



FCC RADIO TEST REPORT

FCC ID : UIDW31
Equipment : W31
Brand Name : ARRIS
Model Name : W31
Applicant : ARRIS
3871 Lakefield Drive Suite 300, Suwanee, Georgia,
30024 United States
Manufacturer : ARRIS
3871 Lakefield Drive Suite 300, Suwanee, Georgia,
30024 United States
Standard : 47 CFR FCC Part 15.247

The product was received on Mar. 26, 2018, and testing was started from Mar. 26, 2018 and completed on May 07, 2018. 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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Photographs of EUT v02



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

Reviewed by: Sam Chen

Report Producer: Viola Huang



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.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	PEGATRON	RFPCA2620-01_Rev02	Dual band PCB dipole antenna	I-PEX	Note
2	PEGATRON	RFPCA2620-02_Rev02	Dual band PCB dipole antenna	I-PEX	
3	PEGATRON	RFPCA2620-03_Rev01	Dual band PCB dipole antenna	I-PEX	
4	PEGATRON	RFPCA2620-04_Rev02	Dual band PCB dipole antenna	I-PEX	
5	PEGATRON	RFPCA2307-02 Rev02	PCB dipole antenna	I-PEX	
6	PEGATRON	RFPCA2211-03 Rev01	PCB dipole antenna	I-PEX	
7	PEGATRON	RFPCA2211-04 Rev02	PCB dipole antenna	I-PEX	
8	PEGATRON	RFPCA1806-03 Rev01	PCB dipole antenna	I-PEX	
9	PEGATRON	RFPCA3508-05_Rev02	PCB antenna	I-PEX	
10	PEGATRON	RFPCA1806-03 Rev01	PCB dipole antenna	I-PEX	

Note:

Ant.	Port	Uncorrelated (dBi)			Correlated (dBi)			(dBi)
		2.4G	5G B1	5G B4	2.4G	5G B1	5G B4	Bluetooth
1	1	4.22	5.71	-	5.35	6.23		-
2	2	4.22	5.71	-	5.35	6.23		-
3	3	4.22	5.71	-	5.35	6.23		-
4	4	4.22	5.71	-	5.35	6.23		-
5	1	-	-	5.82	-	-	6.93	-
6	2	-	-	5.82	-	-	6.93	-
7	3	-	-	5.82	-	-	6.93	-
8	4	-	-	5.82	-	-	6.93	-
9	1	-	-	-	-	-	-	4.12
10	-	-	5.23	5.23	-	-	-	-

Note: The EUT has ten antennas.

For Radio 1**2.4GHz Functions****For IEEE 802.11b/g/n/ac mode (4TX, 4RX):**

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

5GHz Functions (1RX):

The EUT only supports the antenna receive function.

**For Radio 3****5GHz B1 Functions****For IEEE 802.11a/n/ac mode (4TX, 4RX):**

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 2**5GHz B4 Functions****For IEEE 802.11a/n/ac mode (4TX, 4RX):**

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

For Radio 4**Bluetooth Functions (1TX, 1RX):**

Only Port 1 could transmit/receive simultaneously.

1.1.3 Table for radio type

Radio No.	2.4G	5G B1	5G B4	BT
Radio 1	V	Only RX function	Only RX function	-
Radio 2	-	-	V	-
Radio 3	-	V	-	-
Radio 4	-	-	-	V

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
BT-BR(1Mbps)	0.758	1.203	2.944m	1k
BT-EDR(2Mbps)	0.782	1.068	2.879m	1k
BT-EDR(3Mbps)	0.786	1.046	2.893m	1k

1.1.5 EUT Operational Condition

EUT Power Type	From Power Adapter
Test Software Version	Telnet v1.27.2



1.2 Testing Applied 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 Public Notice DA 00-705
- ♦ FCC KDB 412172 D01 v01r01

1.3 Testing Location Information

Testing Location				
<input type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.	TEL : 886-3-327-3456	FAX : 886-3-318-0055
<input checked="" type="checkbox"/>	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	Stim Sung	22°C / 55%	Mar. 26, 2018 ~ May 04, 2018
Radiated below 1GHz	03CH01-CB	Joy Tseng & Cola Fan	22°C / 54%	May 04, 2018
Radiated above 1GHz	03CH01-CB	Joy Tseng & Cola Fan	22°C / 54%	Apr. 03, 2018 ~ May 07, 2018
AC Conduction	CO01-CB	Rick Yeh	24°C / 52%	May 07, 2018

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)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Bandwidth Measurement	9.74 x10 ⁻⁸	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

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

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	CTX
1	EUT in Y axis - Radio 1 (2.4GHz)
2	EUT in Y axis - Radio 3 (5GHz B1)
3	EUT in Y axis - Radio 2 (5GHz B4)
4	EUT in Y axis - Radio 4 (Bluetooth)
For operating mode 2 is 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

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	CTX
1	EUT in Y axis - Radio 1 (2.4GHz)
2	EUT in Y axis - Radio 3 (5GHz B1)
3	EUT in Y axis - Radio 2 (5GHz B4)
4	EUT in Y axis - Radio 4 (Bluetooth)
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
1	EUT in Y axis - Radio 4 (Bluetooth)



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	Radio 1 (2.4GHz) + Radio 3 (WLAN 5GHz B1) + Radio 2 (WLAN 5GHz B4) + Radio 4 (Bluetooth)
Refer to Sporton Test Report No.: FA842742 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

Accessories				
Equipment Name	Brand Name	Model Name	P/N	Rating
Adapter	APD	WA-36L12FU	AREP05681	INPUT: 100-120V ~, 60Hz, 0.9A Max OUTPUT: 12V, 3A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E6430	DoC
2	Flash disk3.0	Transcend	JetFlash-700	N/A

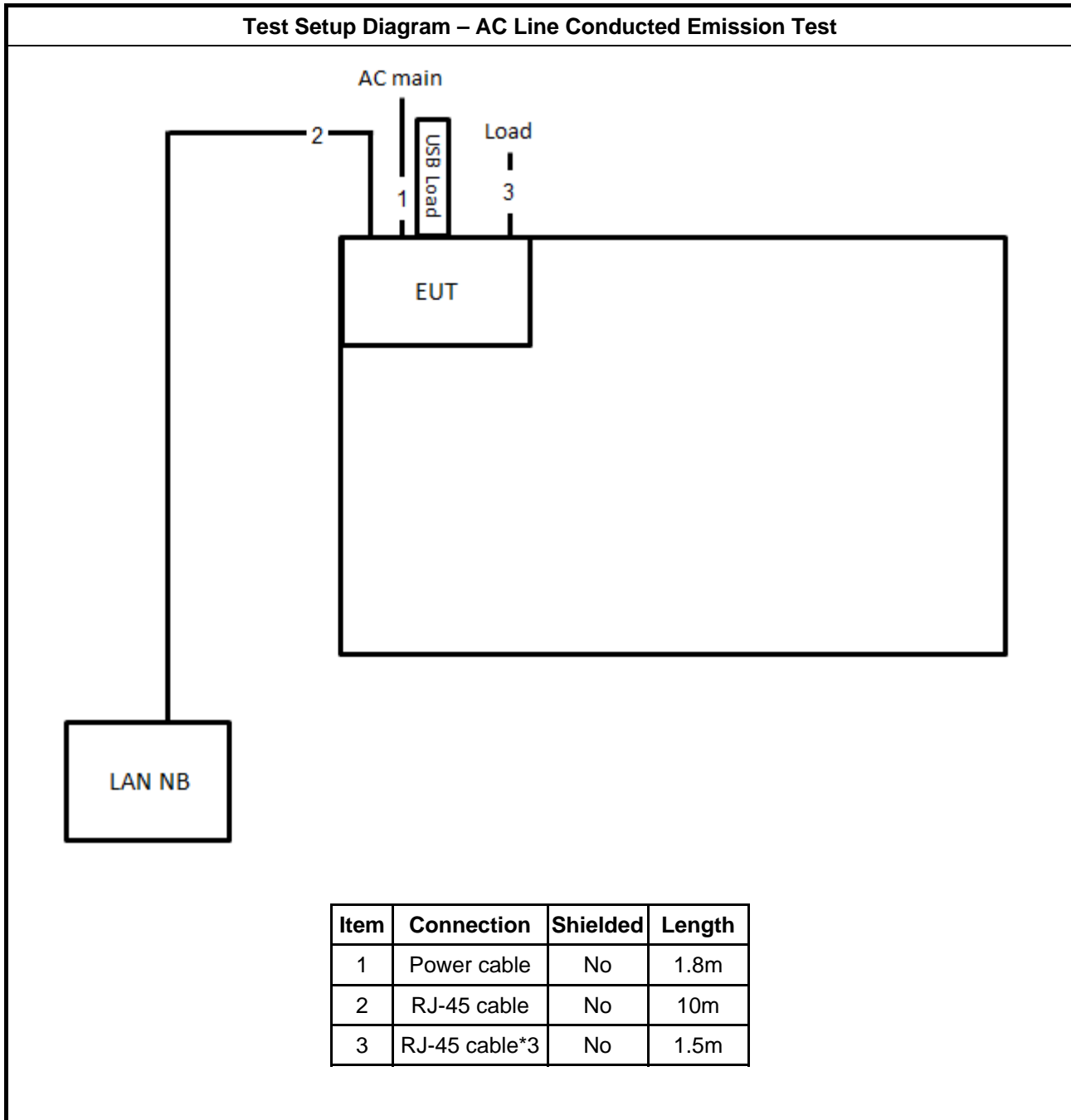
For Test Site No: 03CH01-CB

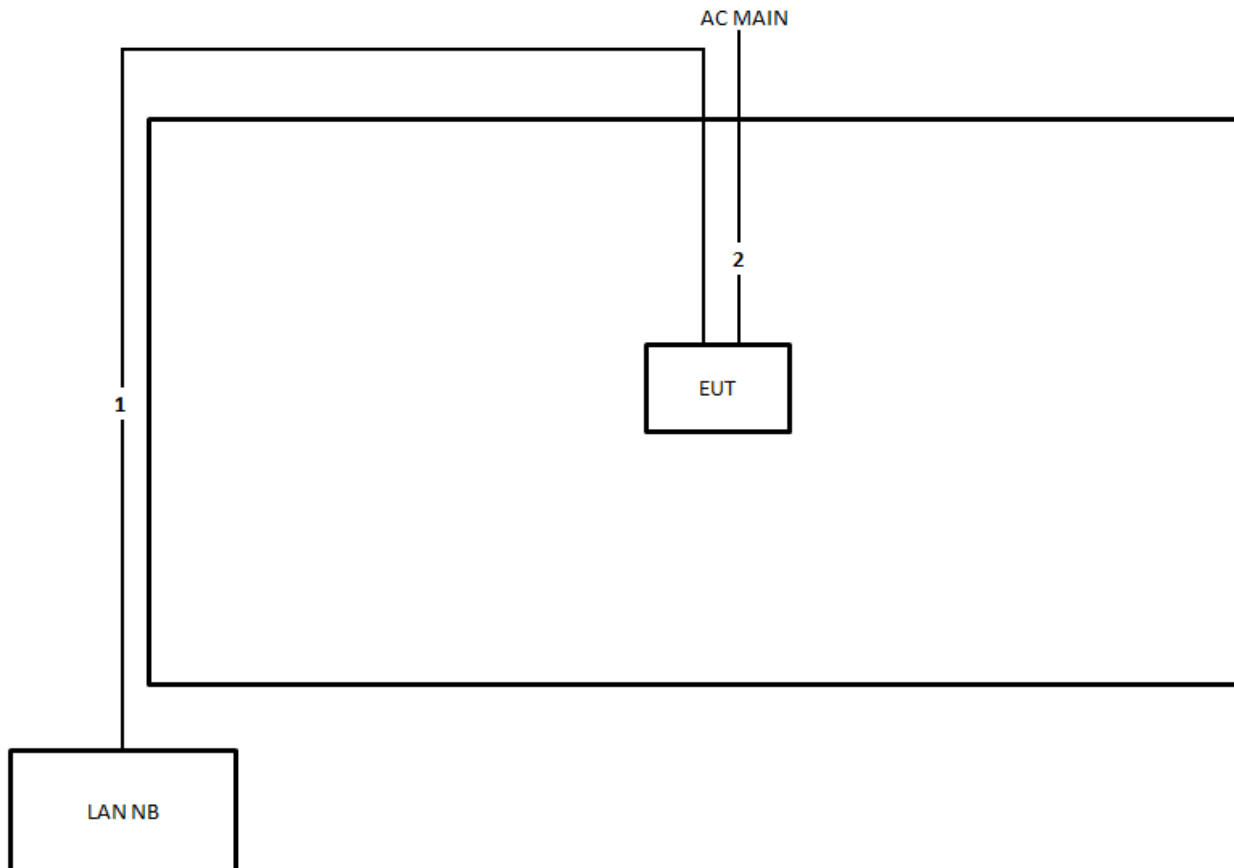
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

For Test Site No: TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test


Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	1.8m



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.

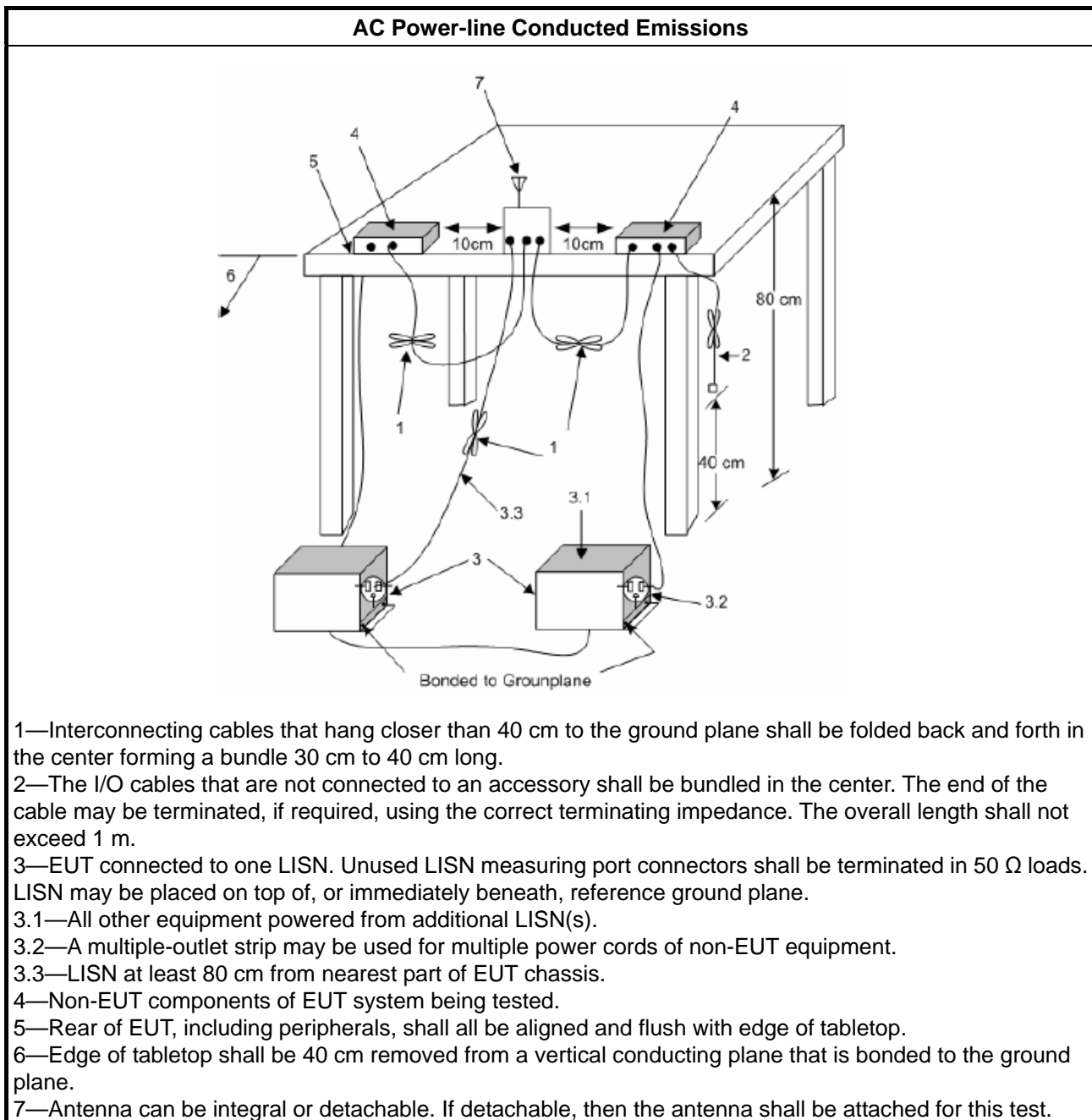
3.1.2 Measuring Instruments

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	

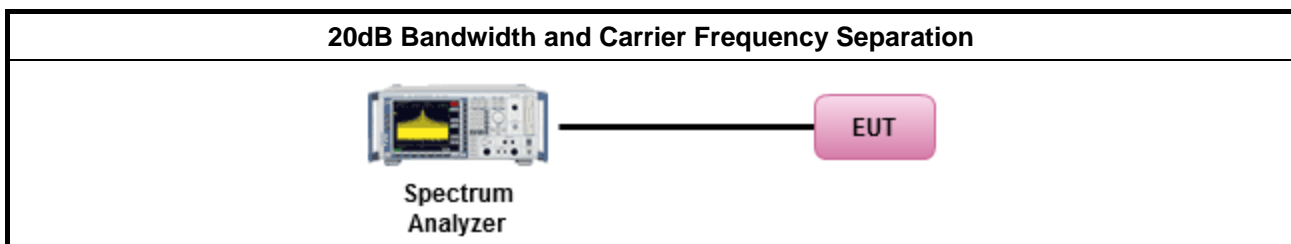
3.2.2 Measuring Instruments

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 ≥ 50; Power 30dBm; EIRP 36dBm	
▪ 50 > N ≥ 25; Power 24dBm; EIRP 30dBm	
▪ 2400-2483.5 MHz Band:	
▪ N ≥ 75; Power 30dBm; EIRP 36dBm	
▪ 75 > N ≥ 15; Power 21dBm; EIRP 27dBm	
▪ 5725-5850 MHz Band:	
▪ N ≥ 75; Power 30dBm; EIRP 36dBm	
N: Number of Hopping Frequencies	

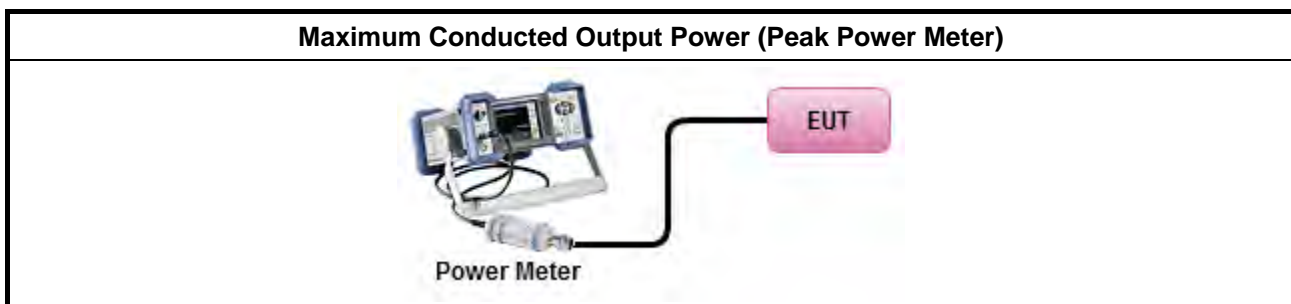
3.3.2 Measuring Instruments

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 $ChS \geq MAX$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth \leq 250 kHz.
	▪ $50 > N \geq 25$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz).
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq MAX$ (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

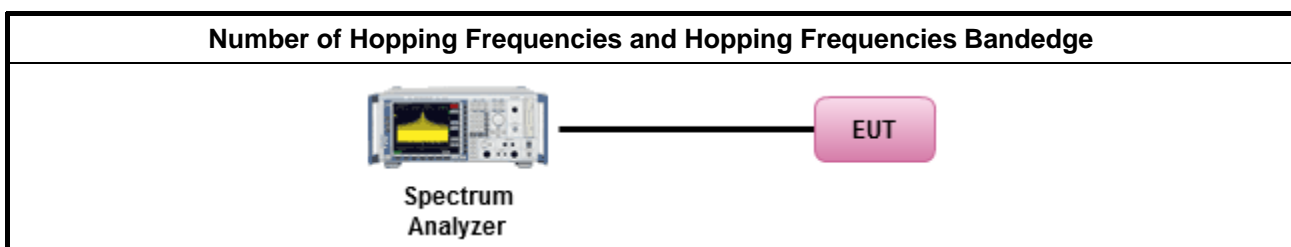
3.4.3 Measuring Instruments

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	

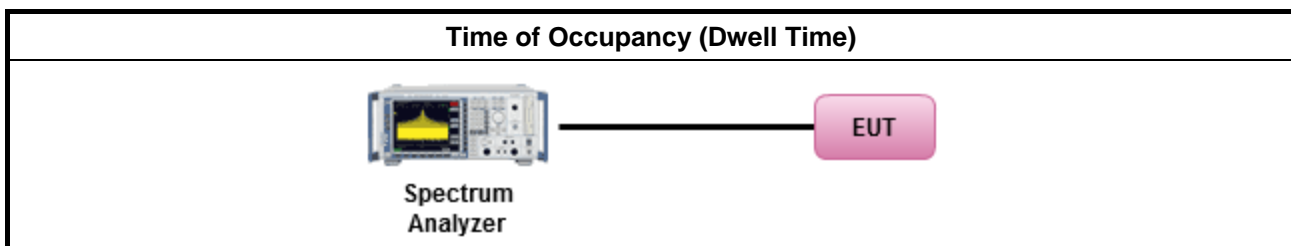
3.5.2 Measuring Instruments

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 (dB)
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.	

