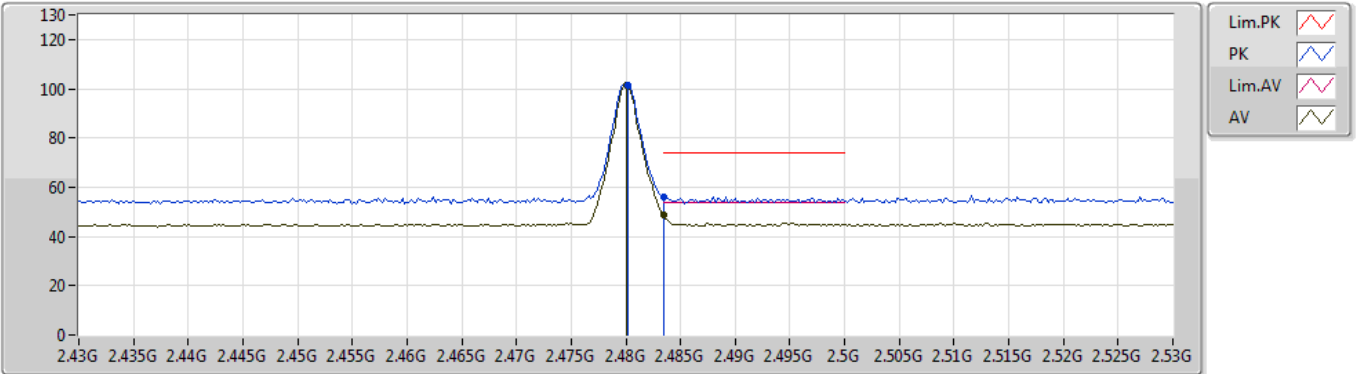
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Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.4798G	99.24	Inf	-Inf	30.96	3	Vertical	33	1.00	-	68.28			
AV	2.48G	98.71	Inf	-Inf	30.96	3	Vertical	33	1.00	-	67.75			
PK	2.4858G	56.09	74.00	-17.91	30.97	3	Vertical	33	1.00	-	25.12			
AV	2.4835G	46.75	54.00	-7.25	30.96	3	Vertical	33	1.00	-	15.79			

BT-BR(1Mbps)

2480MHz_TX

11/10/2019



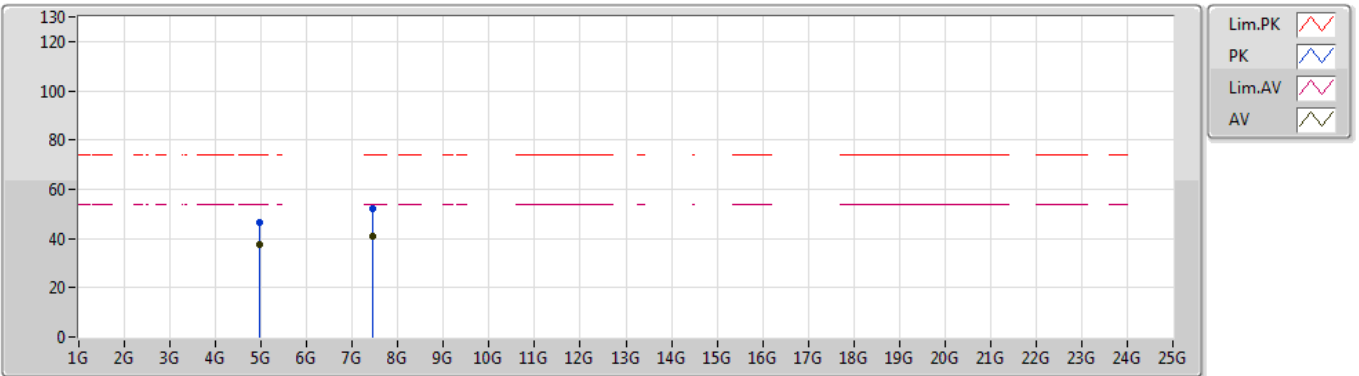
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Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.4802G	101.70	Inf	-Inf	30.96	3	Horizontal	349	1.14	-	70.74			
AV	2.48G	101.18	Inf	-Inf	30.96	3	Horizontal	349	1.14	-	70.22			
PK	2.4835G	56.26	74.00	-17.74	30.96	3	Horizontal	349	1.14	-	25.30			
AV	2.4835G	48.47	54.00	-5.53	30.96	3	Horizontal	349	1.14	-	17.51			

BT-BR(1Mbps)

2480MHz_TX

11/10/2019



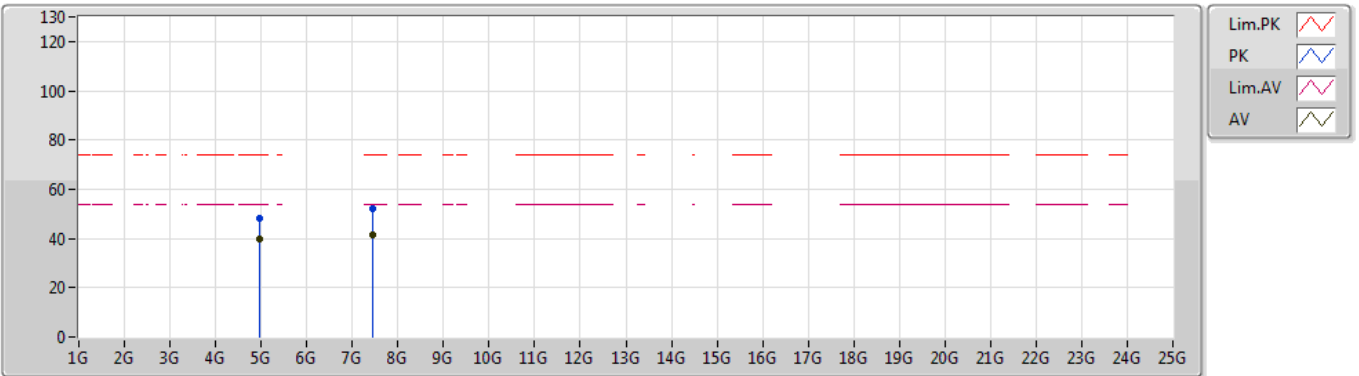
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.9603G	46.75	74.00	-27.25	4.20	3	Vertical	345	2.97	-	42.55			
AV	4.96008G	37.77	54.00	-16.23	4.20	3	Vertical	345	2.97	-	33.57			
PK	7.44316G	52.01	74.00	-21.99	9.49	3	Vertical	270	1.50	-	42.52			
AV	7.43852G	40.89	54.00	-13.11	9.46	3	Vertical	270	1.50	-	31.43			

BT-BR(1Mbps)

2480MHz_TX

11/10/2019



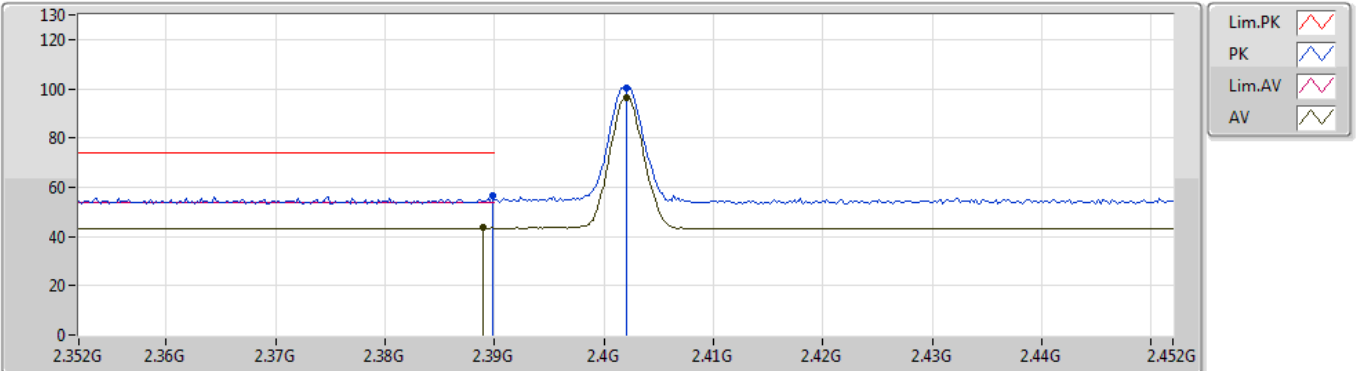
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.95968G	48.43	74.00	-25.57	4.20	3	Horizontal	59	2.26	-	44.23			
AV	4.95986G	39.74	54.00	-14.26	4.20	3	Horizontal	59	2.26	-	35.54			
PK	7.4404G	52.04	74.00	-21.96	9.47	3	Horizontal	257	2.26	-	42.57			
AV	7.43986G	41.31	54.00	-12.69	9.47	3	Horizontal	257	2.26	-	31.84			

BT-EDR(3Mbps)

