

FCC Radio Test Report

FCC ID : 2AFD2-IO12
Equipment : Wireless Hi-Fi Headphones
Brand Name : DALI
Model Name : DALI iO-12
Applicant : DALI A/S
DALI Allé 1, 9610 Norager Denmark
Manufacturer : DALI A/S
DALI Allé 1, 9610 Norager Denmark
Standard : 47 CFR FCC Part 15.247

The product was received on Mar. 29, 2023, and testing was started from Jun. 16, 2023 and completed on Jun. 28, 2023. 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: Ben Tseng

Report Producer: Michelle Tsai

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	DALI	IO12	Chip	N/A	0.5

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 Power Adapter / From Host System
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)	0.764	1.17	2.891m	1k
BT-EDR(2Mbps)	0.763	1.17	2.89m	1k
BT-EDR(3Mbps)	0.764	1.17	2.893m	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	Nick Wu	24.1~25.0°C / 43~51%	16/Jun/2023
RF Conducted	TH07-HY	Yuna Lin	23.2~23.9°C / 51~56%	28/Jun/2023
Radiated	03CH02-HY	Vasari Huang	22.5~23.7°C / 51~54%	16/Jun/2023~20/Jun/2023
<input 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.				

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
AC Power-line Conducted Emissions	4.53 dB	Confidence levels of 95%
Bandwidth	3 MHz	Confidence levels of 95%
Maximum Conducted Output Power	2 dB	Confidence levels of 95%
Emissions in Non-restricted Frequency Bands	0.14 dB	Confidence levels of 95%
Emissions in Restricted Frequency Bands	4.8 dB	Confidence levels of 95%
Receiver Radiated Unwanted Emissions	4.8 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	BlueTest3 3.3.10
-----------------------	------------------

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
Operating Mode	CTX
1	Adapter Mode
2	USB Mode

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	CTX		
1	Adapter Mode		
2	USB Mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

2.3 Accessories

Battery	Brand Name	Synergy	Model Name	AHB723938PCT-02
	Power Rating	3.7 Vdc, 1110 mAh		
	Type	Lithium-ion Polymer Battery Pack		
USB Cable	Brand Name	DALI	Model Name	4021XW01951ZAU
	Signal Line	1.2 meter, D-shielded cable, w/o ferrite core		
Audio Cable-1	Brand Name	DALI	Model Name	4021XW01952ZAG
	Signal Line	1.2 meter, non-shielded cable, w/o ferrite core		
Audio Cable-2	Brand Name	DALI	Model Name	4021XW01961ZAG
	Signal Line	3.0 meter, non-shielded cable, w/o ferrite core		
Connector (3.5mm to 6.3 mm)	Brand Name	DALI	Model Name	2021WP00007ZA
Connector (3.5mm to two 3.5 mm)	Brand Name	DALI	Model Name	2031JP00033ZC

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

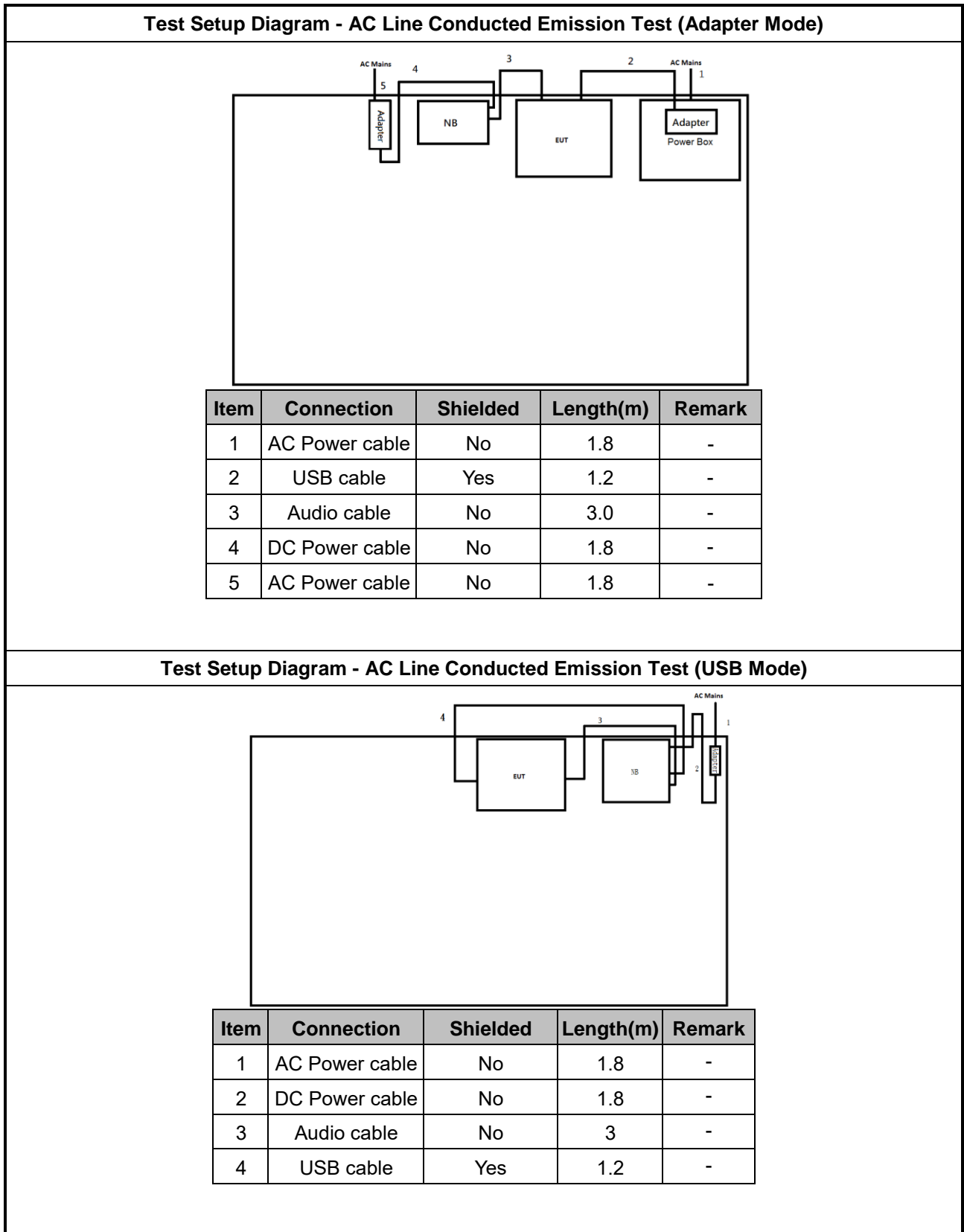
2.4 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC Power Cable	Power sync	AC Power Cable	-	-
2	Adapter (For NB)	HP	PPP012L-E	-	-
3	Notebook	HP	5220M	-	-
4	USB Cable	DALI	4021XW01951ZAU	-	Provided by Customer
5	Adapter	VogDUO	PS0521	-	-

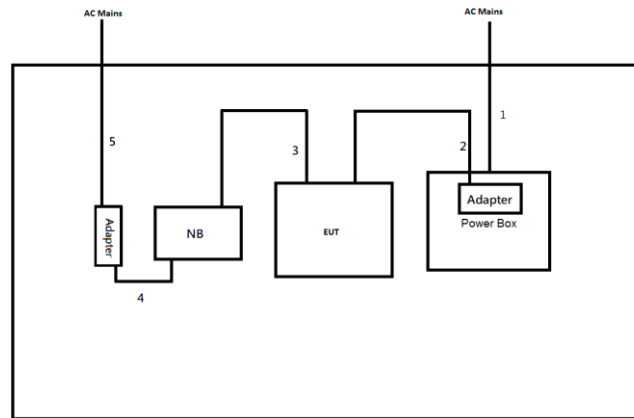
Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC Power Cable	Power sync	AC Power Cable	-	-
2	Adapter (For NB)	HP	PPP012L-E	-	-
3	Notebook	HP	5220M	-	-
4	Adapter	VogDUO	PS0521	-	-

2.5 Test Setup Diagram

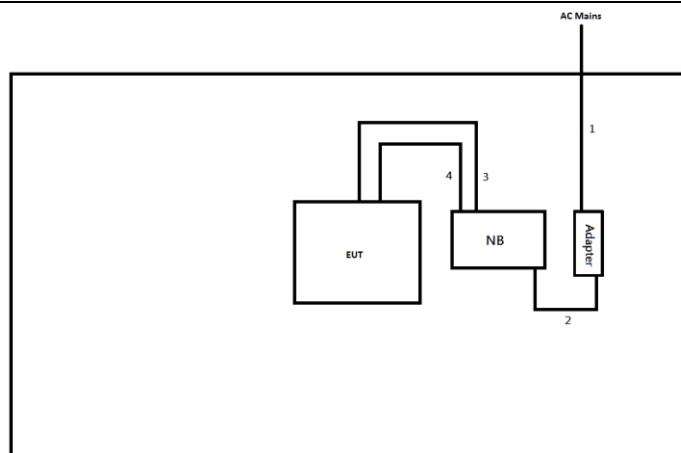


Test Setup Diagram - Radiated Test (Adapter Mode)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	USB cable	Yes	1.2	-
3	Audio cable	No	3.0	-
4	DC Power cable	No	1.8	-
5	AC Power cable	No	1.8	-

Test Setup Diagram - Radiated Test (USB Mode)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.8	-
3	USB cable	Yes	1.2	-
4	Audio cable	No	3.0	-

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

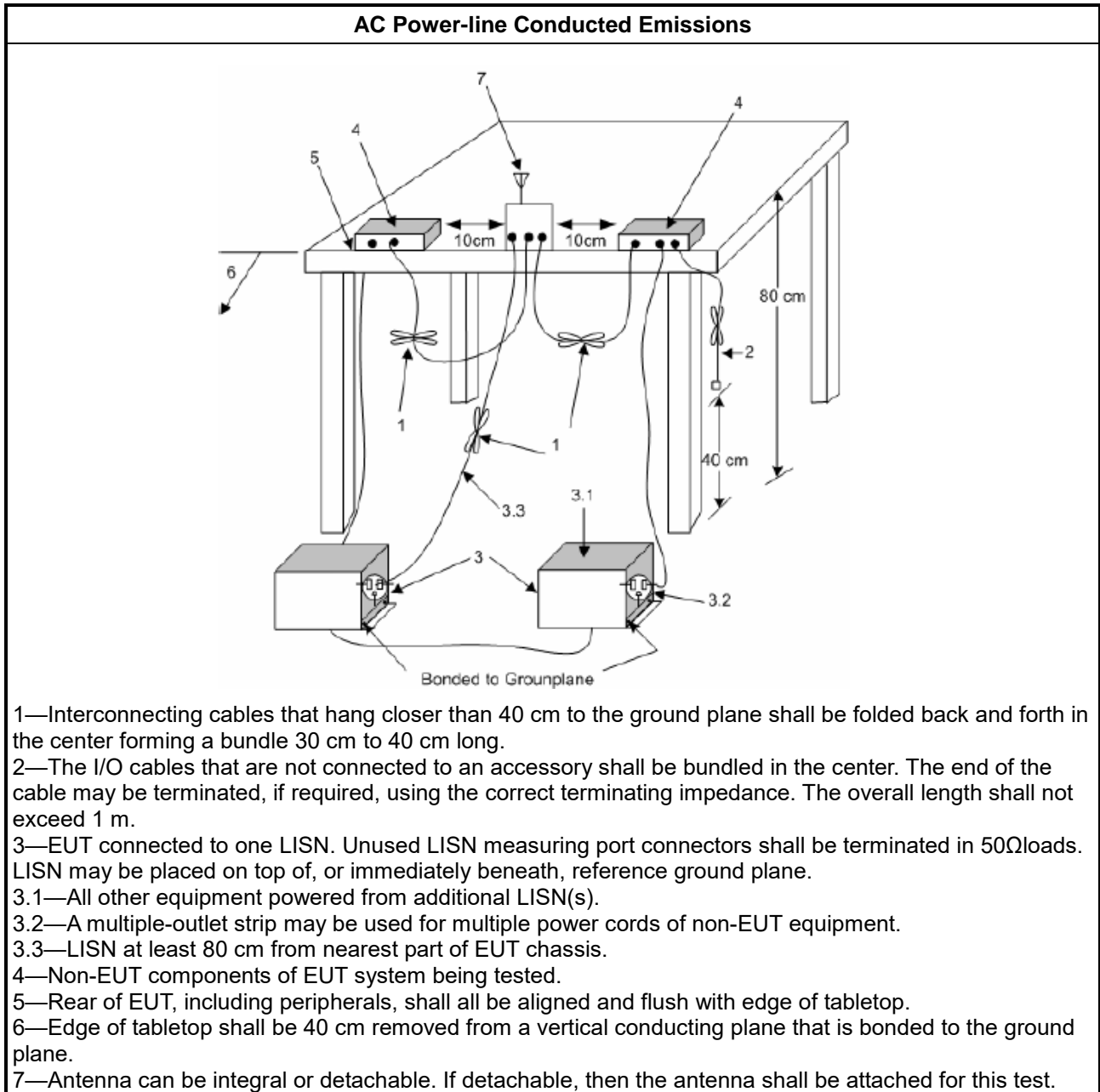
Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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	

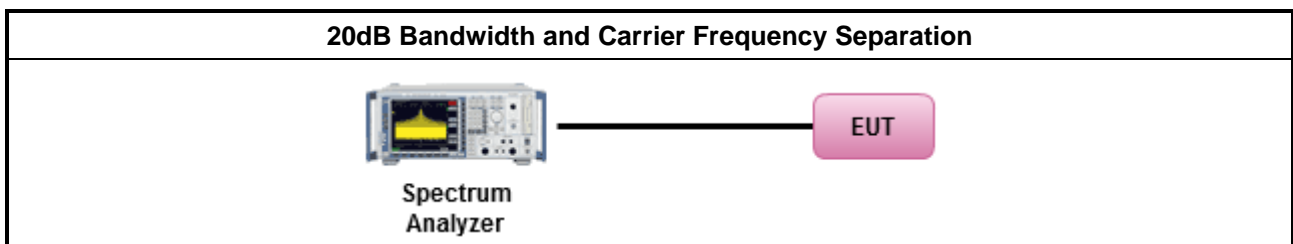
3.2.2 Measuring Instruments

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	

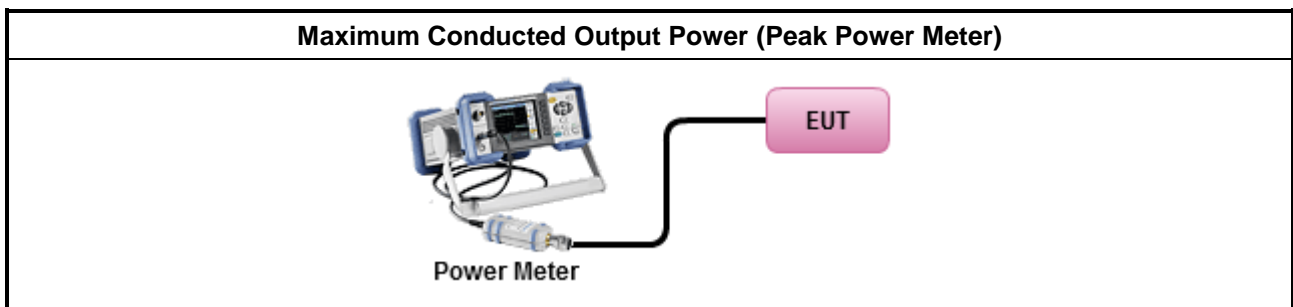
3.3.2 Measuring Instruments

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

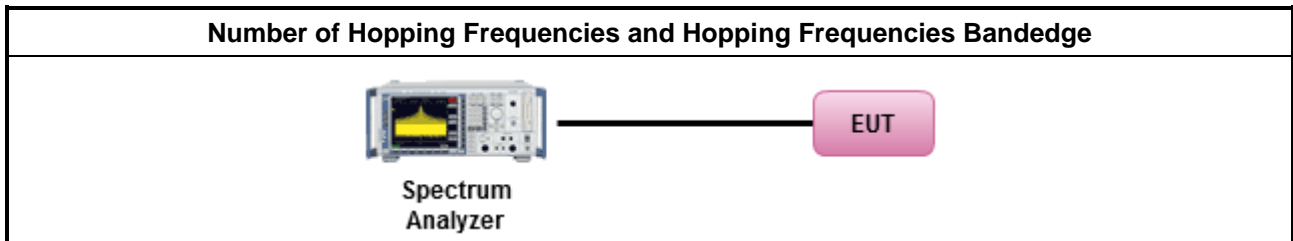
3.4.3 Measuring Instruments

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	

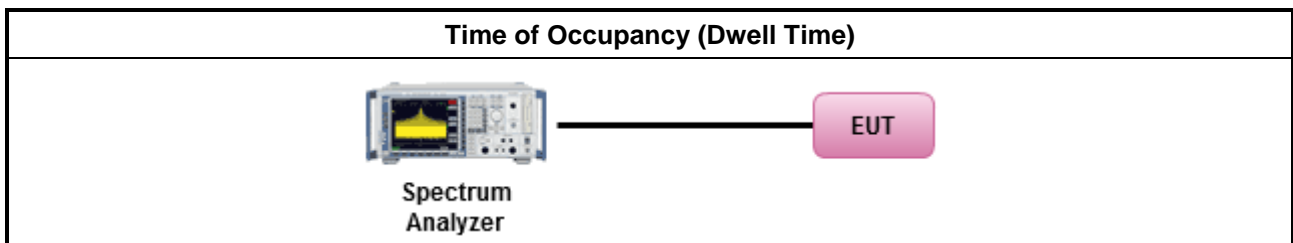
3.5.2 Measuring Instruments

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.	

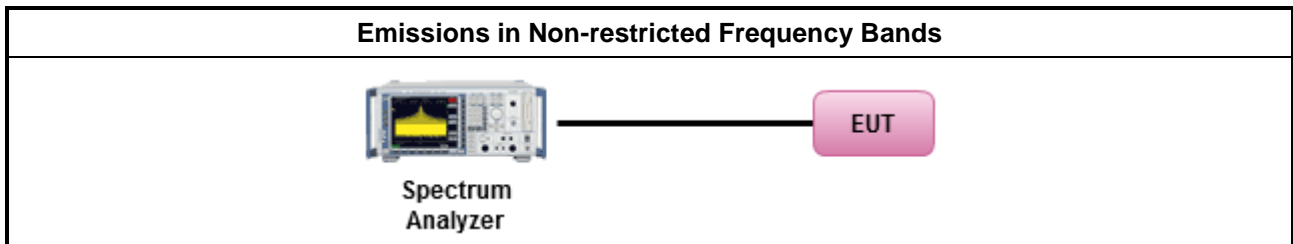
3.6.2 Measuring Instruments

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

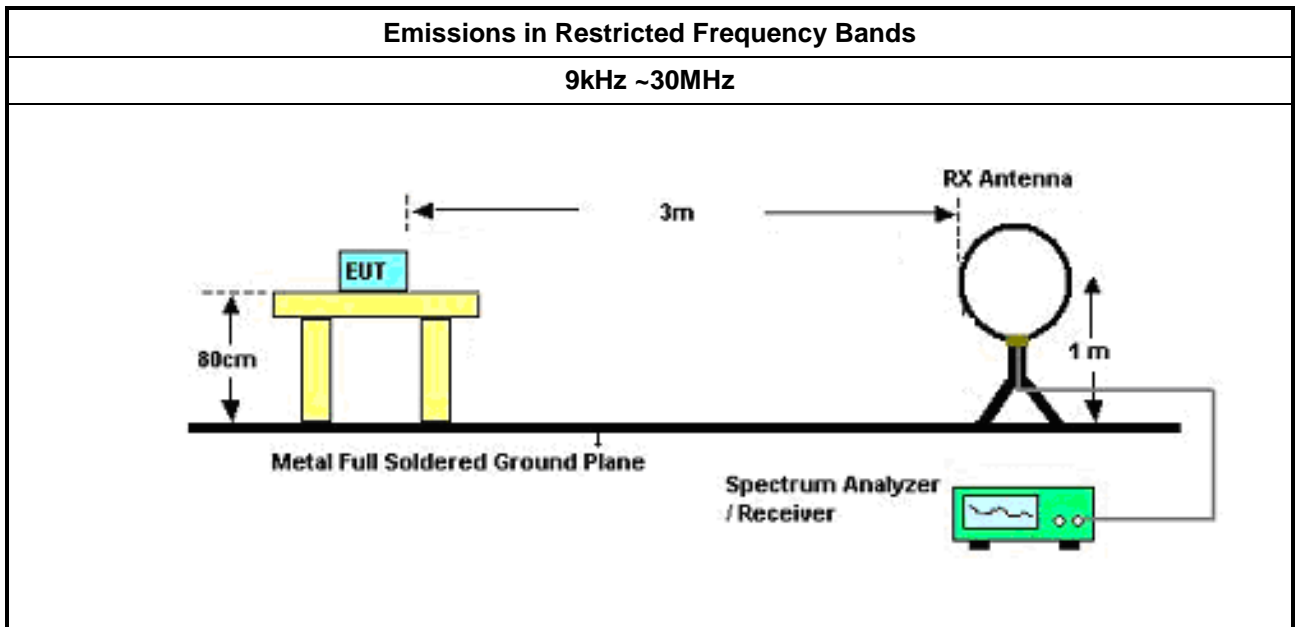
Test Method	
▪	The average emission levels shall be measured in [hopping duty factor].
▪	Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
▪	For the transmitter unwanted emissions shall be measured using following options below:
▪	Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.
▪	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.
▪	Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.
▪	KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.
▪	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.
▪	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

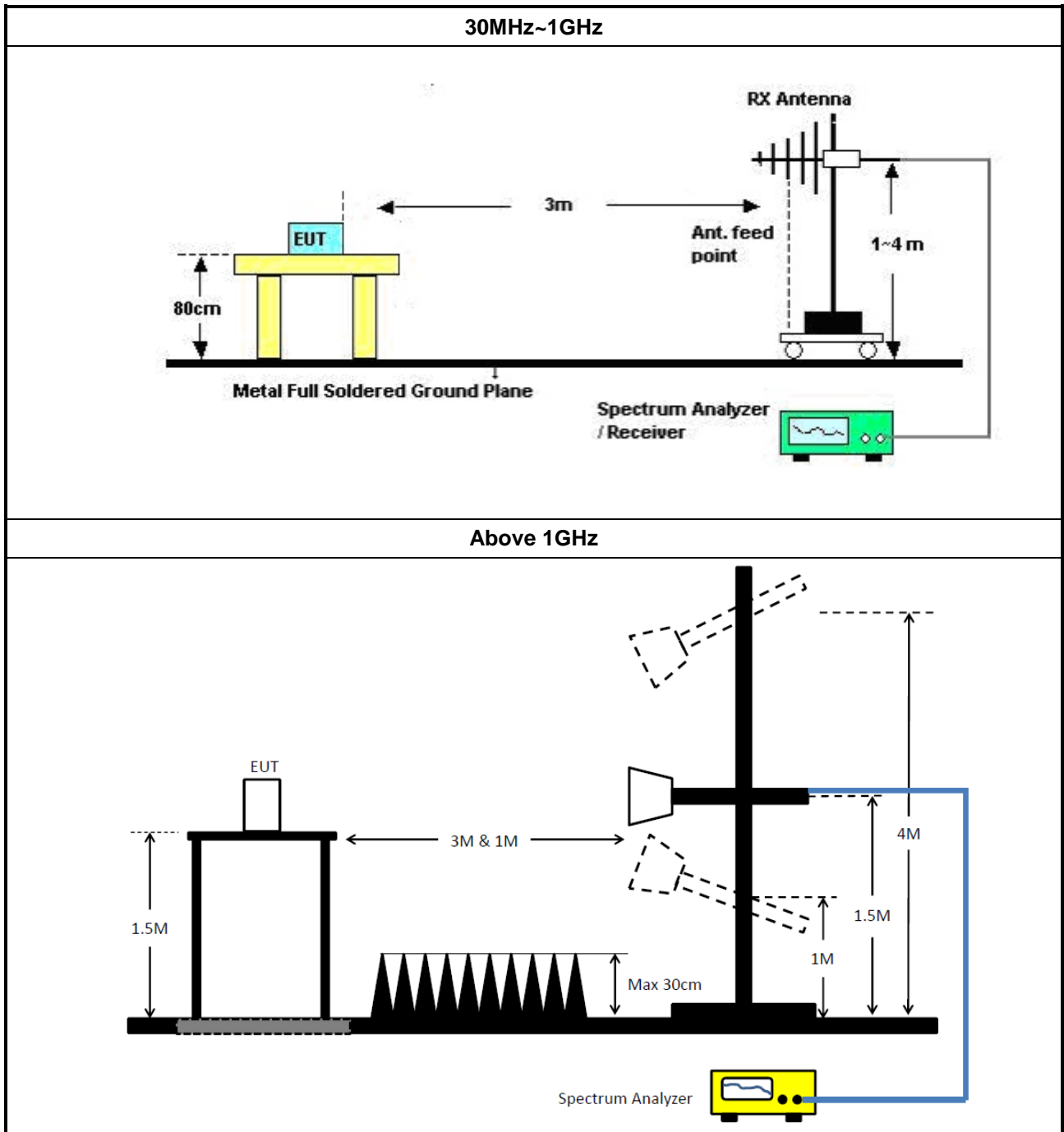
3.7.4 Measurement Results Calculation

The measured Level is calculated using:

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



3.8 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	ESR	102051	9kHz ~ 3.6GHz	16/May/2023	15/May/2024
Two-Line V-Network	R&S	ENV 216	100003	9kHz ~ 30MHz	16/Feb/2023	15/Feb/2024
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	28/Feb/2023	27/Feb/2024
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	25/Oct/2022	24/Oct/2023
Software	Sporton	SENSE-EMI	V5.10.8.7	-	NCR	NCR

NCR: No Calibration Required

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	14/Feb/2023	13/Feb/2024
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2022	20/Oct/2023
Pulse Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	14/Dec/2022	13/Dec/2023
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	14/Dec/2022	13/Dec/2023
SENSE-15247_FS	Sporton	V5.11.2	N/A	N/A	N/A	N/A

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	31/Jul/2022	30/Jul/2023
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	30/Jul/2022	29/Jul/2023
Pre-amplifier	Agilent	8447D	2944A10825	100kHz~1.3GHz	07/Mar/2023	06/Mar/2024
Microwave Preamp	Agilent	8449B	3008A02373	1GHz~26.5GHz	02/Nov/2022	01/Nov/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz ~18GHz	27/Sep/2022	26/Sep/2023
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	28/Aug/2022	27/Aug/2023
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	9kHz~30MHz	20/Dec/2022	19/Dec/2023
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	30MHz~1GHz	20/Dec/2022	19/Dec/2023
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	03CH02-cable-01	1GHz~40GHz	10/Feb/2023	09/Feb/2024
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	25/Mar/2023	24/Mar/2024
Microwave Prempifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz~40GHz	16/Mar/2023	15/Mar/2024
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	23/Mar/2023	22/Mar/2024
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	23/Mar/2023	22/Mar/2024
Signal Analyzer	R&S	FSP 40	100305	9kHz~40GHz	25/Mar/2023	24/Mar/2024
SENSE_15247_FS	Sporton	Sporton	V5.11.2	NA	NA	NA



