

FCC Radio Test Report

FCC ID : TTUBEOPLAY500
Equipment : Wireless Headphones
Brand Name : Bang & Olufsen
Model Name : Beoplay 500
Applicant : Bang & Olufsen A/S
Bang og Olufsen Allé 1, 7600 Struer, Denmark
Manufacturer : Bang & Olufsen A/S
Bang og Olufsen Allé 1, 7600 Struer, Denmark
Standard : 47 CFR FCC Part 15.247

The product was received on Nov. 19, 2021, and testing was started from Dec. 07, 2021 and completed on Dec. 14, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua 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. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



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PHOTOGRAPHS OF EUT V01

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 Bandedge	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:
None

Reviewed by: Sam Tsai
Report Producer: Jenny Yang

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.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Sage Elephant Tech co., Ltd.	S306300001000-A	Chip	N/A	0.81

Note 1: The EUT has one antenna.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Only Ant. 1 can be used as transmitting/receiving.



1.1.3 EUT Information

Operational Condition	
EUT Power Type	From AC Adapter / From Host system / Battery
EUT Function	<input checked="" type="checkbox"/> Point-to-multipoint <input type="checkbox"/> Point-to-point
Type of EUT	
<input checked="" type="checkbox"/>	Stand-alone
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)
	Combined Equipment - Brand Name / Model No.: ...
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)
	Host System - Brand Name / Model No.: ...
<input type="checkbox"/>	Other:

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-BR(1Mbps)	0.318	4.98	396.875u	3k
BT-EDR(2Mbps)	0.829	0.81	2.899m	1k
BT-EDR(3Mbps)	0.83	0.81	2.9m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

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
- ◆ ANSI C63.10-2013

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

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

1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
<input checked="" type="checkbox"/> Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward Wang	21.5~22.0°C / 50~54%	14/Dec/2021
RF Conducted	TH07-HY	Johnny Yu	22.5~26.7°C / 47.8~62.4%	07/Dec/2021
<input checked="" type="checkbox"/> Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		FAX: 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated	03CH09-HY	Daniel Hsu	22.9~23.6°C / 48~62%	08/Dec/2021~09/Dec/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))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%



2 Test Configuration of EUT




2.1 Test Channel Mode

Test Software Version	BlueTest 3
Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	5
2440MHz	5
2480MHz	5
BT-EDR(2Mbps)	-
2402MHz	5
2440MHz	5
2480MHz	5
BT-EDR(3Mbps)	-
2402MHz	5
2440MHz	5
2480MHz	5

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
1	USB mode, CTX
2	Adapter mode (Charging)

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 <input checked="" type="checkbox"/> Non-adaptive frequency hopping systems (Non-AFH) <input checked="" type="checkbox"/> adaptive frequency hopping systems (AFH)
Non-AFH Mode configuration was found to be the worst case and measured during the test.	

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			
1	USB mode, CTX		
2	Adapter mode (Charging)		
Operating Mode > 1GHz			
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT			V



2.3 Accessories

Accessories				
Battery	Brand Name	Synergy	Model Name	AHB723938PCT
	Power Rating	3.7 Vdc, 1110 mAh	Type	Lithium-ion Polymer Battery Pack
USB Cable	Brand Name	Bang & Olufsen	Model Name	4021XW01810ZCU
	Signal Line	1.2 meter, D-shielded cable, w/o ferrite core		
Audio Cable	Brand Name	Bang & Olufsen	Model Name	4021XW01906ZAS
	Signal Line	1.2 meter, non-shielded cable, w/o ferrite core		

Reminder: Regarding to more detail and other information, please refer to user manual.



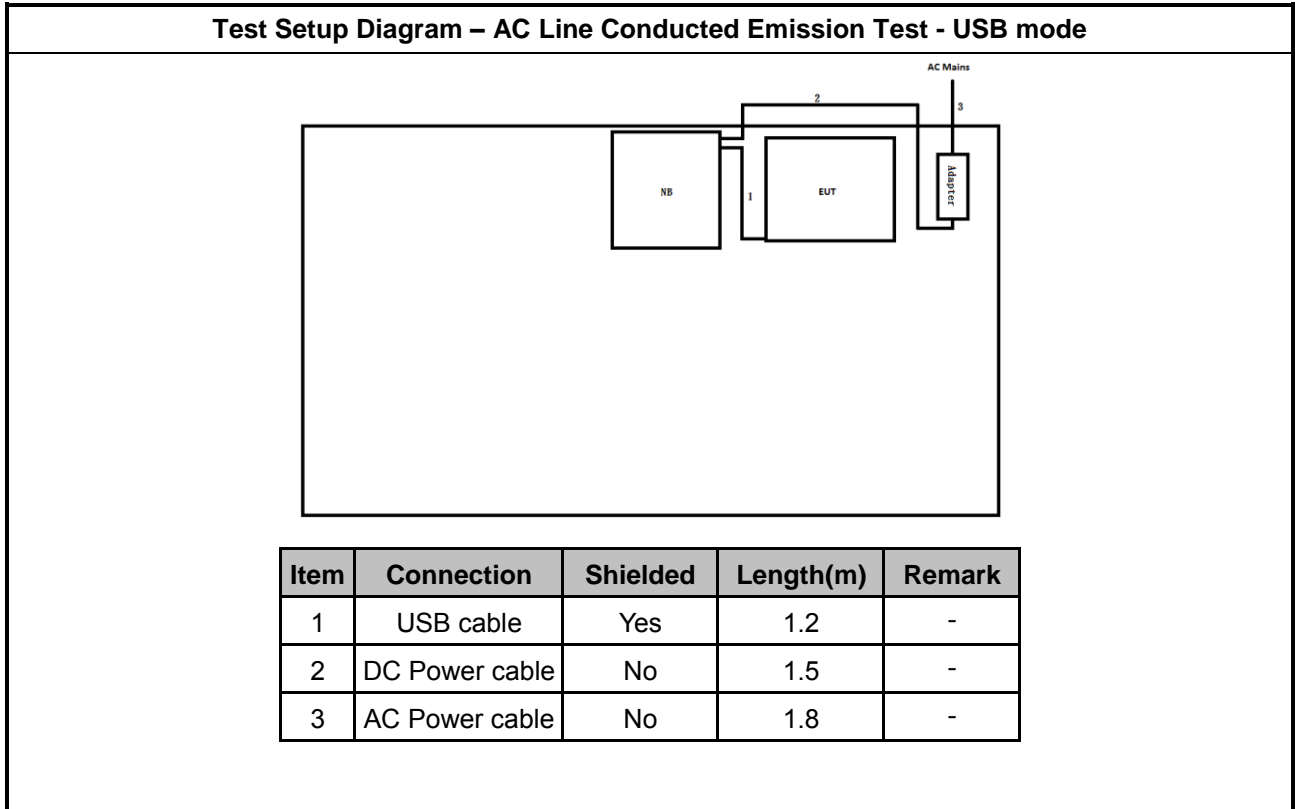
2.4 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	HP	E5220	-	-
2	AC Adapter (for NB)	HP	PPP009D	-	-
3	Mouse(USB)	lenovo	MOGOUO	-	-
4	iPod	Apple	A1199	-	-
5	AC power Cable	Power sync	TPCMRN0018	-	-
6	AC adapter	APPLE	A1385	-	-
7	30-pin to USB Original Cable	APPLE	MA591GC	-	-

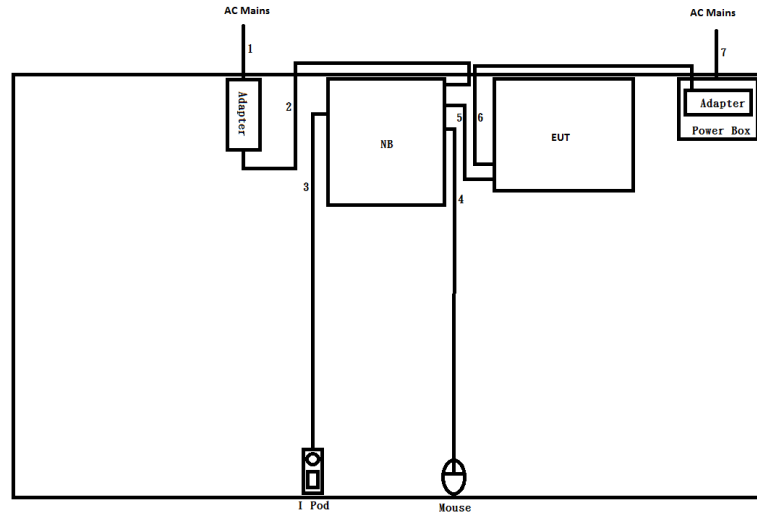
Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	HP	HSTNN-142C	-	-
2	Adapter for NB	HP	HSTNN-CA40	-	-
3	DC Power Supply	GW	GPS-3030DD	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	HP	E5220	-	-
2	AC Adapter (for NB)	HP	PPP009D	-	-
3	Mouse(USB)	lenovo	MOGOUO	-	-
4	iPod	Apple	A1199	-	-
5	AC power Cable	Power sync	TPCMRN0018	-	-
6	AC adapter	APPLE	A1385	-	-
7	30-pin to USB Original Cable	APPLE	MA591GC	-	-

2.5 Test Setup Diagram

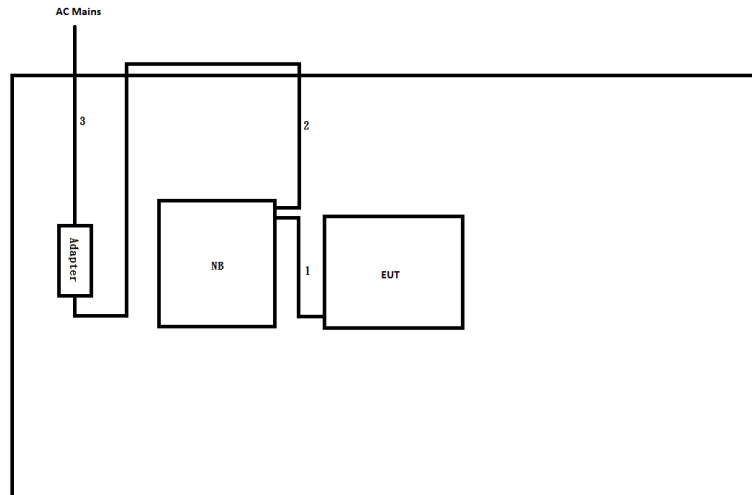


Test Setup Diagram – AC Line Conducted Emission Test - Adapter mode



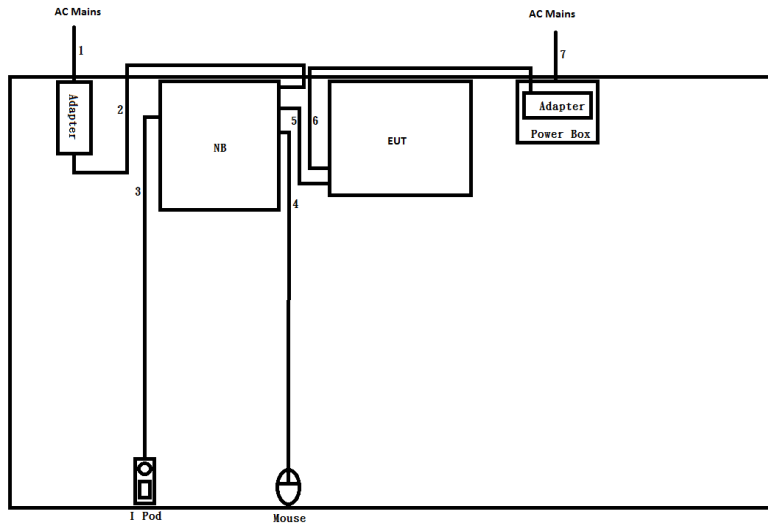
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	Yes	1.8	-
2	DC Power cable	No	1.5	-
3	30-pin to USB Original Cable	No	1.0	-
4	USB cable	No	1.2	-
5	Audio cable	No	1.2	-
6	USB cable	Yes	1.2	-
7	AC Power cable	Yes	1.8	-

Test Setup Diagram - Radiated Test - USB mode



Item	Connection	Shielded	Length(m)	Remark
1	USB cable	Yes	1.2	-
2	DC Power cable	No	1.5	-
3	AC Power cable	No	1.8	-

Test Setup Diagram - Radiated Test - Adapter mode



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	Yes	1.8	-
2	DC Power cable	No	1.5	-
3	30-pin to USB Original Cable	No	1.0	-
4	USB cable	No	1.2	-
5	Audio cable	No	1.2	-
6	USB cable	Yes	1.2	-
7	AC Power cable	Yes	1.8	-

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

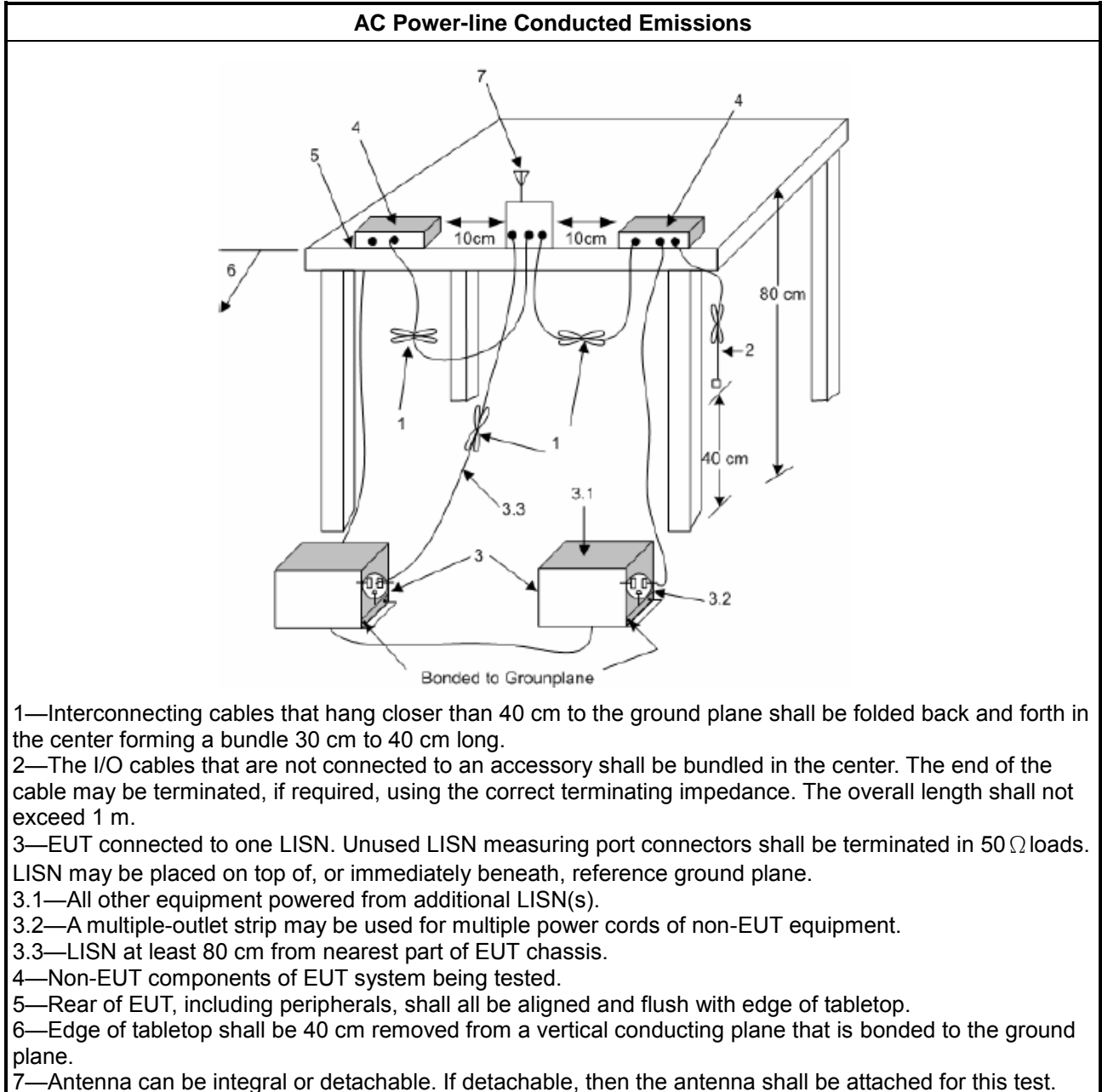
Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 Test Setup



3.1.6 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	
<ul style="list-style-type: none"> 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	<ul style="list-style-type: none"> $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3,25 kHz).
N: Number of Hopping Frequencies; ChS: Hopping Channel Separation	

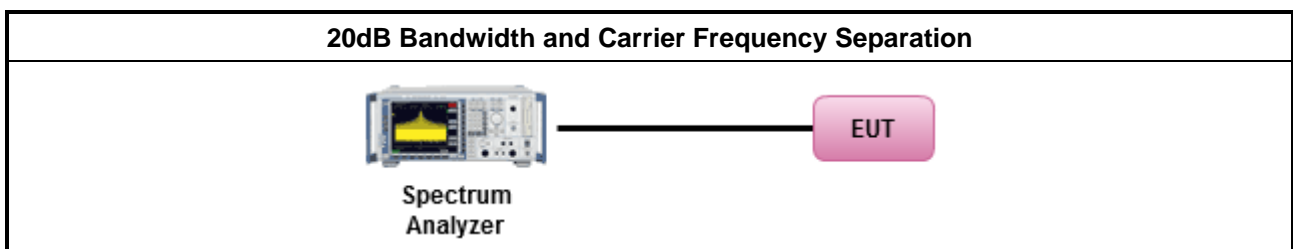
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.
<ul style="list-style-type: none"> 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"> 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
N: Number of Hopping Frequencies	

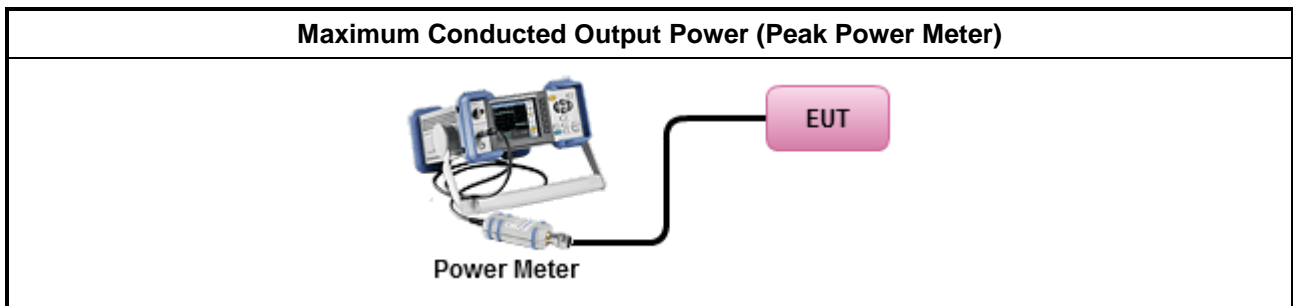
3.3.2 Measuring Instruments

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	
<ul style="list-style-type: none"> ▪ 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> ▪ $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	<ul style="list-style-type: none"> ▪ $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz).
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

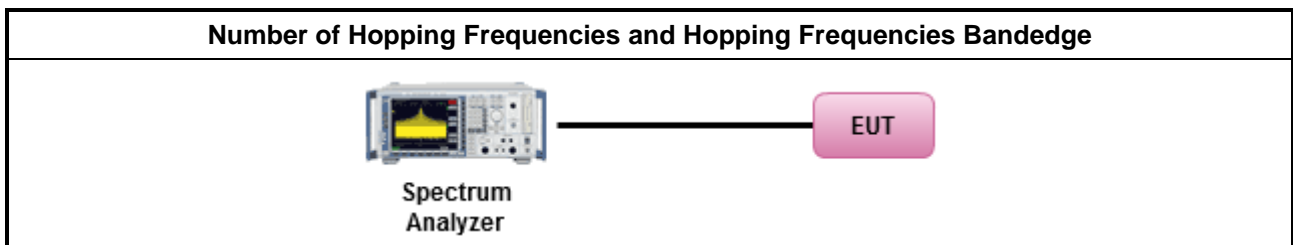
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.
<ul style="list-style-type: none"> ▪ 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

Time of Occupancy (Dwell Time) Limit for Frequency Hopping Systems	
<ul style="list-style-type: none"> 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> $N \geq 75$; 0.4s in $N \times 0.4$ period
	<ul style="list-style-type: none"> $75 > N \geq 15$; 0.4s in $N \times 0.4$ period
N: Number of Hopping Frequencies	

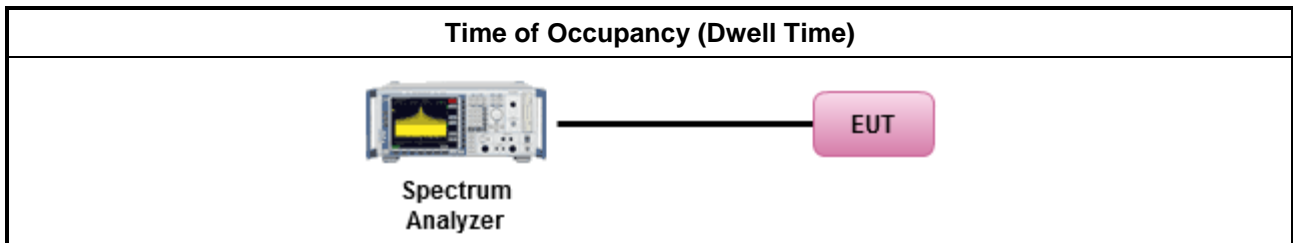
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement. 	
<ul style="list-style-type: none"> 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. 	
	<ul style="list-style-type: none"> 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.	

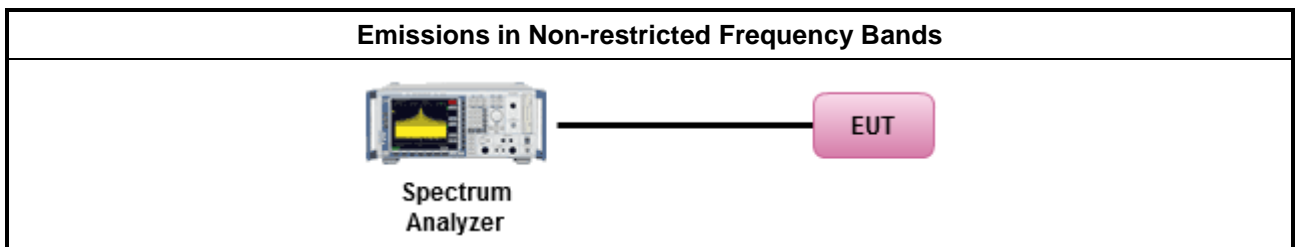
3.6.2 Measuring Instruments

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

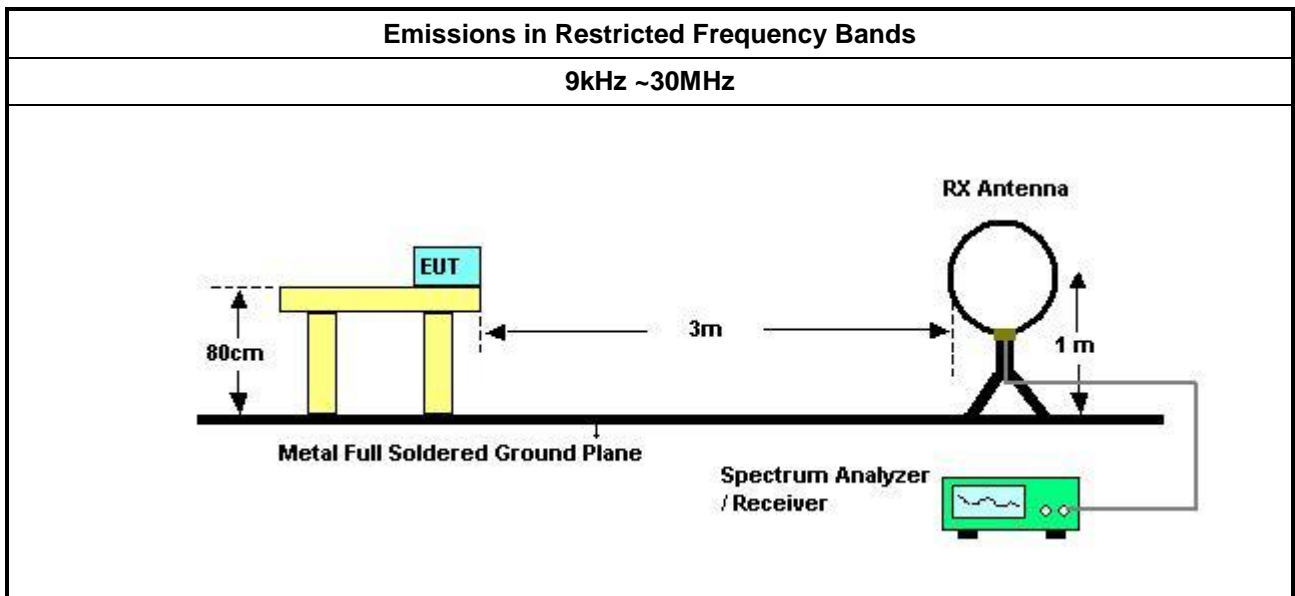
Test Method	
<ul style="list-style-type: none"> The average emission levels shall be measured in [hopping duty factor]. 	
<ul style="list-style-type: none"> Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the 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.
	<ul style="list-style-type: none"> Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.
	<ul style="list-style-type: none"> Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.
<ul style="list-style-type: none"> KDB 414788 Open-Field Test Sites and Chamber Correlation Justification. 	
<ul style="list-style-type: none"> Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field. 	
<ul style="list-style-type: none"> Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result. 	

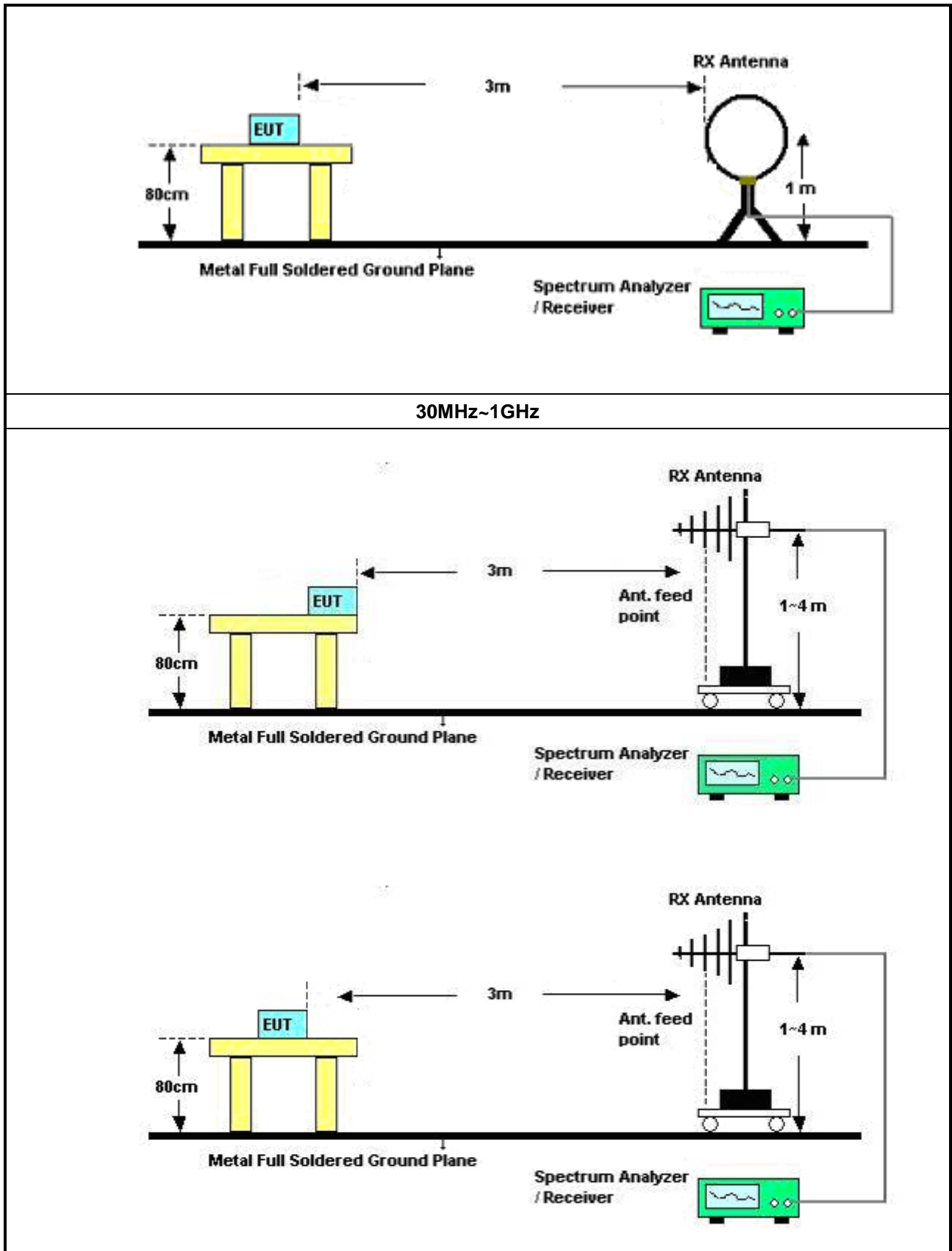
3.7.4 Measurement Results Calculation

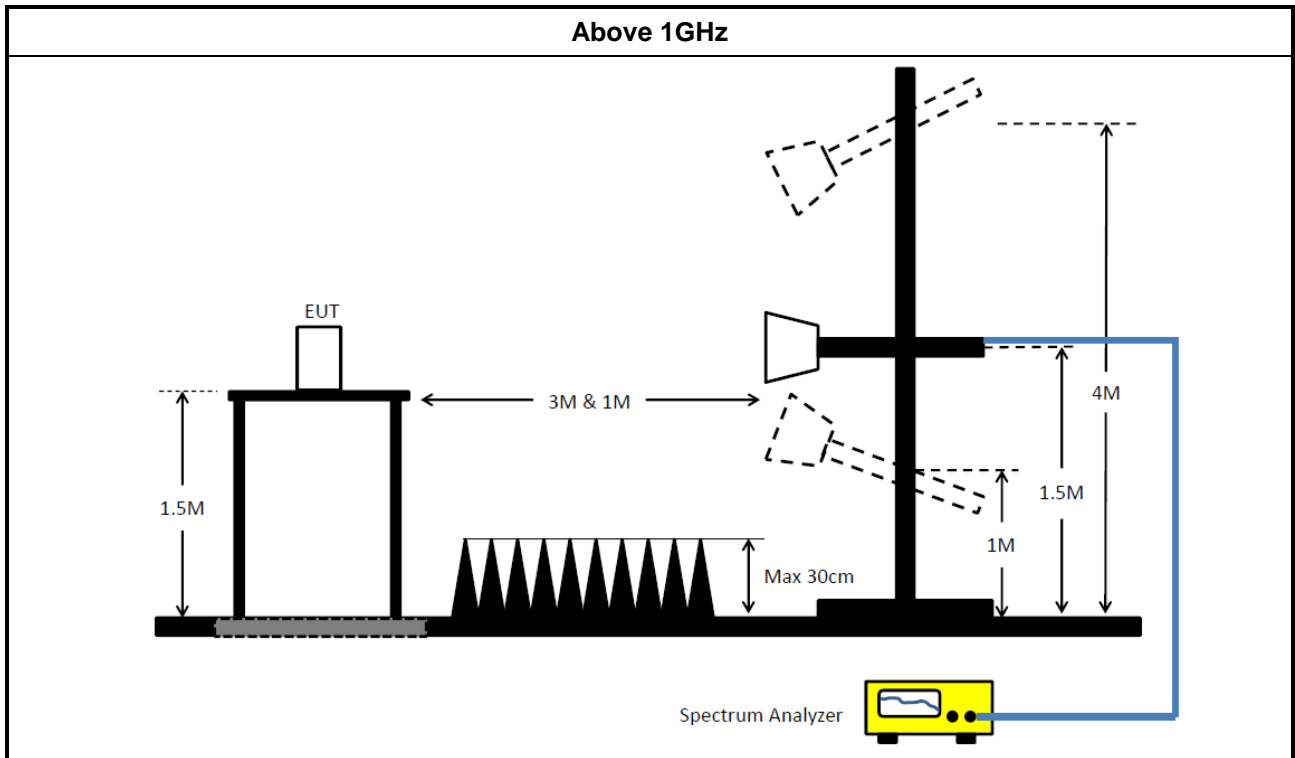
The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.7.5 Test Setup







