




RADIO TEST REPORT

FCC ID : UDX-60074010
Equipment : Network Camera
Brand Name : CISCO
Model Name : MV52-HW
Applicant : Cisco Systems, Inc.
 170 West Tasman Drive, San Jose, CA 95134, USA
Manufacturer : Cisco Systems, Inc.
 170 West Tasman Drive, San Jose, CA 95134, USA
Factory : LITE-ON Technology Corp. Networking Plant
 5F, No. 101, Neihuan N. Rd., Nanzih Dist.,
 Kaohsiung City 811, Taiwan, R.O.C.
Standard : 47 CFR FCC Part 15.247

The product was received on Feb. 02, 2021, and testing was started from Mar. 20, 2021 and completed on Sep. 16, 2021. We, Sporton International Inc. Hsinchu 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 test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Cliff Chang

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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Photographs of EUT v01



History of this test report

Report No.	Version	Description	Issued Date
FR0D1716AC	01	Initial issue of report	Oct. 05, 2021



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: Sandy Chuang



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.



1.1.2 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)		
	WLAN 2.4GHz	WLAN 5GHz	Bluetooth					WLAN 2.4GHz	WLAN 5GHz	Bluetooth
1	2	2	2	Aristotle	RFA-25-10160	PIFA	I-PEX	2.50	3.50	2.50
2	1	1	1	Aristotle	RFA-25-10160	PIFA	I-PEX	3.69	3.90	3.69

Note : The above information was declared by manufacturer.

For 2.4GHz WLAN function

IEEE 802.11b/g/n mode (1TX/1RX):

The EUT supports the antenna with TX and RX diversity functions.

Both port 1 and port 2 support transmit and receive functions, but only one of them will be used at one time.

The port 1 generated the worst case, so it was selected to test and record in the report.

For 5GHz WLAN function

IEEE 802.11a/n/ac mode (1TX/1RX):

The EUT supports the antenna with TX and RX diversity functions.

Both port 1 and port 2 support transmit and receive functions, but only one of them will be used at one time.

The port 1 generated the worst case, so it was selected to test and record in the report.

For Bluetooth function (1TX/1RX):

The EUT supports the antenna with TX and RX diversity functions.

Both port 1 and port 2 support transmit and receive functions, but only one of them will be used at one time.

The port 1 generated the worst case, so it was selected to test and record in the report.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
BT-BR(1Mbps)	0.714	1.46	2.381m	1k
BT-EDR(3Mbps)	0.815	0.89	2.891m	1k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter(DC 12V) or PoE
Test Software Version	QRCT (ver. 4.0.00156.0)



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 15.247

The following reference test guidance is not within the scope of accreditation of TAF.

- ◆ FCC KDB 558074 D01 v05r02
- ◆ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
	Test site Designation No. TW3787 with FCC.
	Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Caster Chang	21.1-21.7 / 62-65	Mar. 24, 2021~ Mar. 31, 2021
Radiated (Below 1GHz)	03CH05-CB	Eason Chen	25.8-28.2 / 56-59	Aug. 25, 2021~ Sep. 16, 2021
Radiated (Above 1GHz)	03CH01-CB	Ron Huang	20.3-21.4 / 56-58	Mar. 20, 2021~ Mar. 24, 2021
AC Conduction	CO01-CB	Zack Kuo	22~23 / 60~62	Aug. 31, 2021



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))

For Other Tests:

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	5.0 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.9 dB	Confidence levels of 95%
Output Power Measurement	1.4 dB	Confidence levels of 95%
Power Density Measurement	2.8 dB	Confidence levels of 95%
Bandwidth Measurement	0.4%	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%

For AC Conduction and Radiated (Below 1GHz) test:

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.5 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	7
2440MHz	7
2480MHz	7
BT-EDR(2Mbps)	-
2402MHz	7
2440MHz	7
2480MHz	7
BT-EDR(3Mbps)	-
2402MHz	7
2440MHz	7
2480MHz	7



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 Test Voltage: 120Vac / 60Hz
Operating Mode	Normal Link
1	EUT + 2.4GHz + Bluetooth + Adapter (DC 12V)
2	EUT + 5GHz + Bluetooth + Adapter (DC 12V)
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT + 5GHz + Bluetooth + PoE
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)
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	Normal Link
1	EUT in Z axis + 2.4GHz + Bluetooth + Adapter (DC 12V)
2	EUT in Y axis + 2.4GHz + Bluetooth + Adapter (DC 12V)
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT in Y axis + 5GHz + Bluetooth + Adapter (DC 12V)
Mode 3 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4 will follow this same test mode.	
4	EUT in Y axis + 5GHz + Bluetooth + PoE
For operating mode 4 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at Y axis and Z axis position, and the worst case as below:	
1	EUT in Y axis

Note: The Adapter and PoE below are for measurement only, would not be marketed.

The Adapter and PoE information as below:

Support Unit	Brand	Model Number
Adapter	CISCO	MA-PWR-30W-US
PoE	PHIHONG	POEA33U-1ATE



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	LAN NB	DELL	E6430	N/A
B	AP Router	ASUS	RP-N53	MSQ-RPN53
C	Microphone	E-books	S71	N/A
D	2.4/5G NB	DELL	E6430	N/A
E	Adapter	CISCO	MA-PWR-30W-US	N/A
F	Smart phone	Samsung	Galaxy J2	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE	PHIHONG	POEA33U-1ATE	N/A
B	NB	DELL	E4300	N/A
C	WLAN AP	ASUS	RT-AX88U	MSQ-RTAXHP00
D	NB	DELL	E4300	N/A
E	Microphone	E-books	S71	N/A
F	iPad mini	Apple	ME2791A/A	N/A

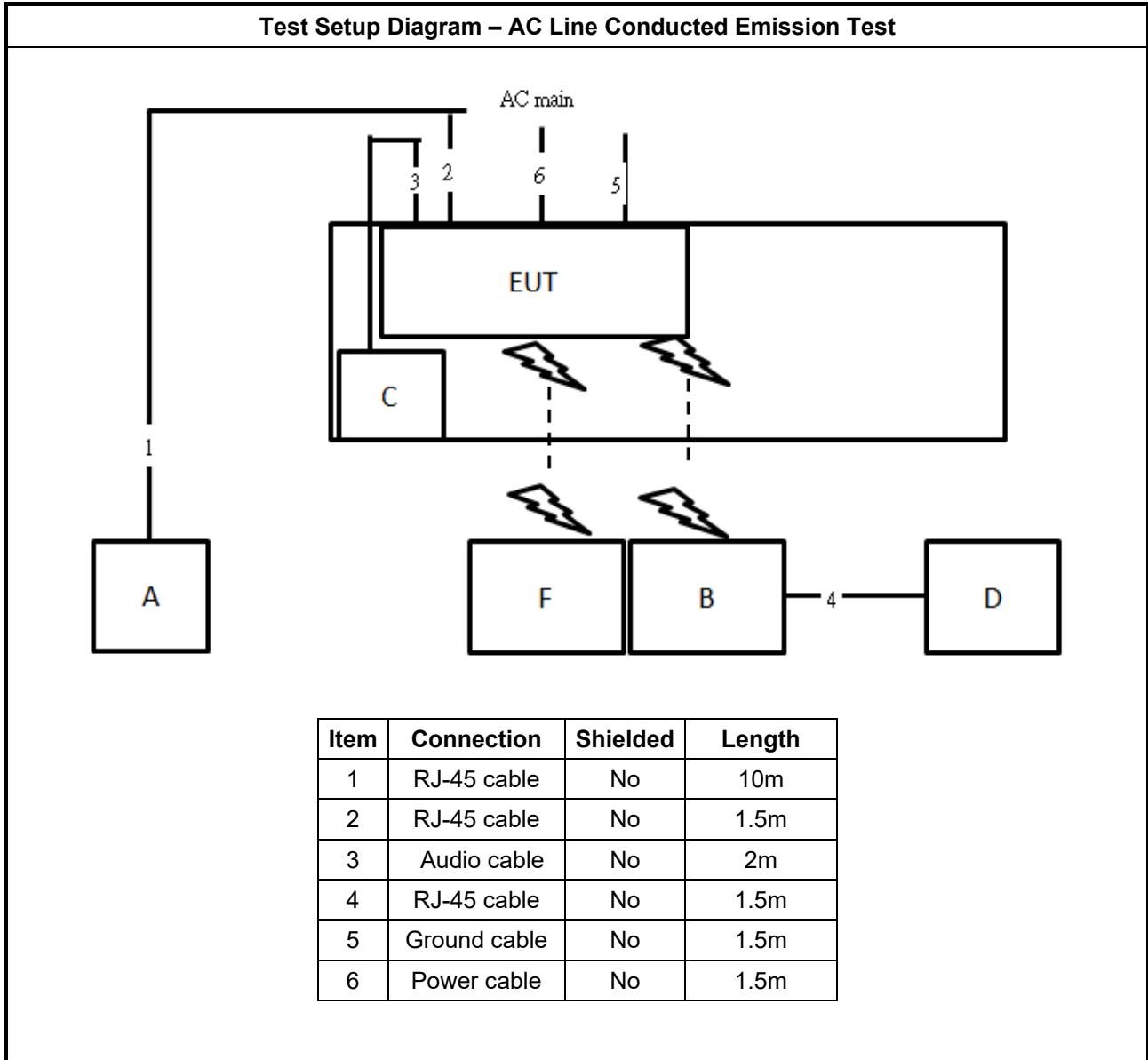
For Radiated (above 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Fixture	CISCO	MV52-HW-Test	N/A
C	Adapter	CISCO	MA-PWR-30W-US	N/A

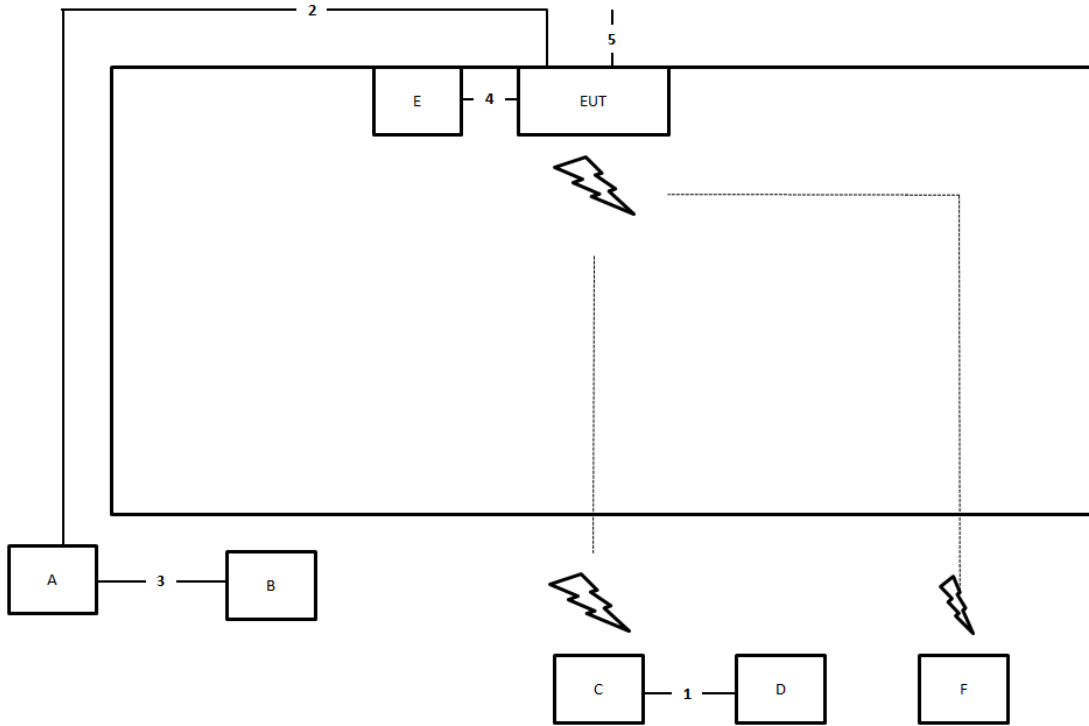
For RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
C	Adapter	CISCO	MA-PWR-30W-US	N/A

2.6 Test Setup Diagram

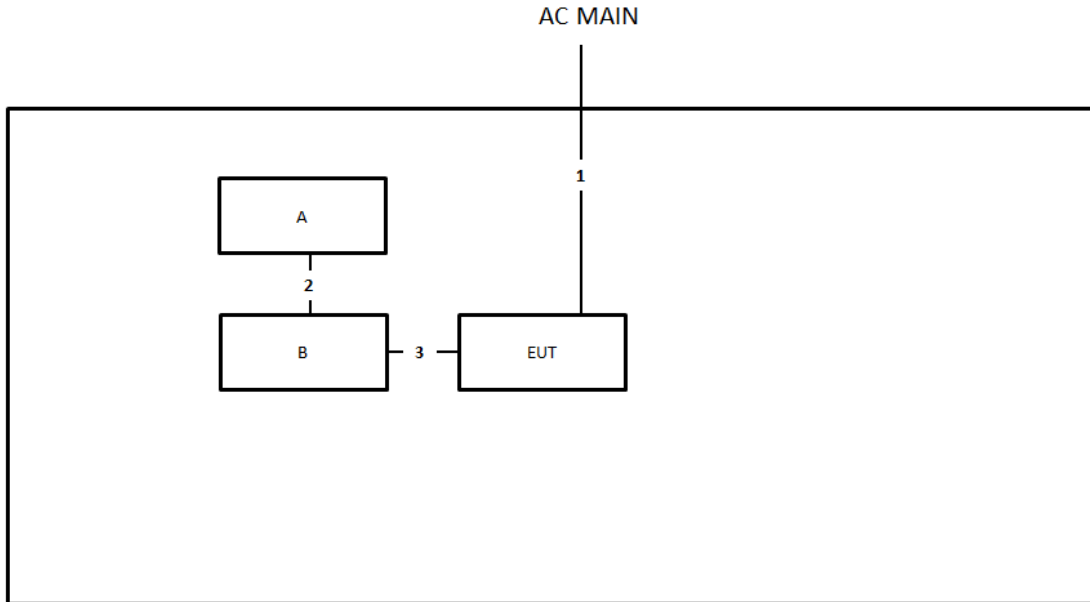


Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	Audio Cable	No	2m
5	Ground cable	No	1.8m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	USB cable	Yes	1m
3	Console cable	No	0.1m



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.

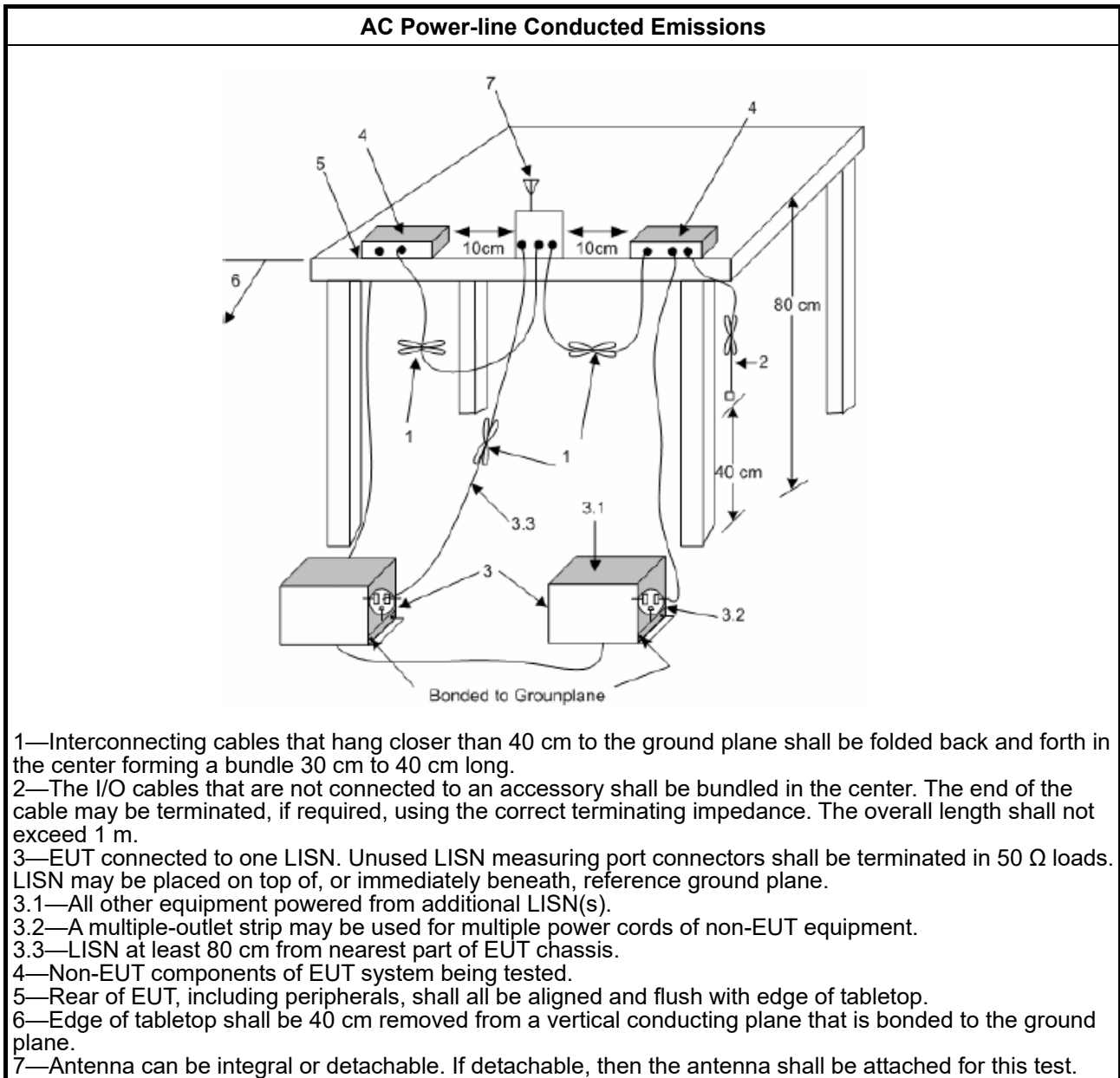
3.1.2 Measuring Instruments

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



1.1.1. Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

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 $ChS \geq MAX$ (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	

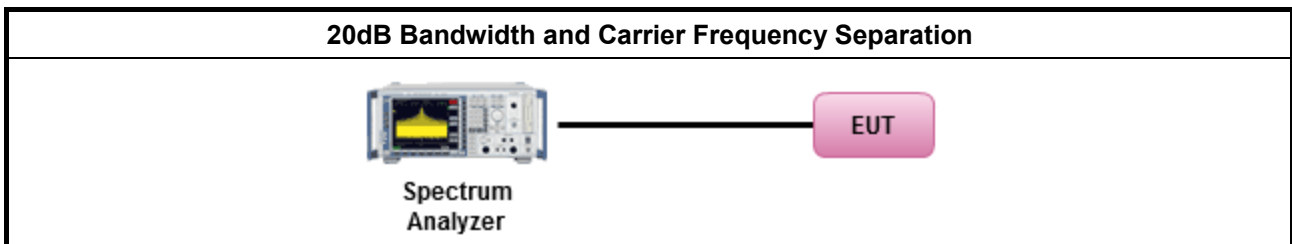
3.2.2 Measuring Instruments

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	
<ul style="list-style-type: none"> ▪ 902-928 MHz Band: 	
	<ul style="list-style-type: none"> ▪ $N \geq 50$; Power 30dBm; EIRP 36dBm
	<ul style="list-style-type: none"> ▪ $50 > N \geq 25$; Power 23.98dBm; EIRP 29.98dBm
<ul style="list-style-type: none"> ▪ 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> ▪ $N \geq 75$; Power 30dBm; EIRP 36dBm
	<ul style="list-style-type: none"> ▪ $75 > N \geq 15$; Power 21dBm; EIRP 27dBm
<ul style="list-style-type: none"> ▪ 5725-5850 MHz Band: 	
	<ul style="list-style-type: none"> ▪ $N \geq 75$; Power 30dBm; EIRP 36dBm
N: Number of Hopping Frequencies	

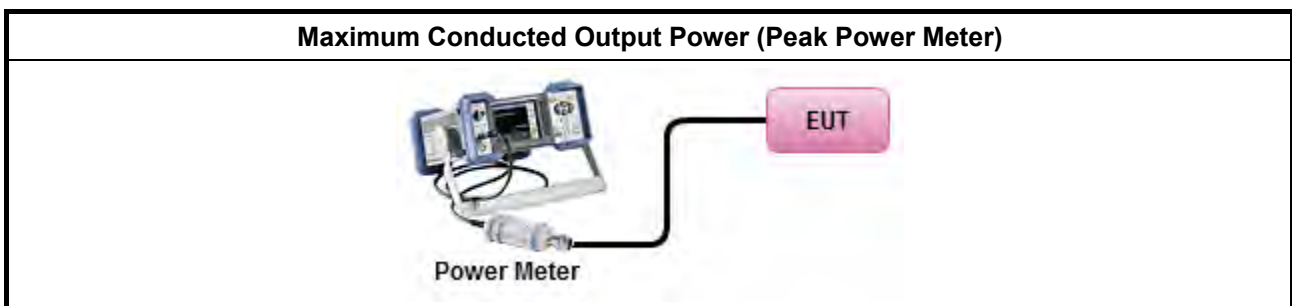
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

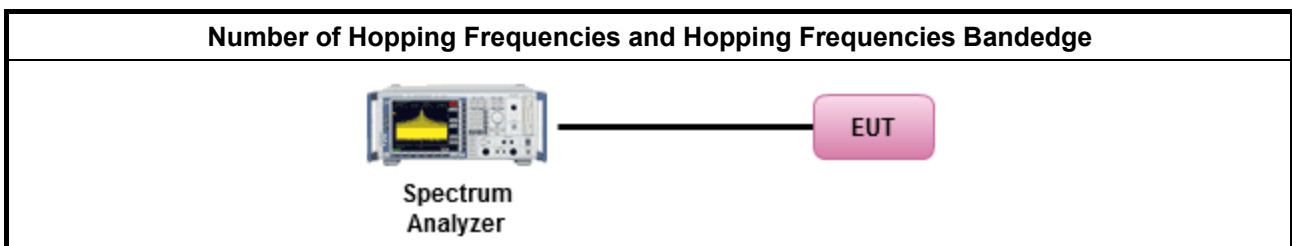
3.4.3 Measuring Instruments

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	

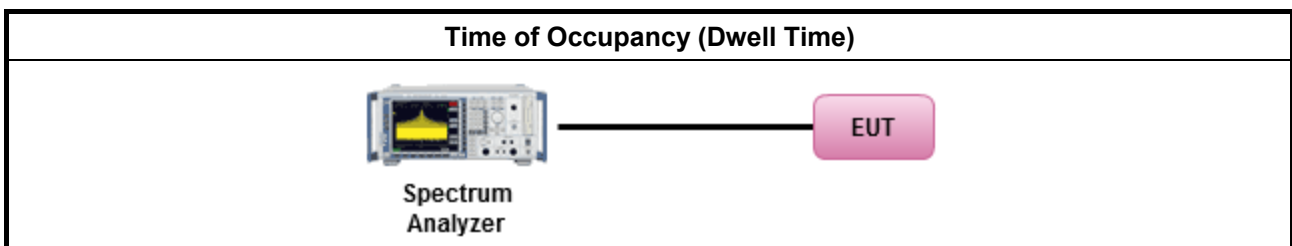
3.5.2 Measuring Instruments

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 (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.

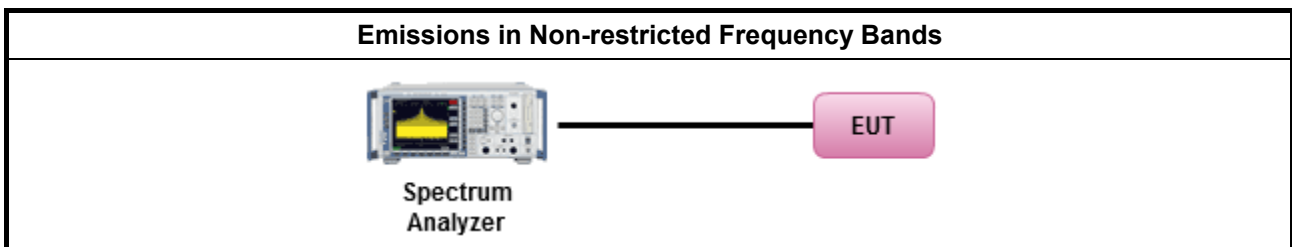
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
<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.

