

# FCC Radio Test Report

**FCC ID** : 2A8MT-AP6PRO  
**Equipment** : 4x4 Dual-band Enterprise Access Point  
**Brand Name** : ALTA LABS [^] ALTA LABS  
**Model Name** : AP6-Pro  
**Applicant** : SoundVision Technologies, dba Alta Labs  
192 N Old Hwy 91, Unit 1 Hurricane,Utah,  
United States 84737  
**Manufacturer** : SoundVision Technologies, dba Alta Labs  
192 N Old Hwy 91, Unit 1 Hurricane,Utah,  
United States 84737  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Jan. 11, 2023, and testing was started from Feb. 07, 2023 and completed on Feb. 22, 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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### History of this test report

Report No.	Version	Description	Issued Date
FR310611AD	01	Initial issue of report	Mar. 10, 2023



### 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	-

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and explanations:</b>
None

Reviewed by: Ryan Hsiao  
Report Producer: Ann Hou

# 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	Ramark
1	LITEON	3010001429GD	PIFA	I-PEX	Radio 2_5G
2	LITEON	3010001441GD	PIFA	I-PEX	Radio 1_2.4G+ Radio 2_5G
3	LITEON	3010001443GD	PIFA	I-PEX	Radio 1_2.4G+ Radio 2_5G
4	LITEON	3010001442GD	PIFA	I-PEX	Radio 2_5G
5	LITEON	3010001433GD	PIFA	I-PEX	Radio 1_BT

Ant.	Port	Gain (dBi)					
		2.4G	UNII-1	UNII-2A	UNII-2C	UNII-3	BT
1	1	-	3.4	3.3	3.3	3.5	-
2	2	2.7	3.8	4.0	4.3	4.2	-
3	3	3.2	3.5	3.8	4.1	3.8	-
4	4	-	4.2	4.3	4.1	4.3	-
5	5	-	-	-	-	-	2.7

Note 1: The EUT has five antennas.

**For 2.4GHz function:**

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

Ant. 2 (port 2) and Ant. 3 (port 3) could transmit/receive simultaneously.



**For BT function:**

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

Ant. 5 (port 5) could transmit/receive.

**For 5GHz function:**

For IEEE 802.11 a/n/ac/ax mode (4TX/4RX)

Ant. 1 (port 1), Ant. 2 (port 2) and Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

**1.1.3 EUT Information**

Operational Condition	
<b>EUT Power Type</b>	From PoE
<b>EUT Function</b>	<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)	0.745	1.28	2.899m	1k
BT-EDR(2Mbps)	0.742	1.3	2.889m	1k
BT-EDR(3Mbps)	0.742	1.3	2.892m	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	Wayne	21.3~22.6°C / 53~57%	22/Feb/2023
RF Conducted	TH07-HY	Yuna	22.3~23.8°C / 48~55%	08/Feb/2023~14/Feb/2023
<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	Lego	20.1~23.1°C / 54~60%	07/Feb/2023~08/Feb/2023
Radiated (Co-location)	03CH09-HY	Lego	20.4~20.5°C / 55~56%	08/Feb/2023

## 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%
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	qdart_conn.win.1.0_installer_00086.1
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Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	9
2440MHz	9
2480MHz	9
BT-EDR(2Mbps)	-
2402MHz	9
2440MHz	9
2480MHz	9
BT-EDR(3Mbps)	-
2402MHz	9
2440MHz	9
2480MHz	9



## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
<b>Operating Mode</b>	CTX
1	PoE mode

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	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
<b>Test Condition</b>	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			
<b>Tests Item</b>	Emissions in Restricted Frequency Bands		
<b>Test Condition</b>	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.		
<b>Operating Mode &lt; 1GHz</b>	CTX		
1	PoE mode		
<b>Operating Mode &gt; 1GHz</b>	CTX		
<b>Orthogonal Planes of EUT</b>	<b>X Plane</b>	<b>Y Plane</b>	<b>Z Plane</b>
			
<b>Worst Planes of EUT</b>	V		



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	2.4GHz WLAN+5GHz WLAN+Bluetooth

Refer to Sporton Test Report No.: FA310611 for Co-location RF Exposure Evaluation and Appendix H for Radiated Emission Co-location.

### 2.3 Accessories

Accessories				
Ceiling Bracket	Brand Name	N/A	Model Name	N/A
Wallmount	Brand Name	N/A	Model Name	N/A

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

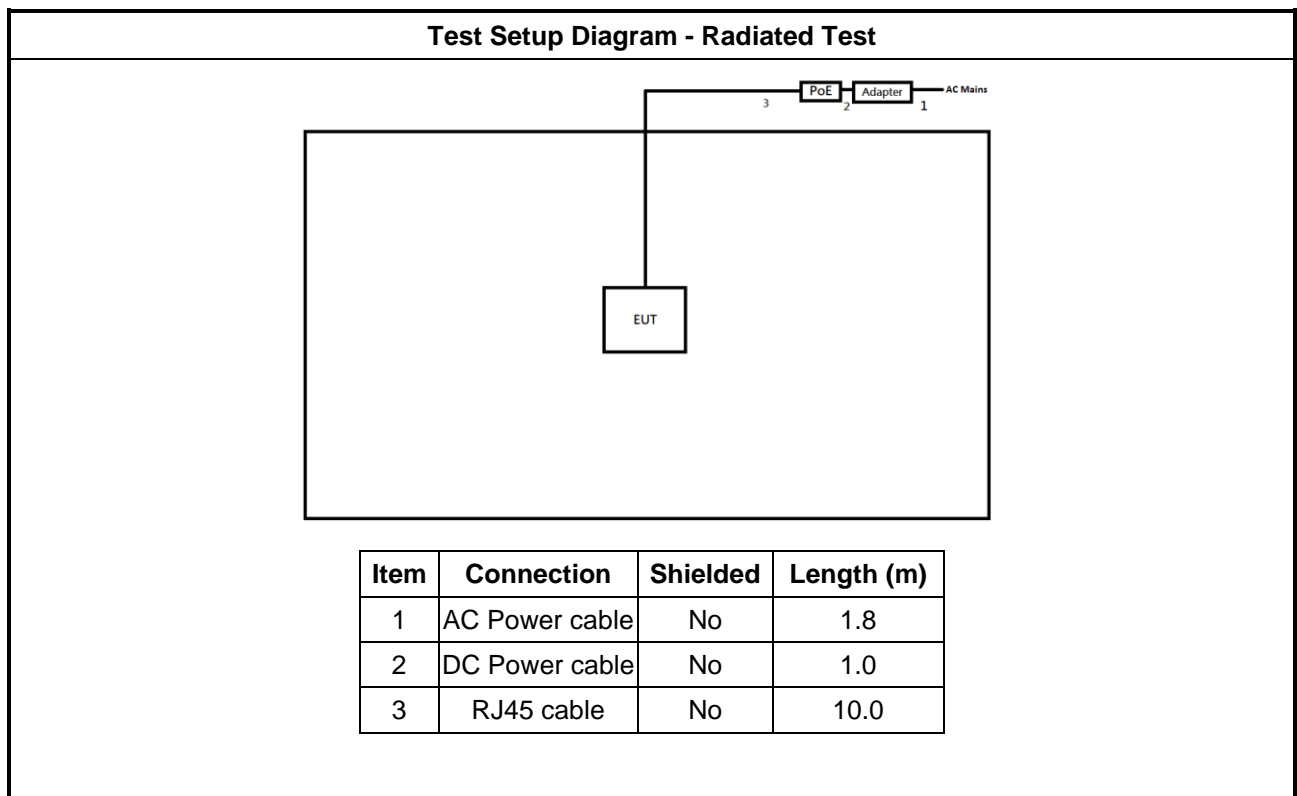
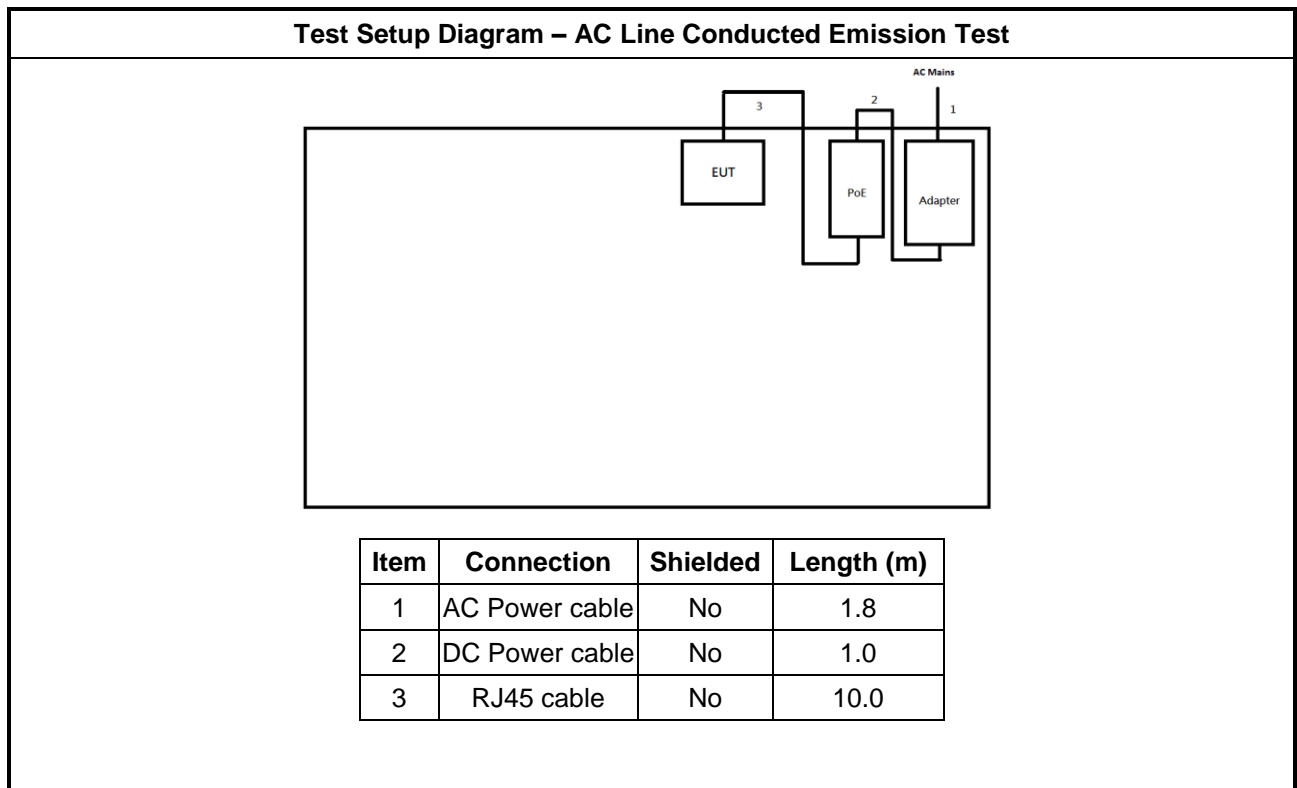
### 2.4 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 Cable	Power Sync	CAT-6E-10	-	-
2	AC Power cable	Power Sync	PW-GPC180-3	-	-
3	Adapter	Asian	WB-24M12FU	-	Provided by Customer
4	PoE	Cambium	NET-P60-56IN	-	Provided by Customer

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	Adapter	Asian	WB-24M12FU	-	Provided by Customer
4	PoE	Cambium	NET-P60-56IN	-	Provided by Customer

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 Cable	Power Sync	CAT-6E-10	-	-
2	AC Power cable	Power Sync	PW-GPC180-3	-	Remote
3	Adapter	Asian	WB-24M12FU	-	Remote Provided by Customer
4	PoE	Cambium	NET-P60-56IN	-	Remote Provided by Customer

## 2.5 Test Setup Diagram



### 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

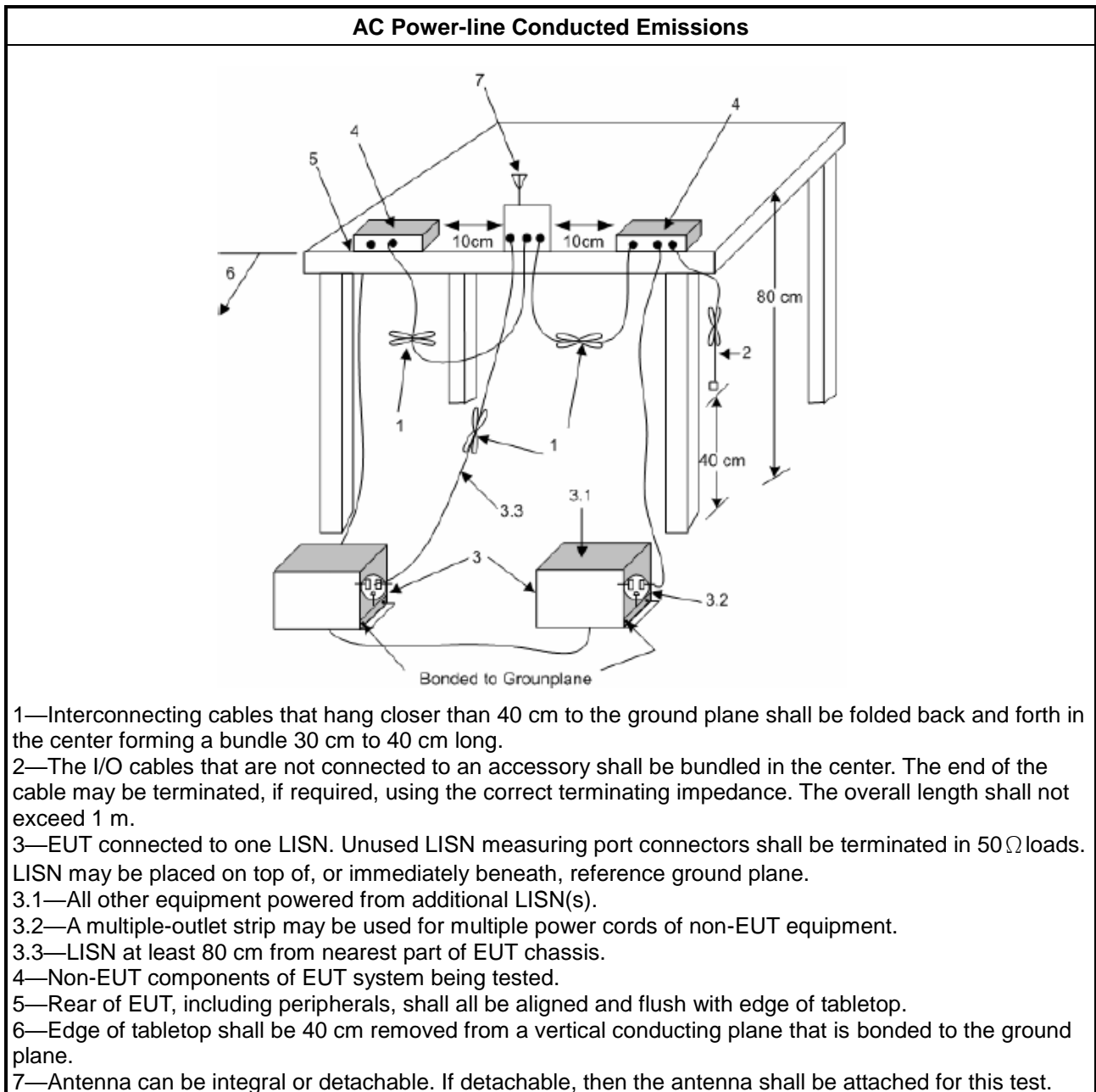
Test Method
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.</li> </ul>

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

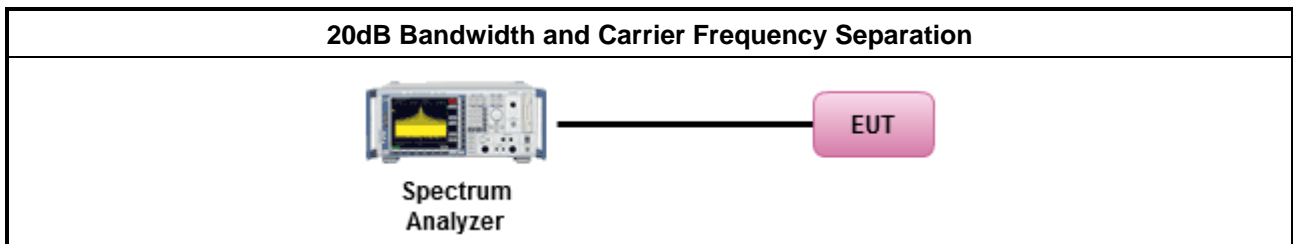
#### 3.2.2 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.</li> </ul>
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.</li> </ul>

#### 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"> <li>2400-2483.5 MHz Band:</li> </ul>	
	<ul style="list-style-type: none"> <li><math>N \geq 75</math>; Power 30dBm; EIRP 36dBm</li> </ul>
	<ul style="list-style-type: none"> <li><math>75 &gt; N \geq 15</math>; Power 21dBm; EIRP 27dBm</li> </ul>
<b>N:</b> Number of Hopping Frequencies	

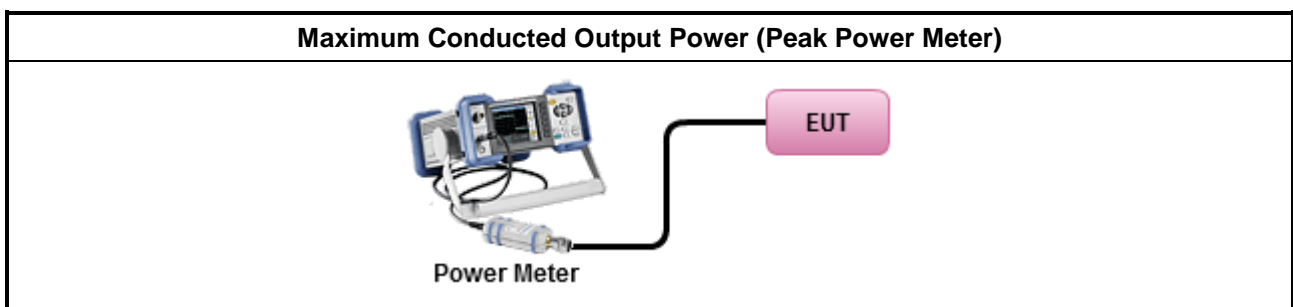
#### 3.3.2 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.</li> </ul>

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

#### 3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

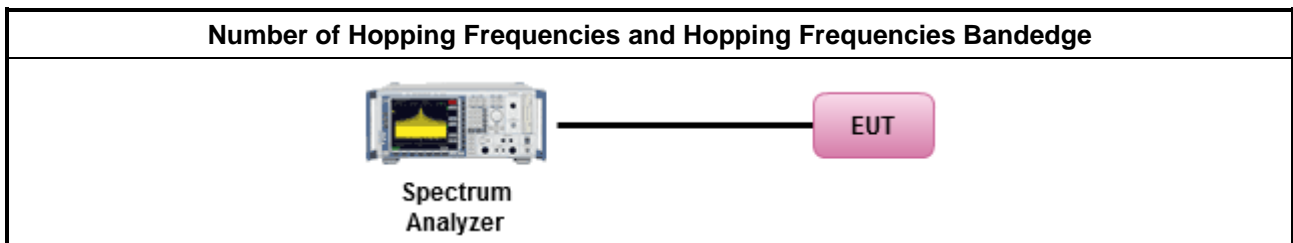
#### 3.4.3 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.</li> </ul>
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.</li> </ul>

#### 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"> <li>2400-2483.5 MHz Band:</li> </ul>	
	<ul style="list-style-type: none"> <li><math>N \geq 75</math>; 0.4s in <math>N \times 0.4</math> period</li> </ul>
	<ul style="list-style-type: none"> <li><math>75 &gt; N \geq 15</math>; 0.4s in <math>N \times 0.4</math> period</li> </ul>
N: Number of Hopping Frequencies	

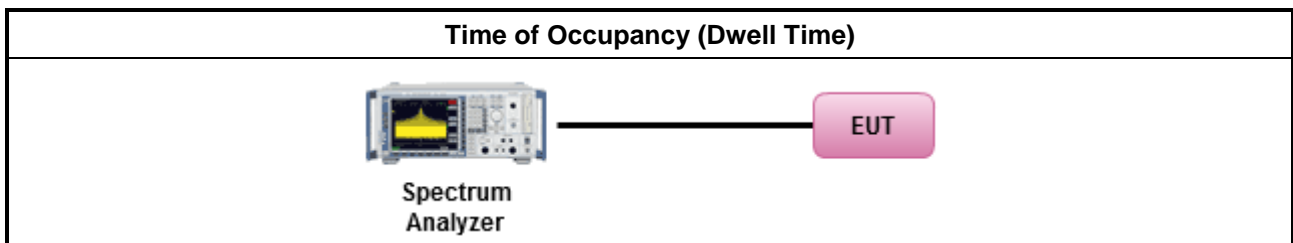
#### 3.5.2 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>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.</li> </ul>	
	<ul style="list-style-type: none"> <li>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 <math>5/1600</math> seconds, or 3.125ms. DH5 Packet permit maximum <math>1600 / 79 / 6 = 3.37</math> hops per second in each channel.</li> </ul>

#### 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.	

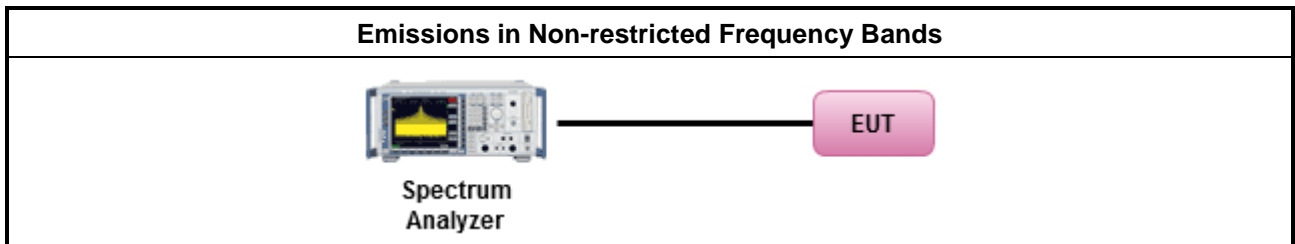
#### 3.6.2 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.</li> </ul>

#### 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

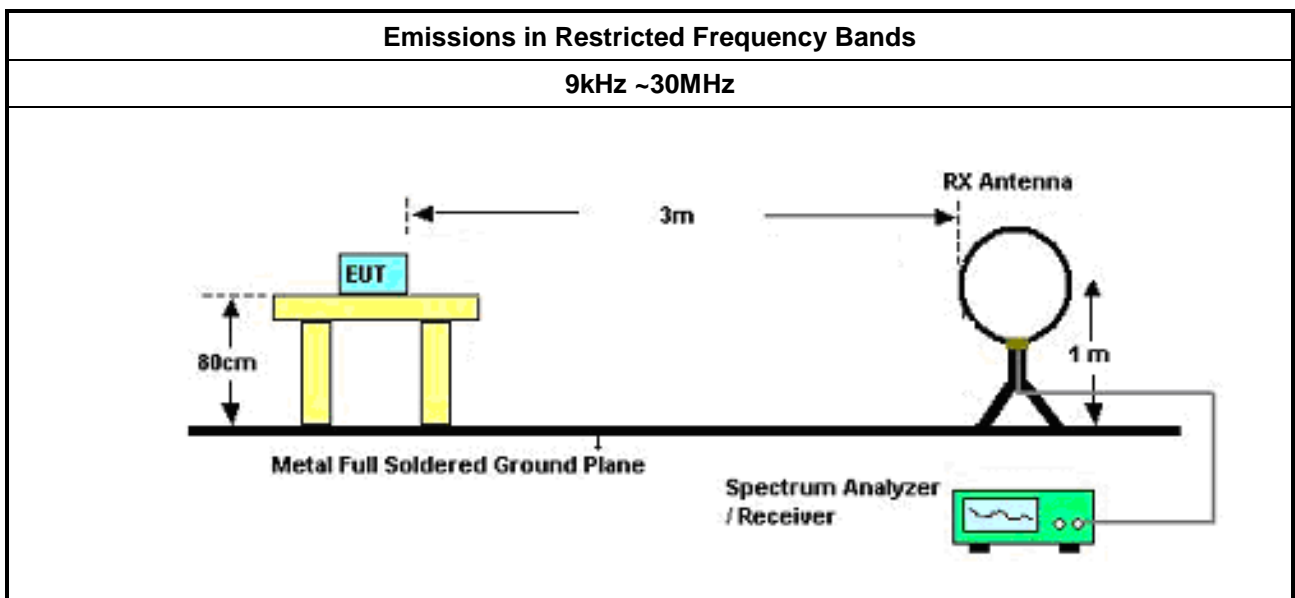
Test Method	
▪	The average emission levels shall be measured in [hopping duty factor].
▪	Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
▪	For the transmitter unwanted emissions shall 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.

