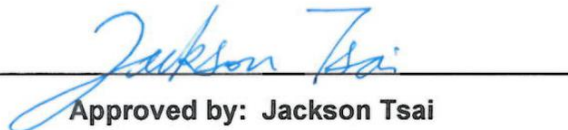


# FCC Radio Test Report

**FCC ID** : 2BAFM-HU123  
**Equipment** : Wearable Communication Device  
**Brand Name** : Humane  
**Model Name** : HU0123  
**Applicant** : Humane, Inc.  
969 Folsom Street San Francisco, CA 94107 United States  
**Manufacturer** : Humane, Inc.  
969 Folsom Street San Francisco, CA 94107 United States  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Apr. 27, 2023, and testing was started from May 12, 2023 and completed on Jun. 02, 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
FR342647AD	01	Initial issue of report	Jun. 21, 2023
FR342647AD	02	Add plots of duty cycle (This report is the latest version replacing for the report issued on Jun. 21, 2023.)	Jul. 21, 2023



### Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
-	15.207	AC Power-line Conducted Emissions	Not Required	Only employ battery power.
3.1	15.247(a)	20dB Bandwidth	PASS	-
3.1	15.247(a)	Carrier Frequency Separation	PASS	-
3.2	15.247(b)	Maximum Conducted Output Power	PASS	-
3.3	15.247(a)	Number of Hopping Frequencies and Hopping Bandedge	PASS	-
3.4	15.247(a)	Time of Occupancy (Dwell Time)	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	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: Ben Tseng

Report Producer: Amber Chiu

# 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
1	Humane	13EP-5DQ1T01	PIFA antenna	Microwave wave Coaxial Connectors with Switch SWJ

Ant.	Gain (dBi)									
	V-Polarization					H-Polarization				
	2.4G	5G(MHz)			BT	2.4G	5G(MHz)			BT
		5200	5500	5775			5200	5500	5775	
1	-4.57	-2.66	-5.37	-4.88	-4.57	-4.63	-3.58	-4.88	-4.48	-4.63

**For 2.4GHz function:**

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

Ant. 1 could transmit/receive.

**For BT function:**

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

Ant. 1 could transmit/receive.

**For 5GHz function:**

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

Ant. 1 could transmit/receive.



1.1.3 EUT Information

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

1.1.4 Mode Test Duty Cycle

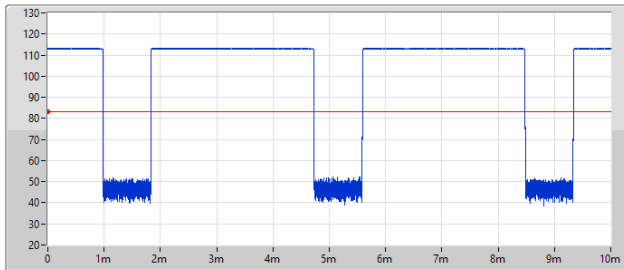
Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-BR(1Mbps)	0.741	1.3	2.887m	1k
BT-EDR(2Mbps)	0.742	1.3	2.889m	1k
BT-EDR(3Mbps)	0.742	1.3	2.891m	1k

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



**BT-BR(1Mbps)**

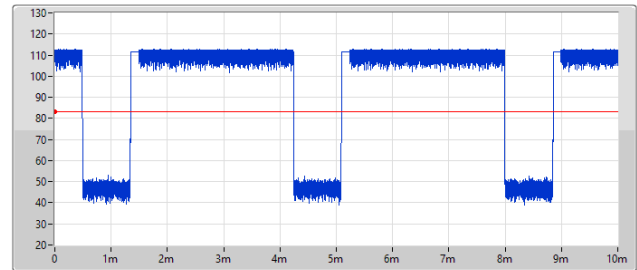
DC:BT-BR:BWch:1



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.402GHz	10MHz	10MHz	10ms	32001	312.5ns	7.411875ms	0.741

**BT-BR(2Mbps)**

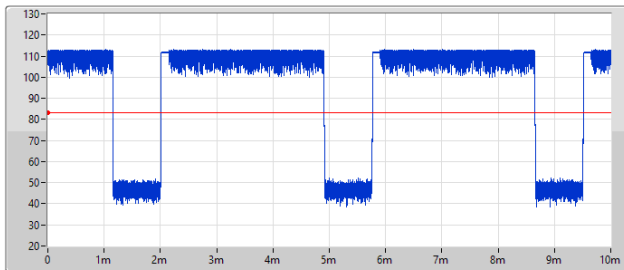
DC:BT-EDR2:BWch:1



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.402GHz	10MHz	10MHz	10ms	32001	312.5ns	7.418438ms	0.742

**BT-BR(3Mbps)**

DC:BT-EDR3:BWch:1



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.402GHz	10MHz	10MHz	10ms	32001	312.5ns	7.422188ms	0.742

## 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
RF Conducted	TH01-HY	Luby hsu	22.6~23.4°C / 50~52%	16/May/2023
Radiated	03CH02-HY	Daniel Lin	23.4~24.9°C / 52~55%	12/May/2023~27/May/2023
Radiated (Co-location)	03CH02-HY	Daniel Lin	22.1~23.2°C / 54~62%	02/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
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

<b>Test Software Version</b>	qdart_conn.win.1.0_installer_00089.1
------------------------------	--------------------------------------

<b>Mode</b>	<b>Power Setting</b>
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>	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	Adapter + Charge Pad 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	
<b>Tests Item</b>	Simultaneous Transmission Analysis
<b>Test Condition</b>	Radiated measurement
<b>Operating Mode</b>	Normal Link
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Appendix G for Radiated Emission Co-location.	

## 2.3 Accessories

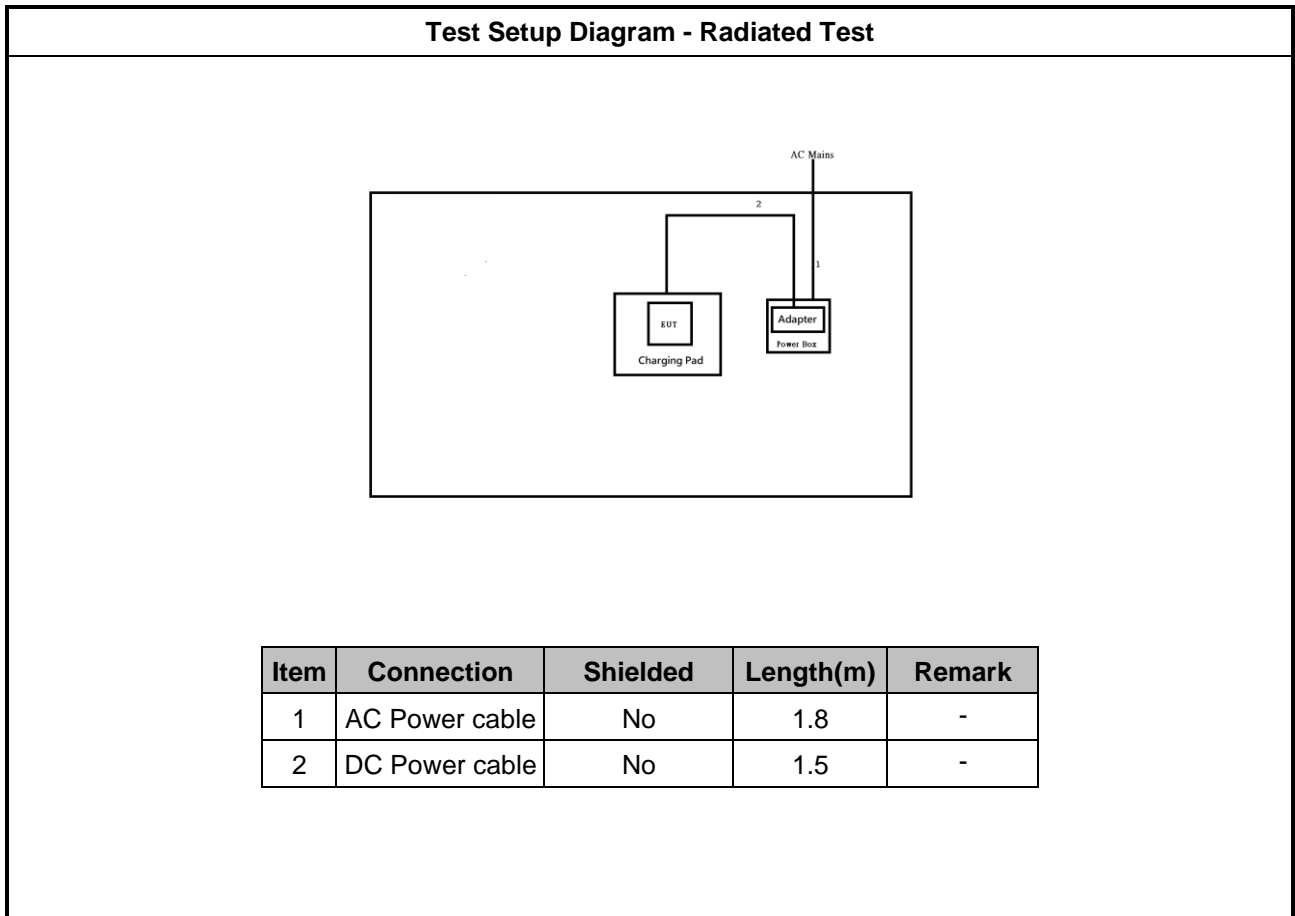
Accessories				
<b>AC Adapter</b>	Brand Name	Humane	Model Name	HU0423
	Power Rating	I/P: 100 – 240 V, 50-60 Hz 0.3 A, O/P: 5.0 V, 1.5 A, 7.5 W		
<b>Battery</b>	Brand Name	Li-Shen	Model Name	DAKP292233SA
	Power Rating	3.87 Vdc, 281 mAh	Type	Li-ion
<b>Charge Pad</b>	Brand Name	Humane	Model Name	HU0323
	Power Rating	I/P: 5 V, 1.5 A, O/P: 5 V, 1.5 A		
<b>USB Cable</b>	Brand Name	Humane	Model Name	HU0523
	DC Power Cable	1.2 meter, Braiding Cable, with back shield		
<b>Wireless Charger</b>	Brand Name	Humane	Model Name	HU0223

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

## 2.4 Support Equipment

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	DC Power Supply	GW	GPS-3030DD	-	-
4	USB Digital Tester	JUWEI	J7-c	-	-

## 2.5 Test Setup Diagram



### 3 Transmitter Test Result

#### 3.1 20dB Bandwidth and Carrier Frequency Separation

##### 3.1.1 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	

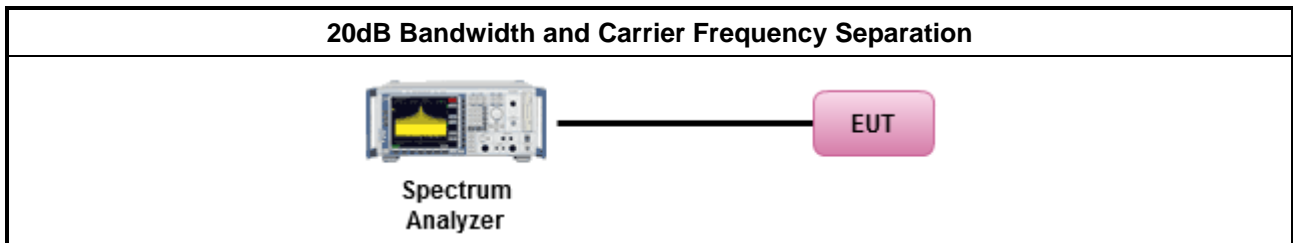
##### 3.1.2 Measuring Instruments

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 6.9.2 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>

##### 3.1.4 Test Setup



##### 3.1.5 Test Result of 20dB Bandwidth

Refer as Appendix A

##### 3.1.6 Test Result of Carrier Frequency Separation

Refer as Appendix A

### 3.2 Maximum Conducted Output Power

#### 3.2.1 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	

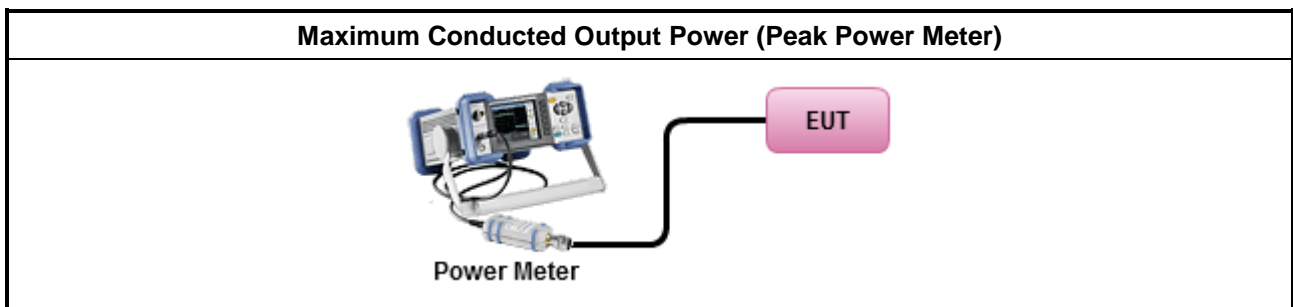
#### 3.2.2 Measuring Instruments

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 7.8.5 for output power measurement.</li> </ul>

#### 3.2.4 Test Setup



#### 3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

### 3.3 Number of Hopping Frequencies and Hopping Bandedge

#### 3.3.1 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	

#### 3.3.2 Hopping Bandedge Limit

Refer clause 3.5.1 and clause 3.6.1

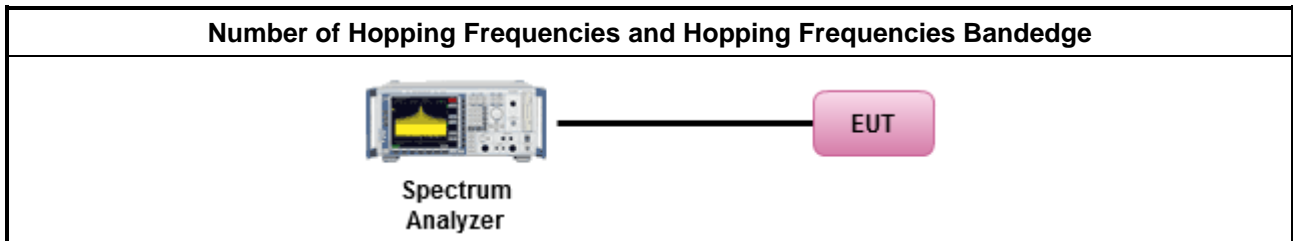
#### 3.3.3 Measuring Instruments

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

#### 3.3.4 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>

#### 3.3.5 Test Setup



#### 3.3.6 Test Result of Number of Hopping Frequencies

Refer as Appendix C

#### 3.3.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix C

### 3.4 Time of Occupancy (Dwell Time)

#### 3.4.1 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	

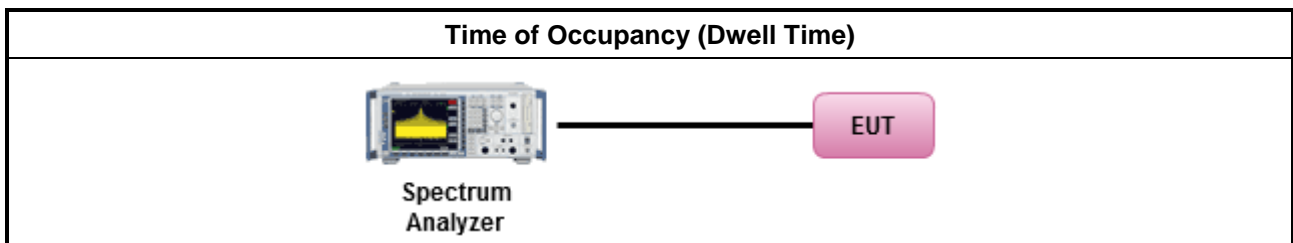
#### 3.4.2 Measuring Instruments

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

#### 3.4.3 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>

#### 3.4.4 Test Setup



#### 3.4.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix D



### 3.5 Emissions in Non-restricted Frequency Bands

#### 3.5.1 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.	

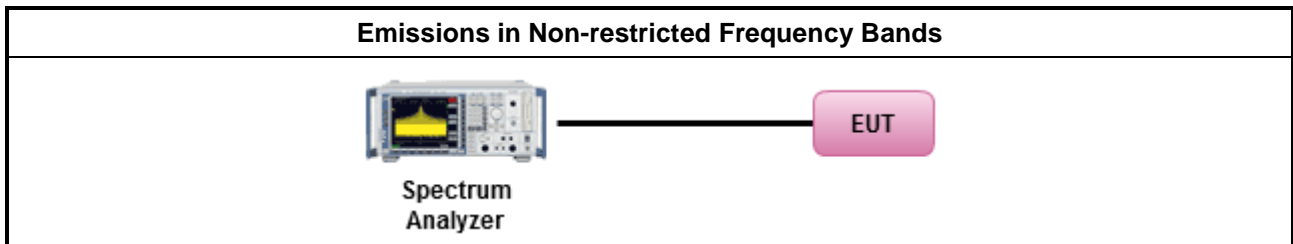
#### 3.5.2 Measuring Instruments

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 7.8.8 for unwanted emissions into non-restricted bands.</li> </ul>

#### 3.5.4 Test Setup



#### 3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 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.

#### 3.6.2 Measuring Instruments

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



3.6.3 Test Procedures

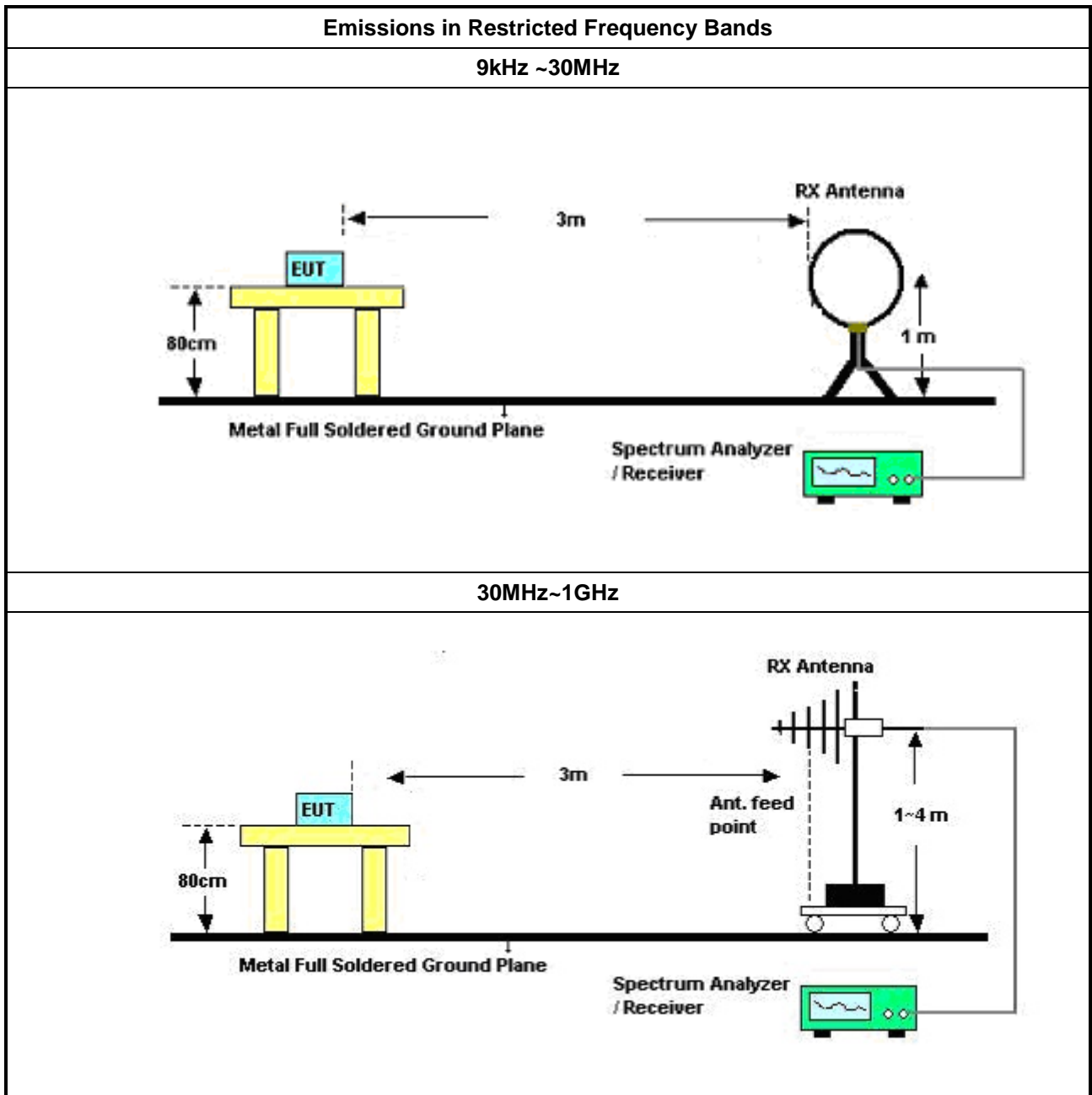
Test Method	
▪	The average emission levels shall be measured in [hopping duty factor].
▪	Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
▪	For the transmitter unwanted emissions shall 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.
	Duty Cycle Correction Factor Calculation ▪ Channel hop rate = 800 hops/second (AFH Mode) ▪ Adjusted channel hop rate for DH5 mode = 133.33 hops/second ▪ Time per channel hop = 1/133.33 hops/second = 7.50ms ▪ Time to cycle through all channels = 7.50 x 20 channels = 150ms ▪ Number of times transmitter hits on one channel = 100ms/150ms = 1 time(s) ▪ Worst case dwell time = 7.5ms ▪ Duty cycle correction factor = $20\log_{10}(7.5\text{ms}/100\text{ms}) = -22.5 \text{ dB}$
▪	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.