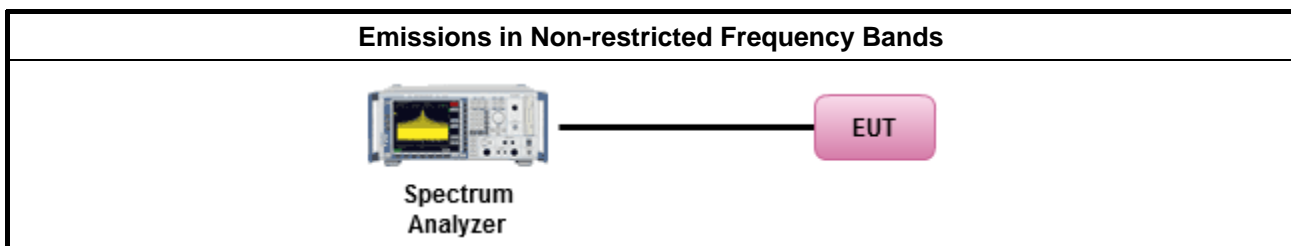
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
<ul style="list-style-type: none"> 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.

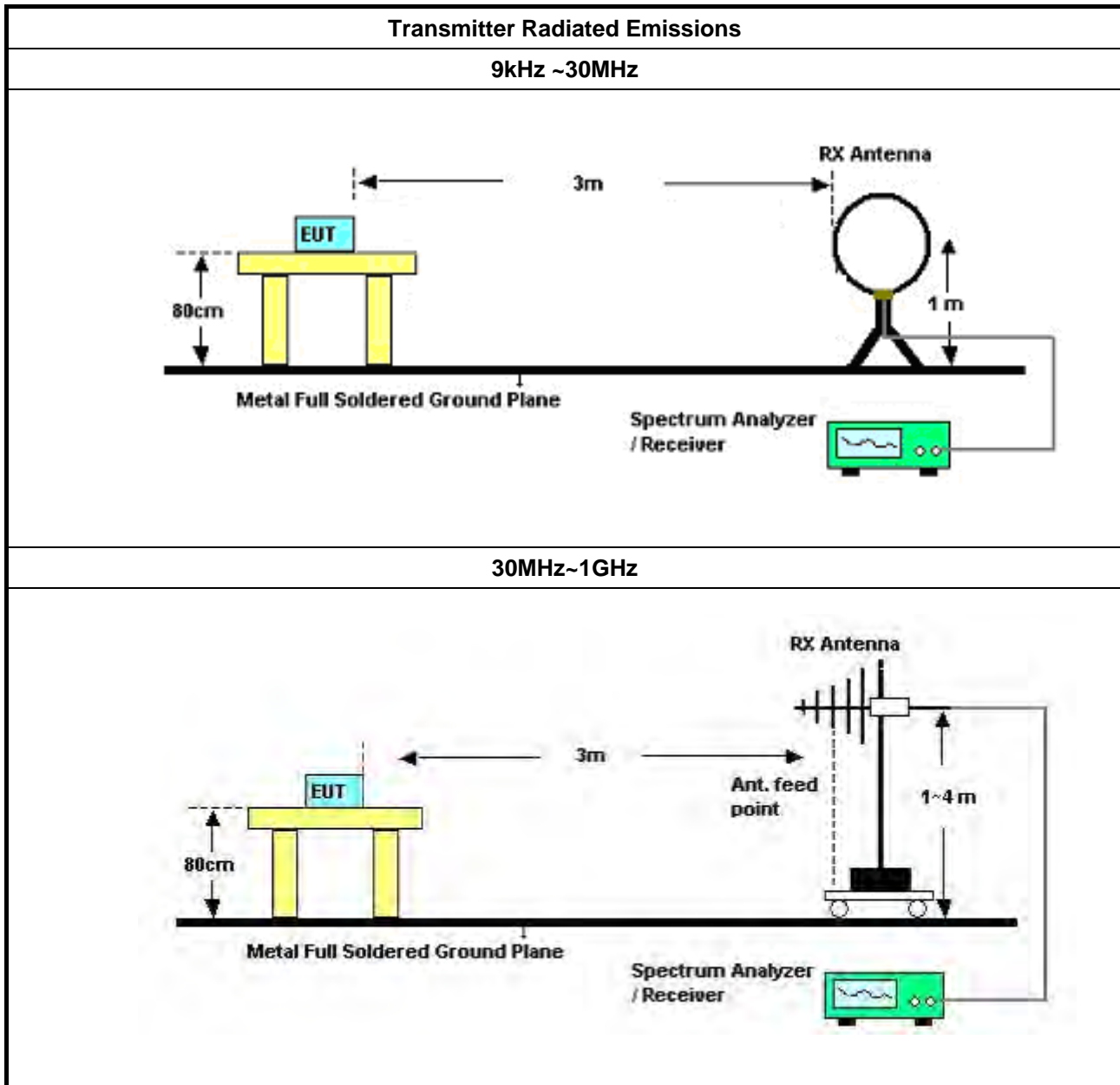
3.7.2 Measuring Instruments

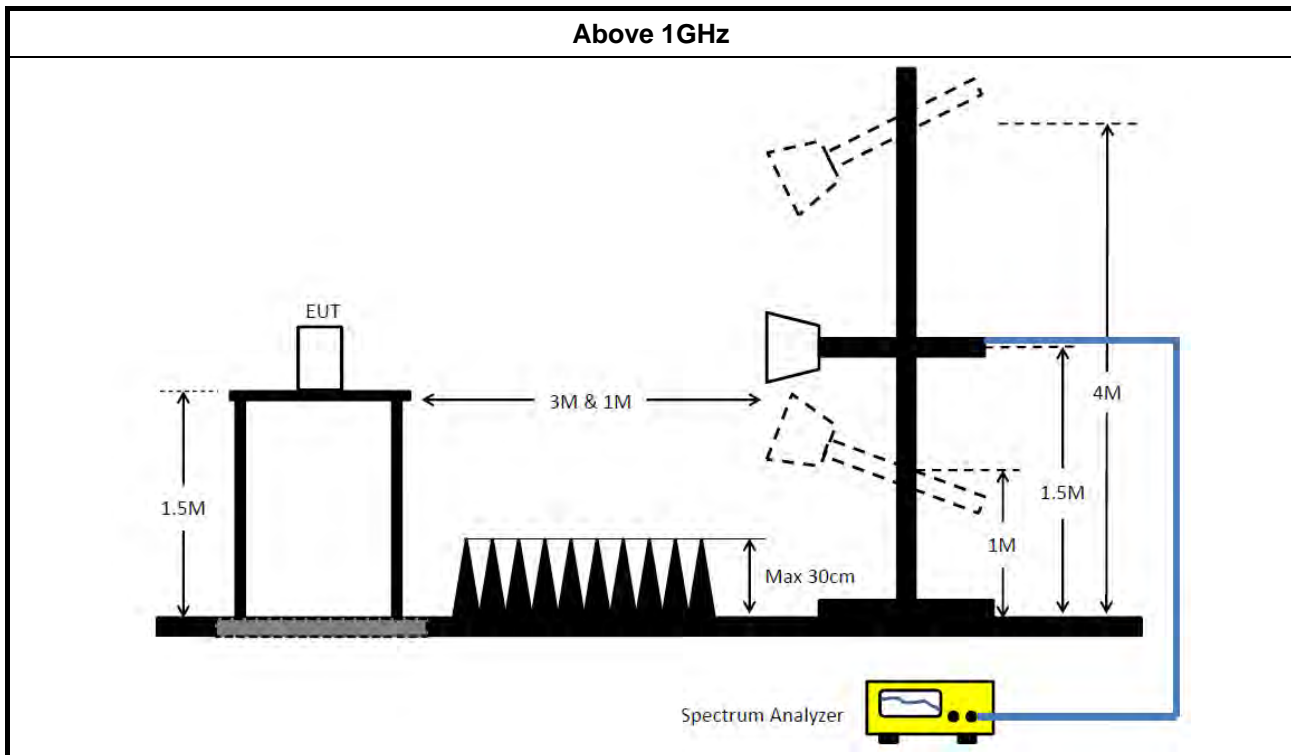
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
	▪ The average emission levels shall be measured in [hopping duty factor].
	▪ Refer as ANSI C63.10; clause 6.9.2.2 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 Transmitter Radiated Unwanted Emissions (Below 30MHz)

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.

3.7.6 Transmitter Radiated Unwanted Emissions

Refer as Appendix G



4 Test Equipment and Calibration Data

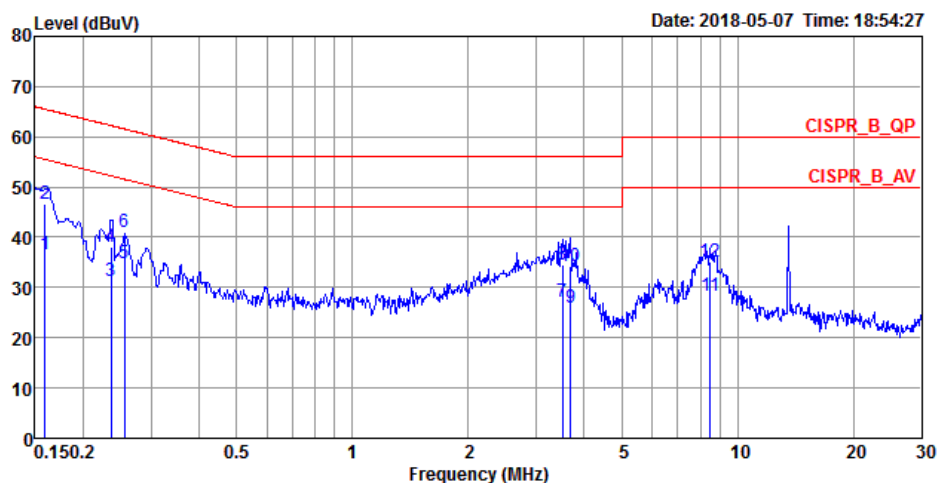
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 31, 2018	Jan. 30, 2019	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz~100MHz	Dec. 20, 2017	Dec. 19, 2018	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 29, 2017	Dec. 28, 2018	Conduction (CO01-CB)
Impulsbegrenzer Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 06, 2018	Feb. 05, 2019	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2018	Mar. 15, 2019	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35- HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 20, 2017	Nov. 19, 2018	Conducted (TH01-CB)

AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Neutral
Operating Function	CTX - Radio 3 (5GHz B1)		



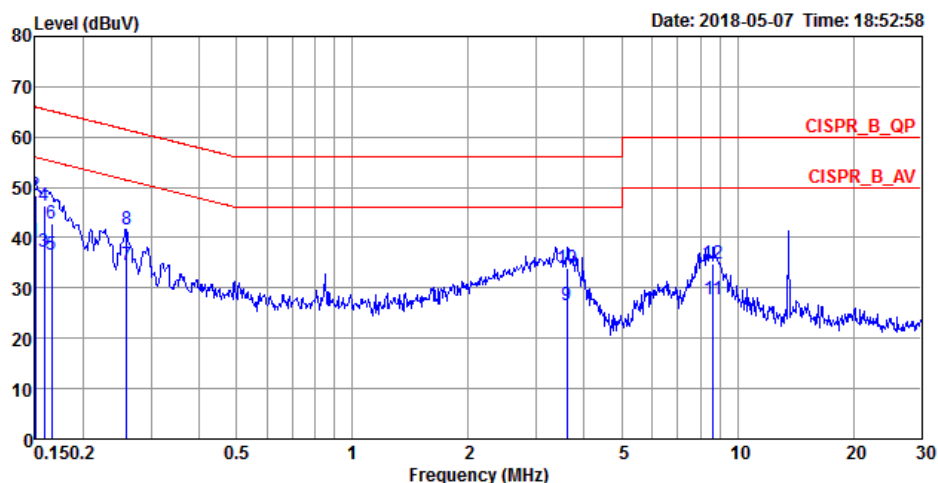
	Freq	Level	Over	Limit	Read	LISN	Cable	Remark	Pol/Phase
	MHz	dBuV	Limit	Line	Level	Factor	Loss		
			dB	dBuV	dBuV	dB	dB		
1	0.1590	36.47	-19.05	55.52	26.40	9.92	0.15	Average	NEUTRAL
2	0.1590	46.73	-18.79	65.52	36.66	9.92	0.15	QP	NEUTRAL
3	0.2366	31.40	-20.82	52.22	21.38	9.92	0.10	Average	NEUTRAL
4	0.2366	38.07	-24.15	62.22	28.05	9.92	0.10	QP	NEUTRAL
5	0.2562	34.83	-16.73	51.56	24.82	9.92	0.09	Average	NEUTRAL
6	0.2562	40.97	-20.59	61.56	30.96	9.92	0.09	QP	NEUTRAL
7	3.5092	27.26	-18.74	46.00	17.16	9.98	0.12	Average	NEUTRAL
8	3.5092	34.47	-21.53	56.00	24.37	9.98	0.12	QP	NEUTRAL
9	3.6806	25.99	-20.01	46.00	15.90	9.98	0.11	Average	NEUTRAL
10	3.6806	34.16	-21.84	56.00	24.07	9.98	0.11	QP	NEUTRAL
11	8.5011	28.22	-21.78	50.00	18.00	10.08	0.14	Average	NEUTRAL
12	8.5011	35.20	-24.80	60.00	24.98	10.08	0.14	QP	NEUTRAL

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Line
Operating Function	CTX - Radio 3 (5GHz B1)		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1500	39.16	-16.84	56.00	29.09	9.91	0.16	Average	LINE
2	0.1500	48.39	-17.61	66.00	38.32	9.91	0.16	QP	LINE
3	0.1582	37.26	-18.30	55.56	27.20	9.91	0.15	Average	LINE
4	0.1582	46.30	-19.26	65.56	36.24	9.91	0.15	QP	LINE
5	0.1659	36.47	-18.69	55.16	26.41	9.91	0.15	Average	LINE
6	0.1659	42.94	-22.22	65.16	32.88	9.91	0.15	QP	LINE
7	0.2589	34.55	-16.92	51.47	24.56	9.91	0.08	Average	LINE
8	0.2589	41.73	-19.74	61.47	31.74	9.91	0.08	QP	LINE
9	3.6034	26.54	-19.46	46.00	16.44	9.98	0.12	Average	LINE
10	3.6034	33.99	-22.01	56.00	23.89	9.98	0.12	QP	LINE
11	8.6373	27.68	-22.32	50.00	17.43	10.11	0.14	Average	LINE
12	8.6373	34.75	-25.25	60.00	24.50	10.11	0.14	QP	LINE

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

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)	928.75k	923.288k	923KF1D	910k	918.291k
BT-EDR(2Mbps)	1.338M	1.232M	1M23G1D	1.335M	1.218M
BT-EDR(3Mbps)	1.306M	1.232M	1M23G1D	1.254M	1.223M

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;

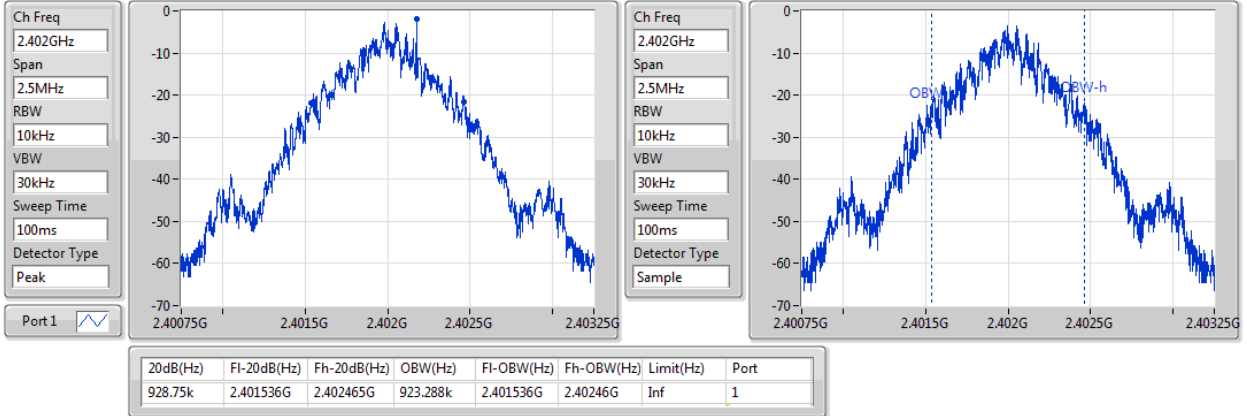
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	928.75k	923.288k
2440MHz	Pass	Inf	920k	923.288k
2480MHz	Pass	Inf	910k	918.291k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.335M	1.227M
2440MHz	Pass	Inf	1.338M	1.232M
2480MHz	Pass	Inf	1.335M	1.218M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.28M	1.223M
2440MHz	Pass	Inf	1.306M	1.232M
2480MHz	Pass	Inf	1.254M	1.228M

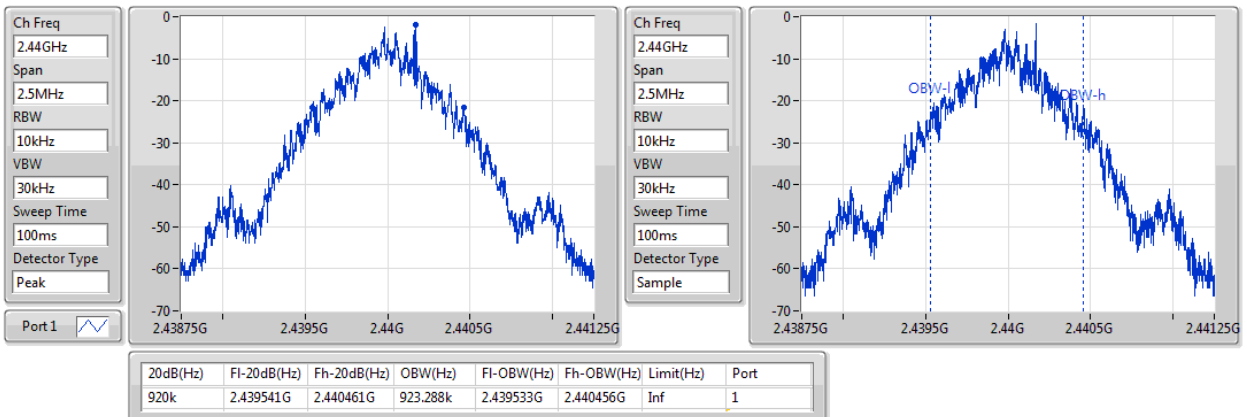
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
EBW
2402MHz

