

FCC Radio Test Report

FCC ID : VUI-M2U350
Equipment : 5G FR2 ODU
Brand Name : PEGATRON
Model Name : M2U350,M2U300, M2UXXX-XXX(where X can be
a combination of alphanumeric, none or blank)
Applicant : PEGATRON CORPORATION
5F., No.76, LIGONG ST., BEITOU DISTRICT,
TAIPEI CITY, Taiwan, 11259
Manufacturer : PEGATRON CORPORATION
5F., No.76, LIGONG ST., BEITOU DISTRICT,
TAIPEI CITY, Taiwan, 11259
Standard : 47 CFR FCC Part 15.247

The product was received on Jul. 04, 2024, and testing was started from Jul. 10, 2024 and completed on Aug. 02, 2024. 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.)



Table of Contents

HISTORY OF THIS TEST REPORT3

SUMMARY OF TEST RESULT4

1 GENERAL DESCRIPTION5

1.1 Information.....5

1.2 Testing Applied Standards7

1.3 Testing Location Information7

1.4 Measurement Uncertainty7

2 TEST CONFIGURATION OF EUT.....8

2.1 Test Channel Mode8

2.2 The Worst Case Measurement Configuration.....9

2.3 Accessories10

2.4 Support Equipment.....10

2.5 Test Setup Diagram11

3 TRANSMITTER TEST RESULT12

3.1 AC Power-line Conducted Emissions12

3.2 20dB Bandwidth and Carrier Frequency Separation.....14

3.3 Maximum Conducted Output Power15

3.4 Number of Hopping Frequencies and Hopping Bandedge16

3.5 Time of Occupancy (Dwell Time)17

3.6 Emissions in Non-restricted Frequency Bands18

3.7 Emissions in Restricted Frequency Bands.....19

4 TEST EQUIPMENT AND CALIBRATION DATA22

APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS

APPENDIX B. TEST RESULTS OF 20DB BANDWIDTH AND CARRIER FREQUENCY SEPARATION

APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER

APPENDIX D. TEST RESULTS OF NUMBER OF HOPPING FREQUENCIES AND HOPPING BANDEDGE

APPENDIX E. TEST RESULTS OF TIME OF OCCUPANCY (DWELL TIME)

APPENDIX F. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS

APPENDIX G. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS

APPENDIX H. TEST PHOTOS

PHOTOGRAPHS OF EUT V01

[illegible]

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	20dB Bandwidth	PASS	-
3.2	15.247(a)	Carrier Frequency Separation	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(a)	Number of Hopping Frequencies and Hopping Bandedge	PASS	-
3.5	15.247(a)	Time of Occupancy (Dwell Time)	PASS	-
3.6	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.7	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and explanations:

None

Reviewed by: Ben Tseng

Report Producer: 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
1	INPAQ	WA-P-LA-11-004(1415-0AQ4000)	PIFA	I-PEX

Ant.	Port	2.4G/BT Gain (dBi)						
		2300 MHz	2350 MHz	2400 MHz	2450 MHz	2500 MHz	2550 MHz	2600 MHz
1	1	3.83	3.19	2.84	4.45	4.46	4.81	4.73

Note 1: The EUT has one antenna.

For 2.4GHz function:

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

Ant. 1 (port 1) could transmit/receive.

For BT function:

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

Ant. 1 (port 1) could transmit/receive.

1.1.3 EUT Information

Operational Condition			
EUT Power Type		From PoE	
EUT Function		☐ Point-to-multipoint	☒ Point-to-point
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.:		...
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:		...
☐	Other:		

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
BT-BR(1Mbps)	0.73	1.37	2.868m	1k
BT-EDR(2Mbps)	0.729	1.37	2.739m	1k
BT-EDR(3Mbps)	0.729	1.37	2.743m	1k

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

1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Description
M2U350	All the models are identical, the different model served as marketing strategy.
M2U300	
M2UXXX-XXX(where X can be a combination of alphanumeric, none or blank)	

From the above models, model: M2U350 was selected as representative model for the test and its data was recorded in this report.

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				
☒ 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 Chiu	22.2~22.9℃ / 52~57%	02/Aug/2024
RF Conducted	TH01-HY	Johnny Yu	23.4~23.9℃ / 53~55%	12/Jul/2024
☒ Wenhua 3rd. (TAF: 3785)	ADD: No. 58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist. Taoyuan City 333, Taiwan (R.O.C.)			
	TEL: 886-3-327-0868			
Test site Designation No. TW0036 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated below 1G	03CH25-HY	Daniel Lin	23.0~25.0℃ / 53~57%	31/Jul/2024
Radiated above 1G	03CH24-HY	Daniel Lin	21.2~22.8℃ / 52~58%	10/Jul/2024~11Jul/2024

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	Dos V6.1
-----------------------	----------

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	30
2440MHz	30
2480MHz	30
BT-EDR(2Mbps)	-
2402MHz	30
2440MHz	30
2480MHz	30
BT-EDR(3Mbps)	-
2402MHz	30
2440MHz	30
2480MHz	30

2.2 The Worst Case Measurement Configuration

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains ☒ Non-adaptive frequency hopping systems (Non-AFH) ☒ adaptive frequency hopping systems (AFH)
Non-AFH Mode configuration was found to be the worst case and measured during the test.	

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	PoE mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

2.3 Accessories

Accessories				
PoE injector	Brand Name	RISUNIC	Model Name	RP029-5601080YX
	Power Rating	I/P: 100- 240Vac, 1.5 A, O/P: 56Vdc, 1.08 A, 60.48W		
AC power cord	Brand Name	HONGLIN	Model Name	200-18511
	Power Cord	0.6m cable		
Bottom port cover with flat Ethernet cable	Brand Name	TUNG-LI	Model Name	CT041-046
RJ45 ethernet cable	Brand Name	TUNG-LI	Model Name	6F424-003

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

2.4 Support Equipment

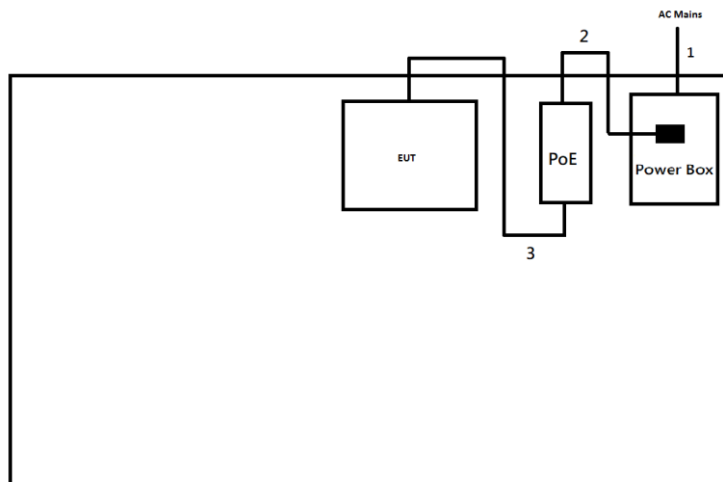
Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC power cable	Power Sync	-	-	-

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

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC power cable	Power Sync	-	-	-

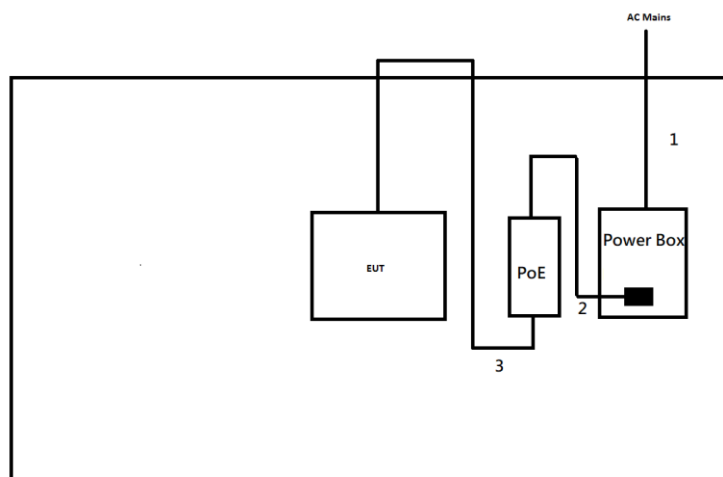
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)
1	AC power cable	No	1.0
2	AC power cable	No	0.6
3	RJ45 Cable	No	2.0

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)
1	AC power cable	No	1.8
2	AC power cable	No	0.6
3	RJ45 Cable	No	2.0

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

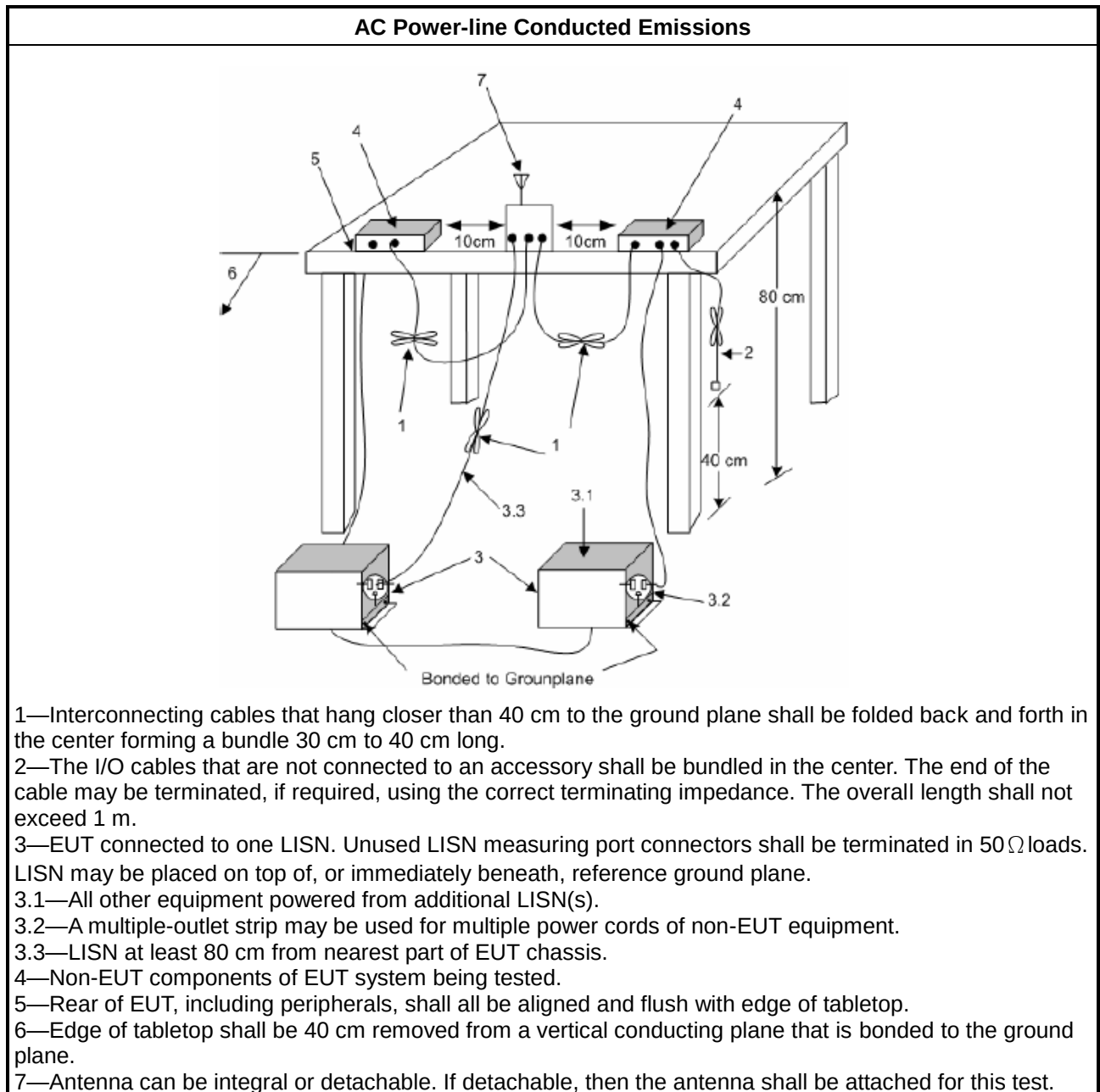
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.5 Test Setup



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 20dB Bandwidth and Carrier Frequency Separation

3.2.1 20dB Bandwidth and Carrier Frequency Separation Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems	
▪	2400-2483.5 MHz Band:
	▪ $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz).
N: Number of Hopping Frequencies; ChS: Hopping Channel Separation	

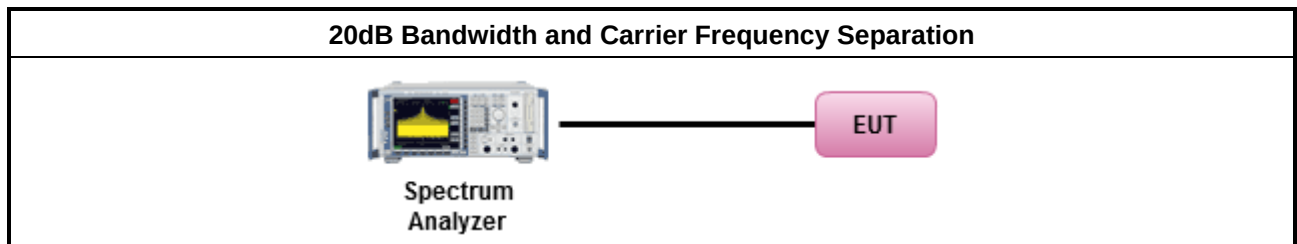
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.