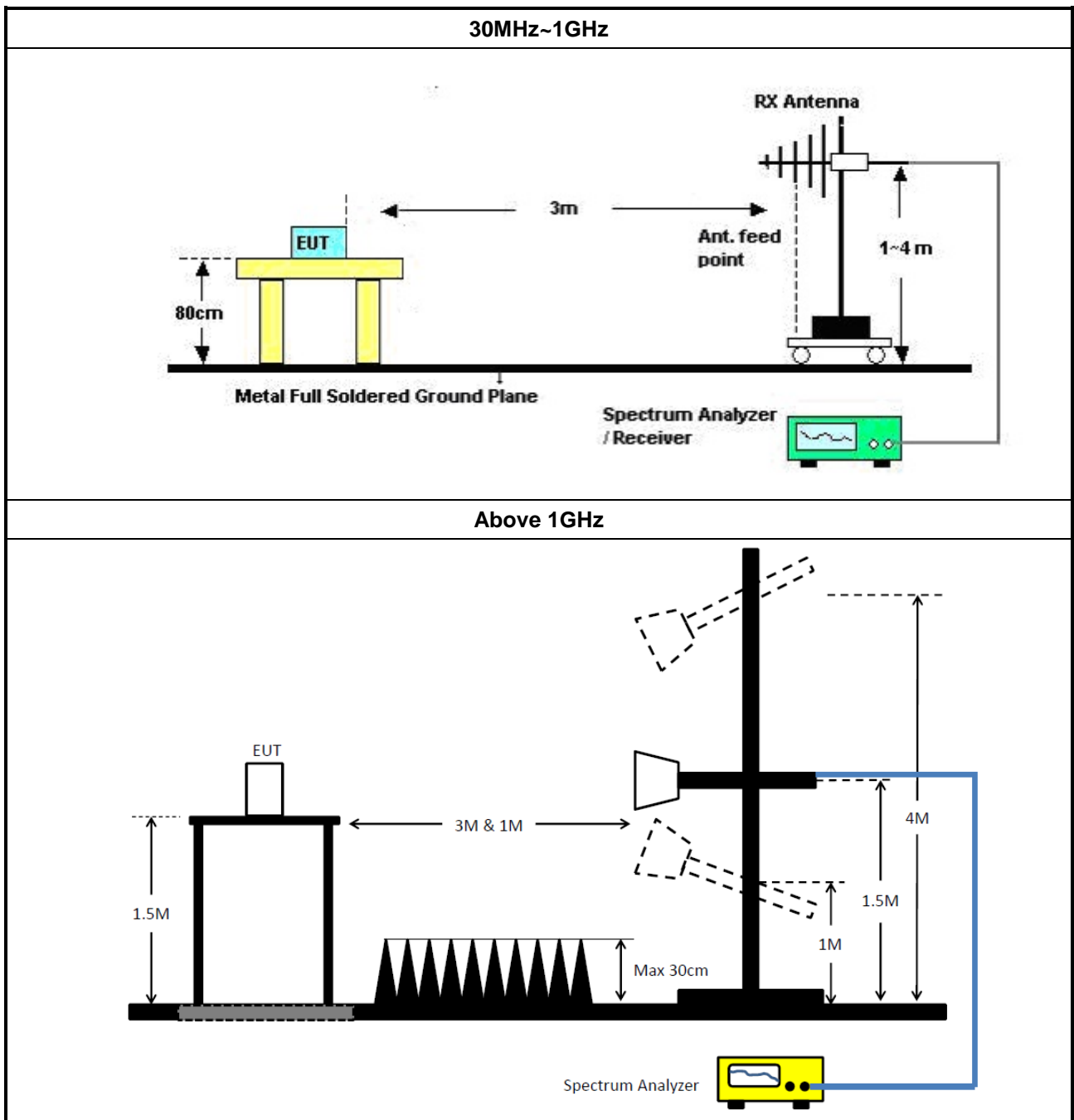
### 3.7.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(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	ESR	102051	9kHz ~ 3.6GHz	13/May/2022	12/May/2023
Two-Line V-Network	R&S	ENV 216	101295	9kHz ~ 30MHz	31/Jan/2023	30/Jan/2024
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	01/Mar/2022	28/Feb/2023
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	101029	10Hz~40GHz	10/Nov/2022	09/Nov/2023
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	V5.11.1	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	TDK	SAC-3M	03CH09-HY	30MHz~1GHz 3m	25/Mar/2022	24/Mar/2023
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	17/Mar/2022	16/Mar/2023
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	11/Aug/2022	10/Aug/2023
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	08/Apr/2022	07/Apr/2023
Microwave Preampifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	22/Jul/2022	21/Jul/2023
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D&MT J6102-05	35418 & 3	30MHz~1GHz	28/Aug/2022	27/Aug/2023
RF Cable-low	Jye Bao	RG142	03CH09-cable-01	9kHz~1GHz	09/Dec/2022	08/Dec/2023
RF CABLE 5m+3m+1m	HUBER+SUHNE R	SUCOFLEX104	03CH09-cable-02	1GHz~40GHz	17/Aug/2022	16/Aug/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1534	1GHz ~ 18GHz	10/Mar/2022	09/Mar/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	18/Mar/2022	17/Mar/2023
Microwave Premplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	08/Mar/2022	07/Mar/2023
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	18/Mar/2022	17/Mar/2023
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	30/May/2022	29/May/2023
SENSE_15247_FS	Sporton	Sporton	V5.11	NA	NA	NA



Instrument for Radiated Test (Co-location)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	17/Mar/2022	16/Mar/2023
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	11/Aug/2022	10/Aug/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1534	1GHz ~ 18GHz	10/Mar/2022	09/Mar/2023
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	22/Jul/2022	21/Jul/2023
RF CABLE 5m+3m+1m	HUBER+SUHNER	SUCOFLEX104	03CH09-cable-02	1GHz~40GHz	17/Aug/2022	16/Aug/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	18/Mar/2022	17/Mar/2023
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	08/Mar/2022	07/Mar/2023
SENSE-15407	Sporton	NA	5.11	NA	NA	NA



**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	411.832k	32.56	47.61	-15.05	Neutral

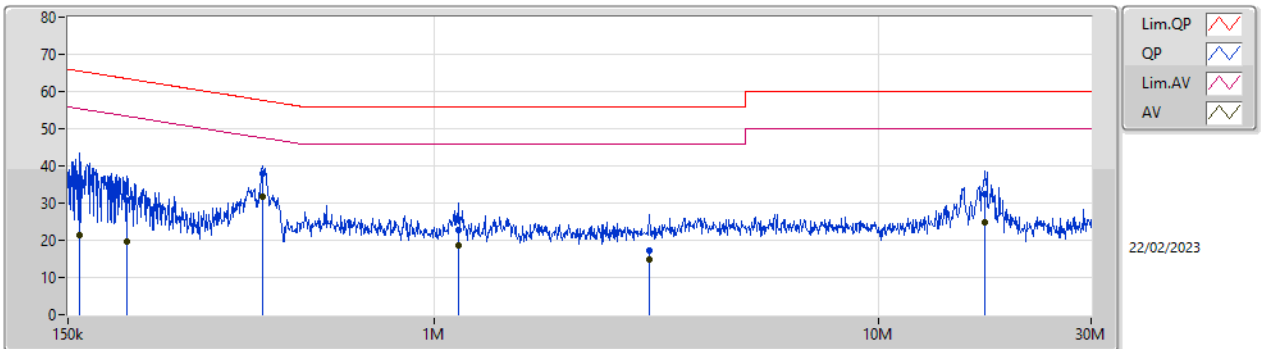




Result

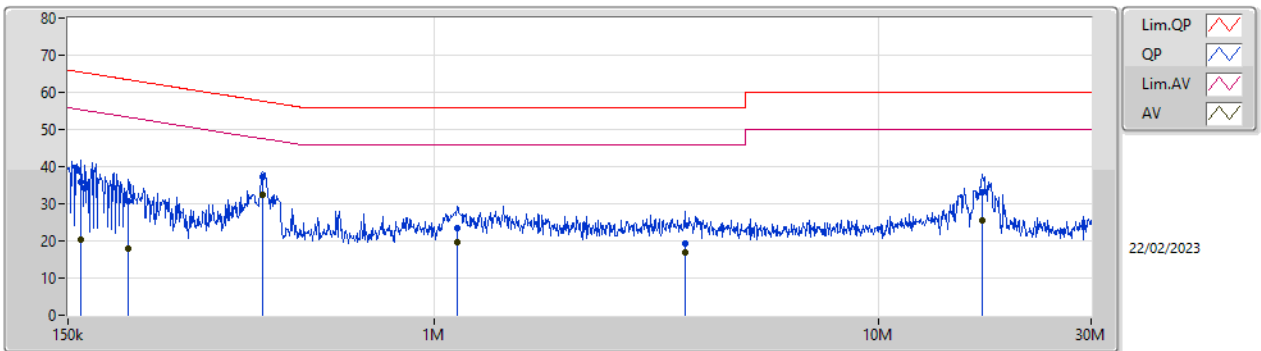
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	159.256k	36.69	65.50	-28.81	Line	-
Mode 1	Pass	AV	159.256k	21.31	55.50	-34.19	Line	-
Mode 1	Pass	QP	203.167k	30.65	63.48	-32.83	Line	-
Mode 1	Pass	AV	203.167k	19.69	53.48	-33.79	Line	-
Mode 1	Pass	QP	410.192k	38.10	57.64	-19.54	Line	-
Mode 1	Pass	AV	410.192k	31.75	47.64	-15.89	Line	-
Mode 1	Pass	QP	1.131M	22.85	56.00	-33.15	Line	-
Mode 1	Pass	AV	1.131M	18.60	46.00	-27.40	Line	-
Mode 1	Pass	QP	3.043M	17.31	56.00	-38.69	Line	-
Mode 1	Pass	AV	3.043M	14.70	46.00	-31.30	Line	-
Mode 1	Pass	QP	17.346M	32.26	60.00	-27.74	Line	-
Mode 1	Pass	AV	17.346M	24.98	50.00	-25.02	Line	-
Mode 1	Pass	QP	159.893k	35.76	65.46	-29.70	Neutral	-
Mode 1	Pass	AV	159.893k	20.46	55.46	-35.00	Neutral	-
Mode 1	Pass	QP	204.796k	30.55	63.42	-32.87	Neutral	-
Mode 1	Pass	AV	204.796k	17.91	53.42	-35.51	Neutral	-
Mode 1	Pass	QP	411.832k	37.38	57.61	-20.23	Neutral	-
Mode 1	Pass	AV	411.832k	32.56	47.61	-15.05	Neutral	-
Mode 1	Pass	QP	1.126M	23.36	56.00	-32.64	Neutral	-
Mode 1	Pass	AV	1.126M	19.49	46.00	-26.51	Neutral	-
Mode 1	Pass	QP	3.656M	19.34	56.00	-36.66	Neutral	-
Mode 1	Pass	AV	3.656M	16.73	46.00	-29.27	Neutral	-
Mode 1	Pass	QP	17.072M	33.16	60.00	-26.84	Neutral	-
Mode 1	Pass	AV	17.072M	25.60	50.00	-24.40	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	159.256k	36.69	65.50	-28.81	19.55	Line	-	17.14	9.59	0.03	9.93
AV	159.256k	21.31	55.50	-34.19	19.55	Line	-	1.76	9.59	0.03	9.93
QP	203.167k	30.65	63.48	-32.83	19.55	Line	-	11.10	9.59	0.03	9.93
AV	203.167k	19.69	53.48	-33.79	19.55	Line	-	0.14	9.59	0.03	9.93
QP	410.192k	38.10	57.64	-19.54	19.60	Line	-	18.50	9.60	0.04	9.96
AV	410.192k	31.75	47.64	-15.89	19.60	Line	-	12.15	9.60	0.04	9.96
QP	1.131M	22.85	56.00	-33.15	19.62	Line	-	3.23	9.62	0.06	9.94
AV	1.131M	18.60	46.00	-27.40	19.62	Line	-	-1.02	9.62	0.06	9.94
QP	3.043M	17.31	56.00	-38.69	19.70	Line	-	-2.39	9.66	0.11	9.93
AV	3.043M	14.70	46.00	-31.30	19.70	Line	-	-5.00	9.66	0.11	9.93
QP	17.346M	32.26	60.00	-27.74	19.92	Line	-	12.34	9.69	0.26	9.97
AV	17.346M	24.98	50.00	-25.02	19.92	Line	-	5.06	9.69	0.26	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	159.893k	35.76	65.46	-29.70	19.56	Neutral	-	16.20	9.60	0.03	9.93
AV	159.893k	20.46	55.46	-35.00	19.56	Neutral	-	0.90	9.60	0.03	9.93
QP	204.796k	30.55	63.42	-32.87	19.56	Neutral	-	10.99	9.60	0.03	9.93
AV	204.796k	17.91	53.42	-35.51	19.56	Neutral	-	-1.65	9.60	0.03	9.93
QP	411.832k	37.38	57.61	-20.23	19.60	Neutral	-	17.78	9.60	0.04	9.96
AV	411.832k	32.56	47.61	-15.05	19.60	Neutral	-	12.96	9.60	0.04	9.96
QP	1.126M	23.36	56.00	-32.64	19.61	Neutral	-	3.75	9.61	0.06	9.94
AV	1.126M	19.49	46.00	-26.51	19.61	Neutral	-	-0.12	9.61	0.06	9.94
QP	3.656M	19.34	56.00	-36.66	19.69	Neutral	-	-0.35	9.64	0.12	9.93
AV	3.656M	16.73	46.00	-29.27	19.69	Neutral	-	-2.96	9.64	0.12	9.93
QP	17.072M	33.16	60.00	-26.84	19.94	Neutral	-	13.22	9.72	0.25	9.97
AV	17.072M	25.60	50.00	-24.40	19.94	Neutral	-	5.66	9.72	0.25	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)	1.023M	1.003M	1M00F1D	1.023M	1.001M
BT-EDR(2Mbps)	1.174M	1.138M	1M14G1D	1.169M	1.136M
BT-EDR(3Mbps)	1.152M	1.086M	1M09G1D	1.147M	1.083M

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	1.023M	1.003M
2440MHz	Pass	Inf	1.023M	1.002M
2480MHz	Pass	Inf	1.023M	1.001M
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.169M	1.138M
2440MHz	Pass	Inf	1.172M	1.137M
2480MHz	Pass	Inf	1.174M	1.136M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.147M	1.083M
2440MHz	Pass	Inf	1.152M	1.086M
2480MHz	Pass	Inf	1.15M	1.084M

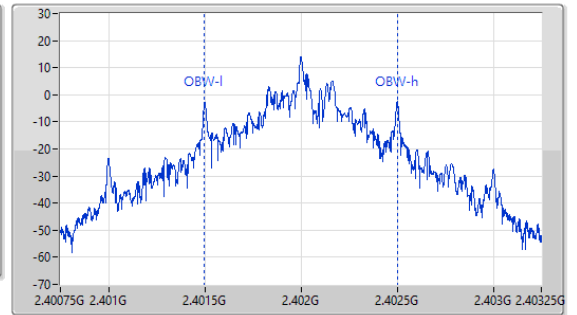
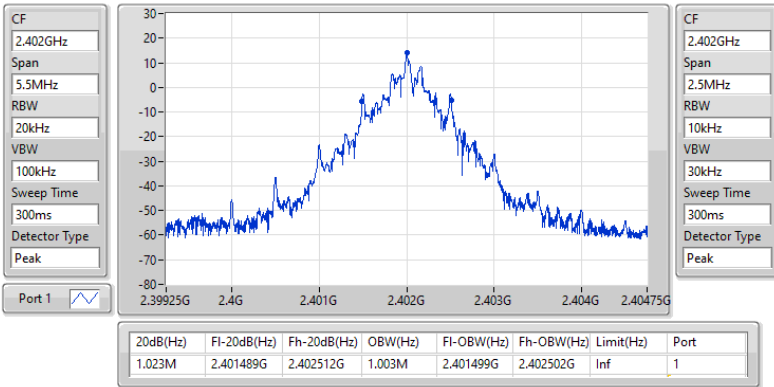
Port X-N dB = Port X 20dB down bandwidth;  
Port X-OBW = Port X 99% occupied bandwidth

**2.4-2.4835GHz\_BT-BR(1Mbps)**

**EBW-FS**

**2402MHz**

08/02/2023

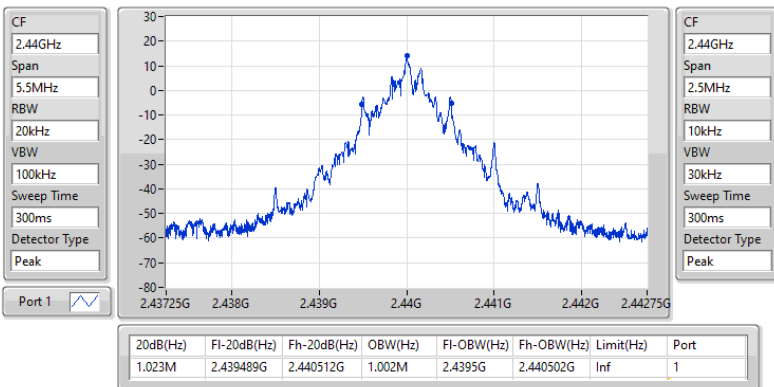


**2.4-2.4835GHz\_BT-BR(1Mbps)**

**EBW-FS**

**2440MHz**

08/02/2023

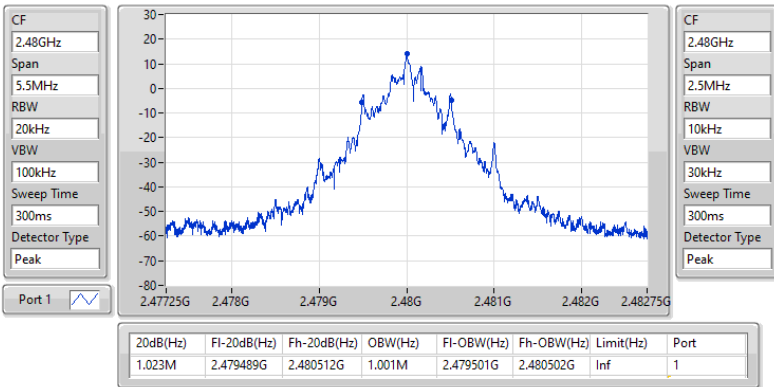


**2.4-2.4835GHz\_BT-BR(1Mbps)**

**EBW-FS**

**2480MHz**

08/02/2023

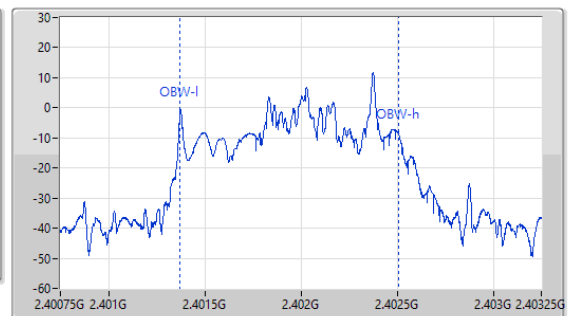
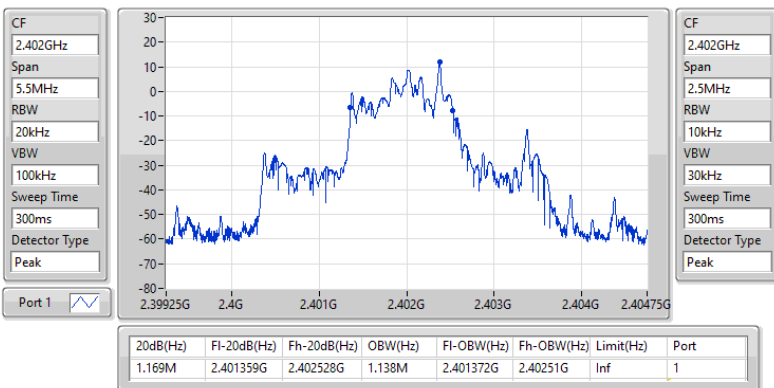


**2.4-2.4835GHz\_BT-EDR(2Mbps)**

**EBW-FS**

**2402MHz**

08/02/2023

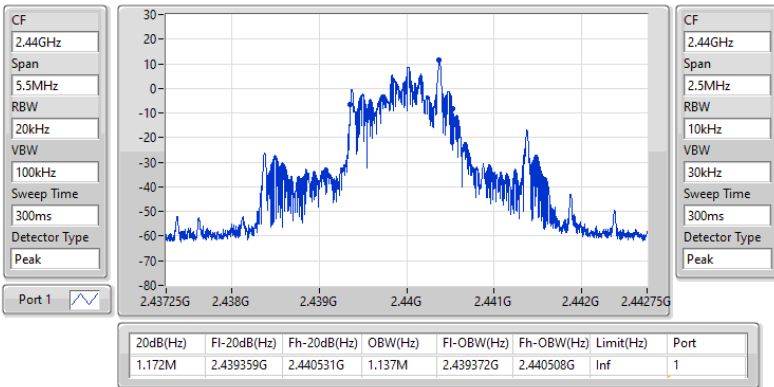


**2.4-2.4835GHz\_BT-EDR(2Mbps)**

**EBW-FS**

**2440MHz**

08/02/2023

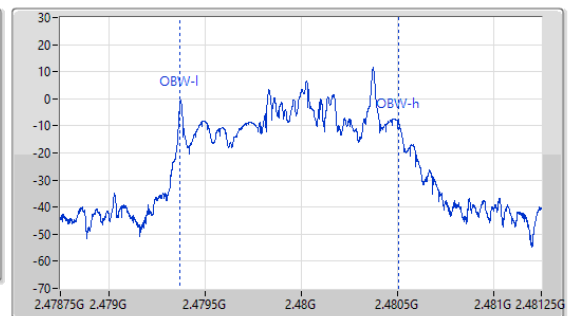
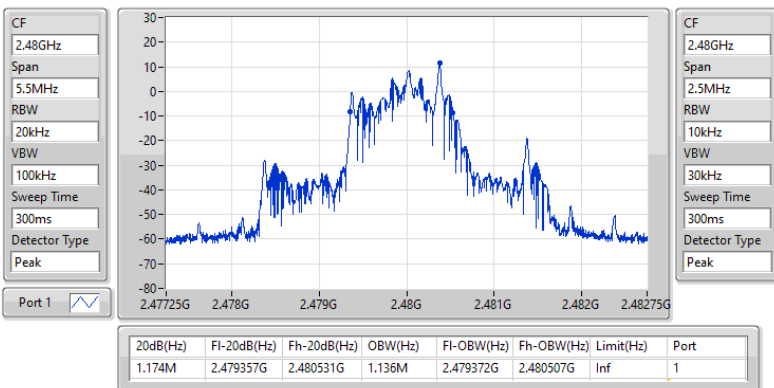


**2.4-2.4835GHz\_BT-EDR(2Mbps)**

**EBW-FS**

**2480MHz**

08/02/2023

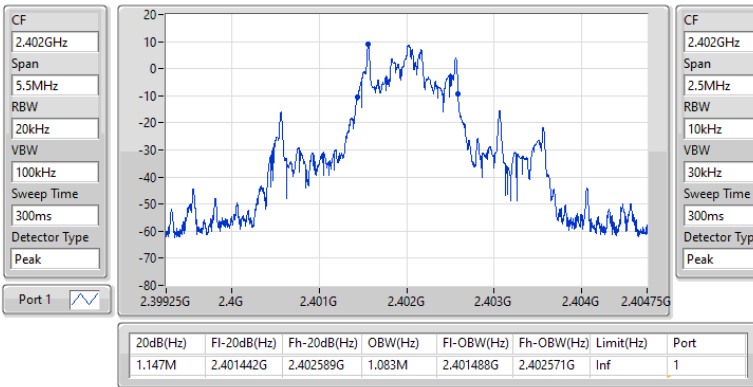


**2.4-2.4835GHz\_BT-EDR(3Mbps)**

**EBW-FS**

**2402MHz**

08/02/2023

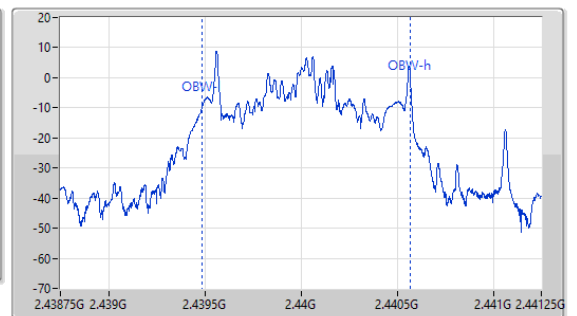
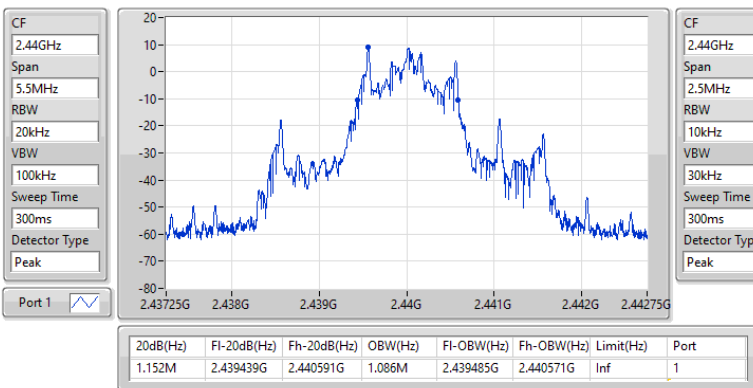


**2.4-2.4835GHz\_BT-EDR(3Mbps)**

**EBW-FS**

**2440MHz**

08/02/2023



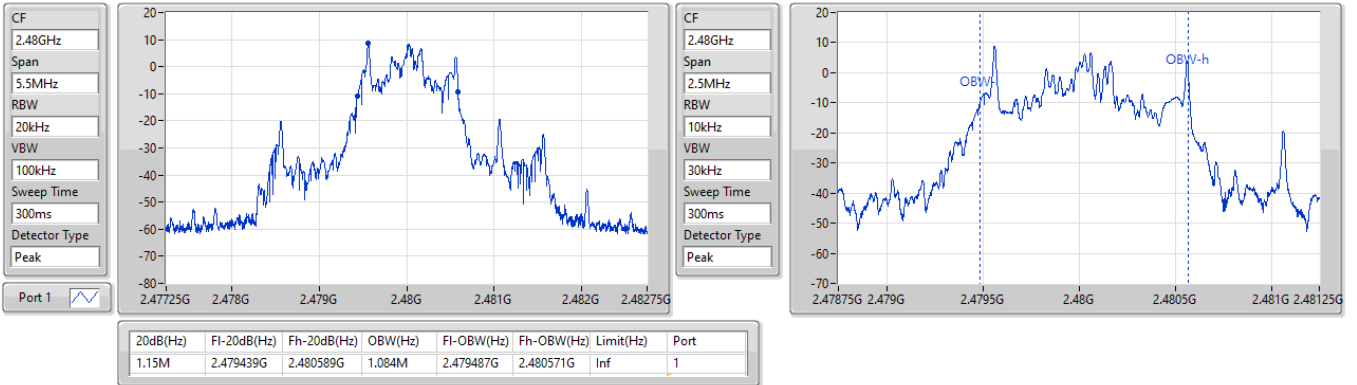


**2.4-2.4835GHz\_BT-EDR(3Mbps)**

**EBW-FS**

**2480MHz**

08/02/2023





**Summary**

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



Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402001G	2.403001G	1.0005M	681.318k
2440MHz	Pass	2.440001G	2.441001G	1.0005M	681.318k
2480MHz	Pass	2.478999G	2.480001G	1.002M	681.318k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402376G	2.403375G	999k	778.554k
2440MHz	Pass	2.440376G	2.441375G	999k	780.552k
2480MHz	Pass	2.479376G	2.480376G	1.0005M	781.884k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402016G	2.403018G	1.002M	763.902k
2440MHz	Pass	2.440017G	2.441018G	1.0005M	767.232k
2480MHz	Pass	2.479017G	2.480016G	999k	767.232k