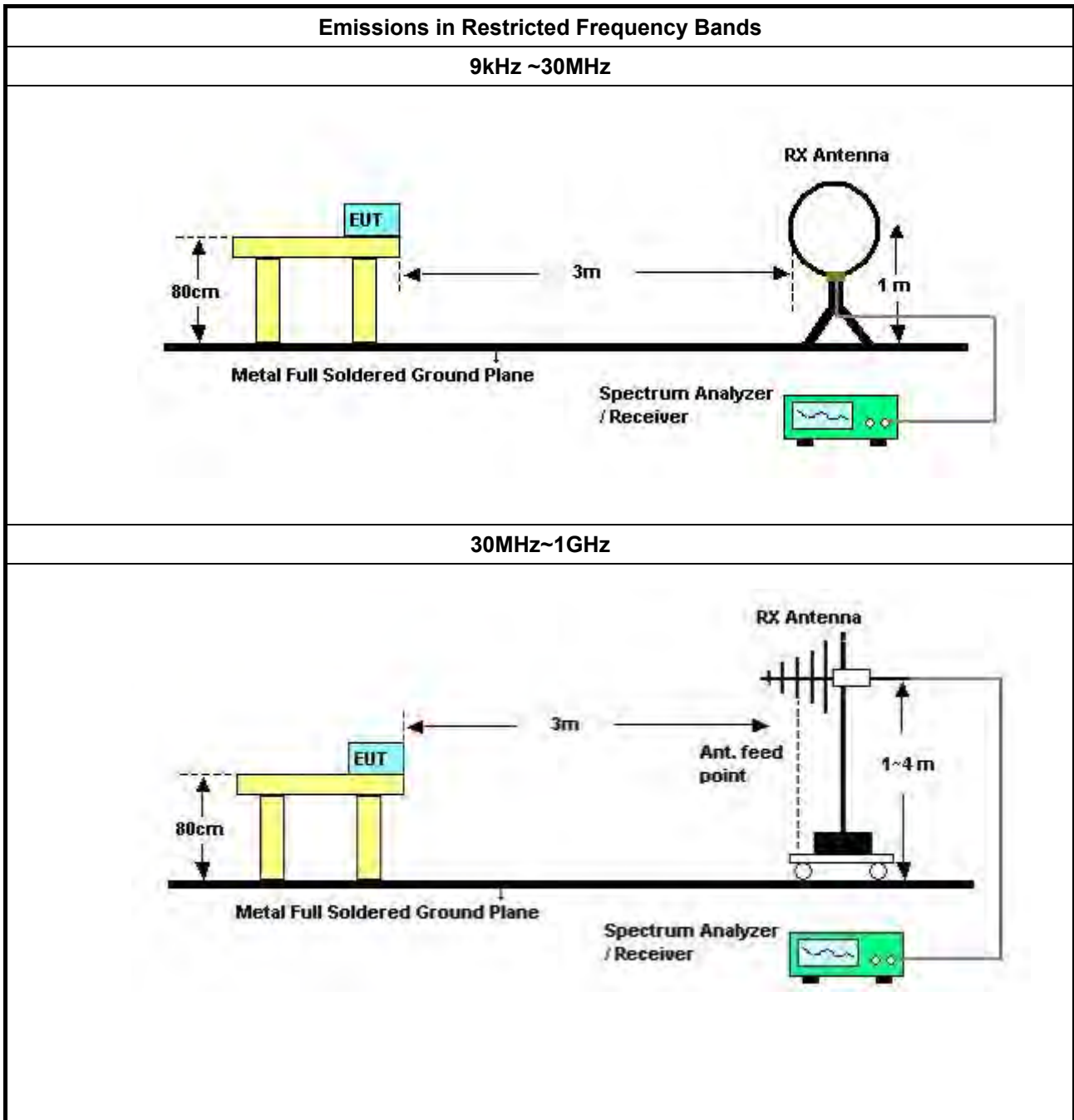
3.7.2 Measuring Instruments

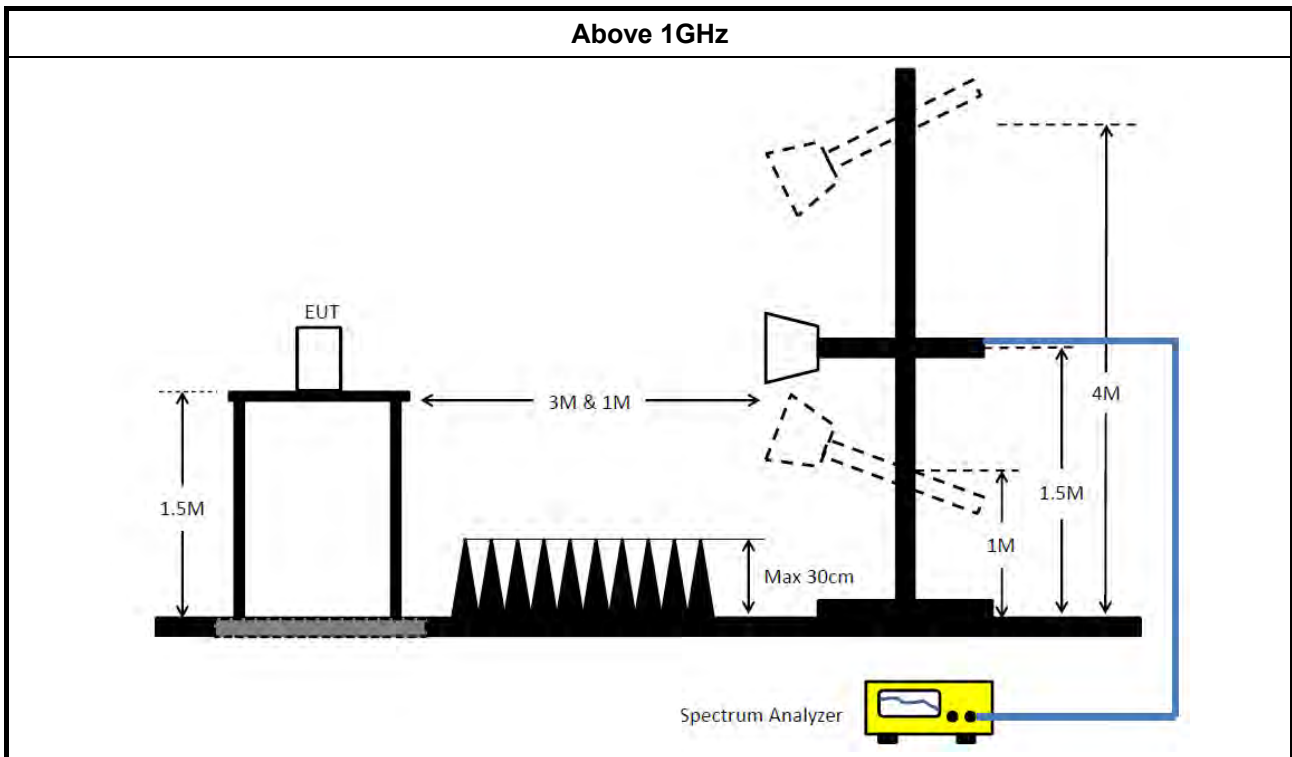
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> The average emission levels shall be measured in [hopping duty factor]. 	
<ul style="list-style-type: none"> 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. 	
<ul style="list-style-type: none"> For the transmitter unwanted emissions shall be measured using following options below: <ul style="list-style-type: none"> 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 (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = 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 10th 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	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Mar. 03, 2021	Mar. 02, 2022	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Jan. 06, 2021	Jan. 05, 2022	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Mar. 07, 2021	Mar. 06, 2022	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 19, 2021	May 18, 2022	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Jan. 30, 2021	Jan. 29, 2022	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 14, 2021	Apr. 13, 2022	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 26, 2021	Mar. 25, 2022	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 27, 2021	Apr. 26, 2022	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Nov. 10, 2020	Nov. 09, 2021	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 21, 2021	Jun. 20, 2022	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 29, 2020	May 28, 2021	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGREN	3115	00075790	750MHz ~ 18GHz	Nov. 06, 2020	Nov. 05, 2021	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 07, 2021	Jan. 06, 2022	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Apr. 16, 2020	Apr. 15, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 27, 2020	Jul. 26, 2021	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 17, 2020	Sep. 16, 2021	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 17, 2020	Sep. 16, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

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

NCR means Non-Calibration required.

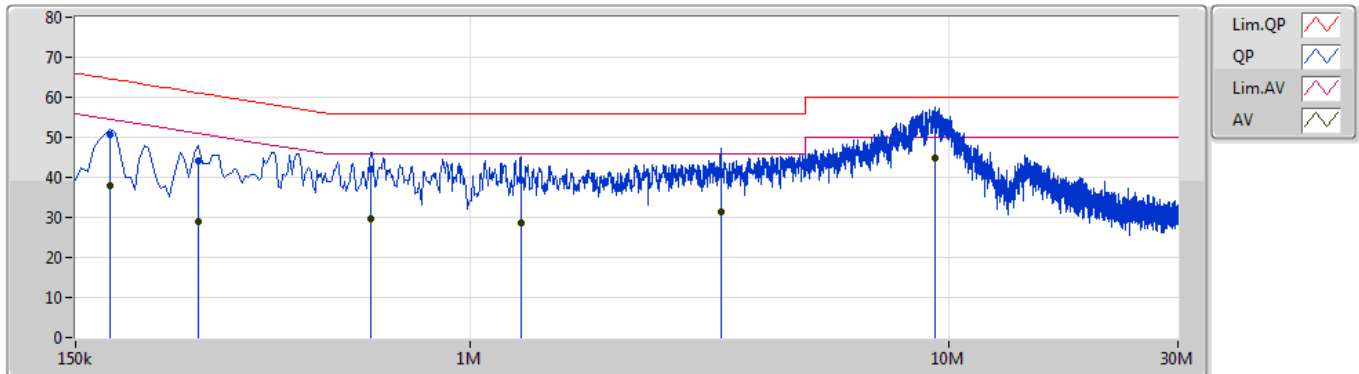


Summary

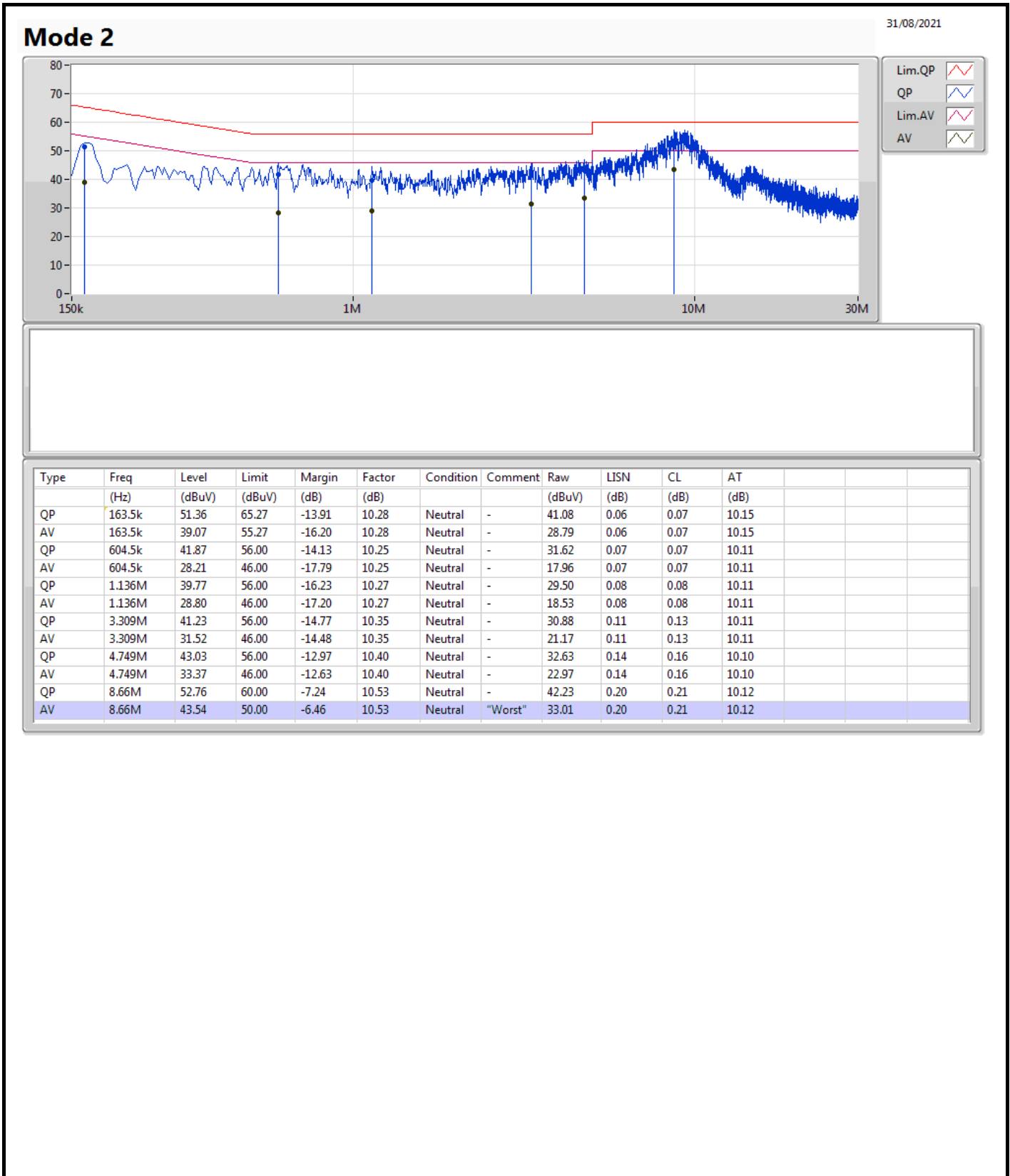
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	AV	9.353M	44.89	50.00	-5.11	Line

Mode 2

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Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	177k	50.61	64.62	-14.01	10.30	Line	-	40.31	0.07	0.07	10.16
AV	177k	37.97	54.62	-16.65	10.30	Line	-	27.67	0.07	0.07	10.16
QP	271.5k	43.98	61.07	-17.09	10.28	Line	-	33.70	0.07	0.07	10.14
AV	271.5k	29.09	51.07	-21.98	10.28	Line	-	18.81	0.07	0.07	10.14
QP	618k	41.91	56.00	-14.09	10.26	Line	-	31.65	0.08	0.07	10.11
AV	618k	29.67	46.00	-16.33	10.26	Line	-	19.41	0.08	0.07	10.11
QP	1.275M	39.21	56.00	-16.79	10.30	Line	-	28.91	0.10	0.09	10.11
AV	1.275M	28.79	46.00	-17.21	10.30	Line	-	18.49	0.10	0.09	10.11
QP	3.332M	40.86	56.00	-15.14	10.37	Line	-	30.49	0.13	0.13	10.11
AV	3.332M	31.38	46.00	-14.62	10.37	Line	-	21.01	0.13	0.13	10.11
QP	9.353M	54.36	60.00	-5.64	10.59	Line	-	43.77	0.26	0.21	10.12
AV	9.353M	44.89	50.00	-5.11	10.59	Line	"Worst"	34.30	0.26	0.21	10.12





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)	920k	885.807k	886KF1D	920k	883.308k
BT-EDR(2Mbps)	1.309M	1.183M	1M18G1D	1.255M	1.181M
BT-EDR(3Mbps)	1.245M	1.193M	1M19G1D	1.244M	1.188M

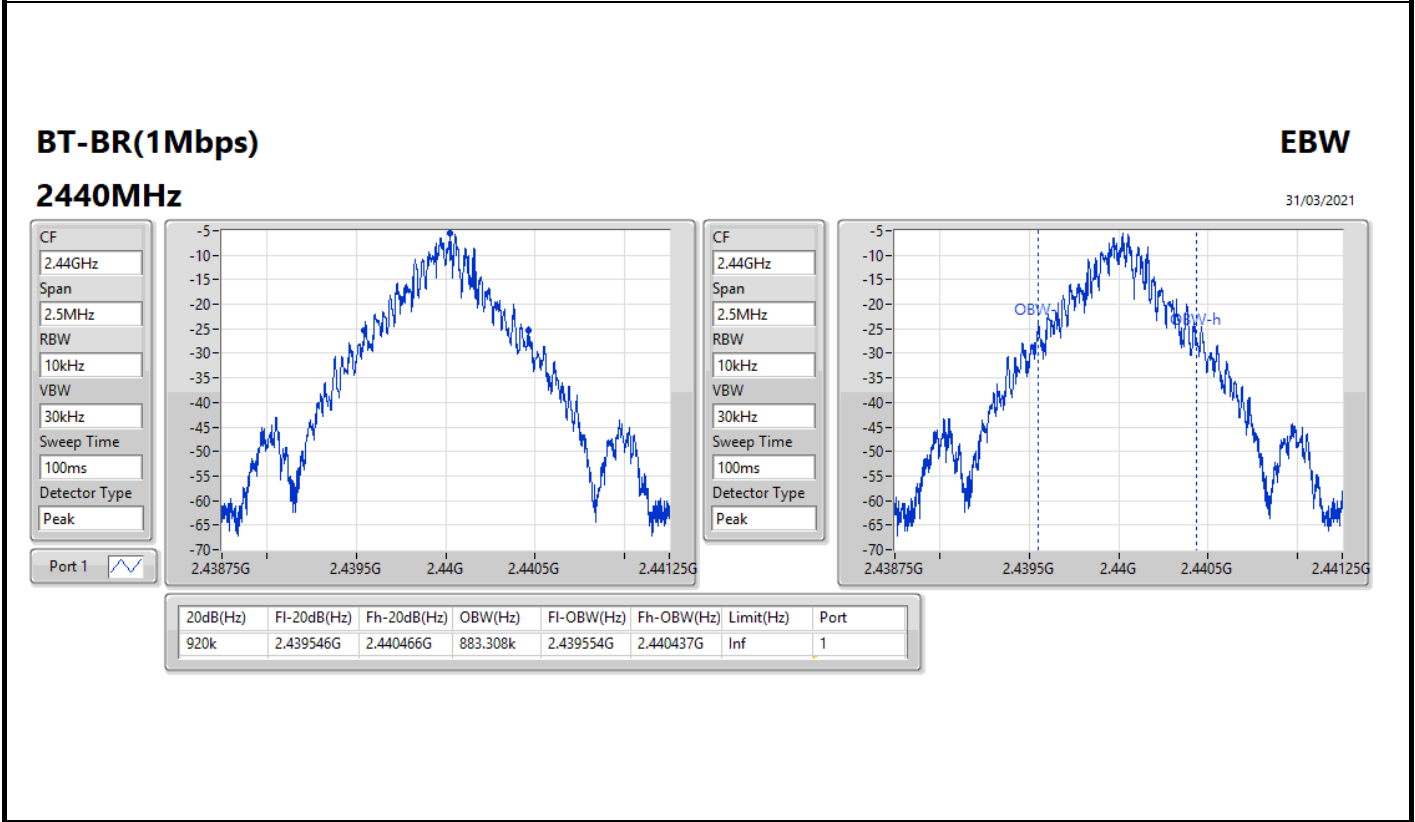
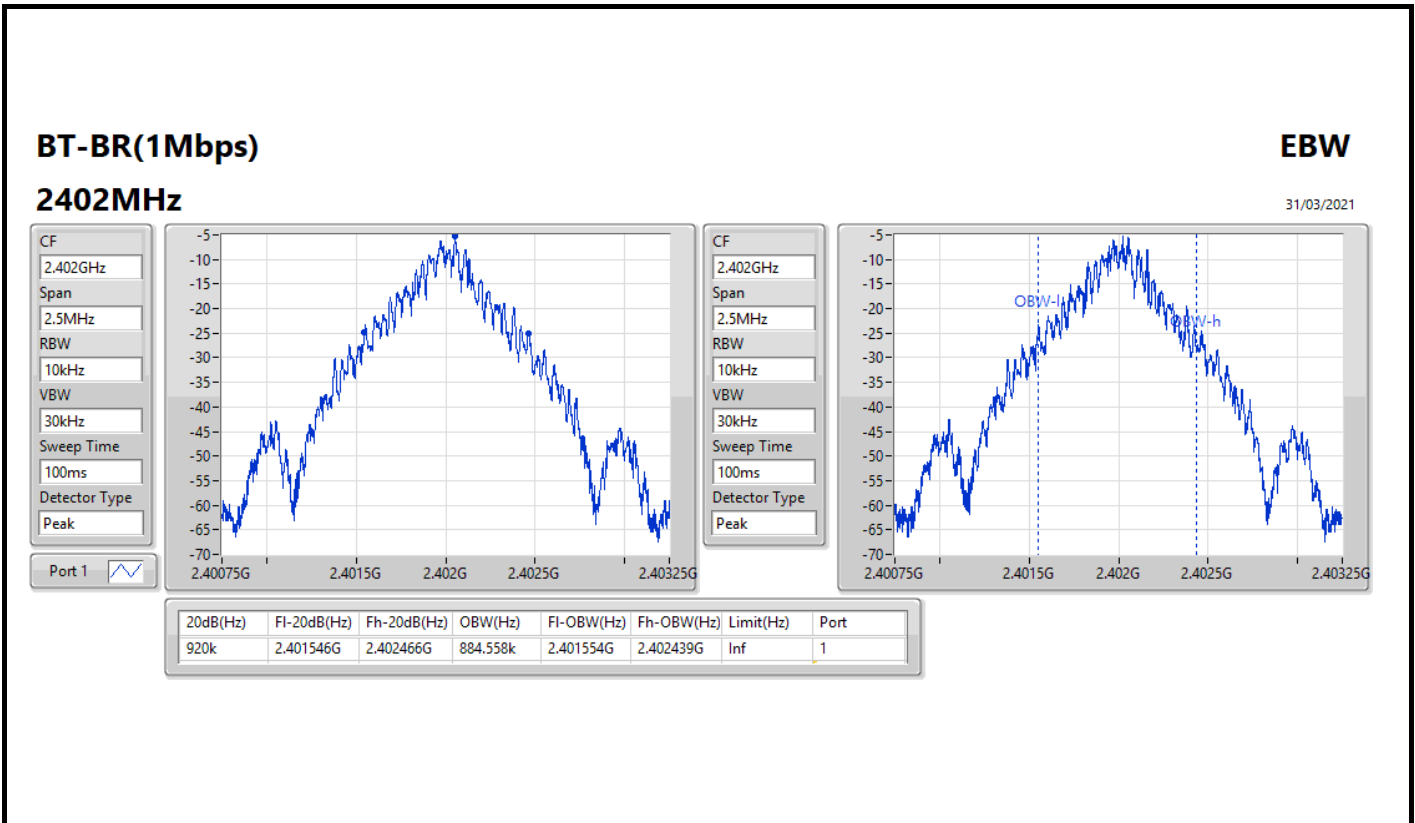
Max-N dB = Maximum 20dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;

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	920k	884.558k
2440MHz	Pass	Inf	920k	883.308k
2480MHz	Pass	Inf	920k	885.807k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.279M	1.181M
2440MHz	Pass	Inf	1.309M	1.182M
2480MHz	Pass	Inf	1.255M	1.183M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.245M	1.188M
2440MHz	Pass	Inf	1.245M	1.192M
2480MHz	Pass	Inf	1.244M	1.193M

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

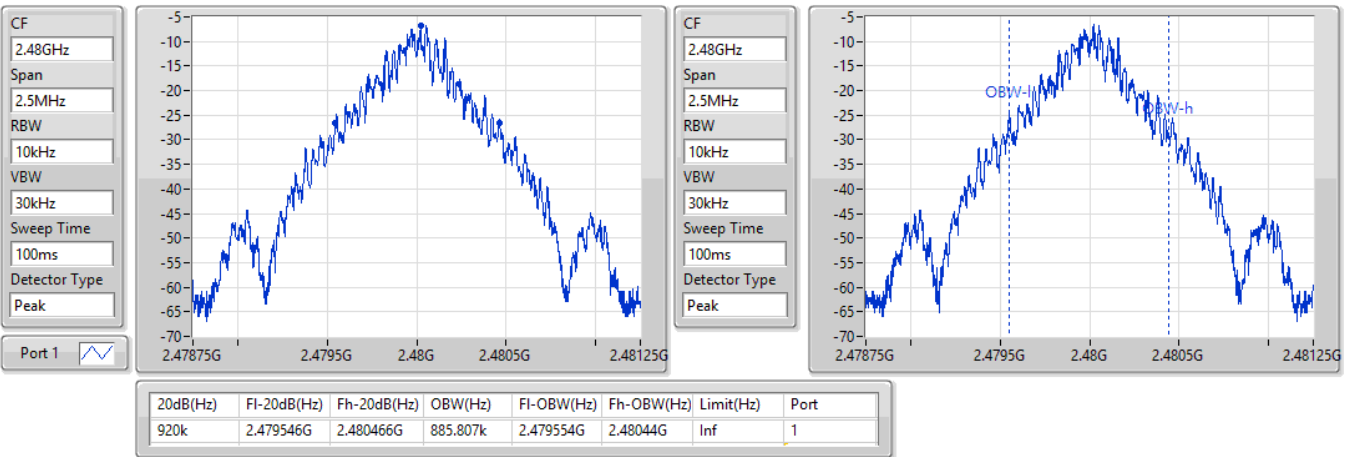


BT-BR(1Mbps)

EBW

2480MHz

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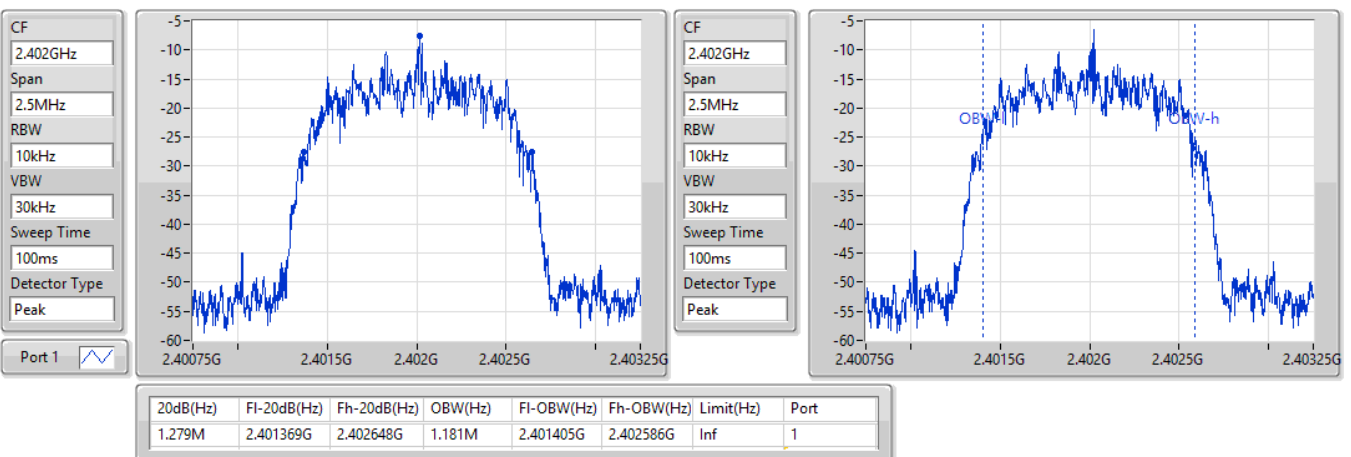


