

FCC Radio Test Report

FCC ID : JNZVR0053
Equipment : Meeting Room Controller
Brand Name : Logitech, logitech, logi
Model Name : VR0053
Applicant : Logitech Far East Ltd
#2 Creation Rd., 4, Science-Based Ind. Park, HsinChu ,
Taiwan
Standard : 47 CFR FCC Part 15.247

The product was received on Jul. 01, 2026, and testing was started from Jul. 10, 2026 and completed on Aug. 04, 2026. 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 C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024 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

[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: 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.	Port	Brand	Model Name	Antenna Type	Connector	Support	Radio
1	1	logi	LTN<A	PIFA	N/A	2.4G+5G	Radio 1
2	1	logi	LTN<A	DIPOLE	I-Pex	BT	Radio 1

Ant.	Port	Gain (dBi)					
		2.4G	5G				BT
			UNII-1	UNII-2A	UNII-2C	UNII-3	
1	1	3.32	2.72	3.55	4.33	4.1	-
2	1	-	-	-	-	-	4.14

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

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

For 5GHz function:

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

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

For BT function:

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

Ant. 2 (port 1) could transmit/receive.

1.1.3 EUT Information

Operational Condition			
EUT Power Type		From PoE Adapter	
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)	0.576	2.4	2.882m	500
BT-EDR(2Mbps)	0.577	2.39	2.886m	500
BT-EDR(3Mbps)	0.577	2.39	2.887m	500

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

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024

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	Simon Cheng	20.5~22.7°C / 57~59%	04/Aug/2026
RF Conducted	TH01-HY	Nicky Lin	23.4~23.9°C / 53~56%	16/Jul/2026~20/Jul/2026
Radiated	03CH02-HY	Daniel Lin	23.9~24.6°C / 51~54%	10/Jul/2026~04/Aug/2026
Radiated (Co-location)	03CH02-HY	Daniel Lin	24.1~25.1°C / 52~55%	30/Jul/2026

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	3.24 dB	Confidence levels of 95%
Conducted Output Power	1.12 dB	Confidence levels of 95%
Bandwidth	0.07 MHz	Confidence levels of 95%
Conducted Emission	1.12 dB	Confidence levels of 95%
Radiated Emission (9 kHz ~ 30 MHz)	1.22 dB	Confidence levels of 95%
Radiated Emission (30 MHz ~ 1 GHz)	1.76 dB	Confidence levels of 95%
Radiated Emission (1 GHz ~ 18 GHz)	5.38 dB	Confidence levels of 95%
Radiated Emission (18 GHz ~ 40 GHz)	4.94 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	Dos 6.1
Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	3
2440MHz	3
2480MHz	3
BT-EDR(2Mbps)	-
2402MHz	3
2440MHz	3
2480MHz	3
BT-EDR(3Mbps)	-
2402MHz	3
2440MHz	3
2480MHz	3

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 ; BT-EDR(3Mbps) 2440MHz TX

Note: The test channels were selected by the widest bandwidth and the highest specification of EUT.

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		
Note: The test channels were selected by the widest bandwidth and the highest specification of EUT.			
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

Note 1: Only recording the worst case's plot.

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	Bluetooth + WLAN 2.4GHz
2	Bluetooth + WLAN 5GHz
Refer to Sporton Test Report No.: FA663007 for Co-location RF Exposure Evaluation and Appendix H for Radiated Emission Co-location.	

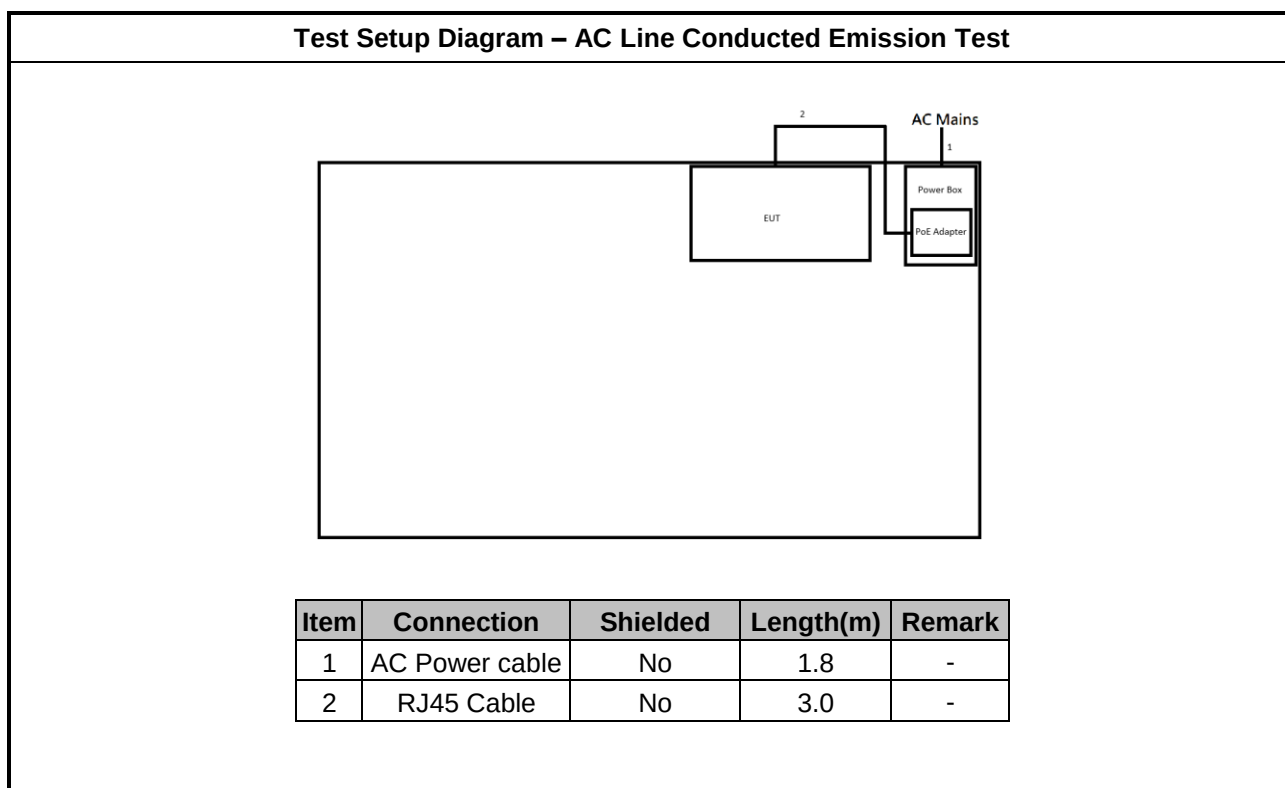
2.3 Support Equipment

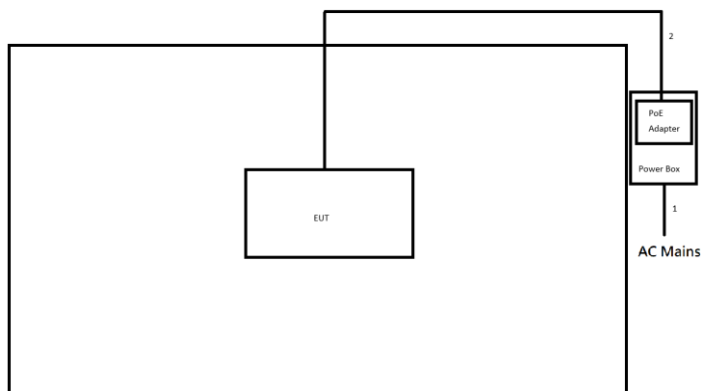
Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	PoE adapter	logi	POE3OR-1AT	-	Provided by Customer
2	RJ45 cable	Power sync	CAT-6E-03	-	-

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	PoE adapter	logi	POE3OR-1AT	-	Provided by Customer
2	RJ45 cable	Power sync	CAT-6E-03	-	-

2.4 Test Setup Diagram



Test Setup Diagram - Radiated Test


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	RJ45 Cable	No	3.0	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

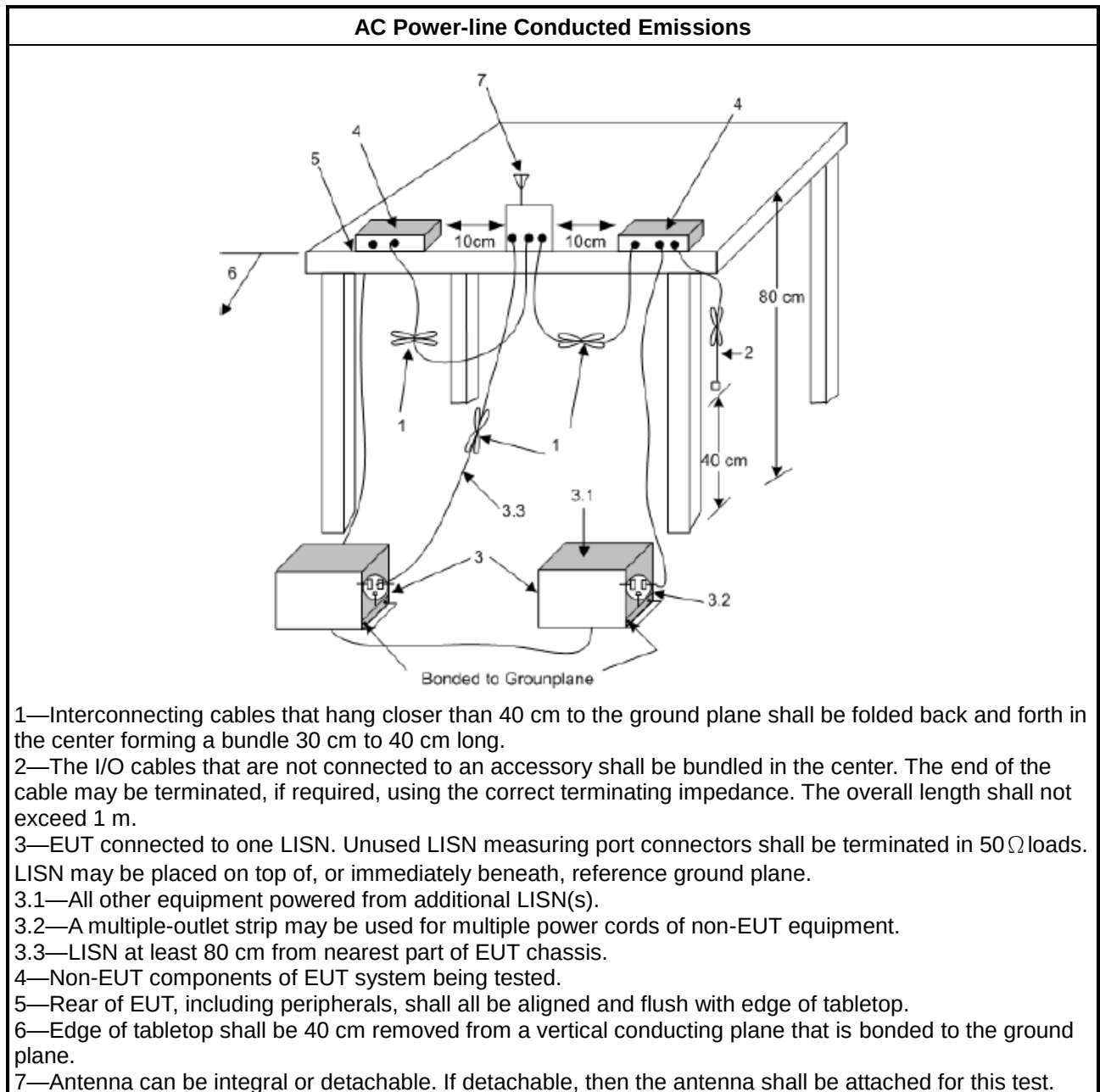
Test Method
▪ Refer as ANSI C63.10, clause 6.2 for AC power-line conducted emissions.

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	

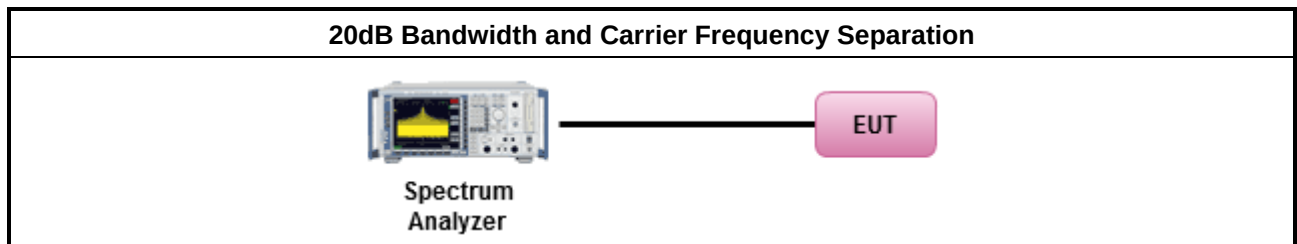
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
Refer as ANSI C63.10, clause 6.9.2 for 20 dB bandwidth measurement.
Refer as ANSI C63.10, 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	

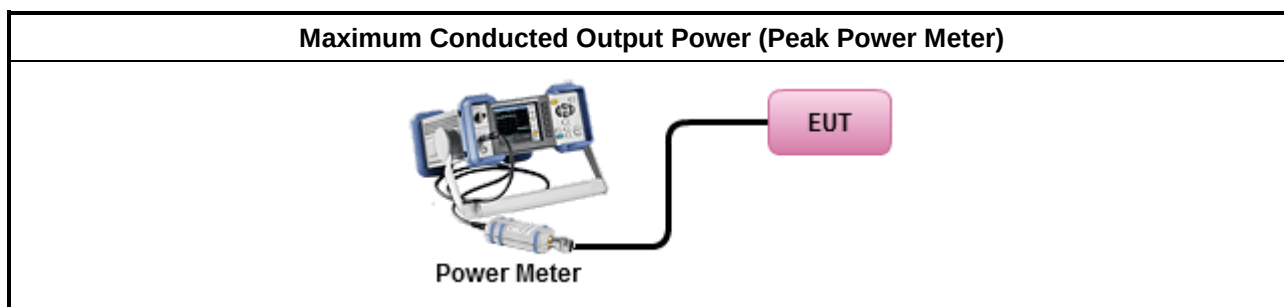
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method
Refer as ANSI C63.10, 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

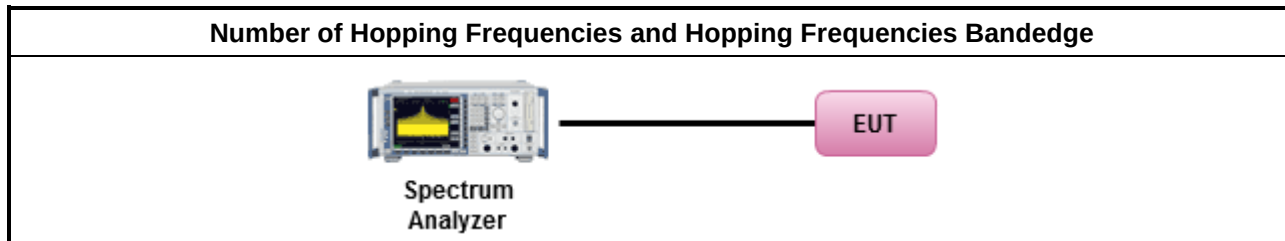
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

Test Method
▪ Refer as ANSI C63.10, clause 7.8.3 for number of hopping frequencies measurement.
▪ Refer as ANSI C63.10, clause 7.8.7.2 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	

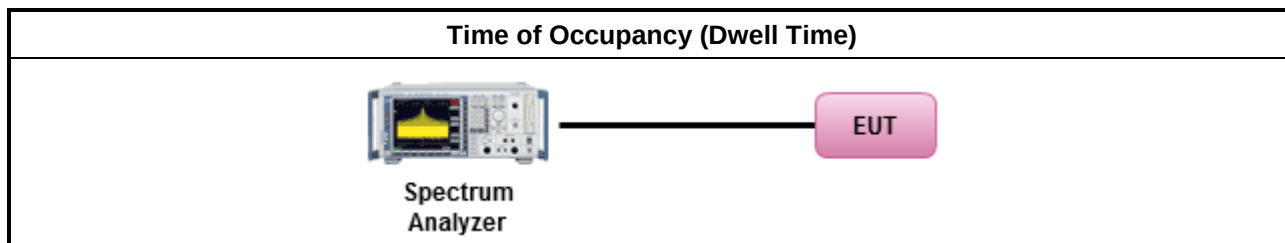
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10, 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.	

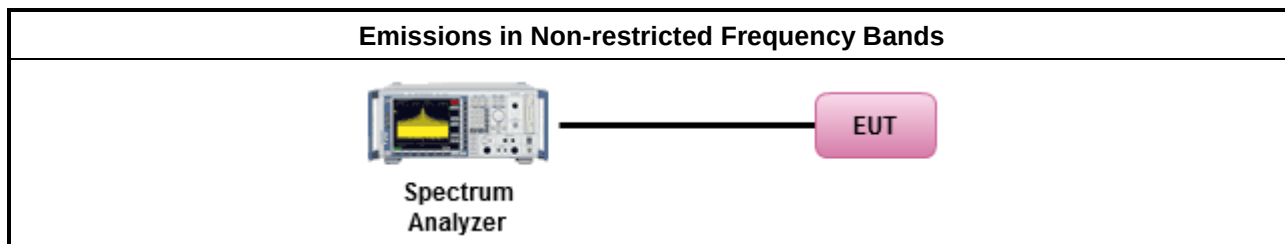
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
Refer as ANSI C63.10, clause 7.8.7 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.