2.4-2.4835GHz\_BT-BR(1Mbps)

Channel Separation-FS

2.402G/2.403GHz

08/02/2023



Port 1 

Ch Freq  
2.402G/2.403G

Span  
3MHz

RBW  
30kHz

VBW  
100kHz

Sweep  
100ms

Detector  
Peak

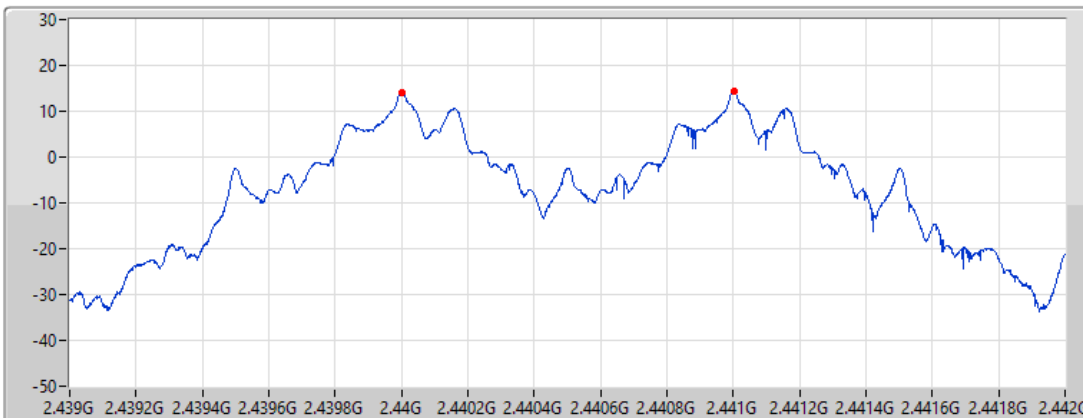
Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402001G	2.403001G	1.0005M	681.318k


2.4-2.4835GHz\_BT-BR(1Mbps)

Channel Separation-FS

2.44G/2.441GHz

08/02/2023



Port 1 

Ch Freq  
2.44G/2.441G

Span  
3MHz

RBW  
30kHz

VBW  
100kHz

Sweep  
100ms

Detector  
Peak

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440001G	2.441001G	1.0005M	681.318k

2.4-2.4835GHz\_BT-BR(1Mbps)


Channel Separation-FS

2.48G/2.479GHz

08/02/2023



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478999G	2.480001G	1.002M	681.318k

Port 1 

Ch Freq  
2.48G/2.479G

Span  
3MHz

RBW  
30kHz

VBW  
100kHz

Sweep  
100ms

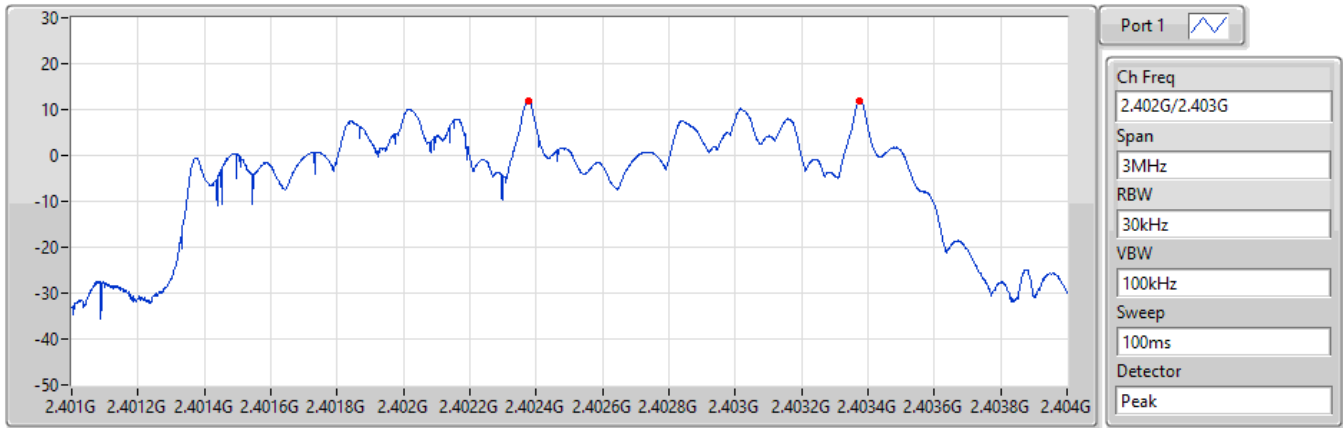
Detector  
Peak

2.4-2.4835GHz\_BT-EDR(2Mbps)


Channel Separation-FS

2.402G/2.403GHz

08/02/2023



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402376G	2.403375G	999k	778.554k

Port 1 

Ch Freq  
2.402G/2.403G

Span  
3MHz

RBW  
30kHz

VBW  
100kHz

Sweep  
100ms

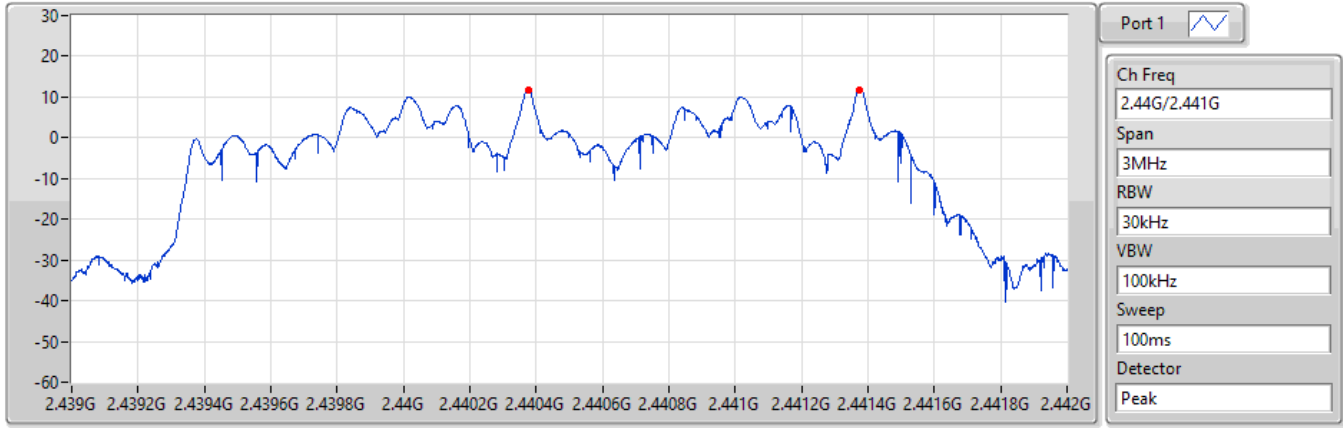
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2.4-2.4835GHz\_BT-EDR(2Mbps)

Channel Separation-FS

2.44G/2.441GHz

08/02/2023



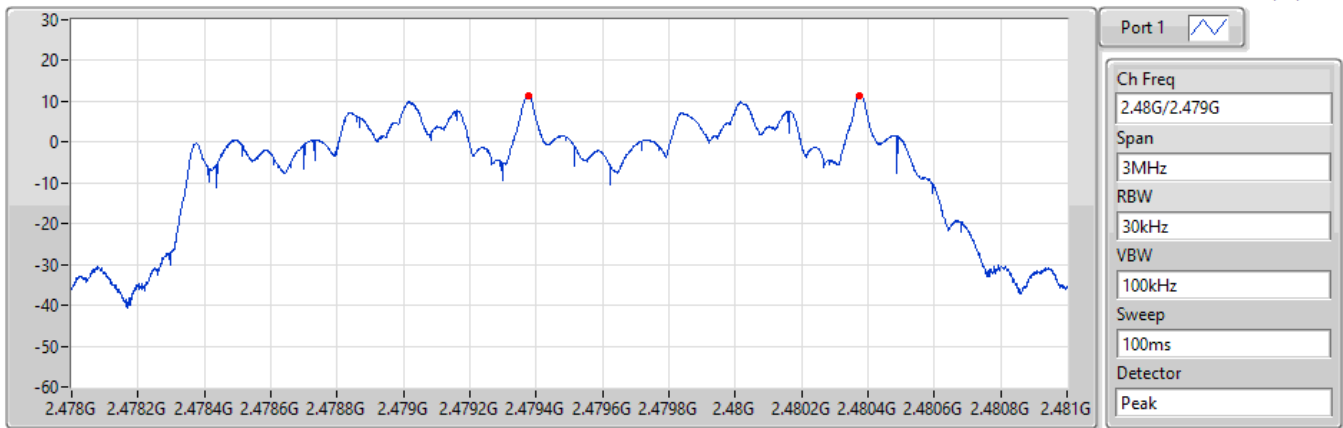
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440376G	2.441375G	999k	780.552k

2.4-2.4835GHz\_BT-EDR(2Mbps)

Channel Separation-FS

2.48G/2.479GHz

08/02/2023



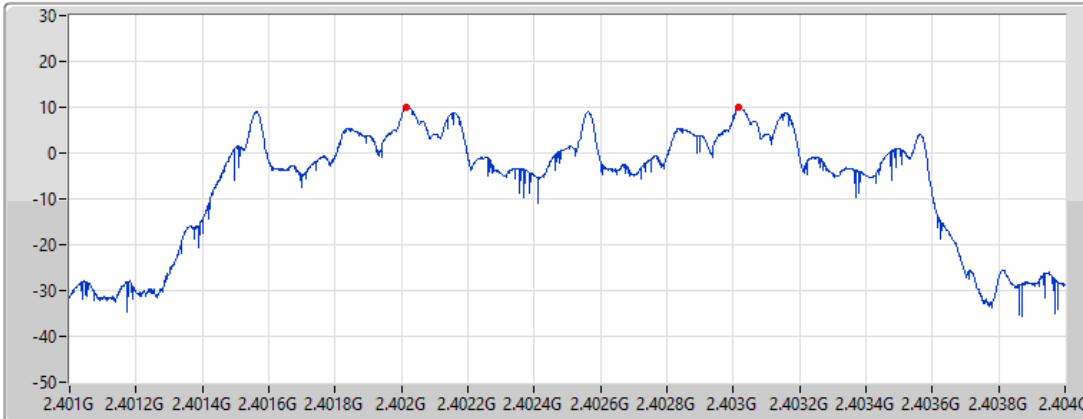
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479376G	2.480376G	1.0005M	781.884k


2.4-2.4835GHz\_BT-EDR(3Mbps)

Channel Separation-FS

2.402G/2.403GHz

08/02/2023



Port 1 

Ch Freq  
2.402G/2.403G

Span  
3MHz

RBW  
30kHz

VBW  
100kHz

Sweep  
100ms

Detector  
Peak

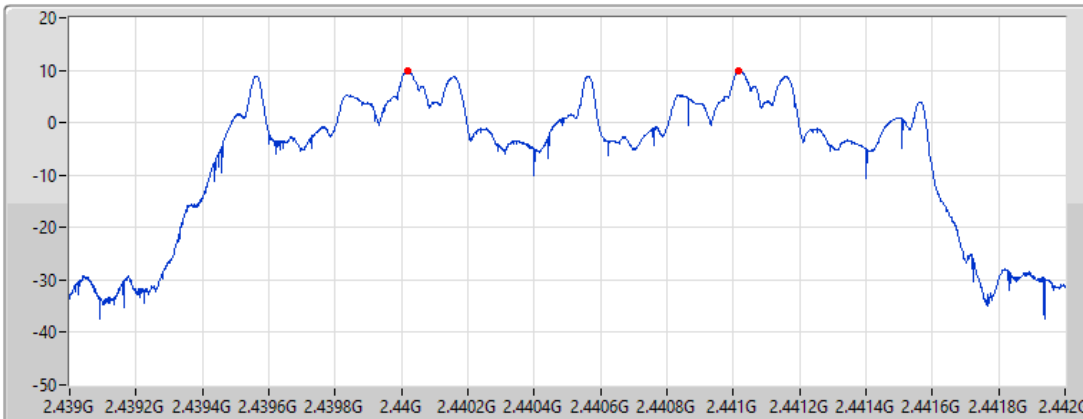
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402016G	2.403018G	1.002M	763.902k


2.4-2.4835GHz\_BT-EDR(3Mbps)

Channel Separation-FS

2.44G/2.441GHz

08/02/2023



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)
2.440017G	2.441018G	1.0005M	767.232k

2.4-2.4835GHz\_BT-EDR(3Mbps)

Channel Separation-FS

2.48G/2.479GHz

08/02/2023



F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479017G	2.480016G	999k	767.232k





**Summary**

Mode	Total Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	14.58	0.02871
BT-EDR(2Mbps)	13.71	0.02350
BT-EDR(3Mbps)	13.62	0.02301



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.70	14.34	21.00
2440MHz	Pass	2.70	14.47	21.00
2480MHz	Pass	2.70	14.58	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.70	13.64	21.00
2440MHz	Pass	2.70	13.71	21.00
2480MHz	Pass	2.70	13.60	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.70	13.42	21.00
2440MHz	Pass	2.70	13.62	21.00
2480MHz	Pass	2.70	13.49	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)	14.39	0.02748
BT-EDR(2Mbps)	12.61	0.01824
BT-EDR(3Mbps)	12.38	0.01730



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.70	14.30	21.00
2440MHz	Pass	2.70	14.31	21.00
2480MHz	Pass	2.70	14.39	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.70	12.61	21.00
2440MHz	Pass	2.70	12.41	21.00
2480MHz	Pass	2.70	12.11	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.70	12.38	21.00
2440MHz	Pass	2.70	12.18	21.00
2480MHz	Pass	2.70	12.02	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**

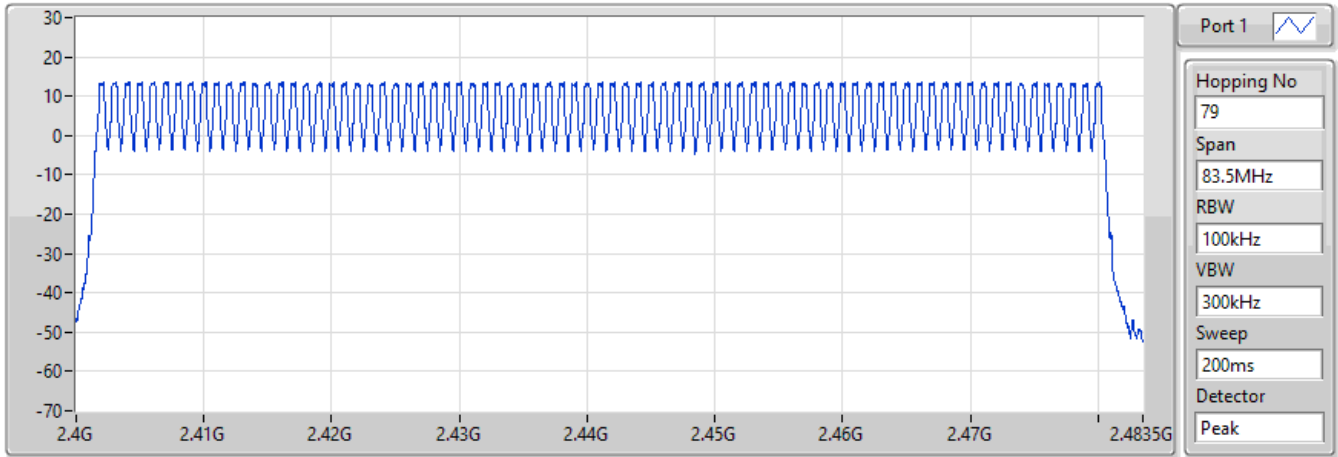
Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

2.4-2.4835GHz\_BT-BR(1Mbps)

Hopping-FS

2440MHz

10/02/2023



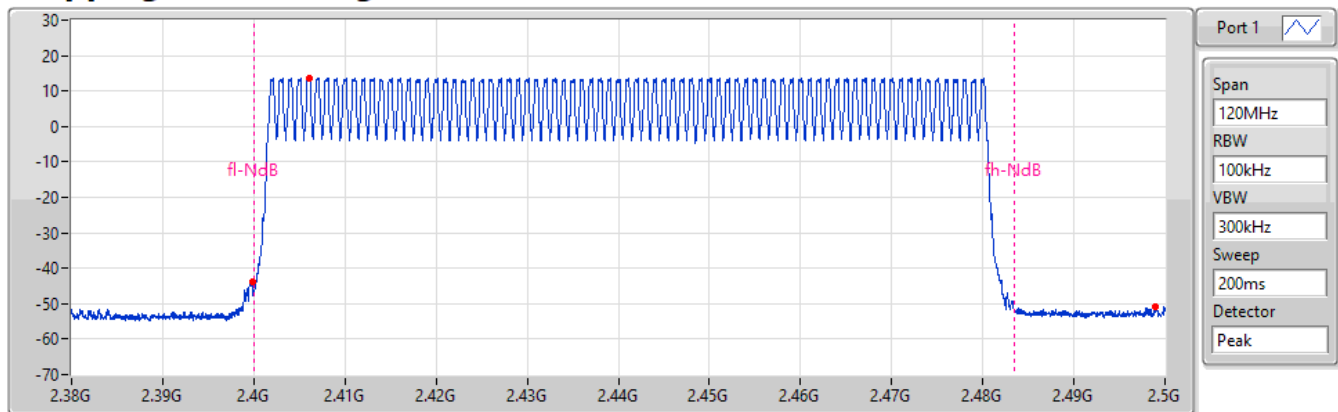
Hopping No	Limit
79	15

2.4-2.4835GHz\_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

10/02/2023



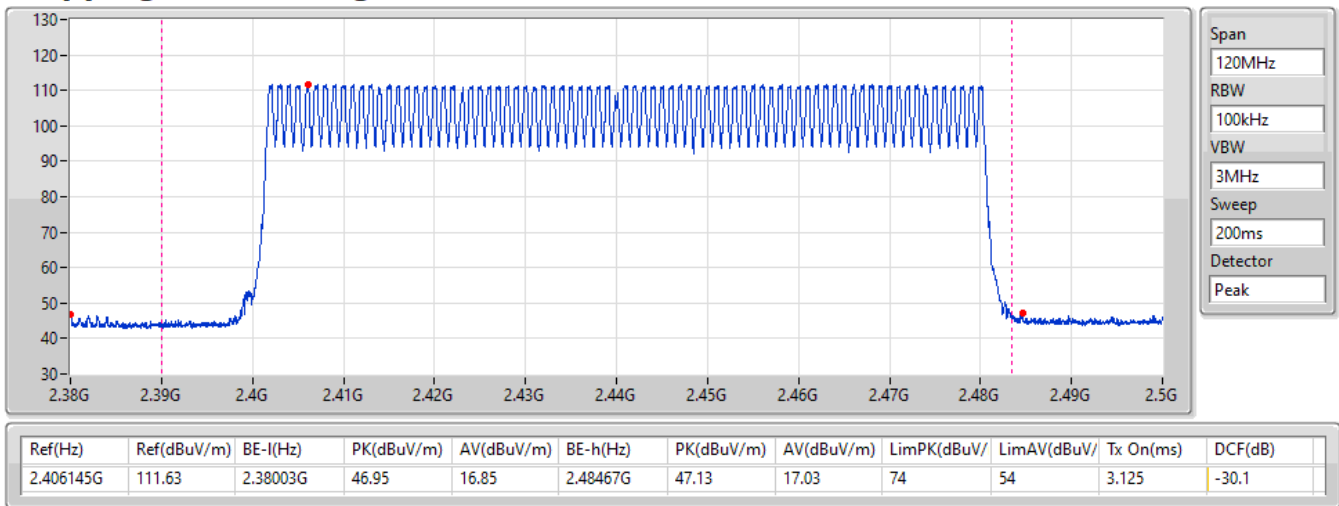
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-6.26	2.40616G	13.74	2.3998G	-43.94	2.49901G	-50.77

### 2.4-2.4835GHz\_BT-BR(1Mbps)

2440MHz

### Hopping Ch Bandedge (Restricted Band)

10/02/2023

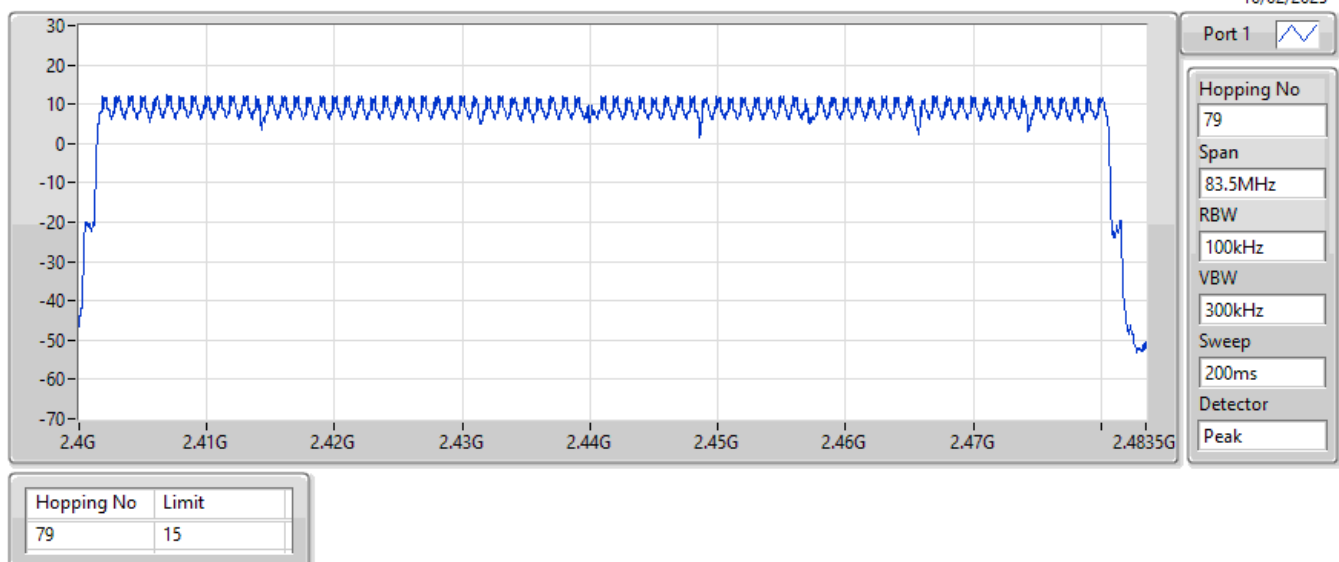


### 2.4-2.4835GHz\_BT-EDR(2Mbps)

### Hopping-FS

2440MHz

10/02/2023



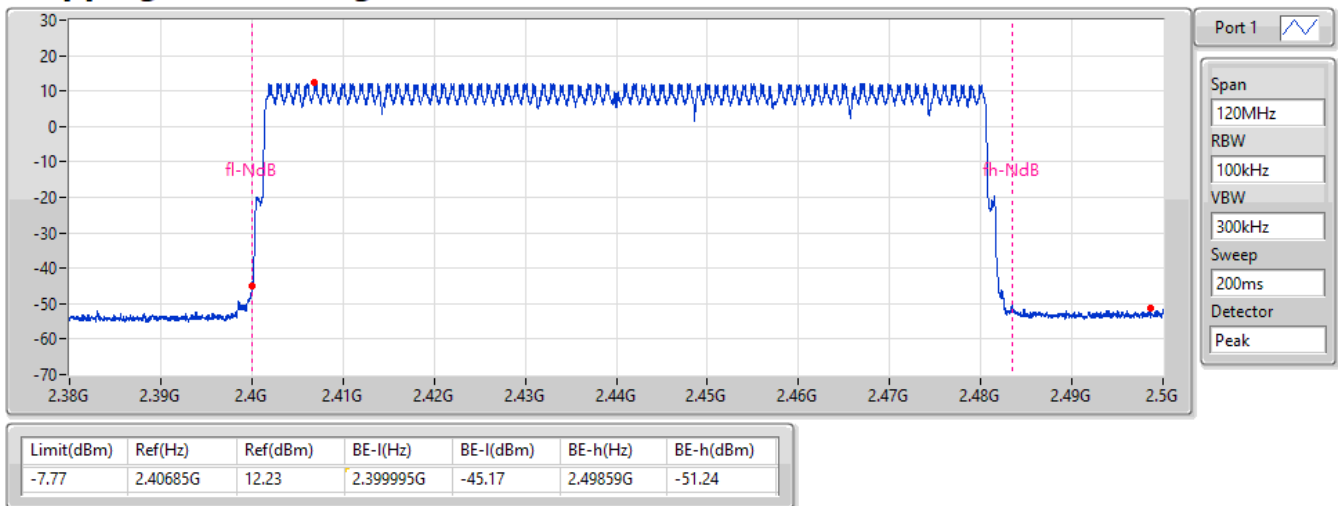


### 2.4-2.4835GHz\_BT-EDR(2Mbps)

2440MHz

### Hopping Ch Bandedge (Non-restricted Band)

10/02/2023

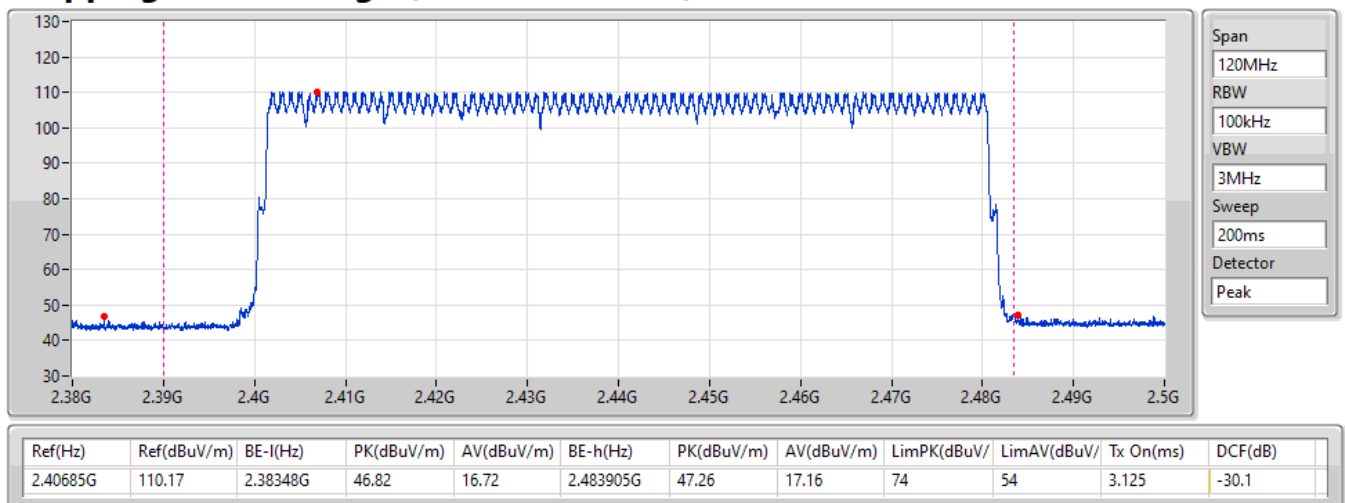


### 2.4-2.4835GHz\_BT-EDR(2Mbps)

2440MHz

### Hopping Ch Bandedge (Restricted Band)

10/02/2023

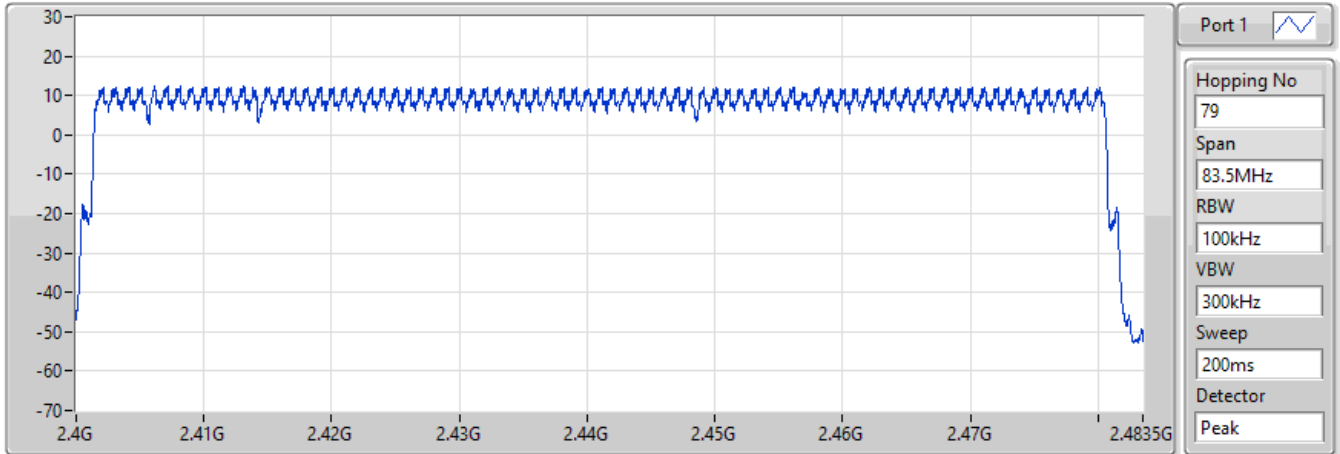



2.4-2.4835GHz\_BT-EDR(3Mbps)