3.2.4 Test Setup



3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$; Power 30dBm; EIRP 36dBm
	▪ $75 > N \geq 15$; Power 21dBm; EIRP 27dBm
N: Number of Hopping Frequencies	

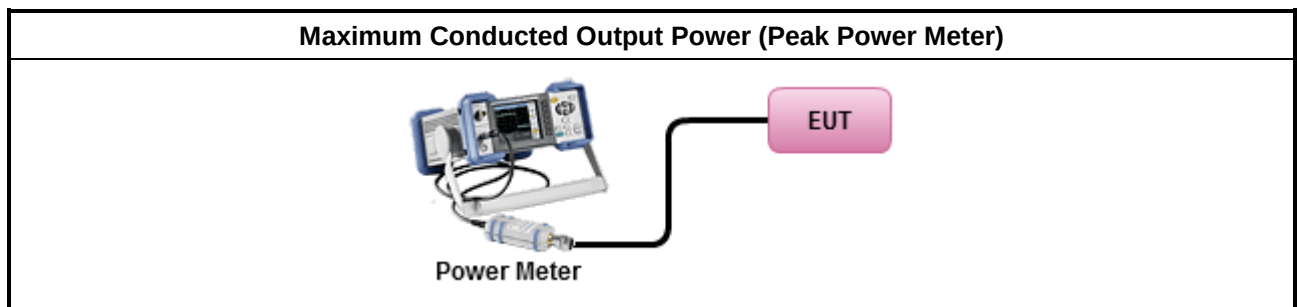
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

Number of Hopping Frequencies Limit	
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz).
N: Number of Hopping Frequencies; ChS : Hopping Channel Separation	

3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

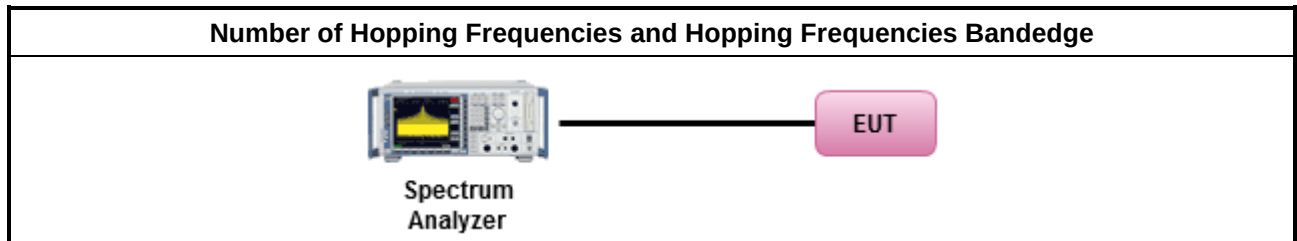
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.

3.4.5 Test Setup



3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

Time of Occupancy (Dwell Time) Limit for Frequency Hopping Systems	
2400-2483.5 MHz Band:	
	$N \geq 75$; 0.4s in $N \times 0.4$ period
	$75 > N \geq 15$; 0.4s in $N \times 0.4$ period
N: Number of Hopping Frequencies	

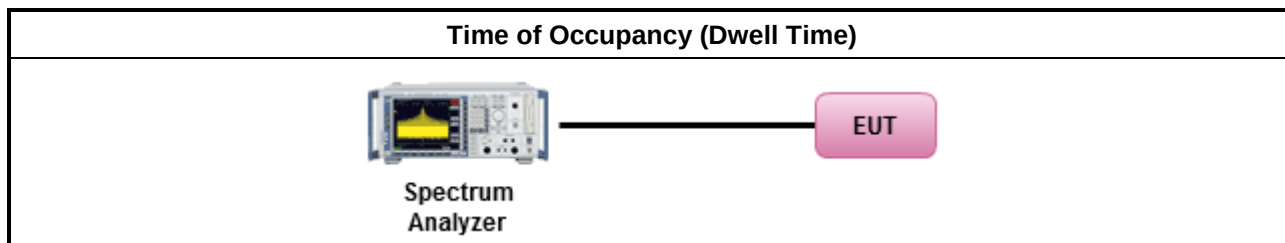
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.	
Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle.	
	The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is $5/1600$ seconds, or 3.125ms. DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel.

3.5.4 Test Setup



3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

3.6 Emissions in Non-restricted Frequency Bands

3.6.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (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.	

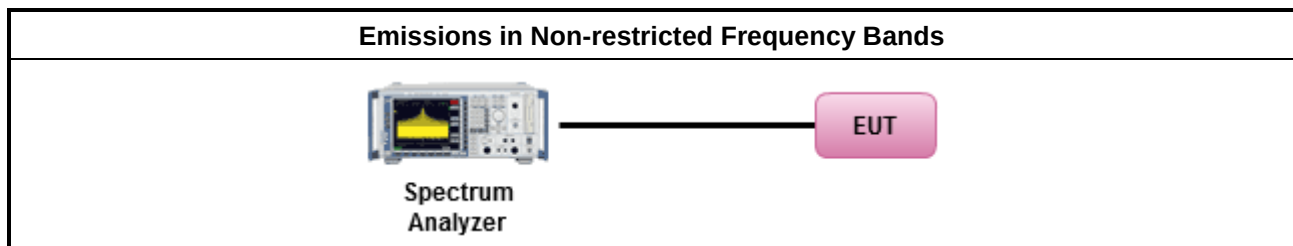
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.

3.6.4 Test Setup



3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F

3.7 Emissions in Restricted Frequency Bands

3.7.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

3.7.2 Measuring Instruments

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

3.7.3 Test Procedures

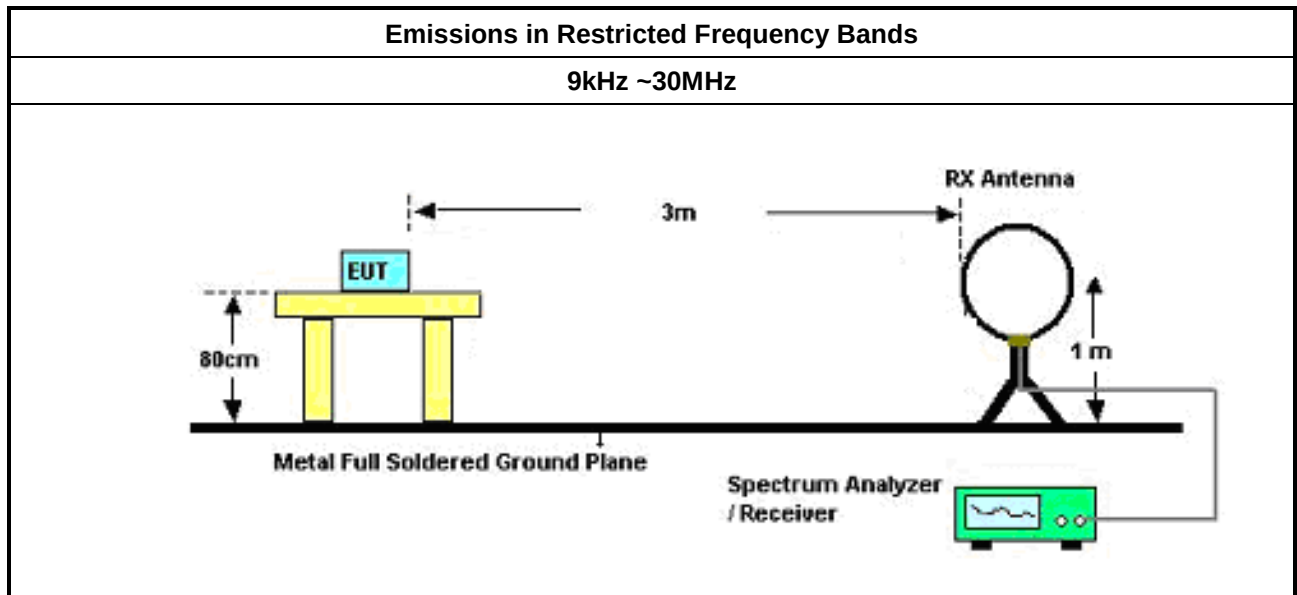
Test Method	
- The average emission levels shall be measured in [hopping duty factor]. - Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. - For the transmitter unwanted emissions shall be measured using following options below: - Refer as ANSI C63.10, clause 4.1.4.2.1 QP value. - Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak. - Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions. - KDB 414788 Open-Field Test Sites and Chamber Correlation Justification. - Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field. - Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.	

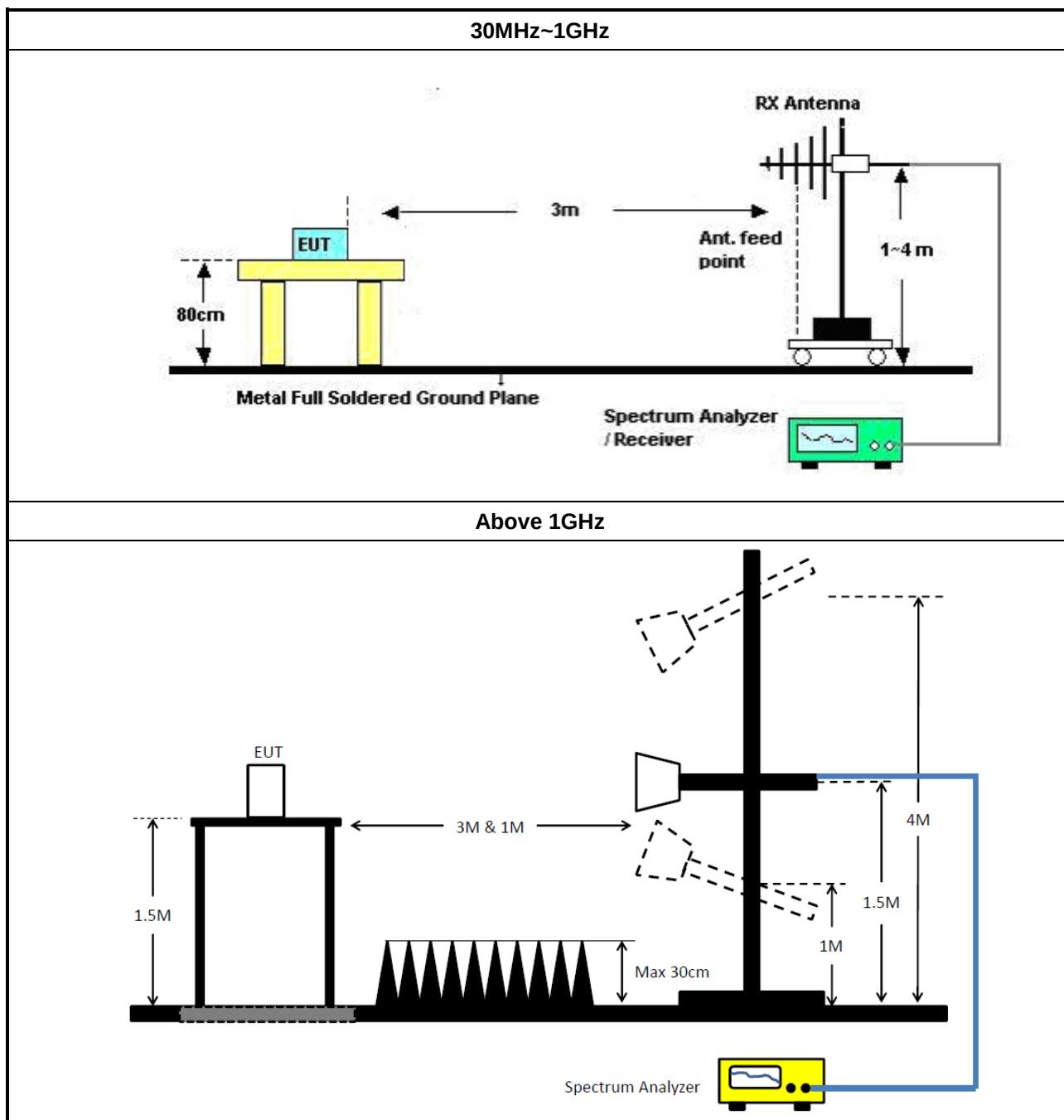
3.7.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(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	ROHDE & SCHWARZ	ESR3	102051	9kHz ~ 3.6GHz	17/May/2024	16/May/2025
Artificial-Mains Network	SCHWARZBECK	NSLK 8128 RC	05135	9kHz ~ 30MHz	11/Sep/2023	10/Sep/2024
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	27/Feb/2024	26/Feb/2025
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	18/Oct/2023	17/Oct/2024
Software	Sporton	SENSE-EMI	V5.11.3	-	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	30/Oct/2023	29/Oct/2024
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	20/Oct/2023	19/Oct/2024
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	01/Apr/2024	31/Mar/2025
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	02/Apr/2024	01/Apr/2025
SENSE-15247_FS	Sporton	V5.11.18	N/A	N/A	N/A	N/A

Instrument for Radiated Test (03CH25-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	30MHz~1GHz 3m	03/Aug/2023	02/Aug/2024
EMI Test Receiver	ROHDE & SCHWARZ	ESR	102318	9kHz~3.6GHz	27/Dec/2023	26/Dec/2024
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101410	10Hz~44GHz	17/Nov/2023	16/Nov/2024
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	19/Mar/2024	18/Mar/2025
Bilog Antenna & 6dB Attenuator	TESEQ & VGT	CBL 6111D & VFA 04002-06	63537/001	30MHz~1GHz	30/May/2024	29/May/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	9kHz~1GHz	24/Apr/2024	23/Apr/2025
Preamplifier	SGH	PRAMP 903	20230515-1	25MHz~3GHz	24/May/2024	23/May/2025
SENSE-15247-FS	Sporton	V5.11.18	NA	NA	NA	NA

**Instrument for Radiated Test (03CH24-HY)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH24-HY	1GHz~18GHz 3m	03/Aug/2023	02/Aug/2024
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101345	10Hz~44GHz	10/Aug/2023	09/Aug/2024
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02744	1GHz~18GHz	17/Aug/2023	16/Aug/2024
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	04/Jun/2024	05/Jun/2025
RF Cable	HUBER+SUHNER	SUOFLEX 102	CB002	1GHz~40GHz	19/Jun/2024	18/Jun/2025
Amplifier	EM	EM01G18G	060870	1GHz ~18GHz	10/Aug/2023	09/Aug/2024
Microwave Premplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	19/Apr/2024	18/Apr/2025
SENSE-15247-DTS	Sporton	V5.11.18	NA	NA	NA	NA