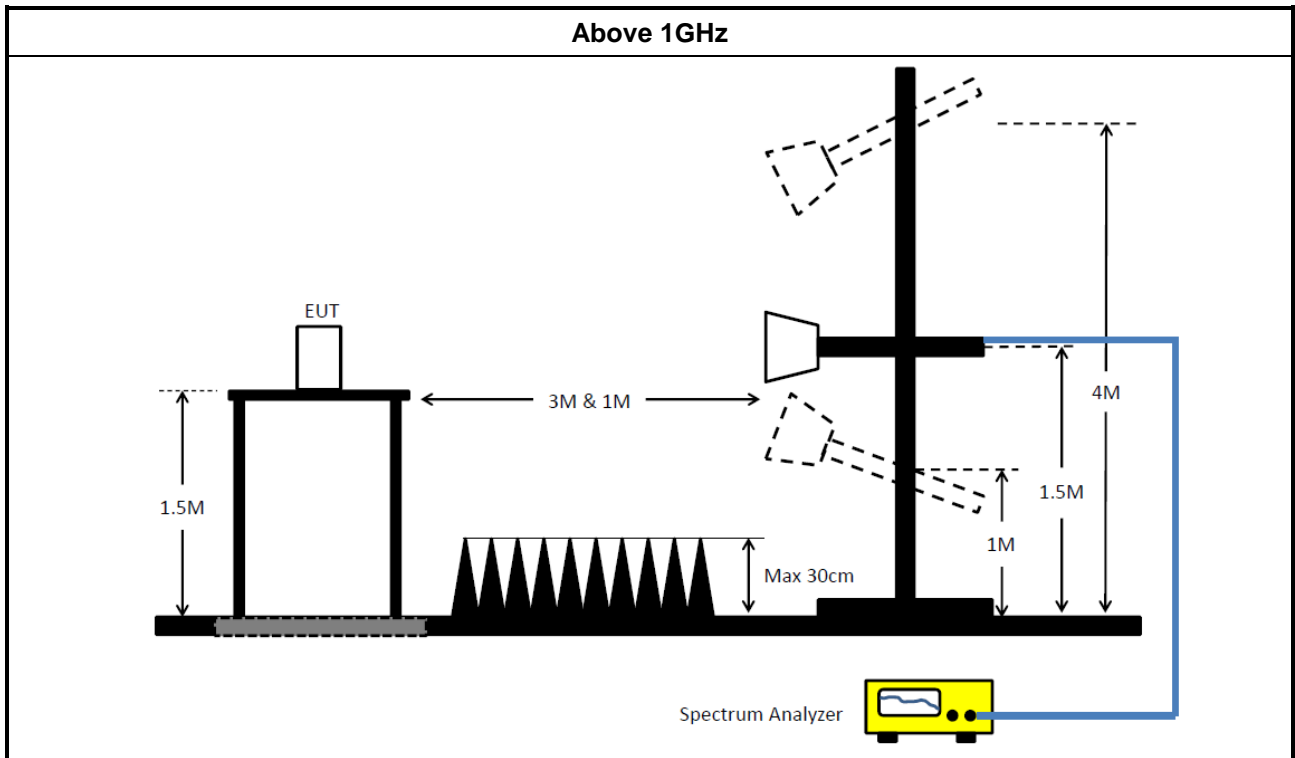
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

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

### 3.6.5 Test Setup





### 3.6.6 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.

### 3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

## 4 Test Equipment and Calibration Data

### Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	10/Apr/2023	09/Apr/2024
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2022	20/Oct/2023
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	15/Feb/2023	14/Feb/2024
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	15/Feb/2023	14/Feb/2024
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	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
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	17/Mar/2023	16/Mar/2024
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	28/Jun/2022	27/Jun/2023
Microwave Pre-amplifier	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 Pre-amplifier	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	30/May/2022	29/May/2023



**Instrument for Radiated Test (Co-location)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	30/Jul/2022	29/Jul/2023
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	17/Mar/2023	16/Mar/2024
Microwave Preamplifier	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
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 Prempplier	EMC INSTRUMENTS	EM18G40G	060604	18GHz~40GHz	16/Mar/2023	15/Mar/2024



**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)	882.75k	842.079k	842KF1D	880k	839.58k
BT-EDR(2Mbps)	1.304M	1.194M	1M19G1D	1.254M	1.182M
BT-EDR(3Mbps)	1.265M	1.206M	1M21G1D	1.251M	1.192M

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	880k	839.58k
2440MHz	Pass	Inf	882.75k	842.079k
2480MHz	Pass	Inf	880k	842.079k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.304M	1.194M
2440MHz	Pass	Inf	1.254M	1.182M
2480MHz	Pass	Inf	1.279M	1.189M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.26M	1.206M
2440MHz	Pass	Inf	1.265M	1.192M
2480MHz	Pass	Inf	1.251M	1.199M

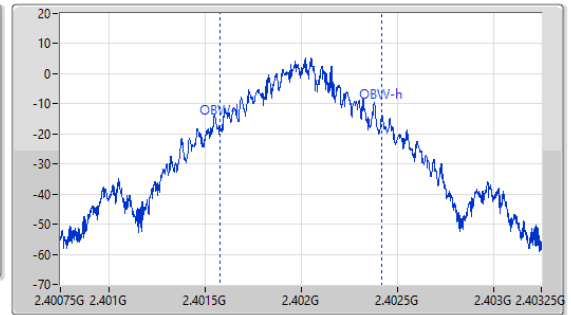
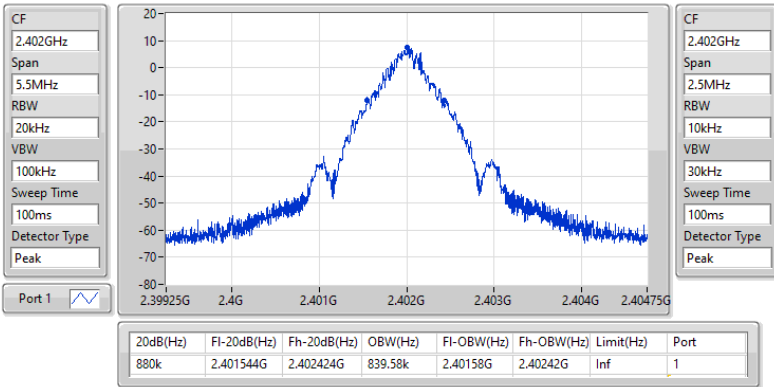
Port X-N dB = Port X 20dB down bandwidth;  
Port X-OBW = Port X 99% occupied bandwidth

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

**EBW-FS**

**2402MHz**

16/05/2023

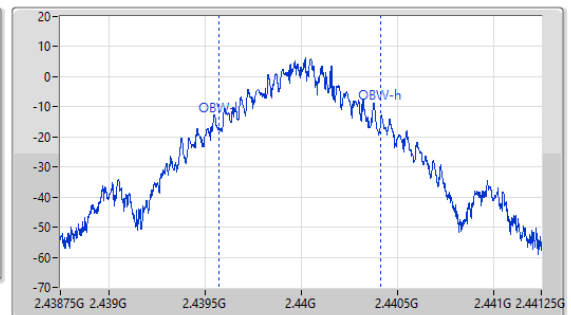
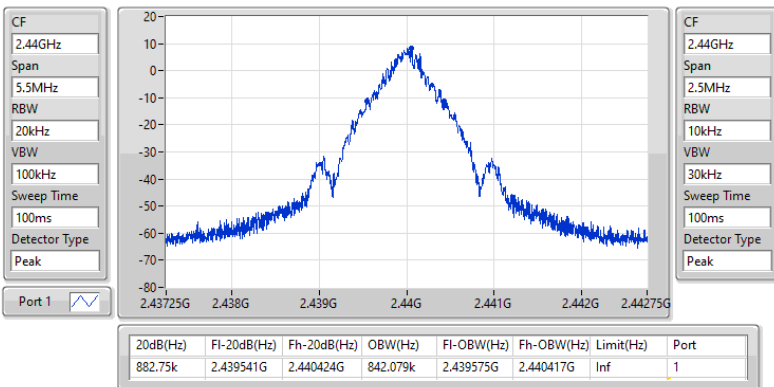


**2.4-2.4835GHz\_BT-BR(1Mbps)**

**EBW-FS**

**2440MHz**

16/05/2023

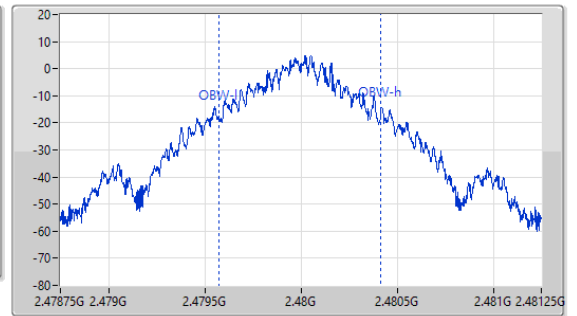
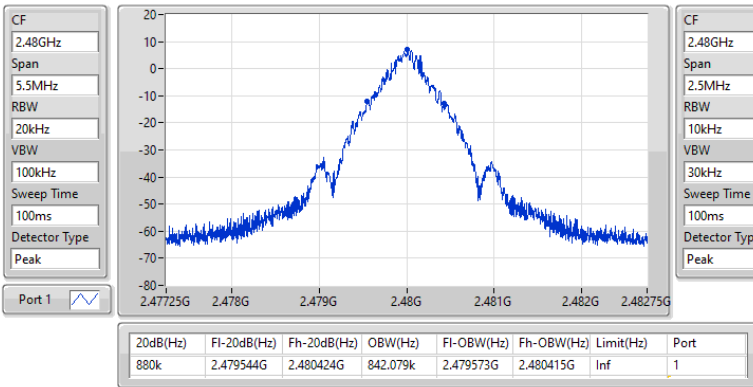


**2.4-2.4835GHz\_BT-BR(1Mbps)**

**EBW-FS**

**2480MHz**

16/05/2023

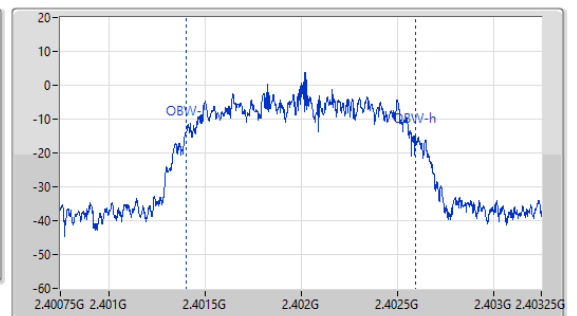
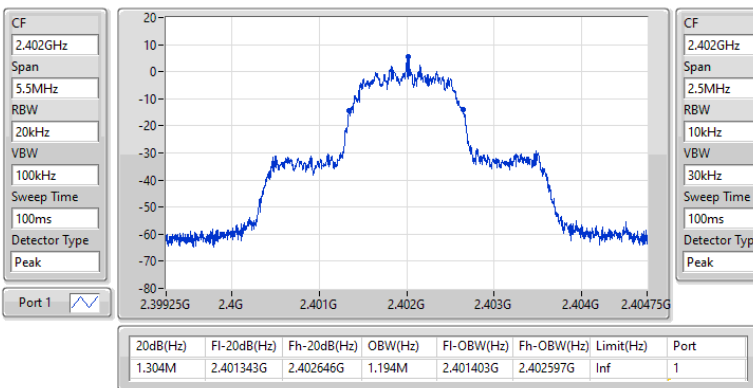


**2.4-2.4835GHz\_BT-EDR(2Mbps)**

**EBW-FS**

**2402MHz**

16/05/2023

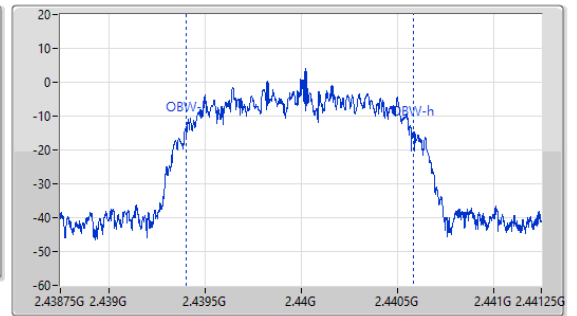
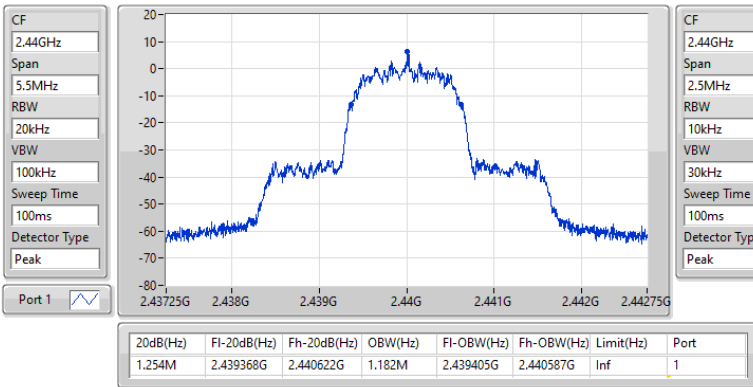


**2.4-2.4835GHz\_BT-EDR(2Mbps)**

**EBW-FS**

**2440MHz**

16/05/2023

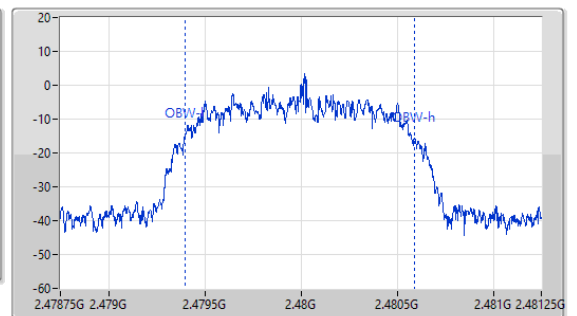
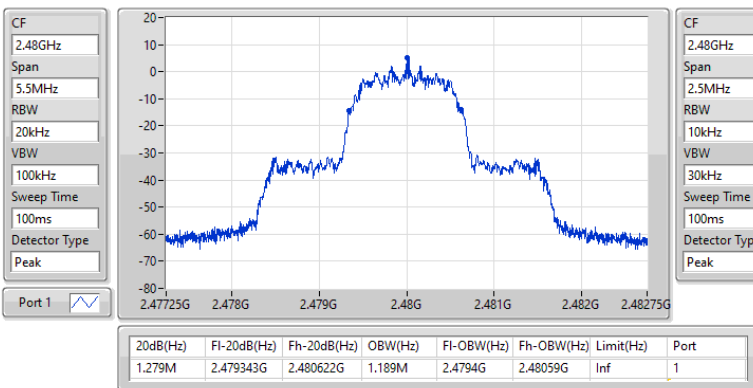


**2.4-2.4835GHz\_BT-EDR(2Mbps)**

**EBW-FS**

**2480MHz**

16/05/2023

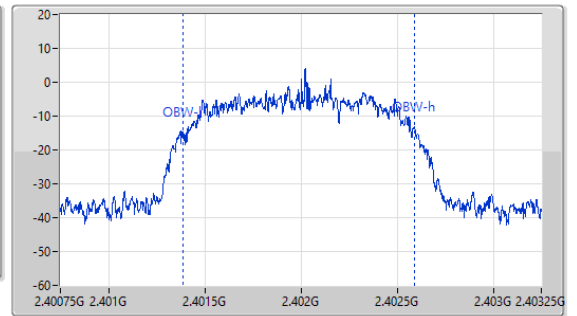
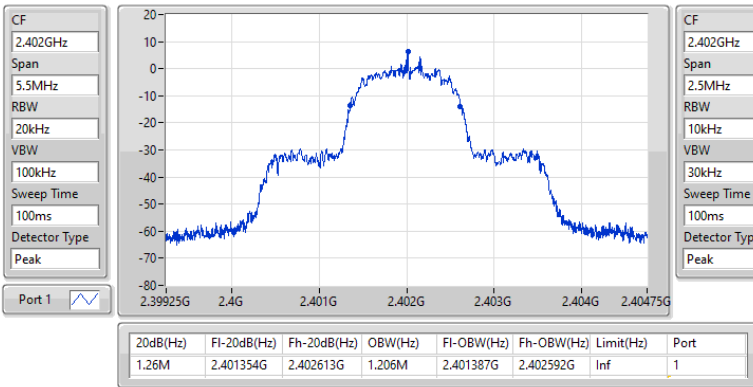


**2.4-2.4835GHz\_BT-EDR(3Mbps)**

**EBW-FS**

**2402MHz**

16/05/2023

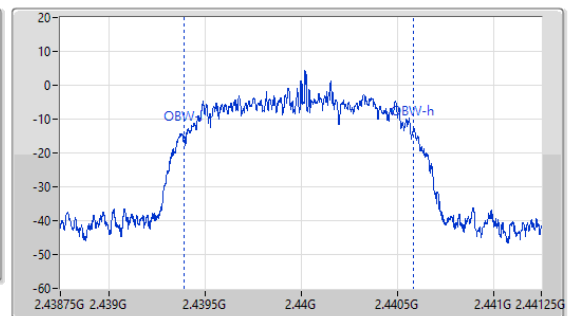
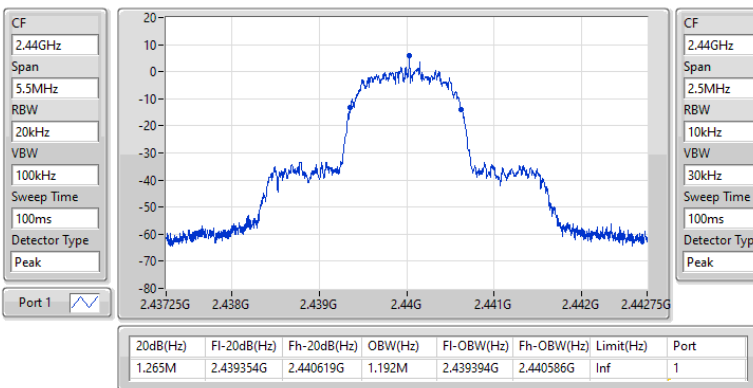


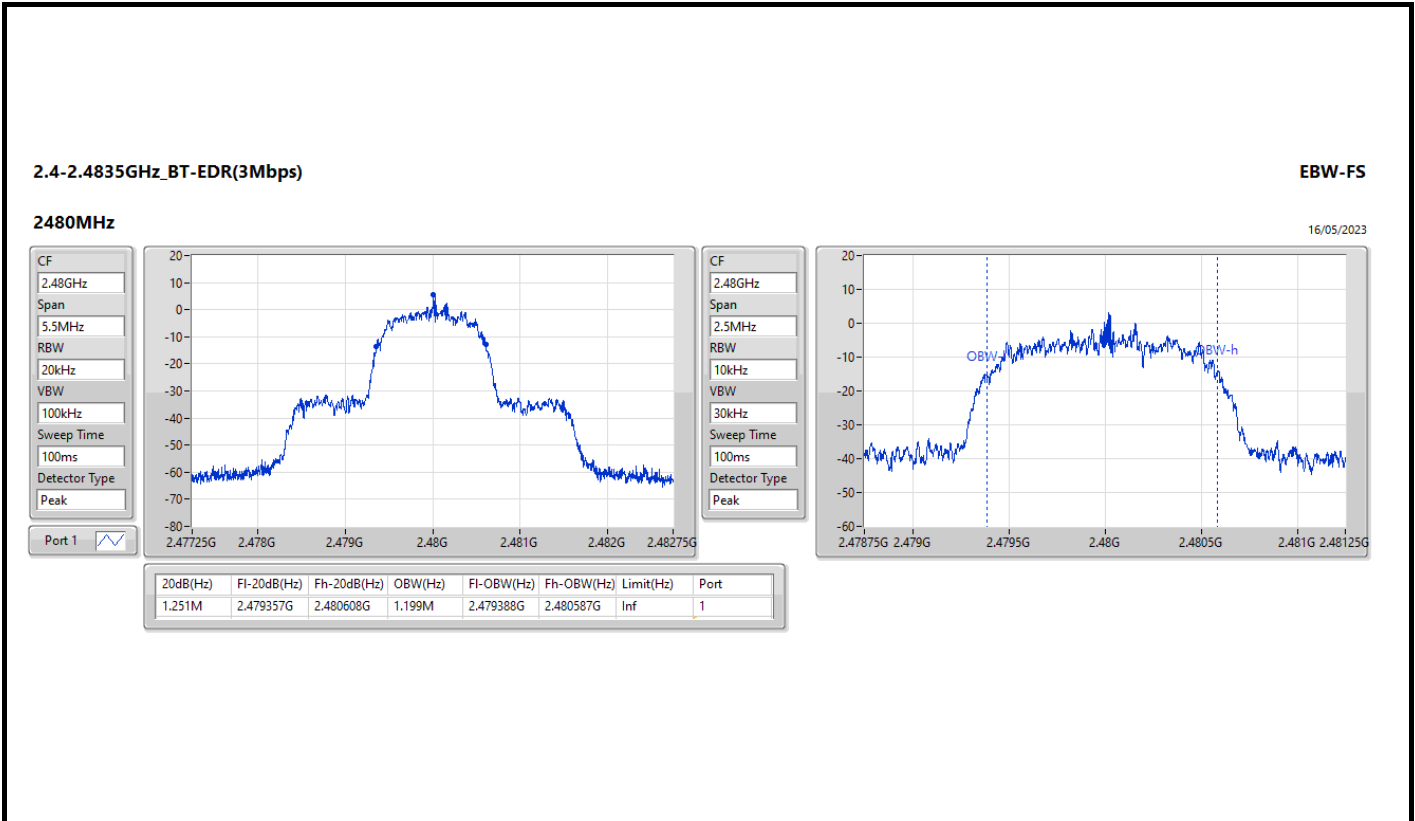
**2.4-2.4835GHz\_BT-EDR(3Mbps)**

**EBW-FS**

**2440MHz**

16/05/2023







**Summary**

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0005M	997.5k
BT-EDR(2Mbps)	1.002M	999k
BT-EDR(3Mbps)	1.0035M	1.002M



Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402008G	2.403009G	1.0005M	586.08k
2440MHz	Pass	2.44001G	2.441009G	999k	587.9115k
2480MHz	Pass	2.479011G	2.480009G	997.5k	586.08k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402008G	2.403007G	999k	868.464k
2440MHz	Pass	2.440008G	2.44101G	1.002M	835.164k
2480MHz	Pass	2.479008G	2.480009G	1.0005M	851.814k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402005G	2.403009G	1.0035M	839.16k
2440MHz	Pass	2.440008G	2.44101G	1.002M	842.49k
2480MHz	Pass	2.479008G	2.48001G	1.002M	833.166k



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

Channel Separation-FS

2.402G/2.403GHz

16/05/2023

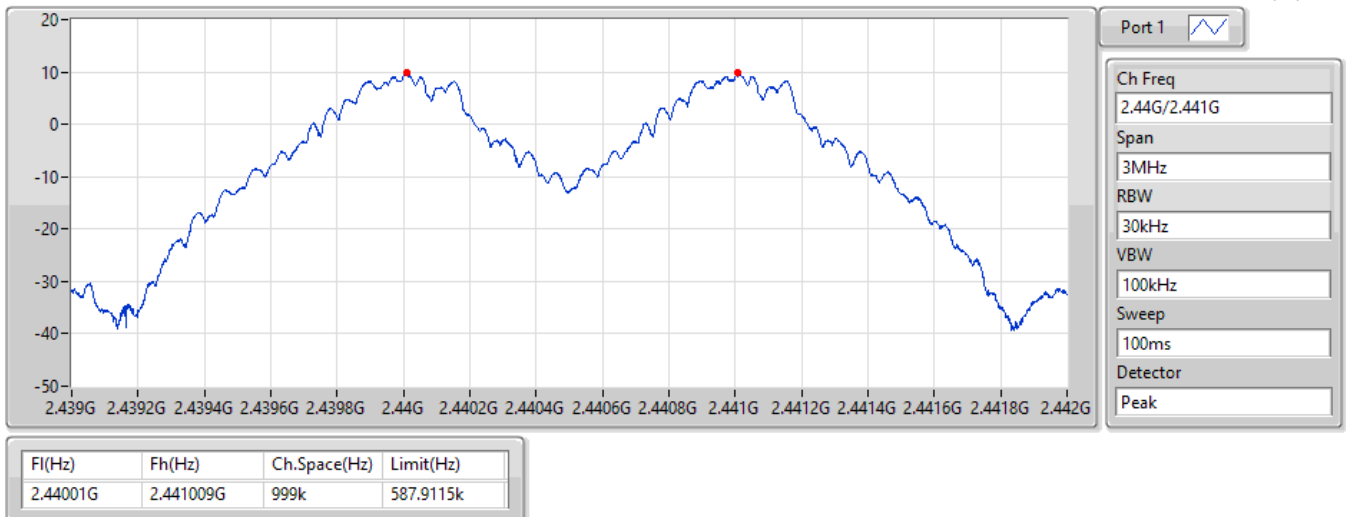


2.4-2.4835GHz\_BT-BR(1Mbps)

Channel Separation-FS

2.44G/2.441GHz

16/05/2023

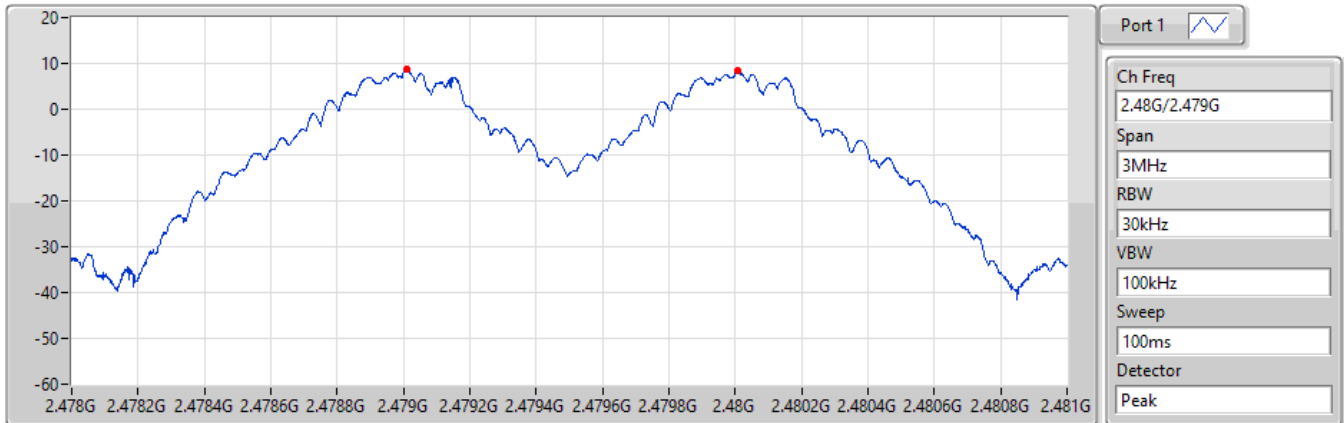


2.4-2.4835GHz\_BT-BR(1Mbps)

Channel Separation-FS

2.48G/2.479GHz

16/05/2023



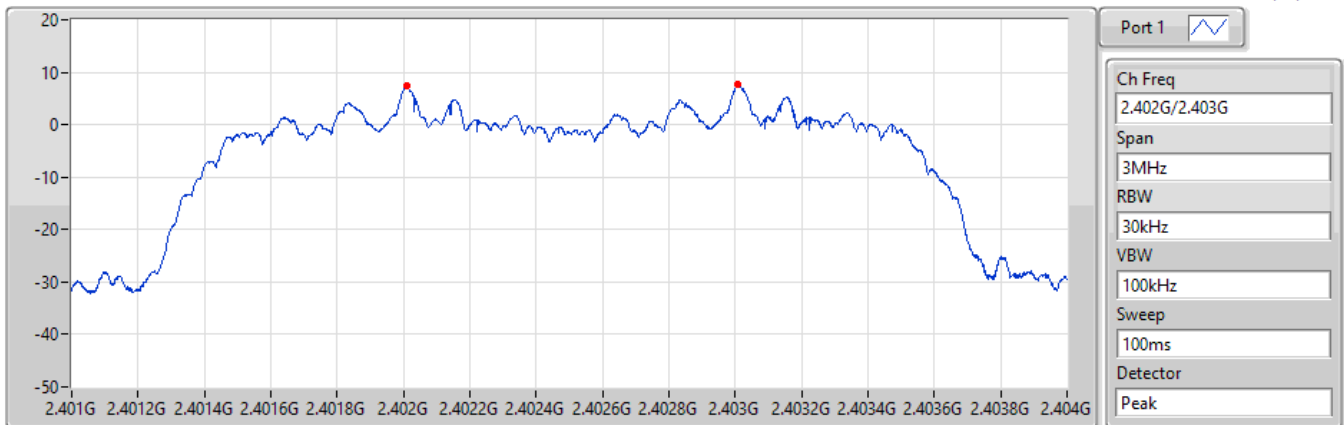
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479011G	2.480009G	997.5k	586.08k