Hopping-FS

2440MHz

10/02/2023



Port 1 

Hopping No  
79

Span  
83.5MHz

RBW  
100kHz

VBW  
300kHz

Sweep  
200ms

Detector  
Peak

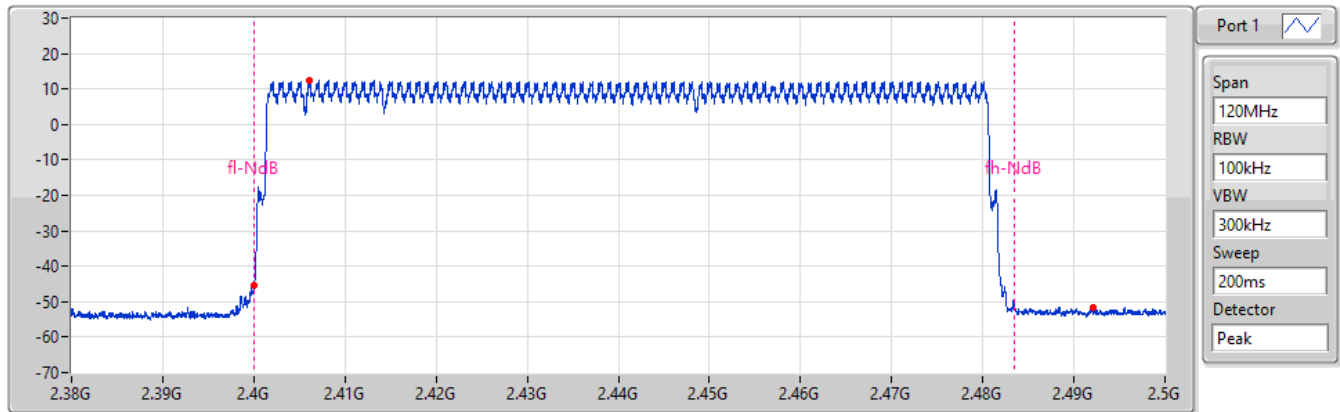
Hopping No	Limit
79	15


2.4-2.4835GHz\_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

10/02/2023



Port 1 

Span  
120MHz

RBW  
100kHz

VBW  
300kHz

Sweep  
200ms

Detector  
Peak

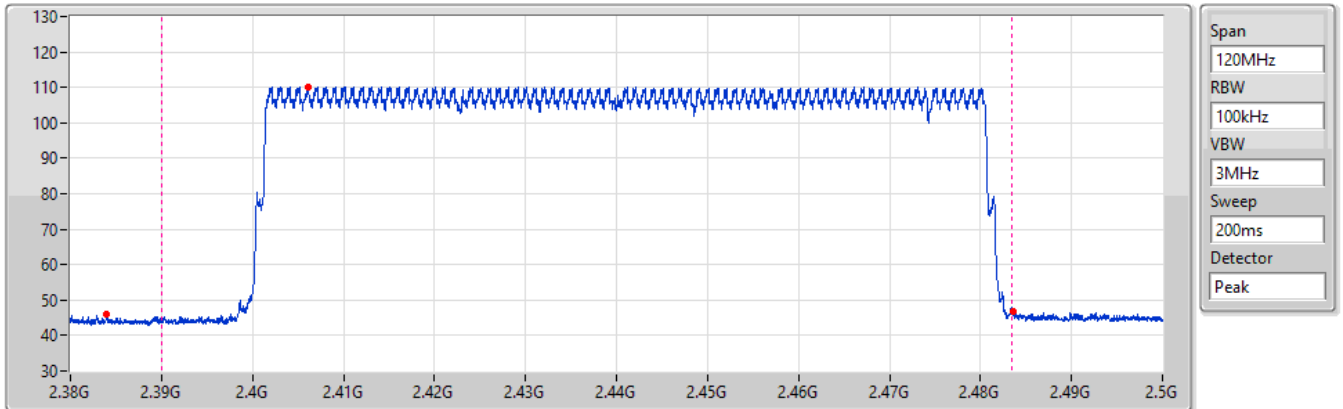
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-7.7	2.406145G	12.3	2.399995G	-45.38	2.49208G	-51.69

2.4-2.4835GHz\_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

10/02/2023



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)
2.406145G	110.2	2.384005G	45.96	15.86	2.483545G	46.87	16.77	74	54	3.125	-30.1



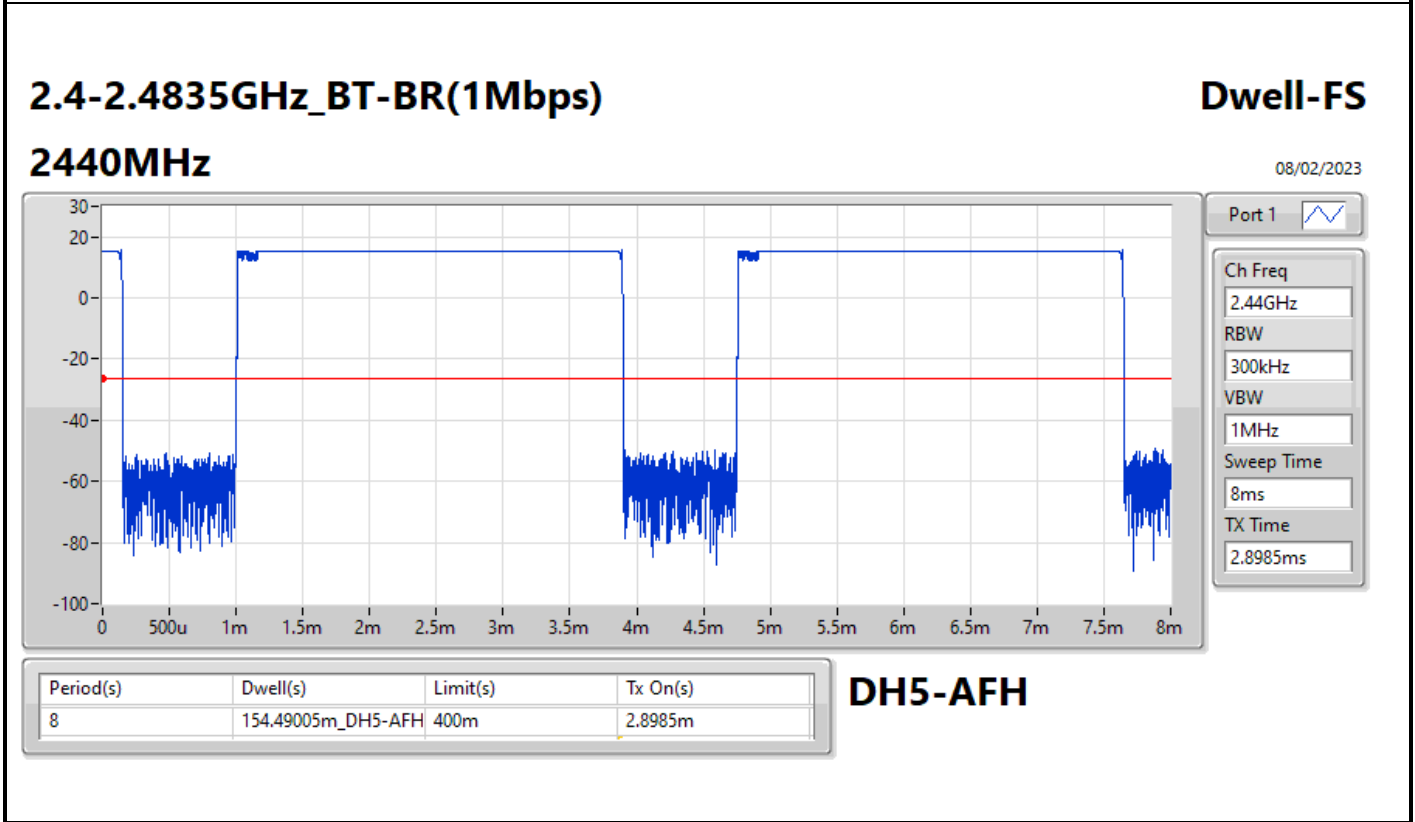
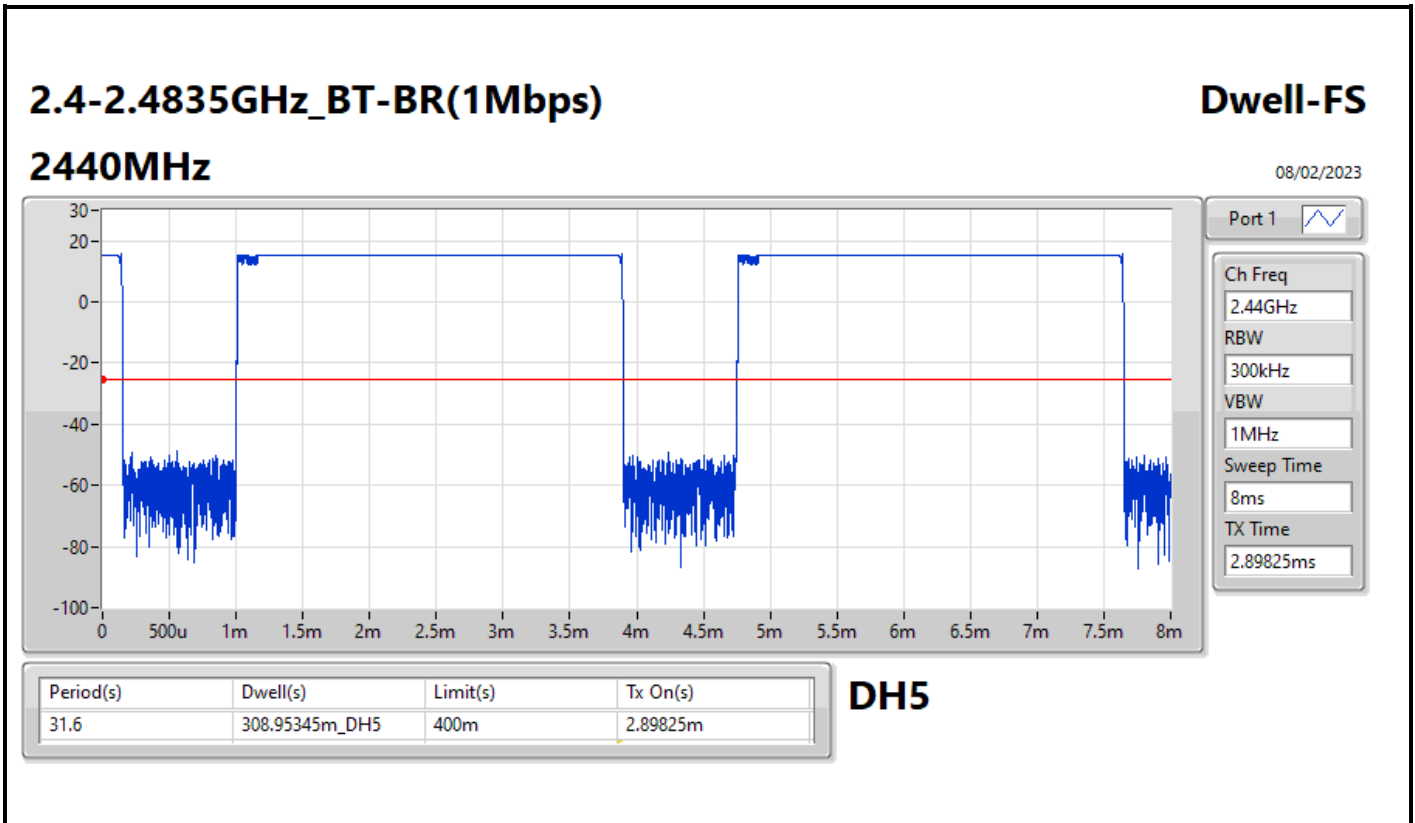
**Summary**

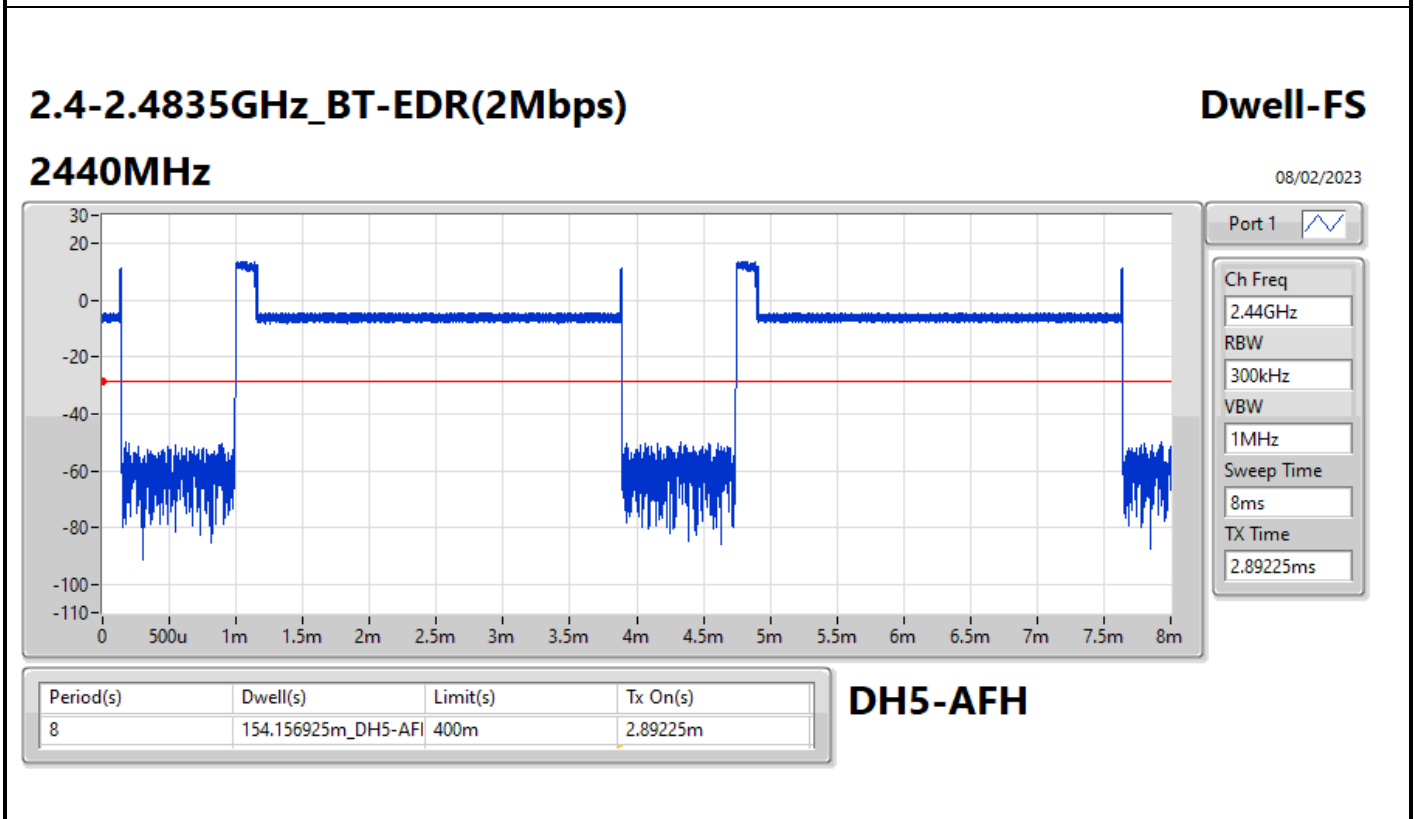
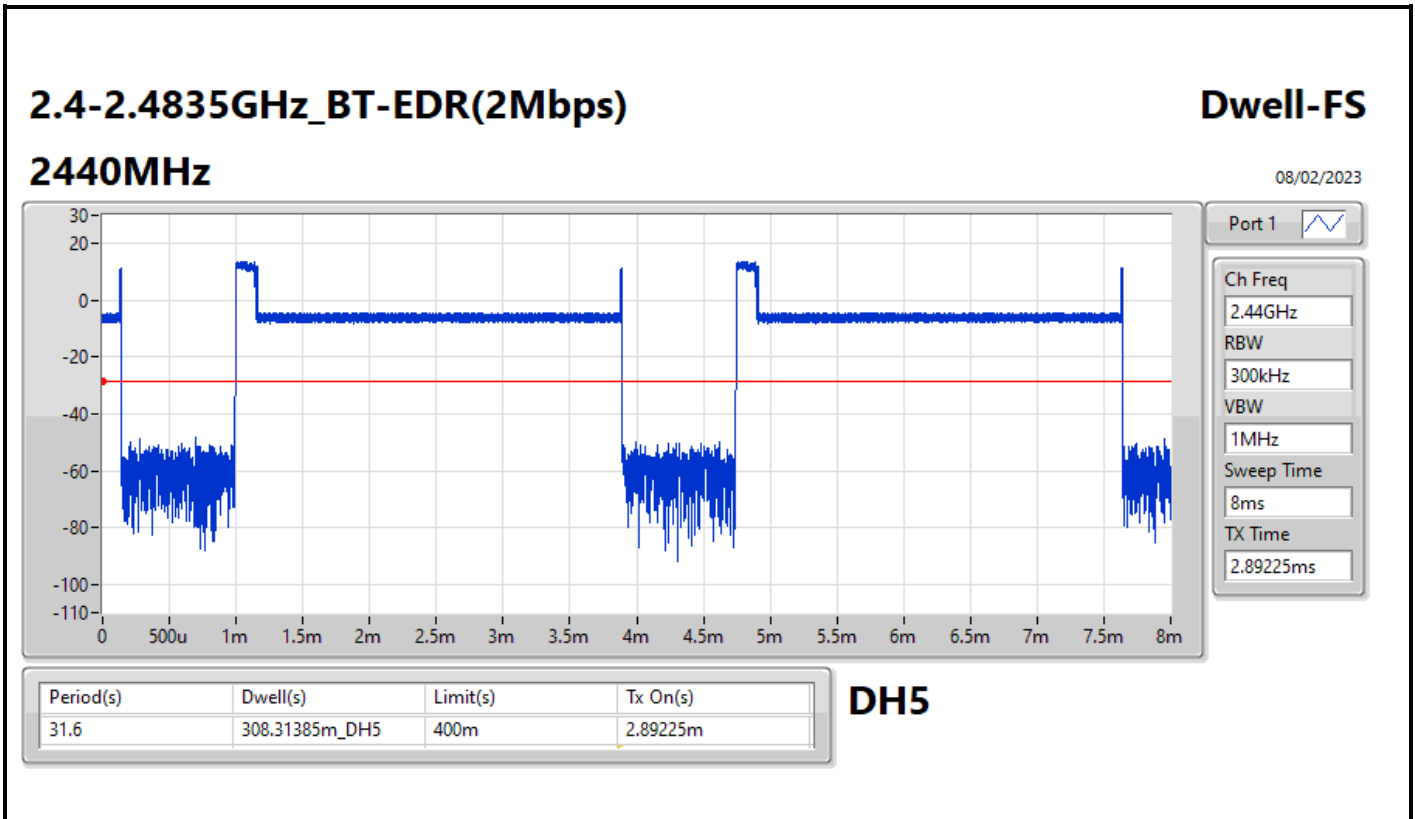
<b>Mode</b>	<b>Max-Dwell (s)</b>
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.95345m_DH5
BT-EDR(2Mbps)	308.31385m_DH5
BT-EDR(3Mbps)	308.5004m_DH5



Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.95345m_DH5	400m	2.89825m
2440MHz	Pass	8	154.49005m_DH5-AFH	400m	2.8985m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.31385m_DH5	400m	2.89225m
2440MHz	Pass	8	154.156925m_DH5-AFH	400m	2.89225m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.5004m_DH5	400m	2.894m
2440MHz	Pass	8	154.2502m_DH5-AFH	400m	2.894m



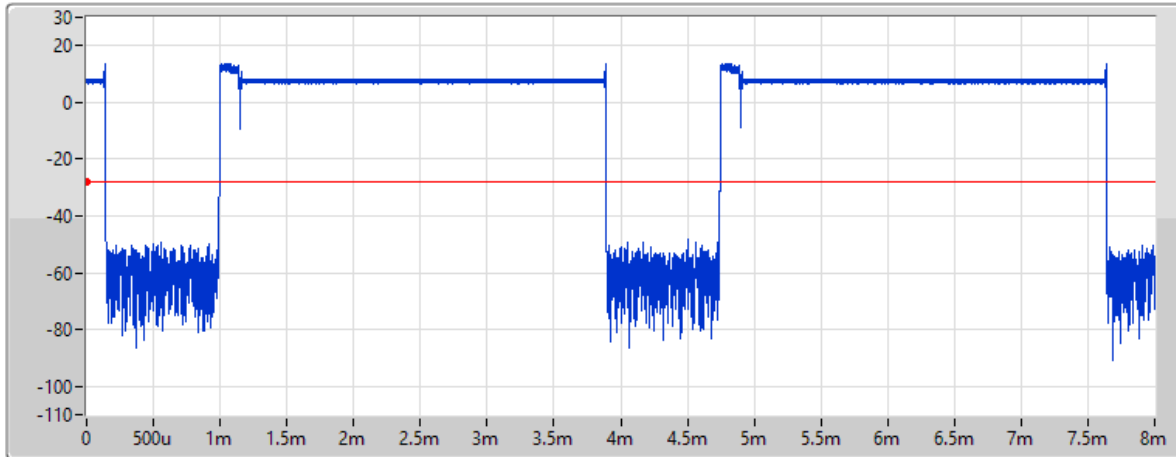


2.4-2.4835GHz\_BT-EDR(3Mbps)

Dwell-FS

2440MHz

08/02/2023



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.894ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.5004m_DH5	400m	2.894m

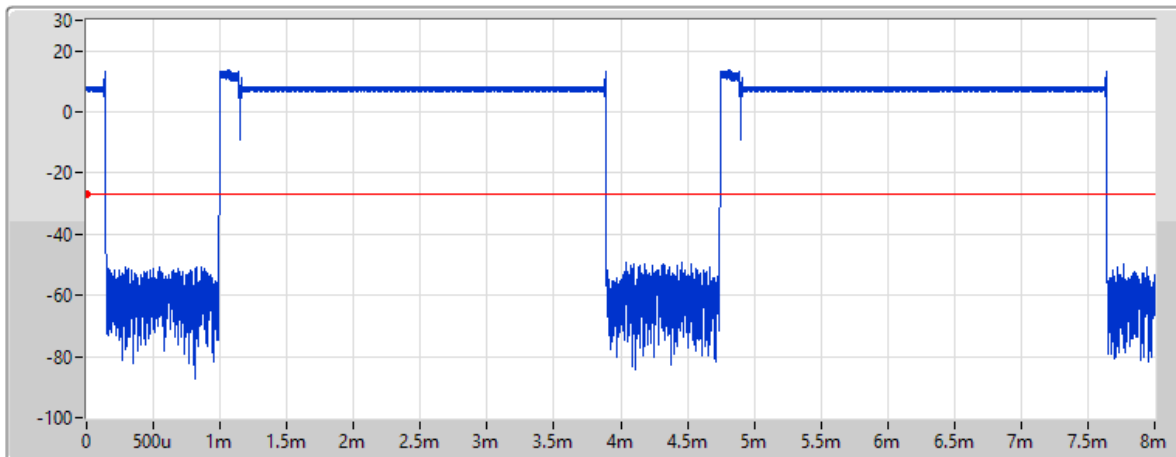
**DH5**

2.4-2.4835GHz\_BT-EDR(3Mbps)