2402MHz_TX

11/10/2019



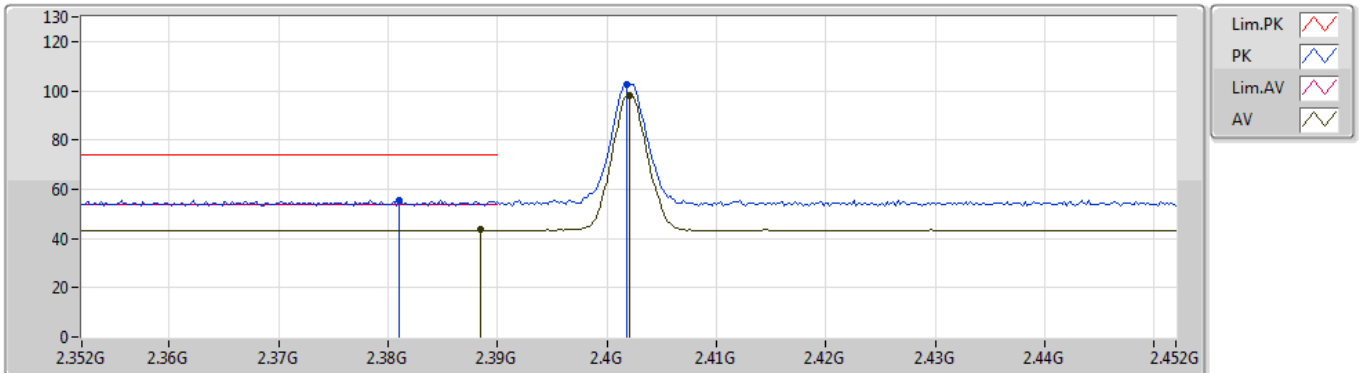
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.3898G	56.39	74.00	-17.61	30.80	3	Vertical	27	1.28	-	25.59			
AV	2.389G	43.50	54.00	-10.50	30.80	3	Vertical	27	1.28	-	12.70			
PK	2.402G	100.48	Inf	-Inf	30.84	3	Vertical	27	1.28	-	69.64			
AV	2.402G	96.19	Inf	-Inf	30.84	3	Vertical	27	1.28	-	65.35			

BT-EDR(3Mbps)

2402MHz_TX

11/10/2019



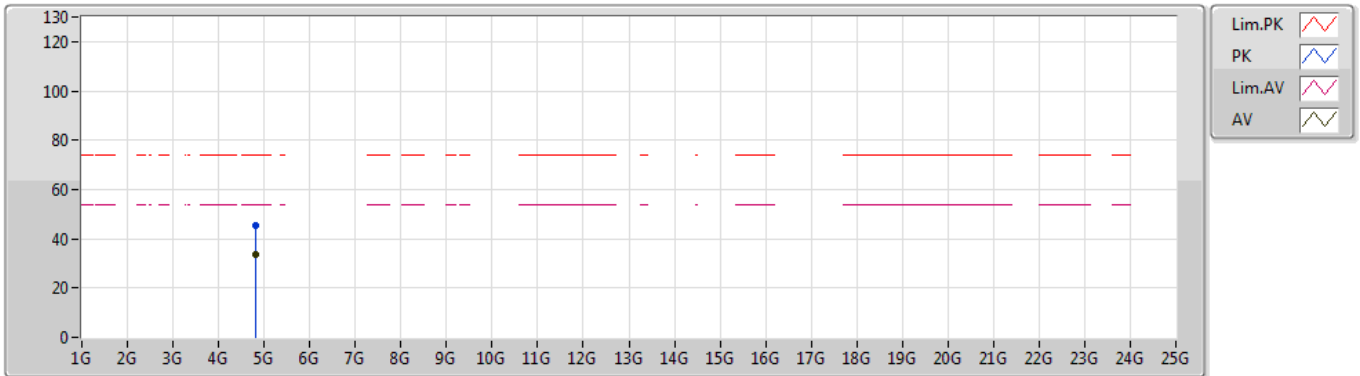
EUT_X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.381G	55.46	74.00	-18.54	30.76	3	Horizontal	346	1.00	-	24.70			
AV	2.3884G	43.45	54.00	-10.55	30.80	3	Horizontal	346	1.00	-	12.65			
PK	2.4018G	102.59	Inf	-Inf	30.84	3	Horizontal	346	1.00	-	71.75			
AV	2.402G	98.23	Inf	-Inf	30.84	3	Horizontal	346	1.00	-	67.39			

BT-EDR(3Mbps)

2402MHz_TX

11/10/2019



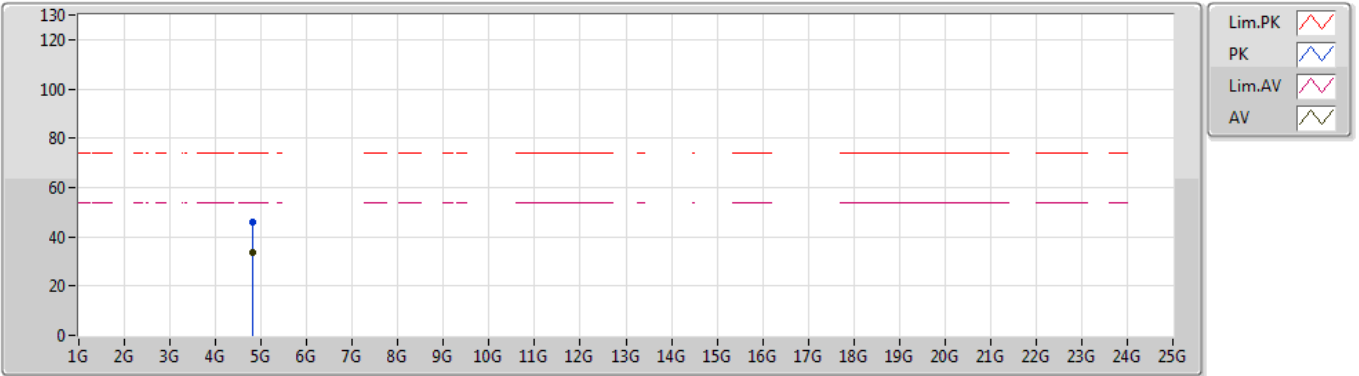
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.80802G	45.63	74.00	-28.37	3.51	3	Vertical	35	1.52	-	42.12			
AV	4.80054G	33.39	54.00	-20.61	3.48	3	Vertical	35	1.52	-	29.91			

BT-EDR(3Mbps)

2402MHz_TX

11/10/2019



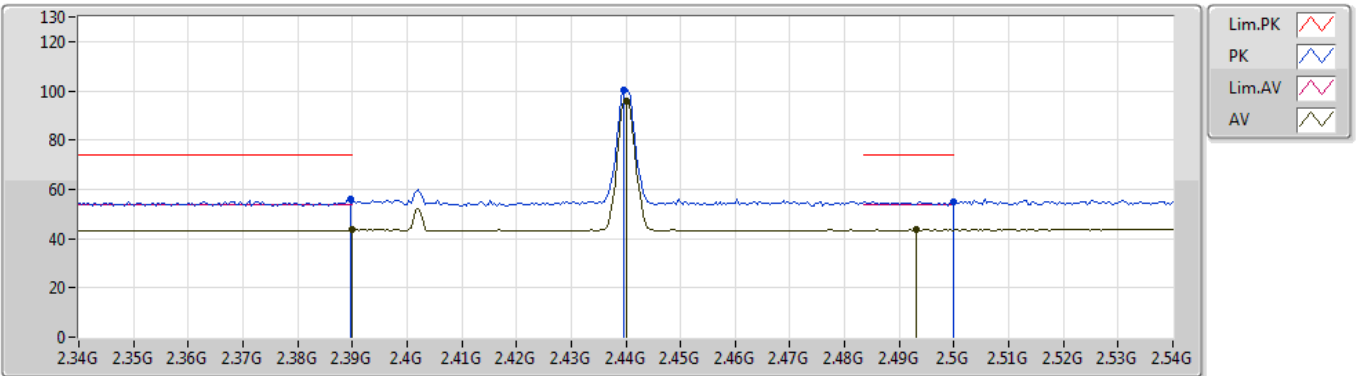
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.80444G	46.14	74.00	-27.86	3.50	3	Horizontal	57	2.27	-	42.64			
AV	4.8041G	33.80	54.00	-20.20	3.49	3	Horizontal	57	2.27	-	30.31			

BT-EDR(3Mbps)