Conducted Emissions at Powerline

Appendix A

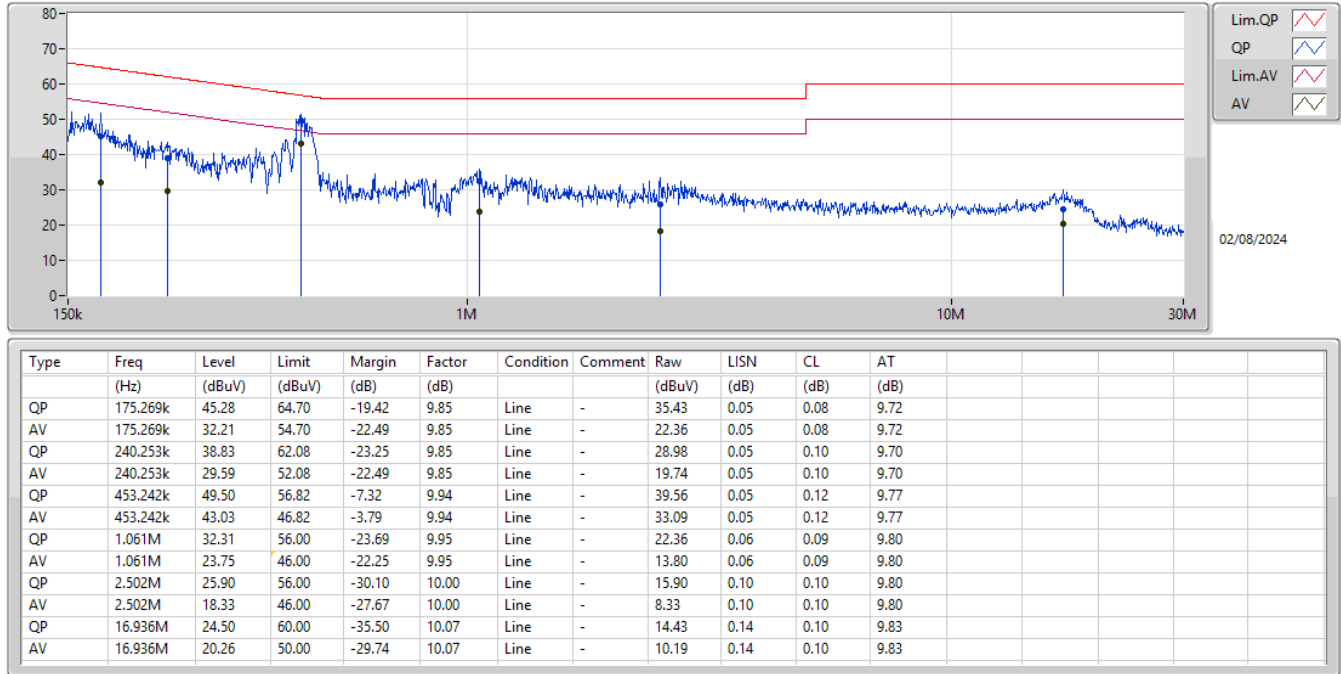
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	453.242k	43.03	46.82	-3.79	Line

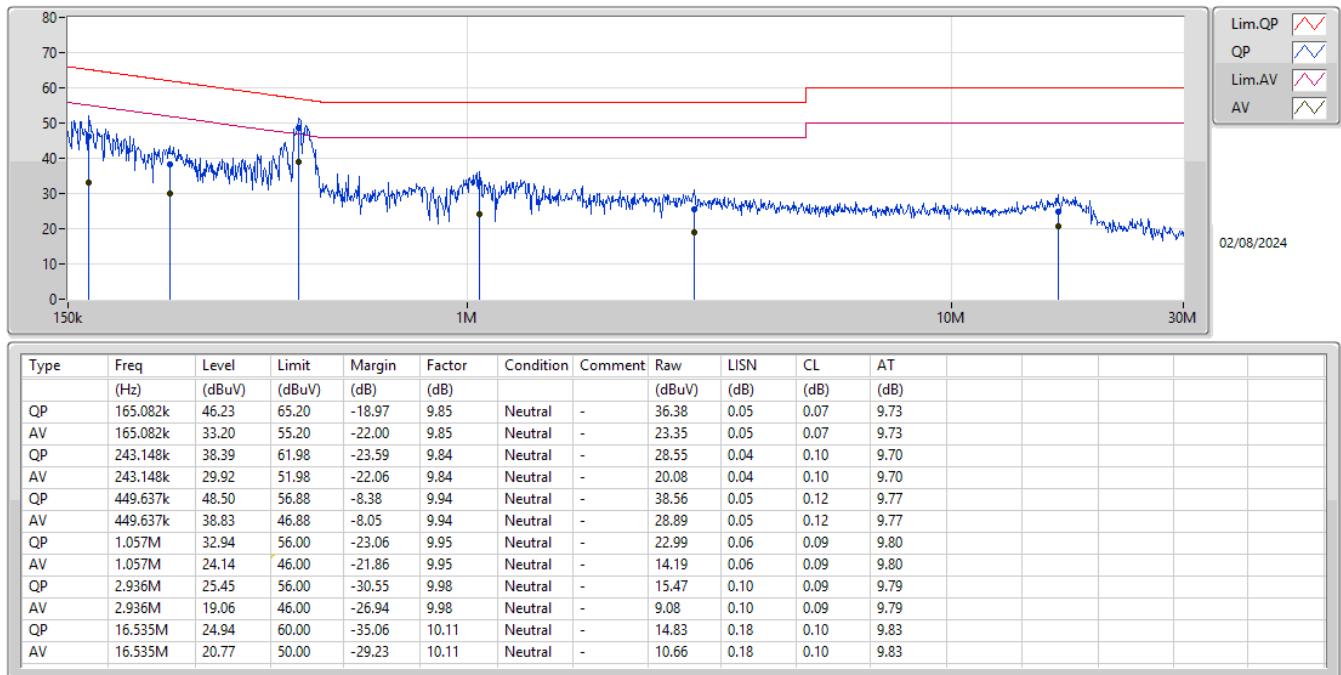
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	175.269k	45.28	64.70	-19.42	Line	-
Mode 1	Pass	AV	175.269k	32.21	54.70	-22.49	Line	-
Mode 1	Pass	QP	240.253k	38.83	62.08	-23.25	Line	-
Mode 1	Pass	AV	240.253k	29.59	52.08	-22.49	Line	-
Mode 1	Pass	QP	453.242k	49.50	56.82	-7.32	Line	-
Mode 1	Pass	AV	453.242k	43.03	46.82	-3.79	Line	-
Mode 1	Pass	QP	1.061M	32.31	56.00	-23.69	Line	-
Mode 1	Pass	AV	1.061M	23.75	46.00	-22.25	Line	-
Mode 1	Pass	QP	2.502M	25.90	56.00	-30.10	Line	-
Mode 1	Pass	AV	2.502M	18.33	46.00	-27.67	Line	-
Mode 1	Pass	QP	16.936M	24.50	60.00	-35.50	Line	-
Mode 1	Pass	AV	16.936M	20.26	50.00	-29.74	Line	-
Mode 1	Pass	QP	165.082k	46.23	65.20	-18.97	Neutral	-
Mode 1	Pass	AV	165.082k	33.20	55.20	-22.00	Neutral	-
Mode 1	Pass	QP	243.148k	38.39	61.98	-23.59	Neutral	-
Mode 1	Pass	AV	243.148k	29.92	51.98	-22.06	Neutral	-
Mode 1	Pass	QP	449.637k	48.50	56.88	-8.38	Neutral	-
Mode 1	Pass	AV	449.637k	38.83	46.88	-8.05	Neutral	-
Mode 1	Pass	QP	1.057M	32.94	56.00	-23.06	Neutral	-
Mode 1	Pass	AV	1.057M	24.14	46.00	-21.86	Neutral	-
Mode 1	Pass	QP	2.936M	25.45	56.00	-30.55	Neutral	-
Mode 1	Pass	AV	2.936M	19.06	46.00	-26.94	Neutral	-
Mode 1	Pass	QP	16.535M	24.94	60.00	-35.06	Neutral	-
Mode 1	Pass	AV	16.535M	20.77	50.00	-29.23	Neutral	-

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1



**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)	943.25k	868.316k	868KF1D	888.25k	865.817k
BT-EDR(2Mbps)	1.328M	1.194M	1M19G1D	1.29M	1.183M
BT-EDR(3Mbps)	1.342M	1.211M	1M21G1D	1.257M	1.191M

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	943.25k	865.817k
2440MHz	Pass	Inf	888.25k	868.316k
2480MHz	Pass	Inf	932.25k	867.066k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.306M	1.191M
2440MHz	Pass	Inf	1.328M	1.194M
2480MHz	Pass	Inf	1.29M	1.183M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.257M	1.191M
2440MHz	Pass	Inf	1.342M	1.202M
2480MHz	Pass	Inf	1.337M	1.211M

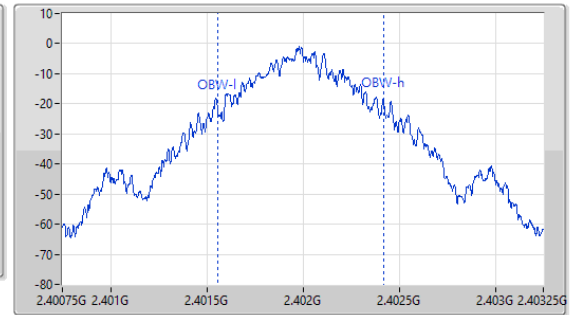
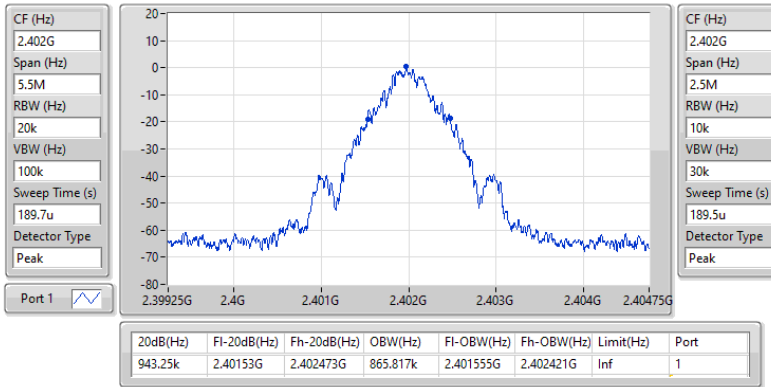
Port X-N dB = Port X 20dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-BR(1Mbps)

EBW-FS

2402MHz

12/07/2024

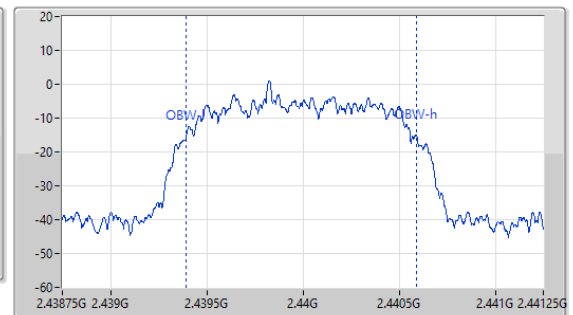
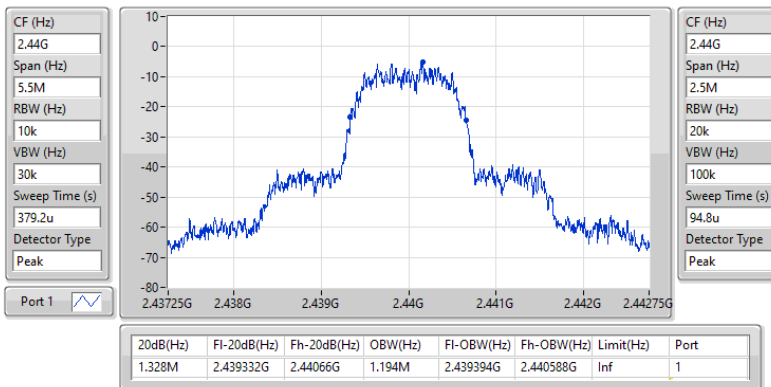


2.4-2.4835GHz_BT-EDR(2Mbps)

EBW-FS

2440MHz

12/07/2024

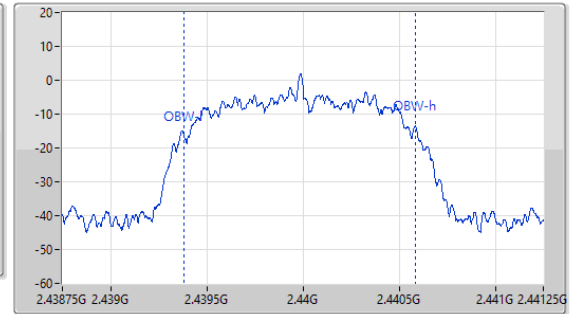
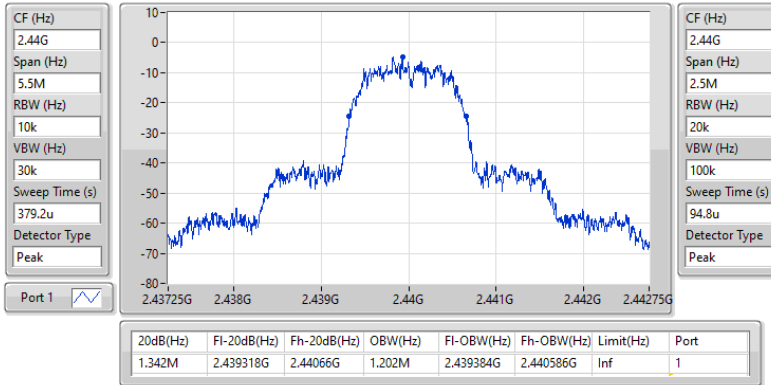


2.4-2.4835GHz_BT-EDR(3Mbps)

EBW-FS

2440MHz

12/07/2024





Summary

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

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402158G	2.403157G	999k	628.2045k
2440MHz	Pass	2.44016G	2.441157G	997.5k	591.5745k
2480MHz	Pass	2.479158G	2.480159G	1.0005M	620.8785k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402157G	2.40316G	1.0035M	869.796k
2440MHz	Pass	2.440155G	2.441154G	999k	884.448k
2480MHz	Pass	2.479155G	2.480156G	1.0005M	859.14k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.401825G	2.402824G	999k	837.162k
2440MHz	Pass	2.439825G	2.440827G	1.002M	893.772k
2480MHz	Pass	2.478825G	2.479826G	1.0005M	890.442k

2.4-2.4835GHz_BT-BR(1Mbps)