Dwell-FS

2440MHz

08/02/2023



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.894ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.2502m_DH5-AFH	400m	2.894m

**DH5-AFH**



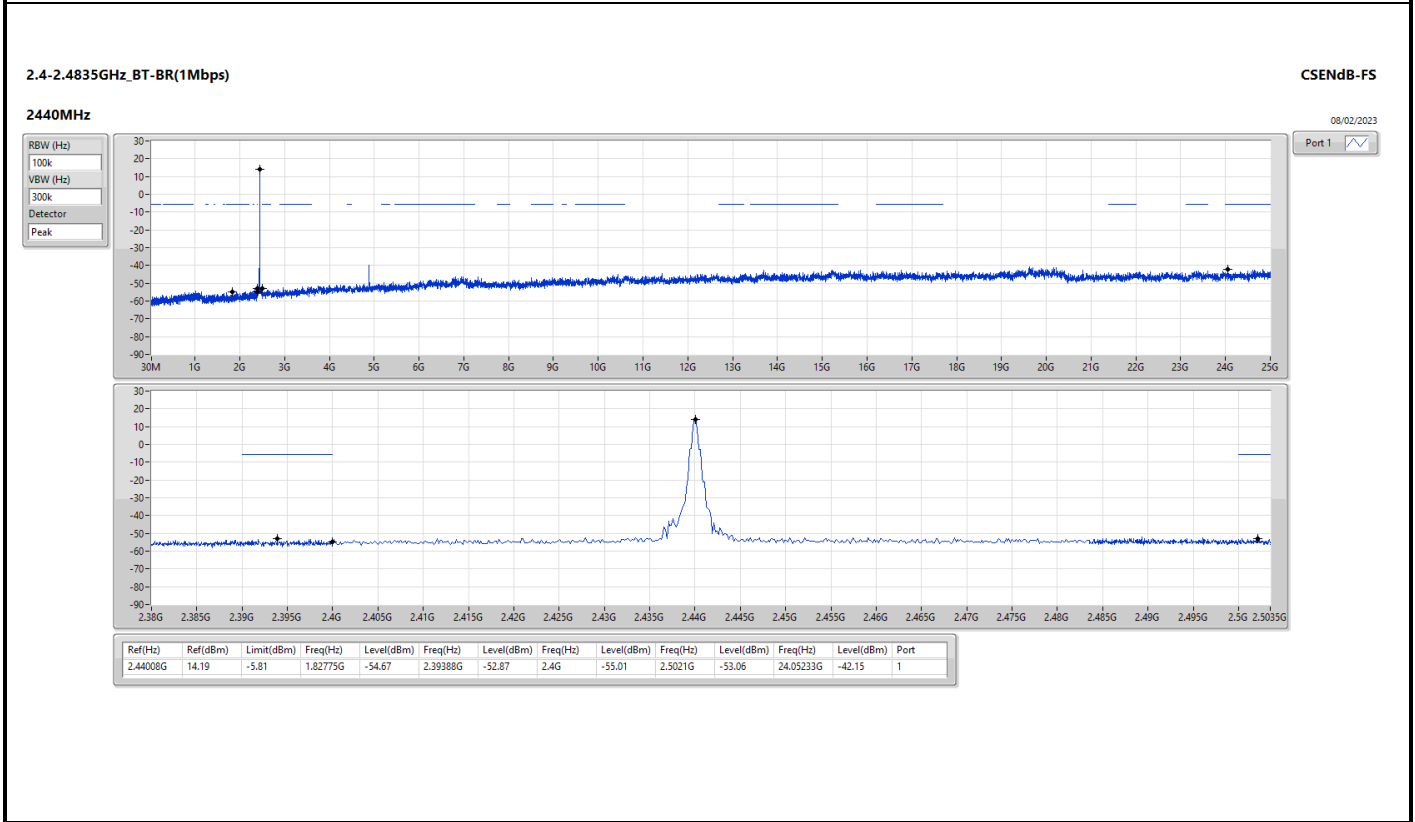
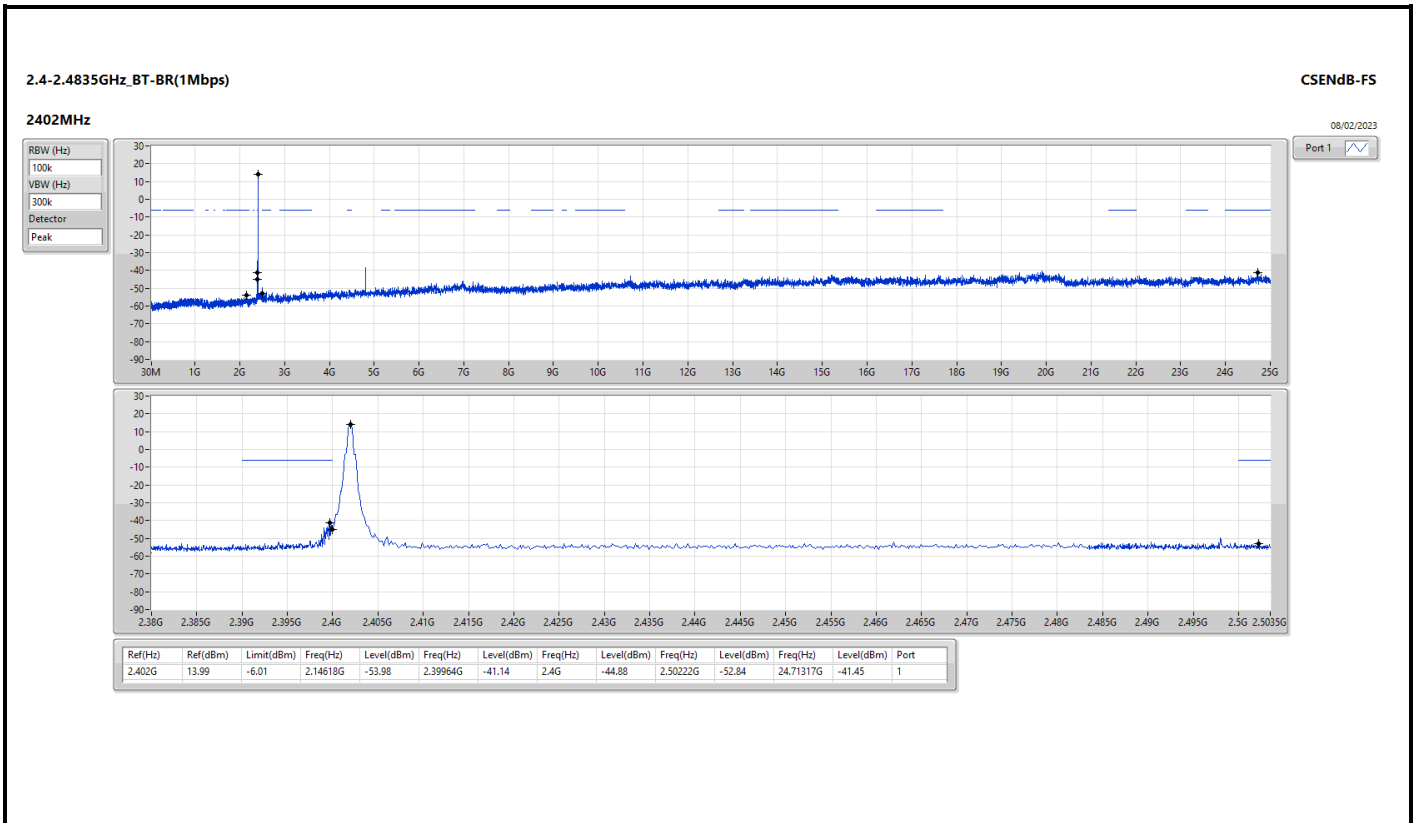


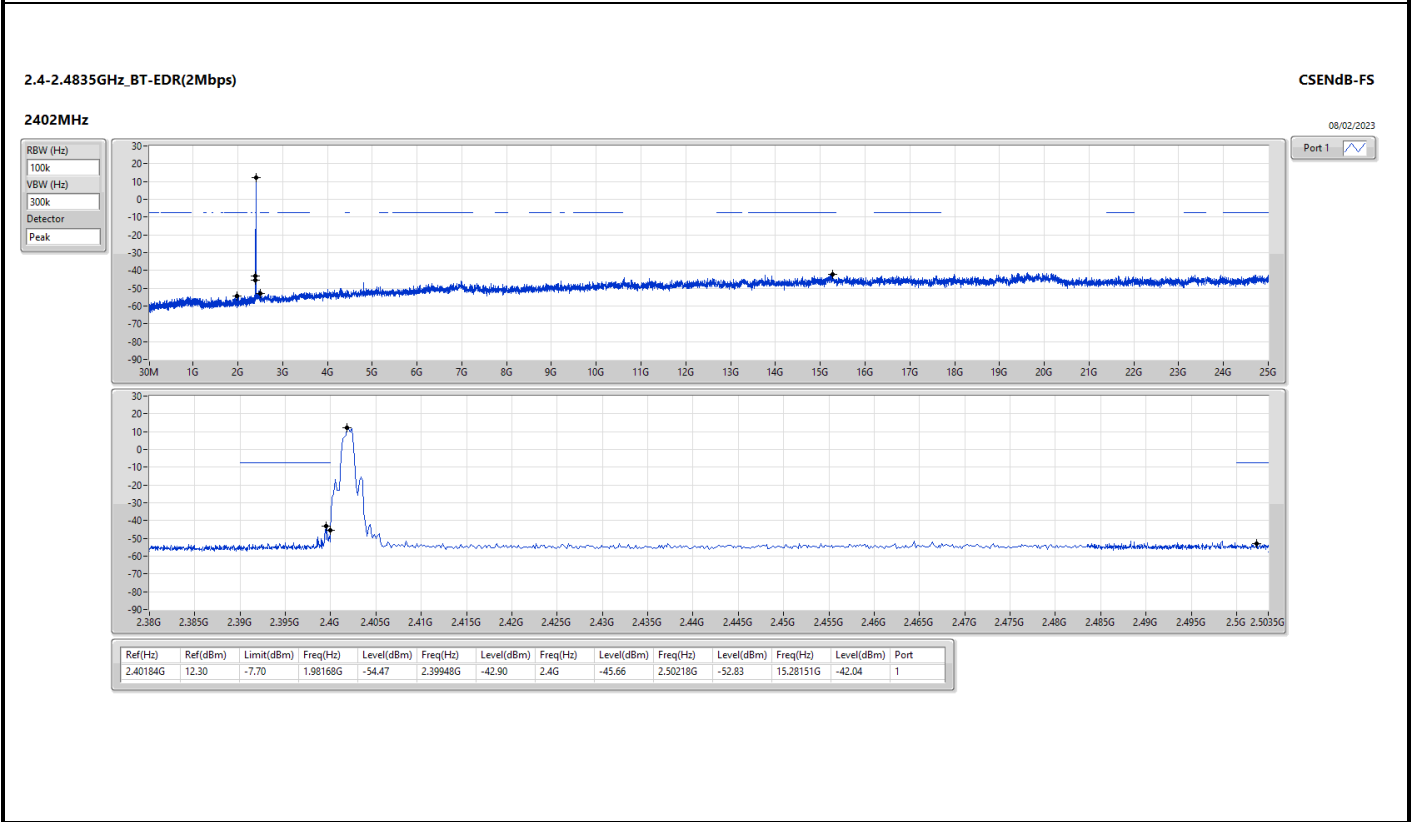
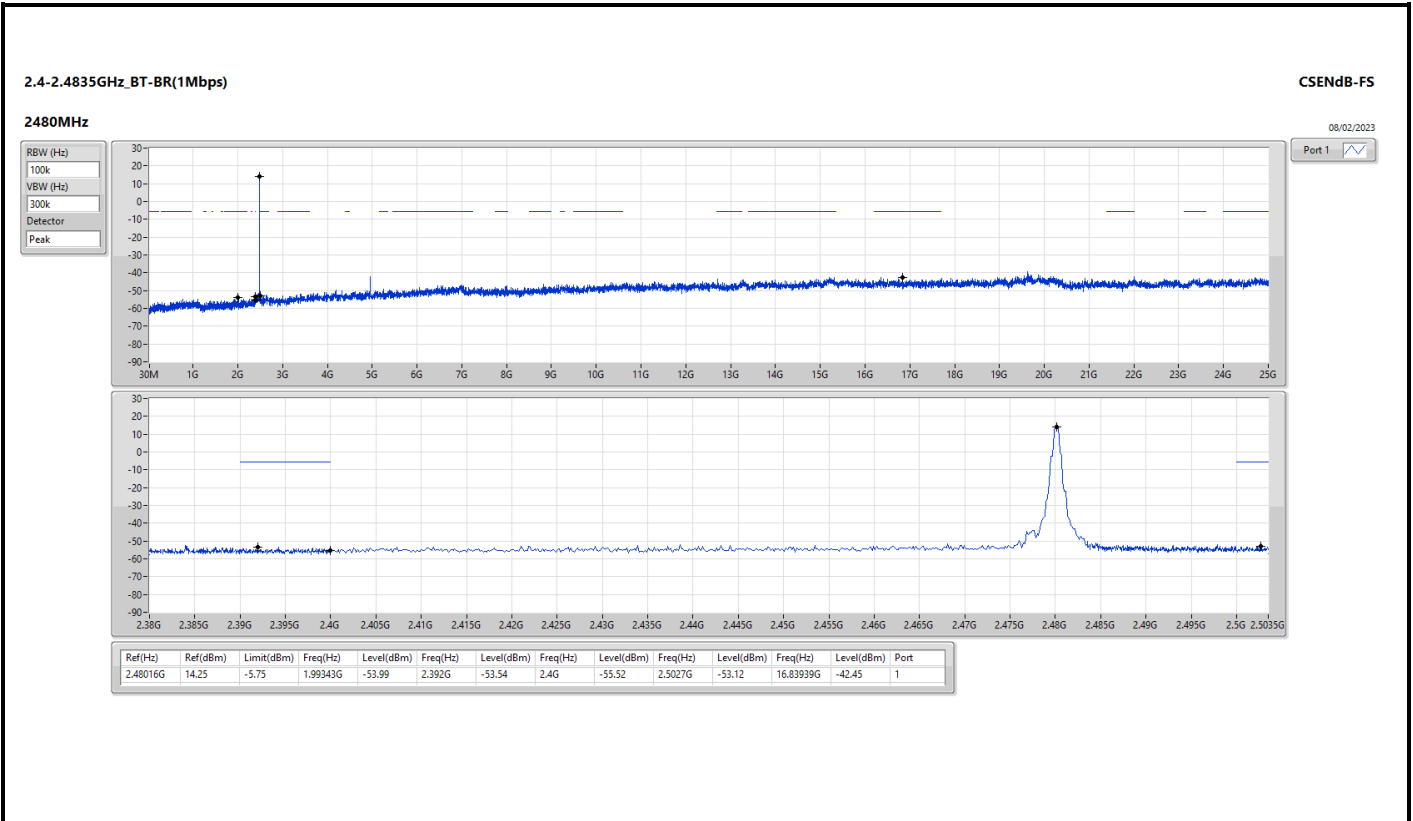
Summary

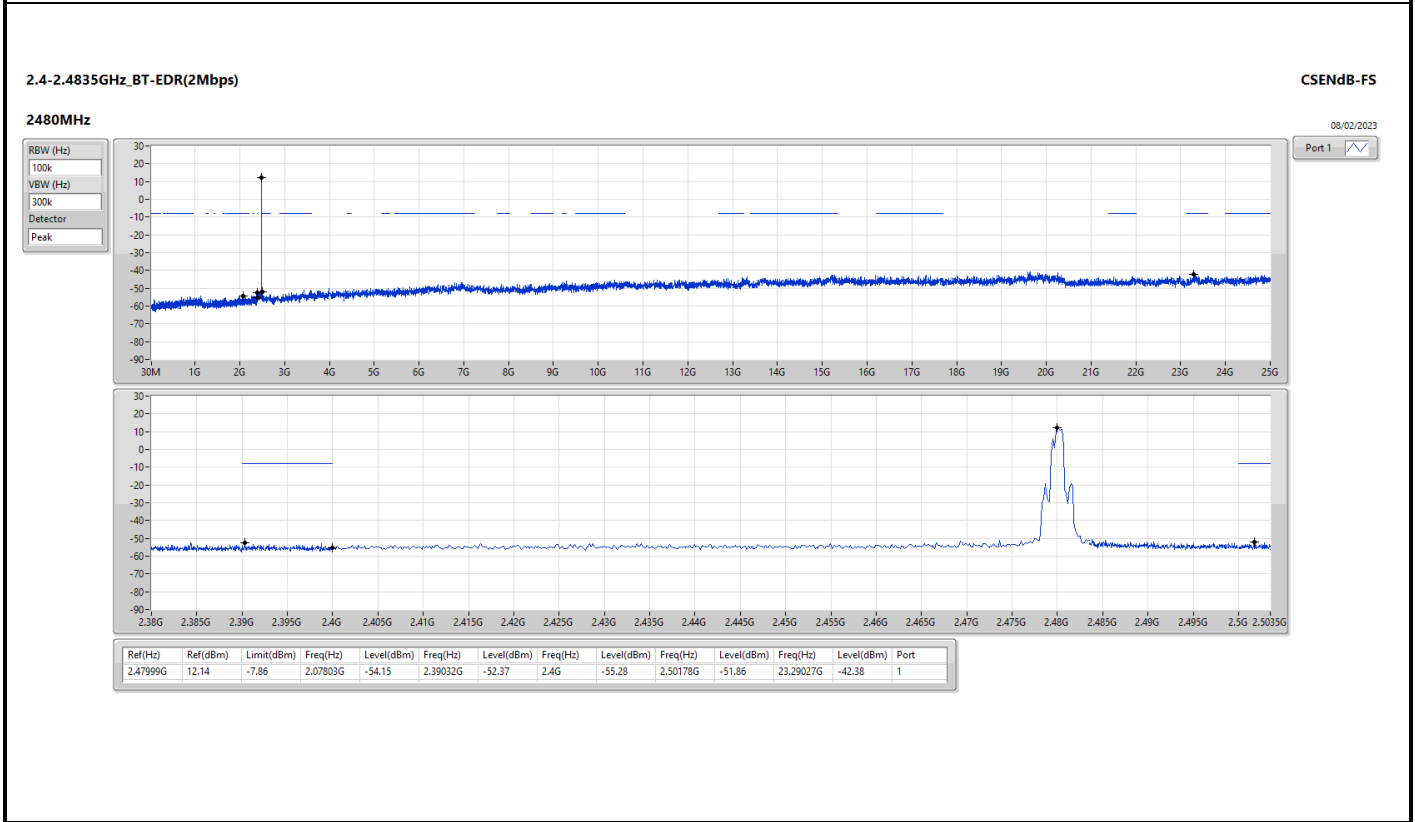
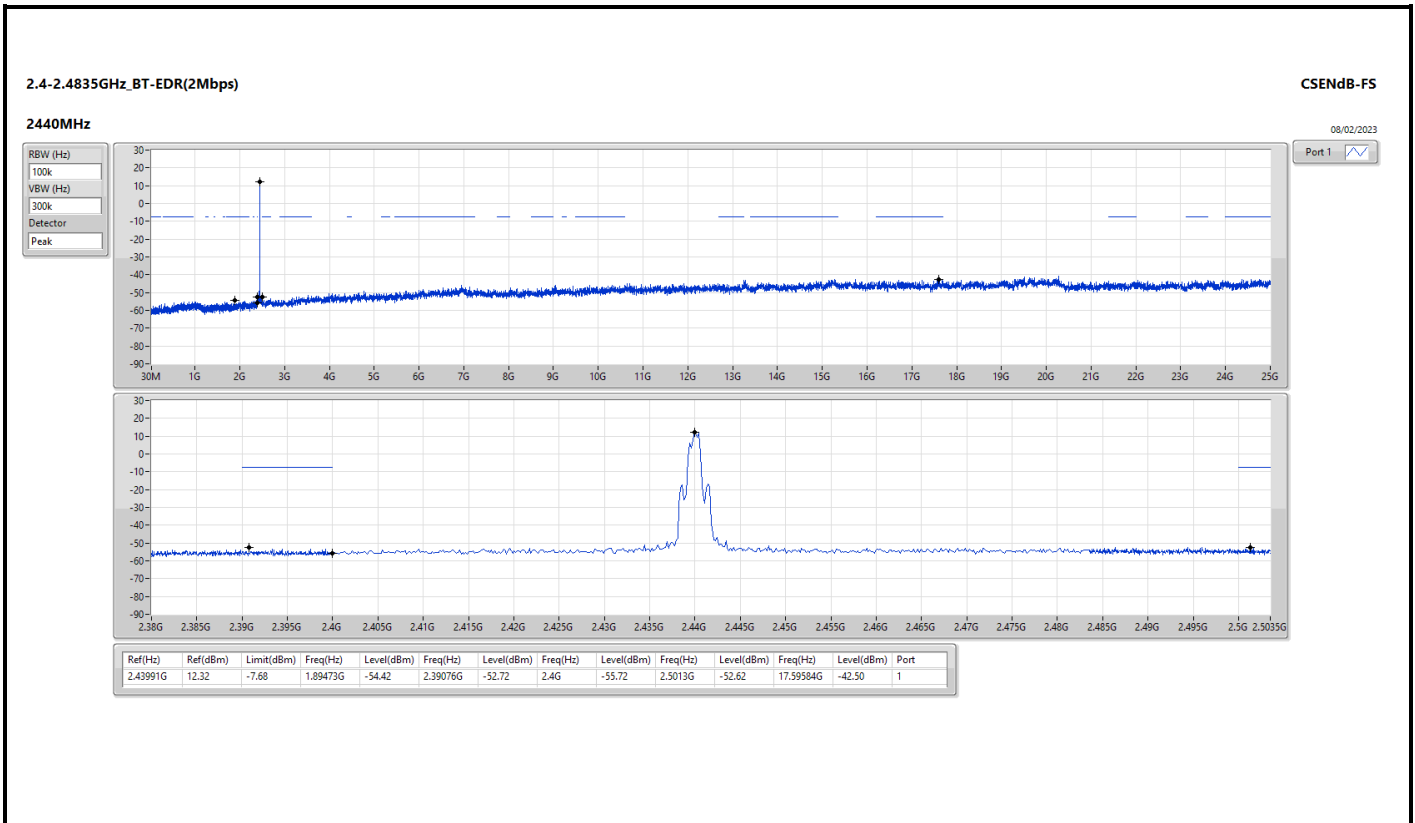
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.402G	13.99	-6.01	2.14618G	-53.98	2.39964G	-41.14	2.4G	-44.88	2.50222G	-52.84	24.71317G	-41.45	1
BT-EDR(2Mbps)	Pass	2.40184G	12.30	-7.70	1.98168G	-54.47	2.39948G	-42.90	2.4G	-45.66	2.50218G	-52.83	15.28151G	-42.04	1
BT-EDR(3Mbps)	Pass	2.40184G	11.86	-8.14	2.14618G	-53.81	2.39956G	-42.98	2.4G	-46.09	2.5023G	-52.90	15.2084G	-41.57	1