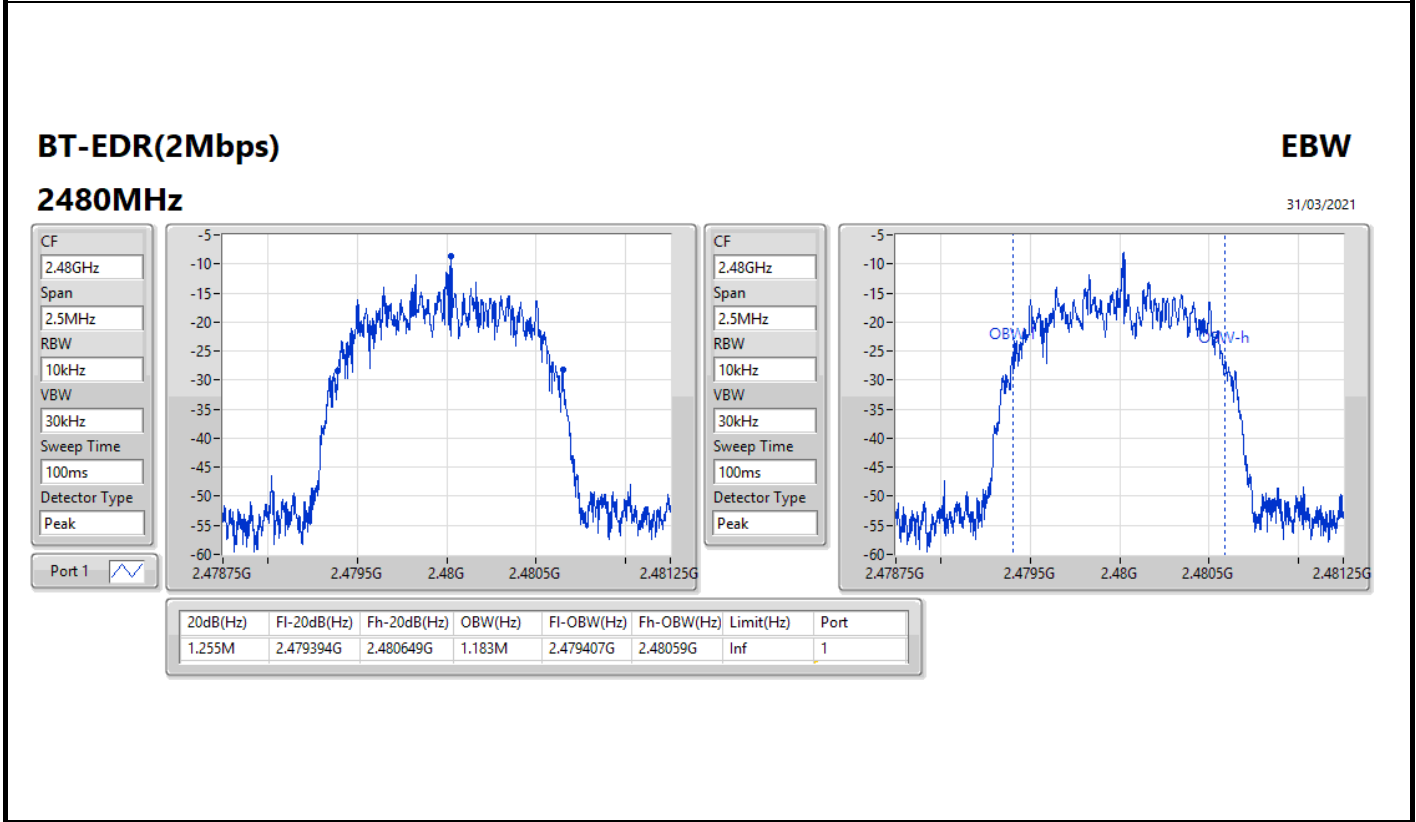
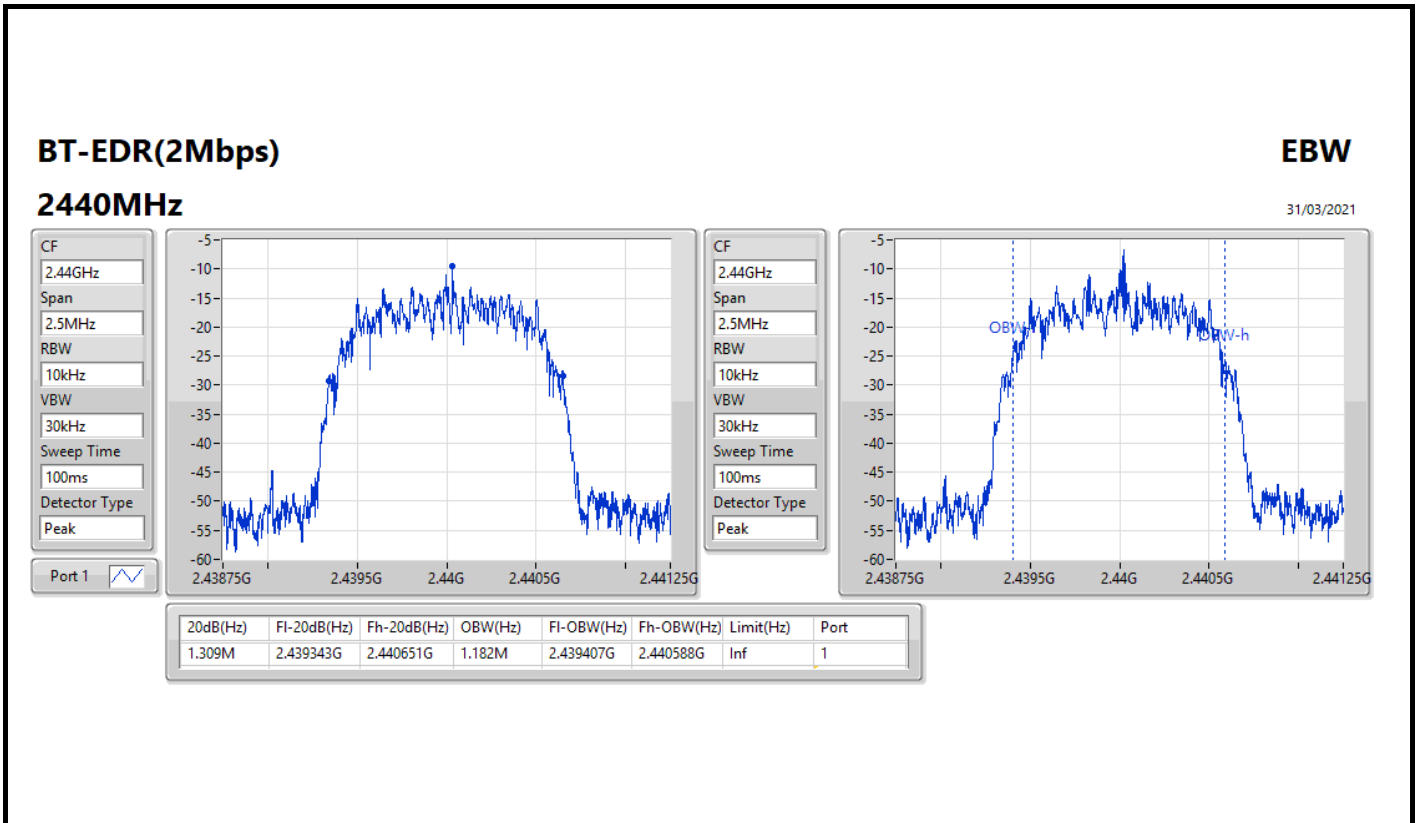
BT-EDR(2Mbps)

EBW

2402MHz

31/03/2021





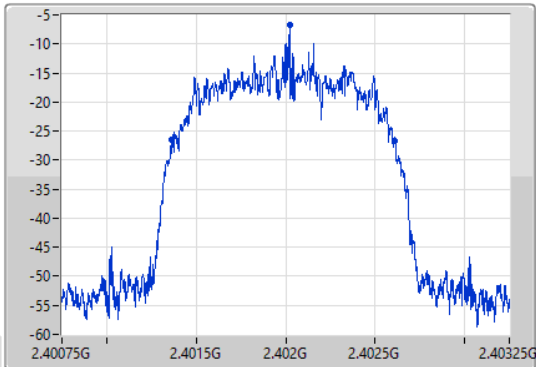
BT-EDR(3Mbps)

EBW

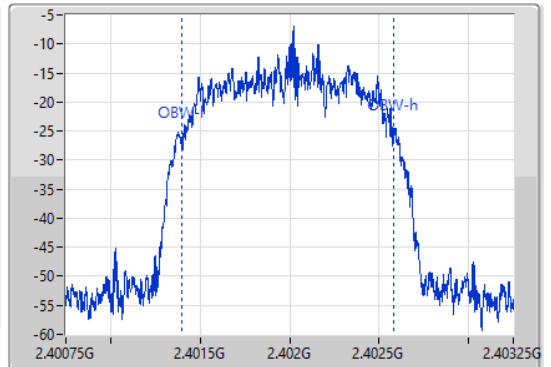
2402MHz

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CF
2.402GHz
Span
2.5MHz
RBW
10kHz
VBW
30kHz
Sweep Time
100ms
Detector Type
Peak
Port 1



CF
2.402GHz
Span
2.5MHz
RBW
10kHz
VBW
30kHz
Sweep Time
100ms
Detector Type
Peak



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.245M	2.401366G	2.402611G	1.188M	2.401395G	2.402583G	Inf	1

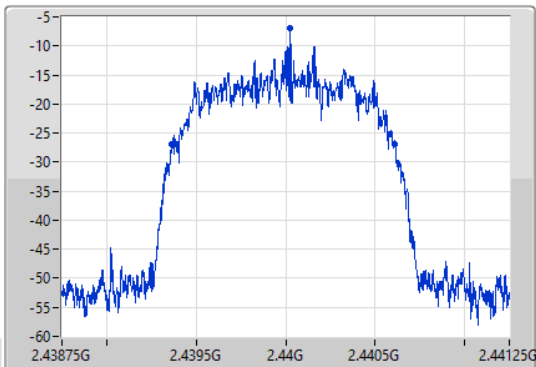
BT-EDR(3Mbps)

EBW

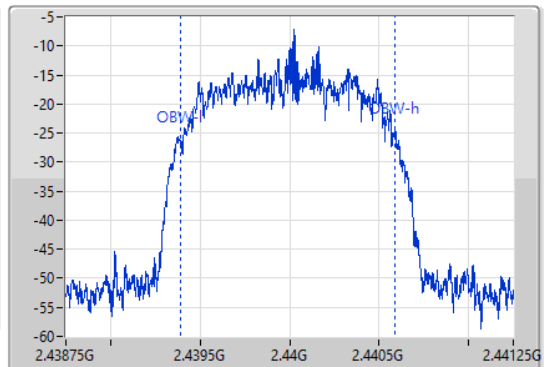
2440MHz

31/03/2021

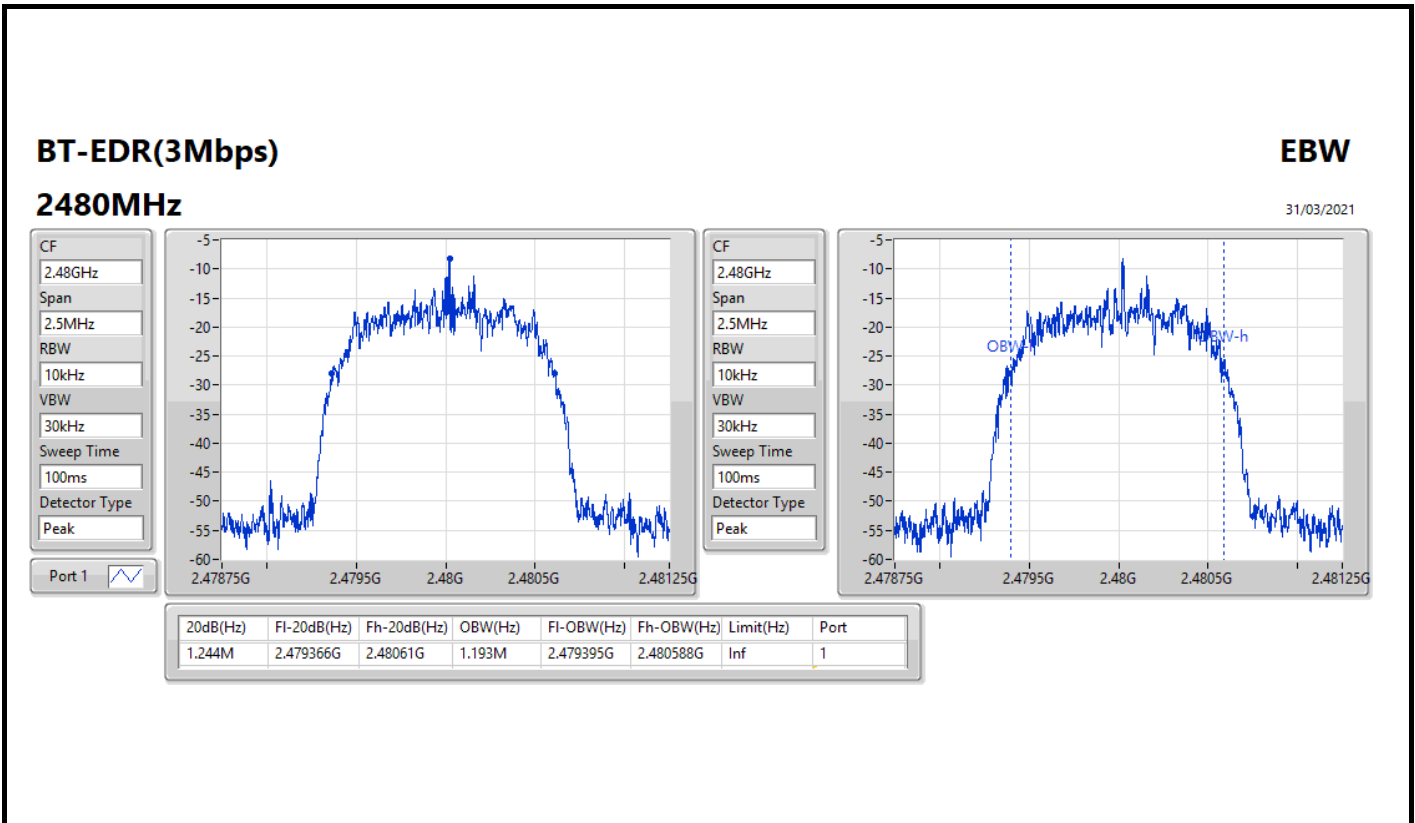
CF
2.44GHz
Span
2.5MHz
RBW
10kHz
VBW
30kHz
Sweep Time
100ms
Detector Type
Peak
Port 1



CF
2.44GHz
Span
2.5MHz
RBW
10kHz
VBW
30kHz
Sweep Time
100ms
Detector Type
Peak



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.245M	2.439366G	2.440611G	1.192M	2.439394G	2.440586G	Inf	1



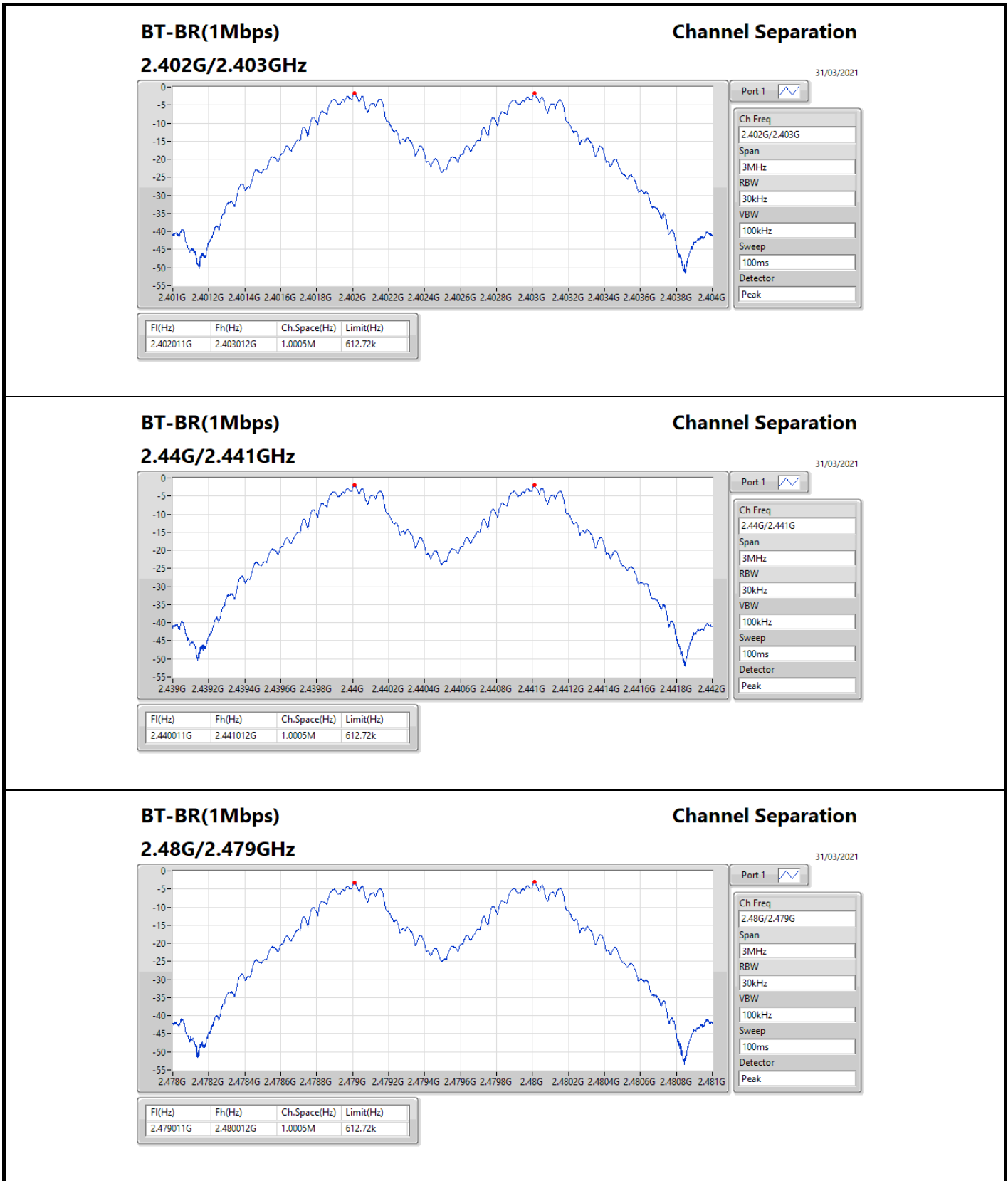


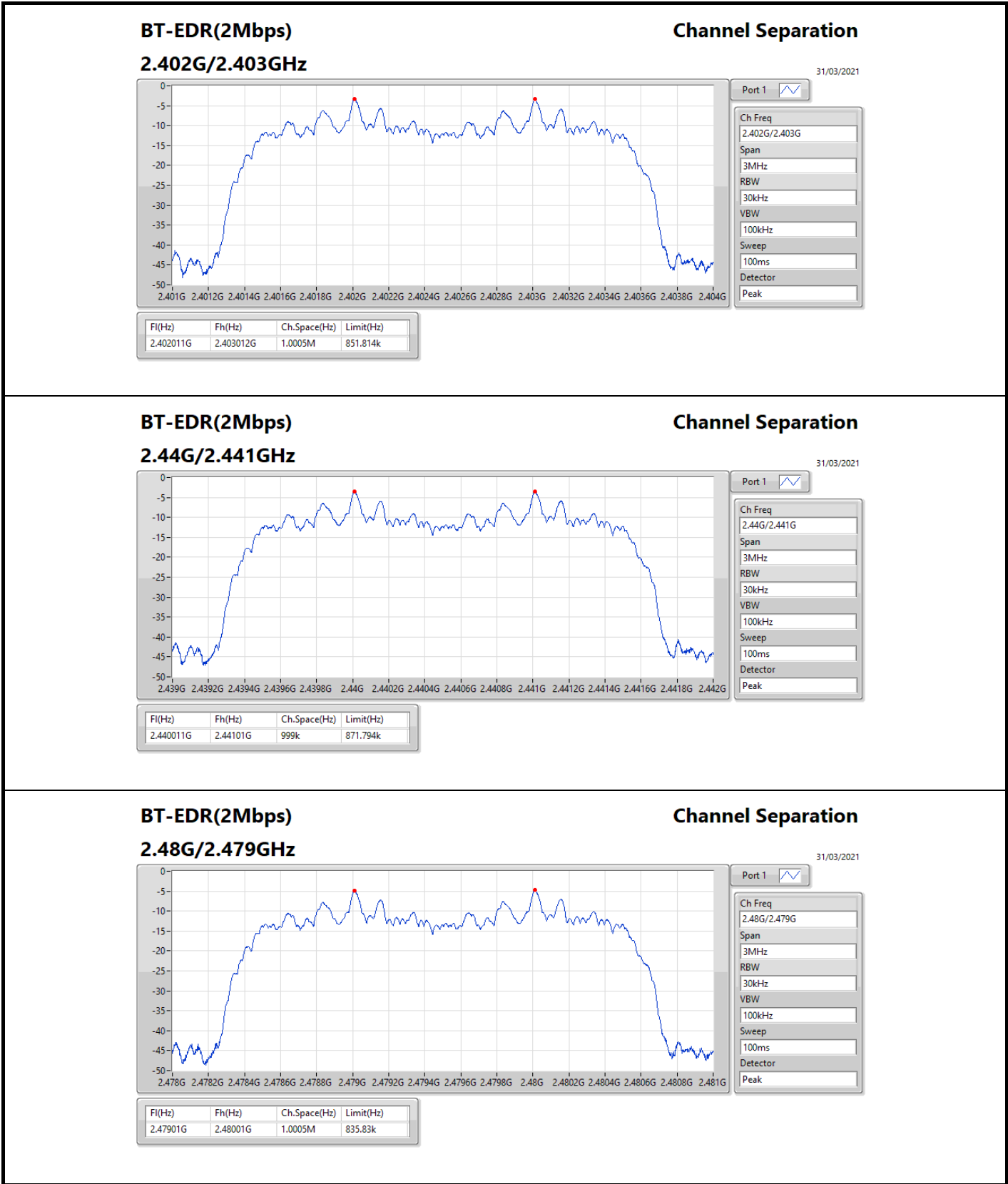
Summary

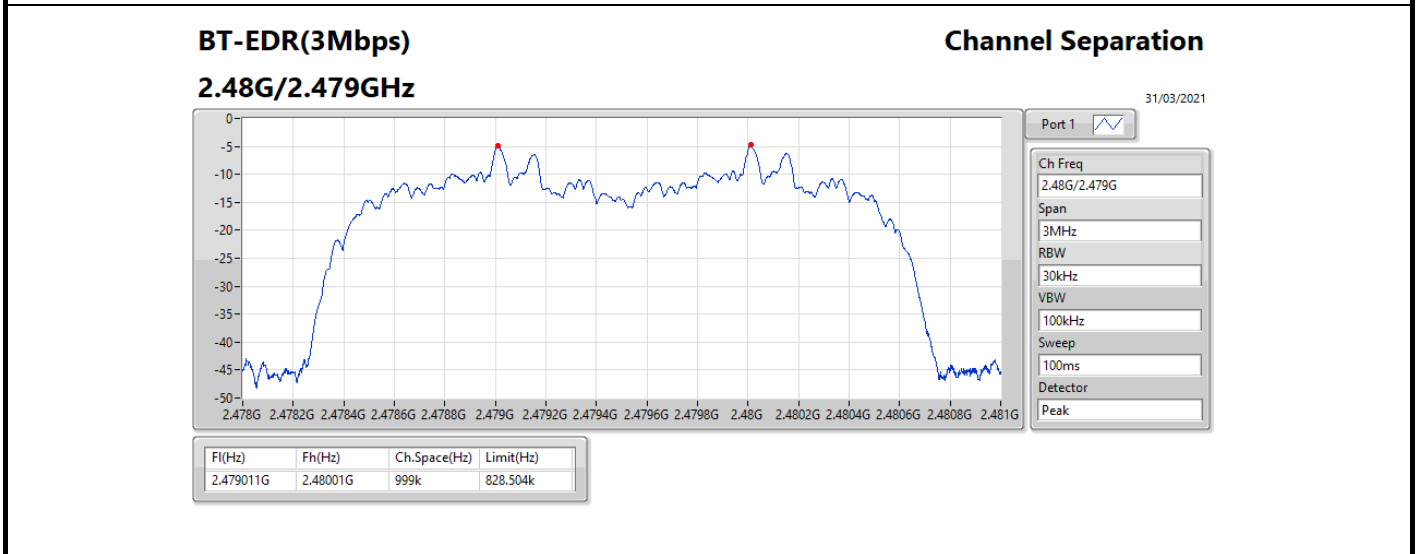
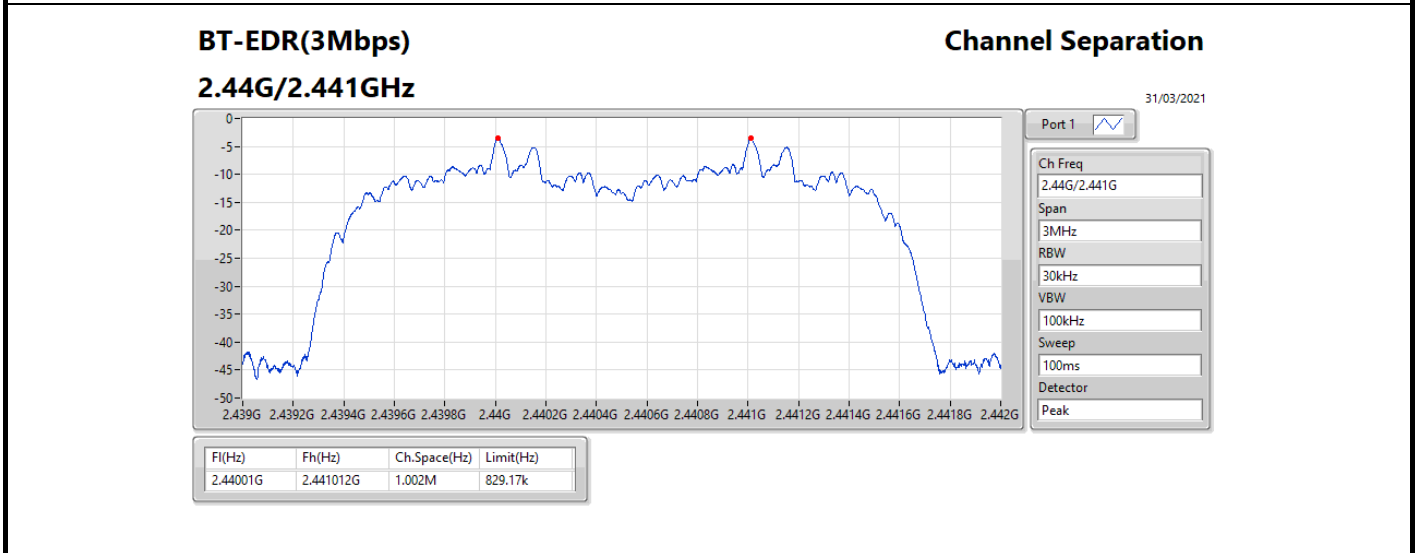
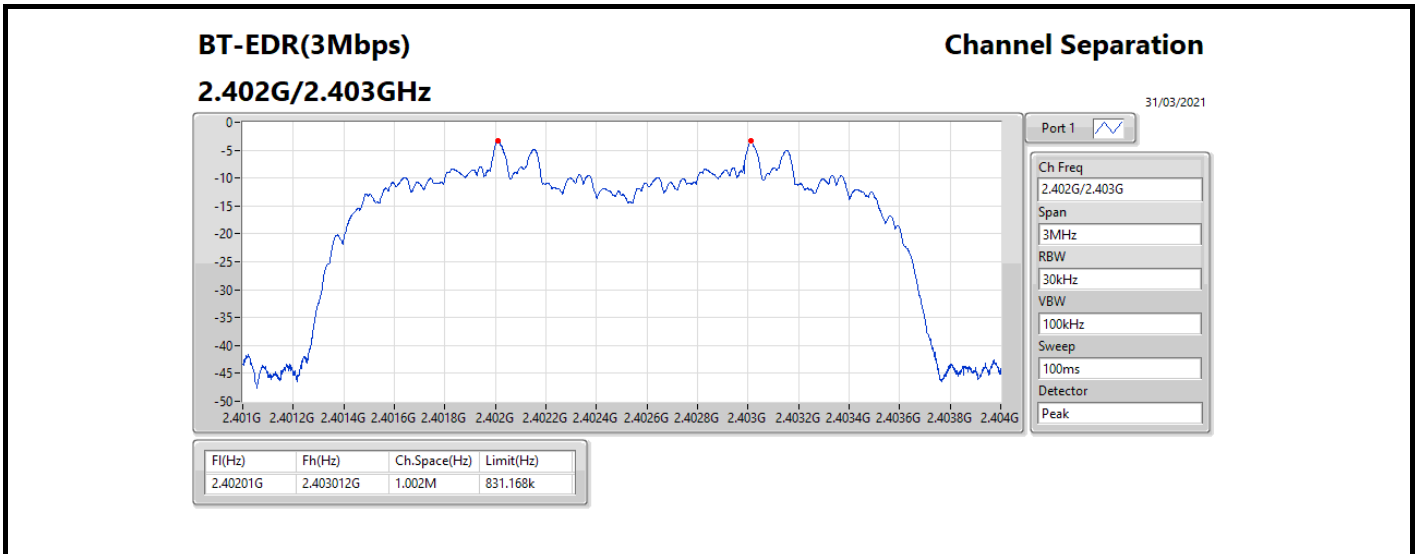
Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0005M	1.0005M
BT-EDR(2Mbps)	1.0005M	999k
BT-EDR(3Mbps)	1.002M	999k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402011G	2.403012G	1.0005M	612.72k
2440MHz	Pass	2.440011G	2.441012G	1.0005M	612.72k
2480MHz	Pass	2.479011G	2.480012G	1.0005M	612.72k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402011G	2.403012G	1.0005M	851.814k
2440MHz	Pass	2.440011G	2.44101G	999k	871.794k
2480MHz	Pass	2.47901G	2.48001G	1.0005M	835.83k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.40201G	2.403012G	1.002M	831.168k
2440MHz	Pass	2.44001G	2.441012G	1.002M	829.17k
2480MHz	Pass	2.479011G	2.48001G	999k	828.504k









Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	0.12	0.00103
BT-EDR(2Mbps)	-2.05	0.00062
BT-EDR(3Mbps)	-2.01	0.00063



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.69	0.12	21.00
2440MHz	Pass	3.69	-0.30	21.00
2480MHz	Pass	3.69	-1.28	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.69	-2.05	21.00
2440MHz	Pass	3.69	-2.49	21.00
2480MHz	Pass	3.69	-3.57	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.69	-2.01	21.00
2440MHz	Pass	3.69	-2.45	21.00
2480MHz	Pass	3.69	-3.43	21.00

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



Summary

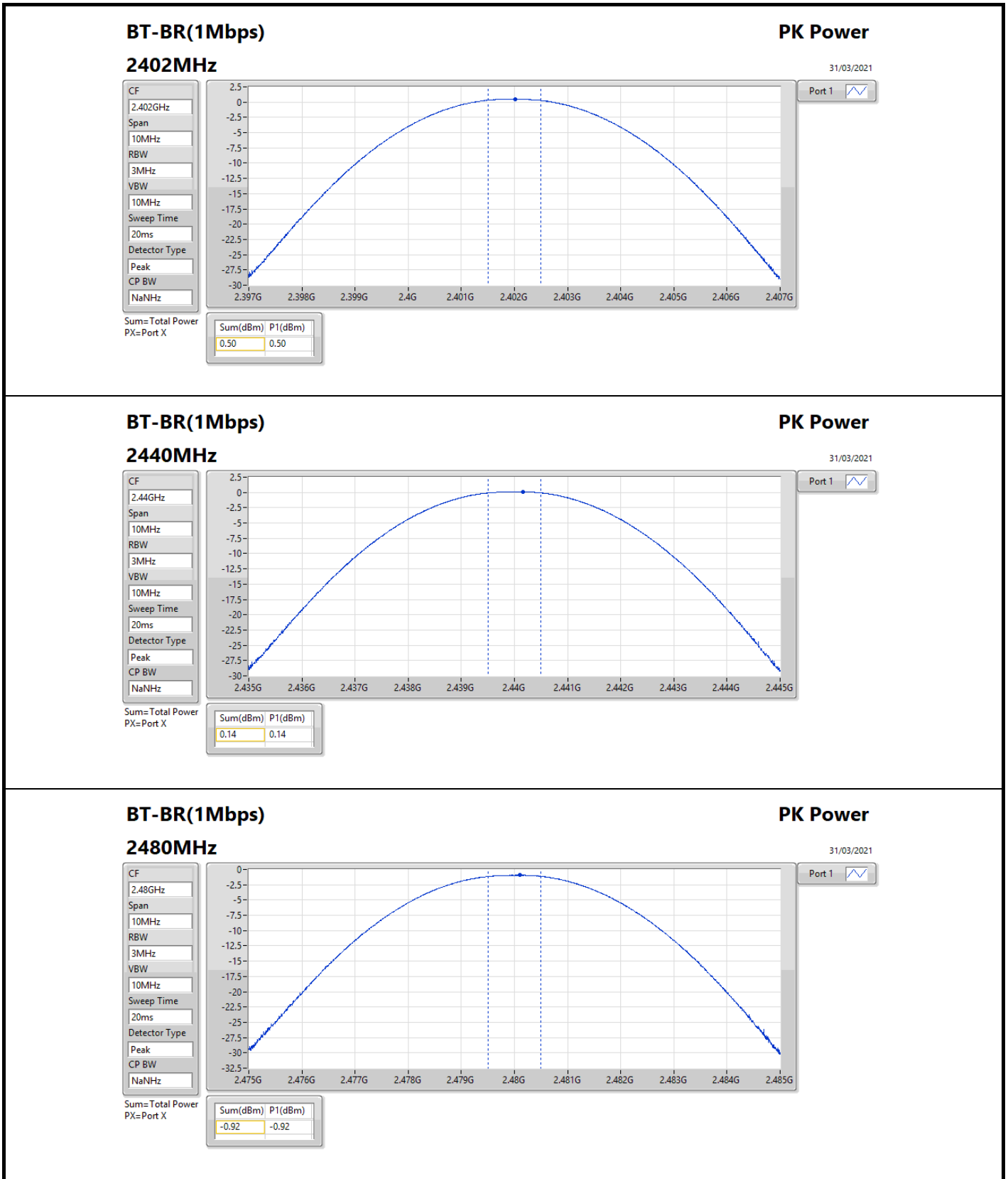
Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	0.50	0.00112
BT-EDR(2Mbps)	0.58	0.00114
BT-EDR(3Mbps)	0.83	0.00121

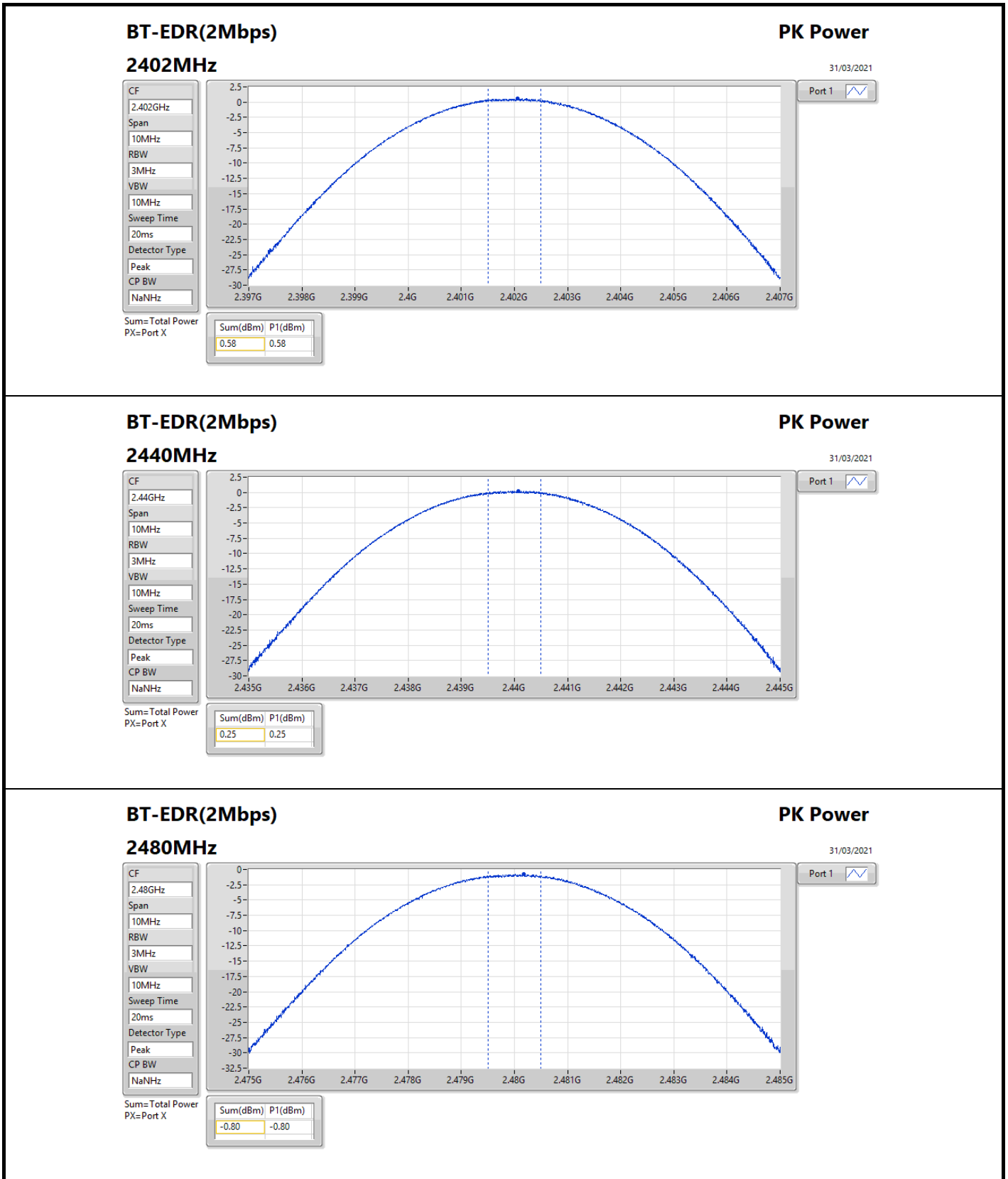


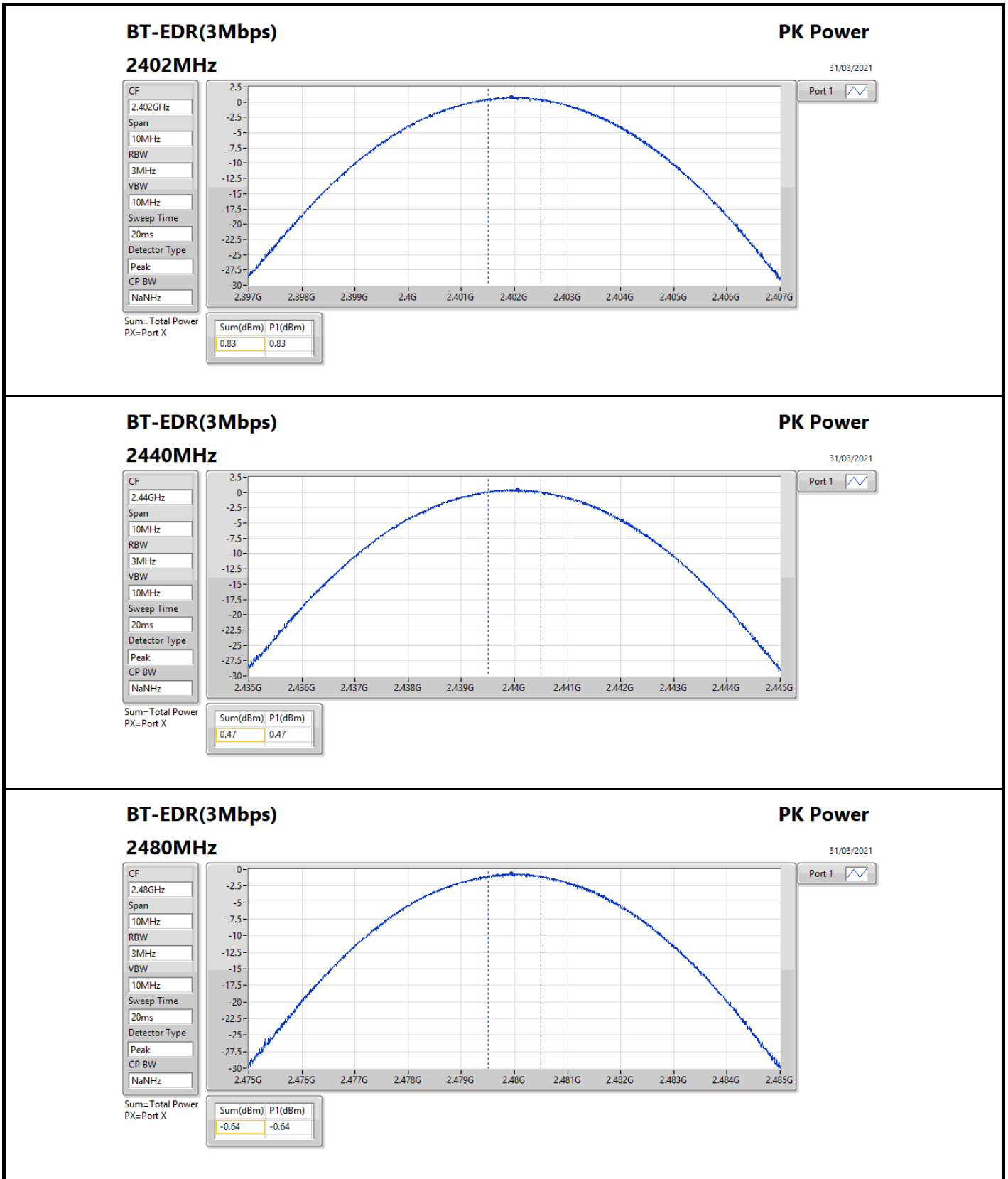
Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.69	0.50	21.00
2440MHz	Pass	3.69	0.14	21.00
2480MHz	Pass	3.69	-0.92	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.69	0.58	21.00
2440MHz	Pass	3.69	0.25	21.00
2480MHz	Pass	3.69	-0.80	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.69	0.83	21.00
2440MHz	Pass	3.69	0.47	21.00
2480MHz	Pass	3.69	-0.64	21.00

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









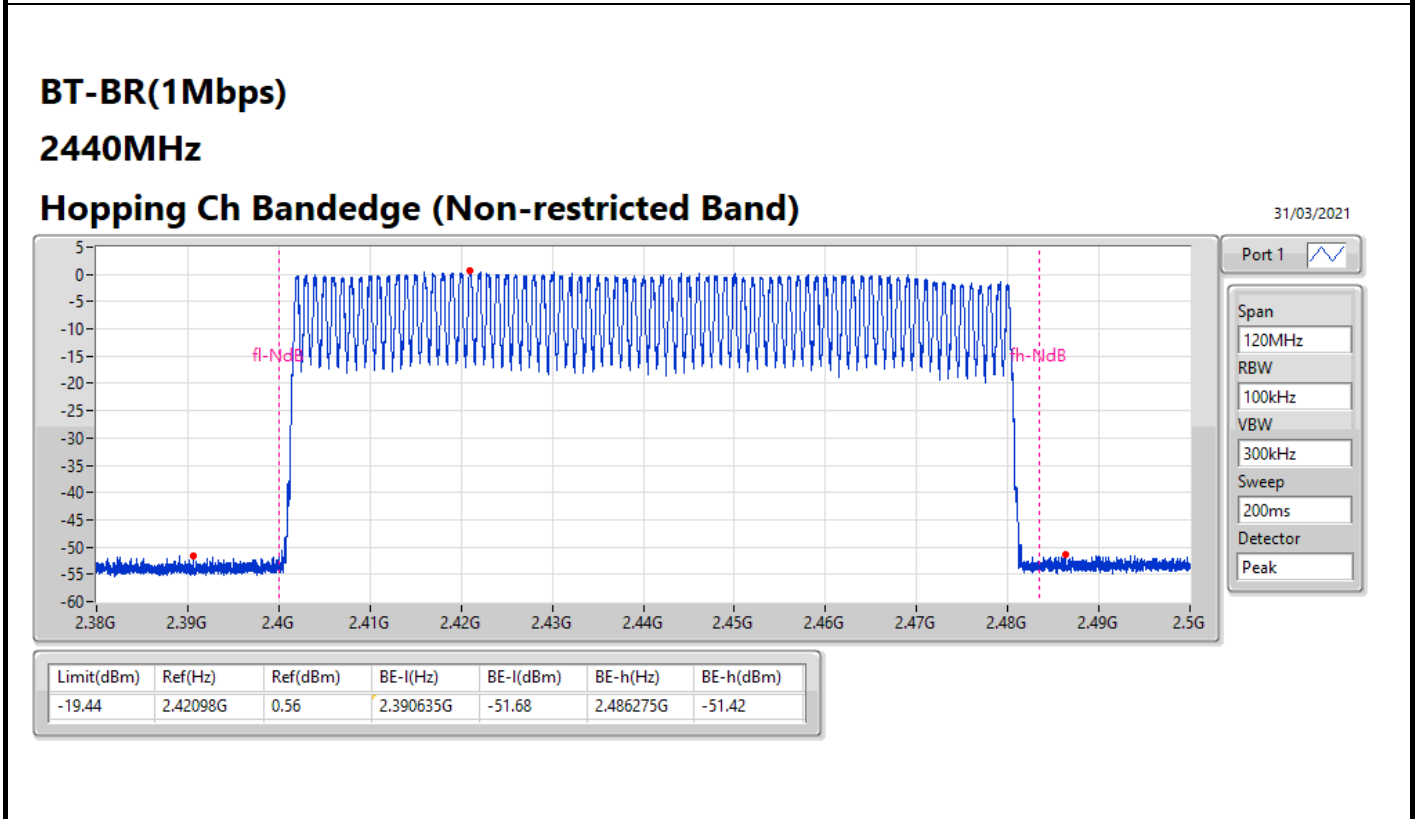
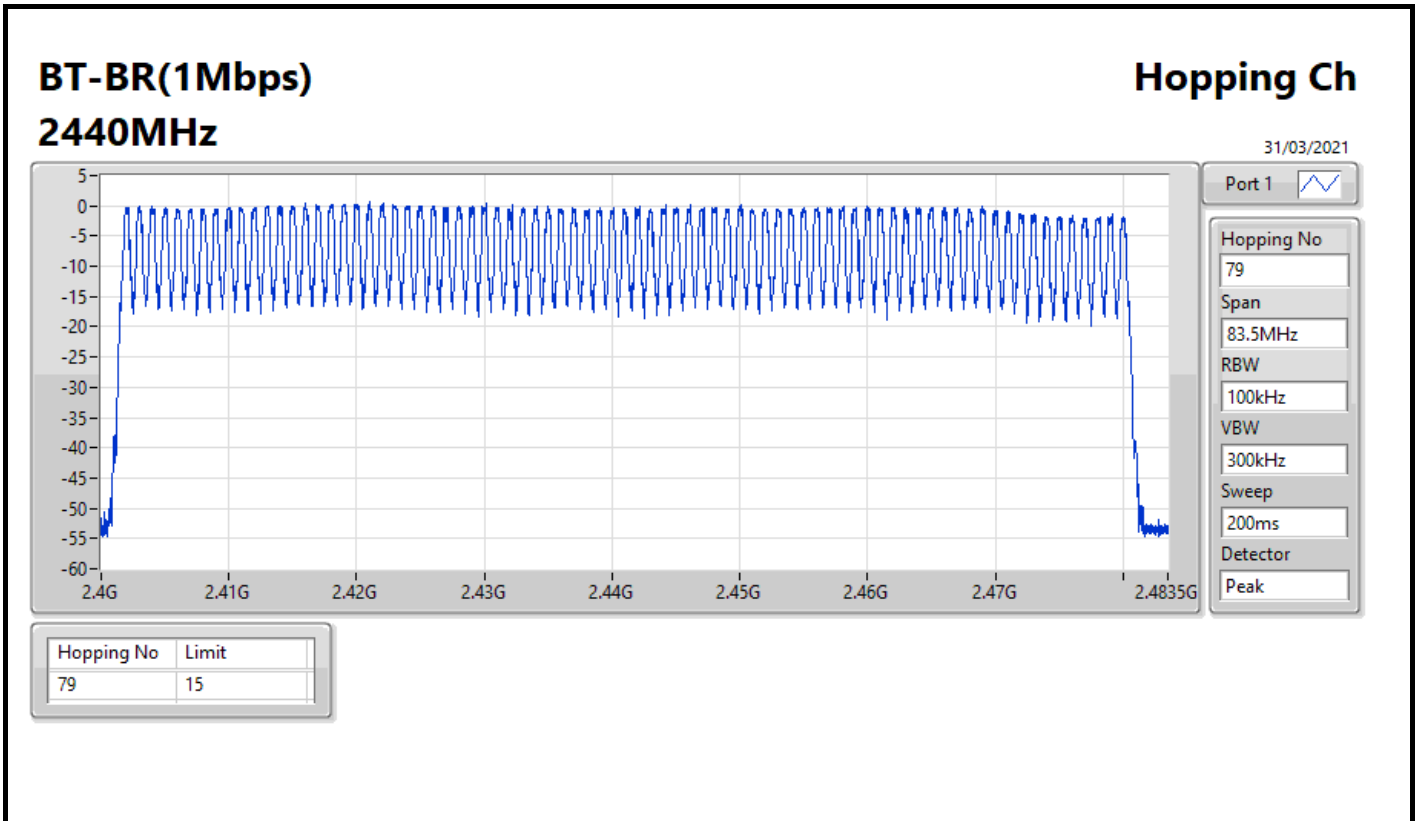
Summary

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



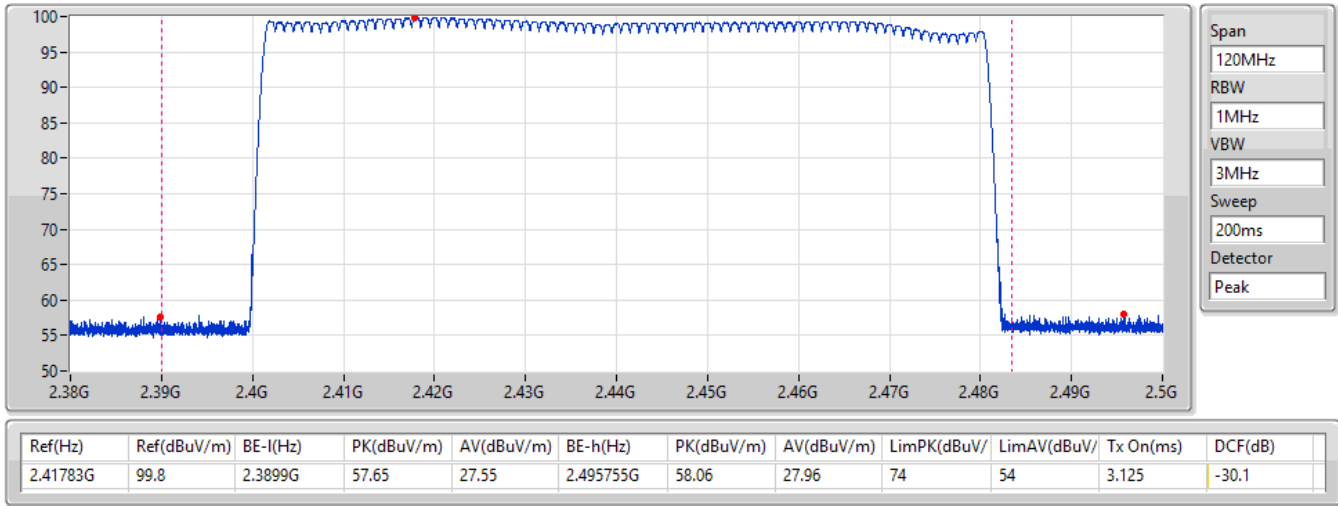
Result

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



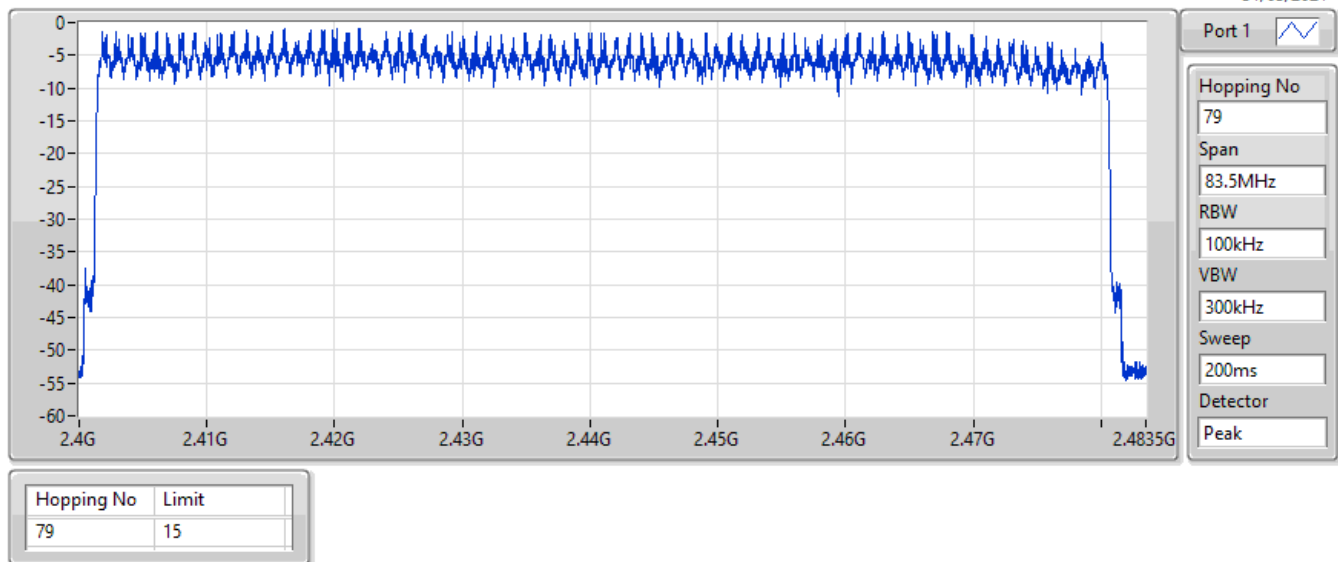
BT-BR(1Mbps)
2440MHz
Hopping Ch Bandedge (Restricted Band)

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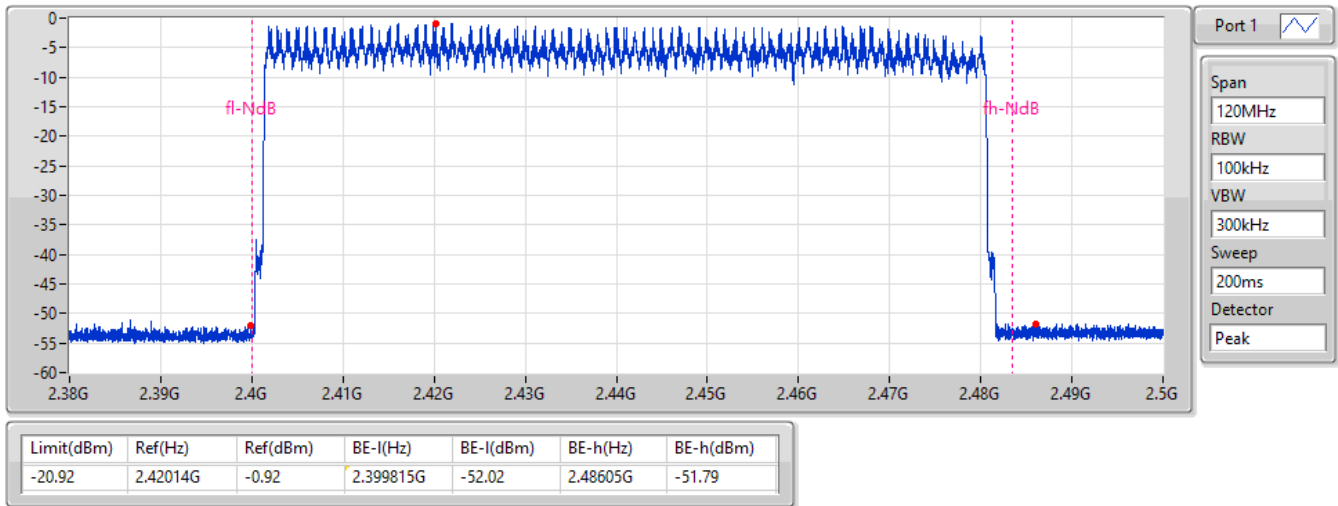
BT-EDR(2Mbps) **Hopping Ch**
2440MHz