Channel Separation-FS

2.44G/2.441GHz

12/07/2024

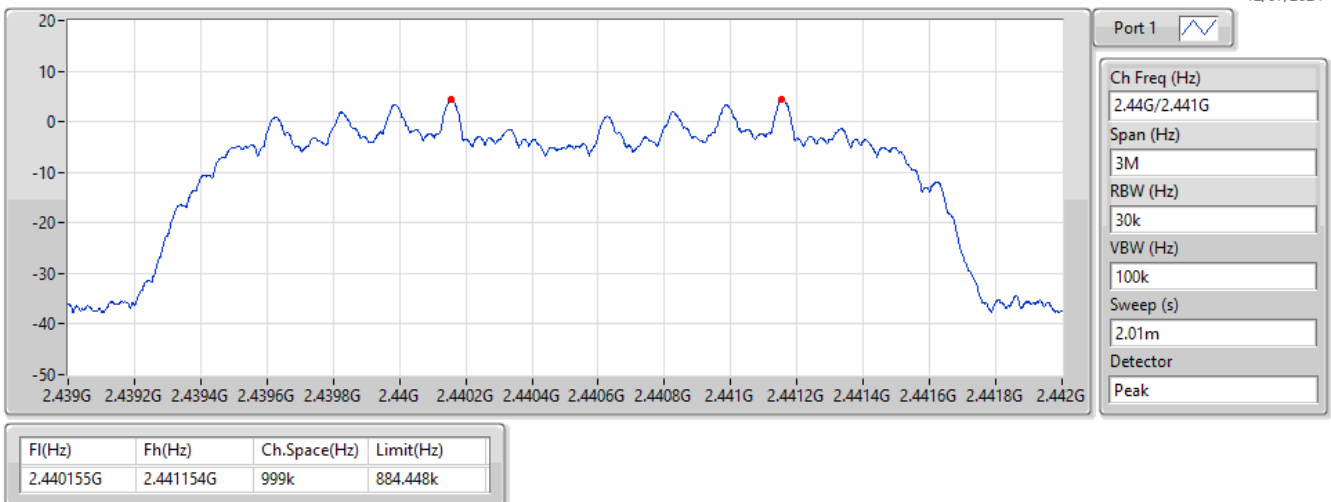


2.4-2.4835GHz_BT-EDR(2Mbps)

Channel Separation-FS

2.44G/2.441GHz

12/07/2024

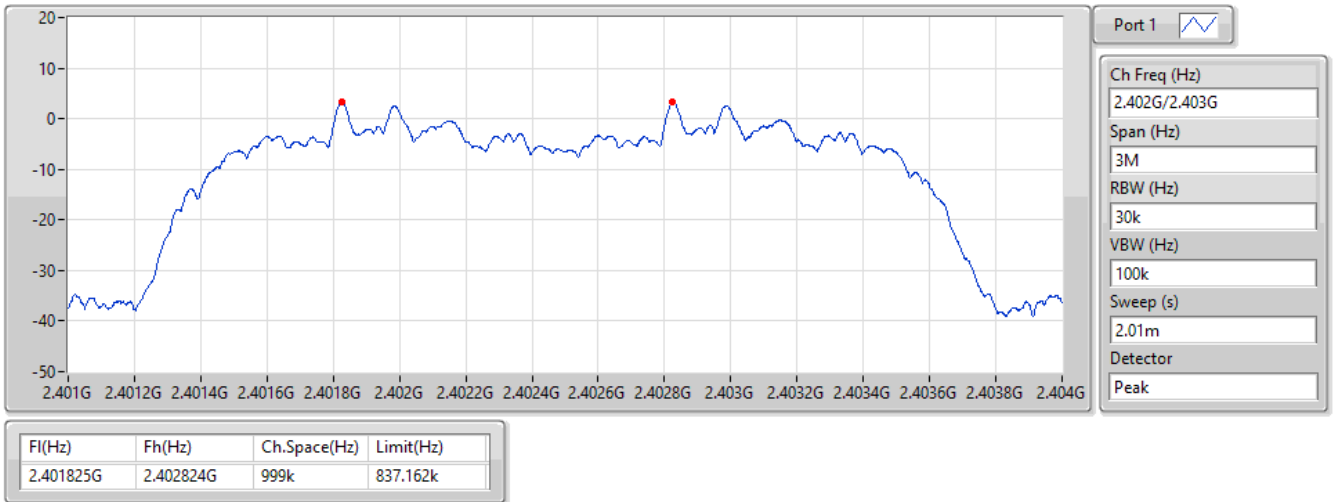


2.4-2.4835GHz_BT-EDR(3Mbps)

Channel Separation-FS

2.402G/2.403GHz

12/07/2024





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	7.21	0.00526
BT-EDR(2Mbps)	8.06	0.00640
BT-EDR(3Mbps)	8.44	0.00698

Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.84	6.50	21.00
2440MHz	Pass	4.45	7.21	21.00
2480MHz	Pass	4.46	6.82	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.84	7.40	21.00
2440MHz	Pass	4.45	8.06	21.00
2480MHz	Pass	4.46	7.68	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.84	7.81	21.00
2440MHz	Pass	4.45	8.44	21.00
2480MHz	Pass	4.46	8.13	21.00

DG = Directional Gain; Port X = Port X output power;
Inf = There's no restriction for the limit.



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	6.65	0.00462
BT-EDR(2Mbps)	5.78	0.00378
BT-EDR(3Mbps)	5.74	0.00375



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.84	5.93	21.00
2440MHz	Pass	4.45	6.65	21.00
2480MHz	Pass	4.46	6.26	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.84	5.12	21.00
2440MHz	Pass	4.45	5.78	21.00
2480MHz	Pass	4.46	5.35	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.84	4.82	21.00
2440MHz	Pass	4.45	5.74	21.00
2480MHz	Pass	4.46	5.34	21.00

DG = Directional Gain; Port X = Port X output power;
Inf = There's no restriction for the limit.



Summary

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

Result

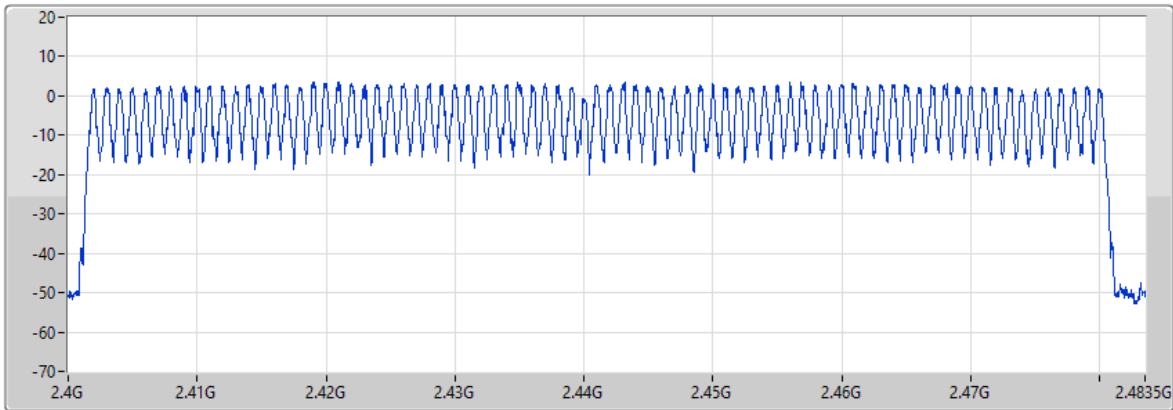
Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

2.4-2.4835GHz_BT-BR(1Mbps)

Hopping-FS

2440MHz

12/07/2024



Port 1 

Hopping No
79

Span (Hz)
83.5M

RBW (Hz)
100k

VBW (Hz)
300kHz

Sweep (s)
265.3us

Detector
Peak

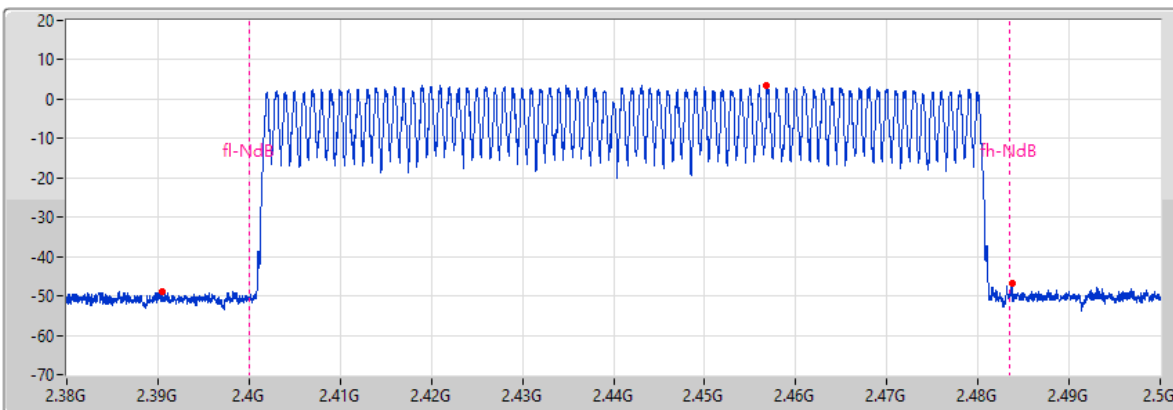
Hopping No	Limit
79	15

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

12/07/2024



Port 1 

Span (Hz)
120M

RBW (Hz)
100k

VBW (Hz)
300k

Sweep (s)
265.3u

Detector
Peak

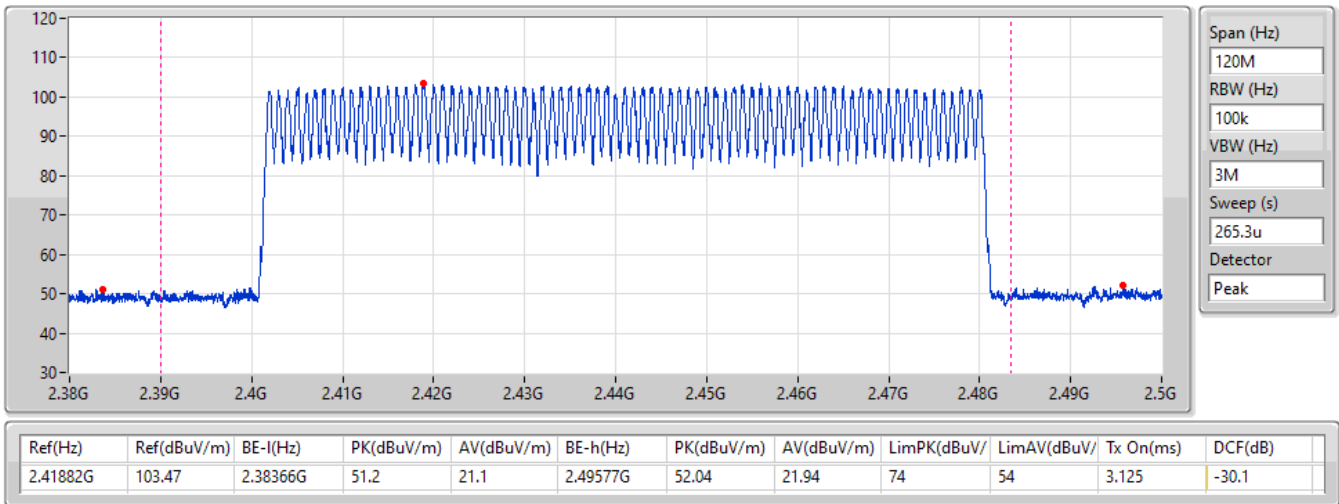
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-16.49	2.45683G	3.51	2.390485G	-49.01	2.48371G	-46.85

