



RADIO TEST REPORT

FCC ID : 2AYRA-100014
Equipment : Linksys Velop Micro Mesh 7
Brand Name : Linksys
Model Name : LN1600, SPNLN16, LN16
Applicant : Linksys USA, Inc.
121 Theory, Irvine, CA. 92617, USA
Standard : 47 CFR FCC Part 15.247

The product was received on Oct. 01, 2024, and testing was started from Oct. 01, 2024 and completed on May 29, 2025. We, Sporton International Inc. Hsinchu 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. Hsinchu Laboratory, the test report shall not be reproduced except in full.


Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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Photographs of EUT v01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Note: Reference to Sporton Project No.: 493013

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: **Sam Chen**

Report Producer: **Muse Chan**



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2480	0-39 [40]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1.0	1TX
2.4-2.4835GHz	BT-LE(2Mbps)	2.0	1TX

Note:

- ♦ Bluetooth LE uses a GFSK modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN 2.4GHz	WLAN 5GHz	Bluetooth					
1	1	1	-	GALTRONICS	02102140-08091C1	PCB Antenna	U.FL	Note 1
2	2	2	-	GALTRONICS	02102140-08091C2	PCB Antenna	U.FL	
3	-	-	1	GALTRONICS	02036073-07315	Embedded Antenna	N/A	

Note 1:

Ant.	Antenna Gain (dBi)				
	WLAN 2.4GHz	WLAN 5GHz			
		Band 1	Band 2	Band 3	Band 4
1	2.19	3.40	3.45	3.70	3.40
2	1.56	3.21	3.15	3.41	3.20
Ant.	Bluetooth				
3	3.53				

Note 2: The above information was declared by manufacturer.



Note 3: Directional gain information

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,3) = 10^{G3/20} ; NSS1(g1,4) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] => 10$$

$$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where ;

$$2.4G \ G1 = 2.19 \text{ dBi} ; G2 = 1.56 \text{ dBi}$$

$$5G \ \text{UNII-1} \ G1 = 3.40 \text{ dBi} ; G2 = 3.21 \text{ dBi} ;$$

$$5G \ \text{UNII-2A} \ G1 = 3.45 \text{ dBi} ; G2 = 3.15 \text{ dBi} ;$$

$$5G \ \text{UNII-2C} \ G1 = 3.70 \text{ dBi} ; G2 = 3.41 \text{ dBi} ;$$

$$5G \ \text{UNII-3} \ G1 = 3.40 \text{ dBi} ; G2 = 3.20 \text{ dBi} ;$$

$$2.4G \ DG = 4.89$$

$$5G \ \text{UNII-1} \ DG = 6.32$$

$$5G \ \text{UNII-2A} \ DG = 6.31$$

$$5G \ \text{UNII-2C} \ DG = 6.57$$

$$5G \ \text{UNII-3} \ DG = 6.31$$

Note 4: For 2.4GHz function:

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

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11a/n/ac/ax/be (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For Bluetooth function (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
BT-LE(1Mbps)	0.803	0.95	2.009m	1k
BT-LE(2Mbps)	0.811	0.91	1.014m	1k

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input checked="" type="checkbox"/> Point-to-point		
Test Software Version	QRCT V4.0.95.1			
Support Mode	<input checked="" type="checkbox"/> LE 1M PHY: 1 Mb/s			
	<input type="checkbox"/> LE Coded PHY (S=2): 500 Kb/s			
	<input type="checkbox"/> LE Coded PHY (S=8): 125 Kb/s			
	<input checked="" type="checkbox"/> LE 2M PHY: 2 Mb/s			

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

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

Model Name	Description
LN1600	All the models are identical; the different model names served as marketing strategy.
SPNLN16	
LN16	

Note 1: From the above models, model: LN1600 was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.6 Table for EUT Supports Function

Function
AP Router
Mesh

Note 1: The AP Router mode was tested and recorded in this test report.

Note 2: The above information was declared by manufacturer.



1.2 Applicable Standards

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

- ♦ 47 CFR FCC Part 15.247
- ♦ ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ FCC KDB 558074 D01 v05r02
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Ken Yeh	23.3~24.4 / 59~61	Oct. 08, 2024~ Oct. 16, 2024
Radiated < 1GHz	03CH05-CB	Chris Li	21.5~22.9 / 57~60	May 21, 2025~ May 29, 2025
	03CH06-CB		21.9~23.1 / 60~62	
Radiated > 1GHz	03CH02-CB	Paul Hu	21.8~22.9 / 55~58	Oct. 01, 2024~ Oct. 22, 2024
AC Conduction	CO01-CB	Ryan Huang	22~23 / 56~58	Apr. 09, 2025



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 Date: Date Before May 28, 2025

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.8 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.0 dB	Confidence levels of 95%
Conducted Emission	3.1 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.1 dB	Confidence levels of 95%
Bandwidth Measurement	2.1 %	Confidence levels of 95%

Test Date: Date After May 27, 2025

Test Items	Uncertainty	Remark
Radiated Emission (9kHz ~ 30MHz)	3.8 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.7 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode
BT-LE(1Mbps)
2402MHz
2440MHz
2480MHz
BT-LE(2Mbps)
2402MHz
2440MHz
2480MHz

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	Normal Link
1	EUT + Adapter 1 with USB Type-C cable 1
2	EUT + Adapter 2 with USB Type-C cable 2
For operating mode 2 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains



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
	<ol style="list-style-type: none"> After evaluating, EUT in Y axis was the worst case, so the measurement will follow this same test configuration. There are three modes of EUT, one is WLAN 2.4GHz mode, another is WLAN 5GHz mode, and the other is Bluetooth mode, WLAN 5GHz mode has been evaluated to be the worst case after evaluating. So the measurement will follow this same test configuration.
1	EUT in Y axis_WLAN 5GHz + Adapter 1 with USB Type-C cable 1
2	EUT in Y axis_WLAN 5GHz + Adapter 2 with USB Type-C cable 2
For operating, mode 2 is the worst case and it was recorded in this test report.	
Operating Mode > 1GHz	CTX
	After evaluating, EUT in Y axis was the worst case, so the measurement will follow this same test configuration.
1	EUT in Y axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	Bluetooth + WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA480229-01 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.



2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1	Ktec	KSA-35P-D5X	Input: 100-240V ~ 50/60Hz, 1.0A Output: 5.0V, 3.0A, 15.0W 9.0V, 3.0A, 27.0W
Adapter 2	Frecom	FC035P04-050030CP	Input: 100-240V~50/60Hz, 1.0A Output: 5.0V, 3.0A, 15.0W; 9.0V, 3.0A, 27.0W; 12.0V, 2.91A, 34.92W; 15.0V, 2.33A, 34.95W; 20.0V, 1.75A, 35.0W
Others			
Plug 1 (For Adapter 1 use only)*1			
Plug 2 (For Adapter 2 use only)*1			
RJ-45 cable*1: Non-shielded, 0.9m			
USB Type-C cable 1 (For Adapter 1 use only)*1: Shielded, 1.5m			
USB Type-C cable 2 (For Adapter 2 use only)*1: Shielded, 1.5m			

2.5 Support Equipment

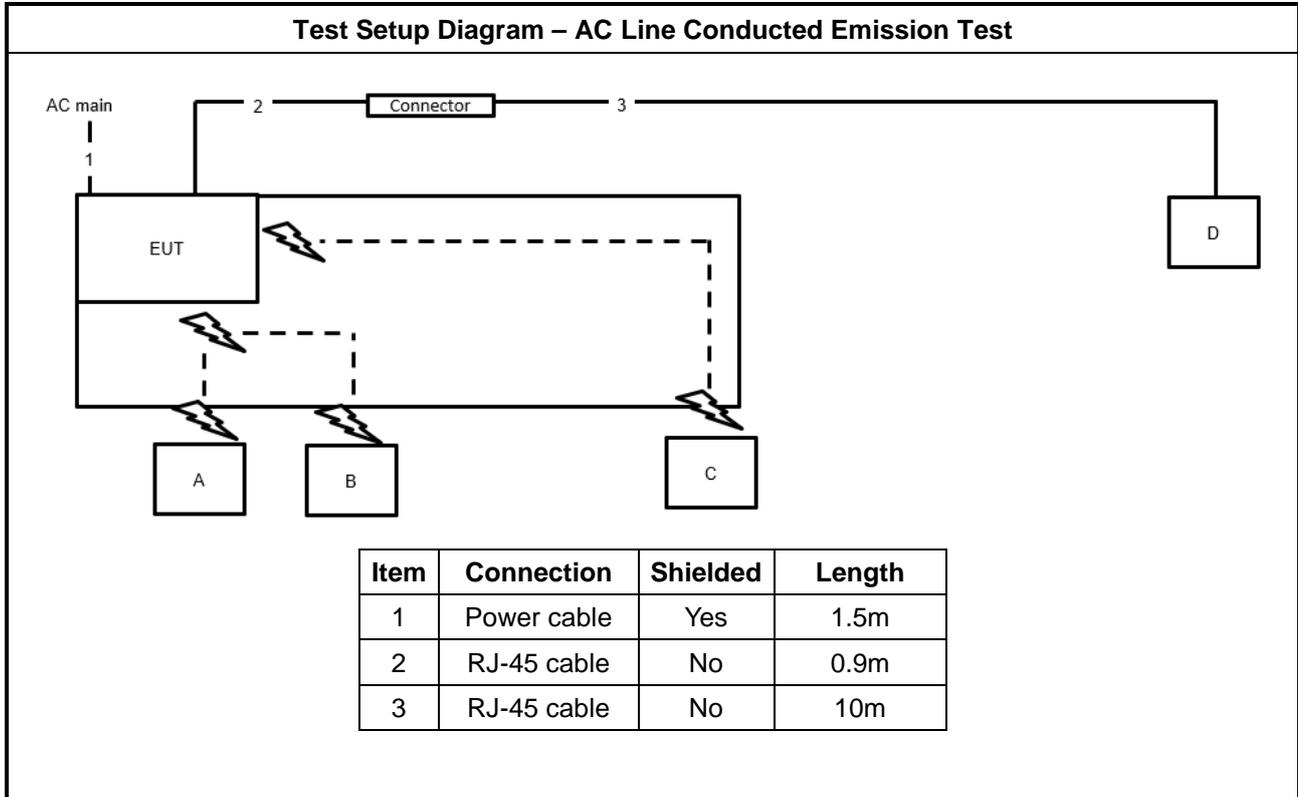
For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	2.4G NB	Lenovo	T400	N/A
B	5G NB	Lenovo	T400	N/A
C	Smart phone	Redmi	M1810F6LH	2AFZZ-RMSF6LG
D	2.5G LAN PC	ASUS	S300TA	TX2-RTL8821CE

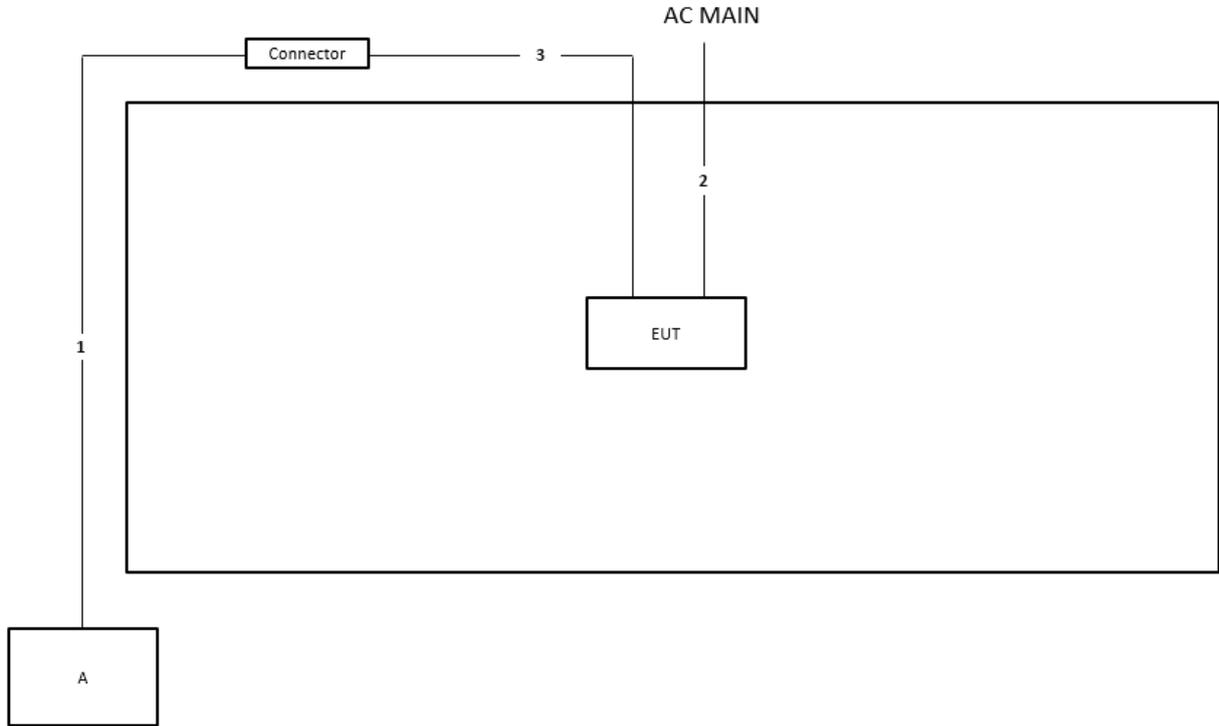
For Radiated and RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

2.6 Test Setup Diagram

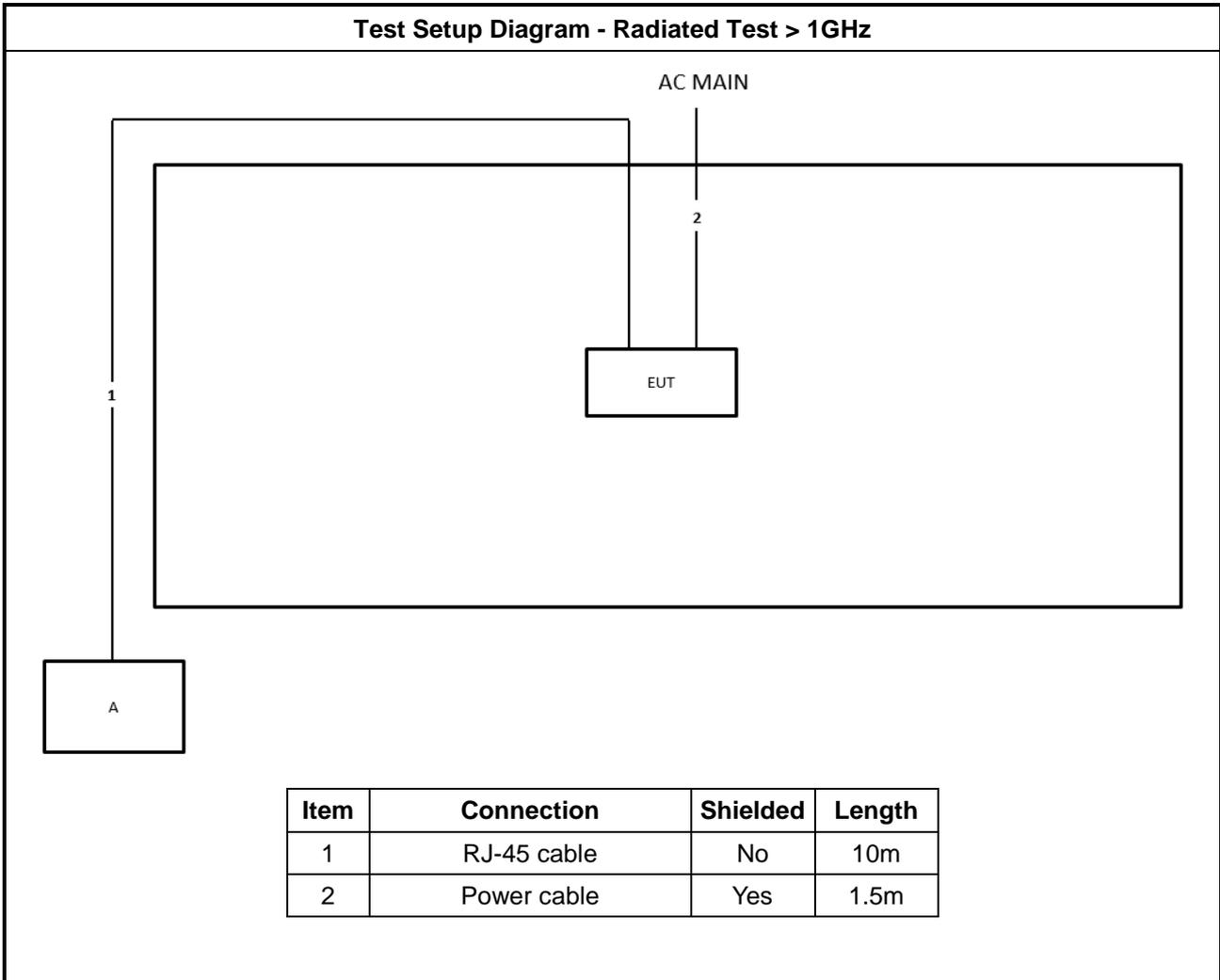


Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	Yes	1.5m
3	RJ-45 cable	No	0.9m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	Yes	1.5m



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.