3.7.6 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

3.7.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G



4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	21/May/2021	20/May/2022
Two-Line V Network (LISN)	R&S	ENV 216	101274	9kHz ~ 30MHz	13/May/2021	12/May/2022
RF Cable 5m	TITAN	TITAN	CO04-cable-01	0.1MHz~200MHz	03/Mar/2021	02/Mar/2022
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	26/Oct/2021	25/Oct/2022
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRO NIK	NSLK 8127	8127477	9kHz ~ 30MHz	25/Feb/2021	24/Feb/2022

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101515	10Hz~40GHz	26/Mar/2021	25/Mar/2022
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	21/Oct/2021	20/Oct/2022
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	25/Mar/2021	24/Mar/2022
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	25/Mar/2021	24/Mar/2022



Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz~1GHz 3m	26/Mar/2021	25/Mar/2022
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	18/Mar/2021	17/Mar/2022
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	13/Aug/2021	12/Aug/2022
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	12/Apr/2021	11/Apr/2022
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	23/Jul/2021	22/Jul/2022
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D&MT J6102-05	35418 & 3	30MHz~1GHz	04/Sep/2021	03/Sep/2022
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	18/May/2021	17/May/2022
RF Cable-low	Jye Bao	RG142	CB031+324530/4	9kHz~30MHz	30/Aug/2021	29/Aug/2022
RF Cable-low	Jye Bao	RG142	CB031+324530/4	30MHz~1GHz	09/Feb/2021	08/Feb/2022
RF CABLE 5m+3m+1m	HUBER+ SUHNER	SUCOFLEX104	CB009	1GHz~40GHz	13/Aug/2021	12/Aug/2022
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	11/Mar/2021	10/Mar/2022
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	09/Mar/2021	08/Mar/2022
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2021	15/Mar/2022
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	19/Apr/2021	18/Apr/2022



Summary

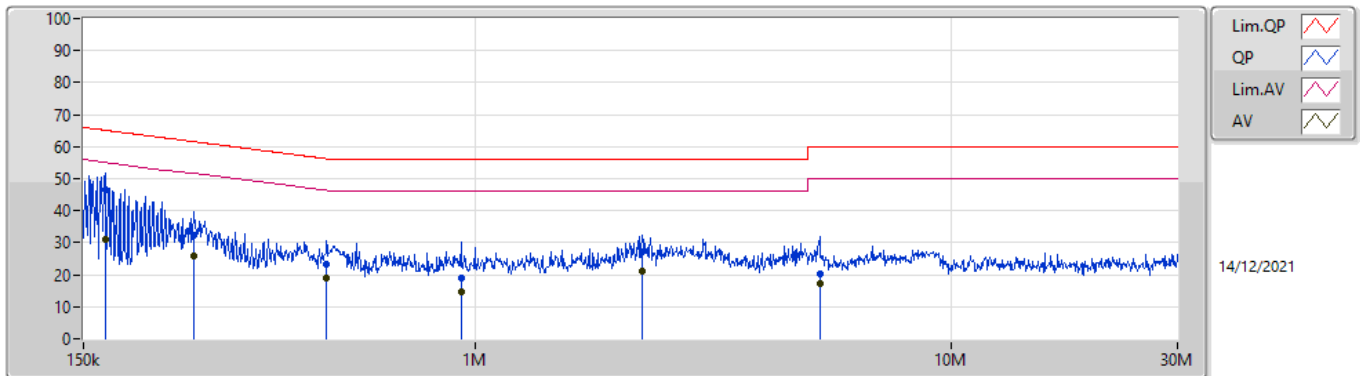
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1.	Pass	QP	156.734k	48.75	65.64	-16.89	Neutral



Result

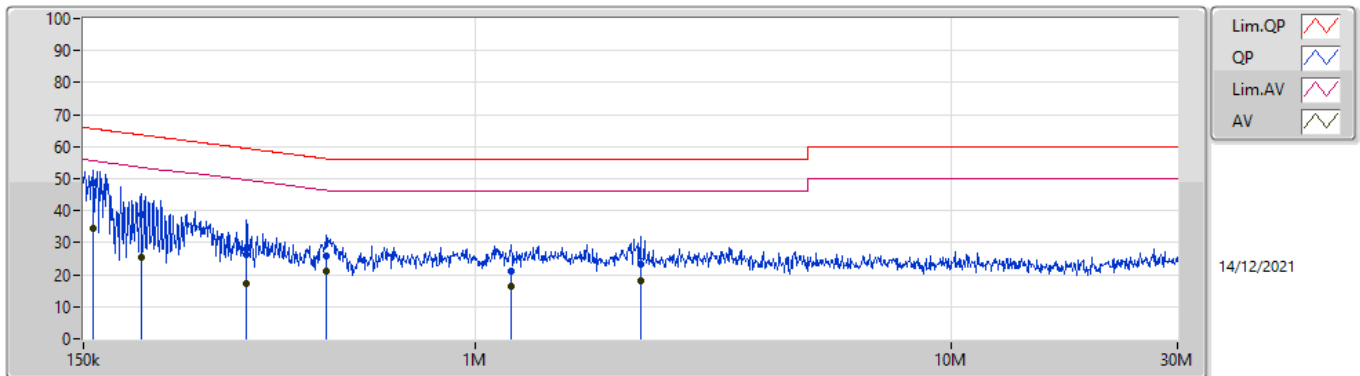
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1.	Pass	QP	166.406k	46.61	65.14	-18.53	Line	-
Mode 1.	Pass	AV	166.406k	30.93	55.14	-24.21	Line	-
Mode 1.	Pass	QP	256.1k	32.42	61.56	-29.14	Line	-
Mode 1.	Pass	AV	256.1k	25.87	51.56	-25.69	Line	-
Mode 1.	Pass	QP	487.008k	23.49	56.21	-32.72	Line	-
Mode 1.	Pass	AV	487.008k	19.13	46.21	-27.08	Line	-
Mode 1.	Pass	QP	933.537k	18.82	56.00	-37.18	Line	-
Mode 1.	Pass	AV	933.537k	14.77	46.00	-31.23	Line	-
Mode 1.	Pass	QP	2.247M	27.11	56.00	-28.89	Line	-
Mode 1.	Pass	AV	2.247M	20.93	46.00	-25.07	Line	-
Mode 1.	Pass	QP	5.3M	20.15	60.00	-39.85	Line	-
Mode 1.	Pass	AV	5.3M	17.21	50.00	-32.79	Line	-
Mode 1.	Pass	QP	156.734k	48.75	65.64	-16.89	Neutral	-
Mode 1.	Pass	AV	156.734k	34.60	55.64	-21.04	Neutral	-
Mode 1.	Pass	QP	198.359k	39.00	63.69	-24.69	Neutral	-
Mode 1.	Pass	AV	198.359k	25.56	53.69	-28.13	Neutral	-
Mode 1.	Pass	QP	330.648k	26.27	59.44	-33.17	Neutral	-
Mode 1.	Pass	AV	330.648k	17.18	49.44	-32.26	Neutral	-
Mode 1.	Pass	QP	485.068k	25.91	56.25	-30.34	Neutral	-
Mode 1.	Pass	AV	485.068k	21.06	46.25	-25.19	Neutral	-
Mode 1.	Pass	QP	1.191M	21.08	56.00	-34.92	Neutral	-
Mode 1.	Pass	AV	1.191M	16.22	46.00	-29.78	Neutral	-
Mode 1.	Pass	QP	2.229M	23.34	56.00	-32.66	Neutral	-
Mode 1.	Pass	AV	2.229M	18.21	46.00	-27.79	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	166.406k	46.61	65.14	-18.53	19.64	Line	-	26.97	9.69	0.04	9.91
AV	166.406k	30.93	55.14	-24.21	19.64	Line	-	11.29	9.69	0.04	9.91
QP	256.1k	32.42	61.56	-29.14	19.64	Line	-	12.78	9.68	0.05	9.91
AV	256.1k	25.87	51.56	-25.69	19.64	Line	-	6.23	9.68	0.05	9.91
QP	487.008k	23.49	56.21	-32.72	19.65	Line	-	3.84	9.68	0.06	9.91
AV	487.008k	19.13	46.21	-27.08	19.65	Line	-	-0.52	9.68	0.06	9.91
QP	933.537k	18.82	56.00	-37.18	19.68	Line	-	-0.86	9.68	0.08	9.92
AV	933.537k	14.77	46.00	-31.23	19.68	Line	-	-4.91	9.68	0.08	9.92
QP	2.247M	27.11	56.00	-28.89	19.72	Line	-	7.39	9.69	0.11	9.92
AV	2.247M	20.93	46.00	-25.07	19.72	Line	-	1.21	9.69	0.11	9.92
QP	5.3M	20.15	60.00	-39.85	19.79	Line	-	0.36	9.71	0.16	9.92
AV	5.3M	17.21	50.00	-32.79	19.79	Line	-	-2.58	9.71	0.16	9.92

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	156.734k	48.75	65.64	-16.89	19.64	Neutral	-	29.11	9.69	0.04	9.91
AV	156.734k	34.60	55.64	-21.04	19.64	Neutral	-	14.96	9.69	0.04	9.91
QP	198.359k	39.00	63.69	-24.69	19.62	Neutral	-	19.38	9.67	0.04	9.91
AV	198.359k	25.56	53.69	-28.13	19.62	Neutral	-	5.94	9.67	0.04	9.91
QP	330.648k	26.27	59.44	-33.17	19.63	Neutral	-	6.64	9.67	0.05	9.91
AV	330.648k	17.18	49.44	-32.26	19.63	Neutral	-	-2.45	9.67	0.05	9.91
QP	485.068k	25.91	56.25	-30.34	19.64	Neutral	-	6.27	9.67	0.06	9.91
AV	485.068k	21.06	46.25	-25.19	19.64	Neutral	-	1.42	9.67	0.06	9.91
QP	1.191M	21.08	56.00	-34.92	19.68	Neutral	-	1.40	9.67	0.09	9.92
AV	1.191M	16.22	46.00	-29.78	19.68	Neutral	-	-3.46	9.67	0.09	9.92
QP	2.229M	23.34	56.00	-32.66	19.71	Neutral	-	3.63	9.68	0.11	9.92
AV	2.229M	18.21	46.00	-27.79	19.71	Neutral	-	-1.50	9.68	0.11	9.92



Summary

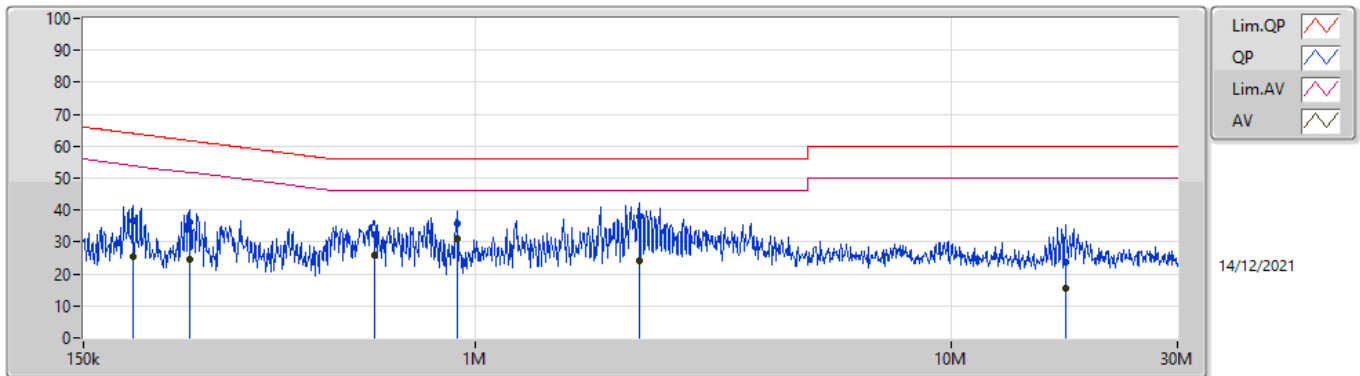
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	AV	2.15M	31.07	46.00	-14.93	Neutral



Result

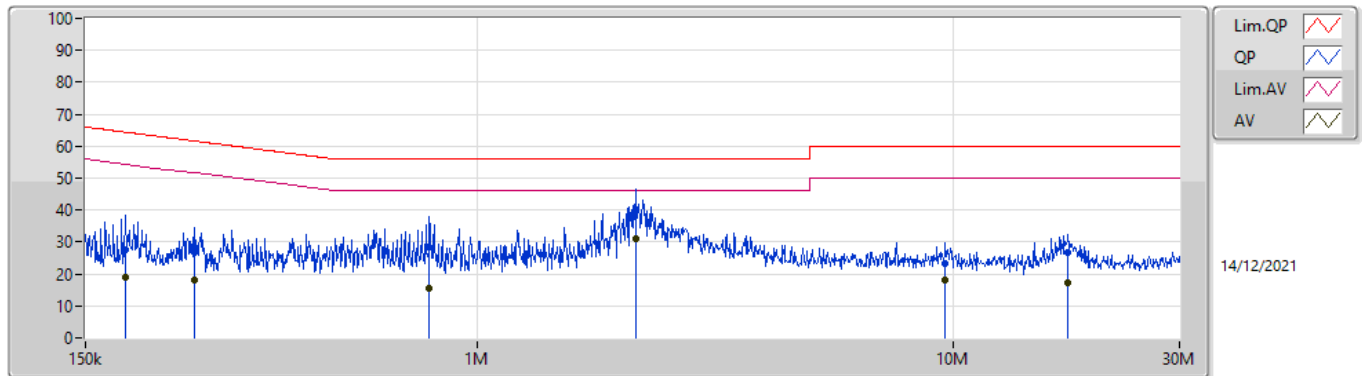
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 2	Pass	QP	190.596k	36.67	64.01	-27.34	Line	-
Mode 2	Pass	AV	190.596k	25.47	54.01	-28.54	Line	-
Mode 2	Pass	QP	251.038k	36.16	61.72	-25.56	Line	-
Mode 2	Pass	AV	251.038k	24.64	51.72	-27.08	Line	-
Mode 2	Pass	QP	613.892k	32.25	56.00	-23.75	Line	-
Mode 2	Pass	AV	613.892k	25.83	46.00	-20.17	Line	-
Mode 2	Pass	QP	915.089k	35.91	56.00	-20.09	Line	-
Mode 2	Pass	AV	915.089k	31.02	46.00	-14.98	Line	-
Mode 2	Pass	QP	2.211M	37.82	56.00	-18.18	Line	-
Mode 2	Pass	AV	2.211M	24.25	46.00	-21.75	Line	-
Mode 2	Pass	QP	17.416M	23.71	60.00	-36.29	Line	-
Mode 2	Pass	AV	17.416M	15.66	50.00	-34.34	Line	-
Mode 2	Pass	QP	181.681k	27.48	64.41	-36.93	Neutral	-
Mode 2	Pass	AV	181.681k	19.13	54.41	-35.28	Neutral	-
Mode 2	Pass	QP	255.079k	26.69	61.58	-34.89	Neutral	-
Mode 2	Pass	AV	255.079k	17.98	51.58	-33.60	Neutral	-
Mode 2	Pass	QP	792.592k	28.47	56.00	-27.53	Neutral	-
Mode 2	Pass	AV	792.592k	15.57	46.00	-30.43	Neutral	-
Mode 2	Pass	QP	2.15M	40.12	56.00	-15.88	Neutral	-
Mode 2	Pass	AV	2.15M	31.07	46.00	-14.93	Neutral	-
Mode 2	Pass	QP	9.646M	23.20	60.00	-36.80	Neutral	-
Mode 2	Pass	AV	9.646M	17.95	50.00	-32.05	Neutral	-
Mode 2	Pass	QP	17.485M	26.56	60.00	-33.44	Neutral	-
Mode 2	Pass	AV	17.485M	17.19	50.00	-32.81	Neutral	-

Conducted Emissions at Powerline_Mode 2



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	190.596k	36.67	64.01	-27.34	19.63	Line	-	17.04	9.68	0.04	9.91
AV	190.596k	25.47	54.01	-28.54	19.63	Line	-	5.84	9.68	0.04	9.91
QP	251.038k	36.16	61.72	-25.56	19.64	Line	-	16.52	9.68	0.05	9.91
AV	251.038k	24.64	51.72	-27.08	19.64	Line	-	5.00	9.68	0.05	9.91
QP	613.892k	32.25	56.00	-23.75	19.66	Line	-	12.59	9.68	0.07	9.91
AV	613.892k	25.83	46.00	-20.17	19.66	Line	-	6.17	9.68	0.07	9.91
QP	915.089k	35.91	56.00	-20.09	19.68	Line	-	16.23	9.68	0.08	9.92
AV	915.089k	31.02	46.00	-14.98	19.68	Line	-	11.34	9.68	0.08	9.92
QP	2.211M	37.82	56.00	-18.18	19.72	Line	-	18.10	9.69	0.11	9.92
AV	2.211M	24.25	46.00	-21.75	19.72	Line	-	4.53	9.69	0.11	9.92
QP	17.416M	23.71	60.00	-36.29	19.90	Line	-	3.81	9.69	0.28	9.93
AV	17.416M	15.66	50.00	-34.34	19.90	Line	-	-4.24	9.69	0.28	9.93

Conducted Emissions at Powerline_Mode 2



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	181.681k	27.48	64.41	-36.93	19.63	Neutral	-	7.85	9.68	0.04	9.91
AV	181.681k	19.13	54.41	-35.28	19.63	Neutral	-	-0.50	9.68	0.04	9.91
QP	255.079k	26.69	61.58	-34.89	19.63	Neutral	-	7.06	9.67	0.05	9.91
AV	255.079k	17.98	51.58	-33.60	19.63	Neutral	-	-1.65	9.67	0.05	9.91
QP	792.592k	28.47	56.00	-27.53	19.66	Neutral	-	8.81	9.67	0.07	9.92
AV	792.592k	15.57	46.00	-30.43	19.66	Neutral	-	-4.09	9.67	0.07	9.92
QP	2.15M	40.12	56.00	-15.88	19.70	Neutral	-	20.42	9.68	0.10	9.92
AV	2.15M	31.07	46.00	-14.93	19.70	Neutral	-	11.37	9.68	0.10	9.92
QP	9.646M	23.20	60.00	-36.80	19.87	Neutral	-	3.33	9.74	0.20	9.93
AV	9.646M	17.95	50.00	-32.05	19.87	Neutral	-	-1.92	9.74	0.20	9.93
QP	17.485M	26.56	60.00	-33.44	19.95	Neutral	-	6.61	9.74	0.28	9.93
AV	17.485M	17.19	50.00	-32.81	19.95	Neutral	-	-2.76	9.74	0.28	9.93



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)	941.25k	865.817k	866KF1D	940k	859.57k
BT-EDR(2Mbps)	1.33M	1.239M	1M24G1D	1.328M	1.227M
BT-EDR(3Mbps)	1.33M	1.223M	1M22G1D	1.328M	1.219M

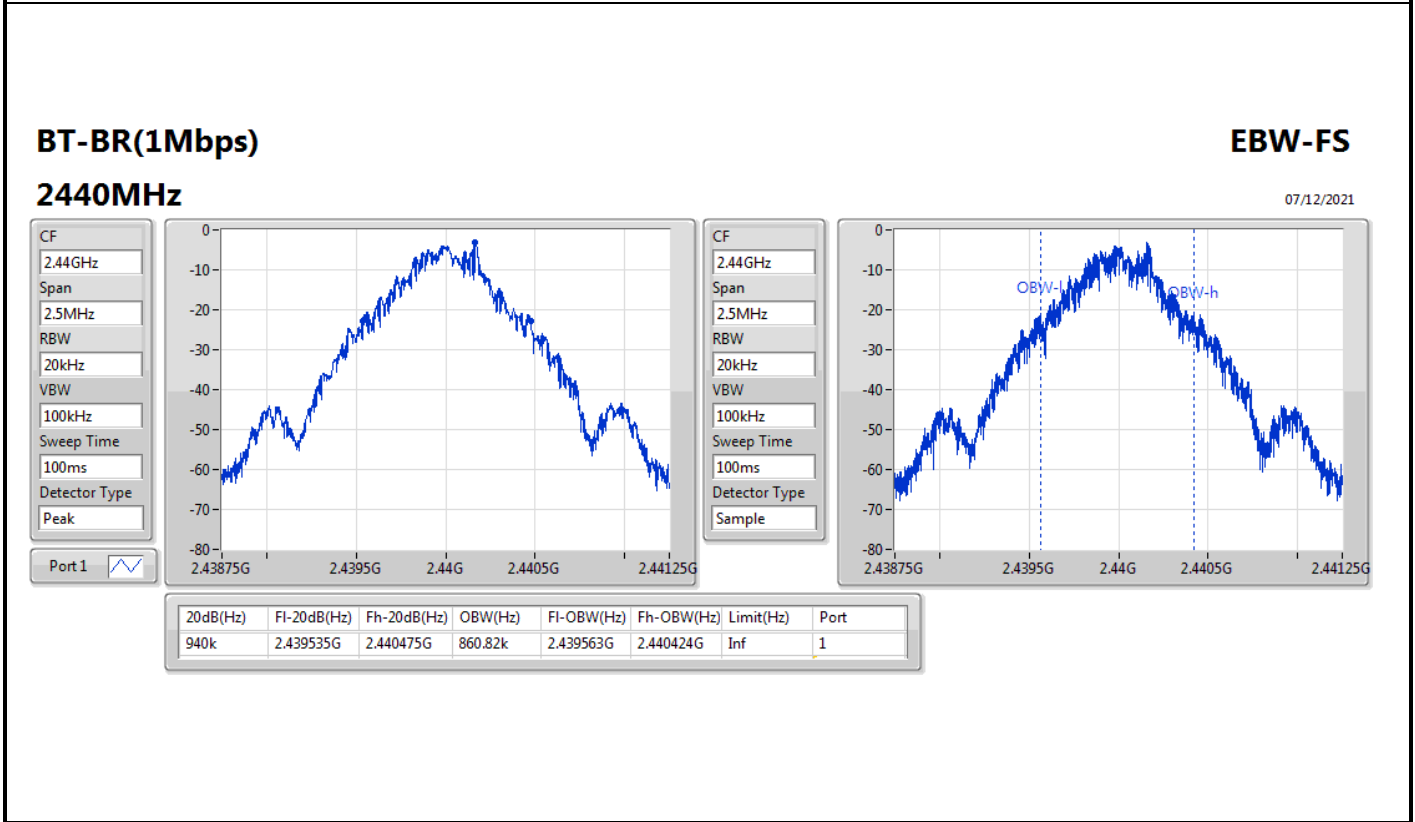
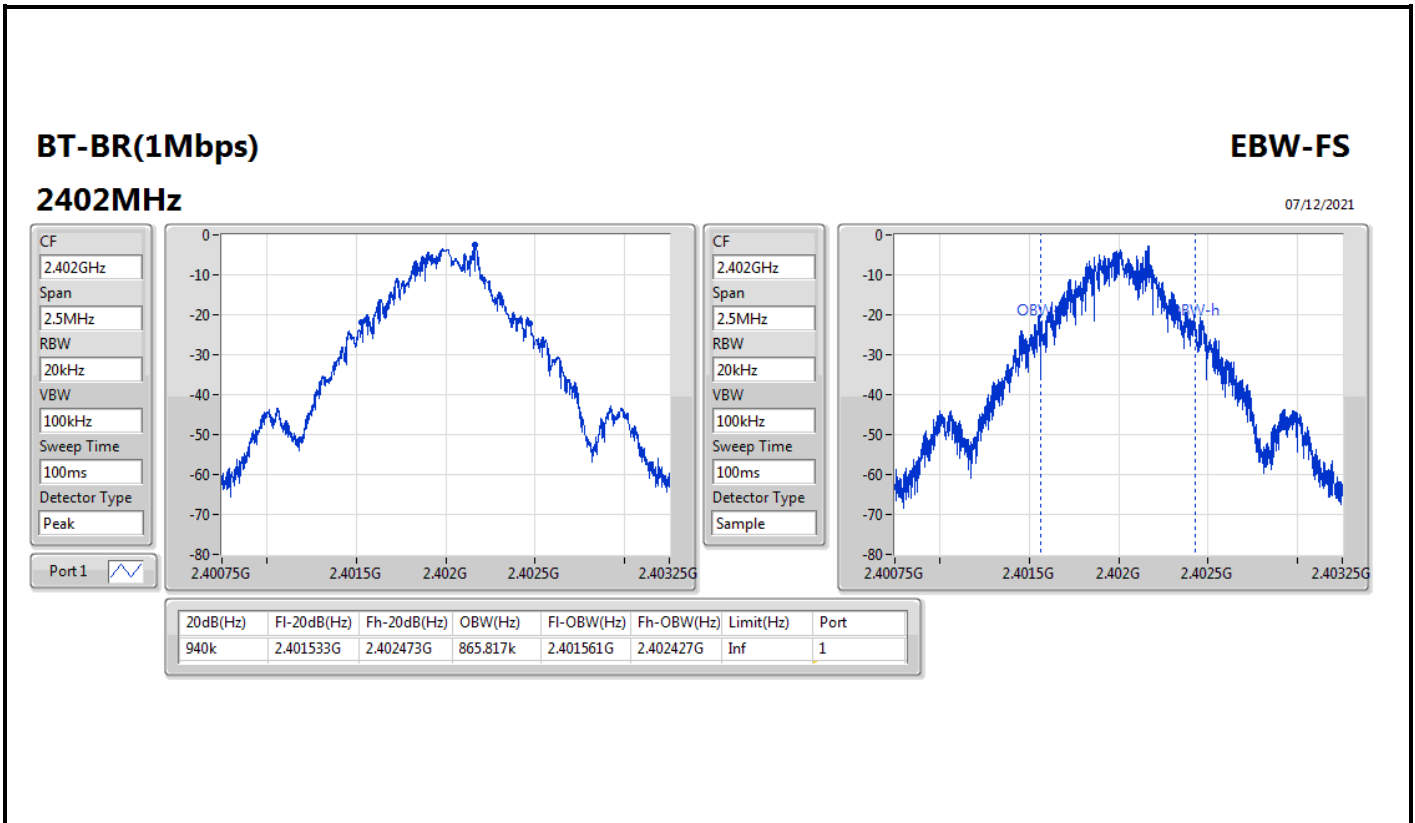
Max-N dB = Maximum 20dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 20dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

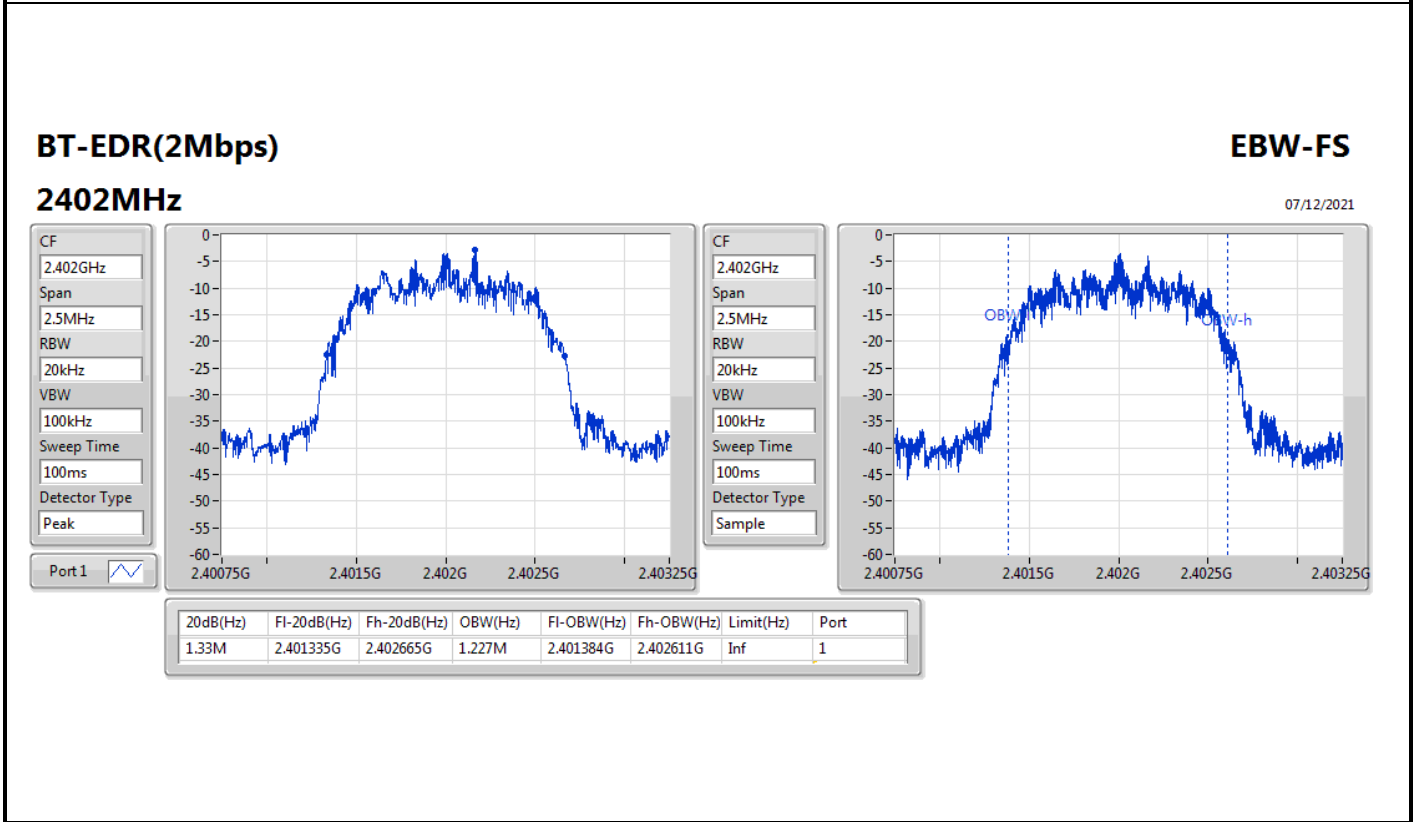
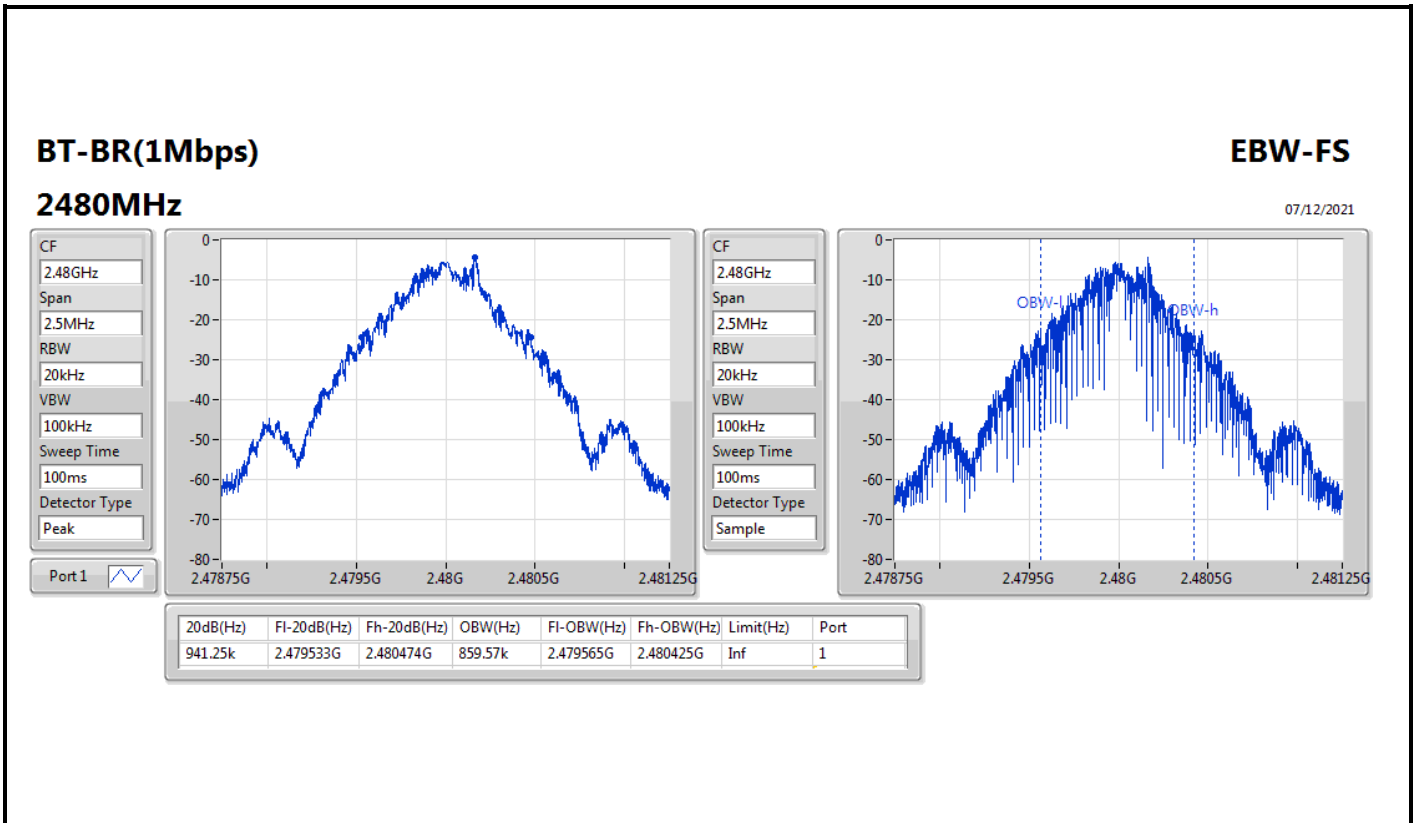