Summary

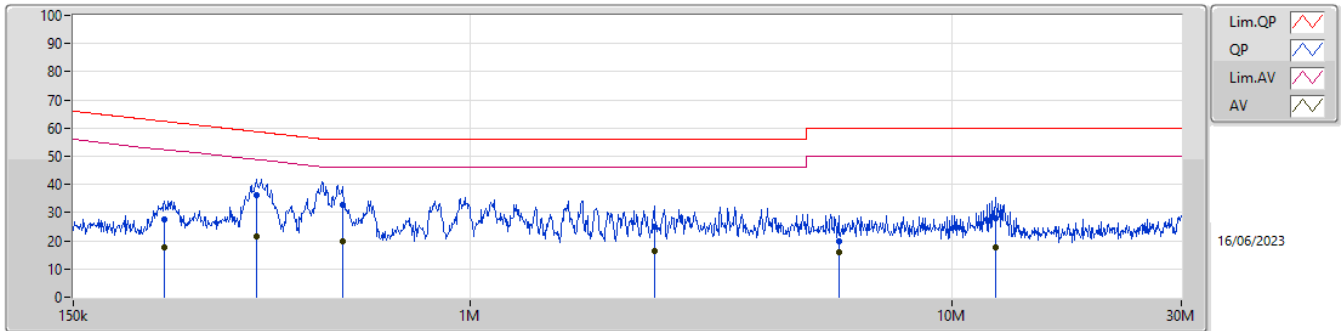
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	12.961M	41.52	60.00	-18.48	Neutral
Mode 2	Pass	QP	186.83k	49.27	64.18	-14.91	Line



Result

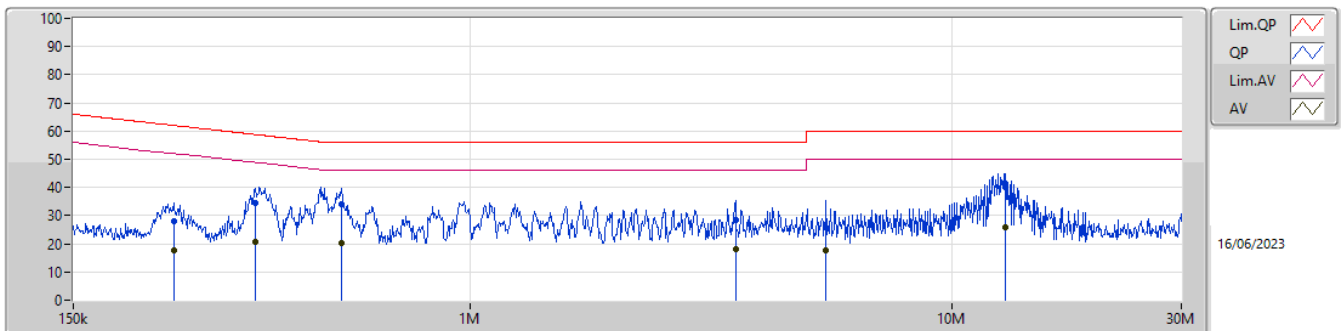
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	231.775k	27.38	62.39	-35.01	Line	-
Mode 1	Pass	AV	231.775k	17.75	52.39	-34.64	Line	-
Mode 1	Pass	QP	359.562k	36.06	58.73	-22.67	Line	-
Mode 1	Pass	AV	359.562k	21.45	48.73	-27.28	Line	-
Mode 1	Pass	QP	542.434k	32.92	56.00	-23.08	Line	-
Mode 1	Pass	AV	542.434k	19.73	46.00	-26.27	Line	-
Mode 1	Pass	QP	2.414M	25.01	56.00	-30.99	Line	-
Mode 1	Pass	AV	2.414M	16.24	46.00	-29.76	Line	-
Mode 1	Pass	QP	5.833M	19.72	60.00	-40.28	Line	-
Mode 1	Pass	AV	5.833M	15.95	50.00	-34.05	Line	-
Mode 1	Pass	QP	12.355M	27.99	60.00	-32.01	Line	-
Mode 1	Pass	AV	12.355M	17.77	50.00	-32.23	Line	-
Mode 1	Pass	QP	242.179k	27.89	62.02	-34.13	Neutral	-
Mode 1	Pass	AV	242.179k	17.81	52.02	-34.21	Neutral	-
Mode 1	Pass	QP	358.13k	34.55	58.77	-24.22	Neutral	-
Mode 1	Pass	AV	358.13k	20.67	48.77	-28.10	Neutral	-
Mode 1	Pass	QP	540.273k	33.85	56.00	-22.15	Neutral	-
Mode 1	Pass	AV	540.273k	20.32	46.00	-25.68	Neutral	-
Mode 1	Pass	QP	3.556M	28.57	56.00	-27.43	Neutral	-
Mode 1	Pass	AV	3.556M	18.27	46.00	-27.73	Neutral	-
Mode 1	Pass	QP	5.494M	26.03	60.00	-33.97	Neutral	-
Mode 1	Pass	AV	5.494M	17.54	50.00	-32.46	Neutral	-
Mode 1	Pass	QP	12.961M	41.52	60.00	-18.48	Neutral	-
Mode 1	Pass	AV	12.961M	25.67	50.00	-24.33	Neutral	-
Mode 2	Pass	QP	186.83k	49.27	64.18	-14.91	Line	-
Mode 2	Pass	AV	186.83k	39.08	54.18	-15.10	Line	-
Mode 2	Pass	QP	249.042k	44.69	61.79	-17.10	Line	-
Mode 2	Pass	AV	249.042k	32.99	51.79	-18.80	Line	-
Mode 2	Pass	QP	611.446k	26.77	56.00	-29.23	Line	-
Mode 2	Pass	AV	611.446k	17.23	46.00	-28.77	Line	-
Mode 2	Pass	QP	4.205M	24.42	56.00	-31.58	Line	-
Mode 2	Pass	AV	4.205M	17.33	46.00	-28.67	Line	-
Mode 2	Pass	QP	5.88M	25.38	60.00	-34.62	Line	-
Mode 2	Pass	AV	5.88M	19.62	50.00	-30.38	Line	-
Mode 2	Pass	QP	27.673M	18.24	60.00	-41.76	Line	-
Mode 2	Pass	AV	27.673M	15.96	50.00	-34.04	Line	-
Mode 2	Pass	QP	183.87k	48.84	64.30	-15.46	Neutral	-
Mode 2	Pass	AV	183.87k	35.93	54.30	-18.37	Neutral	-
Mode 2	Pass	QP	263.357k	42.80	61.32	-18.52	Neutral	-
Mode 2	Pass	AV	263.357k	29.70	51.32	-21.62	Neutral	-
Mode 2	Pass	QP	714.452k	27.69	56.00	-28.31	Neutral	-
Mode 2	Pass	AV	714.452k	17.13	46.00	-28.87	Neutral	-
Mode 2	Pass	QP	1.977M	25.40	56.00	-30.60	Neutral	-
Mode 2	Pass	AV	1.977M	17.28	46.00	-28.72	Neutral	-
Mode 2	Pass	QP	7.236M	19.87	60.00	-40.13	Neutral	-
Mode 2	Pass	AV	7.236M	16.75	50.00	-33.25	Neutral	-
Mode 2	Pass	QP	19.632M	18.25	60.00	-41.75	Neutral	-
Mode 2	Pass	AV	19.632M	15.78	50.00	-34.22	Neutral	-

Conducted Emissions at Powerline_Mode 1



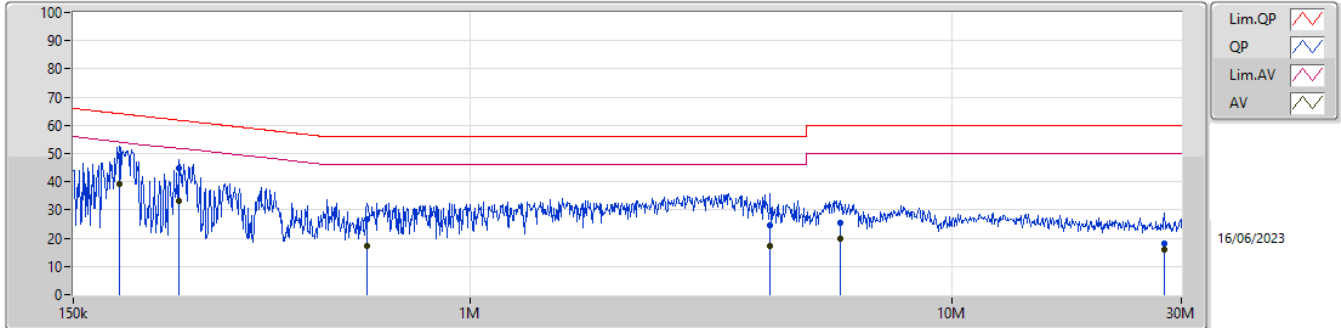
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	231.775k	27.38	62.39	-35.01	19.62	Line	-	7.76	9.65	0.03	9.94
AV	231.775k	17.75	52.39	-34.64	19.62	Line	-	-1.87	9.65	0.03	9.94
QP	359.562k	36.06	58.73	-22.67	19.64	Line	-	16.42	9.64	0.04	9.96
AV	359.562k	21.45	48.73	-27.28	19.64	Line	-	1.81	9.64	0.04	9.96
QP	542.434k	32.92	56.00	-23.08	19.63	Line	-	13.29	9.64	0.04	9.95
AV	542.434k	19.73	46.00	-26.27	19.63	Line	-	0.10	9.64	0.04	9.95
QP	2.414M	25.01	56.00	-30.99	19.72	Line	-	5.29	9.69	0.09	9.94
AV	2.414M	16.24	46.00	-29.76	19.72	Line	-	-3.48	9.69	0.09	9.94
QP	5.833M	19.72	60.00	-40.28	19.83	Line	-	-0.11	9.74	0.15	9.94
AV	5.833M	15.95	50.00	-34.05	19.83	Line	-	-3.88	9.74	0.15	9.94
QP	12.355M	27.99	60.00	-32.01	19.98	Line	-	8.01	9.80	0.21	9.97
AV	12.355M	17.77	50.00	-32.23	19.98	Line	-	-2.21	9.80	0.21	9.97

Conducted Emissions at Powerline_Mode 1



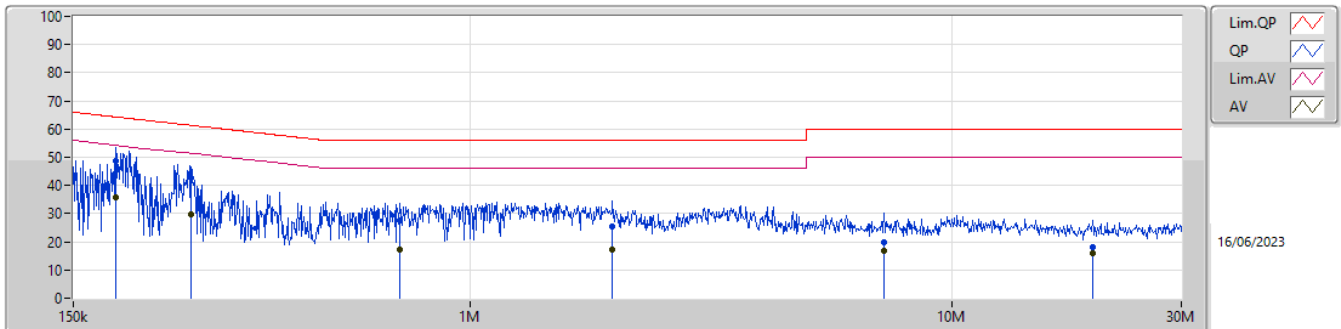
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	242.179k	27.89	62.02	-34.13	19.59	Neutral	-	8.30	9.62	0.03	9.94
AV	242.179k	17.81	52.02	-34.21	19.59	Neutral	-	-1.78	9.62	0.03	9.94
QP	358.13k	34.55	58.77	-24.22	19.63	Neutral	-	14.92	9.63	0.04	9.96
AV	358.13k	20.67	48.77	-28.10	19.63	Neutral	-	1.04	9.63	0.04	9.96
QP	540.273k	33.85	56.00	-22.15	19.63	Neutral	-	14.22	9.64	0.04	9.95
AV	540.273k	20.32	46.00	-25.68	19.63	Neutral	-	0.69	9.64	0.04	9.95
QP	3.556M	28.57	56.00	-27.43	19.73	Neutral	-	8.84	9.68	0.12	9.93
AV	3.556M	18.27	46.00	-27.73	19.73	Neutral	-	-1.46	9.68	0.12	9.93
QP	5.494M	26.03	60.00	-33.97	19.82	Neutral	-	6.21	9.73	0.15	9.94
AV	5.494M	17.54	50.00	-32.46	19.82	Neutral	-	-2.28	9.73	0.15	9.94
QP	12.961M	41.52	60.00	-18.48	20.05	Neutral	-	21.47	9.86	0.22	9.97
AV	12.961M	25.67	50.00	-24.33	20.05	Neutral	-	5.62	9.86	0.22	9.97

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	186.83k	49.27	64.18	-14.91	19.65	Line	-	29.62	9.69	0.03	9.93
AV	186.83k	39.08	54.18	-15.10	19.65	Line	-	19.43	9.69	0.03	9.93
QP	249.042k	44.69	61.79	-17.10	19.66	Line	-	25.03	9.69	0.03	9.94
AV	249.042k	32.99	51.79	-18.80	19.66	Line	-	13.33	9.69	0.03	9.94
QP	611.446k	26.77	56.00	-29.23	19.67	Line	-	7.10	9.68	0.04	9.95
AV	611.446k	17.23	46.00	-28.77	19.67	Line	-	-2.44	9.68	0.04	9.95
QP	4.205M	24.42	56.00	-31.58	19.78	Line	-	4.64	9.72	0.13	9.93
AV	4.205M	17.33	46.00	-28.67	19.78	Line	-	-2.45	9.72	0.13	9.93
QP	5.88M	25.38	60.00	-34.62	19.84	Line	-	5.54	9.75	0.15	9.94
AV	5.88M	19.62	50.00	-30.38	19.84	Line	-	-0.22	9.75	0.15	9.94
QP	27.673M	18.24	60.00	-41.76	20.12	Line	-	-1.88	9.81	0.33	9.98
AV	27.673M	15.96	50.00	-34.04	20.12	Line	-	-4.16	9.81	0.33	9.98

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	183.87k	48.84	64.30	-15.46	19.58	Neutral	-	29.26	9.62	0.03	9.93
AV	183.87k	35.93	54.30	-18.37	19.58	Neutral	-	16.35	9.62	0.03	9.93
QP	263.357k	42.80	61.32	-18.52	19.59	Neutral	-	23.21	9.62	0.03	9.94
AV	263.357k	29.70	51.32	-21.62	19.59	Neutral	-	10.11	9.62	0.03	9.94
QP	714.452k	27.69	56.00	-28.31	19.64	Neutral	-	8.05	9.64	0.05	9.95
AV	714.452k	17.13	46.00	-28.87	19.64	Neutral	-	-2.51	9.64	0.05	9.95
QP	1.977M	25.40	56.00	-30.60	19.68	Neutral	-	5.72	9.66	0.08	9.94
AV	1.977M	17.28	46.00	-28.72	19.68	Neutral	-	-2.40	9.66	0.08	9.94
QP	7.236M	19.87	60.00	-40.13	19.87	Neutral	-	-0.00	9.76	0.16	9.95
AV	7.236M	16.75	50.00	-33.25	19.87	Neutral	-	-3.12	9.76	0.16	9.95
QP	19.632M	18.25	60.00	-41.75	20.19	Neutral	-	-1.94	9.95	0.27	9.97
AV	19.632M	15.78	50.00	-34.22	20.19	Neutral	-	-4.41	9.95	0.27	9.97



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)	935k	874.125k	874KF1D	926.75k	868.276k
BT-EDR(2Mbps)	1.337M	1.189M	1M19G1D	1.32M	1.187M
BT-EDR(3Mbps)	1.284M	1.197M	1M20G1D	1.273M	1.195M

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	935k	874.116k
2440MHz	Pass	Inf	926.75k	874.125k
2480MHz	Pass	Inf	935k	868.276k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.337M	1.188M
2440MHz	Pass	Inf	1.32M	1.187M
2480MHz	Pass	Inf	1.323M	1.189M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.284M	1.195M
2440MHz	Pass	Inf	1.282M	1.196M
2480MHz	Pass	Inf	1.273M	1.197M

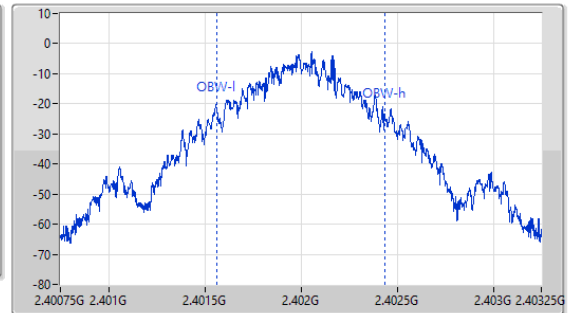
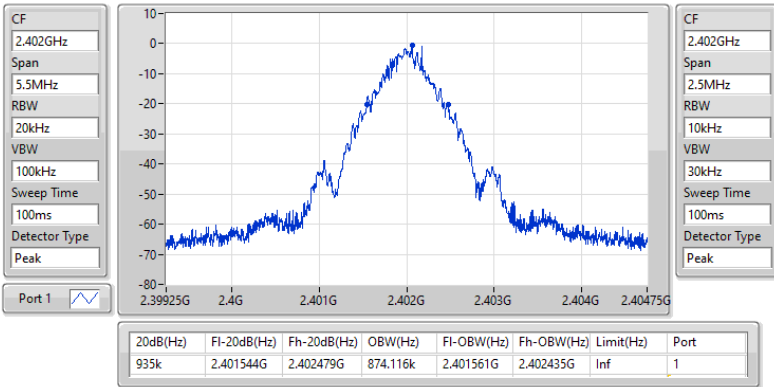
Port X-N dB = Port X 20dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-BR(1Mbps)

EBW-FS

2402MHz

28/06/2023

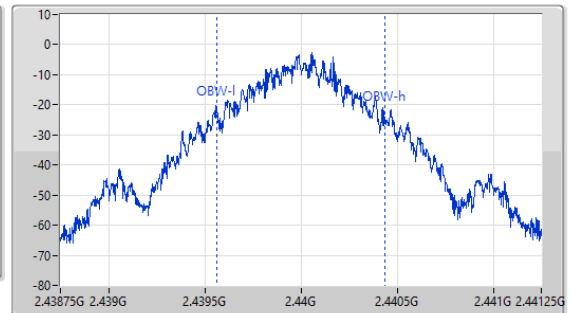
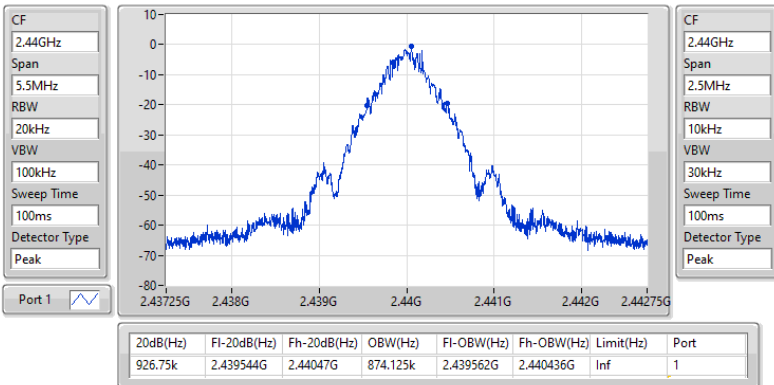


2.4-2.4835GHz_BT-BR(1Mbps)

EBW-FS

2440MHz

28/06/2023

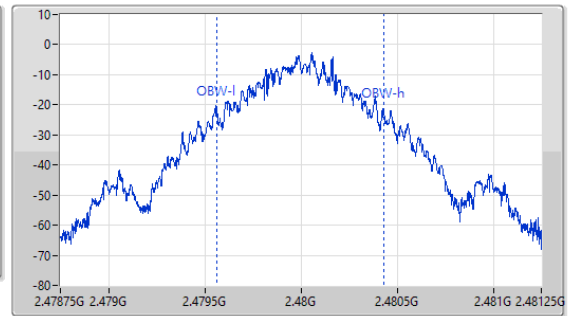
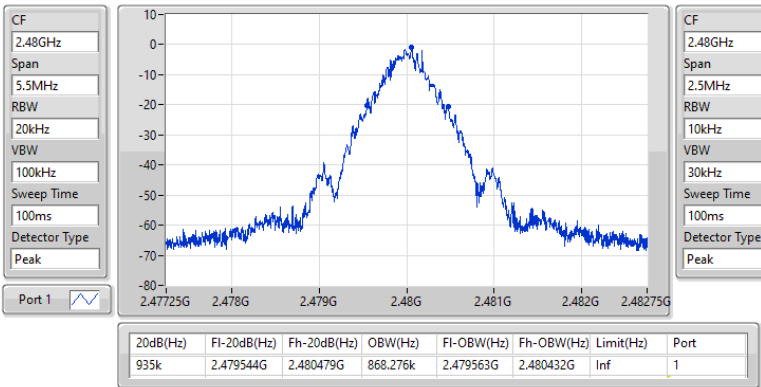


2.4-2.4835GHz_BT-BR(1Mbps)

EBW-FS

2480MHz

28/06/2023

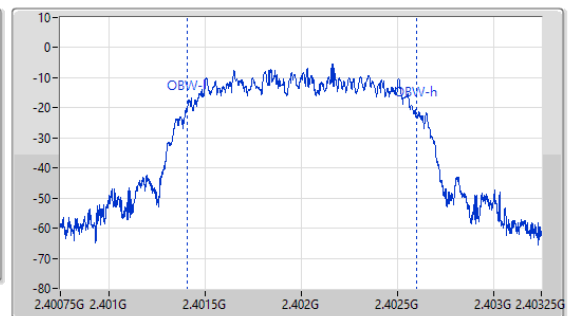
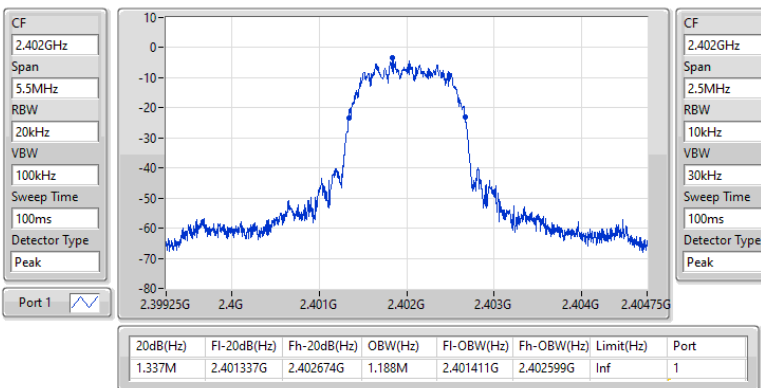


2.4-2.4835GHz_BT-EDR(2Mbps)

EBW-FS

2402MHz

28/06/2023

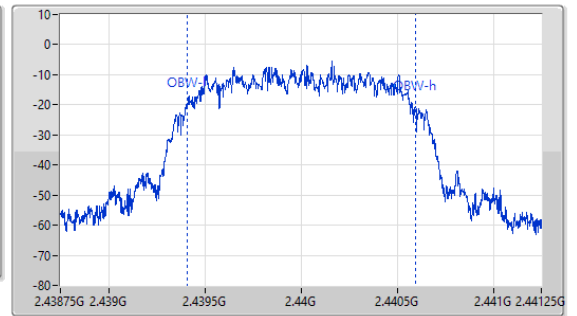
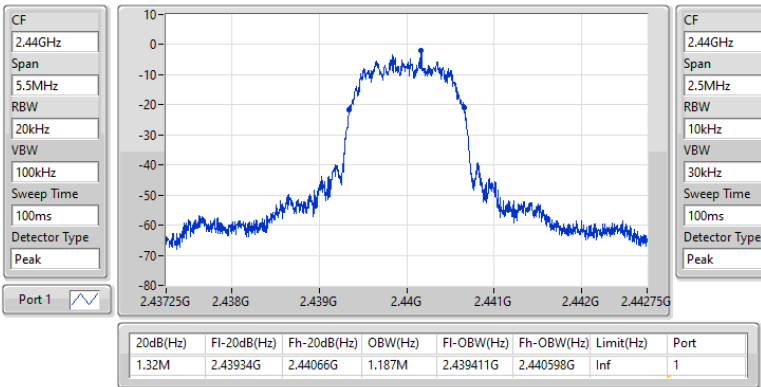


2.4-2.4835GHz_BT-EDR(2Mbps)

EBW-FS

2440MHz

28/06/2023

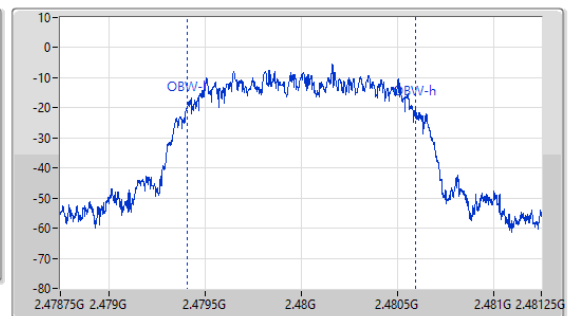
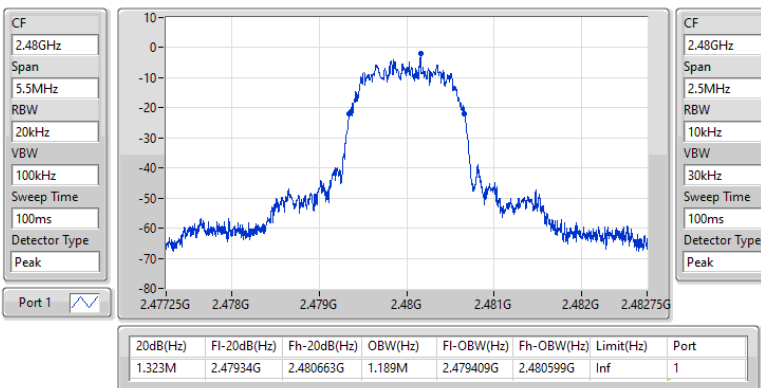


2.4-2.4835GHz_BT-EDR(2Mbps)

EBW-FS

2480MHz

28/06/2023

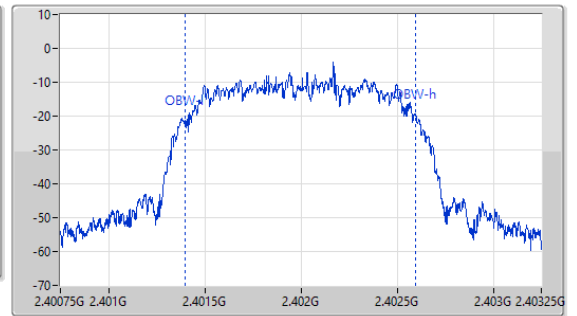
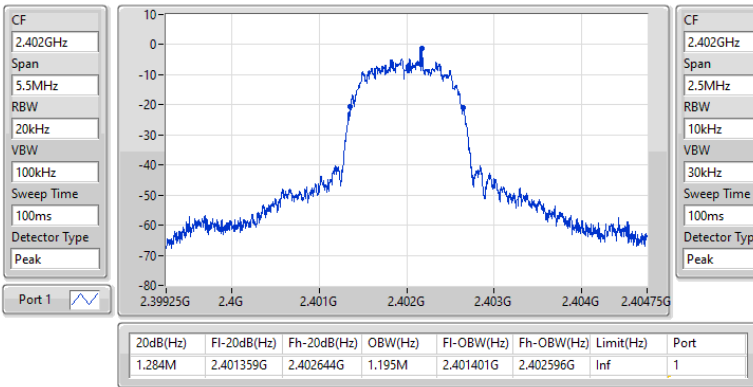