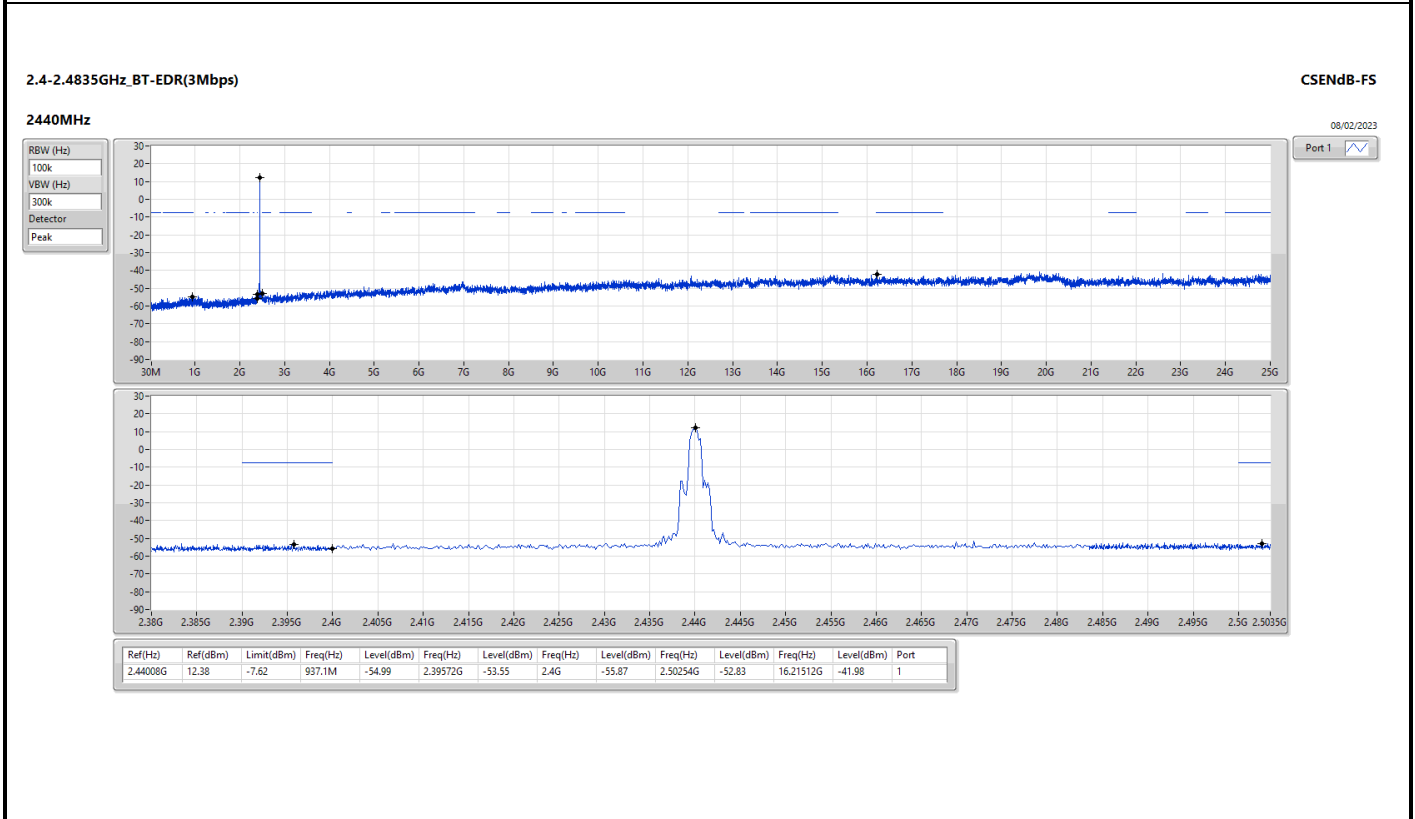
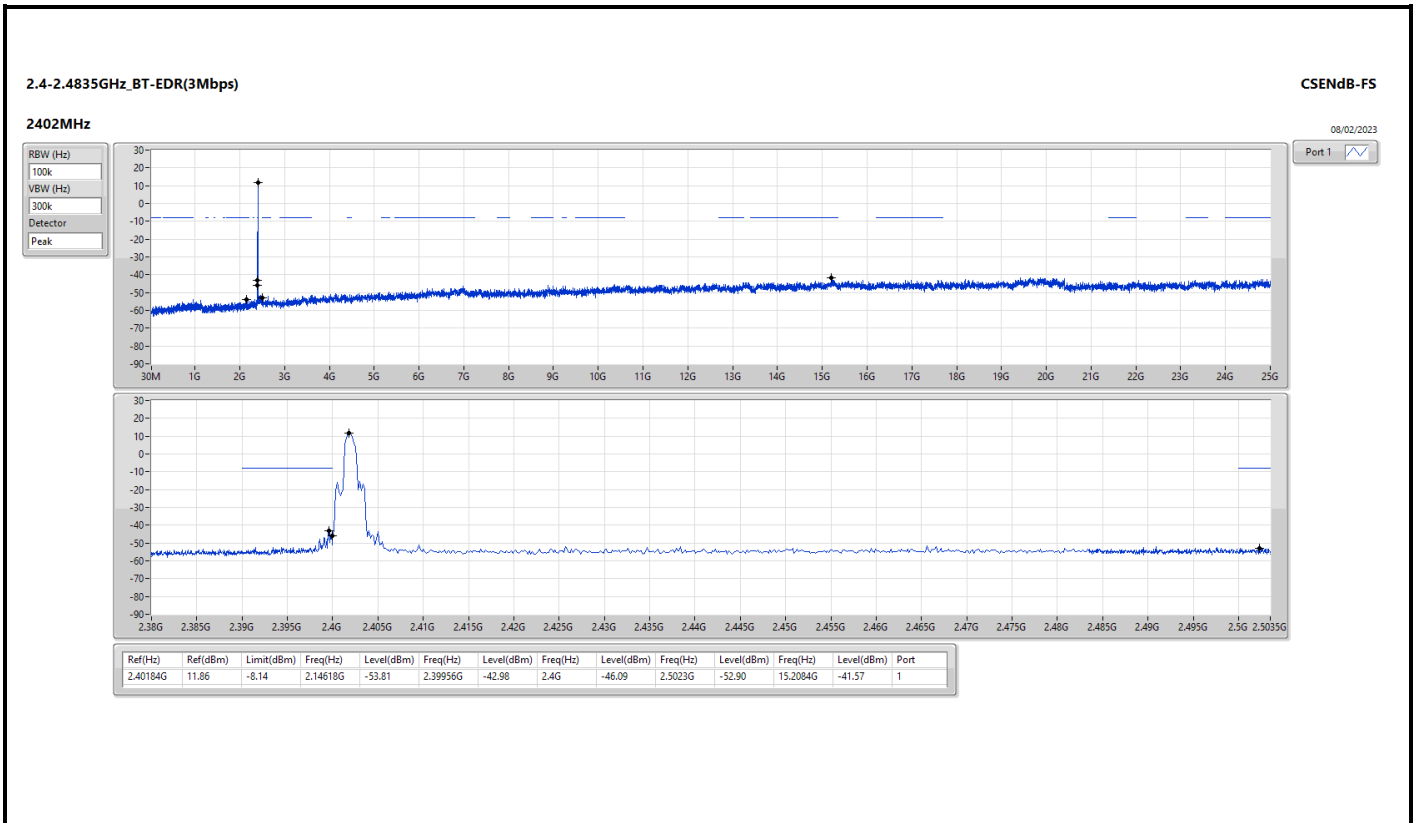
Result

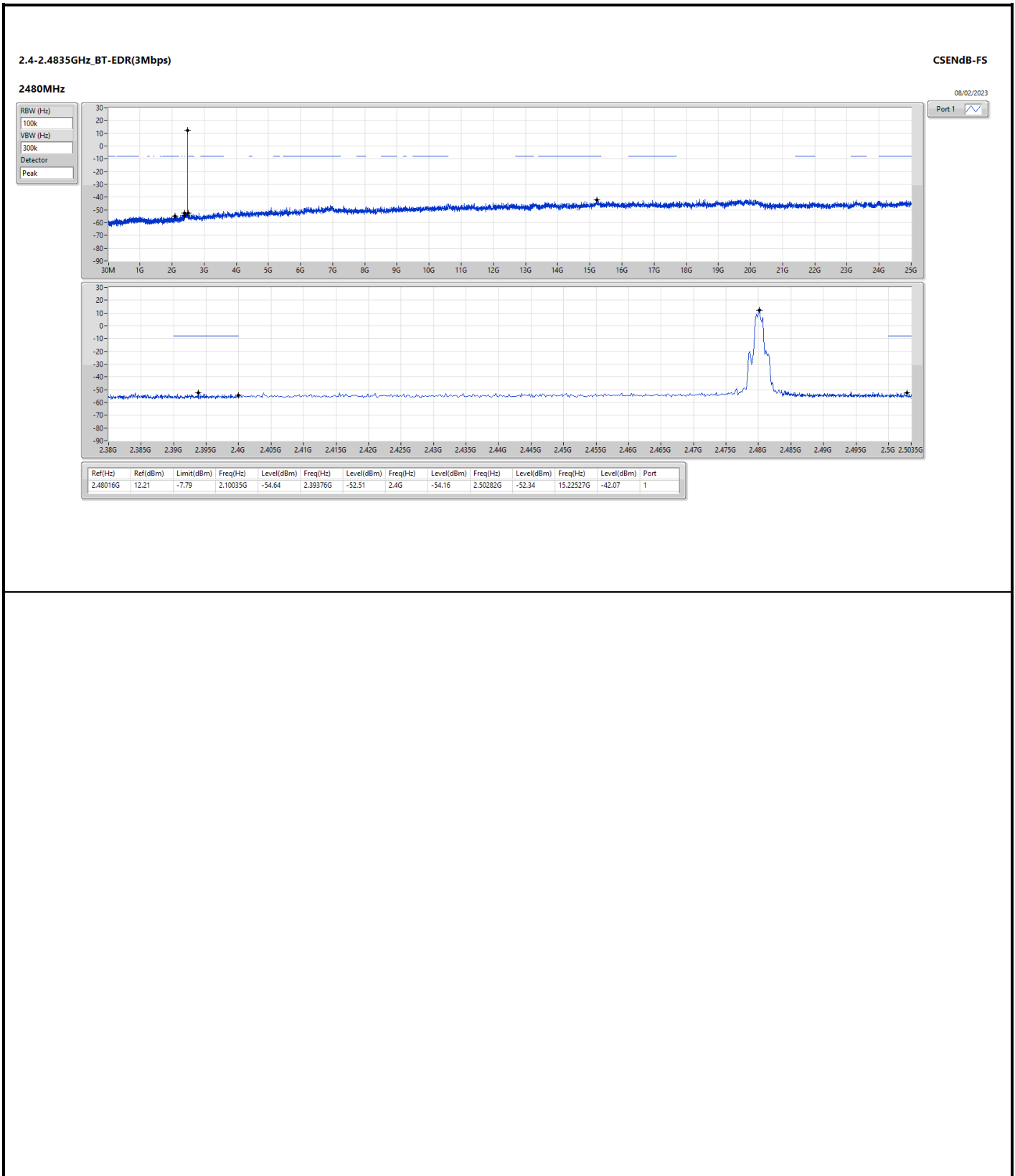
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402G	13.99	-6.01	2.14618G	-53.98	2.39964G	-41.14	2.4G	-44.88	2.50222G	-52.84	24.71317G	-41.45	1
2440MHz	Pass	2.44008G	14.19	-5.81	1.82775G	-54.67	2.39388G	-52.87	2.4G	-55.01	2.5021G	-53.06	24.05233G	-42.15	1
2480MHz	Pass	2.48016G	14.25	-5.75	1.99343G	-53.99	2.392G	-53.54	2.4G	-55.52	2.5027G	-53.12	16.83939G	-42.45	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	12.30	-7.70	1.98168G	-54.47	2.39948G	-42.90	2.4G	-45.66	2.50218G	-52.83	15.28151G	-42.04	1
2440MHz	Pass	2.43991G	12.32	-7.68	1.89473G	-54.42	2.39076G	-52.72	2.4G	-55.72	2.5013G	-52.62	17.59584G	-42.50	1
2480MHz	Pass	2.47999G	12.14	-7.86	2.07803G	-54.15	2.39032G	-52.37	2.4G	-55.28	2.50178G	-51.86	23.29027G	-42.38	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	11.86	-8.14	2.14618G	-53.81	2.39956G	-42.98	2.4G	-46.09	2.5023G	-52.90	15.2084G	-41.57	1
2440MHz	Pass	2.44008G	12.38	-7.62	937.1M	-54.99	2.39572G	-53.55	2.4G	-55.87	2.50254G	-52.83	16.21512G	-41.98	1
2480MHz	Pass	2.48016G	12.21	-7.79	2.10035G	-54.64	2.39376G	-52.51	2.4G	-54.16	2.50282G	-52.34	15.22527G	-42.07	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-BR(1Mbps)	Pass	PK	47.46M	35.08	40.00	-4.92	3	Horizontal	360	1.00



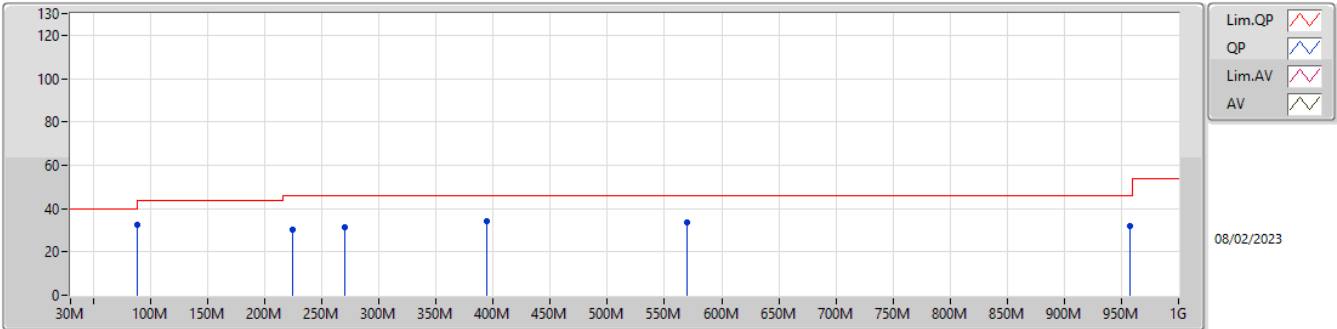


Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	PK	88.2M	32.35	43.50	-11.15	3	Vertical	0	1.00
2480MHz	Pass	PK	224M	30.49	46.00	-15.51	3	Vertical	0	1.00
2480MHz	Pass	PK	270.56M	31.31	46.00	-14.69	3	Vertical	0	1.00
2480MHz	Pass	PK	394.72M	34.18	46.00	-11.82	3	Vertical	0	1.00
2480MHz	Pass	PK	569.32M	33.85	46.00	-12.15	3	Vertical	0	1.00
2480MHz	Pass	PK	957.32M	31.97	46.00	-14.03	3	Vertical	0	1.00
2480MHz	Pass	PK	47.46M	35.08	40.00	-4.92	3	Horizontal	360	1.00
2480MHz	Pass	PK	109.54M	35.48	43.50	-8.02	3	Horizontal	360	1.00
2480MHz	Pass	PK	256.98M	27.55	46.00	-18.45	3	Horizontal	360	1.00
2480MHz	Pass	PK	344.28M	29.02	46.00	-16.98	3	Horizontal	360	1.00
2480MHz	Pass	PK	575.14M	28.62	46.00	-17.38	3	Horizontal	360	1.00
2480MHz	Pass	PK	749.74M	32.49	46.00	-13.51	3	Horizontal	360	1.00

2.4-2.4835GHz\_BT-BR(1Mbps)

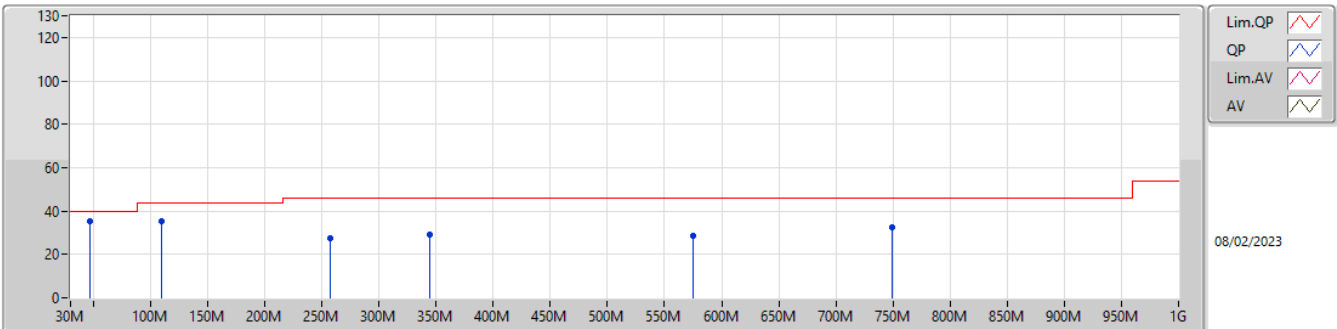
2480MHz\_TX



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)
PK	88.2M	32.35	43.50	-11.15	-22.05	3	Vertical	0	1.00	54.40	13.69	0.99	36.73
PK	224M	30.49	46.00	-15.51	-20.00	3	Vertical	0	1.00	50.49	14.61	1.76	36.37
PK	270.56M	31.31	46.00	-14.69	-16.32	3	Vertical	0	1.00	47.63	18.16	1.97	36.45
PK	394.72M	34.18	46.00	-11.82	-13.50	3	Vertical	0	1.00	47.68	20.67	2.34	36.51
PK	569.32M	33.85	46.00	-12.15	-9.28	3	Vertical	0	1.00	43.13	25.11	2.72	37.11
PK	957.32M	31.97	46.00	-14.03	-3.48	3	Vertical	0	1.00	35.45	30.08	3.76	37.32

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)
PK	47.46M	35.08	40.00	-4.92	-21.52	3	Horizontal	360	1.00	56.60	14.76	0.82	37.10
PK	109.54M	35.48	43.50	-8.02	-19.45	3	Horizontal	360	1.00	54.93	16.06	1.12	36.63
PK	256.98M	27.55	46.00	-18.45	-15.78	3	Horizontal	360	1.00	43.33	18.77	1.92	36.47
PK	344.28M	29.02	46.00	-16.98	-14.93	3	Horizontal	360	1.00	43.95	19.33	2.26	36.52
PK	575.14M	28.62	46.00	-17.38	-9.40	3	Horizontal	360	1.00	38.02	24.96	2.75	37.11
PK	749.74M	32.49	46.00	-13.51	-6.84	3	Horizontal	360	1.00	39.33	27.28	3.31	37.43



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-BR(1Mbps)	Pass	PK	4.80368G	63.43	74.00	-10.57	3	Horizontal	10	1.72
BT-EDR(3Mbps)	Pass	PK	2.4835G	59.67	74.00	-14.33	3	Horizontal	54	2.68



Result

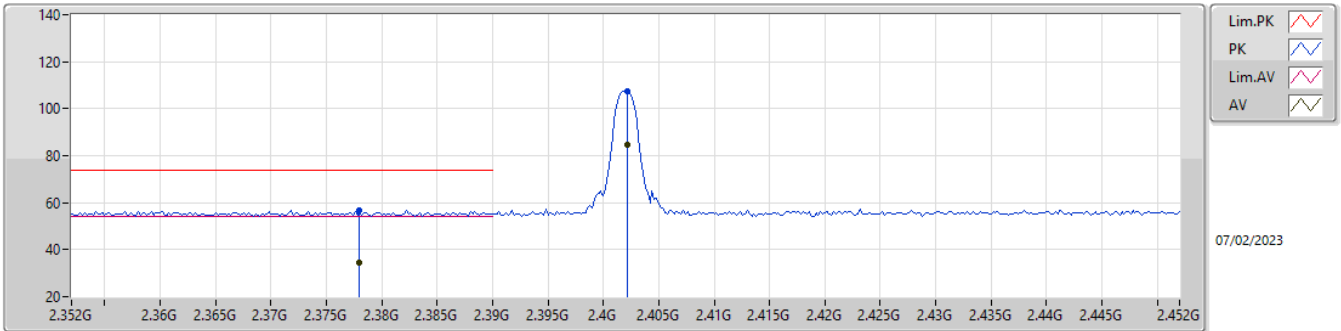
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.378G	34.32	54.00	-19.68	3	Vertical	121	1.34
2402MHz	Pass	AV	2.4022G	84.71	Inf	-Inf	3	Vertical	121	1.34
2402MHz	Pass	PK	2.378G	56.82	74.00	-17.18	3	Vertical	121	1.34
2402MHz	Pass	PK	2.4022G	107.21	Inf	-Inf	3	Vertical	121	1.34
2402MHz	Pass	AV	2.367G	34.10	54.00	-19.90	3	Horizontal	60	2.82
2402MHz	Pass	AV	2.4022G	88.37	Inf	-Inf	3	Horizontal	60	2.82
2402MHz	Pass	PK	2.367G	56.60	74.00	-17.40	3	Horizontal	60	2.82
2402MHz	Pass	PK	2.4022G	110.87	Inf	-Inf	3	Horizontal	60	2.82
2402MHz	Pass	AV	4.8036G	34.54	54.00	-19.46	3	Vertical	243	1.95
2402MHz	Pass	PK	4.8036G	57.04	74.00	-16.96	3	Vertical	243	1.95
2402MHz	Pass	AV	4.80368G	40.93	54.00	-13.07	3	Horizontal	10	1.72
2402MHz	Pass	PK	4.80368G	63.43	74.00	-10.57	3	Horizontal	10	1.72
2440MHz	Pass	AV	2.3868G	34.39	54.00	-19.61	3	Vertical	132	2.30
2440MHz	Pass	AV	2.44G	84.53	Inf	-Inf	3	Vertical	132	2.30
2440MHz	Pass	AV	2.4888G	34.97	54.00	-19.03	3	Vertical	132	2.30
2440MHz	Pass	PK	2.3868G	56.89	74.00	-17.11	3	Vertical	132	2.30
2440MHz	Pass	PK	2.44G	107.03	Inf	-Inf	3	Vertical	132	2.30
2440MHz	Pass	PK	2.4888G	57.47	74.00	-16.53	3	Vertical	132	2.30
2440MHz	Pass	AV	2.36G	34.06	54.00	-19.94	3	Horizontal	57	2.51
2440MHz	Pass	AV	2.44G	89.00	Inf	-Inf	3	Horizontal	57	2.51
2440MHz	Pass	AV	2.494G	35.29	54.00	-18.71	3	Horizontal	57	2.51
2440MHz	Pass	PK	2.36G	56.56	74.00	-17.44	3	Horizontal	57	2.51
2440MHz	Pass	PK	2.44G	111.50	Inf	-Inf	3	Horizontal	57	2.51
2440MHz	Pass	PK	2.494G	57.79	74.00	-16.21	3	Horizontal	57	2.51
2440MHz	Pass	AV	4.87998G	33.46	54.00	-20.54	3	Vertical	305	2.20
2440MHz	Pass	PK	4.87998G	55.96	74.00	-18.04	3	Vertical	305	2.20
2440MHz	Pass	AV	4.87989G	37.48	54.00	-16.52	3	Horizontal	12	1.80
2440MHz	Pass	PK	4.87989G	59.98	74.00	-14.02	3	Horizontal	12	1.80
2480MHz	Pass	AV	2.4802G	85.16	Inf	-Inf	3	Vertical	125	1.33
2480MHz	Pass	AV	2.486G	35.43	54.00	-18.57	3	Vertical	125	1.33
2480MHz	Pass	PK	2.4802G	107.66	Inf	-Inf	3	Vertical	125	1.33
2480MHz	Pass	PK	2.486G	57.93	74.00	-16.07	3	Vertical	125	1.33
2480MHz	Pass	AV	2.4798G	89.22	Inf	-Inf	3	Horizontal	56	2.68
2480MHz	Pass	AV	2.4835G	39.41	54.00	-14.59	3	Horizontal	56	2.68
2480MHz	Pass	PK	2.4798G	111.72	Inf	-Inf	3	Horizontal	56	2.68
2480MHz	Pass	PK	2.4835G	61.91	74.00	-12.09	3	Horizontal	56	2.68
2480MHz	Pass	AV	4.96032G	32.68	54.00	-21.32	3	Vertical	308	2.08
2480MHz	Pass	PK	4.96032G	55.18	74.00	-18.82	3	Vertical	308	2.08
2480MHz	Pass	AV	4.95966G	35.65	54.00	-18.35	3	Horizontal	12	1.86
2480MHz	Pass	PK	4.95966G	58.15	74.00	-15.85	3	Horizontal	12	1.86
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.39G	34.32	54.00	-19.68	3	Vertical	127	1.12
2402MHz	Pass	AV	2.4022G	83.37	Inf	-Inf	3	Vertical	127	1.12
2402MHz	Pass	PK	2.39G	56.82	74.00	-17.18	3	Vertical	127	1.12
2402MHz	Pass	PK	2.4022G	105.87	Inf	-Inf	3	Vertical	127	1.12
2402MHz	Pass	AV	2.389G	34.50	54.00	-19.50	3	Horizontal	60	2.82
2402MHz	Pass	AV	2.4022G	87.23	Inf	-Inf	3	Horizontal	60	2.82
2402MHz	Pass	PK	2.389G	57.00	74.00	-17.00	3	Horizontal	60	2.82
2402MHz	Pass	PK	2.4022G	109.73	Inf	-Inf	3	Horizontal	60	2.82
2402MHz	Pass	AV	4.80372G	29.51	54.00	-24.49	3	Vertical	242	1.96
2402MHz	Pass	PK	4.80372G	52.01	74.00	-21.99	3	Vertical	242	1.96
2402MHz	Pass	AV	4.80398G	34.90	54.00	-19.10	3	Horizontal	10	1.73
2402MHz	Pass	PK	4.80398G	57.40	74.00	-16.60	3	Horizontal	10	1.73
2440MHz	Pass	AV	2.3748G	34.04	54.00	-19.96	3	Vertical	121	1.30
2440MHz	Pass	AV	2.44G	83.21	Inf	-Inf	3	Vertical	121	1.30
2440MHz	Pass	AV	2.4928G	34.68	54.00	-19.32	3	Vertical	121	1.30
2440MHz	Pass	PK	2.3748G	56.54	74.00	-17.46	3	Vertical	121	1.30
2440MHz	Pass	PK	2.44G	105.71	Inf	-Inf	3	Vertical	121	1.30
2440MHz	Pass	PK	2.4928G	57.18	74.00	-16.82	3	Vertical	121	1.30
2440MHz	Pass	AV	2.3632G	34.42	54.00	-19.58	3	Horizontal	55	2.51



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2440MHz	Pass	AV	2.44G	87.90	Inf	-Inf	3	Horizontal	55	2.51
2440MHz	Pass	AV	2.4952G	34.52	54.00	-19.48	3	Horizontal	55	2.51
2440MHz	Pass	PK	2.3632G	56.92	74.00	-17.08	3	Horizontal	55	2.51
2440MHz	Pass	PK	2.44G	110.40	Inf	-Inf	3	Horizontal	55	2.51
2440MHz	Pass	PK	2.4952G	57.02	74.00	-16.98	3	Horizontal	55	2.51
2440MHz	Pass	AV	4.88032G	28.04	54.00	-25.96	3	Vertical	356	2.91
2440MHz	Pass	PK	4.88032G	50.54	74.00	-23.46	3	Vertical	356	2.91
2440MHz	Pass	AV	4.88018G	30.76	54.00	-23.24	3	Horizontal	14	1.80
2440MHz	Pass	PK	4.88018G	53.26	74.00	-20.74	3	Horizontal	14	1.80
2480MHz	Pass	AV	2.48G	83.99	Inf	-Inf	3	Vertical	128	1.07
2480MHz	Pass	AV	2.4964G	35.57	54.00	-18.43	3	Vertical	128	1.07
2480MHz	Pass	PK	2.48G	106.49	Inf	-Inf	3	Vertical	128	1.07
2480MHz	Pass	PK	2.4964G	58.07	74.00	-15.93	3	Vertical	128	1.07
2480MHz	Pass	AV	2.48G	88.06	Inf	-Inf	3	Horizontal	54	2.68
2480MHz	Pass	AV	2.4835G	37.17	54.00	-16.83	3	Horizontal	54	2.68
2480MHz	Pass	PK	2.48G	110.56	Inf	-Inf	3	Horizontal	54	2.68
2480MHz	Pass	PK	2.4835G	59.67	74.00	-14.33	3	Horizontal	54	2.68
2480MHz	Pass	AV	4.95953G	26.17	54.00	-27.83	3	Vertical	312	2.64
2480MHz	Pass	PK	4.95953G	48.67	74.00	-25.33	3	Vertical	312	2.64
2480MHz	Pass	AV	4.96019G	28.81	54.00	-25.19	3	Horizontal	18	1.87
2480MHz	Pass	PK	4.96019G	51.31	74.00	-22.69	3	Horizontal	18	1.87

2.4-2.4835GHz\_BT-BR(1Mbps)