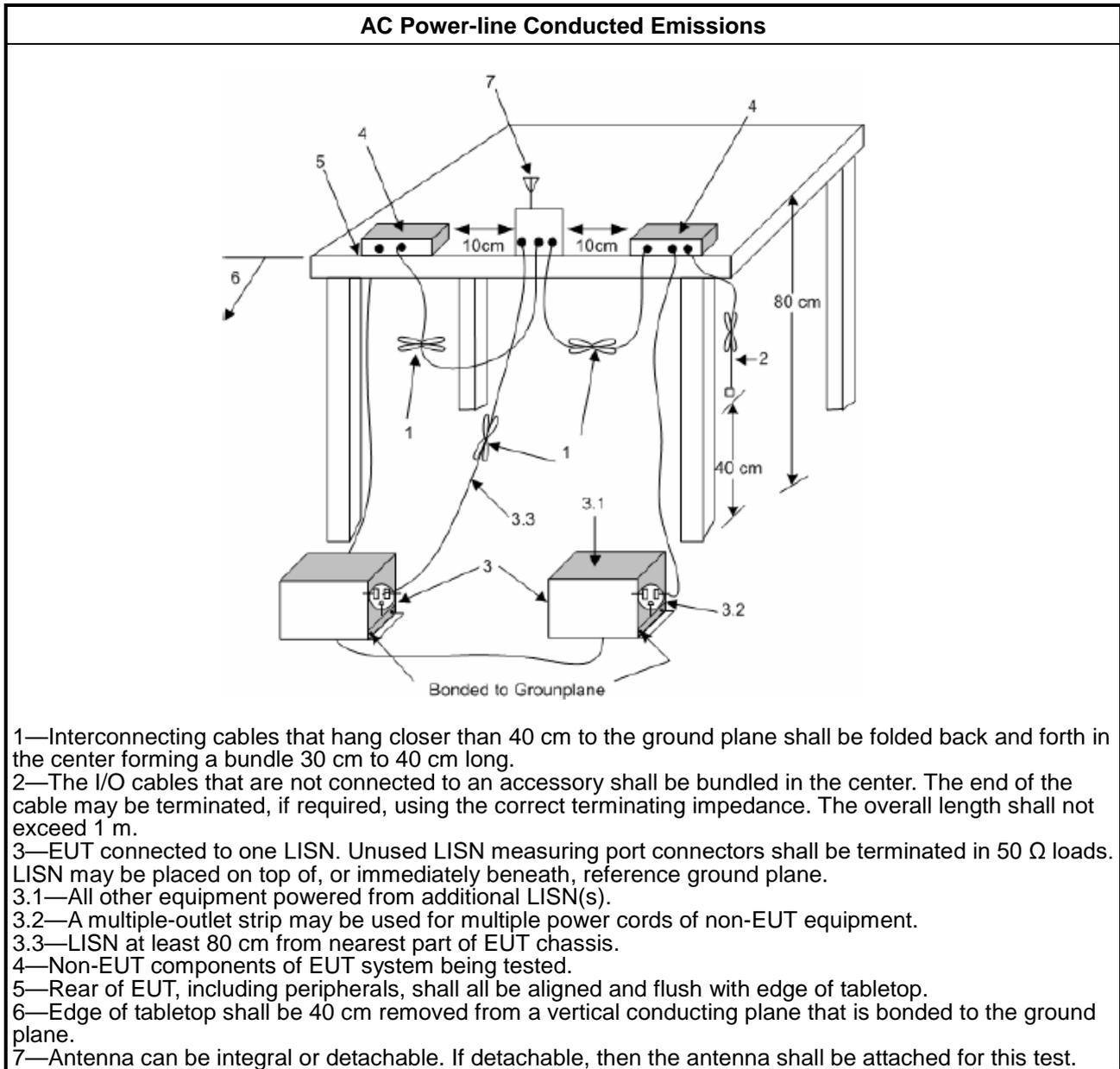
3.1.2 Measuring Instruments

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 Test Setup



1.1.1. Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
<ul style="list-style-type: none"> ▪ 6 dB bandwidth \geq 500 kHz.

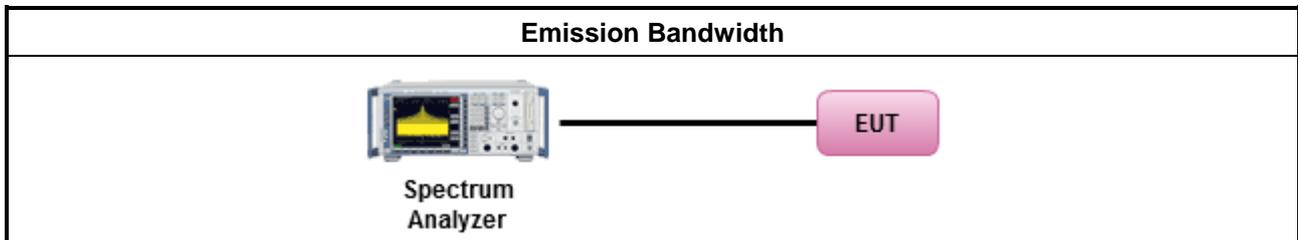
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"> ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
<p>P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.</p>	

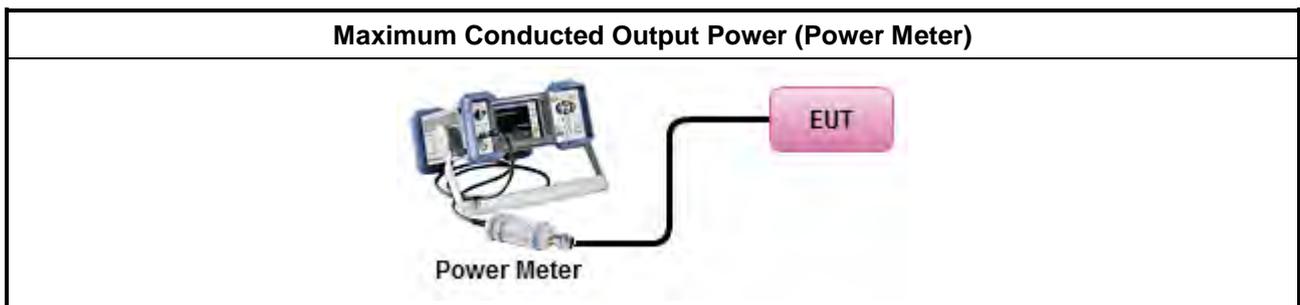
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
<ul style="list-style-type: none"> ▪ Maximum Conducted Output Power 	
[duty cycle ≥ 98% or external video / power trigger]	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
	<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup





3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> Power Spectral Density (PSD) ≤ 8 dBm/3kHz

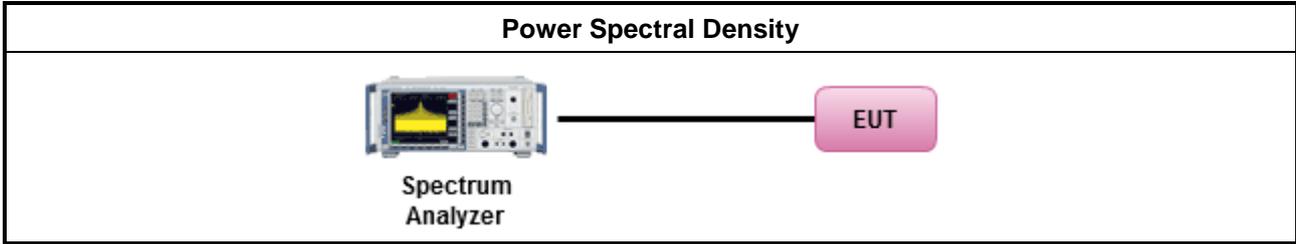
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD. [duty cycle ≥ 98% or external video / power trigger]
<ul style="list-style-type: none"> For conducted measurement.
<ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below: <ul style="list-style-type: none"> <input type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dBc)
Peak output power procedure	20
Average output power procedure	30

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.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

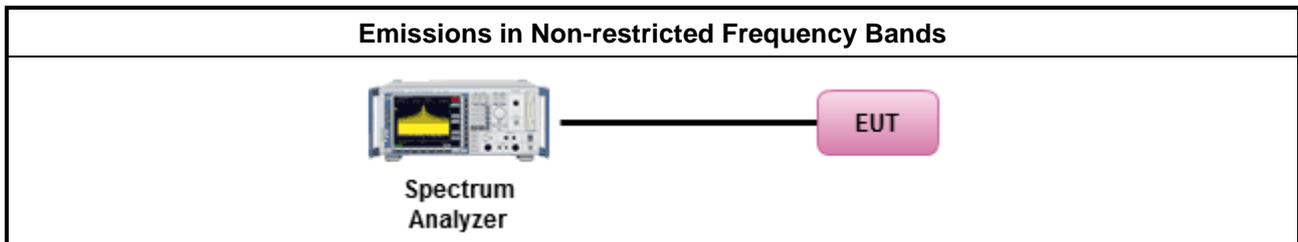
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

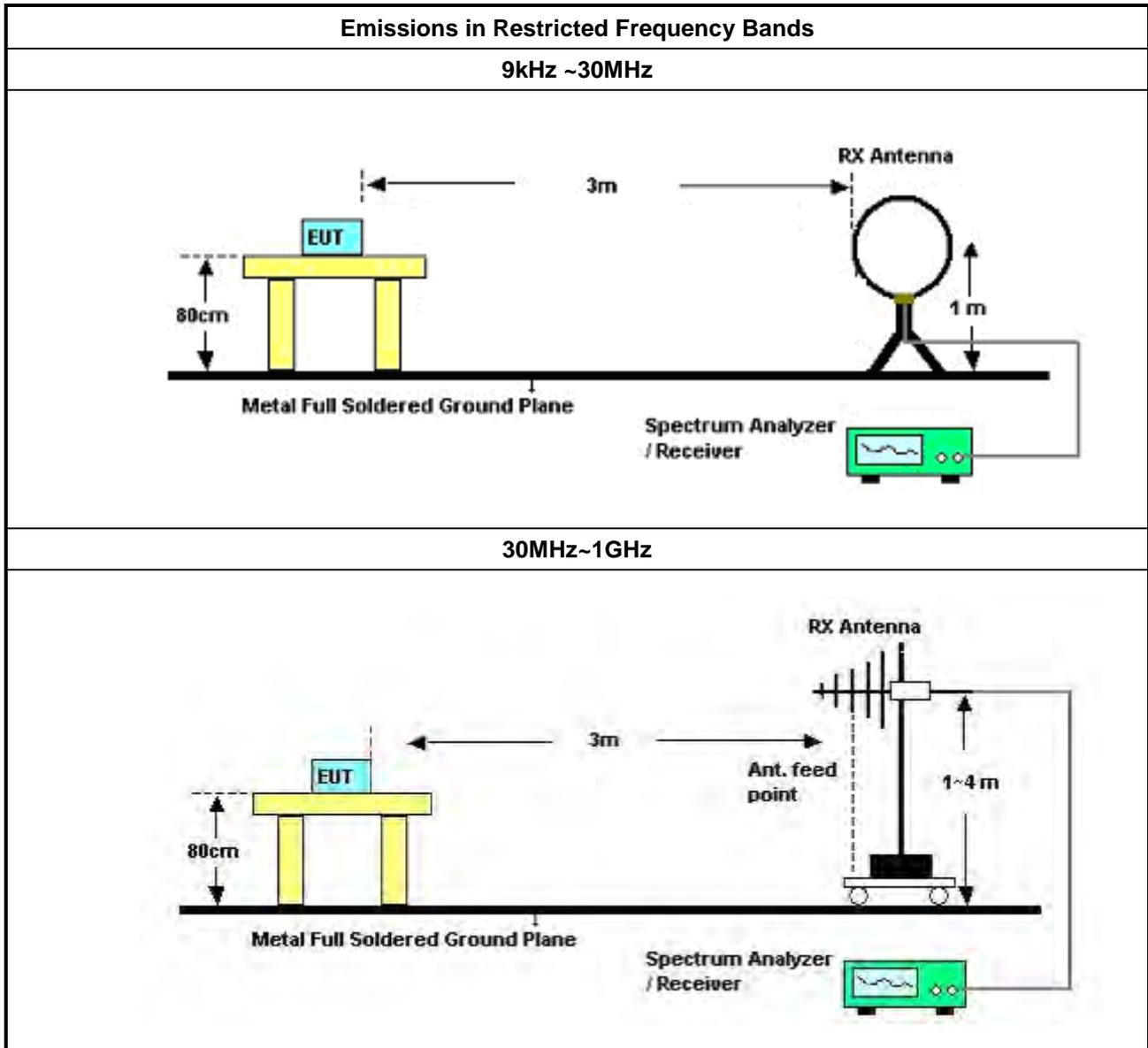
Refer a test equipment and calibration data table in this test report.