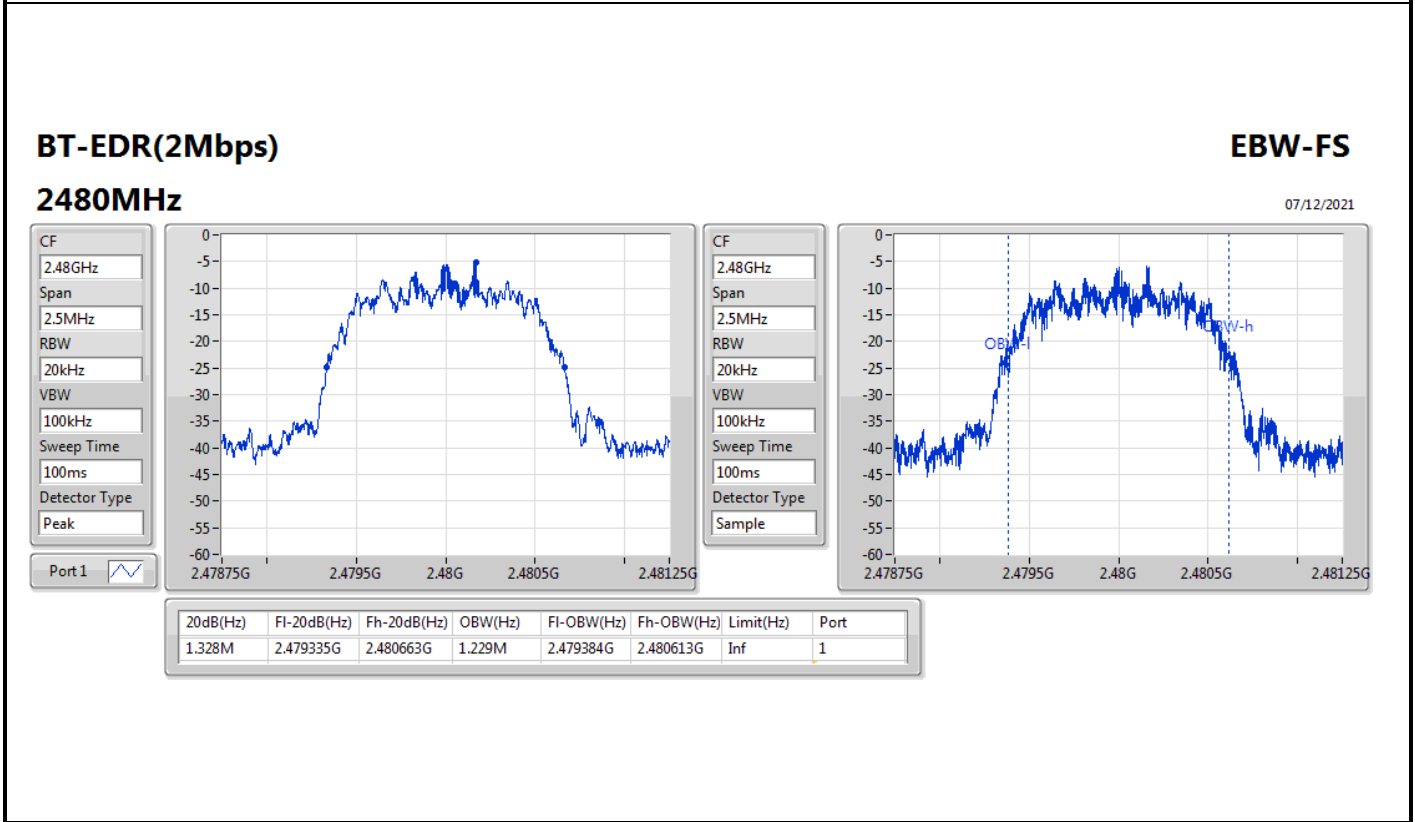
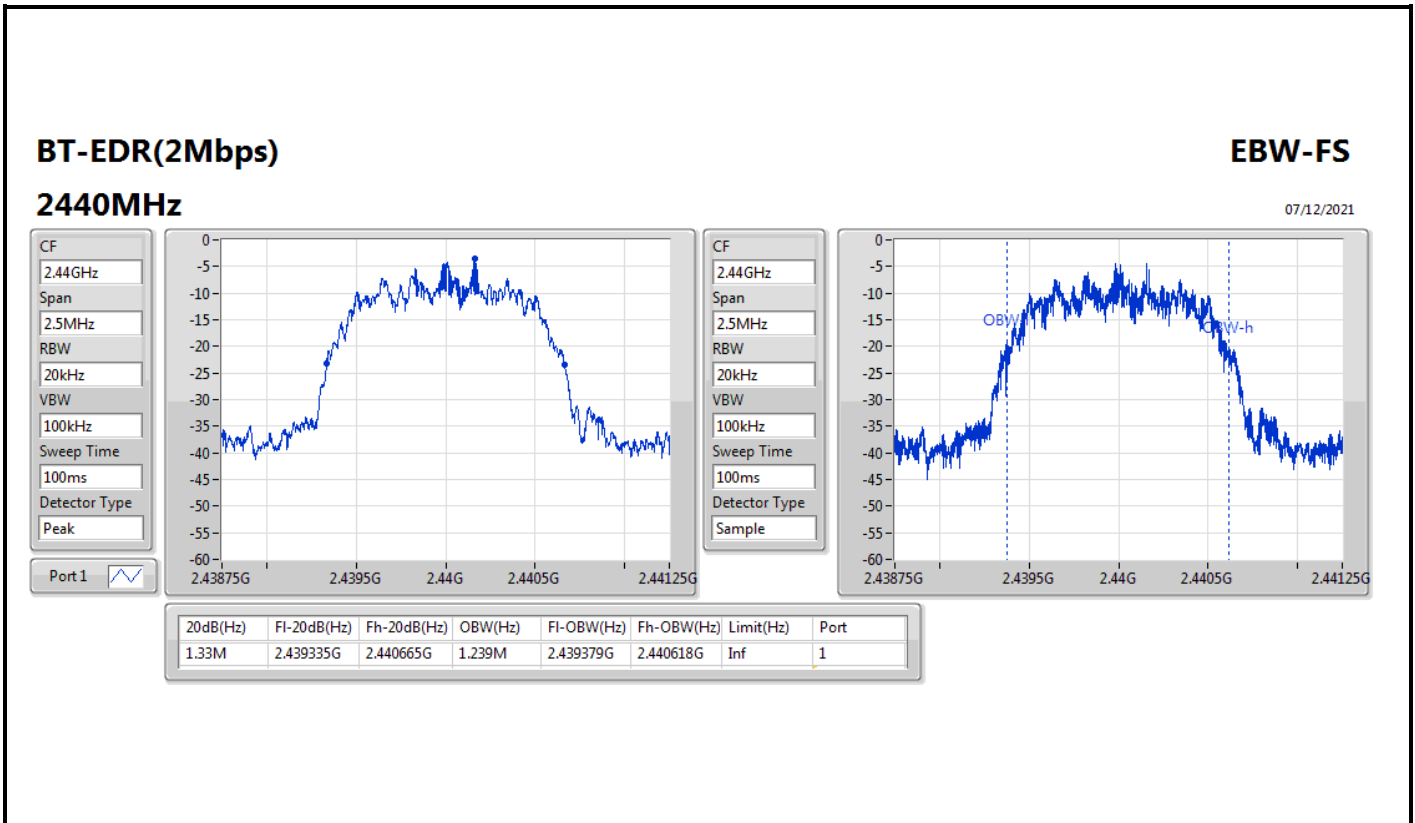
Result

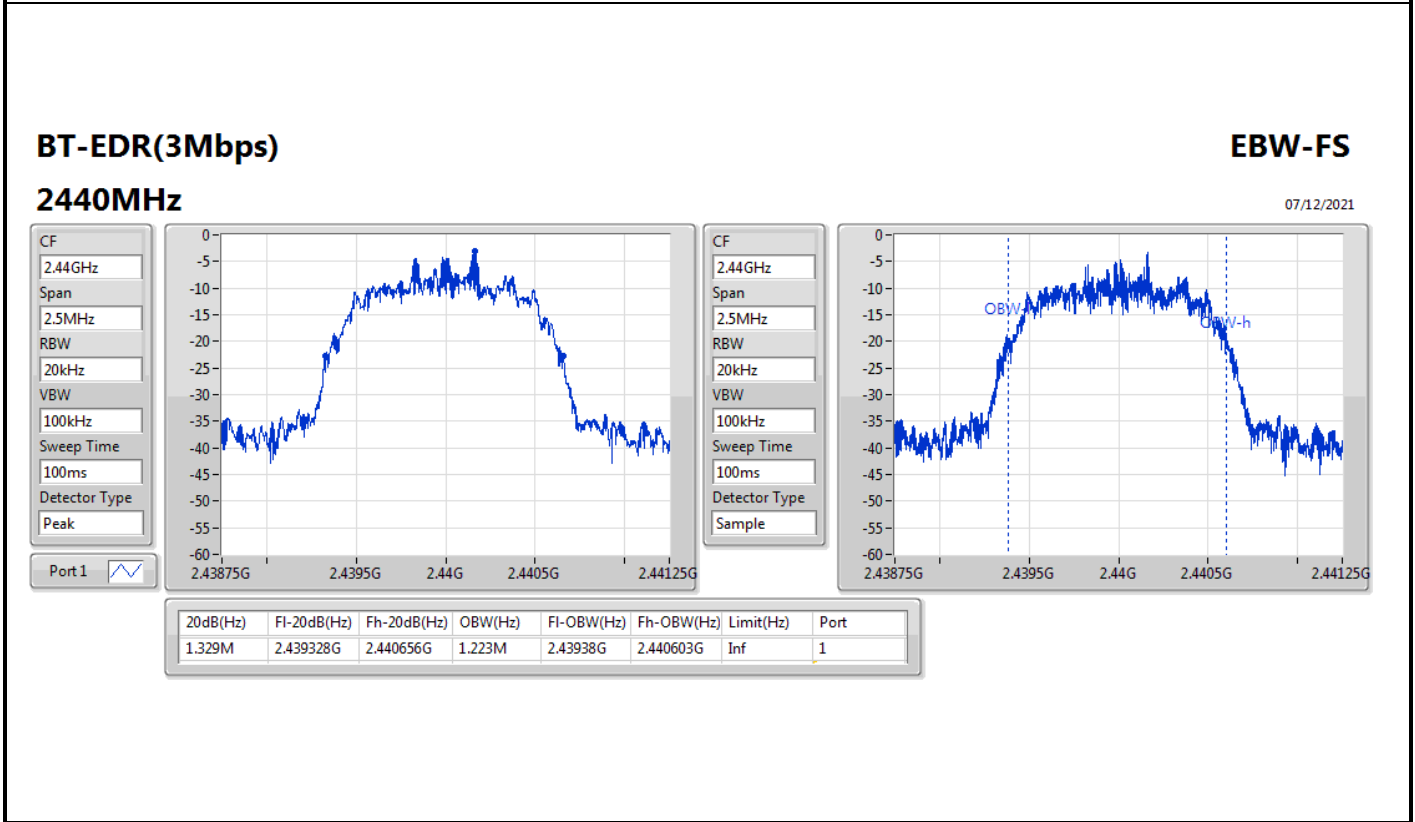
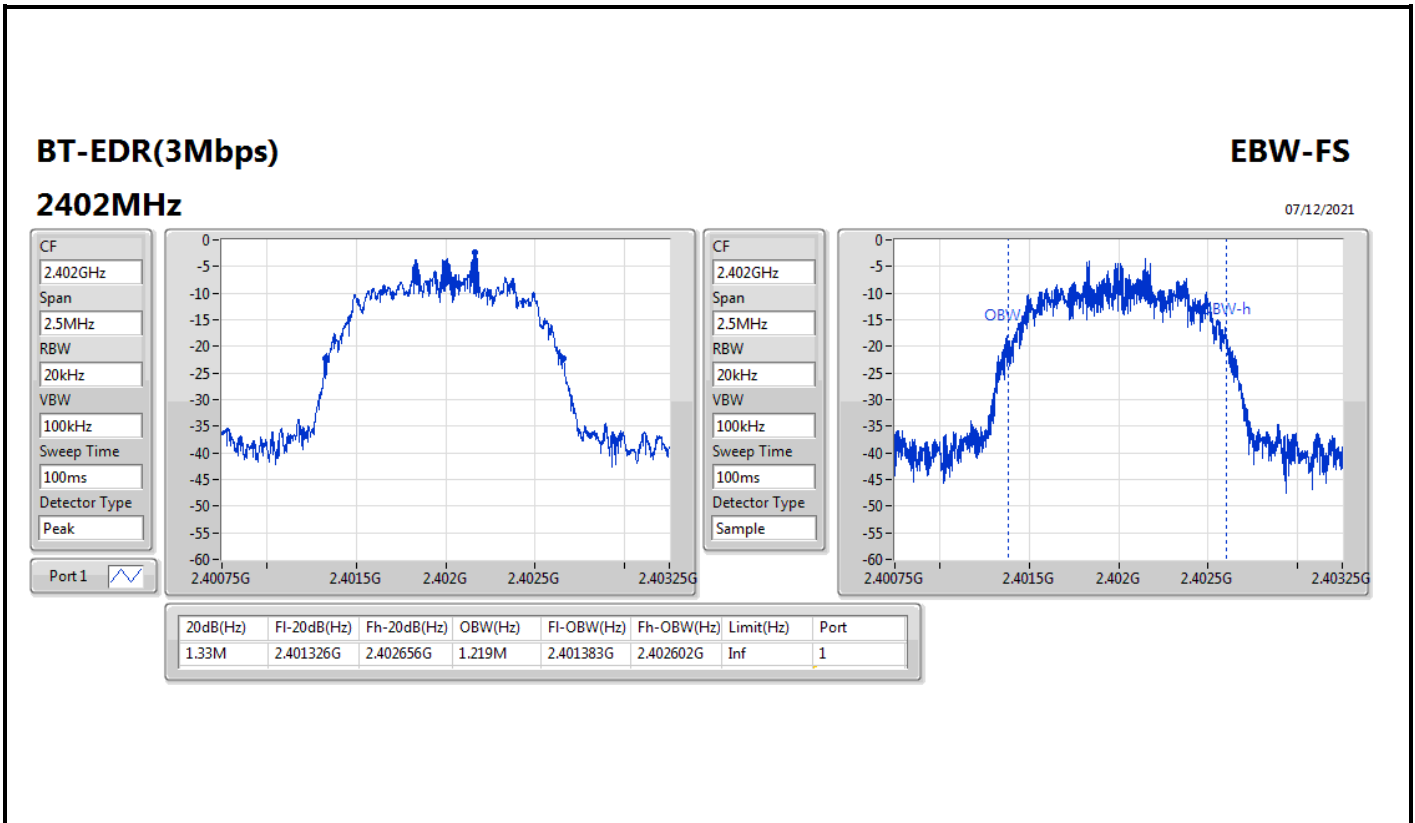
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	940k	865.817k
2440MHz	Pass	Inf	940k	860.82k
2480MHz	Pass	Inf	941.25k	859.57k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.33M	1.227M
2440MHz	Pass	Inf	1.33M	1.239M
2480MHz	Pass	Inf	1.328M	1.229M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.33M	1.219M
2440MHz	Pass	Inf	1.329M	1.223M
2480MHz	Pass	Inf	1.328M	1.219M

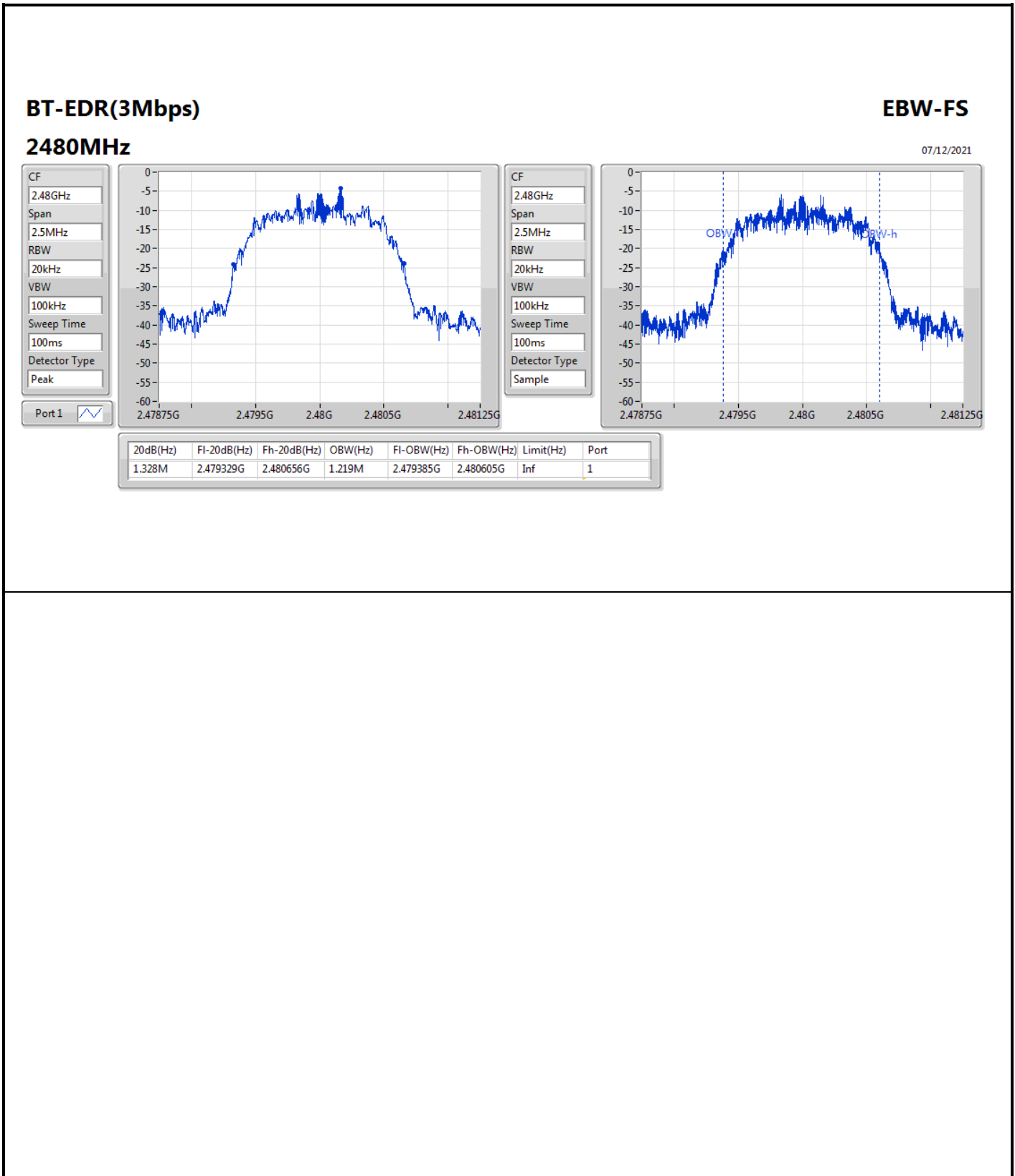
Port X-N dB = Port X 20dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth













Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.002M	1.0005M
BT-EDR(2Mbps)	1.0035M	996k
BT-EDR(3Mbps)	1.0005M	1.0005M



Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402161G	2.403162G	1.0005M	626.04k
2440MHz	Pass	2.44016G	2.441162G	1.002M	626.04k
2480MHz	Pass	2.479161G	2.480162G	1.0005M	626.8725k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402007G	2.403003G	996k	885.78k
2440MHz	Pass	2.440004G	2.441006G	1.002M	885.78k
2480MHz	Pass	2.479002G	2.480006G	1.0035M	884.448k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402161G	2.403162G	1.0005M	885.78k
2440MHz	Pass	2.440161G	2.441162G	1.0005M	885.114k
2480MHz	Pass	2.479163G	2.480163G	1.0005M	884.448k

BT-BR(1Mbps)

Channel Separation-FS

2.402G/2.403GHz

07/12/2021



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402161G	2.403162G	1.0005M	626.04k

BT-BR(1Mbps)

Channel Separation-FS

2.44G/2.441GHz

07/12/2021



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.44016G	2.441162G	1.002M	626.04k


BT-BR(1Mbps)

2.48G/2.479GHz

Channel Separation-FS

07/12/2021



Port 1 

Ch Freq
2.48G/2.479G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479161G	2.480162G	1.0005M	626.8725k


BT-EDR(2Mbps)

2.402G/2.403GHz

Channel Separation-FS

07/12/2021



Port 1 

Ch Freq
2.402G/2.403G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

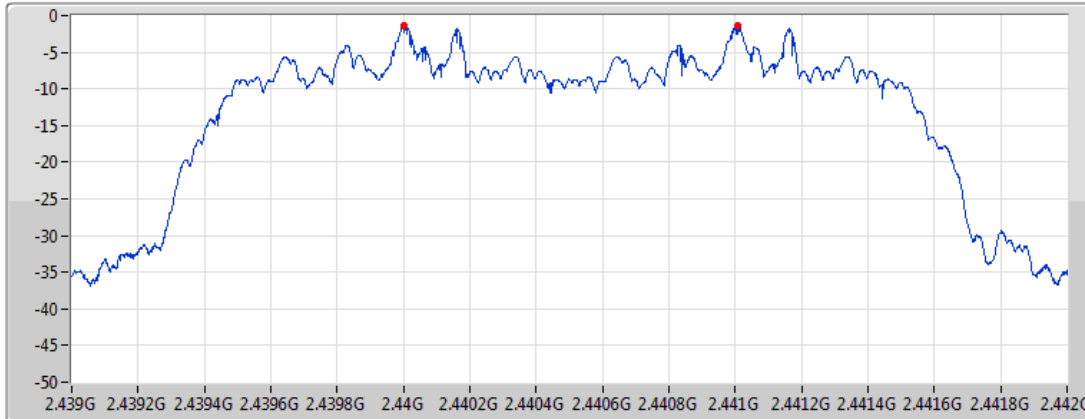
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402007G	2.403003G	996k	885.78k


BT-EDR(2Mbps)

Channel Separation-FS

2.44G/2.441GHz

07/12/2021



Port 1 

Ch Freq
2.44G/2.441G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

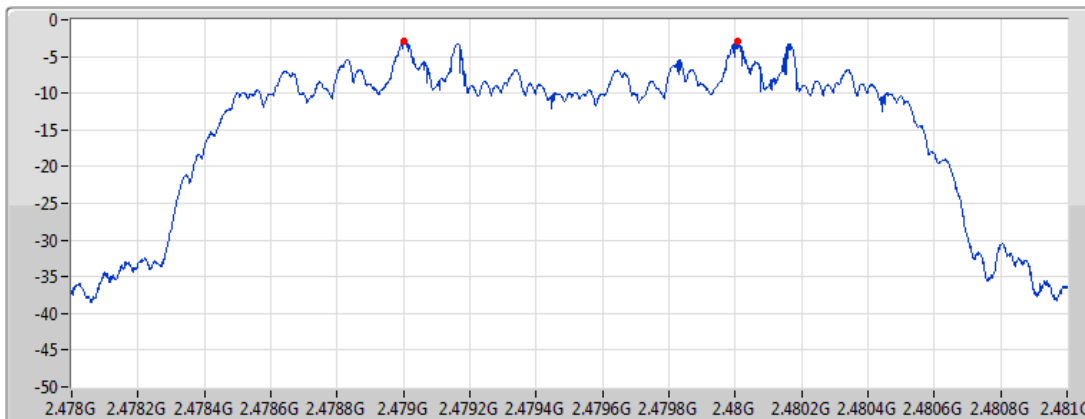
Ff(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440004G	2.441006G	1.002M	885.78k


BT-EDR(2Mbps)

Channel Separation-FS

2.48G/2.479GHz

07/12/2021



Port 1 

Ch Freq
2.48G/2.479G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

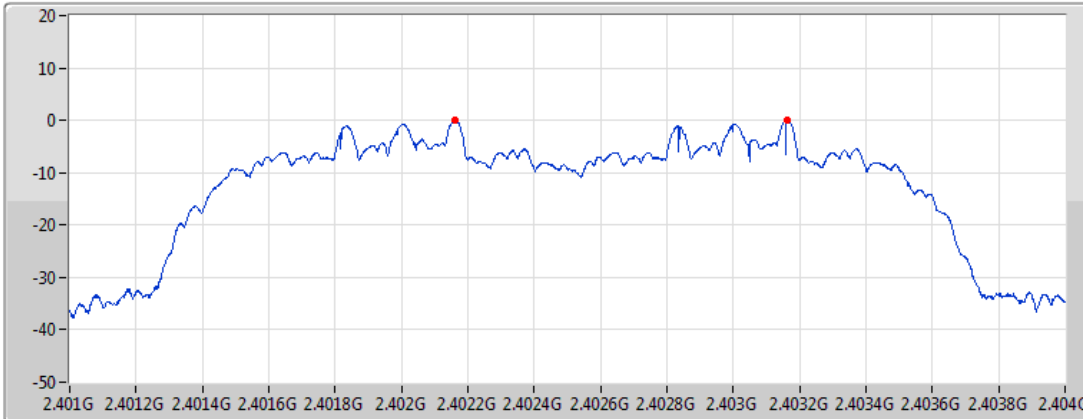
Ff(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479002G	2.480006G	1.0035M	884.448k


BT-EDR(3Mbps)

Channel Separation-FS

2.402G/2.403GHz

07/12/2021



Port 1 

Ch Freq
2.402G/2.403G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

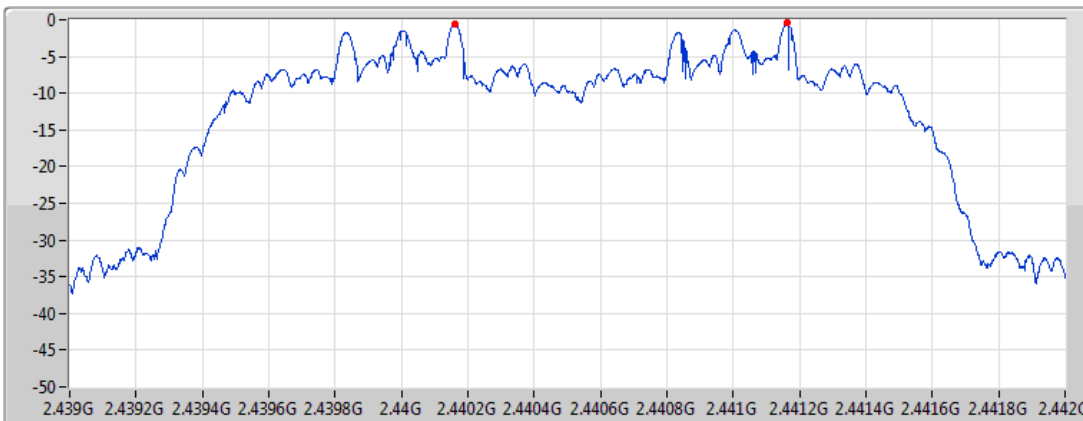
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402161G	2.403162G	1.0005M	885.78k


BT-EDR(3Mbps)

Channel Separation-FS

2.44G/2.441GHz

07/12/2021



Port 1 

Ch Freq
2.44G/2.441G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440161G	2.441162G	1.0005M	885.114k

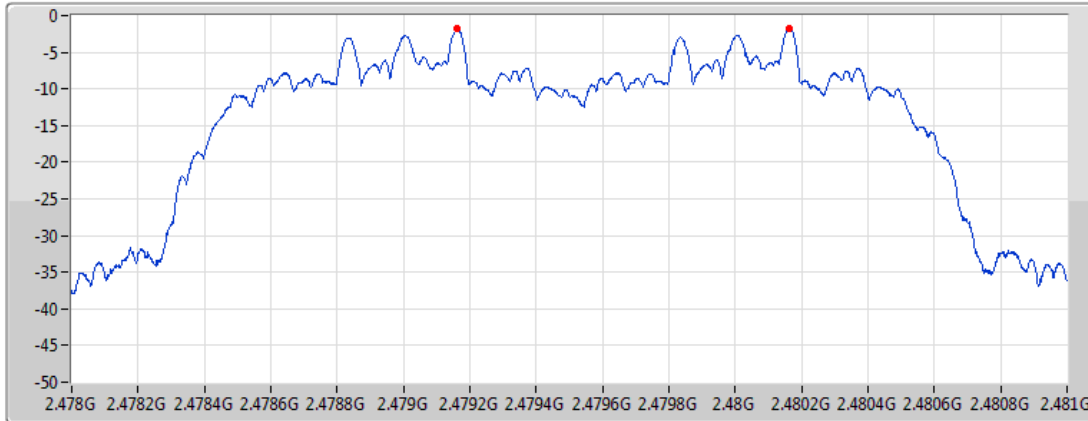


BT-EDR(3Mbps)

Channel Separation-FS

2.48G/2.479GHz

07/12/2021



Port 1

Ch Freq
2.48G/2.479G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479163G	2.480163G	1.0005M	884.448k



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	2.55	0.00180
BT-EDR(2Mbps)	4.15	0.00260
BT-EDR(3Mbps)	4.69	0.00294



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	0.81	2.55	21.00
2440MHz	Pass	0.81	2.31	21.00
2480MHz	Pass	0.81	0.98	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	0.81	4.15	21.00
2440MHz	Pass	0.81	3.84	21.00
2480MHz	Pass	0.81	2.79	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	0.81	4.69	21.00
2440MHz	Pass	0.81	4.48	21.00
2480MHz	Pass	0.81	3.82	21.00