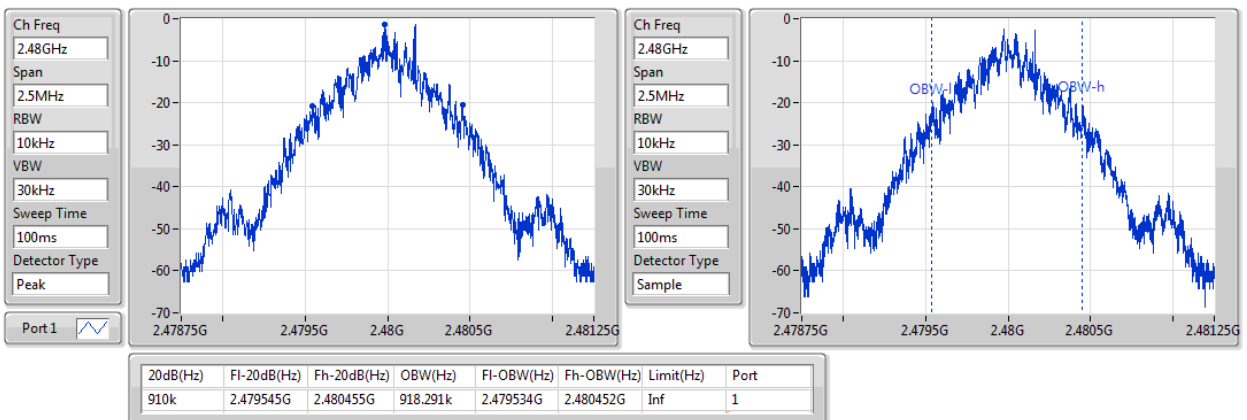
29/03/2018


BT-BR(1Mbps)
EBW
2440MHz

29/03/2018

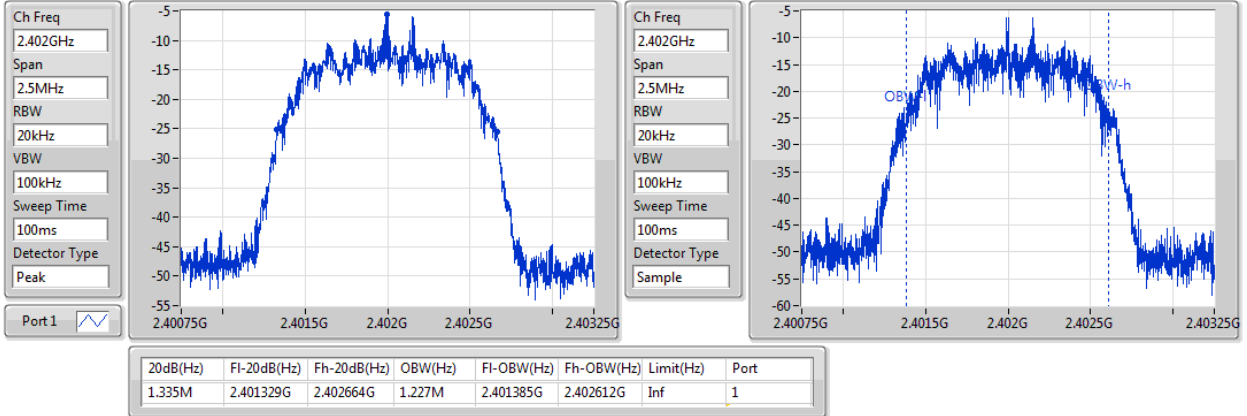

BT-BR(1Mbps)
EBW
2480MHz

29/03/2018

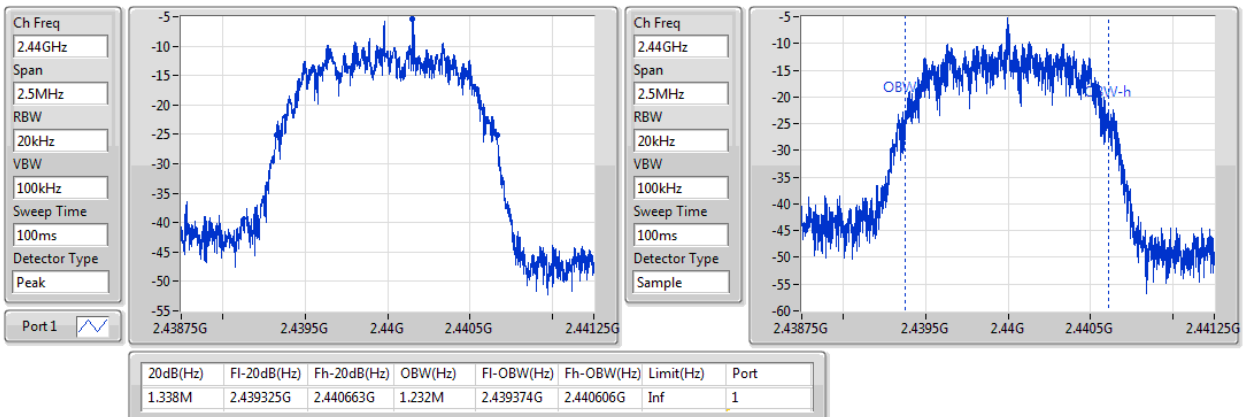


BT-EDR(2Mbps)
EBW
2402MHz

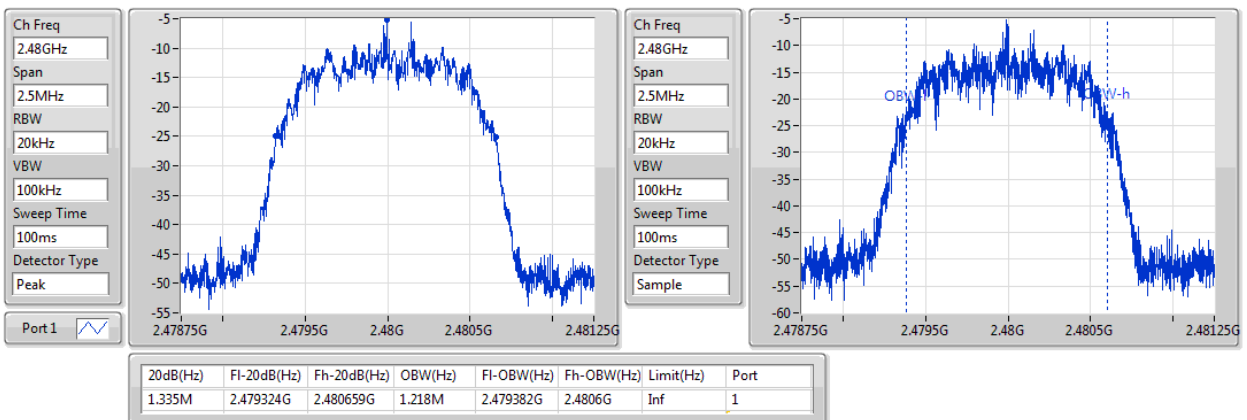
29/03/2018


BT-EDR(2Mbps)
EBW
2440MHz

29/03/2018

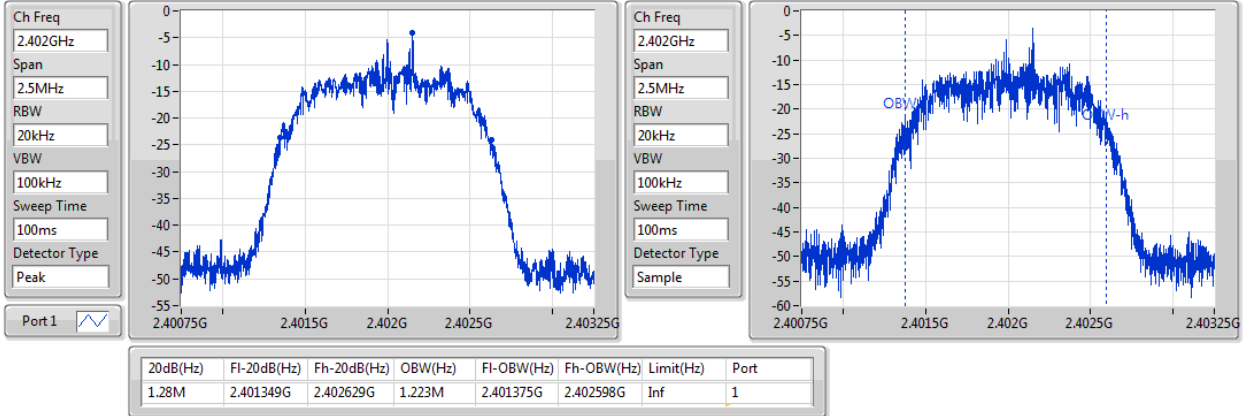

BT-EDR(2Mbps)
EBW
2480MHz

29/03/2018

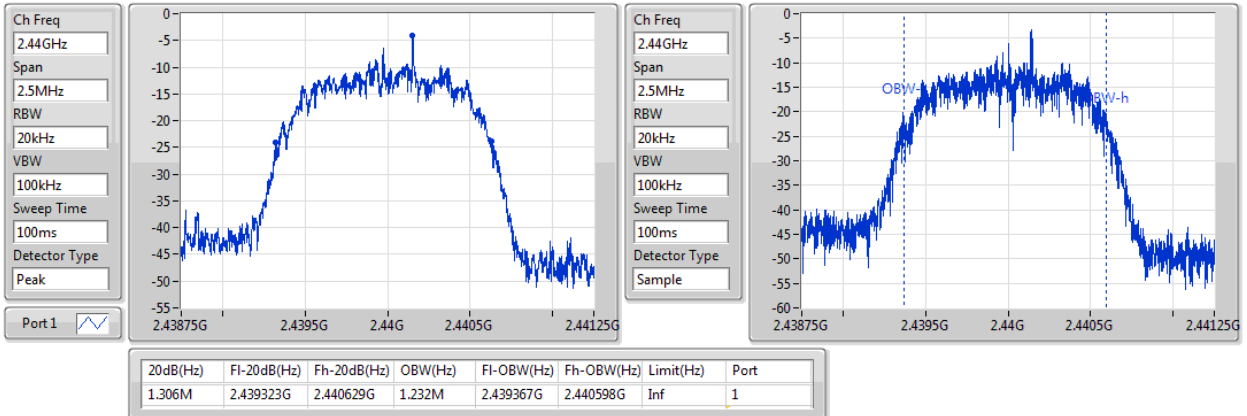


BT-EDR(3Mbps)
EBW
2402MHz

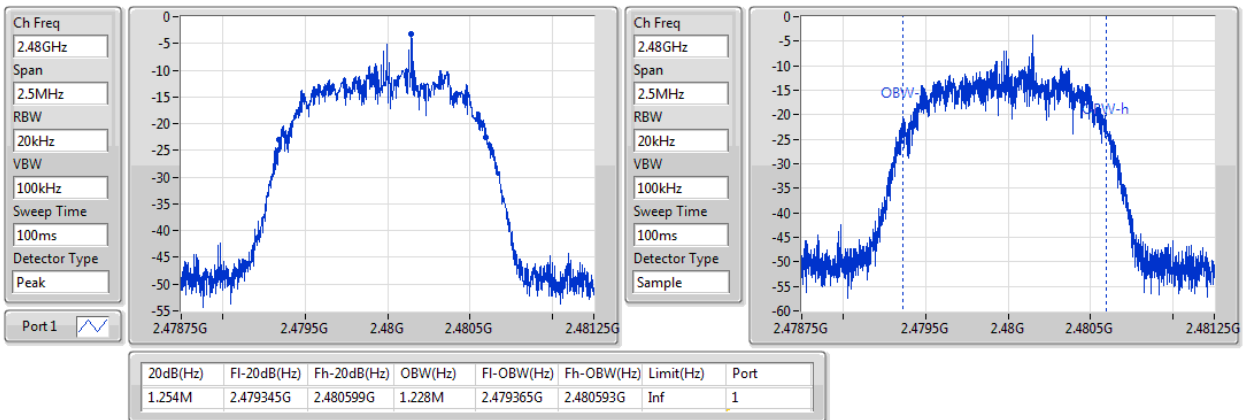
29/03/2018


BT-EDR(3Mbps)
EBW
2440MHz

29/03/2018


BT-EDR(3Mbps)
EBW
2480MHz

29/03/2018



Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0005M	1.0005M
BT-EDR(2Mbps)	1.0035M	999k
BT-EDR(3Mbps)	1.002M	1.0005M

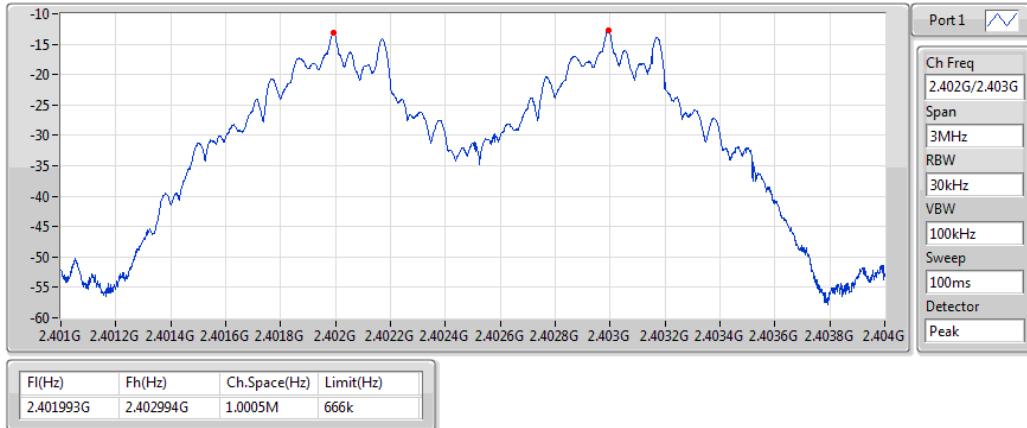
Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.401993G	2.402994G	1.0005M	666k
2440MHz	Pass	2.43999G	2.440991G	1.0005M	612.72k
2480MHz	Pass	2.478987G	2.479988G	1.0005M	606.06k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.401992G	2.402991G	999k	889.11k
2440MHz	Pass	2.439989G	2.440988G	999k	891.108k
2480MHz	Pass	2.478983G	2.479986G	1.0035M	889.11k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402146G	2.403147G	1.0005M	852.48k
2440MHz	Pass	2.440145G	2.441145G	1.0005M	869.796k
2480MHz	Pass	2.479142G	2.480144G	1.002M	835.164k

BT-BR(1Mbps)

Channel Separation

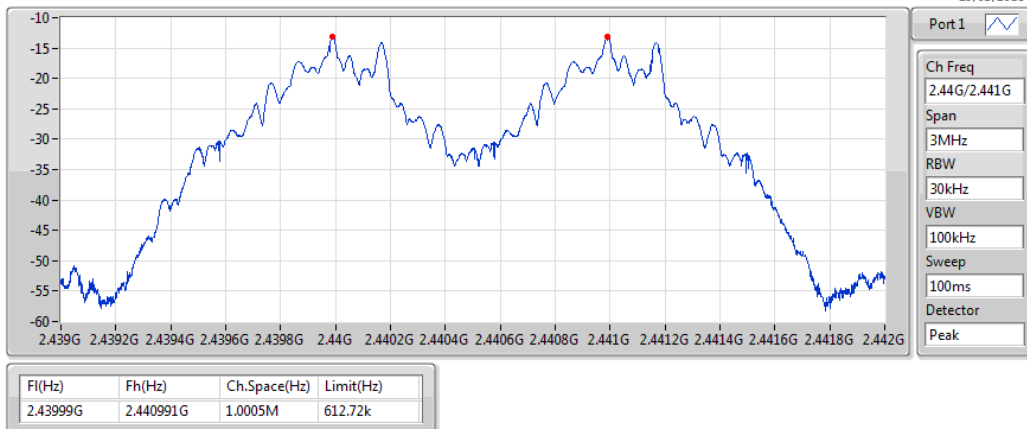
2.402G/2.403GHz



BT-BR(1Mbps)

Channel Separation

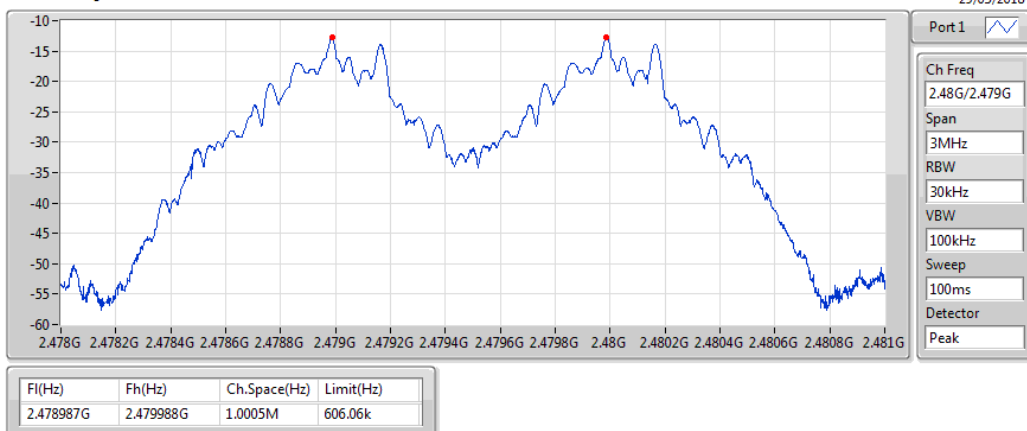
2.44G/2.441GHz



BT-BR(1Mbps)

Channel Separation

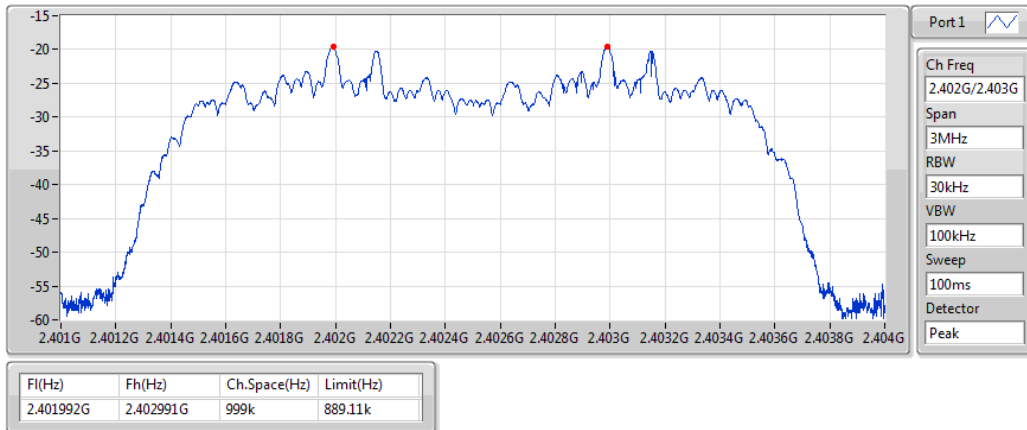
2.48G/2.479GHz



BT-EDR(2Mbps)

Channel Separation

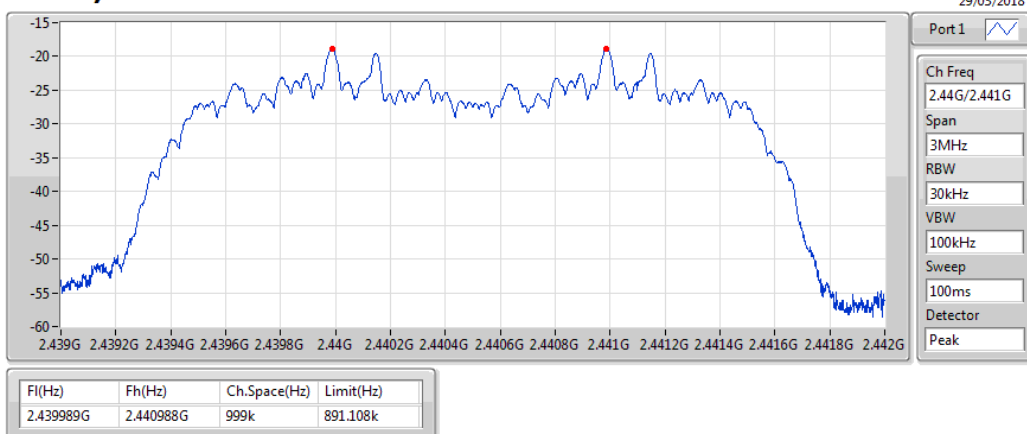
2.402G/2.403GHz



BT-EDR(2Mbps)

Channel Separation

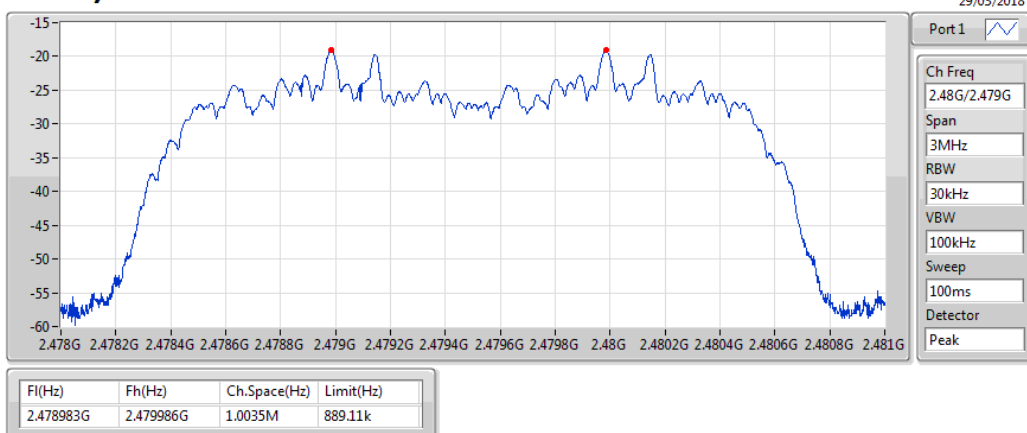
2.44G/2.441GHz



BT-EDR(2Mbps)

Channel Separation

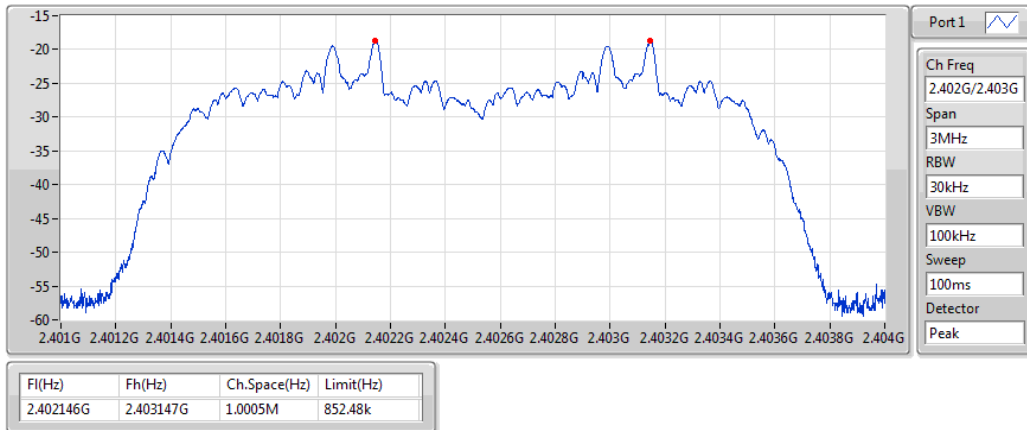
2.48G/2.479GHz



BT-EDR(3Mbps)