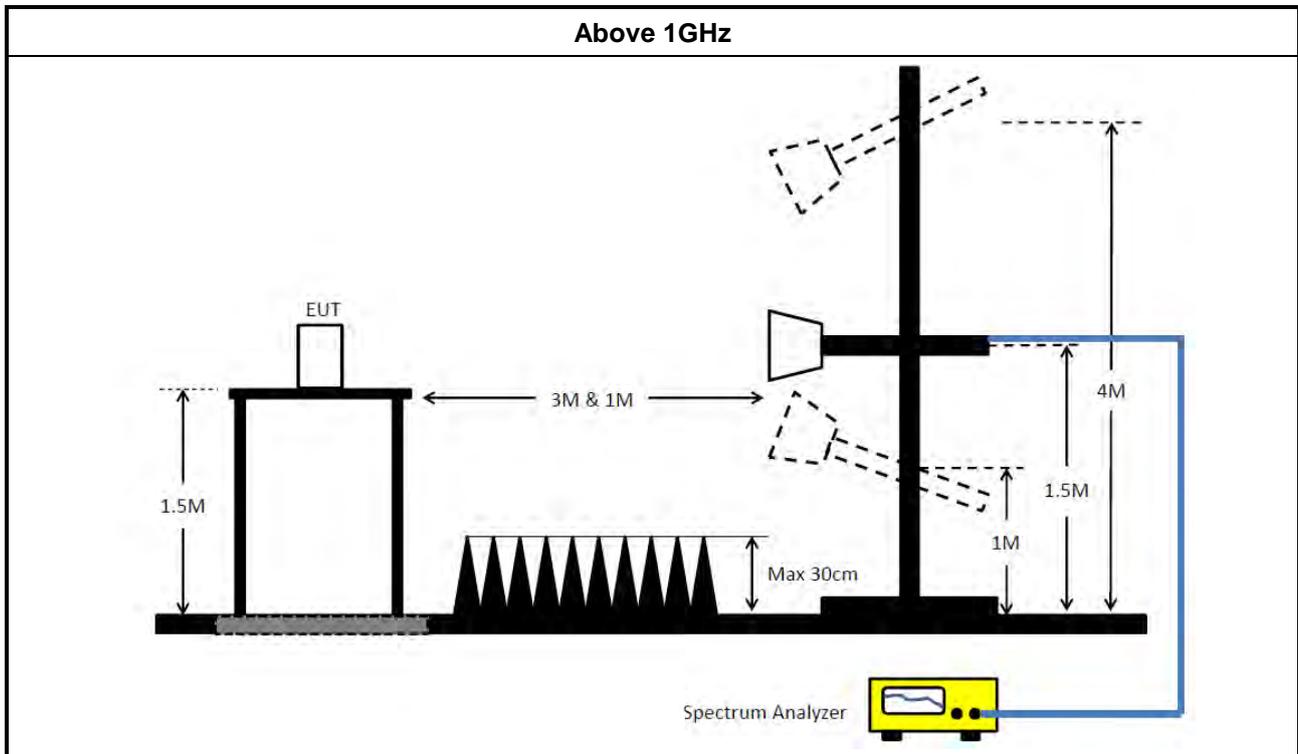


3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ 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. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074 clause 8.7 & c63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
	<ul style="list-style-type: none"> ▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	<ul style="list-style-type: none"> ▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup





3.6.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

3.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Mar. 06, 2025	Mar. 05, 2026	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 18, 2025	Feb. 17, 2026	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 24, 2024	Apr. 23, 2025	Conduction (CO01-CB)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Oct. 16, 2024	Oct. 15, 2025	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 16, 2024	Oct. 15, 2025	Conduction (CO01-CB)
Test Software	SPORTON	SENSE-EMI	V5.11	150kHz-30MHz	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 16, 2024	Oct. 15, 2025	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 01, 2024	Jul. 31, 2025	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 22, 2025	Mar. 21, 2026	Radiation (03CH05-CB)
Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 01, 2025	Apr. 30, 2026	Radiation (03CH05-CB)
Signal Analyzer	R&S	FSV3044	101321	9kHz ~ 44GHz	Jun. 26, 2024	Jun. 25, 2025	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 21, 2024	Oct. 20, 2025	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE-EMI	V5.11.8	30MHz-40GHz	N.C.R.	N.C.R.	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 16, 2024	Oct. 15, 2025	Radiation (03CH06-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 02, 2024	Aug. 01, 2025	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Jul. 29, 2024	Jul. 28, 2025	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	Nov. 02, 2024	Nov. 01, 2025	Radiation (03CH06-CB)
Signal analyzer	R&S	FSV3044	101667	9kHz~44GHz	Aug. 20, 2024	Aug. 19, 2025	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 21, 2024	Oct. 20, 2025	Radiation (03CH06-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-low	Woken	RG402	Low Cable-24+68	30MHz~1GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE-EMI	V5.11.8	30MHz-40GHz	N.C.R.	N.C.R.	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 24, 2024	Mar. 23, 2025	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 12, 2024	Apr. 11, 2025	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 23, 2024	Sep. 22, 2025	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jun. 29, 2024	Jun. 28, 2025	Radiation (03CH02-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH02-CB)
Signal Analyzer	R&S	FSV3044	101536	10kHz ~ 44GHz	Aug. 14, 2024	Aug. 13, 2025	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Jun. 20, 2024	Jun. 19, 2025	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Jun. 20, 2024	Jun. 19, 2025	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE-15247_FS	V5.11.18	2.4GHz-2.4835GHz	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 27, 2024	Aug. 26, 2025	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1531343	300MHz~40GHz	Aug. 26, 2024	Aug. 25, 2025	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1728001	300MHz~40GHz	Aug. 26, 2024	Aug. 25, 2025	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1GHz ~ 18GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1GHz ~ 18GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1GHz ~ 18GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1GHz ~ 18GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1GHz ~ 18GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH02-CB)
Switch	SPTCB	SP-SWI	SWI-02	1~18GHz	Oct. 02, 2024	Oct. 01, 2025	Conducted (TH02-CB)
Test Software	SPORTON	SENSE-15247_FS	V5.11.18	2.4GHz-2.4835GHz	N.C.R.	N.C.R.	Conducted (TH02-CB)

Note: Calibration Interval of instruments listed above is one year.

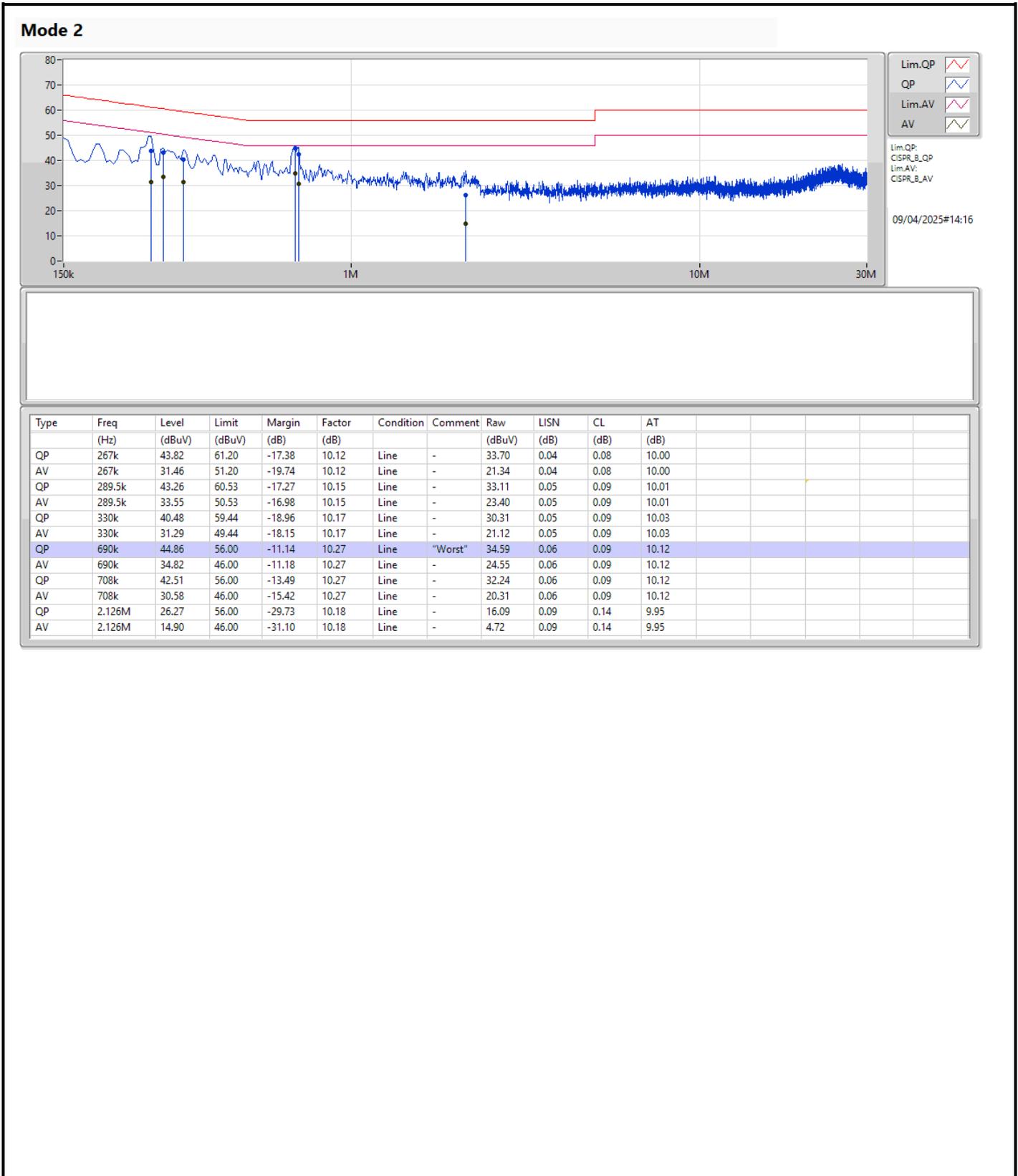


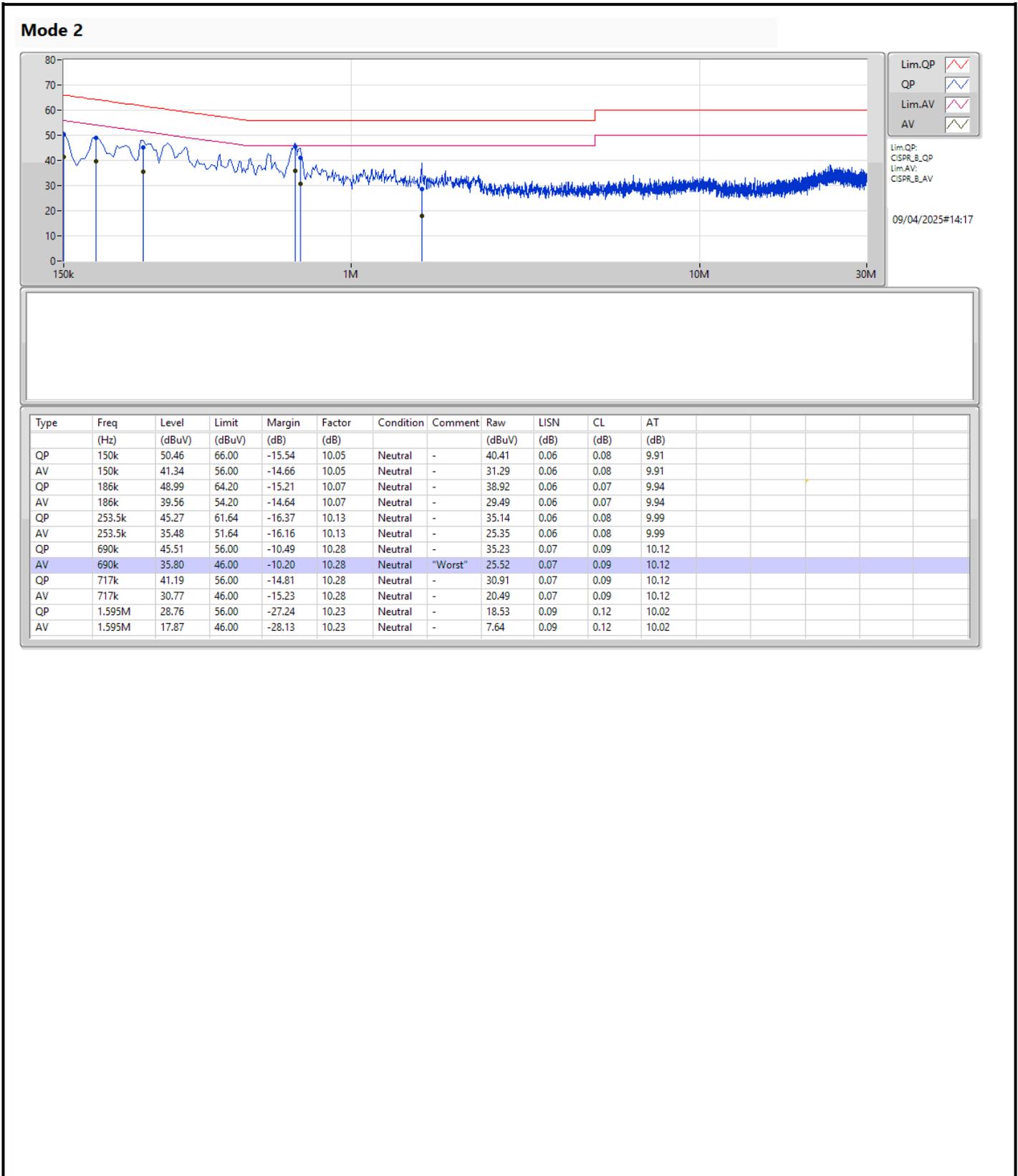
NCR means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	AV	690k	35.80	46.00	-10.20	Neutral







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	720k	1.04M	1M04F1D	717.5k	1.039M
BT-LE(2Mbps)	1.113M	2.085M	2M09F1D	1.105M	2.069M

Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	718.75k	1.04M
2440MHz	Pass	500k	720k	1.039M
2480MHz	Pass	500k	717.5k	1.039M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.108M	2.069M
2440MHz	Pass	500k	1.105M	2.073M
2480MHz	Pass	500k	1.113M	2.085M

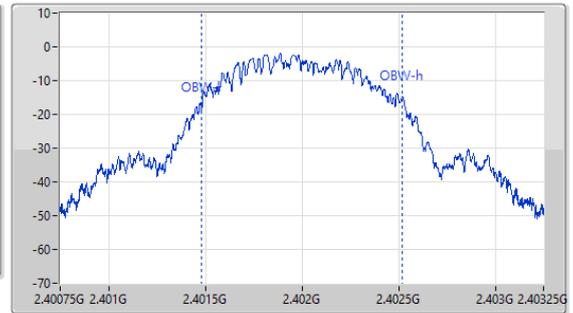
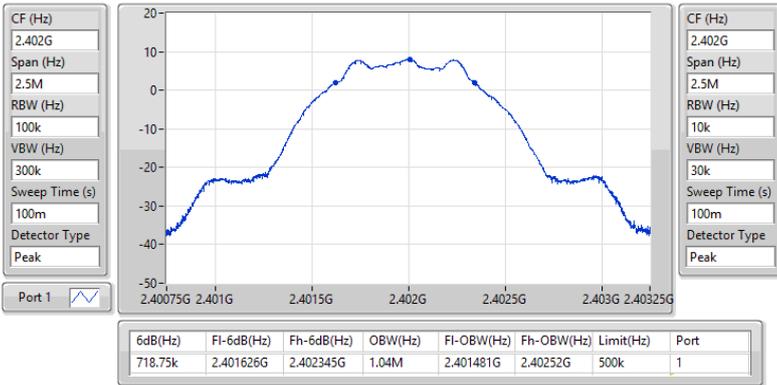
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2402MHz

09/10/2024

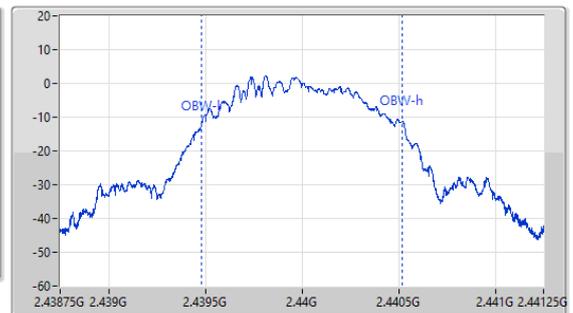
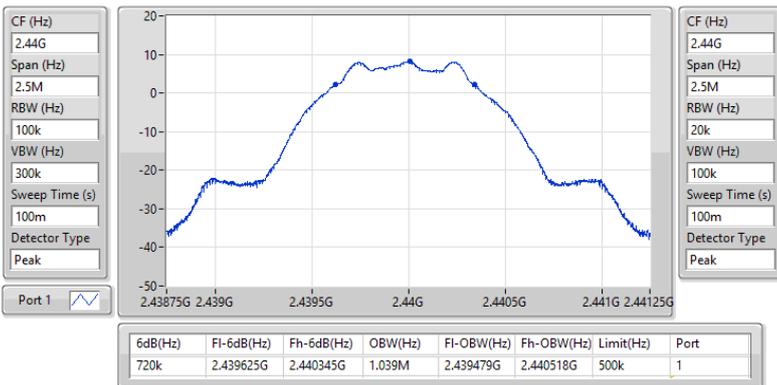