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



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	2.44	0.00175
BT-EDR(2Mbps)	2.36	0.00172
BT-EDR(3Mbps)	2.33	0.00171



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	0.81	2.44	21.00
2440MHz	Pass	0.81	2.00	21.00
2480MHz	Pass	0.81	0.86	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	0.81	2.36	21.00
2440MHz	Pass	0.81	1.97	21.00
2480MHz	Pass	0.81	0.49	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	0.81	2.33	21.00
2440MHz	Pass	0.81	1.95	21.00
2480MHz	Pass	0.81	0.91	21.00

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



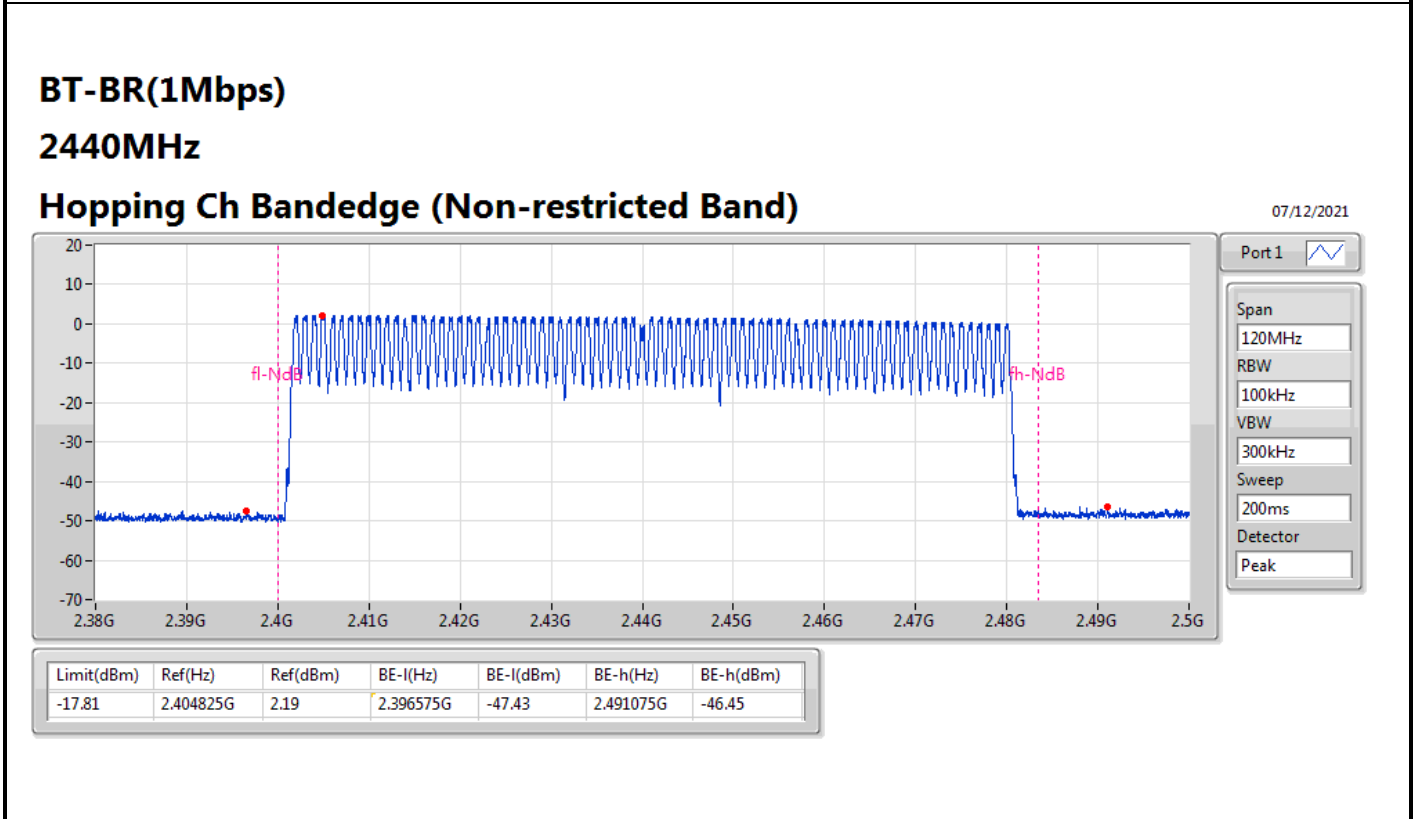
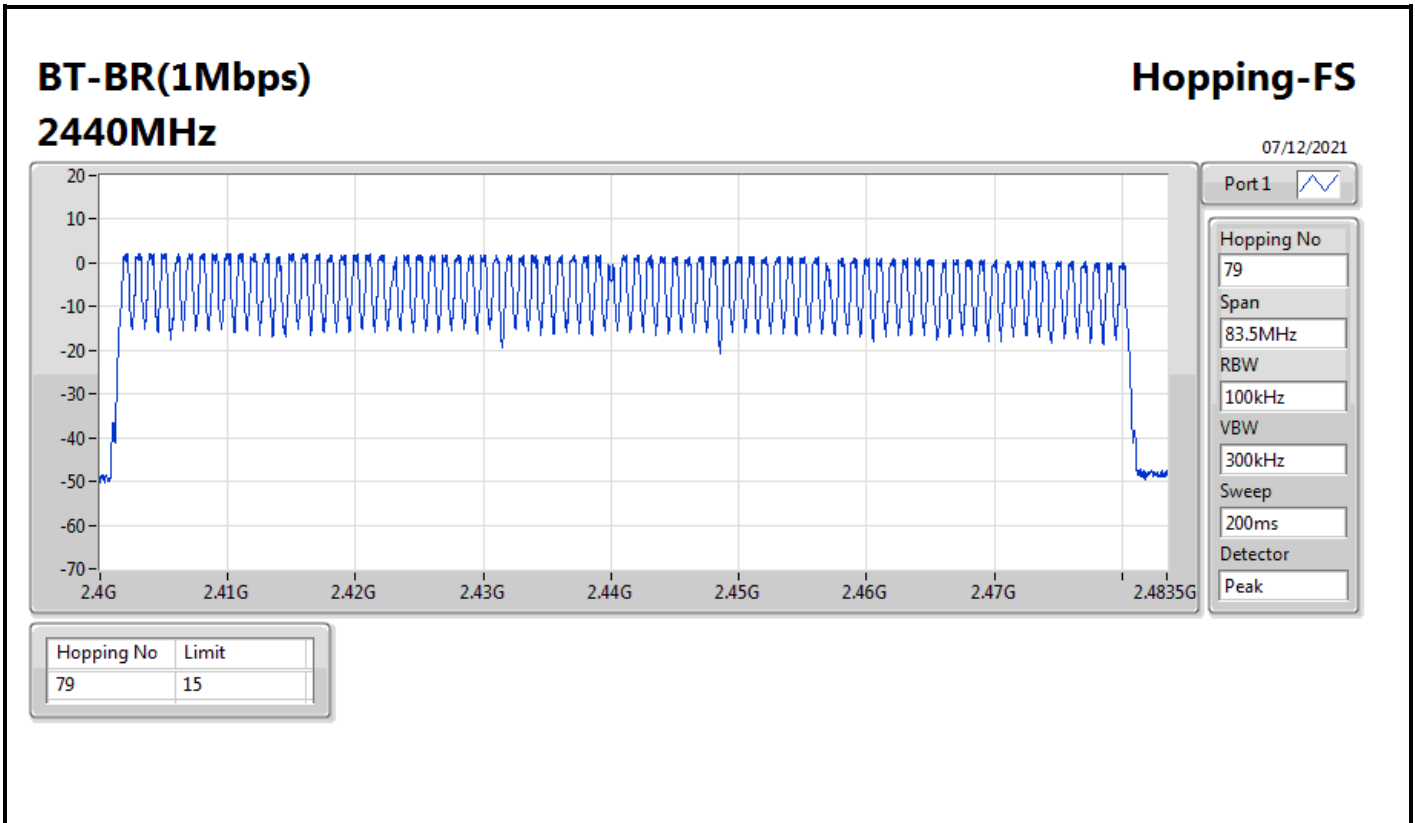
Summary

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



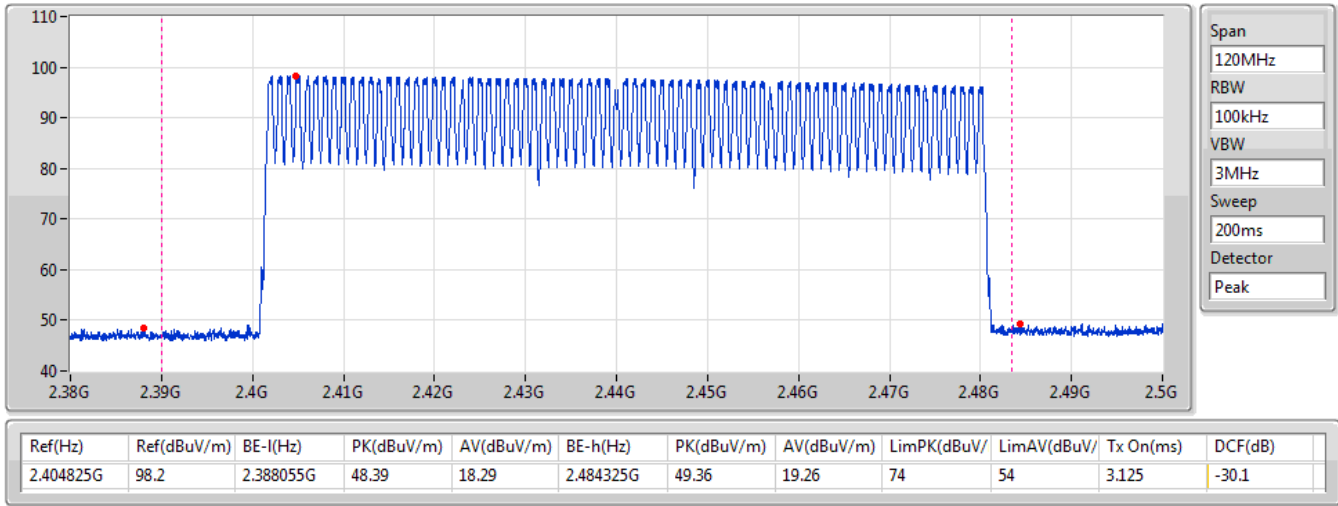
Result

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



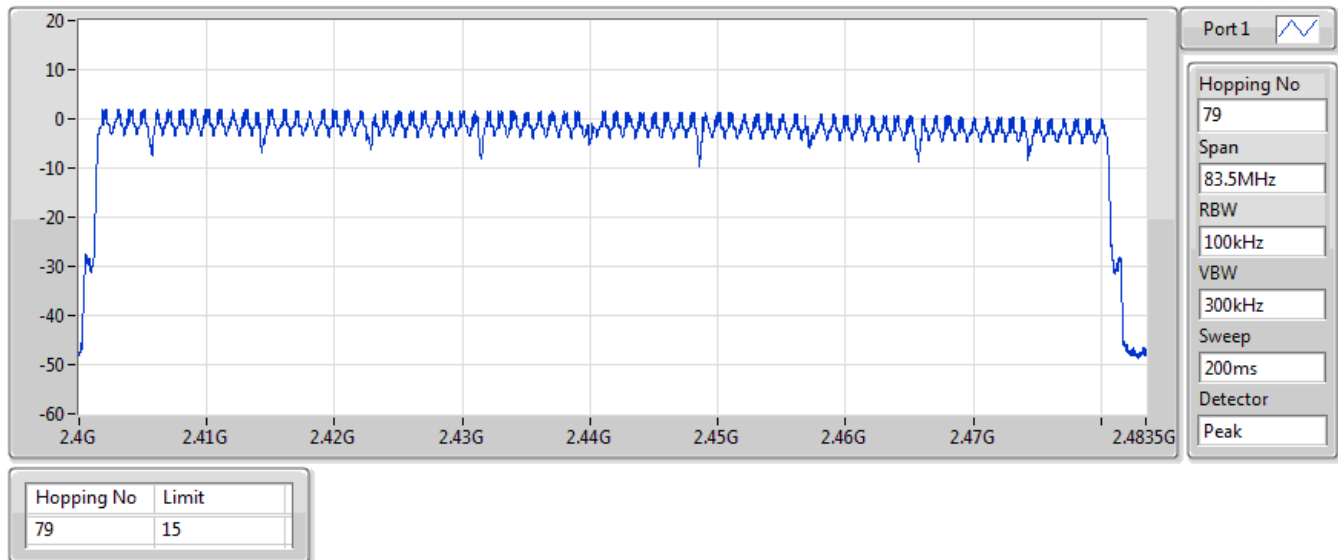
BT-BR(1Mbps)
2440MHz
Hopping Ch Bandedge (Restricted Band)

07/12/2021



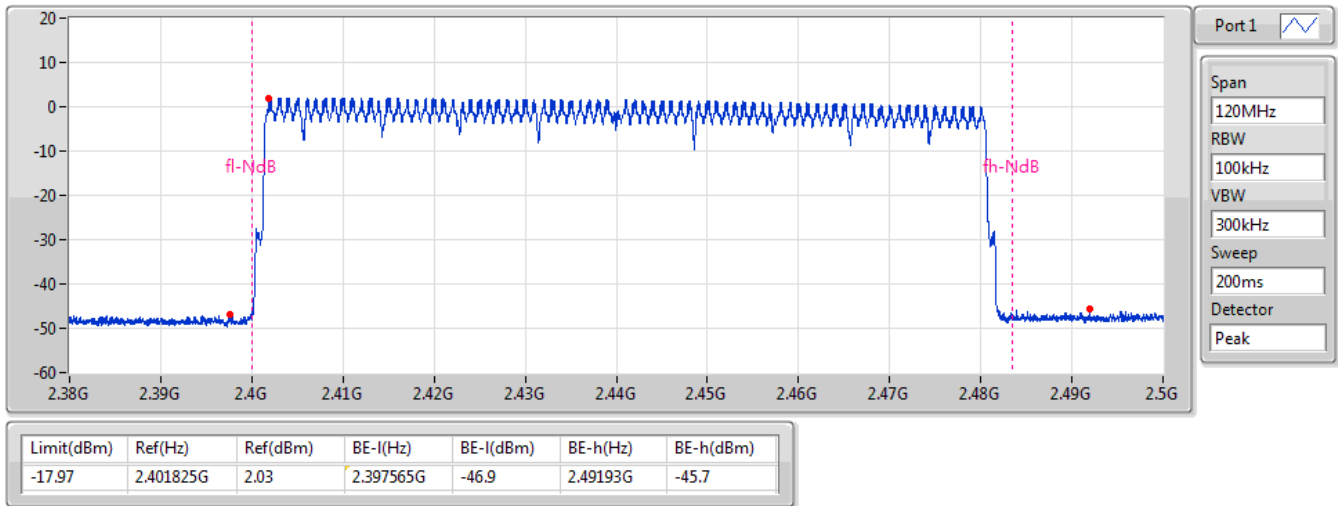
BT-EDR(2Mbps) **Hopping-FS**
2440MHz

07/12/2021



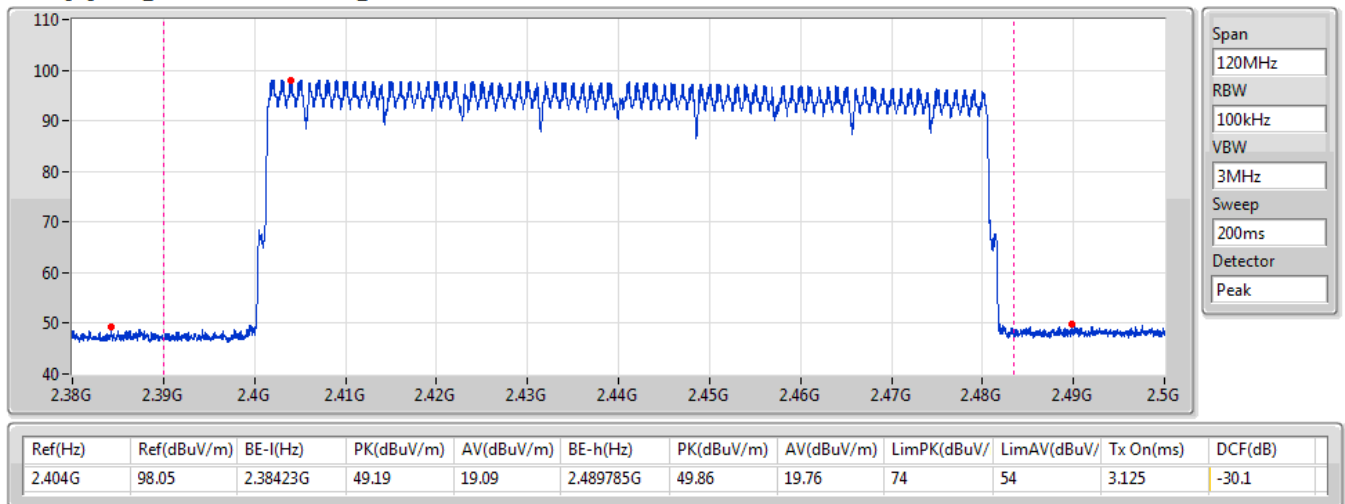
BT-EDR(2Mbps)
2440MHz
Hopping Ch Bandedge (Non-restricted Band)

07/12/2021



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

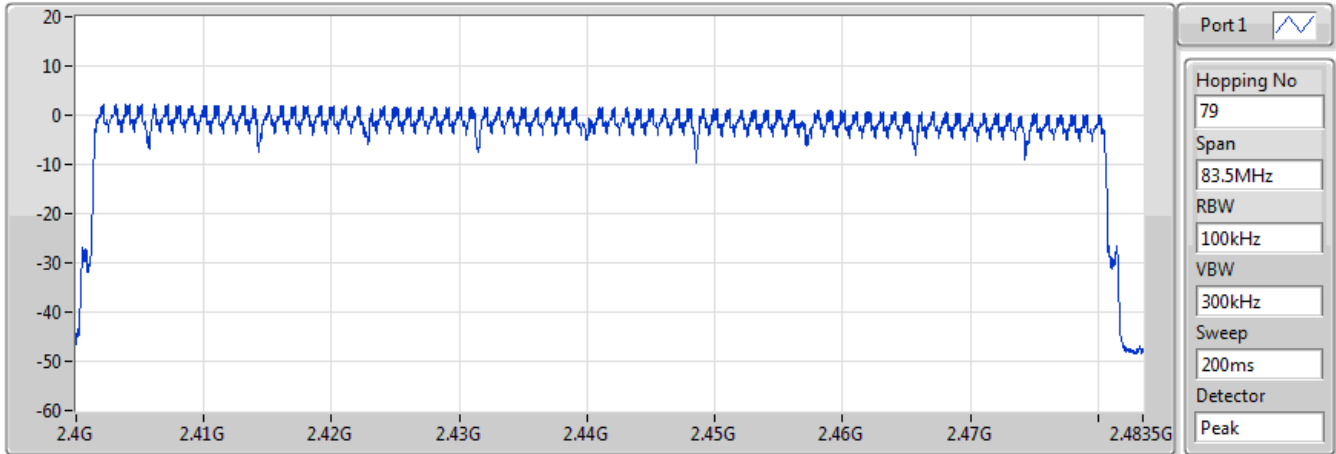
07/12/2021



**BT-EDR(3Mbps)
2440MHz**

Hopping-FS

07/12/2021

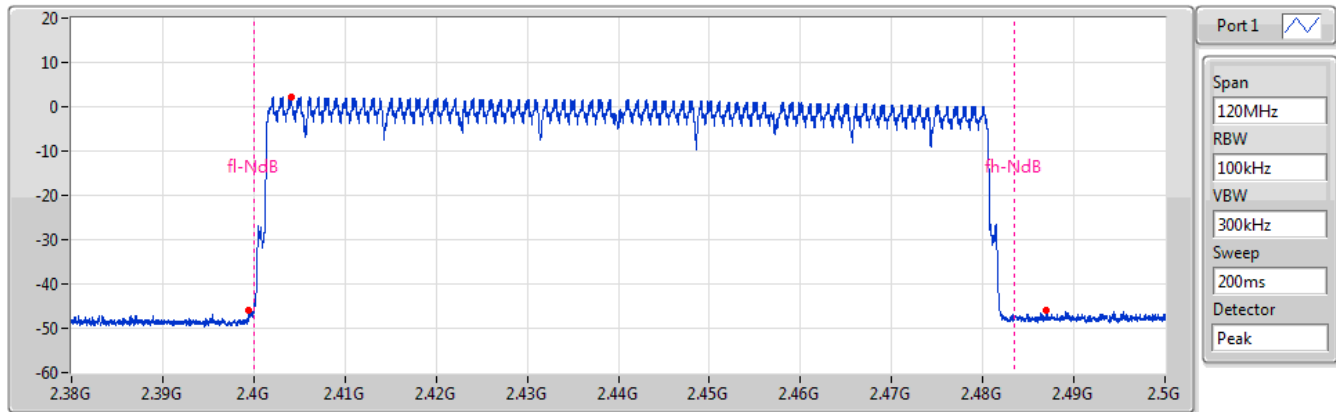


Hopping No	Limit
79	15

**BT-EDR(3Mbps)
2440MHz**

Hopping Ch Bandedge (Non-restricted Band)

07/12/2021

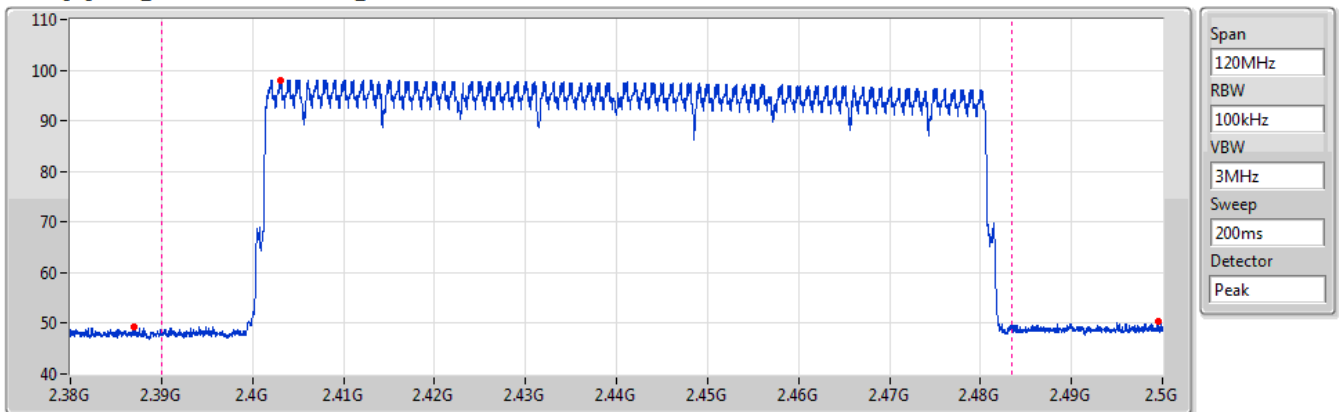


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-17.91	2.404165G	2.09	2.39947G	-46.01	2.486995G	-45.92



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

07/12/2021



Span: 120MHz
 RBW: 100kHz
 VBW: 3MHz
 Sweep: 200ms
 Detector: Peak

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)
2.40316G	98.1	2.38705G	49.37	19.27	2.499475G	50.26	20.16	74	54	3.125	-30.1



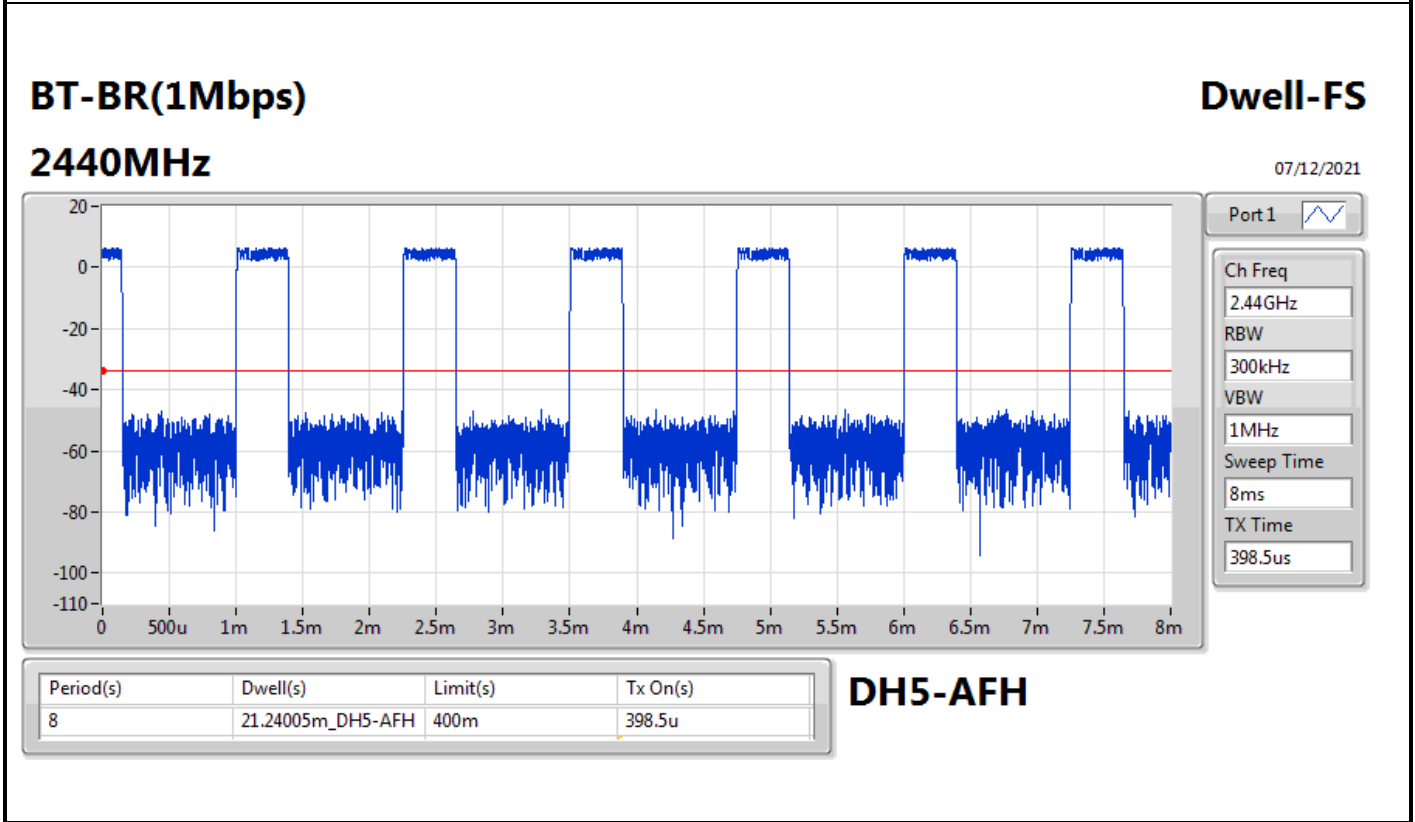
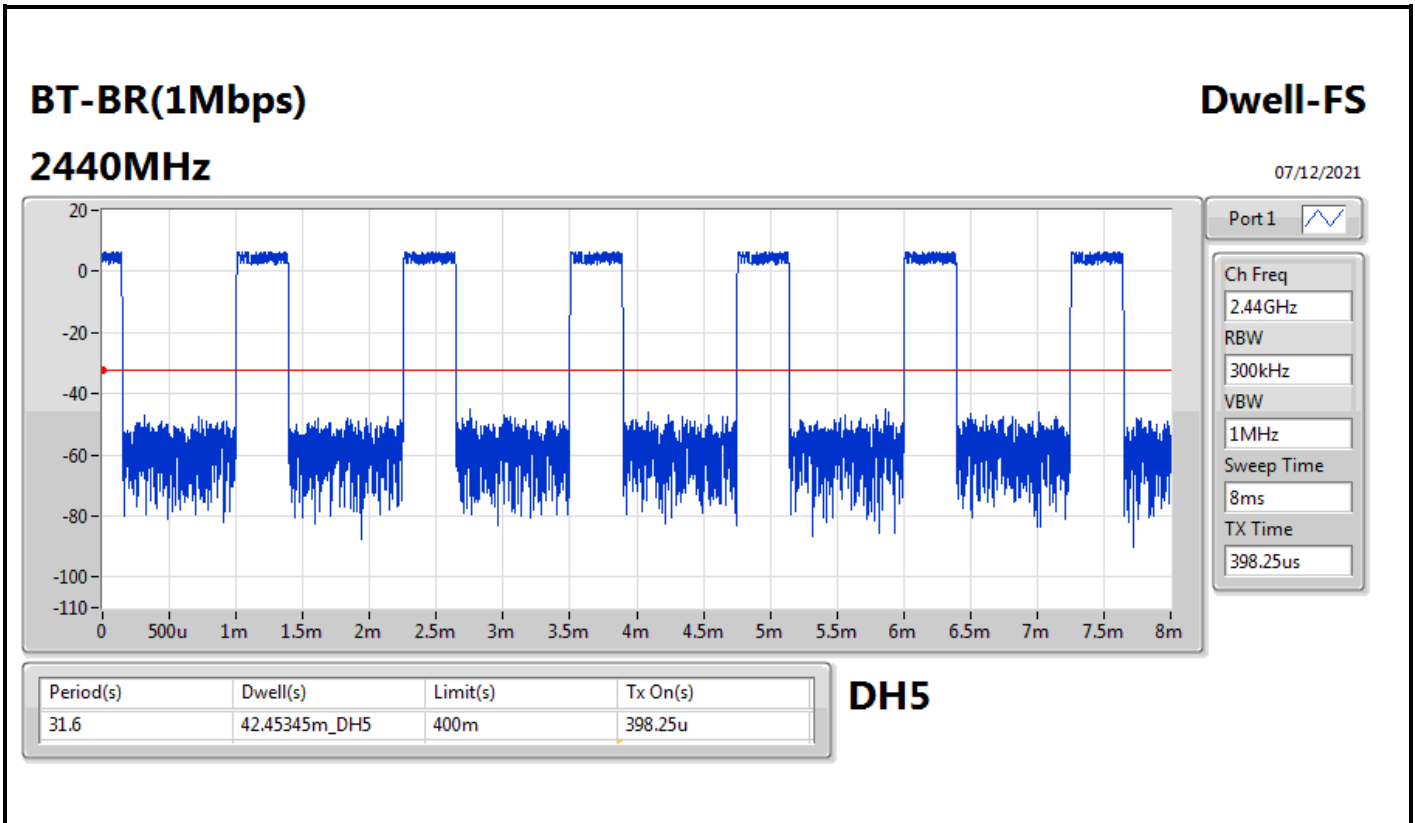
Summary