31/03/2021



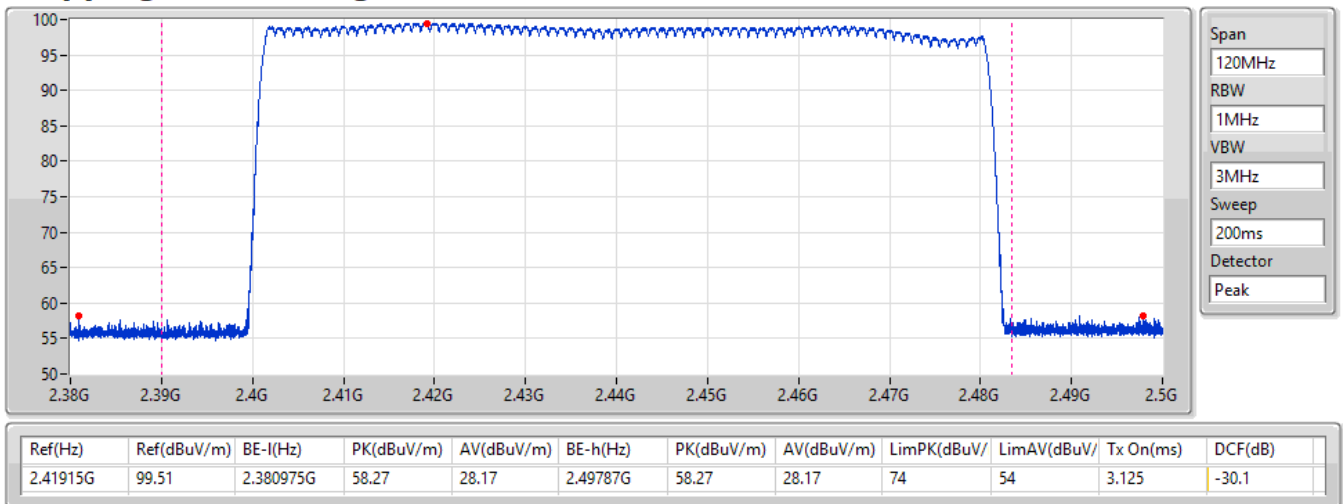
BT-EDR(2Mbps)
2440MHz
Hopping Ch Bandedge (Non-restricted Band)

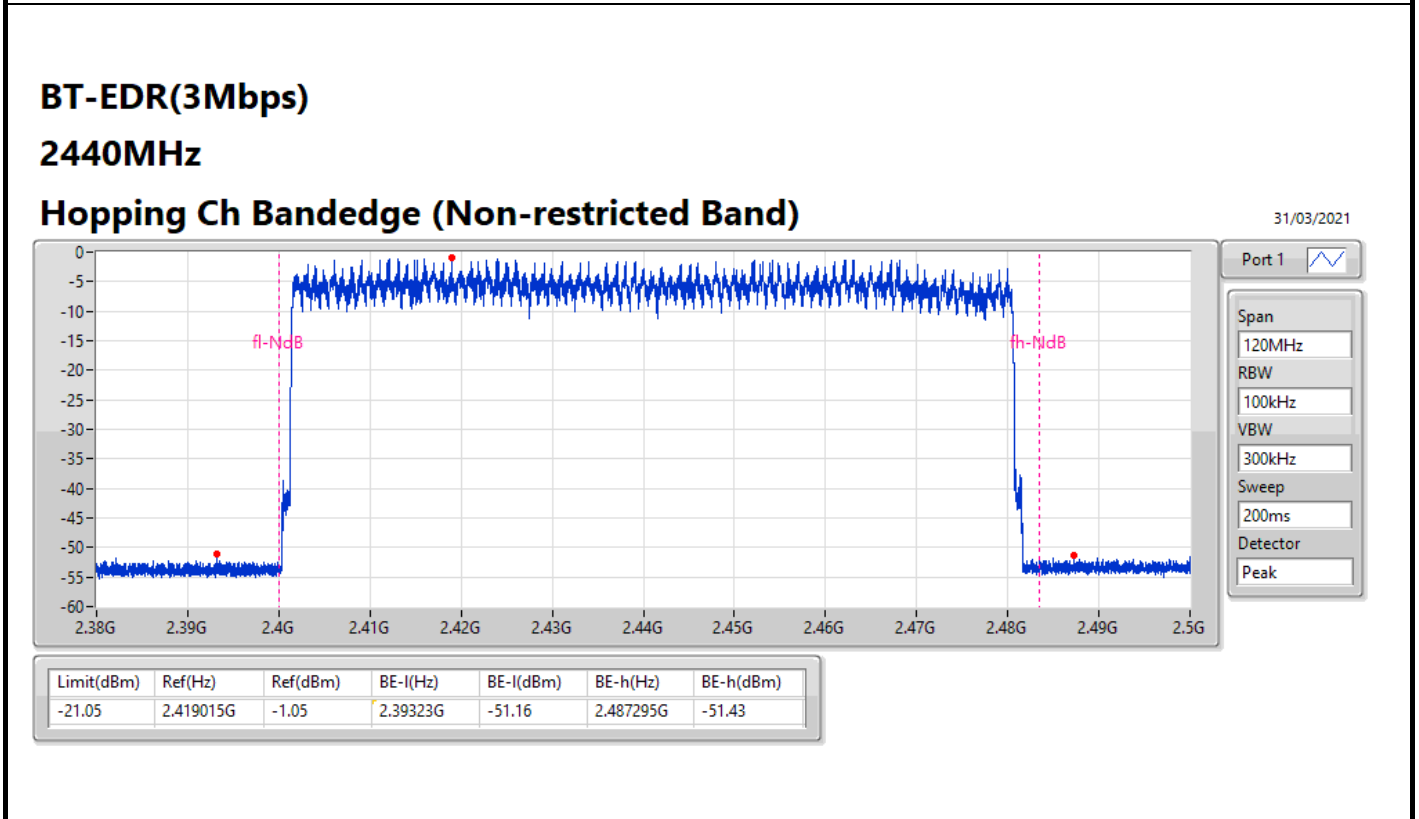
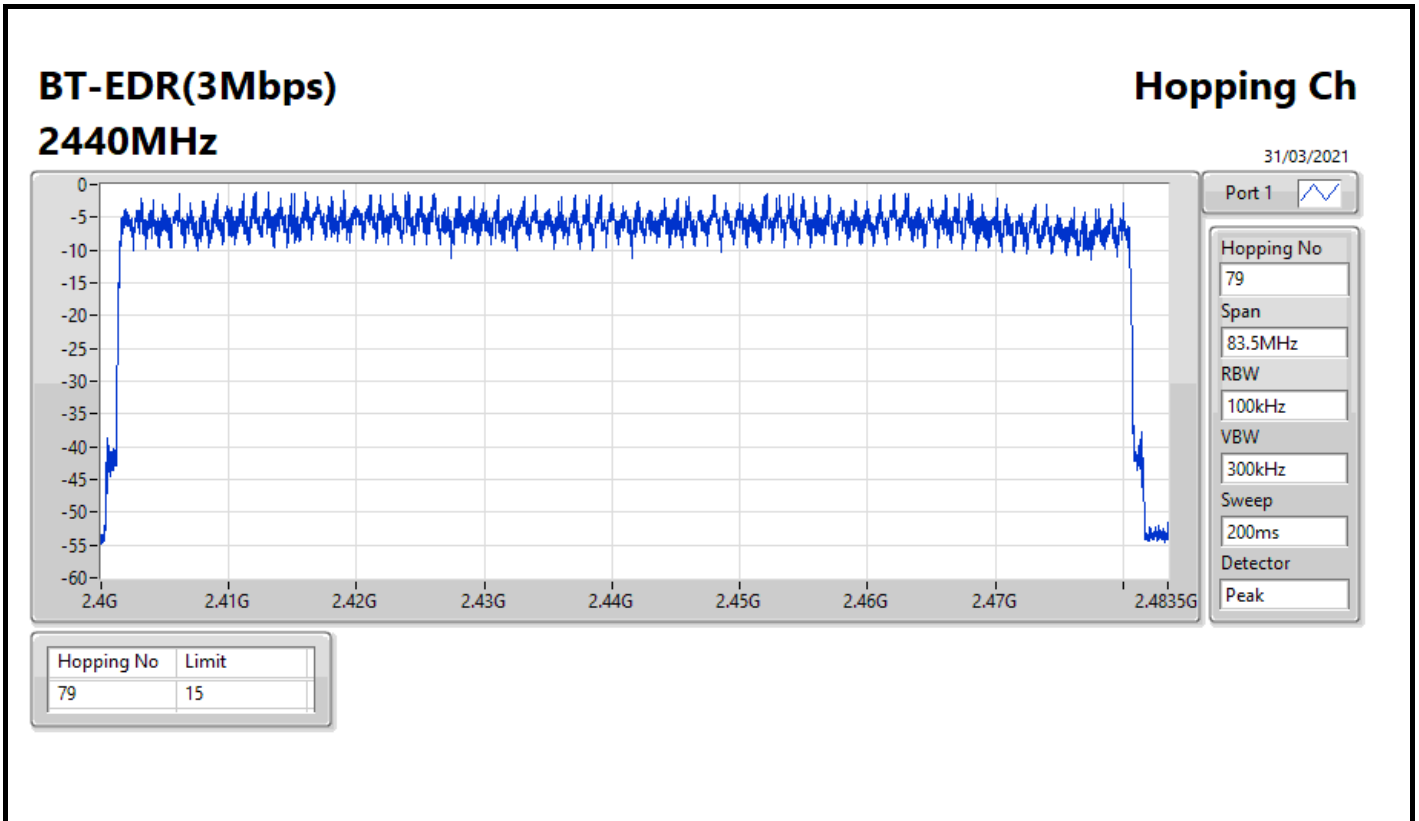
31/03/2021



BT-EDR(2Mbps)
2440MHz
Hopping Ch Bandedge (Restricted Band)

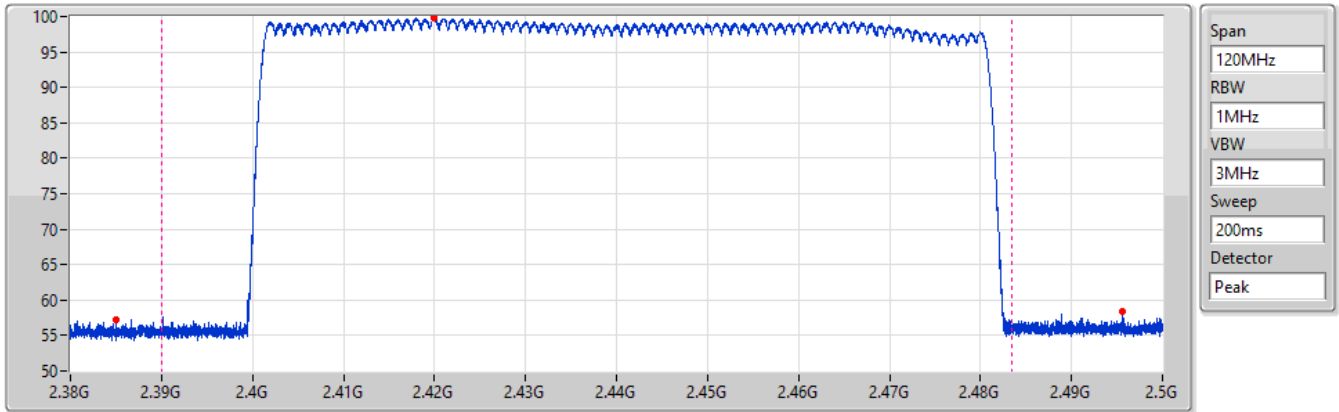
31/03/2021





BT-EDR(3Mbps)
2440MHz
Hopping Ch Bandedge (Restricted Band)

31/03/2021



Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.419975G	99.75	2.38501G	57.2	27.1	2.49559G	58.43	28.33	74	54	3.125	-30.1



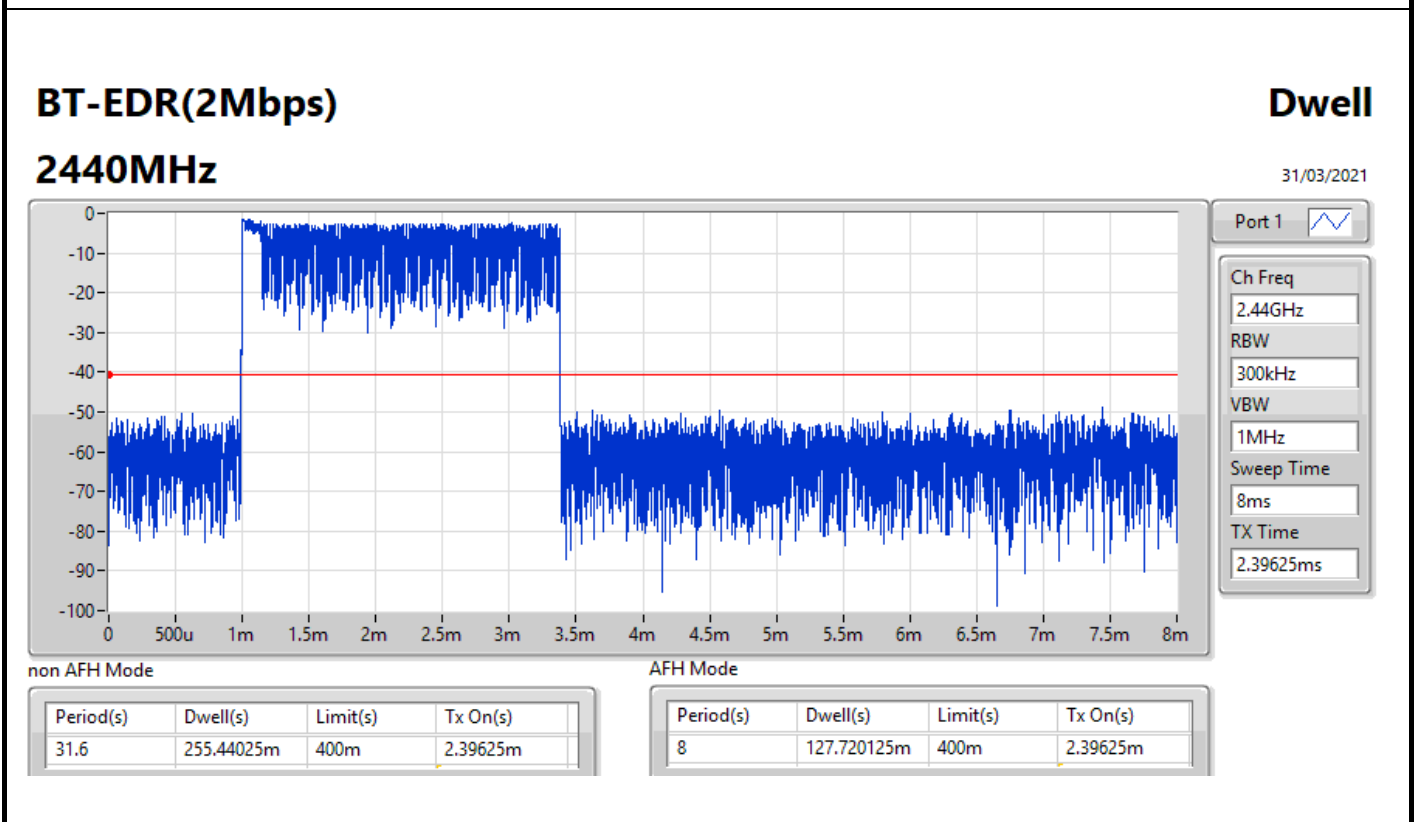
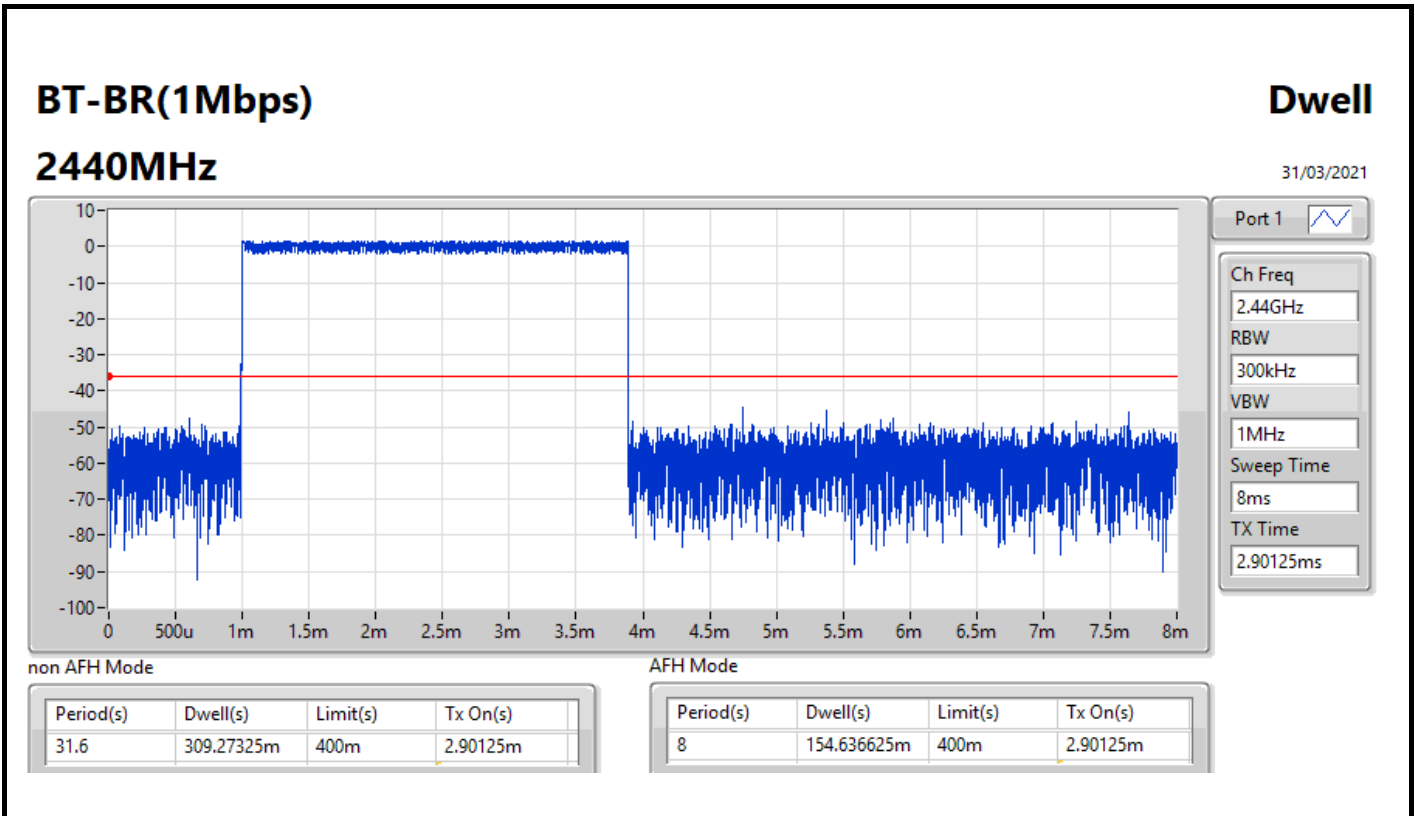
Summary

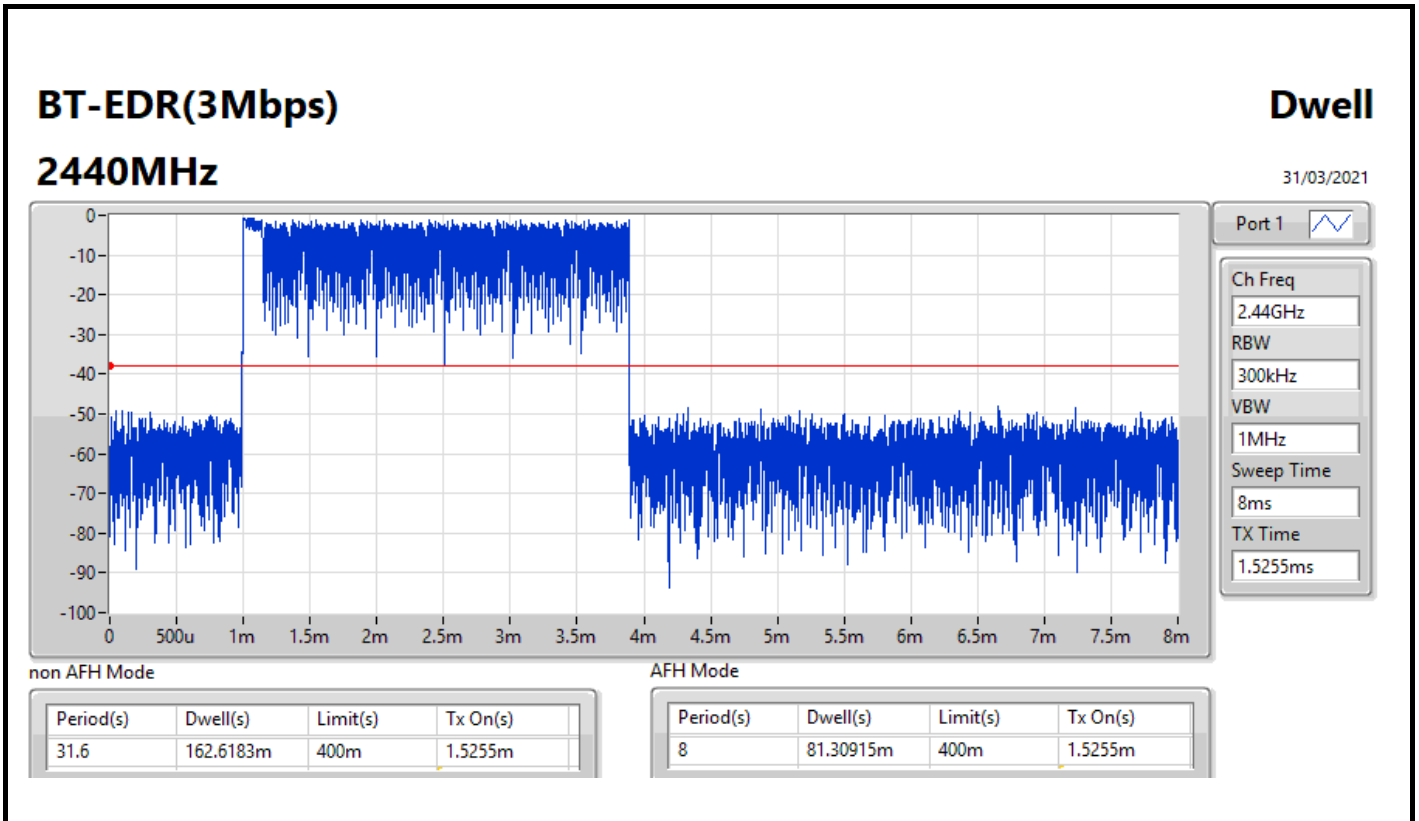
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	309.27325m
BT-EDR(2Mbps)	255.44025m
BT-EDR(3Mbps)	162.6183m



Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.27325m	400m	2.90125m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	255.44025m	400m	2.39625m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	162.6183m	400m	1.5255m





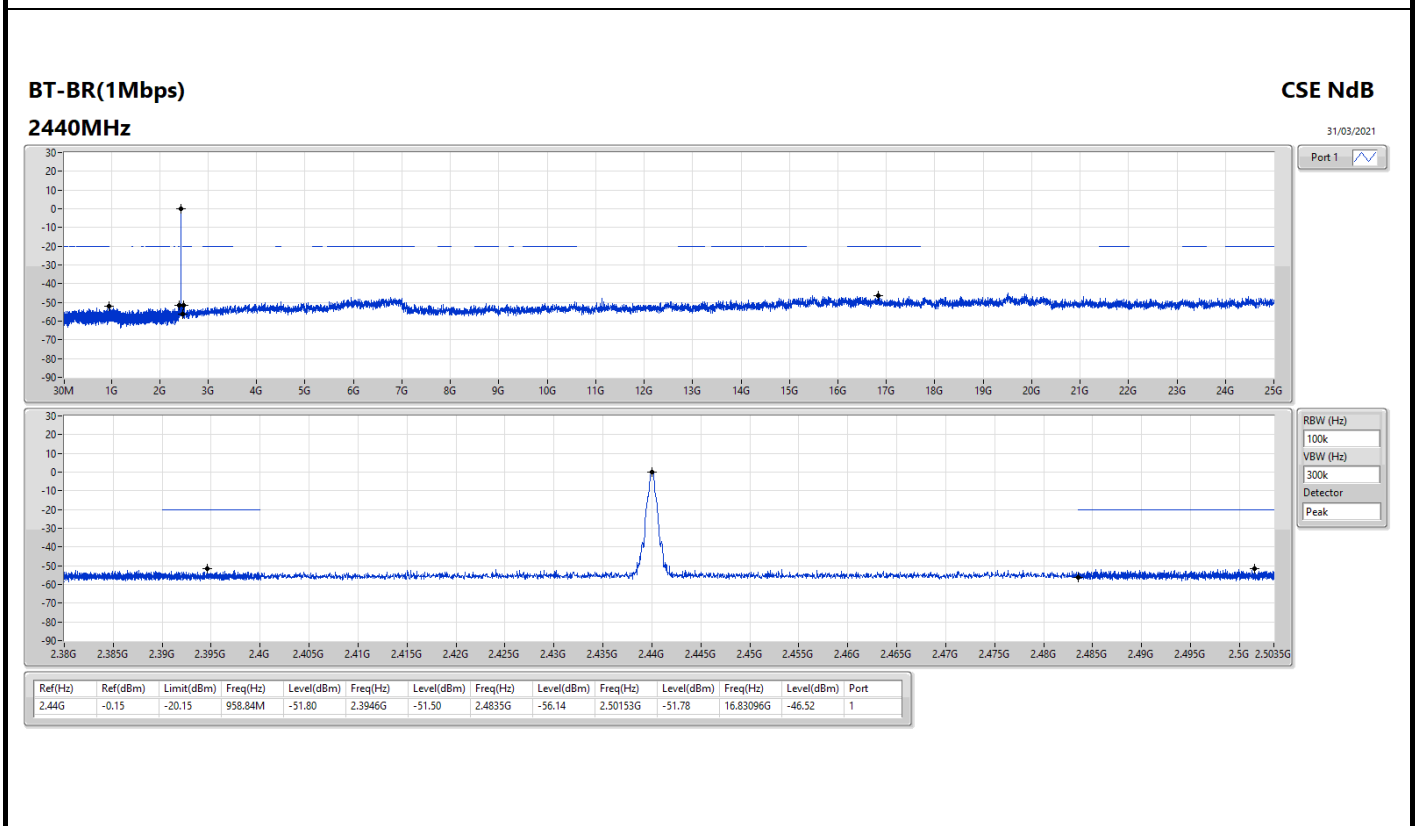
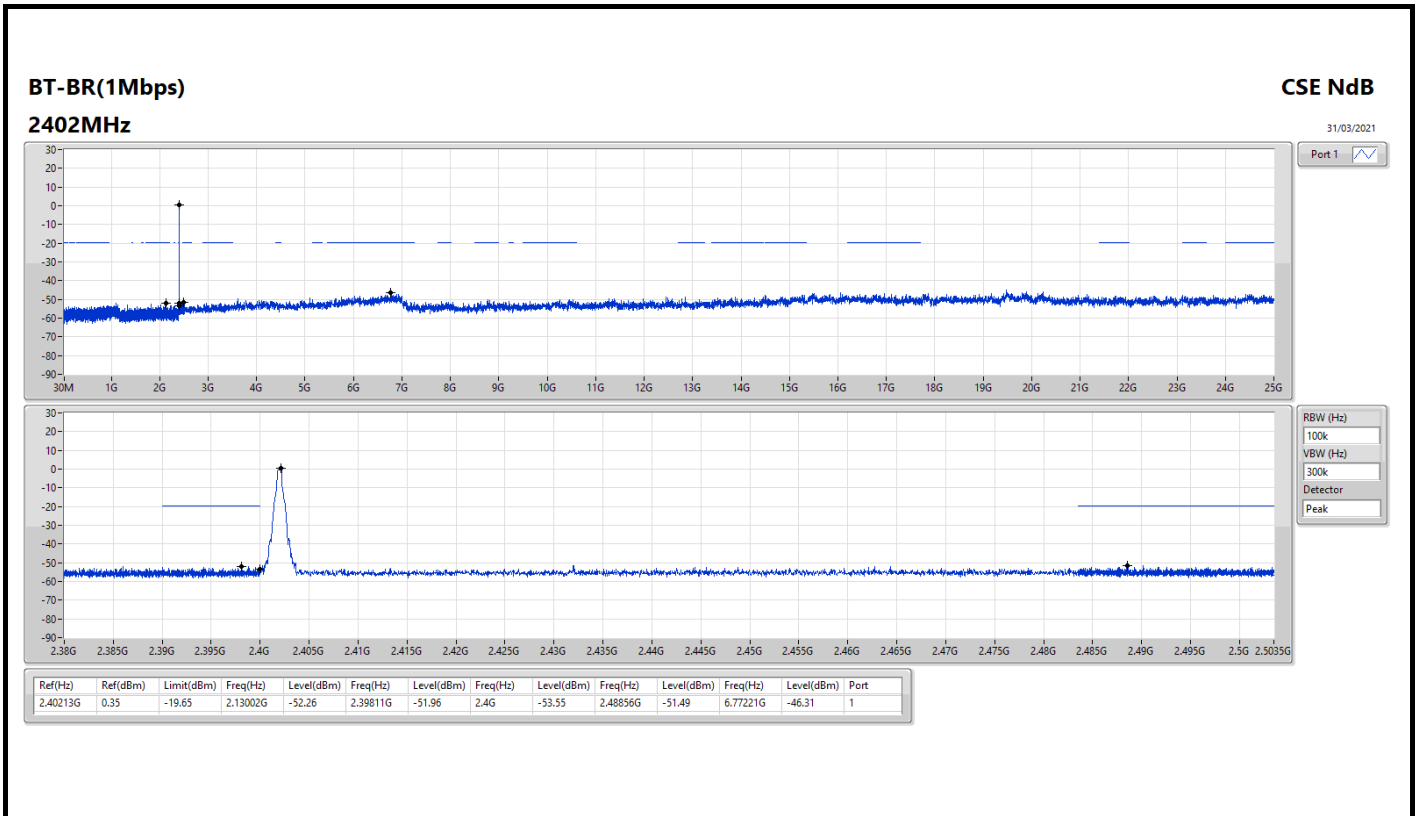