2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2440MHz

09/10/2024

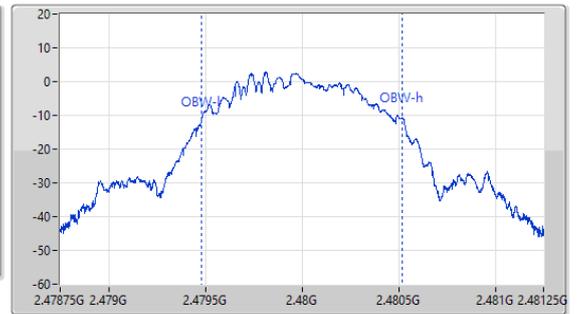
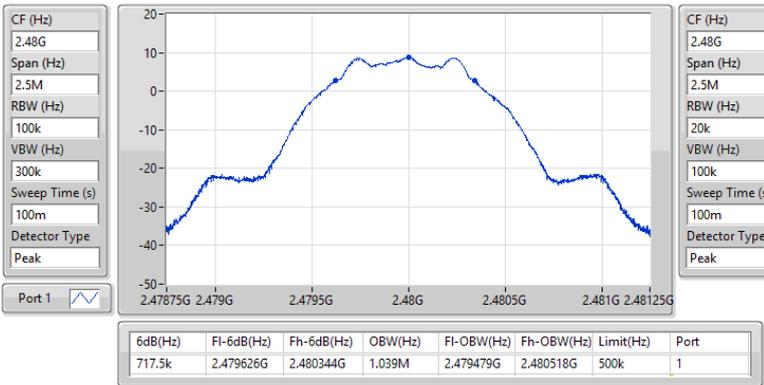


2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2480MHz

09/10/2024

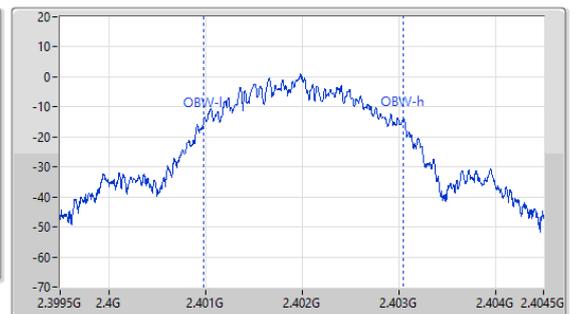
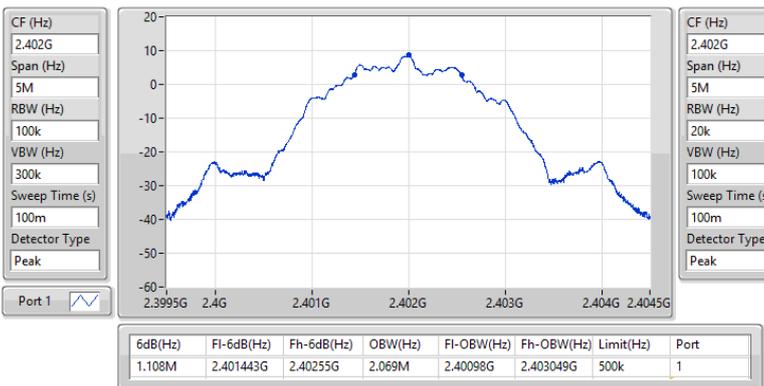


2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

2402MHz

09/10/2024

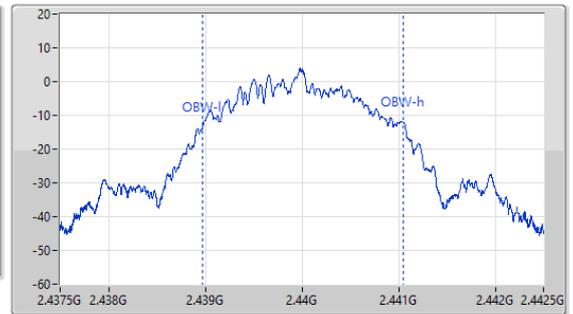
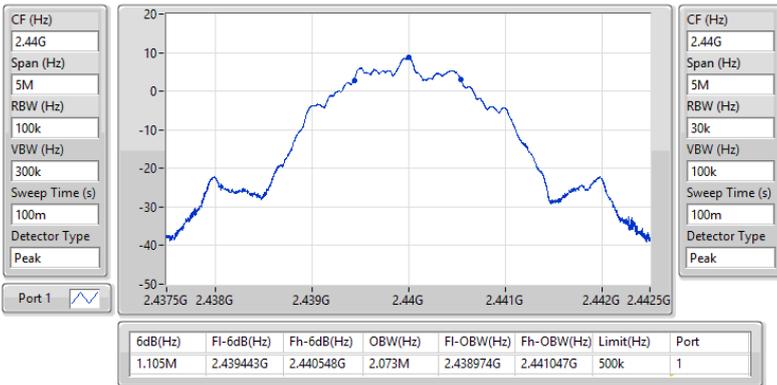


2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

2440MHz

09/10/2024

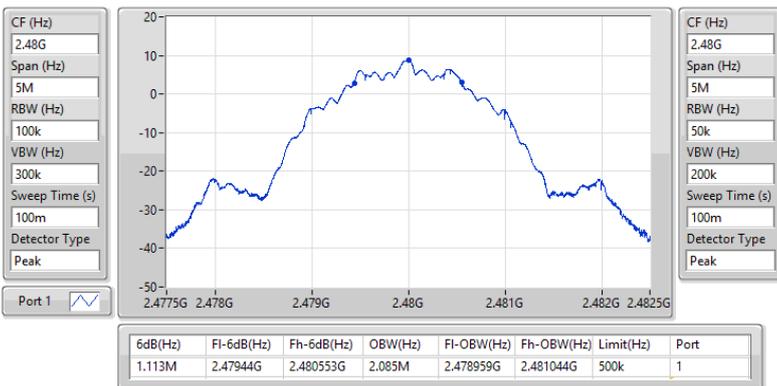


2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

2480MHz

09/10/2024





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	9.48	0.00887
BT-LE(2Mbps)	9.33	0.00857



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-	-
2402MHz	Pass	3.53	8.93	8.93	30.00
2440MHz	Pass	3.53	8.89	8.89	30.00
2480MHz	Pass	3.53	9.48	9.48	30.00
BT-LE(2Mbps)	-	-	-	-	-
2402MHz	Pass	3.53	8.87	8.87	30.00
2440MHz	Pass	3.53	8.72	8.72	30.00
2480MHz	Pass	3.53	9.33	9.33	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-5.93
BT-LE(2Mbps)	-7.43

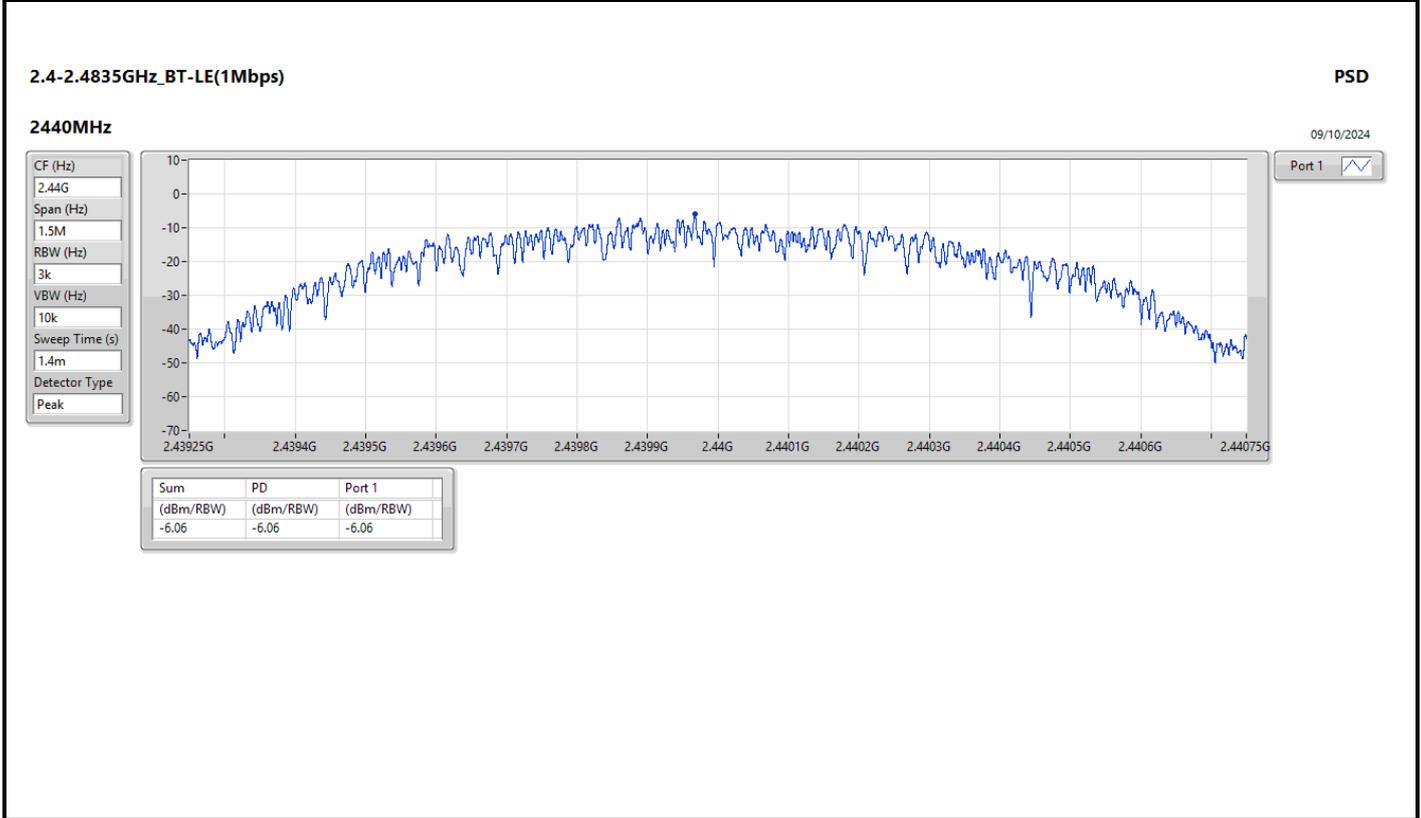
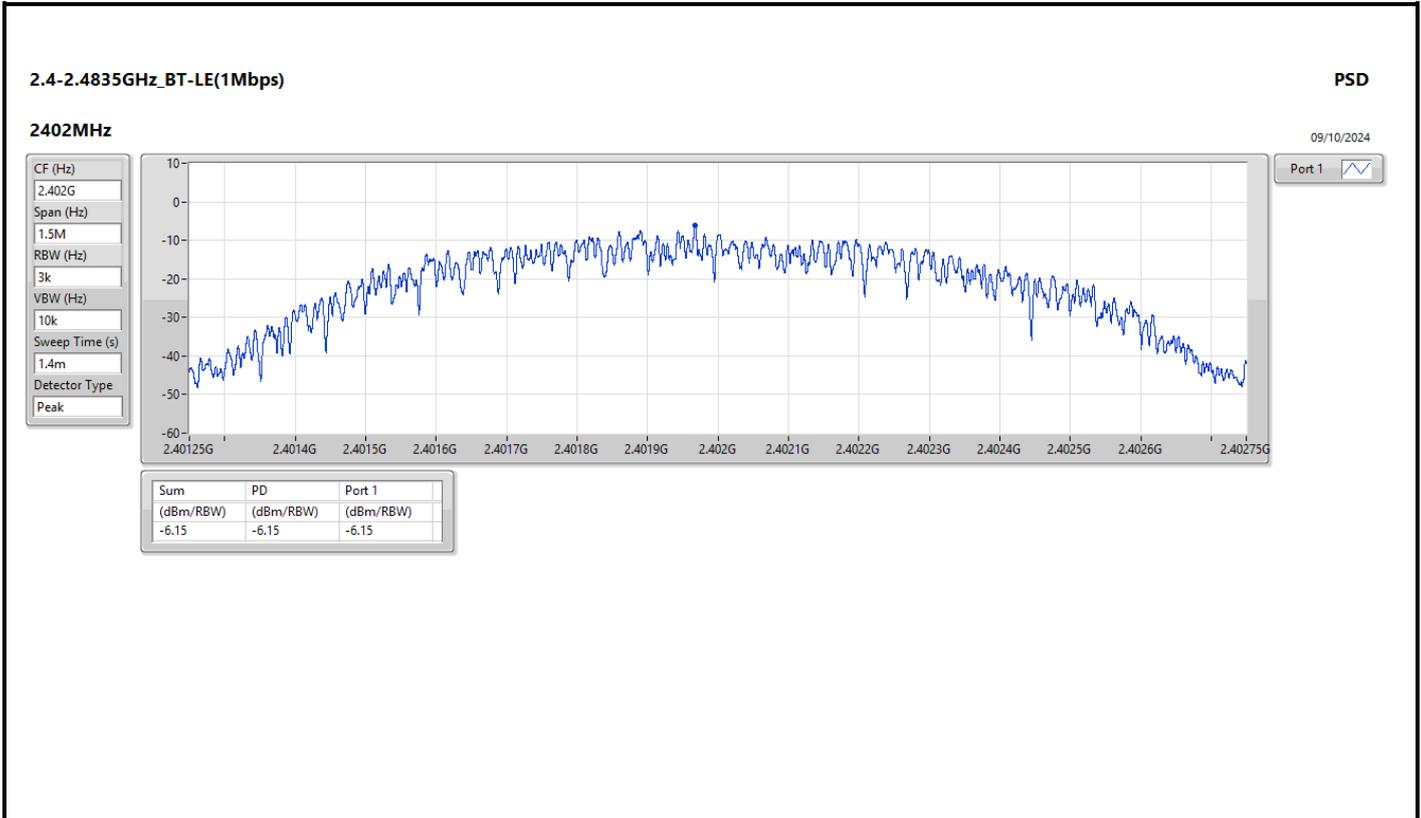
RBW = 3kHz;