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

Channel Separation-FS

2.402G/2.403GHz

16/05/2023



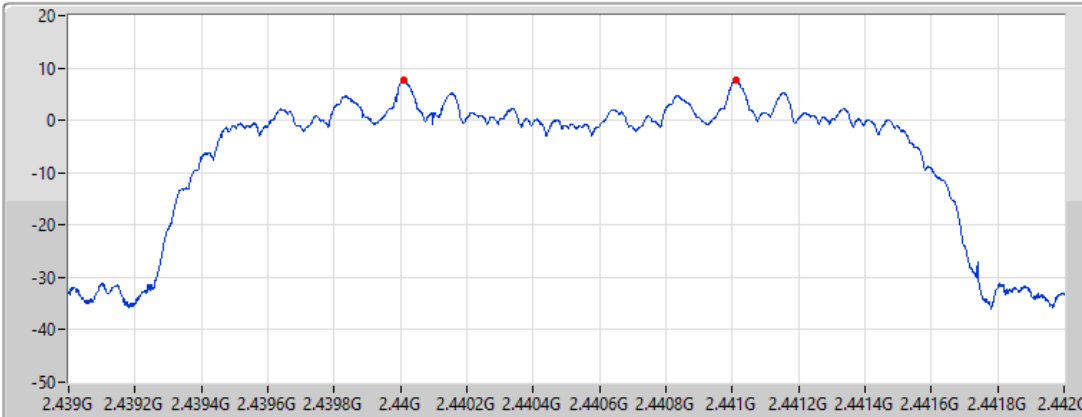
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402008G	2.403007G	999k	868.464k


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

Channel Separation-FS

2.44G/2.441GHz

16/05/2023



Port 1 

Ch Freq  
2.44G/2.441G

Span  
3MHz

RBW  
30kHz

VBW  
100kHz

Sweep  
100ms

Detector  
Peak

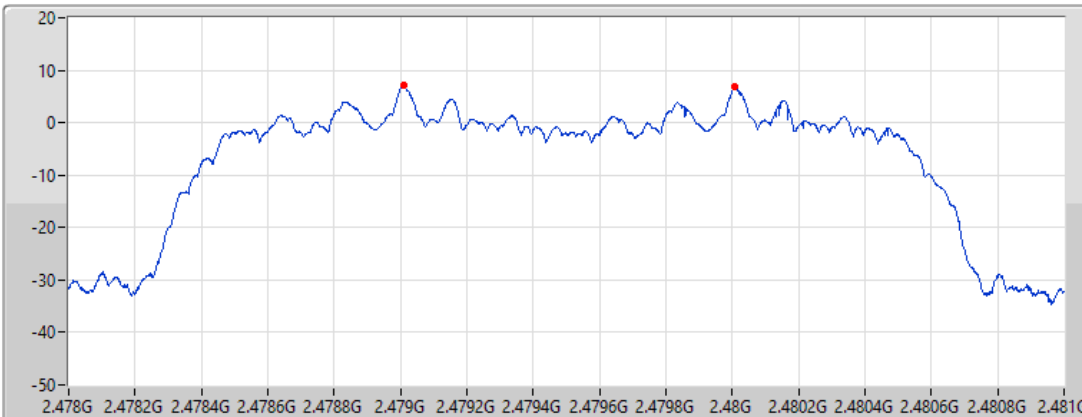
Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440008G	2.44101G	1.002M	835.164k


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

Channel Separation-FS

2.48G/2.479GHz

16/05/2023



Port 1 

Ch Freq  
2.48G/2.479G

Span  
3MHz

RBW  
30kHz

VBW  
100kHz

Sweep  
100ms

Detector  
Peak

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479008G	2.480009G	1.0005M	851.814k

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

Channel Separation-FS

2.402G/2.403GHz

16/05/2023



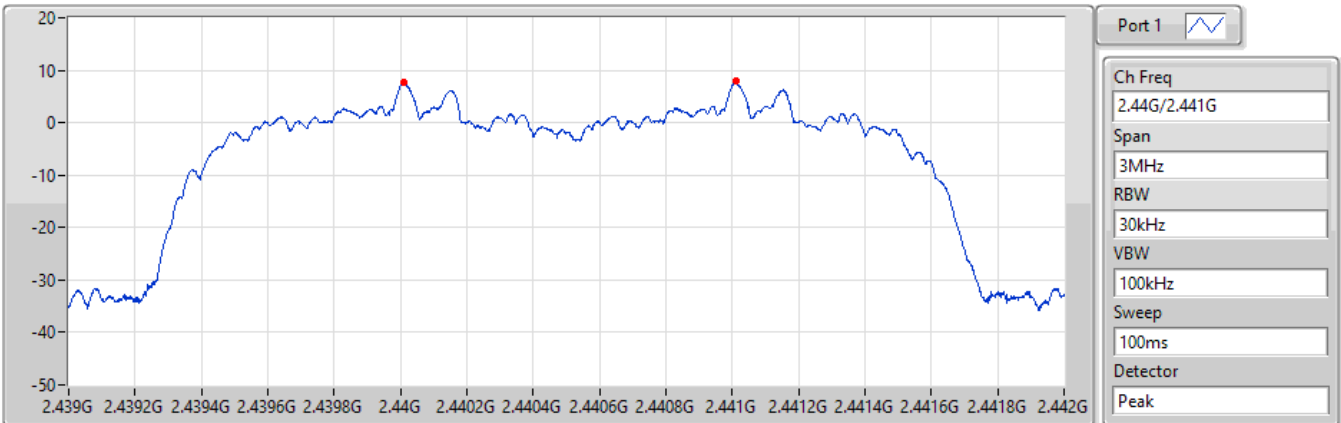
F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402005G	2.403009G	1.0035M	839.16k

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

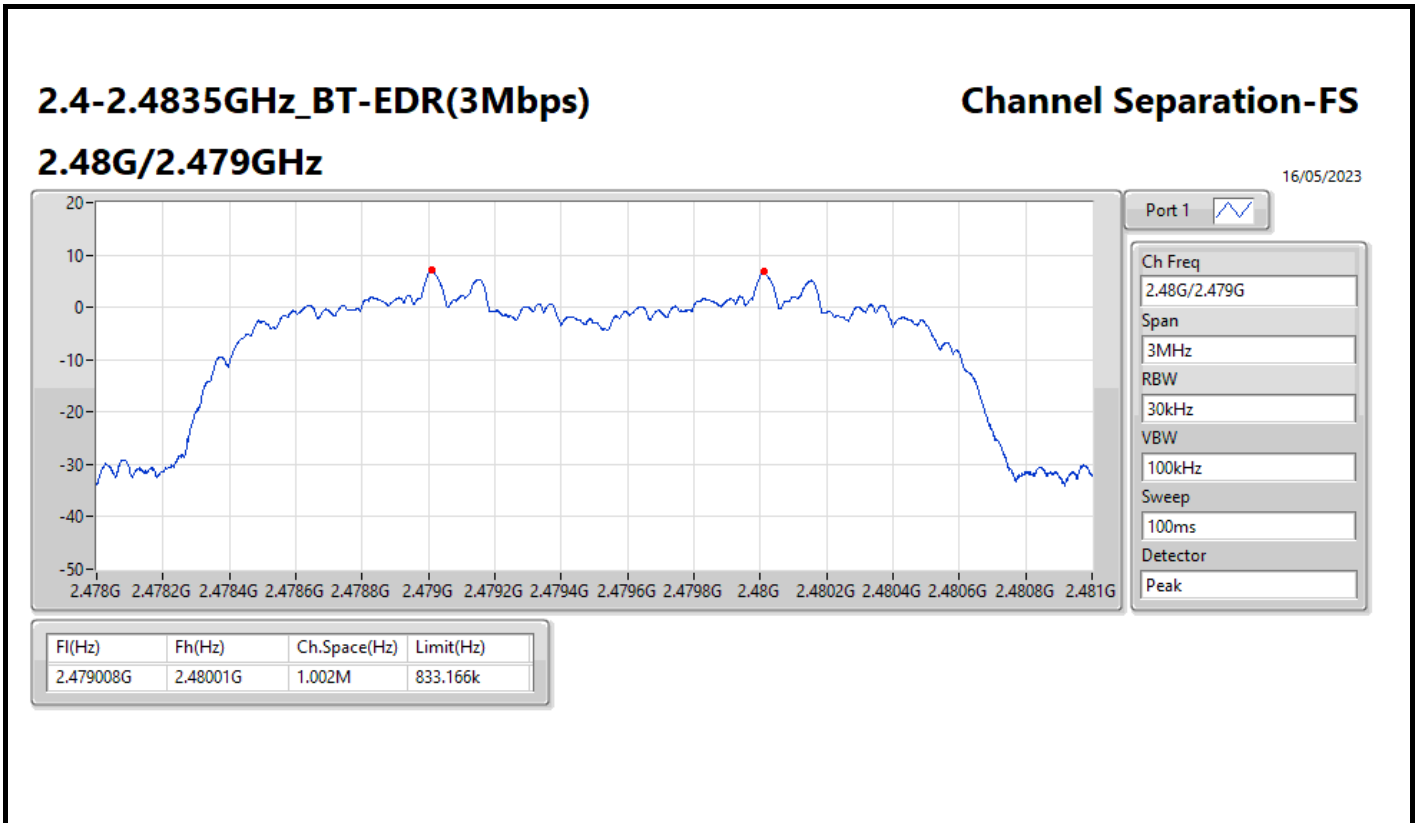
Channel Separation-FS

2.44G/2.441GHz

16/05/2023



F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440008G	2.44101G	1.002M	842.49k





**Summary**

Mode	Total Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	11.84	0.01528
BT-EDR(2Mbps)	11.39	0.01377
BT-EDR(3Mbps)	11.70	0.01479



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	-4.57	10.83	21.00
2440MHz	Pass	-4.57	11.84	21.00
2480MHz	Pass	-4.57	10.66	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	-4.57	10.44	21.00
2440MHz	Pass	-4.57	11.39	21.00
2480MHz	Pass	-4.57	10.26	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	-4.57	10.86	21.00
2440MHz	Pass	-4.57	11.70	21.00
2480MHz	Pass	-4.57	10.40	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)	11.66	0.01466
BT-EDR(2Mbps)	9.01	0.00796
BT-EDR(3Mbps)	8.70	0.00741





Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	-4.57	10.47	21.00
2440MHz	Pass	-4.57	11.66	21.00
2480MHz	Pass	-4.57	10.47	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	-4.57	8.53	21.00
2440MHz	Pass	-4.57	9.01	21.00
2480MHz	Pass	-4.57	8.27	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	-4.57	8.70	21.00
2440MHz	Pass	-4.57	8.66	21.00
2480MHz	Pass	-4.57	8.23	21.00

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



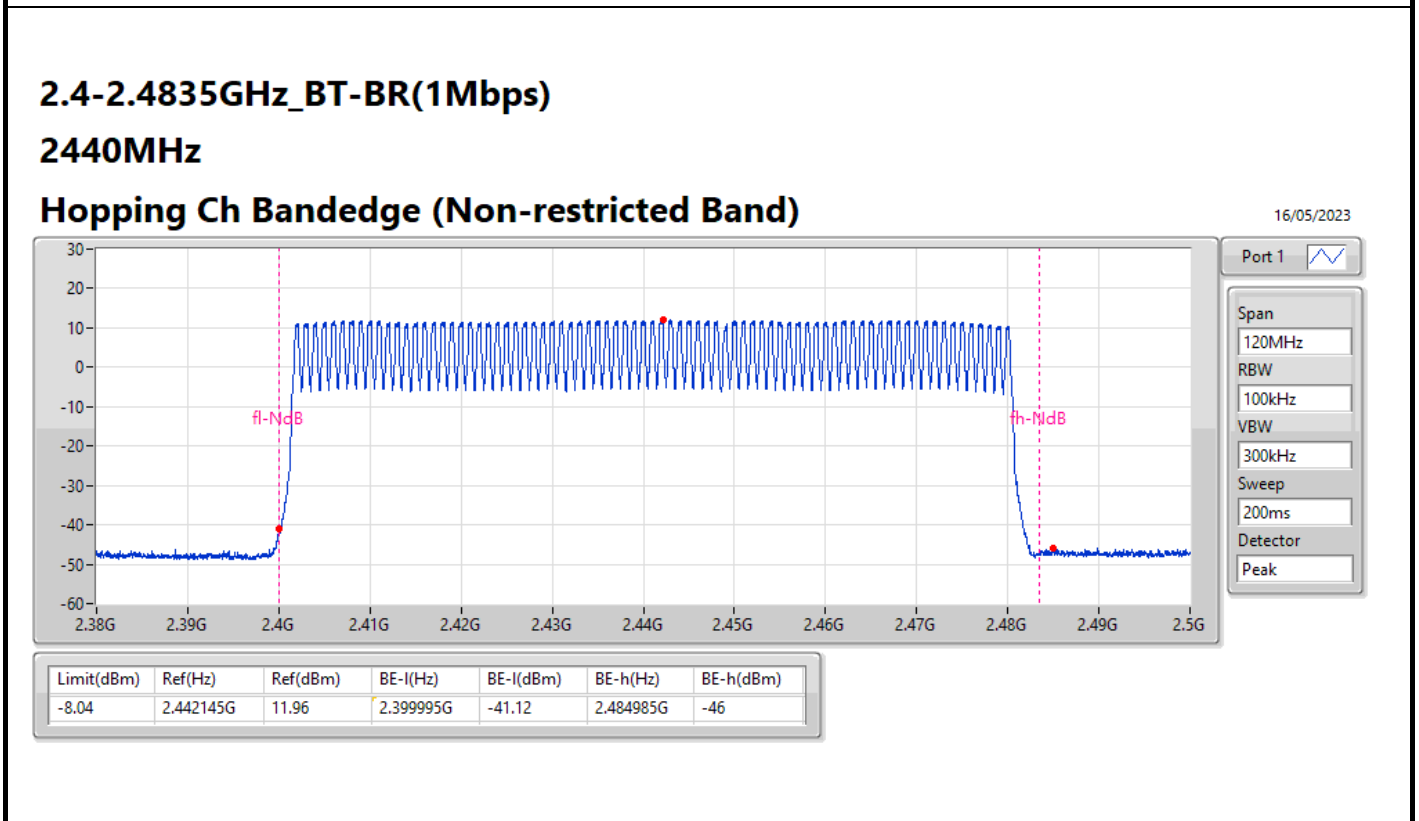
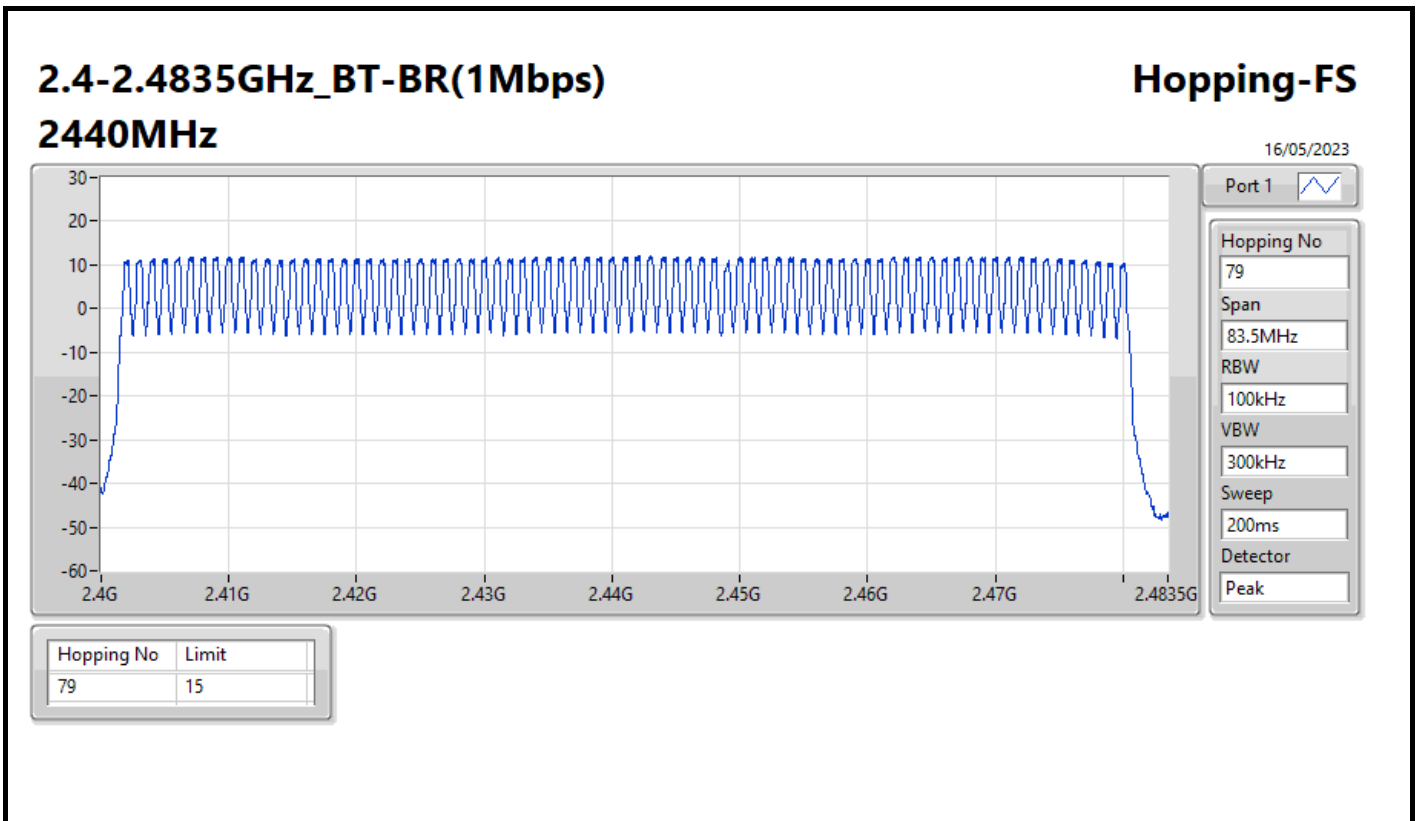
**Summary**

<b>Mode</b>	<b>Max-Hop No</b>
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

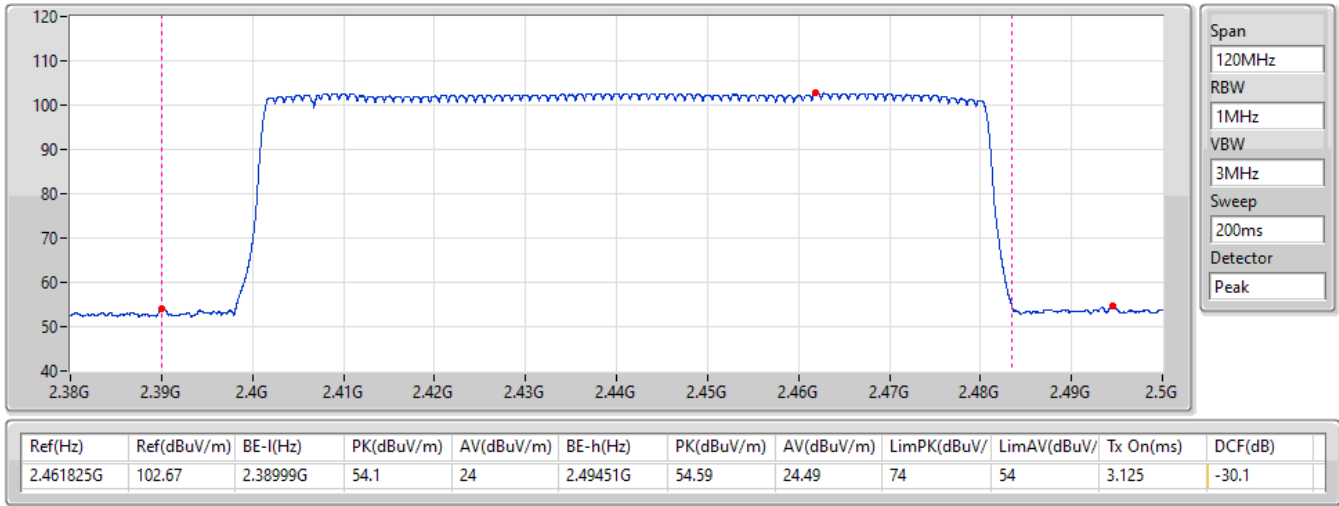


2.4-2.4835GHz\_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

16/05/2023

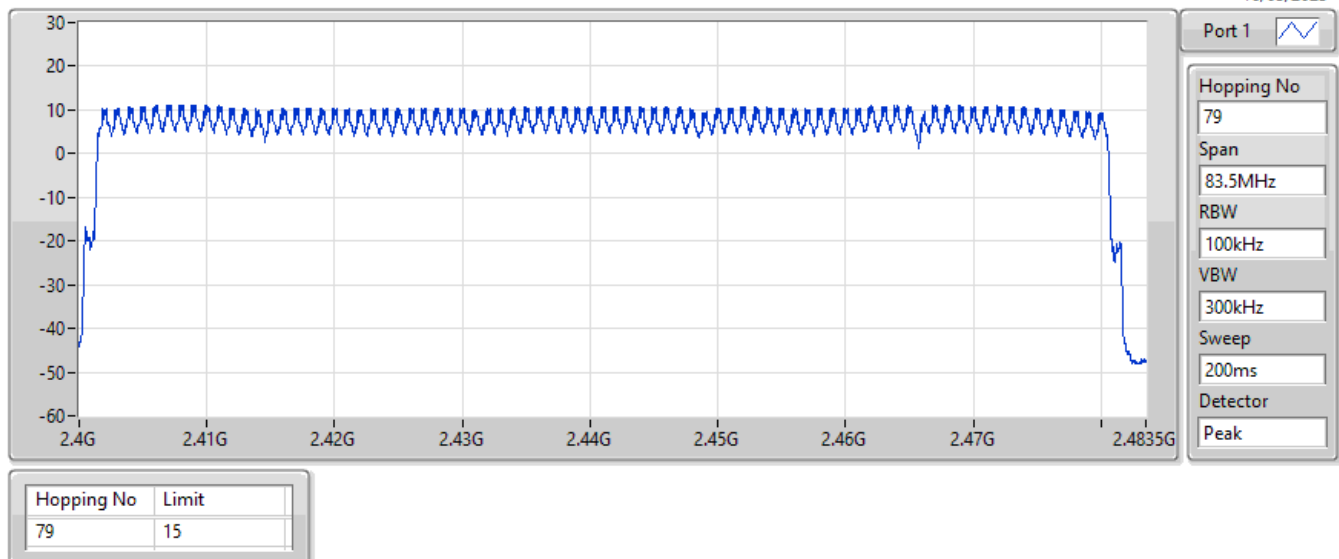


2.4-2.4835GHz\_BT-EDR(2Mbps)