2.4-2.4835GHz_BT-EDR(3Mbps)

EBW-FS

2402MHz

28/06/2023

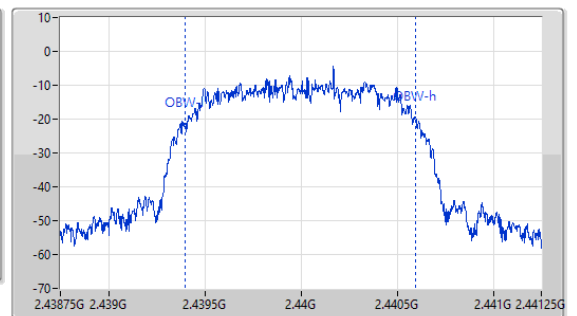
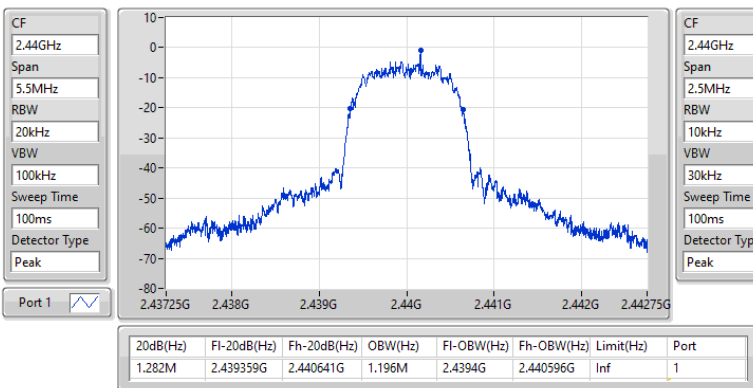


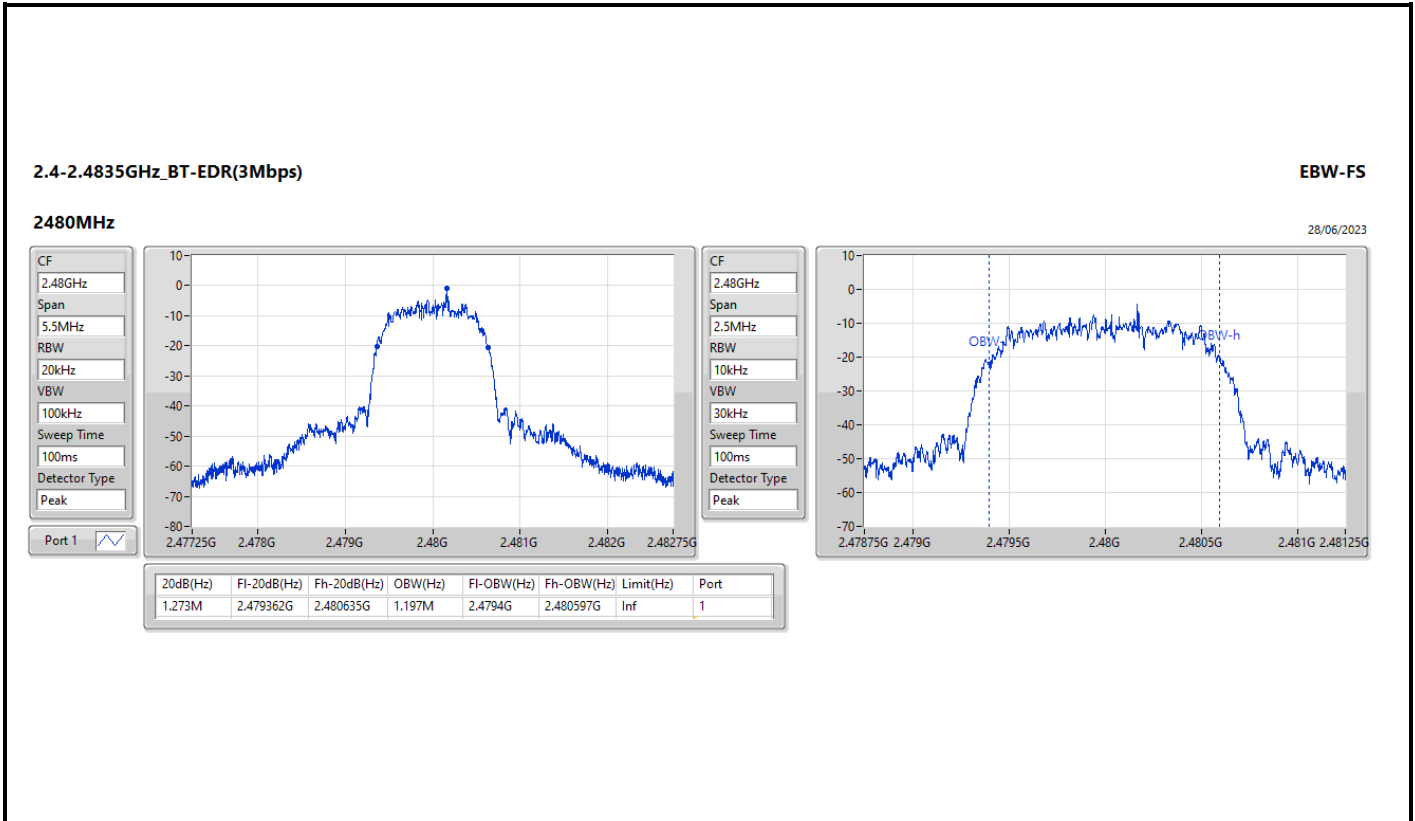
2.4-2.4835GHz_BT-EDR(3Mbps)

EBW-FS

2440MHz

28/06/2023







Summary

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



Result

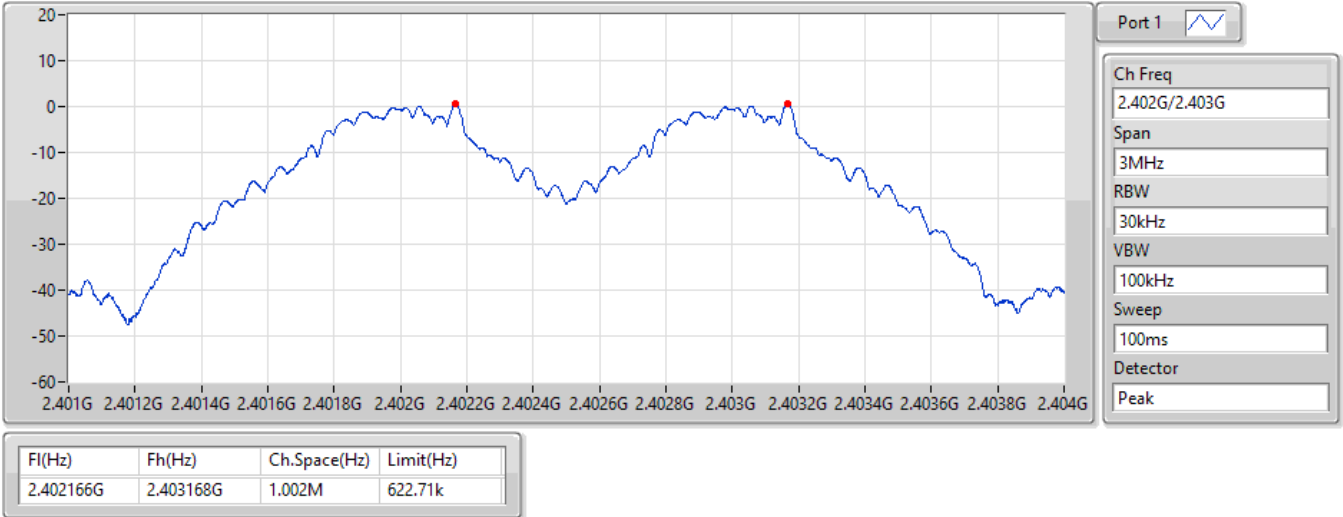
Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402166G	2.403168G	1.002M	622.71k
2440MHz	Pass	2.440166G	2.441166G	1.0005M	617.2155k
2480MHz	Pass	2.479166G	2.480166G	1.0005M	622.71k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402166G	2.403166G	1.0005M	890.442k
2440MHz	Pass	2.440166G	2.441166G	1.0005M	879.12k
2480MHz	Pass	2.479166G	2.480166G	1.0005M	881.118k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402166G	2.403168G	1.002M	855.144k
2440MHz	Pass	2.440166G	2.441166G	1.0005M	853.812k
2480MHz	Pass	2.479166G	2.480168G	1.002M	847.818k

2.4-2.4835GHz_BT-BR(1Mbps)

Channel Separation-FS

2.402G/2.403GHz

28/06/2023

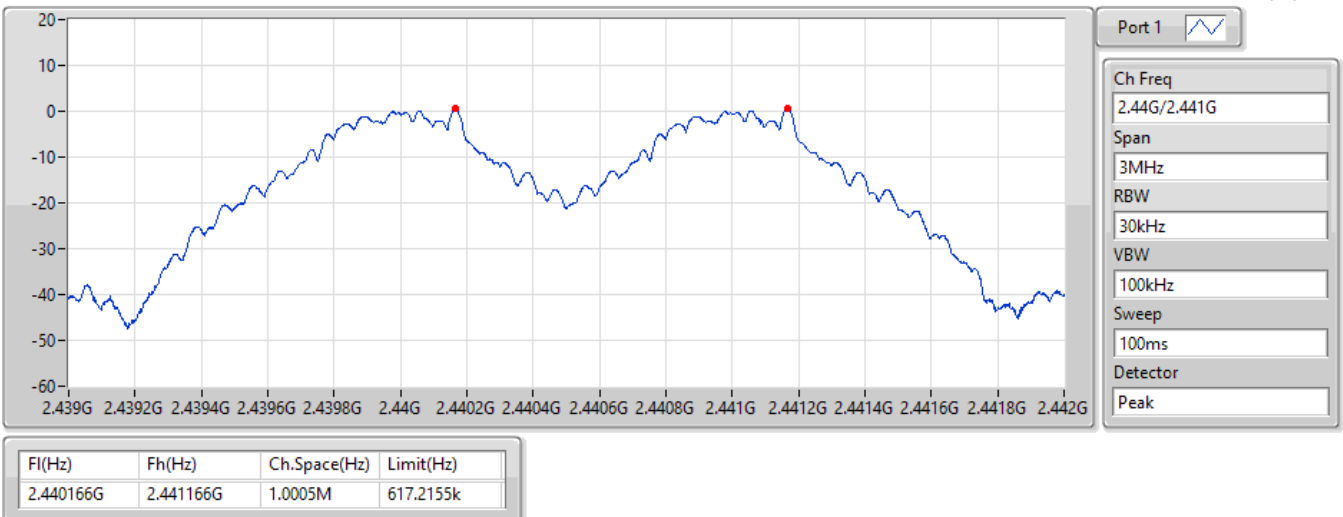


2.4-2.4835GHz_BT-BR(1Mbps)

Channel Separation-FS

2.44G/2.441GHz

28/06/2023

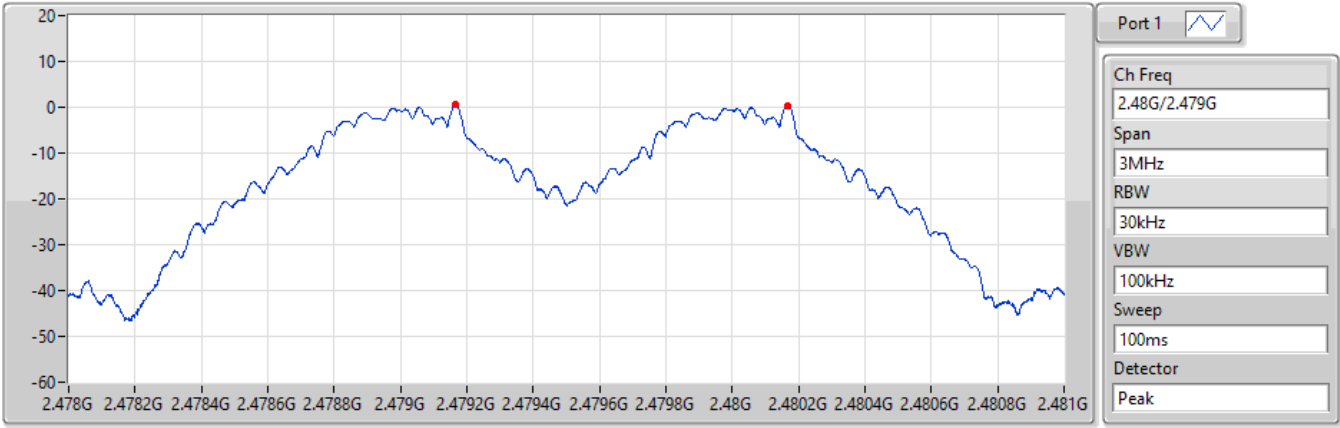


2.4-2.4835GHz_BT-BR(1Mbps)

Channel Separation-FS

2.48G/2.479GHz

28/06/2023



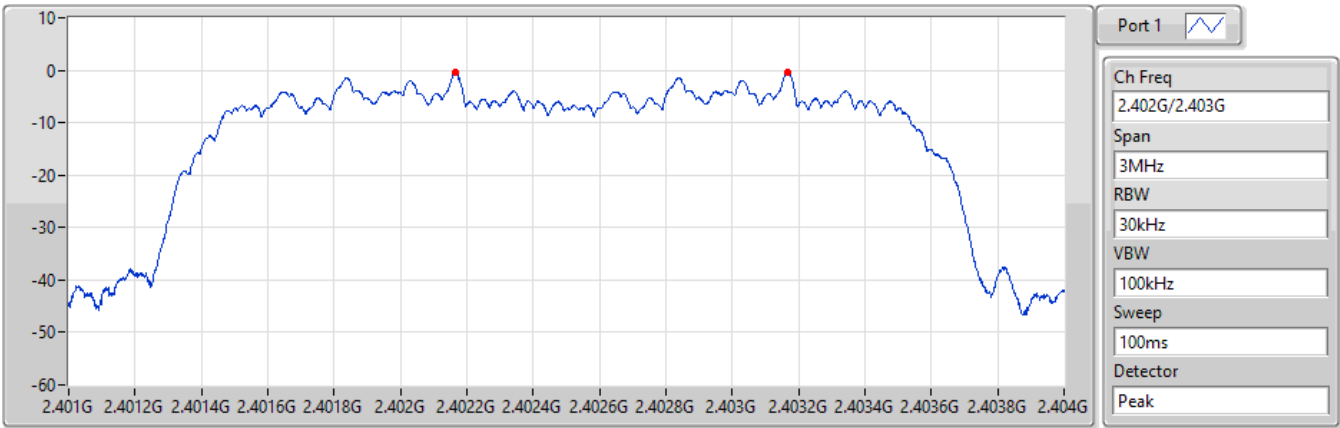
Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479166G	2.480166G	1.0005M	622.71k

2.4-2.4835GHz_BT-EDR(2Mbps)

Channel Separation-FS

2.402G/2.403GHz

28/06/2023



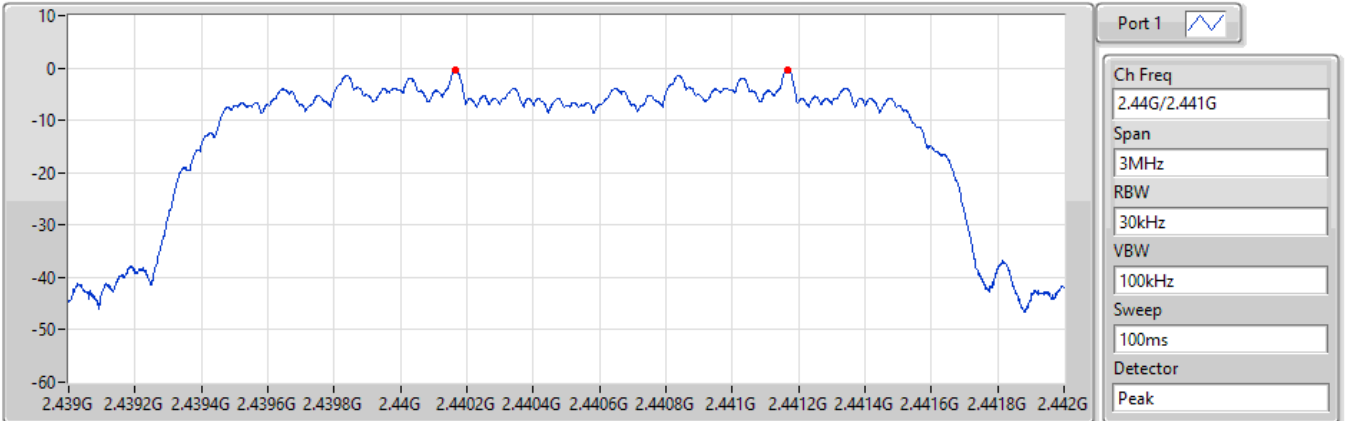
Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402166G	2.403166G	1.0005M	890.442k

2.4-2.4835GHz_BT-EDR(2Mbps)

Channel Separation-FS

2.44G/2.441GHz

28/06/2023



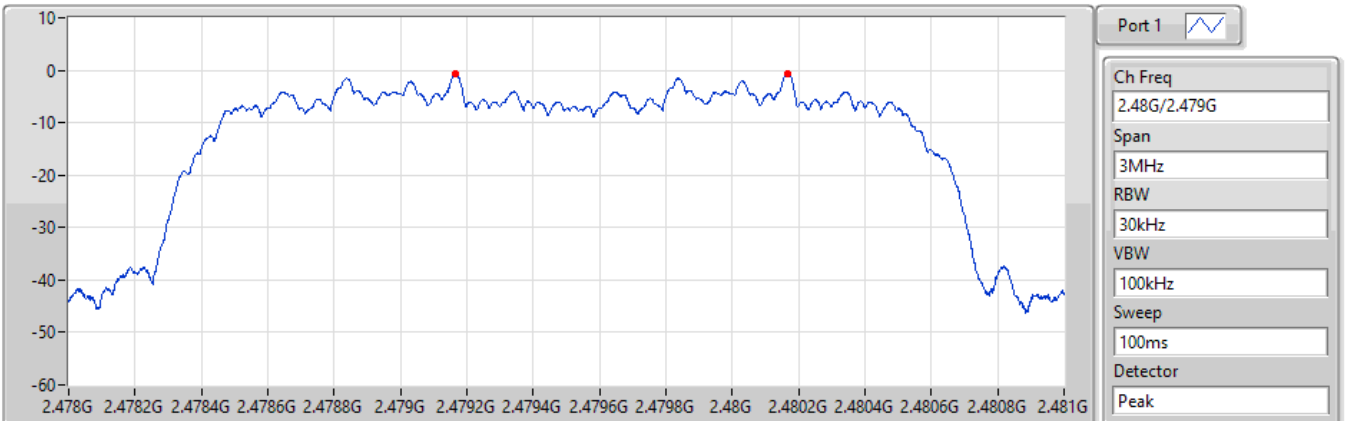
Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440166G	2.441166G	1.0005M	879.12k

2.4-2.4835GHz_BT-EDR(2Mbps)

Channel Separation-FS

2.48G/2.479GHz

28/06/2023



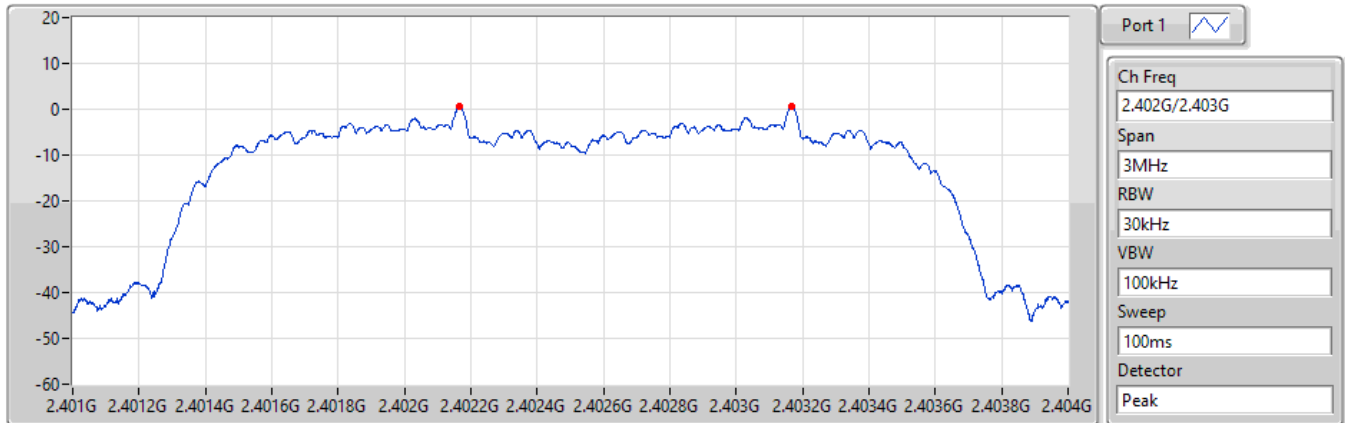
Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479166G	2.480166G	1.0005M	881.118k


2.4-2.4835GHz_BT-EDR(3Mbps)

Channel Separation-FS

2.402G/2.403GHz

28/06/2023



Port 1 

Ch Freq
2.402G/2.403G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

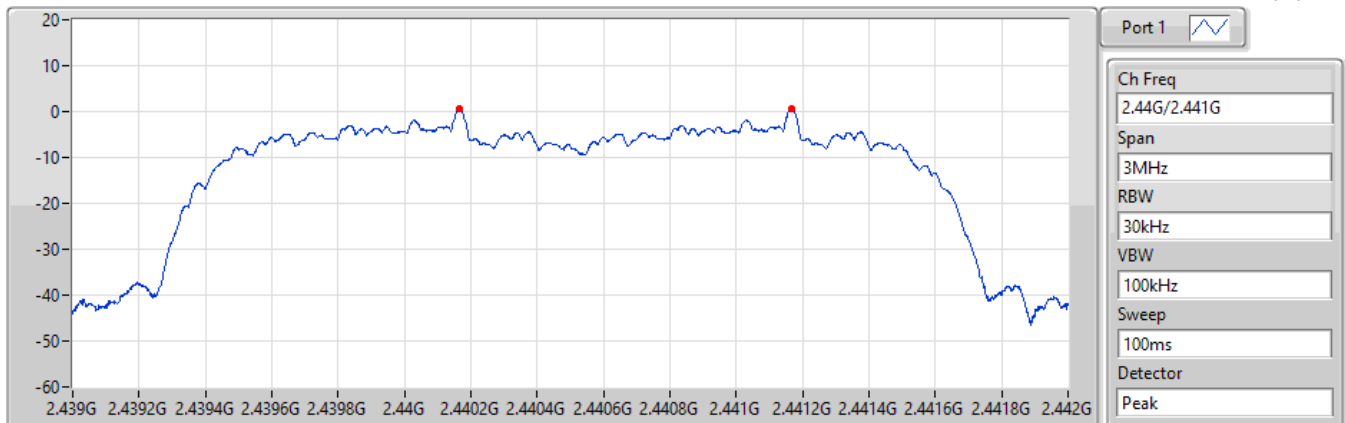
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402166G	2.403168G	1.002M	855.144k


2.4-2.4835GHz_BT-EDR(3Mbps)

Channel Separation-FS

2.44G/2.441GHz

28/06/2023



Port 1 

Ch Freq
2.44G/2.441G

Span
3MHz

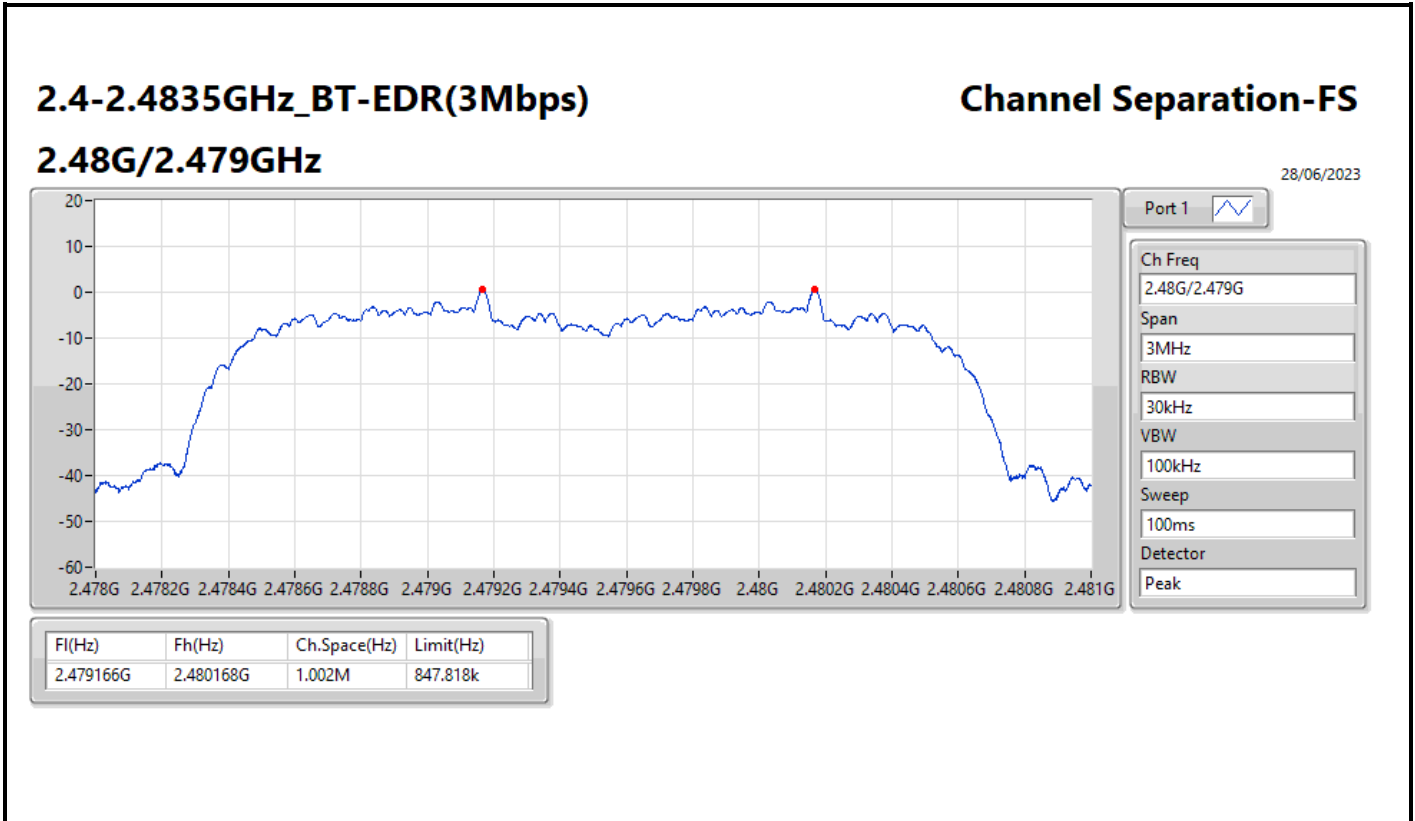
RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440166G	2.441166G	1.0005M	853.812k