Duty Cycle Correction Factor Calculation

- Channel hop rate = 800 hops/second
- Adjusted channel hop rate for DH5 mode = 133.33 hops/second
- Time per channel hop = 1 / 133.33 hops/second = 7.50 ms
- Time to cycle through all channels = 7.50 x 20 channels = 150 ms
- Number of times transmitter hits on one channel = 100 ms / 150 ms = 1 time(s)
- Maximum dwell time per 1 MHz = dwell time per 100 ms per channel × (channel separation correction + overlapping channel correction) where:
 - Channel separation correction = $[1 / \text{channel separation (MHz)}]$ for channel separation < 1 MHz, and = 1 for channel separation ≥ 1 MHz, as determined using the procedures of 7.8.2. If the average measurements are performed on the Nth harmonic, the channel separation value is N times the separation at the fundamental frequency.
 - Overlapping channel correction = 0 when the 20 dB channel bandwidth < channel separation and = 1 for when the 20 dB channel bandwidth > channel separation.
- Worst case dwell time = 15 ms
- Duty cycle correction factor = $20\log_{10}(15\text{ms}/100\text{ms}) = -16.48 \text{ dB}$

3.7.2 Measuring Instruments

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

3.7.3 Test Procedures

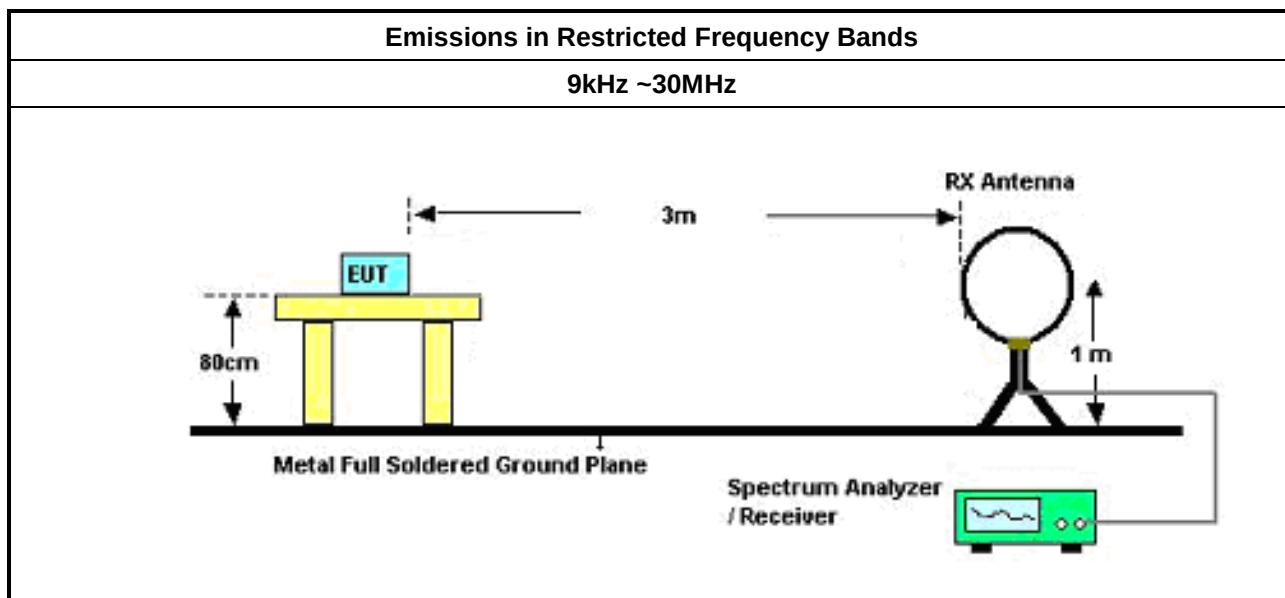
Test Method	
	The average emission levels shall be measured in [hopping duty factor].
	Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
	For the transmitter unwanted emissions shall be measured using following options below:
	- Refer as ANSI C63.10, clause 4.1.5.2.1 QP value. - Refer as ANSI C63.10, clause 4.1.5.2.2 measurement procedure peak. - Refer as ANSI C63.10, clause 4.1.5.2.5 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.

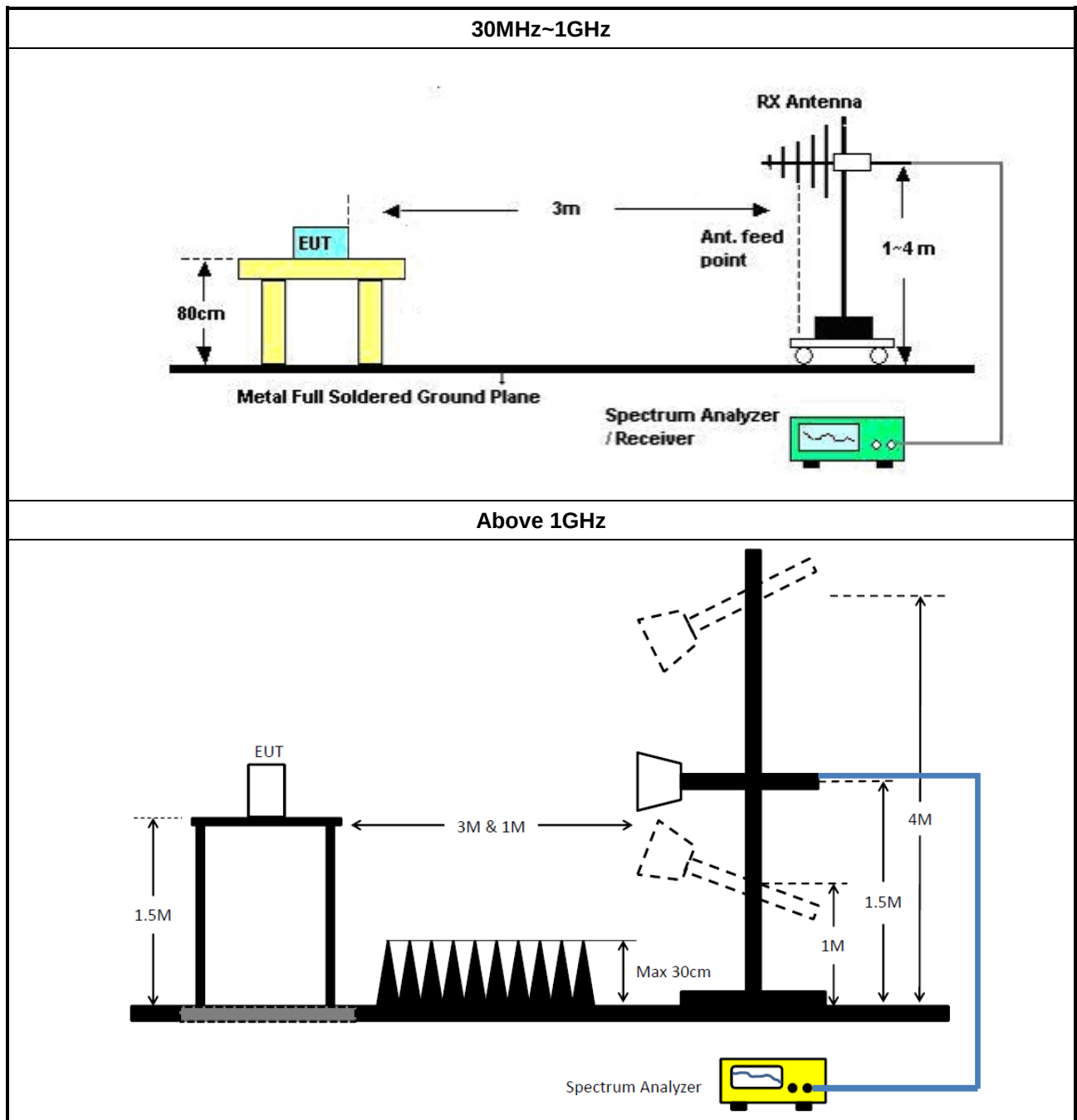
3.7.4 Measurement Results Calculation

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	05/Jun/2026	04/Jun/2027
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	101578	9kHz ~ 30MHz	24/Aug/2025	23/Aug/2026
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	25/Feb/2026	24/Feb/2027
Pulse Limiter	SCHWARZBECK	VTSD 9561F-F	9561-F041	9kHz ~ 30MHz	27/Oct/2025	26/Oct/2026
Software	Sporton	SENSE-EMI	V5.11.6	-	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	FSV3044	101438	10Hz~44GHz	14/Oct/2025	13/Oct/2026
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	29/Oct/2025	28/Oct/2026
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	04/Feb/2026	03/Feb/2027
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	04/Feb/2026	03/Feb/2027
SENSE-15247_FS	Sporton	V5.11.28	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
N.S.A. Measurement	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3M	11/Jul/2026	10/Jul/2027
Site V.S.W.R	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3M	12/Jul/2025	11/Jul/2026
Site V.S.W.R	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3M	11/Jul/2026	10/Jul/2027
EMI Test Receiver	R&S	ESR	102052	9kHz~3.6GHz	13/May/2026	12/May/2027
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101750	10Hz~44GHz	14/Apr/2026	13/Apr/2027
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2026	15/Mar/2027
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723/2	30MHz~1GHz	25/Aug/2025	24/Aug/2026
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	03/Oct/2025	02/Oct/2026
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	29/Jun/2026	28/Jun/2027
RF Cable	MVE	400LL+SN 200207	03CH02-cable -05	9kHz~1GHz	08/Aug/2025	07/Aug/2026
RF Cable HUBER+SUHNER	HUBER+SUHNER	SUCOFLEX 104	03CH02-cable -06	1GHz~40GHz	15/Aug/2025	14/Aug/2026
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	26/Jun/2026	25/Jun/2027
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	30/Sep/2025	29/Sep/2026
Amplifier	EM	EM18G40GA	060874	18GHz ~40GHz	27/Apr/2026	26/Apr/2027
SENSE-15247-FS	Sporton	V5.11.23	N/A	N/A	N/A	N/A

Instrument for Radiated Test Co-location

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Site V.S.W.R	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3M	11/Jul/2026	10/Jul/2027
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101750	10Hz~44GHz	14/Apr/2026	13/Apr/2027
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	03/Oct/2025	02/Oct/2026
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	29/Jun/2026	28/Jun/2027
RF Cable HUBER+SUHNER	HUBER+SUHNER	SUCOFLEX 104	03CH02-cable -06	1GHz~40GHz	15/Aug/2025	14/Aug/2026
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	30/Sep/2025	29/Sep/2026
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~40GHz	20/May/2026	19/May/2027
SENSE-EMI	Sporton	V5.11.9	N/A	N/A	N/A	N/A



Conducted Emissions at Powerline

Appendix A

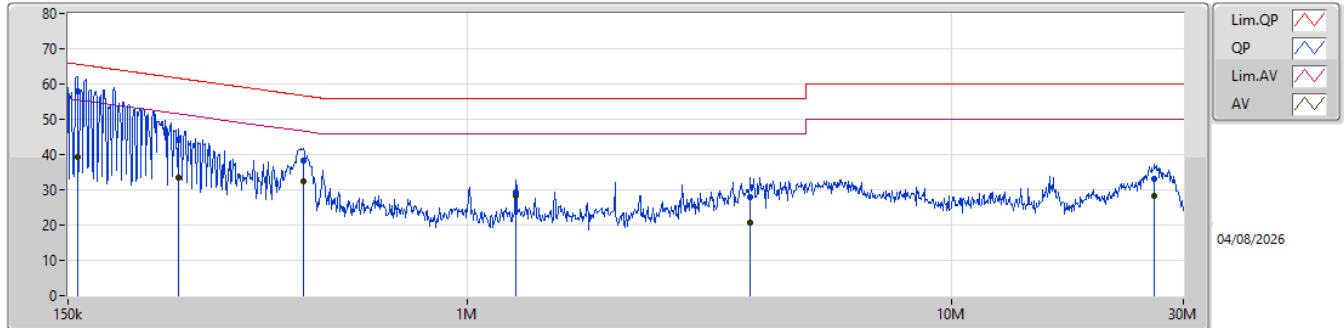
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	156.73k	58.01	65.64	-7.63	Line

Result

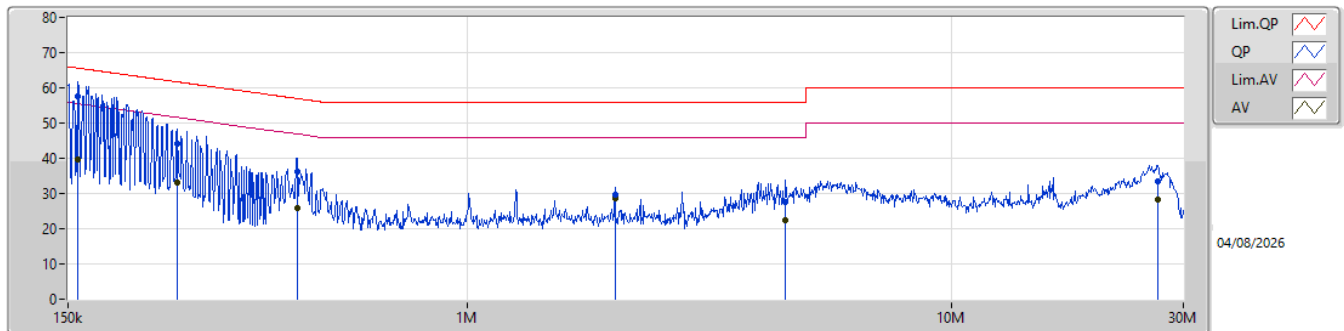
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	156.73k	58.01	65.64	-7.63	Line
Mode 1	Pass	AV	156.73k	39.28	55.64	-16.36	Line
Mode 1	Pass	QP	253.05k	44.10	61.66	-17.56	Line
Mode 1	Pass	AV	253.05k	33.39	51.66	-18.27	Line
Mode 1	Pass	QP	458.7k	38.32	56.71	-18.39	Line
Mode 1	Pass	AV	458.7k	32.25	46.71	-14.46	Line
Mode 1	Pass	QP	1.26M	29.32	56.00	-26.68	Line
Mode 1	Pass	AV	1.26M	28.20	46.00	-17.80	Line
Mode 1	Pass	QP	3.84M	27.76	56.00	-28.24	Line
Mode 1	Pass	AV	3.84M	20.57	46.00	-25.43	Line
Mode 1	Pass	QP	26.17M	33.18	60.00	-26.82	Line
Mode 1	Pass	AV	26.17M	28.14	50.00	-21.86	Line
Mode 1	Pass	QP	156.73k	57.50	65.64	-8.14	Neutral
Mode 1	Pass	AV	156.73k	39.66	55.64	-15.98	Neutral
Mode 1	Pass	QP	252.04k	44.15	61.70	-17.55	Neutral
Mode 1	Pass	AV	252.04k	33.27	51.70	-18.43	Neutral
Mode 1	Pass	QP	446.06k	36.05	56.96	-20.91	Neutral
Mode 1	Pass	AV	446.06k	25.95	46.96	-21.01	Neutral
Mode 1	Pass	QP	2.02M	29.63	56.00	-26.37	Neutral
Mode 1	Pass	AV	2.02M	28.65	46.00	-17.35	Neutral
Mode 1	Pass	QP	4.54M	27.72	56.00	-28.28	Neutral
Mode 1	Pass	AV	4.54M	22.58	46.00	-23.42	Neutral
Mode 1	Pass	QP	26.59M	33.48	60.00	-26.52	Neutral
Mode 1	Pass	AV	26.59M	28.31	50.00	-21.69	Neutral

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)								
QP	156.73k	58.01	65.64	-7.63	19.80	Line	38.21	9.64	0.17	9.99								
AV	156.73k	39.28	55.64	-16.36	19.80	Line	19.48	9.64	0.17	9.99								
QP	253.05k	44.10	61.66	-17.56	19.77	Line	24.33	9.64	0.12	10.01								
AV	253.05k	33.39	51.66	-18.27	19.77	Line	13.62	9.64	0.12	10.01								
QP	458.7k	38.32	56.71	-18.39	19.74	Line	18.58	9.63	0.10	10.01								
AV	458.7k	32.25	46.71	-14.46	19.74	Line	12.51	9.63	0.10	10.01								
QP	1.26M	29.32	56.00	-26.68	19.74	Line	9.58	9.64	0.06	10.04								
AV	1.26M	28.20	46.00	-17.80	19.74	Line	8.46	9.64	0.06	10.04								
QP	3.84M	27.76	56.00	-28.24	19.82	Line	7.94	9.66	0.12	10.04								
AV	3.84M	20.57	46.00	-25.43	19.82	Line	0.75	9.66	0.12	10.04								
QP	26.17M	33.18	60.00	-26.82	19.83	Line	13.35	9.50	0.41	9.92								
AV	26.17M	28.14	50.00	-21.86	19.83	Line	8.31	9.50	0.41	9.92								

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)								
QP	156.73k	57.50	65.64	-8.14	19.80	Neutral	37.70	9.64	0.17	9.99								
AV	156.73k	39.66	55.64	-15.98	19.80	Neutral	19.86	9.64	0.17	9.99								
QP	252.04k	44.15	61.70	-17.55	19.76	Neutral	24.39	9.63	0.12	10.01								
AV	252.04k	33.27	51.70	-18.43	19.76	Neutral	13.51	9.63	0.12	10.01								
QP	446.06k	36.05	56.96	-20.91	19.74	Neutral	16.31	9.63	0.10	10.01								
AV	446.06k	25.95	46.96	-21.01	19.74	Neutral	6.21	9.63	0.10	10.01								
QP	2.02M	29.63	56.00	-26.37	19.64	Neutral	9.99	9.65	0.04	9.95								
AV	2.02M	28.65	46.00	-17.35	19.64	Neutral	9.01	9.65	0.04	9.95								
QP	4.54M	27.72	56.00	-28.28	19.85	Neutral	7.87	9.67	0.15	10.03								
AV	4.54M	22.58	46.00	-23.42	19.85	Neutral	2.73	9.67	0.15	10.03								
QP	26.59M	33.48	60.00	-26.52	20.01	Neutral	13.47	9.68	0.40	9.93								
AV	26.59M	28.31	50.00	-21.69	20.01	Neutral	8.30	9.68	0.40	9.93								

**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	844.25k	768.814k	769KF1D	789.25k	757.683k
BT-EDR(2Mbps)	1.32M	1.194M	1M19G1D	1.26M	1.154M
BT-EDR(3Mbps)	1.284M	1.202M	1M20G1D	1.251M	1.182M