Hopping-FS

2440MHz

16/05/2023

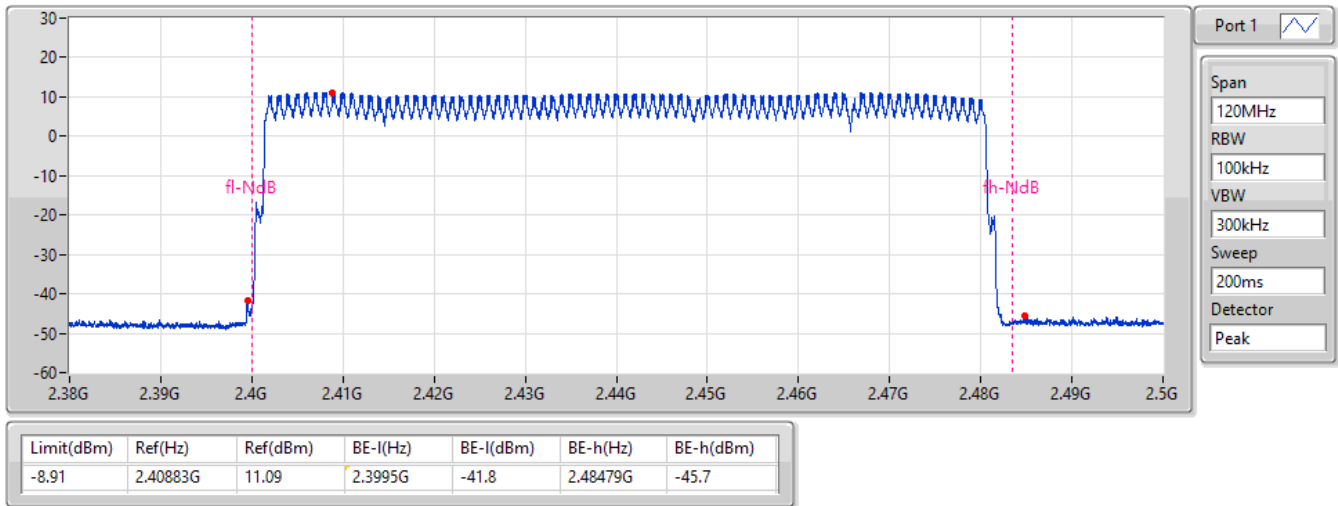


### 2.4-2.4835GHz\_BT-EDR(2Mbps)

2440MHz

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

16/05/2023

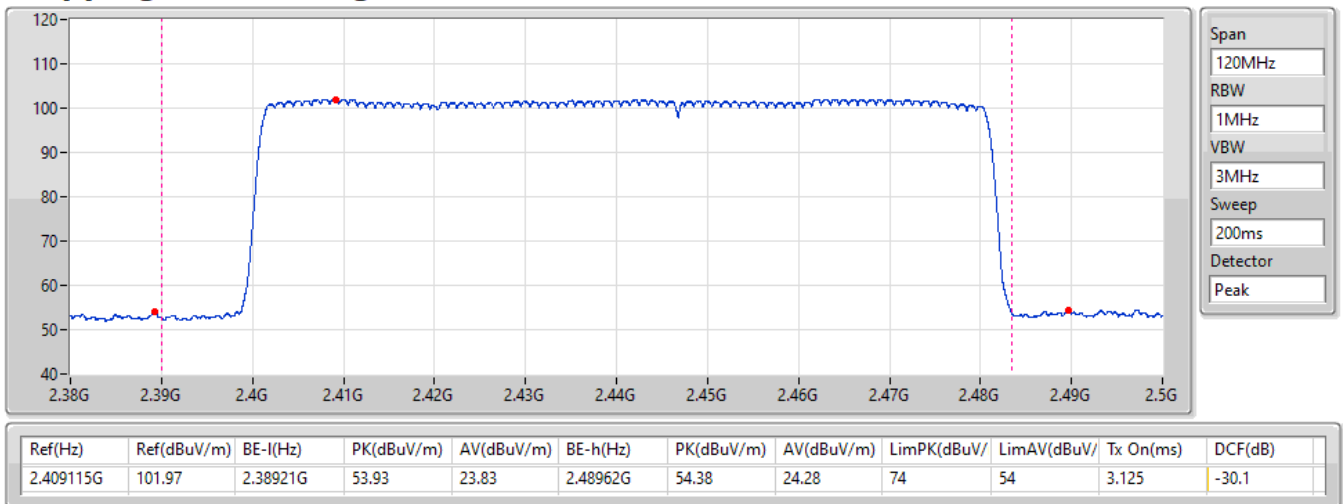


### 2.4-2.4835GHz\_BT-EDR(2Mbps)

2440MHz

### Hopping Ch Bandedge (Restricted Band)

16/05/2023

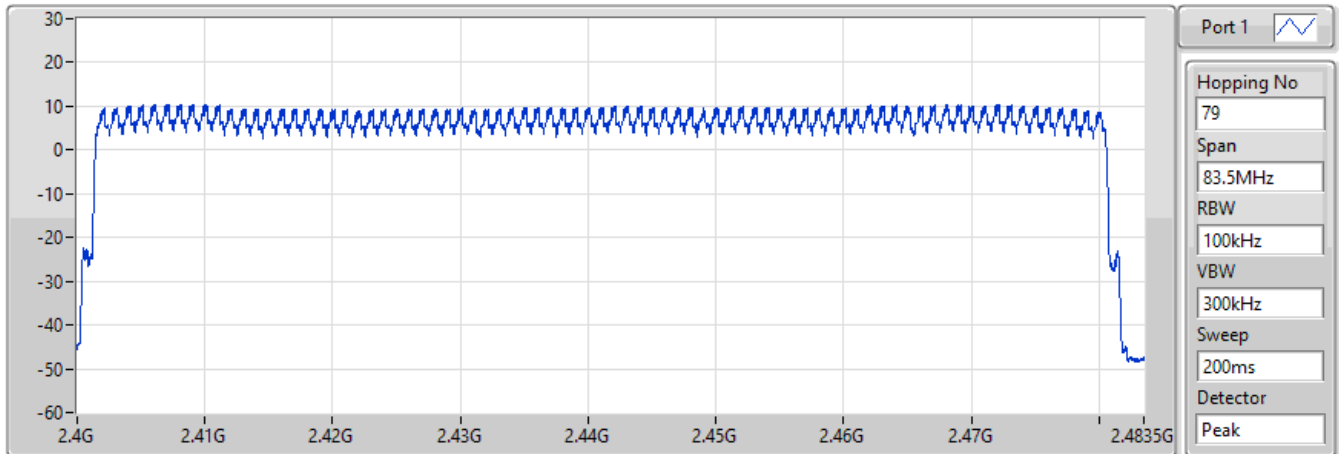



### 2.4-2.4835GHz\_BT-EDR(3Mbps)

### Hopping-FS

2440MHz

16/05/2023



Port 1 

Hopping No  
79

Span  
83.5MHz

RBW  
100kHz

VBW  
300kHz

Sweep  
200ms

Detector  
Peak

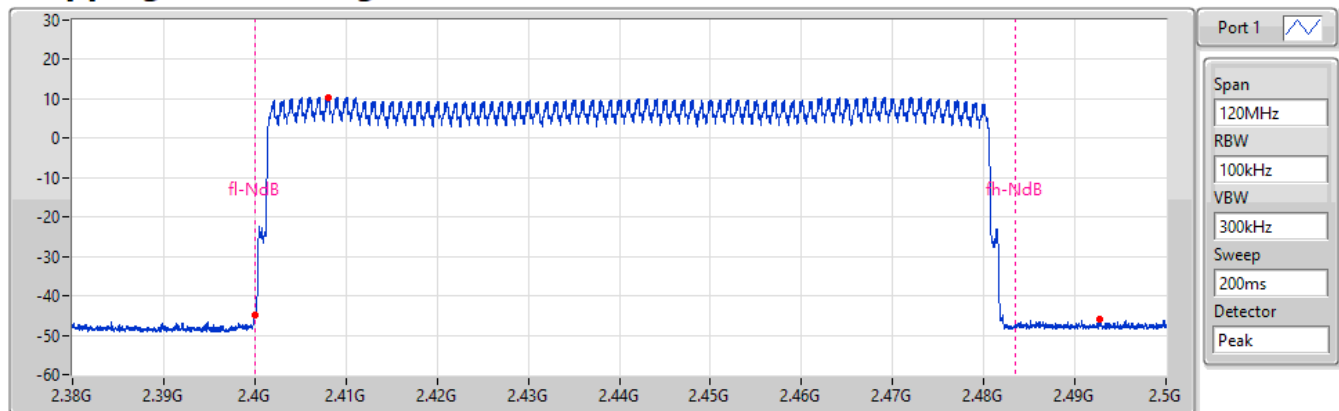
Hopping No	Limit
79	15


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

2440MHz

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

16/05/2023



Port 1 

Span  
120MHz

RBW  
100kHz

VBW  
300kHz

Sweep  
200ms

Detector  
Peak

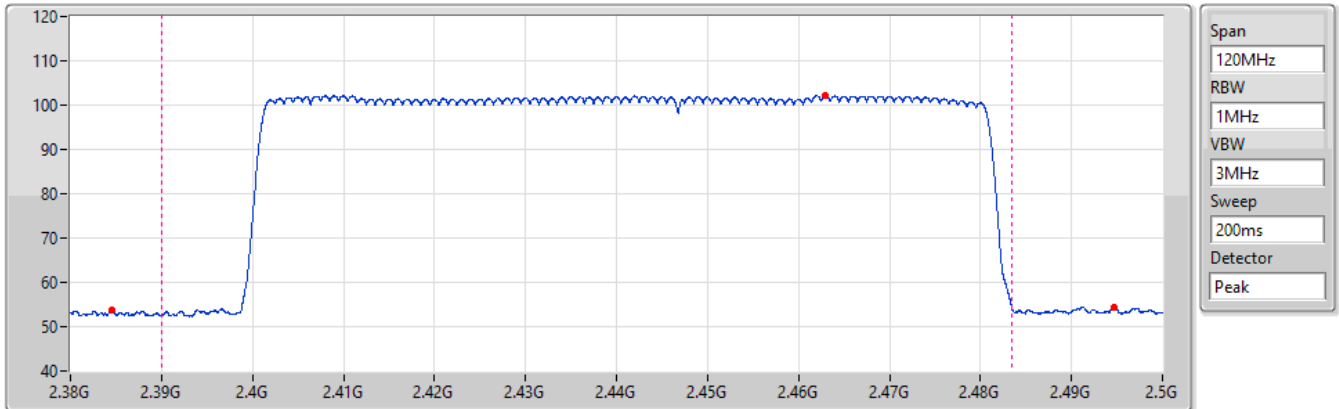
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-9.59	2.40814G	10.41	2.399995G	-44.81	2.49277G	-46.03

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

2440MHz

Hopping Ch Bandedge (Restricted Band)

16/05/2023



Span: 120MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep: 200ms  
 Detector: Peak

Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.462995G	102.15	2.384545G	53.7	23.6	2.494645G	54.48	24.38	74	54	3.125	-30.1





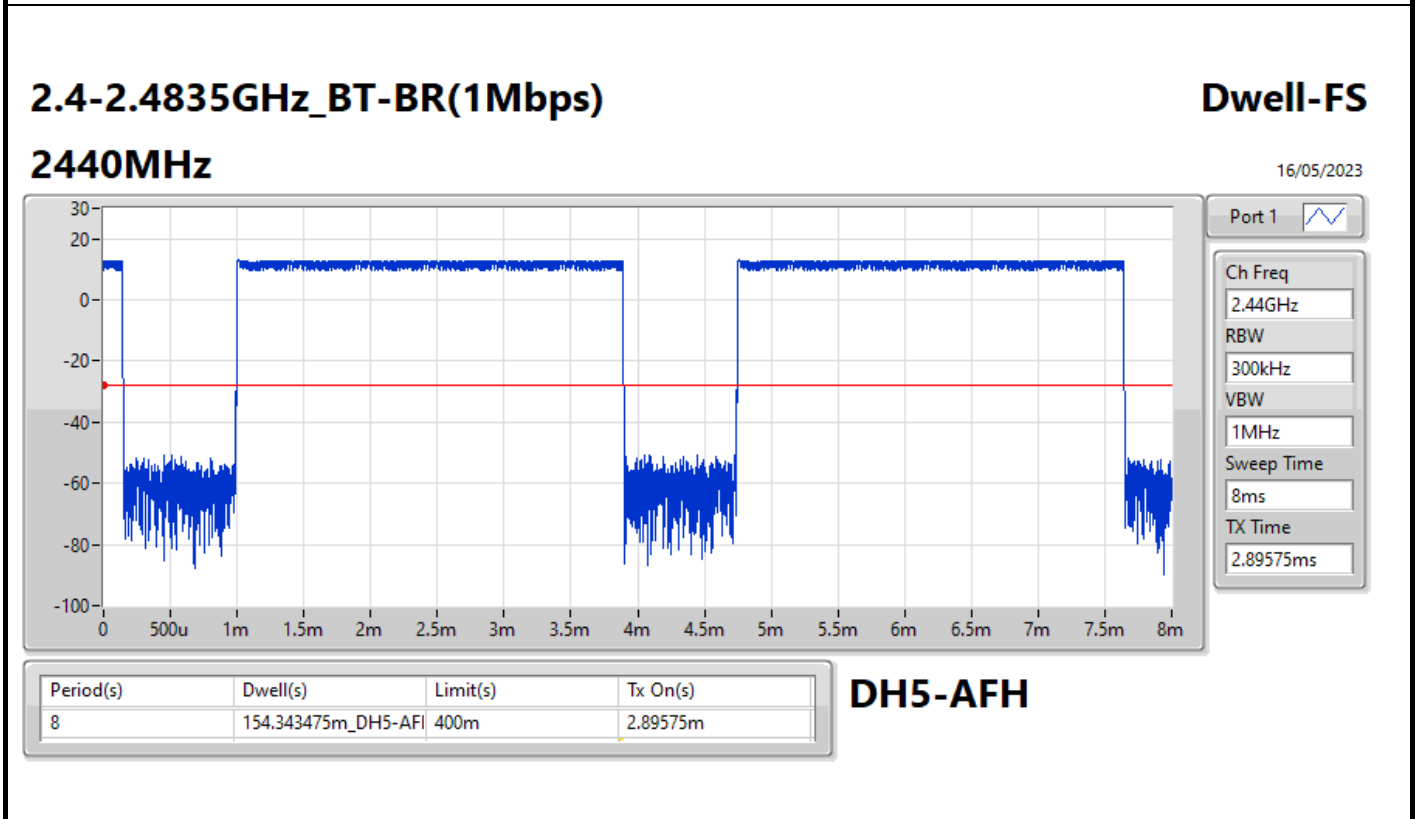
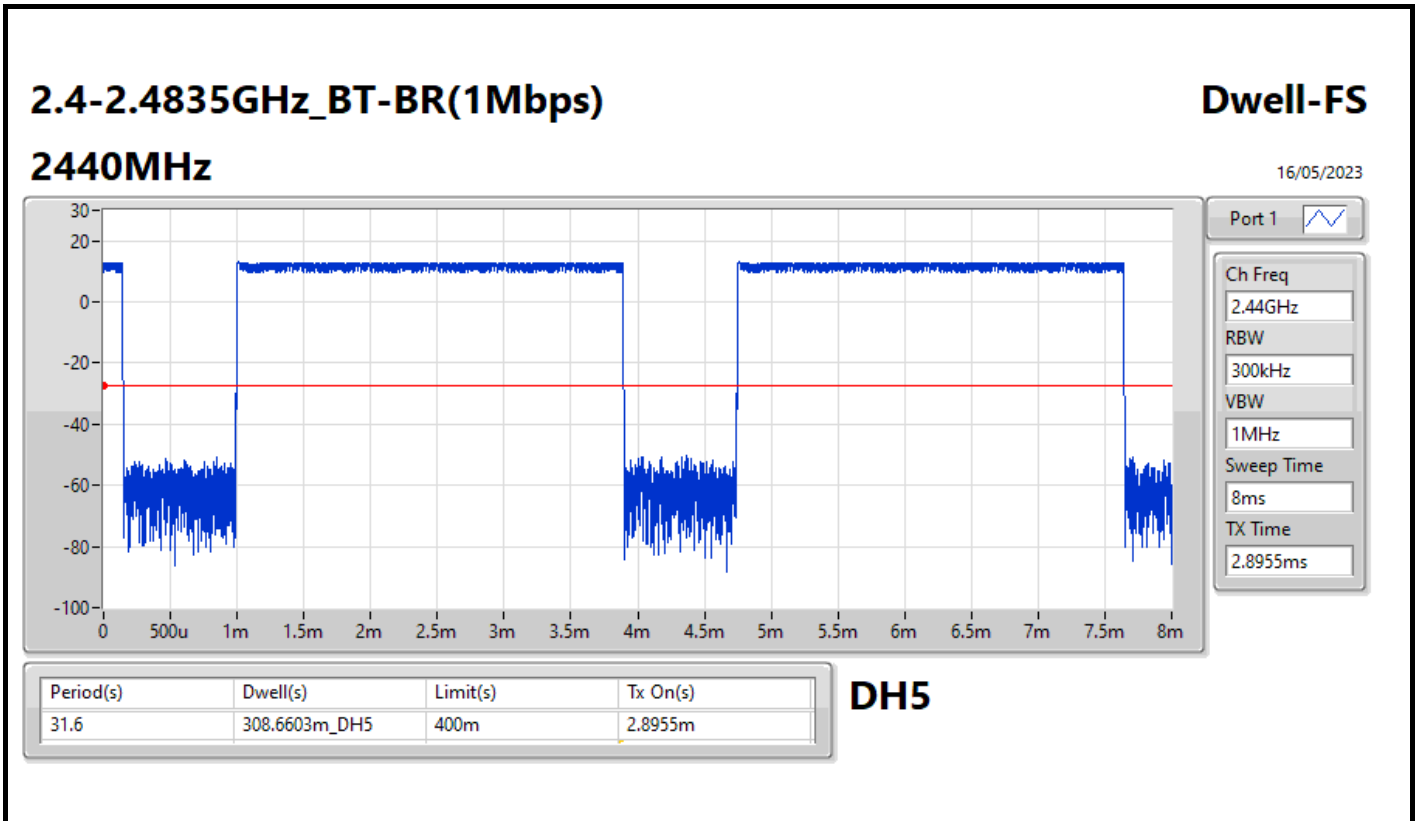
**Summary**

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.6603m_DH5
BT-EDR(2Mbps)	308.95345m_DH5
BT-EDR(3Mbps)	309.11335m_DH5



Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.6603m_DH5	400m	2.8955m
2440MHz	Pass	8	154.343475m_DH5-AFH	400m	2.89575m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.95345m_DH5	400m	2.89825m
2440MHz	Pass	8	154.49005m_DH5-AFH	400m	2.8985m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.11335m_DH5	400m	2.89975m
2440MHz	Pass	8	154.57m_DH5-AFH	400m	2.9m

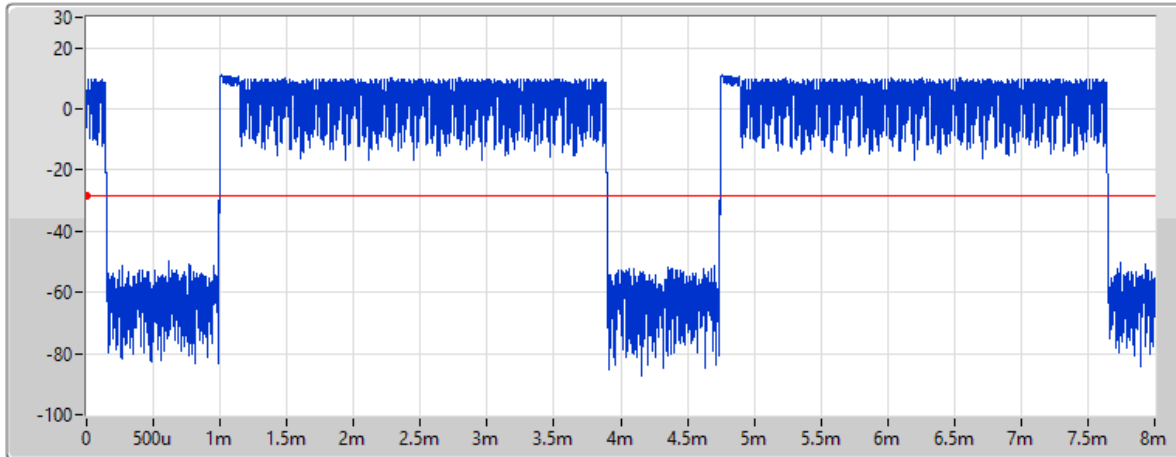



2.4-2.4835GHz\_BT-EDR(2Mbps)

Dwell-FS

2440MHz

16/05/2023



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.89825ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.95345m_DH5	400m	2.89825m

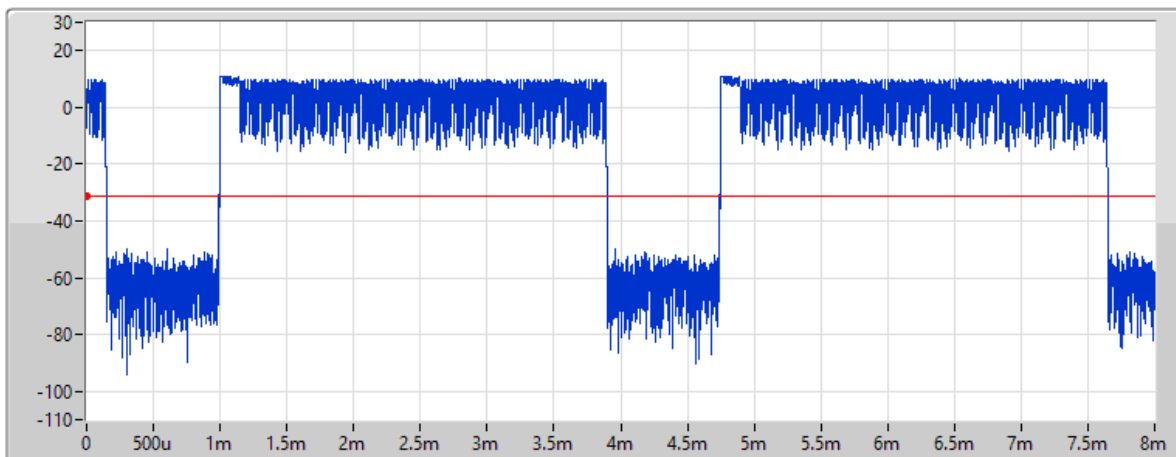
**DH5**


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

Dwell-FS

2440MHz

16/05/2023



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.8985ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.49005m_DH5-AFH	400m	2.8985m

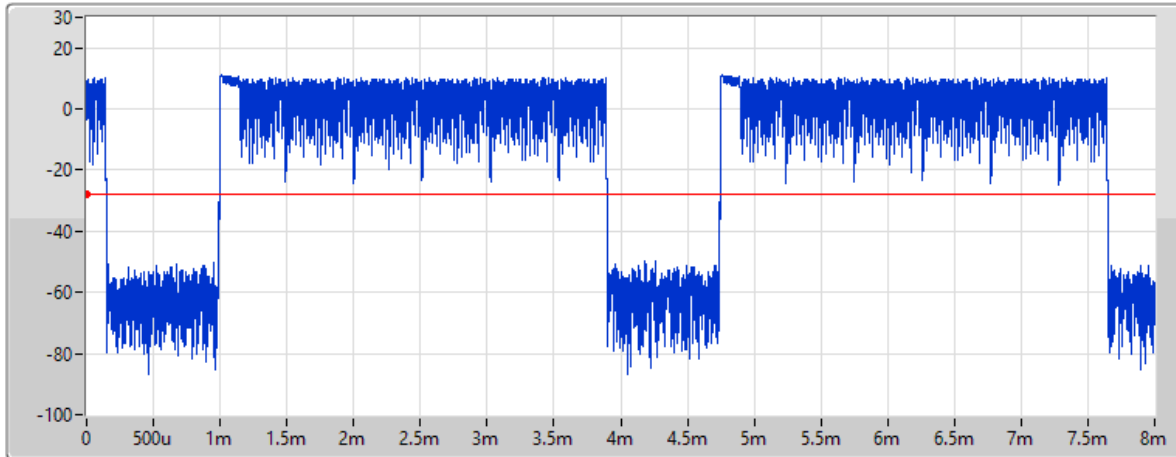
**DH5-AFH**


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

Dwell-FS

2440MHz

16/05/2023



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.89975ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.11335m_DH5	400m	2.89975m

**DH5**


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

Dwell-FS

2440MHz

16/05/2023



Port 1 

Ch Freq  
2.44GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.9ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.57m_DH5-AFH	400m	2.9m