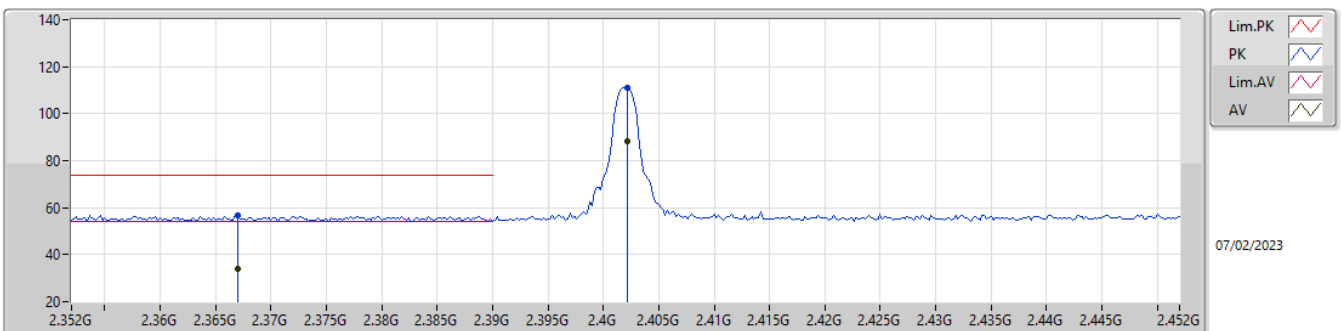
2402MHz\_TX



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	2.378G	34.32	54.00	-19.68	31.51	3	Vertical	121	1.34	2.81	27.36	4.15	-
AV	2.4022G	84.71	Inf	-Inf	31.58	3	Vertical	121	1.34	53.13	27.41	4.17	-
PK	2.378G	56.82	74.00	-17.18	31.51	3	Vertical	121	1.34	25.31	27.36	4.15	-
PK	2.4022G	107.21	Inf	-Inf	31.58	3	Vertical	121	1.34	75.63	27.41	4.17	-

2.4-2.4835GHz\_BT-BR(1Mbps)

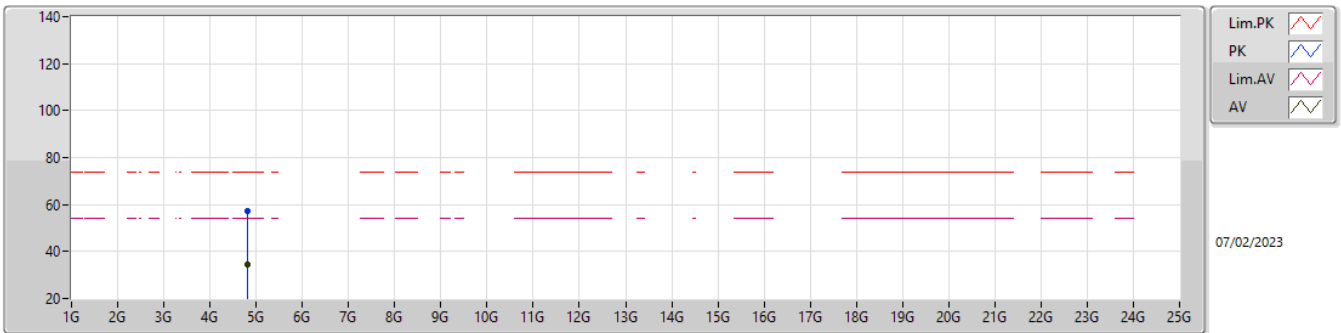
2402MHz\_TX



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	2.367G	34.10	54.00	-19.90	31.47	3	Horizontal	60	2.82	2.63	27.33	4.14	-
AV	2.4022G	88.37	Inf	-Inf	31.58	3	Horizontal	60	2.82	56.79	27.41	4.17	-
PK	2.367G	56.60	74.00	-17.40	31.47	3	Horizontal	60	2.82	25.13	27.33	4.14	-
PK	2.4022G	110.87	Inf	-Inf	31.58	3	Horizontal	60	2.82	79.29	27.41	4.17	-

2.4-2.4835GHz\_BT-BR(1Mbps)

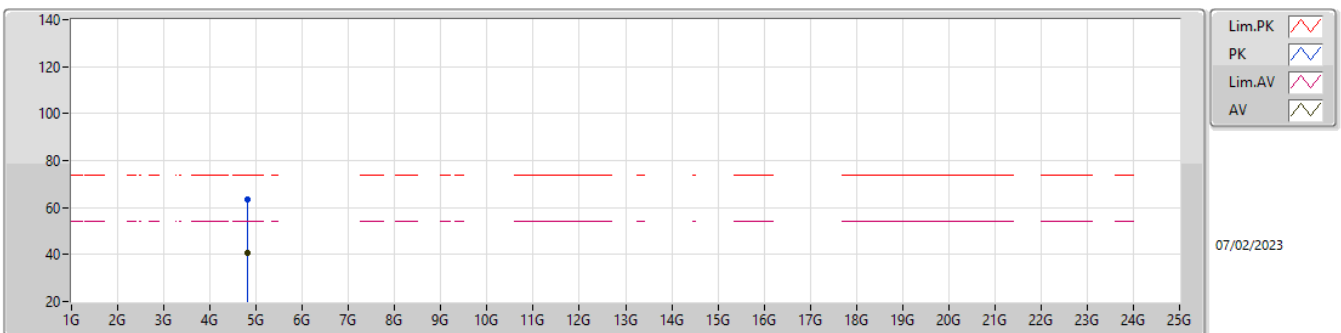
2402MHz\_TX



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	4.8036G	34.54	54.00	-19.46	3.23	3	Vertical	243	1.95	31.31	32.22	5.67	34.66
PK	4.8036G	57.04	74.00	-16.96	3.23	3	Vertical	243	1.95	53.81	32.22	5.67	34.66

2.4-2.4835GHz\_BT-BR(1Mbps)

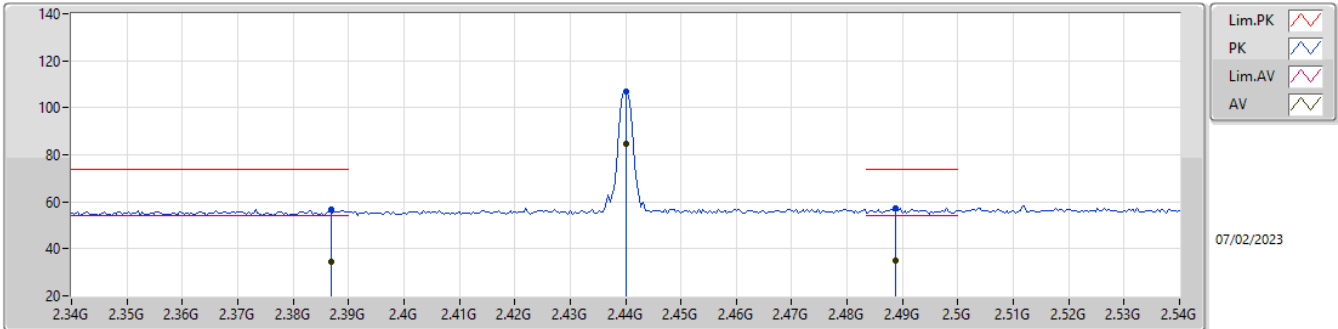
2402MHz\_TX



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	4.80368G	40.93	54.00	-13.07	3.23	3	Horizontal	10	1.72	37.70	32.22	5.67	34.66
PK	4.80368G	63.43	74.00	-10.57	3.23	3	Horizontal	10	1.72	60.20	32.22	5.67	34.66

2.4-2.4835GHz\_BT-BR(1Mbps)

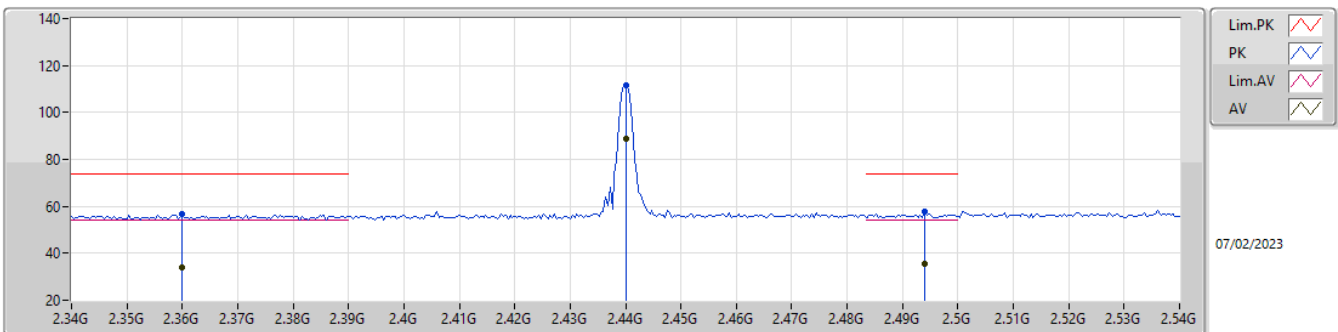
2440MHz\_TX



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	2.3868G	34.39	54.00	-19.61	31.53	3	Vertical	132	2.30	2.86	27.37	4.16	-
AV	2.44G	84.53	Inf	-Inf	31.75	3	Vertical	132	2.30	52.78	27.56	4.19	-
AV	2.4888G	34.97	54.00	-19.03	31.90	3	Vertical	132	2.30	3.07	27.68	4.22	-
PK	2.3868G	56.89	74.00	-17.11	31.53	3	Vertical	132	2.30	25.36	27.37	4.16	-
PK	2.44G	107.03	Inf	-Inf	31.75	3	Vertical	132	2.30	75.28	27.56	4.19	-
PK	2.4888G	57.47	74.00	-16.53	31.90	3	Vertical	132	2.30	25.57	27.68	4.22	-

2.4-2.4835GHz\_BT-BR(1Mbps)

2440MHz\_TX

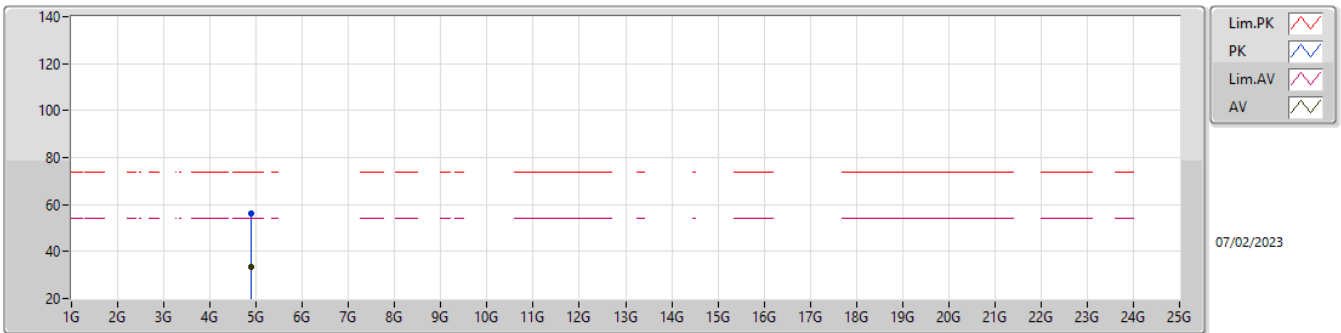


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.36G	34.06	54.00	-19.94	31.45	3	Horizontal	57	2.51	2.61	27.32	4.13	-
AV	2.44G	89.00	Inf	-Inf	31.75	3	Horizontal	57	2.51	57.25	27.56	4.19	-
AV	2.494G	35.29	54.00	-18.71	31.92	3	Horizontal	57	2.51	3.37	27.69	4.23	-
PK	2.36G	56.56	74.00	-17.44	31.45	3	Horizontal	57	2.51	25.11	27.32	4.13	-
PK	2.44G	111.50	Inf	-Inf	31.75	3	Horizontal	57	2.51	79.75	27.56	4.19	-
PK	2.494G	57.79	74.00	-16.21	31.92	3	Horizontal	57	2.51	25.87	27.69	4.23	-



2.4-2.4835GHz\_BT-BR(1Mbps)

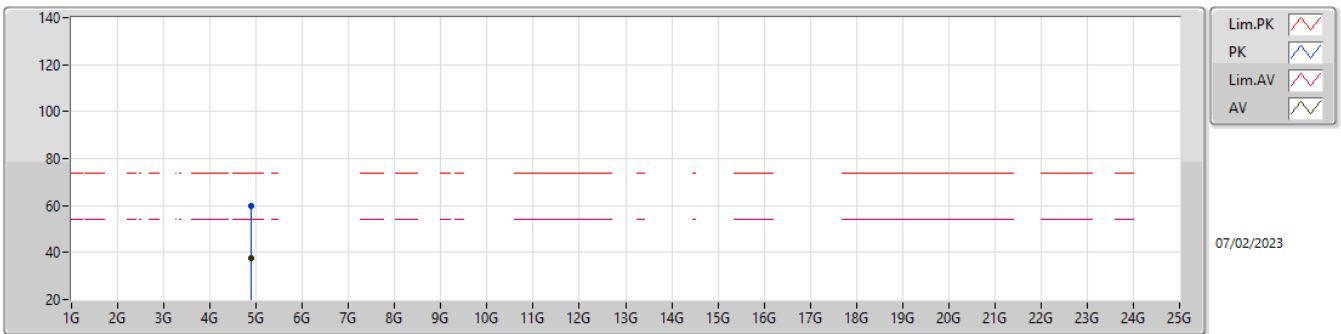
2440MHz\_TX



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	4.87998G	33.46	54.00	-20.54	3.69	3	Vertical	305	2.20	29.77	32.62	5.72	34.65
PK	4.87998G	55.96	74.00	-18.04	3.69	3	Vertical	305	2.20	52.27	32.62	5.72	34.65

2.4-2.4835GHz\_BT-BR(1Mbps)

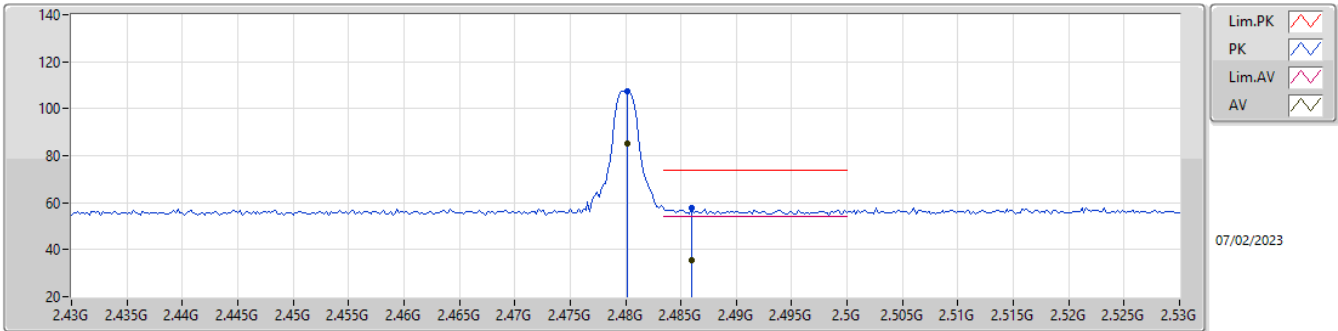
2440MHz\_TX



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	4.87989G	37.48	54.00	-16.52	3.69	3	Horizontal	12	1.80	33.79	32.62	5.72	34.65
PK	4.87989G	59.98	74.00	-14.02	3.69	3	Horizontal	12	1.80	56.29	32.62	5.72	34.65

2.4-2.4835GHz\_BT-BR(1Mbps)

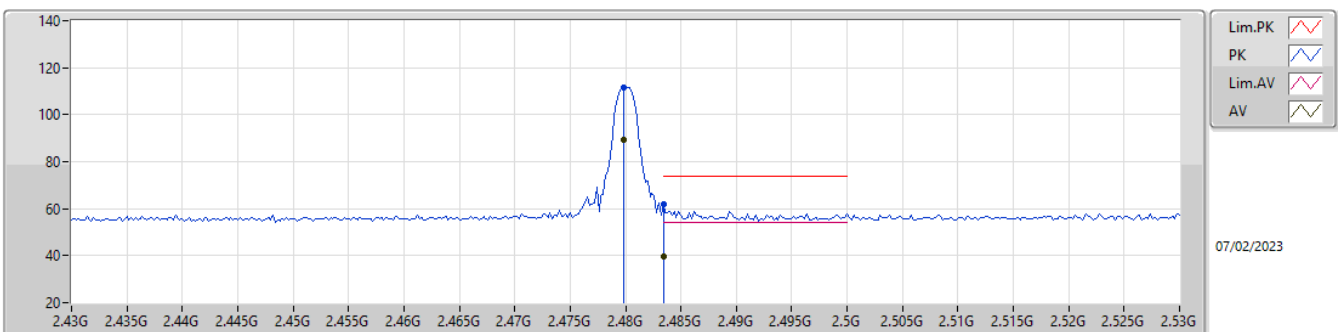
2480MHz\_TX



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	2.4802G	85.16	Inf	-Inf	31.88	3	Vertical	125	1.33	53.28	27.66	4.22	-
AV	2.486G	35.43	54.00	-18.57	31.89	3	Vertical	125	1.33	3.54	27.67	4.22	-
PK	2.4802G	107.66	Inf	-Inf	31.88	3	Vertical	125	1.33	75.78	27.66	4.22	-
PK	2.486G	57.93	74.00	-16.07	31.89	3	Vertical	125	1.33	26.04	27.67	4.22	-

2.4-2.4835GHz\_BT-BR(1Mbps)

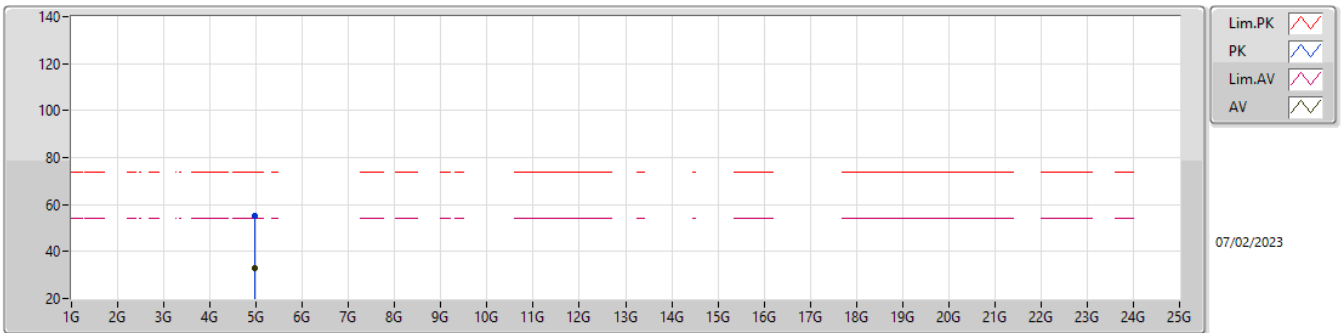
2480MHz\_TX



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	89.22	Inf	-Inf	31.88	3	Horizontal	56	2.68	57.34	27.66	4.22	-
AV	2.4835G	39.41	54.00	-14.59	31.89	3	Horizontal	56	2.68	7.52	27.67	4.22	-
PK	2.4798G	111.72	Inf	-Inf	31.88	3	Horizontal	56	2.68	79.84	27.66	4.22	-
PK	2.4835G	61.91	74.00	-12.09	31.89	3	Horizontal	56	2.68	30.02	27.67	4.22	-

2.4-2.4835GHz\_BT-BR(1Mbps)

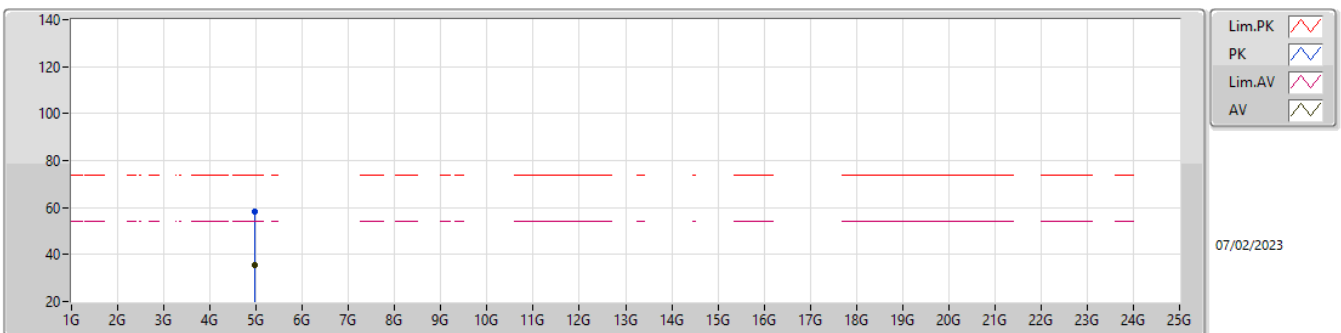
2480MHz\_TX



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	4.96032G	32.68	54.00	-21.32	4.17	3	Vertical	308	2.08	28.51	33.04	5.77	34.64
PK	4.96032G	55.18	74.00	-18.82	4.17	3	Vertical	308	2.08	51.01	33.04	5.77	34.64

2.4-2.4835GHz\_BT-BR(1Mbps)

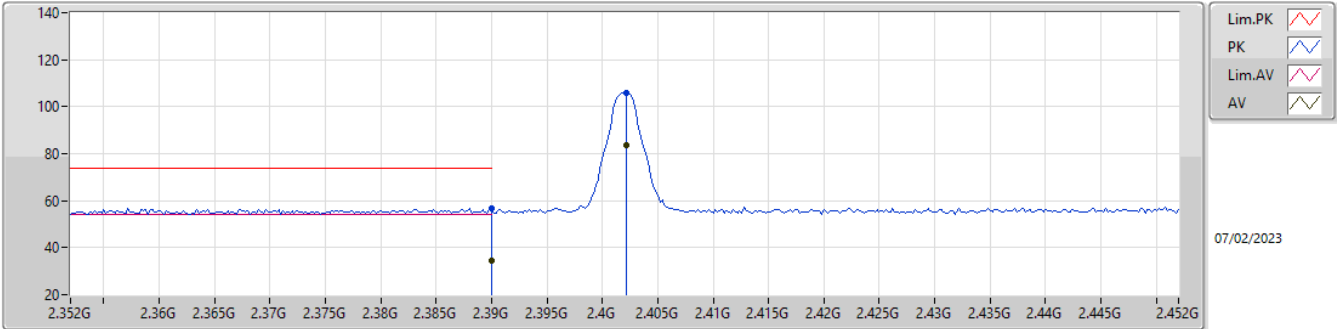
2480MHz\_TX



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	4.95966G	35.65	54.00	-18.35	4.17	3	Horizontal	12	1.86	31.48	33.04	5.77	34.64
PK	4.95966G	58.15	74.00	-15.85	4.17	3	Horizontal	12	1.86	53.98	33.04	5.77	34.64

2.4-2.4835GHz\_BT-EDR(3Mbps)

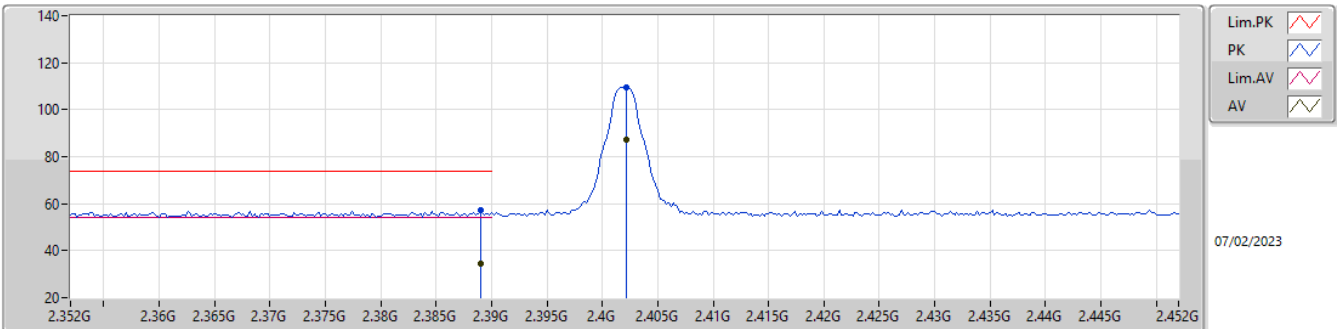
2402MHz\_TX



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	2.39G	34.32	54.00	-19.68	31.54	3	Vertical	127	1.12	27.38	27.38	4.16	-
AV	2.4022G	83.37	Inf	-Inf	31.58	3	Vertical	127	1.12	51.79	27.41	4.17	-
PK	2.39G	56.82	74.00	-17.18	31.54	3	Vertical	127	1.12	25.28	27.38	4.16	-
PK	2.4022G	105.87	Inf	-Inf	31.58	3	Vertical	127	1.12	74.29	27.41	4.17	-

2.4-2.4835GHz\_BT-EDR(3Mbps)

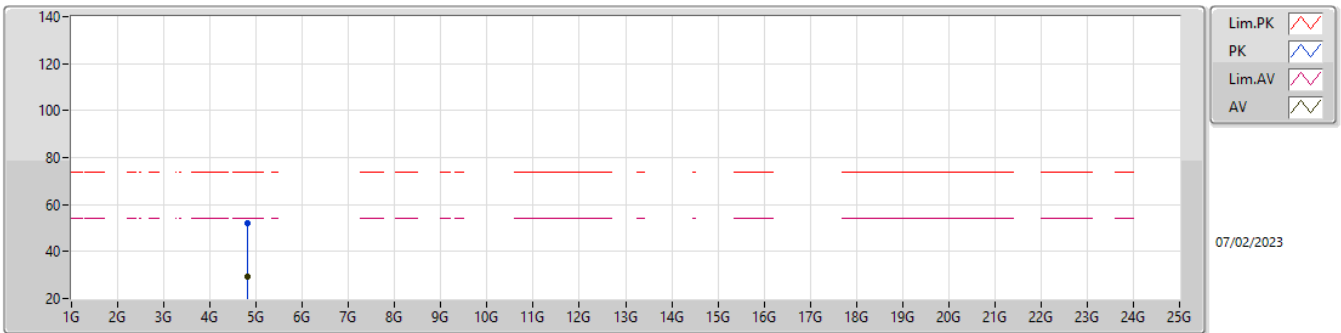
2402MHz\_TX



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	2.389G	34.50	54.00	-19.50	31.54	3	Horizontal	60	2.82	27.38	27.38	4.16	-
AV	2.4022G	87.23	Inf	-Inf	31.58	3	Horizontal	60	2.82	55.65	27.41	4.17	-
PK	2.389G	57.00	74.00	-17.00	31.54	3	Horizontal	60	2.82	25.46	27.38	4.16	-
PK	2.4022G	109.73	Inf	-Inf	31.58	3	Horizontal	60	2.82	78.15	27.41	4.17	-