Channel Separation

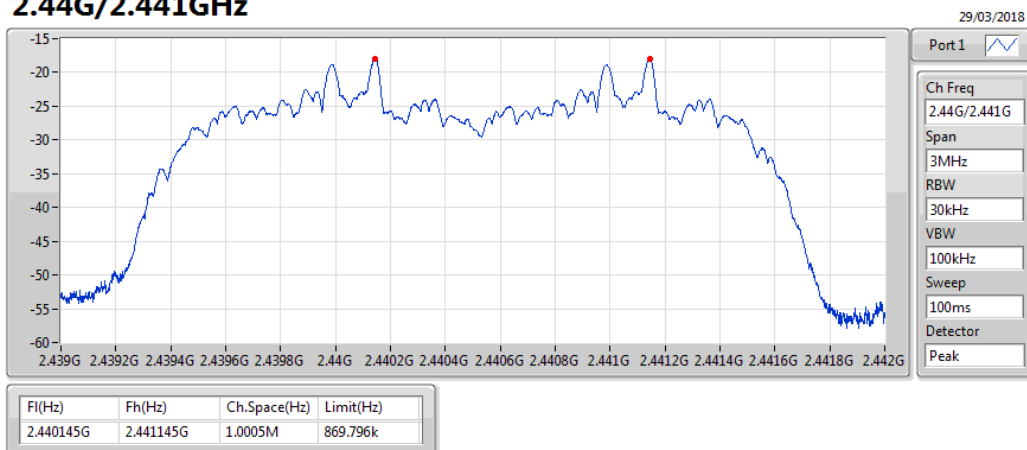
2.402G/2.403GHz



BT-EDR(3Mbps)

Channel Separation

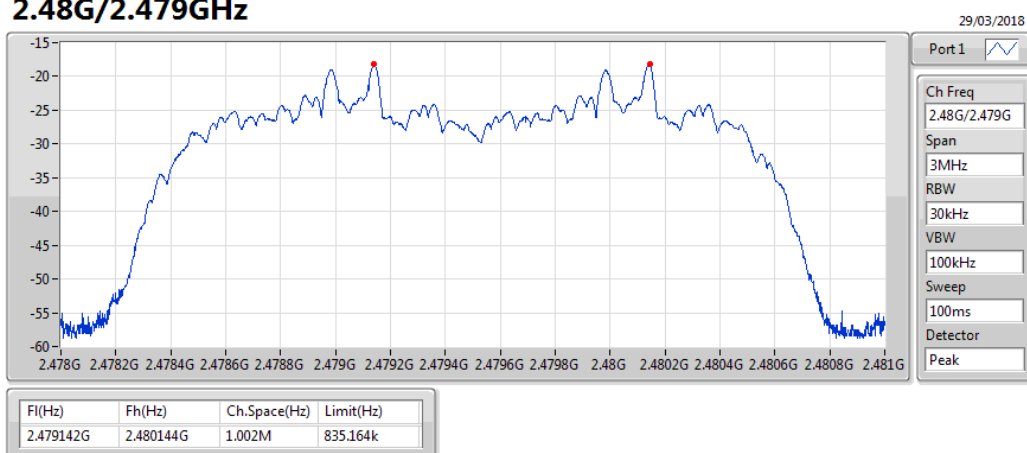
2.44G/2.441GHz



BT-EDR(3Mbps)

Channel Separation

2.48G/2.479GHz



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	2.95	0.00197
BT-EDR(2Mbps)	-2.12	0.00061
BT-EDR(3Mbps)	-2.10	0.00062

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	4.12	2.95	21.00
2440MHz	Pass	4.12	2.58	21.00
2480MHz	Pass	4.12	2.90	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	4.12	-2.73	21.00
2440MHz	Pass	4.12	-2.44	21.00
2480MHz	Pass	4.12	-2.12	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	4.12	-3.10	21.00
2440MHz	Pass	4.12	-2.13	21.00
2480MHz	Pass	4.12	-2.10	21.00

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	2.96	0.00198
BT-EDR(2Mbps)	0.97	0.00125
BT-EDR(3Mbps)	1.29	0.00135

Result

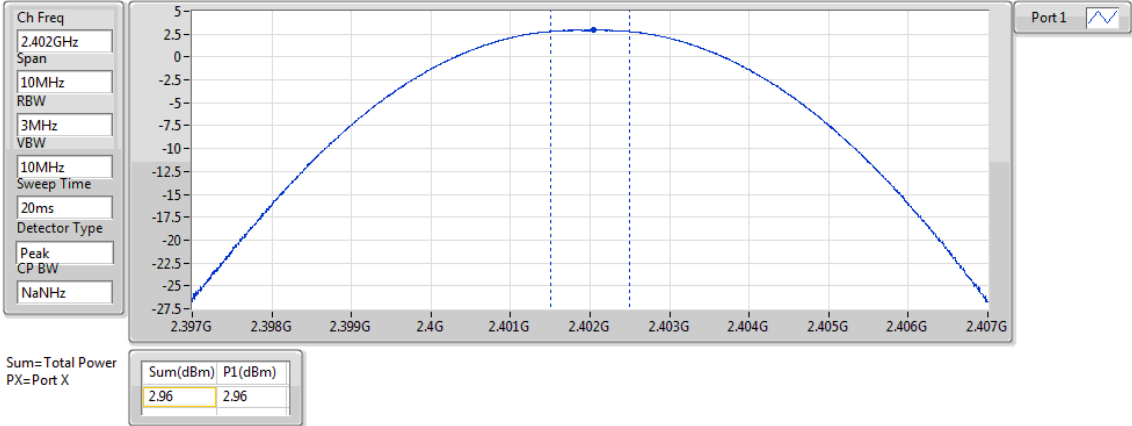
Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	4.12	2.96	21.00
2440MHz	Pass	4.12	2.64	21.00
2480MHz	Pass	4.12	2.92	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	4.12	0.27	21.00
2440MHz	Pass	4.12	0.97	21.00
2480MHz	Pass	4.12	0.69	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	4.12	0.62	21.00
2440MHz	Pass	4.12	1.29	21.00
2480MHz	Pass	4.12	1.06	21.00

BT-BR(1Mbps)

PK Power

2402MHz

29/03/2018

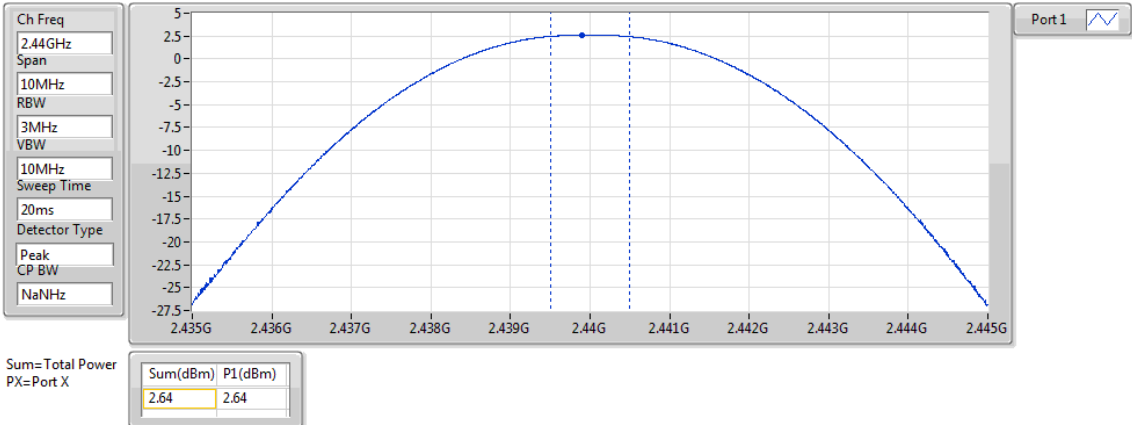


BT-BR(1Mbps)

PK Power

2440MHz

29/03/2018

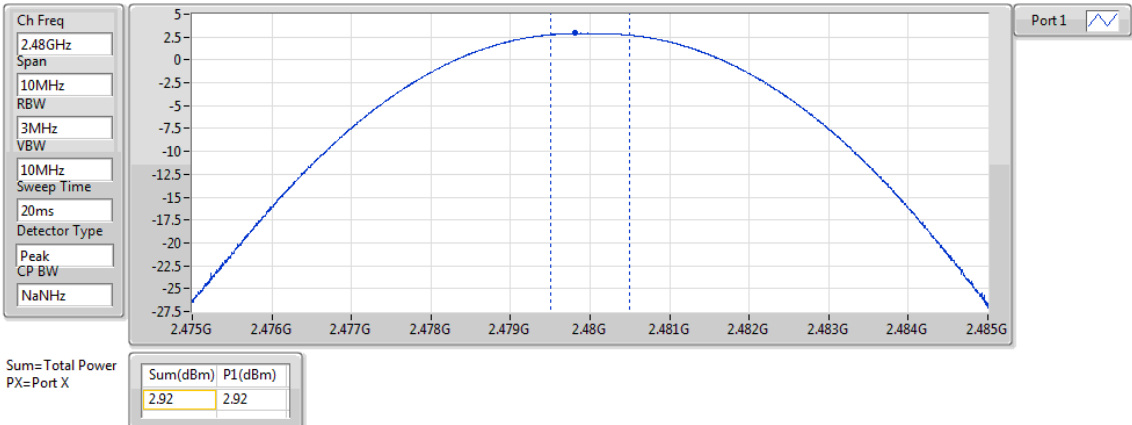


BT-BR(1Mbps)

PK Power

2480MHz

29/03/2018

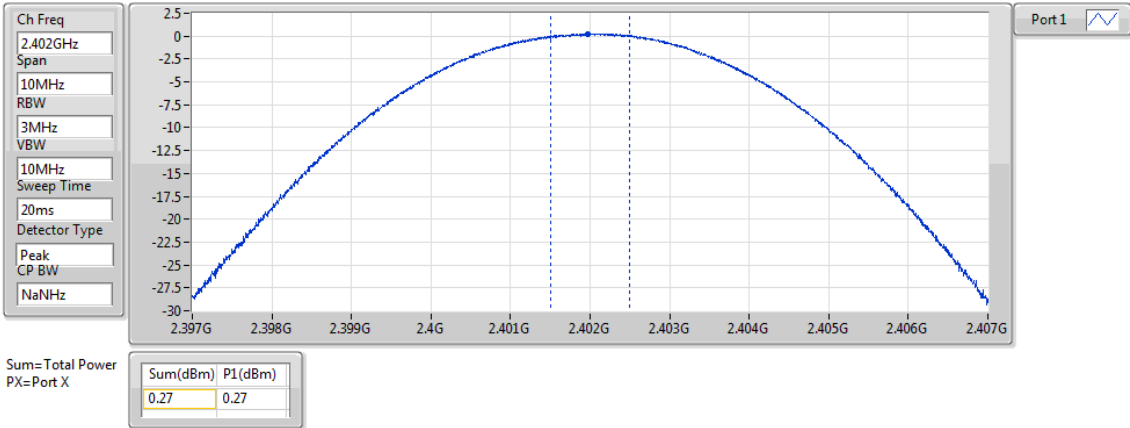


BT-EDR(2Mbps)

PK Power

2402MHz

29/03/2018

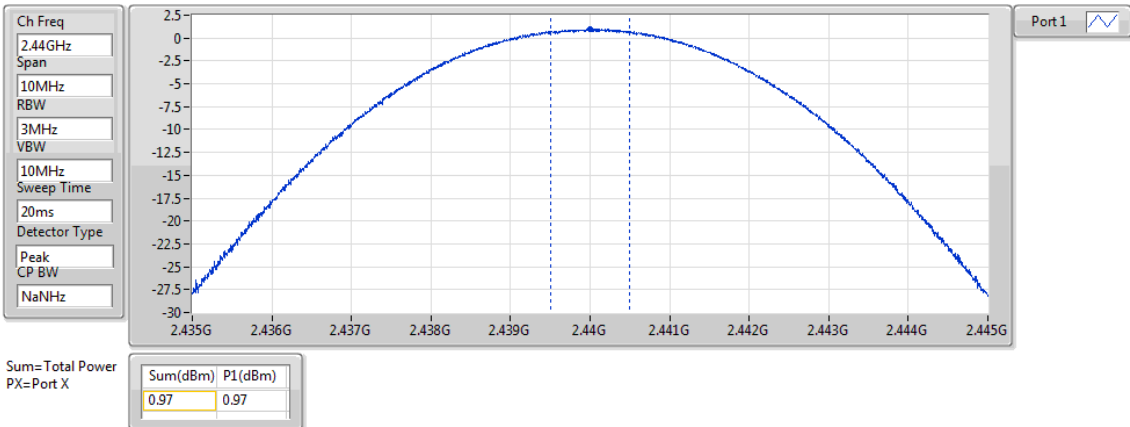


BT-EDR(2Mbps)

PK Power

2440MHz

29/03/2018

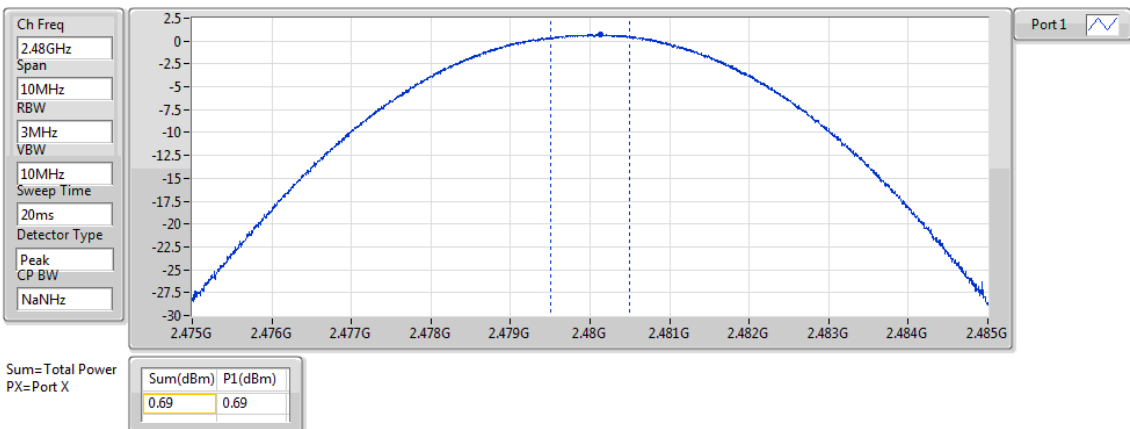


BT-EDR(2Mbps)

PK Power

2480MHz

29/03/2018

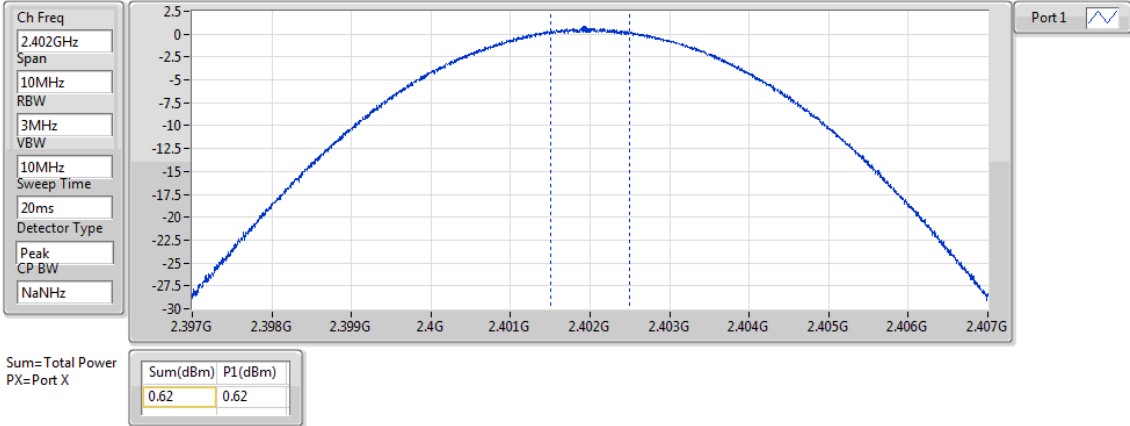


BT-EDR(3Mbps)

PK Power

2402MHz

29/03/2018

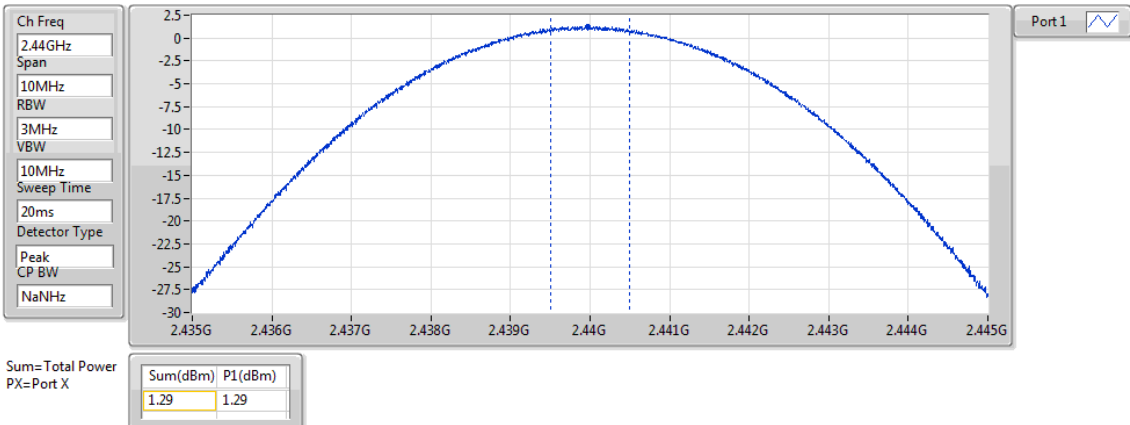


BT-EDR(3Mbps)

PK Power

2440MHz

29/03/2018

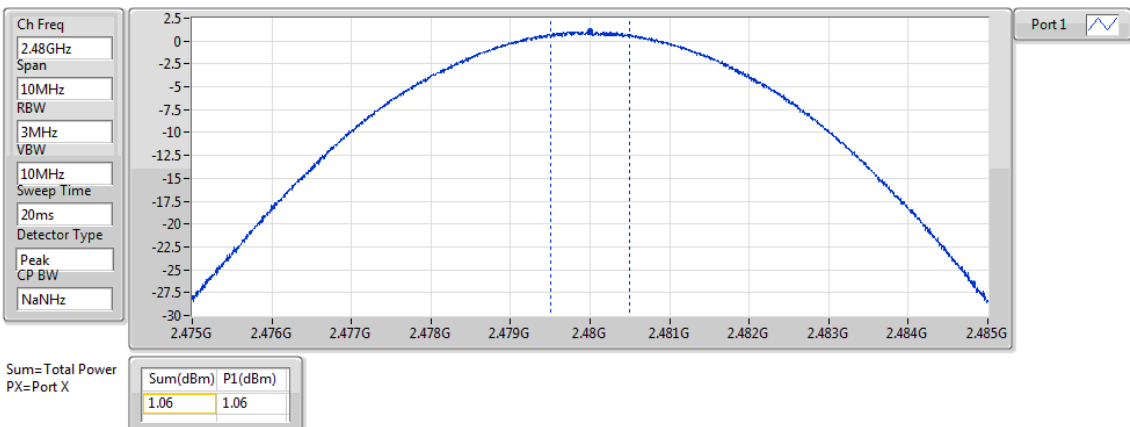


BT-EDR(3Mbps)

PK Power

2480MHz

29/03/2018



Summary

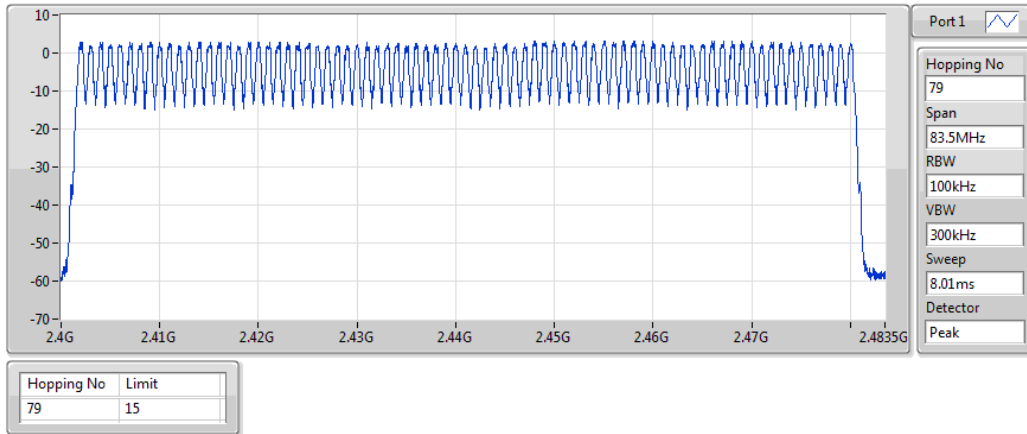
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