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

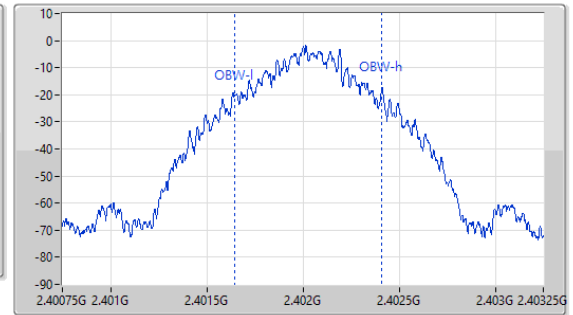
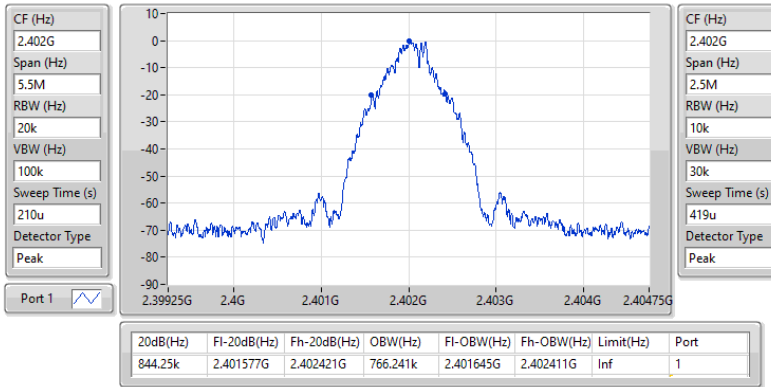
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	844.25k	766.241k
2440MHz	Pass	Inf	838.75k	757.683k
2480MHz	Pass	Inf	789.25k	768.814k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.26M	1.187M
2440MHz	Pass	Inf	1.317M	1.194M
2480MHz	Pass	Inf	1.32M	1.154M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.251M	1.184M
2440MHz	Pass	Inf	1.276M	1.202M
2480MHz	Pass	Inf	1.284M	1.182M

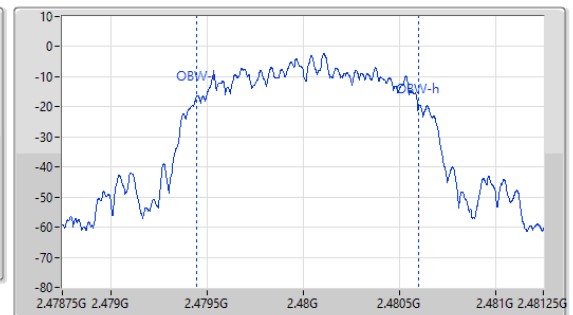
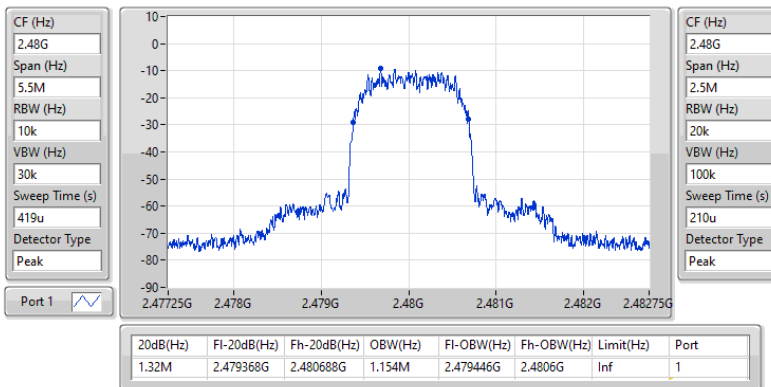
Port X-N dB = Port X 20dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-BR(1Mbps)
EBW-FS
2402MHz

16/07/2026


2.4-2.4835GHz_BT-EDR(2Mbps)
EBW-FS
2480MHz

16/07/2026

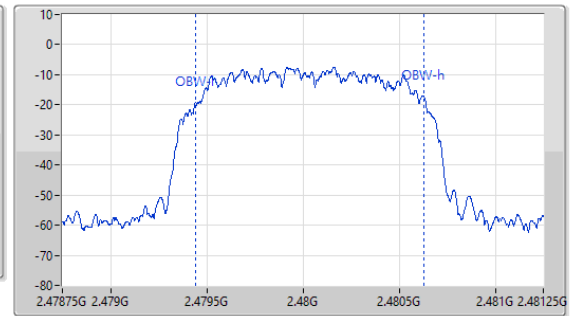
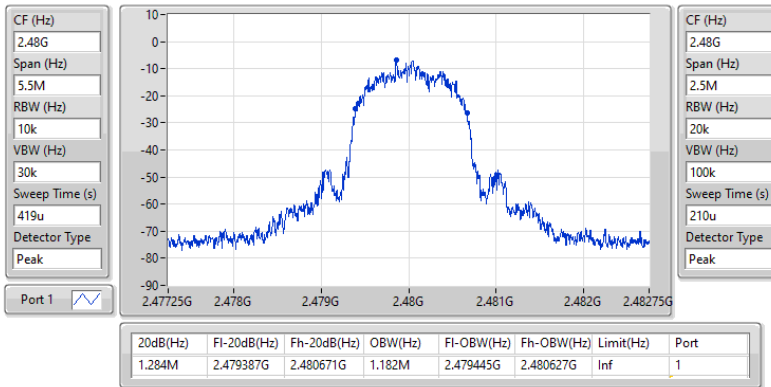


2.4-2.4835GHz_BT-EDR(3Mbps)

EBW-FS

2480MHz

16/07/2026





Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.1055M	999k
BT-EDR(2Mbps)	999k	999k
BT-EDR(3Mbps)	1.002M	999k

Result

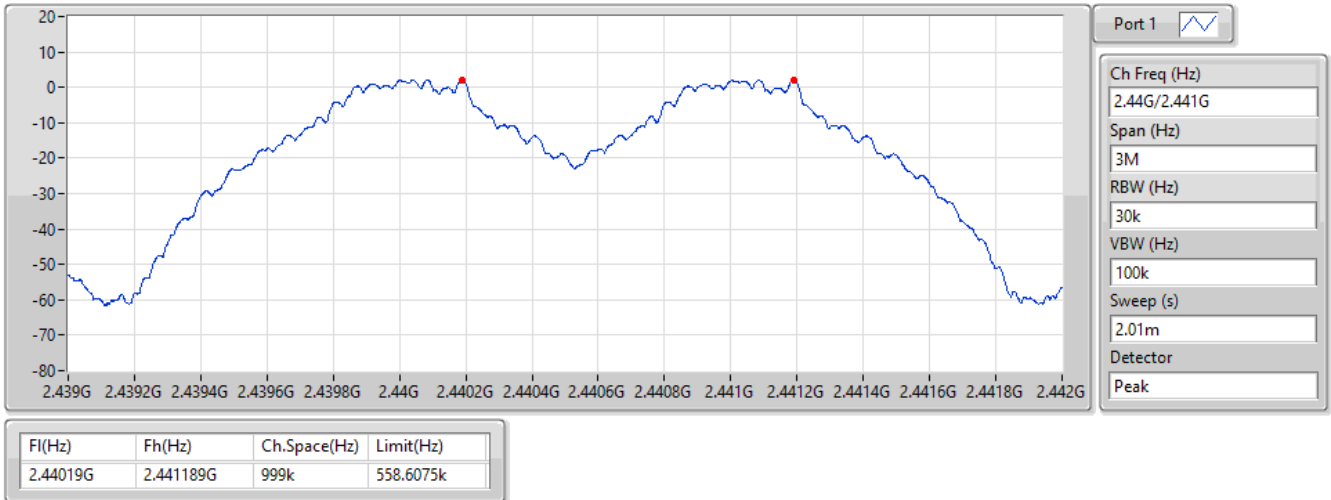
Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402083G	2.403189G	1.1055M	562.2705k
2440MHz	Pass	2.44019G	2.441189G	999k	558.6075k
2480MHz	Pass	2.479188G	2.48019G	1.002M	525.6405k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402191G	2.40319G	999k	839.16k
2440MHz	Pass	2.44019G	2.441189G	999k	877.122k
2480MHz	Pass	2.479191G	2.48019G	999k	879.12k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.40219G	2.403189G	999k	833.166k
2440MHz	Pass	2.44019G	2.441192G	1.002M	849.816k
2480MHz	Pass	2.479191G	2.48019G	999k	855.144k

2.4-2.4835GHz_BT-BR(1Mbps)

Channel Separation-FS

2.44G/2.441GHz

16/07/2026

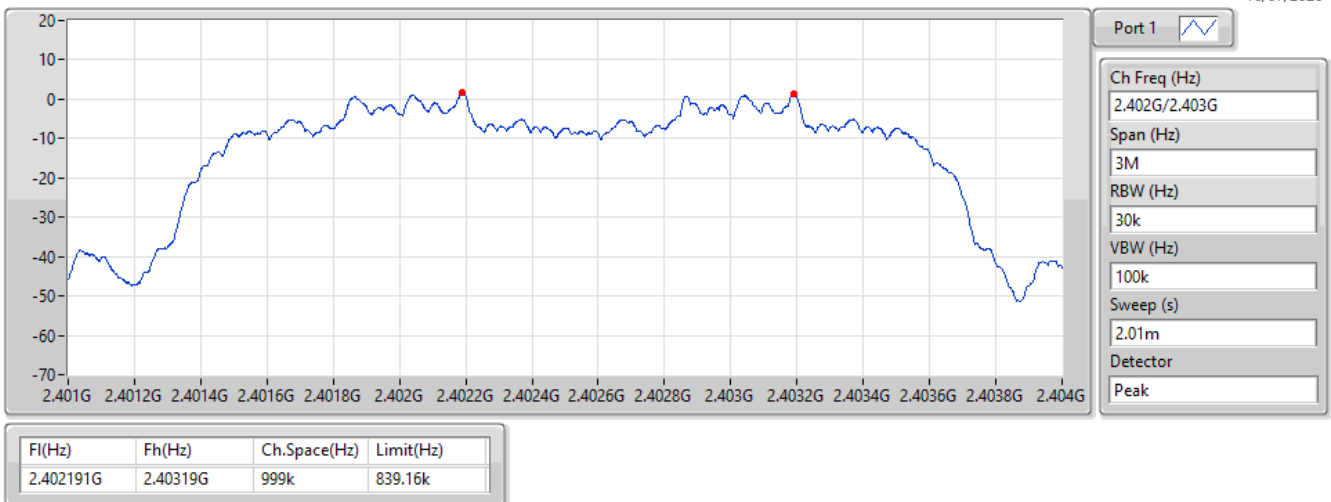


2.4-2.4835GHz_BT-EDR(2Mbps)

Channel Separation-FS

2.402G/2.403GHz

16/07/2026

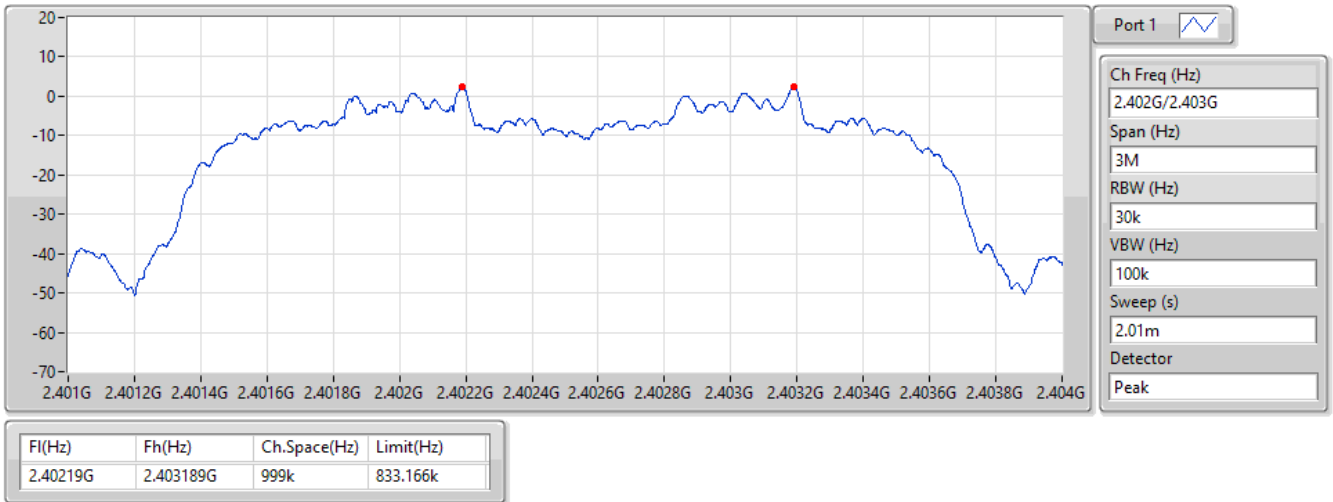


2.4-2.4835GHz_BT-EDR(3Mbps)

Channel Separation-FS

2.402G/2.403GHz

16/07/2026





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	5.50	0.00355
BT-EDR(2Mbps)	5.35	0.00343
BT-EDR(3Mbps)	5.35	0.00343

**Result**

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	4.14	5.22	21.00
2440MHz	Pass	4.14	5.33	21.00
2480MHz	Pass	4.14	5.50	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	4.14	5.17	21.00
2440MHz	Pass	4.14	5.35	21.00
2480MHz	Pass	4.14	5.24	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	4.14	5.33	21.00
2440MHz	Pass	4.14	5.35	21.00
2480MHz	Pass	4.14	5.19	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)	4.84	0.00305
BT-EDR(2Mbps)	2.19	0.00166
BT-EDR(3Mbps)	2.19	0.00166

**Result**

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	4.14	4.84	21.00
2440MHz	Pass	4.14	4.72	21.00
2480MHz	Pass	4.14	4.79	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	4.14	2.17	21.00
2440MHz	Pass	4.14	2.18	21.00
2480MHz	Pass	4.14	2.19	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	4.14	1.95	21.00
2440MHz	Pass	4.14	2.08	21.00
2480MHz	Pass	4.14	2.19	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

Note: The Hopping Channel and Bandedge was tested under hopping mode.

Result

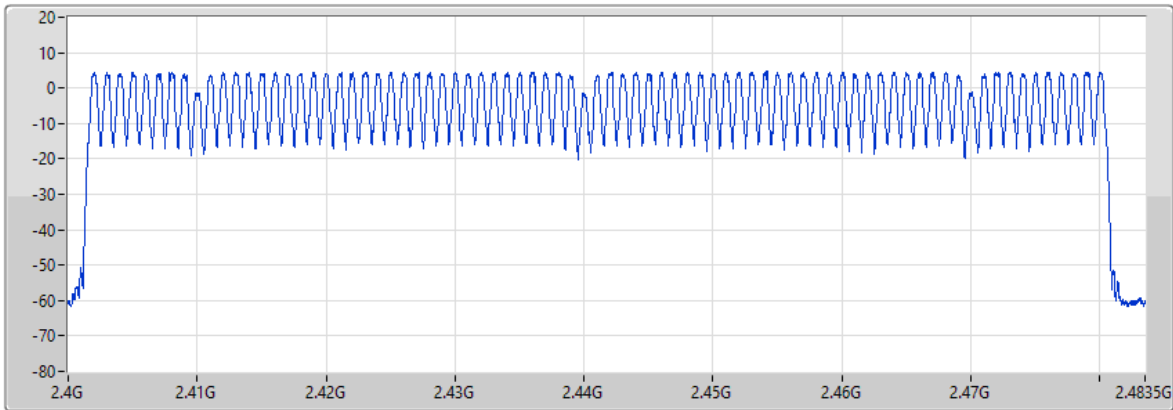
Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

2.4-2.4835GHz_BT-BR(1Mbps)

Hopping-FS

2440MHz

16/07/2026



Port 1 

Hopping No
79

Span (Hz)
83.5M

RBW (Hz)
100k

VBW (Hz)
300kHz

Sweep (s)
83.7us

Detector
Peak

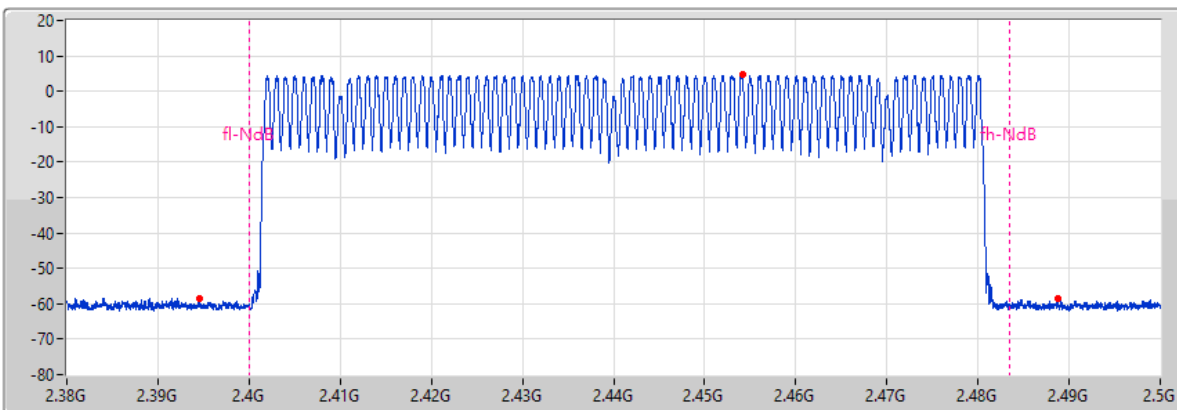
Hopping No	Limit
79	15

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

16/07/2026



Port 1 

Span (Hz)
120M

RBW (Hz)
100k

VBW (Hz)
300k

Sweep (s)
83.7u

Detector
Peak

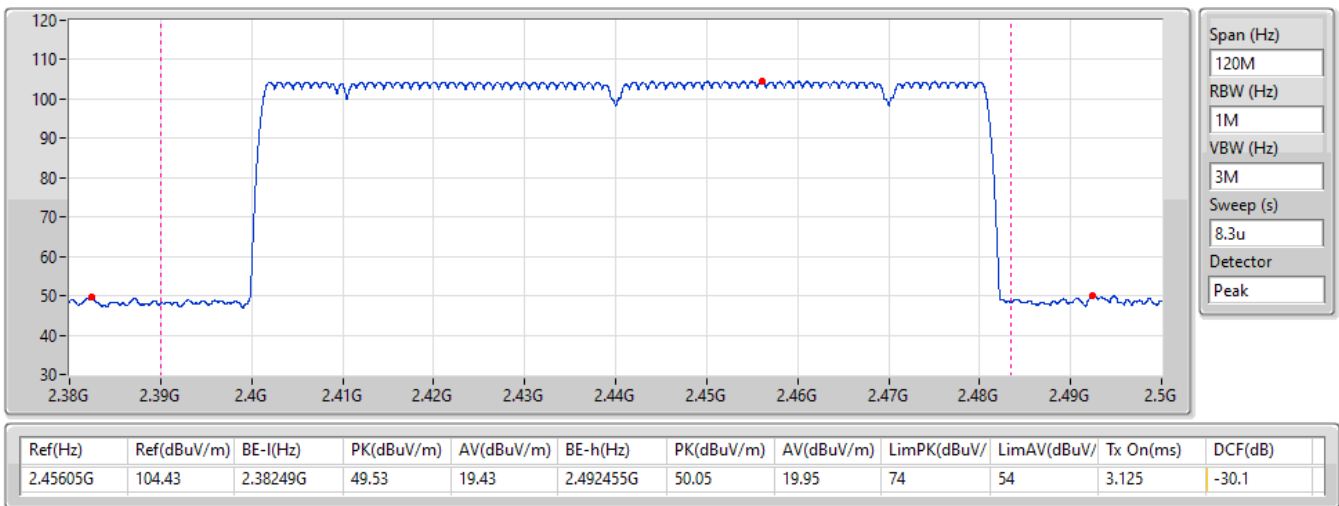
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-15.32	2.45419G	4.68	2.394505G	-58.44	2.488735G	-58.48