**DH5-AFH**

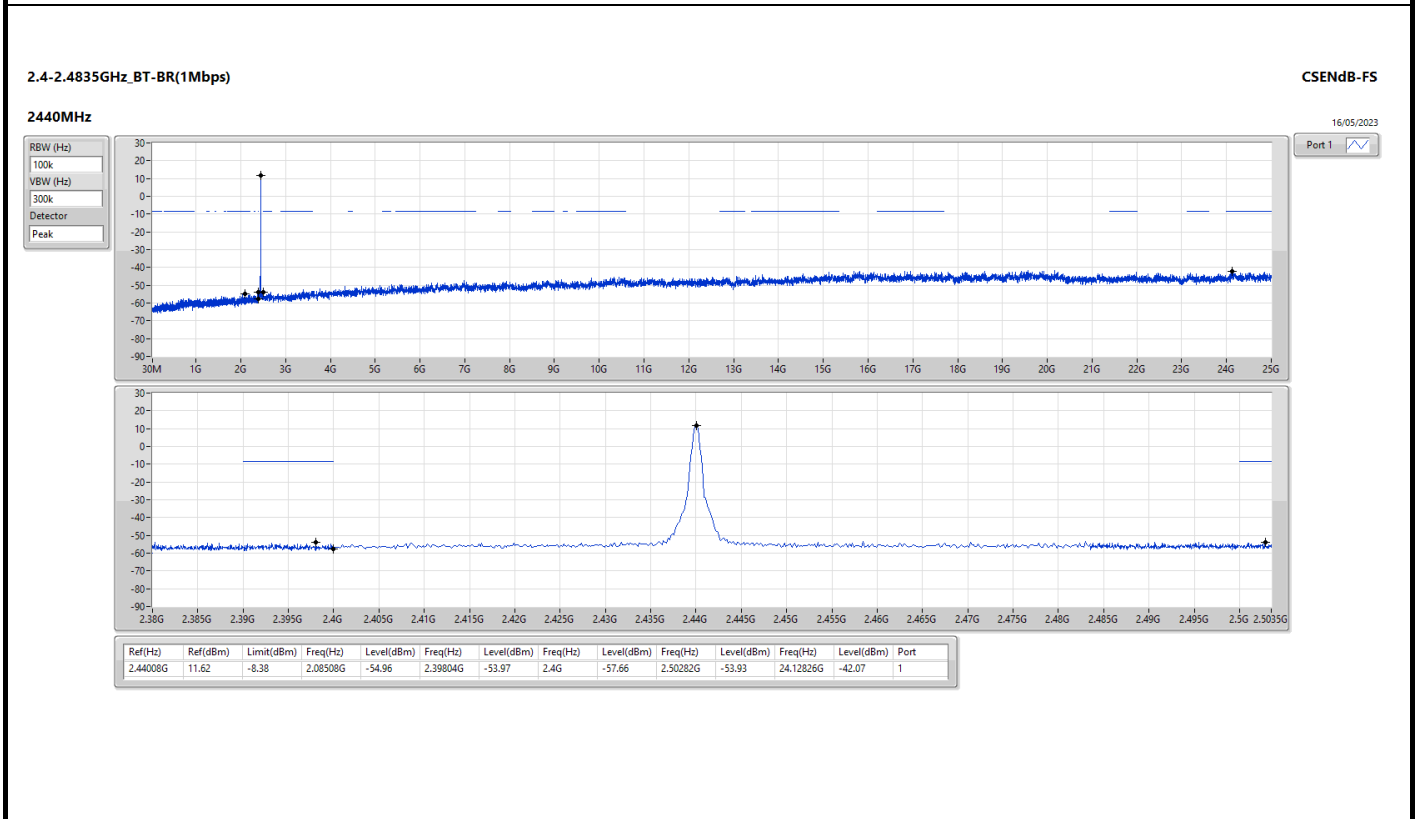
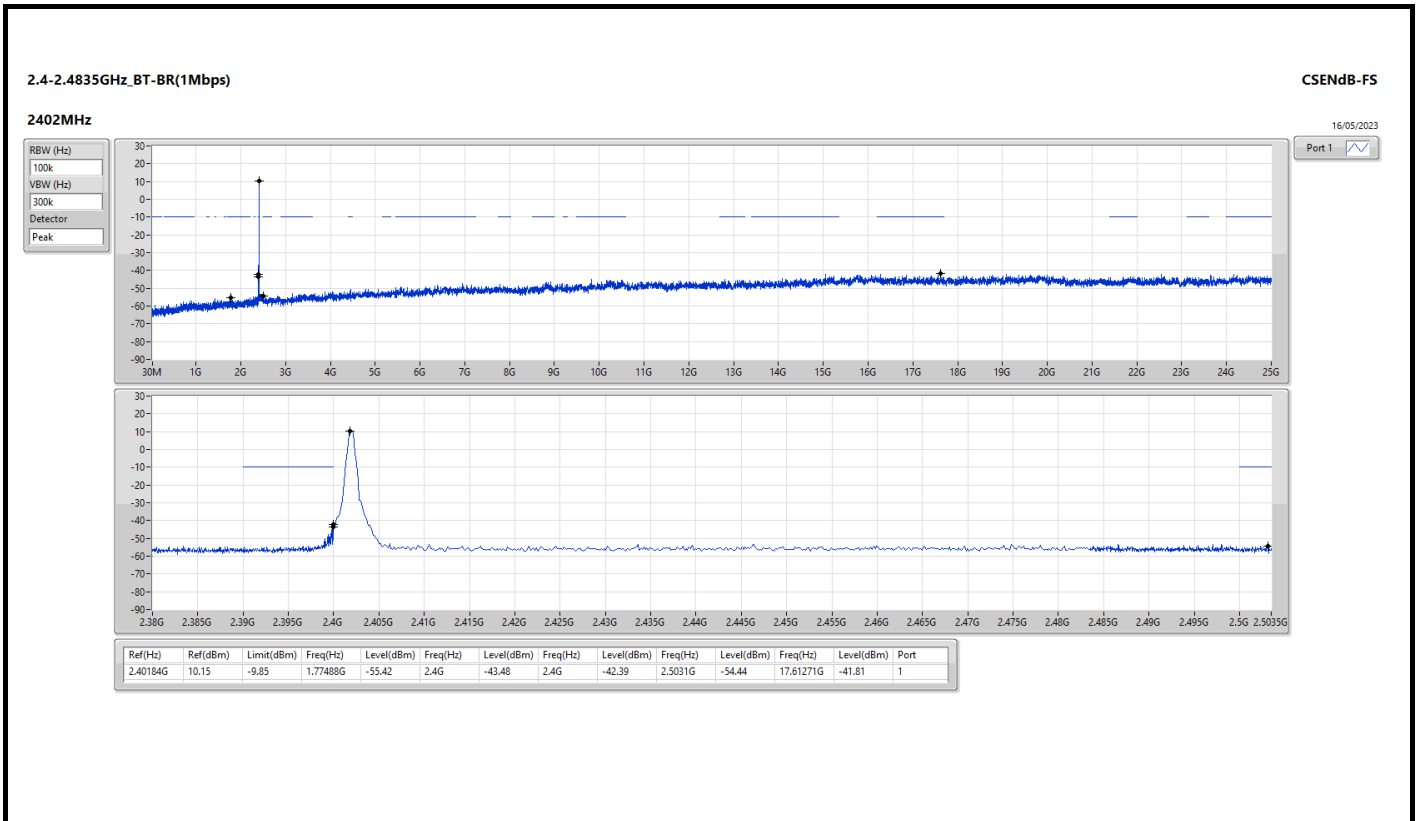


Summary

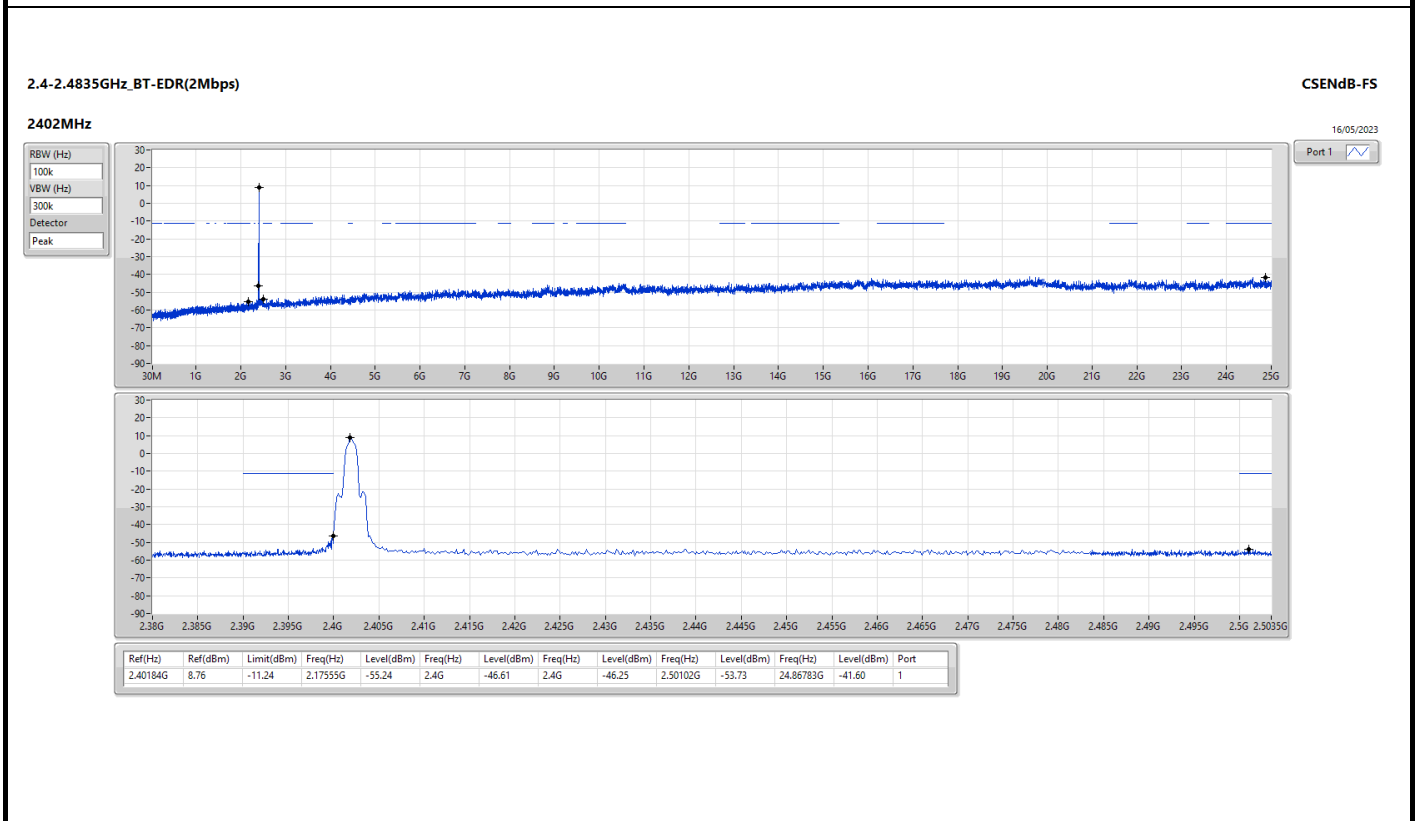
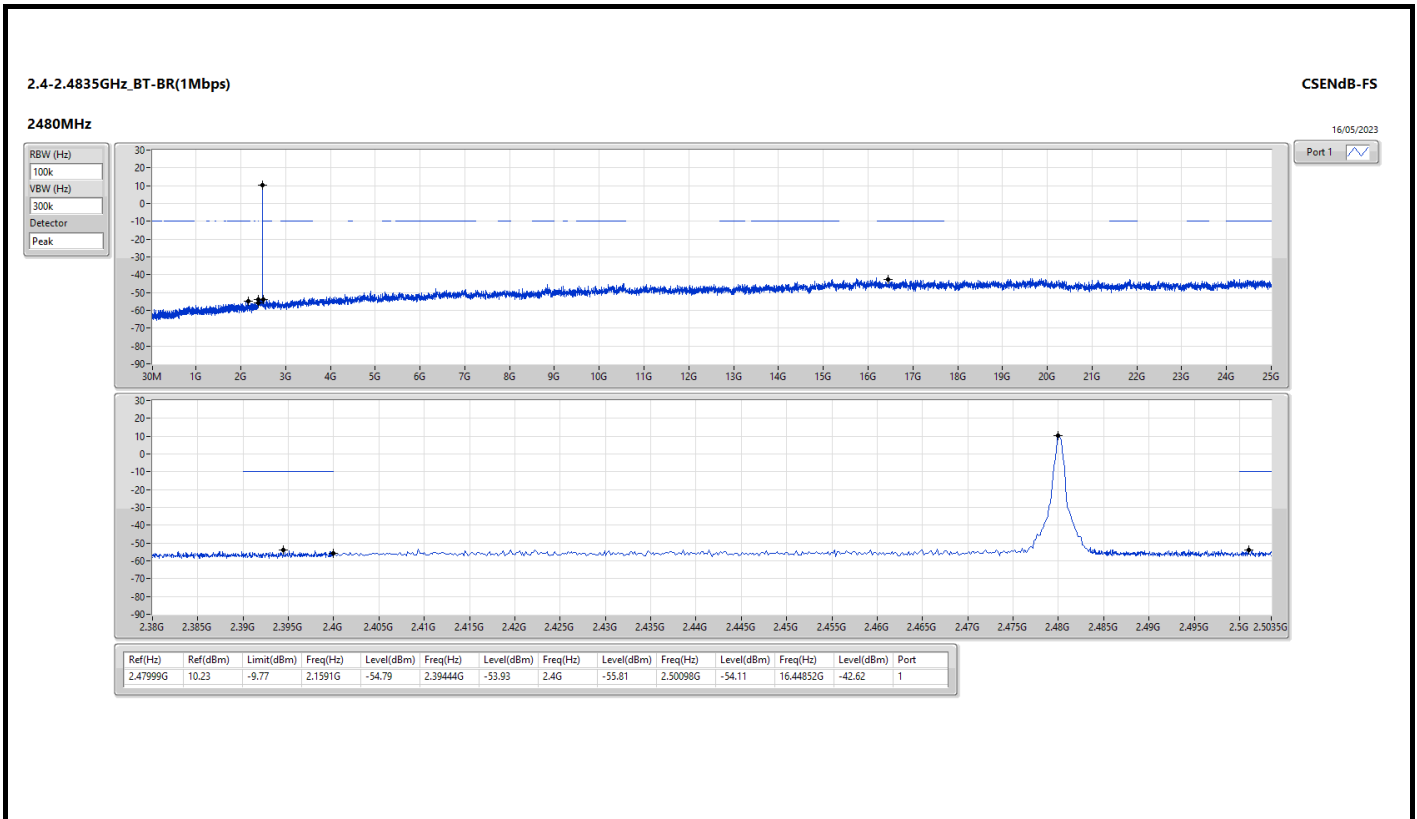
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.40184G	10.15	-9.85	1.77488G	-55.42	2.4G	-43.48	2.4G	-42.39	2.5031G	-54.44	17.61271G	-41.81	1
BT-EDR(2Mbps)	Pass	2.40184G	8.76	-11.24	2.17555G	-55.24	2.4G	-46.61	2.4G	-46.25	2.50102G	-53.73	24.86783G	-41.60	1
BT-EDR(3Mbps)	Pass	2.40184G	8.64	-11.36	1.90883G	-55.44	2.39992G	-46.70	2.4G	-46.93	2.50002G	-53.94	16.80003G	-41.22	1

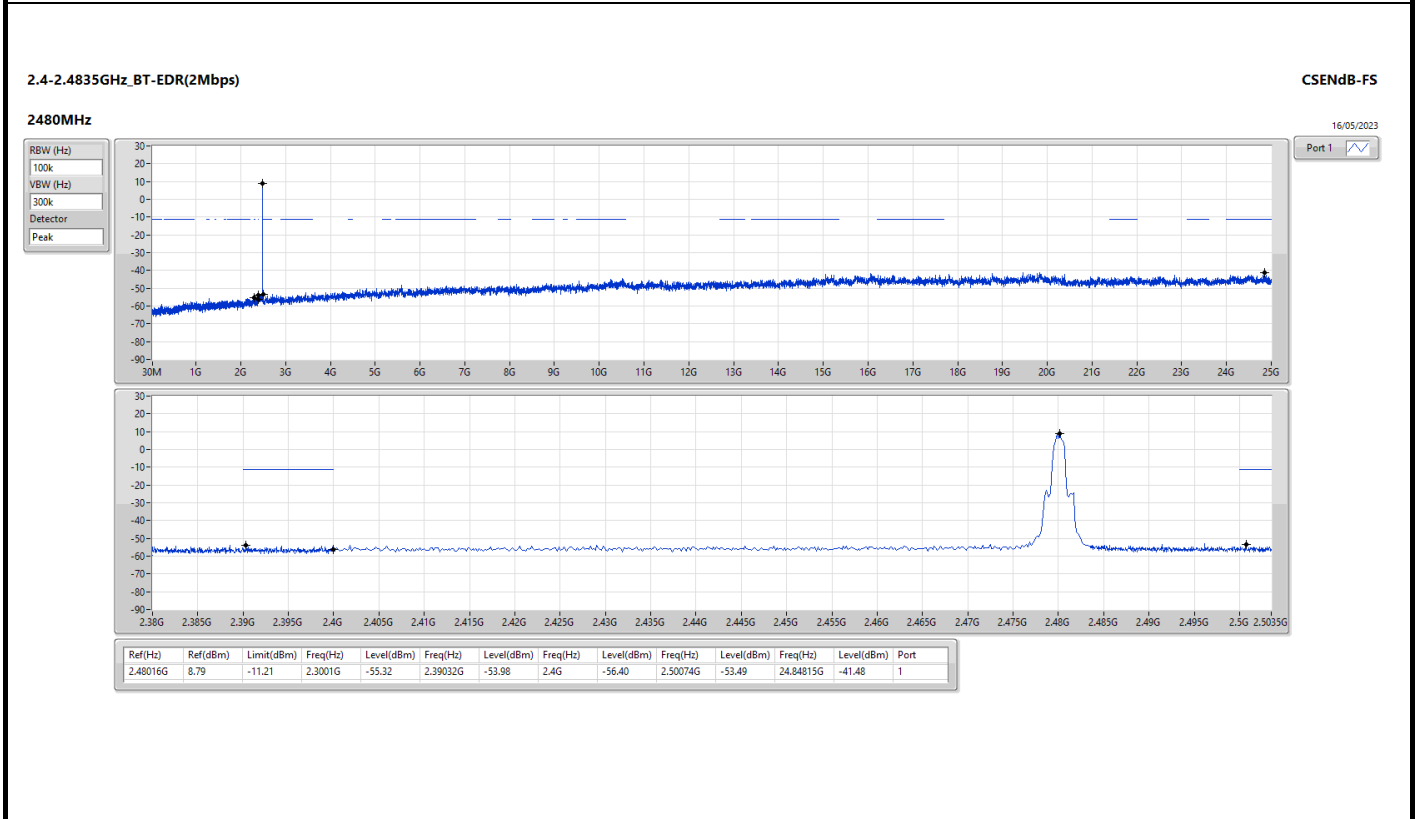
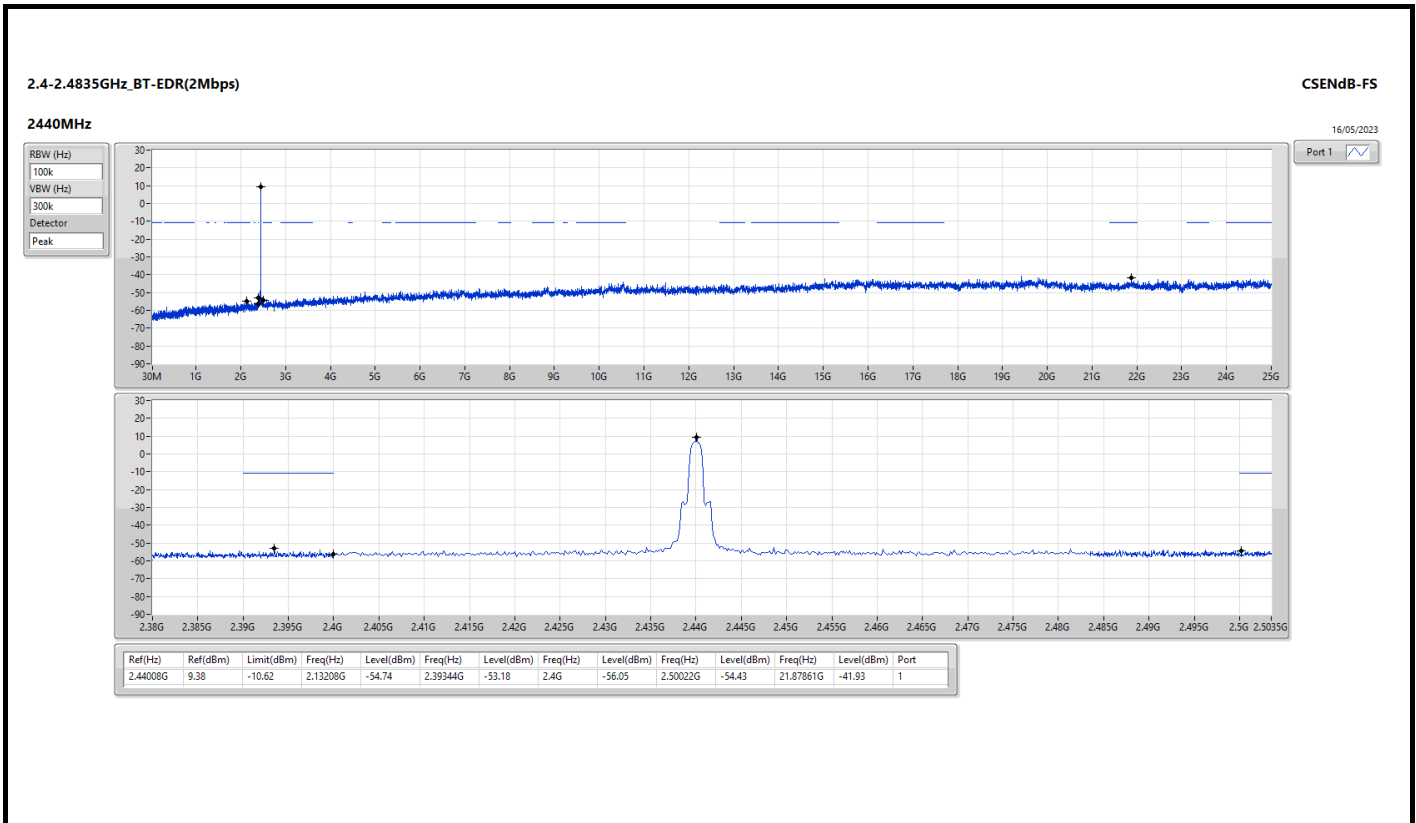
**Result**

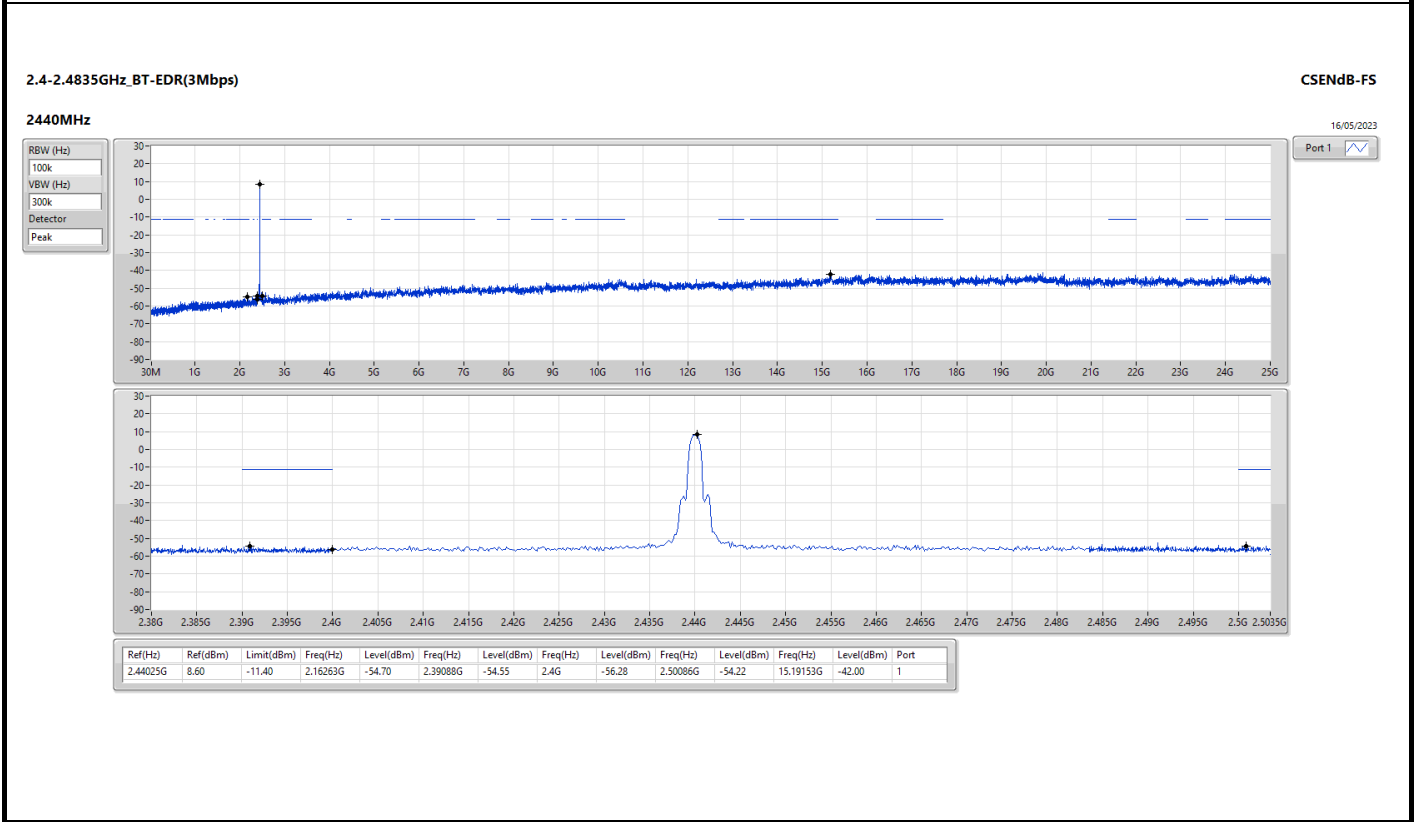
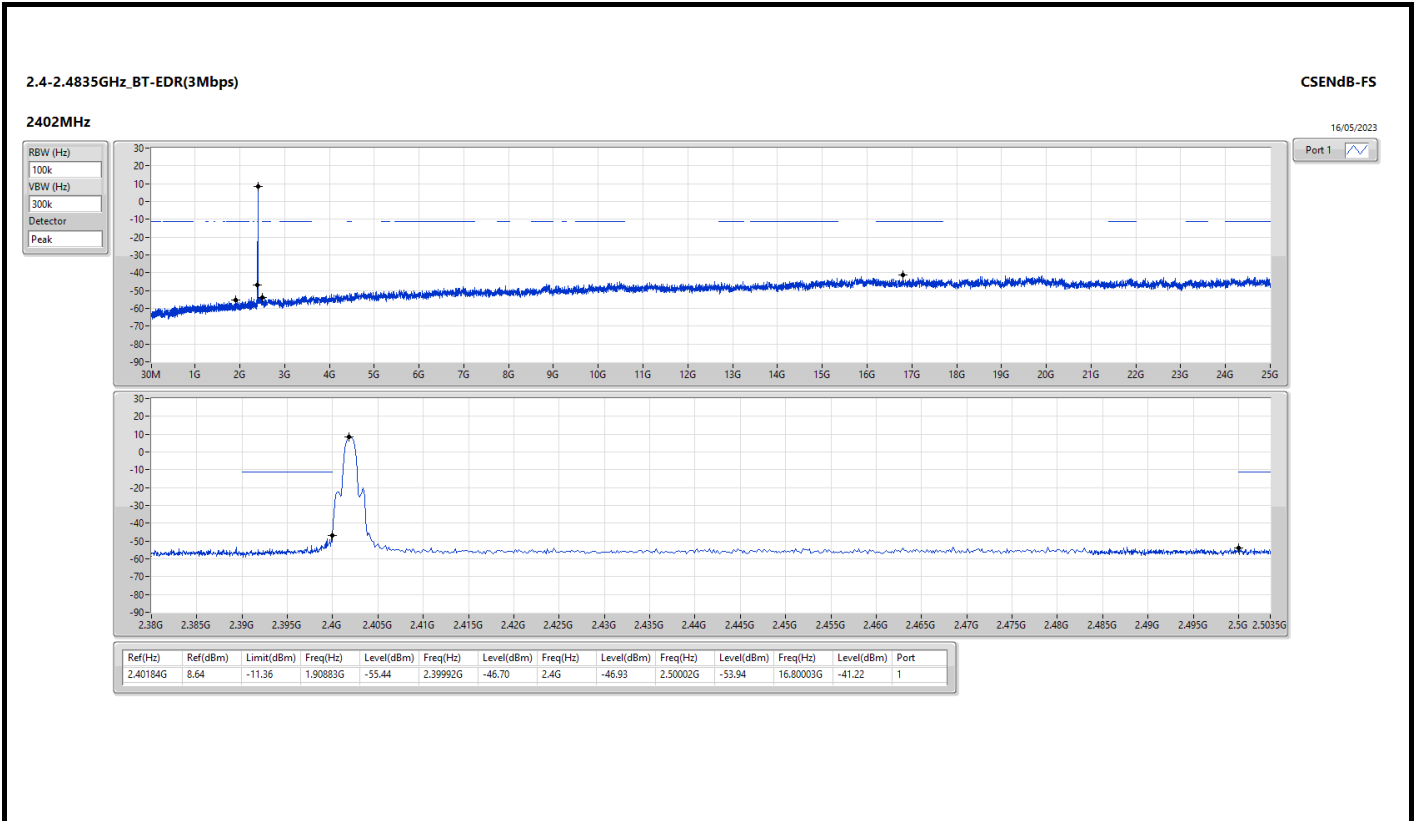
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	10.15	-9.85	1.77488G	-55.42	2.4G	-43.48	2.4G	-42.39	2.5031G	-54.44	17.61271G	-41.81	1
2440MHz	Pass	2.44008G	11.62	-8.38	2.08508G	-54.96	2.39804G	-53.97	2.4G	-57.66	2.50282G	-53.93	24.12826G	-42.07	1
2480MHz	Pass	2.47999G	10.23	-9.77	2.1591G	-54.79	2.39444G	-53.93	2.4G	-55.81	2.50098G	-54.11	16.44852G	-42.62	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	8.76	-11.24	2.17555G	-55.24	2.4G	-46.61	2.4G	-46.25	2.50102G	-53.73	24.86783G	-41.60	1
2440MHz	Pass	2.44008G	9.38	-10.62	2.13208G	-54.74	2.39344G	-53.18	2.4G	-56.05	2.50022G	-54.43	21.87861G	-41.93	1
2480MHz	Pass	2.48016G	8.79	-11.21	2.3001G	-55.32	2.39032G	-53.98	2.4G	-56.40	2.50074G	-53.49	24.84815G	-41.48	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	8.64	-11.36	1.90883G	-55.44	2.39992G	-46.70	2.4G	-46.93	2.50002G	-53.94	16.80003G	-41.22	1
2440MHz	Pass	2.44025G	8.60	-11.40	2.16263G	-54.70	2.39088G	-54.55	2.4G	-56.28	2.50086G	-54.22	15.19153G	-42.00	1
2480MHz	Pass	2.48016G	8.83	-11.17	2.19435G	-55.89	2.3998G	-54.86	2.4G	-55.79	2.50262G	-54.55	16.84502G	-41.71	1