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

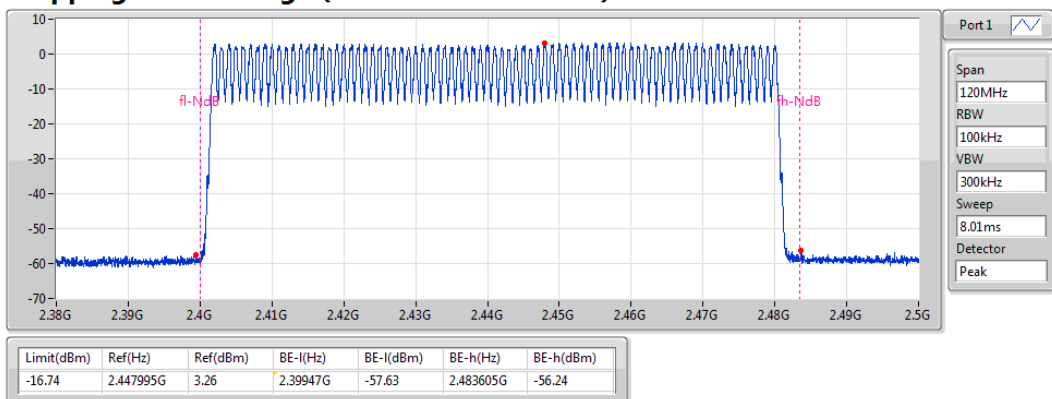
BT-BR(1Mbps) 2440MHz

Hopping Ch



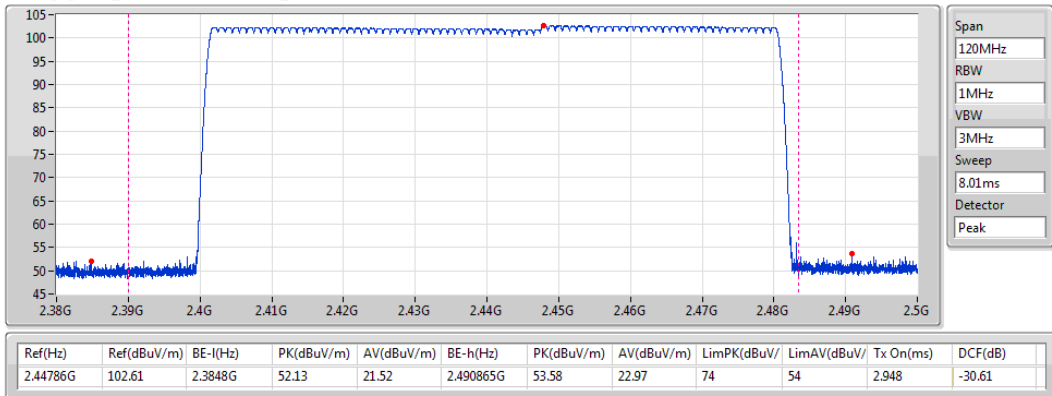
BT-BR(1Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)



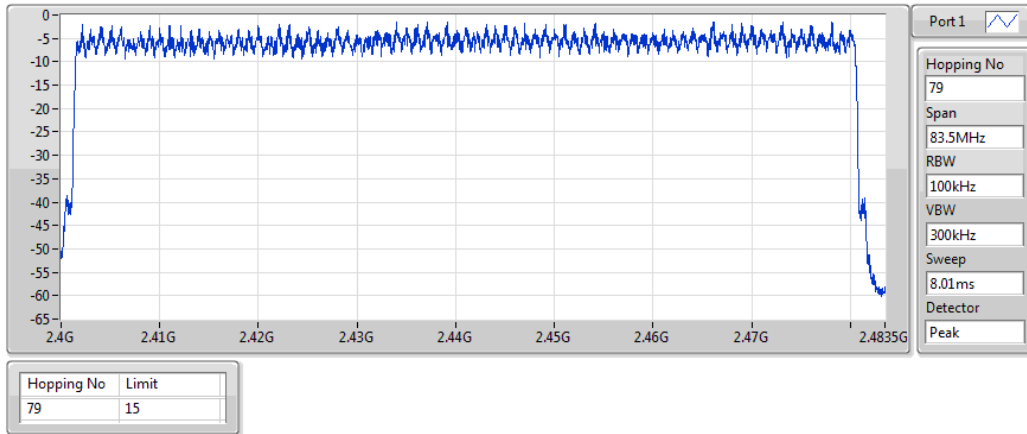
BT-BR(1Mbps) 2440MHz

Hopping Ch Bandedge (Restricted Band)



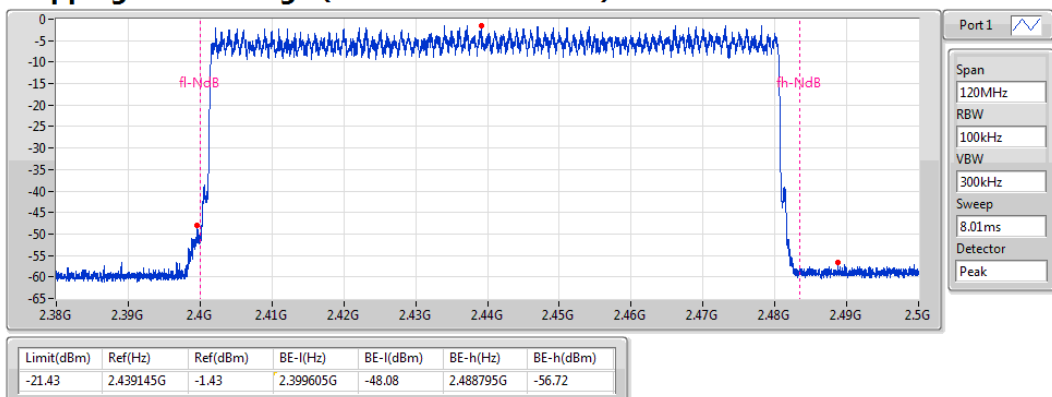
BT-EDR(2Mbps) 2440MHz

Hopping Ch



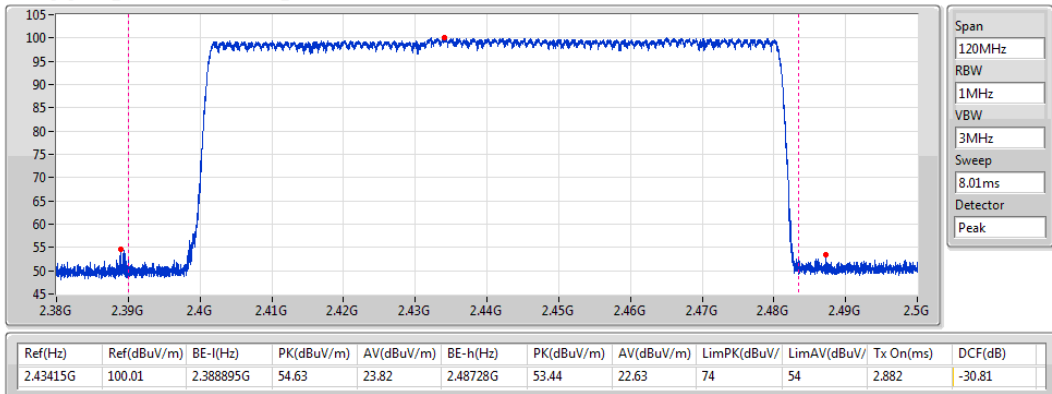
BT-EDR(2Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)



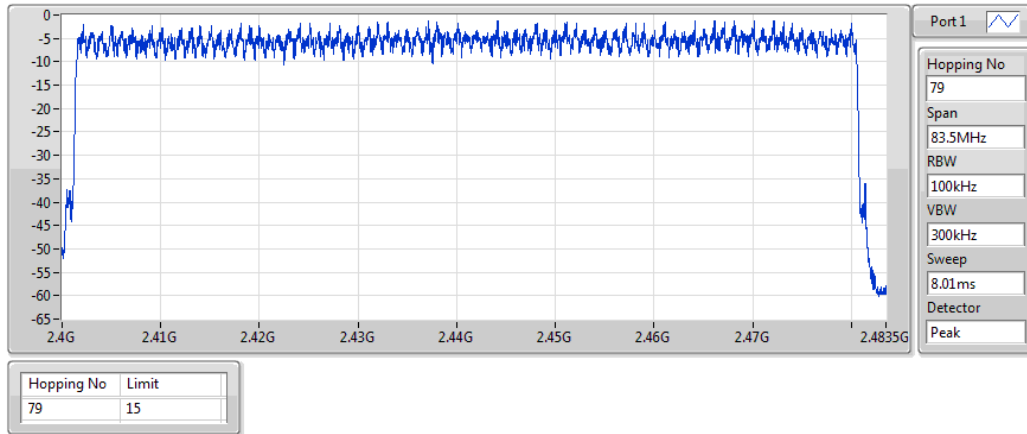
BT-EDR(2Mbps) 2440MHz

Hopping Ch Bandedge (Restricted Band)



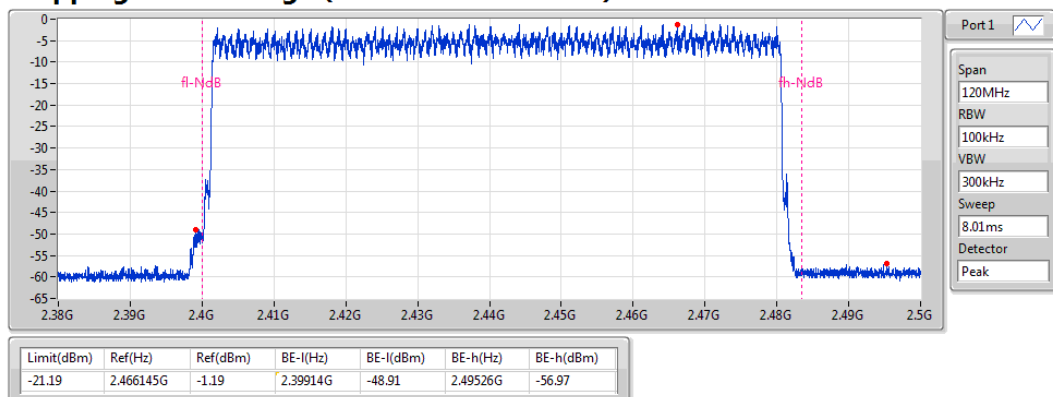
BT-EDR(3Mbps) 2440MHz

Hopping Ch



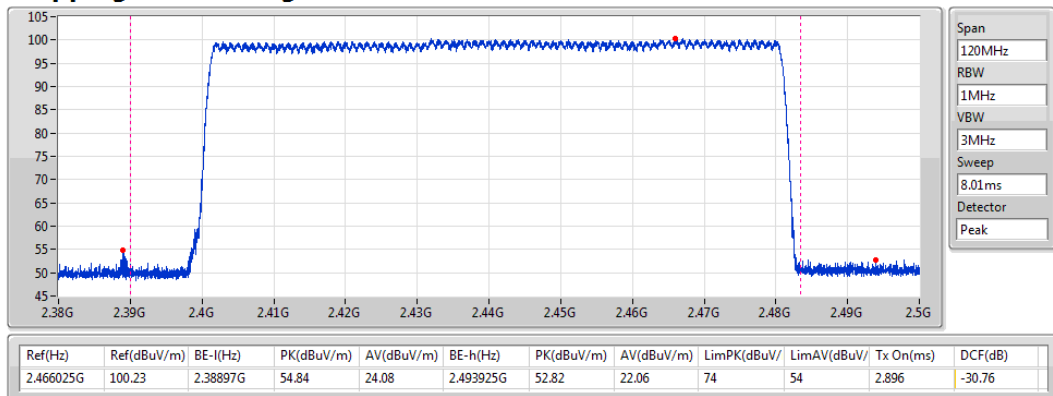
BT-EDR(3Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)



BT-EDR(3Mbps) 2440MHz

Hopping Ch Bandedge (Restricted Band)



Summary

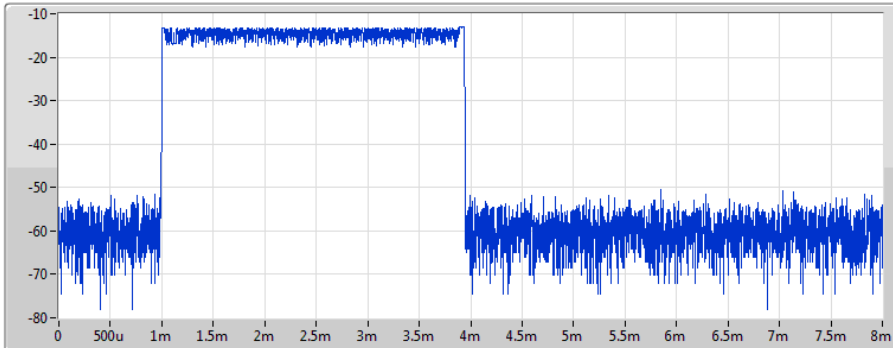
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	314.2568m
BT-EDR(2Mbps)	307.2212m
BT-EDR(3Mbps)	308.7136m

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	314.2568m	400m	2.948m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.2212m	400m	2.882m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.7136m	400m	2.896m

BT-BR(1Mbps)


2440MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	314.2568m	400m	2.948m

Dwell

29/03/2018

Port 1 

Ch Freq
2.44GHz

RBW
300kHz

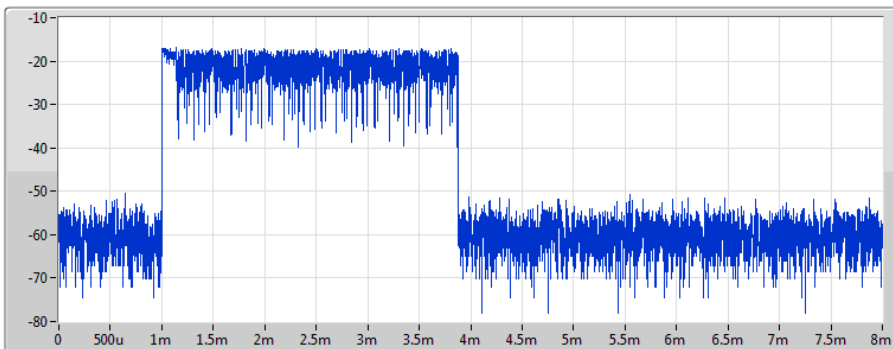
VBW
1MHz

Sweep Time
8ms

TX Time
2.948ms

BT-EDR(2Mbps)


2440MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.2212m	400m	2.882m

Dwell

29/03/2018

Port 1 

Ch Freq
2.44GHz

RBW
300kHz

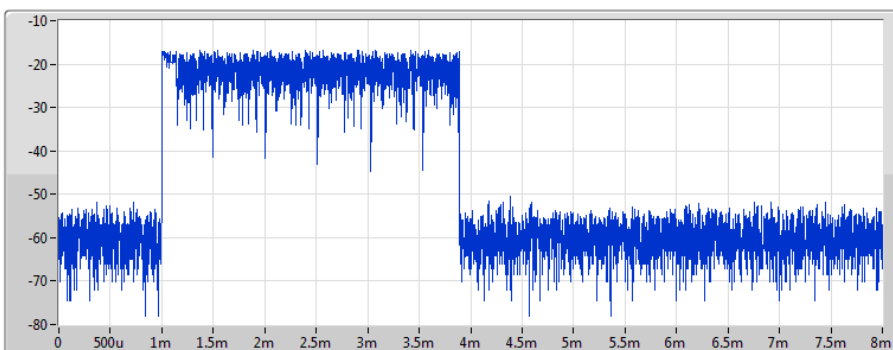
VBW
1MHz

Sweep Time
8ms

TX Time
2.882ms

BT-EDR(3Mbps)


2440MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.7136m	400m	2.896m

Dwell

29/03/2018

Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.896ms

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	2.479993G	2.05	-17.95	874.192M	-57.80	2.39876G	-59.79	2.485144G	-57.35	24.34708G	-50.84	1
BT-EDR(2Mbps)	Pass	2.401837G	-4.44	-24.44	914.448M	-57.43	2.399444G	-47.87	2.4843G	-58.26	17.20154G	-52.35	1
BT-EDR(3Mbps)	Pass	2.402004G	-3.58	-23.58	932.208M	-56.98	2.39912G	-47.89	2.48376G	-58.69	16.42479G	-51.29	1

Result

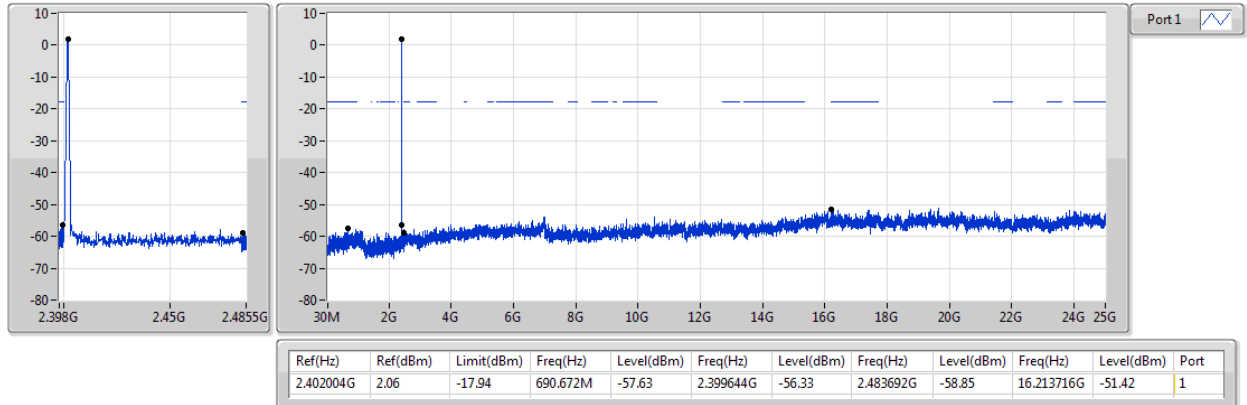
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402004G	2.06	-17.94	690.672M	-57.63	2.399644G	-56.33	2.483692G	-58.85	16.213716G	-51.42	1
2440MHz	Pass	2.44008G	1.56	-18.44	729.744M	-58.04	2.398128G	-59.29	2.485424G	-59.17	16.700592G	-51.37	1
2480MHz	Pass	2.479993G	2.05	-17.95	874.192M	-57.80	2.39876G	-59.79	2.485144G	-57.35	24.34708G	-50.84	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.401837G	-4.44	-24.44	914.448M	-57.43	2.399444G	-47.87	2.4843G	-58.26	17.20154G	-52.35	1
2440MHz	Pass	2.439913G	-3.81	-23.81	751.056M	-57.94	2.399316G	-59.94	2.485448G	-58.11	16.585206G	-52.01	1
2480MHz	Pass	2.48016G	-3.96	-23.96	904.976M	-57.04	2.399528G	-59.23	2.484284G	-58.13	17.30567G	-51.36	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402004G	-3.58	-23.58	932.208M	-56.98	2.39912G	-47.89	2.48376G	-58.69	16.42479G	-51.29	1
2440MHz	Pass	2.44008G	-2.09	-22.09	722.64M	-58.39	2.39984G	-58.05	2.484804G	-58.92	24.372408G	-52.16	1
2480MHz	Pass	2.479993G	-3.28	-23.28	948.784M	-57.14	2.398512G	-59.14	2.48492G	-58.38	17.668716G	-51.80	1

BT-BR(1Mbps)

CSE NdB

2402MHz

29/03/2018

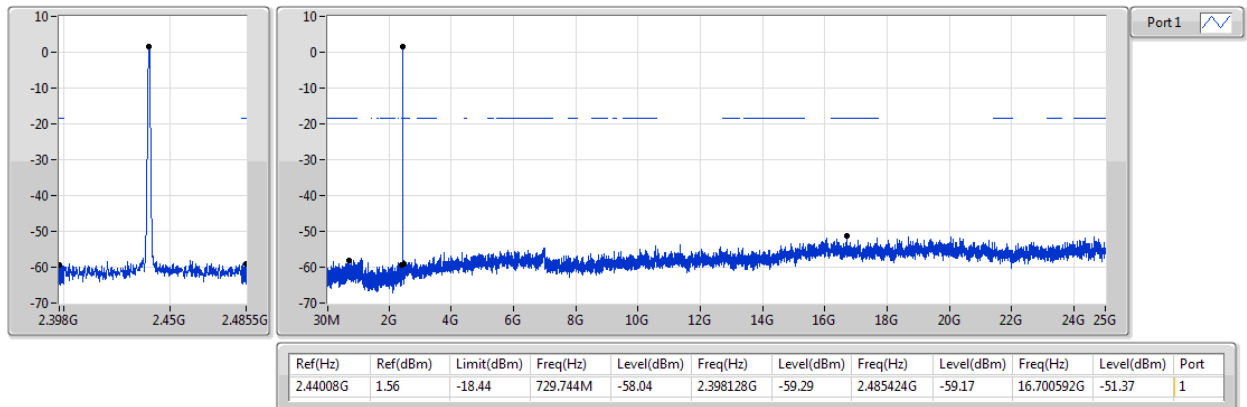


BT-BR(1Mbps)

CSE NdB

2440MHz

29/03/2018

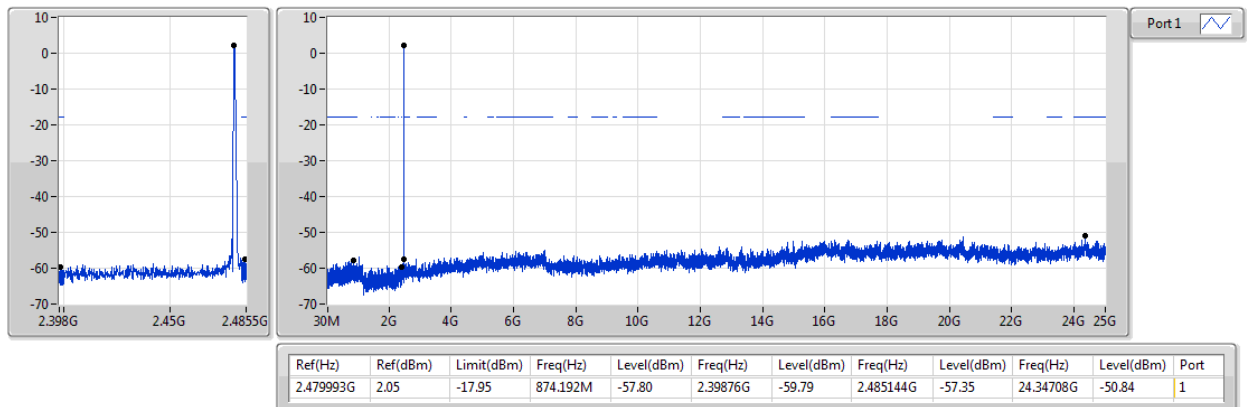


BT-BR(1Mbps)