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

16/07/2026

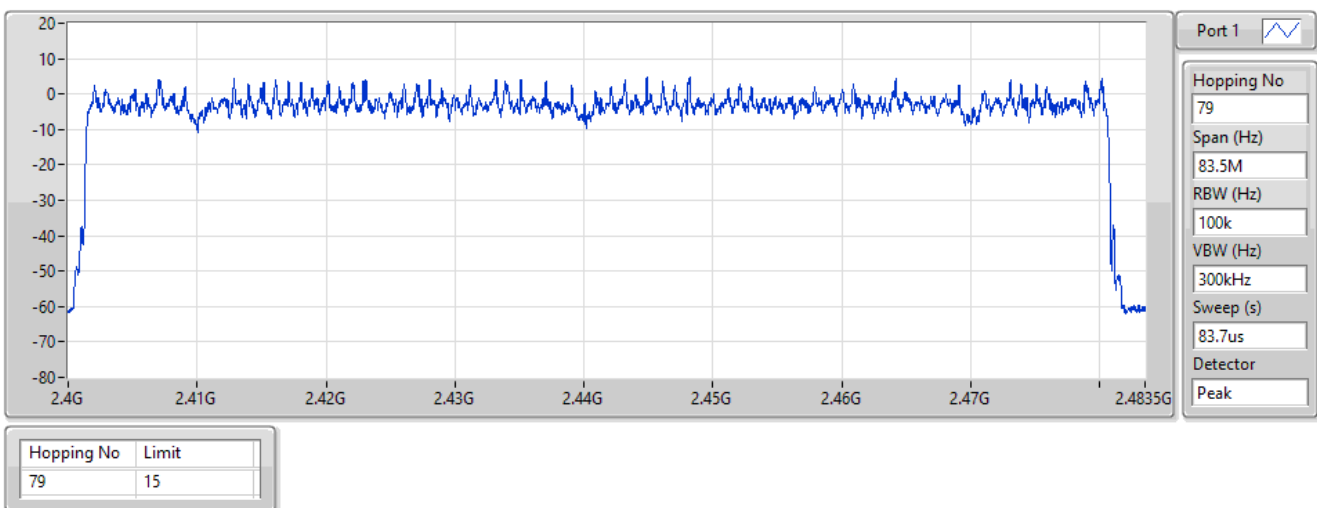


2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping-FS

16/07/2026

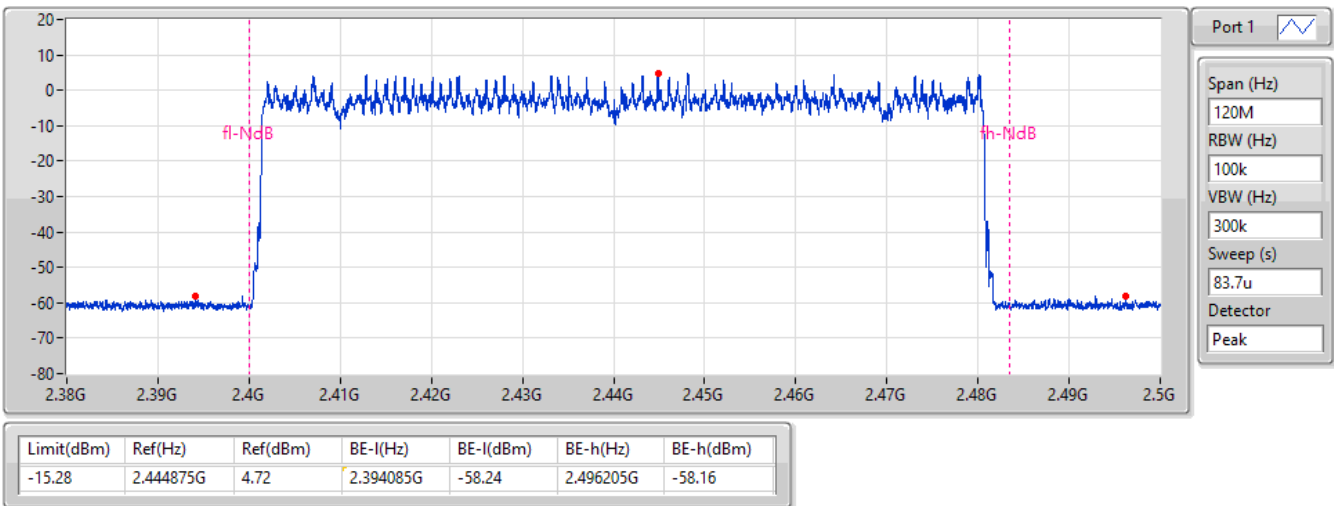


2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

16/07/2026

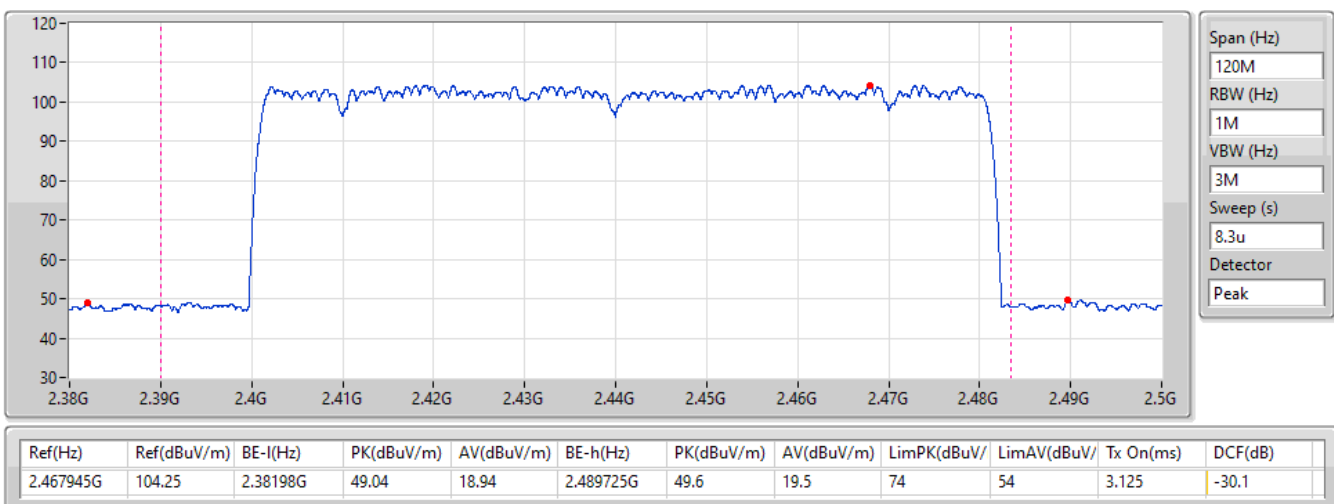


2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

16/07/2026

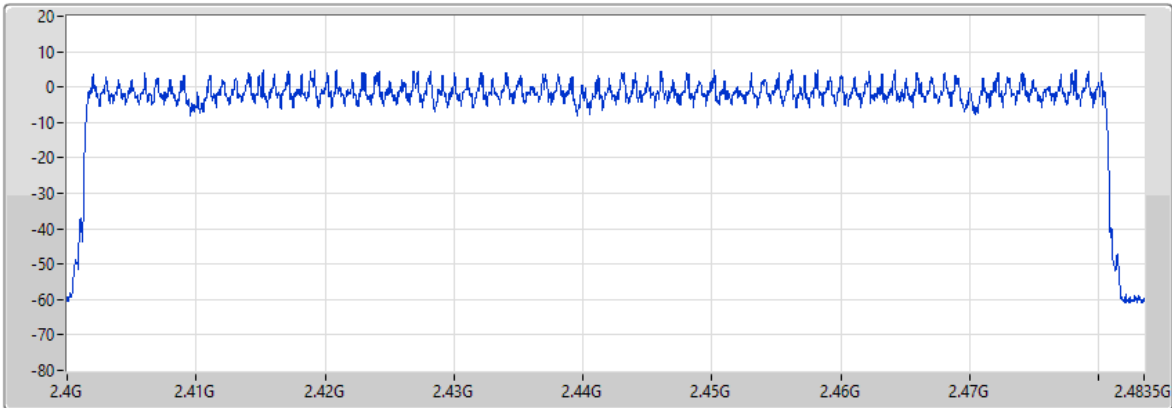


2.4-2.4835GHz_BT-EDR(3Mbps)

Hopping-FS

2440MHz

16/07/2026



Port 1 

Hopping No
79

Span (Hz)
83.5M

RBW (Hz)
100k

VBW (Hz)
300kHz

Sweep (s)
83.7us

Detector
Peak

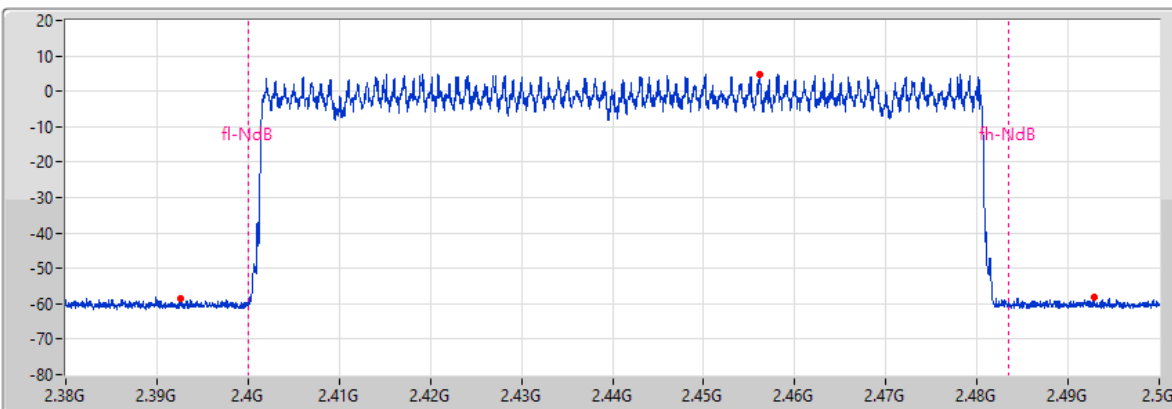
Hopping No	Limit
79	15

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

16/07/2026



Port 1 

Span (Hz)
120M

RBW (Hz)
100k

VBW (Hz)
300k

Sweep (s)
83.7u

Detector
Peak

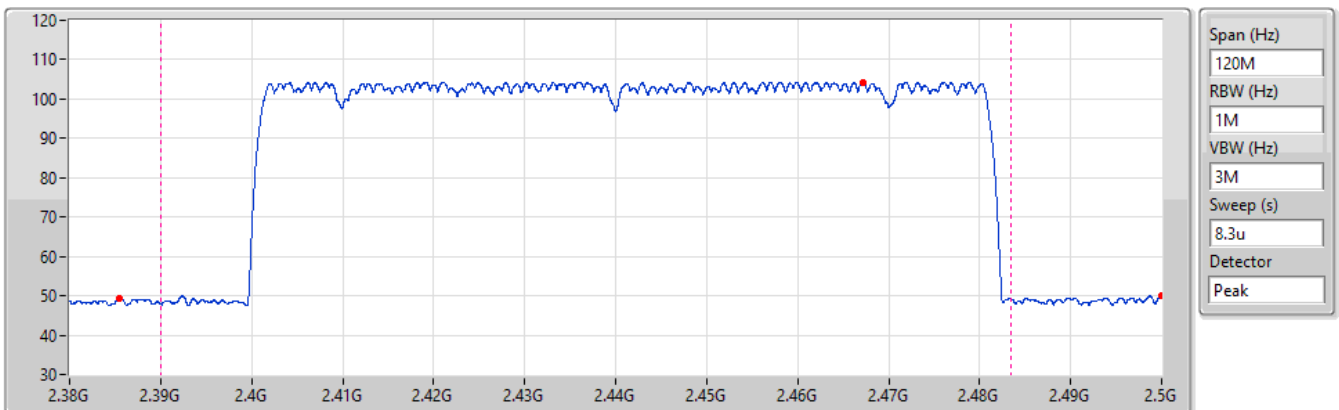
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-15.29	2.456185G	4.71	2.39254G	-58.49	2.49283G	-58.29

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

16/07/2026



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)
2.467165G	104.26	2.38546G	49.44	19.34	2.49997G	50	19.9	74	54	3.125	-30.1



Summary

2.4-2.4835GHz	-
BT-BR(1Mbps)	307.3278m_DH5
BT-EDR(2Mbps)	307.8608m_DH5
BT-EDR(3Mbps)	308.5537m_DH5

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.3278m_DH5	400m	2.883m
2440MHz	Pass	8	153.677225m_DH5-AFH	400m	2.88325m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.8608m_DH5	400m	2.888m
2440MHz	Pass	8	153.917075m_DH5-AFH	400m	2.88775m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.5537m_DH5	400m	2.8945m
2440MHz	Pass	8	154.263525m_DH5-AFH	400m	2.89425m

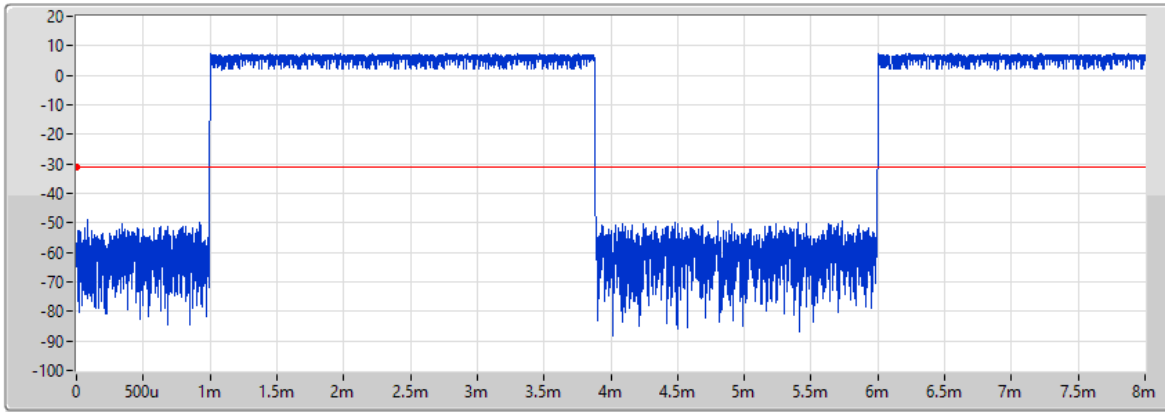
Note: The Dwell Time was tested under hopping mode.

2.4-2.4835GHz_BT-BR(1Mbps)

Dwell-FS

2440MHz

16/07/2026



Port 1

Ch Freq (Hz)

2.44G

RBW (Hz)

300k

VBW (Hz)

1M

Sweep Time (s)

8m

TX Time (s)

2.883m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.3278m_DH5	400m	2.883m

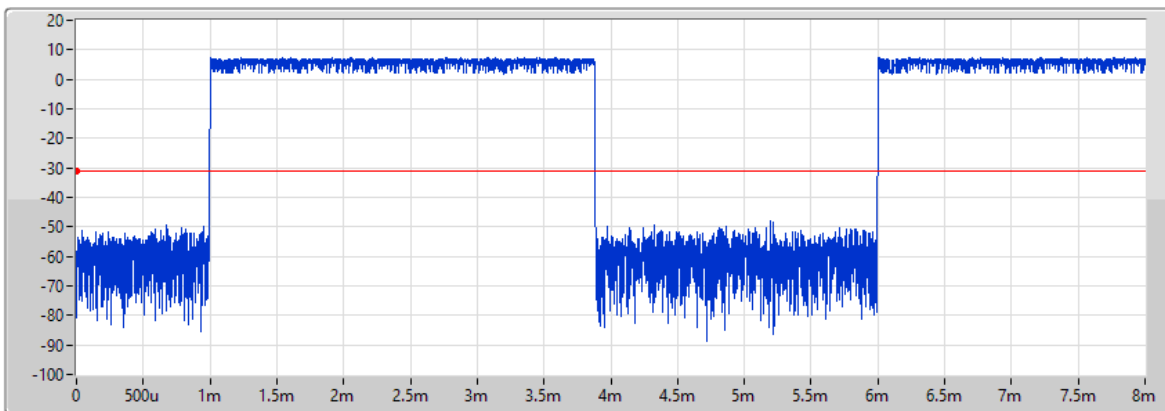
DH5

2.4-2.4835GHz_BT-BR(1Mbps)

Dwell-FS

2440MHz

16/07/2026



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)
8	153.677225m_DH5-AFI	400m	2.88325m

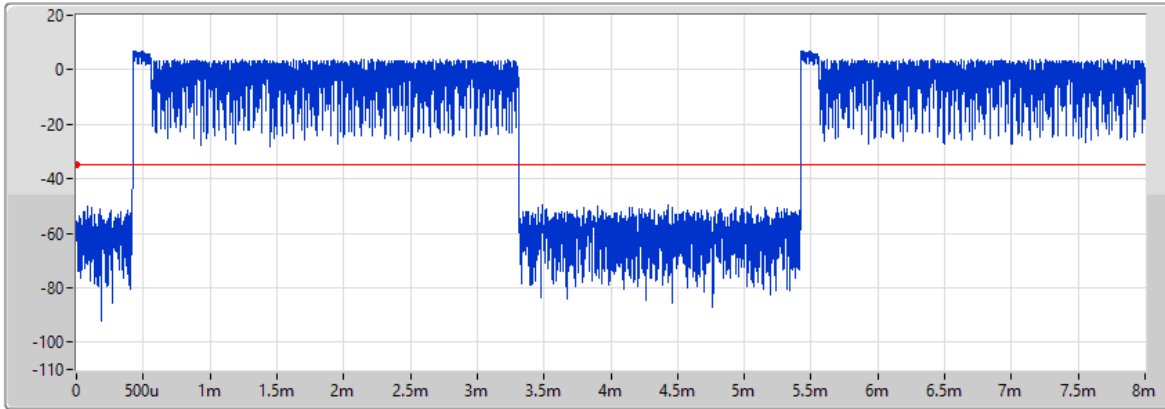
DH5-AFH

2.4-2.4835GHz_BT-EDR(2Mbps)