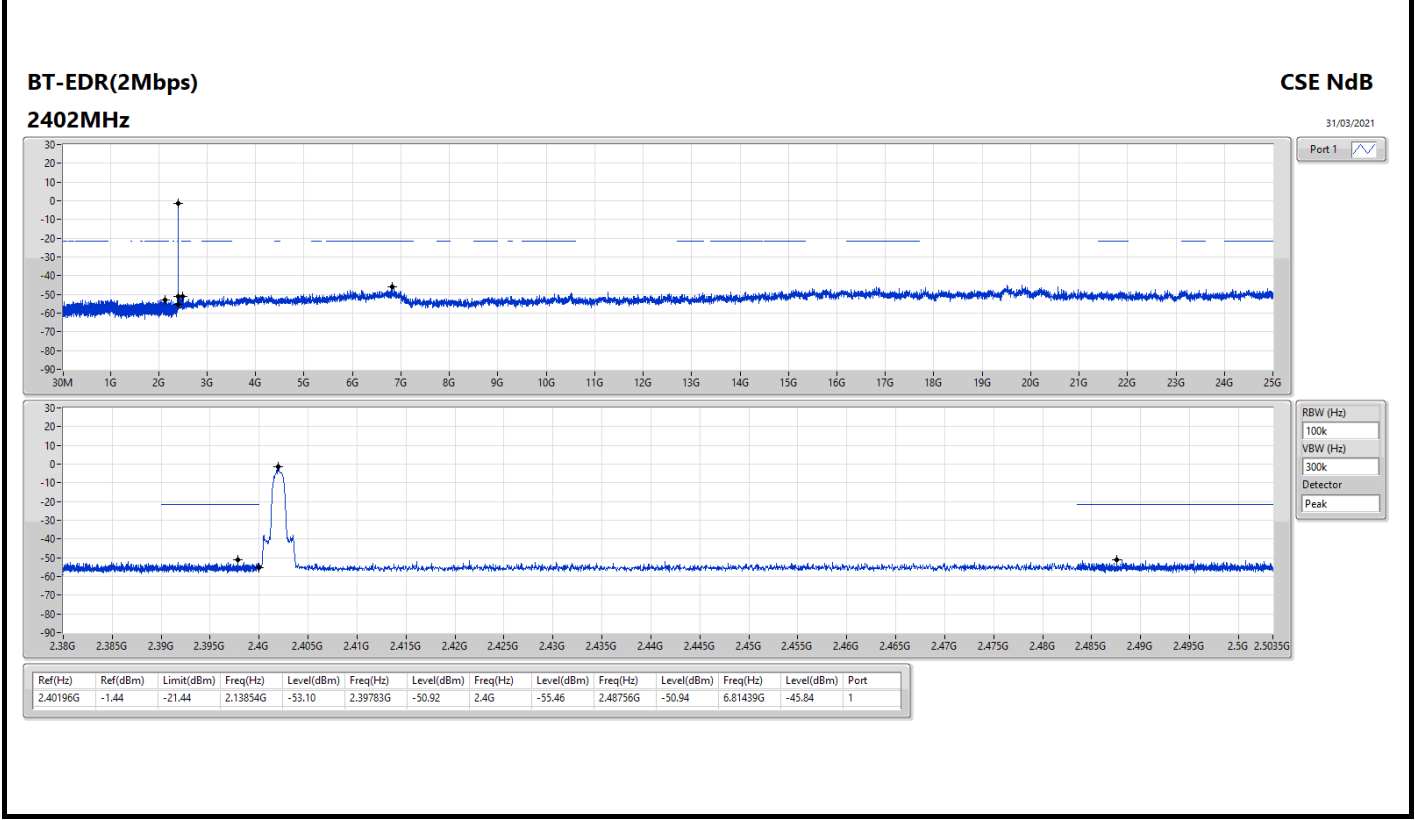
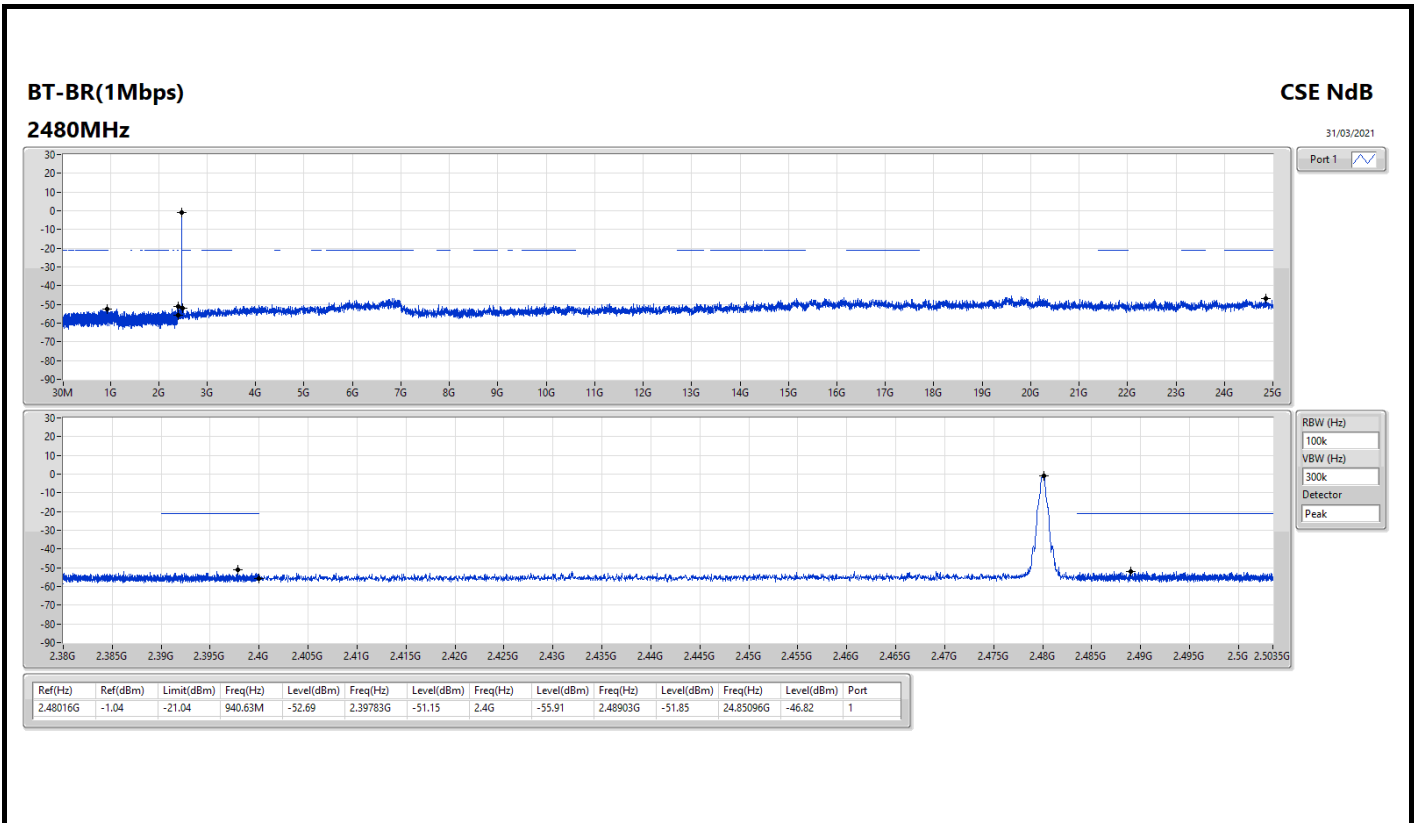
Summary

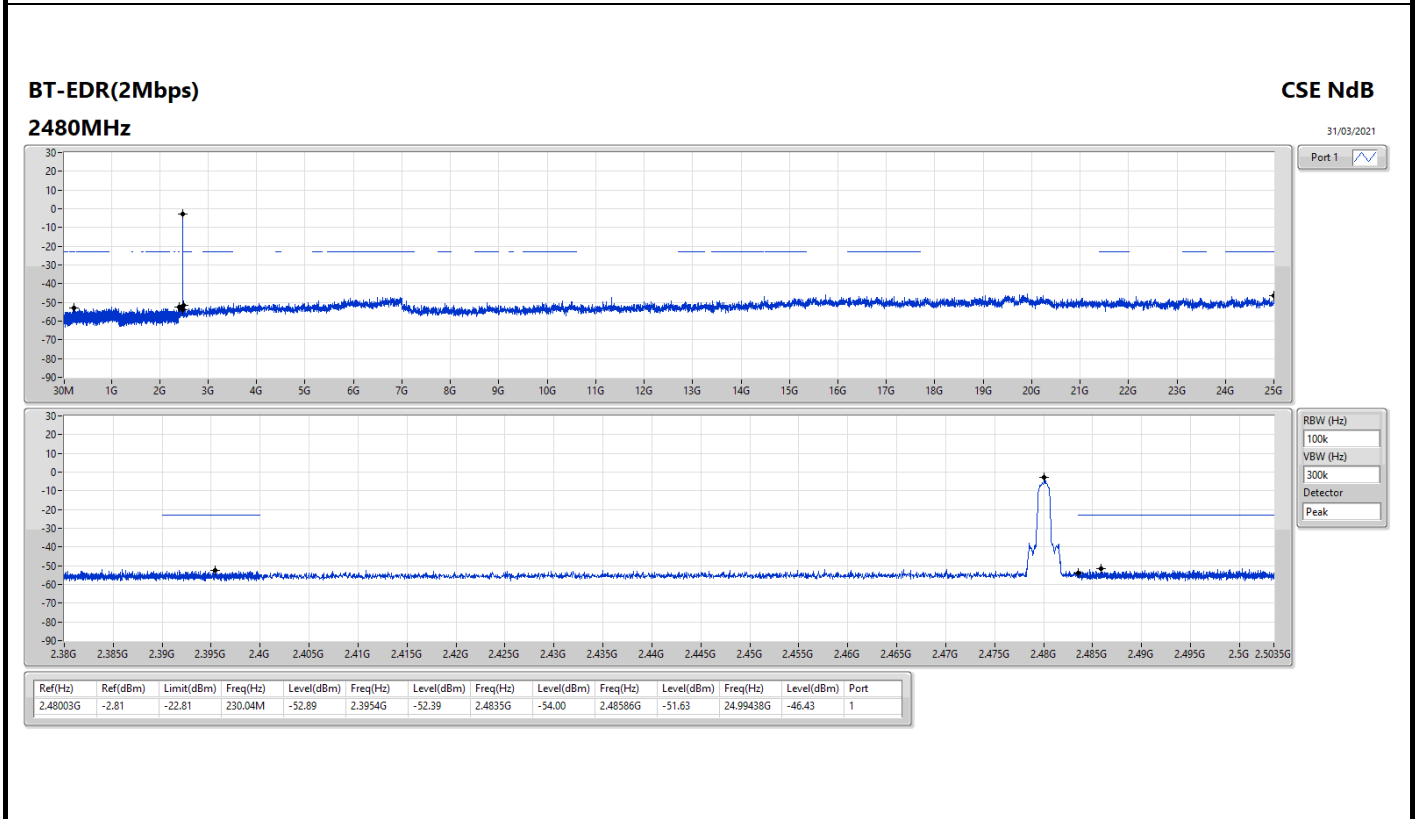
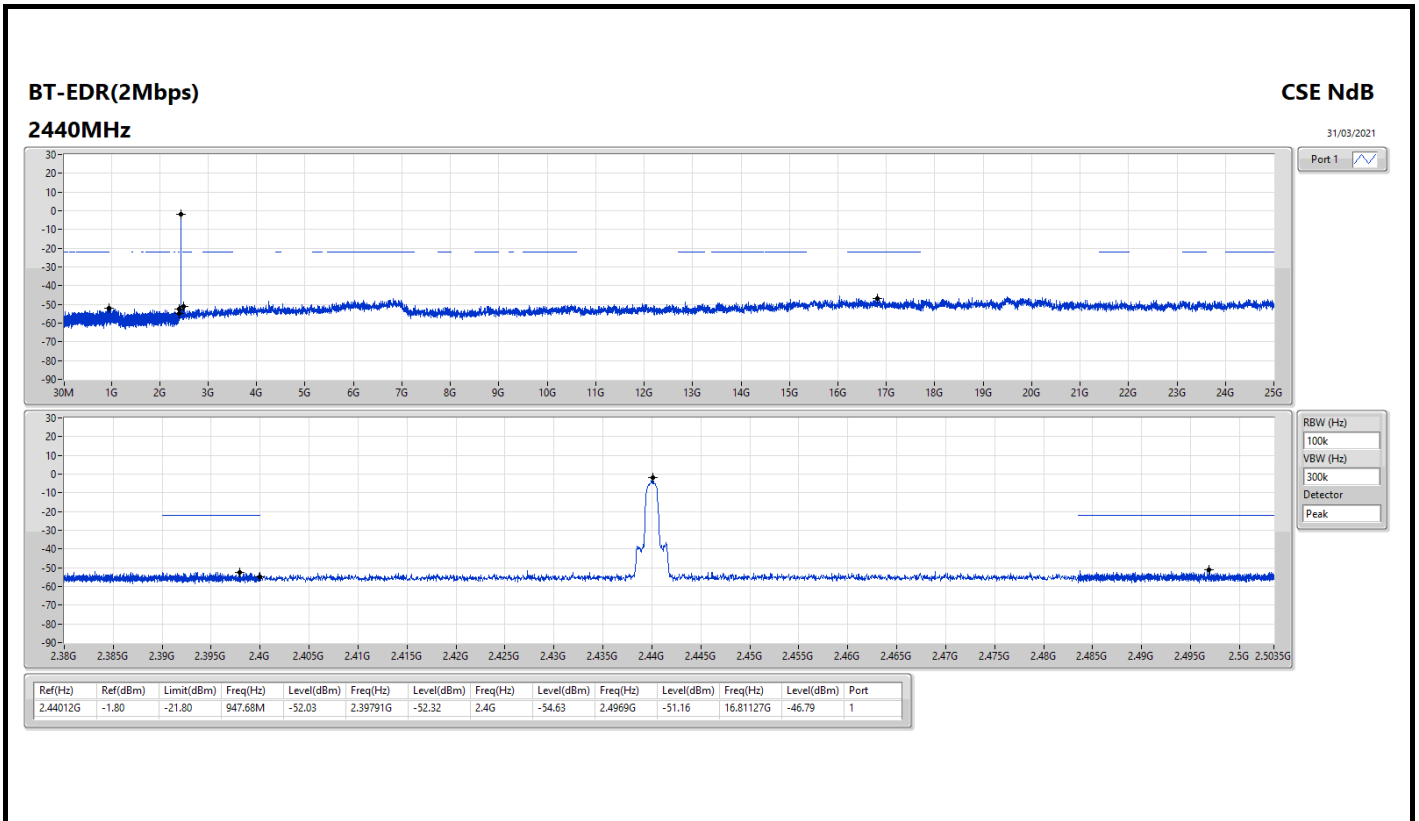
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.48016G	-1.04	-21.04	940.63M	-52.69	2.39783G	-51.15	2.4G	-55.91	2.48903G	-51.85	24.85096G	-46.82	1
BT-EDR(2Mbps)	Pass	2.48003G	-2.81	-22.81	230.04M	-52.89	2.3954G	-52.39	2.4835G	-54.00	2.48586G	-51.63	24.99438G	-46.43	1
BT-EDR(3Mbps)	Pass	2.47991G	-3.62	-23.62	509.69M	-52.92	2.39559G	-52.58	2.4835G	-54.51	2.48445G	-50.97	24.40665G	-46.11	1

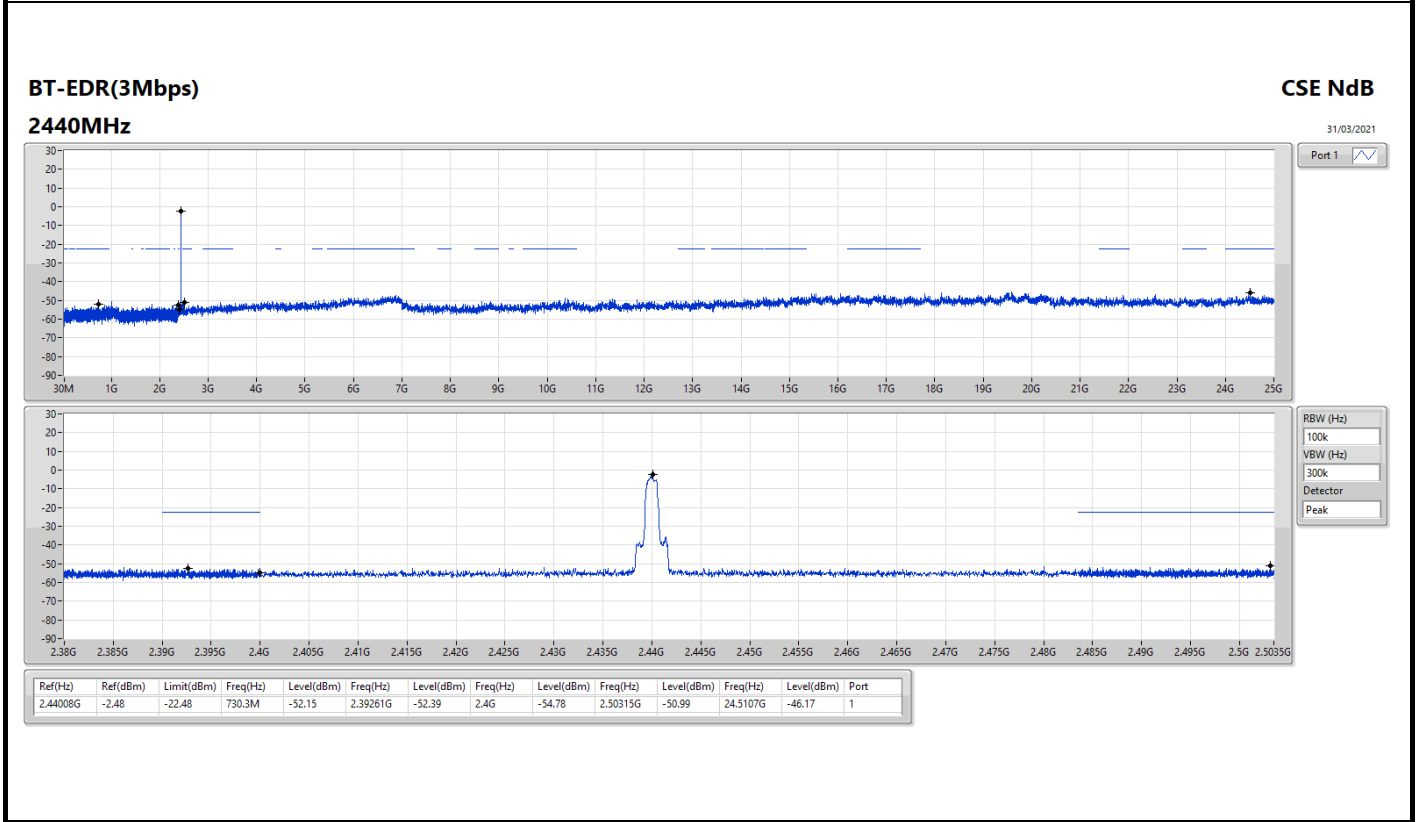
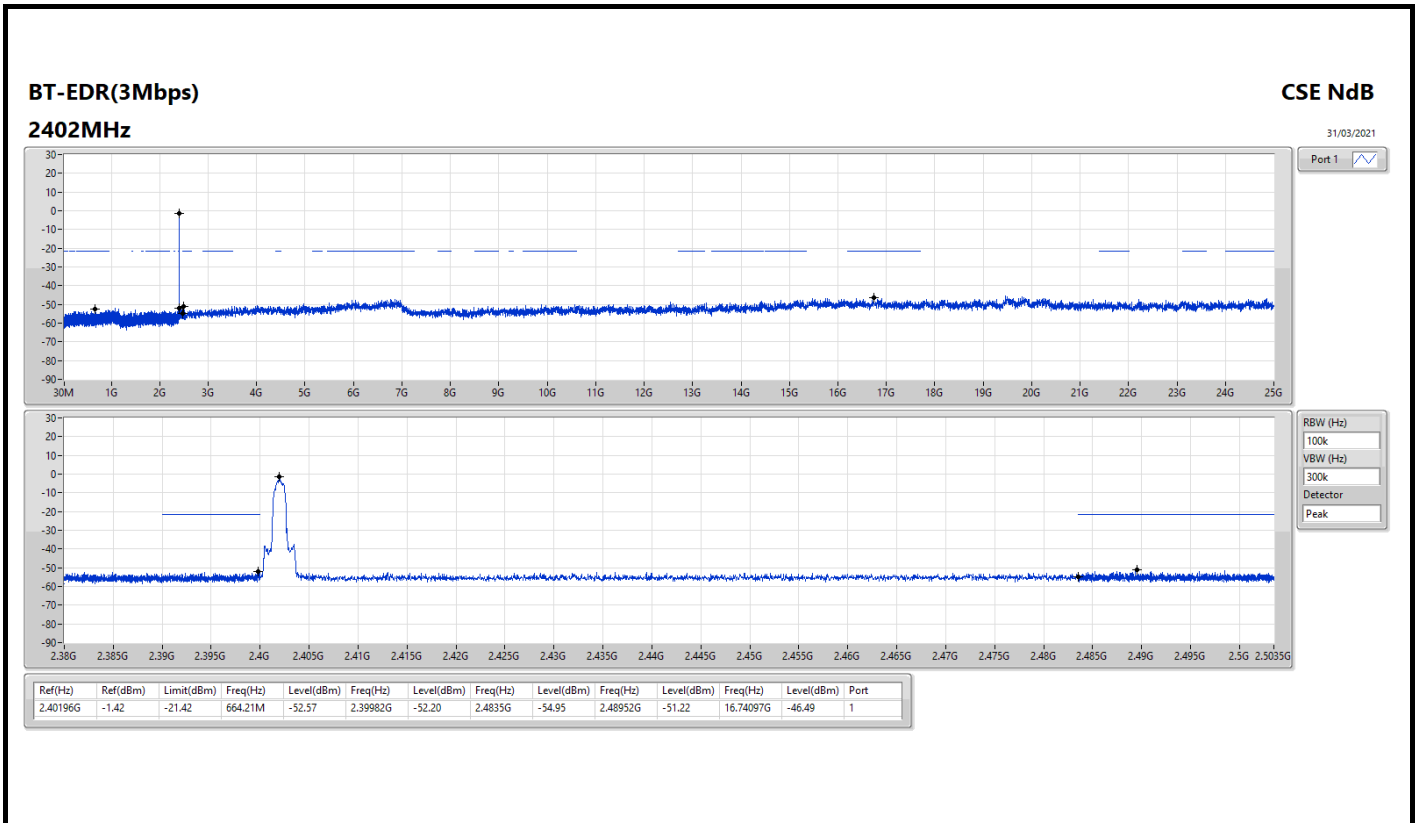
Result