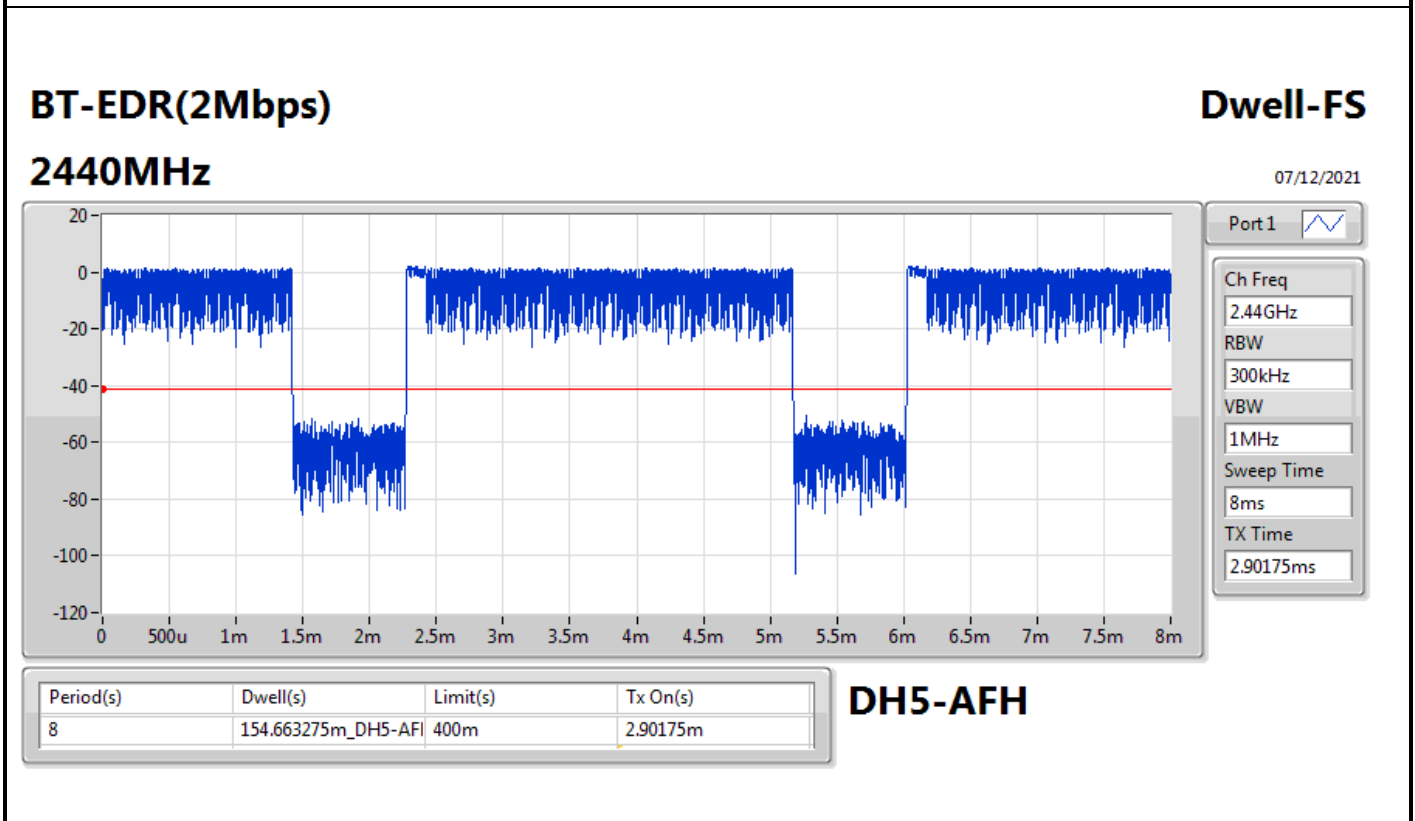
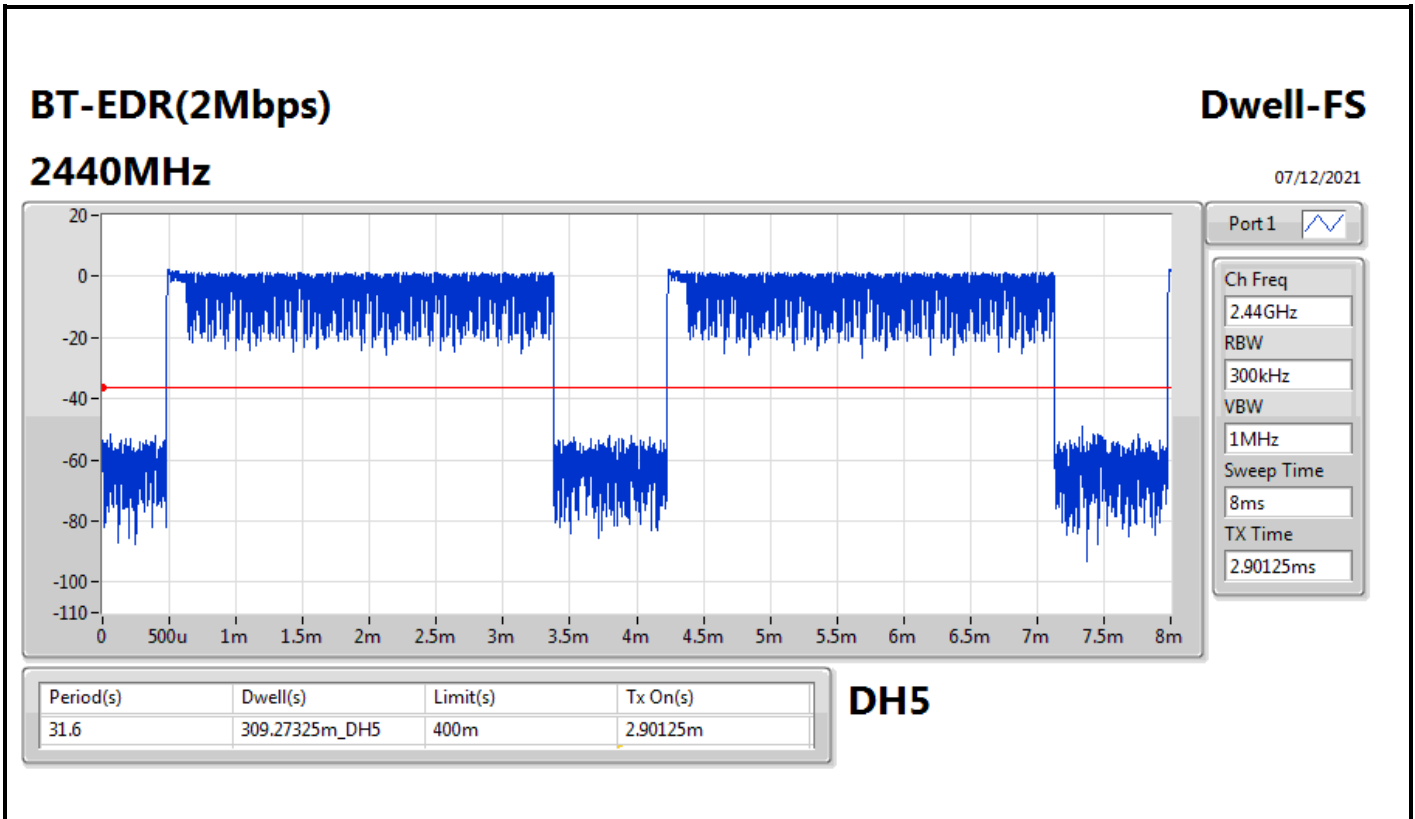
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	42.45345m_DH5
BT-EDR(2Mbps)	309.27325m_DH5
BT-EDR(3Mbps)	309.43315m_DH5

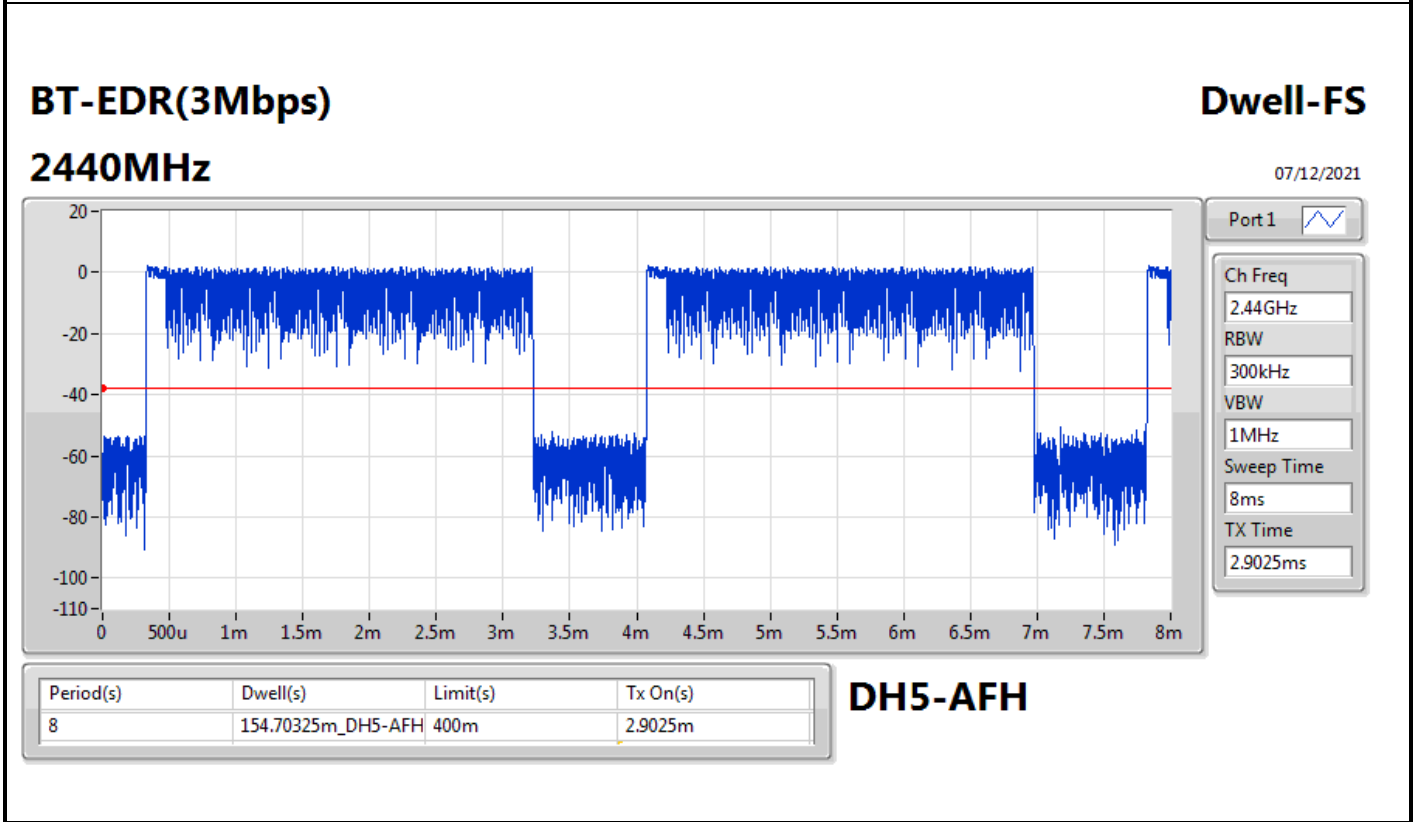
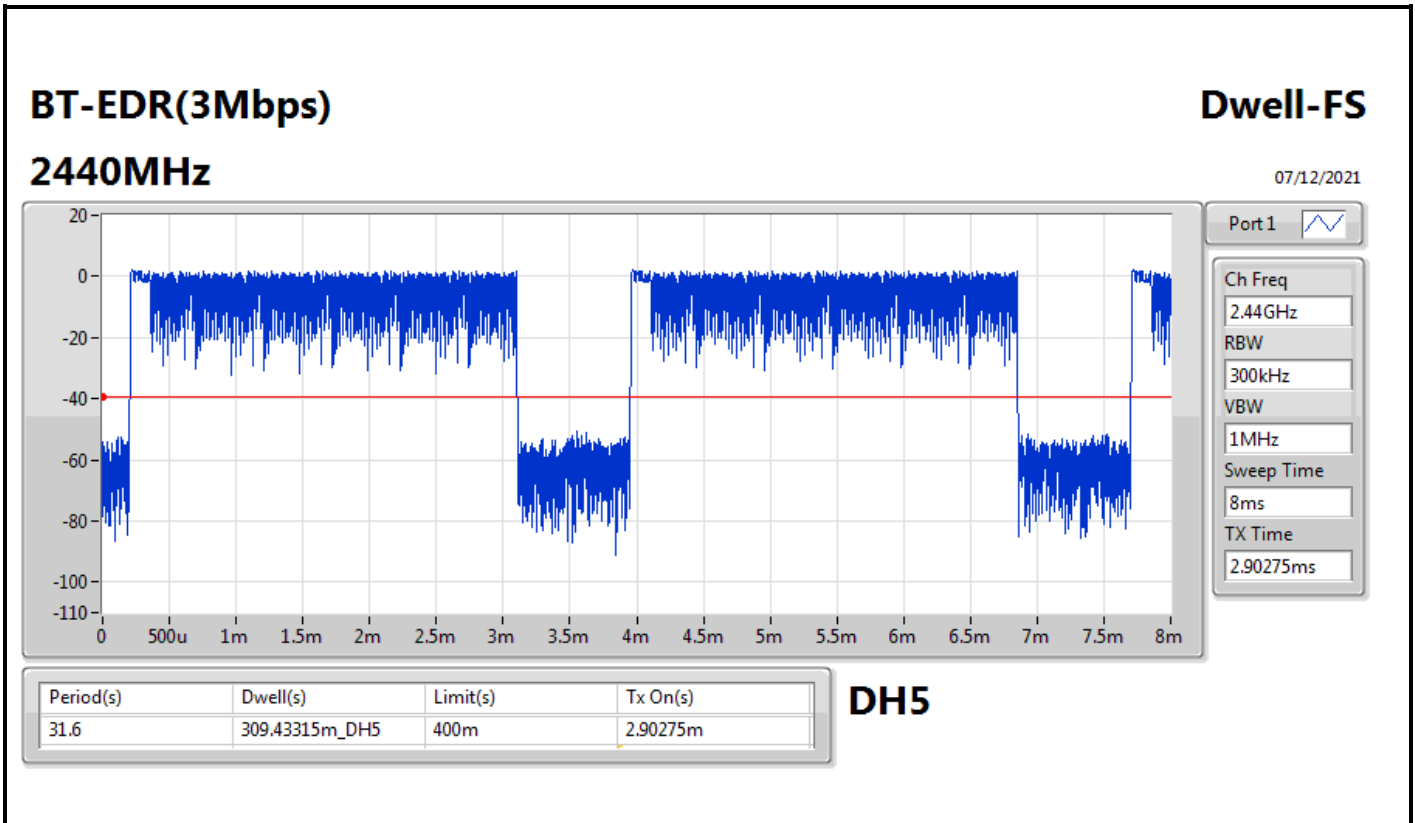


Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	42.45345m_DH5	400m	398.25u
2440MHz	Pass	8	21.24005m_DH5-AFH	400m	398.5u
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.27325m_DH5	400m	2.90125m
2440MHz	Pass	8	154.663275m_DH5-AFH	400m	2.90175m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.43315m_DH5	400m	2.90275m
2440MHz	Pass	8	154.70325m_DH5-AFH	400m	2.9025m









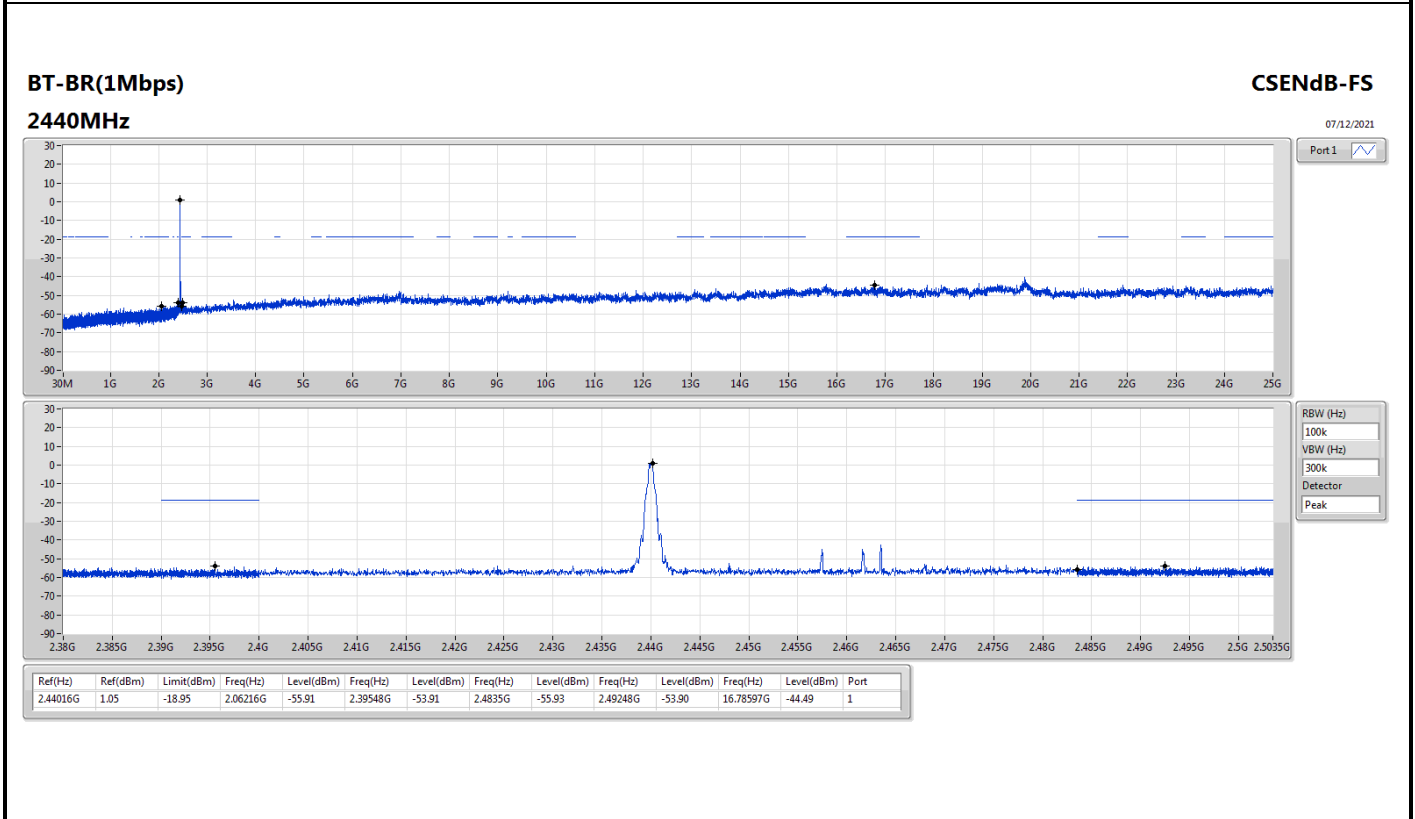
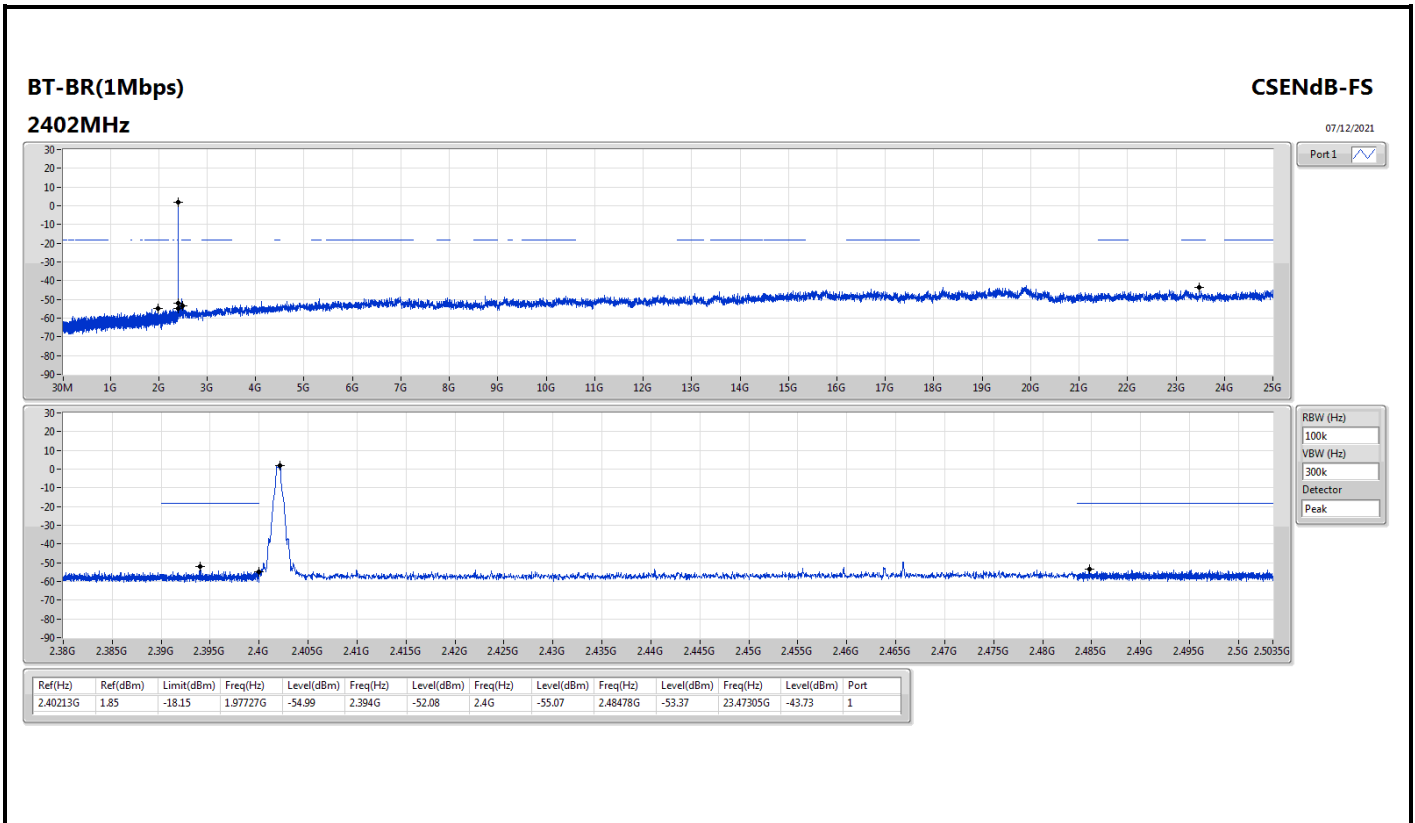
Summary

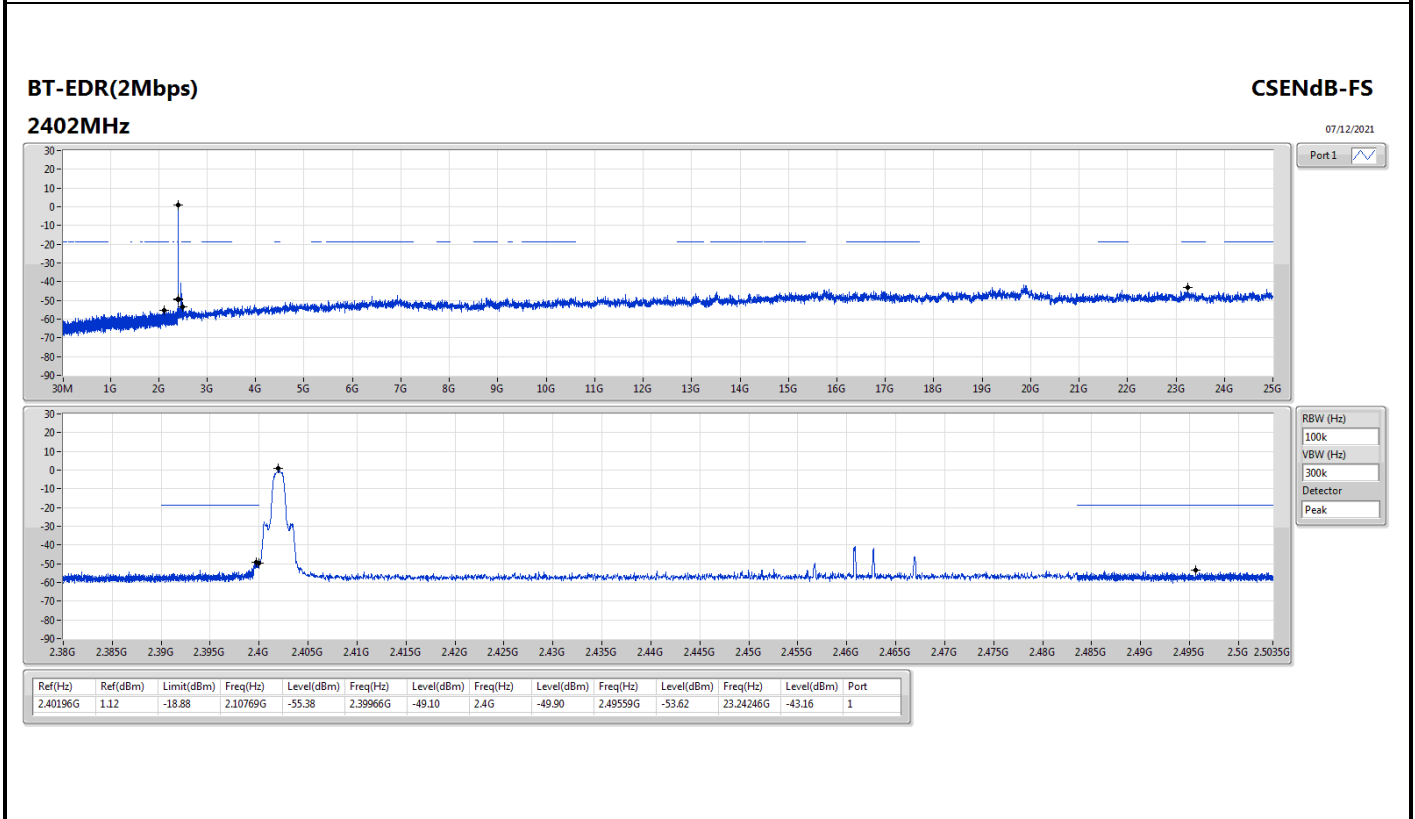
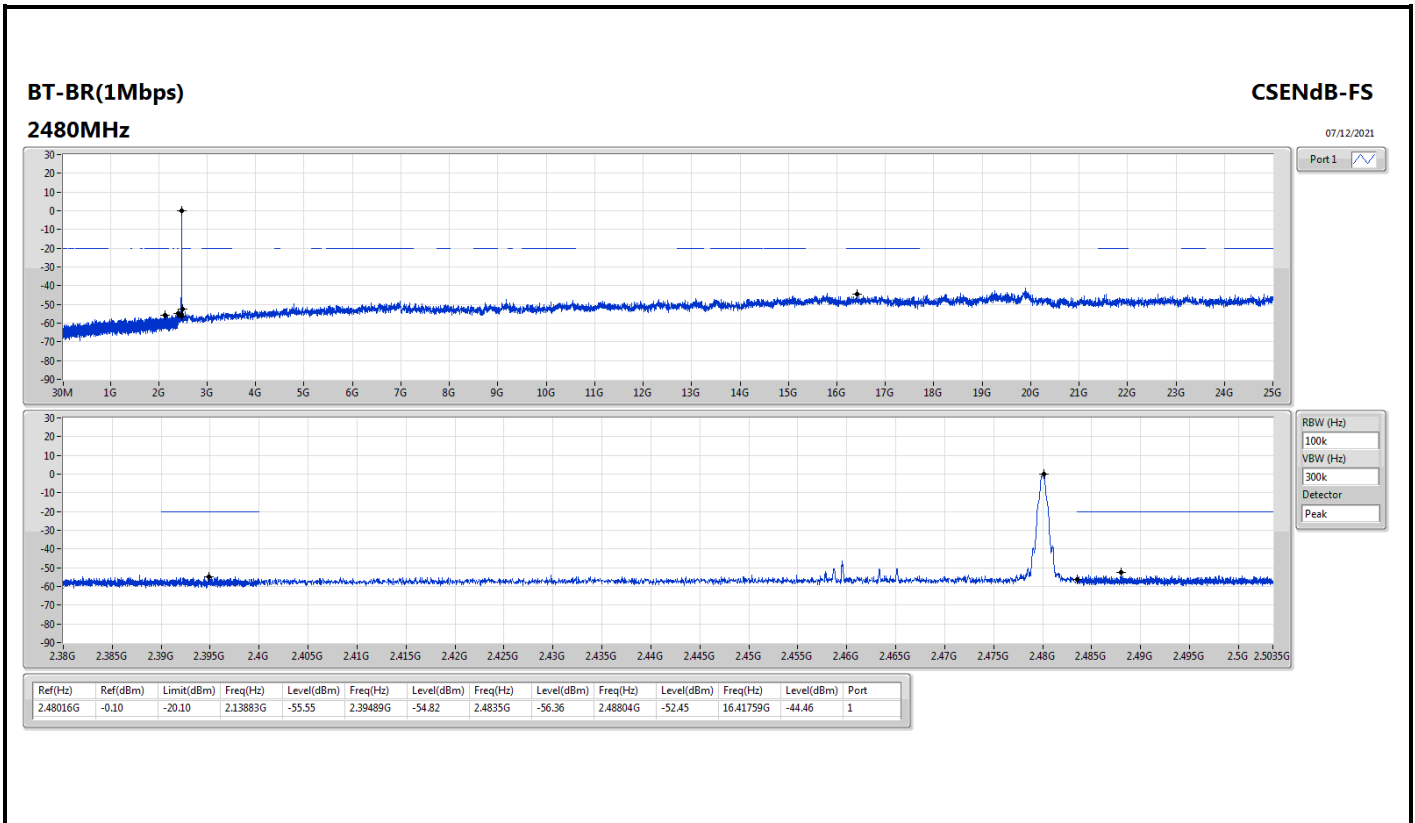
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.48016G	-0.10	-20.10	2.13883G	-55.55	2.39489G	-54.82	2.4835G	-56.36	2.48804G	-52.45	16.41759G	-44.46	1
BT-EDR(2Mbps)	Pass	2.40196G	1.12	-18.88	2.10769G	-55.38	2.39966G	-49.10	2.4G	-49.90	2.49559G	-53.62	23.24246G	-43.16	1
BT-EDR(3Mbps)	Pass	2.40196G	1.56	-18.44	2.30333G	-55.56	2.39998G	-47.54	2.4G	-47.30	2.49129G	-53.90	23.3212G	-43.80	1