Summary

Mode	Total Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	3.43	0.00220
BT-EDR(2Mbps)	6.02	0.00400
BT-EDR(3Mbps)	6.50	0.00447



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	0.50	3.43	21.00
2440MHz	Pass	0.50	3.40	21.00
2480MHz	Pass	0.50	3.20	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	0.50	6.00	21.00
2440MHz	Pass	0.50	6.02	21.00
2480MHz	Pass	0.50	5.89	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	0.50	6.48	21.00
2440MHz	Pass	0.50	6.50	21.00
2480MHz	Pass	0.50	6.42	21.00

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



Summary

Mode	Total Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	3.28	0.00213
BT-EDR(2Mbps)	3.31	0.00214
BT-EDR(3Mbps)	3.28	0.00213



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	0.50	3.25	21.00
2440MHz	Pass	0.50	3.28	21.00
2480MHz	Pass	0.50	3.07	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	0.50	3.31	21.00
2440MHz	Pass	0.50	3.30	21.00
2480MHz	Pass	0.50	3.09	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	0.50	3.28	21.00
2440MHz	Pass	0.50	3.28	21.00
2480MHz	Pass	0.50	3.12	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

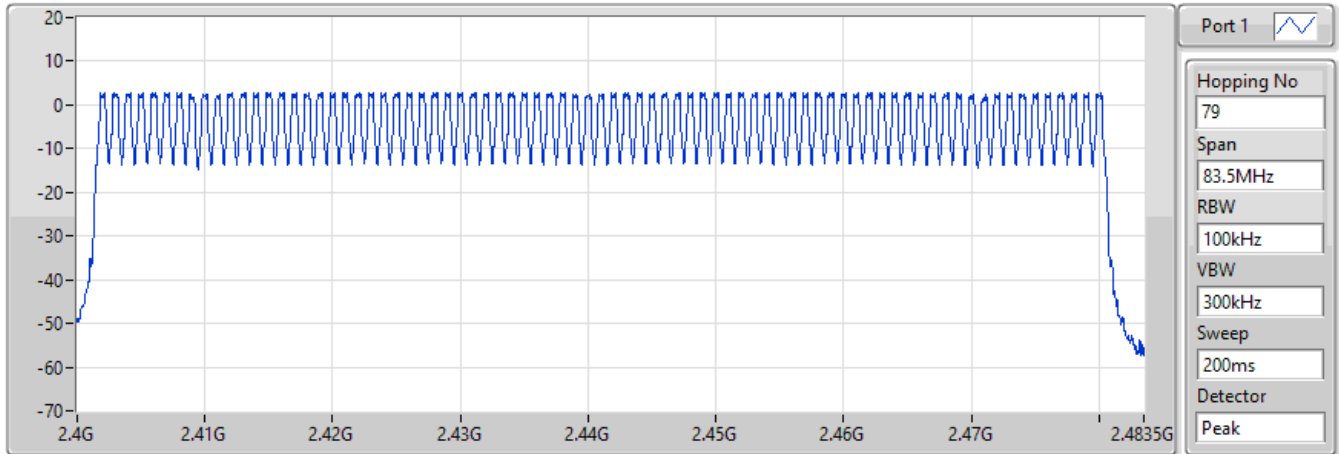
Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

2.4-2.4835GHz_BT-BR(1Mbps)

Hopping-FS

2440MHz

28/06/2023



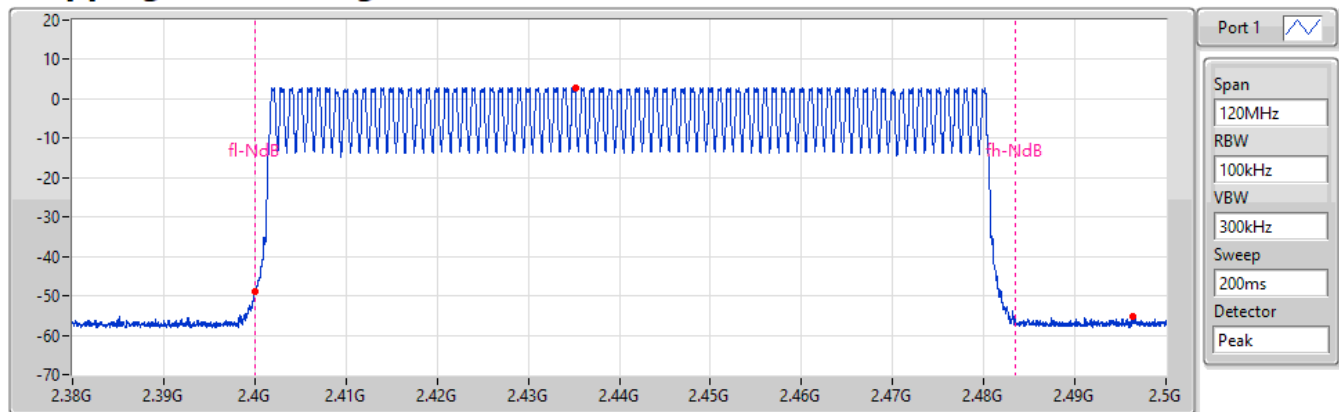
Hopping No	Limit
79	15

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

28/06/2023



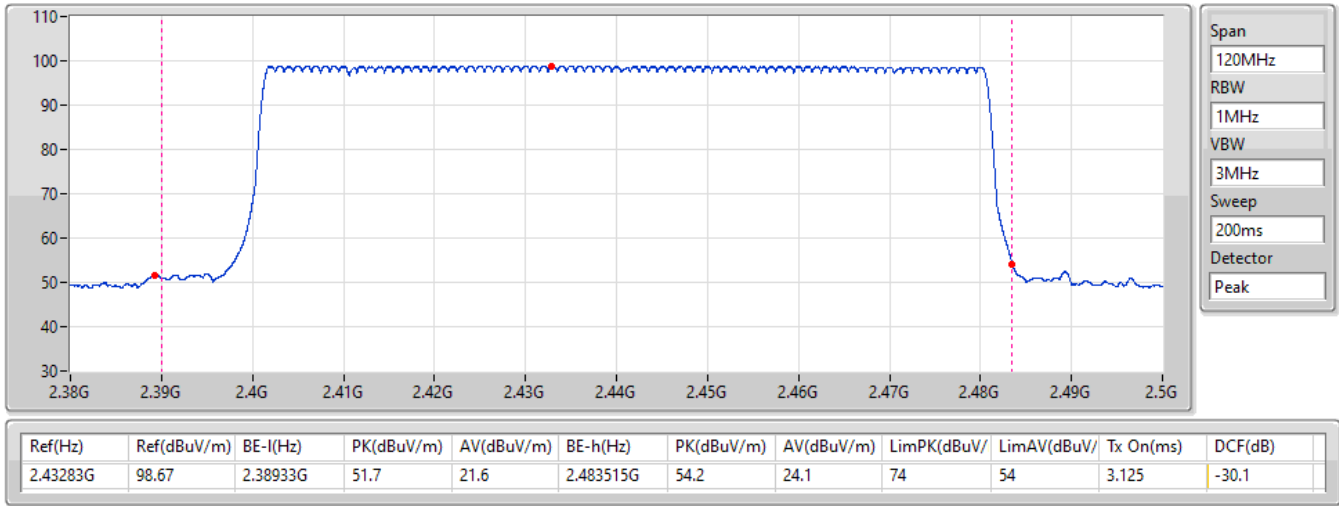
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-17.08	2.43517G	2.92	2.399995G	-48.96	2.49631G	-55.25

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

28/06/2023

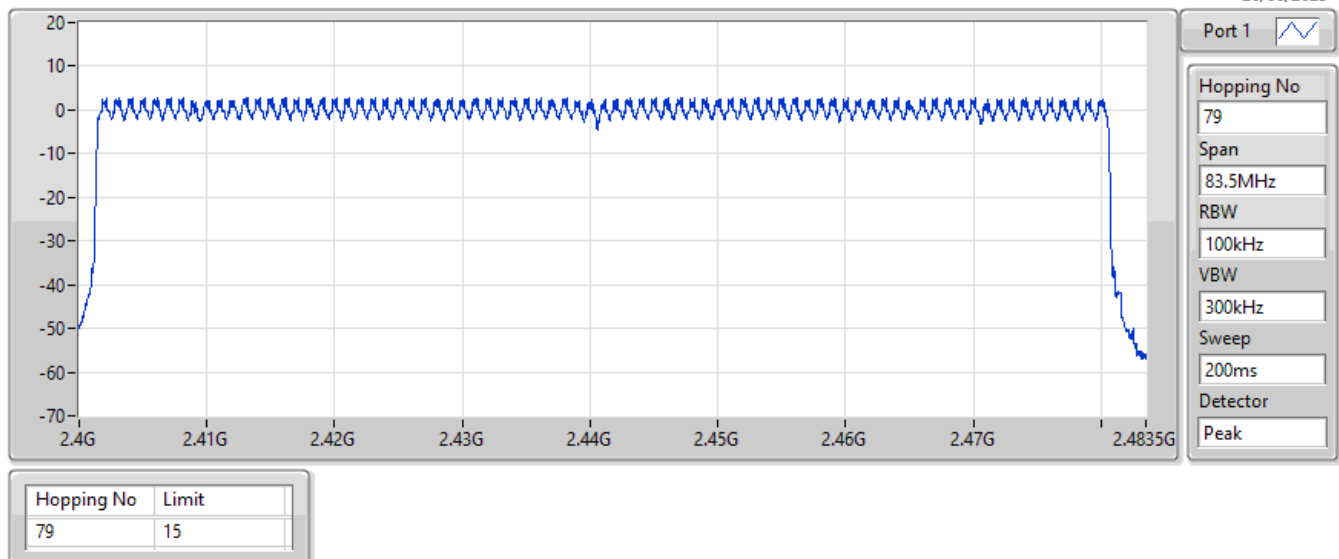


2.4-2.4835GHz_BT-EDR(2Mbps)

Hopping-FS

2440MHz

28/06/2023

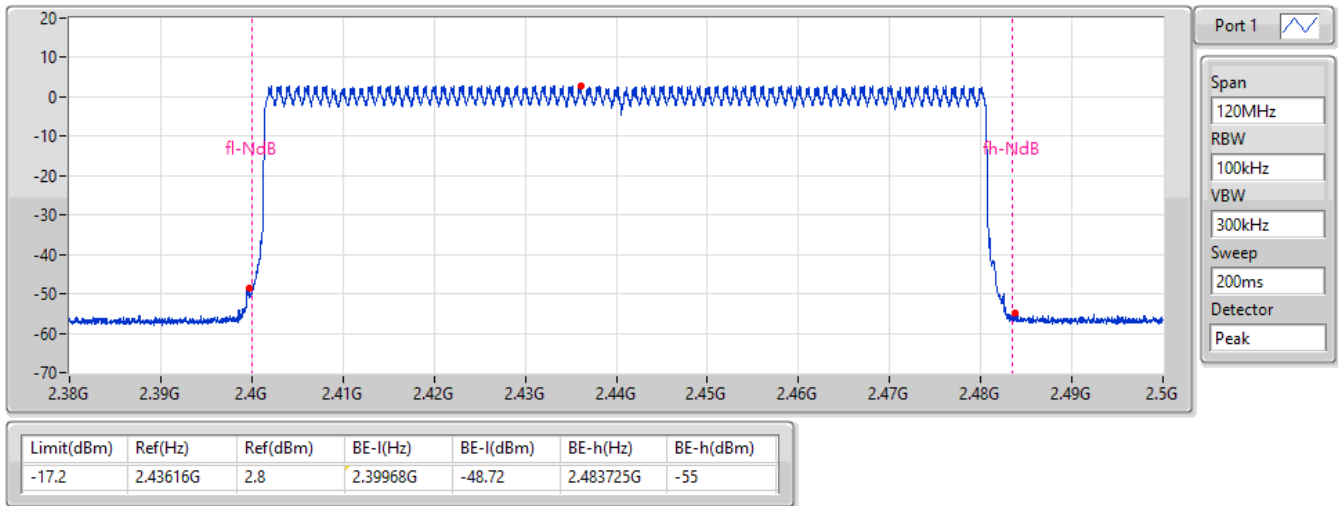


2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

28/06/2023

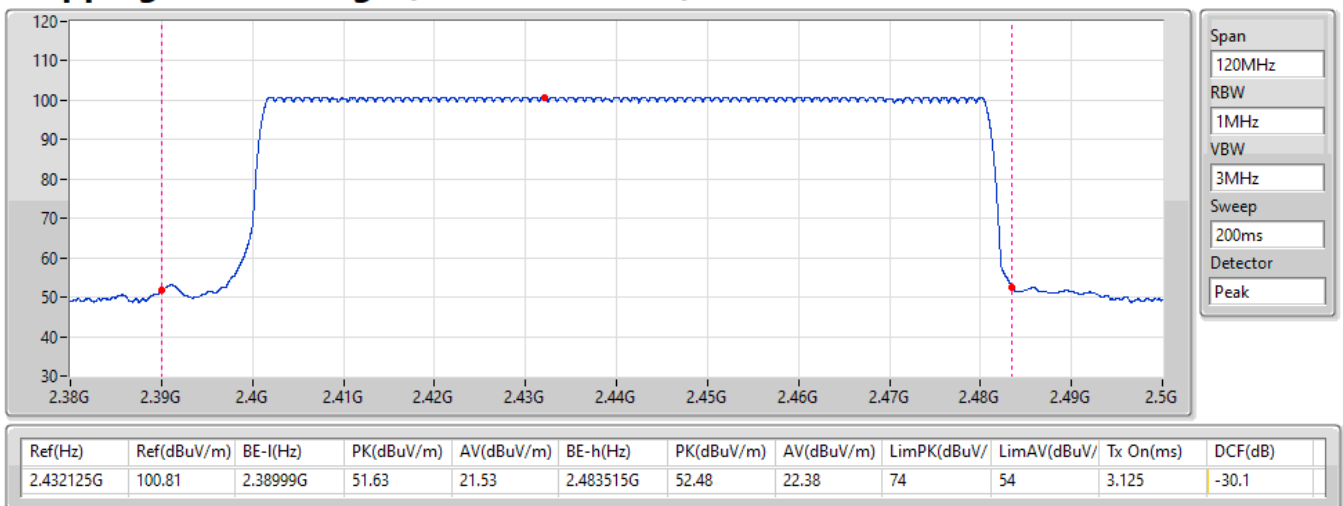


2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

28/06/2023

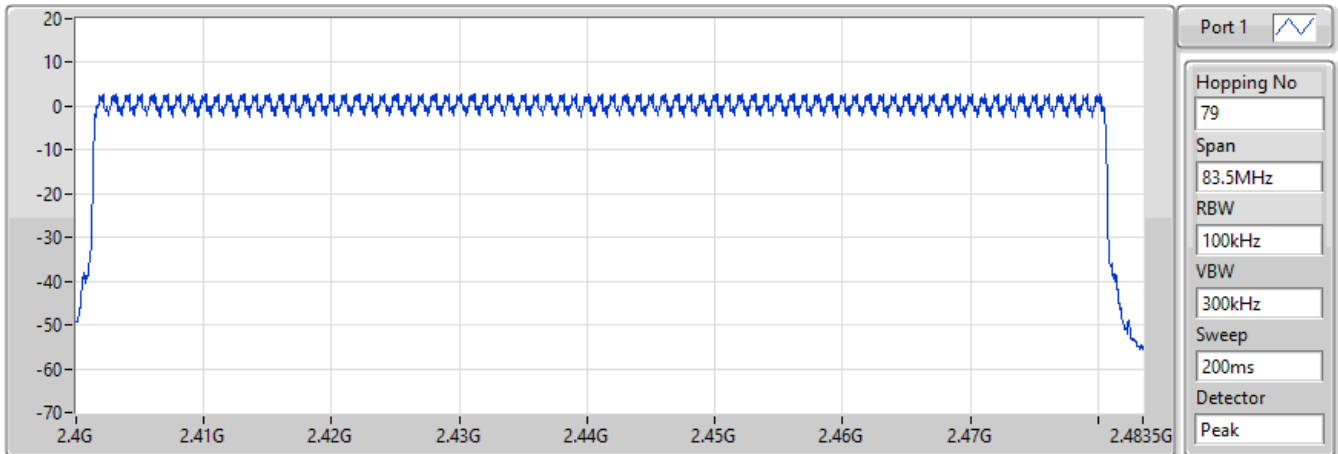


2.4-2.4835GHz_BT-EDR(3Mbps)

Hopping-FS

2440MHz

28/06/2023



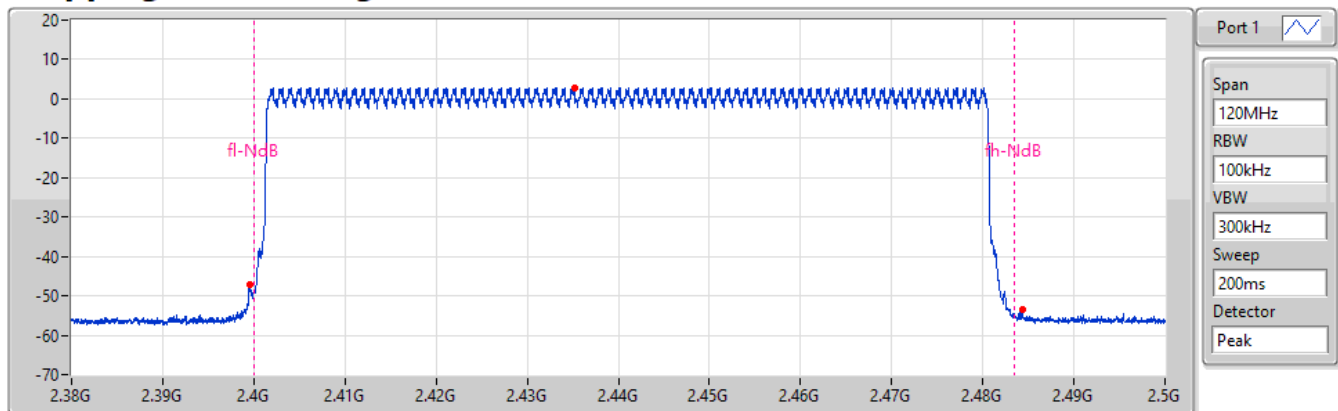
Hopping No	Limit
79	15

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

28/06/2023



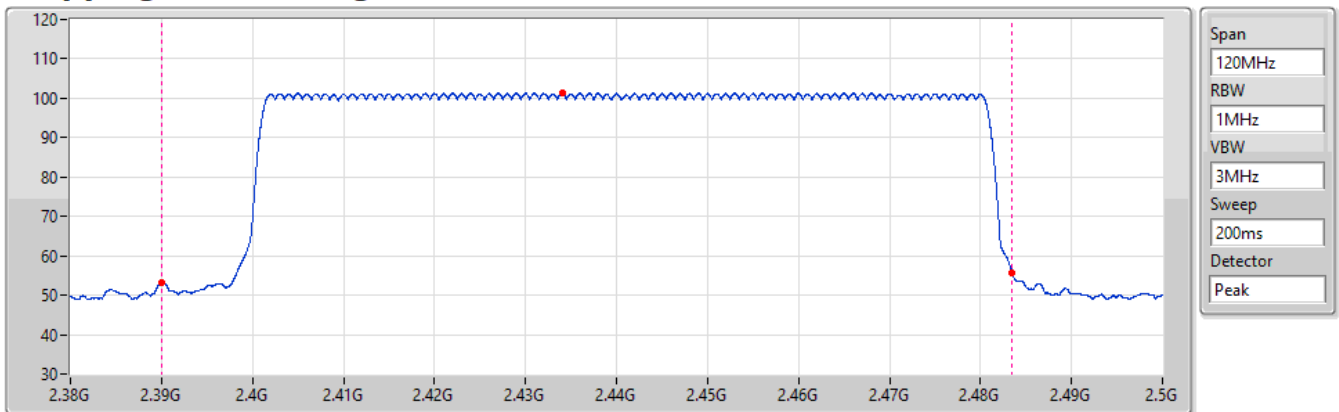
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-17.07	2.43517G	2.93	2.399515G	-47.3	2.484325G	-53.4

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

28/06/2023



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)
2.434G	101.26	2.38999G	53.15	23.05	2.483515G	55.58	25.48	74	54	3.125	-30.1



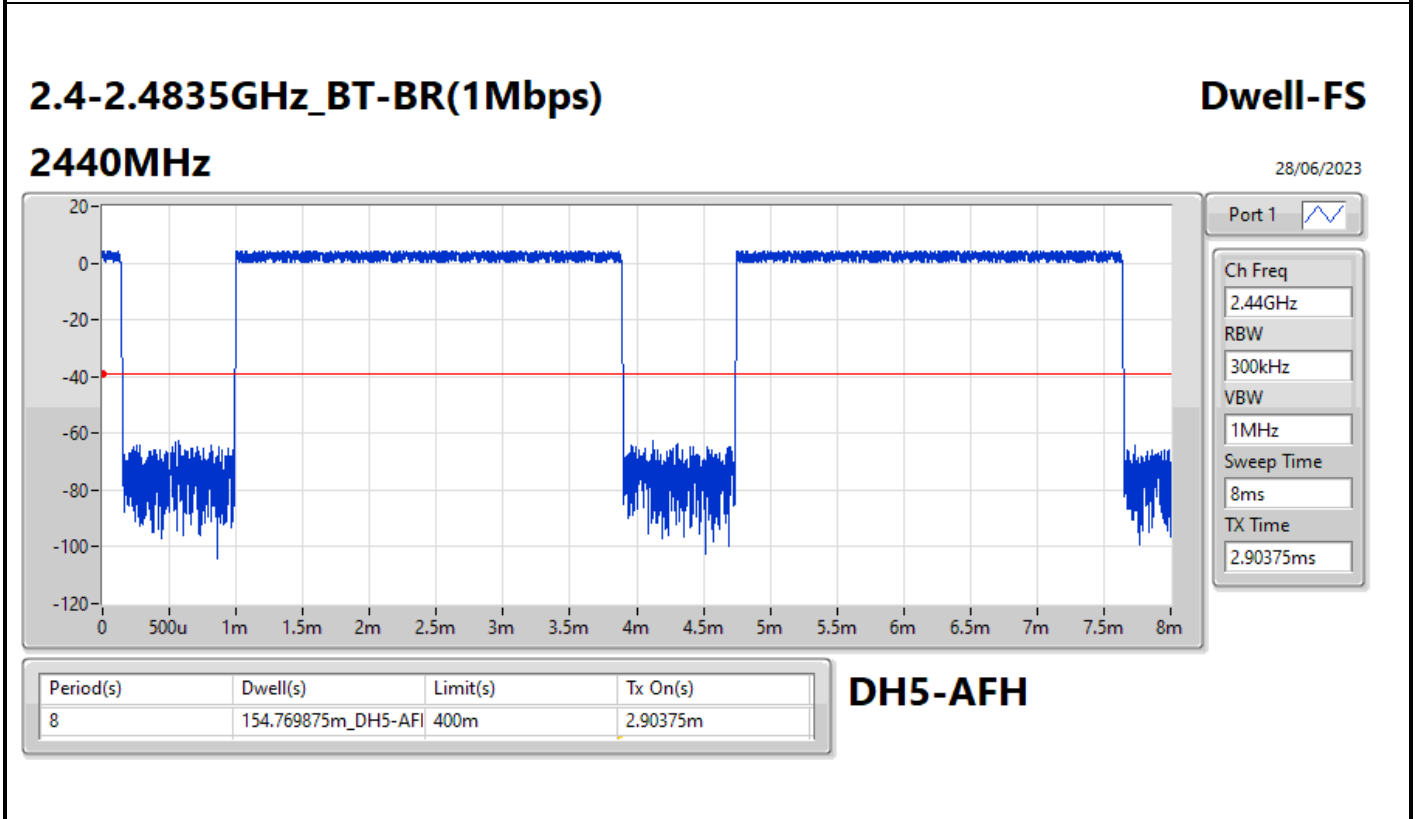
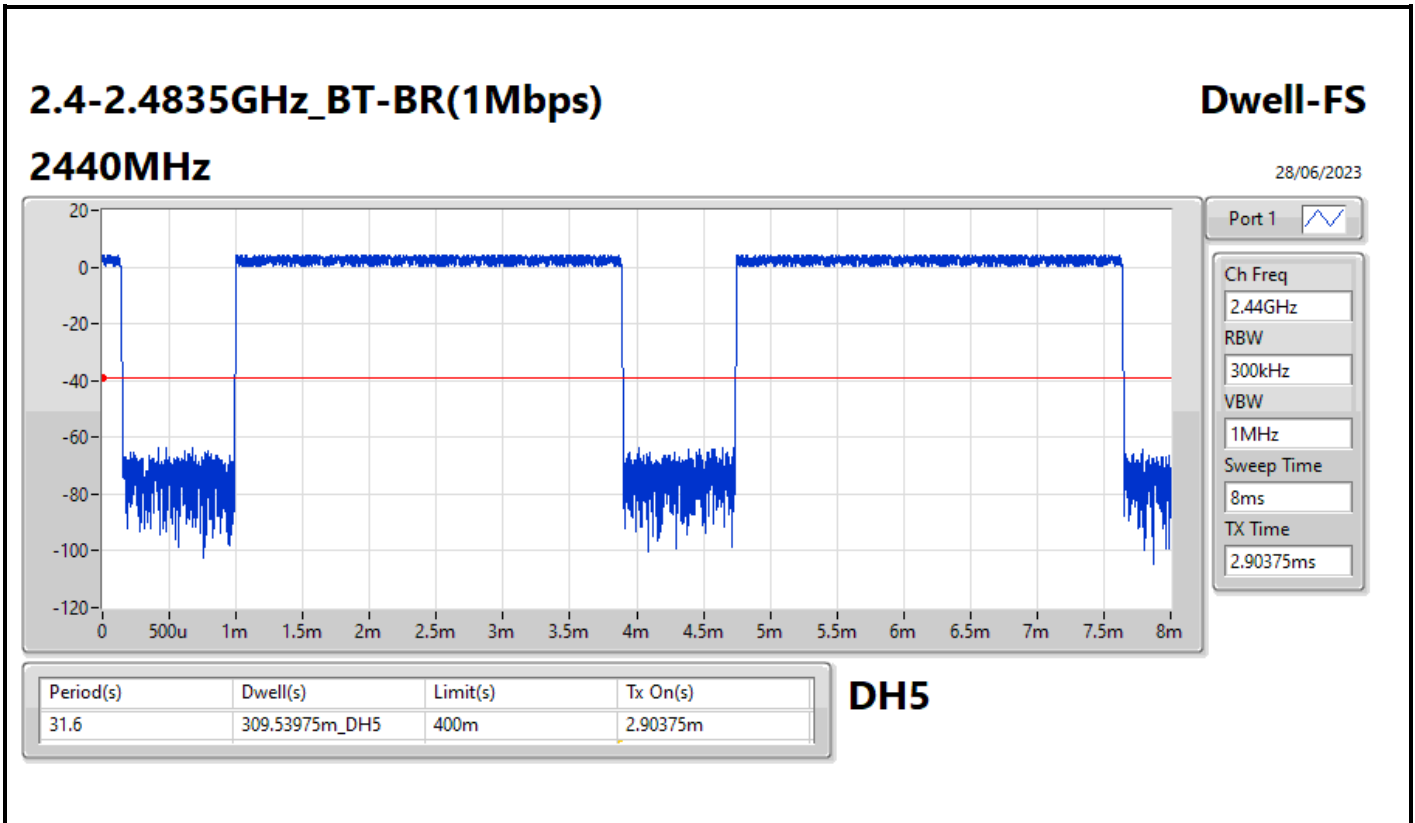
Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	309.53975m_DH5
BT-EDR(2Mbps)	309.4598m_DH5
BT-EDR(3Mbps)	309.673m_DH5



Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.53975m_DH5	400m	2.90375m
2440MHz	Pass	8	154.769875m_DH5-AFH	400m	2.90375m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.4598m_DH5	400m	2.903m
2440MHz	Pass	8	154.70325m_DH5-AFH	400m	2.9025m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.673m_DH5	400m	2.905m
2440MHz	Pass	8	154.80985m_DH5-AFH	400m	2.9045m

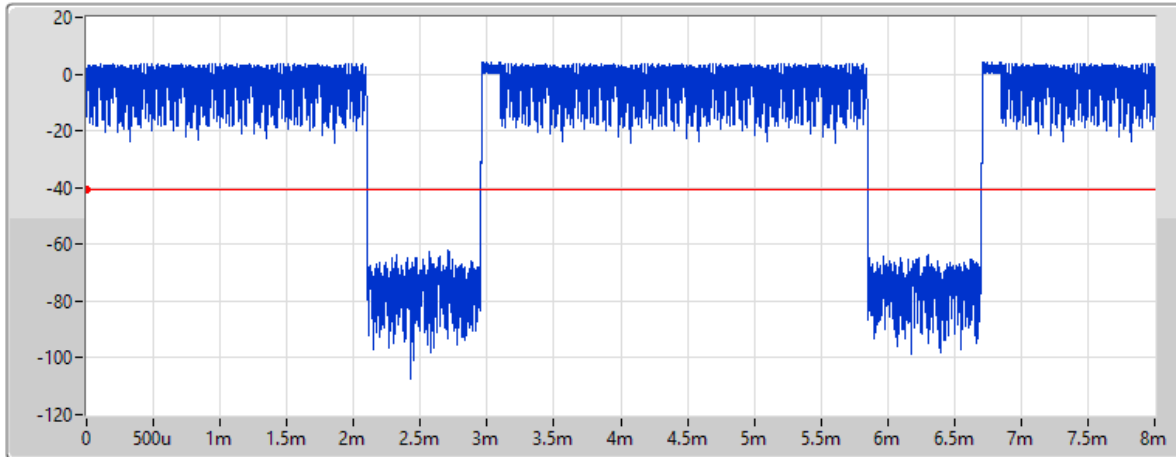


2.4-2.4835GHz_BT-EDR(2Mbps)

Dwell-FS

2440MHz

28/06/2023



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.903ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.4598m_DH5	400m	2.903m

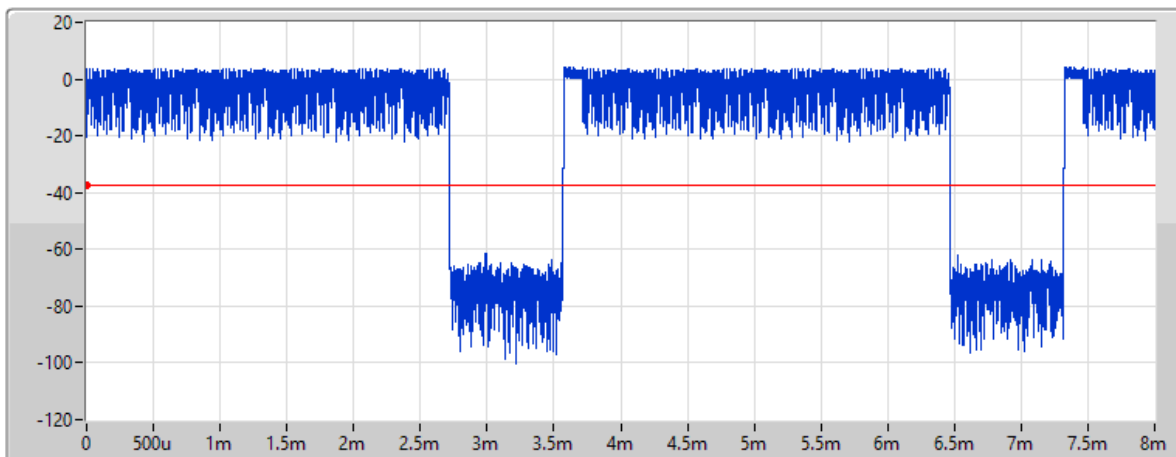
DH5

2.4-2.4835GHz_BT-EDR(2Mbps)

Dwell-FS

2440MHz

28/06/2023



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.9025ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.70325m_DH5-AFH	400m	2.9025m

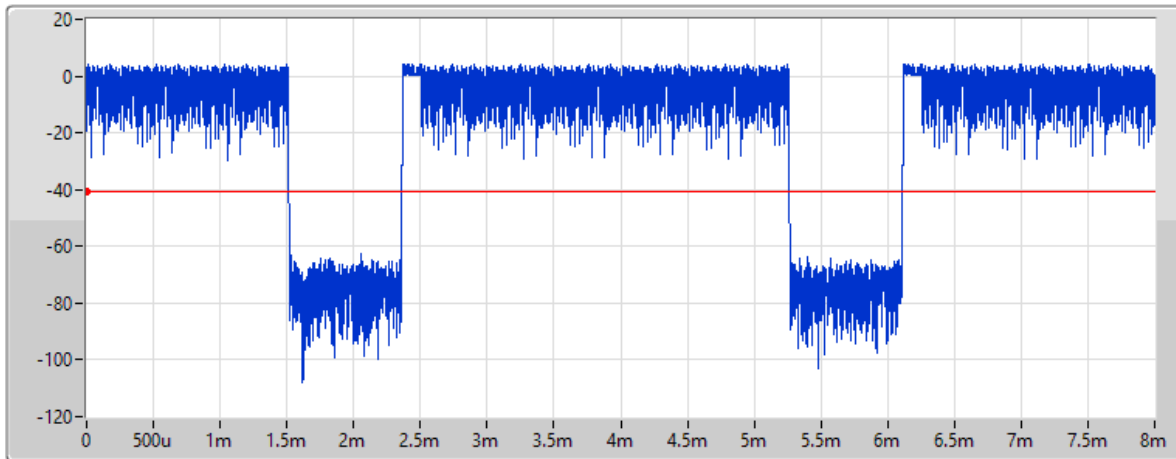
DH5-AFH

2.4-2.4835GHz_BT-EDR(3Mbps)

Dwell-FS

2440MHz

28/06/2023



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.905ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.673m_DH5	400m	2.905m

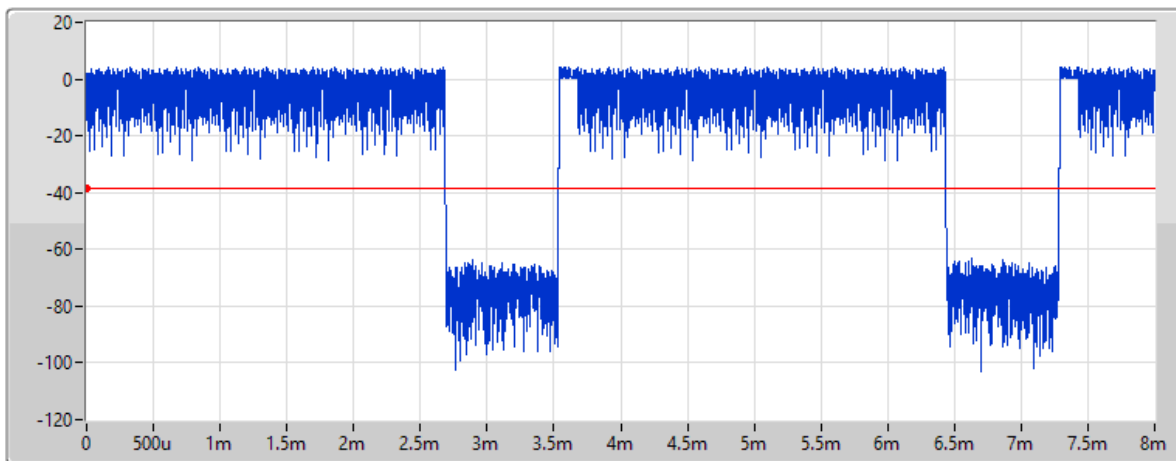
DH5


2.4-2.4835GHz_BT-EDR(3Mbps)

Dwell-FS

2440MHz

28/06/2023



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.9045ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.80985m_DH5-AFH	400m	2.9045m

DH5-AFH

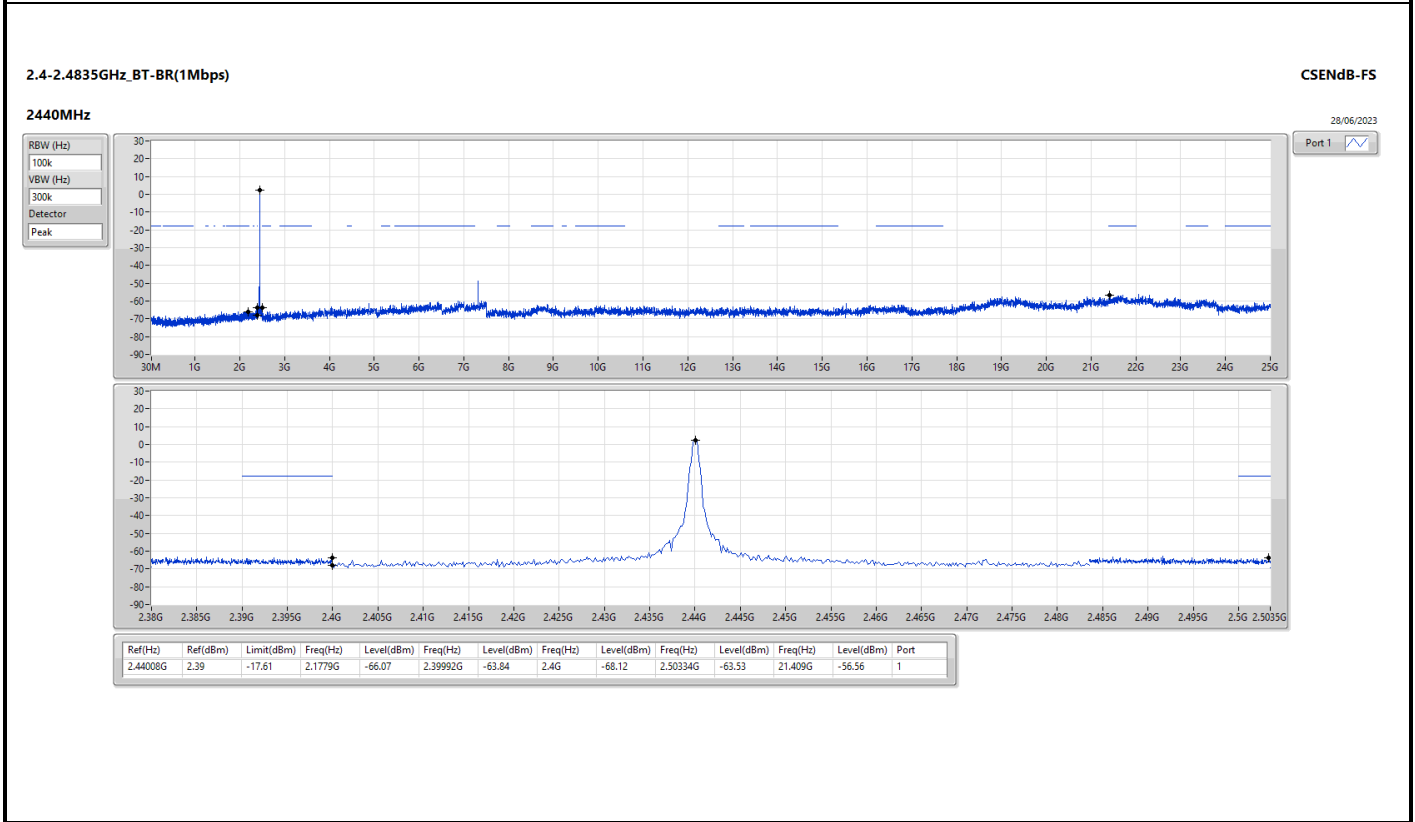
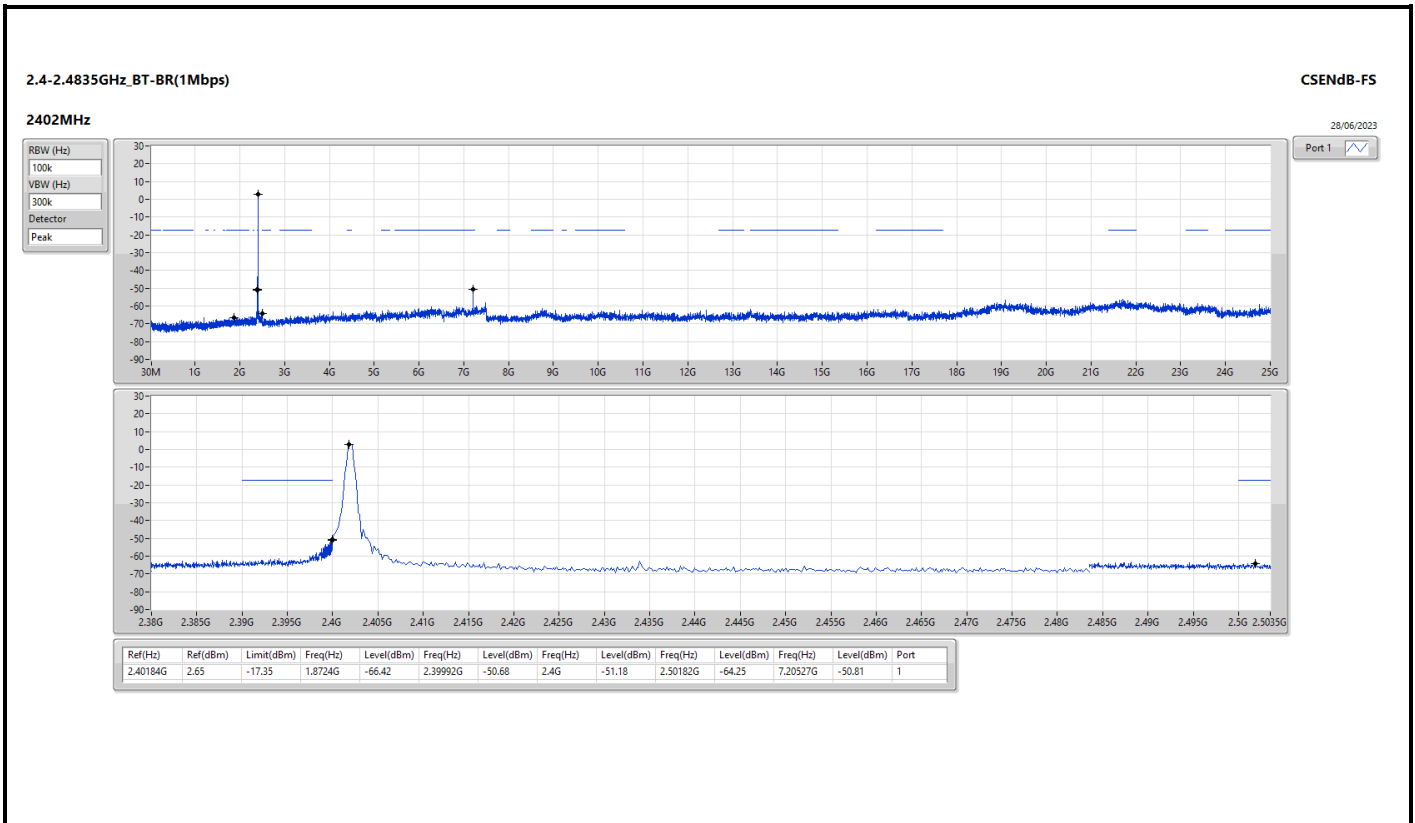


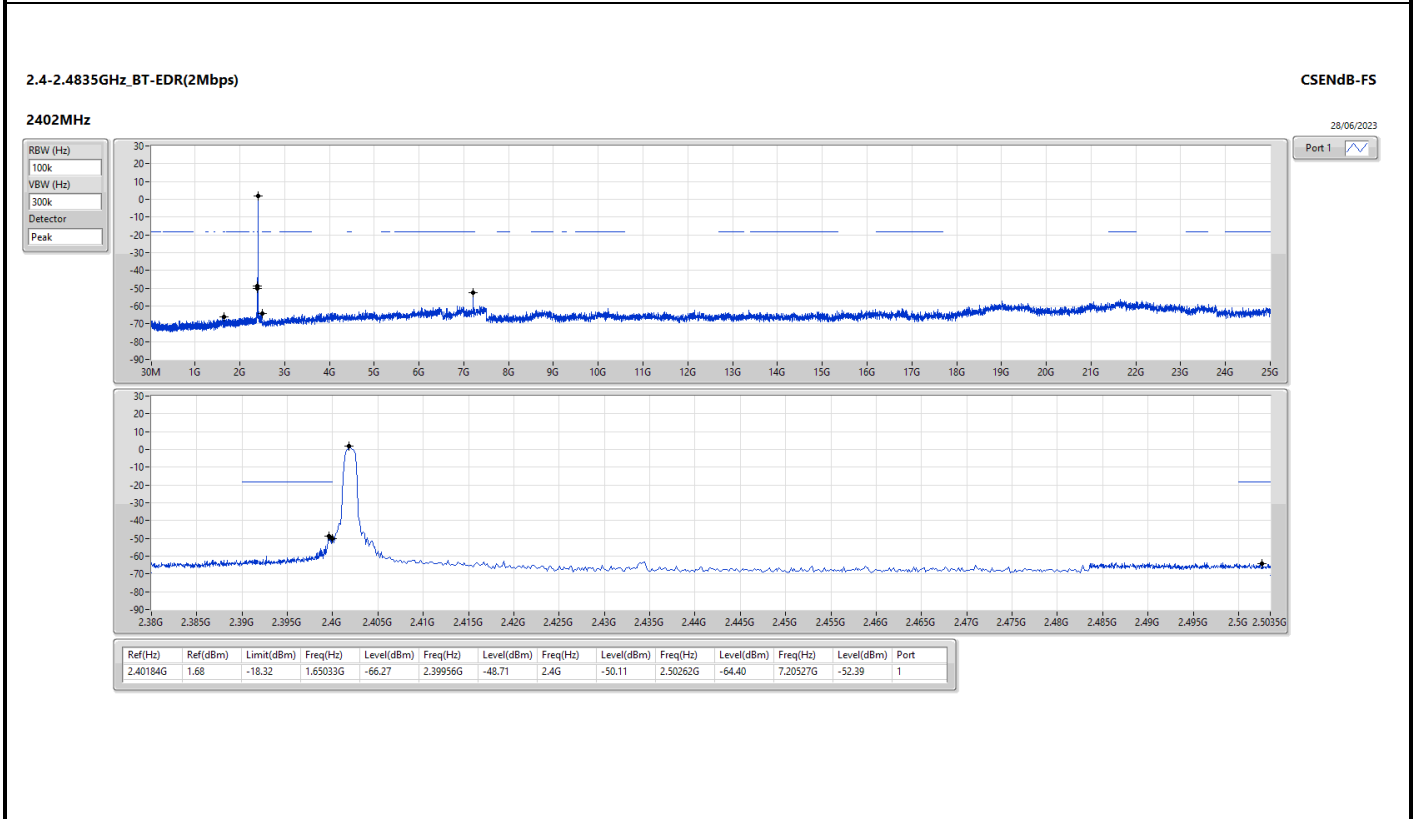
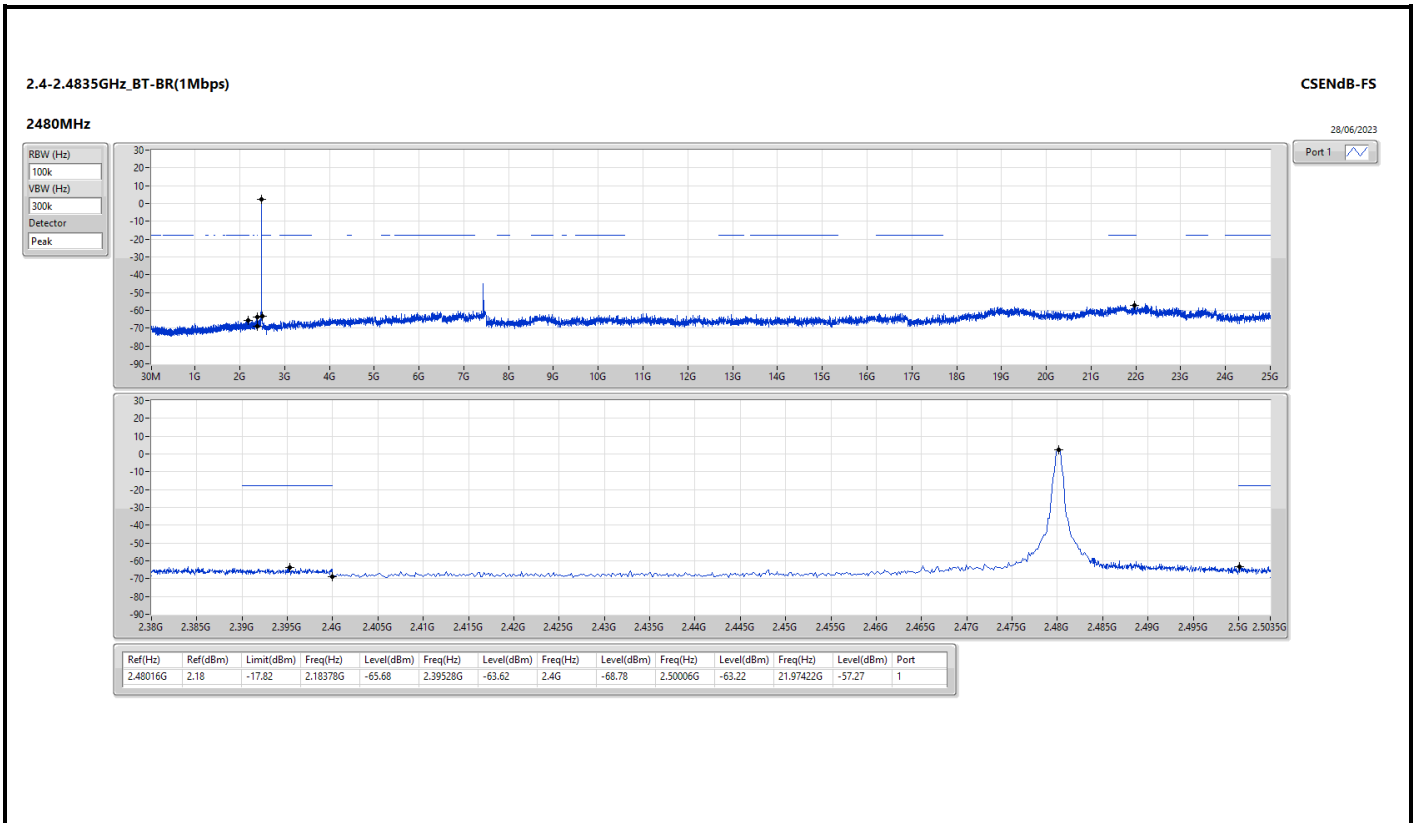
Summary