CSE NdB

2480MHz

29/03/2018

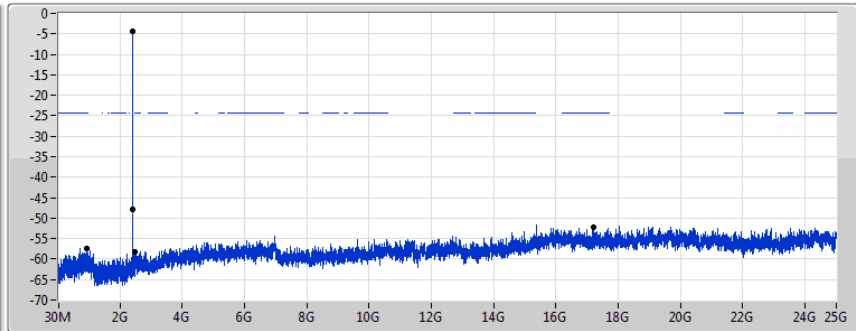
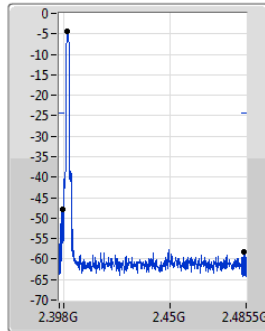


BT-EDR(2Mbps)

CSE NdB

2402MHz

29/03/2018



Port 1

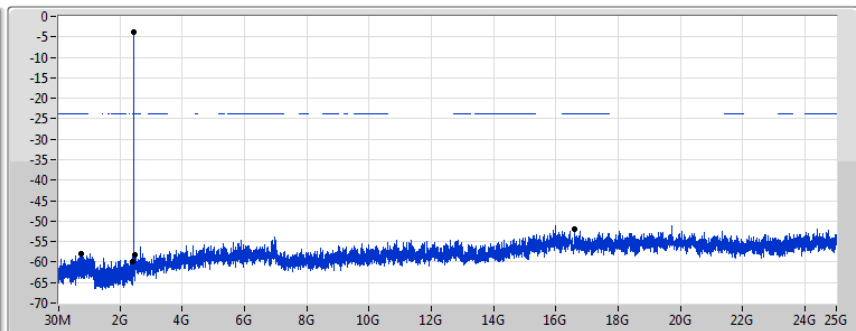
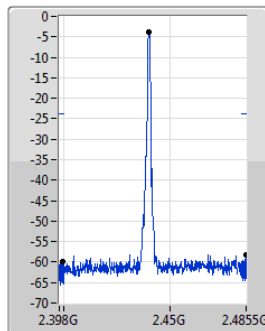
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.401837G	-4.44	-24.44	914.448M	-57.43	2.399444G	-47.87	2.4843G	-58.26	17.20154G	-52.35	1

BT-EDR(2Mbps)

CSE NdB

2440MHz

29/03/2018



Port 1

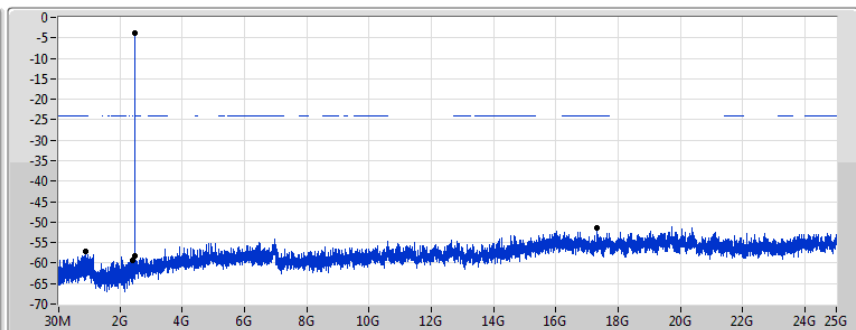
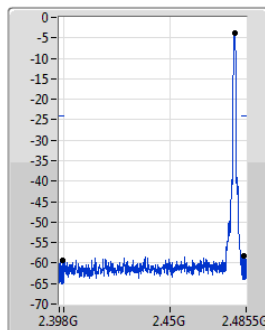
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.439913G	-3.81	-23.81	751.056M	-57.94	2.399316G	-59.94	2.485448G	-58.11	16.585206G	-52.01	1

BT-EDR(2Mbps)

CSE NdB

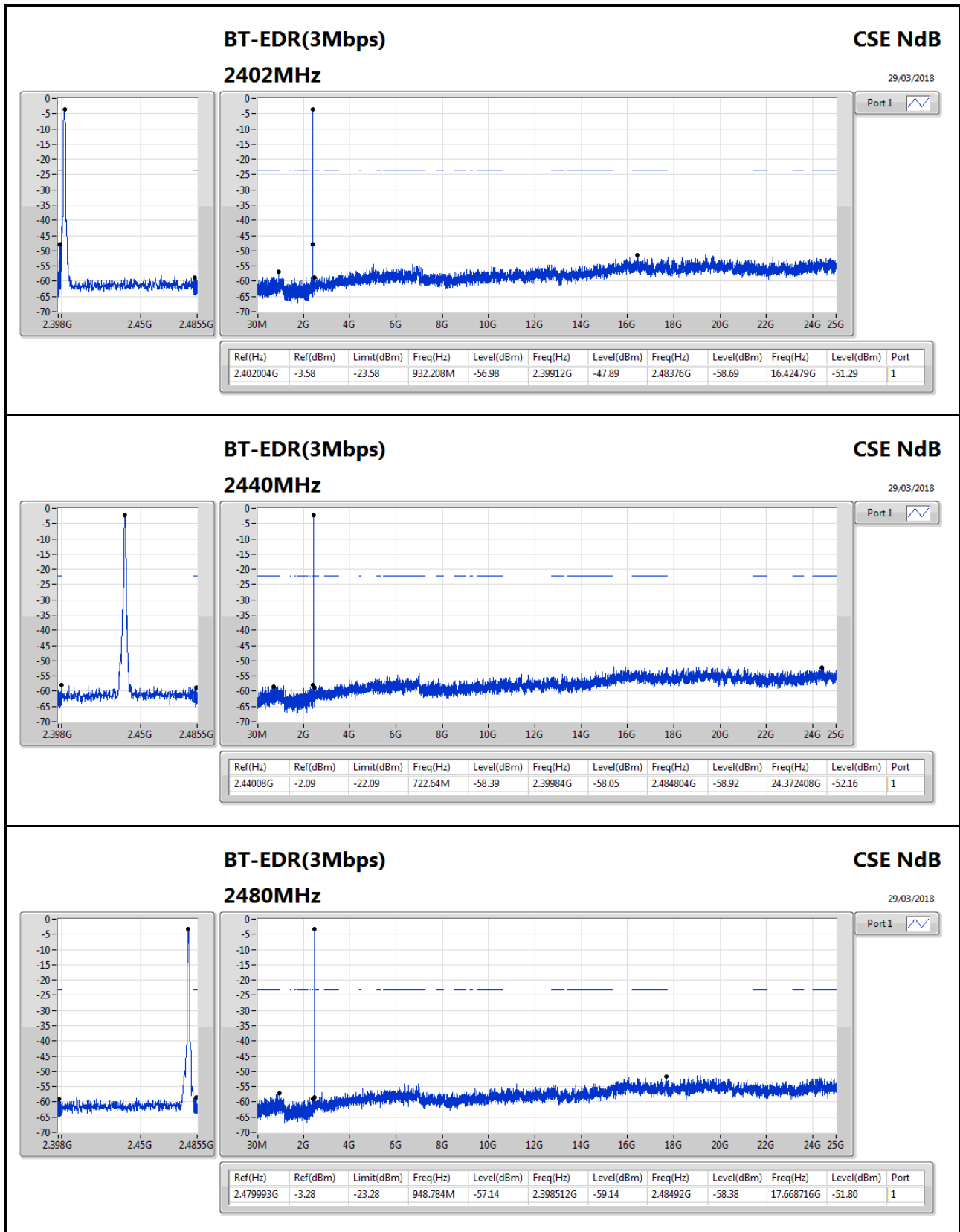
2480MHz

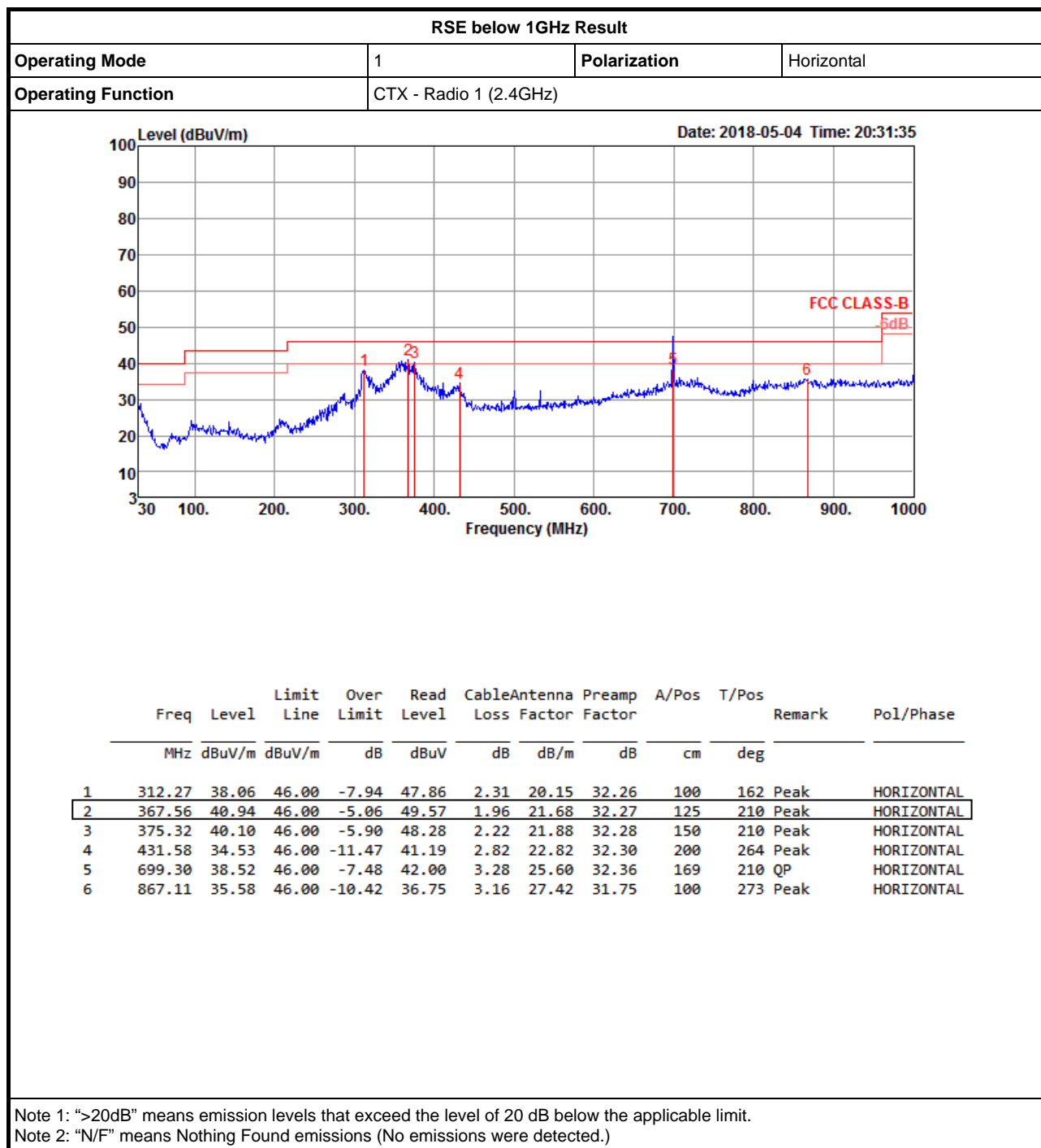
29/03/2018

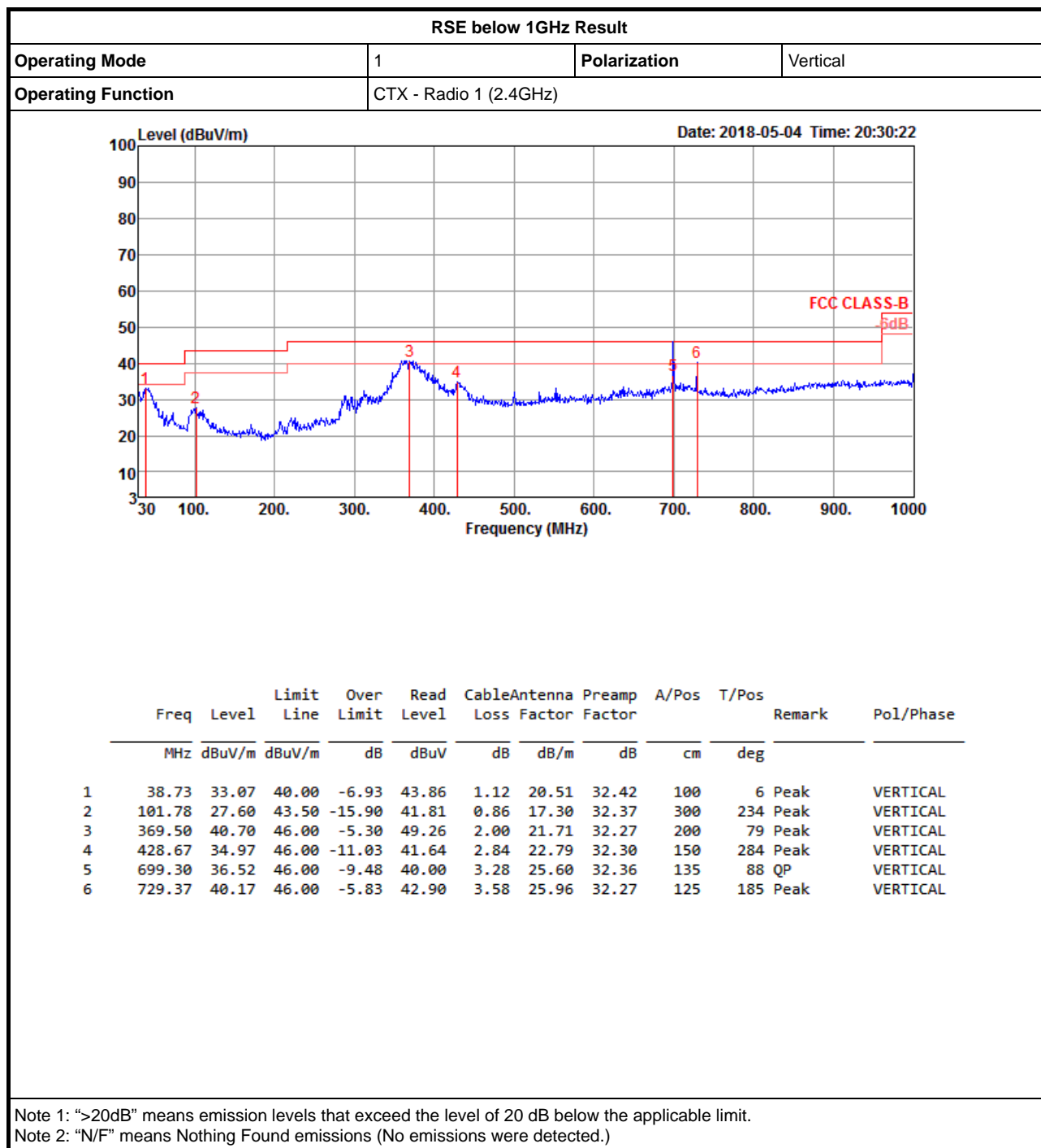


Port 1

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48016G	-3.96	-23.96	904.976M	-57.04	2.399528G	-59.23	2.484284G	-58.13	17.30567G	-51.36	1







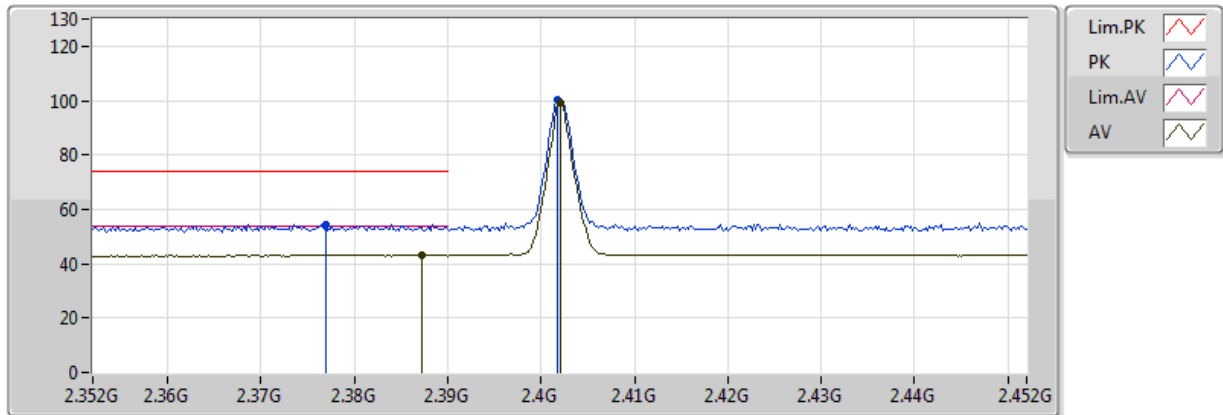
Summary

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-BR(1Mbps)	Pass	AV	2.483502G	46.23	54.00	-7.77	31.17	3	Vertical	39	2.56	-

BT-BR(1Mbps)

2402MHz_TX

27/03/2018



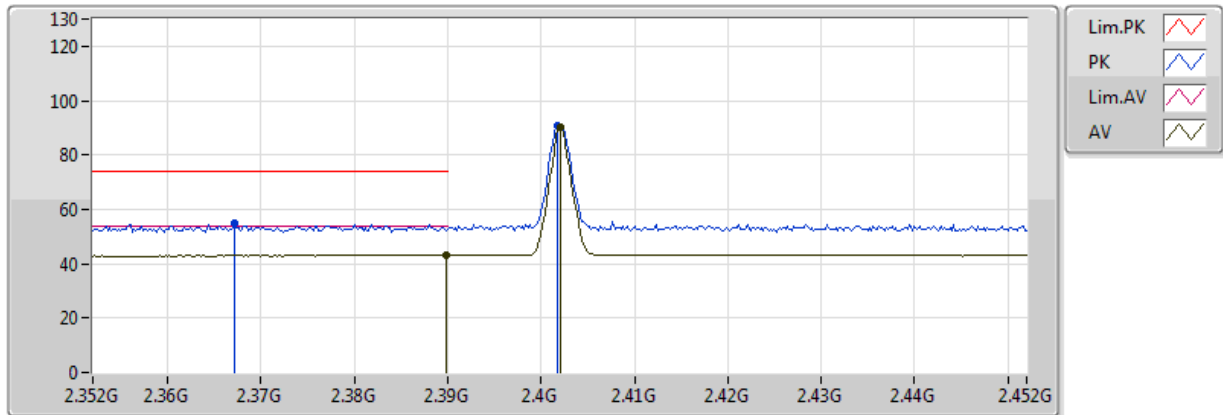
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3872G	43.10	54.00	-10.90	30.97	3	Vertical	50	2.34	-				
AV	2.402G	99.46	Inf	-Inf	30.94	3	Vertical	50	2.34	-				
PK	2.377G	54.57	74.00	-19.43	30.99	3	Vertical	50	2.34	-				
PK	2.4018G	100.46	Inf	-Inf	30.94	3	Vertical	50	2.34	-				

BT-BR(1Mbps)

2402MHz_TX

27/03/2018



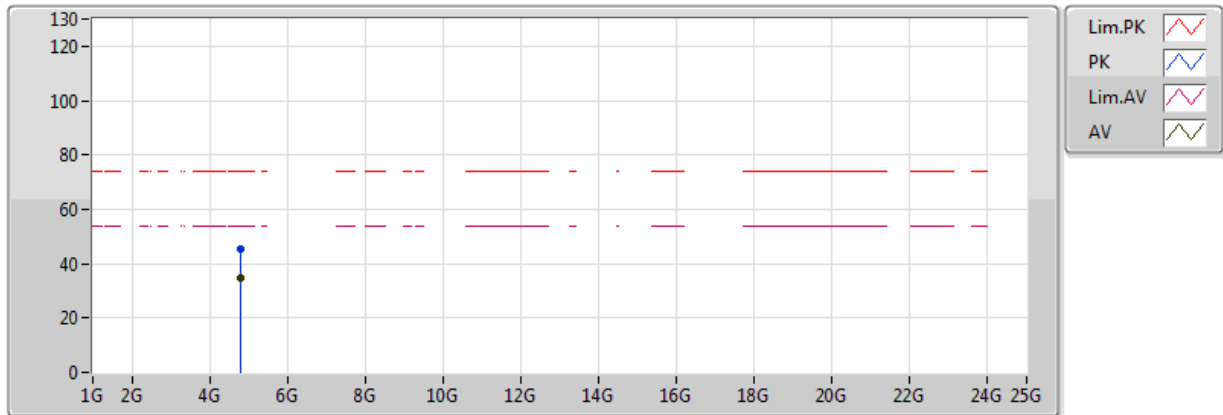
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3898G	43.19	54.00	-10.81	30.97	3	Horizontal	159	1.27	-				
AV	2.402G	89.94	Inf	-Inf	30.94	3	Horizontal	159	1.27	-				
PK	2.3672G	55.08	74.00	-18.92	31.03	3	Horizontal	159	1.27	-				
PK	2.4018G	91.03	Inf	-Inf	30.94	3	Horizontal	159	1.27	-				