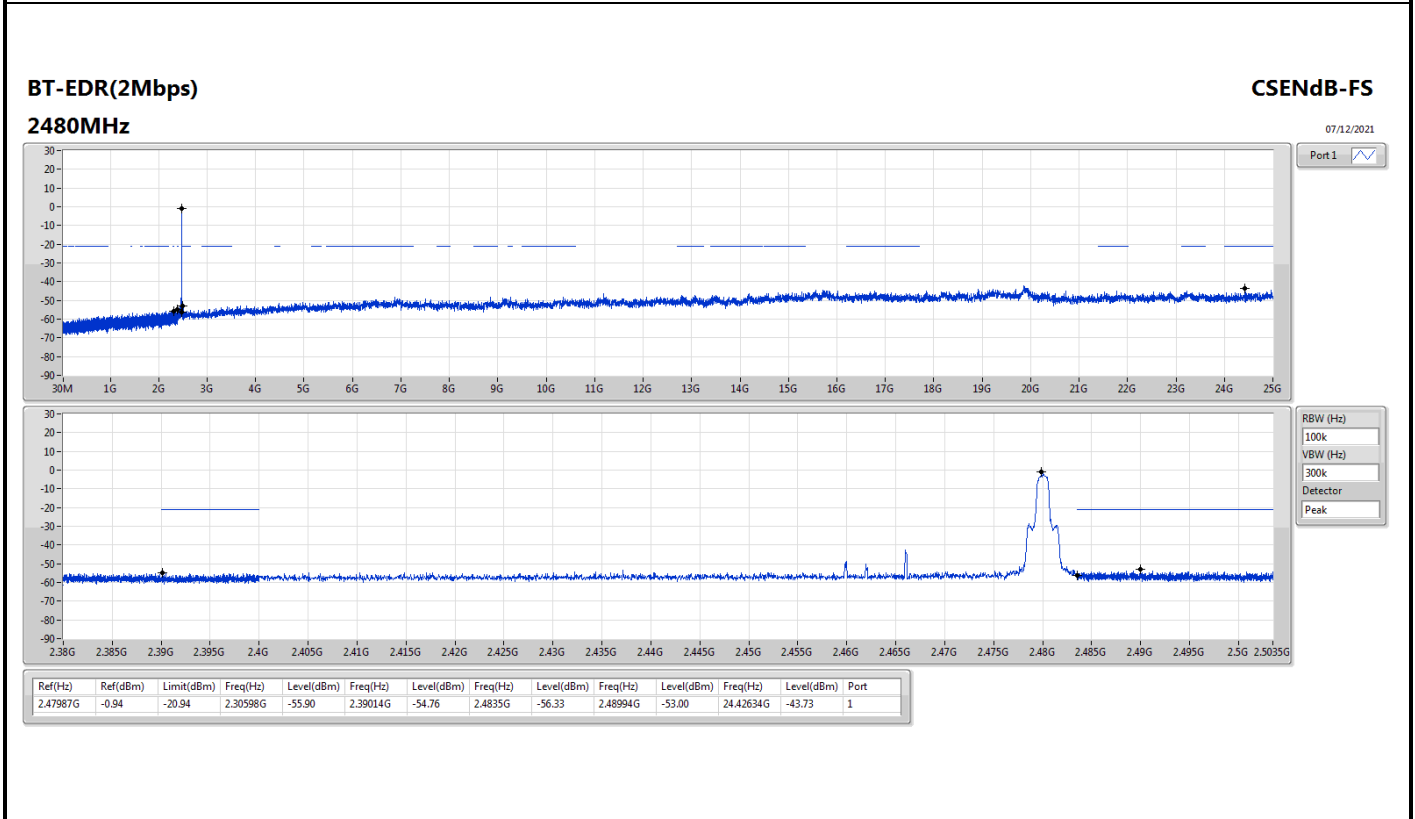
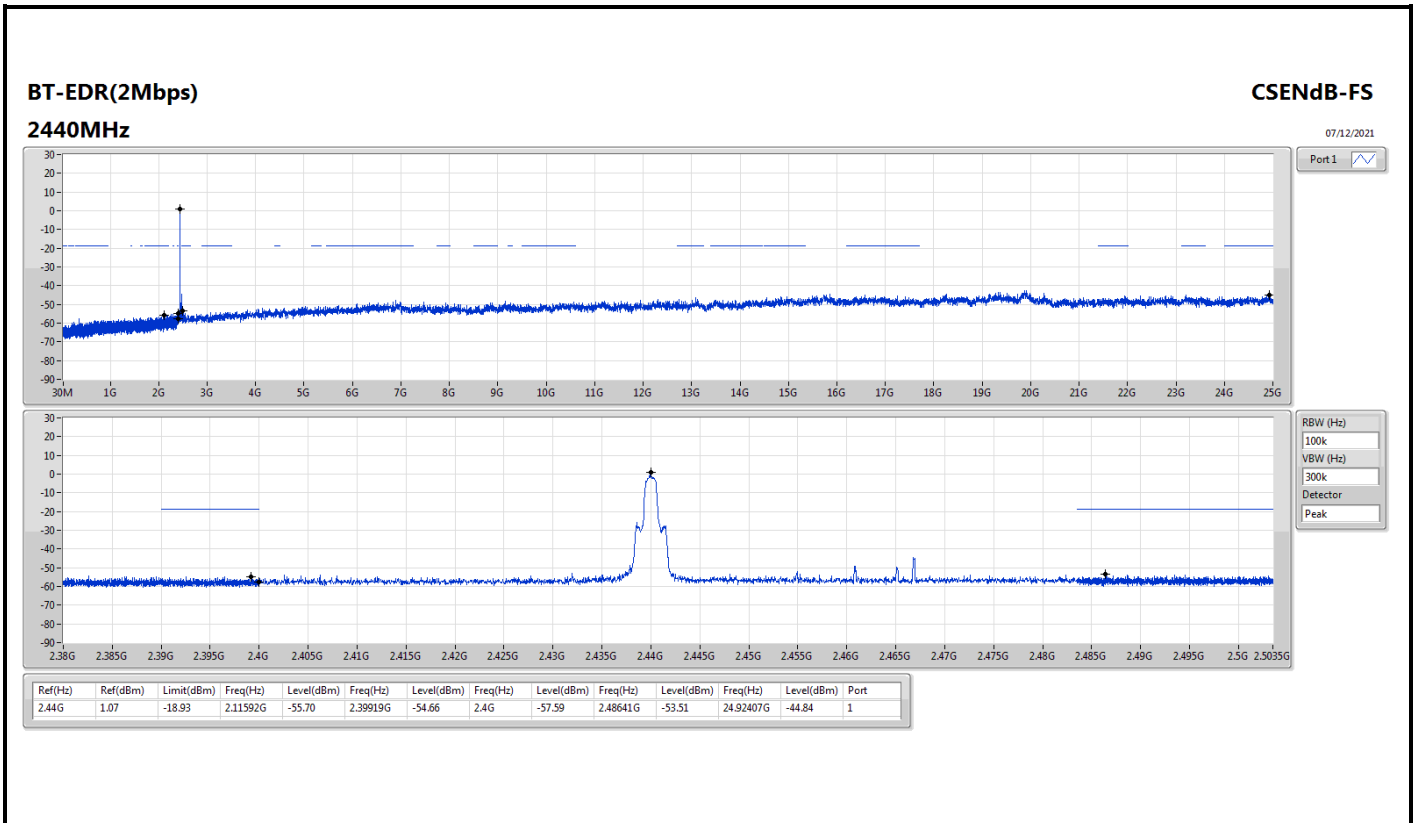


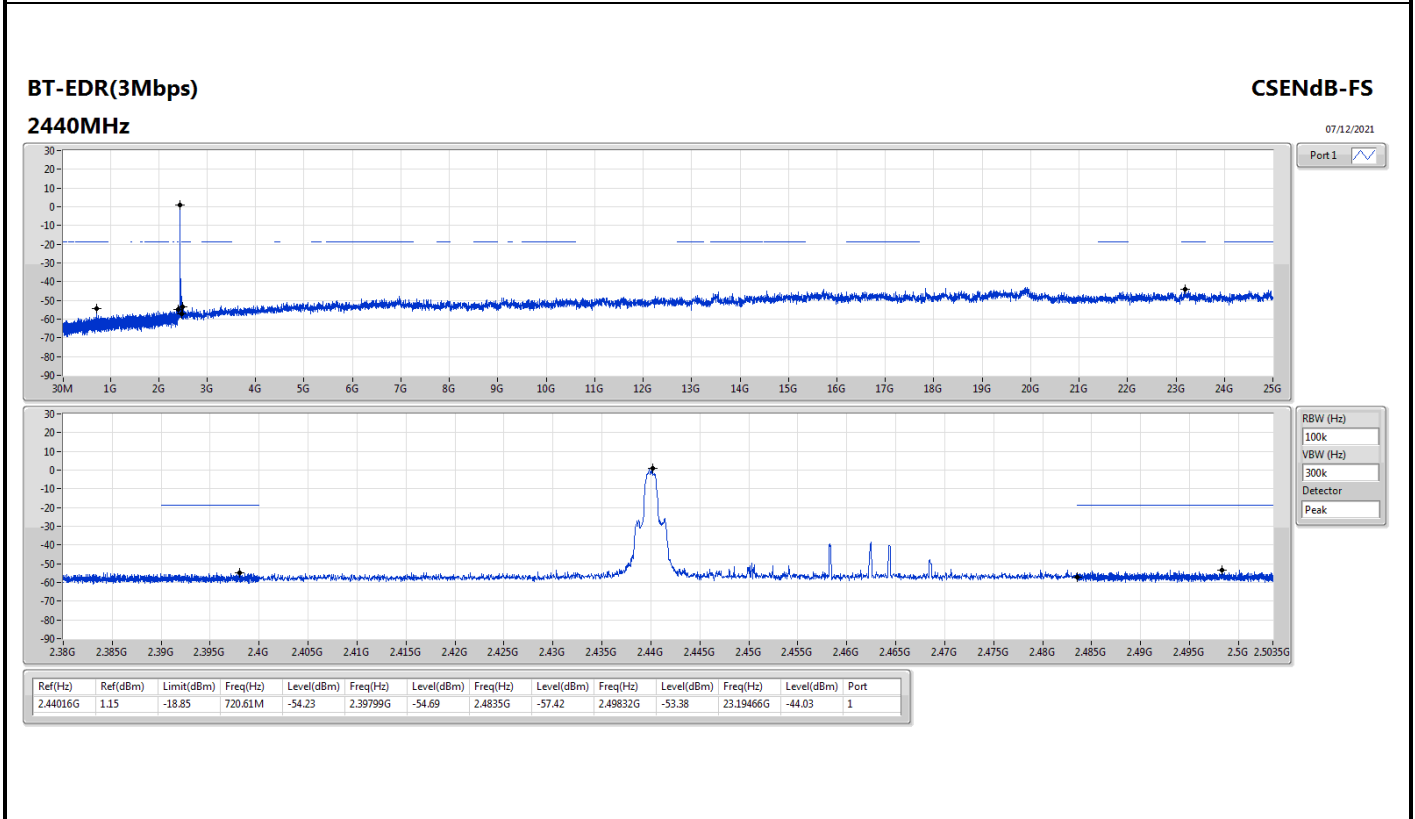
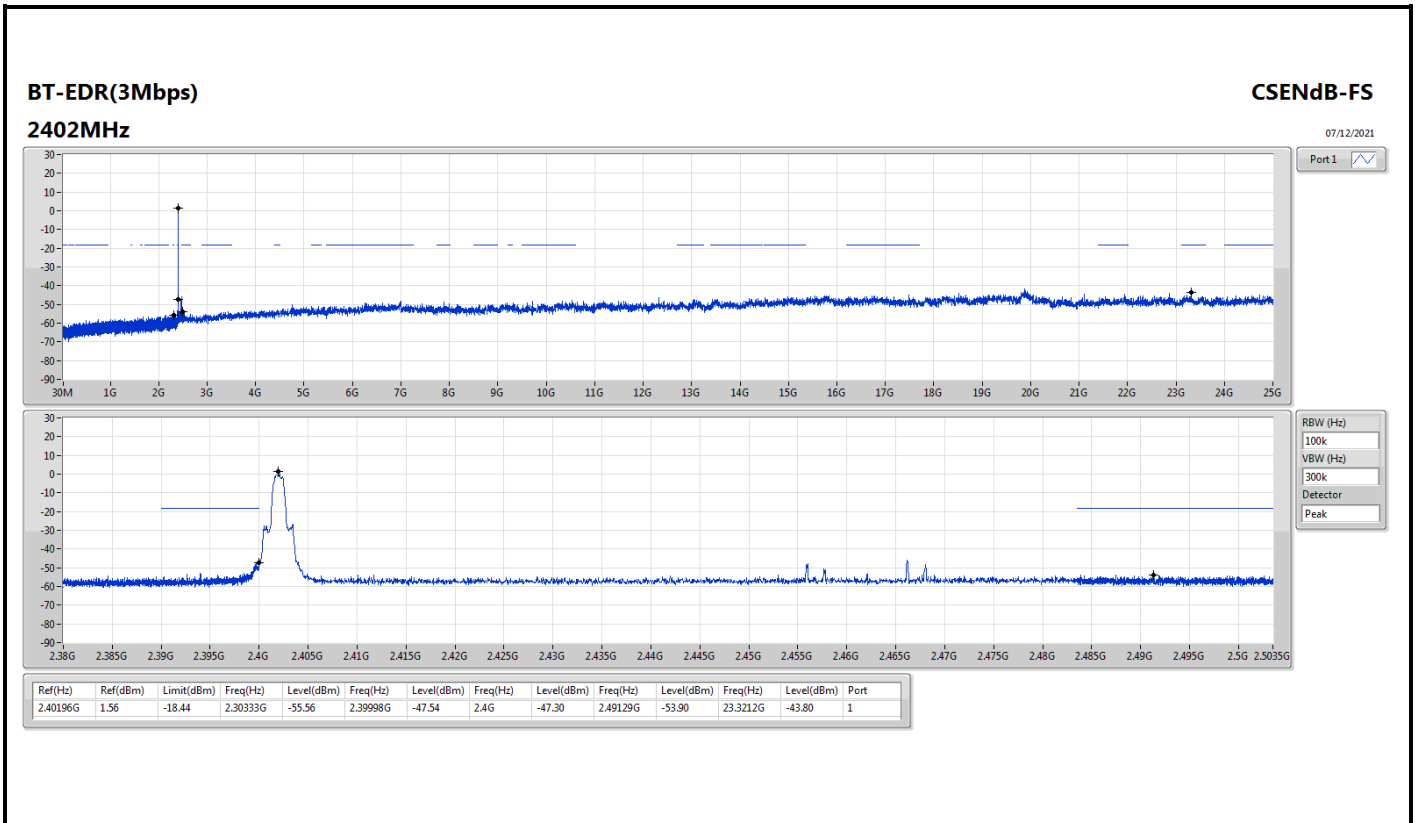
Result

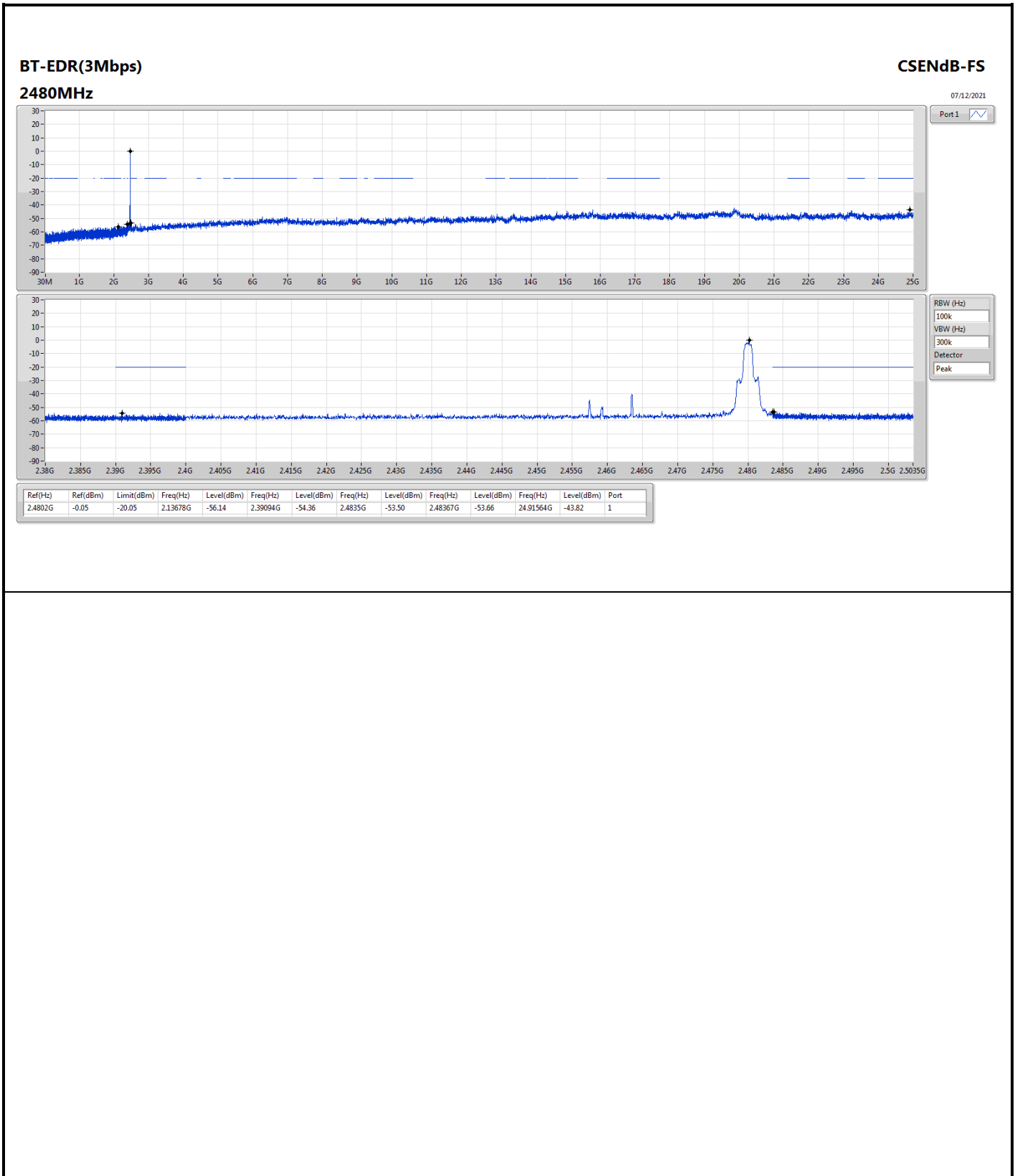
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	1.85	-18.15	1.97727G	-54.99	2.394G	-52.08	2.4G	-55.07	2.48478G	-53.37	23.47305G	-43.73	1
2440MHz	Pass	2.44016G	1.05	-18.95	2.06216G	-55.91	2.39548G	-53.91	2.4835G	-55.93	2.49248G	-53.90	16.78597G	-44.49	1
2480MHz	Pass	2.48016G	-0.10	-20.10	2.13883G	-55.55	2.39489G	-54.82	2.4835G	-56.36	2.48804G	-52.45	16.41759G	-44.46	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	1.12	-18.88	2.10769G	-55.38	2.39966G	-49.10	2.4G	-49.90	2.49559G	-53.62	23.24246G	-43.16	1
2440MHz	Pass	2.44G	1.07	-18.93	2.11592G	-55.70	2.39919G	-54.66	2.4G	-57.59	2.48641G	-53.51	24.92407G	-44.84	1
2480MHz	Pass	2.47987G	-0.94	-20.94	2.30598G	-55.90	2.39014G	-54.76	2.4835G	-56.33	2.48994G	-53.00	24.42634G	-43.73	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	1.56	-18.44	2.30333G	-55.56	2.39998G	-47.54	2.4G	-47.30	2.49129G	-53.90	23.3212G	-43.80	1
2440MHz	Pass	2.44016G	1.15	-18.85	720.61M	-54.23	2.39799G	-54.69	2.4835G	-57.42	2.49832G	-53.38	23.19466G	-44.03	1
2480MHz	Pass	2.4802G	-0.05	-20.05	2.13678G	-56.14	2.39094G	-54.36	2.4835G	-53.50	2.48367G	-53.66	24.91564G	-43.82	1













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-EDR(3Mbps)	Pass	PK	749.74M	34.63	46.00	-11.37	3	Horizontal	0	1.00	-

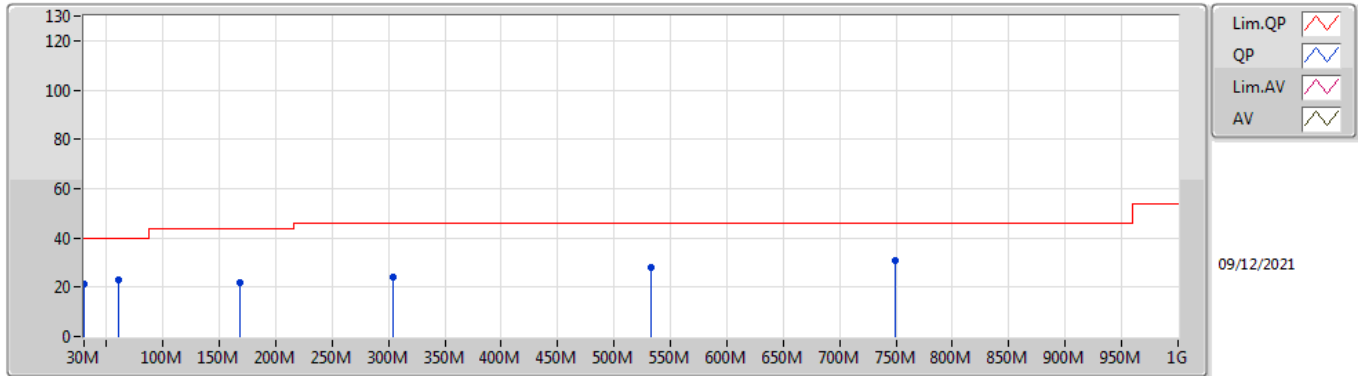


Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	30M	21.20	40.00	-18.80	3	Vertical	360	1.00	-
2440MHz	Pass	PK	61.04M	23.03	40.00	-16.97	3	Vertical	360	1.00	-
2440MHz	Pass	PK	167.74M	21.94	43.50	-21.56	3	Vertical	360	1.00	-
2440MHz	Pass	PK	303.54M	23.93	46.00	-22.07	3	Vertical	360	1.00	-
2440MHz	Pass	PK	532.46M	27.82	46.00	-18.18	3	Vertical	360	1.00	-
2440MHz	Pass	PK	749.74M	31.00	46.00	-15.00	3	Vertical	360	1.00	-
2440MHz	Pass	PK	74.62M	24.86	40.00	-15.14	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	134.76M	24.63	43.50	-18.87	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	167.74M	30.44	43.50	-13.06	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	233.7M	30.97	46.00	-15.03	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	311.3M	33.15	46.00	-12.85	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	749.74M	34.63	46.00	-11.37	3	Horizontal	0	1.00	-

BT-EDR(3Mbps)

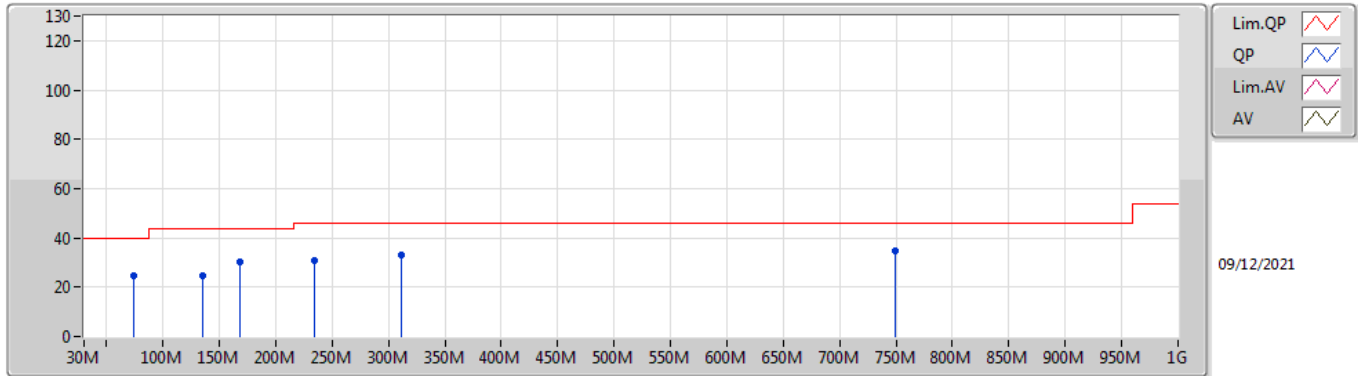
2440MHz_USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	21.20	40.00	-18.80	-12.86	3	Vertical	360	1.00	-	34.06	23.73	0.56	37.15
PK	61.04M	23.03	40.00	-16.97	-25.19	3	Vertical	360	1.00	-	48.22	11.04	0.82	37.05
PK	167.74M	21.94	43.50	-21.56	-20.08	3	Vertical	360	1.00	-	42.02	15.06	1.25	36.39
PK	303.54M	23.93	46.00	-22.07	-16.39	3	Vertical	360	1.00	-	40.32	18.38	1.68	36.45
PK	532.46M	27.82	46.00	-18.18	-11.65	3	Vertical	360	1.00	-	39.47	23.07	2.33	37.05
PK	749.74M	31.00	46.00	-15.00	-7.58	3	Vertical	360	1.00	-	38.58	27.24	2.79	37.61

BT-EDR(3Mbps)

2440MHz_USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	74.62M	24.86	40.00	-15.14	-24.10	3	Horizontal	0	1.00	-	48.96	11.97	0.86	36.93
PK	134.76M	24.63	43.50	-18.87	-18.61	3	Horizontal	0	1.00	-	43.24	16.72	1.15	36.48
PK	167.74M	30.44	43.50	-13.06	-20.08	3	Horizontal	0	1.00	-	50.52	15.06	1.25	36.39
PK	233.7M	30.97	46.00	-15.03	-19.21	3	Horizontal	0	1.00	-	50.18	15.70	1.44	36.35
PK	311.3M	33.15	46.00	-12.85	-16.33	3	Horizontal	0	1.00	-	49.48	18.44	1.69	36.46
PK	749.74M	34.63	46.00	-11.37	-7.58	3	Horizontal	0	1.00	-	42.21	27.24	2.79	37.61



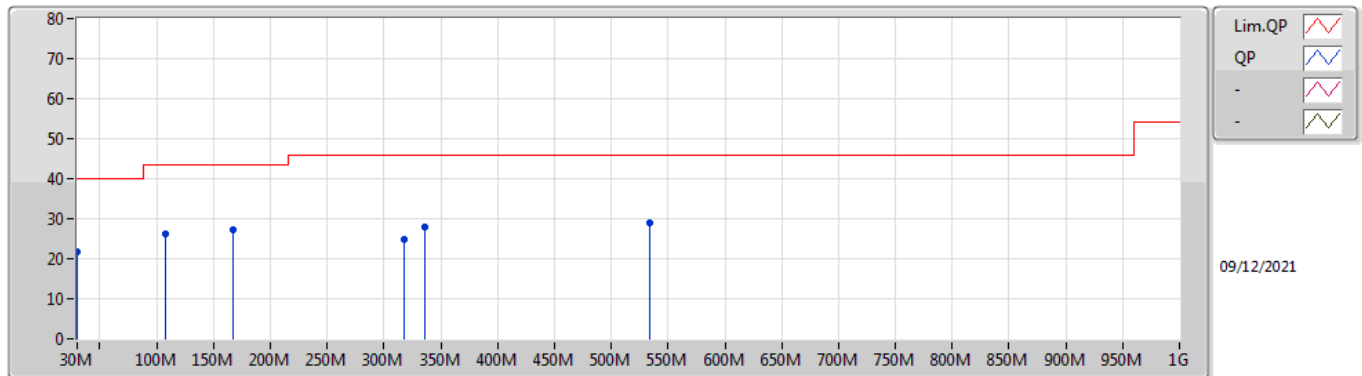
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 2	Pass	PK	303.54M	33.18	46.00	-12.82	Horizontal

Mode Configure

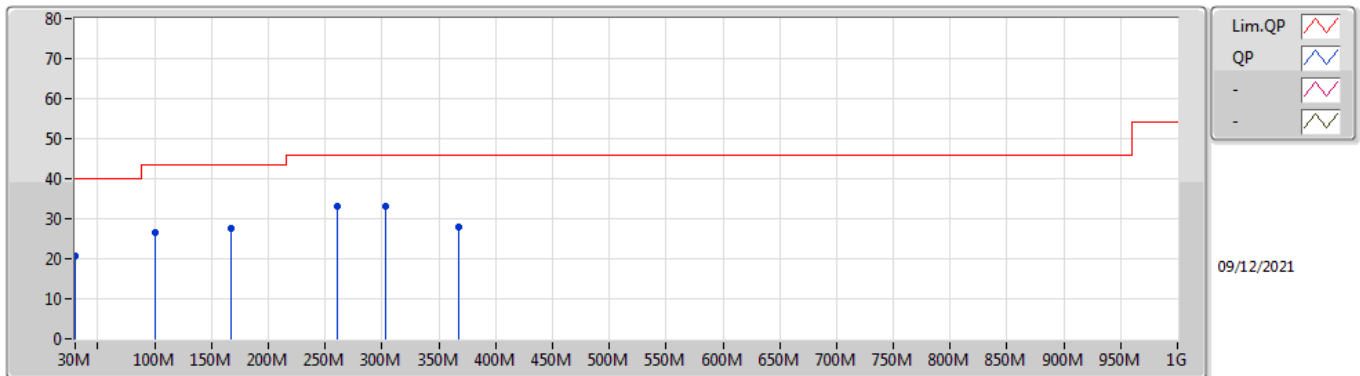
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 2	Pass	PK	30M	21.71	40.00	-18.29	3	Vertical	360	1.00	-
Mode 2	Pass	PK	107.6M	26.23	43.50	-17.27	3	Vertical	360	1.00	-
Mode 2	Pass	PK	167.74M	27.17	43.50	-16.33	3	Vertical	360	1.00	-
Mode 2	Pass	PK	317.12M	24.98	46.00	-21.02	3	Vertical	360	1.00	-
Mode 2	Pass	PK	336.52M	27.86	46.00	-18.14	3	Vertical	360	1.00	-
Mode 2	Pass	PK	534.4M	28.87	46.00	-17.13	3	Vertical	360	1.00	-
Mode 2	Pass	PK	30M	20.55	40.00	-19.45	3	Horizontal	0	1.00	-
Mode 2	Pass	PK	99.84M	26.40	43.50	-17.10	3	Horizontal	0	1.00	-
Mode 2	Pass	PK	167.74M	27.47	43.50	-16.03	3	Horizontal	0	1.00	-
Mode 2	Pass	PK	260.86M	33.10	46.00	-12.90	3	Horizontal	0	1.00	-
Mode 2	Pass	PK	303.54M	33.18	46.00	-12.82	3	Horizontal	0	1.00	-
Mode 2	Pass	PK	367.56M	27.99	46.00	-18.01	3	Horizontal	0	1.00	-

Radiated Emissions below 1GHz_Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	30M	21.71	40.00	-18.29	-12.86	3	Vertical	360	1.00	-	34.57	23.73	0.56	37.15
PK	107.6M	26.23	43.50	-17.27	-19.63	3	Vertical	360	1.00	-	45.86	16.00	1.01	36.64
PK	167.74M	27.17	43.50	-16.33	-20.08	3	Vertical	360	1.00	-	47.25	15.06	1.25	36.39
PK	317.12M	24.98	46.00	-21.02	-16.22	3	Vertical	360	1.00	-	41.20	18.55	1.70	36.47
PK	336.52M	27.86	46.00	-18.14	-15.65	3	Vertical	360	1.00	-	43.51	19.12	1.74	36.51
PK	534.4M	28.87	46.00	-17.13	-11.64	3	Vertical	360	1.00	-	40.51	23.08	2.33	37.05

Radiated Emissions below 1GHz_Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	30M	20.55	40.00	-19.45	-12.86	3	Horizontal	0	1.00	-	33.41	23.73	0.56	37.15
PK	99.84M	26.40	43.50	-17.10	-20.52	3	Horizontal	0	1.00	-	46.92	15.13	0.97	36.62
PK	167.74M	27.47	43.50	-16.03	-20.08	3	Horizontal	0	1.00	-	47.55	15.06	1.25	36.39
PK	260.86M	33.10	46.00	-12.90	-15.47	3	Horizontal	0	1.00	-	48.57	19.39	1.54	36.40
PK	303.54M	33.18	46.00	-12.82	-16.39	3	Horizontal	0	1.00	-	49.57	18.38	1.68	36.45
PK	367.56M	27.99	46.00	-18.01	-14.78	3	Horizontal	0	1.00	-	42.77	19.94	1.82	36.54



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	PK	2.3684G	57.42	74.00	-16.58	3	Vertical	215	1.73	-
BT-EDR(3Mbps)	Pass	PK	2.494G	58.79	74.00	-15.21	3	Horizontal	306	1.05	-