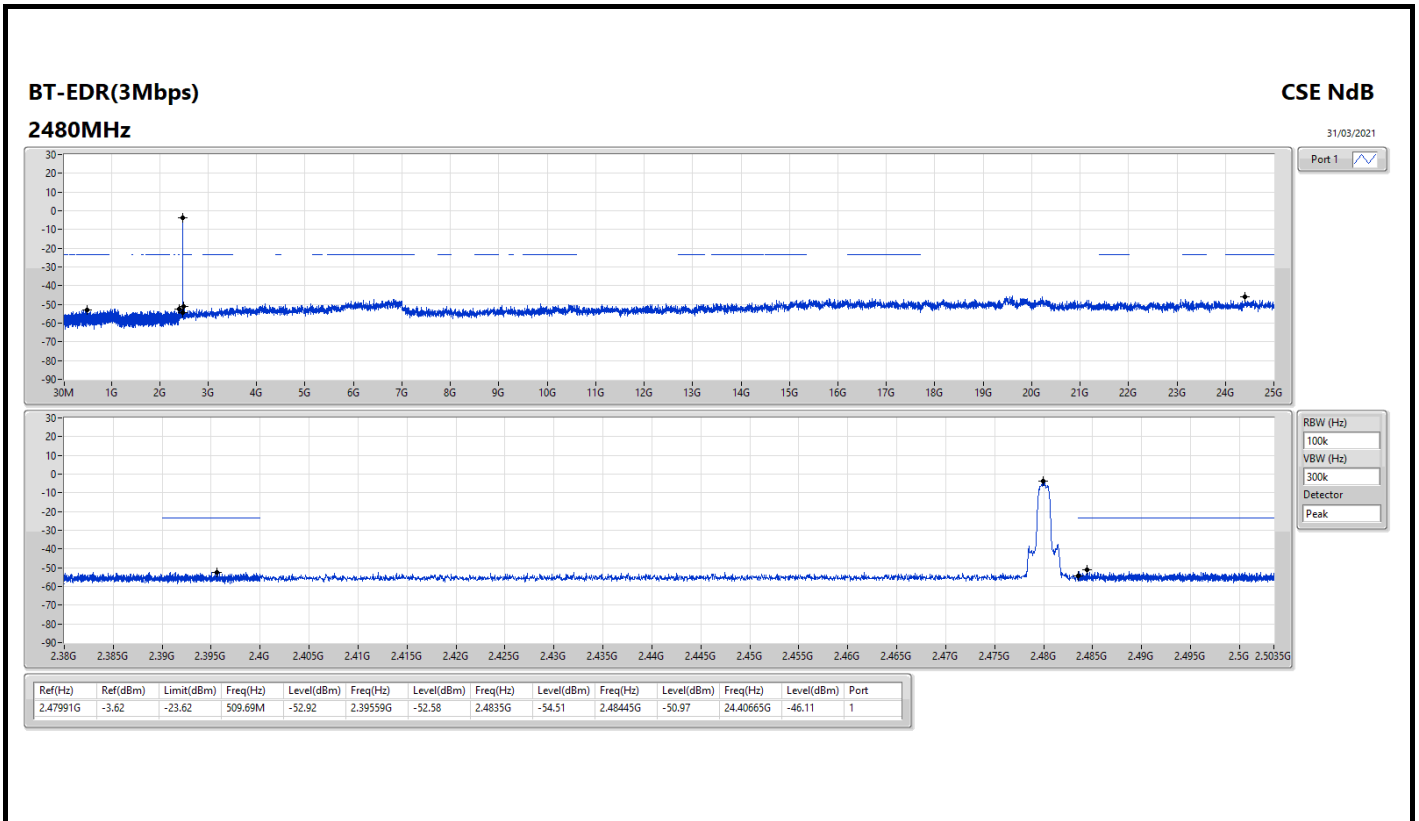
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	0.35	-19.65	2.13002G	-52.26	2.39811G	-51.96	2.4G	-53.55	2.48856G	-51.49	6.77221G	-46.31	1
2440MHz	Pass	2.44G	-0.15	-20.15	958.84M	-51.80	2.3946G	-51.50	2.4835G	-56.14	2.50153G	-51.78	16.83096G	-46.52	1
2480MHz	Pass	2.48016G	-1.04	-21.04	940.63M	-52.69	2.39783G	-51.15	2.4G	-55.91	2.48903G	-51.85	24.85096G	-46.82	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	-1.44	-21.44	2.13854G	-53.10	2.39783G	-50.92	2.4G	-55.46	2.48756G	-50.94	6.81439G	-45.84	1
2440MHz	Pass	2.44012G	-1.80	-21.80	947.68M	-52.03	2.39791G	-52.32	2.4G	-54.63	2.4969G	-51.16	16.81127G	-46.79	1
2480MHz	Pass	2.48003G	-2.81	-22.81	230.04M	-52.89	2.3954G	-52.39	2.4835G	-54.00	2.48586G	-51.63	24.99438G	-46.43	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	-1.42	-21.42	664.21M	-52.57	2.39982G	-52.20	2.4835G	-54.95	2.48952G	-51.22	16.74097G	-46.49	1
2440MHz	Pass	2.44008G	-2.48	-22.48	730.3M	-52.15	2.39261G	-52.39	2.4G	-54.78	2.50315G	-50.99	24.5107G	-46.17	1
2480MHz	Pass	2.47991G	-3.62	-23.62	509.69M	-52.92	2.39559G	-52.58	2.4835G	-54.51	2.48445G	-50.97	24.40665G	-46.11	1









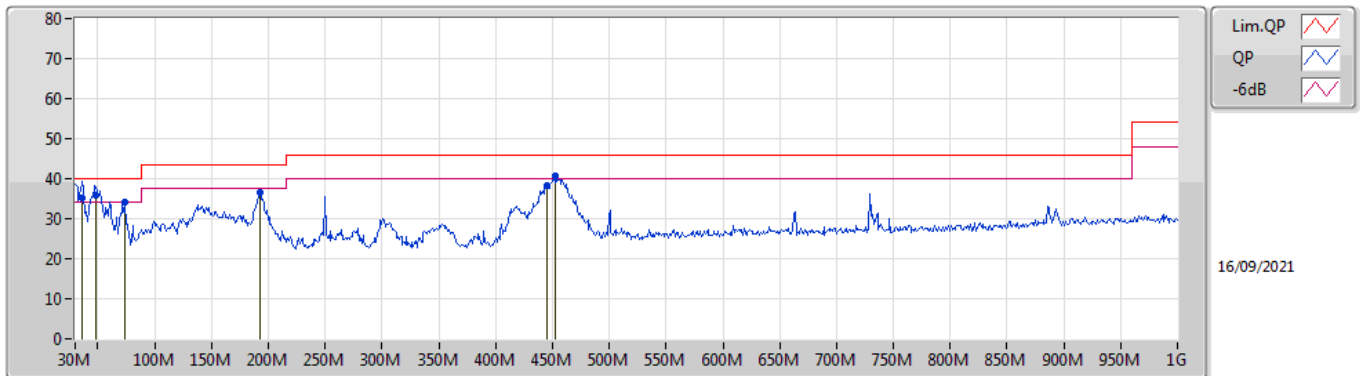




Summary

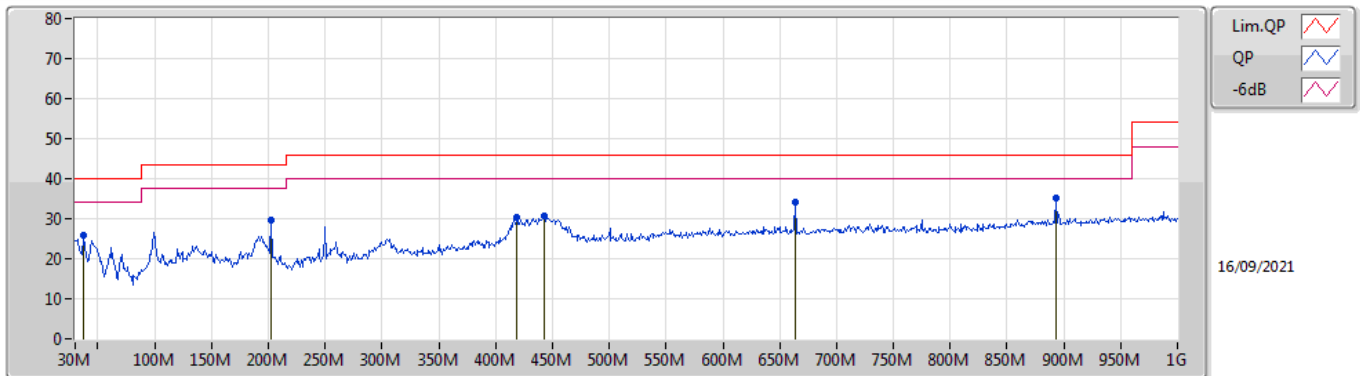
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 4	Pass	QP	48.43M	35.98	40.00	-4.02	Vertical

Mode 4



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	35.82M	35.21	40.00	-4.79	-10.09	3	Vertical	262	1.00	-	45.30	20.99	0.52	31.60
QP	48.43M	35.98	40.00	-4.02	-16.62	3	Vertical	360	1.00	"Worst"	52.60	14.53	0.60	31.75
QP	73.65M	34.04	40.00	-5.96	-18.83	3	Vertical	26	2.00	-	52.87	12.20	0.87	31.90
QP	192.96M	36.51	43.50	-6.99	-15.51	3	Vertical	256	1.00	-	52.02	14.84	1.63	31.98
QP	445.16M	38.40	46.00	-7.60	-6.98	3	Vertical	152	1.25	-	45.38	22.60	2.69	32.27
QP	452.92M	40.55	46.00	-5.45	-6.87	3	Vertical	162	1.25	-	47.42	22.70	2.71	32.28

Mode 4



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	37.76M	25.93	40.00	-14.07	-11.10	3	Horizontal	79	1.50	-	37.03	19.97	0.56	31.63
QP	202.66M	29.54	43.50	-13.96	-15.24	3	Horizontal	120	3.00	-	44.78	15.04	1.71	31.99
QP	418.97M	30.43	46.00	-15.57	-7.10	3	Horizontal	127	1.00	-	37.53	22.48	2.64	32.22
QP	442.25M	30.78	46.00	-15.22	-7.03	3	Horizontal	118	1.00	-	37.81	22.56	2.68	32.27
QP	663.41M	34.12	46.00	-11.88	-4.70	3	Horizontal	360	1.50	-	38.82	24.52	3.35	32.57
QP	893.3M	35.25	46.00	-10.75	-2.18	3	Horizontal	307	1.00	"Worst"	37.43	26.22	4.25	32.65



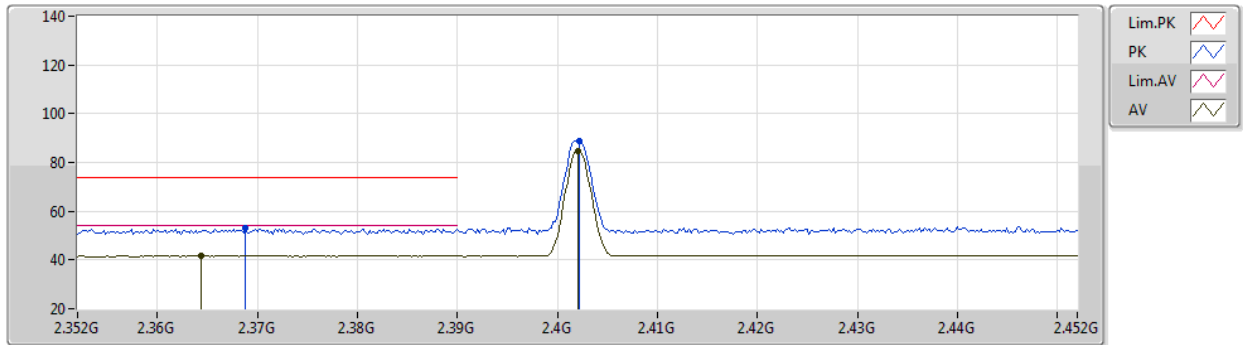
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	AV	2.4835G	46.79	54.00	-7.21	3	Horizontal	204	1.80	-

BT-BR(1Mbps)

20/03/2021

2402MHz_TX



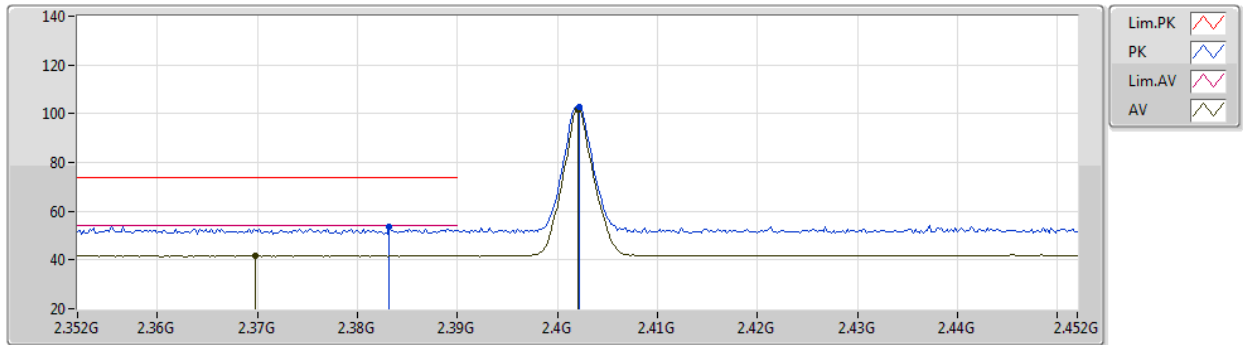
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3688G	53.02	74.00	-20.98	23.51	3	Vertical	89	1.63	-	27.34	2.17	-
AV	2.3644G	41.87	54.00	-12.13	12.38	3	Vertical	89	1.63	-	27.33	2.16	-
PK	2.4022G	88.69	Inf	-Inf	59.09	3	Vertical	89	1.63	-	27.40	2.20	-
AV	2.402G	84.70	Inf	-Inf	55.10	3	Vertical	89	1.63	-	27.40	2.20	-

BT-BR(1Mbps)

20/03/2021

2402MHz_TX



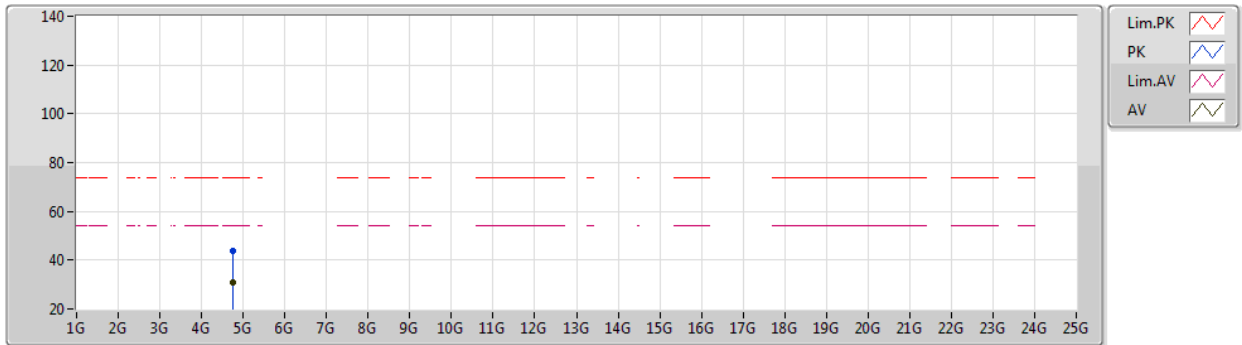
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3832G	53.79	74.00	-20.21	24.24	3	Horizontal	212	2.12	-	27.37	2.18	-
AV	2.3698G	41.80	54.00	-12.20	12.29	3	Horizontal	212	2.12	-	27.34	2.17	-
PK	2.4022G	102.84	Inf	-Inf	73.24	3	Horizontal	212	2.12	-	27.40	2.20	-
AV	2.402G	101.97	Inf	-Inf	72.37	3	Horizontal	212	2.12	-	27.40	2.20	-

BT-BR(1Mbps)

20/03/2021

2402MHz_TX



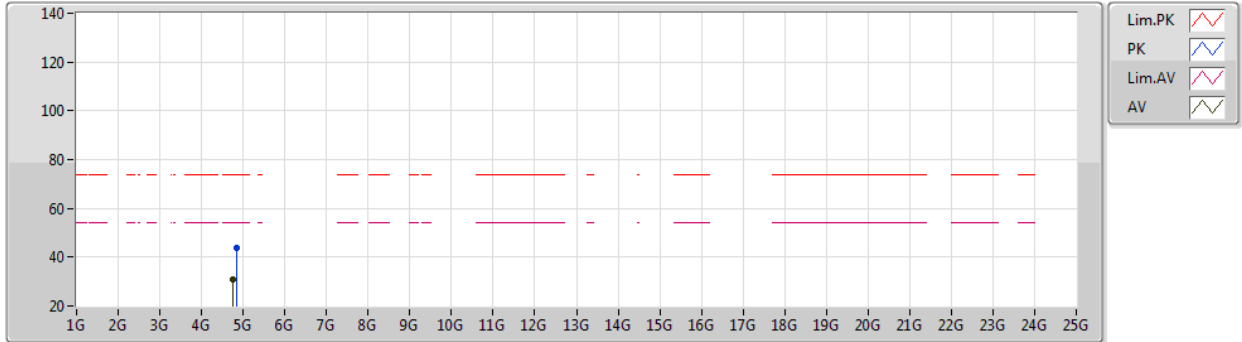
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.7546G	43.87	74.00	-30.13	41.31	3	Vertical	115	1.48	-	32.19	4.95	34.58
AV	4.7664G	31.01	54.00	-22.99	28.44	3	Vertical	115	1.48	-	32.17	4.97	34.57

BT-BR(1Mbps)

20/03/2021

2402MHz_TX



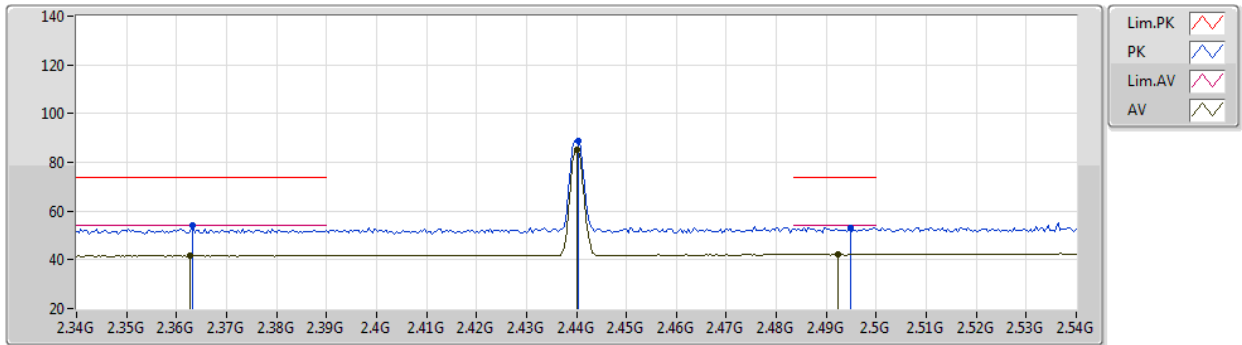
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8494G	43.89	74.00	-30.11	41.01	3	Horizontal	77	1.18	-	32.40	5.02	34.54
AV	4.7642G	31.01	54.00	-22.99	28.45	3	Horizontal	77	1.18	-	32.17	4.96	34.57

BT-BR(1Mbps)

20/03/2021

2440MHz_TX



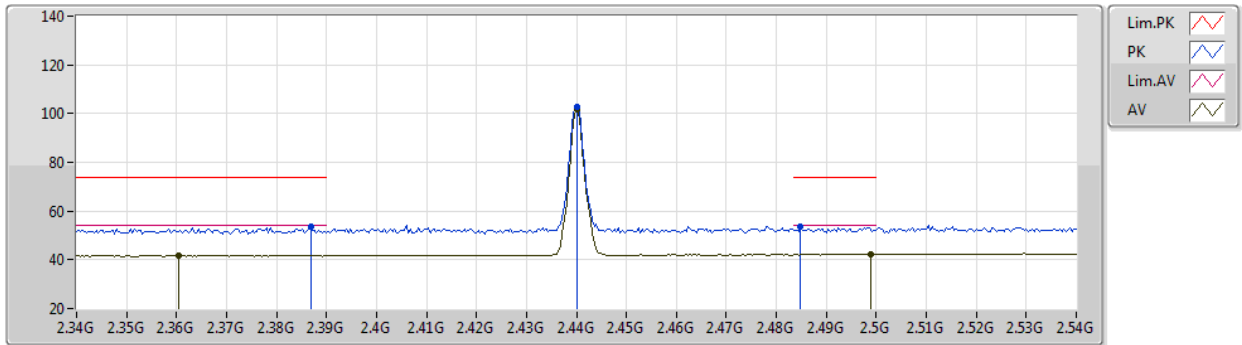
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3632G	54.02	74.00	-19.98	24.53	3	Vertical	90	1.45	-	27.33	2.16	-
AV	2.3628G	41.74	54.00	-12.26	12.25	3	Vertical	90	1.45	-	27.33	2.16	-
PK	2.4404G	89.04	Inf	-Inf	59.32	3	Vertical	90	1.45	-	27.48	2.24	-
AV	2.44G	85.03	Inf	-Inf	55.31	3	Vertical	90	1.45	-	27.48	2.24	-
PK	2.4948G	53.34	74.00	-20.66	23.28	3	Vertical	90	1.45	-	27.77	2.29	-
AV	2.4924G	42.30	54.00	-11.70	12.26	3	Vertical	90	1.45	-	27.75	2.29	-

BT-BR(1Mbps)

20/03/2021

2440MHz_TX



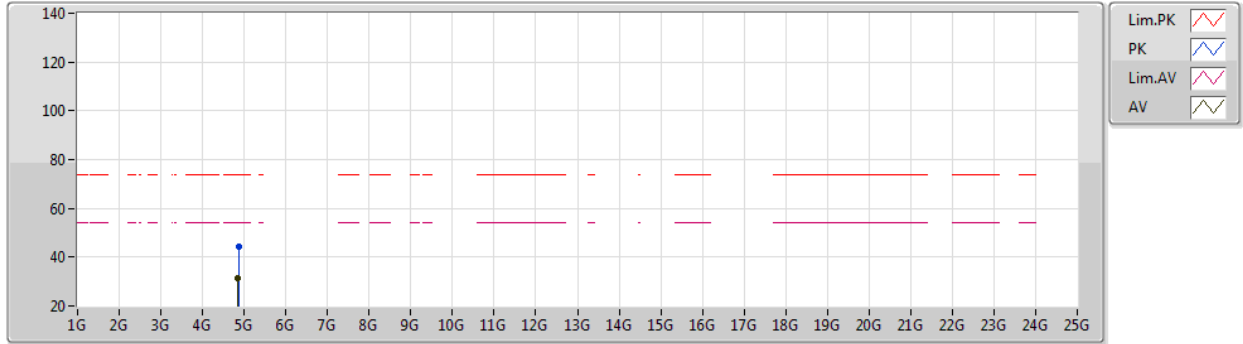
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3868G	53.46	74.00	-20.54	23.90	3	Horizontal	210	1.80	-	27.37	2.19	-
AV	2.3604G	41.71	54.00	-12.29	12.23	3	Horizontal	210	1.80	-	27.32	2.16	-
PK	2.44G	102.52	Inf	-Inf	72.80	3	Horizontal	210	1.80	-	27.48	2.24	-
AV	2.44G	101.54	Inf	-Inf	71.82	3	Horizontal	210	1.80	-	27.48	2.24	-
PK	2.4848G	53.54	74.00	-20.46	23.55	3	Horizontal	210	1.80	-	27.71	2.28	-
AV	2.4988G	42.36	54.00	-11.64	12.27	3	Horizontal	210	1.80	-	27.79	2.30	-

BT-BR(1Mbps)

20/03/2021

2440MHz_TX



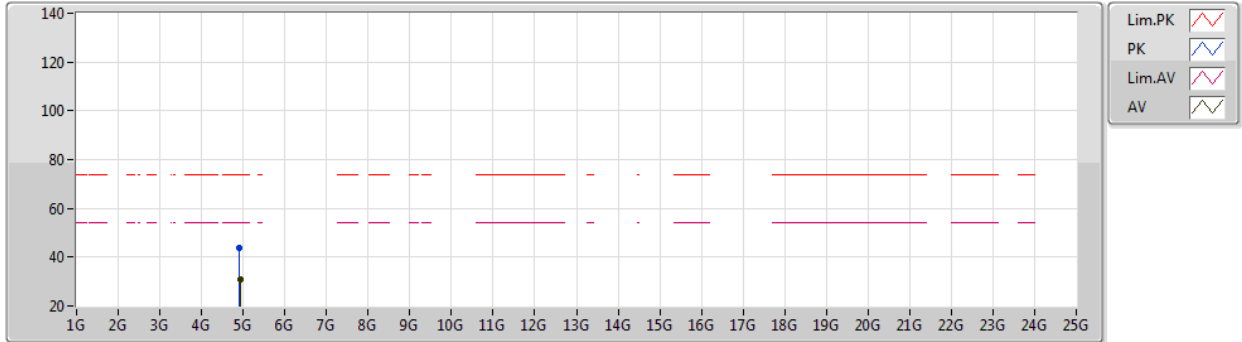
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.862G	44.10	74.00	-29.90	41.18	3	Vertical	14	2.19	-	32.42	5.03	34.53
AV	4.8496G	31.13	54.00	-22.87	28.25	3	Vertical	14	2.19	-	32.40	5.02	34.54

BT-BR(1Mbps)

20/03/2021

2440MHz_TX



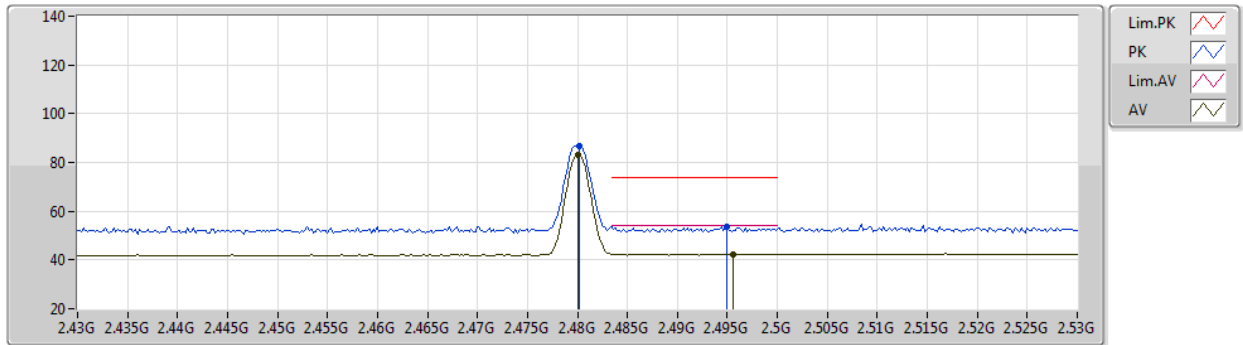
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9028G	43.54	74.00	-30.46	40.48	3	Horizontal	314	1.87	-	32.52	5.05	34.51
AV	4.928G	30.99	54.00	-23.01	27.76	3	Horizontal	314	1.87	-	32.67	5.06	34.50

BT-BR(1Mbps)

20/03/2021

2480MHz_TX



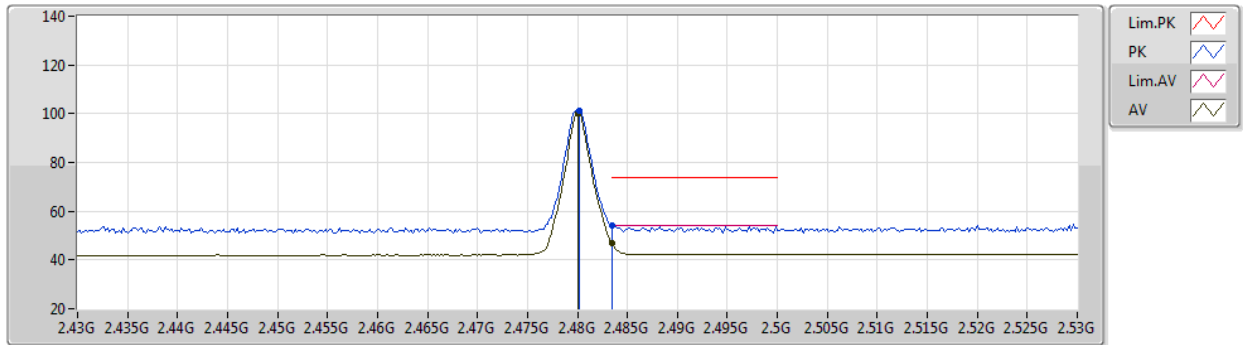
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4802G	86.92	Inf	-Inf	56.96	3	Vertical	93	1.85	-	27.68	2.28	-
AV	2.48G	83.06	Inf	-Inf	53.10	3	Vertical	93	1.85	-	27.68	2.28	-
PK	2.495G	53.74	74.00	-20.26	23.68	3	Vertical	93	1.85	-	27.77	2.29	-
AV	2.4956G	42.35	54.00	-11.65	12.28	3	Vertical	93	1.85	-	27.77	2.30	-