2440MHz_TX

11/10/2019



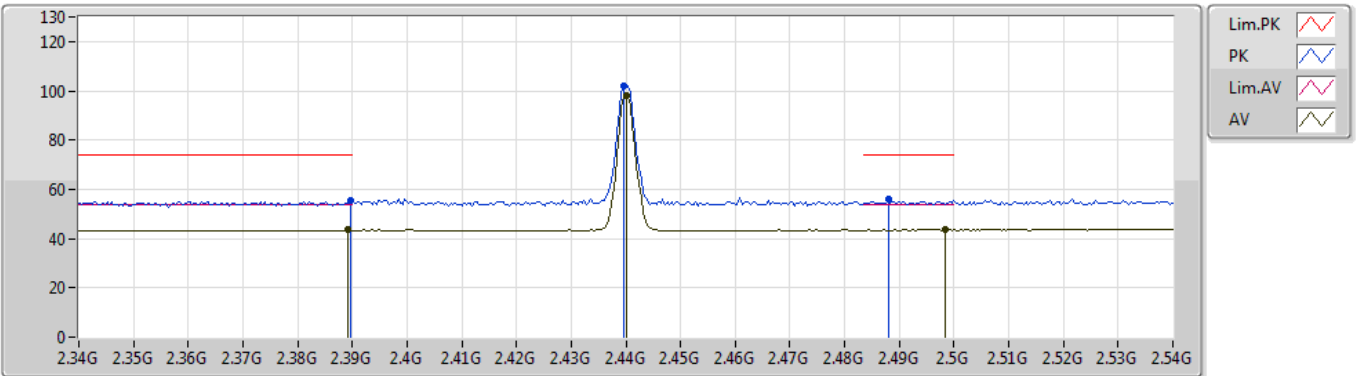
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.3896G	55.93	74.00	-18.07	30.80	3	Vertical	31	1.44	-	25.13			
AV	2.39G	43.44	54.00	-10.56	30.80	3	Vertical	31	1.44	-	12.64			
PK	2.4396G	100.36	Inf	-Inf	30.90	3	Vertical	31	1.44	-	69.46			
AV	2.44G	96.07	Inf	-Inf	30.90	3	Vertical	31	1.44	-	65.17			
PK	2.5G	54.91	74.00	-19.09	30.99	3	Vertical	31	1.44	-	23.92			
AV	2.4932G	43.54	54.00	-10.46	30.98	3	Vertical	31	1.44	-	12.56			

BT-EDR(3Mbps)

2440MHz_TX

11/10/2019



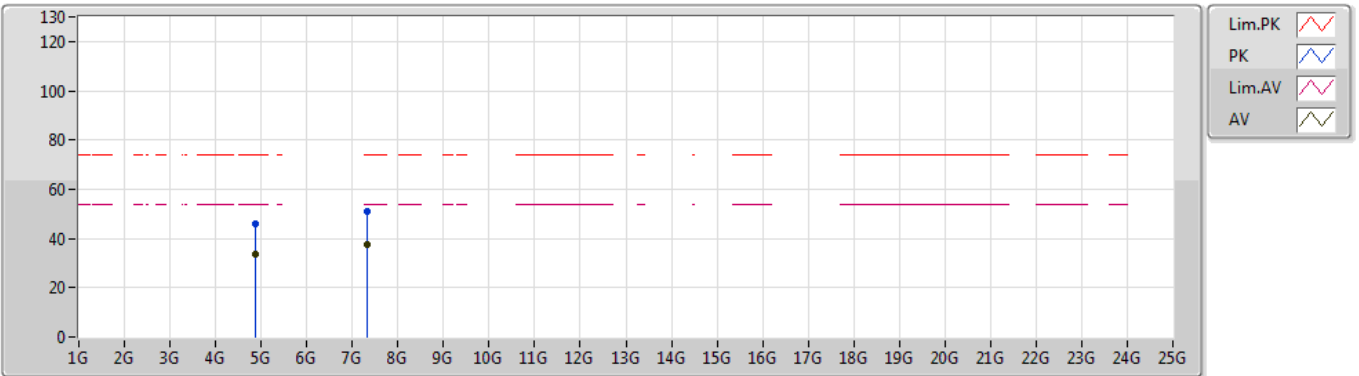
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.3896G	55.28	74.00	-18.72	30.80	3	Horizontal	352	1.01	-	24.48			
AV	2.3892G	43.46	54.00	-10.54	30.80	3	Horizontal	352	1.01	-	12.66			
PK	2.4396G	102.19	Inf	-Inf	30.90	3	Horizontal	352	1.01	-	71.29			
AV	2.44G	97.95	Inf	-Inf	30.90	3	Horizontal	352	1.01	-	67.05			
PK	2.488G	56.13	74.00	-17.87	30.97	3	Horizontal	352	1.01	-	25.16			
AV	2.4984G	43.57	54.00	-10.43	30.99	3	Horizontal	352	1.01	-	12.58			

BT-EDR(3Mbps)

2440MHz_TX

11/10/2019



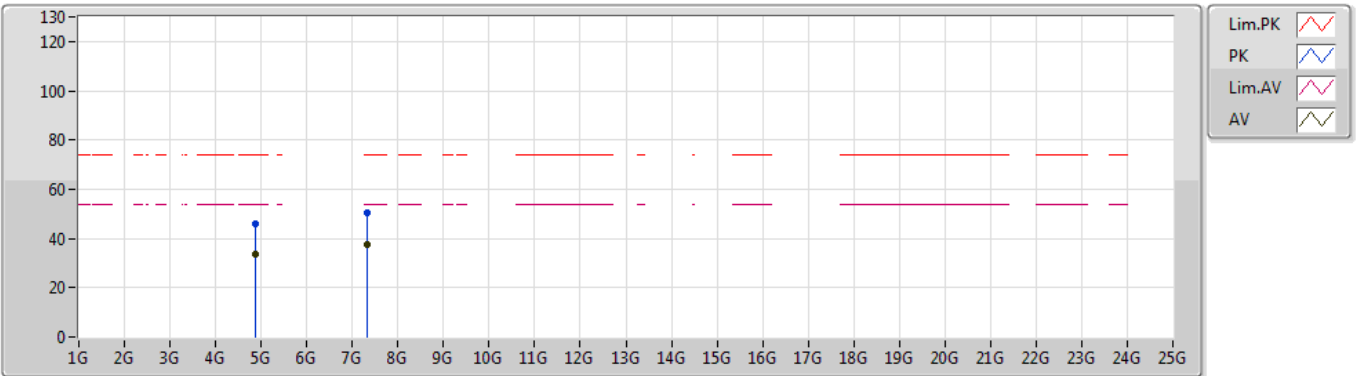
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.88016G	46.17	74.00	-27.83	3.84	3	Vertical	201	2.76	-	42.33			
AV	4.87976G	33.65	54.00	-20.35	3.84	3	Vertical	201	2.76	-	29.81			
PK	7.31858G	50.76	74.00	-23.24	9.25	3	Vertical	309	1.50	-	41.51			
AV	7.32166G	37.58	54.00	-16.42	9.25	3	Vertical	309	1.50	-	28.33			

BT-EDR(3Mbps)

2440MHz_TX

11/10/2019



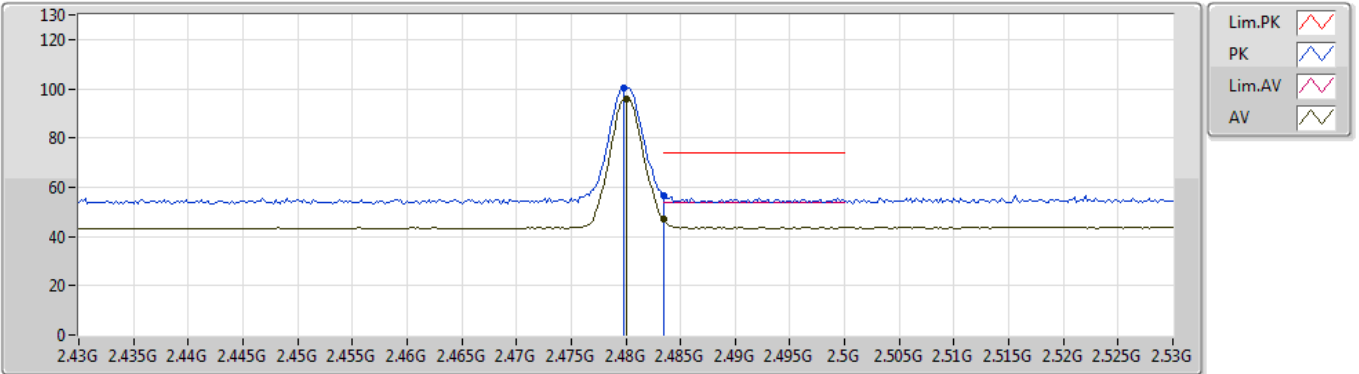
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.8797G	45.88	74.00	-28.12	3.84	3	Horizontal	119	2.98	-	42.04			
AV	4.87982G	33.61	54.00	-20.39	3.84	3	Horizontal	119	2.98	-	29.77			
PK	7.32096G	50.37	74.00	-23.63	9.25	3	Horizontal	182	2.11	-	41.12			
AV	7.3195G	37.57	54.00	-16.43	9.25	3	Horizontal	182	2.11	-	28.32			

BT-EDR(3Mbps)