2.4-2.4835GHz\_BT-EDR(3Mbps)

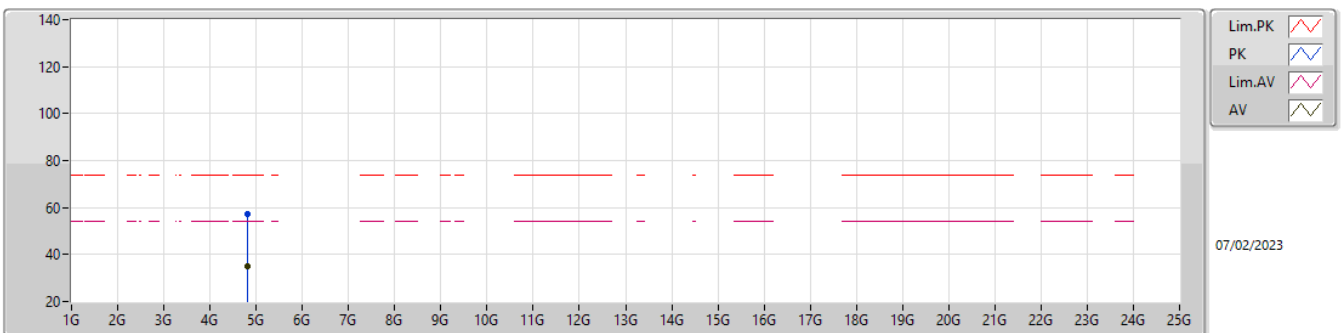
2402MHz\_TX



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	4.80372G	29.51	54.00	-24.49	3.23	3	Vertical	242	1.96	26.28	32.22	5.67	34.66
PK	4.80372G	52.01	74.00	-21.99	3.23	3	Vertical	242	1.96	48.78	32.22	5.67	34.66

2.4-2.4835GHz\_BT-EDR(3Mbps)

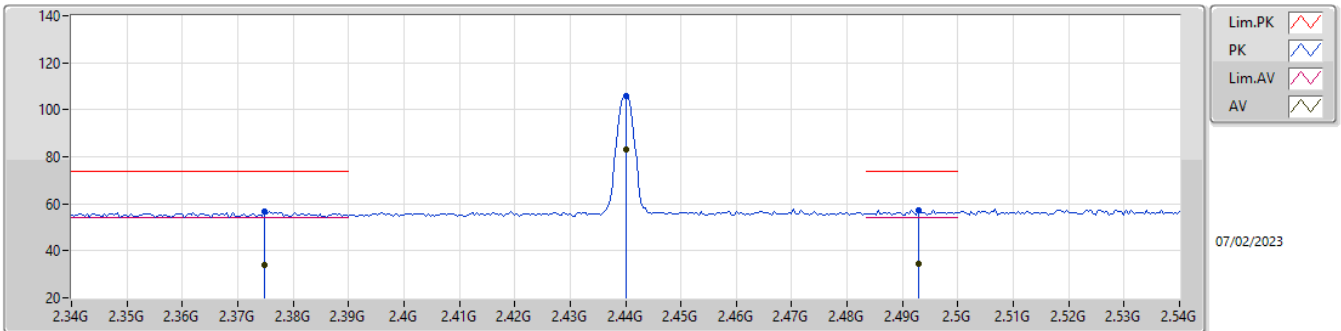
2402MHz\_TX



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	4.80398G	34.90	54.00	-19.10	3.23	3	Horizontal	10	1.73	31.67	32.22	5.67	34.66
PK	4.80398G	57.40	74.00	-16.60	3.23	3	Horizontal	10	1.73	54.17	32.22	5.67	34.66

2.4-2.4835GHz\_BT-EDR(3Mbps)

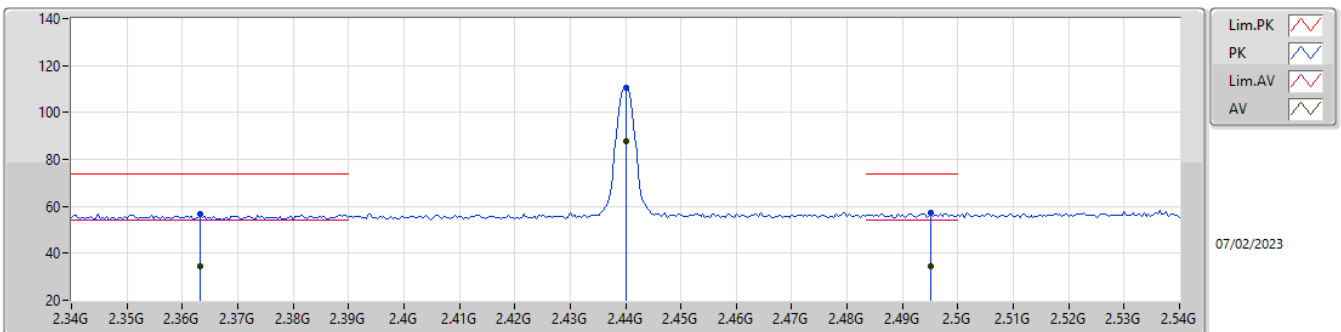
2440MHz\_TX



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	2.3748G	34.04	54.00	-19.96	31.50	3	Vertical	121	1.30	2.54	27.35	4.15	-
AV	2.44G	83.21	Inf	-Inf	31.75	3	Vertical	121	1.30	51.46	27.56	4.19	-
AV	2.4928G	34.68	54.00	-19.32	31.92	3	Vertical	121	1.30	2.76	27.69	4.23	-
PK	2.3748G	56.54	74.00	-17.46	31.50	3	Vertical	121	1.30	25.04	27.35	4.15	-
PK	2.44G	105.71	Inf	-Inf	31.75	3	Vertical	121	1.30	73.96	27.56	4.19	-
PK	2.4928G	57.18	74.00	-16.82	31.92	3	Vertical	121	1.30	25.26	27.69	4.23	-

2.4-2.4835GHz\_BT-EDR(3Mbps)

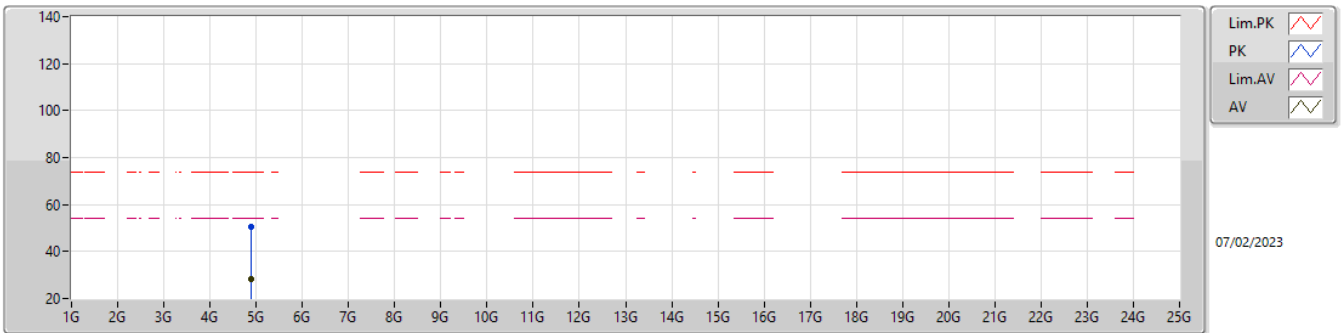
2440MHz\_TX



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	2.3632G	34.42	54.00	-19.58	31.47	3	Horizontal	55	2.51	2.95	27.33	4.14	-
AV	2.44G	87.90	Inf	-Inf	31.75	3	Horizontal	55	2.51	56.15	27.56	4.19	-
AV	2.4952G	34.52	54.00	-19.48	31.92	3	Horizontal	55	2.51	2.60	27.69	4.23	-
PK	2.3632G	56.92	74.00	-17.08	31.47	3	Horizontal	55	2.51	25.45	27.33	4.14	-
PK	2.44G	110.40	Inf	-Inf	31.75	3	Horizontal	55	2.51	78.65	27.56	4.19	-
PK	2.4952G	57.02	74.00	-16.98	31.92	3	Horizontal	55	2.51	25.10	27.69	4.23	-

2.4-2.4835GHz\_BT-EDR(3Mbps)

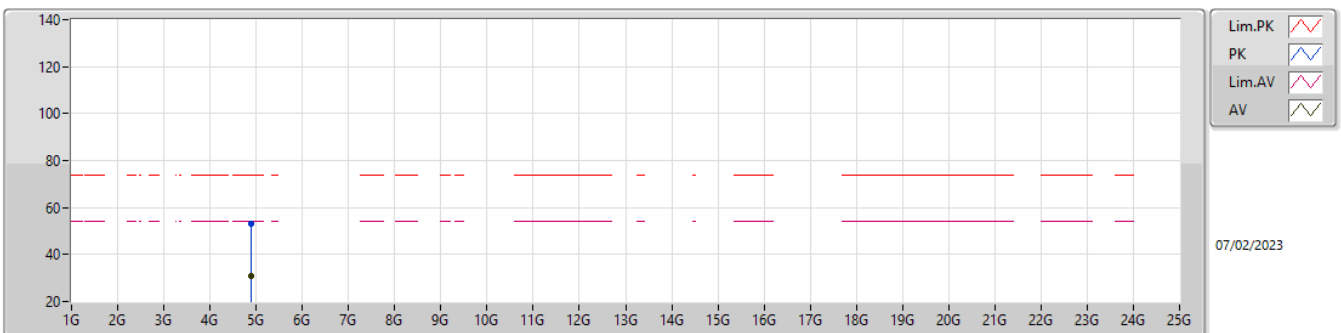
2440MHz\_TX



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	4.88032G	28.04	54.00	-25.96	3.69	3	Vertical	356	2.91	24.35	32.62	5.72	34.65
PK	4.88032G	50.54	74.00	-23.46	3.69	3	Vertical	356	2.91	46.85	32.62	5.72	34.65

2.4-2.4835GHz\_BT-EDR(3Mbps)

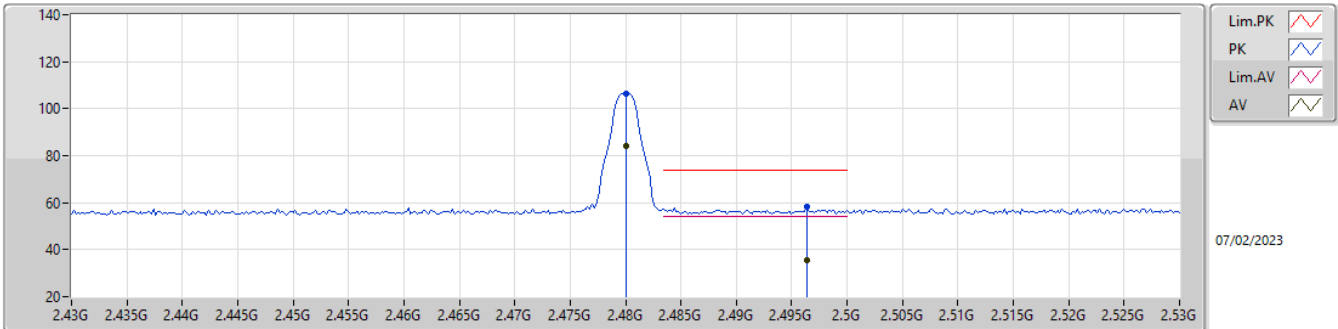
2440MHz\_TX



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	4.88018G	30.76	54.00	-23.24	3.69	3	Horizontal	14	1.80	27.07	32.62	5.72	34.65
PK	4.88018G	53.26	74.00	-20.74	3.69	3	Horizontal	14	1.80	49.57	32.62	5.72	34.65

2.4-2.4835GHz\_BT-EDR(3Mbps)

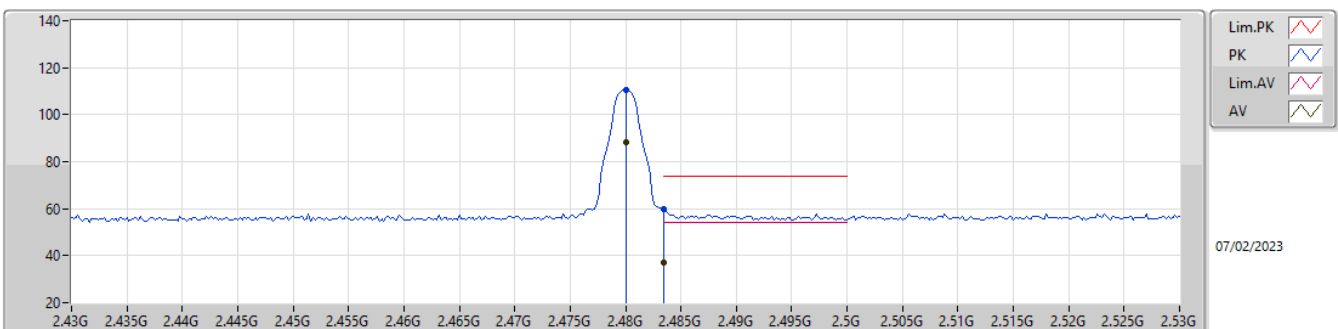
2480MHz\_TX



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	83.99	Inf	-Inf	31.88	3	Vertical	128	1.07	52.11	27.66	4.22	-
AV	2.4964G	35.57	54.00	-18.43	31.92	3	Vertical	128	1.07	3.65	27.69	4.23	-
PK	2.48G	106.49	Inf	-Inf	31.88	3	Vertical	128	1.07	74.61	27.66	4.22	-
PK	2.4964G	58.07	74.00	-15.93	31.92	3	Vertical	128	1.07	26.15	27.69	4.23	-

2.4-2.4835GHz\_BT-EDR(3Mbps)

2480MHz\_TX

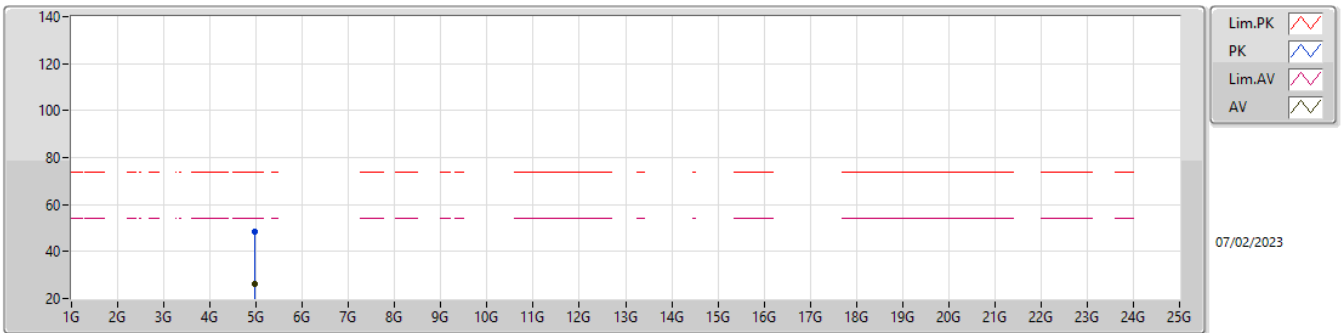


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	88.06	Inf	-Inf	31.88	3	Horizontal	54	2.68	56.18	27.66	4.22	-
AV	2.4835G	37.17	54.00	-16.83	31.89	3	Horizontal	54	2.68	5.28	27.67	4.22	-
PK	2.48G	110.56	Inf	-Inf	31.88	3	Horizontal	54	2.68	78.68	27.66	4.22	-
PK	2.4835G	59.67	74.00	-14.33	31.89	3	Horizontal	54	2.68	27.78	27.67	4.22	-



2.4-2.4835GHz\_BT-EDR(3Mbps)

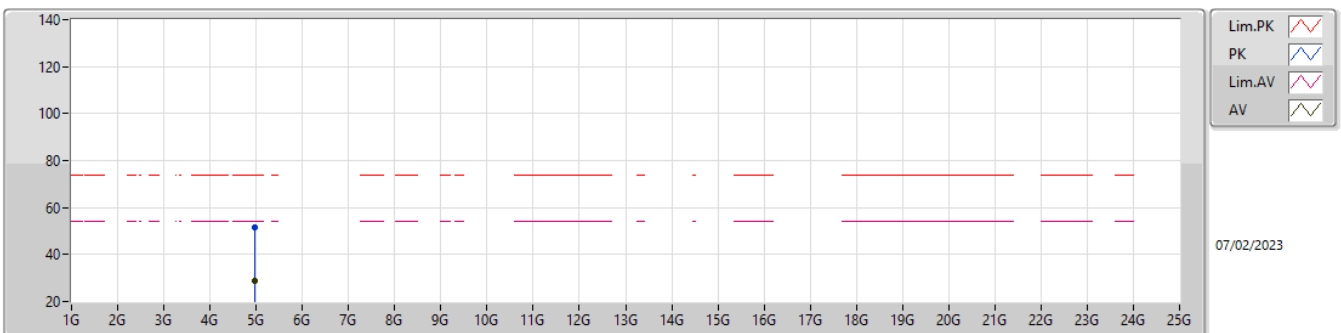
2480MHz\_TX



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	4.95953G	26.17	54.00	-27.83	4.17	3	Vertical	312	2.64	22.00	33.04	5.77	34.64
PK	4.95953G	48.67	74.00	-25.33	4.17	3	Vertical	312	2.64	44.50	33.04	5.77	34.64

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	4.96019G	28.81	54.00	-25.19	4.17	3	Horizontal	18	1.87	24.64	33.04	5.77	34.64
PK	4.96019G	51.31	74.00	-22.69	4.17	3	Horizontal	18	1.87	47.14	33.04	5.77	34.64



**Summary**

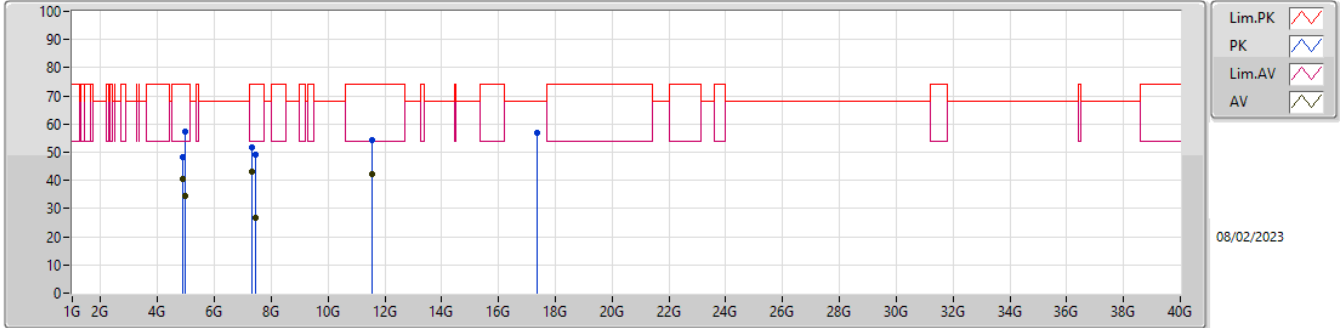
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	17.35912G	59.20	68.20	-9.00	Horizontal



Result

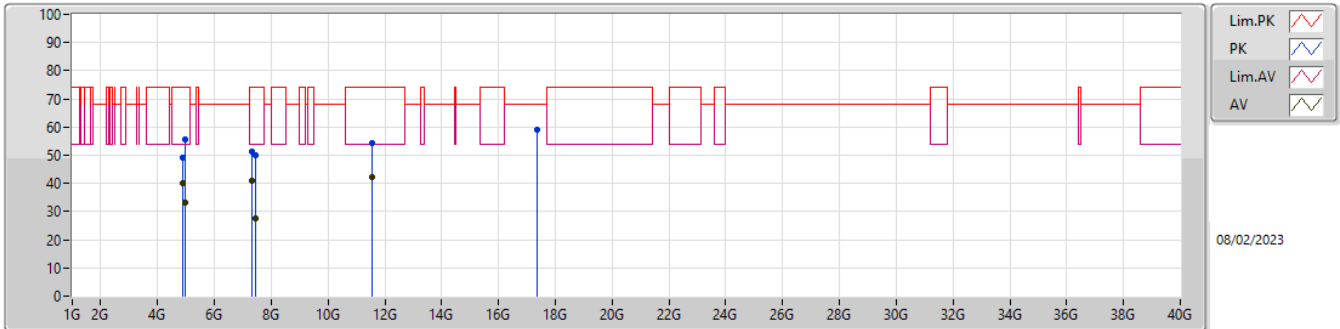
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1	Pass	AV	4.87404G	40.60	54.00	-13.40	3	Vertical	197	1.69	-
Mode 1	Pass	AV	4.95963G	34.69	54.00	-19.31	3	Vertical	360	2.64	-
Mode 1	Pass	AV	7.31168G	42.98	54.00	-11.02	3	Vertical	360	1.85	-
Mode 1	Pass	AV	7.44232G	26.63	54.00	-27.37	3	Vertical	359	1.50	-
Mode 1	Pass	AV	11.56816G	42.28	54.00	-11.72	3	Vertical	23	1.48	-
Mode 1	Pass	PK	4.87392G	48.18	74.00	-25.82	3	Vertical	197	1.69	-
Mode 1	Pass	PK	4.95963G	57.19	74.00	-16.81	3	Vertical	360	2.64	-
Mode 1	Pass	PK	7.31124G	51.89	74.00	-22.11	3	Vertical	360	1.85	-
Mode 1	Pass	PK	7.44232G	49.13	74.00	-24.87	3	Vertical	359	1.50	-
Mode 1	Pass	PK	11.56748G	54.45	74.00	-19.55	3	Vertical	23	1.48	-
Mode 1	Pass	PK	17.35172G	56.77	68.20	-11.43	3	Vertical	346	1.50	-
Mode 1	Pass	AV	4.874G	40.15	54.00	-13.85	3	Horizontal	331	1.20	-
Mode 1	Pass	AV	4.95963G	33.19	54.00	-20.81	3	Horizontal	273	1.06	-
Mode 1	Pass	AV	7.31196G	40.82	54.00	-13.18	3	Horizontal	73	2.97	-
Mode 1	Pass	AV	7.43524G	27.58	54.00	-26.42	3	Horizontal	2	1.50	-
Mode 1	Pass	AV	11.5694G	42.03	54.00	-11.97	3	Horizontal	352	1.37	-
Mode 1	Pass	PK	4.87421G	49.14	74.00	-24.86	3	Horizontal	331	1.20	-
Mode 1	Pass	PK	4.95963G	55.69	74.00	-18.31	3	Horizontal	273	1.06	-
Mode 1	Pass	PK	7.31184G	51.13	74.00	-22.87	3	Horizontal	73	2.97	-
Mode 1	Pass	PK	7.43524G	50.08	74.00	-23.92	3	Horizontal	2	1.50	-
Mode 1	Pass	PK	11.56636G	54.10	74.00	-19.90	3	Horizontal	352	1.37	-
Mode 1	Pass	PK	17.35912G	59.20	68.20	-9.00	3	Horizontal	0	1.91	-

Radiated Emissions above 1GHz\_Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
AV	4.87404G	40.60	54.00	-13.40	3.76	3	Vertical	197	1.69	-	36.84	32.70	5.71	34.65
AV	4.95963G	34.69	54.00	-19.31	4.15	3	Vertical	360	2.64	-	30.54	33.02	5.77	34.64
AV	7.31168G	42.98	54.00	-11.02	8.77	3	Vertical	360	1.85	-	34.21	36.73	6.82	34.78
AV	7.44232G	26.63	54.00	-27.37	8.40	3	Vertical	359	1.50	-	18.23	36.30	6.89	34.79
AV	11.56816G	42.28	54.00	-11.72	12.50	3	Vertical	23	1.48	-	29.78	38.56	8.53	34.59
PK	4.87392G	48.18	74.00	-25.82	3.76	3	Vertical	197	1.69	-	44.42	32.70	5.71	34.65
PK	4.95963G	57.19	74.00	-16.81	4.15	3	Vertical	360	2.64	-	53.04	33.02	5.77	34.64
PK	7.31124G	51.89	74.00	-22.11	8.77	3	Vertical	360	1.85	-	43.12	36.73	6.82	34.78
PK	7.44232G	49.13	74.00	-24.87	8.40	3	Vertical	359	1.50	-	40.73	36.30	6.89	34.79
PK	11.56748G	54.45	74.00	-19.55	12.51	3	Vertical	23	1.48	-	41.94	38.57	8.53	34.59
PK	17.35172G	56.77	68.20	-11.43	14.23	3	Vertical	346	1.50	-	42.54	38.30	10.26	34.33

Radiated Emissions above 1GHz\_Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
AV	4.874G	40.15	54.00	-13.85	3.76	3	Horizontal	331	1.20	-	36.39	32.70	5.71	34.65
AV	4.95963G	33.19	54.00	-20.81	4.15	3	Horizontal	273	1.06	-	29.04	33.02	5.77	34.64
AV	7.31196G	40.82	54.00	-13.18	8.77	3	Horizontal	73	2.97	-	32.05	36.73	6.82	34.78
AV	7.43524G	27.58	54.00	-26.42	8.40	3	Horizontal	2	1.50	-	19.18	36.30	6.89	34.79
AV	11.5694G	42.03	54.00	-11.97	12.50	3	Horizontal	352	1.37	-	29.53	38.56	8.53	34.59
PK	4.87421G	49.14	74.00	-24.86	3.76	3	Horizontal	331	1.20	-	45.38	32.70	5.71	34.65
PK	4.95963G	55.69	74.00	-18.31	4.15	3	Horizontal	273	1.06	-	51.54	33.02	5.77	34.64
PK	7.31184G	51.13	74.00	-22.87	8.77	3	Horizontal	73	2.97	-	42.36	36.73	6.82	34.78
PK	7.43524G	50.08	74.00	-23.92	8.40	3	Horizontal	2	1.50	-	41.68	36.30	6.89	34.79
PK	11.56636G	54.10	74.00	-19.90	12.51	3	Horizontal	352	1.37	-	41.59	38.57	8.53	34.59
PK	17.35912G	59.20	68.20	-9.00	14.24	3	Horizontal	0	1.91	-	44.96	38.32	10.26	34.34