Dwell-FS

2440MHz

16/07/2026



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.888m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.8608m_DH5	400m	2.888m

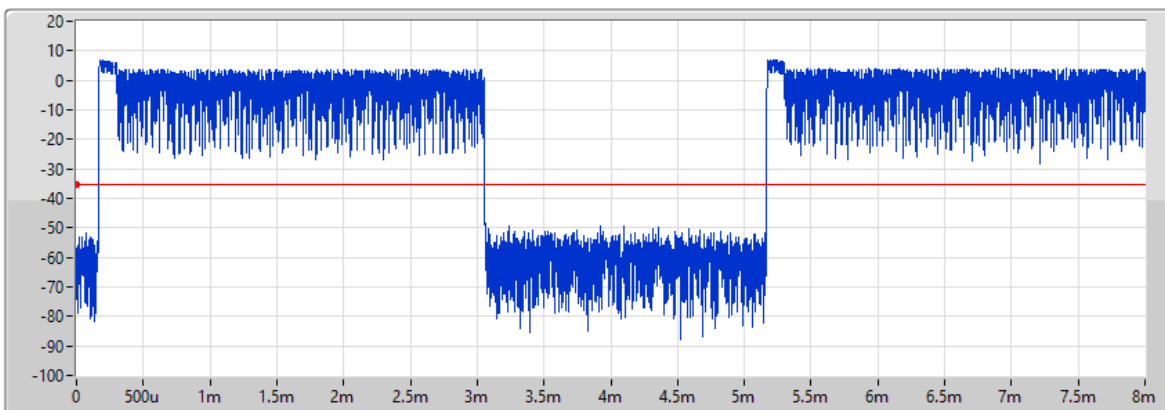
DH5

2.4-2.4835GHz_BT-EDR(2Mbps)

Dwell-FS

2440MHz

16/07/2026



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.88775m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	153.917075m_DH5-AFI	400m	2.88775m

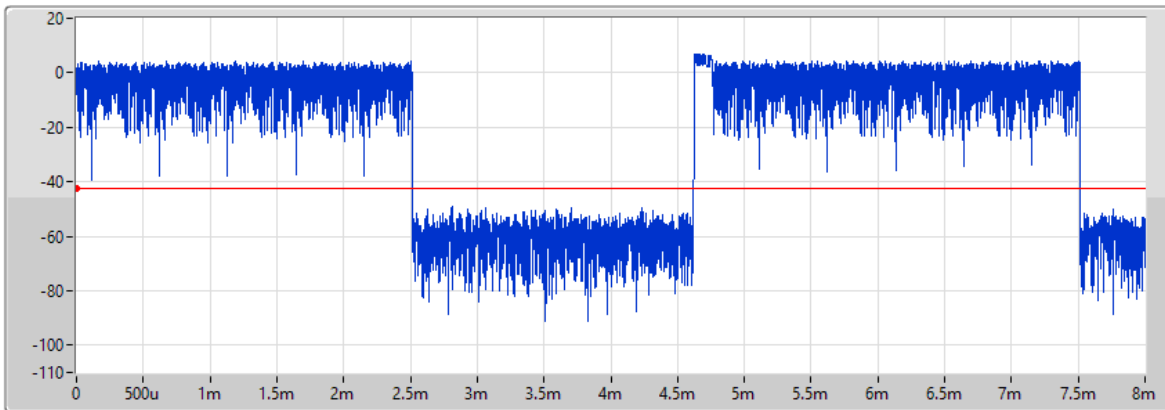
DH5-AFH

2.4-2.4835GHz_BT-EDR(3Mbps)

Dwell-FS

2440MHz

16/07/2026



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.8945m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.5537m_DH5	400m	2.8945m

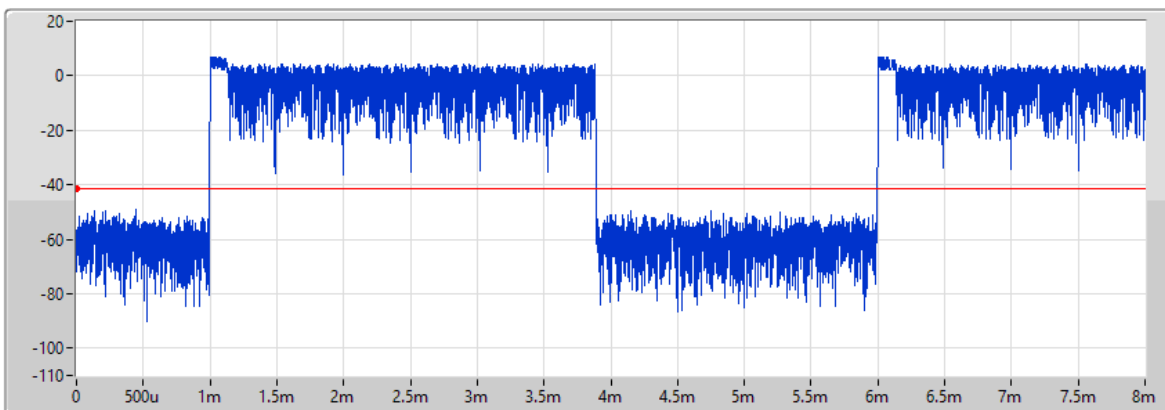
DH5

2.4-2.4835GHz_BT-EDR(3Mbps)

Dwell-FS

2440MHz

16/07/2026



Port 1 

Ch Freq (Hz)
2.44G

RBW (Hz)
300k

VBW (Hz)
1M

Sweep Time (s)
8m

TX Time (s)
2.89425m

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.263525m_DH5-AFH	400m	2.89425m

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	2.48016G	4.33	-15.67	2.12855G	-52.25	2.39988G	-52.84	2.4G	-55.62	2.50202G	-54.22	21.94891G	-42.72	1
BT-EDR(2Mbps)	Pass	2.44008G	4.13	-15.87	1.7267G	-53.51	2.39028G	-53.79	2.4G	-55.81	2.50086G	-54.48	21.58053G	-41.82	1
BT-EDR(3Mbps)	Pass	2.44025G	3.00	-17.00	1.9899G	-53.58	2.3902G	-53.87	2.4G	-55.03	2.50346G	-53.20	21.60865G	-42.47	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	2.48016G	4.33	-15.67	2.12855G	-52.25	2.39988G	-52.84	2.4G	-55.62	2.50202G	-54.22	21.94891G	-42.72	1
2440MHz	Pass	2.48016G	4.33	-15.67	2.0698G	-53.80	2.3928G	-53.71	2.4G	-56.44	2.50274G	-54.84	21.51867G	-42.16	1
2480MHz	Pass	2.48016G	4.33	-15.67	1.64328G	-53.89	2.3918G	-53.18	2.4G	-55.21	2.50154G	-53.25	21.5496G	-42.66	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44008G	4.13	-15.87	1.95465G	-53.63	2.39624G	-53.53	2.4G	-55.81	2.5013G	-53.76	21.53554G	-43.00	1
2440MHz	Pass	2.44008G	4.13	-15.87	1.7267G	-53.51	2.39028G	-53.79	2.4G	-55.81	2.50086G	-54.48	21.58053G	-41.82	1
2480MHz	Pass	2.44008G	4.13	-15.87	2.098G	-53.64	2.39824G	-53.51	2.4G	-54.53	2.50082G	-53.60	21.88986G	-41.72	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44025G	3.00	-17.00	1.9899G	-53.58	2.3902G	-53.87	2.4G	-55.03	2.50346G	-53.20	21.60865G	-42.47	1
2440MHz	Pass	2.44025G	3.00	-17.00	2.07098G	-54.09	2.39944G	-53.79	2.4G	-55.77	2.50338G	-53.87	21.98547G	-42.58	1
2480MHz	Pass	2.44025G	3.00	-17.00	1.65268G	-53.66	2.39068G	-53.57	2.4G	-55.68	2.50066G	-54.32	22.00515G	-42.80	1

Note 1: The channel 2440MHz and 2480MHz is found which has the maximum PSD level.

2.4-2.4835GHz_BT-BR(1Mbps)

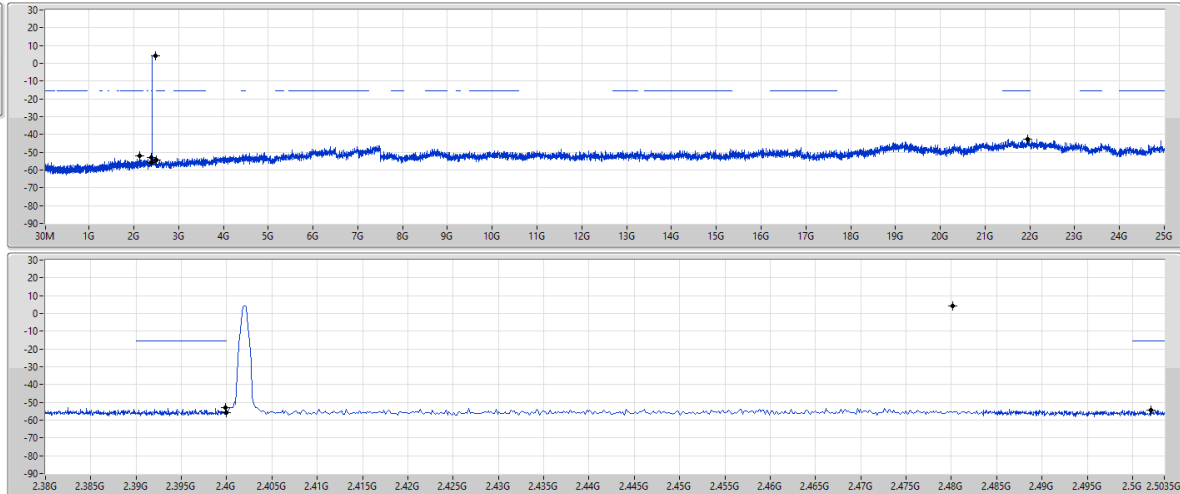
CSENdB-FS

2402MHz

16/07/2026

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

Port 1



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
2.48016G	4.33	-15.67	2.12855G	-52.25	2.39988G	-52.84	2.4G	-55.62	2.50202G	-54.22	21.94891G	-42.72	1

2.4-2.4835GHz_BT-EDR(2Mbps)

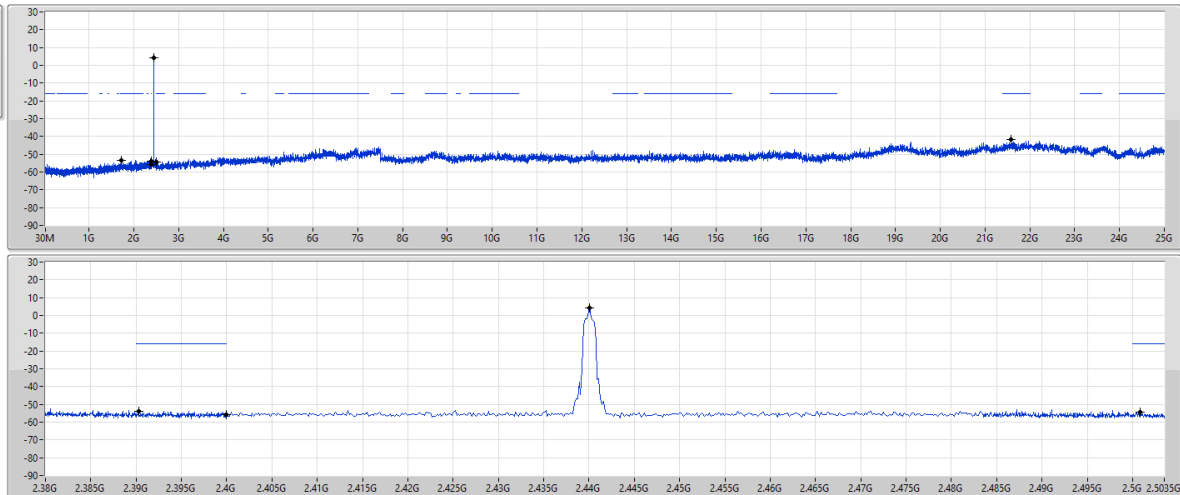
CSENdB-FS

2440MHz

16/07/2026

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

Port 1



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
2.44008G	4.13	-15.87	1.7267G	-53.51	2.39028G	-53.79	2.4G	-55.81	2.50086G	-54.48	21.58053G	-41.82	1

2.4-2.4835GHz_BT-EDR(3Mbps)

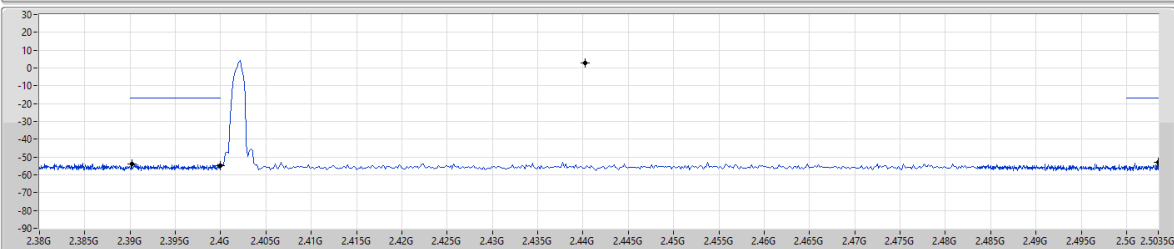
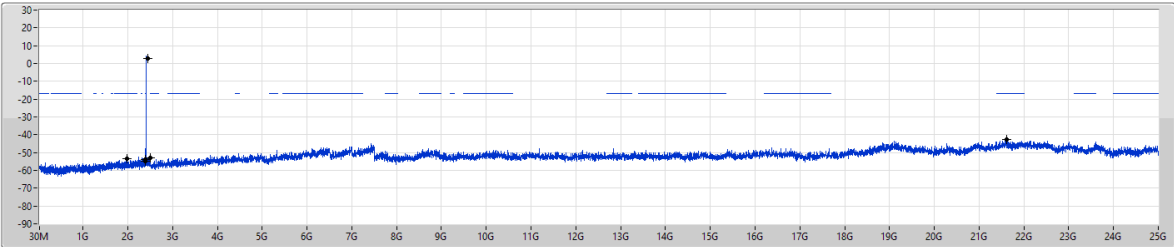
CSEndB-FS

2402MHz

16/07/2026

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

Port 1



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
2.44025G	3.00	-17.00	1.9899G	-53.58	2.3902G	-53.87	2.4G	-55.03	2.50346G	-53.20	21.60865G	-42.47	1



Summary

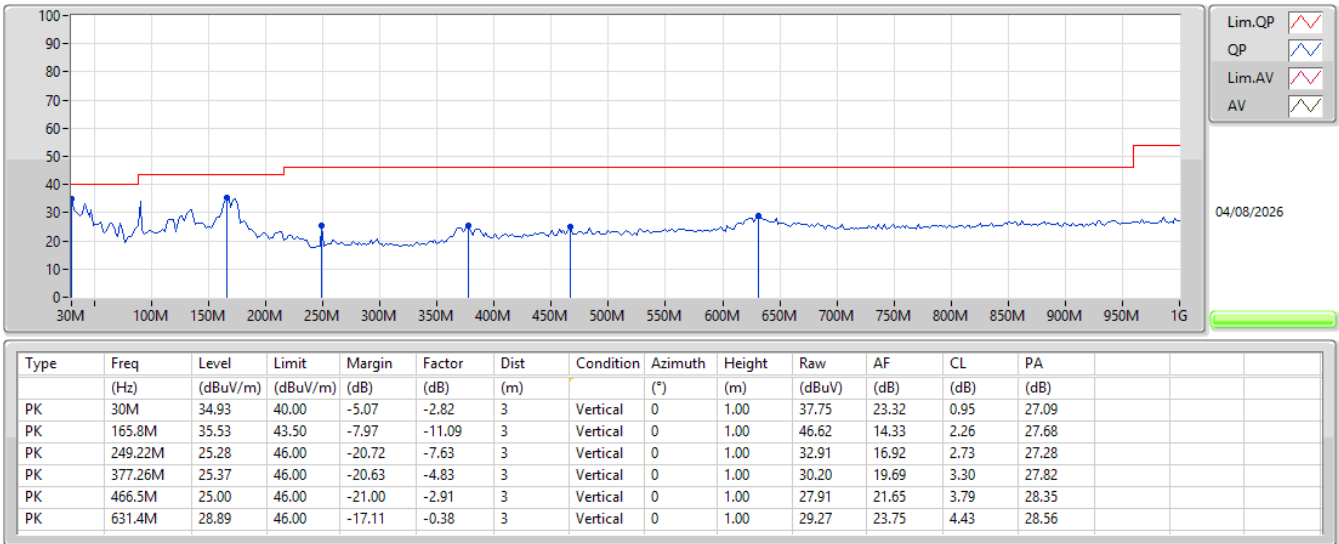
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-EDR(3Mbps)	Pass	PK	165.8M	40.15	43.50	-3.35	3	Horizontal	360	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-
2440MHz_PoE	Pass	PK	30M	34.93	40.00	-5.07	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	165.8M	35.53	43.50	-7.97	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	249.22M	25.28	46.00	-20.72	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	377.26M	25.37	46.00	-20.63	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	466.5M	25.00	46.00	-21.00	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	631.4M	28.89	46.00	-17.11	3	Vertical	0	1.00
2440MHz_PoE	Pass	PK	41.64M	27.77	40.00	-12.23	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	165.8M	40.15	43.50	-3.35	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	249.22M	26.23	46.00	-19.77	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	385.02M	24.44	46.00	-21.56	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	637.22M	27.81	46.00	-18.19	3	Horizontal	360	1.00
2440MHz_PoE	Pass	PK	745.86M	27.89	46.00	-18.11	3	Horizontal	360	1.00