2480MHz_TX

11/10/2019



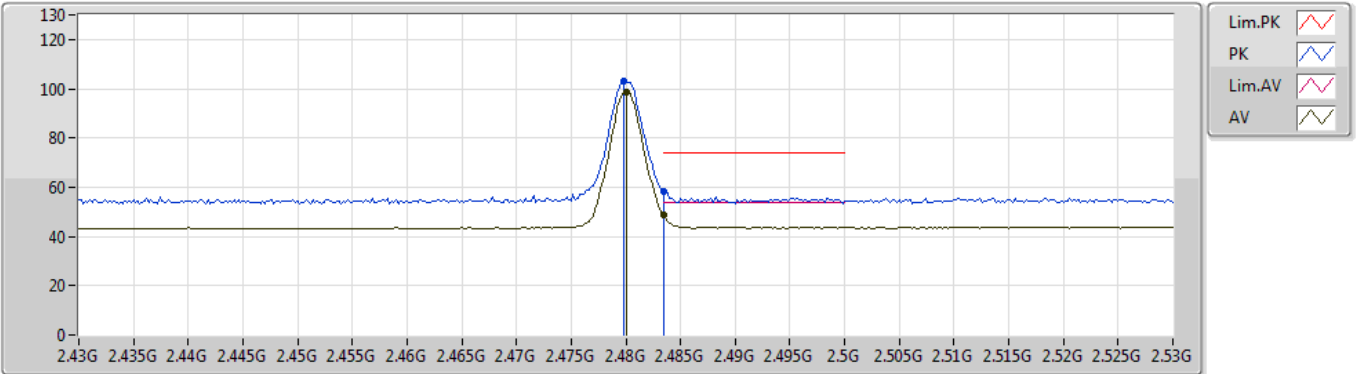
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.4798G	100.40	Inf	-Inf	30.96	3	Vertical	34	1.01	-	69.44			
AV	2.48G	96.00	Inf	-Inf	30.96	3	Vertical	34	1.01	-	65.04			
PK	2.4835G	56.51	74.00	-17.49	30.96	3	Vertical	34	1.01	-	25.55			
AV	2.4835G	46.90	54.00	-7.10	30.96	3	Vertical	34	1.01	-	15.94			

BT-EDR(3Mbps)

2480MHz_TX

11/10/2019



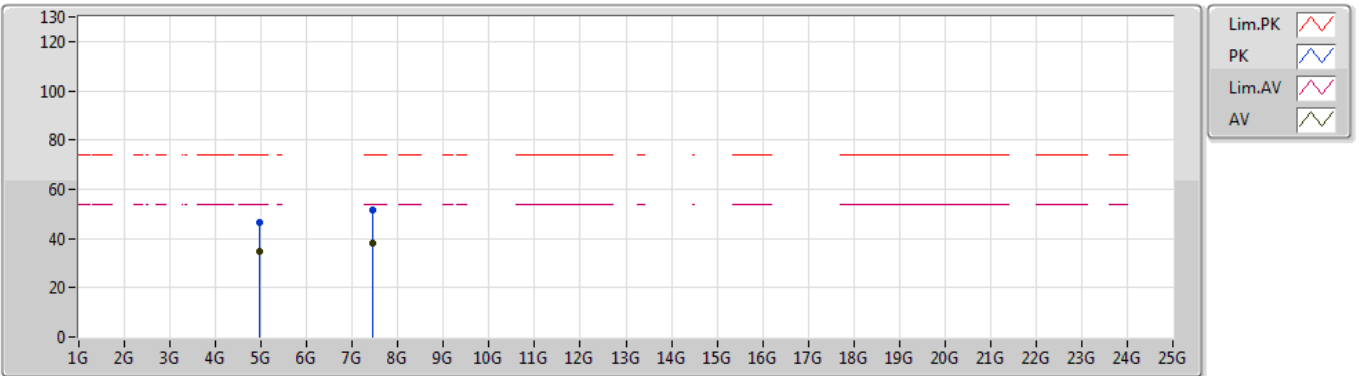
EUT_X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.4798G	102.87	Inf	-Inf	30.96	3	Horizontal	350	1.15	-	71.91			
AV	2.48G	98.59	Inf	-Inf	30.96	3	Horizontal	350	1.15	-	67.63			
PK	2.4835G	58.26	74.00	-15.74	30.96	3	Horizontal	350	1.15	-	27.30			
AV	2.4835G	48.67	54.00	-5.33	30.96	3	Horizontal	350	1.15	-	17.71			

BT-EDR(3Mbps)

2480MHz_TX

11/10/2019



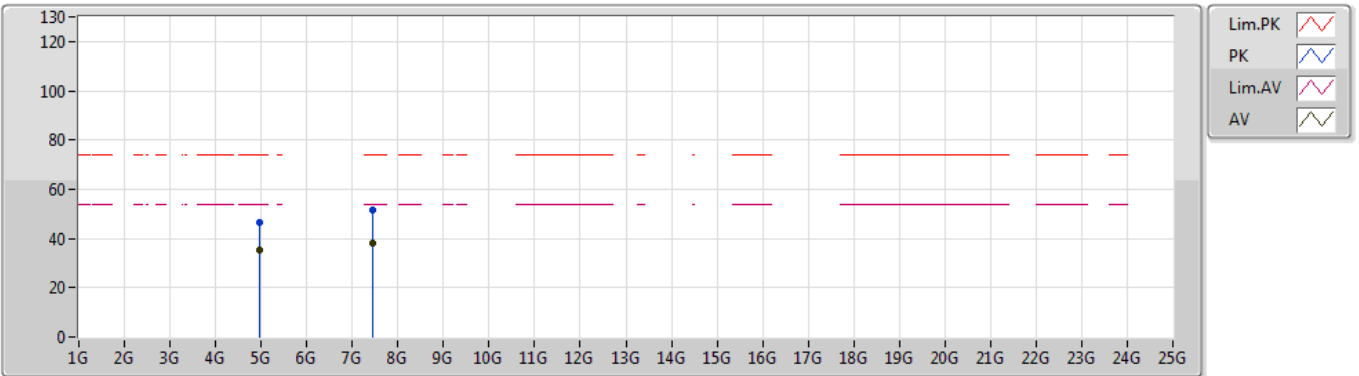
EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.95968G	46.58	74.00	-27.42	4.20	3	Vertical	352	1.92	-	42.38			
AV	4.96008G	34.71	54.00	-19.29	4.20	3	Vertical	352	1.92	-	30.51			
PK	7.44358G	51.38	74.00	-22.62	9.49	3	Vertical	180	1.02	-	41.89			
AV	7.44292G	38.20	54.00	-15.80	9.48	3	Vertical	180	1.02	-	28.72			

BT-EDR(3Mbps)

2480MHz_TX

11/10/2019



EUT X_1TX_PIFA ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.96038G	46.78	74.00	-27.22	4.20	3	Horizontal	181	1.22	-	42.58			
AV	4.95986G	35.25	54.00	-18.75	4.20	3	Horizontal	181	1.22	-	31.05			
PK	7.43942G	51.76	74.00	-22.24	9.46	3	Horizontal	165	1.49	-	42.30			
AV	7.4358G	38.06	54.00	-15.94	9.44	3	Horizontal	165	1.49	-	28.62			



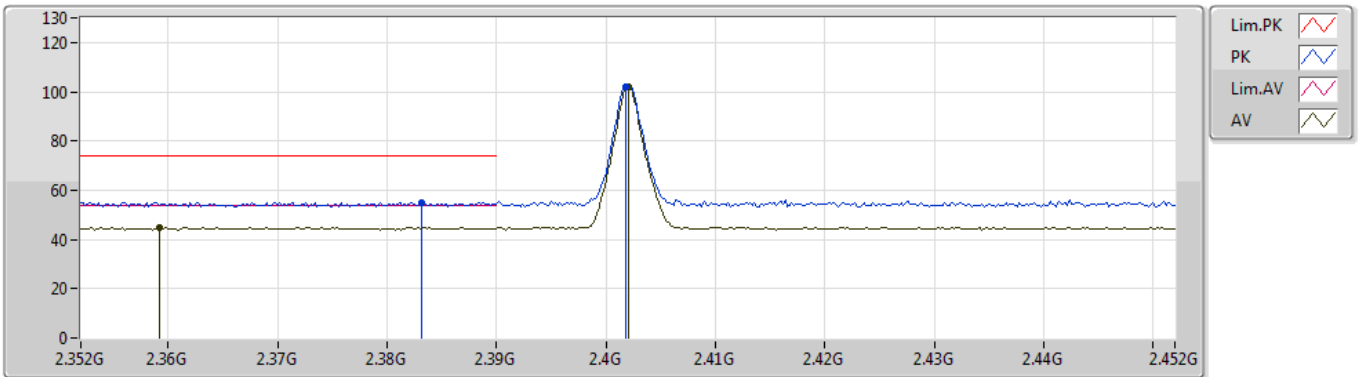
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-EDR(3Mbps)	Pass	AV	2.4835G	47.08	54.00	-6.92	30.96	3	Vertical	237	2.38	-

BT-BR(1Mbps)

2402MHz_TX

11/10/2019



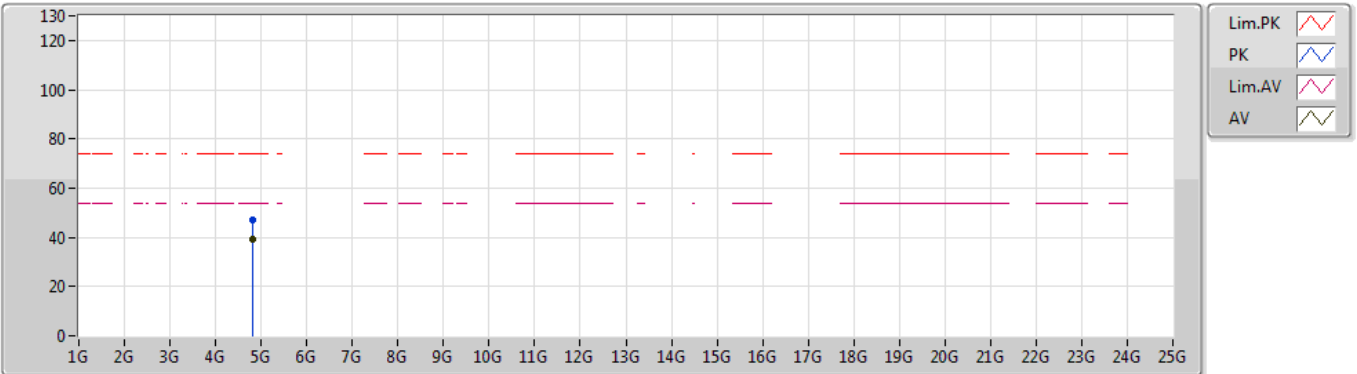
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.3832G	55.19	74.00	-18.81	30.78	3	Vertical	19	2.80	-	24.41			
AV	2.3592G	45.01	54.00	-8.99	30.69	3	Vertical	19	2.80	-	14.32			
PK	2.4018G	102.26	Inf	-Inf	30.84	3	Vertical	19	2.80	-	71.42			
AV	2.402G	101.71	Inf	-Inf	30.84	3	Vertical	19	2.80	-	70.87			