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

12/07/2024

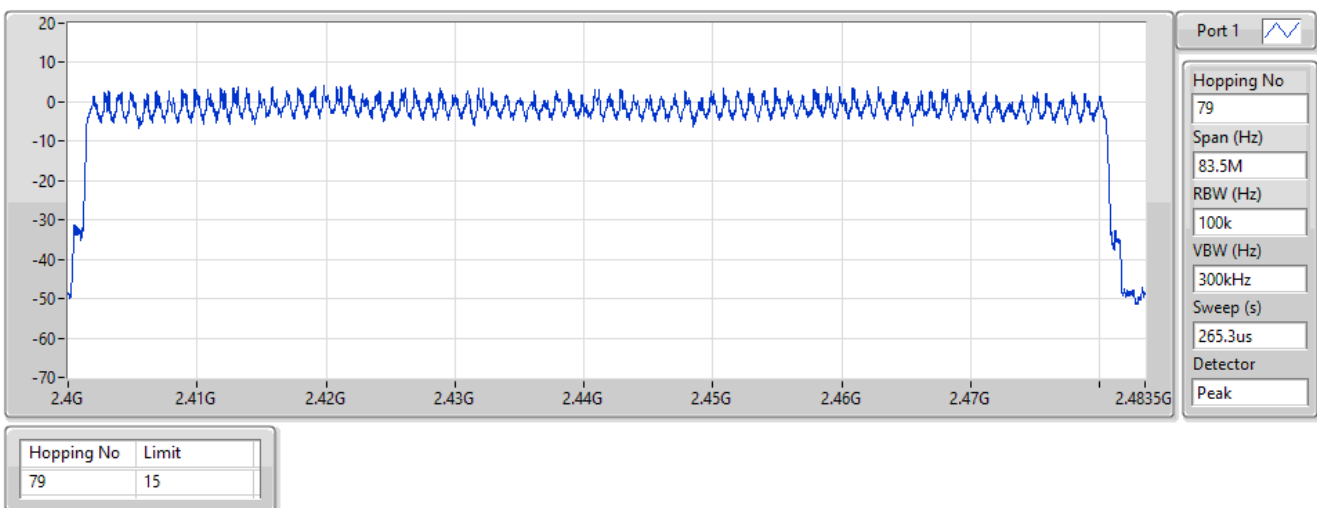


2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping-FS

12/07/2024

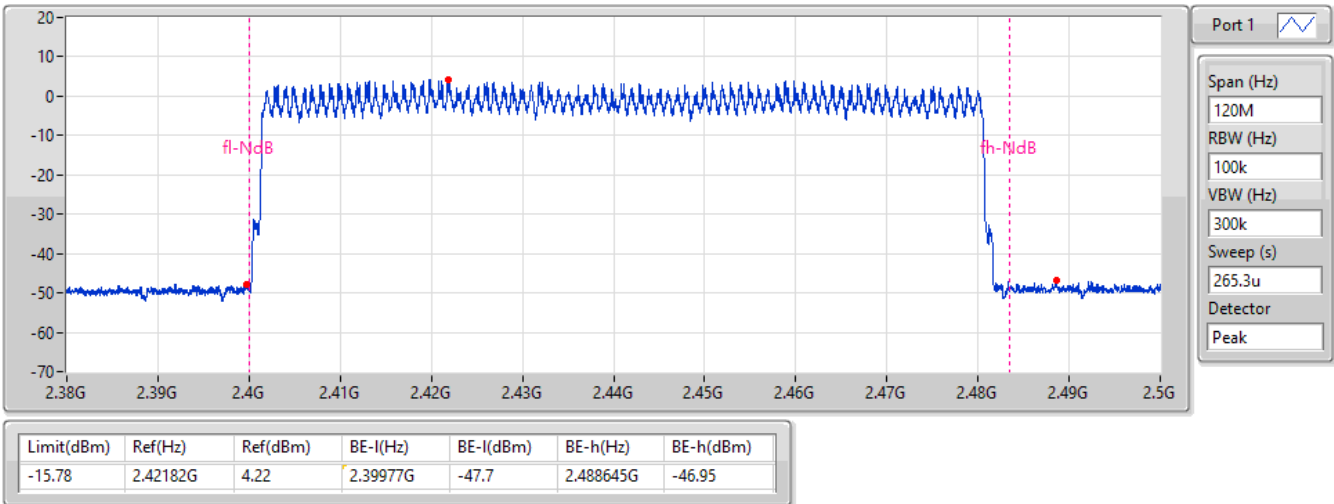


2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

12/07/2024

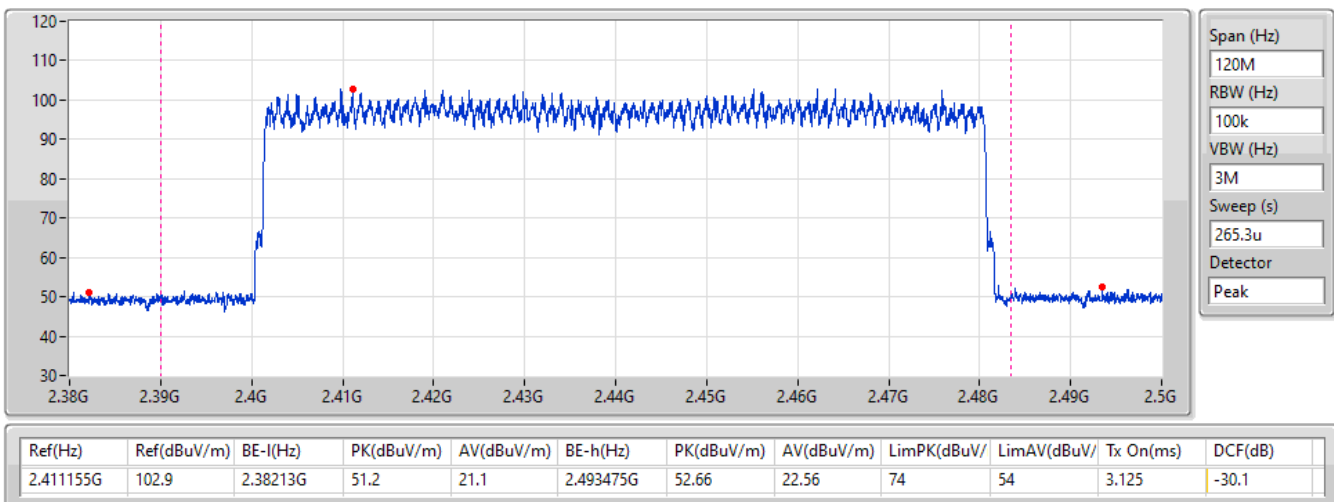


2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

12/07/2024

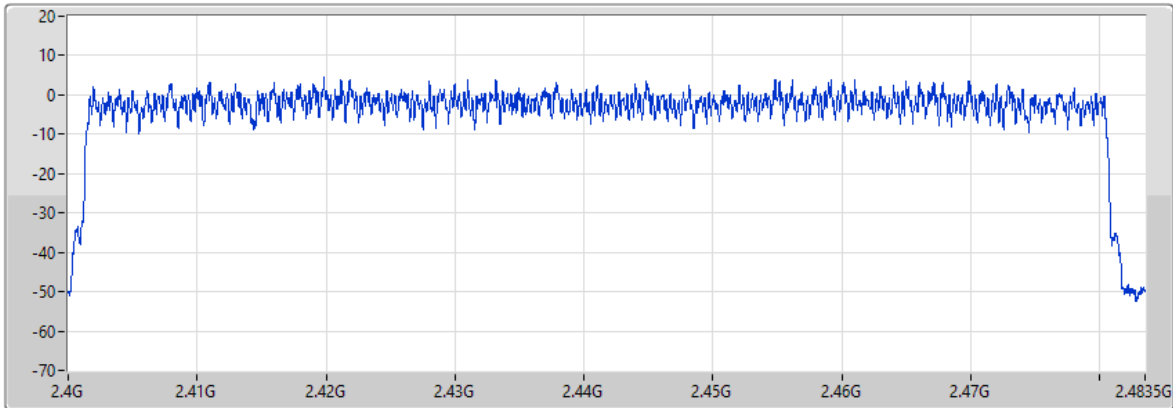


2.4-2.4835GHz_BT-EDR(3Mbps)

Hopping-FS

2440MHz

12/07/2024



Port 1 

Hopping No
79

Span (Hz)
83.5M

RBW (Hz)
100k

VBW (Hz)
300kHz

Sweep (s)
265.3us

Detector
Peak

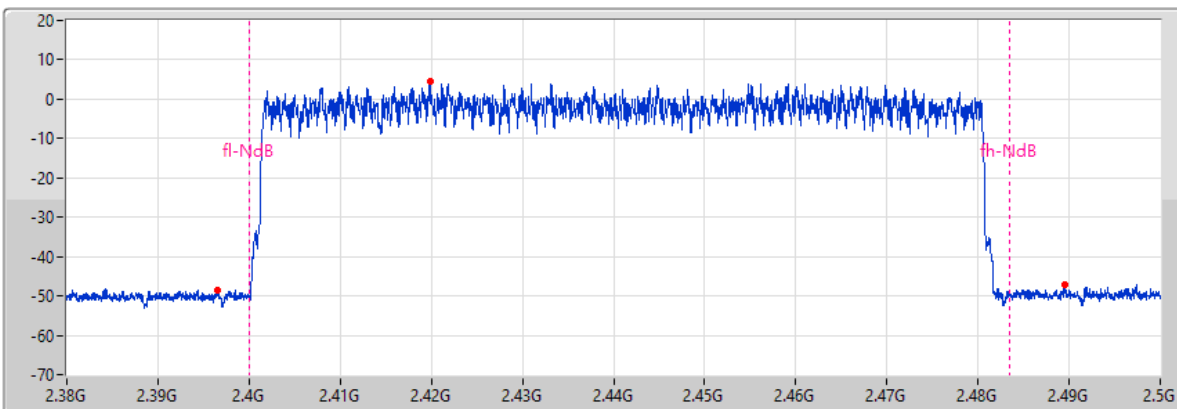
Hopping No	Limit
79	15

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

12/07/2024



Port 1 

Span (Hz)
120M

RBW (Hz)
100k

VBW (Hz)
300k

Sweep (s)
265.3u

Detector
Peak

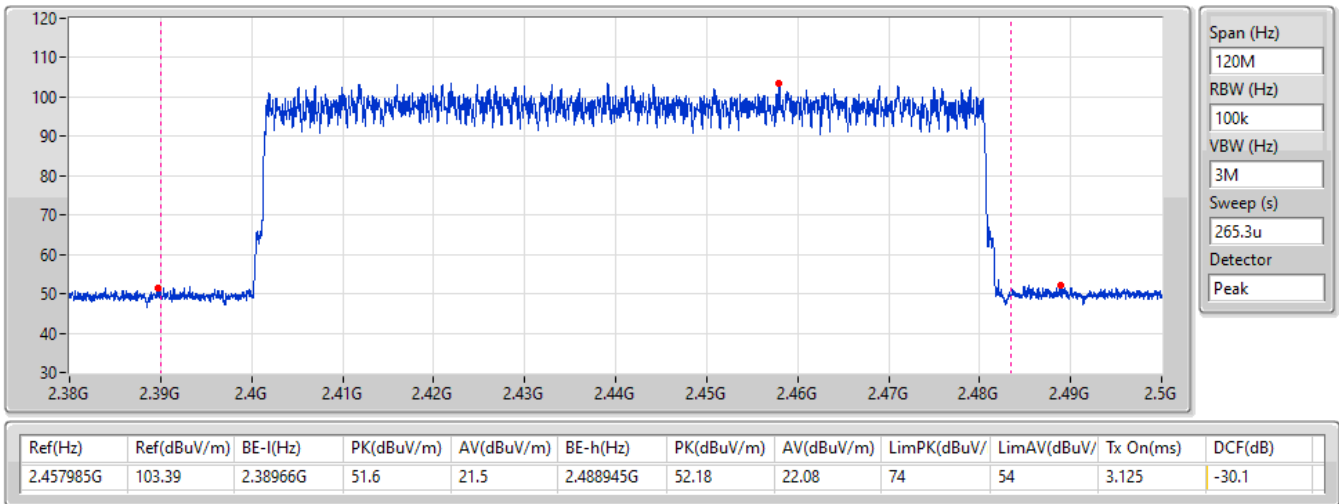
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-15.63	2.419825G	4.37	2.39647G	-48.41	2.489515G	-47.25

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

12/07/2024





Summary

2.4-2.4835GHz	-
BT-BR(1Mbps)	306.07525m_DH5
BT-EDR(2Mbps)	307.35445m_DH5
BT-EDR(3Mbps)	307.8075m_DH5

Result

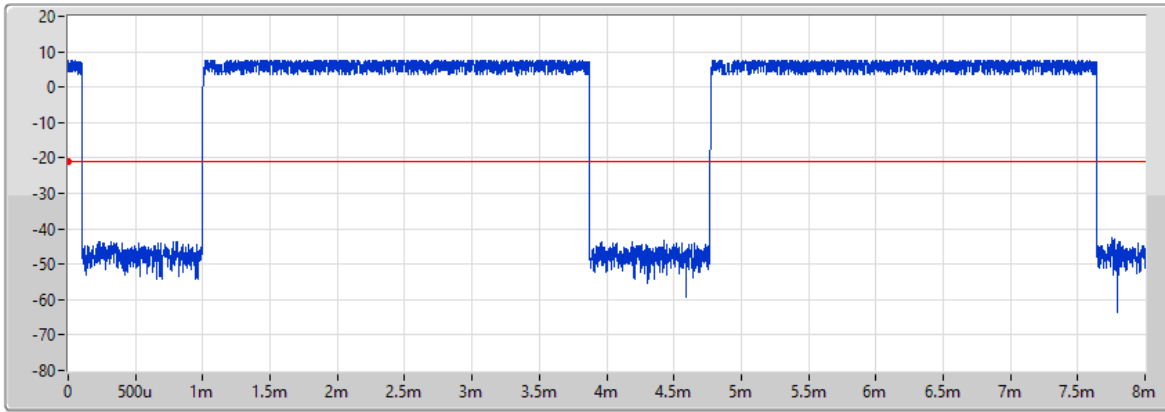
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	306.07525m_DH5	400m	2.87125m
2440MHz	Pass	8	153.0243m_DH5-AFH	400m	2.871m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.35445m_DH5	400m	2.88325m
2440MHz	Pass	8	153.69055m_DH5-AFH	400m	2.8835m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.8075m_DH5	400m	2.8875m
2440MHz	Pass	8	153.90375m_DH5-AFH	400m	2.8875m

2.4-2.4835GHz_BT-BR(1Mbps)

Dwell-FS

2440MHz

12/07/2024



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.87125m

DH5

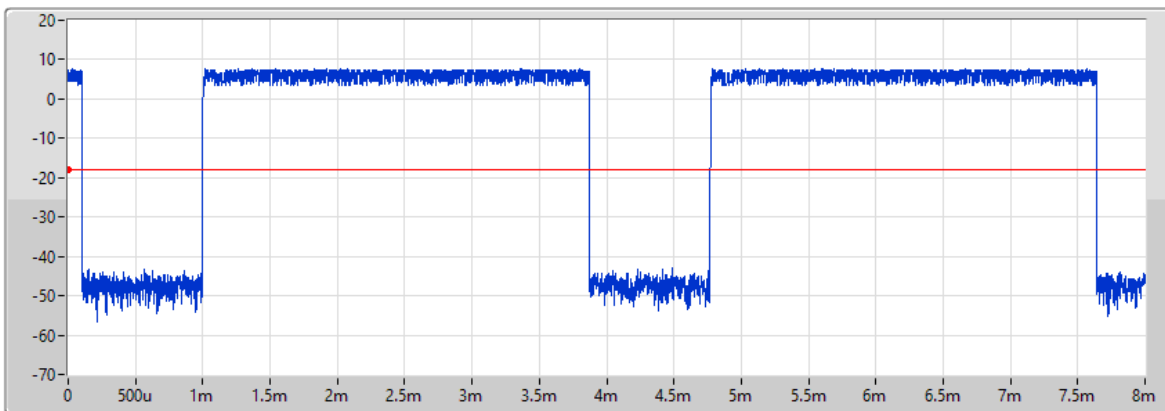
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	306.07525m_DH5	400m	2.87125m

2.4-2.4835GHz_BT-BR(1Mbps)

Dwell-FS

2440MHz

12/07/2024



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.871m

DH5-AFH

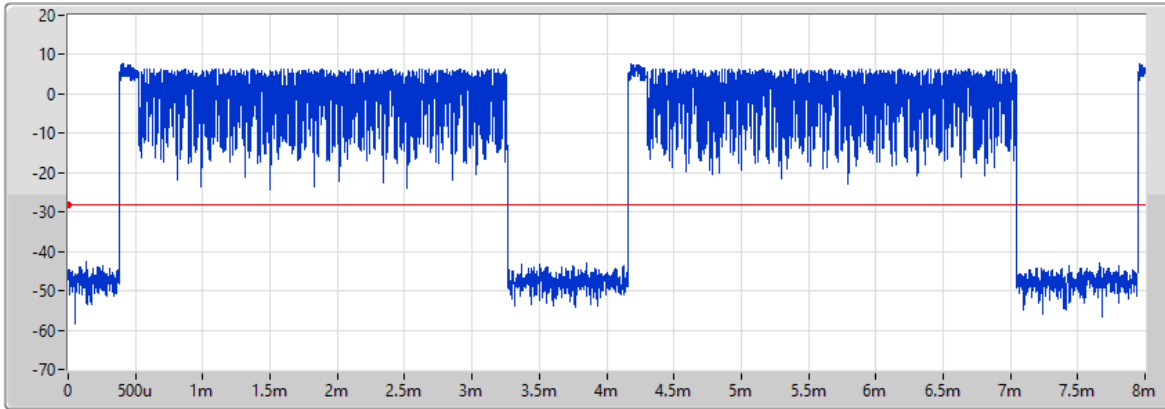
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	153.0243m_DH5-AFH	400m	2.871m