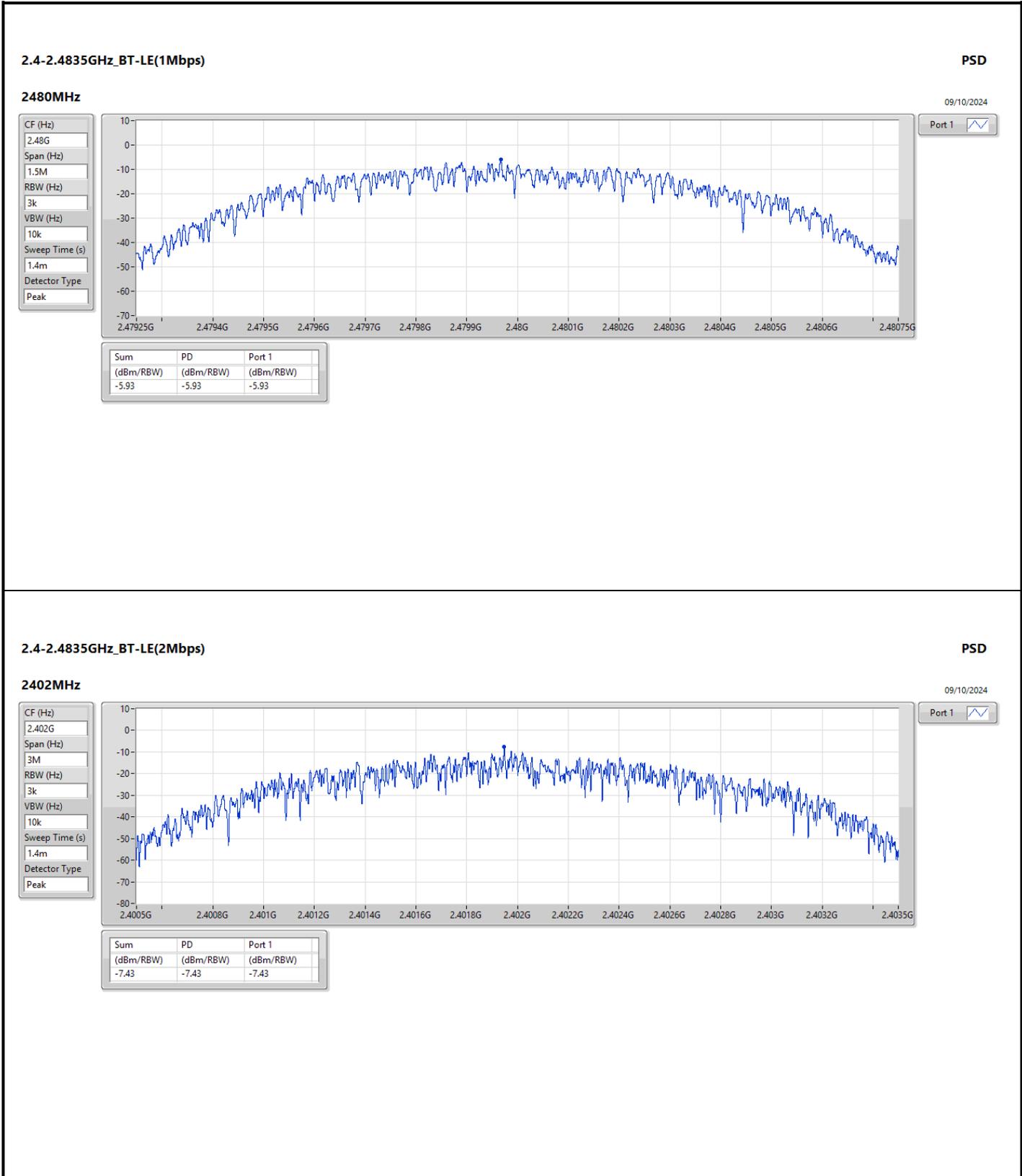


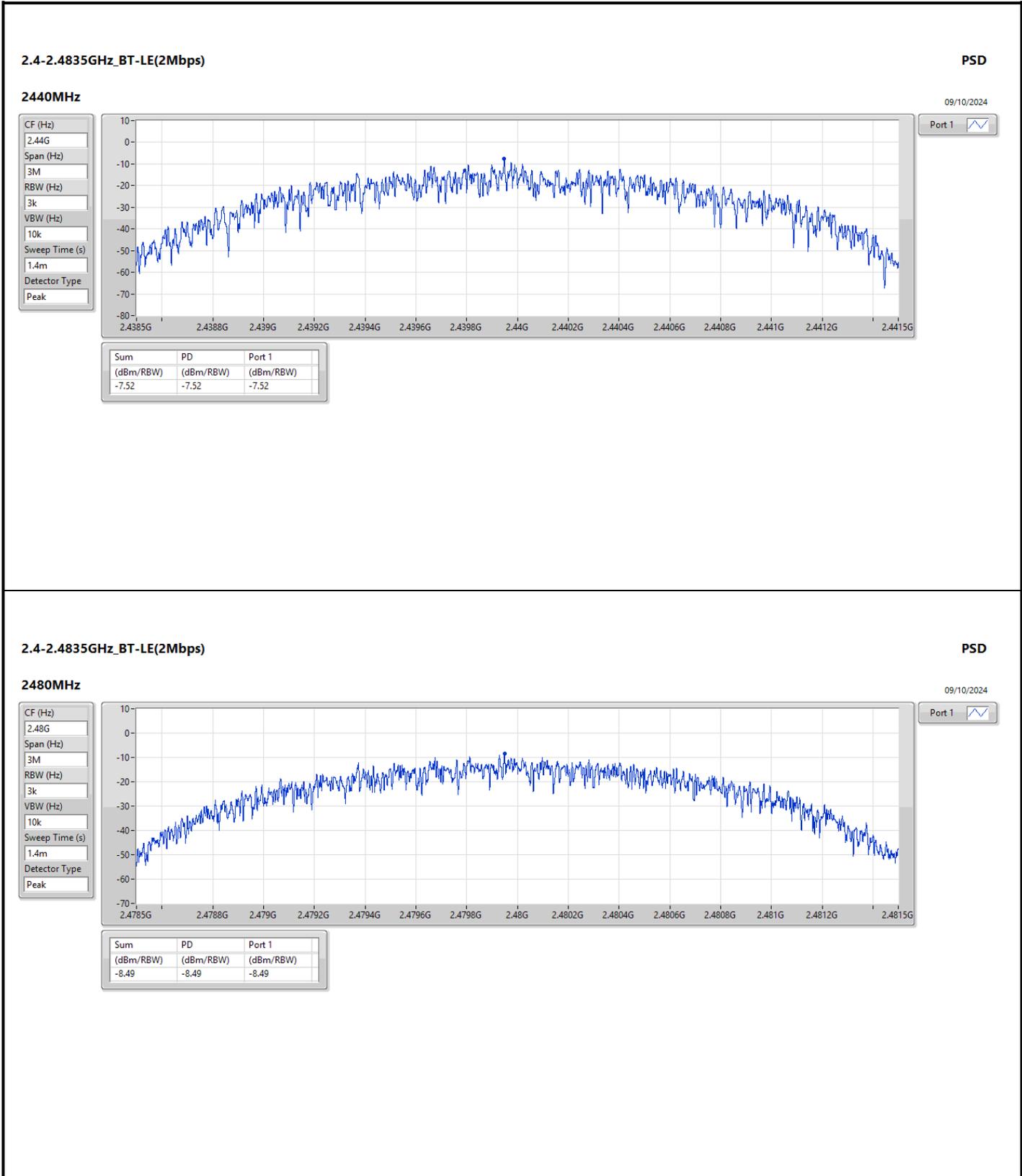
Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	3.53	-6.15	8.00
2440MHz	Pass	3.53	-6.06	8.00
2480MHz	Pass	3.53	-5.93	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	3.53	-7.43	8.00
2440MHz	Pass	3.53	-7.52	8.00
2480MHz	Pass	3.53	-8.49	8.00

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;
Inf = There's no restriction for the limit.







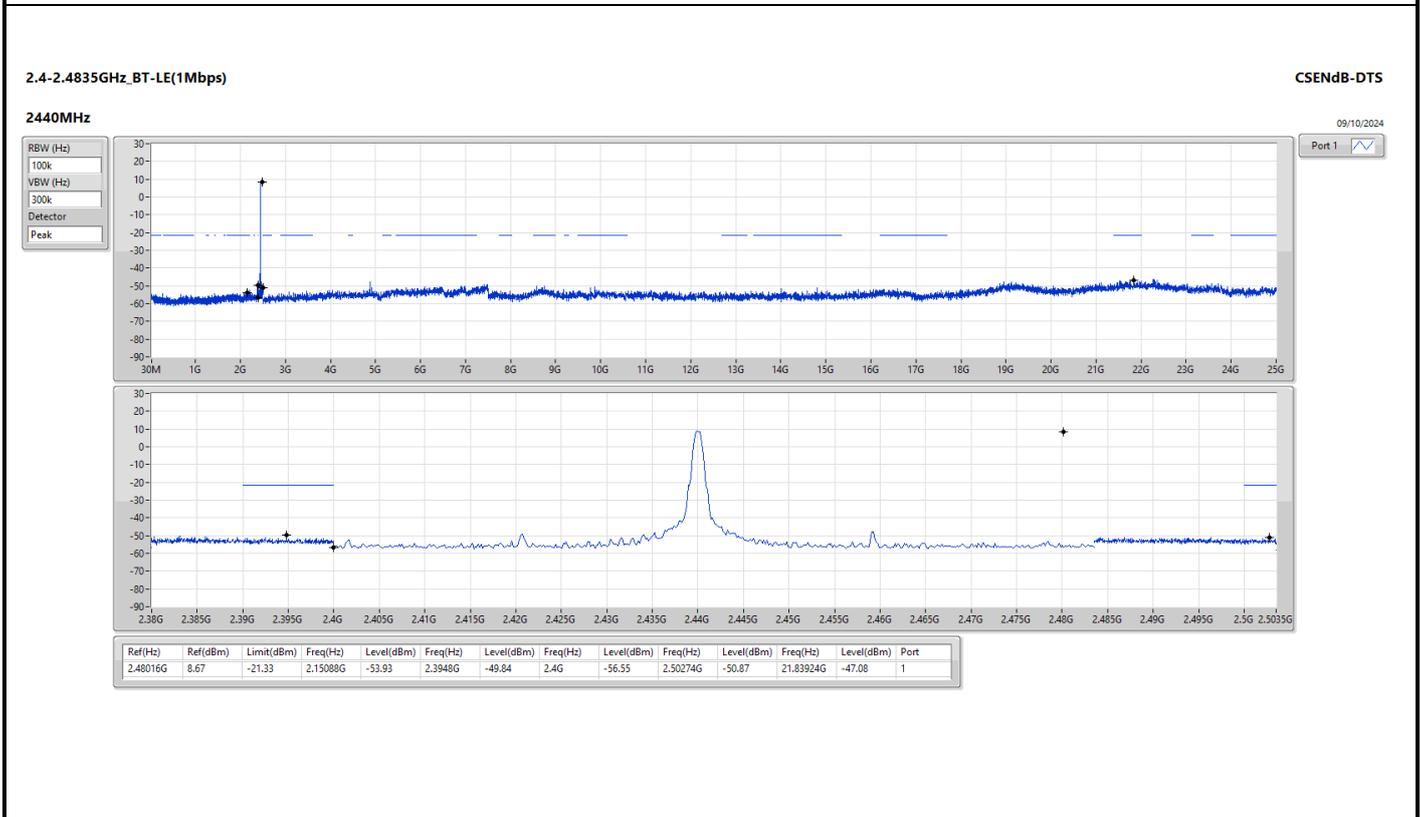
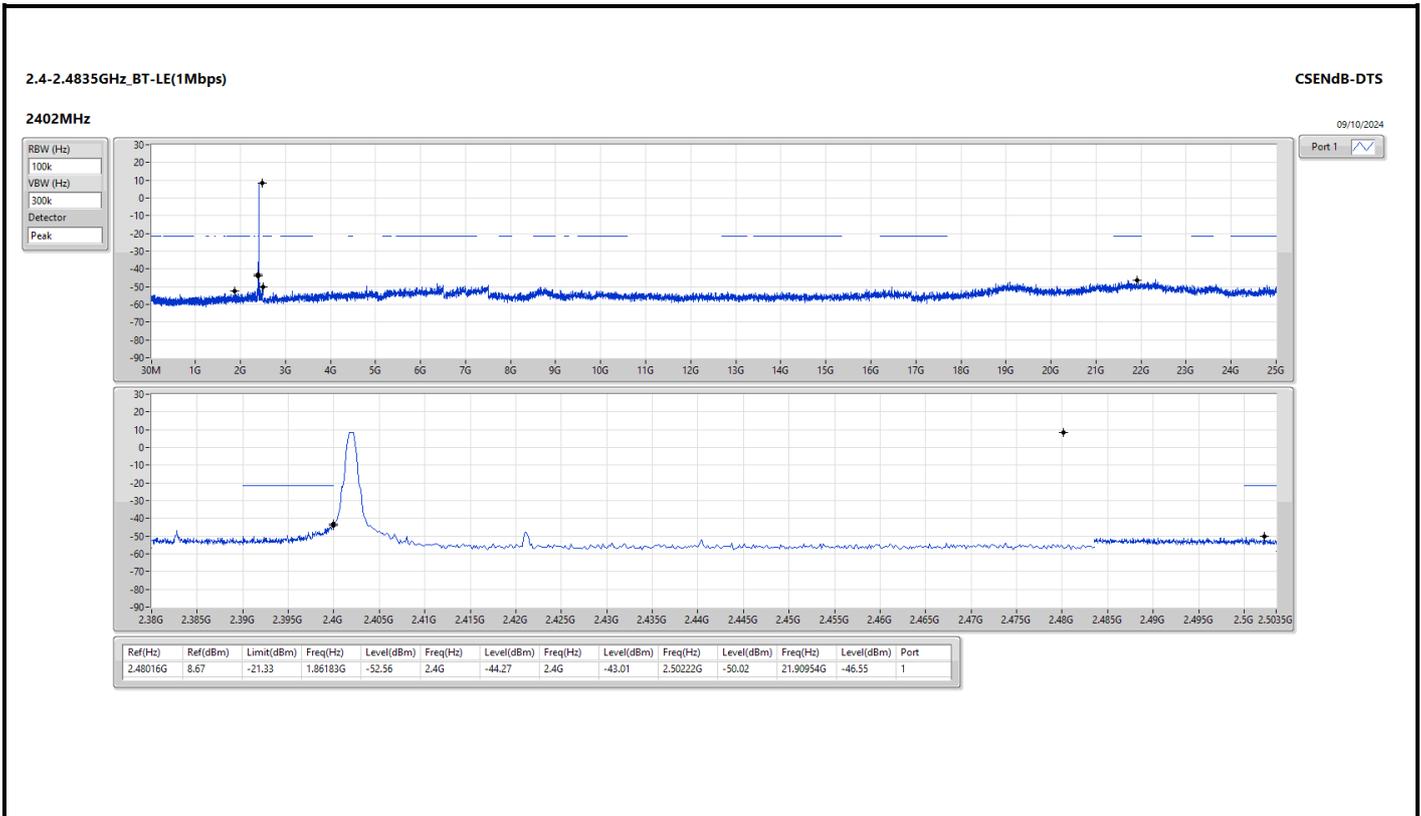