BT-BR(1Mbps)

20/03/2021

2480MHz_TX



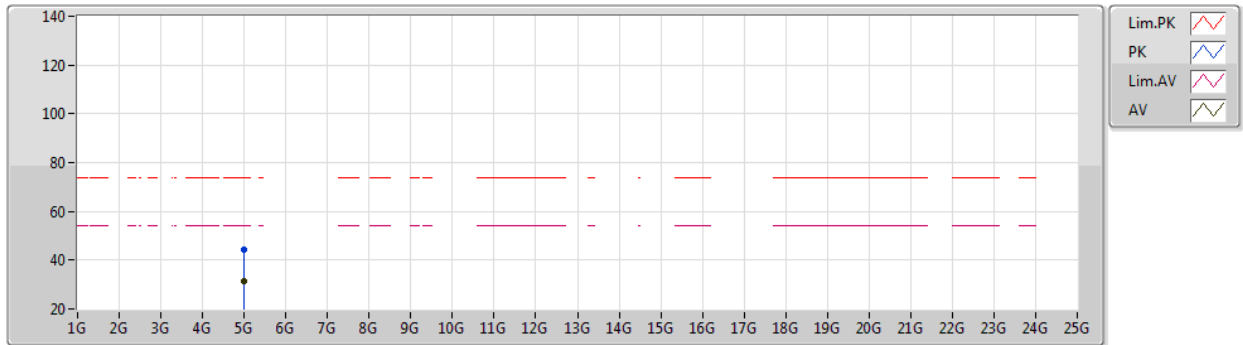
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4802G	101.02	Inf	-Inf	71.06	3	Horizontal	204	1.80	-	27.68	2.28	-
AV	2.48G	100.15	Inf	-Inf	70.19	3	Horizontal	204	1.80	-	27.68	2.28	-
PK	2.4835G	54.07	74.00	-19.93	24.09	3	Horizontal	204	1.80	-	27.70	2.28	-
AV	2.4835G	46.79	54.00	-7.21	16.81	3	Horizontal	204	1.80	-	27.70	2.28	-

BT-BR(1Mbps)

20/03/2021

2480MHz_TX



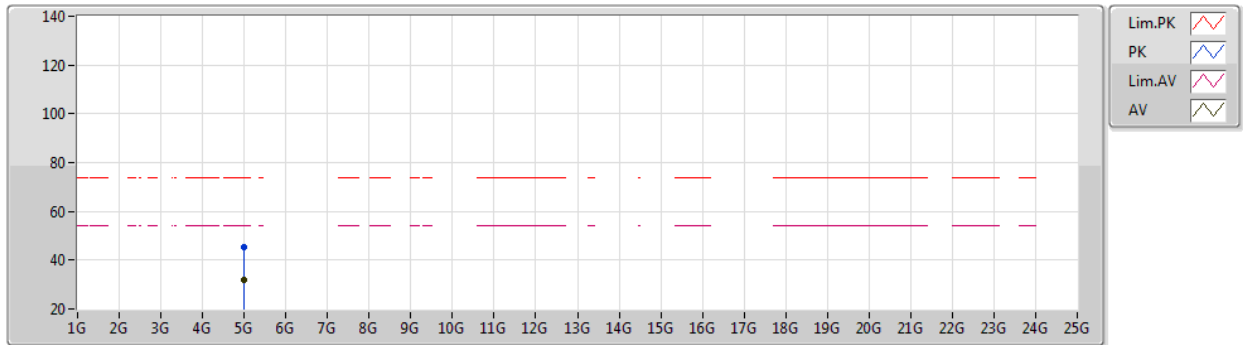
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Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9998G	44.48	74.00	-29.52	41.15	3	Vertical	208	2.24	-	32.70	5.10	34.47
AV	5.01G	31.37	54.00	-22.63	28.06	3	Vertical	208	2.24	-	32.68	5.10	34.47

BT-BR(1Mbps)

20/03/2021

2480MHz_TX



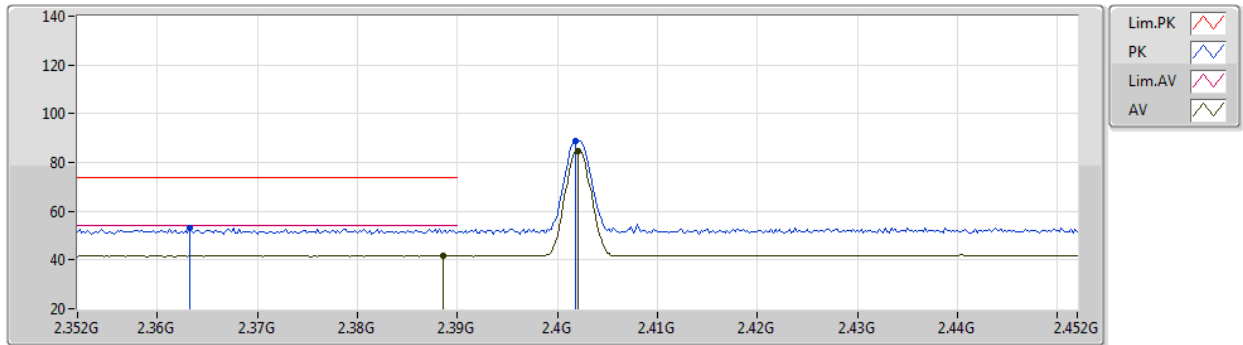
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9962G	45.14	74.00	-28.86	41.80	3	Horizontal	132	1.79	-	32.71	5.10	34.47
AV	5.0082G	31.67	54.00	-22.33	28.36	3	Horizontal	132	1.79	-	32.68	5.10	34.47

BT-EDR(3Mbps)

20/03/2021

2402MHz_TX



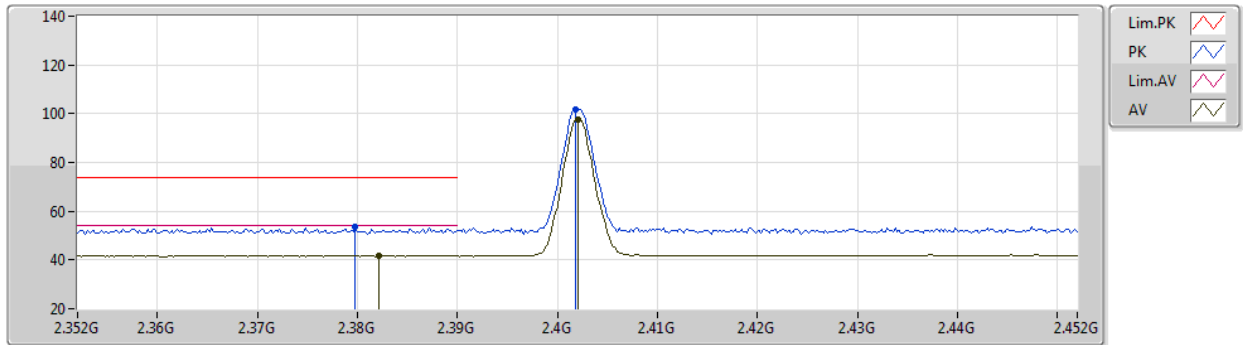
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3632G	53.19	74.00	-20.81	23.70	3	Vertical	89	1.64	-	27.33	2.16	-
AV	2.3886G	41.78	54.00	-12.22	12.21	3	Vertical	89	1.64	-	27.38	2.19	-
PK	2.4018G	88.71	Inf	-Inf	59.11	3	Vertical	89	1.64	-	27.40	2.20	-
AV	2.402G	84.68	Inf	-Inf	55.08	3	Vertical	89	1.64	-	27.40	2.20	-

BT-EDR(3Mbps)

20/03/2021

2402MHz_TX



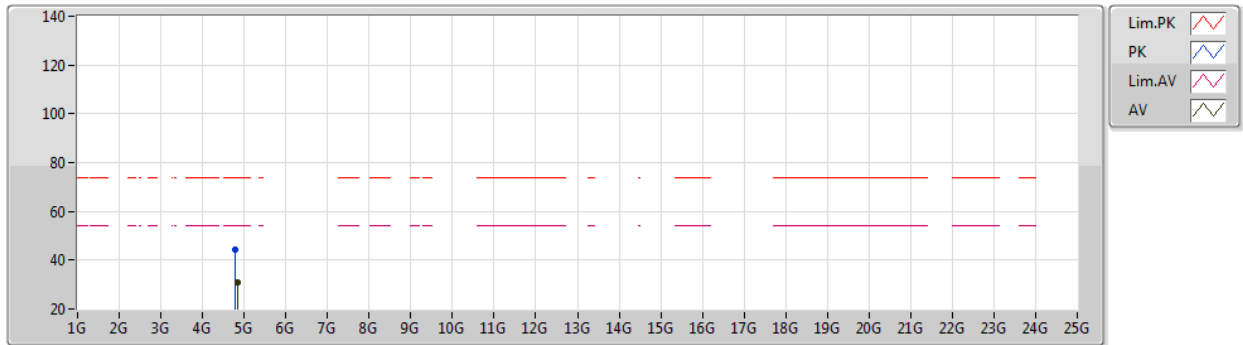
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3798G	53.50	74.00	-20.50	23.96	3	Horizontal	211	2.13	-	27.36	2.18	-
AV	2.3822G	41.86	54.00	-12.14	12.32	3	Horizontal	211	2.13	-	27.36	2.18	-
PK	2.4018G	101.65	Inf	-Inf	72.05	3	Horizontal	211	2.13	-	27.40	2.20	-
AV	2.402G	97.67	Inf	-Inf	68.07	3	Horizontal	211	2.13	-	27.40	2.20	-

BT-EDR(3Mbps)

20/03/2021

2402MHz_TX



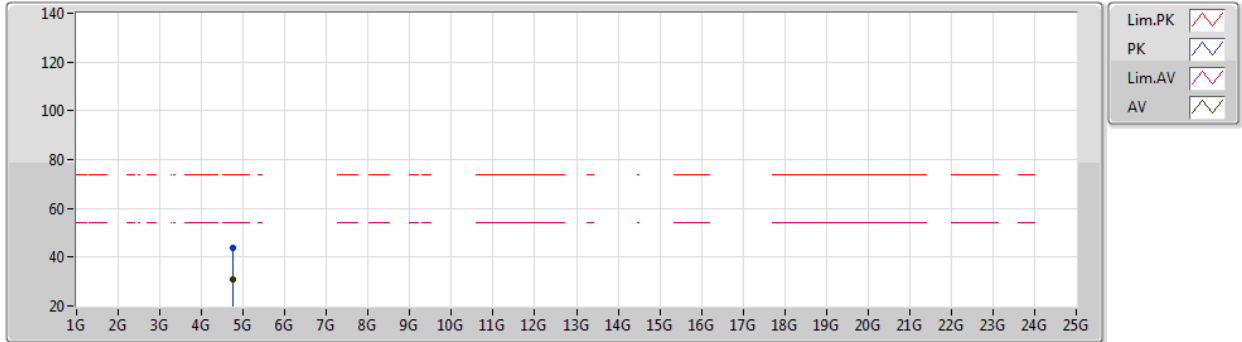
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.7786G	44.36	74.00	-29.64	41.81	3	Vertical	157	1.84	-	32.14	4.98	34.57
AV	4.848G	31.07	54.00	-22.93	28.20	3	Vertical	157	1.84	-	32.39	5.02	34.54

BT-EDR(3Mbps)

20/03/2021

2402MHz_TX



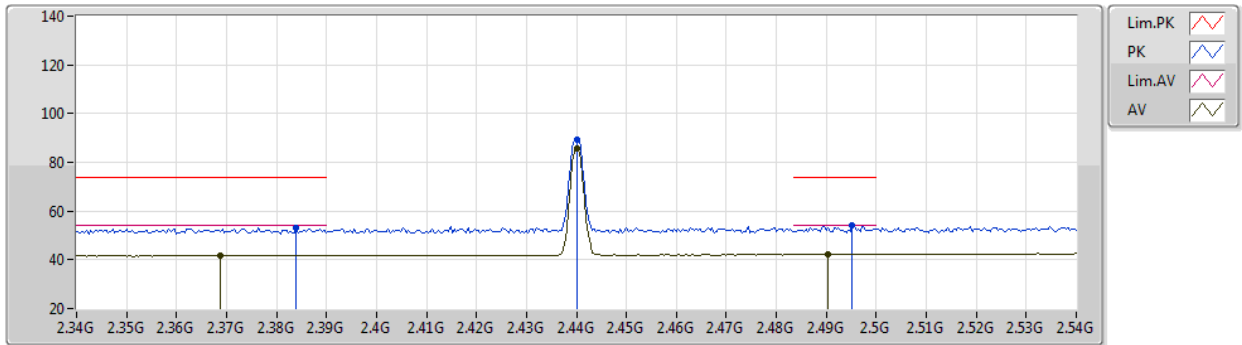
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.7556G	43.69	74.00	-30.31	41.12	3	Horizontal	196	1.48	-	32.19	4.96	34.58
AV	4.7648G	31.11	54.00	-22.89	28.55	3	Horizontal	196	1.48	-	32.17	4.96	34.57

BT-EDR(3Mbps)

20/03/2021

2440MHz_TX



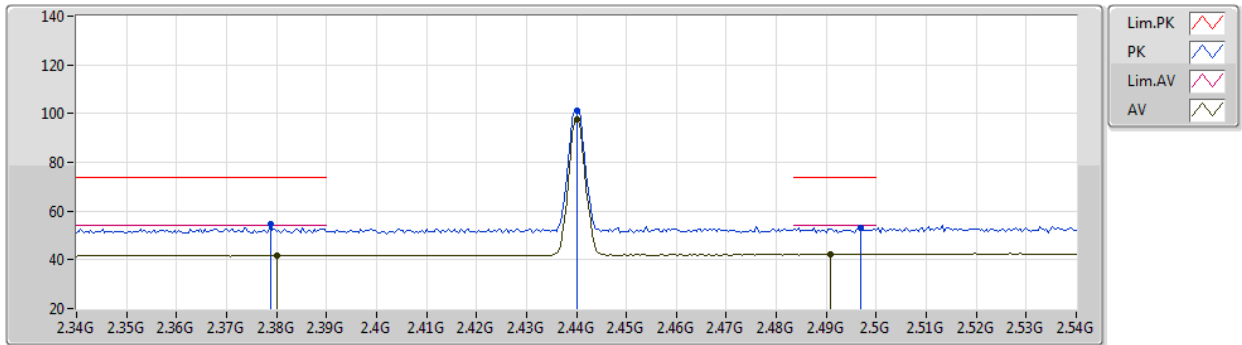
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.384G	53.18	74.00	-20.82	23.63	3	Vertical	92	1.13	-	27.37	2.18	-
AV	2.3688G	41.80	54.00	-12.20	12.29	3	Vertical	92	1.13	-	27.34	2.17	-
PK	2.44G	89.45	Inf	-Inf	59.73	3	Vertical	92	1.13	-	27.48	2.24	-
AV	2.44G	85.48	Inf	-Inf	55.76	3	Vertical	92	1.13	-	27.48	2.24	-
PK	2.4952G	53.93	74.00	-20.07	23.86	3	Vertical	92	1.13	-	27.77	2.30	-
AV	2.4904G	42.30	54.00	-11.70	12.27	3	Vertical	92	1.13	-	27.74	2.29	-

BT-EDR(3Mbps)

20/03/2021

2440MHz_TX



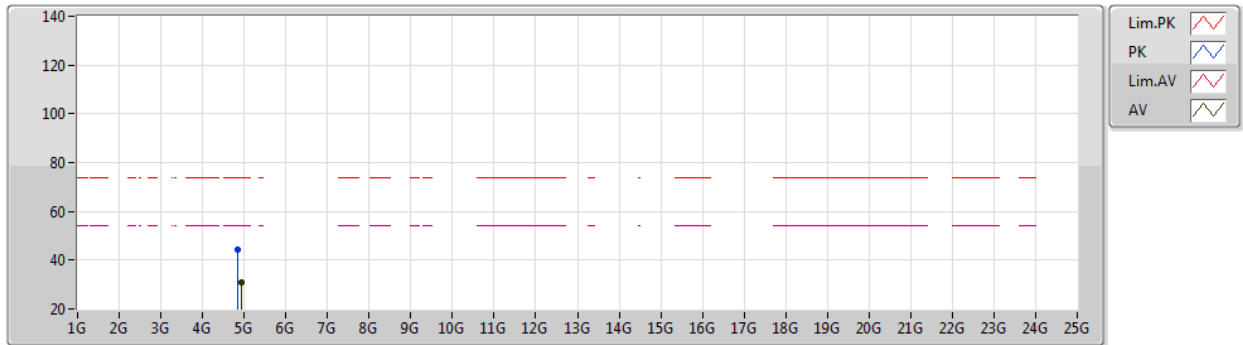
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3788G	54.65	74.00	-19.35	25.11	3	Horizontal	212	1.80	-	27.36	2.18	-
AV	2.38G	41.88	54.00	-12.12	12.34	3	Horizontal	212	1.80	-	27.36	2.18	-
PK	2.44G	101.45	Inf	-Inf	71.73	3	Horizontal	212	1.80	-	27.48	2.24	-
AV	2.44G	97.50	Inf	-Inf	67.78	3	Horizontal	212	1.80	-	27.48	2.24	-
PK	2.4968G	53.34	74.00	-20.66	23.26	3	Horizontal	212	1.80	-	27.78	2.30	-
AV	2.4908G	42.37	54.00	-11.63	12.34	3	Horizontal	212	1.80	-	27.74	2.29	-

BT-EDR(3Mbps)

20/03/2021

2440MHz_TX



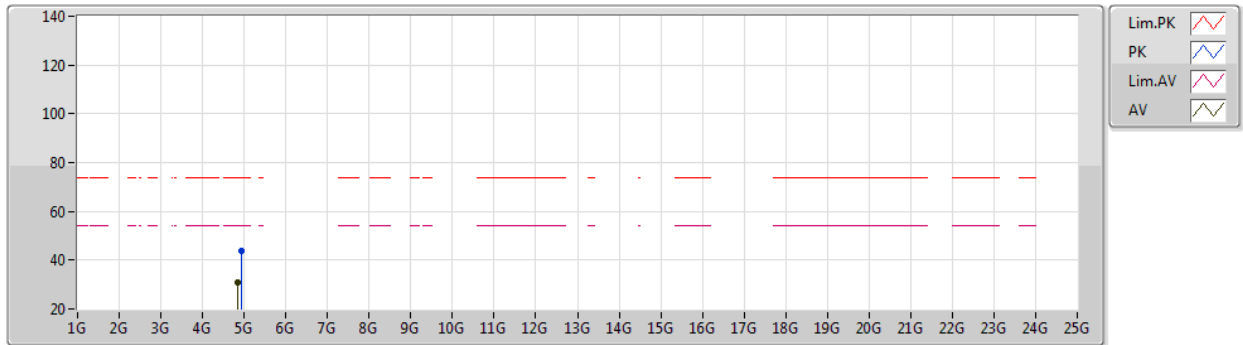
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.843G	44.12	74.00	-29.88	41.28	3	Vertical	174	1.54	-	32.36	5.02	34.54
AV	4.9298G	31.10	54.00	-22.90	27.86	3	Vertical	174	1.54	-	32.68	5.06	34.50

BT-EDR(3Mbps)

20/03/2021

2440MHz_TX



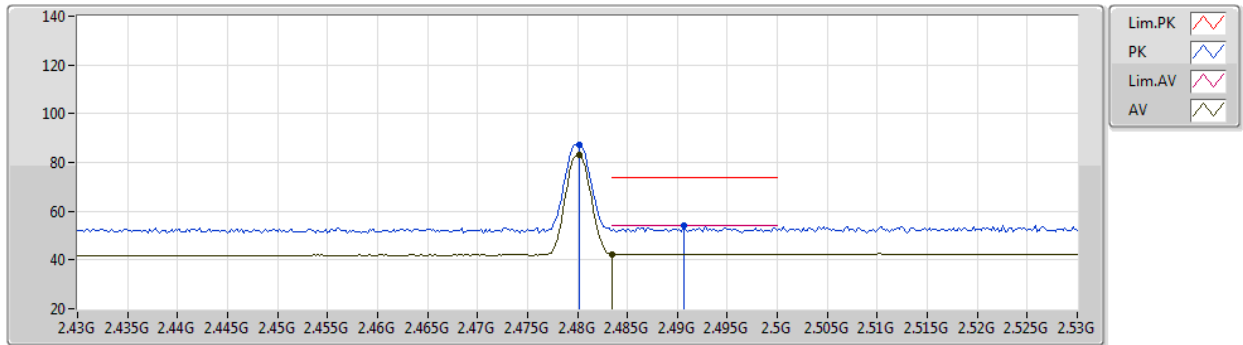
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9232G	43.92	74.00	-30.08	40.72	3	Horizontal	84	1.58	-	32.64	5.06	34.50
AV	4.8512G	30.91	54.00	-23.09	28.02	3	Horizontal	84	1.58	-	32.40	5.03	34.54

BT-EDR(3Mbps)

20/03/2021

2480MHz_TX



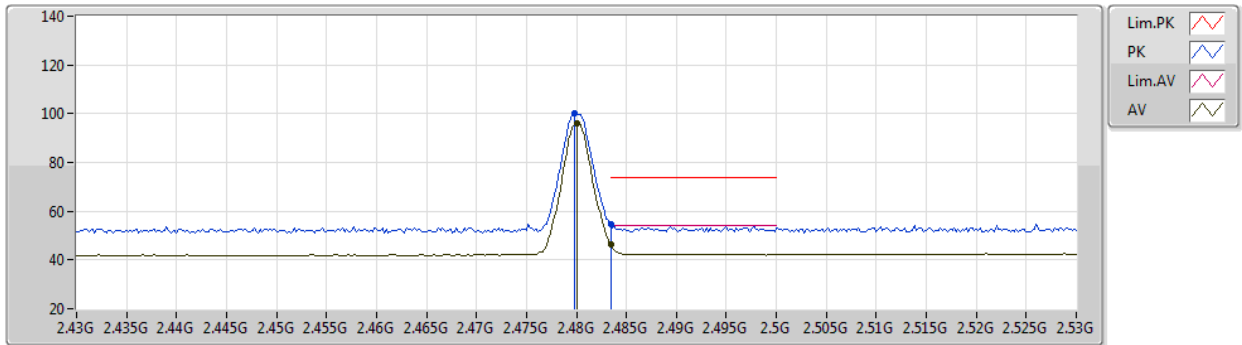
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4802G	87.09	Inf	-Inf	57.13	3	Vertical	92	1.84	-	27.68	2.28	-
AV	2.4802G	83.09	Inf	-Inf	53.13	3	Vertical	92	1.84	-	27.68	2.28	-
PK	2.4906G	54.16	74.00	-19.84	24.13	3	Vertical	92	1.84	-	27.74	2.29	-
AV	2.4835G	42.38	54.00	-11.62	12.40	3	Vertical	92	1.84	-	27.70	2.28	-

BT-EDR(3Mbps)

20/03/2021

2480MHz_TX



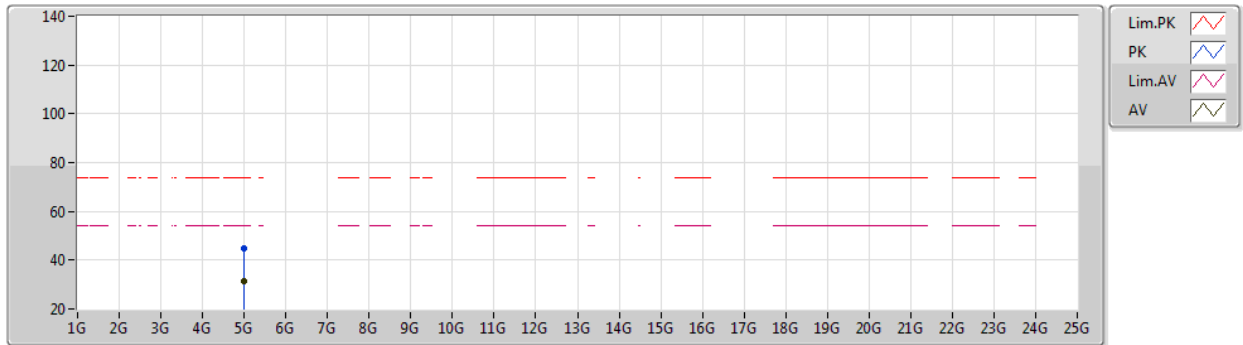
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4798G	99.97	Inf	-Inf	70.01	3	Horizontal	206	2.08	-	27.68	2.28	-
AV	2.48G	95.96	Inf	-Inf	66.00	3	Horizontal	206	2.08	-	27.68	2.28	-
PK	2.4835G	54.48	74.00	-19.52	24.50	3	Horizontal	206	2.08	-	27.70	2.28	-
AV	2.4835G	46.14	54.00	-7.86	16.16	3	Horizontal	206	2.08	-	27.70	2.28	-

BT-EDR(3Mbps)

20/03/2021

2480MHz_TX



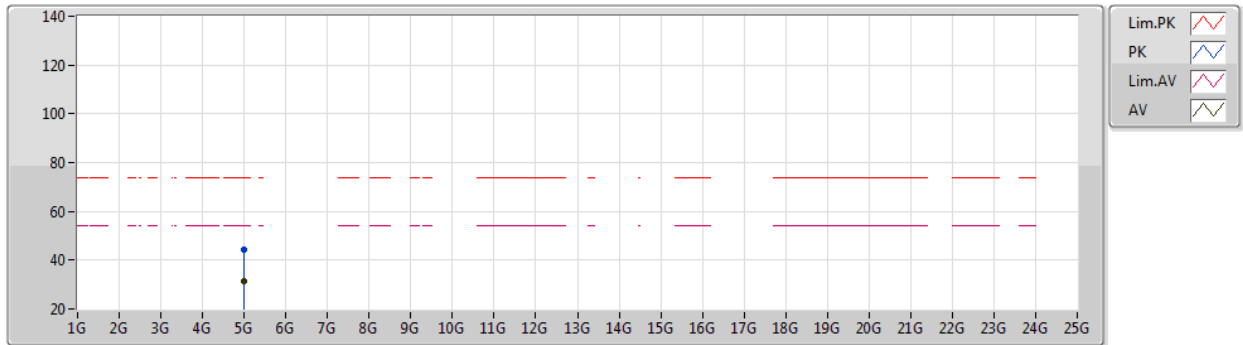
EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9968G	44.68	74.00	-29.32	41.34	3	Vertical	50	1.62	-	32.71	5.10	34.47
AV	4.9826G	31.46	54.00	-22.54	28.12	3	Vertical	50	1.62	-	32.73	5.09	34.48

BT-EDR(3Mbps)

20/03/2021

2480MHz_TX



EUT Y_1TX
Setting 9
01-A-R-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9838G	44.47	74.00	-29.53	41.13	3	Horizontal	286	1.00	-	32.73	5.09	34.48
AV	5.0084G	31.38	54.00	-22.62	28.07	3	Horizontal	286	1.00	-	32.68	5.10	34.47