2.4-2.4835GHz_BT-EDR(2Mbps)

Dwell-FS

2440MHz

12/07/2024



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.88325m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.35445m_DH5	400m	2.88325m

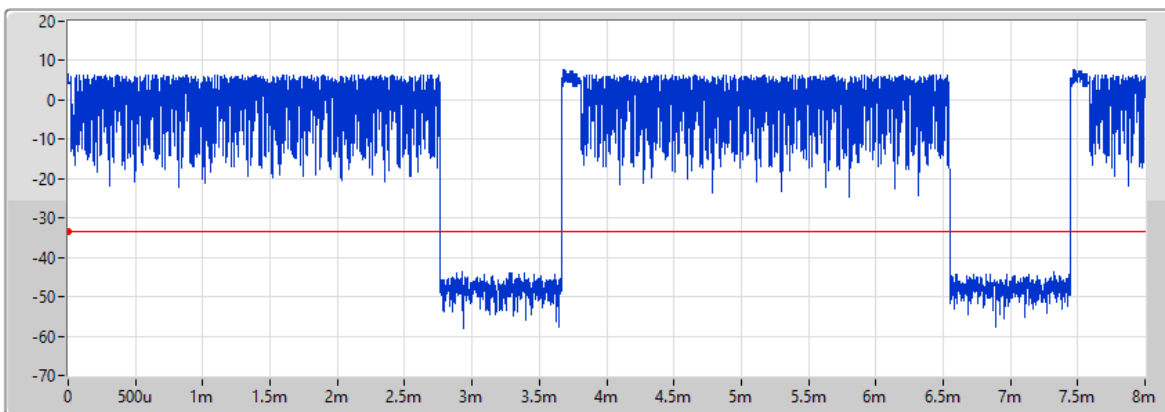
DH5

2.4-2.4835GHz_BT-EDR(2Mbps)

Dwell-FS

2440MHz

12/07/2024



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.8835m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	153.69055m_DH5-AFH	400m	2.8835m

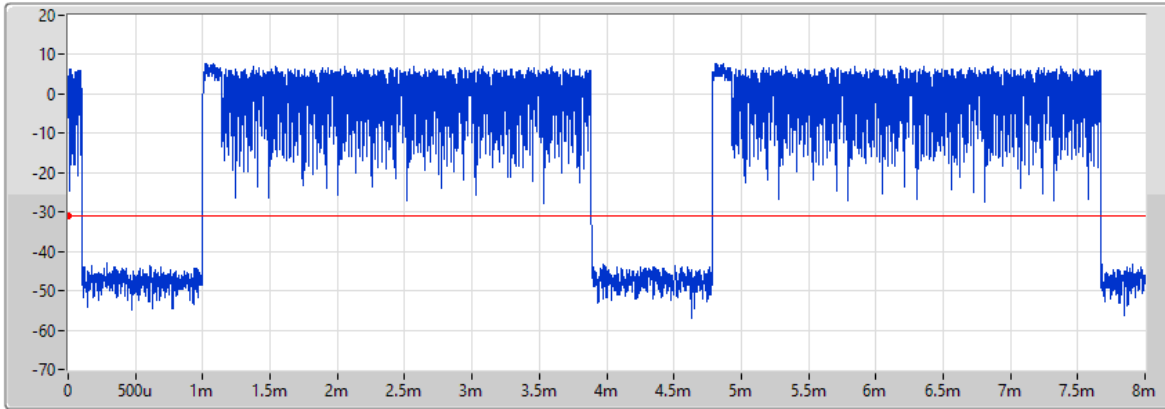
DH5-AFH

2.4-2.4835GHz_BT-EDR(3Mbps)

Dwell-FS

2440MHz

12/07/2024



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.8875m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.8075m_DH5	400m	2.8875m

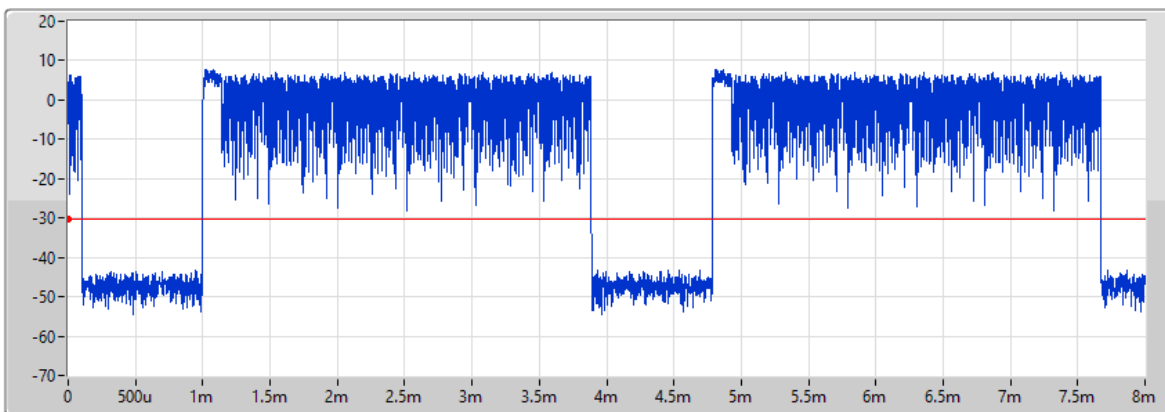
DH5

2.4-2.4835GHz_BT-EDR(3Mbps)

Dwell-FS

2440MHz

12/07/2024



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.8875m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	153.90375m_DH5-AFH	400m	2.8875m

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	5.21	-14.79	2.3048G	-54.89	2.39984G	-52.91	2.4G	-52.33	2.5003G	-53.15	16.83658G	-40.70	1
BT-EDR(2Mbps)	Pass	2.40184G	4.52	-15.48	884.23M	-55.21	2.3998G	-46.53	2.4G	-47.55	2.50246G	-52.87	17.63802G	-40.90	1
BT-EDR(3Mbps)	Pass	2.40184G	4.05	-15.95	2.30128G	-55.27	2.3998G	-46.61	2.4G	-46.86	2.5029G	-52.64	16.24605G	-40.98	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	5.21	-14.79	2.3048G	-54.89	2.39984G	-52.91	2.4G	-52.33	2.5003G	-53.15	16.83658G	-40.70	1
2440MHz	Pass	2.43975G	6.19	-13.81	2.1497G	-54.59	2.3918G	-53.66	2.4G	-54.90	2.50066G	-53.70	15.20559G	-41.41	1
2480MHz	Pass	2.47999G	5.67	-14.33	1.96523G	-55.50	2.39496G	-52.71	2.4G	-54.03	2.50146G	-53.73	16.25167G	-40.92	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	4.52	-15.48	884.23M	-55.21	2.3998G	-46.53	2.4G	-47.55	2.50246G	-52.87	17.63802G	-40.90	1
2440MHz	Pass	2.44008G	6.28	-13.72	2.3001G	-54.91	2.39304G	-53.60	2.4G	-56.50	2.50326G	-53.44	16.26011G	-41.01	1
2480MHz	Pass	2.48016G	5.62	-14.38	2.10388G	-55.32	2.39572G	-53.28	2.4G	-55.73	2.5003G	-53.39	16.26011G	-41.92	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	4.05	-15.95	2.30128G	-55.27	2.3998G	-46.61	2.4G	-46.86	2.5029G	-52.64	16.24605G	-40.98	1
2440MHz	Pass	2.43991G	4.71	-15.29	1.91705G	-55.41	2.39432G	-53.44	2.4G	-55.16	2.50314G	-53.56	16.25449G	-40.85	1
2480MHz	Pass	2.47999G	5.46	-14.54	921.83M	-54.96	2.3928G	-53.26	2.4G	-57.05	2.50102G	-53.14	15.19434G	-41.90	1

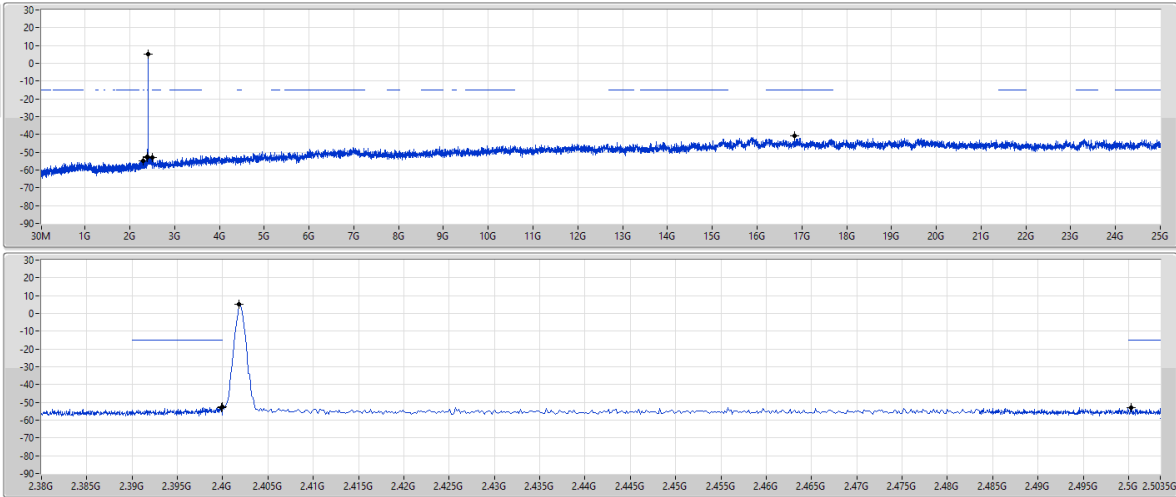
2.4-2.4835GHz_BT-BR(1Mbps)

CSEndB-FS

2402MHz

12/07/2024

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



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
2.40184G	5.21	-14.79	2.3048G	-54.89	2.39984G	-52.91	2.4G	-52.33	2.5003G	-53.15	16.83658G	-40.70	1

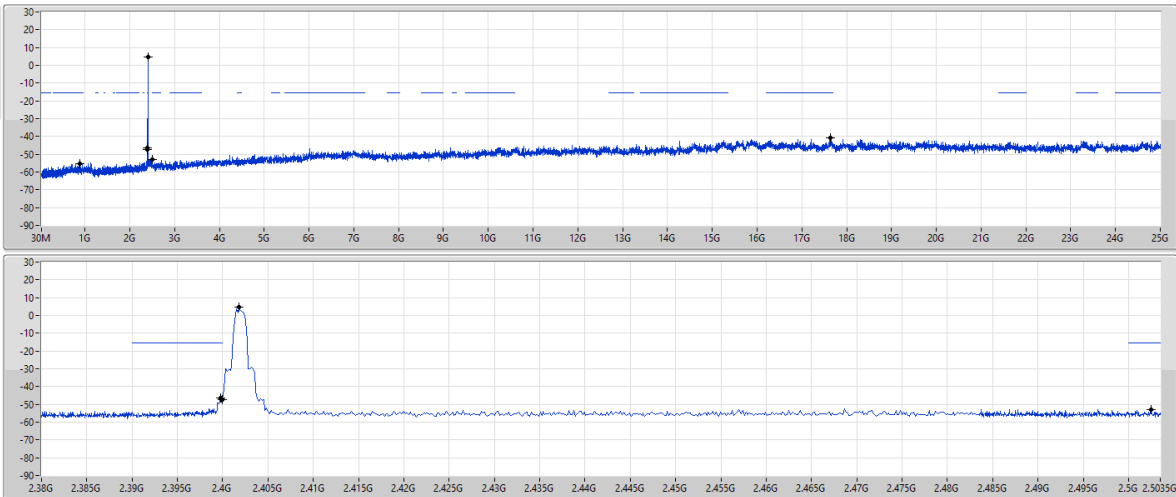
2.4-2.4835GHz_BT-EDR(2Mbps)

CSEndB-FS

2402MHz

12/07/2024

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



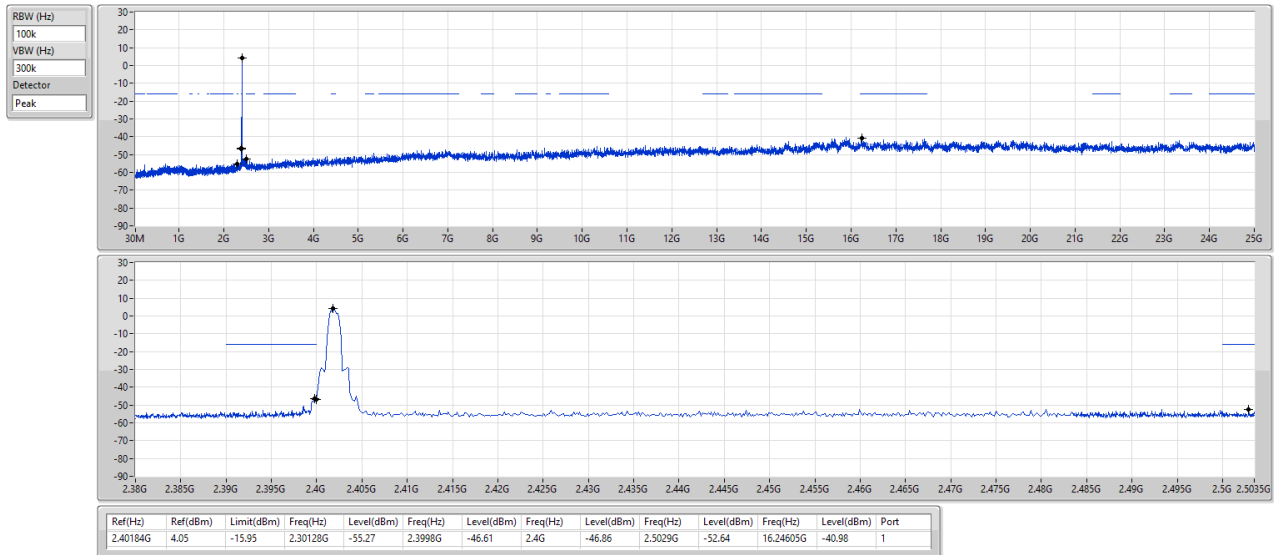
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40184G	4.52	-15.48	884.23M	-55.21	2.3998G	-46.53	2.4G	-47.55	2.50246G	-52.87	17.63802G	-40.90	1

2.4-2.4835GHz_BT-EDR(3Mbps)