BT-BR(1Mbps)

11/10/2019

2402MHz_TX



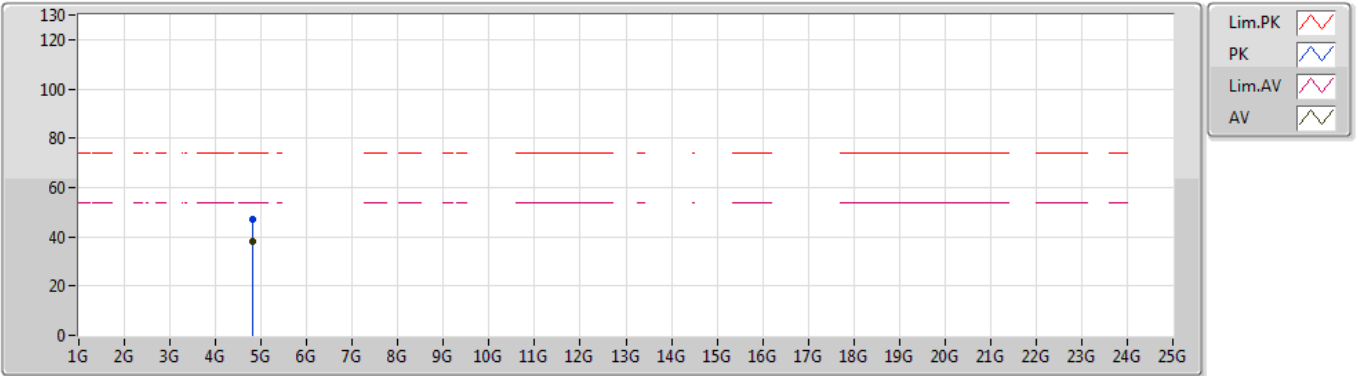
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.80376G	47.14	74.00	-26.86	3.49	3	Vertical	28	1.49	-	43.65			
AV	4.80398G	39.03	54.00	-14.97	3.49	3	Vertical	28	1.49	-	35.54			

BT-BR(1Mbps)

2402MHz_TX

11/10/2019



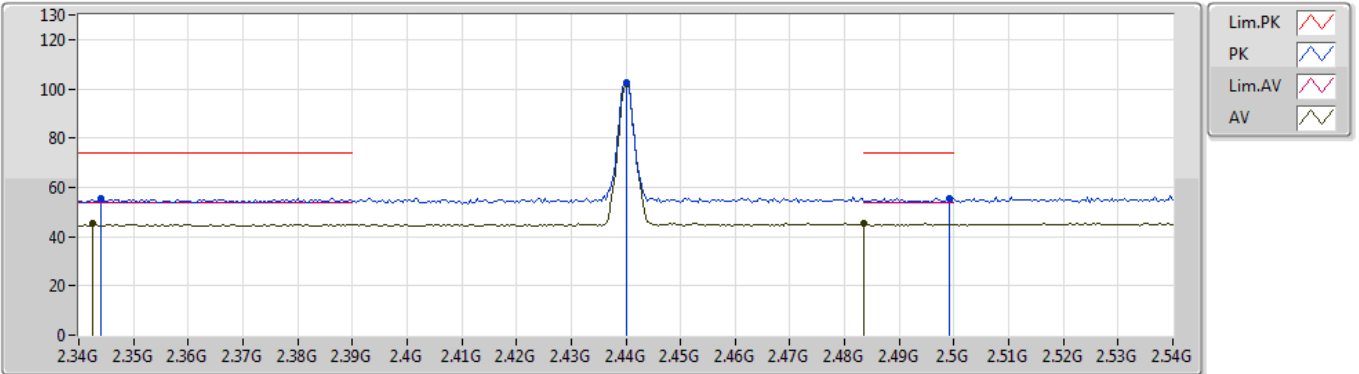
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.80458G	47.24	74.00	-26.76	3.50	3	Horizontal	197	2.65	-	43.74			
AV	4.80412G	37.86	54.00	-16.14	3.49	3	Horizontal	197	2.65	-	34.37			

BT-BR(1Mbps)

2440MHz_TX

11/10/2019



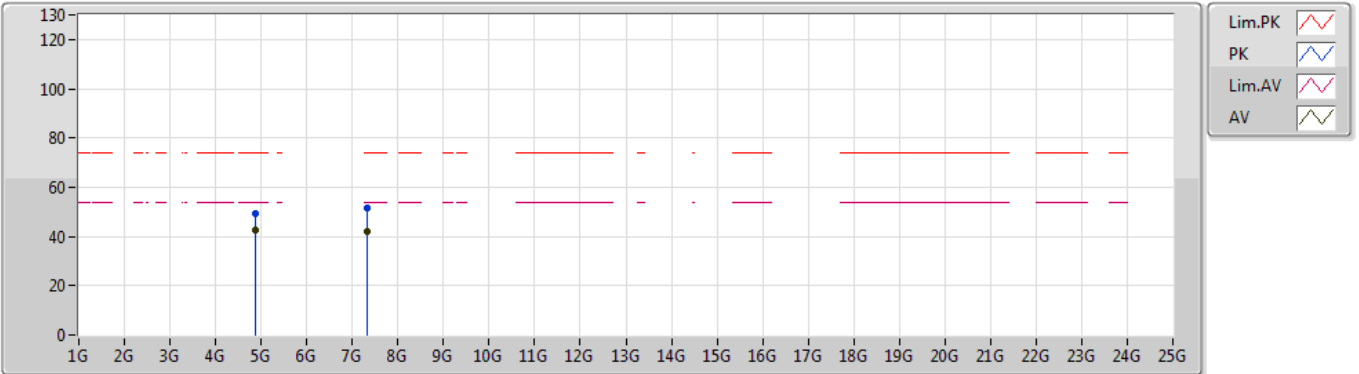
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.344G	55.66	74.00	-18.34	30.63	3	Vertical	24	2.99	-	25.03			
AV	2.3424G	45.13	54.00	-8.87	30.62	3	Vertical	24	2.99	-	14.51			
PK	2.44G	102.57	Inf	-Inf	30.90	3	Vertical	24	2.99	-	71.67			
AV	2.44G	102.16	Inf	-Inf	30.90	3	Vertical	24	2.99	-	71.26			
PK	2.4992G	55.54	74.00	-18.46	30.99	3	Vertical	24	2.99	-	24.55			
AV	2.4835G	45.34	54.00	-8.66	30.96	3	Vertical	24	2.99	-	14.38			

BT-BR(1Mbps)

2440MHz_TX

11/10/2019



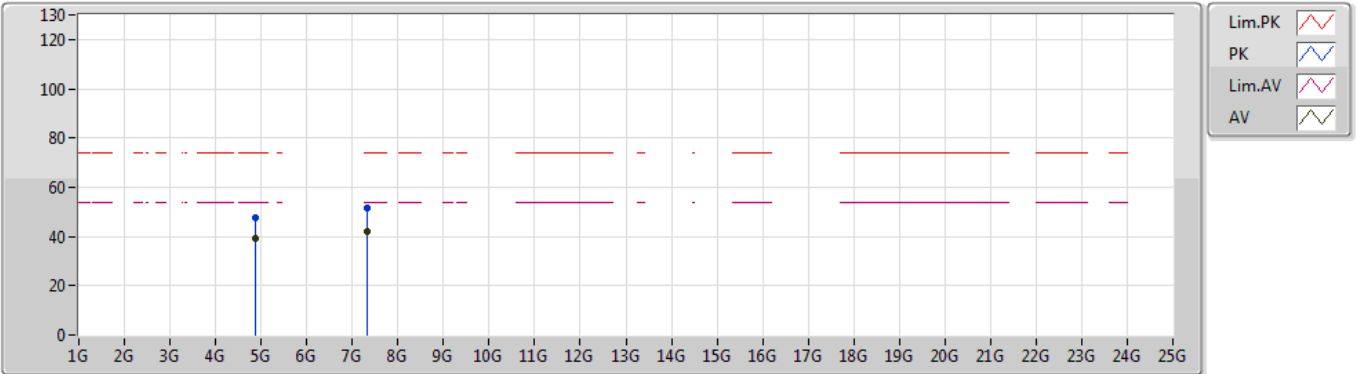
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.88032G	49.40	74.00	-24.60	3.84	3	Vertical	42	1.11	-	45.56			
AV	4.87996G	42.31	54.00	-11.69	3.84	3	Vertical	42	1.11	-	38.47			
PK	7.3204G	51.35	74.00	-22.65	9.25	3	Vertical	59	1.50	-	42.10			
AV	7.31952G	41.76	54.00	-12.24	9.25	3	Vertical	59	1.50	-	32.51			