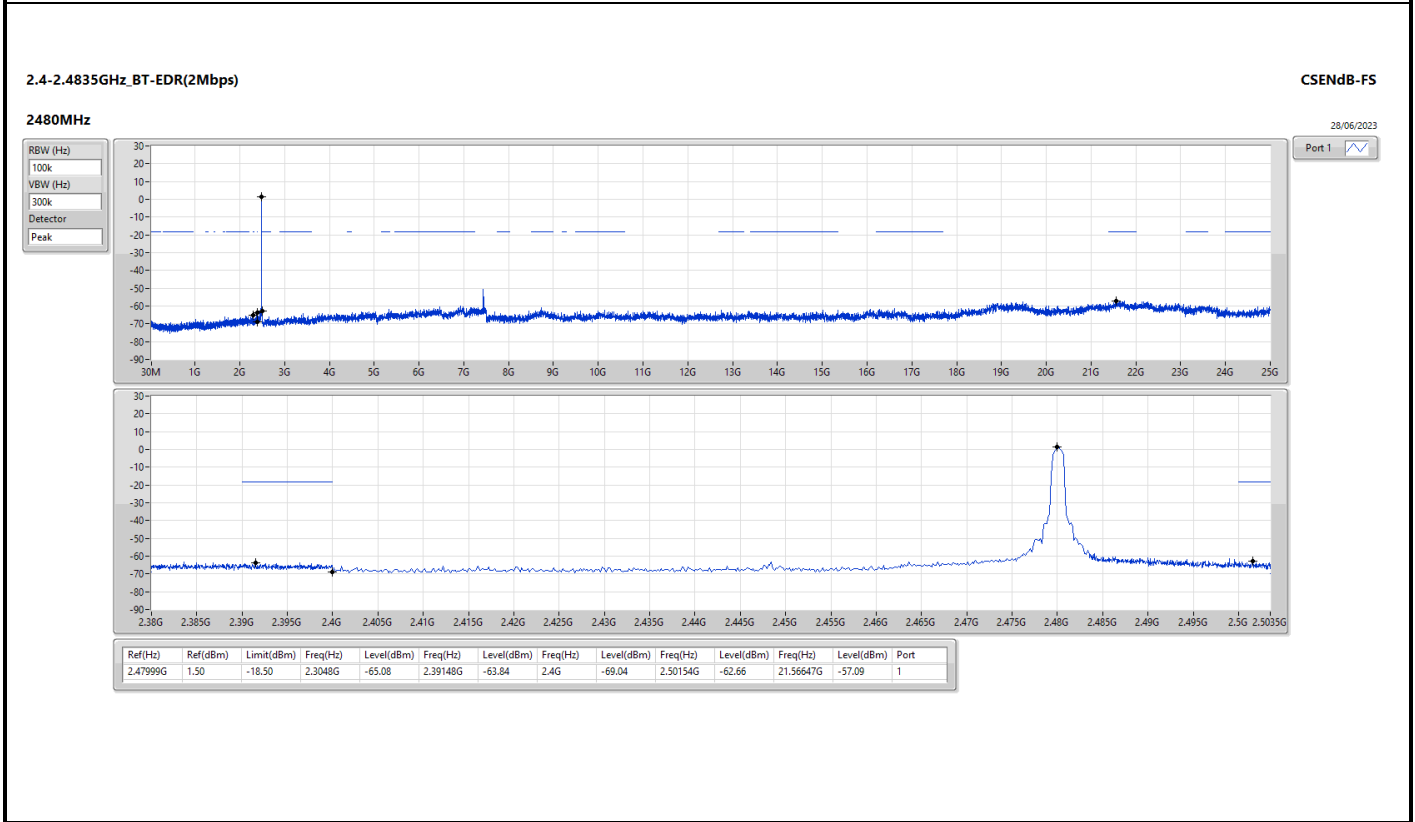
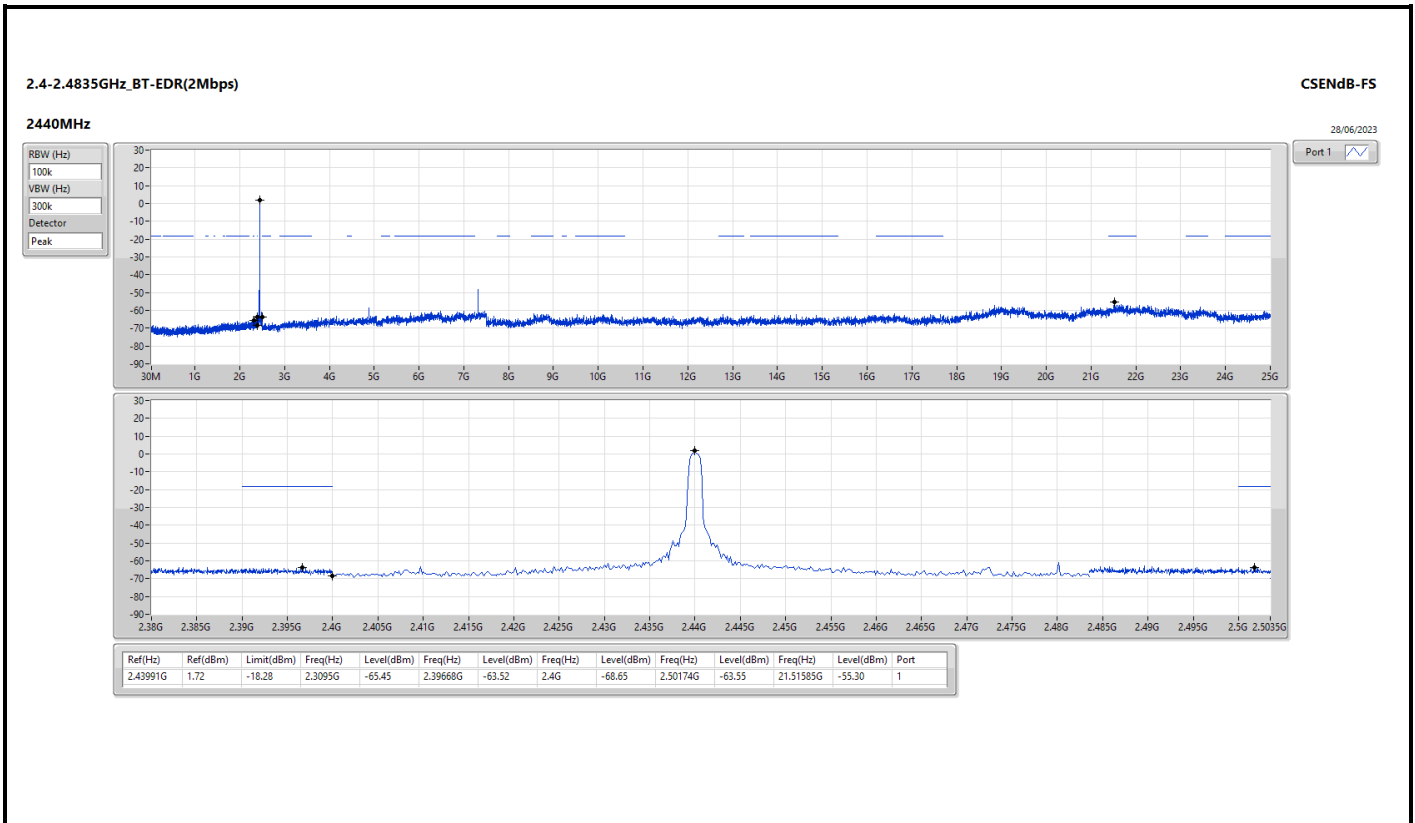
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.40184G	2.65	-17.35	1.8724G	-66.42	2.39992G	-50.68	2.4G	-51.18	2.50182G	-64.25	7.20527G	-50.81	1
BT-EDR(2Mbps)	Pass	2.40184G	1.68	-18.32	1.65033G	-66.27	2.39956G	-48.71	2.4G	-50.11	2.50262G	-64.40	7.20527G	-52.39	1
BT-EDR(3Mbps)	Pass	2.402G	2.11	-17.89	2.30245G	-65.77	2.39952G	-49.25	2.4G	-50.16	2.50254G	-63.41	7.20527G	-52.28	1

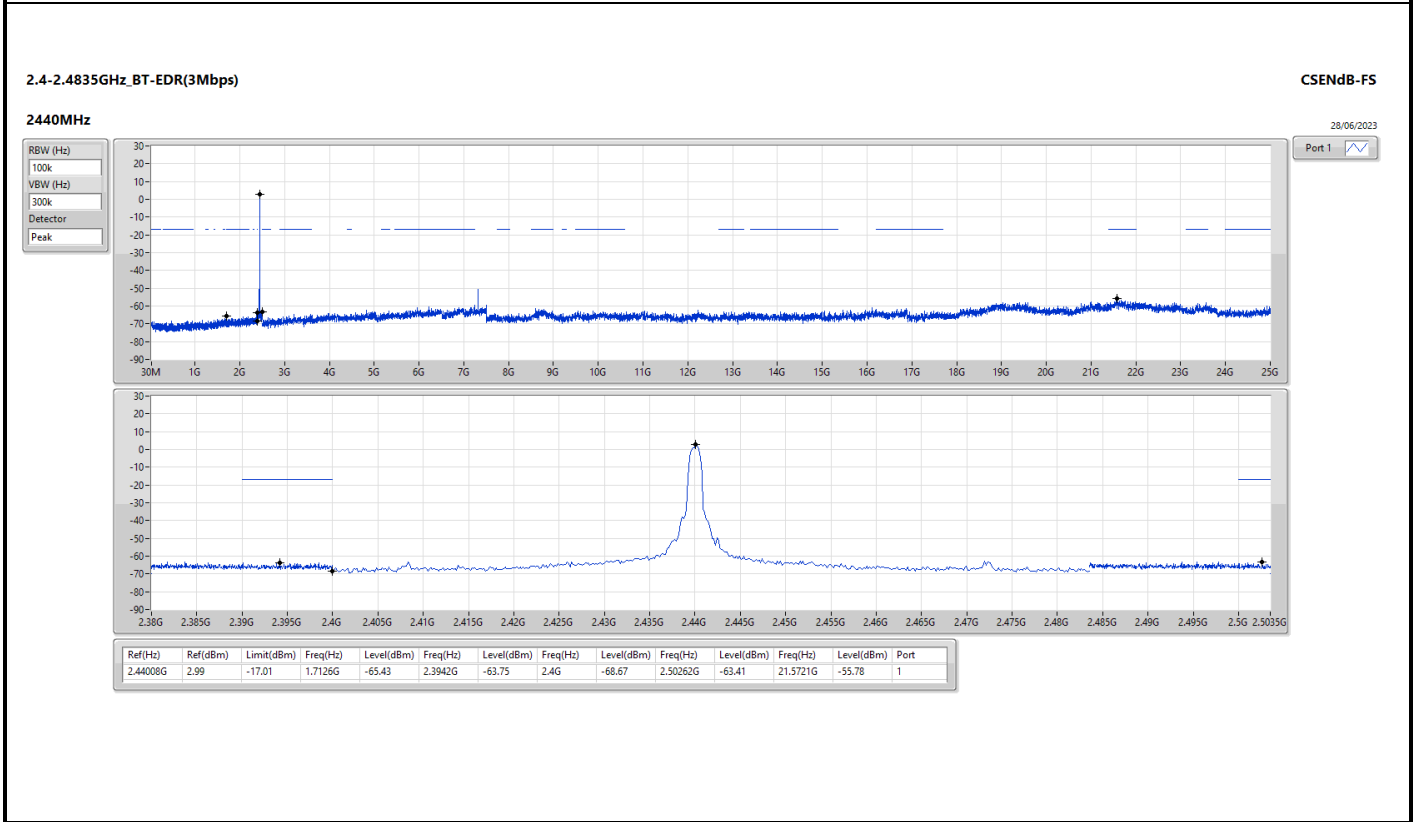
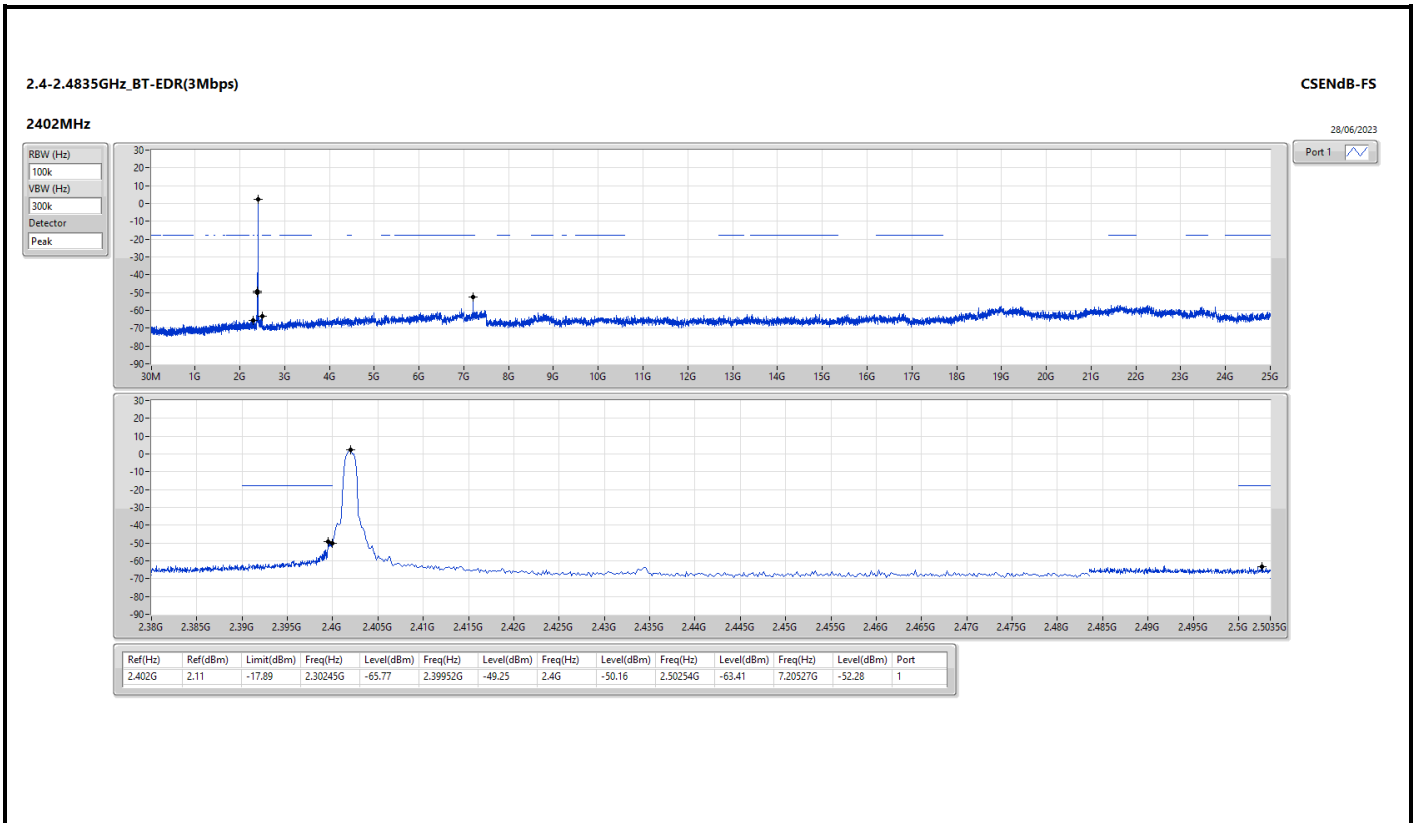
Result

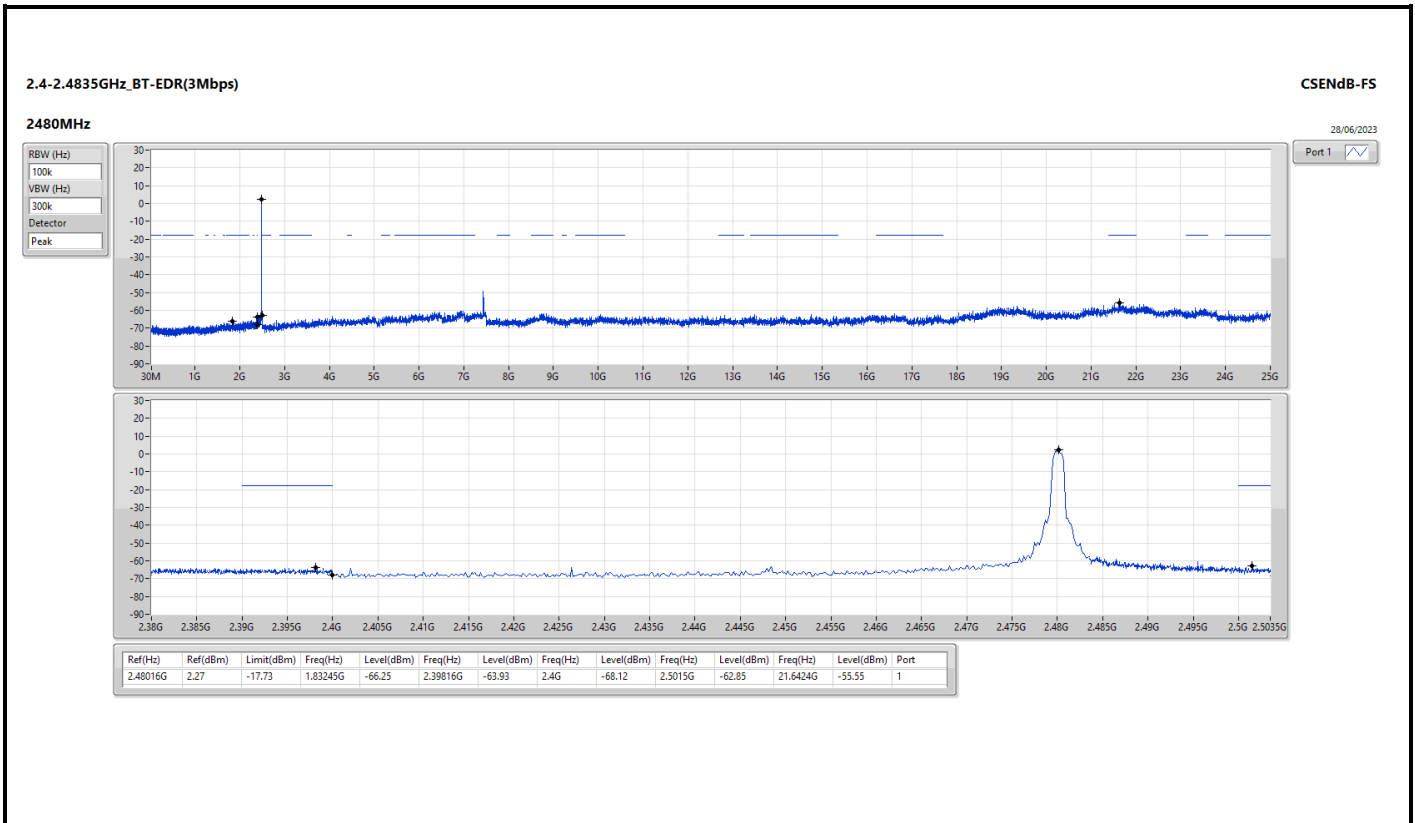
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	2.65	-17.35	1.8724G	-66.42	2.39992G	-50.68	2.4G	-51.18	2.50182G	-64.25	7.20527G	-50.81	1
2440MHz	Pass	2.44008G	2.39	-17.61	2.1779G	-66.07	2.39992G	-63.84	2.4G	-68.12	2.50334G	-63.53	21.409G	-56.56	1
2480MHz	Pass	2.48016G	2.18	-17.82	2.18378G	-65.68	2.39528G	-63.62	2.4G	-68.78	2.50006G	-63.22	21.97422G	-57.27	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	1.68	-18.32	1.65033G	-66.27	2.39956G	-48.71	2.4G	-50.11	2.50262G	-64.40	7.20527G	-52.39	1
2440MHz	Pass	2.43991G	1.72	-18.28	2.3095G	-65.45	2.39668G	-63.52	2.4G	-68.65	2.50174G	-63.55	21.51585G	-55.30	1
2480MHz	Pass	2.47999G	1.50	-18.50	2.3048G	-65.08	2.39148G	-63.84	2.4G	-69.04	2.50154G	-62.66	21.56647G	-57.09	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402G	2.11	-17.89	2.30245G	-65.77	2.39952G	-49.25	2.4G	-50.16	2.50254G	-63.41	7.20527G	-52.28	1
2440MHz	Pass	2.44008G	2.99	-17.01	1.7126G	-65.43	2.3942G	-63.75	2.4G	-68.67	2.50262G	-63.41	21.5721G	-55.78	1
2480MHz	Pass	2.48016G	2.27	-17.73	1.83245G	-66.25	2.39816G	-63.93	2.4G	-68.12	2.5015G	-62.85	21.6424G	-55.55	1













Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-EDR(3Mbps)	Pass	PK	33.88M	36.38	40.00	-3.62	3	Vertical	360	1.00

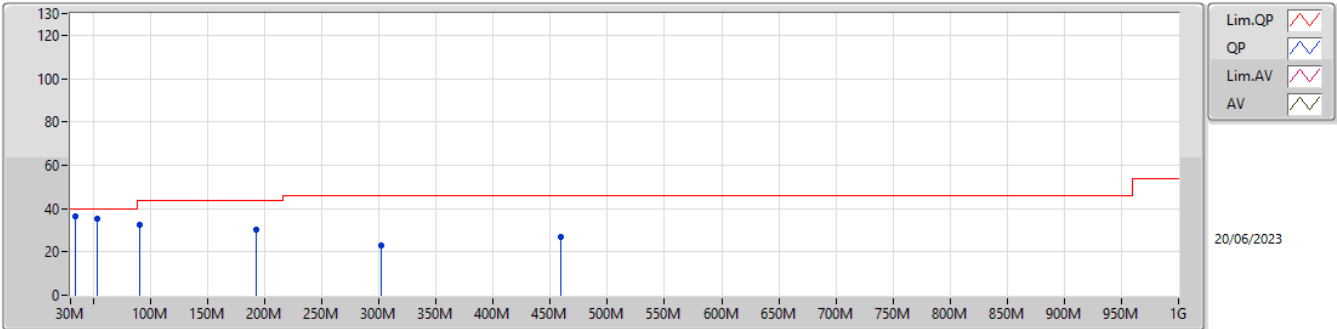


Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	33.88M	36.38	40.00	-3.62	3	Vertical	360	1.00
2440MHz	Pass	PK	53.28M	35.14	40.00	-4.86	3	Vertical	360	1.00
2440MHz	Pass	PK	90.14M	32.62	43.50	-10.88	3	Vertical	360	1.00
2440MHz	Pass	PK	192.96M	30.07	43.50	-13.43	3	Vertical	360	1.00
2440MHz	Pass	PK	301.6M	22.73	46.00	-23.27	3	Vertical	360	1.00
2440MHz	Pass	PK	458.74M	26.64	46.00	-19.36	3	Vertical	360	1.00
2440MHz	Pass	PK	37.76M	32.49	40.00	-7.51	3	Horizontal	0	1.00
2440MHz	Pass	PK	55.22M	26.93	40.00	-13.07	3	Horizontal	0	1.00
2440MHz	Pass	PK	78.5M	34.69	40.00	-5.31	3	Horizontal	0	1.00
2440MHz	Pass	PK	392.78M	23.92	46.00	-22.08	3	Horizontal	0	1.00
2440MHz	Pass	PK	466.5M	27.14	46.00	-18.86	3	Horizontal	0	1.00
2440MHz	Pass	PK	507.24M	27.38	46.00	-18.62	3	Horizontal	0	1.00
2440MHz	Pass	PK	30M	33.79	40.00	-6.21	3	Vertical	0	1.00
2440MHz	Pass	PK	37.76M	34.36	40.00	-5.64	3	Vertical	0	1.00
2440MHz	Pass	PK	55.22M	33.03	40.00	-6.97	3	Vertical	0	1.00
2440MHz	Pass	PK	115.36M	27.58	43.50	-15.92	3	Vertical	0	1.00
2440MHz	Pass	PK	336.52M	30.32	46.00	-15.68	3	Vertical	0	1.00
2440MHz	Pass	PK	507.24M	27.56	46.00	-18.44	3	Vertical	0	1.00
2440MHz	Pass	PK	30M	31.20	40.00	-8.80	3	Horizontal	360	1.00
2440MHz	Pass	PK	76.56M	30.17	40.00	-9.83	3	Horizontal	360	1.00
2440MHz	Pass	PK	181.32M	39.11	43.50	-4.39	3	Horizontal	360	1.00
2440MHz	Pass	PK	334.58M	35.19	46.00	-10.81	3	Horizontal	360	1.00
2440MHz	Pass	PK	363.68M	31.67	46.00	-14.33	3	Horizontal	360	1.00
2440MHz	Pass	PK	507.24M	27.82	46.00	-18.18	3	Horizontal	360	1.00

2.4-2.4835GHz_BT-EDR(3Mbps)

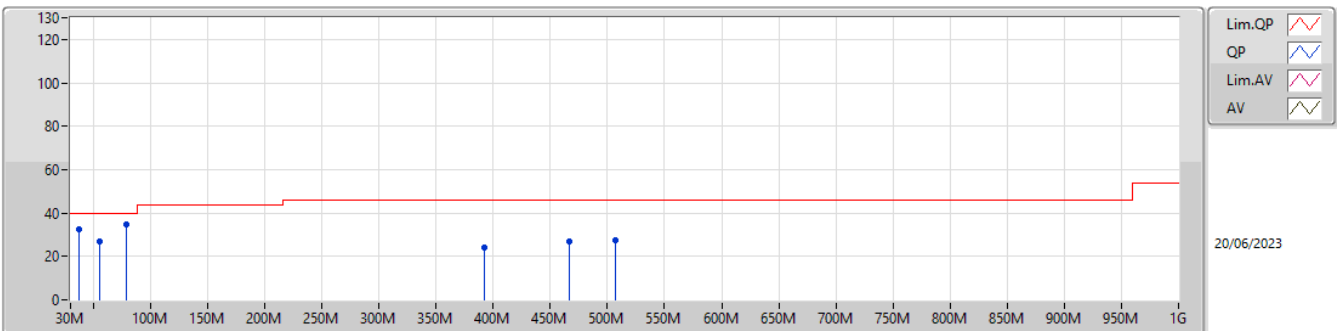
2440MHz_Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	33.88M	36.38	40.00	-3.62	-5.60	3	Vertical	360	1.00	41.98	21.08	1.31	27.99
PK	53.28M	35.14	40.00	-4.86	-14.26	3	Vertical	360	1.00	49.40	12.34	1.44	28.04
PK	90.14M	32.62	43.50	-10.88	-11.80	3	Vertical	360	1.00	44.42	14.11	2.00	27.91
PK	192.96M	30.07	43.50	-13.43	-10.47	3	Vertical	360	1.00	40.54	14.24	2.70	27.41
PK	301.6M	22.73	46.00	-23.27	-5.37	3	Vertical	360	1.00	28.10	18.43	3.30	27.10
PK	458.74M	26.64	46.00	-19.36	-1.70	3	Vertical	360	1.00	28.34	22.10	4.30	28.10

2.4-2.4835GHz_BT-EDR(3Mbps)

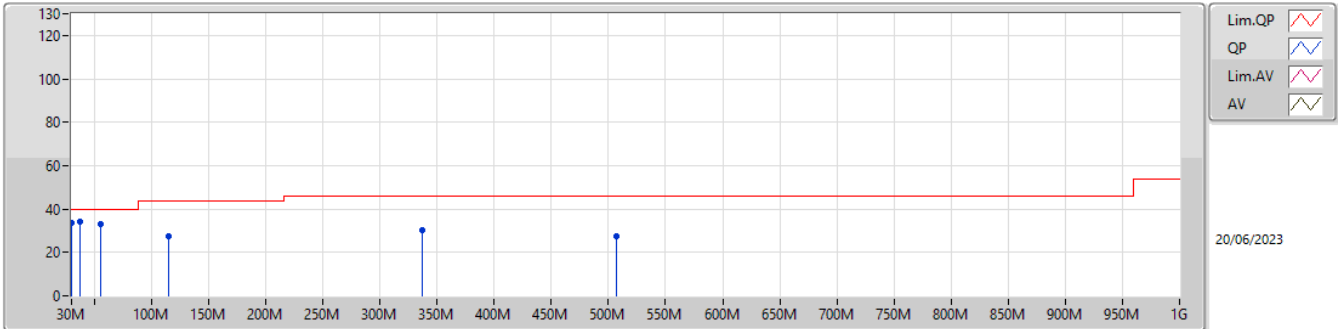
2440MHz_Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	37.76M	32.49	40.00	-7.51	-7.59	3	Horizontal	0	1.00	40.08	19.05	1.38	28.02
PK	55.22M	26.93	40.00	-13.07	-14.76	3	Horizontal	0	1.00	41.69	11.83	1.45	28.04
PK	78.5M	34.69	40.00	-5.31	-14.05	3	Horizontal	0	1.00	48.74	12.02	1.84	27.91
PK	392.78M	23.92	46.00	-22.08	-3.32	3	Horizontal	0	1.00	27.24	20.57	3.87	27.76
PK	466.5M	27.14	46.00	-18.86	-1.41	3	Horizontal	0	1.00	28.55	22.39	4.32	28.12
PK	507.24M	27.38	46.00	-18.62	-1.13	3	Horizontal	0	1.00	28.51	22.67	4.43	28.23

2.4-2.4835GHz_BT-EDR(3Mbps)

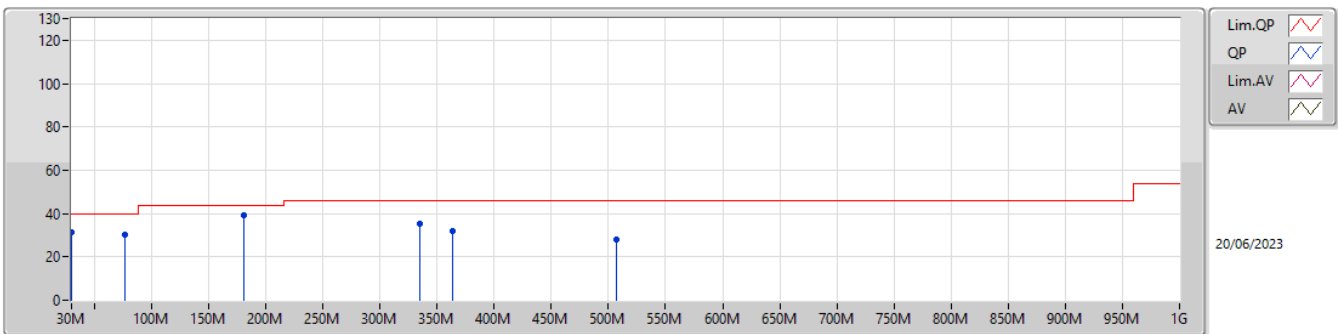
2440MHz_USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	33.79	40.00	-6.21	-3.56	3	Vertical	0	1.00	37.35	23.14	1.21	27.91
PK	37.76M	34.36	40.00	-5.64	-7.59	3	Vertical	0	1.00	41.95	19.05	1.38	28.02
PK	55.22M	33.03	40.00	-6.97	-14.76	3	Vertical	0	1.00	47.79	11.83	1.45	28.04
PK	115.36M	27.58	43.50	-15.92	-8.49	3	Vertical	0	1.00	36.07	17.27	2.07	27.83
PK	336.52M	30.32	46.00	-15.68	-4.80	3	Vertical	0	1.00	35.12	18.99	3.56	27.35
PK	507.24M	27.56	46.00	-18.44	-1.13	3	Vertical	0	1.00	28.69	22.67	4.43	28.23