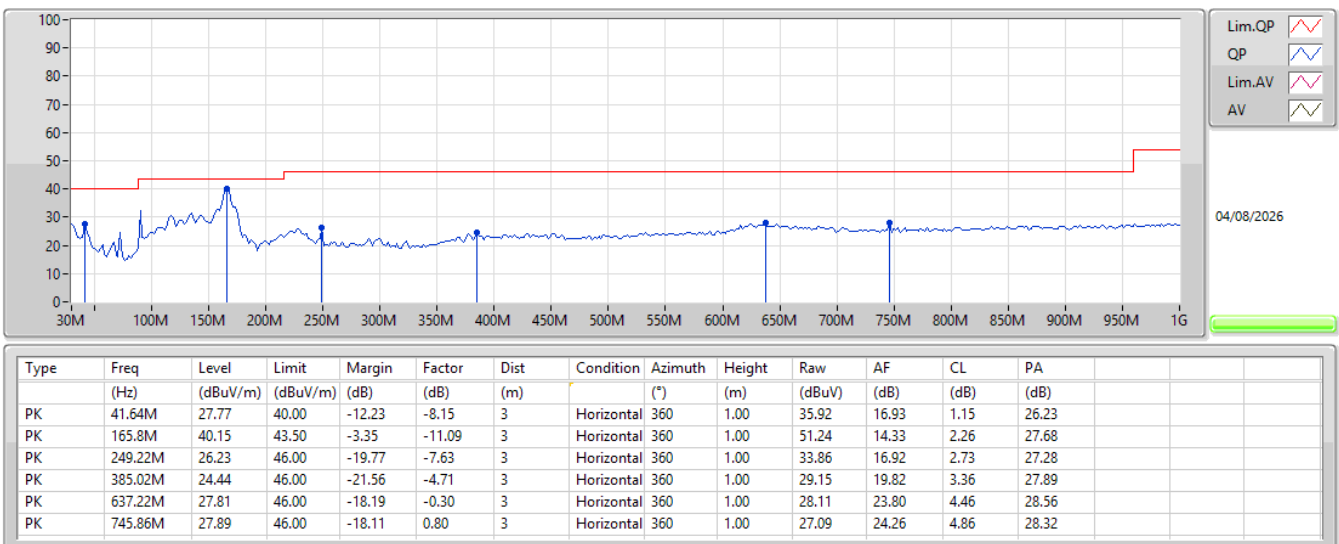
2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_PoE



2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_PoE





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	AV	2.4894G	42.32	54.00	-11.68	3	Vertical	103	2.34
BT-EDR(3Mbps)	Pass	AV	2.4986G	42.03	54.00	-11.97	3	Horizontal	196	2.15

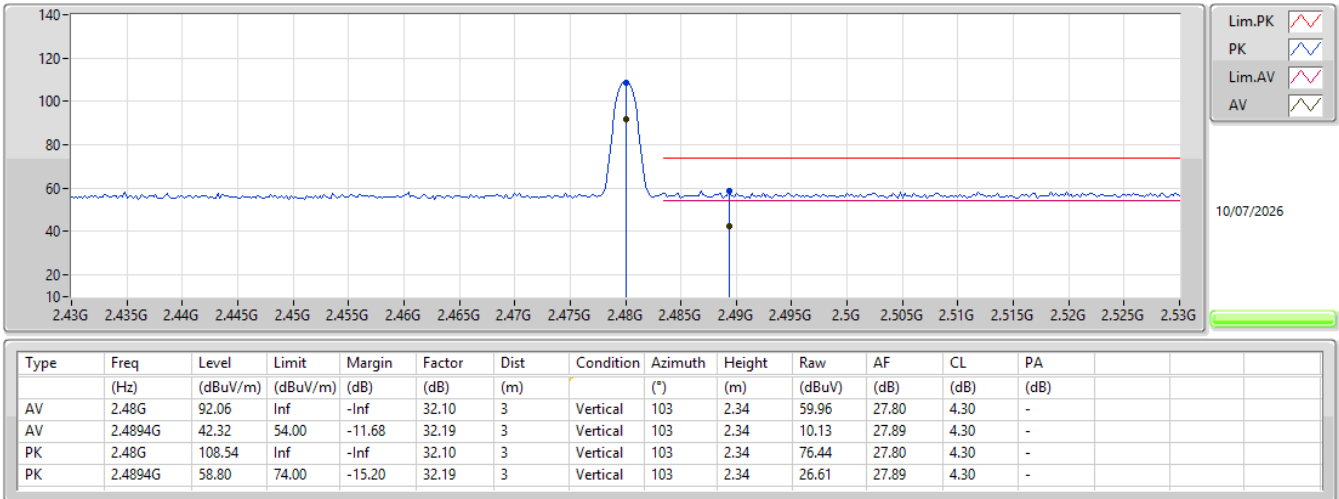
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz_TX	Pass	AV	2.3548G	40.69	54.00	-13.31	3	Vertical	99	2.50
2402MHz_TX	Pass	AV	2.402G	90.62	Inf	-Inf	3	Vertical	99	2.50
2402MHz_TX	Pass	PK	2.3548G	57.17	74.00	-16.83	3	Vertical	99	2.50
2402MHz_TX	Pass	PK	2.402G	107.10	Inf	-Inf	3	Vertical	99	2.50
2402MHz_TX	Pass	AV	2.3864G	41.14	54.00	-12.86	3	Horizontal	194	1.98
2402MHz_TX	Pass	AV	2.402G	95.53	Inf	-Inf	3	Horizontal	194	1.98
2402MHz_TX	Pass	PK	2.3864G	57.62	74.00	-16.38	3	Horizontal	194	1.98
2402MHz_TX	Pass	PK	2.402G	112.01	Inf	-Inf	3	Horizontal	194	1.98
2402MHz_TX	Pass	AV	4.80568G	24.98	54.00	-29.02	3	Vertical	64	2.75
2402MHz_TX	Pass	PK	4.80568G	41.46	74.00	-32.54	3	Vertical	64	2.75
2402MHz_TX	Pass	AV	4.80389G	26.82	54.00	-27.18	3	Horizontal	162	2.88
2402MHz_TX	Pass	PK	4.80389G	43.30	74.00	-30.70	3	Horizontal	162	2.88
2440MHz_TX	Pass	AV	2.3812G	40.81	54.00	-13.19	3	Vertical	93	1.77
2440MHz_TX	Pass	AV	2.44G	91.48	Inf	-Inf	3	Vertical	93	1.77
2440MHz_TX	Pass	AV	2.4872G	40.99	54.00	-13.01	3	Vertical	93	1.77
2440MHz_TX	Pass	PK	2.3812G	57.29	74.00	-16.71	3	Vertical	93	1.77
2440MHz_TX	Pass	PK	2.44G	107.96	Inf	-Inf	3	Vertical	93	1.77
2440MHz_TX	Pass	PK	2.4872G	57.47	74.00	-16.53	3	Vertical	93	1.77
2440MHz_TX	Pass	AV	2.364G	40.90	54.00	-13.10	3	Horizontal	196	1.99
2440MHz_TX	Pass	AV	2.44G	95.65	Inf	-Inf	3	Horizontal	196	1.99
2440MHz_TX	Pass	AV	2.4868G	40.80	54.00	-13.20	3	Horizontal	196	1.99
2440MHz_TX	Pass	PK	2.364G	57.38	74.00	-16.62	3	Horizontal	196	1.99
2440MHz_TX	Pass	PK	2.44G	112.13	Inf	-Inf	3	Horizontal	196	1.99
2440MHz_TX	Pass	PK	2.4868G	57.28	74.00	-16.72	3	Horizontal	196	1.99
2440MHz_TX	Pass	AV	4.88G	25.89	54.00	-28.11	3	Vertical	92	2.96
2440MHz_TX	Pass	PK	4.88G	42.37	74.00	-31.63	3	Vertical	92	2.96
2440MHz_TX	Pass	AV	4.8784G	25.68	54.00	-28.32	3	Horizontal	36	2.12
2440MHz_TX	Pass	PK	4.8784G	42.16	74.00	-31.84	3	Horizontal	36	2.12
2480MHz_TX	Pass	AV	2.48G	92.06	Inf	-Inf	3	Vertical	103	2.34
2480MHz_TX	Pass	AV	2.4894G	42.32	54.00	-11.68	3	Vertical	103	2.34
2480MHz_TX	Pass	PK	2.48G	108.54	Inf	-Inf	3	Vertical	103	2.34
2480MHz_TX	Pass	PK	2.4894G	58.80	74.00	-15.20	3	Vertical	103	2.34
2480MHz_TX	Pass	AV	2.48G	96.31	Inf	-Inf	3	Horizontal	197	2.14
2480MHz_TX	Pass	AV	2.4868G	41.31	54.00	-12.69	3	Horizontal	197	2.14
2480MHz_TX	Pass	PK	2.48G	112.79	Inf	-Inf	3	Horizontal	197	2.14
2480MHz_TX	Pass	PK	2.4868G	57.79	74.00	-16.21	3	Horizontal	197	2.14
2480MHz_TX	Pass	AV	4.96002G	25.14	54.00	-28.86	3	Vertical	71	3.00
2480MHz_TX	Pass	PK	4.96002G	41.62	74.00	-32.38	3	Vertical	71	3.00
2480MHz_TX	Pass	AV	4.95843G	25.59	54.00	-28.41	3	Horizontal	166	2.48
2480MHz_TX	Pass	PK	4.95843G	42.07	74.00	-31.93	3	Horizontal	166	2.48
2480MHz_TX	Pass	AV	19.84596G	19.63	54.00	-34.37	3	Vertical	204	1.35
2480MHz_TX	Pass	PK	19.84596G	36.11	74.00	-37.89	3	Vertical	204	1.35
2480MHz_TX	Pass	AV	19.84575G	19.57	54.00	-34.43	3	Horizontal	198	2.10
2480MHz_TX	Pass	PK	19.84575G	36.05	74.00	-37.95	3	Horizontal	198	2.10
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz_TX	Pass	AV	2.3742G	41.36	54.00	-12.64	3	Vertical	99	2.49
2402MHz_TX	Pass	AV	2.4022G	90.61	Inf	-Inf	3	Vertical	99	2.49
2402MHz_TX	Pass	PK	2.3742G	57.84	74.00	-16.16	3	Vertical	99	2.49
2402MHz_TX	Pass	PK	2.4022G	107.09	Inf	-Inf	3	Vertical	99	2.49
2402MHz_TX	Pass	AV	2.36G	41.18	54.00	-12.82	3	Horizontal	194	1.98
2402MHz_TX	Pass	AV	2.4022G	95.47	Inf	-Inf	3	Horizontal	194	1.98
2402MHz_TX	Pass	PK	2.36G	57.66	74.00	-16.34	3	Horizontal	194	1.98
2402MHz_TX	Pass	PK	2.4022G	111.95	Inf	-Inf	3	Horizontal	194	1.98
2402MHz_TX	Pass	AV	4.80206G	25.12	54.00	-28.88	3	Vertical	68	3.00
2402MHz_TX	Pass	PK	4.80206G	41.60	74.00	-32.40	3	Vertical	68	3.00
2402MHz_TX	Pass	AV	4.80228G	24.91	54.00	-29.09	3	Horizontal	23	1.78
2402MHz_TX	Pass	PK	4.80228G	41.39	74.00	-32.61	3	Horizontal	23	1.78
2440MHz_TX	Pass	AV	2.374G	40.99	54.00	-13.01	3	Vertical	95	1.78
2440MHz_TX	Pass	AV	2.44G	91.19	Inf	-Inf	3	Vertical	95	1.78
2440MHz_TX	Pass	AV	2.5G	41.64	54.00	-12.36	3	Vertical	95	1.78

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2440MHz_TX	Pass	PK	2.374G	57.47	74.00	-16.53	3	Vertical	95	1.78
2440MHz_TX	Pass	PK	2.44G	107.67	Inf	-Inf	3	Vertical	95	1.78
2440MHz_TX	Pass	PK	2.5G	58.12	74.00	-15.88	3	Vertical	95	1.78
2440MHz_TX	Pass	AV	2.364G	41.41	54.00	-12.59	3	Horizontal	196	1.97
2440MHz_TX	Pass	AV	2.44G	95.68	Inf	-Inf	3	Horizontal	196	1.97
2440MHz_TX	Pass	AV	2.4888G	41.67	54.00	-12.33	3	Horizontal	196	1.97
2440MHz_TX	Pass	PK	2.364G	57.89	74.00	-16.11	3	Horizontal	196	1.97
2440MHz_TX	Pass	PK	2.44G	112.16	Inf	-Inf	3	Horizontal	196	1.97
2440MHz_TX	Pass	PK	2.4888G	58.15	74.00	-15.85	3	Horizontal	196	1.97
2440MHz_TX	Pass	AV	4.88156G	25.24	54.00	-28.76	3	Vertical	199	1.64
2440MHz_TX	Pass	PK	4.88156G	41.72	74.00	-32.28	3	Vertical	199	1.64
2440MHz_TX	Pass	AV	4.87838G	25.58	54.00	-28.42	3	Horizontal	29	1.91
2440MHz_TX	Pass	PK	4.87838G	42.06	74.00	-31.94	3	Horizontal	29	1.91
2480MHz_TX	Pass	AV	2.4802G	91.99	Inf	-Inf	3	Vertical	105	2.34
2480MHz_TX	Pass	AV	2.49G	41.27	54.00	-12.73	3	Vertical	105	2.34
2480MHz_TX	Pass	PK	2.4802G	108.47	Inf	-Inf	3	Vertical	105	2.34
2480MHz_TX	Pass	PK	2.49G	57.75	74.00	-16.25	3	Vertical	105	2.34
2480MHz_TX	Pass	AV	2.48G	96.27	Inf	-Inf	3	Horizontal	196	2.15
2480MHz_TX	Pass	AV	2.4986G	42.03	54.00	-11.97	3	Horizontal	196	2.15
2480MHz_TX	Pass	PK	2.48G	112.75	Inf	-Inf	3	Horizontal	196	2.15
2480MHz_TX	Pass	PK	2.4986G	58.51	74.00	-15.49	3	Horizontal	196	2.15
2480MHz_TX	Pass	AV	4.95952G	25.72	54.00	-28.28	3	Vertical	194	1.14
2480MHz_TX	Pass	PK	4.95952G	42.20	74.00	-31.80	3	Vertical	194	1.14
2480MHz_TX	Pass	AV	4.95822G	25.86	54.00	-28.14	3	Horizontal	162	2.63
2480MHz_TX	Pass	PK	4.95822G	42.34	74.00	-31.66	3	Horizontal	162	2.63
2480MHz_TX	Pass	AV	19.84604G	19.96	54.00	-34.04	3	Vertical	162	2.09
2480MHz_TX	Pass	PK	19.84604G	36.44	74.00	-37.56	3	Vertical	162	2.09
2480MHz_TX	Pass	AV	19.83497G	19.20	54.00	-34.80	3	Horizontal	334	2.31
2480MHz_TX	Pass	PK	19.83497G	35.68	74.00	-38.32	3	Horizontal	334	2.31

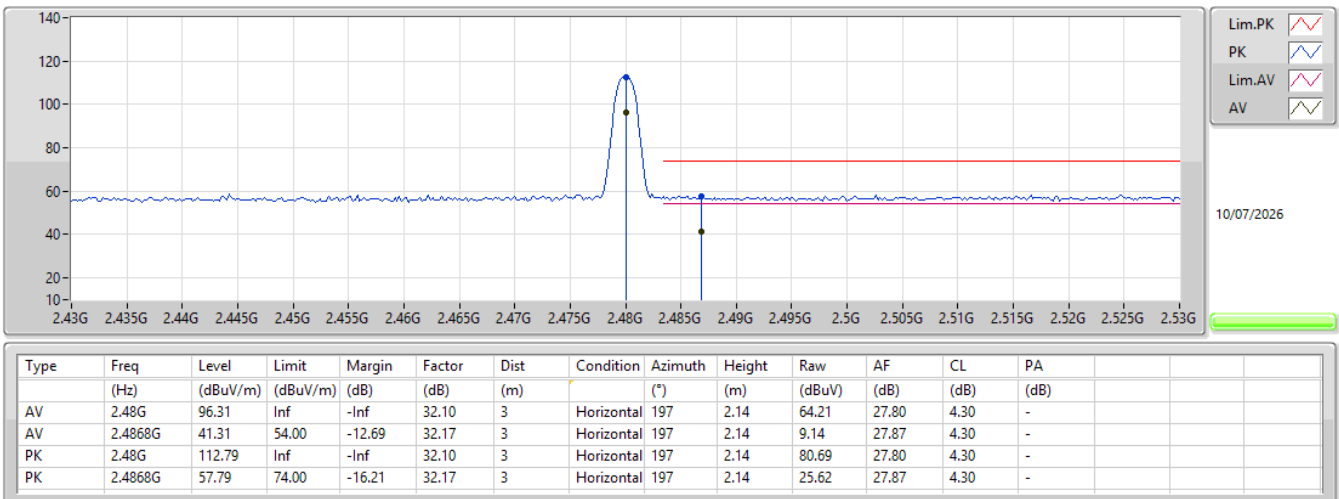
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



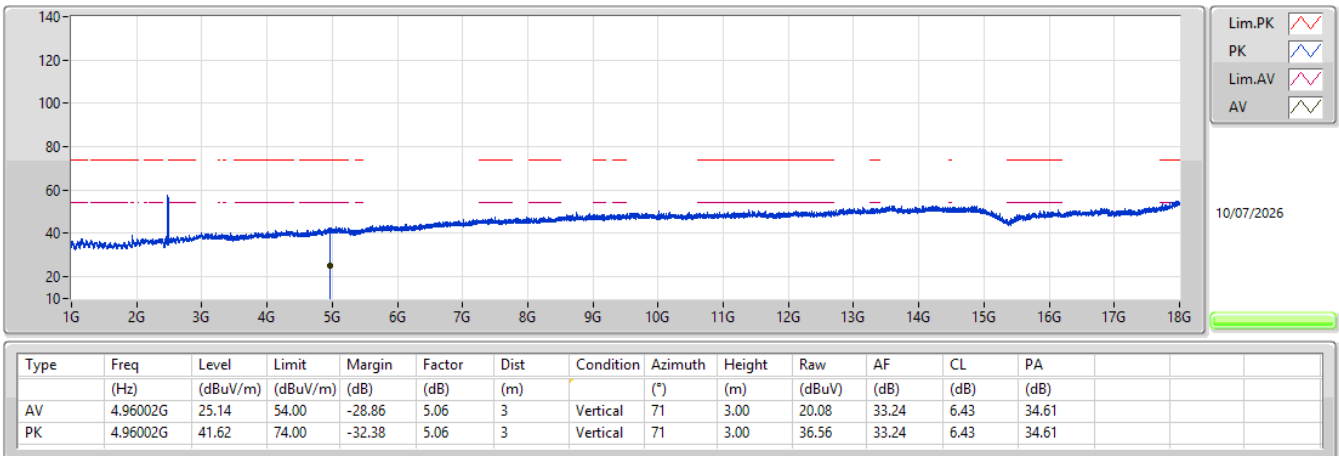
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