Result

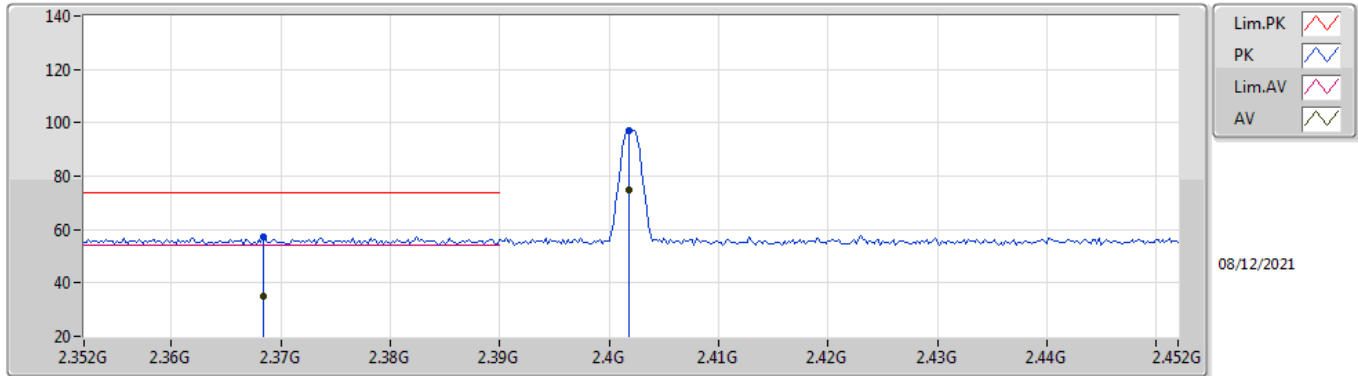
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3684G	34.92	54.00	-19.08	3	Vertical	215	1.73	-
2402MHz	Pass	AV	2.4018G	74.70	Inf	-Inf	3	Vertical	215	1.73	-
2402MHz	Pass	PK	2.3684G	57.42	74.00	-16.58	3	Vertical	215	1.73	-
2402MHz	Pass	PK	2.4018G	97.20	Inf	-Inf	3	Vertical	215	1.73	-
2402MHz	Pass	AV	2.3886G	34.62	54.00	-19.38	3	Horizontal	244	1.19	-
2402MHz	Pass	AV	2.402G	75.42	Inf	-Inf	3	Horizontal	244	1.19	-
2402MHz	Pass	PK	2.3886G	57.12	74.00	-16.88	3	Horizontal	244	1.19	-
2402MHz	Pass	PK	2.402G	97.92	Inf	-Inf	3	Horizontal	244	1.19	-
2402MHz	Pass	AV	4.80419G	25.97	54.00	-28.03	3	Vertical	18	1.00	-
2402MHz	Pass	PK	4.80419G	48.47	74.00	-25.53	3	Vertical	18	1.00	-
2402MHz	Pass	AV	4.80418G	24.93	54.00	-29.07	3	Horizontal	36	2.37	-
2402MHz	Pass	PK	4.80418G	47.43	74.00	-26.57	3	Horizontal	36	2.37	-
2440MHz	Pass	AV	2.3652G	34.42	54.00	-19.58	3	Vertical	220	2.29	-
2440MHz	Pass	AV	2.44G	77.16	Inf	-Inf	3	Vertical	220	2.29	-
2440MHz	Pass	AV	2.4992G	34.04	54.00	-19.96	3	Vertical	220	2.29	-
2440MHz	Pass	PK	2.3652G	56.92	74.00	-17.08	3	Vertical	220	2.29	-
2440MHz	Pass	PK	2.44G	99.66	Inf	-Inf	3	Vertical	220	2.29	-
2440MHz	Pass	PK	2.4992G	56.54	74.00	-17.46	3	Vertical	220	2.29	-
2440MHz	Pass	AV	2.374G	34.81	54.00	-19.19	3	Horizontal	252	1.58	-
2440MHz	Pass	AV	2.44G	76.39	Inf	-Inf	3	Horizontal	252	1.58	-
2440MHz	Pass	AV	2.4984G	34.66	54.00	-19.34	3	Horizontal	252	1.58	-
2440MHz	Pass	PK	2.374G	57.31	74.00	-16.69	3	Horizontal	252	1.58	-
2440MHz	Pass	PK	2.44G	98.89	Inf	-Inf	3	Horizontal	252	1.58	-
2440MHz	Pass	PK	2.4984G	57.16	74.00	-16.84	3	Horizontal	252	1.58	-
2440MHz	Pass	AV	4.88066G	22.32	54.00	-31.68	3	Vertical	170	1.46	-
2440MHz	Pass	AV	7.31996G	29.09	54.00	-24.91	3	Vertical	30	2.06	-
2440MHz	Pass	PK	4.88066G	44.82	74.00	-29.18	3	Vertical	170	1.46	-
2440MHz	Pass	PK	7.31996G	51.59	74.00	-22.41	3	Vertical	30	2.06	-
2440MHz	Pass	AV	4.88037G	23.46	54.00	-30.54	3	Horizontal	37	1.00	-
2440MHz	Pass	AV	7.32072G	31.18	54.00	-22.82	3	Horizontal	120	1.00	-
2440MHz	Pass	PK	4.88037G	45.96	74.00	-28.04	3	Horizontal	37	1.00	-
2440MHz	Pass	PK	7.32072G	53.68	74.00	-20.32	3	Horizontal	120	1.00	-
2480MHz	Pass	AV	2.4798G	74.07	Inf	-Inf	3	Vertical	273	1.96	-
2480MHz	Pass	AV	2.4878G	34.72	54.00	-19.28	3	Vertical	273	1.96	-
2480MHz	Pass	PK	2.4798G	96.57	Inf	-Inf	3	Vertical	273	1.96	-
2480MHz	Pass	PK	2.4878G	57.22	74.00	-16.78	3	Vertical	273	1.96	-
2480MHz	Pass	AV	2.4802G	76.59	Inf	-Inf	3	Horizontal	307	1.05	-
2480MHz	Pass	AV	2.4872G	34.64	54.00	-19.36	3	Horizontal	307	1.05	-
2480MHz	Pass	PK	2.4802G	99.09	Inf	-Inf	3	Horizontal	307	1.05	-
2480MHz	Pass	PK	2.4872G	57.14	74.00	-16.86	3	Horizontal	307	1.05	-
2480MHz	Pass	AV	4.9604G	24.67	54.00	-29.33	3	Vertical	293	1.00	-
2480MHz	Pass	AV	7.43975G	30.06	54.00	-23.94	3	Vertical	93	2.59	-
2480MHz	Pass	PK	4.9604G	47.17	74.00	-26.83	3	Vertical	293	1.00	-
2480MHz	Pass	PK	7.43975G	52.56	74.00	-21.44	3	Vertical	93	2.59	-
2480MHz	Pass	AV	4.96002G	25.85	54.00	-28.15	3	Horizontal	38	1.01	-
2480MHz	Pass	AV	7.44026G	29.56	54.00	-24.44	3	Horizontal	120	1.00	-
2480MHz	Pass	PK	4.96002G	48.35	74.00	-25.65	3	Horizontal	38	1.01	-
2480MHz	Pass	PK	7.44026G	52.06	74.00	-21.94	3	Horizontal	120	1.00	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3824G	34.58	54.00	-19.42	3	Vertical	208	1.18	-
2402MHz	Pass	AV	2.402G	76.91	Inf	-Inf	3	Vertical	208	1.18	-
2402MHz	Pass	PK	2.3824G	57.08	74.00	-16.92	3	Vertical	208	1.18	-
2402MHz	Pass	PK	2.402G	99.41	Inf	-Inf	3	Vertical	208	1.18	-
2402MHz	Pass	AV	2.3728G	34.40	54.00	-19.60	3	Horizontal	245	1.16	-
2402MHz	Pass	AV	2.402G	77.23	Inf	-Inf	3	Horizontal	245	1.16	-
2402MHz	Pass	PK	2.3728G	56.90	74.00	-17.10	3	Horizontal	245	1.16	-
2402MHz	Pass	PK	2.402G	99.73	Inf	-Inf	3	Horizontal	245	1.16	-
2402MHz	Pass	AV	4.80429G	23.88	54.00	-30.12	3	Vertical	191	2.50	-
2402MHz	Pass	PK	4.80429G	46.38	74.00	-27.62	3	Vertical	191	2.50	-
2402MHz	Pass	AV	4.80401G	23.43	54.00	-30.57	3	Horizontal	53	2.45	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	4.80401G	45.93	74.00	-28.07	3	Horizontal	53	2.45	-
2440MHz	Pass	AV	2.3444G	35.02	54.00	-18.98	3	Vertical	220	2.29	-
2440MHz	Pass	AV	2.44G	78.27	Inf	-Inf	3	Vertical	220	2.29	-
2440MHz	Pass	AV	2.4904G	34.76	54.00	-19.24	3	Vertical	220	2.29	-
2440MHz	Pass	PK	2.3444G	57.52	74.00	-16.48	3	Vertical	220	2.29	-
2440MHz	Pass	PK	2.44G	100.77	Inf	-Inf	3	Vertical	220	2.29	-
2440MHz	Pass	PK	2.4904G	57.26	74.00	-16.74	3	Vertical	220	2.29	-
2440MHz	Pass	AV	2.3476G	35.28	54.00	-18.72	3	Horizontal	252	1.57	-
2440MHz	Pass	AV	2.44G	77.95	Inf	-Inf	3	Horizontal	252	1.57	-
2440MHz	Pass	AV	2.4908G	34.36	54.00	-19.64	3	Horizontal	252	1.57	-
2440MHz	Pass	PK	2.3476G	57.78	74.00	-16.22	3	Horizontal	252	1.57	-
2440MHz	Pass	PK	2.44G	100.45	Inf	-Inf	3	Horizontal	252	1.57	-
2440MHz	Pass	PK	2.4908G	56.86	74.00	-17.14	3	Horizontal	252	1.57	-
2440MHz	Pass	AV	4.88038G	22.59	54.00	-31.41	3	Vertical	311	1.20	-
2440MHz	Pass	AV	7.32124G	27.09	54.00	-26.91	3	Vertical	168	1.00	-
2440MHz	Pass	PK	4.88038G	45.09	74.00	-28.91	3	Vertical	311	1.20	-
2440MHz	Pass	PK	7.32124G	49.59	74.00	-24.41	3	Vertical	168	1.00	-
2440MHz	Pass	AV	4.87954G	22.78	54.00	-31.22	3	Horizontal	50	1.00	-
2440MHz	Pass	AV	7.31976G	28.06	54.00	-25.94	3	Horizontal	137	1.00	-
2440MHz	Pass	PK	4.87954G	45.28	74.00	-28.72	3	Horizontal	50	1.00	-
2440MHz	Pass	PK	7.31976G	50.56	74.00	-23.44	3	Horizontal	137	1.00	-
2480MHz	Pass	AV	2.48G	75.22	Inf	-Inf	3	Vertical	263	1.09	-
2480MHz	Pass	AV	2.4956G	34.78	54.00	-19.22	3	Vertical	263	1.09	-
2480MHz	Pass	PK	2.48G	97.72	Inf	-Inf	3	Vertical	263	1.09	-
2480MHz	Pass	PK	2.4956G	57.28	74.00	-16.72	3	Vertical	263	1.09	-
2480MHz	Pass	AV	2.48G	77.50	Inf	-Inf	3	Horizontal	306	1.05	-
2480MHz	Pass	AV	2.494G	36.29	54.00	-17.71	3	Horizontal	306	1.05	-
2480MHz	Pass	PK	2.48G	100.00	Inf	-Inf	3	Horizontal	306	1.05	-
2480MHz	Pass	PK	2.494G	58.79	74.00	-15.21	3	Horizontal	306	1.05	-
2480MHz	Pass	AV	4.96016G	24.20	54.00	-29.80	3	Vertical	295	1.02	-
2480MHz	Pass	AV	7.43885G	27.73	54.00	-26.27	3	Vertical	136	1.00	-
2480MHz	Pass	PK	4.96016G	46.70	74.00	-27.30	3	Vertical	295	1.02	-
2480MHz	Pass	PK	7.43885G	50.23	74.00	-23.77	3	Vertical	136	1.00	-
2480MHz	Pass	AV	4.96046G	25.56	54.00	-28.44	3	Horizontal	38	1.02	-
2480MHz	Pass	AV	7.43937G	29.32	54.00	-24.68	3	Horizontal	118	1.00	-
2480MHz	Pass	PK	4.96046G	48.06	74.00	-25.94	3	Horizontal	38	1.02	-
2480MHz	Pass	PK	7.43937G	51.82	74.00	-22.18	3	Horizontal	118	1.00	-

BT-BR(1Mbps)

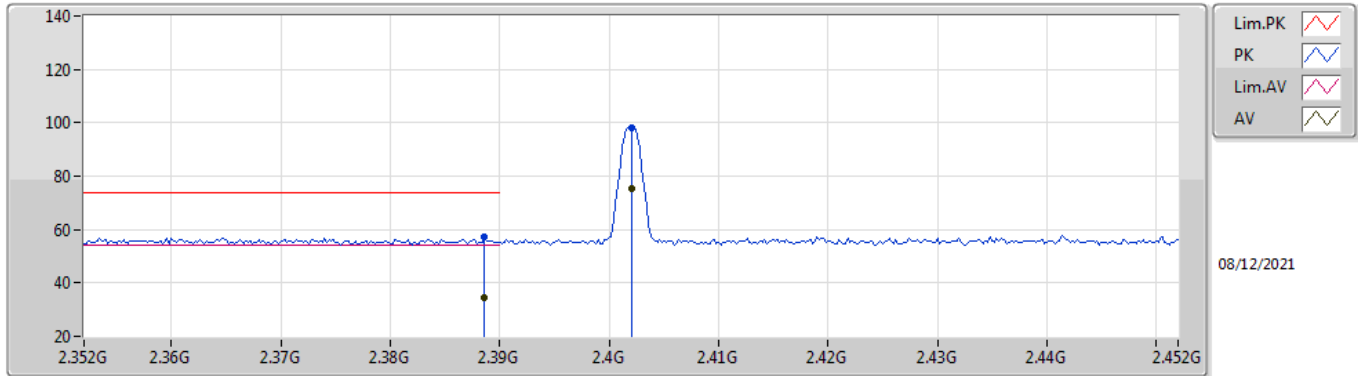
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3684G	34.92	54.00	-19.08	32.28	3	Vertical	215	1.73	-	2.64	27.73	4.55	-
AV	2.4018G	74.70	Inf	-Inf	32.18	3	Vertical	215	1.73	-	42.52	27.60	4.58	-
PK	2.3684G	57.42	74.00	-16.58	32.28	3	Vertical	215	1.73	-	25.14	27.73	4.55	-
PK	2.4018G	97.20	Inf	-Inf	32.18	3	Vertical	215	1.73	-	65.02	27.60	4.58	-

BT-BR(1Mbps)

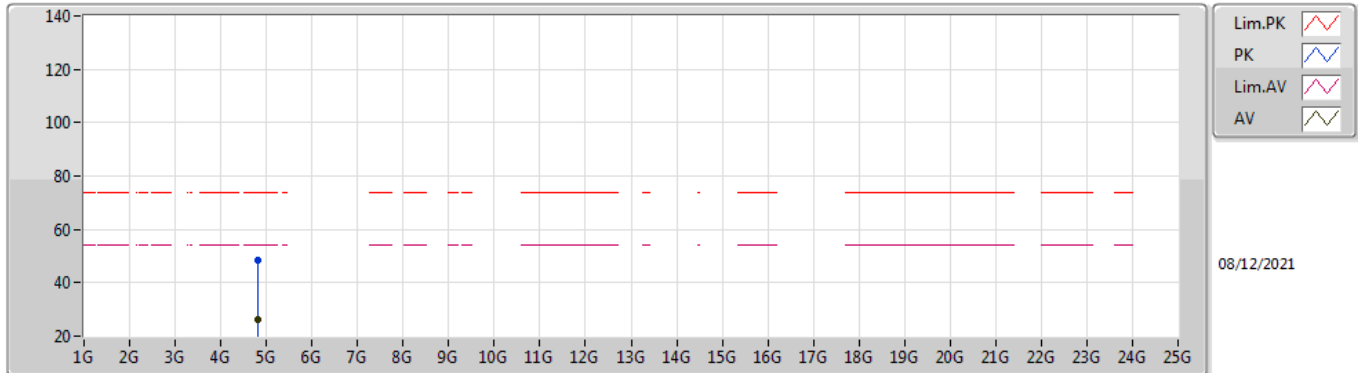
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3886G	34.62	54.00	-19.38	32.22	3	Horizontal	244	1.19	-	2.40	27.65	4.57	-
AV	2.402G	75.42	Inf	-Inf	32.18	3	Horizontal	244	1.19	-	43.24	27.60	4.58	-
PK	2.3886G	57.12	74.00	-16.88	32.22	3	Horizontal	244	1.19	-	24.90	27.65	4.57	-
PK	2.402G	97.92	Inf	-Inf	32.18	3	Horizontal	244	1.19	-	65.74	27.60	4.58	-

BT-BR(1Mbps)

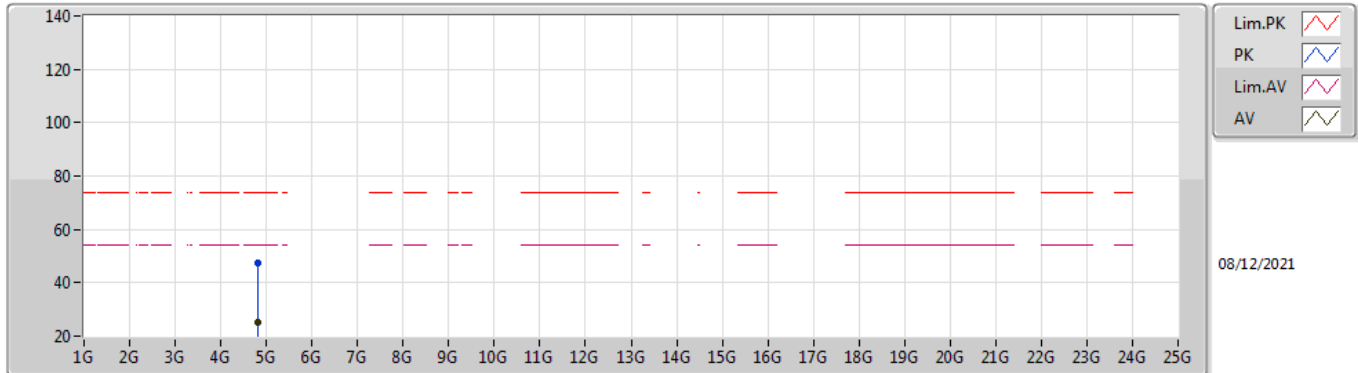
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80419G	25.97	54.00	-28.03	2.95	3	Vertical	18	1.00	-	23.02	31.10	6.66	34.81
PK	4.80419G	48.47	74.00	-25.53	2.95	3	Vertical	18	1.00	-	45.52	31.10	6.66	34.81

BT-BR(1Mbps)

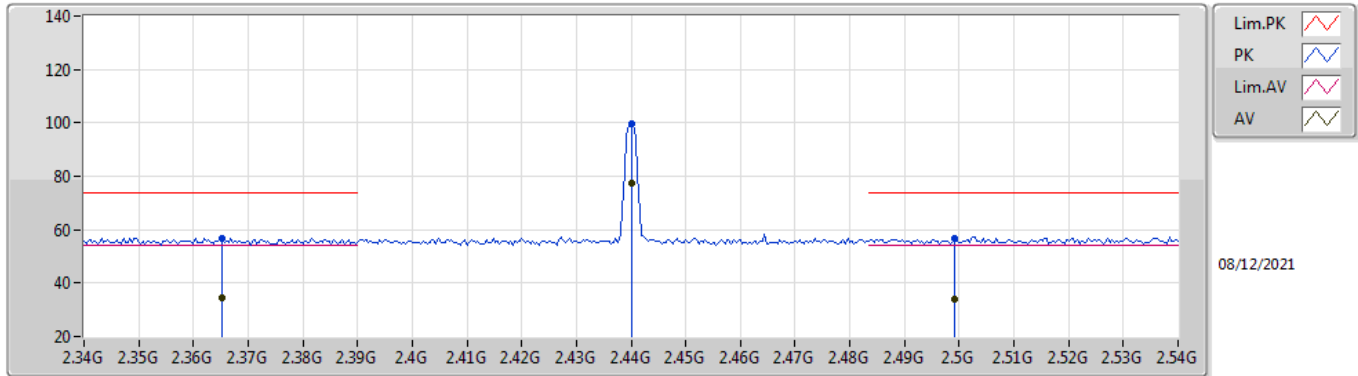
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80418G	24.93	54.00	-29.07	2.95	3	Horizontal	36	2.37	-	21.98	31.10	6.66	34.81
PK	4.80418G	47.43	74.00	-26.57	2.95	3	Horizontal	36	2.37	-	44.48	31.10	6.66	34.81

BT-BR(1Mbps)

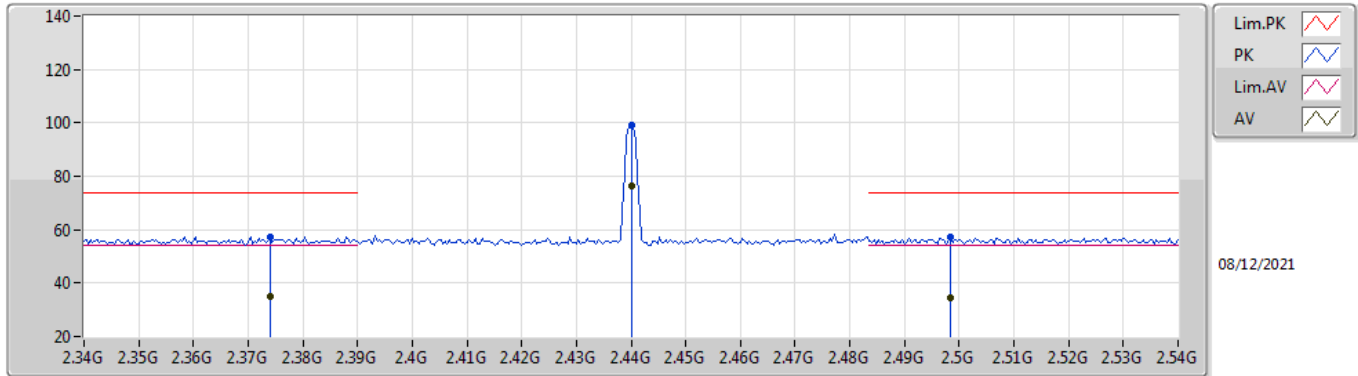
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3652G	34.42	54.00	-19.58	32.29	3	Vertical	220	2.29	-	2.13	27.74	4.55	-
AV	2.44G	77.16	Inf	-Inf	32.12	3	Vertical	220	2.29	-	45.04	27.52	4.60	-
AV	2.4992G	34.04	54.00	-19.96	32.12	3	Vertical	220	2.29	-	1.92	27.50	4.62	-
PK	2.3652G	56.92	74.00	-17.08	32.29	3	Vertical	220	2.29	-	24.63	27.74	4.55	-
PK	2.44G	99.66	Inf	-Inf	32.12	3	Vertical	220	2.29	-	67.54	27.52	4.60	-
PK	2.4992G	56.54	74.00	-17.46	32.12	3	Vertical	220	2.29	-	24.42	27.50	4.62	-

BT-BR(1Mbps)

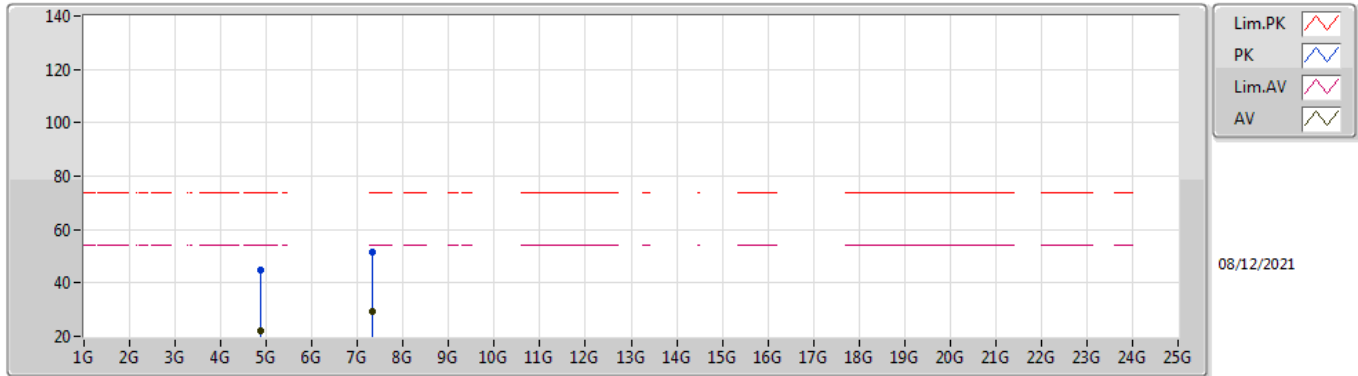
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.374G	34.81	54.00	-19.19	32.26	3	Horizontal	252	1.58	-	2.55	27.70	4.56	-
AV	2.44G	76.39	Inf	-Inf	32.12	3	Horizontal	252	1.58	-	44.27	27.52	4.60	-
AV	2.4984G	34.66	54.00	-19.34	32.12	3	Horizontal	252	1.58	-	2.54	27.50	4.62	-
PK	2.374G	57.31	74.00	-16.69	32.26	3	Horizontal	252	1.58	-	25.05	27.70	4.56	-
PK	2.44G	98.89	Inf	-Inf	32.12	3	Horizontal	252	1.58	-	66.77	27.52	4.60	-
PK	2.4984G	57.16	74.00	-16.84	32.12	3	Horizontal	252	1.58	-	25.04	27.50	4.62	-

BT-BR(1Mbps)

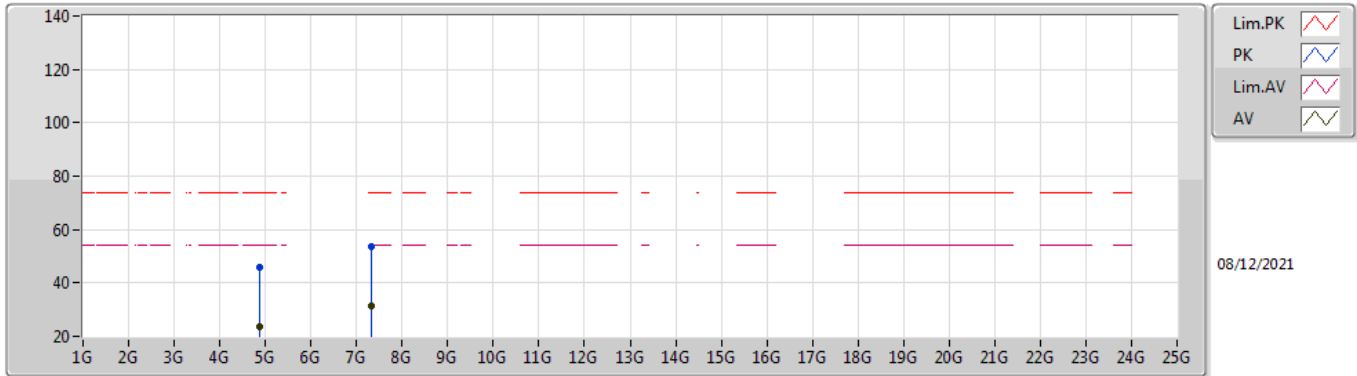
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88066G	22.32	54.00	-31.68	3.03	3	Vertical	170	1.46	-	19.29	31.10	6.72	34.79
AV	7.31996G	29.09	54.00	-24.91	9.41	3	Vertical	30	2.06	-	19.68	36.36	7.87	34.82
PK	4.88066G	44.82	74.00	-29.18	3.03	3	Vertical	170	1.46	-	41.79	31.10	6.72	34.79
PK	7.31996G	51.59	74.00	-22.41	9.41	3	Vertical	30	2.06	-	42.18	36.36	7.87	34.82

BT-BR(1Mbps)

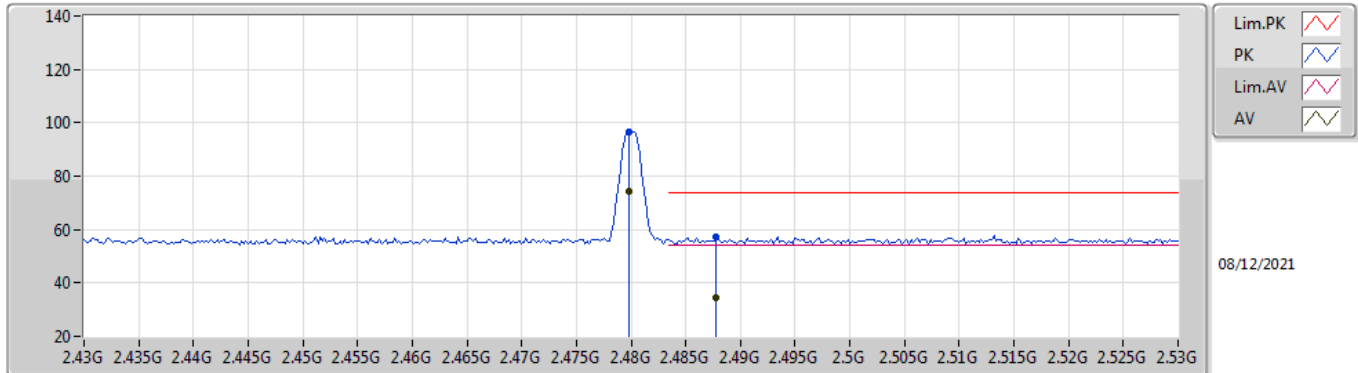
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88037G	23.46	54.00	-30.54	3.03	3	Horizontal	37	1.00	-	20.43	31.10	6.72	34.79
AV	7.32072G	31.18	54.00	-22.82	9.41	3	Horizontal	120	1.00	-	21.77	36.36	7.87	34.82
PK	4.88037G	45.96	74.00	-28.04	3.03	3	Horizontal	37	1.00	-	42.93	31.10	6.72	34.79
PK	7.32072G	53.68	74.00	-20.32	9.41	3	Horizontal	120	1.00	-	44.27	36.36	7.87	34.82

BT-BR(1Mbps)

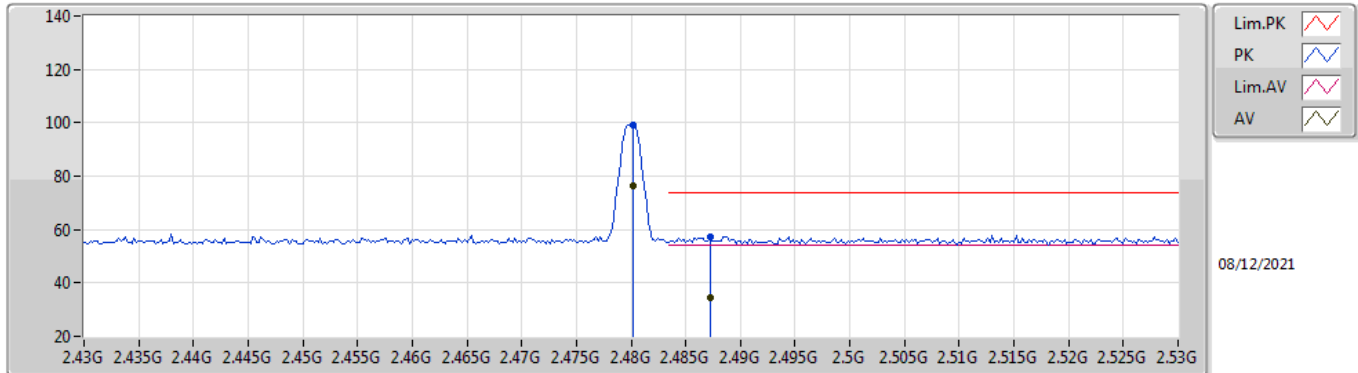
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4798G	74.07	Inf	-Inf	32.11	3	Vertical	273	1.96	-	41.96	27.50	4.61	-
AV	2.4878G	34.72	54.00	-19.28	32.12	3	Vertical	273	1.96	-	2.60	27.50	4.62	-
PK	2.4798G	96.57	Inf	-Inf	32.11	3	Vertical	273	1.96	-	64.46	27.50	4.61	-
PK	2.4878G	57.22	74.00	-16.78	32.12	3	Vertical	273	1.96	-	25.10	27.50	4.62	-

BT-BR(1Mbps)

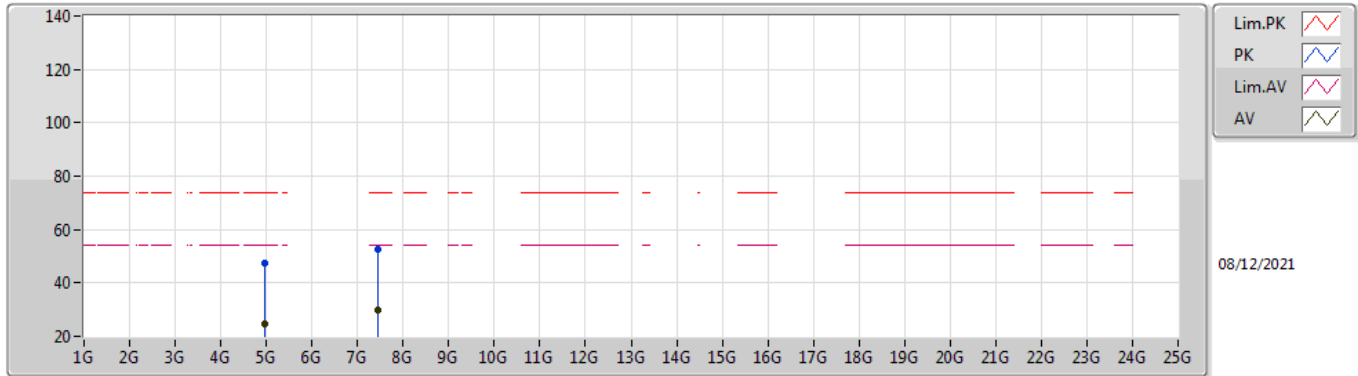
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4802G	76.59	Inf	-Inf	32.11	3	Horizontal	307	1.05	-	44.48	27.50	4.61	-
AV	2.4872G	34.64	54.00	-19.36	32.11	3	Horizontal	307	1.05	-	2.53	27.50	4.61	-
PK	2.4802G	99.09	Inf	-Inf	32.11	3	Horizontal	307	1.05	-	66.98	27.50	4.61	-
PK	2.4872G	57.14	74.00	-16.86	32.11	3	Horizontal	307	1.05	-	25.03	27.50	4.61	-

BT-BR(1Mbps)

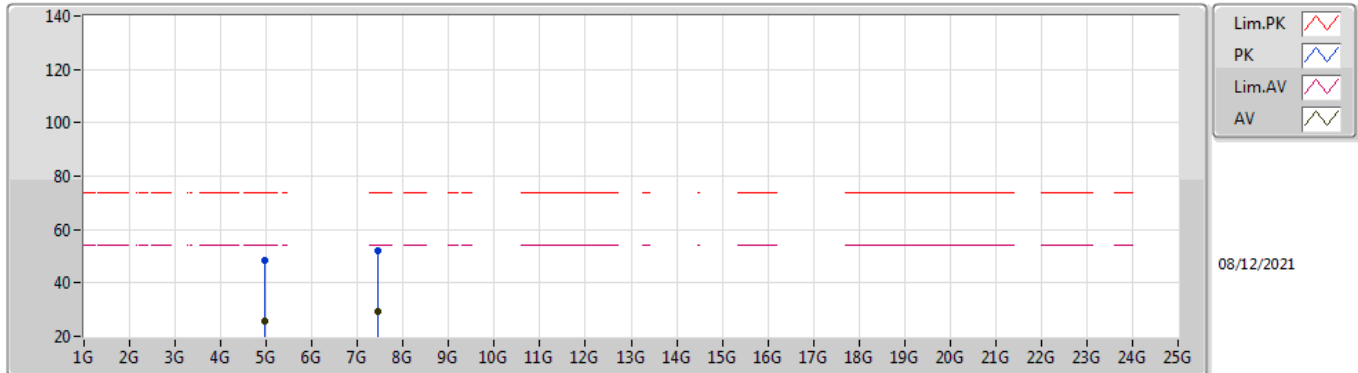
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.9604G	24.67	54.00	-29.33	3.35	3	Vertical	293	1.00	-	21.32	31.34	6.78	34.77
AV	7.43975G	30.06	54.00	-23.94	9.50	3	Vertical	93	2.59	-	20.56	36.28	8.06	34.84
PK	4.9604G	47.17	74.00	-26.83	3.35	3	Vertical	293	1.00	-	43.82	31.34	6.78	34.77
PK	7.43975G	52.56	74.00	-21.44	9.50	3	Vertical	93	2.59	-	43.06	36.28	8.06	34.84

BT-BR(1Mbps)

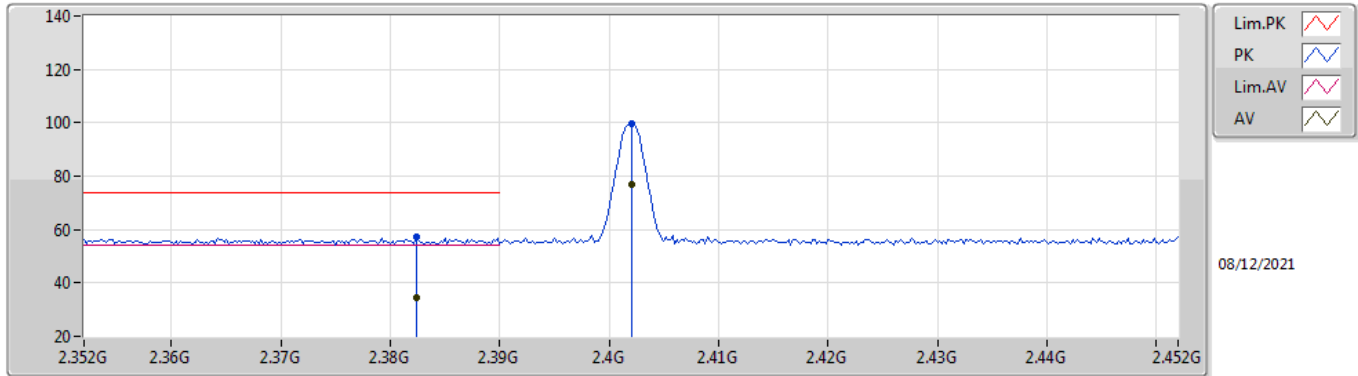
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96002G	25.85	54.00	-28.15	3.35	3	Horizontal	38	1.01	-	22.50	31.34	6.78	34.77
AV	7.44026G	29.56	54.00	-24.44	9.50	3	Horizontal	120	1.00	-	20.06	36.28	8.06	34.84
PK	4.96002G	48.35	74.00	-25.65	3.35	3	Horizontal	38	1.01	-	45.00	31.34	6.78	34.77
PK	7.44026G	52.06	74.00	-21.94	9.50	3	Horizontal	120	1.00	-	42.56	36.28	8.06	34.84

BT-EDR(3Mbps)

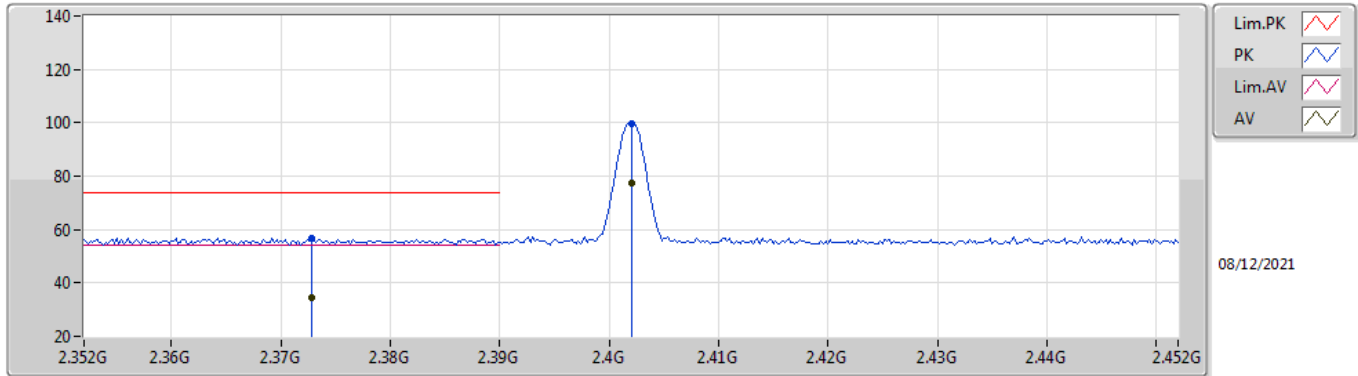
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3824G	34.58	54.00	-19.42	32.23	3	Vertical	208	1.18	-	2.35	27.67	4.56	-
AV	2.402G	76.91	Inf	-Inf	32.18	3	Vertical	208	1.18	-	44.73	27.60	4.58	-
PK	2.3824G	57.08	74.00	-16.92	32.23	3	Vertical	208	1.18	-	24.85	27.67	4.56	-
PK	2.402G	99.41	Inf	-Inf	32.18	3	Vertical	208	1.18	-	67.23	27.60	4.58	-

BT-EDR(3Mbps)

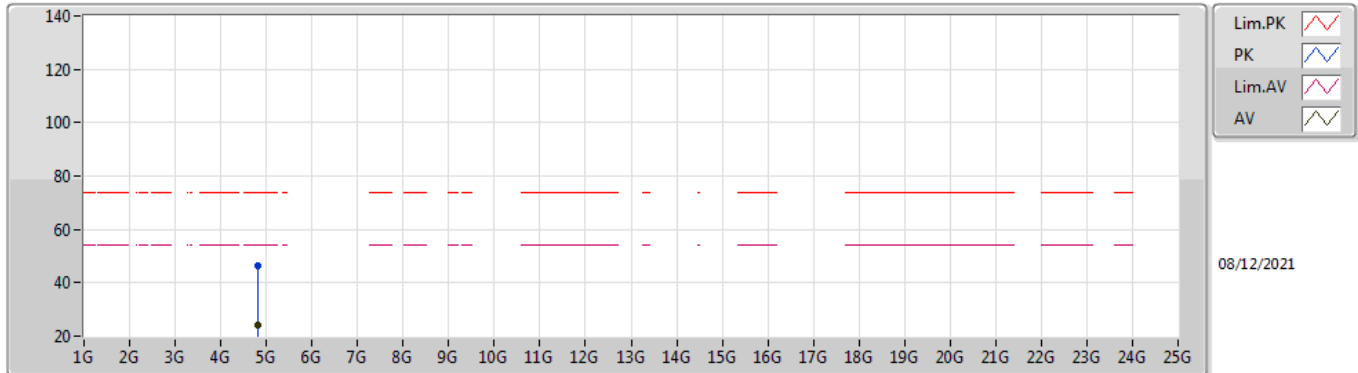
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3728G	34.40	54.00	-19.60	32.26	3	Horizontal	245	1.16	-	2.14	27.71	4.55	-
AV	2.402G	77.23	Inf	-Inf	32.18	3	Horizontal	245	1.16	-	45.05	27.60	4.58	-
PK	2.3728G	56.90	74.00	-17.10	32.26	3	Horizontal	245	1.16	-	24.64	27.71	4.55	-
PK	2.402G	99.73	Inf	-Inf	32.18	3	Horizontal	245	1.16	-	67.55	27.60	4.58	-

BT-EDR(3Mbps)

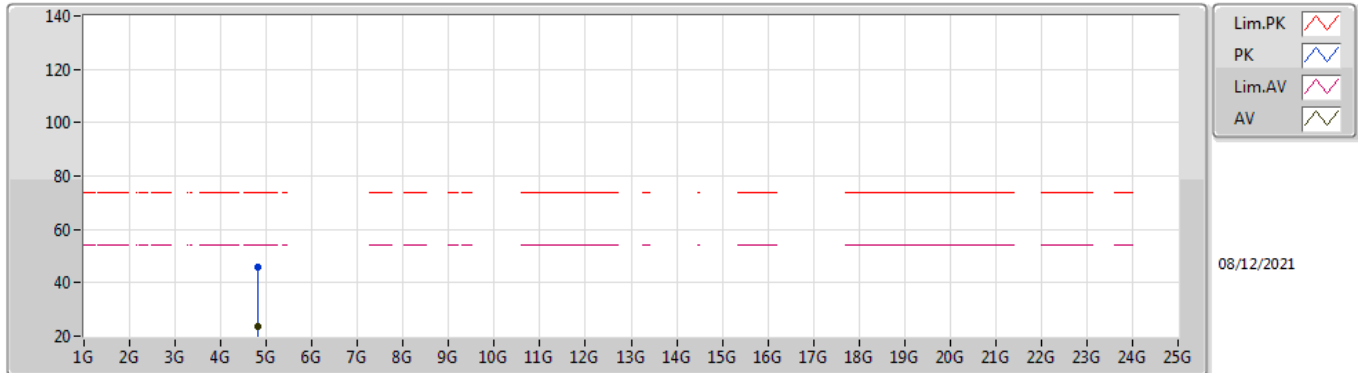
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80429G	23.88	54.00	-30.12	2.95	3	Vertical	191	2.50	-	20.93	31.10	6.66	34.81
PK	4.80429G	46.38	74.00	-27.62	2.95	3	Vertical	191	2.50	-	43.43	31.10	6.66	34.81

BT-EDR(3Mbps)

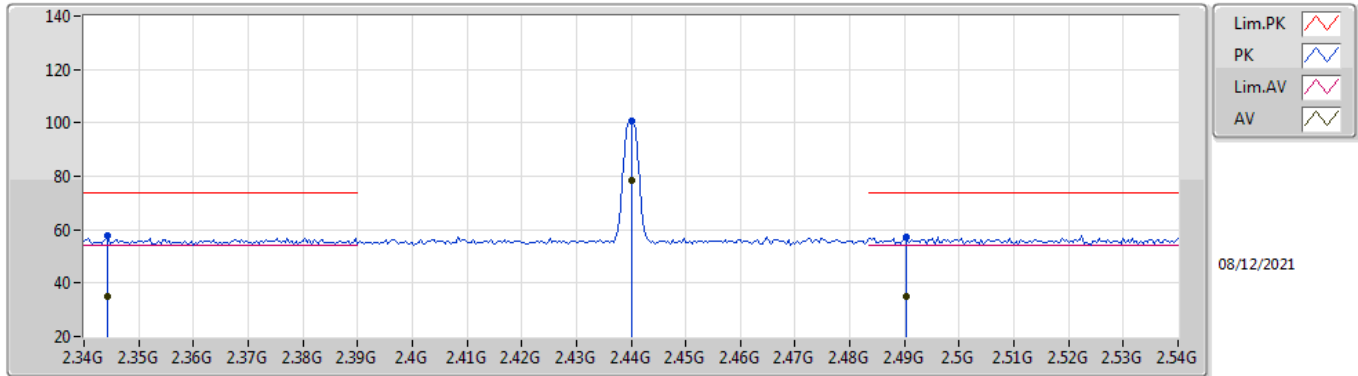
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80401G	23.43	54.00	-30.57	2.95	3	Horizontal	53	2.45	-	20.48	31.10	6.66	34.81
PK	4.80401G	45.93	74.00	-28.07	2.95	3	Horizontal	53	2.45	-	42.98	31.10	6.66	34.81

BT-EDR(3Mbps)

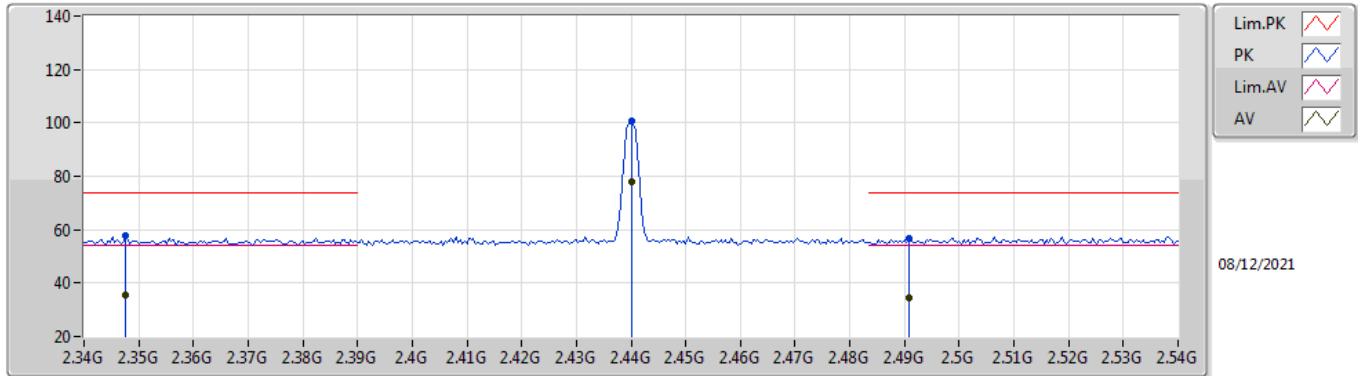
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3444G	35.02	54.00	-18.98	32.33	3	Vertical	220	2.29	-	2.69	27.80	4.53	-
AV	2.44G	78.27	Inf	-Inf	32.12	3	Vertical	220	2.29	-	46.15	27.52	4.60	-
AV	2.4904G	34.76	54.00	-19.24	32.12	3	Vertical	220	2.29	-	2.64	27.50	4.62	-
PK	2.3444G	57.52	74.00	-16.48	32.33	3	Vertical	220	2.29	-	25.19	27.80	4.53	-
PK	2.44G	100.77	Inf	-Inf	32.12	3	Vertical	220	2.29	-	68.65	27.52	4.60	-
PK	2.4904G	57.26	74.00	-16.74	32.12	3	Vertical	220	2.29	-	25.14	27.50	4.62	-

BT-EDR(3Mbps)

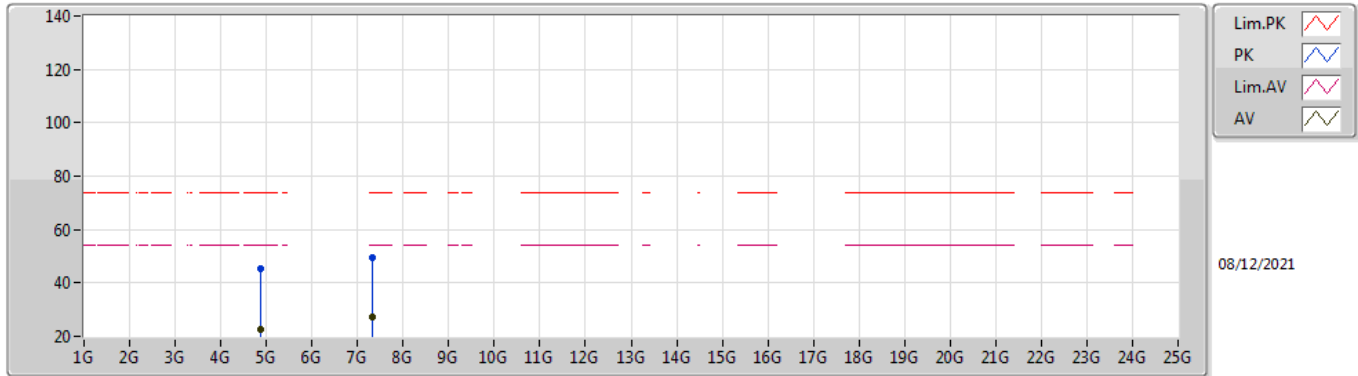
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3476G	35.28	54.00	-18.72	32.33	3	Horizontal	252	1.57	-	2.95	27.80	4.53	-
AV	2.44G	77.95	Inf	-Inf	32.12	3	Horizontal	252	1.57	-	45.83	27.52	4.60	-
AV	2.4908G	34.36	54.00	-19.64	32.12	3	Horizontal	252	1.57	-	2.24	27.50	4.62	-
PK	2.3476G	57.78	74.00	-16.22	32.33	3	Horizontal	252	1.57	-	25.45	27.80	4.53	-
PK	2.44G	100.45	Inf	-Inf	32.12	3	Horizontal	252	1.57	-	68.33	27.52	4.60	-
PK	2.4908G	56.86	74.00	-17.14	32.12	3	Horizontal	252	1.57	-	24.74	27.50	4.62	-

BT-EDR(3Mbps)

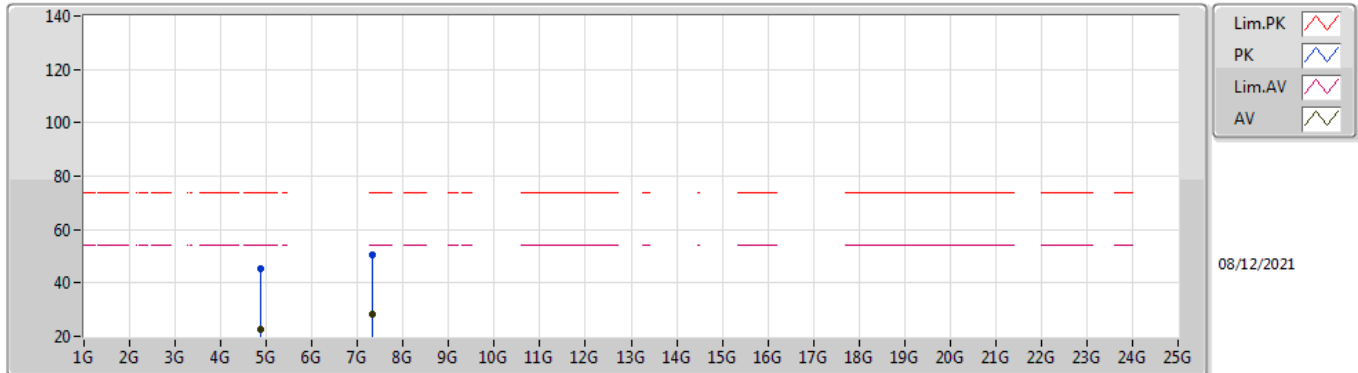
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88038G	22.59	54.00	-31.41	3.03	3	Vertical	311	1.20	-	19.56	31.10	6.72	34.79
AV	7.32124G	27.09	54.00	-26.91	9.42	3	Vertical	168	1.00	-	17.67	36.36	7.88	34.82
PK	4.88038G	45.09	74.00	-28.91	3.03	3	Vertical	311	1.20	-	42.06	31.10	6.72	34.79
PK	7.32124G	49.59	74.00	-24.41	9.42	3	Vertical	168	1.00	-	40.17	36.36	7.88	34.82

BT-EDR(3Mbps)

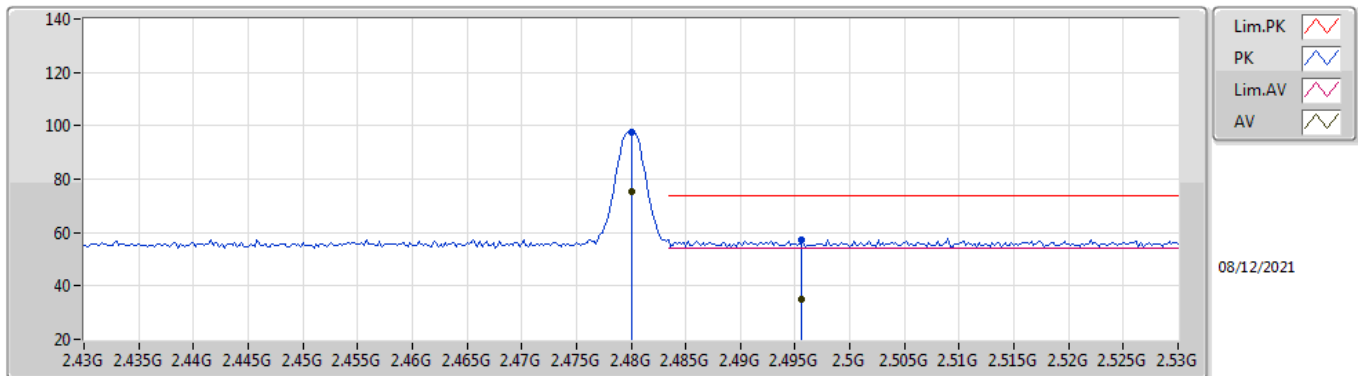
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87954G	22.78	54.00	-31.22	3.03	3	Horizontal	50	1.00	-	19.75	31.10	6.72	34.79
AV	7.31976G	28.06	54.00	-25.94	9.41	3	Horizontal	137	1.00	-	18.65	36.36	7.87	34.82
PK	4.87954G	45.28	74.00	-28.72	3.03	3	Horizontal	50	1.00	-	42.25	31.10	6.72	34.79
PK	7.31976G	50.56	74.00	-23.44	9.41	3	Horizontal	137	1.00	-	41.15	36.36	7.87	34.82

BT-EDR(3Mbps)

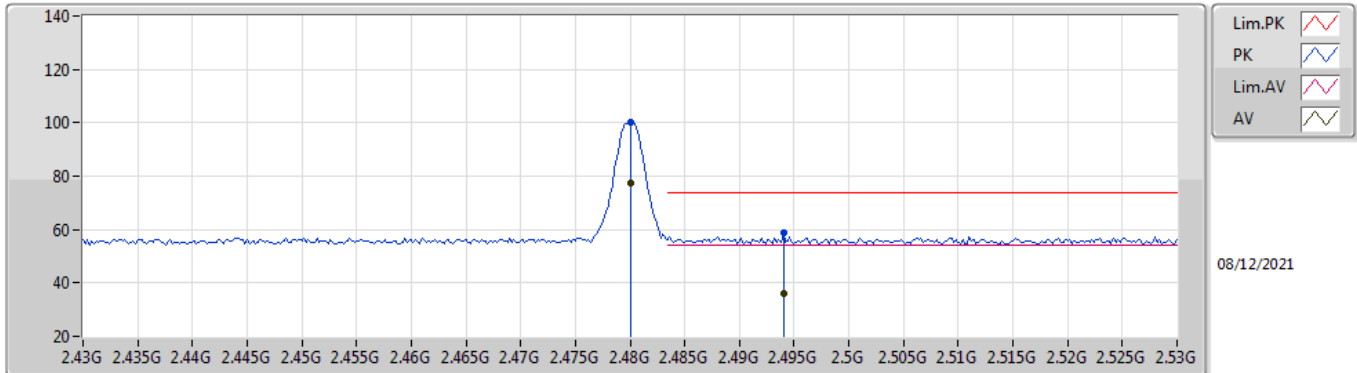
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	75.22	Inf	-Inf	32.11	3	Vertical	263	1.09	-	43.11	27.50	4.61	-
AV	2.4956G	34.78	54.00	-19.22	32.12	3	Vertical	263	1.09	-	2.66	27.50	4.62	-
PK	2.48G	97.72	Inf	-Inf	32.11	3	Vertical	263	1.09	-	65.61	27.50	4.61	-
PK	2.4956G	57.28	74.00	-16.72	32.12	3	Vertical	263	1.09	-	25.16	27.50	4.62	-

BT-EDR(3Mbps)

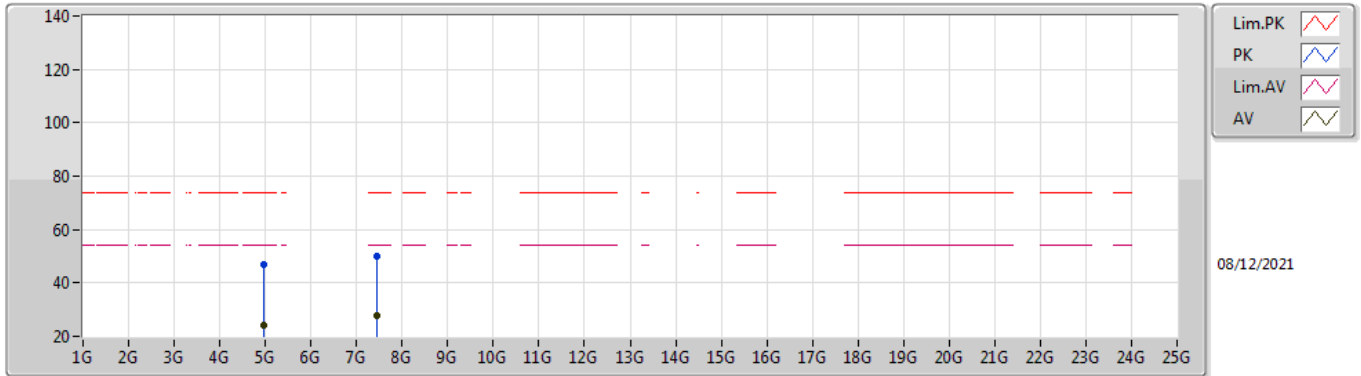
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	77.50	Inf	-Inf	32.11	3	Horizontal	306	1.05	-	45.39	27.50	4.61	-
AV	2.494G	36.29	54.00	-17.71	32.12	3	Horizontal	306	1.05	-	4.17	27.50	4.62	-
PK	2.48G	100.00	Inf	-Inf	32.11	3	Horizontal	306	1.05	-	67.89	27.50	4.61	-
PK	2.494G	58.79	74.00	-15.21	32.12	3	Horizontal	306	1.05	-	26.67	27.50	4.62	-

BT-EDR(3Mbps)

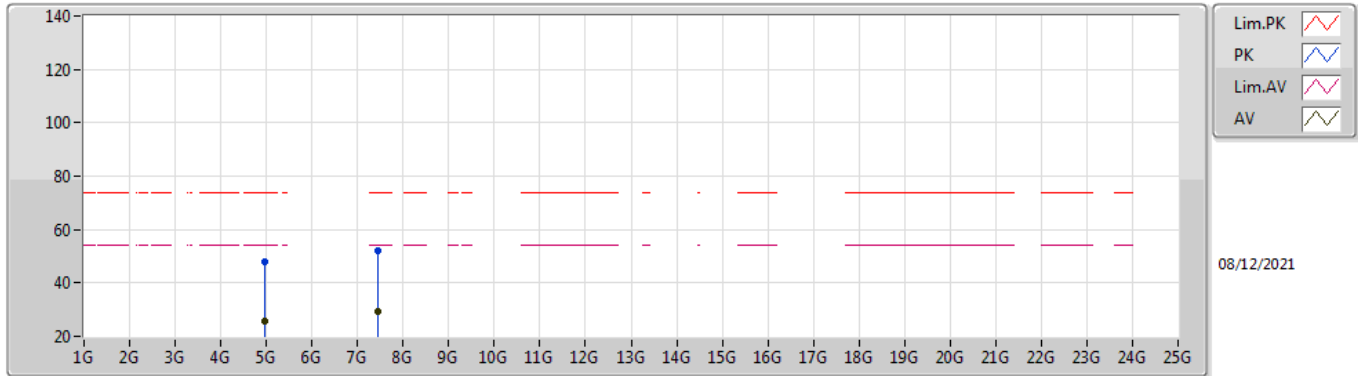
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96016G	24.20	54.00	-29.80	3.35	3	Vertical	295	1.02	-	20.85	31.34	6.78	34.77
AV	7.43885G	27.73	54.00	-26.27	9.49	3	Vertical	136	1.00	-	18.24	36.28	8.05	34.84
PK	4.96016G	46.70	74.00	-27.30	3.35	3	Vertical	295	1.02	-	43.35	31.34	6.78	34.77
PK	7.43885G	50.23	74.00	-23.77	9.49	3	Vertical	136	1.00	-	40.74	36.28	8.05	34.84

BT-EDR(3Mbps)

2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96046G	25.56	54.00	-28.44	3.35	3	Horizontal	38	1.02	-	22.21	31.34	6.78	34.77
AV	7.43937G	29.32	54.00	-24.68	9.49	3	Horizontal	118	1.00	-	19.83	36.28	8.05	34.84
PK	4.96046G	48.06	74.00	-25.94	3.35	3	Horizontal	38	1.02	-	44.71	31.34	6.78	34.77
PK	7.43937G	51.82	74.00	-22.18	9.49	3	Horizontal	118	1.00	-	42.33	36.28	8.05	34.84