BT-BR(1Mbps)

2440MHz_TX

11/10/2019



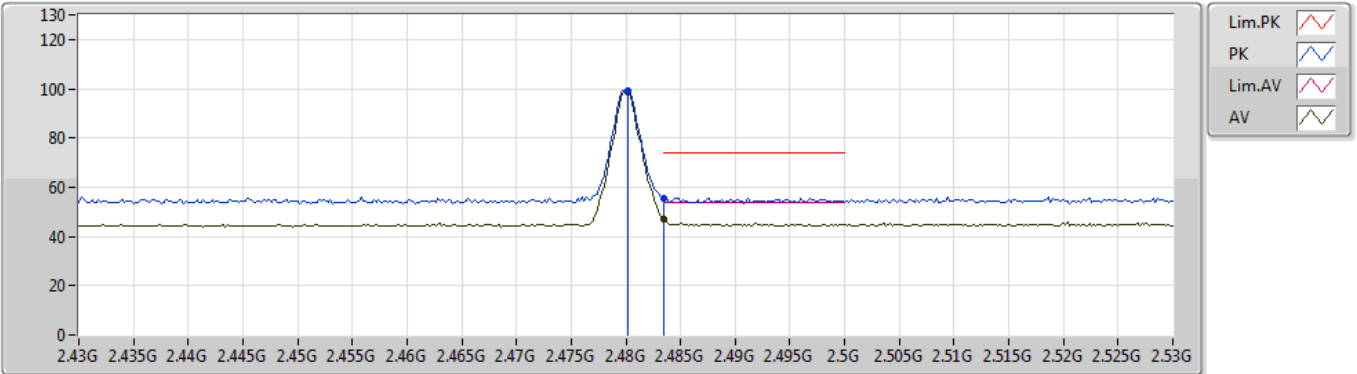
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.87958G	47.48	74.00	-26.52	3.84	3	Horizontal	199	2.71	-	43.64			
AV	4.87976G	39.28	54.00	-14.72	3.84	3	Horizontal	199	2.71	-	35.44			
PK	7.32052G	51.60	74.00	-22.40	9.25	3	Horizontal	253	2.29	-	42.35			
AV	7.32042G	41.85	54.00	-12.15	9.25	3	Horizontal	253	2.29	-	32.60			

BT-BR(1Mbps)

2480MHz_TX

11/10/2019



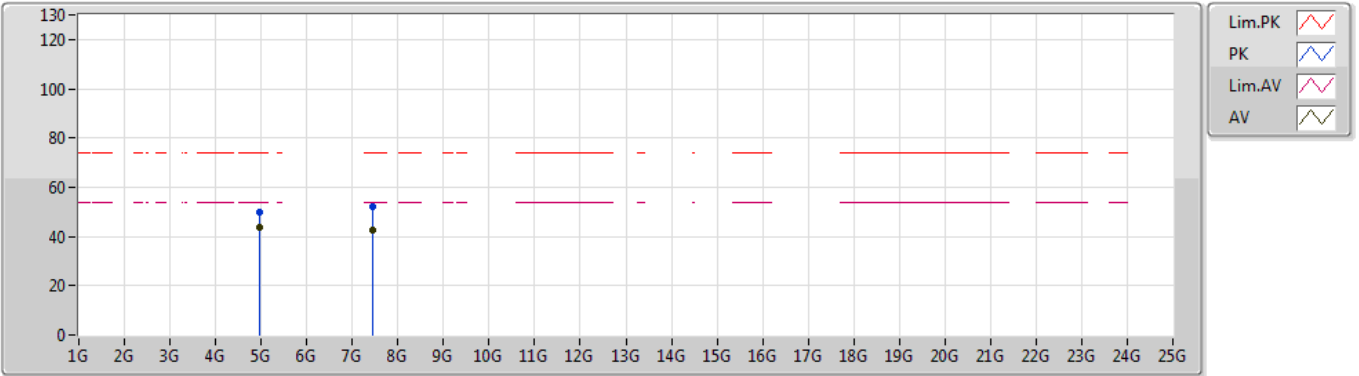
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.4802G	99.21	Inf	-Inf	30.96	3	Vertical	242	2.40	-	68.25			
AV	2.4802G	98.74	Inf	-Inf	30.96	3	Vertical	242	2.40	-	67.78			
PK	2.4835G	55.61	74.00	-18.39	30.96	3	Vertical	242	2.40	-	24.65			
AV	2.4835G	46.87	54.00	-7.13	30.96	3	Vertical	242	2.40	-	15.91			

BT-BR(1Mbps)

2480MHz_TX

11/10/2019



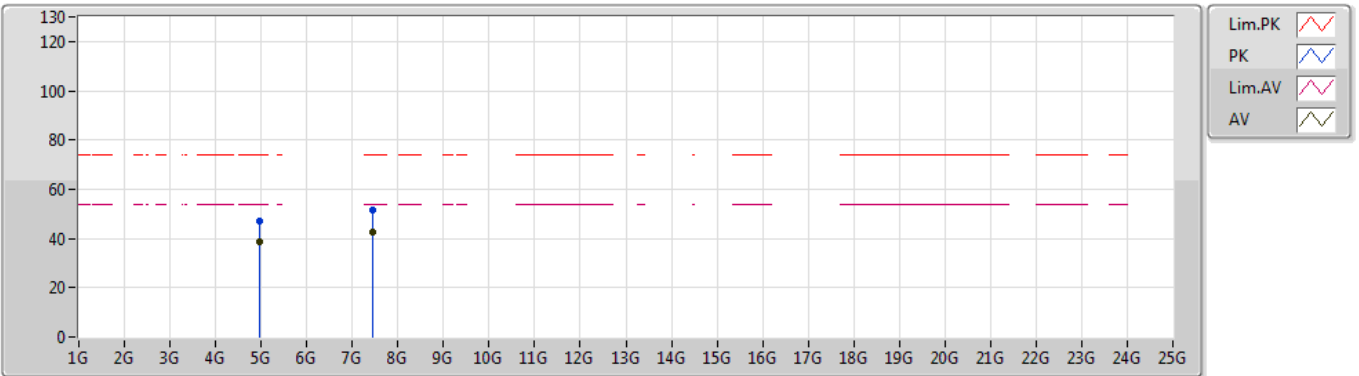
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.96016G	49.65	74.00	-24.35	4.20	3	Vertical	43	1.28	-	45.45			
AV	4.95992G	43.49	54.00	-10.51	4.20	3	Vertical	43	1.28	-	39.29			
PK	7.43966G	52.00	74.00	-22.00	9.47	3	Vertical	64	1.71	-	42.53			
AV	7.43952G	42.63	54.00	-11.37	9.46	3	Vertical	64	1.71	-	33.17			

BT-BR(1Mbps)

2480MHz_TX

11/10/2019



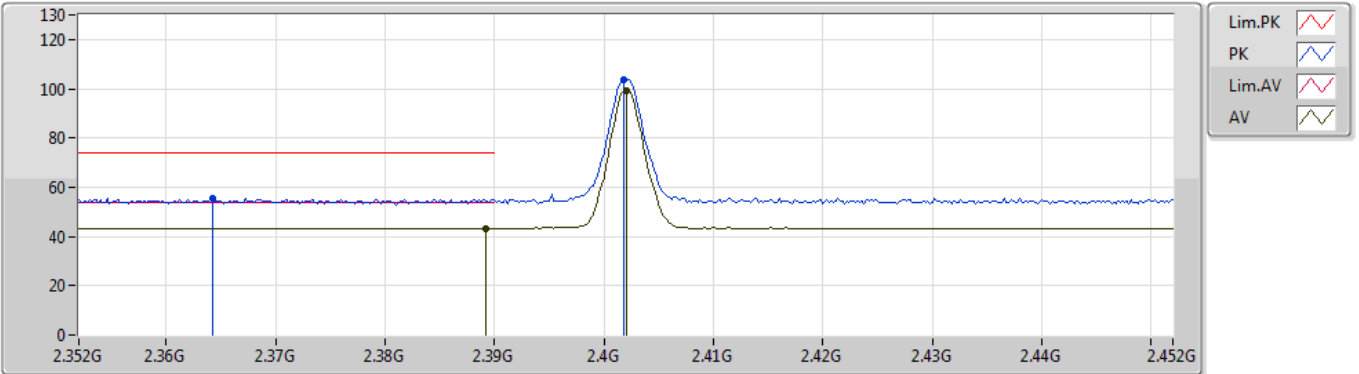
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.96004G	47.25	74.00	-26.75	4.20	3	Horizontal	199	2.97	-	43.05			
AV	4.95974G	38.93	54.00	-15.07	4.20	3	Horizontal	199	2.97	-	34.73			
PK	7.4397G	51.66	74.00	-22.34	9.47	3	Horizontal	254	2.34	-	42.19			
AV	7.44042G	42.35	54.00	-11.65	9.47	3	Horizontal	254	2.34	-	32.88			