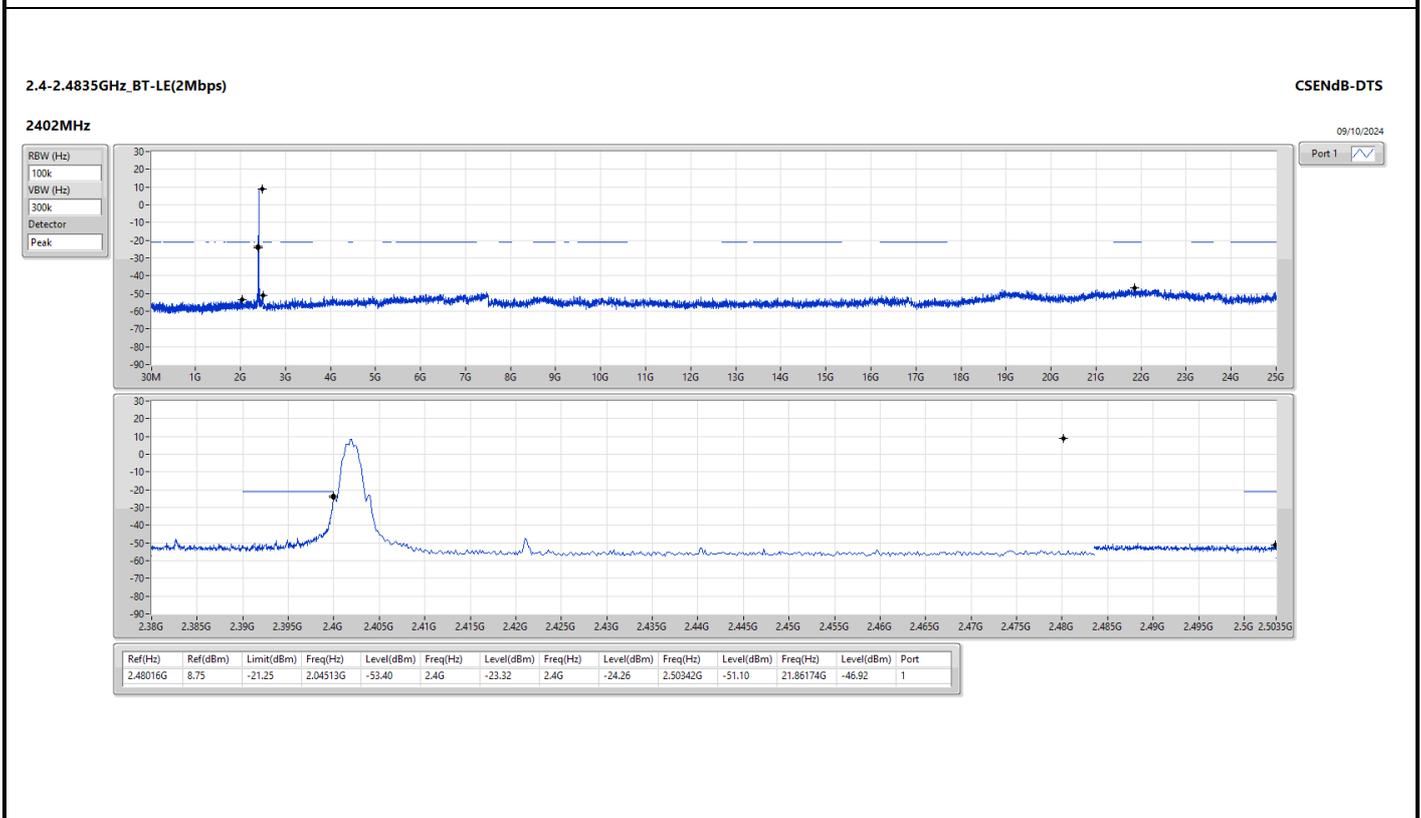
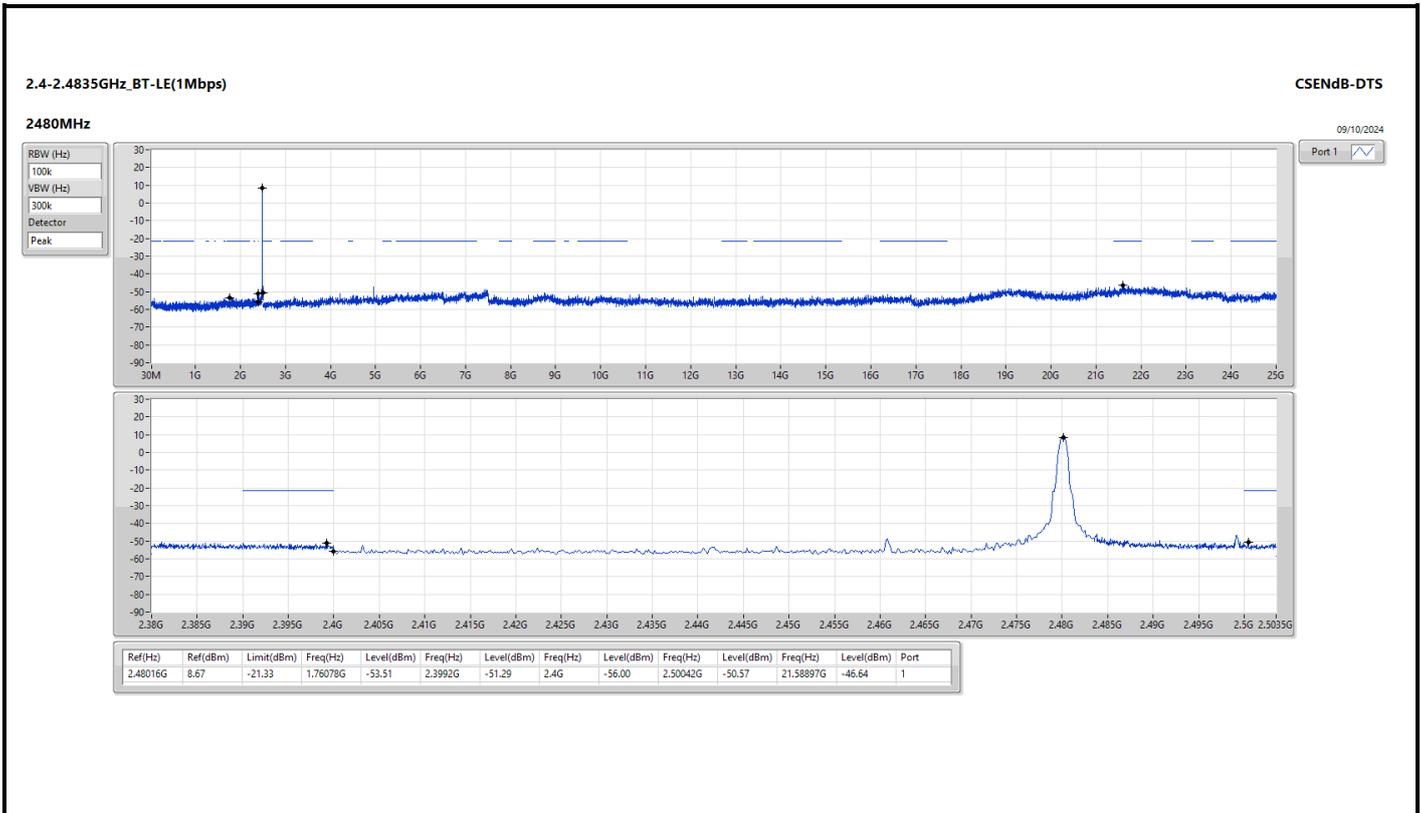
Summary

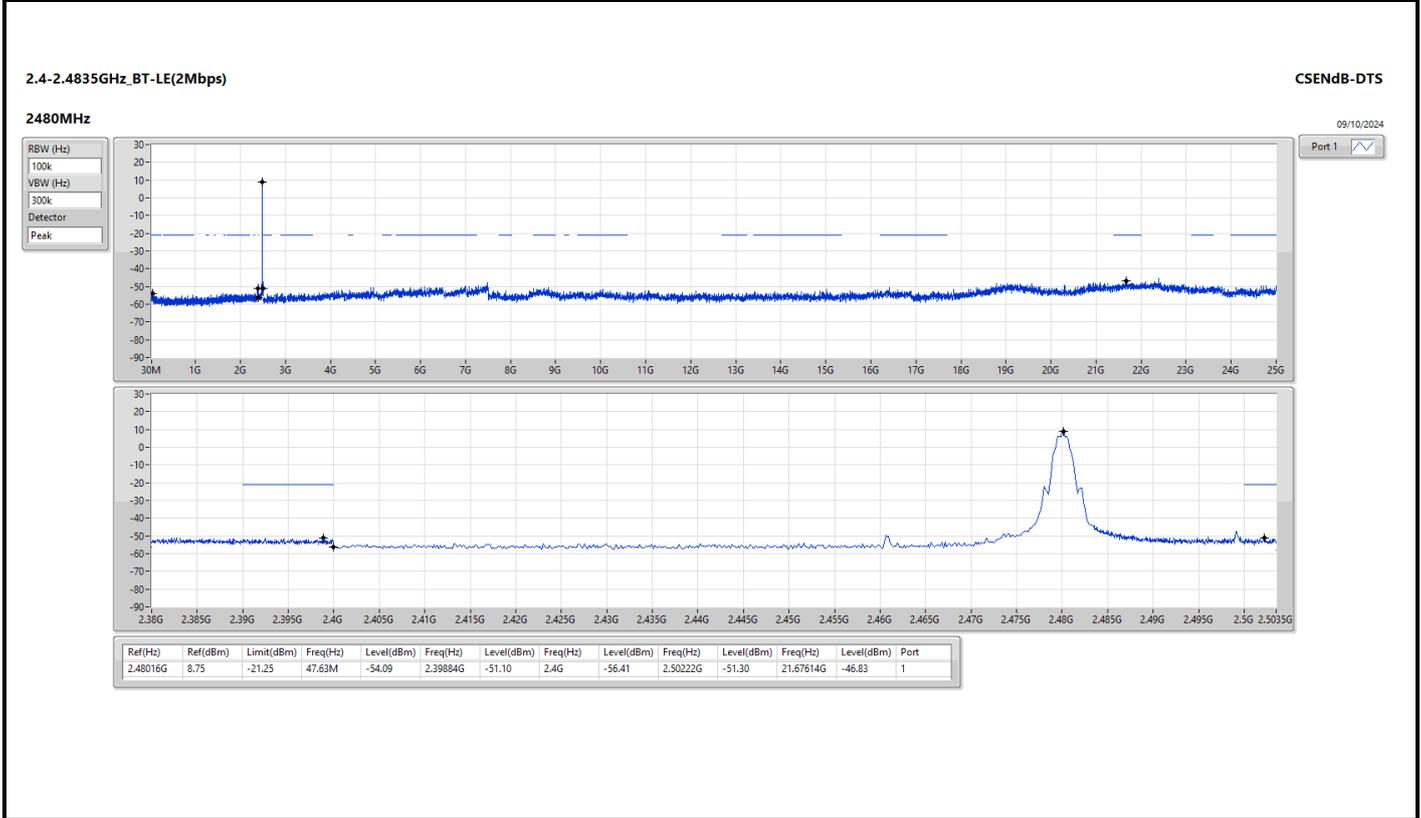
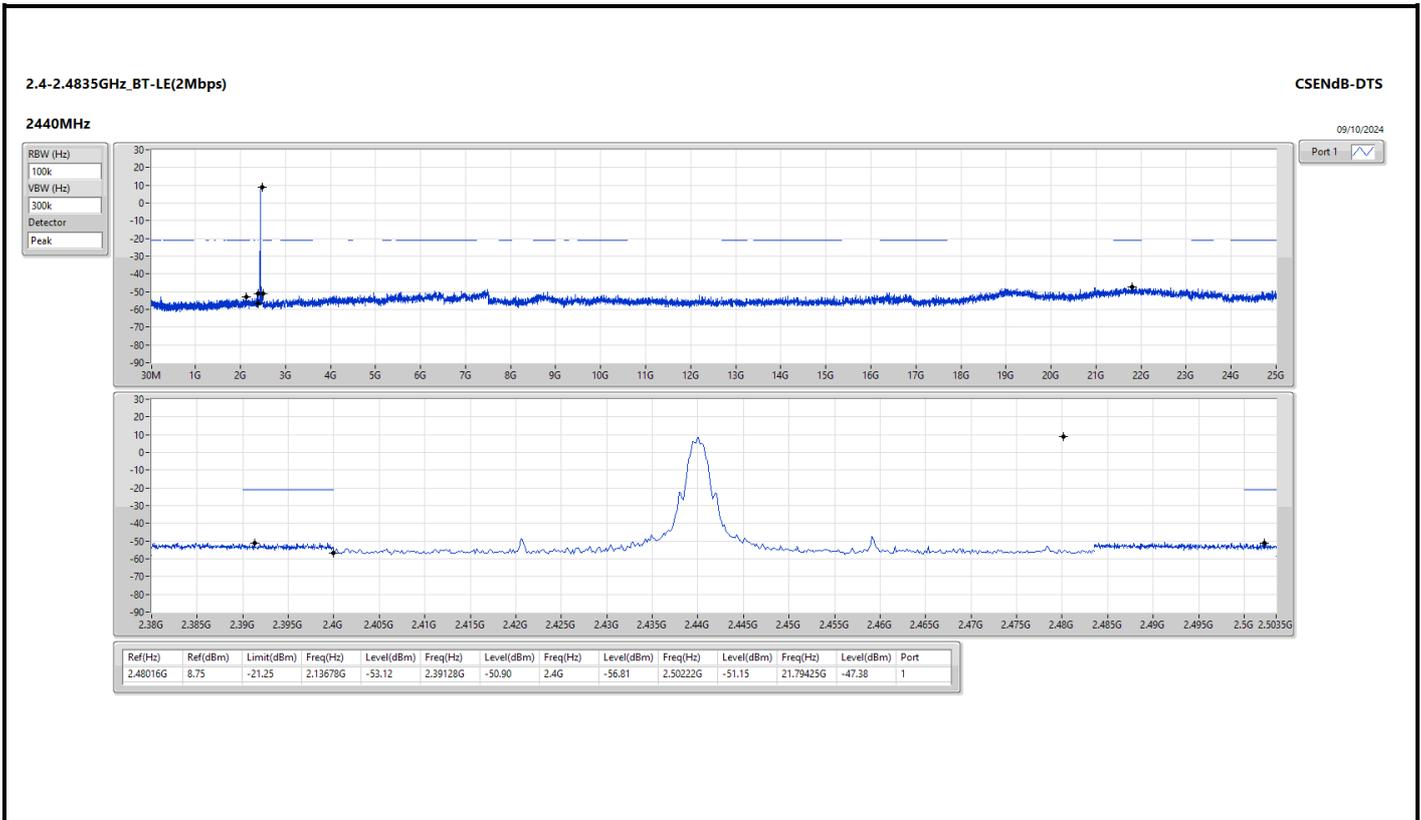
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Port								
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.48016G	8.67	-21.33	1.86183G	-52.56	2.4G	-44.27	2.4G	-43.01	2.50222G	-50.02	21.90954G	-46.55	1
BT-LE(2Mbps)	Pass	2.48016G	8.75	-21.25	2.04513G	-53.40	2.4G	-23.32	2.4G	-24.26	2.50342G	-51.10	21.86174G	-46.92	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Port								
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.48016G	8.67	-21.33	1.86183G	-52.56	2.4G	-44.27	2.4G	-43.01	2.50222G	-50.02	21.90954G	-46.55	1
2440MHz	Pass	2.48016G	8.67	-21.33	2.15088G	-53.93	2.3948G	-49.84	2.4G	-56.55	2.50274G	-50.87	21.83924G	-47.08	1
2480MHz	Pass	2.48016G	8.67	-21.33	1.76078G	-53.51	2.3992G	-51.29	2.4G	-56.00	2.50042G	-50.57	21.58897G	-46.64	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.48016G	8.75	-21.25	2.04513G	-53.40	2.4G	-23.32	2.4G	-24.26	2.50342G	-51.10	21.86174G	-46.92	1
2440MHz	Pass	2.48016G	8.75	-21.25	2.13678G	-53.12	2.39128G	-50.90	2.4G	-56.81	2.50222G	-51.15	21.79425G	-47.38	1
2480MHz	Pass	2.48016G	8.75	-21.25	47.63M	-54.09	2.39884G	-51.10	2.4G	-56.41	2.50222G	-51.30	21.67614G	-46.83	1





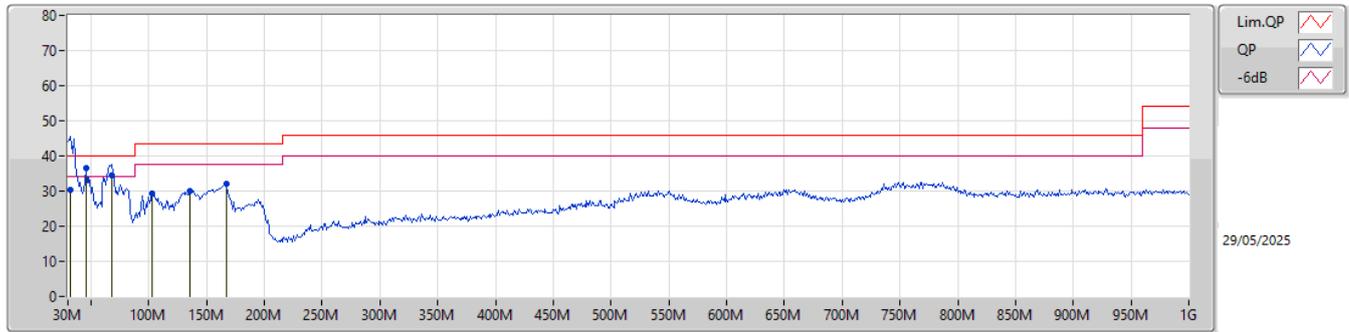




Summary

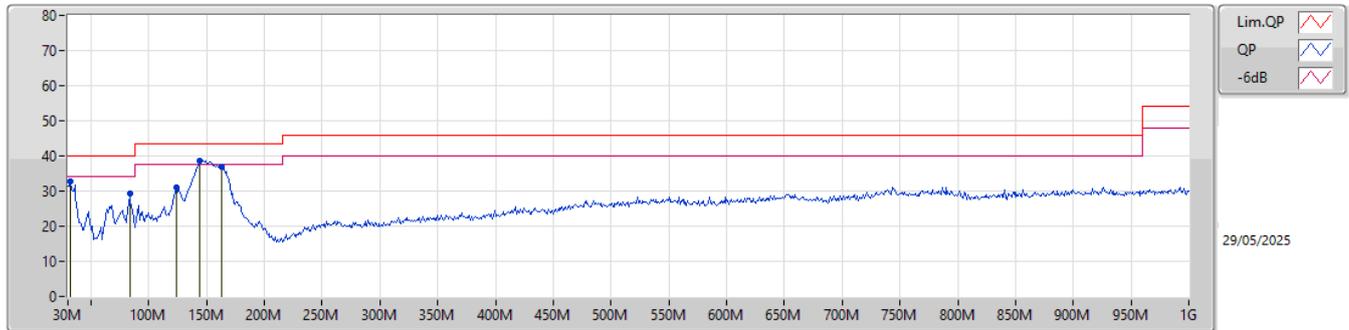
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 2	Pass	PK	45.52M	36.58	40.00	-3.42	Vertical

Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)
QP	31.94M	30.35	40.00	-9.65	-8.49	3	Vertical	344	2.00	-	38.84	23.27	0.55	32.31
PK	45.52M	36.58	40.00	-3.42	-15.51	3	Vertical	357	3.00	"Worst"	52.09	16.07	0.67	32.25
QP	67.83M	34.63	40.00	-5.37	-19.53	3	Vertical	147	2.00	-	54.16	12.11	0.82	32.46
PK	102.75M	29.32	43.50	-14.18	-14.12	3	Vertical	280	1.00	-	43.44	16.97	1.02	32.11
PK	135.73M	30.09	43.50	-13.41	-13.65	3	Vertical	295	1.00	-	43.74	17.49	1.15	32.29
PK	166.77M	31.90	43.50	-11.60	-15.25	3	Vertical	135	1.00	-	47.15	15.67	1.28	32.20

Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)
PK	31.94M	32.71	40.00	-7.29	-8.49	3	Horizontal	236	1.00	-	41.20	23.27	0.55	32.31
PK	83.35M	29.39	40.00	-10.61	-18.06	3	Horizontal	219	1.00	-	47.45	13.35	0.96	32.37
PK	124.09M	30.92	43.50	-12.58	-13.27	3	Horizontal	98	3.00	-	44.19	17.90	1.06	32.23
PK	124.09M	30.92	43.50	-12.58	-13.27	3	Horizontal	98	3.00	-	44.19	17.90	1.06	32.23
PK	144.46M	38.59	43.50	-4.91	-14.29	3	Horizontal	263	2.00	"Worst"	52.88	16.81	1.20	32.30
PK	162.89M	36.95	43.50	-6.55	-15.18	3	Horizontal	273	3.00	-	52.13	15.79	1.27	32.24

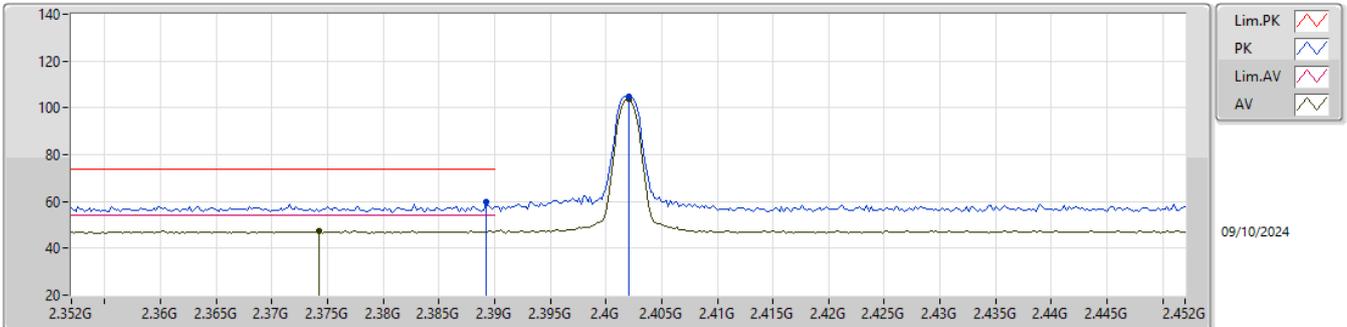


Summary

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-LE(1Mbps)	Pass	AV	2.4835G	52.99	54.00	-1.01	3	Vertical	268	1.90	-

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

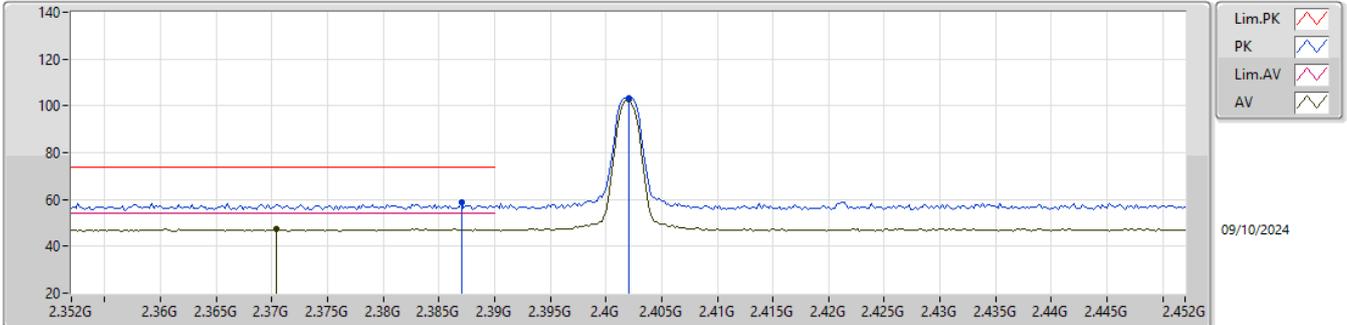


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3892G	59.78	74.00	-14.22	27.23	3	Vertical	250	1.58	-	28.49	4.06	-
AV	2.3742G	47.42	54.00	-6.58	14.97	3	Vertical	250	1.58	-	28.40	4.05	-
PK	2.402G	104.68	Inf	-Inf	72.13	3	Vertical	250	1.58	-	28.48	4.07	-
AV	2.402G	103.72	Inf	-Inf	71.17	3	Vertical	250	1.58	-	28.48	4.07	-

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

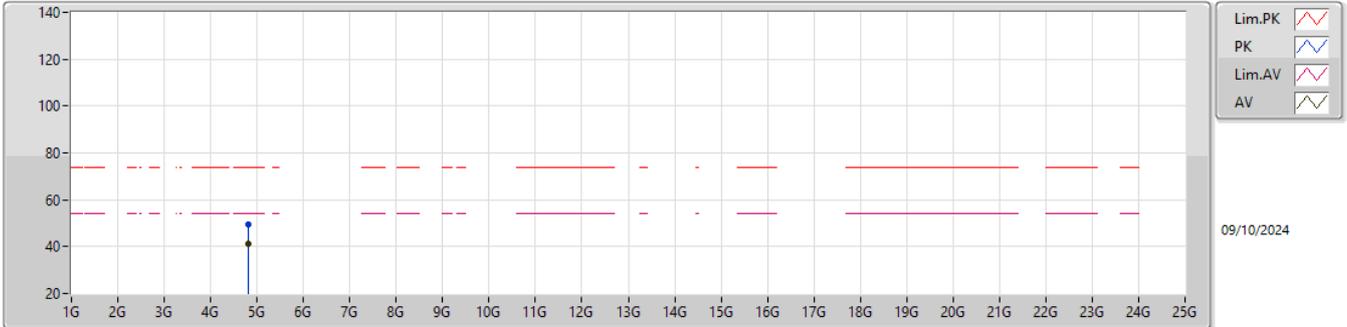


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.387G	58.95	74.00	-15.05	26.42	3	Horizontal	229	1.15	-	28.47	4.06	-
AV	2.3704G	47.48	54.00	-6.52	15.03	3	Horizontal	229	1.15	-	28.40	4.05	-
PK	2.402G	103.53	Inf	-Inf	70.98	3	Horizontal	229	1.15	-	28.48	4.07	-
AV	2.402G	102.58	Inf	-Inf	70.03	3	Horizontal	229	1.15	-	28.48	4.07	-

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

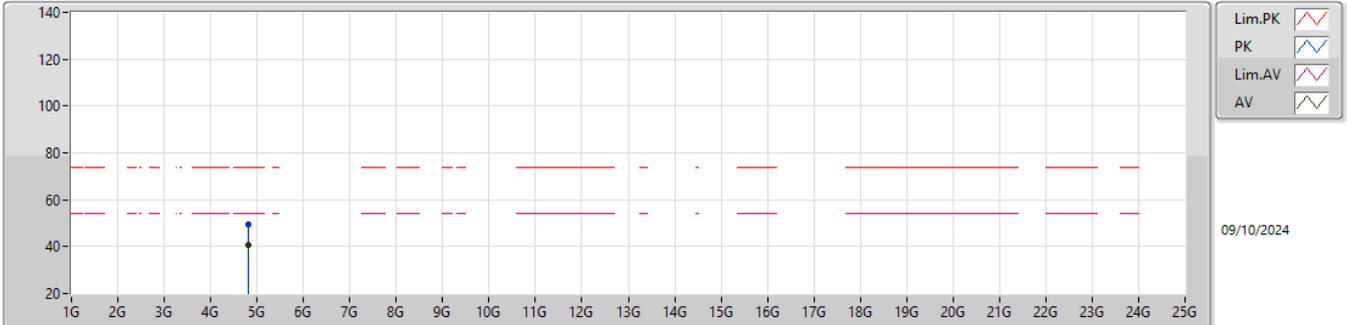


EUT Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80348G	49.69	74.00	-24.31	40.81	3	Vertical	241	2.46	-	33.11	6.77	31.00
AV	4.80368G	41.01	54.00	-12.99	32.13	3	Vertical	241	2.46	-	33.11	6.77	31.00

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

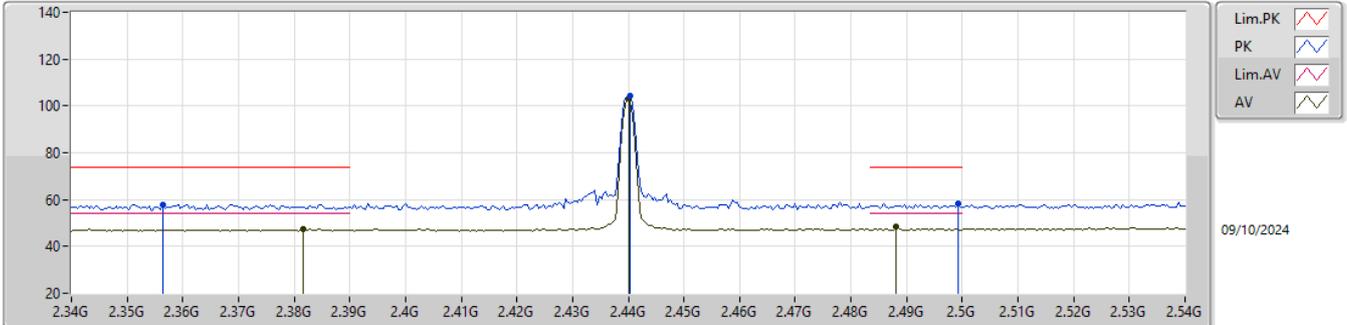


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80404G	49.44	74.00	-24.56	40.56	3	Horizontal	124	1.03	-	33.11	6.77	31.00
AV	4.80376G	40.57	54.00	-13.43	31.69	3	Horizontal	124	1.03	-	33.11	6.77	31.00

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

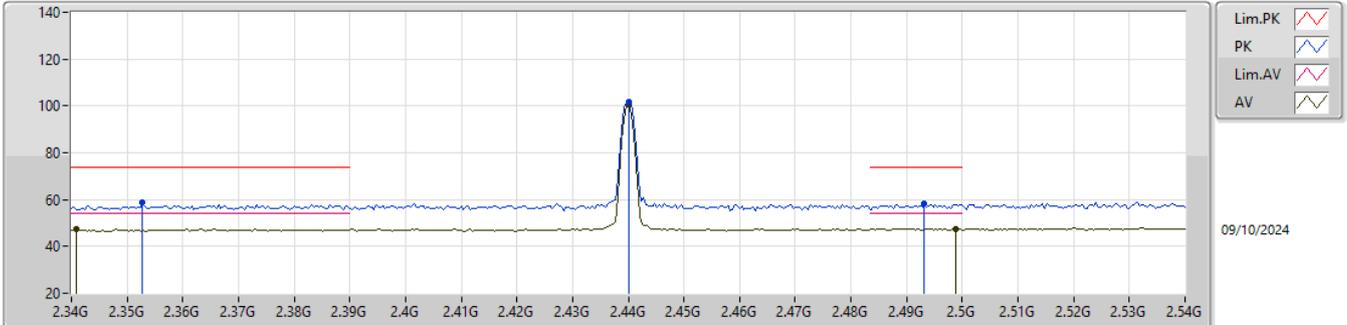


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3564G	57.88	74.00	-16.12	25.48	3	Vertical	258	2.57	-	28.36	4.04	-
AV	2.3816G	47.19	54.00	-6.81	14.71	3	Vertical	258	2.57	-	28.42	4.06	-
PK	2.4404G	104.07	Inf	-Inf	71.47	3	Vertical	258	2.57	-	28.50	4.10	-
AV	2.44G	103.08	Inf	-Inf	70.48	3	Vertical	258	2.57	-	28.50	4.10	-
PK	2.4992G	58.31	74.00	-15.69	25.57	3	Vertical	258	2.57	-	28.60	4.14	-
AV	2.488G	48.21	54.00	-5.79	15.47	3	Vertical	258	2.57	-	28.60	4.14	-

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

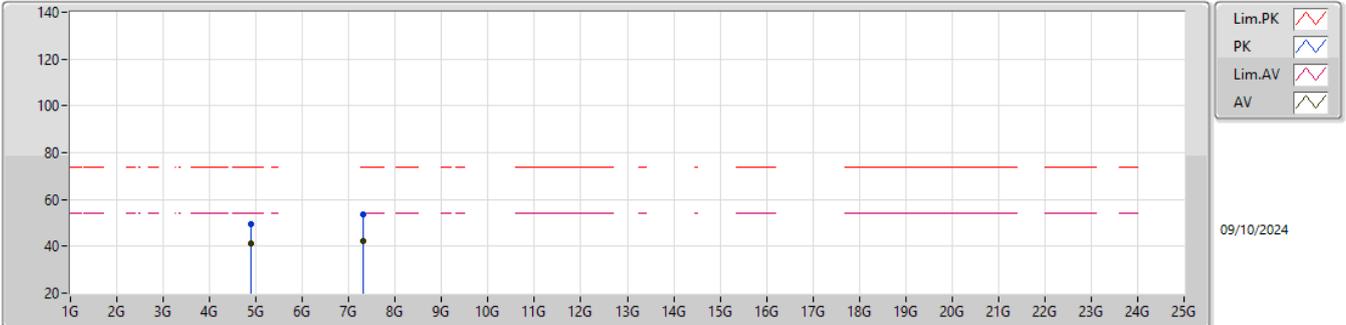


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3528G	58.74	74.00	-15.26	26.37	3	Horizontal	279	1.86	-	28.33	4.04	-
AV	2.3408G	47.30	54.00	-6.70	14.97	3	Horizontal	279	1.86	-	28.30	4.03	-
PK	2.44G	101.59	Inf	-Inf	68.99	3	Horizontal	279	1.86	-	28.50	4.10	-
AV	2.44G	100.52	Inf	-Inf	67.92	3	Horizontal	279	1.86	-	28.50	4.10	-
PK	2.4932G	58.07	74.00	-15.93	25.33	3	Horizontal	279	1.86	-	28.60	4.14	-
AV	2.4988G	47.58	54.00	-6.42	14.84	3	Horizontal	279	1.86	-	28.60	4.14	-