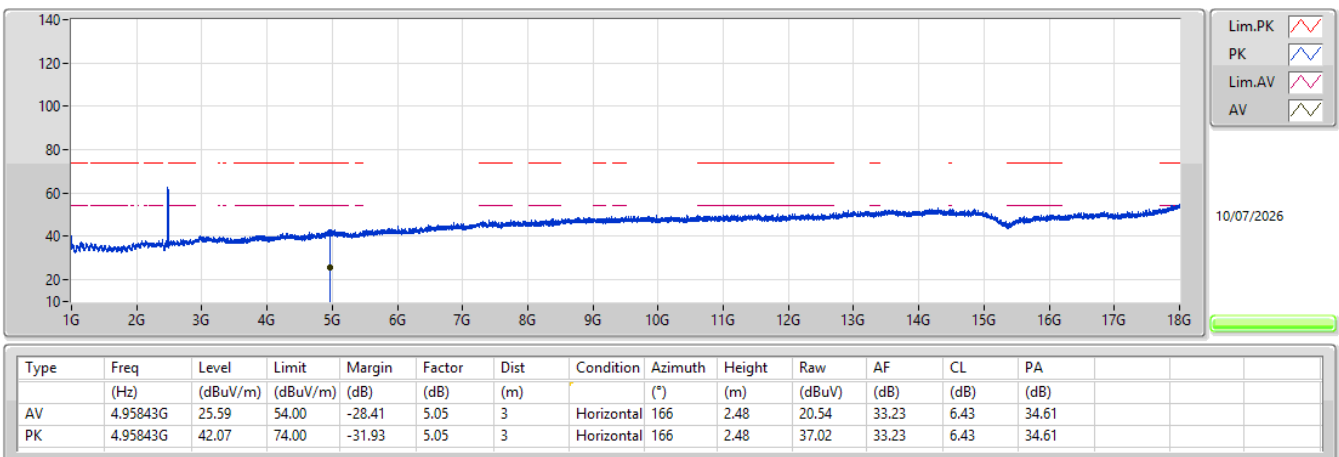
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



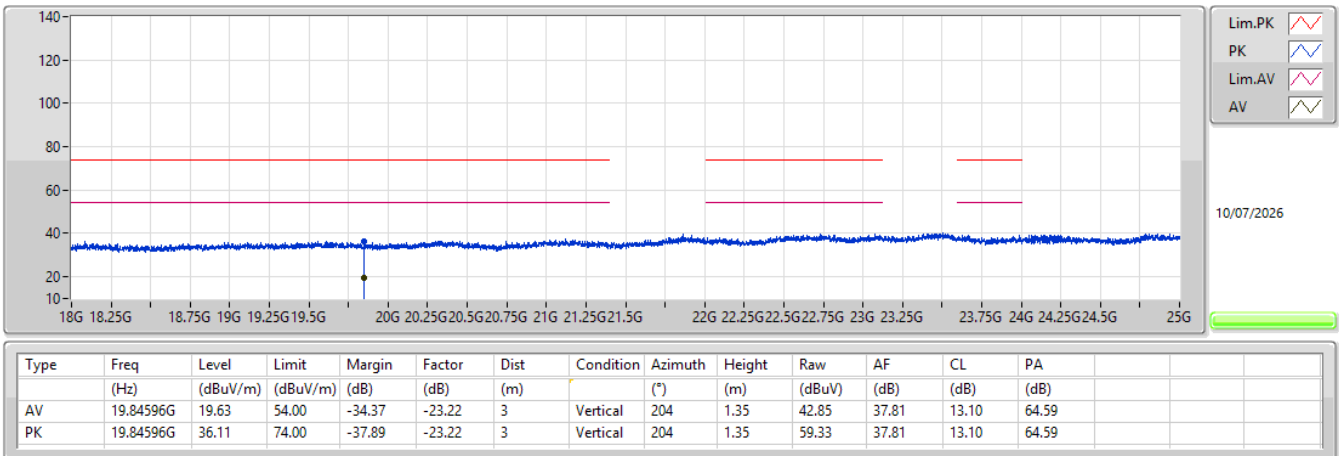
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



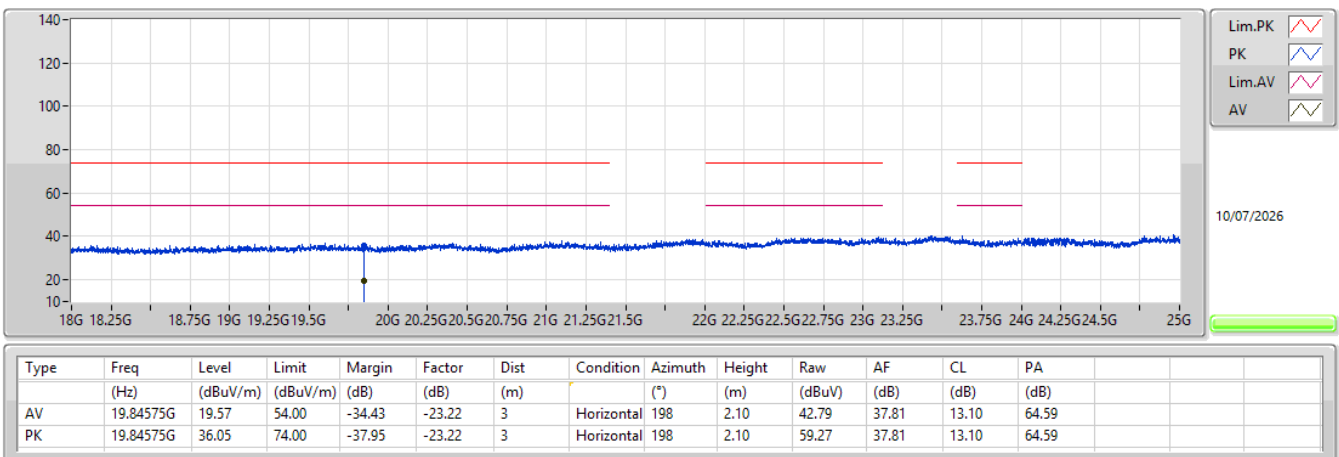
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



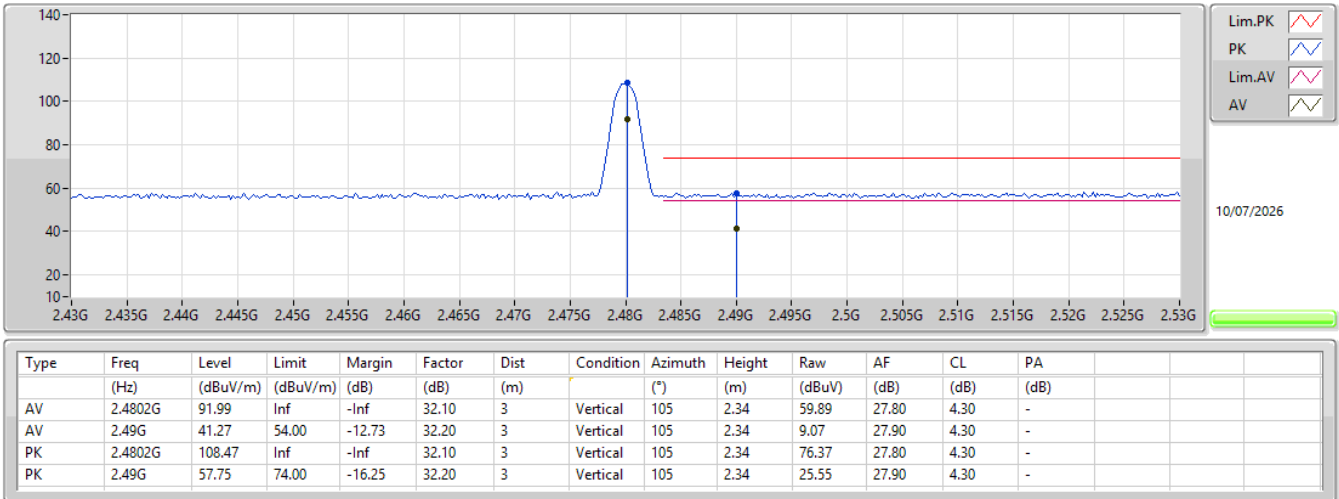
2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX



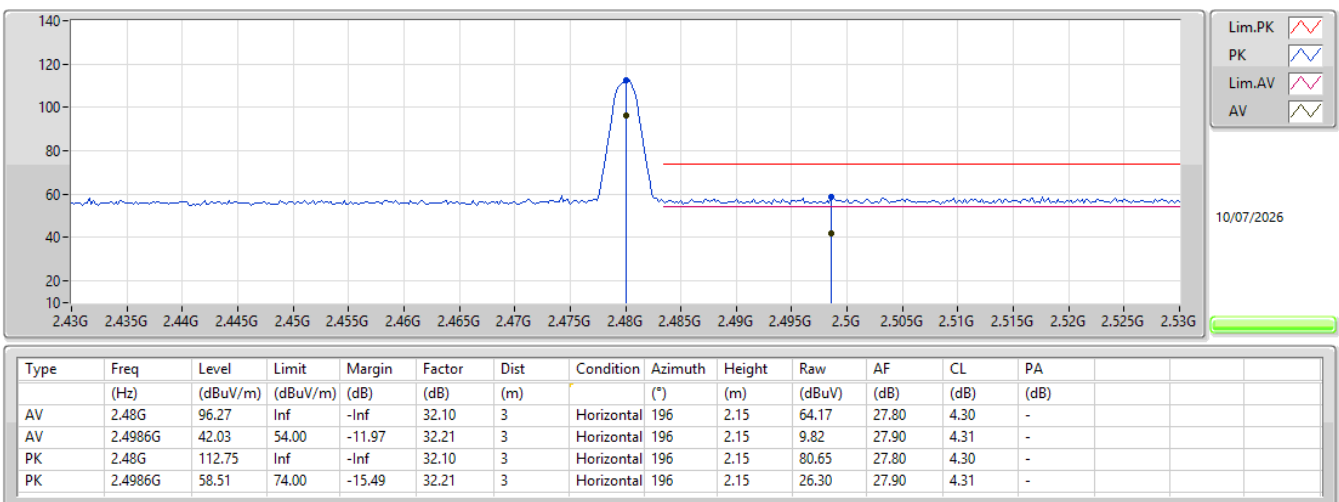
2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



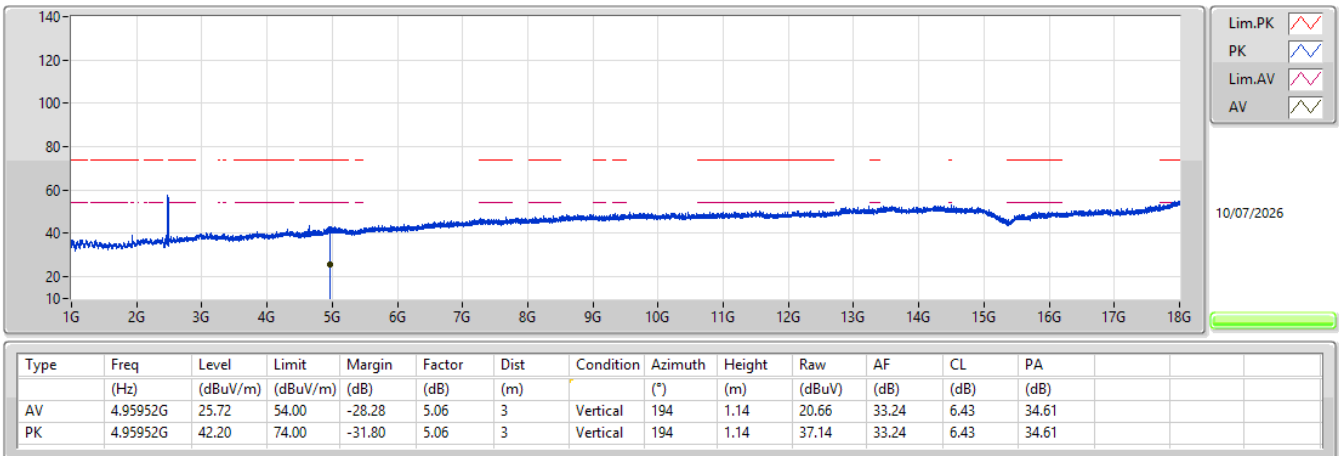
2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



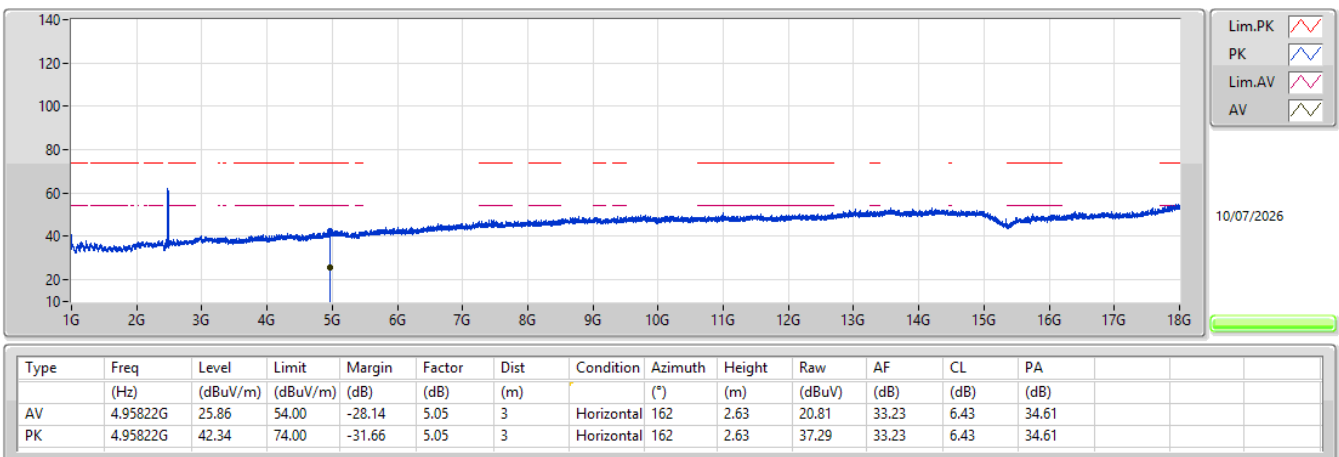
2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



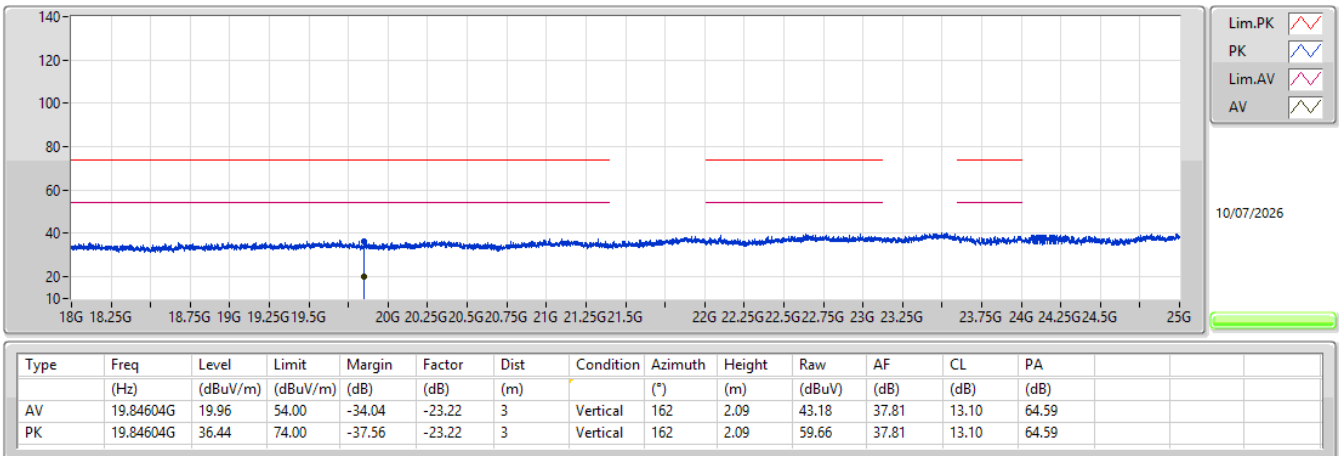
2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



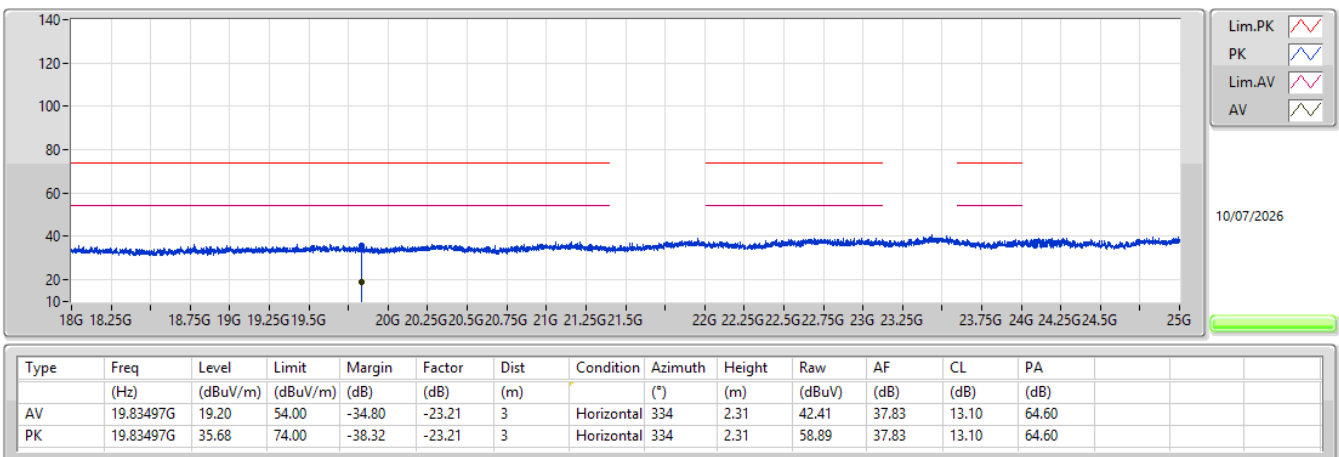
2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX





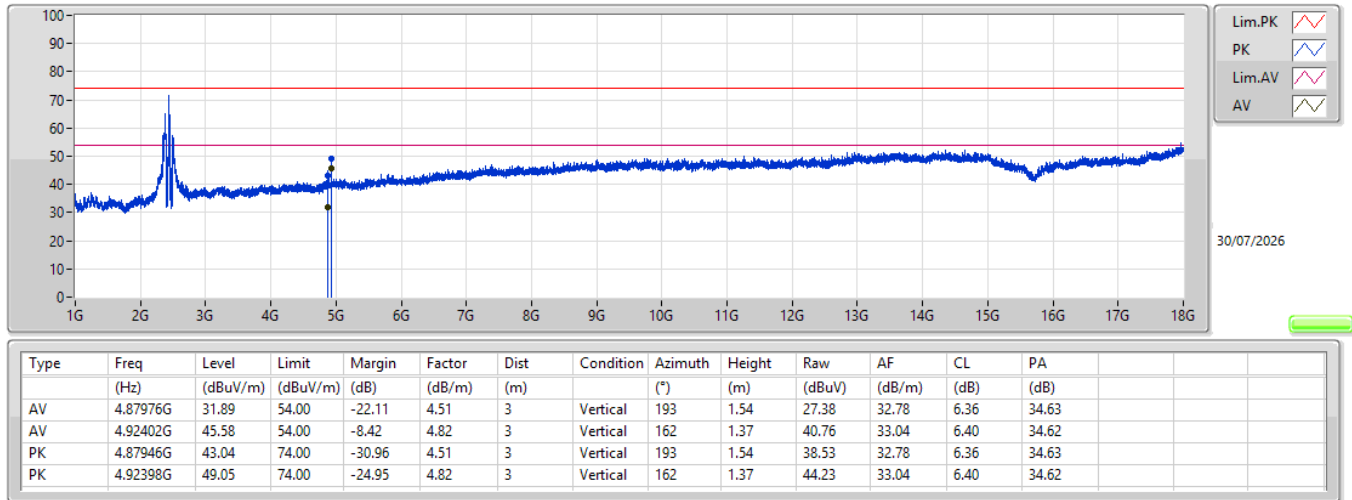
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	4.924G	46.07	54.00	-7.93	Horizontal
Mode 2	Pass	AV	11.44115G	44.27	54.00	-9.73	Horizontal

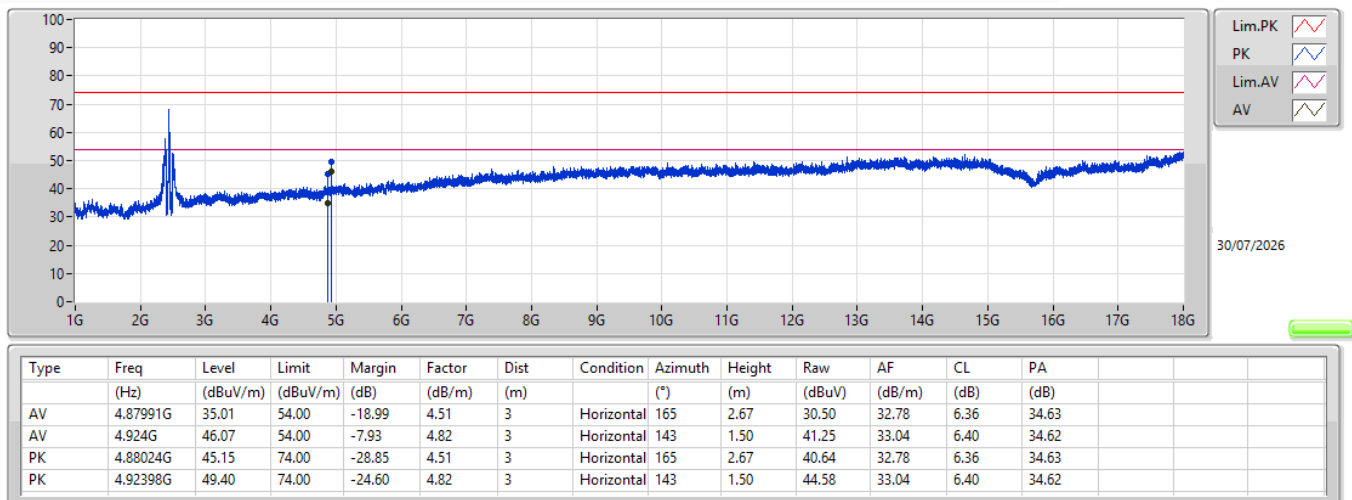
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Mode 1	Pass	AV	4.87976G	31.89	54.00	-22.11	3	Vertical	193	1.54
Mode 1	Pass	AV	4.92402G	45.58	54.00	-8.42	3	Vertical	162	1.37
Mode 1	Pass	PK	4.87946G	43.04	74.00	-30.96	3	Vertical	193	1.54
Mode 1	Pass	PK	4.92398G	49.05	74.00	-24.95	3	Vertical	162	1.37
Mode 1	Pass	AV	4.87991G	35.01	54.00	-18.99	3	Horizontal	165	2.67
Mode 1	Pass	AV	4.924G	46.07	54.00	-7.93	3	Horizontal	143	1.50
Mode 1	Pass	PK	4.88024G	45.15	74.00	-28.85	3	Horizontal	165	2.67
Mode 1	Pass	PK	4.92398G	49.40	74.00	-24.60	3	Horizontal	143	1.50
Mode 1	Pass	AV	19.23546G	26.00	54.00	-28.00	3	Vertical	213	1.71
Mode 1	Pass	PK	19.22865G	37.70	74.00	-36.30	3	Vertical	213	1.71
Mode 1	Pass	AV	19.23314G	26.18	54.00	-27.82	3	Horizontal	164	1.73
Mode 1	Pass	PK	19.22686G	38.08	74.00	-35.92	3	Horizontal	164	1.73
Mode 2	Pass	AV	4.88G	31.96	54.00	-22.04	3	Vertical	113	3.00
Mode 2	Pass	AV	11.44225G	41.49	54.00	-12.51	3	Vertical	214	2.35
Mode 2	Pass	PK	4.87976G	43.42	74.00	-30.58	3	Vertical	113	3.00
Mode 2	Pass	PK	11.4431G	53.14	74.00	-20.86	3	Vertical	214	2.35
Mode 2	Pass	AV	4.87997G	35.80	54.00	-18.20	3	Horizontal	163	2.55
Mode 2	Pass	AV	11.44115G	44.27	54.00	-9.73	3	Horizontal	182	1.00
Mode 2	Pass	PK	4.87949G	45.54	74.00	-28.46	3	Horizontal	163	2.55
Mode 2	Pass	PK	11.4364G	56.43	74.00	-17.57	3	Horizontal	182	1.00
Mode 2	Pass	AV	23.1585G	31.32	68.20	-36.88	3	Vertical	114	2.04
Mode 2	Pass	PK	23.16676G	42.65	68.20	-25.55	3	Vertical	114	2.04
Mode 2	Pass	AV	21.7814G	28.41	68.20	-39.79	3	Horizontal	80	2.60
Mode 2	Pass	PK	21.78368G	41.06	68.20	-27.14	3	Horizontal	80	2.60

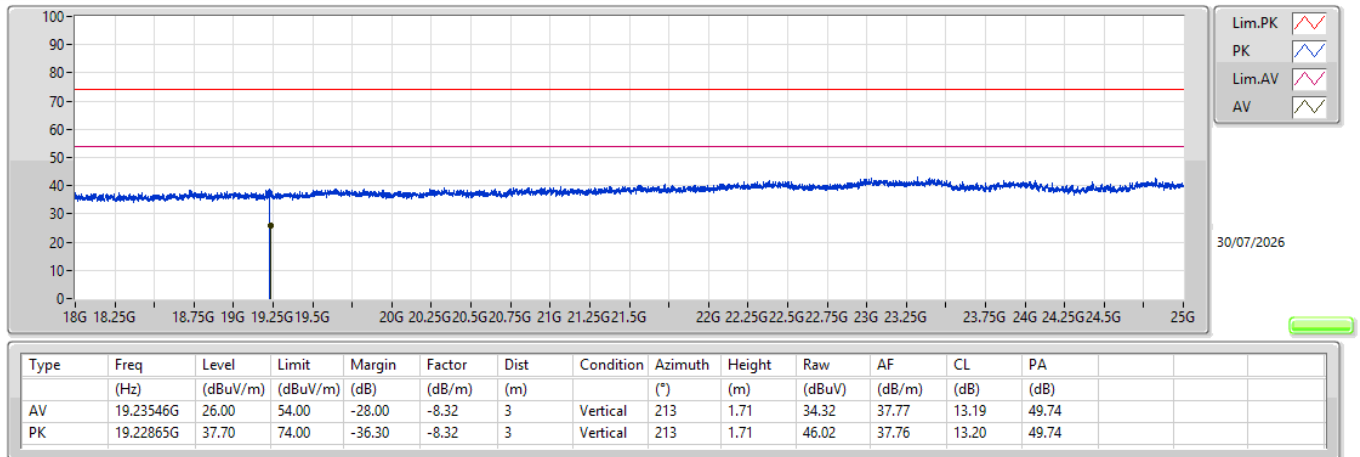
Mode 1



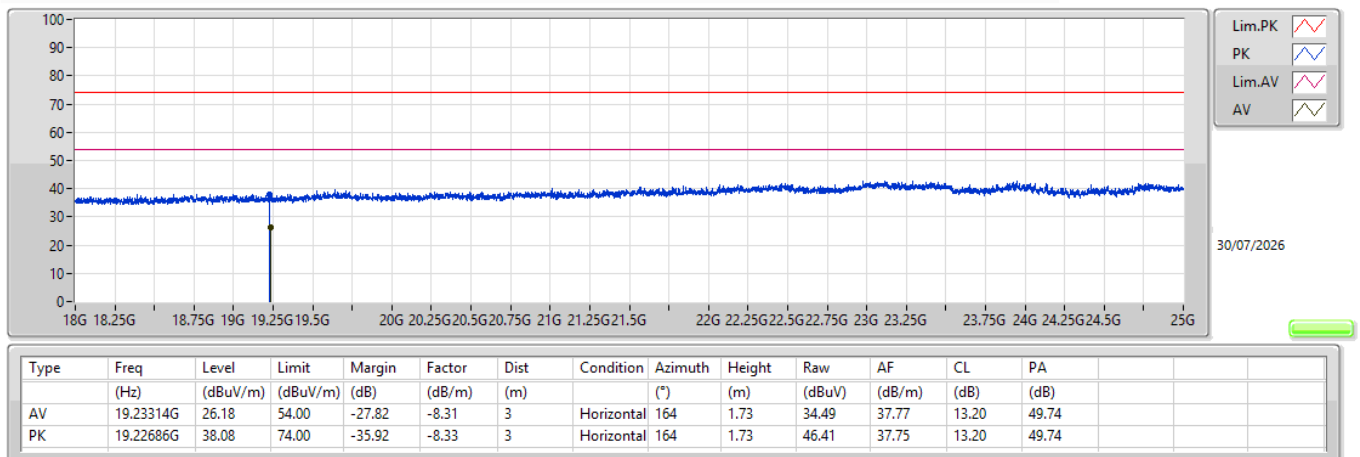
Mode 1



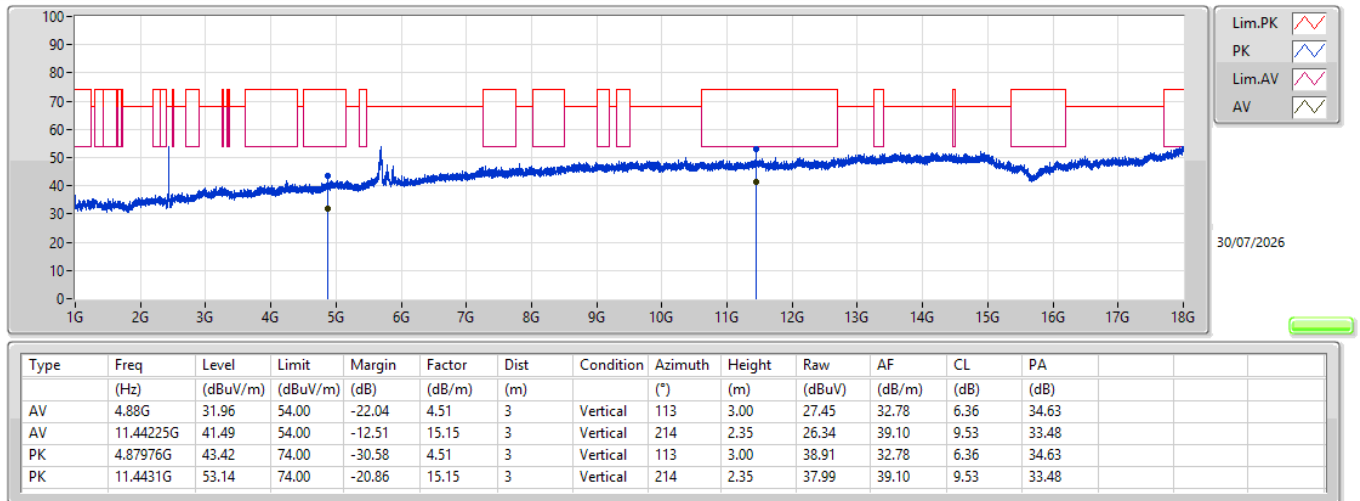
Mode 1



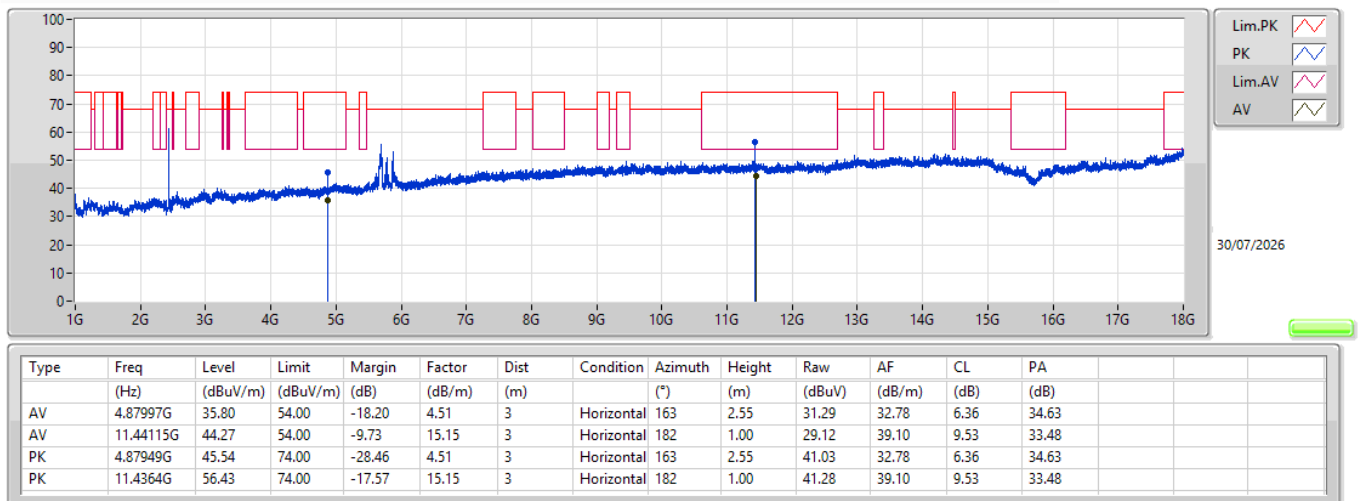
Mode 1



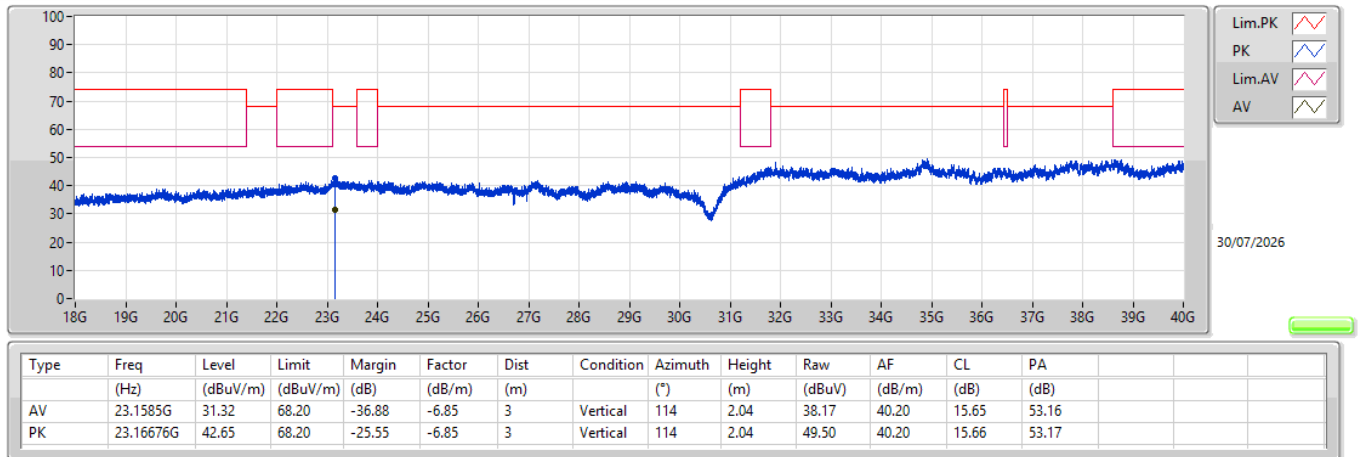
Mode 2



Mode 2



Mode 2



Mode 2