CSEndB-FS

2402MHz

12/07/2024





Summary

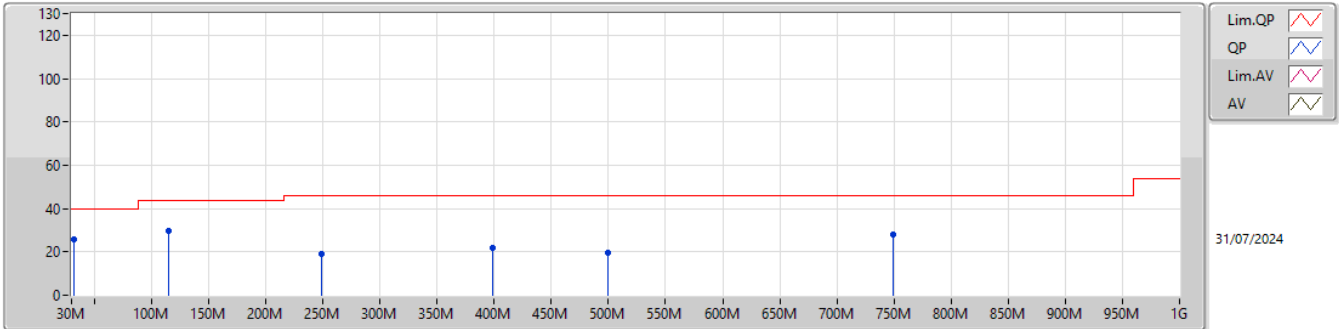
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	115.36M	29.88	43.50	-13.62	3	Vertical	0	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	31.94M	25.63	40.00	-14.37	3	Vertical	0	1.00	-
2440MHz	Pass	PK	115.36M	29.88	43.50	-13.62	3	Vertical	0	1.00	-
2440MHz	Pass	PK	249.22M	19.08	46.00	-26.92	3	Vertical	0	1.00	-
2440MHz	Pass	PK	398.6M	21.75	46.00	-24.25	3	Vertical	0	1.00	-
2440MHz	Pass	PK	499.48M	19.62	46.00	-26.38	3	Vertical	0	1.00	-
2440MHz	Pass	PK	749.74M	28.26	46.00	-17.74	3	Vertical	0	1.00	-
2440MHz	Pass	PK	66.86M	24.33	40.00	-15.67	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	123.12M	27.22	43.50	-16.28	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	249.22M	23.68	46.00	-22.32	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	311.3M	17.34	46.00	-28.66	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	499.48M	23.67	46.00	-22.33	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	749.74M	30.97	46.00	-15.03	3	Horizontal	360	1.00	-

2.4-2.4835GHz_BT-BR(1Mbps)

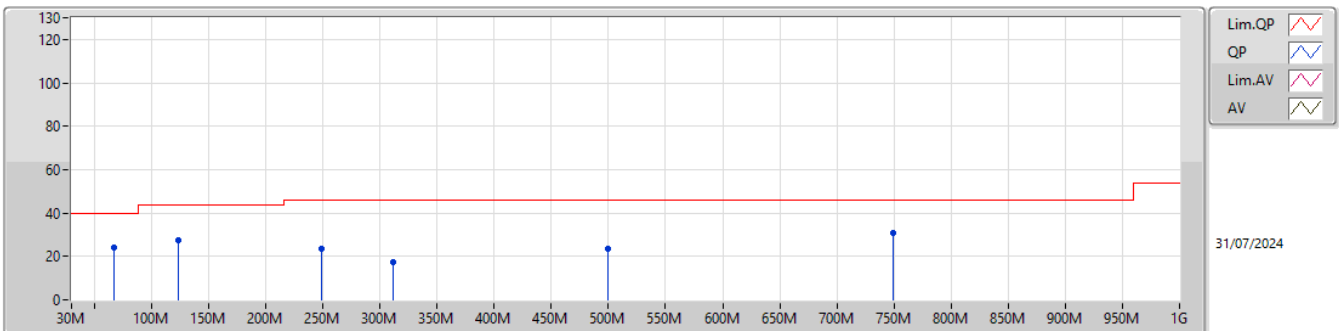
2440MHz_TX



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)
PK	31.94M	25.63	40.00	-14.37	-20.11	3	Vertical	0	1.00	45.74	23.74	0.45	44.30
PK	115.36M	29.88	43.50	-13.62	-26.45	3	Vertical	0	1.00	56.33	17.27	0.83	44.55
PK	249.22M	19.08	46.00	-26.92	-24.71	3	Vertical	0	1.00	43.79	18.51	1.15	44.37
PK	398.6M	21.75	46.00	-24.25	-20.65	3	Vertical	0	1.00	42.40	21.92	1.45	44.02
PK	499.48M	19.62	46.00	-26.38	-18.22	3	Vertical	0	1.00	37.84	24.00	1.65	43.87
PK	749.74M	28.26	46.00	-17.74	-13.43	3	Vertical	0	1.00	41.69	28.33	2.02	43.78

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)
PK	66.86M	24.33	40.00	-15.67	-31.93	3	Horizontal	360	1.00	56.26	12.14	0.59	44.66
PK	123.12M	27.22	43.50	-16.28	-26.01	3	Horizontal	360	1.00	53.23	17.69	0.85	44.55
PK	249.22M	23.68	46.00	-22.32	-24.71	3	Horizontal	360	1.00	48.39	18.51	1.15	44.37
PK	311.3M	17.34	46.00	-28.66	-23.66	3	Horizontal	360	1.00	41.00	19.35	1.22	44.23
PK	499.48M	23.67	46.00	-22.33	-18.22	3	Horizontal	360	1.00	41.89	24.00	1.65	43.87
PK	749.74M	30.97	46.00	-15.03	-13.43	3	Horizontal	360	1.00	44.40	28.33	2.02	43.78



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	2.4884G	59.52	74.00	-14.48	3	Vertical	28	1.00
BT-EDR(3Mbps)	Pass	PK	2.4872G	59.58	74.00	-14.42	3	Vertical	28	1.20

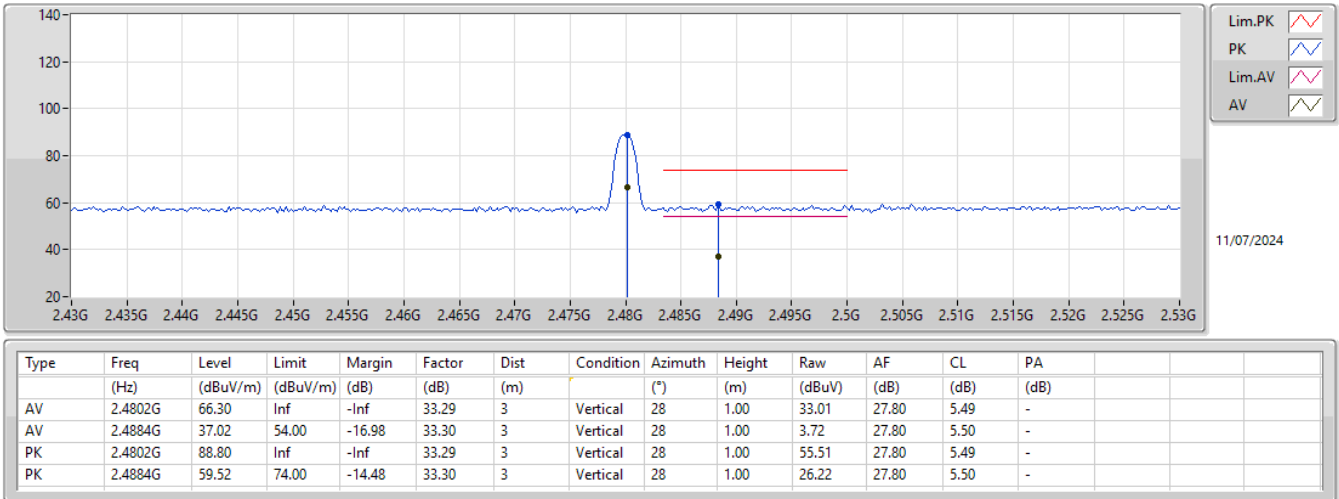
Result

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	2.388G	36.18	54.00	-17.82	3	Vertical	329	2.91
2402MHz	Pass	AV	2.4022G	68.18	Inf	-Inf	3	Vertical	329	2.91
2402MHz	Pass	PK	2.388G	58.68	74.00	-15.32	3	Vertical	329	2.91
2402MHz	Pass	PK	2.4022G	90.68	Inf	-Inf	3	Vertical	329	2.91
2402MHz	Pass	AV	2.3702G	36.50	54.00	-17.50	3	Horizontal	360	1.01
2402MHz	Pass	AV	2.4022G	77.90	Inf	-Inf	3	Horizontal	360	1.01
2402MHz	Pass	PK	2.3702G	59.00	74.00	-15.00	3	Horizontal	360	1.01
2402MHz	Pass	PK	2.4022G	100.40	Inf	-Inf	3	Horizontal	360	1.01
2402MHz	Pass	AV	4.79362G	23.85	54.00	-30.15	3	Vertical	238	1.11
2402MHz	Pass	PK	4.79362G	43.82	74.00	-30.18	3	Vertical	238	1.11
2402MHz	Pass	PK	4.79866G	43.68	74.00	-30.32	3	Horizontal	314	2.62
2402MHz	Pass	AV	4.79866G	23.75	54.00	-30.25	3	Horizontal	314	2.62
2440MHz	Pass	AV	2.3504G	35.86	54.00	-18.14	3	Vertical	38	1.15
2440MHz	Pass	AV	2.4396G	65.82	Inf	-Inf	3	Vertical	38	1.15
2440MHz	Pass	AV	2.4992G	35.99	54.00	-18.01	3	Vertical	38	1.15
2440MHz	Pass	PK	2.3504G	58.36	74.00	-15.64	3	Vertical	38	1.15
2440MHz	Pass	PK	2.4396G	88.32	Inf	-Inf	3	Vertical	38	1.15
2440MHz	Pass	PK	2.4992G	58.49	74.00	-15.51	3	Vertical	38	1.15
2440MHz	Pass	AV	2.3892G	35.95	54.00	-18.05	3	Horizontal	8	1.00
2440MHz	Pass	AV	2.44G	78.44	Inf	-Inf	3	Horizontal	8	1.00
2440MHz	Pass	AV	2.4996G	36.35	54.00	-17.65	3	Horizontal	8	1.00
2440MHz	Pass	PK	2.3892G	58.45	74.00	-15.55	3	Horizontal	8	1.00
2440MHz	Pass	PK	2.44G	100.94	Inf	-Inf	3	Horizontal	8	1.00
2440MHz	Pass	PK	2.4996G	58.85	74.00	-15.15	3	Horizontal	8	1.00
2440MHz	Pass	AV	4.87274G	26.00	54.00	-28.00	3	Vertical	187	1.50
2440MHz	Pass	PK	4.87274G	45.51	74.00	-28.49	3	Vertical	187	1.50
2440MHz	Pass	AV	4.89416G	22.52	54.00	-31.48	3	Horizontal	43	1.50
2440MHz	Pass	PK	4.89416G	45.02	74.00	-28.98	3	Horizontal	43	1.50
2480MHz	Pass	AV	2.4802G	66.30	Inf	-Inf	3	Vertical	28	1.00
2480MHz	Pass	AV	2.4884G	37.02	54.00	-16.98	3	Vertical	28	1.00
2480MHz	Pass	PK	2.4802G	88.80	Inf	-Inf	3	Vertical	28	1.00
2480MHz	Pass	PK	2.4884G	59.52	74.00	-14.48	3	Vertical	28	1.00
2480MHz	Pass	AV	2.4802G	77.66	Inf	-Inf	3	Horizontal	360	1.00
2480MHz	Pass	AV	2.4888G	36.29	54.00	-17.71	3	Horizontal	360	1.00
2480MHz	Pass	PK	2.4802G	100.16	Inf	-Inf	3	Horizontal	360	1.00
2480MHz	Pass	PK	2.4888G	58.79	74.00	-15.21	3	Horizontal	360	1.00
2480MHz	Pass	AV	4.95088G	23.22	54.00	-30.78	3	Vertical	247	1.66
2480MHz	Pass	PK	4.95088G	45.72	74.00	-28.28	3	Vertical	247	1.66
2480MHz	Pass	AV	4.94962G	23.19	54.00	-30.81	3	Horizontal	110	2.37
2480MHz	Pass	PK	4.94962G	45.69	74.00	-28.31	3	Horizontal	110	2.37
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3598G	35.94	54.00	-18.06	3	Vertical	329	2.92
2402MHz	Pass	AV	2.402G	69.16	Inf	-Inf	3	Vertical	329	2.92
2402MHz	Pass	PK	2.3598G	58.44	74.00	-15.56	3	Vertical	329	2.92
2402MHz	Pass	PK	2.402G	91.66	Inf	-Inf	3	Vertical	329	2.92
2402MHz	Pass	AV	2.3742G	36.10	54.00	-17.90	3	Horizontal	360	1.00
2402MHz	Pass	AV	2.402G	78.40	Inf	-Inf	3	Horizontal	360	1.00
2402MHz	Pass	PK	2.3742G	58.60	74.00	-15.40	3	Horizontal	360	1.00
2402MHz	Pass	PK	2.402G	100.90	Inf	-Inf	3	Horizontal	360	1.00
2402MHz	Pass	AV	4.81546G	21.66	54.00	-32.34	3	Vertical	62	2.59
2402MHz	Pass	PK	4.81546G	44.16	74.00	-29.84	3	Vertical	62	2.59
2402MHz	Pass	AV	4.79782G	21.40	54.00	-32.60	3	Horizontal	125	1.73
2402MHz	Pass	PK	4.79782G	43.90	74.00	-30.10	3	Horizontal	125	1.73
2440MHz	Pass	AV	2.3664G	36.11	54.00	-17.89	3	Vertical	28	1.15
2440MHz	Pass	AV	2.44G	66.36	Inf	-Inf	3	Vertical	28	1.15
2440MHz	Pass	AV	2.4896G	36.36	54.00	-17.64	3	Vertical	28	1.15
2440MHz	Pass	PK	2.3664G	58.61	74.00	-15.39	3	Vertical	28	1.15
2440MHz	Pass	PK	2.44G	88.86	Inf	-Inf	3	Vertical	28	1.15
2440MHz	Pass	PK	2.4896G	58.86	74.00	-15.14	3	Vertical	28	1.15
2440MHz	Pass	AV	2.3716G	35.50	54.00	-18.50	3	Horizontal	9	1.00