BT-BR(1Mbps)

2402MHz_TX

27/03/2018



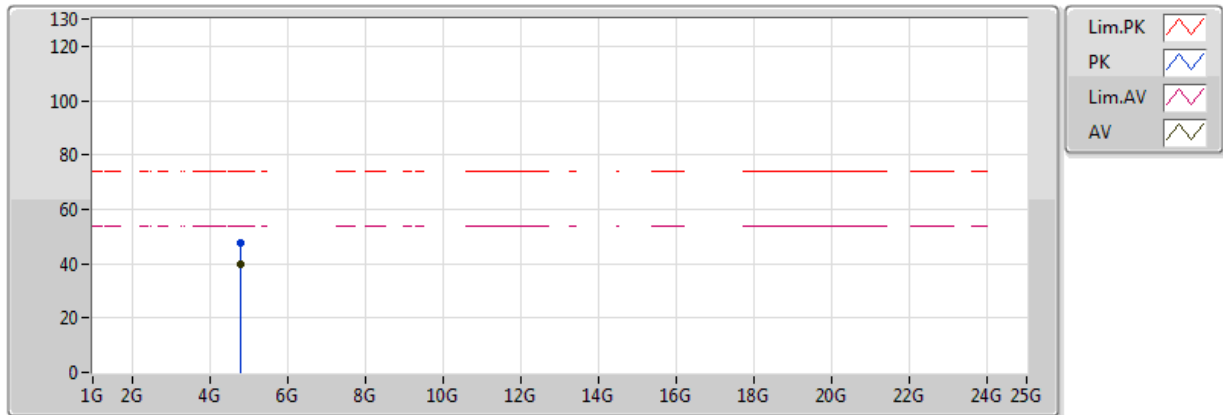
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.80402G	34.68	54.00	-19.32	3.92	3	Vertical	78	1.47	-				
PK	4.80447G	45.39	74.00	-28.61	3.92	3	Vertical	78	1.47	-				

BT-BR(1Mbps)

2402MHz_TX

27/03/2018



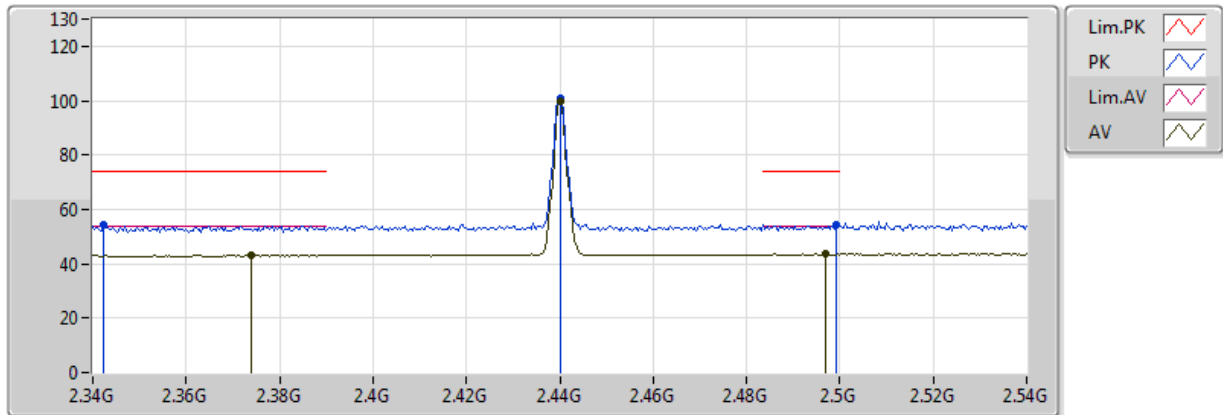
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.80398G	39.52	54.00	-14.48	3.92	3	Horizontal	359	1.50	-				
PK	4.80404G	47.37	74.00	-26.63	3.92	3	Horizontal	359	1.50	-				

BT-BR(1Mbps)

2440MHz_TX

27/03/2018



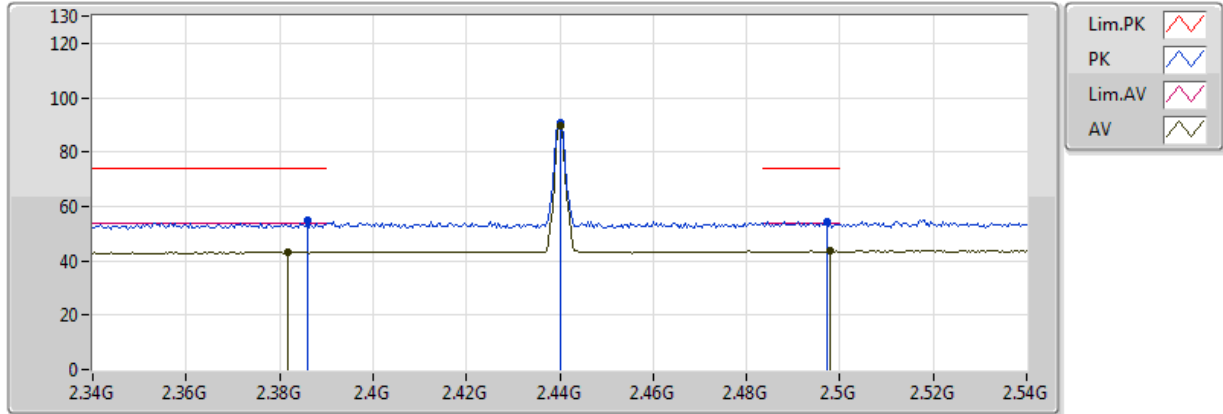
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.374G	43.10	54.00	-10.90	31.01	3	Vertical	62	2.66	-				
AV	2.44G	99.61	Inf	-Inf	31.05	3	Vertical	62	2.66	-				
AV	2.4968G	43.53	54.00	-10.47	31.21	3	Vertical	62	2.66	-				
PK	2.3424G	54.28	74.00	-19.72	31.11	3	Vertical	62	2.66	-				
PK	2.44G	100.64	Inf	-Inf	31.05	3	Vertical	62	2.66	-				
PK	2.4992G	54.62	74.00	-19.38	31.22	3	Vertical	62	2.66	-				

BT-BR(1Mbps)

2440MHz_TX

27/03/2018



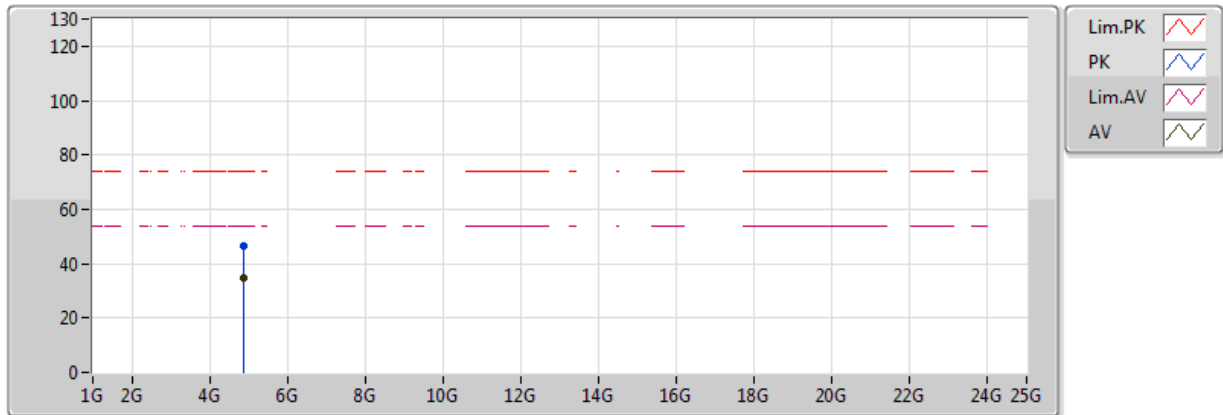
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3816G	43.13	54.00	-10.87	30.99	3	Horizontal	160	1.63	-				
AV	2.44G	89.54	Inf	-Inf	31.05	3	Horizontal	160	1.63	-				
AV	2.498G	43.49	54.00	-10.51	31.21	3	Horizontal	160	1.63	-				
PK	2.386G	54.91	74.00	-19.09	30.97	3	Horizontal	160	1.63	-				
PK	2.44G	90.56	Inf	-Inf	31.05	3	Horizontal	160	1.63	-				
PK	2.4972G	54.53	74.00	-19.47	31.21	3	Horizontal	160	1.63	-				

BT-BR(1Mbps)

2440MHz_TX

27/03/2018



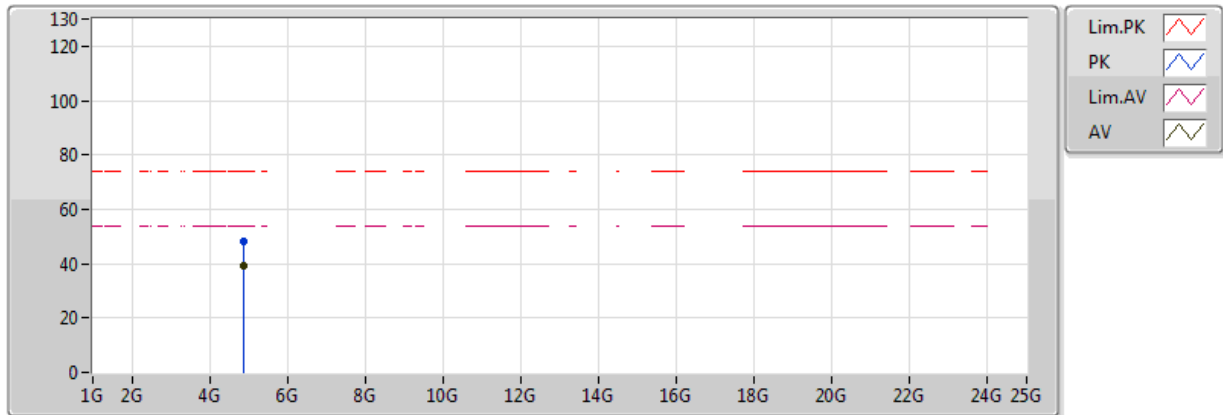
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.87992G	34.81	54.00	-19.19	4.23	3	Vertical	77	1.26	-				
PK	4.87992G	46.32	74.00	-27.68	4.23	3	Vertical	77	1.26	-				

BT-BR(1Mbps)

2440MHz_TX

27/03/2018



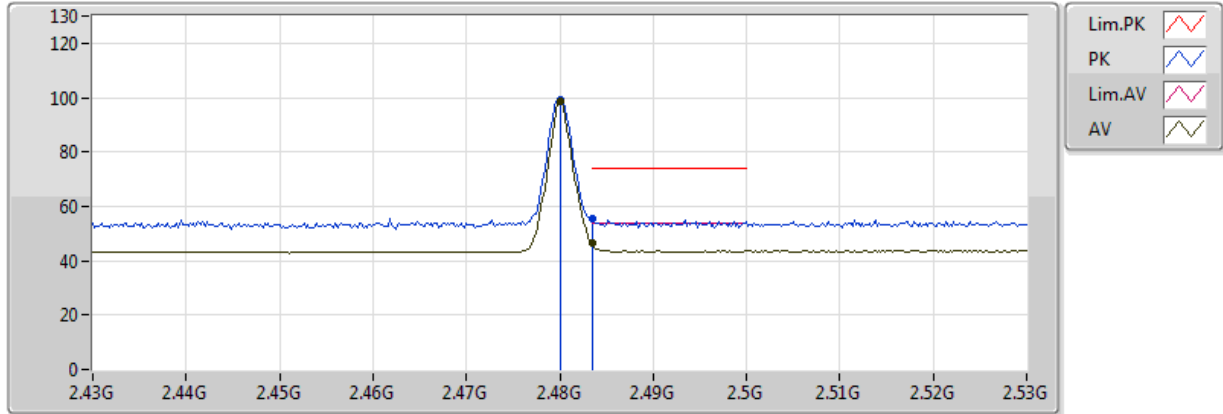
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.87996G	39.40	54.00	-14.60	4.23	3	Horizontal	358	1.64	-				
PK	4.87986G	47.96	74.00	-26.04	4.23	3	Horizontal	358	1.64	-				

BT-BR(1Mbps)

2480MHz_TX

27/03/2018



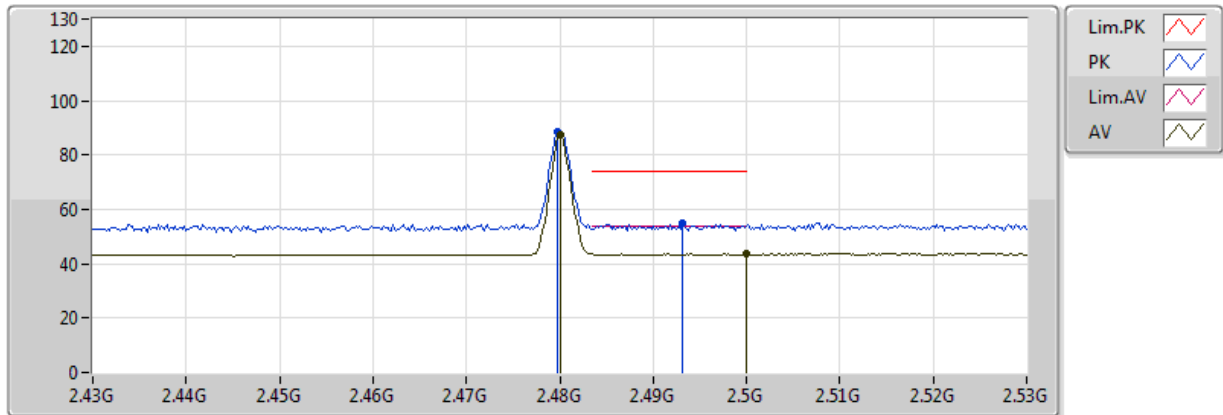
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	2.48G	98.46	Inf	-Inf	31.16	3	Vertical	39	2.56	-				
AV	2.483502G	46.23	54.00	-7.77	31.17	3	Vertical	39	2.56	-				
PK	2.48G	99.42	Inf	-Inf	31.16	3	Vertical	39	2.56	-				
PK	2.483502G	55.56	74.00	-18.44	31.17	3	Vertical	39	2.56	-				

BT-BR(1Mbps)

2480MHz_TX

27/03/2018



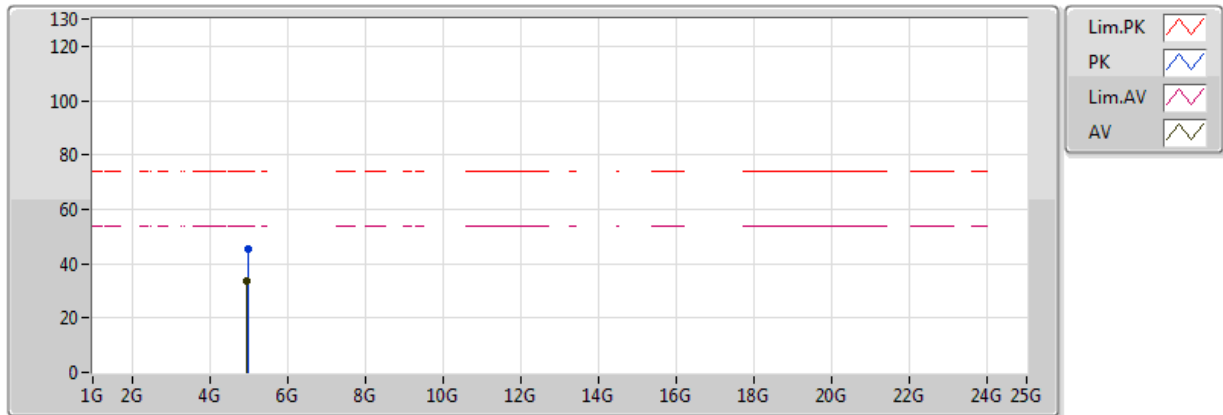
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	2.48G	87.27	Inf	-Inf	31.16	3	Horizontal	328	1.09	-				
AV	2.499998G	43.68	54.00	-10.32	31.22	3	Horizontal	328	1.09	-				
PK	2.4798G	88.36	Inf	-Inf	31.16	3	Horizontal	328	1.09	-				
PK	2.4932G	54.73	74.00	-19.27	31.20	3	Horizontal	328	1.09	-				

BT-BR(1Mbps)

2480MHz_TX

27/03/2018



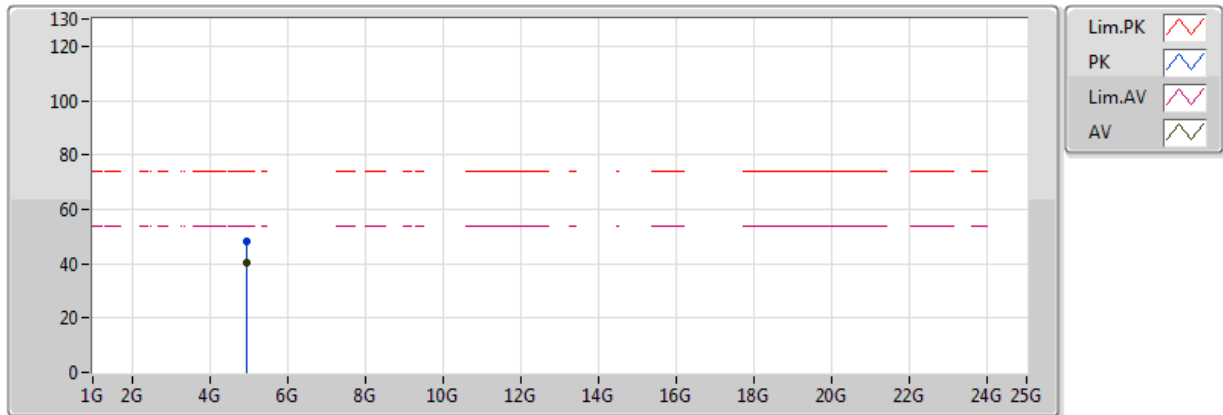
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.9602G	33.50	54.00	-20.50	4.54	3	Vertical	126	1.70	-				
PK	4.9974G	45.30	74.00	-28.70	4.69	3	Vertical	126	1.70	-				

BT-BR(1Mbps)

2480MHz_TX

27/03/2018



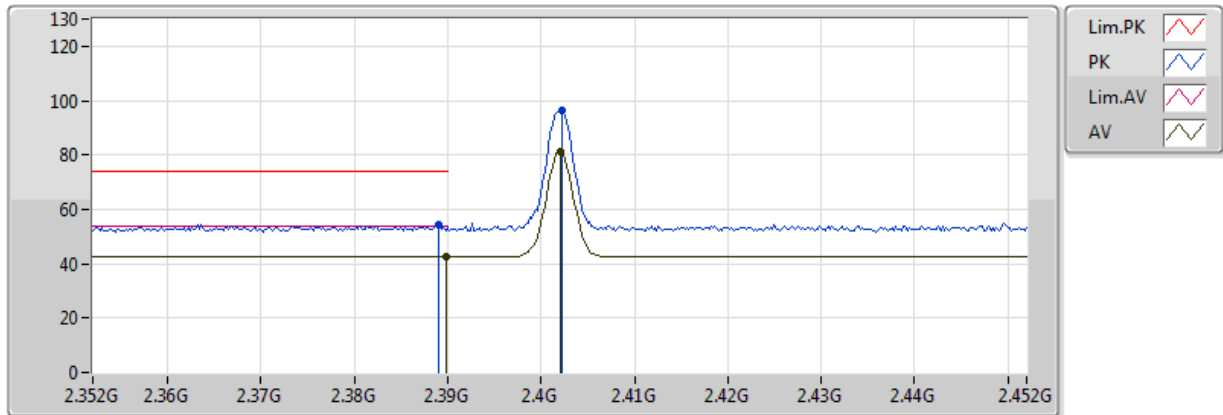
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.96G	40.60	54.00	-13.40	4.54	3	Horizontal	5	1.57	-				
PK	4.9604G	48.35	74.00	-25.65	4.55	3	Horizontal	5	1.57	-				

BT-EDR(3Mbps)

2402MHz_TX

27/03/2018



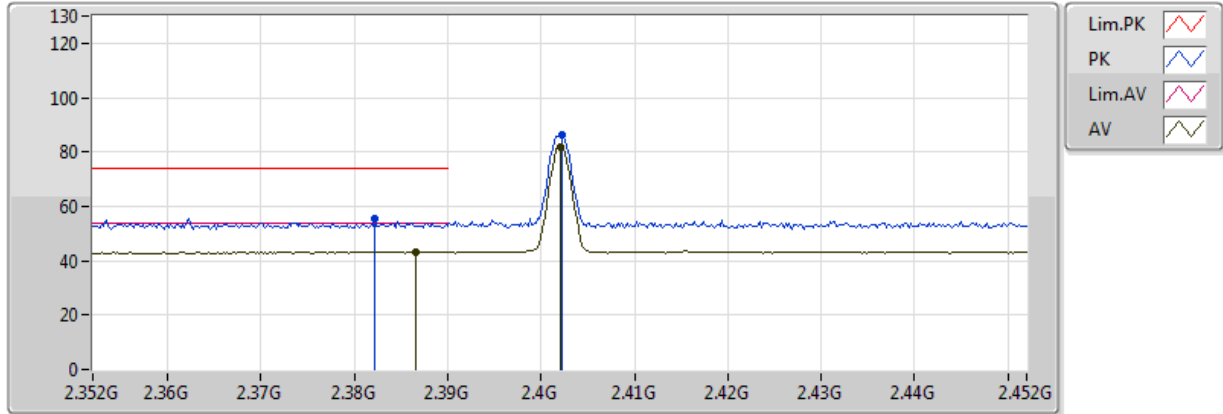
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3898G	42.72	54.00	-11.28	30.97	3	Vertical	54	2.34	-				
AV	2.402G	81.10	Inf	-Inf	30.94	3	Vertical	54	2.34	-				
PK	2.389G	54.53	74.00	-19.47	30.97	3	Vertical	54	2.34	-				
PK	2.4022G	96.14	Inf	-Inf	30.94	3	Vertical	54	2.34	-				