BT-EDR(3Mbps)

2402MHz_TX

11/10/2019



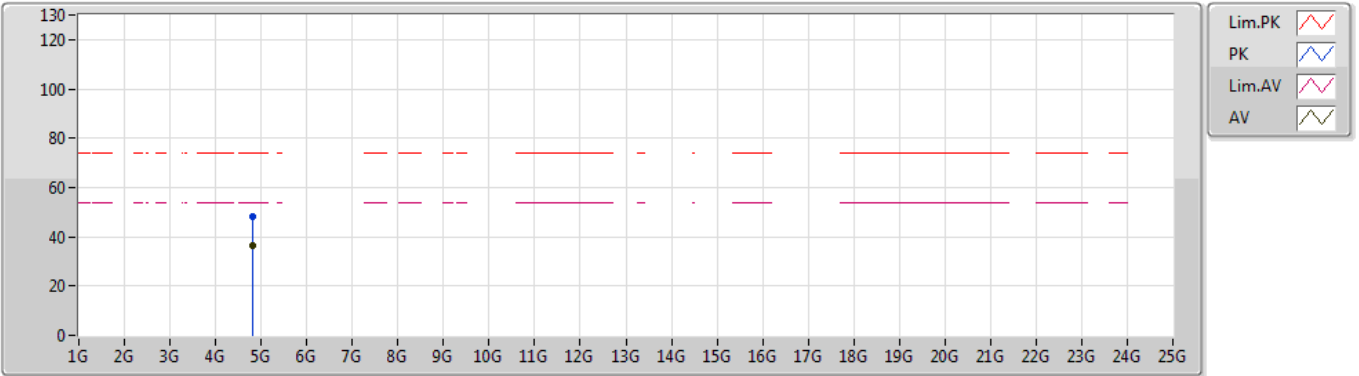
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.3642G	55.61	74.00	-18.39	30.70	3	Vertical	22	2.79	-	24.91			
AV	2.3892G	43.41	54.00	-10.59	30.80	3	Vertical	22	2.79	-	12.61			
PK	2.4018G	103.52	Inf	-Inf	30.84	3	Vertical	22	2.79	-	72.68			
AV	2.402G	99.23	Inf	-Inf	30.84	3	Vertical	22	2.79	-	68.39			

BT-EDR(3Mbps)

2402MHz_TX

11/10/2019



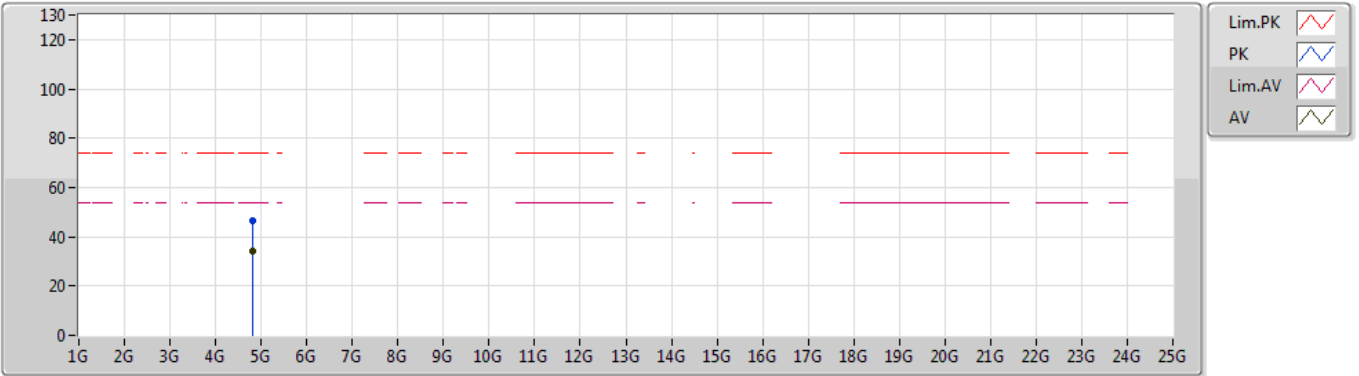
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.80434G	48.03	74.00	-25.97	3.50	3	Vertical	28	1.49	-	44.53			
AV	4.80392G	36.64	54.00	-17.36	3.49	3	Vertical	28	1.49	-	33.15			

BT-EDR(3Mbps)

2402MHz_TX

11/10/2019



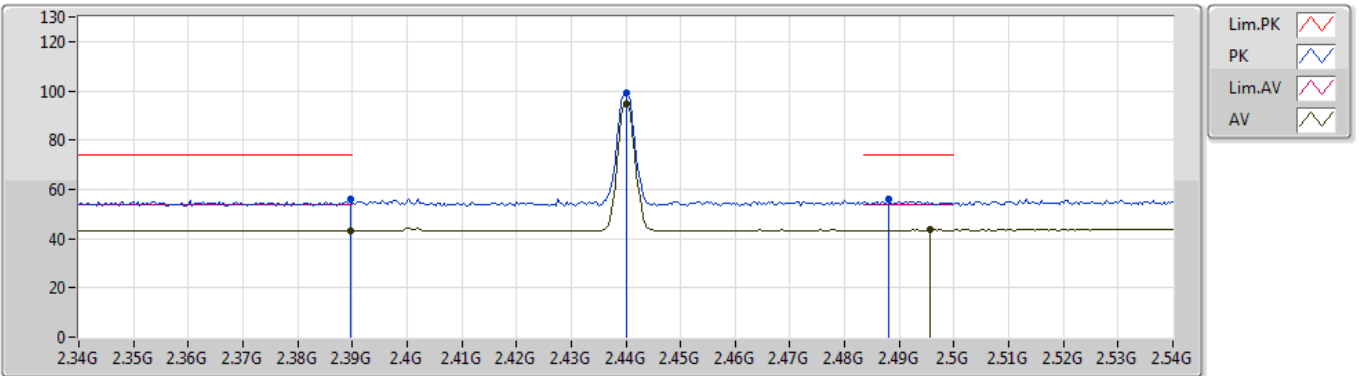
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.80394G	46.26	74.00	-27.74	3.49	3	Horizontal	198	2.97	-	42.77			
AV	4.80404G	34.00	54.00	-20.00	3.49	3	Horizontal	198	2.97	-	30.51			

BT-EDR(3Mbps)

2440MHz_TX

11/10/2019



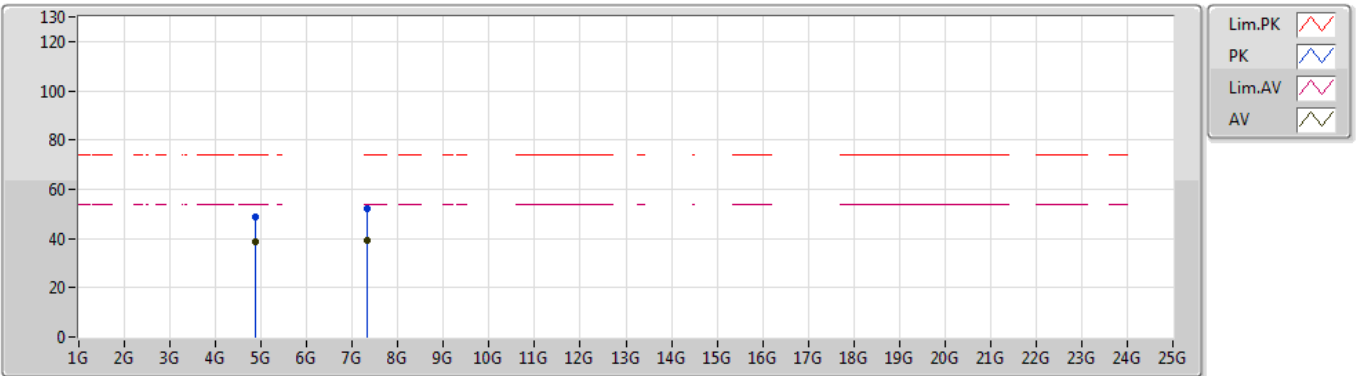
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.3896G	55.76	74.00	-18.24	30.80	3	Vertical	192	1.54	-	24.96			
AV	2.3896G	43.37	54.00	-10.63	30.80	3	Vertical	192	1.54	-	12.57			
PK	2.44G	98.92	Inf	-Inf	30.90	3	Vertical	192	1.54	-	68.02			
AV	2.44G	94.65	Inf	-Inf	30.90	3	Vertical	192	1.54	-	63.75			
PK	2.488G	55.90	74.00	-18.10	30.97	3	Vertical	192	1.54	-	24.93			
AV	2.4956G	43.52	54.00	-10.48	30.99	3	Vertical	192	1.54	-	12.53			

BT-EDR(3Mbps)