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2440MHz	Pass	AV	2.44G	78.60	Inf	-Inf	3	Horizontal	9	1.00
2440MHz	Pass	AV	2.492G	36.14	54.00	-17.86	3	Horizontal	9	1.00
2440MHz	Pass	PK	2.3716G	58.00	74.00	-16.00	3	Horizontal	9	1.00
2440MHz	Pass	PK	2.44G	101.10	Inf	-Inf	3	Horizontal	9	1.00
2440MHz	Pass	PK	2.492G	58.64	74.00	-15.36	3	Horizontal	9	1.00
2440MHz	Pass	AV	4.87694G	22.16	54.00	-31.84	3	Vertical	77	1.37
2440MHz	Pass	PK	4.87694G	44.66	74.00	-29.34	3	Vertical	77	1.37
2440MHz	Pass	AV	4.89212G	23.00	54.00	-31.00	3	Horizontal	306	1.11
2440MHz	Pass	PK	4.89212G	45.50	74.00	-28.50	3	Horizontal	306	1.11
2480MHz	Pass	AV	2.48G	69.17	Inf	-Inf	3	Vertical	28	1.20
2480MHz	Pass	AV	2.4872G	37.08	54.00	-16.92	3	Vertical	28	1.20
2480MHz	Pass	PK	2.48G	91.67	Inf	-Inf	3	Vertical	28	1.20
2480MHz	Pass	PK	2.4872G	59.58	74.00	-14.42	3	Vertical	28	1.20
2480MHz	Pass	AV	2.48G	79.87	Inf	-Inf	3	Horizontal	360	1.00
2480MHz	Pass	AV	2.4996G	36.78	54.00	-17.22	3	Horizontal	360	1.00
2480MHz	Pass	PK	2.48G	102.37	Inf	-Inf	3	Horizontal	360	1.00
2480MHz	Pass	PK	2.4996G	59.28	74.00	-14.72	3	Horizontal	360	1.00
2480MHz	Pass	AV	4.95022G	23.65	54.00	-30.35	3	Vertical	91	1.50
2480MHz	Pass	PK	4.95022G	46.15	74.00	-27.85	3	Vertical	91	1.50
2480MHz	Pass	AV	4.96756G	22.79	54.00	-31.21	3	Horizontal	239	1.85
2480MHz	Pass	PK	4.96756G	45.29	74.00	-28.71	3	Horizontal	239	1.85

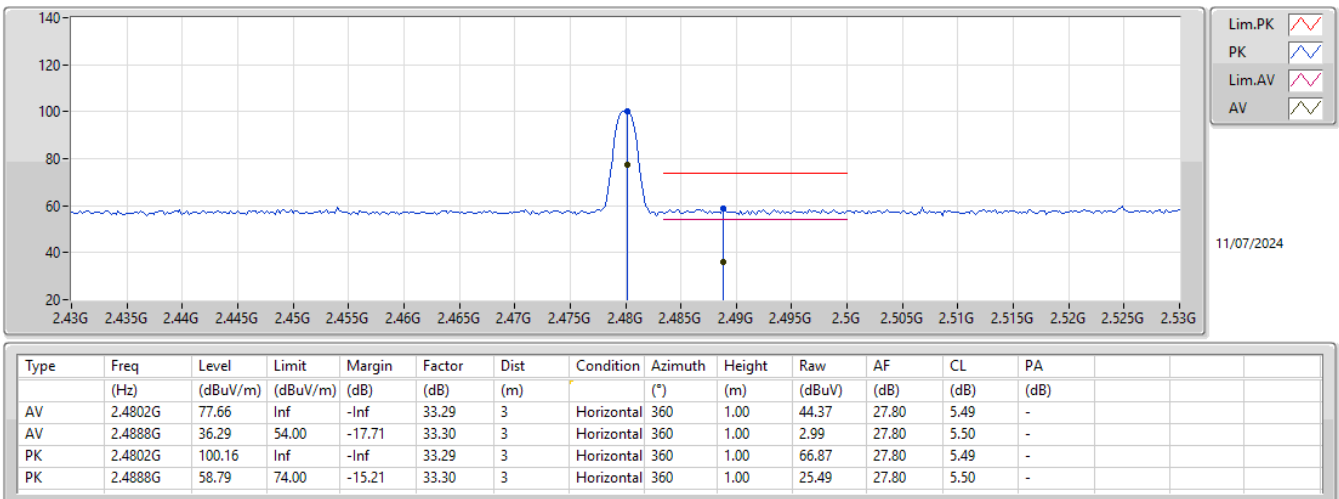
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



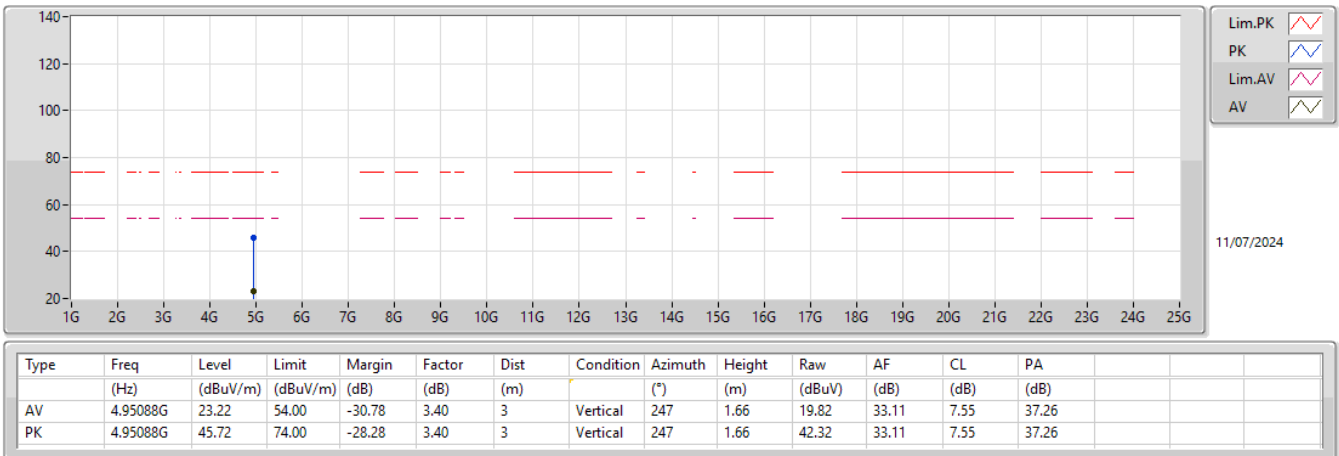
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



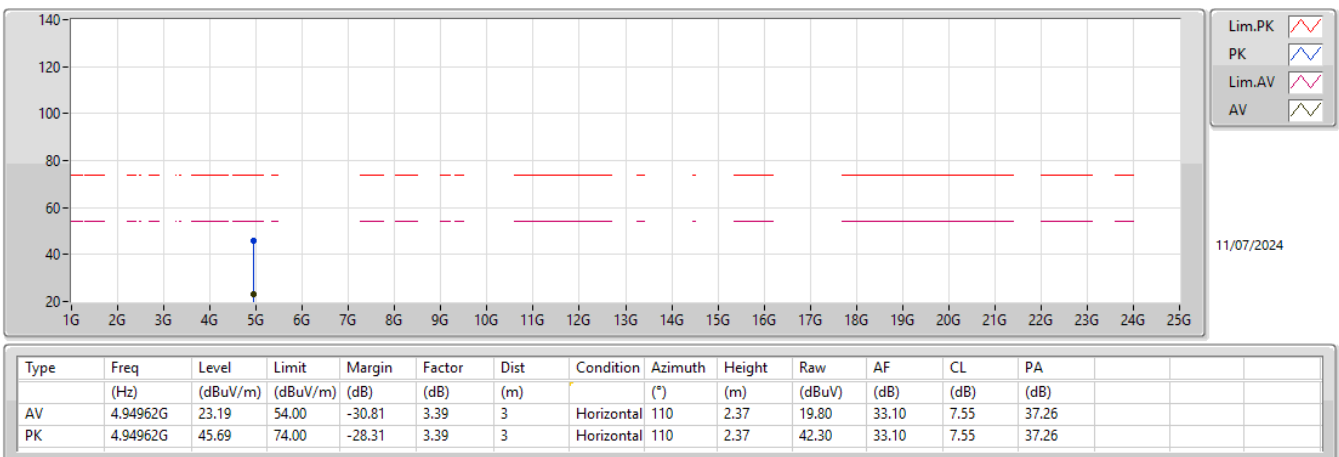
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



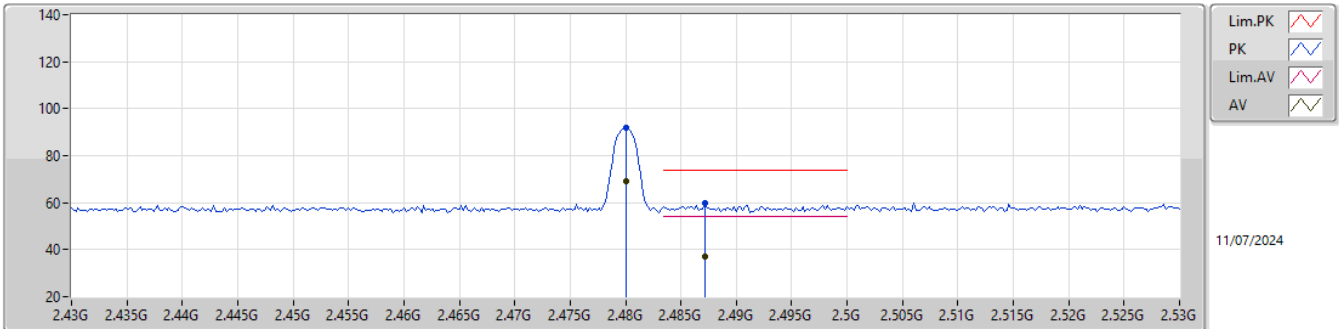
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



2.4-2.4835GHz_BT-EDR(3Mbps)

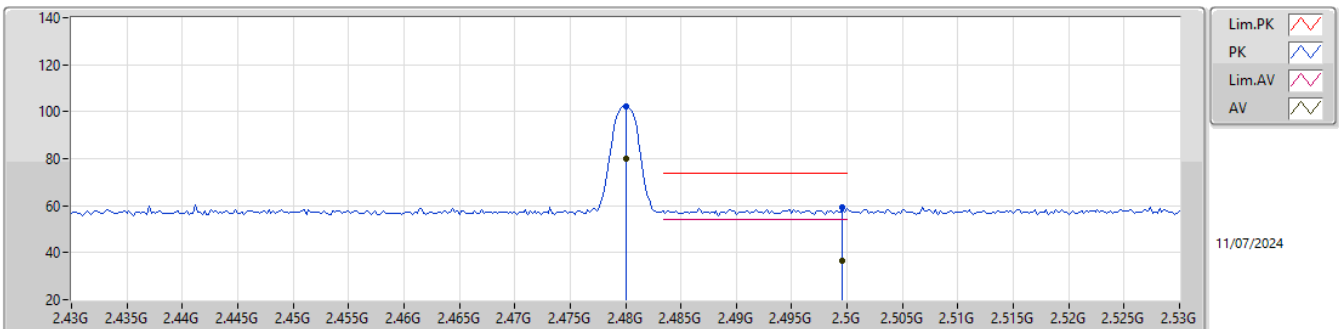
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)			(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	69.17	Inf	-Inf	33.29	3	Vertical	28	1.20	35.88	27.80	5.49	-
AV	2.4872G	37.08	54.00	-16.92	33.30	3	Vertical	28	1.20	3.78	27.80	5.50	-
PK	2.48G	91.67	Inf	-Inf	33.29	3	Vertical	28	1.20	58.38	27.80	5.49	-
PK	2.4872G	59.58	74.00	-14.42	33.30	3	Vertical	28	1.20	26.28	27.80	5.50	-

2.4-2.4835GHz_BT-EDR(3Mbps)

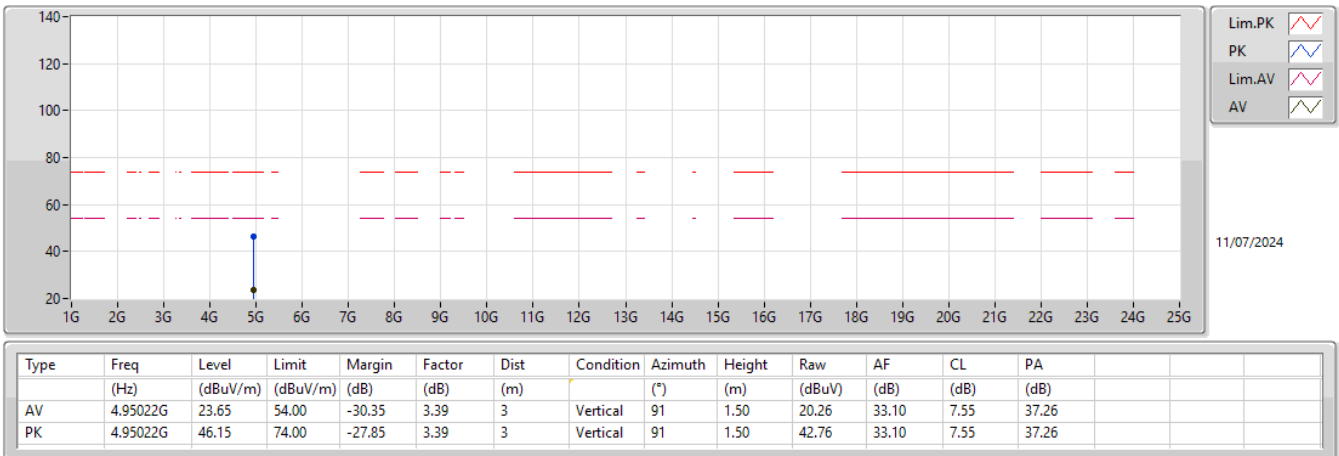
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)			(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	79.87	Inf	-Inf	33.29	3	Horizontal	360	1.00	46.58	27.80	5.49	-
AV	2.4996G	36.78	54.00	-17.22	33.31	3	Horizontal	360	1.00	3.47	27.80	5.51	-
PK	2.48G	102.37	Inf	-Inf	33.29	3	Horizontal	360	1.00	69.08	27.80	5.49	-
PK	2.4996G	59.28	74.00	-14.72	33.31	3	Horizontal	360	1.00	25.97	27.80	5.51	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX