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	31.20	40.00	-8.80	-3.56	3	Horizontal	360	1.00	34.76	23.14	1.21	27.91
PK	76.56M	30.17	40.00	-9.83	-14.32	3	Horizontal	360	1.00	44.49	11.82	1.79	27.93
PK	181.32M	39.11	43.50	-4.39	-10.46	3	Horizontal	360	1.00	49.57	14.43	2.55	27.44
PK	334.58M	35.19	46.00	-10.81	-4.84	3	Horizontal	360	1.00	40.03	18.94	3.55	27.33
PK	363.68M	31.67	46.00	-14.33	-3.86	3	Horizontal	360	1.00	35.53	19.95	3.73	27.54
PK	507.24M	27.82	46.00	-18.18	-1.13	3	Horizontal	360	1.00	28.95	22.67	4.43	28.23



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	2.4936G	59.02	74.00	-14.98	3	Horizontal	60
BT-EDR(3Mbps)	Pass	PK	2.4998G	58.20	74.00	-15.80	3	Horizontal	77



Result

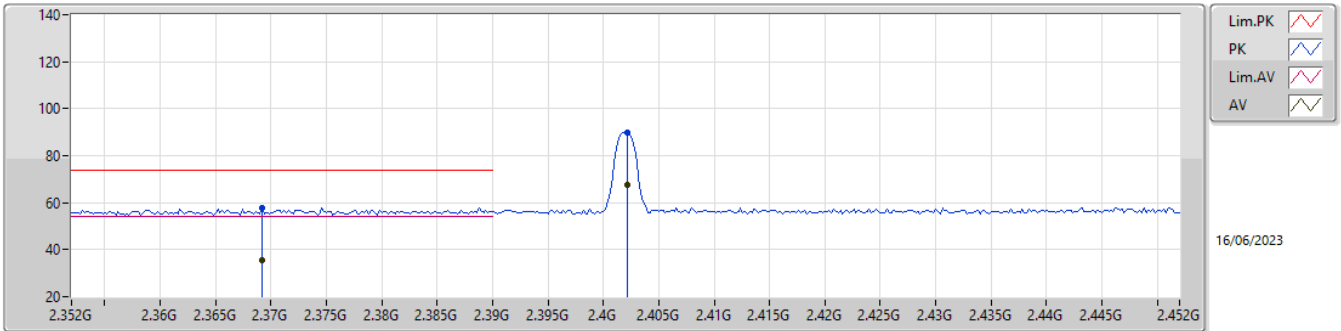
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3692G	35.46	54.00	-18.54	3	Vertical	314
2402MHz	Pass	AV	2.4022G	67.38	Inf	-Inf	3	Vertical	314
2402MHz	Pass	PK	2.3692G	57.96	74.00	-16.04	3	Vertical	314
2402MHz	Pass	PK	2.4022G	89.88	Inf	-Inf	3	Vertical	314
2402MHz	Pass	AV	2.3738G	35.36	54.00	-18.64	3	Horizontal	314
2402MHz	Pass	AV	2.4018G	67.35	Inf	-Inf	3	Horizontal	314
2402MHz	Pass	PK	2.3738G	57.86	74.00	-16.14	3	Horizontal	314
2402MHz	Pass	PK	2.4018G	89.85	Inf	-Inf	3	Horizontal	314
2402MHz	Pass	AV	4.80324G	21.09	54.00	-32.91	3	Vertical	224
2402MHz	Pass	PK	4.80324G	43.59	74.00	-30.41	3	Vertical	224
2402MHz	Pass	AV	4.80391G	22.94	54.00	-31.06	3	Horizontal	60
2402MHz	Pass	PK	4.80391G	45.44	74.00	-28.56	3	Horizontal	60
2440MHz	Pass	AV	2.37G	35.59	54.00	-18.41	3	Vertical	130
2440MHz	Pass	AV	2.44G	66.74	Inf	-Inf	3	Vertical	130
2440MHz	Pass	AV	2.4856G	34.95	54.00	-19.05	3	Vertical	130
2440MHz	Pass	PK	2.37G	58.09	74.00	-15.91	3	Vertical	130
2440MHz	Pass	PK	2.44G	89.24	Inf	-Inf	3	Vertical	130
2440MHz	Pass	PK	2.4856G	57.45	74.00	-16.55	3	Vertical	130
2440MHz	Pass	AV	2.3788G	35.05	54.00	-18.95	3	Horizontal	60
2440MHz	Pass	AV	2.44G	70.61	Inf	-Inf	3	Horizontal	60
2440MHz	Pass	AV	2.4936G	36.52	54.00	-17.48	3	Horizontal	60
2440MHz	Pass	PK	2.3788G	57.55	74.00	-16.45	3	Horizontal	60
2440MHz	Pass	PK	2.44G	93.11	Inf	-Inf	3	Horizontal	60
2440MHz	Pass	PK	2.4936G	59.02	74.00	-14.98	3	Horizontal	60
2440MHz	Pass	AV	4.88006G	21.45	54.00	-32.55	3	Vertical	224
2440MHz	Pass	PK	4.88006G	43.95	74.00	-30.05	3	Vertical	224
2440MHz	Pass	AV	4.88036G	24.09	54.00	-29.91	3	Horizontal	147
2440MHz	Pass	PK	4.88036G	46.59	74.00	-27.41	3	Horizontal	147
2480MHz	Pass	AV	2.4798G	67.89	Inf	-Inf	3	Vertical	316
2480MHz	Pass	AV	2.4886G	35.52	54.00	-18.48	3	Vertical	316
2480MHz	Pass	PK	2.4798G	90.39	Inf	-Inf	3	Vertical	316
2480MHz	Pass	PK	2.4886G	58.02	74.00	-15.98	3	Vertical	316
2480MHz	Pass	AV	2.4798G	70.24	Inf	-Inf	3	Horizontal	77
2480MHz	Pass	AV	2.4844G	35.64	54.00	-18.36	3	Horizontal	77
2480MHz	Pass	PK	2.4798G	92.74	Inf	-Inf	3	Horizontal	77
2480MHz	Pass	PK	2.4844G	58.14	74.00	-15.86	3	Horizontal	77
2480MHz	Pass	AV	4.95987G	21.28	54.00	-32.72	3	Vertical	223
2480MHz	Pass	PK	4.95987G	43.78	74.00	-30.22	3	Vertical	223
2480MHz	Pass	AV	4.95991G	23.54	54.00	-30.46	3	Horizontal	133
2480MHz	Pass	PK	4.95991G	46.04	74.00	-27.96	3	Horizontal	133
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.381G	35.10	54.00	-18.90	3	Vertical	316
2402MHz	Pass	AV	2.402G	68.85	Inf	-Inf	3	Vertical	316
2402MHz	Pass	PK	2.381G	57.60	74.00	-16.40	3	Vertical	316
2402MHz	Pass	PK	2.402G	91.35	Inf	-Inf	3	Vertical	316
2402MHz	Pass	AV	2.3612G	34.86	54.00	-19.14	3	Horizontal	59
2402MHz	Pass	AV	2.402G	74.12	Inf	-Inf	3	Horizontal	59
2402MHz	Pass	PK	2.3612G	57.36	74.00	-16.64	3	Horizontal	59
2402MHz	Pass	PK	2.402G	96.62	Inf	-Inf	3	Horizontal	59
2402MHz	Pass	AV	4.80295G	21.27	54.00	-32.73	3	Vertical	103
2402MHz	Pass	PK	4.80295G	43.77	74.00	-30.23	3	Vertical	103
2402MHz	Pass	AV	4.80418G	22.76	54.00	-31.24	3	Horizontal	60
2402MHz	Pass	PK	4.80418G	45.26	74.00	-28.74	3	Horizontal	60
2440MHz	Pass	AV	2.384G	35.31	54.00	-18.69	3	Vertical	129
2440MHz	Pass	AV	2.44G	68.49	Inf	-Inf	3	Vertical	129
2440MHz	Pass	AV	2.4952G	35.56	54.00	-18.44	3	Vertical	129
2440MHz	Pass	PK	2.384G	57.81	74.00	-16.19	3	Vertical	129
2440MHz	Pass	PK	2.44G	90.99	Inf	-Inf	3	Vertical	129
2440MHz	Pass	PK	2.4952G	58.06	74.00	-15.94	3	Vertical	129
2440MHz	Pass	AV	2.3772G	35.31	54.00	-18.69	3	Horizontal	61



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)
2440MHz	Pass	AV	2.44G	72.40	Inf	-Inf	3	Horizontal	61
2440MHz	Pass	AV	2.4872G	34.80	54.00	-19.20	3	Horizontal	61
2440MHz	Pass	PK	2.3772G	57.81	74.00	-16.19	3	Horizontal	61
2440MHz	Pass	PK	2.44G	94.90	Inf	-Inf	3	Horizontal	61
2440MHz	Pass	PK	2.4872G	57.30	74.00	-16.70	3	Horizontal	61
2440MHz	Pass	AV	4.87781G	20.78	54.00	-33.22	3	Vertical	277
2440MHz	Pass	PK	4.87781G	43.28	74.00	-30.72	3	Vertical	277
2440MHz	Pass	AV	4.88047G	22.87	54.00	-31.13	3	Horizontal	147
2440MHz	Pass	PK	4.88047G	45.37	74.00	-28.63	3	Horizontal	147
2480MHz	Pass	AV	2.48G	69.78	Inf	-Inf	3	Vertical	316
2480MHz	Pass	AV	2.4954G	35.41	54.00	-18.59	3	Vertical	316
2480MHz	Pass	PK	2.48G	92.28	Inf	-Inf	3	Vertical	316
2480MHz	Pass	PK	2.4954G	57.91	74.00	-16.09	3	Vertical	316
2480MHz	Pass	AV	2.48G	72.12	Inf	-Inf	3	Horizontal	77
2480MHz	Pass	AV	2.4998G	35.70	54.00	-18.30	3	Horizontal	77
2480MHz	Pass	PK	2.48G	94.62	Inf	-Inf	3	Horizontal	77
2480MHz	Pass	PK	2.4998G	58.20	74.00	-15.80	3	Horizontal	77
2480MHz	Pass	AV	4.95795G	22.18	54.00	-31.82	3	Vertical	273
2480MHz	Pass	PK	4.95795G	44.68	74.00	-29.32	3	Vertical	273
2480MHz	Pass	AV	4.96034G	24.11	54.00	-29.89	3	Horizontal	139
2480MHz	Pass	PK	4.96034G	46.61	74.00	-27.39	3	Horizontal	139

2.4-2.4835GHz_BT-BR(1Mbps)

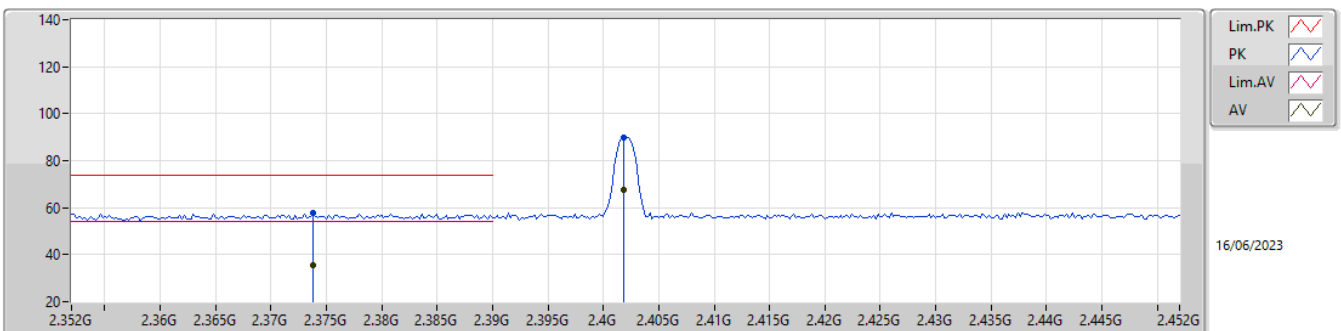
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3692G	35.46	54.00	-18.54	31.58	3	Vertical	314	1.36	3.88	27.35	4.23	-
AV	2.4022G	67.38	Inf	-Inf	31.86	3	Vertical	314	1.36	35.52	27.60	4.26	-
PK	2.3692G	57.96	74.00	-16.04	31.58	3	Vertical	314	1.36	26.38	27.35	4.23	-
PK	2.4022G	89.88	Inf	-Inf	31.86	3	Vertical	314	1.36	58.02	27.60	4.26	-

2.4-2.4835GHz_BT-BR(1Mbps)

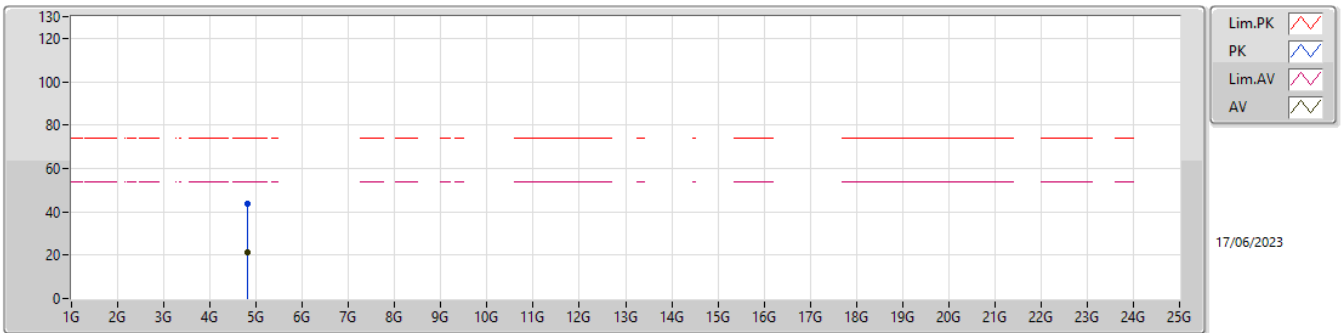
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3738G	35.36	54.00	-18.64	31.63	3	Horizontal	314	1.36	3.73	27.39	4.24	-
AV	2.4018G	67.35	Inf	-Inf	31.86	3	Horizontal	314	1.36	35.49	27.60	4.26	-
PK	2.3738G	57.86	74.00	-16.14	31.63	3	Horizontal	314	1.36	26.23	27.39	4.24	-
PK	2.4018G	89.85	Inf	-Inf	31.86	3	Horizontal	314	1.36	57.99	27.60	4.26	-

2.4-2.4835GHz_BT-BR(1Mbps)

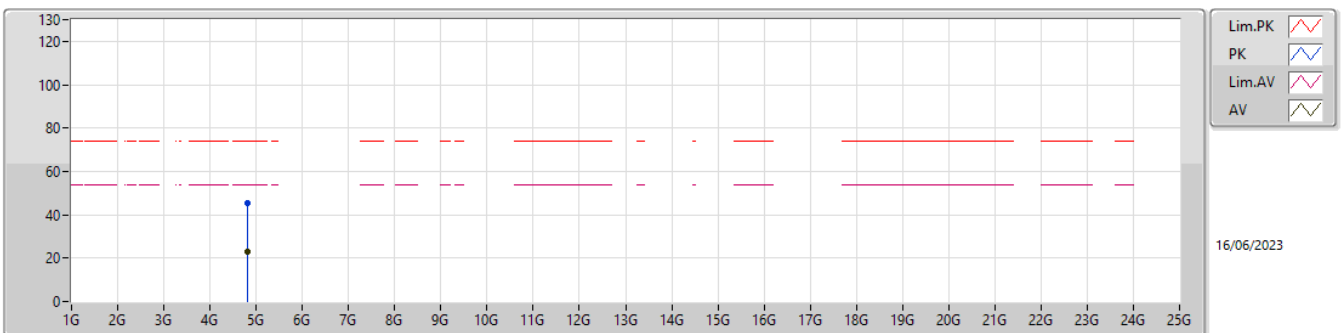
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80324G	21.09	54.00	-32.91	4.19	3	Vertical	224	1.61	16.90	32.22	6.16	34.19
PK	4.80324G	43.59	74.00	-30.41	4.19	3	Vertical	224	1.61	39.40	32.22	6.16	34.19

2.4-2.4835GHz_BT-BR(1Mbps)

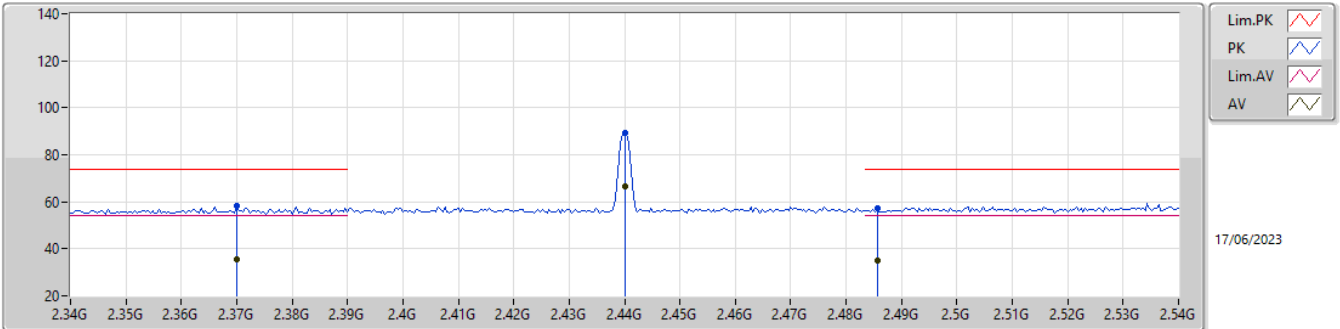
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80391G	22.94	54.00	-31.06	4.19	3	Horizontal	60	1.95	18.75	32.22	6.16	34.19
PK	4.80391G	45.44	74.00	-28.56	4.19	3	Horizontal	60	1.95	41.25	32.22	6.16	34.19

2.4-2.4835GHz_BT-BR(1Mbps)

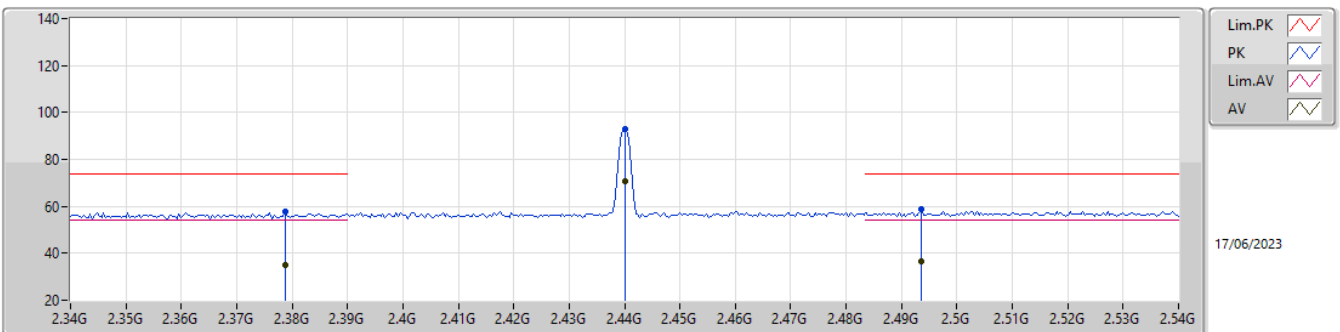
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.37G	35.59	54.00	-18.41	31.59	3	Vertical	130	1.63	4.00	27.36	4.23	-
AV	2.44G	66.74	Inf	-Inf	31.96	3	Vertical	130	1.63	34.78	27.68	4.28	-
AV	2.4856G	34.95	54.00	-19.05	32.15	3	Vertical	130	1.63	2.80	27.84	4.31	-
PK	2.37G	58.09	74.00	-15.91	31.59	3	Vertical	130	1.63	26.50	27.36	4.23	-
PK	2.44G	89.24	Inf	-Inf	31.96	3	Vertical	130	1.63	57.28	27.68	4.28	-
PK	2.4856G	57.45	74.00	-16.55	32.15	3	Vertical	130	1.63	25.30	27.84	4.31	-

2.4-2.4835GHz_BT-BR(1Mbps)

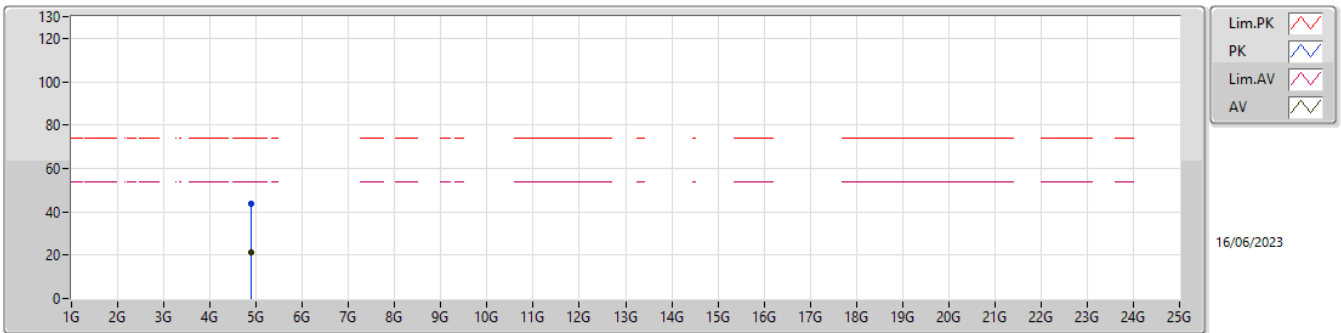
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3788G	35.05	54.00	-18.95	31.67	3	Horizontal	60	2.88	3.38	27.43	4.24	-
AV	2.44G	70.61	Inf	-Inf	31.96	3	Horizontal	60	2.88	38.65	27.68	4.28	-
AV	2.4936G	36.52	54.00	-17.48	32.19	3	Horizontal	60	2.88	4.33	27.87	4.32	-
PK	2.3788G	57.55	74.00	-16.45	31.67	3	Horizontal	60	2.88	25.88	27.43	4.24	-
PK	2.44G	93.11	Inf	-Inf	31.96	3	Horizontal	60	2.88	61.15	27.68	4.28	-
PK	2.4936G	59.02	74.00	-14.98	32.19	3	Horizontal	60	2.88	26.83	27.87	4.32	-

2.4-2.4835GHz_BT-BR(1Mbps)

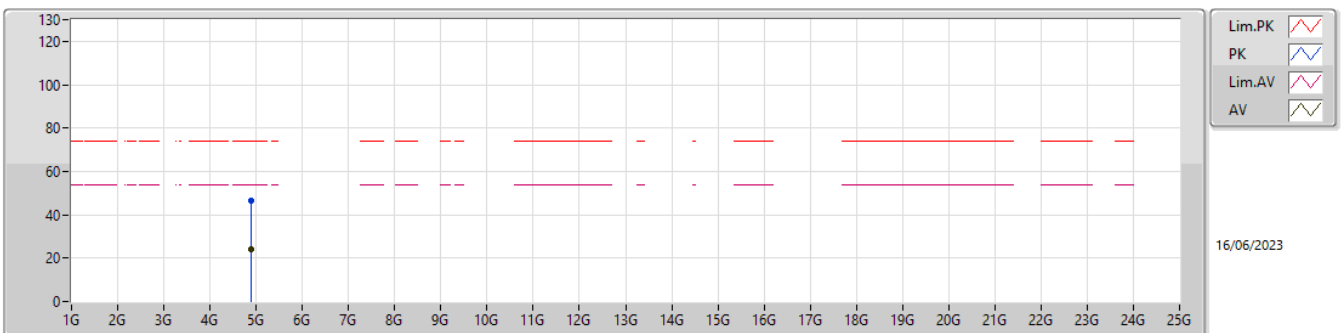
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88006G	21.45	54.00	-32.55	4.68	3	Vertical	224	1.41	16.77	32.62	6.22	34.16
PK	4.88006G	43.95	74.00	-30.05	4.68	3	Vertical	224	1.41	39.27	32.62	6.22	34.16

2.4-2.4835GHz_BT-BR(1Mbps)

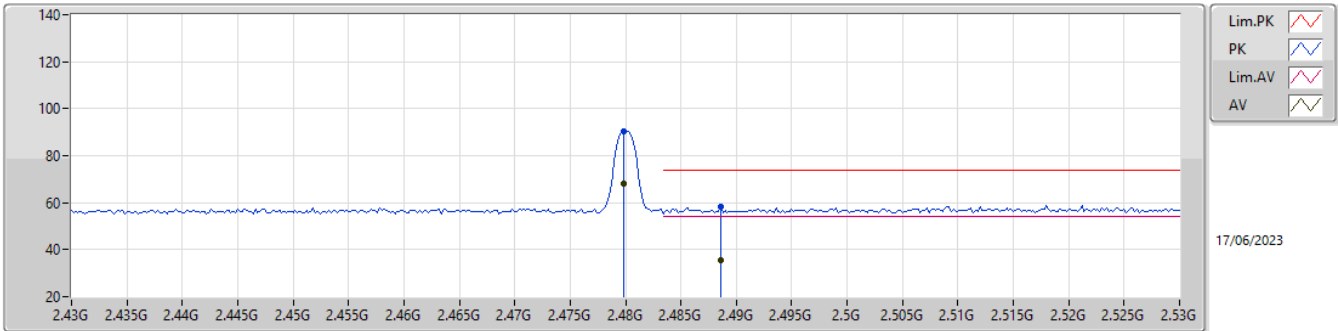
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88036G	24.09	54.00	-29.91	4.68	3	Horizontal	147	1.36	19.41	32.62	6.22	34.16
PK	4.88036G	46.59	74.00	-27.41	4.68	3	Horizontal	147	1.36	41.91	32.62	6.22	34.16

2.4-2.4835GHz_BT-BR(1Mbps)

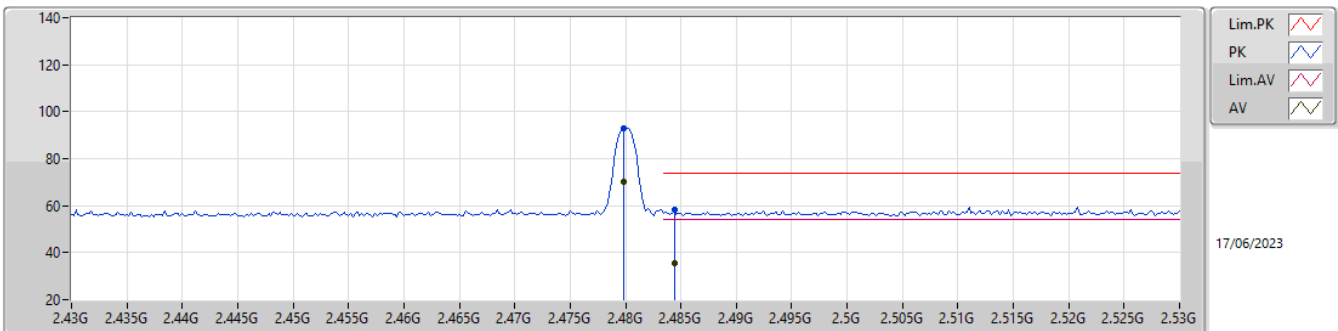
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4798G	67.89	Inf	-Inf	32.13	3	Vertical	316	1.84	35.76	27.82	4.31	-
AV	2.4886G	35.52	54.00	-18.48	32.16	3	Vertical	316	1.84	3.36	27.85	4.31	-
PK	2.4798G	90.39	Inf	-Inf	32.13	3	Vertical	316	1.84	58.26	27.82	4.31	-
PK	2.4886G	58.02	74.00	-15.98	32.16	3	Vertical	316	1.84	25.86	27.85	4.31	-

2.4-2.4835GHz_BT-BR(1Mbps)

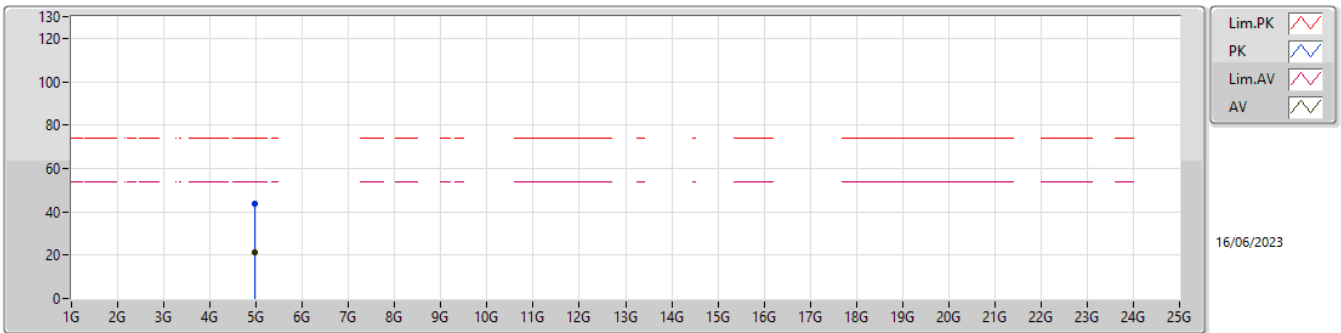
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4798G	70.24	Inf	-Inf	32.13	3	Horizontal	77	1.85	38.11	27.82	4.31	-
AV	2.4844G	35.64	54.00	-18.36	32.15	3	Horizontal	77	1.85	3.49	27.84	4.31	-
PK	2.4798G	92.74	Inf	-Inf	32.13	3	Horizontal	77	1.85	60.61	27.82	4.31	-
PK	2.4844G	58.14	74.00	-15.86	32.15	3	Horizontal	77	1.85	25.99	27.84	4.31	-

2.4-2.4835GHz_BT-BR(1Mbps)

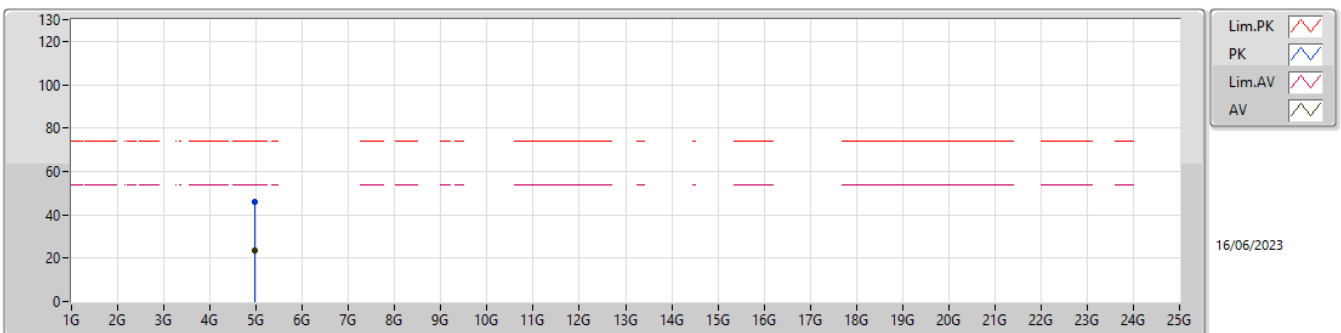
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95987G	21.28	54.00	-32.72	5.18	3	Vertical	223	1.23	16.10	33.04	6.27	34.13
PK	4.95987G	43.78	74.00	-30.22	5.18	3	Vertical	223	1.23	38.60	33.04	6.27	34.13

2.4-2.4835GHz_BT-BR(1Mbps)

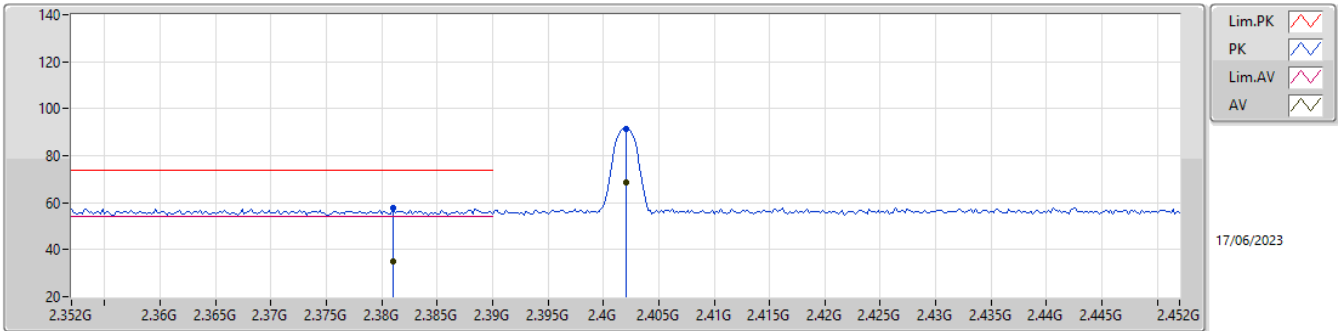
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95991G	23.54	54.00	-30.46	5.18	3	Horizontal	133	2.00	18.36	33.04	6.27	34.13
PK	4.95991G	46.04	74.00	-27.96	5.18	3	Horizontal	133	2.00	40.86	33.04	6.27	34.13

2.4-2.4835GHz_BT-EDR(3Mbps)

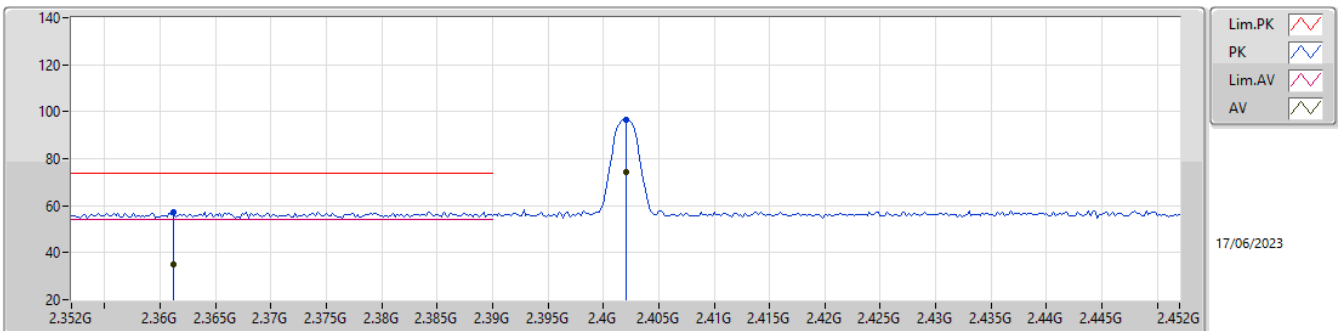
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.381G	35.10	54.00	-18.90	31.69	3	Vertical	316	1.35	3.41	27.45	4.24	-
AV	2.402G	68.85	Inf	-Inf	31.86	3	Vertical	316	1.35	36.99	27.60	4.26	-
PK	2.381G	57.60	74.00	-16.40	31.69	3	Vertical	316	1.35	25.91	27.45	4.24	-
PK	2.402G	91.35	Inf	-Inf	31.86	3	Vertical	316	1.35	59.49	27.60	4.26	-

2.4-2.4835GHz_BT-EDR(3Mbps)

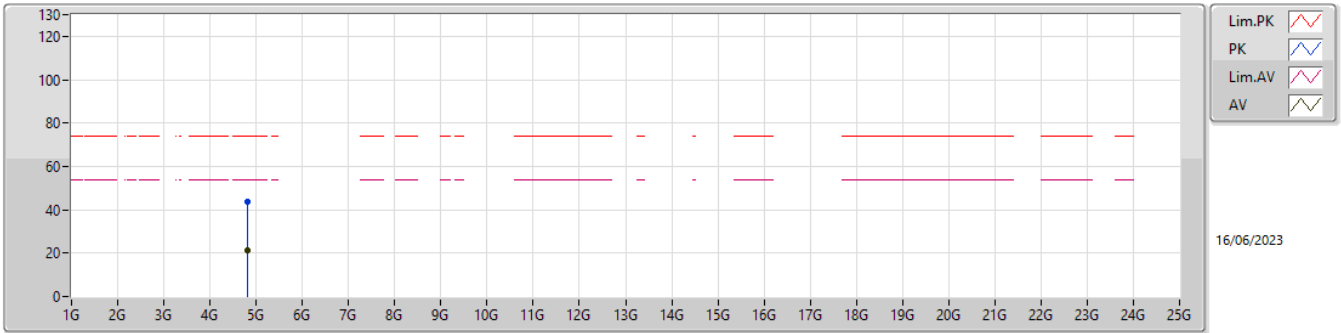
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3612G	34.86	54.00	-19.14	31.52	3	Horizontal	59	2.63	3.34	27.29	4.23	-
AV	2.402G	74.12	Inf	-Inf	31.86	3	Horizontal	59	2.63	42.26	27.60	4.26	-
PK	2.3612G	57.36	74.00	-16.64	31.52	3	Horizontal	59	2.63	25.84	27.29	4.23	-
PK	2.402G	96.62	Inf	-Inf	31.86	3	Horizontal	59	2.63	64.76	27.60	4.26	-

2.4-2.4835GHz_BT-EDR(3Mbps)

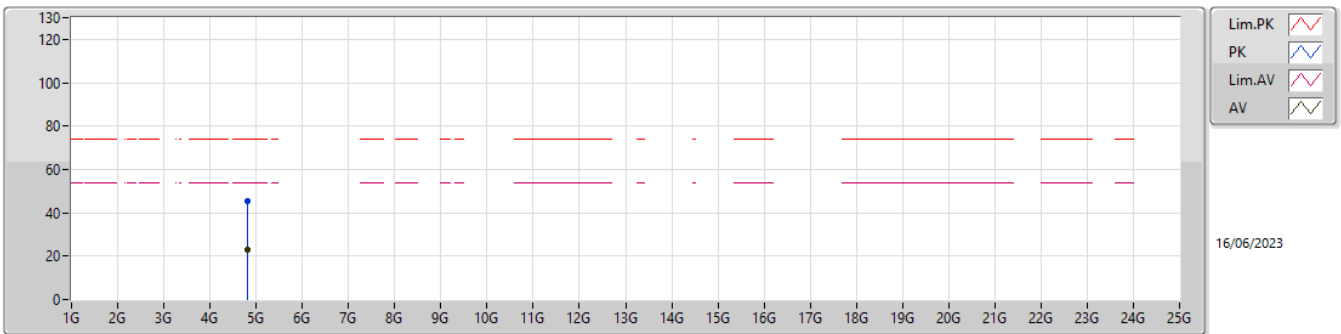
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80295G	21.27	54.00	-32.73	4.19	3	Vertical	103	2.29	17.08	32.22	6.16	34.19
PK	4.80295G	43.77	74.00	-30.23	4.19	3	Vertical	103	2.29	39.58	32.22	6.16	34.19

2.4-2.4835GHz_BT-EDR(3Mbps)

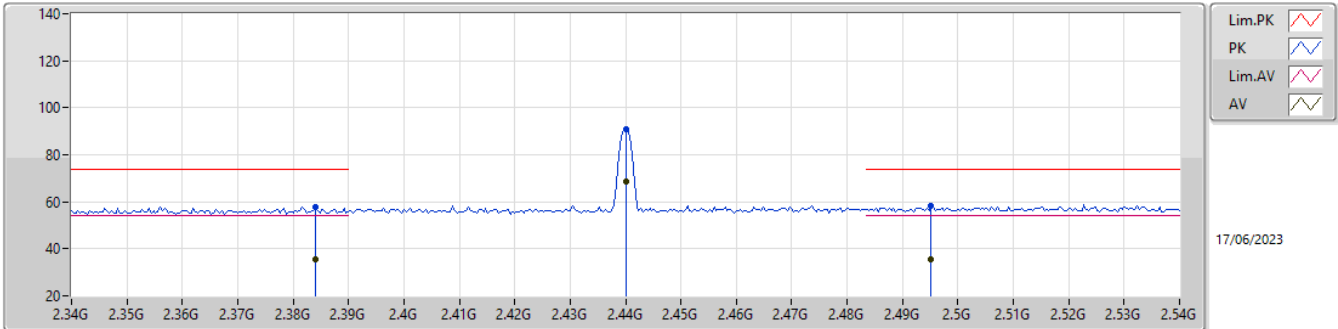
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80418G	22.76	54.00	-31.24	4.20	3	Horizontal	60	1.92	18.56	32.23	6.16	34.19
PK	4.80418G	45.26	74.00	-28.74	4.20	3	Horizontal	60	1.92	41.06	32.23	6.16	34.19

2.4-2.4835GHz_BT-EDR(3Mbps)

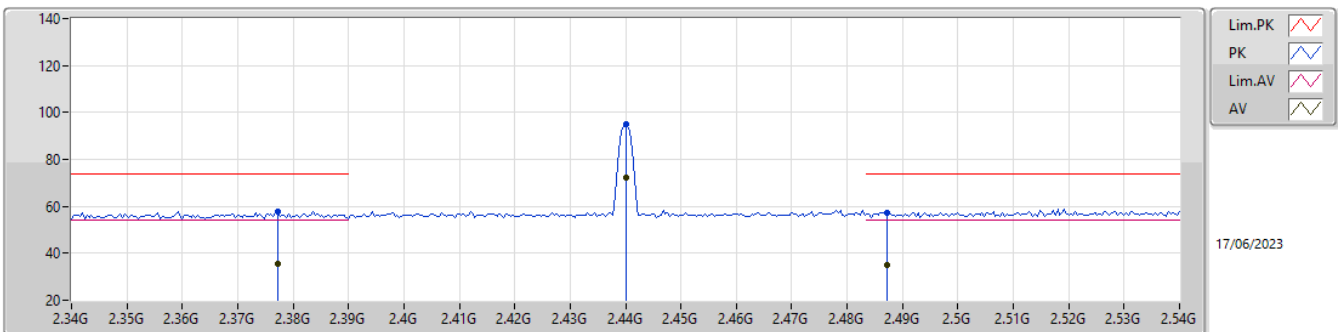
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.384G	35.31	54.00	-18.69	31.72	3	Vertical	129	1.62	3.59	27.47	4.25	-
AV	2.44G	68.49	Inf	-Inf	31.96	3	Vertical	129	1.62	36.53	27.68	4.28	-
AV	2.4952G	35.56	54.00	-18.44	32.20	3	Vertical	129	1.62	3.36	27.88	4.32	-
PK	2.384G	57.81	74.00	-16.19	31.72	3	Vertical	129	1.62	26.09	27.47	4.25	-
PK	2.44G	90.99	Inf	-Inf	31.96	3	Vertical	129	1.62	59.03	27.68	4.28	-
PK	2.4952G	58.06	74.00	-15.94	32.20	3	Vertical	129	1.62	25.86	27.88	4.32	-

2.4-2.4835GHz_BT-EDR(3Mbps)

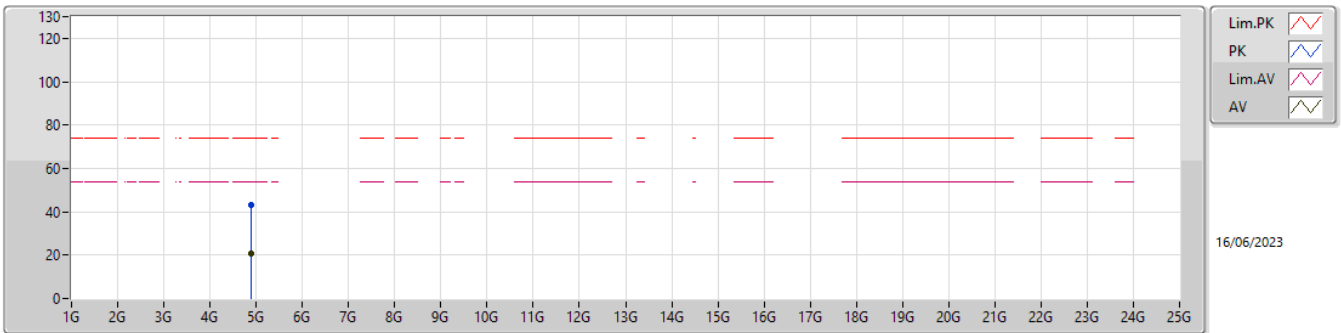
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3772G	35.31	54.00	-18.69	31.66	3	Horizontal	61	2.90	3.65	27.42	4.24	-
AV	2.44G	72.40	Inf	-Inf	31.96	3	Horizontal	61	2.90	40.44	27.68	4.28	-
AV	2.4872G	34.80	54.00	-19.20	32.16	3	Horizontal	61	2.90	2.64	27.85	4.31	-
PK	2.3772G	57.81	74.00	-16.19	31.66	3	Horizontal	61	2.90	26.15	27.42	4.24	-
PK	2.44G	94.90	Inf	-Inf	31.96	3	Horizontal	61	2.90	62.94	27.68	4.28	-
PK	2.4872G	57.30	74.00	-16.70	32.16	3	Horizontal	61	2.90	25.14	27.85	4.31	-

2.4-2.4835GHz_BT-EDR(3Mbps)

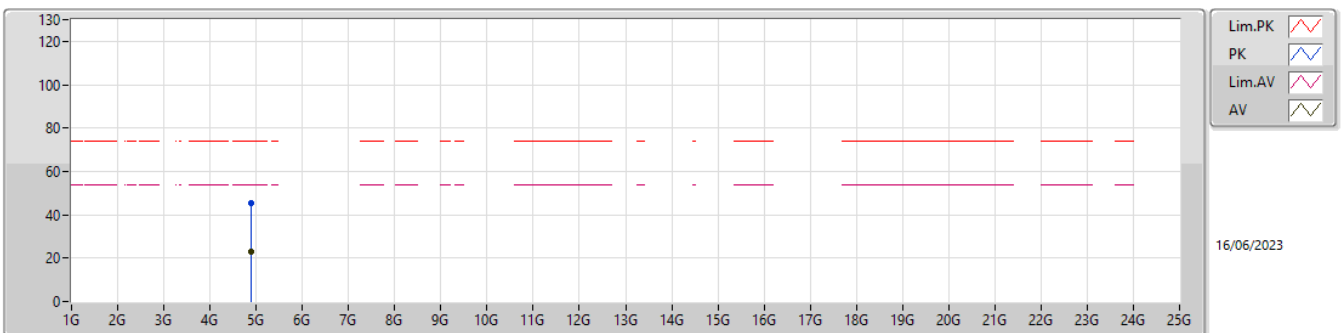
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87781G	20.78	54.00	-33.22	4.66	3	Vertical	277	1.50	16.12	32.61	6.21	34.16
PK	4.87781G	43.28	74.00	-30.72	4.66	3	Vertical	277	1.50	38.62	32.61	6.21	34.16

2.4-2.4835GHz_BT-EDR(3Mbps)

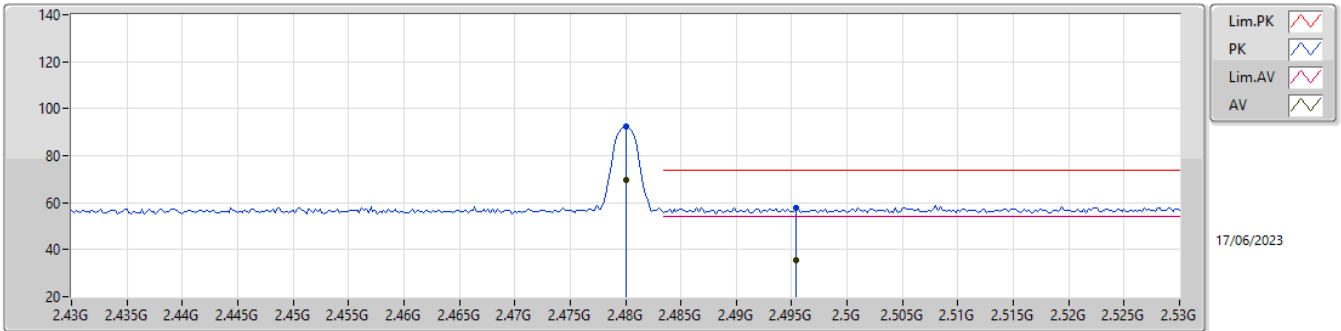
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88047G	22.87	54.00	-31.13	4.68	3	Horizontal	147	1.36	18.19	32.62	6.22	34.16
PK	4.88047G	45.37	74.00	-28.63	4.68	3	Horizontal	147	1.36	40.69	32.62	6.22	34.16

2.4-2.4835GHz_BT-EDR(3Mbps)

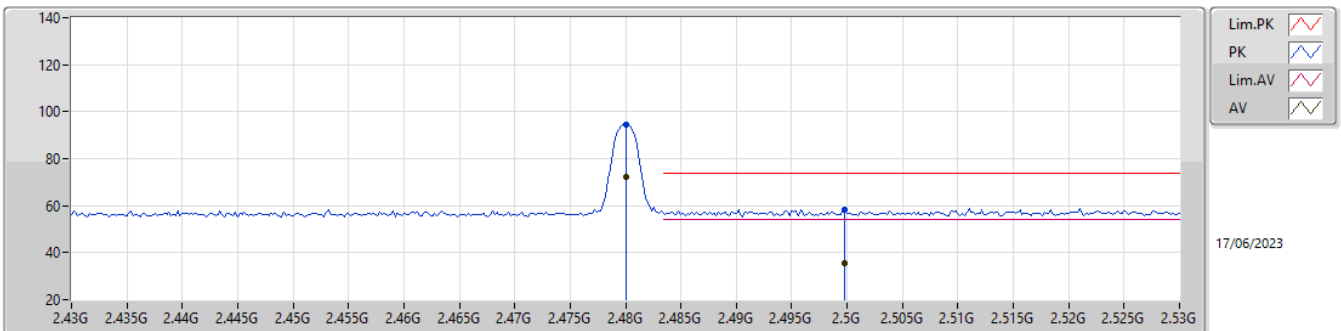
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	69.78	Inf	-Inf	32.13	3	Vertical	316	1.85	37.65	27.82	4.31	-
AV	2.4954G	35.41	54.00	-18.59	32.20	3	Vertical	316	1.85	3.21	27.88	4.32	-
PK	2.48G	92.28	Inf	-Inf	32.13	3	Vertical	316	1.85	60.15	27.82	4.31	-
PK	2.4954G	57.91	74.00	-16.09	32.20	3	Vertical	316	1.85	25.71	27.88	4.32	-

2.4-2.4835GHz_BT-EDR(3Mbps)

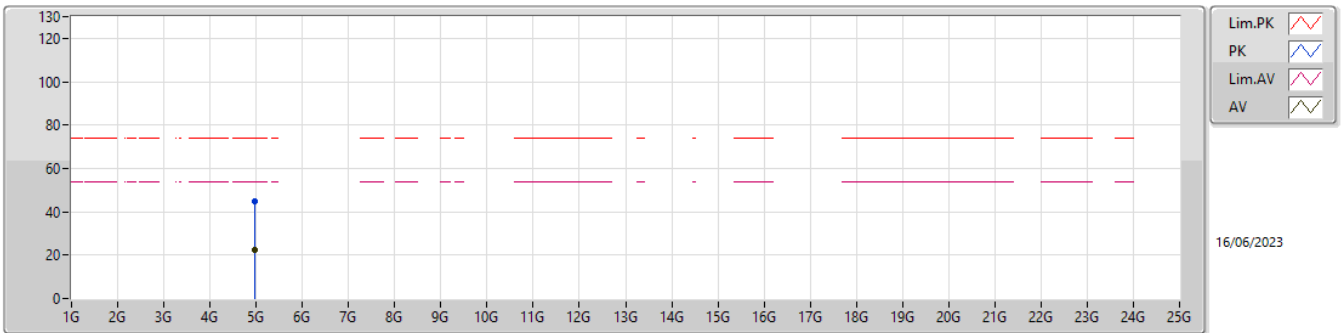
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	72.12	Inf	-Inf	32.13	3	Horizontal	77	1.85	39.99	27.82	4.31	-
AV	2.4998G	35.70	54.00	-18.30	32.22	3	Horizontal	77	1.85	3.48	27.90	4.32	-
PK	2.48G	94.62	Inf	-Inf	32.13	3	Horizontal	77	1.85	62.49	27.82	4.31	-
PK	2.4998G	58.20	74.00	-15.80	32.22	3	Horizontal	77	1.85	25.98	27.90	4.32	-

2.4-2.4835GHz_BT-EDR(3Mbps)

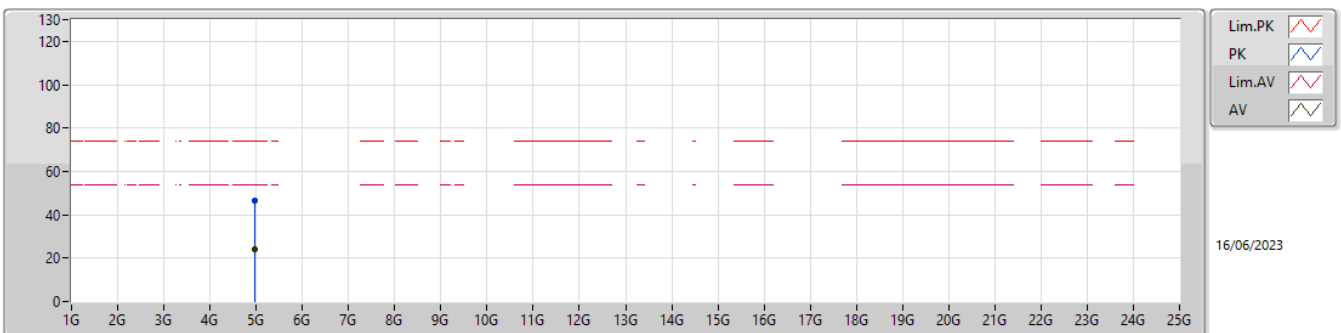
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95795G	22.18	54.00	-31.82	5.16	3	Vertical	273	1.68	17.02	33.03	6.27	34.14
PK	4.95795G	44.68	74.00	-29.32	5.16	3	Vertical	273	1.68	39.52	33.03	6.27	34.14

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96034G	24.11	54.00	-29.89	5.18	3	Horizontal	139	2.06	18.93	33.04	6.27	34.13
PK	4.96034G	46.61	74.00	-27.39	5.18	3	Horizontal	139	2.06	41.43	33.04	6.27	34.13