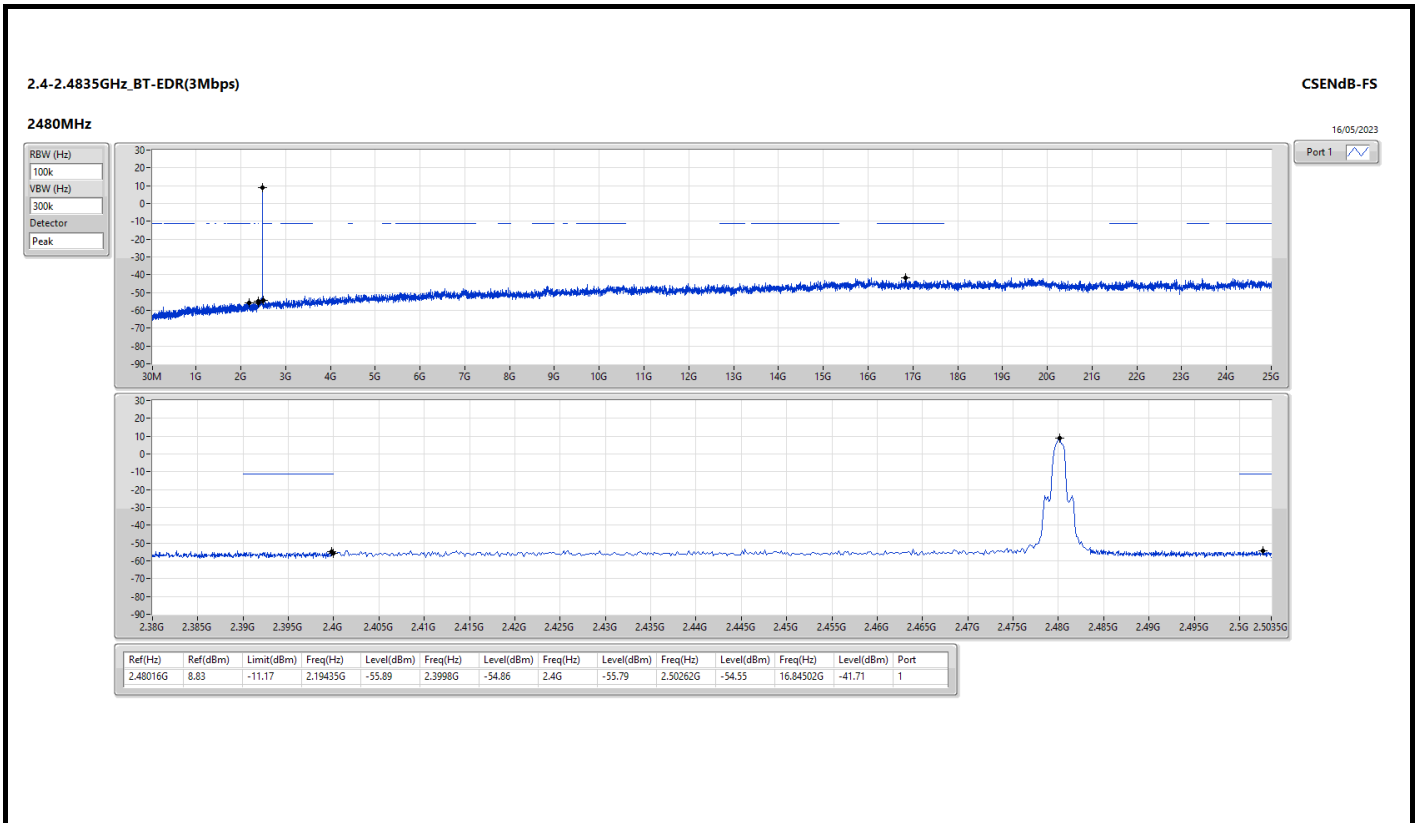














Summary

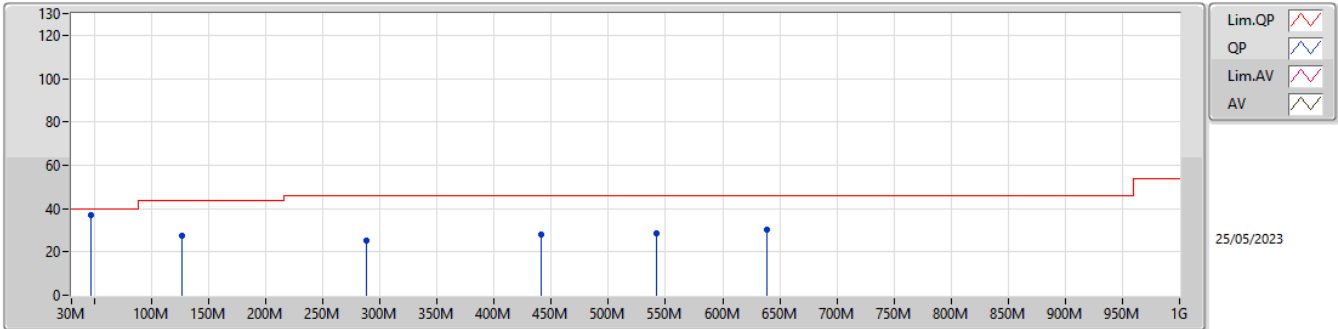
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	QP	46.7M	36.88	40.00	-3.12	3	Vertical	0	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	PK	127M	27.53	43.50	-15.97	3	Vertical	0	1.00	-
2402MHz	Pass	PK	288.02M	25.06	46.00	-20.94	3	Vertical	0	1.00	-
2402MHz	Pass	PK	441.28M	27.75	46.00	-18.25	3	Vertical	0	1.00	-
2402MHz	Pass	PK	542.16M	28.81	46.00	-17.19	3	Vertical	0	1.00	-
2402MHz	Pass	PK	639.16M	30.22	46.00	-15.78	3	Vertical	0	1.00	-
2402MHz	Pass	QP	46.7M	36.88	40.00	-3.12	3	Vertical	0	1.00	-
2402MHz	Pass	PK	167.74M	30.62	43.50	-12.88	3	Horizontal	360	1.00	-
2402MHz	Pass	PK	220.12M	31.58	46.00	-14.42	3	Horizontal	360	1.00	-
2402MHz	Pass	PK	377.26M	29.50	46.00	-16.50	3	Horizontal	360	1.00	-
2402MHz	Pass	PK	470.38M	32.05	46.00	-13.95	3	Horizontal	360	1.00	-
2402MHz	Pass	PK	639.16M	31.27	46.00	-14.73	3	Horizontal	360	1.00	-
2402MHz	Pass	QP	46.34M	35.27	40.00	-4.73	3	Horizontal	36	2.00	-

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

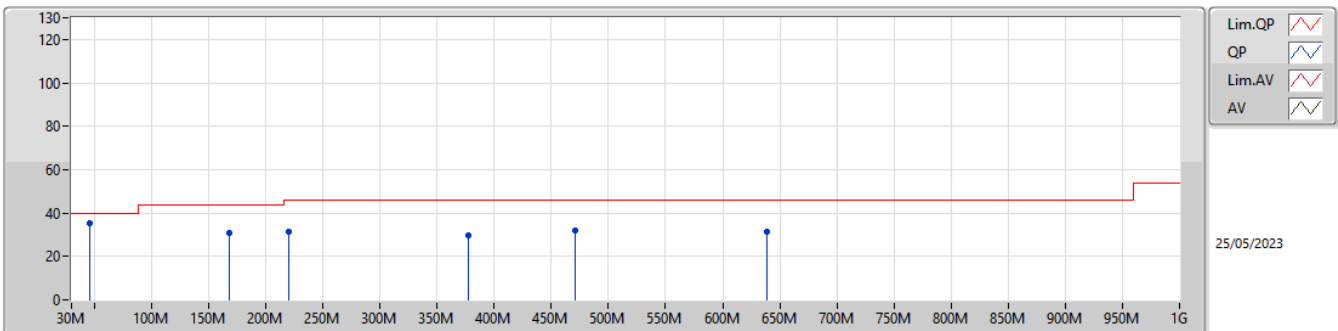
2402MHz\_Adapter



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	127M	27.53	43.50	-15.97	-8.36	3	Vertical	0	1.00	35.89	17.20	2.19	27.75
PK	288.02M	25.06	46.00	-20.94	-5.83	3	Vertical	0	1.00	30.89	18.12	3.23	27.18
PK	441.28M	27.75	46.00	-18.25	-2.24	3	Vertical	0	1.00	29.99	21.75	4.21	28.20
PK	542.16M	28.81	46.00	-17.19	-0.68	3	Vertical	0	1.00	29.49	23.41	4.50	28.59
PK	639.16M	30.22	46.00	-15.78	0.78	3	Vertical	0	1.00	29.44	24.26	5.05	28.53
QP	46.7M	36.88	40.00	-3.12	-11.12	3	Vertical	0	1.00	48.00	14.69	1.44	27.25

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

2402MHz\_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	167.74M	30.62	43.50	-12.88	-10.16	3	Horizontal	360	1.00	40.78	14.93	2.49	27.58
PK	220.12M	31.58	46.00	-14.42	-10.06	3	Horizontal	360	1.00	41.64	14.35	2.90	27.31
PK	377.26M	29.50	46.00	-16.50	-3.84	3	Horizontal	360	1.00	33.34	20.06	3.79	27.69
PK	470.38M	32.05	46.00	-13.95	-1.44	3	Horizontal	360	1.00	33.49	22.53	4.33	28.30
PK	639.16M	31.27	46.00	-14.73	0.78	3	Horizontal	360	1.00	30.49	24.26	5.05	28.53
QP	46.34M	35.27	40.00	-4.73	-10.92	3	Horizontal	36	2.00	46.19	14.86	1.45	27.23



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	2.4842G	58.15	74.00	-15.85	3	Horizontal	162	1.45	-
BT-EDR(3Mbps)	Pass	PK	2.4904G	59.23	74.00	-14.77	3	Horizontal	161	1.43	-





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	2.3786G	34.93	54.00	-19.07	3	Vertical	55	1.66
2402MHz	Pass	AV	2.4022G	77.61	Inf	-Inf	3	Vertical	55	1.66
2402MHz	Pass	PK	2.3786G	57.43	74.00	-16.57	3	Vertical	55	1.66
2402MHz	Pass	PK	2.4022G	100.11	Inf	-Inf	3	Vertical	55	1.66
2402MHz	Pass	AV	2.3812G	34.63	54.00	-19.37	3	Horizontal	158	1.50
2402MHz	Pass	AV	2.4022G	78.60	Inf	-Inf	3	Horizontal	158	1.50
2402MHz	Pass	PK	2.3812G	57.13	74.00	-16.87	3	Horizontal	158	1.50
2402MHz	Pass	PK	2.4022G	101.10	Inf	-Inf	3	Horizontal	158	1.50
2402MHz	Pass	AV	4.804G	19.93	54.00	-34.07	3	Vertical	140	1.50
2402MHz	Pass	PK	4.804G	42.43	74.00	-31.57	3	Vertical	140	1.50
2402MHz	Pass	AV	4.80404G	20.39	54.00	-33.61	3	Horizontal	327	2.48
2402MHz	Pass	PK	4.80404G	42.89	74.00	-31.11	3	Horizontal	327	2.48
2440MHz	Pass	AV	2.384G	34.38	54.00	-19.62	3	Vertical	54	1.27
2440MHz	Pass	AV	2.44G	78.24	Inf	-Inf	3	Vertical	54	1.27
2440MHz	Pass	AV	2.4912G	35.30	54.00	-18.70	3	Vertical	54	1.27
2440MHz	Pass	PK	2.384G	56.88	74.00	-17.12	3	Vertical	54	1.27
2440MHz	Pass	PK	2.44G	100.74	Inf	-Inf	3	Vertical	54	1.27
2440MHz	Pass	PK	2.4912G	57.80	74.00	-16.20	3	Vertical	54	1.27
2440MHz	Pass	AV	2.3828G	34.38	54.00	-19.62	3	Horizontal	159	1.09
2440MHz	Pass	AV	2.44G	76.52	Inf	-Inf	3	Horizontal	159	1.09
2440MHz	Pass	AV	2.4996G	34.81	54.00	-19.19	3	Horizontal	159	1.09
2440MHz	Pass	PK	2.3828G	56.88	74.00	-17.12	3	Horizontal	159	1.09
2440MHz	Pass	PK	2.44G	99.02	Inf	-Inf	3	Horizontal	159	1.09
2440MHz	Pass	PK	2.4996G	57.31	74.00	-16.69	3	Horizontal	159	1.09
2440MHz	Pass	AV	4.87977G	21.31	54.00	-32.69	3	Vertical	326	1.00
2440MHz	Pass	PK	4.87977G	43.81	74.00	-30.19	3	Vertical	326	1.00
2440MHz	Pass	AV	4.87978G	20.11	54.00	-33.89	3	Horizontal	31	1.01
2440MHz	Pass	PK	4.87978G	42.61	74.00	-31.39	3	Horizontal	31	1.01
2480MHz	Pass	AV	2.4798G	75.98	Inf	-Inf	3	Vertical	52	1.31
2480MHz	Pass	AV	2.4912G	35.35	54.00	-18.65	3	Vertical	52	1.31
2480MHz	Pass	PK	2.4798G	98.48	Inf	-Inf	3	Vertical	52	1.31
2480MHz	Pass	PK	2.4912G	57.85	74.00	-16.15	3	Vertical	52	1.31
2480MHz	Pass	AV	2.4798G	72.75	Inf	-Inf	3	Horizontal	162	1.45
2480MHz	Pass	AV	2.4842G	35.65	54.00	-18.35	3	Horizontal	162	1.45
2480MHz	Pass	PK	2.4798G	95.25	Inf	-Inf	3	Horizontal	162	1.45
2480MHz	Pass	PK	2.4842G	58.15	74.00	-15.85	3	Horizontal	162	1.45
2480MHz	Pass	AV	4.96013G	21.71	54.00	-32.29	3	Vertical	320	1.16
2480MHz	Pass	PK	4.96013G	44.21	74.00	-29.79	3	Vertical	320	1.16
2480MHz	Pass	AV	4.95982G	22.32	54.00	-31.68	3	Horizontal	310	2.20
2480MHz	Pass	PK	4.95982G	44.82	74.00	-29.18	3	Horizontal	310	2.20
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3794G	35.56	54.00	-18.44	3	Vertical	52	1.69
2402MHz	Pass	AV	2.402G	76.74	Inf	-Inf	3	Vertical	52	1.69
2402MHz	Pass	PK	2.3794G	58.06	74.00	-15.94	3	Vertical	52	1.69
2402MHz	Pass	PK	2.402G	99.24	Inf	-Inf	3	Vertical	52	1.69
2402MHz	Pass	AV	2.3832G	35.40	54.00	-18.60	3	Horizontal	154	1.50
2402MHz	Pass	AV	2.402G	77.74	Inf	-Inf	3	Horizontal	154	1.50
2402MHz	Pass	PK	2.3832G	57.90	74.00	-16.10	3	Horizontal	154	1.50
2402MHz	Pass	PK	2.402G	100.24	Inf	-Inf	3	Horizontal	154	1.50
2402MHz	Pass	AV	4.80612G	19.59	54.00	-34.41	3	Vertical	141	2.14
2402MHz	Pass	PK	4.80612G	42.09	74.00	-31.91	3	Vertical	141	2.14
2402MHz	Pass	AV	4.80377G	19.80	54.00	-34.20	3	Horizontal	301	1.07
2402MHz	Pass	PK	4.80377G	42.30	74.00	-31.70	3	Horizontal	301	1.07
2440MHz	Pass	AV	2.372G	34.61	54.00	-19.39	3	Vertical	53	1.27
2440MHz	Pass	AV	2.44G	77.32	Inf	-Inf	3	Vertical	53	1.27
2440MHz	Pass	AV	2.4952G	34.63	54.00	-19.37	3	Vertical	53	1.27
2440MHz	Pass	PK	2.372G	57.11	74.00	-16.89	3	Vertical	53	1.27
2440MHz	Pass	PK	2.44G	99.82	Inf	-Inf	3	Vertical	53	1.27
2440MHz	Pass	PK	2.4952G	57.13	74.00	-16.87	3	Vertical	53	1.27
2440MHz	Pass	AV	2.378G	34.79	54.00	-19.21	3	Horizontal	161	1.50



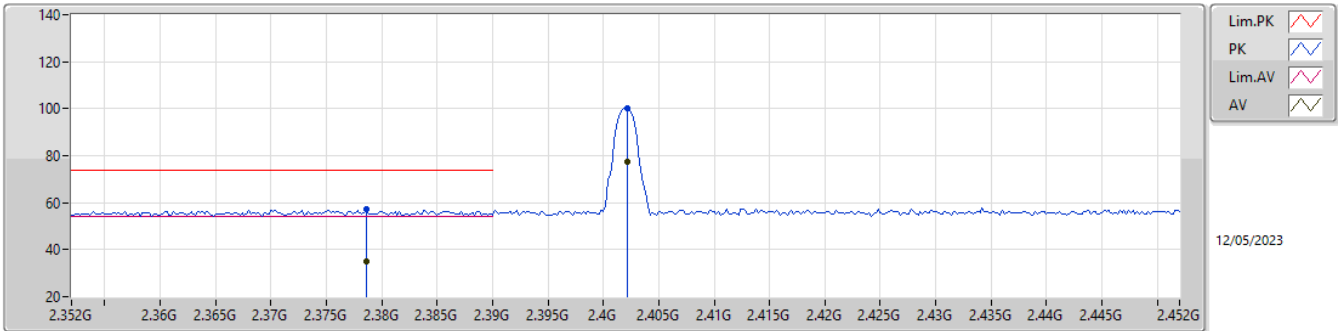
**RSE TX above 1GHz**

**Appendix F.2**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2440MHz	Pass	AV	2.44G	74.90	Inf	-Inf	3	Horizontal	161	1.50
2440MHz	Pass	AV	2.4992G	35.59	54.00	-18.41	3	Horizontal	161	1.50
2440MHz	Pass	PK	2.378G	57.29	74.00	-16.71	3	Horizontal	161	1.50
2440MHz	Pass	PK	2.44G	97.40	Inf	-Inf	3	Horizontal	161	1.50
2440MHz	Pass	PK	2.4992G	58.09	74.00	-15.91	3	Horizontal	161	1.50
2440MHz	Pass	AV	4.88053G	19.09	54.00	-34.91	3	Vertical	305	1.01
2440MHz	Pass	PK	4.88053G	41.59	74.00	-32.41	3	Vertical	305	1.01
2440MHz	Pass	AV	4.8798G	20.47	54.00	-33.53	3	Horizontal	325	2.40
2440MHz	Pass	PK	4.8798G	42.97	74.00	-31.03	3	Horizontal	325	2.40
2480MHz	Pass	AV	2.48G	74.56	Inf	-Inf	3	Vertical	53	1.30
2480MHz	Pass	AV	2.494G	35.91	54.00	-18.09	3	Vertical	53	1.30
2480MHz	Pass	PK	2.48G	97.06	Inf	-Inf	3	Vertical	53	1.30
2480MHz	Pass	PK	2.494G	58.41	74.00	-15.59	3	Vertical	53	1.30
2480MHz	Pass	AV	2.48G	71.27	Inf	-Inf	3	Horizontal	161	1.43
2480MHz	Pass	AV	2.4904G	36.73	54.00	-17.27	3	Horizontal	161	1.43
2480MHz	Pass	PK	2.48G	93.77	Inf	-Inf	3	Horizontal	161	1.43
2480MHz	Pass	PK	2.4904G	59.23	74.00	-14.77	3	Horizontal	161	1.43
2480MHz	Pass	AV	4.95889G	20.15	54.00	-33.85	3	Vertical	354	1.00
2480MHz	Pass	PK	4.95889G	42.65	74.00	-31.35	3	Vertical	354	1.00
2480MHz	Pass	AV	4.96024G	21.84	54.00	-32.16	3	Horizontal	312	2.30
2480MHz	Pass	PK	4.96024G	44.34	74.00	-29.66	3	Horizontal	312	2.30

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

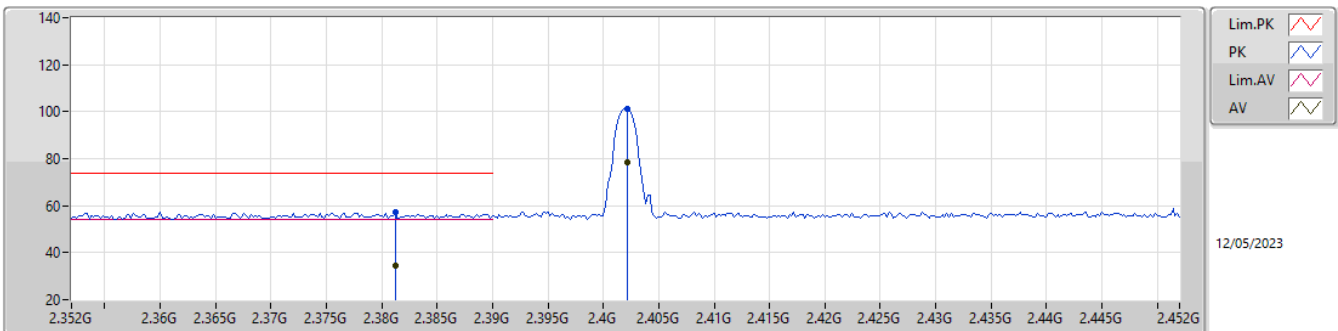
2402MHz\_TX



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	2.3786G	34.93	54.00	-19.07	31.67	3	Vertical	55	1.66	32.6	27.43	4.24	-
AV	2.4022G	77.61	Inf	-Inf	31.86	3	Vertical	55	1.66	45.75	27.60	4.26	-
PK	2.3786G	57.43	74.00	-16.57	31.67	3	Vertical	55	1.66	25.76	27.43	4.24	-
PK	2.4022G	100.11	Inf	-Inf	31.86	3	Vertical	55	1.66	68.25	27.60	4.26	-