BT-EDR(3Mbps)

2402MHz_TX

27/03/2018



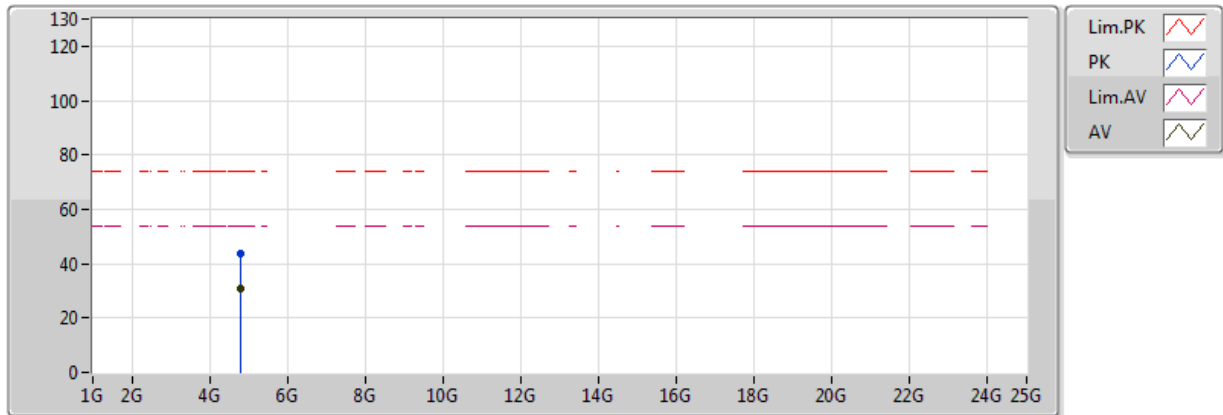
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3866G	43.15	54.00	-10.85	30.97	3	Horizontal	160	1.47	-				
AV	2.402G	82.02	Inf	-Inf	30.94	3	Horizontal	160	1.47	-				
PK	2.3822G	55.39	74.00	-18.61	30.99	3	Horizontal	160	1.47	-				
PK	2.4022G	86.09	Inf	-Inf	30.94	3	Horizontal	160	1.47	-				

BT-EDR(3Mbps)

2402MHz_TX

27/03/2018



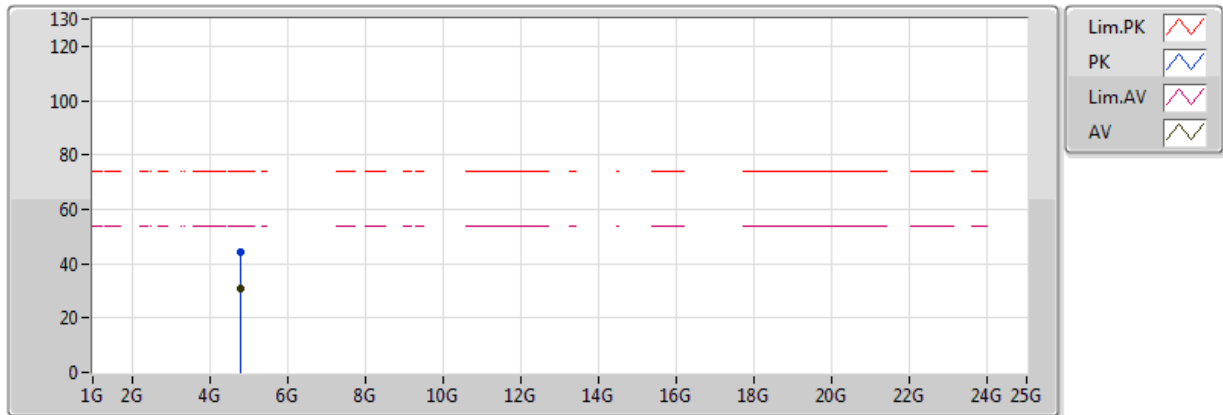
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.80273G	30.97	54.00	-23.03	3.91	3	Vertical	292	1.04	-				
PK	4.804G	43.87	74.00	-30.13	3.92	3	Vertical	292	1.04	-				

BT-EDR(3Mbps)

2402MHz_TX

27/03/2018



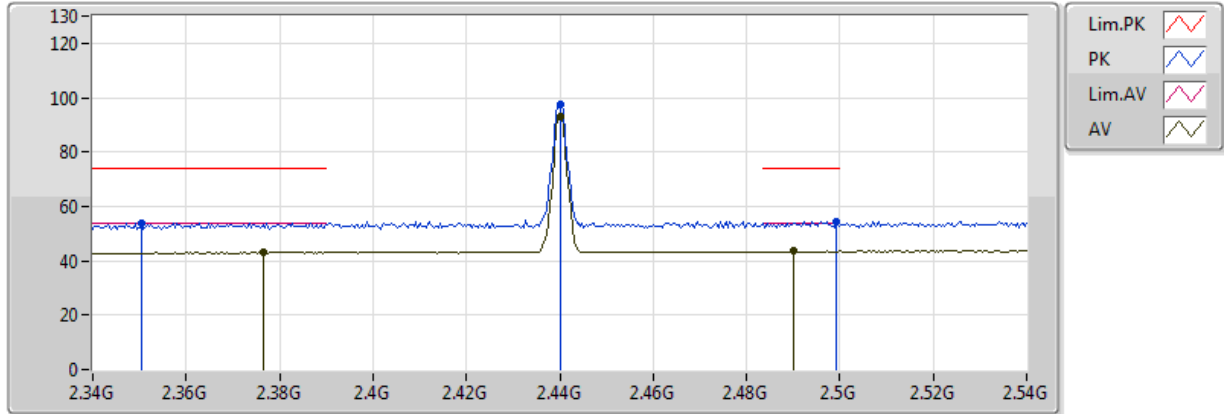
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.8064G	30.95	54.00	-23.05	3.93	3	Horizontal	273	2.04	-				
PK	4.8068G	44.26	74.00	-29.74	3.91	3	Horizontal	273	2.04	-				

BT-EDR(3Mbps)

2440MHz_TX

27/03/2018



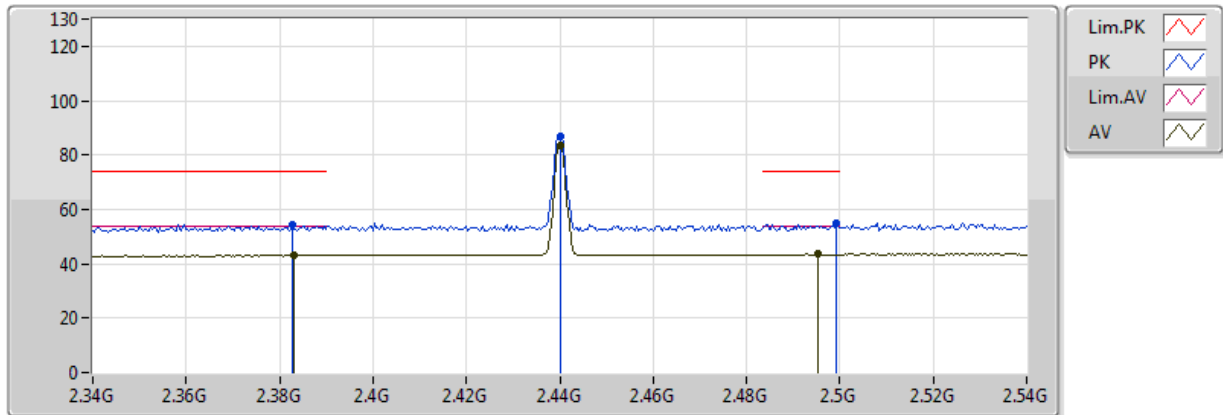
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3764G	43.13	54.00	-10.87	31.01	3	Vertical	62	2.67	-				
AV	2.44G	93.19	Inf	-Inf	31.05	3	Vertical	62	2.67	-				
AV	2.49G	43.46	54.00	-10.54	31.19	3	Vertical	62	2.67	-				
PK	2.3504G	54.05	74.00	-19.95	31.07	3	Vertical	62	2.67	-				
PK	2.44G	97.30	Inf	-Inf	31.05	3	Vertical	62	2.67	-				
PK	2.4992G	54.53	74.00	-19.47	31.22	3	Vertical	62	2.67	-				

BT-EDR(3Mbps)

2440MHz_TX

27/03/2018



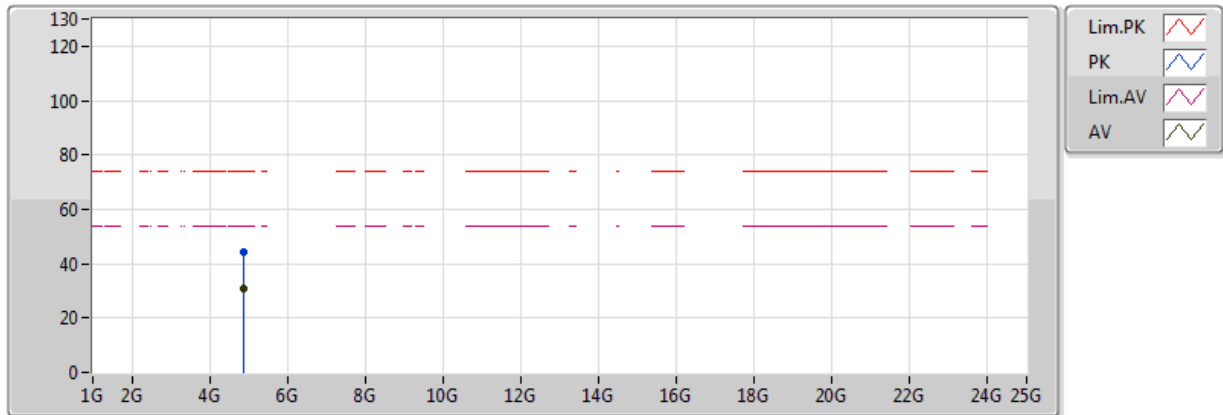
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.3832G	43.16	54.00	-10.84	30.99	3	Horizontal	159	1.64	-				
AV	2.44G	83.24	Inf	-Inf	31.05	3	Horizontal	159	1.64	-				
AV	2.4952G	43.45	54.00	-10.55	31.21	3	Horizontal	159	1.64	-				
PK	2.3828G	54.55	74.00	-19.45	30.99	3	Horizontal	159	1.64	-				
PK	2.44G	87.11	Inf	-Inf	31.05	3	Horizontal	159	1.64	-				
PK	2.4992G	54.93	74.00	-19.07	31.22	3	Horizontal	159	1.64	-				

BT-EDR(3Mbps)

2440MHz_TX

27/03/2018



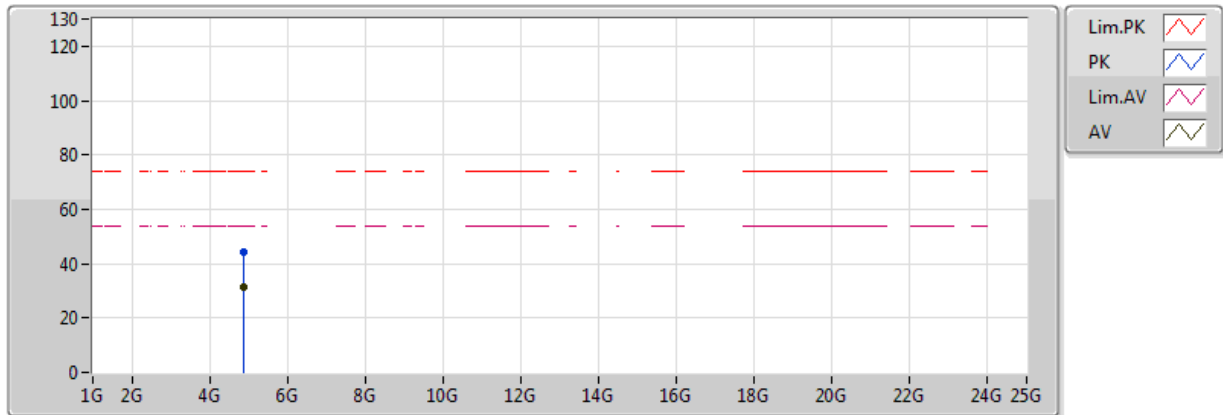
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.88073G	31.07	54.00	-22.93	4.23	3	Vertical	252	1.76	-				
PK	4.87931G	44.27	74.00	-29.73	4.23	3	Vertical	252	1.76	-				

BT-EDR(3Mbps)

2440MHz_TX

27/03/2018



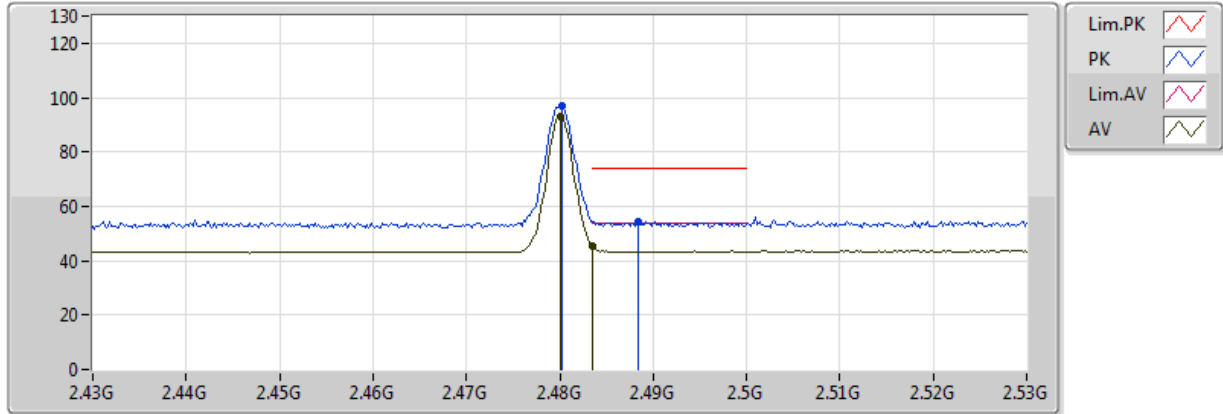
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.87905G	31.16	54.00	-22.84	4.22	3	Horizontal	212	2.35	-				
PK	4.8818G	44.28	74.00	-29.72	4.24	3	Horizontal	212	2.35	-				

BT-EDR(3Mbps)

2480MHz_TX

27/03/2018



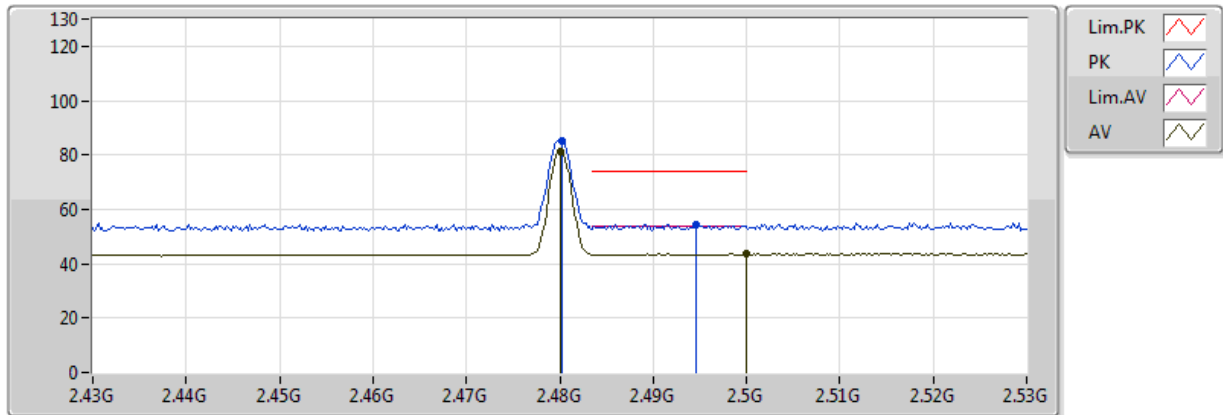
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	2.48G	92.86	Inf	-Inf	31.16	3	Vertical	195	2.19	-				
AV	2.483502G	45.35	54.00	-8.65	31.17	3	Vertical	195	2.19	-				
PK	2.4802G	96.82	Inf	-Inf	31.16	3	Vertical	195	2.19	-				
PK	2.4884G	54.40	74.00	-19.60	31.19	3	Vertical	195	2.19	-				

BT-EDR(3Mbps)

2480MHz_TX

27/03/2018



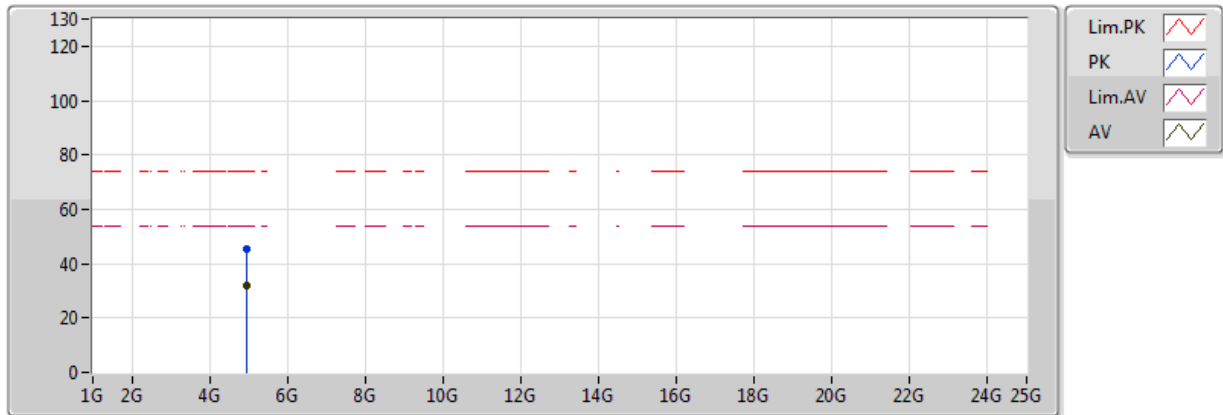
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)					
AV	2.48G	81.27	Inf	-Inf	31.16	3	Horizontal	324	1.11	-				
AV	2.499998G	43.57	54.00	-10.43	31.22	3	Horizontal	324	1.11	-				
PK	2.4802G	85.34	Inf	-Inf	31.16	3	Horizontal	324	1.11	-				
PK	2.4946G	54.62	74.00	-19.38	31.21	3	Horizontal	324	1.11	-				

BT-EDR(3Mbps)

2480MHz_TX

27/03/2018



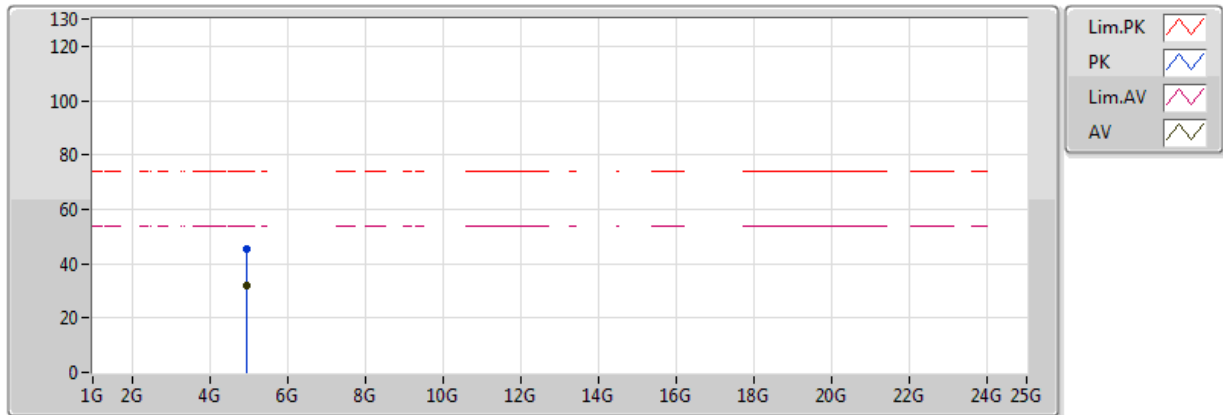
EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.96201G	31.78	54.00	-22.22	4.55	3	Vertical	184	2.31	-				
PK	4.96177G	45.29	74.00	-28.71	4.55	3	Vertical	184	2.31	-				

BT-EDR(3Mbps)

2480MHz_TX

27/03/2018



EUT Y_1TX
Setting Default
01-J-6
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments				
AV	4.95983G	31.81	54.00	-22.19	4.54	3	Horizontal	51	1.11	-				
PK	4.96055G	45.35	74.00	-28.65	4.55	3	Horizontal	51	1.11	-				