2440MHz_TX

11/10/2019



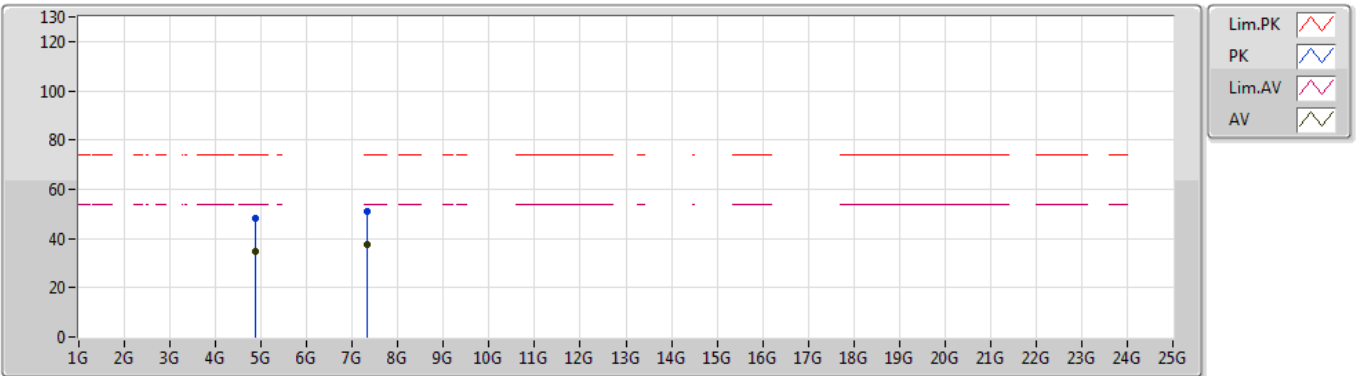
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.87982G	48.73	74.00	-25.27	3.84	3	Vertical	26	1.33	-	44.89			
AV	4.88004G	38.86	54.00	-15.14	3.84	3	Vertical	26	1.33	-	35.02			
PK	7.32012G	52.01	74.00	-21.99	9.25	3	Vertical	61	1.49	-	42.76			
AV	7.3199G	39.03	54.00	-14.97	9.25	3	Vertical	61	1.49	-	29.78			

BT-EDR(3Mbps)

2440MHz_TX

11/10/2019



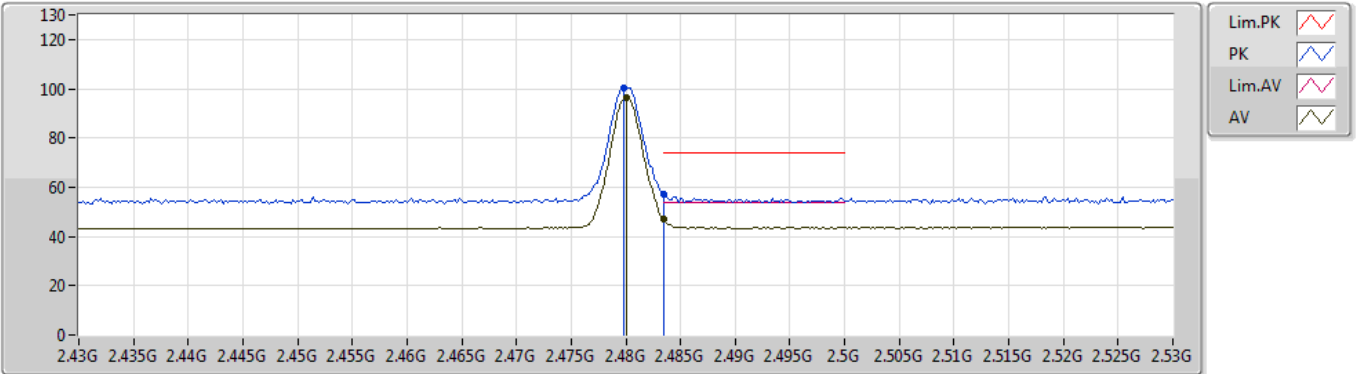
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.8804G	48.01	74.00	-25.99	3.84	3	Horizontal	188	1.09	-	44.17			
AV	4.88012G	34.67	54.00	-19.33	3.84	3	Horizontal	188	1.09	-	30.83			
PK	7.32048G	50.77	74.00	-23.23	9.25	3	Horizontal	49	1.01	-	41.52			
AV	7.32002G	37.79	54.00	-16.21	9.25	3	Horizontal	49	1.01	-	28.54			

BT-EDR(3Mbps)

2480MHz_TX

11/10/2019



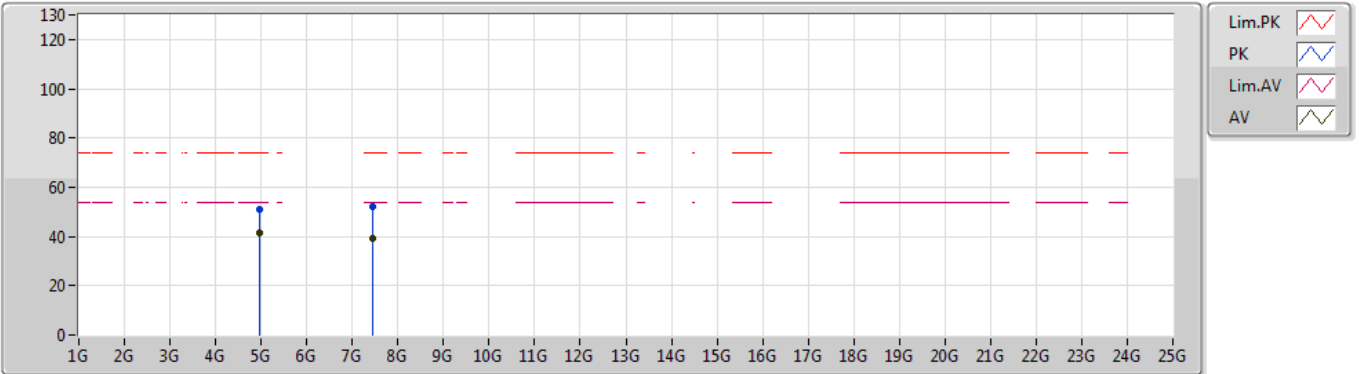
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	2.4798G	100.46	Inf	-Inf	30.96	3	Vertical	237	2.38	-	69.50			
AV	2.48G	96.14	Inf	-Inf	30.96	3	Vertical	237	2.38	-	65.18			
PK	2.4835G	57.16	74.00	-16.84	30.96	3	Vertical	237	2.38	-	26.20			
AV	2.4835G	47.08	54.00	-6.92	30.96	3	Vertical	237	2.38	-	16.12			

BT-EDR(3Mbps)

2480MHz_TX

11/10/2019



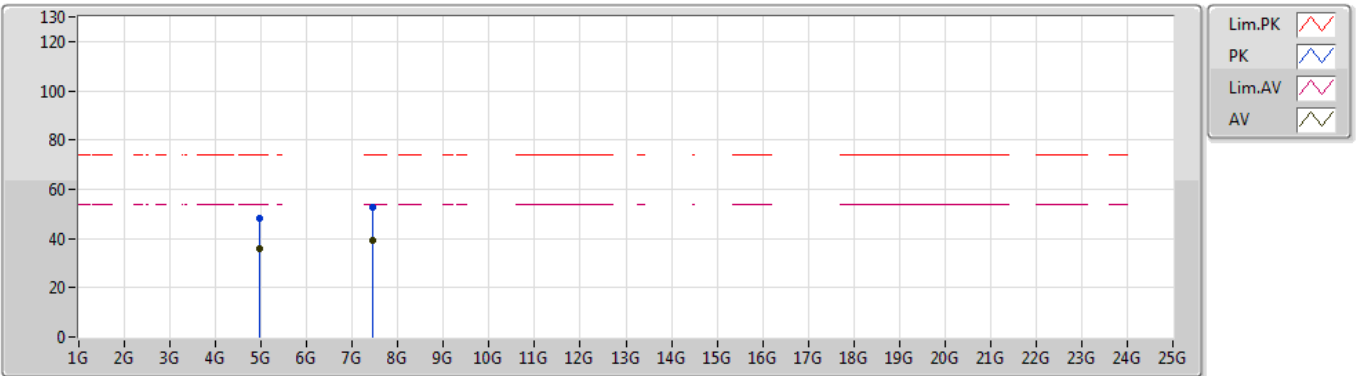
EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.96022G	50.74	74.00	-23.26	4.20	3	Vertical	204	1.46	-	46.54			
AV	4.95994G	41.20	54.00	-12.80	4.20	3	Vertical	204	1.46	-	37.00			
PK	7.44014G	52.39	74.00	-21.61	9.47	3	Vertical	62	1.68	-	42.92			
AV	7.44022G	39.49	54.00	-14.51	9.47	3	Vertical	62	1.68	-	30.02			

BT-EDR(3Mbps)

2480MHz_TX

11/10/2019



EUT X_1TX_Dipole ANT
Setting Default
01-P-2
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)			
PK	4.95978G	47.96	74.00	-26.04	4.20	3	Horizontal	198	1.29	-	43.76			
AV	4.95988G	35.70	54.00	-18.30	4.20	3	Horizontal	198	1.29	-	31.50			
PK	7.43972G	52.44	74.00	-21.56	9.47	3	Horizontal	252	2.29	-	42.97			
AV	7.4403G	39.00	54.00	-15.00	9.47	3	Horizontal	252	2.29	-	29.53			



RSE Co-location Result

Appendix H