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

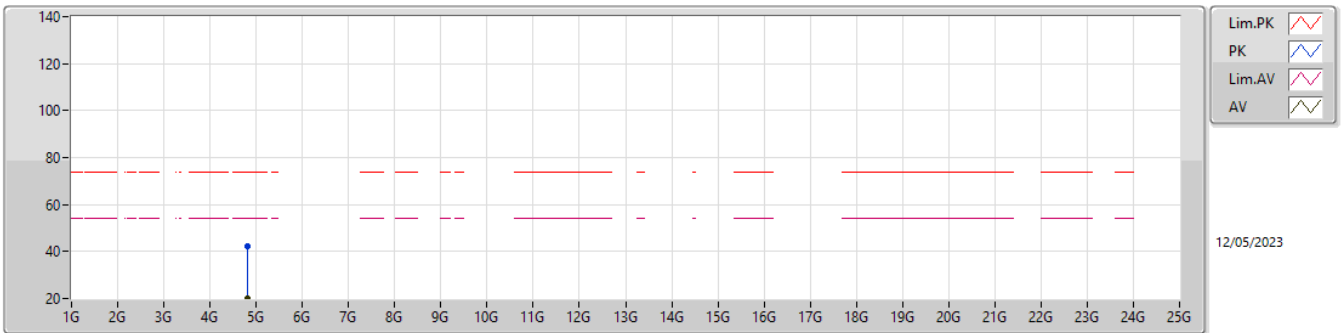
2402MHz\_TX



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	2.3812G	34.63	54.00	-19.37	31.69	3	Horizontal	158	1.50	2.94	27.45	4.24	-
AV	2.4022G	78.60	Inf	-Inf	31.86	3	Horizontal	158	1.50	46.74	27.60	4.26	-
PK	2.3812G	57.13	74.00	-16.87	31.69	3	Horizontal	158	1.50	25.44	27.45	4.24	-
PK	2.4022G	101.10	Inf	-Inf	31.86	3	Horizontal	158	1.50	69.24	27.60	4.26	-

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

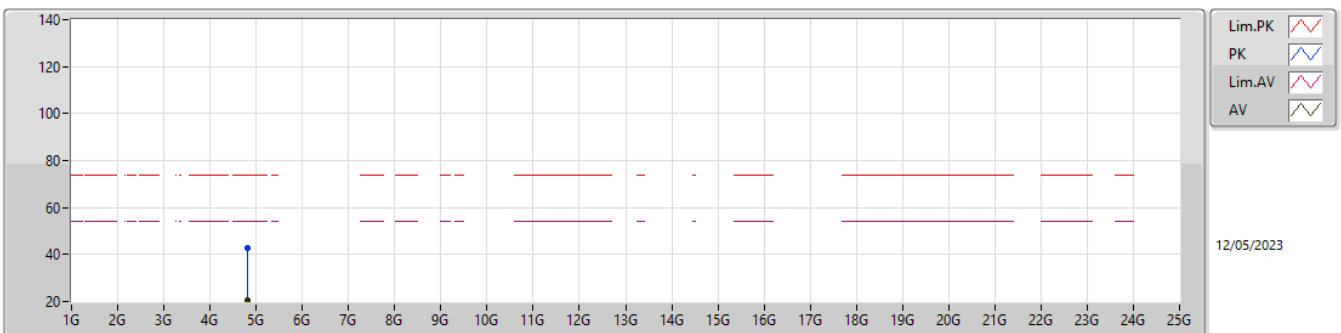
2402MHz\_TX



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	4.804G	19.93	54.00	-34.07	4.19	3	Vertical	140	1.50	15.74	32.22	6.16	34.19
PK	4.804G	42.43	74.00	-31.57	4.19	3	Vertical	140	1.50	38.24	32.22	6.16	34.19

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

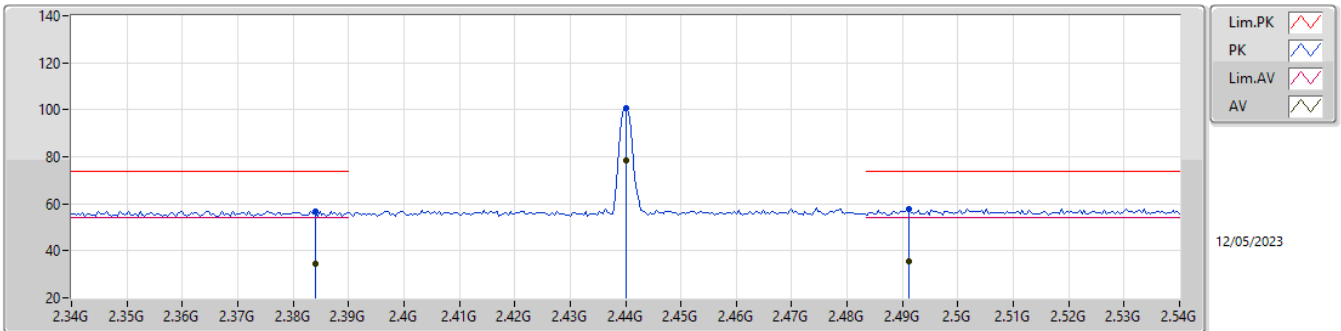
2402MHz\_TX



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	4.80404G	20.39	54.00	-33.61	4.19	3	Horizontal	327	2.48	16.20	32.22	6.16	34.19
PK	4.80404G	42.89	74.00	-31.11	4.19	3	Horizontal	327	2.48	38.70	32.22	6.16	34.19

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

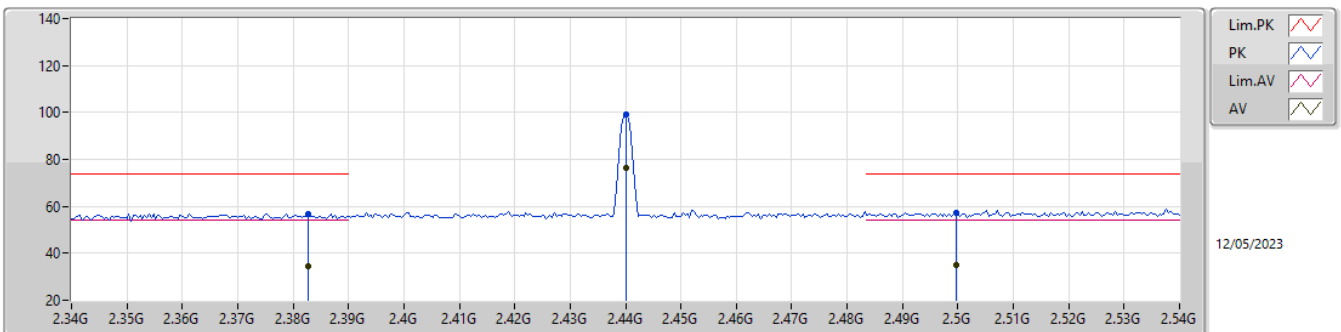
2440MHz\_TX



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	2.384G	34.38	54.00	-19.62	31.72	3	Vertical	54	1.27	2.66	27.47	4.25	-
AV	2.44G	78.24	Inf	-Inf	31.96	3	Vertical	54	1.27	46.28	27.68	4.28	-
AV	2.4912G	35.30	54.00	-18.70	32.17	3	Vertical	54	1.27	3.13	27.86	4.31	-
PK	2.384G	56.88	74.00	-17.12	31.72	3	Vertical	54	1.27	25.16	27.47	4.25	-
PK	2.44G	100.74	Inf	-Inf	31.96	3	Vertical	54	1.27	68.78	27.68	4.28	-
PK	2.4912G	57.80	74.00	-16.20	32.17	3	Vertical	54	1.27	25.63	27.86	4.31	-

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

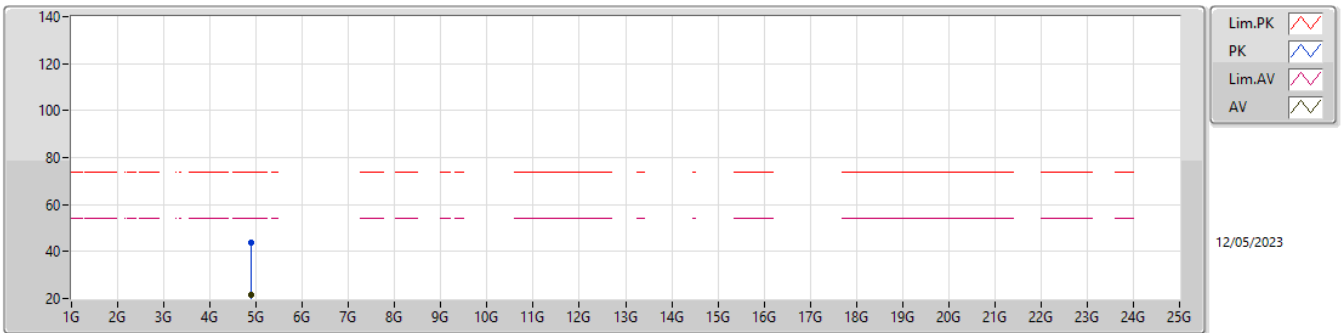
2440MHz\_TX



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	2.3828G	34.38	54.00	-19.62	31.71	3	Horizontal	159	1.09	2.67	27.46	4.25	-
AV	2.44G	76.52	Inf	-Inf	31.96	3	Horizontal	159	1.09	44.56	27.68	4.28	-
AV	2.4996G	34.81	54.00	-19.19	32.22	3	Horizontal	159	1.09	2.59	27.90	4.32	-
PK	2.3828G	56.88	74.00	-17.12	31.71	3	Horizontal	159	1.09	25.17	27.46	4.25	-
PK	2.44G	99.02	Inf	-Inf	31.96	3	Horizontal	159	1.09	67.06	27.68	4.28	-
PK	2.4996G	57.31	74.00	-16.69	32.22	3	Horizontal	159	1.09	25.09	27.90	4.32	-

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

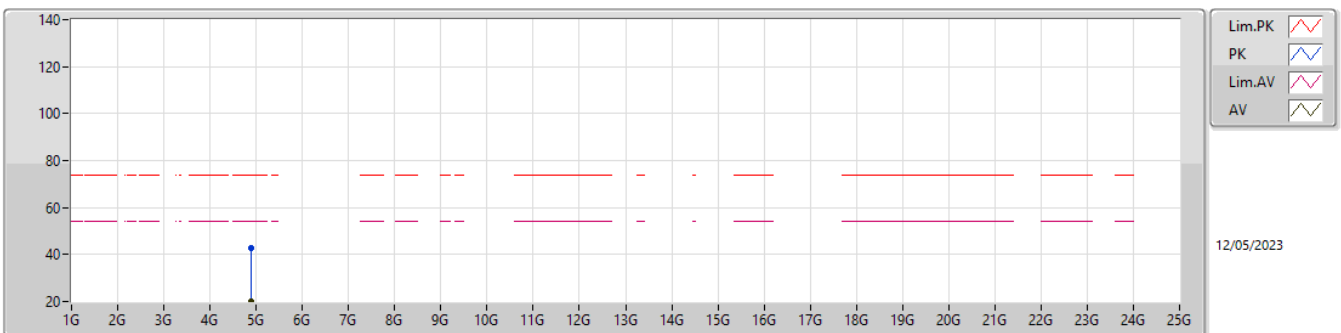
2440MHz\_TX



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	4.87977G	21.31	54.00	-32.69	4.68	3	Vertical	326	1.00	16.63	32.62	6.22	34.16
PK	4.87977G	43.81	74.00	-30.19	4.68	3	Vertical	326	1.00	39.13	32.62	6.22	34.16

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

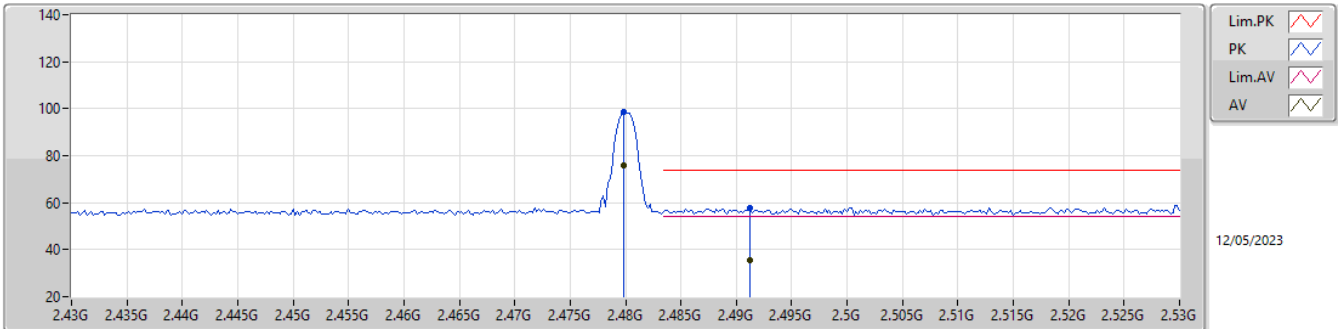
2440MHz\_TX



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	4.87978G	20.11	54.00	-33.89	4.68	3	Horizontal	31	1.01	15.43	32.62	6.22	34.16
PK	4.87978G	42.61	74.00	-31.39	4.68	3	Horizontal	31	1.01	37.93	32.62	6.22	34.16

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

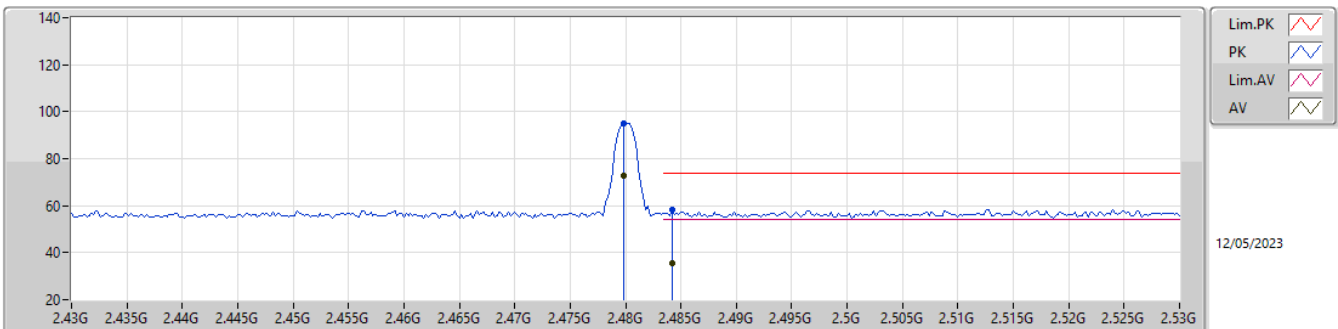
2480MHz\_TX



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	75.98	Inf	-Inf	32.13	3	Vertical	52	1.31	43.85	27.82	4.31	-
AV	2.4912G	35.35	54.00	-18.65	32.17	3	Vertical	52	1.31	3.18	27.86	4.31	-
PK	2.4798G	98.48	Inf	-Inf	32.13	3	Vertical	52	1.31	66.35	27.82	4.31	-
PK	2.4912G	57.85	74.00	-16.15	32.17	3	Vertical	52	1.31	25.68	27.86	4.31	-

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

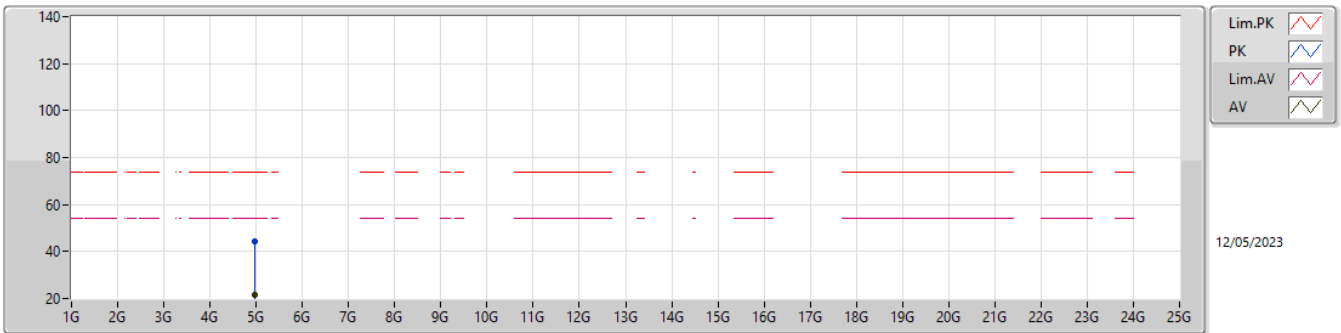
2480MHz\_TX



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	72.75	Inf	-Inf	32.13	3	Horizontal	162	1.45	40.62	27.82	4.31	-
AV	2.4842G	35.65	54.00	-18.35	32.15	3	Horizontal	162	1.45	3.50	27.84	4.31	-
PK	2.4798G	95.25	Inf	-Inf	32.13	3	Horizontal	162	1.45	63.12	27.82	4.31	-
PK	2.4842G	58.15	74.00	-15.85	32.15	3	Horizontal	162	1.45	26.00	27.84	4.31	-

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

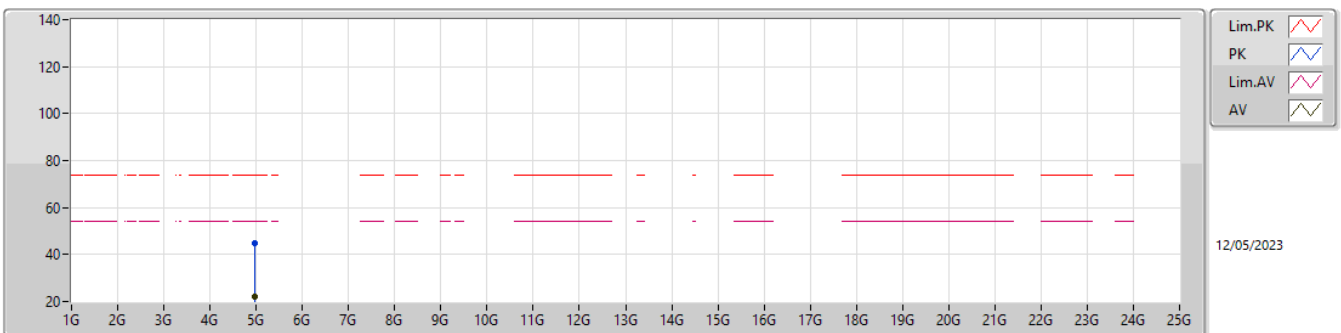
2480MHz\_TX



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	4.96013G	21.71	54.00	-32.29	5.18	3	Vertical	320	1.16	16.53	33.04	6.27	34.13
PK	4.96013G	44.21	74.00	-29.79	5.18	3	Vertical	320	1.16	39.03	33.04	6.27	34.13

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

2480MHz\_TX

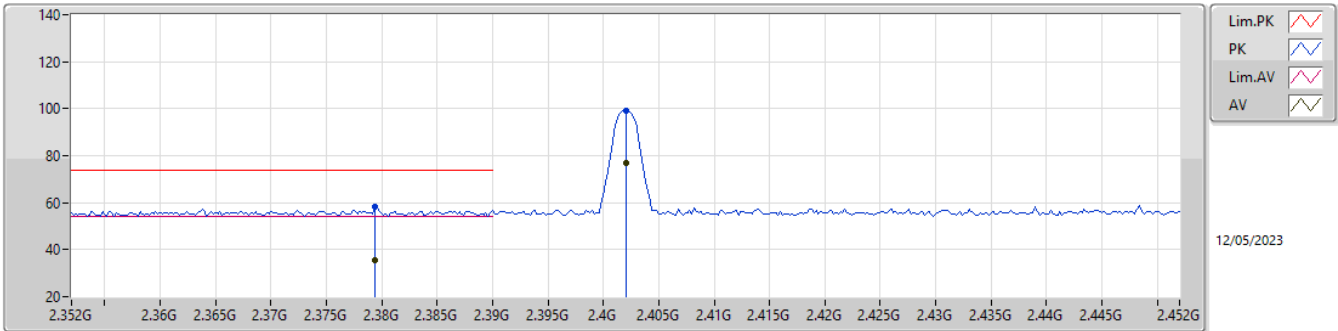


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95982G	22.32	54.00	-31.68	5.18	3	Horizontal	310	2.20	17.14	33.04	6.27	34.13
PK	4.95982G	44.82	74.00	-29.18	5.18	3	Horizontal	310	2.20	39.64	33.04	6.27	34.13



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

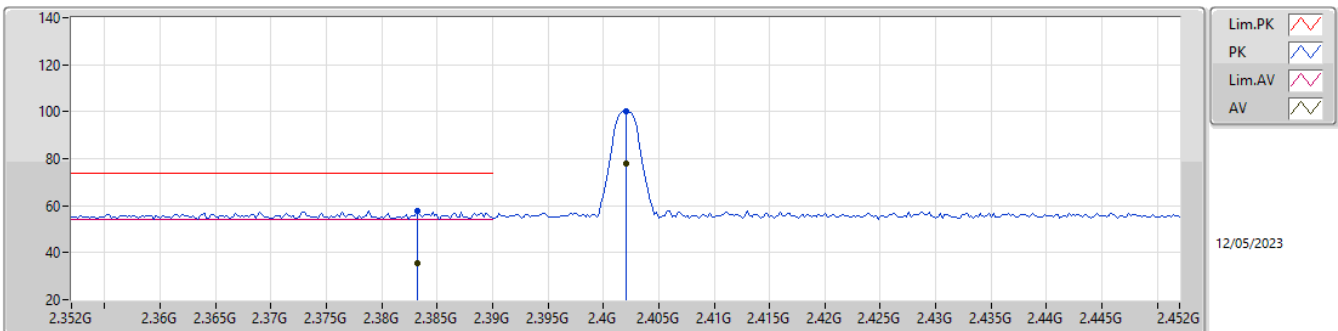
2402MHz\_TX



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	2.3794G	35.56	54.00	-18.44	31.68	3	Vertical	52	1.69	3.88	27.44	4.24	-
AV	2.402G	76.74	Inf	-Inf	31.86	3	Vertical	52	1.69	44.88	27.60	4.26	-
PK	2.3794G	58.06	74.00	-15.94	31.68	3	Vertical	52	1.69	26.38	27.44	4.24	-
PK	2.402G	99.24	Inf	-Inf	31.86	3	Vertical	52	1.69	67.38	27.60	4.26	-

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

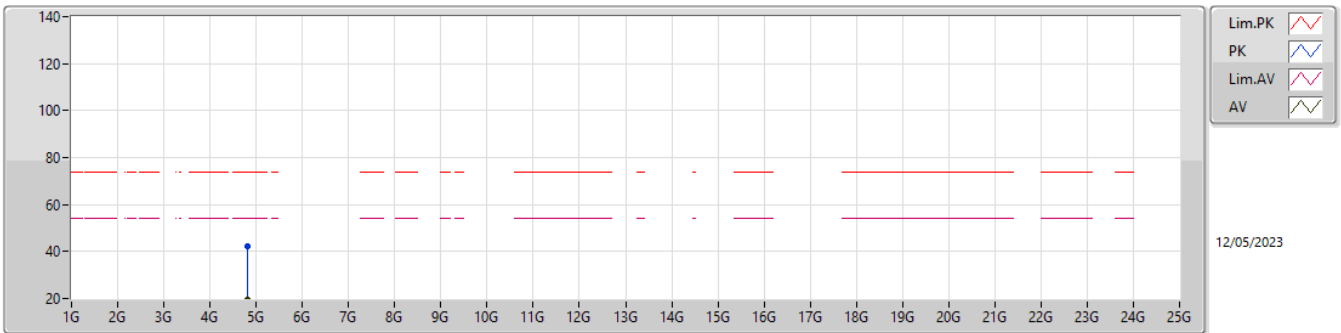
2402MHz\_TX



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	2.3832G	35.40	54.00	-18.60	31.72	3	Horizontal	154	1.50	3.68	27.47	4.25	-
AV	2.402G	77.74	Inf	-Inf	31.86	3	Horizontal	154	1.50	45.88	27.60	4.26	-
PK	2.3832G	57.90	74.00	-16.10	31.72	3	Horizontal	154	1.50	26.18	27.47	4.25	-
PK	2.402G	100.24	Inf	-Inf	31.86	3	Horizontal	154	1.50	68.38	27.60	4.26	-

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

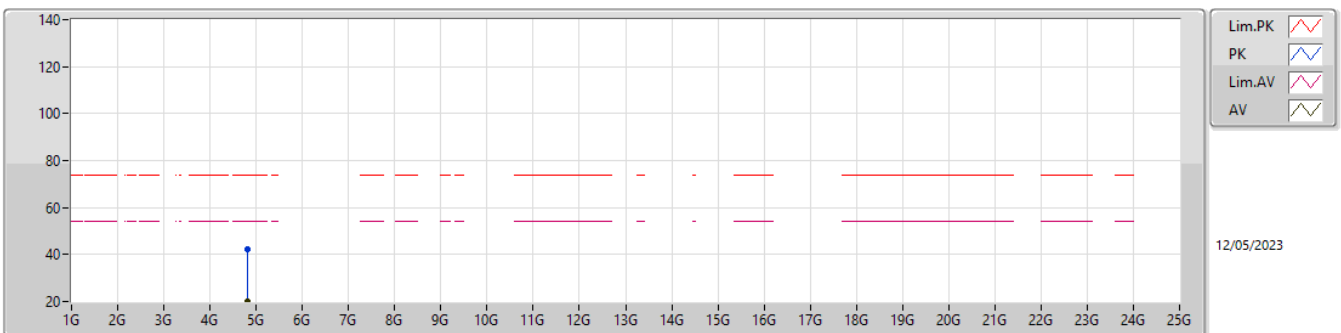
2402MHz\_TX



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	4.80612G	19.59	54.00	-34.41	4.21	3	Vertical	141	2.14	15.38	32.24	6.16	34.19
PK	4.80612G	42.09	74.00	-31.91	4.21	3	Vertical	141	2.14	37.88	32.24	6.16	34.19

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

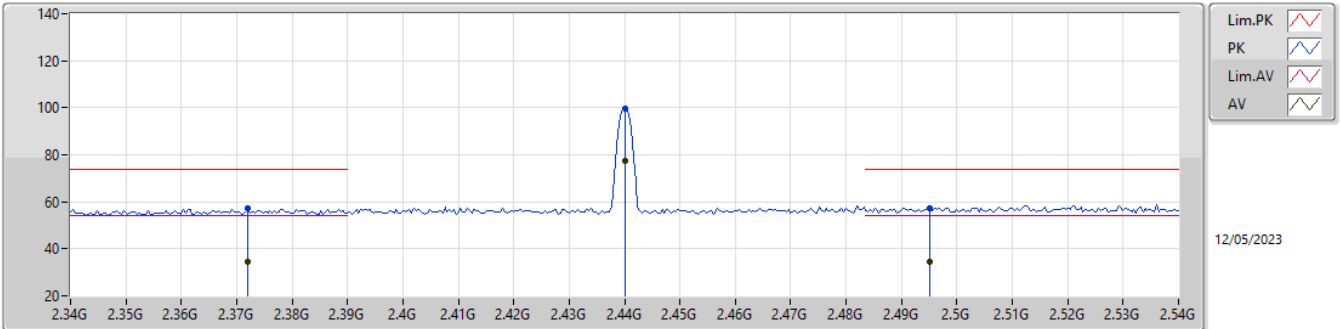
2402MHz\_TX



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	4.80377G	19.80	54.00	-34.20	4.19	3	Horizontal	301	1.07	15.61	32.22	6.16	34.19
PK	4.80377G	42.30	74.00	-31.70	4.19	3	Horizontal	301	1.07	38.11	32.22	6.16	34.19

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

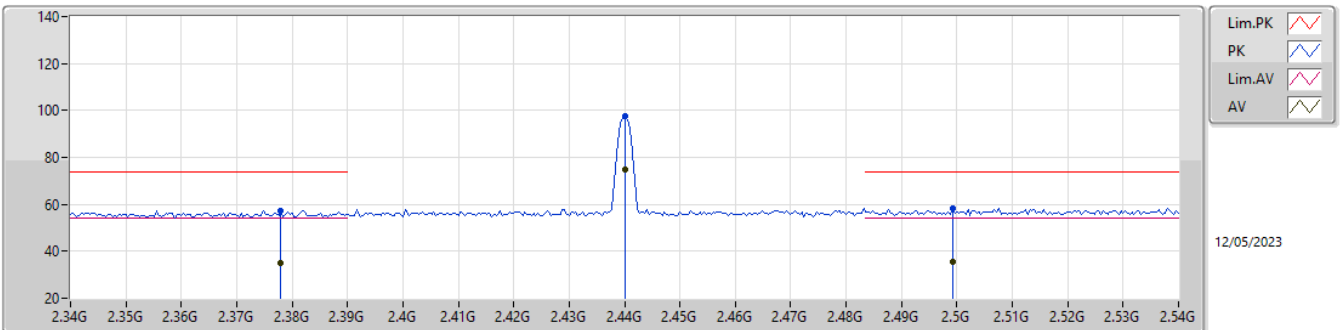
2440MHz\_TX



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	2.372G	34.61	54.00	-19.39	31.62	3	Vertical	53	1.27	2.99	27.38	4.24	-
AV	2.44G	77.32	Inf	-Inf	31.96	3	Vertical	53	1.27	45.36	27.68	4.28	-
AV	2.4952G	34.63	54.00	-19.37	32.20	3	Vertical	53	1.27	2.43	27.88	4.32	-
PK	2.372G	57.11	74.00	-16.89	31.62	3	Vertical	53	1.27	25.49	27.38	4.24	-
PK	2.44G	99.82	Inf	-Inf	31.96	3	Vertical	53	1.27	67.86	27.68	4.28	-
PK	2.4952G	57.13	74.00	-16.87	32.20	3	Vertical	53	1.27	24.93	27.88	4.32	-

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

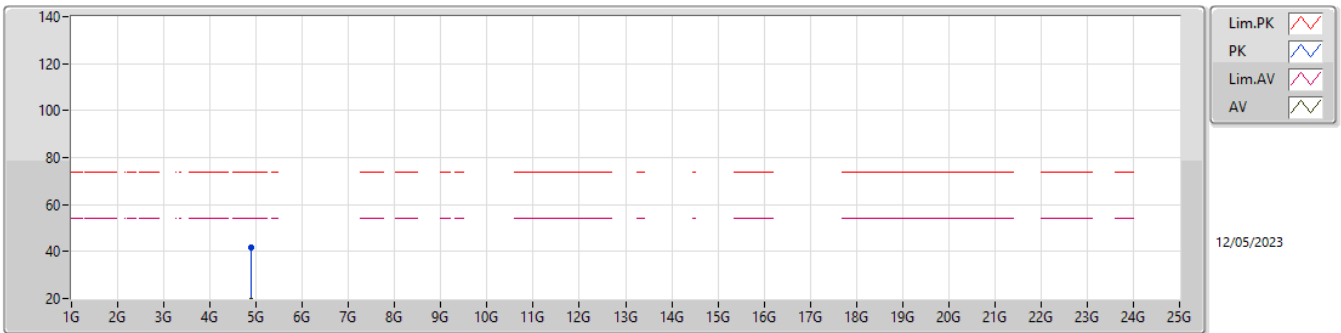
2440MHz\_TX



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	2.378G	34.79	54.00	-19.21	31.66	3	Horizontal	161	1.50	3.13	27.42	4.24	-
AV	2.44G	74.90	Inf	-Inf	31.96	3	Horizontal	161	1.50	42.94	27.68	4.28	-
AV	2.4992G	35.59	54.00	-18.41	32.22	3	Horizontal	161	1.50	3.37	27.90	4.32	-
PK	2.378G	57.29	74.00	-16.71	31.66	3	Horizontal	161	1.50	25.63	27.42	4.24	-
PK	2.44G	97.40	Inf	-Inf	31.96	3	Horizontal	161	1.50	65.44	27.68	4.28	-
PK	2.4992G	58.09	74.00	-15.91	32.22	3	Horizontal	161	1.50	25.87	27.90	4.32	-

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

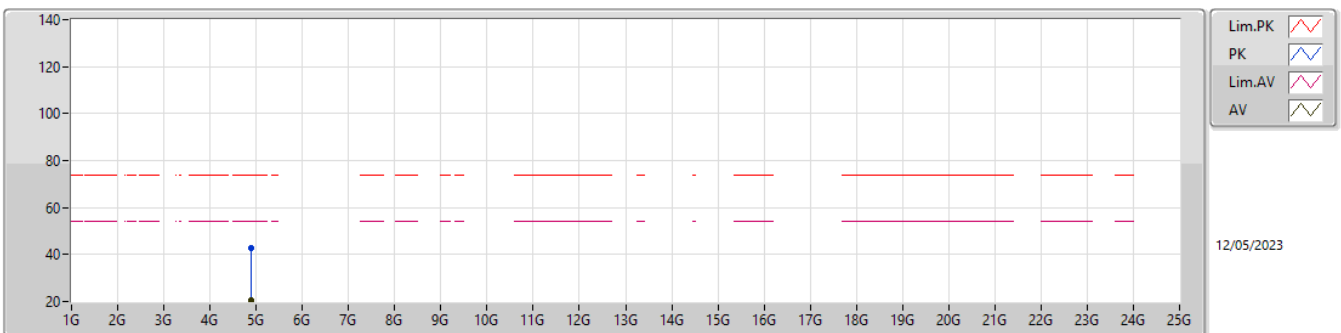
2440MHz\_TX



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	4.88053G	19.09	54.00	-34.91	4.68	3	Vertical	305	1.01	14.41	32.62	6.22	34.16
PK	4.88053G	41.59	74.00	-32.41	4.68	3	Vertical	305	1.01	36.91	32.62	6.22	34.16

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

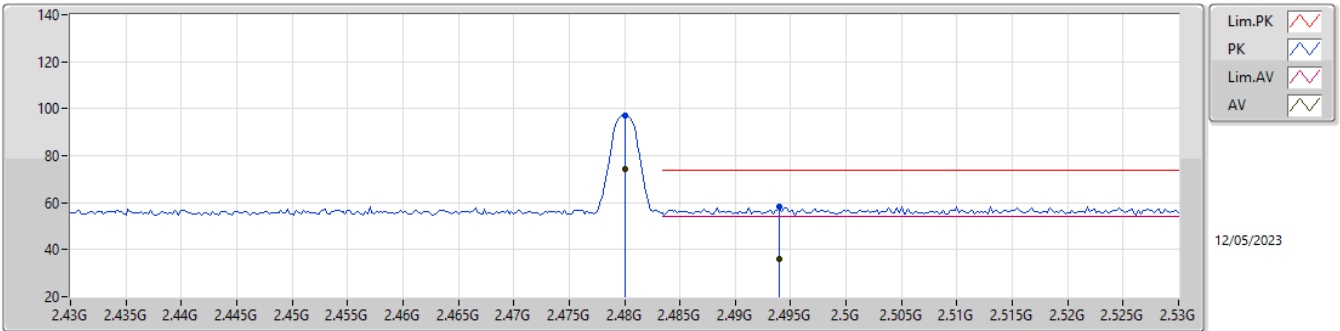
2440MHz\_TX



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	4.8798G	20.47	54.00	-33.53	4.68	3	Horizontal	325	2.40	15.79	32.62	6.22	34.16
PK	4.8798G	42.97	74.00	-31.03	4.68	3	Horizontal	325	2.40	38.29	32.62	6.22	34.16

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

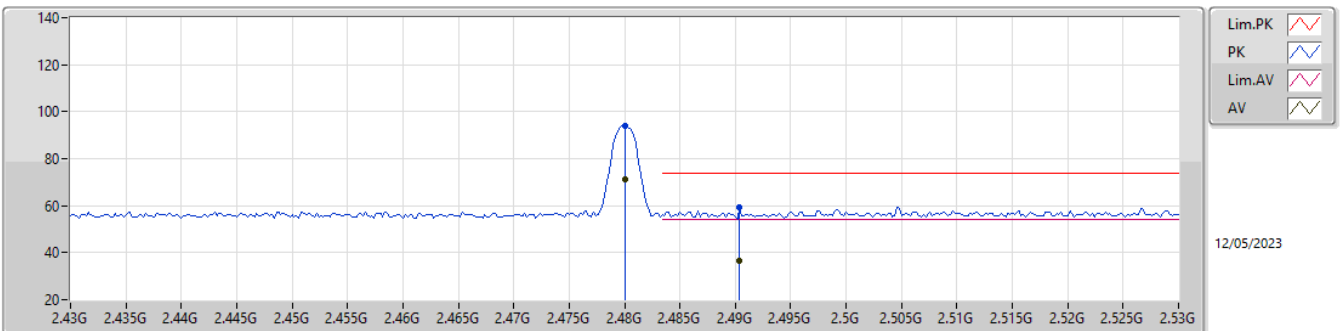
2480MHz\_TX



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	74.56	Inf	-Inf	32.13	3	Vertical	53	1.30	42.43	27.82	4.31	-
AV	2.494G	35.91	54.00	-18.09	32.20	3	Vertical	53	1.30	3.71	27.88	4.32	-
PK	2.48G	97.06	Inf	-Inf	32.13	3	Vertical	53	1.30	64.93	27.82	4.31	-
PK	2.494G	58.41	74.00	-15.59	32.20	3	Vertical	53	1.30	26.21	27.88	4.32	-

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

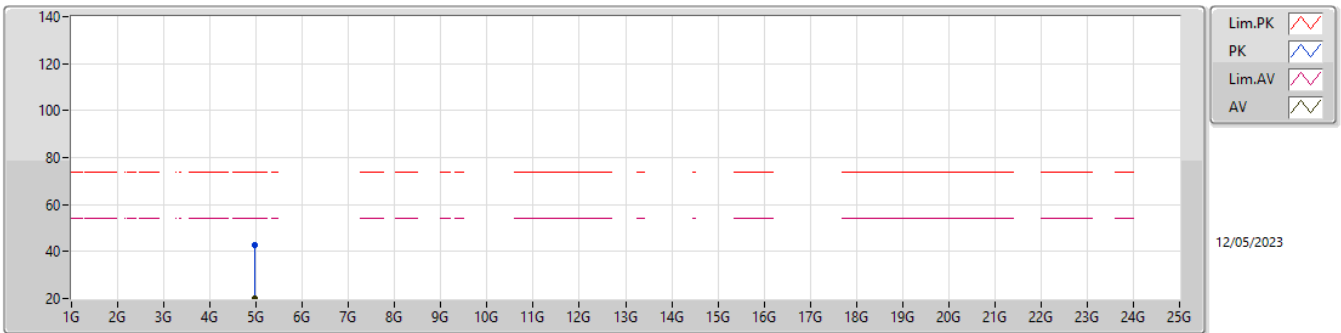
2480MHz\_TX



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	71.27	Inf	-Inf	32.13	3	Horizontal	161	1.43	39.14	27.82	4.31	-
AV	2.4904G	36.73	54.00	-17.27	32.17	3	Horizontal	161	1.43	4.56	27.86	4.31	-
PK	2.48G	93.77	Inf	-Inf	32.13	3	Horizontal	161	1.43	61.64	27.82	4.31	-
PK	2.4904G	59.23	74.00	-14.77	32.17	3	Horizontal	161	1.43	27.06	27.86	4.31	-

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

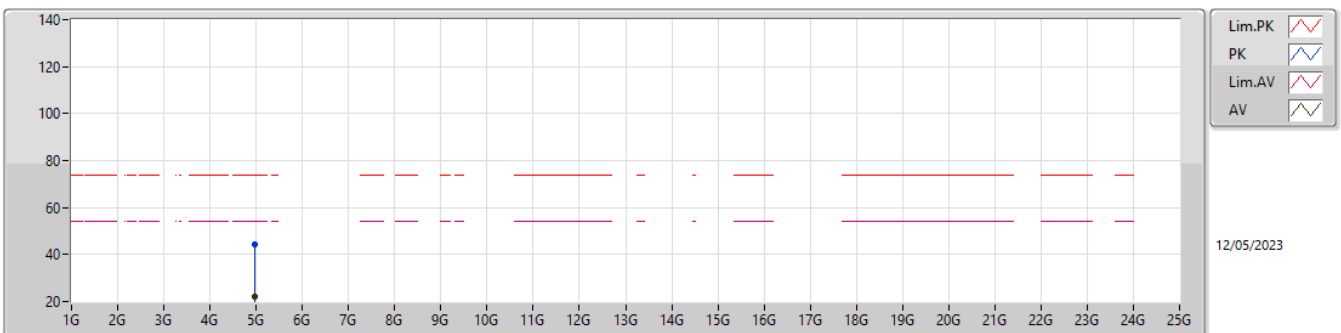
2480MHz\_TX



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	4.95889G	20.15	54.00	-33.85	5.18	3	Vertical	354	1.00	14.97	33.04	6.27	34.13
PK	4.95889G	42.65	74.00	-31.35	5.18	3	Vertical	354	1.00	37.47	33.04	6.27	34.13

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	4.96024G	21.84	54.00	-32.16	5.18	3	Horizontal	312	2.30	16.66	33.04	6.27	34.13
PK	4.96024G	44.34	74.00	-29.66	5.18	3	Horizontal	312	2.30	39.16	33.04	6.27	34.13



**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	4.92391G	44.72	54.00	-9.28	Vertical
Mode 2	Pass	AV	4.88017G	30.94	54.00	-23.06	Horizontal

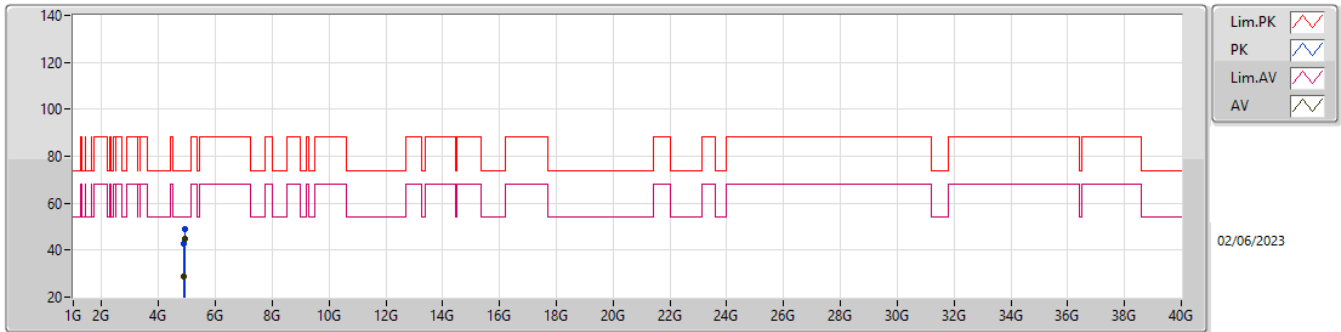


Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)
Mode 1	Pass	AV	4.87991G	28.93	54.00	-25.07	4.68	3	Vertical	0	1.00
Mode 1	Pass	AV	4.92391G	44.72	54.00	-9.28	4.94	3	Vertical	0	1.00
Mode 1	Pass	PK	4.87985G	42.52	74.00	-31.48	4.68	3	Vertical	0	1.00
Mode 1	Pass	PK	4.92387G	49.09	74.00	-24.91	4.94	3	Vertical	0	1.00
Mode 1	Pass	AV	4.92381G	43.13	54.00	-10.87	4.94	3	Horizontal	360	1.00
Mode 1	Pass	AV	4.88021G	30.86	54.00	-23.14	4.68	3	Horizontal	360	1.00
Mode 1	Pass	PK	4.92393G	48.22	74.00	-25.78	4.94	3	Horizontal	360	1.00
Mode 1	Pass	PK	4.87951G	42.97	74.00	-31.03	4.68	3	Horizontal	360	1.00
Mode 2	Pass	AV	4.87984G	28.99	54.00	-25.01	4.68	3	Vertical	0	1.00
Mode 2	Pass	AV	10.39819G	37.22	68.20	-30.98	15.33	3	Vertical	0	1.00
Mode 2	Pass	PK	4.87967G	42.62	74.00	-31.38	4.68	3	Vertical	0	1.00
Mode 2	Pass	PK	10.39628G	51.43	88.20	-36.77	15.33	3	Vertical	0	1.00
Mode 2	Pass	AV	4.88017G	30.94	54.00	-23.06	4.68	3	Horizontal	360	1.00
Mode 2	Pass	AV	10.40129G	37.15	68.20	-31.05	15.34	3	Horizontal	360	1.00
Mode 2	Pass	PK	4.87938G	42.87	74.00	-31.13	4.68	3	Horizontal	360	1.00
Mode 2	Pass	PK	10.4152G	52.07	88.20	-36.13	15.35	3	Horizontal	360	1.00



Radiated Emissions above 1GHz\_Mode 1

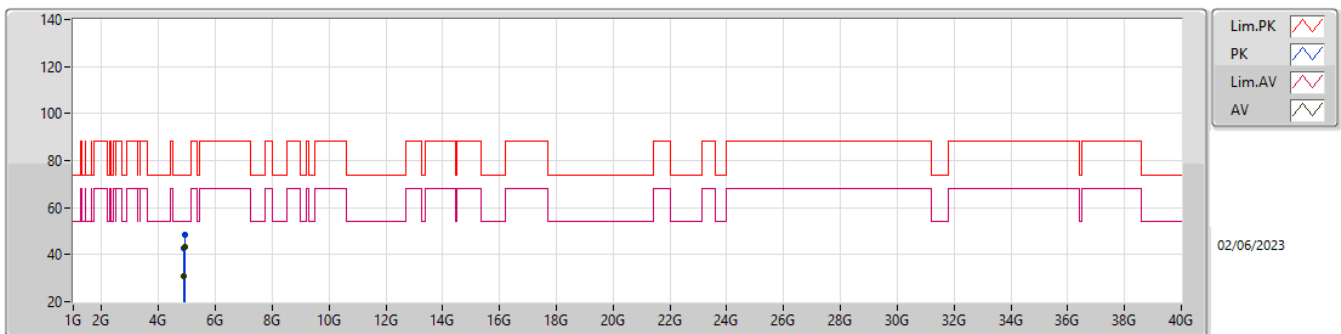


Lim.PK  
PK  
Lim.AV  
AV

02/06/2023

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	4.87991G	28.93	54.00	-25.07	4.68	3	Vertical	0	1.00	-	24.25	32.62	6.22	34.16
AV	4.92391G	44.72	54.00	-9.28	4.94	3	Vertical	0	1.00	-	39.78	32.84	6.25	34.15
PK	4.87985G	42.52	74.00	-31.48	4.68	3	Vertical	0	1.00	-	37.84	32.62	6.22	34.16
PK	4.92387G	49.09	74.00	-24.91	4.94	3	Vertical	0	1.00	-	44.15	32.84	6.25	34.15

Radiated Emissions above 1GHz\_Mode 1

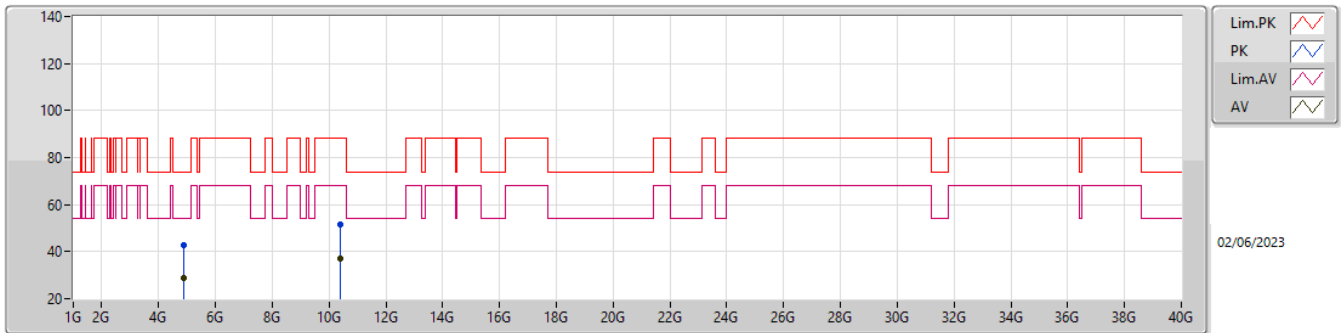


Lim.PK  
PK  
Lim.AV  
AV

02/06/2023

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	4.92381G	43.13	54.00	-10.87	4.94	3	Horizontal	360	1.00	-	38.19	32.84	6.25	34.15
AV	4.88021G	30.86	54.00	-23.14	4.68	3	Horizontal	360	1.00	-	26.18	32.62	6.22	34.16
PK	4.92393G	48.22	74.00	-25.78	4.94	3	Horizontal	360	1.00	-	43.28	32.84	6.25	34.15
PK	4.87951G	42.97	74.00	-31.03	4.68	3	Horizontal	360	1.00	-	38.29	32.62	6.22	34.16

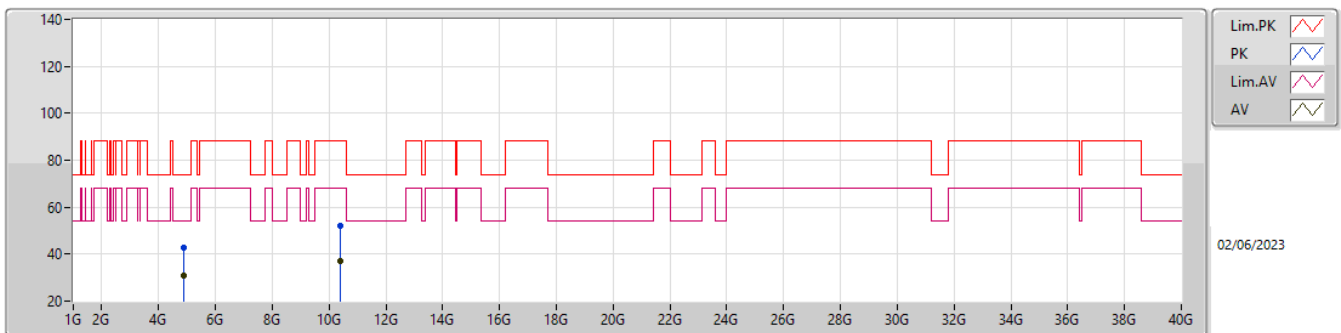
Radiated Emissions above 1GHz\_Mode 2



02/06/2023

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	4.87984G	28.99	54.00	-25.01	4.68	3	Vertical	0	1.00	-	24.31	32.62	6.22	34.16
AV	10.39819G	37.22	68.20	-30.98	15.33	3	Vertical	0	1.00	-	21.89	38.90	11.03	34.60
PK	4.87967G	42.62	74.00	-31.38	4.68	3	Vertical	0	1.00	-	37.94	32.62	6.22	34.16
PK	10.39628G	51.43	88.20	-36.77	15.33	3	Vertical	0	1.00	-	36.10	38.90	11.03	34.60

Radiated Emissions above 1GHz\_Mode 2



02/06/2023

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	4.88017G	30.94	54.00	-23.06	4.68	3	Horizontal	360	1.00	-	26.26	32.62	6.22	34.16
AV	10.40129G	37.15	68.20	-31.05	15.34	3	Horizontal	360	1.00	-	21.81	38.90	11.03	34.59
PK	4.87938G	42.87	74.00	-31.13	4.68	3	Horizontal	360	1.00	-	38.19	32.62	6.22	34.16
PK	10.4152G	52.07	88.20	-36.13	15.35	3	Horizontal	360	1.00	-	36.72	38.90	11.03	34.58