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

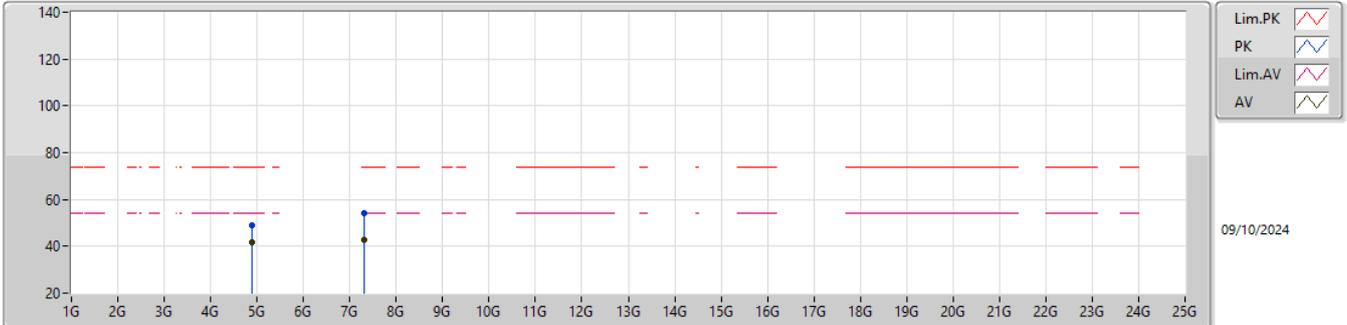


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88048G	49.26	74.00	-24.74	40.19	3	Vertical	210	1.86	-	33.26	6.81	31.00
AV	4.87981G	41.25	54.00	-12.75	32.18	3	Vertical	210	1.86	-	33.26	6.81	31.00
PK	7.319G	53.70	74.00	-20.30	39.28	3	Vertical	303	2.64	-	36.48	9.37	31.43
AV	7.32084G	42.49	54.00	-11.51	28.07	3	Vertical	303	2.64	-	36.48	9.37	31.43

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

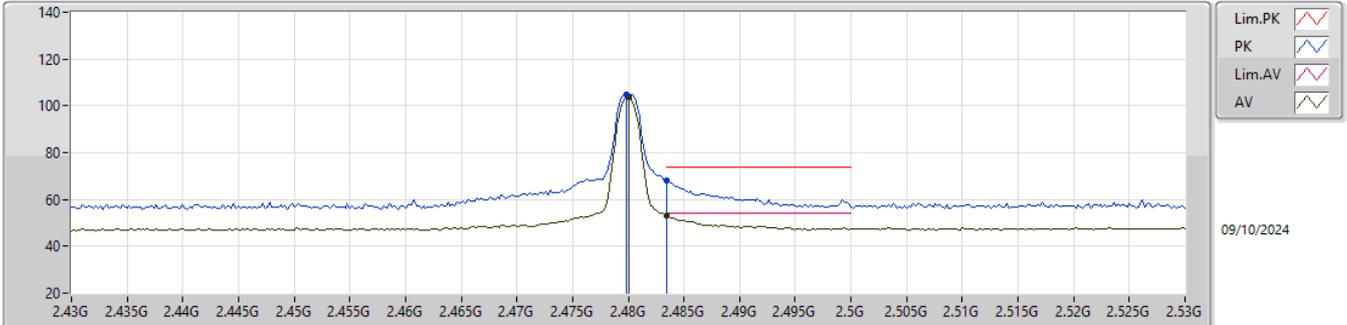


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87992G	49.20	74.00	-24.80	40.13	3	Horizontal	35	1.35	-	33.26	6.81	31.00
AV	4.88022G	41.51	54.00	-12.49	32.44	3	Horizontal	35	1.35	-	33.26	6.81	31.00
PK	7.31941G	54.18	74.00	-19.82	39.76	3	Horizontal	220	1.13	-	36.48	9.37	31.43
AV	7.32038G	42.52	54.00	-11.48	28.10	3	Horizontal	220	1.13	-	36.48	9.37	31.43

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

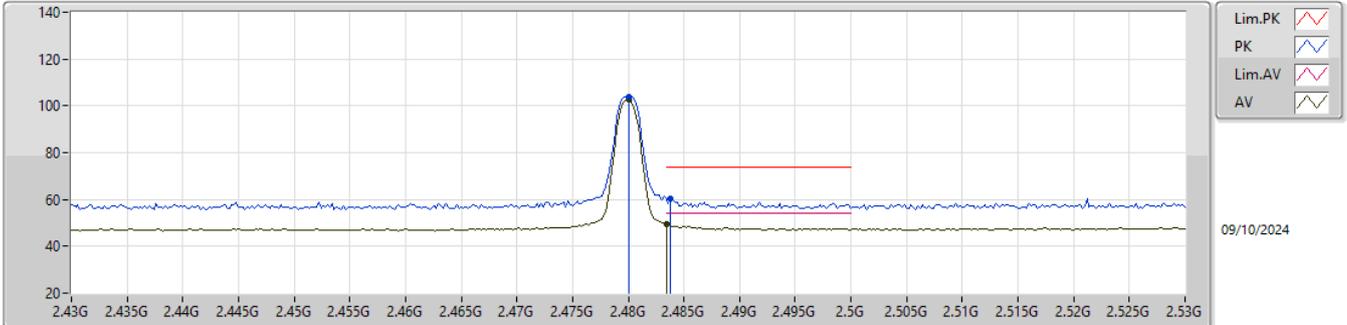


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4798G	104.83	Inf	-Inf	72.10	3	Vertical	268	1.90	-	28.60	4.13	-
AV	2.48G	103.89	Inf	-Inf	71.16	3	Vertical	268	1.90	-	28.60	4.13	-
PK	2.4835G	68.25	74.00	-5.75	35.52	3	Vertical	268	1.90	-	28.60	4.13	-
AV	2.4835G	52.99	54.00	-1.01	20.26	3	Vertical	268	1.90	-	28.60	4.13	-

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

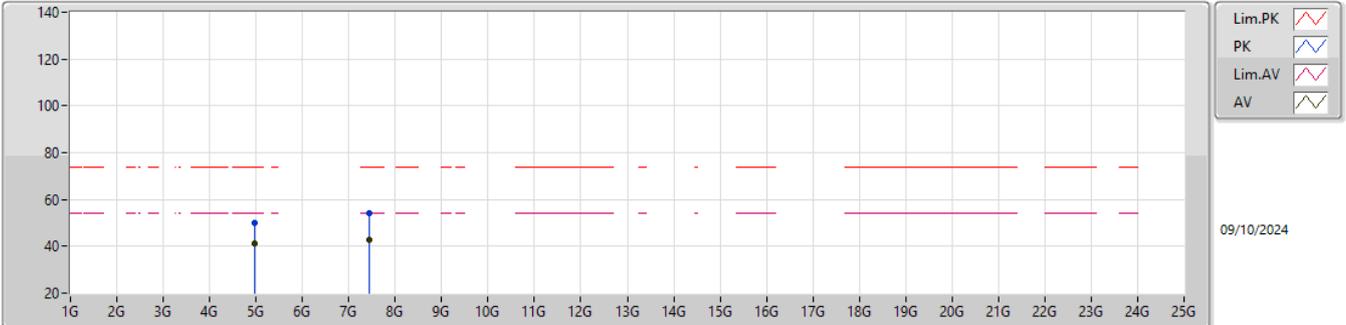


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.48G	103.90	Inf	-Inf	71.17	3	Horizontal	252	1.29	-	28.60	4.13	-
AV	2.48G	102.95	Inf	-Inf	70.22	3	Horizontal	252	1.29	-	28.60	4.13	-
PK	2.4838G	60.60	74.00	-13.40	27.87	3	Horizontal	252	1.29	-	28.60	4.13	-
AV	2.4835G	49.70	54.00	-4.30	16.97	3	Horizontal	252	1.29	-	28.60	4.13	-

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

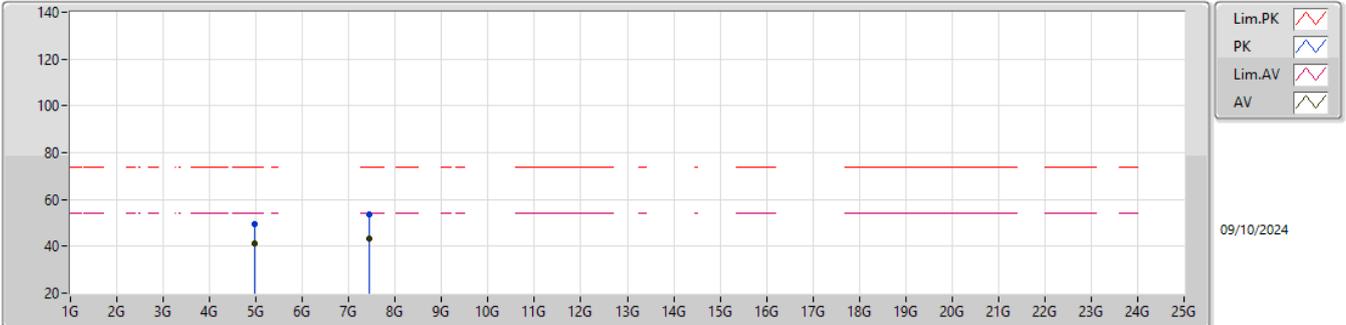


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.95913G	49.95	74.00	-24.05	40.70	3	Vertical	332	1.20	-	33.40	6.86	31.01
AV	4.96052G	41.22	54.00	-12.78	31.97	3	Vertical	332	1.20	-	33.40	6.86	31.01
PK	7.43951G	54.10	74.00	-19.90	39.57	3	Vertical	282	2.53	-	36.60	9.36	31.43
AV	7.43956G	42.85	54.00	-11.15	28.32	3	Vertical	282	2.53	-	36.60	9.36	31.43

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

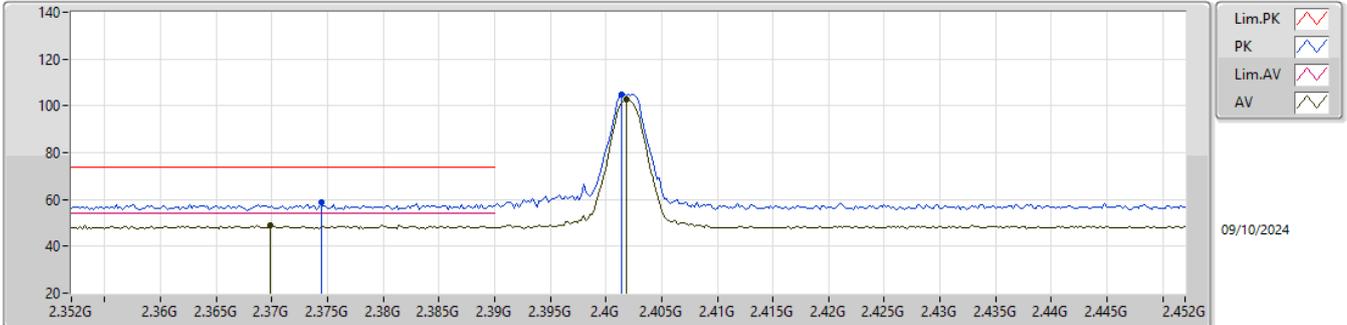


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.96049G	49.61	74.00	-24.39	40.36	3	Horizontal	242	1.70	-	33.40	6.86	31.01
AV	4.95946G	41.45	54.00	-12.55	32.20	3	Horizontal	242	1.70	-	33.40	6.86	31.01
PK	7.43996G	53.69	74.00	-20.31	39.16	3	Horizontal	352	1.72	-	36.60	9.36	31.43
AV	7.43975G	43.08	54.00	-10.92	28.55	3	Horizontal	352	1.72	-	36.60	9.36	31.43

2.4-2.4835GHz_BT-LE(2Mbps)

2402MHz_TX

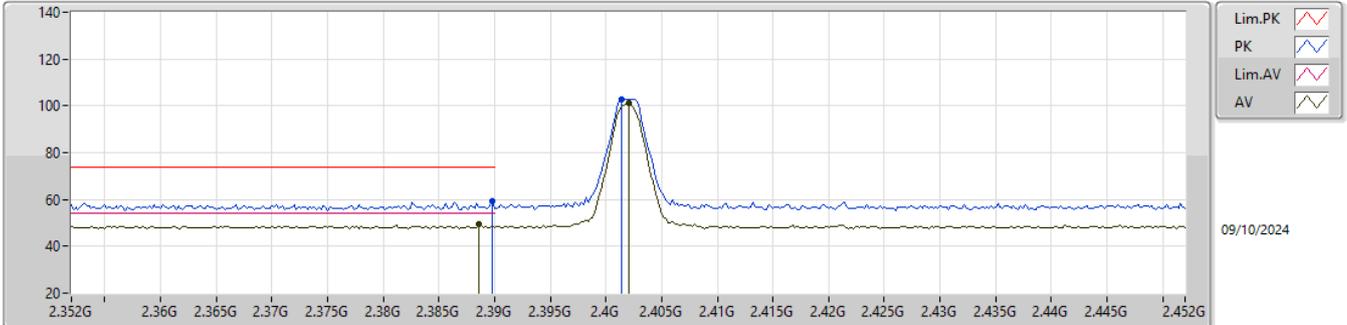


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3744G	58.79	74.00	-15.21	26.34	3	Vertical	267	1.56	-	28.40	4.05	-
AV	2.3698G	49.14	54.00	-4.86	16.69	3	Vertical	267	1.56	-	28.40	4.05	-
PK	2.4014G	104.69	Inf	-Inf	72.13	3	Vertical	267	1.56	-	28.49	4.07	-
AV	2.4018G	102.80	Inf	-Inf	70.25	3	Vertical	267	1.56	-	28.48	4.07	-

2.4-2.4835GHz_BT-LE(2Mbps)

2402MHz_TX

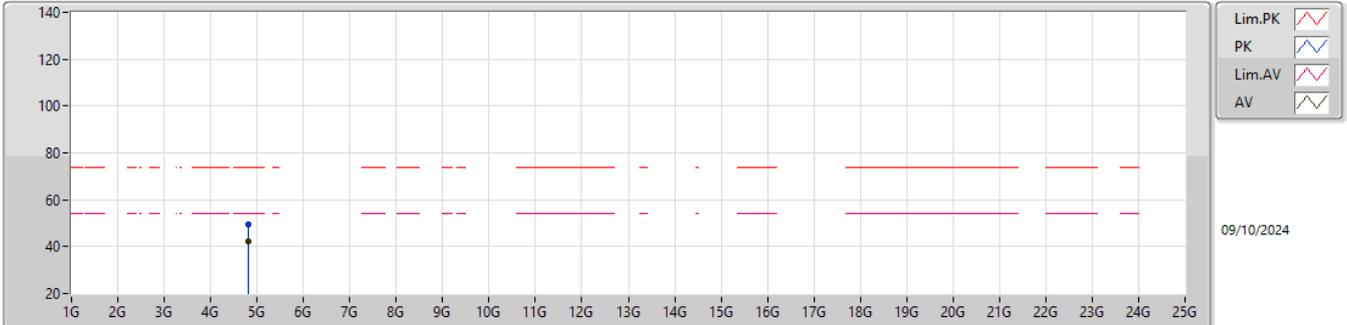


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	59.33	74.00	-14.67	26.77	3	Horizontal	226	1.20	-	28.50	4.06	-
AV	2.3886G	49.54	54.00	-4.46	16.99	3	Horizontal	226	1.20	-	28.49	4.06	-
PK	2.4014G	102.89	Inf	-Inf	70.33	3	Horizontal	226	1.20	-	28.49	4.07	-
AV	2.402G	101.20	Inf	-Inf	68.65	3	Horizontal	226	1.20	-	28.48	4.07	-

2.4-2.4835GHz_BT-LE(2Mbps)

2402MHz_TX

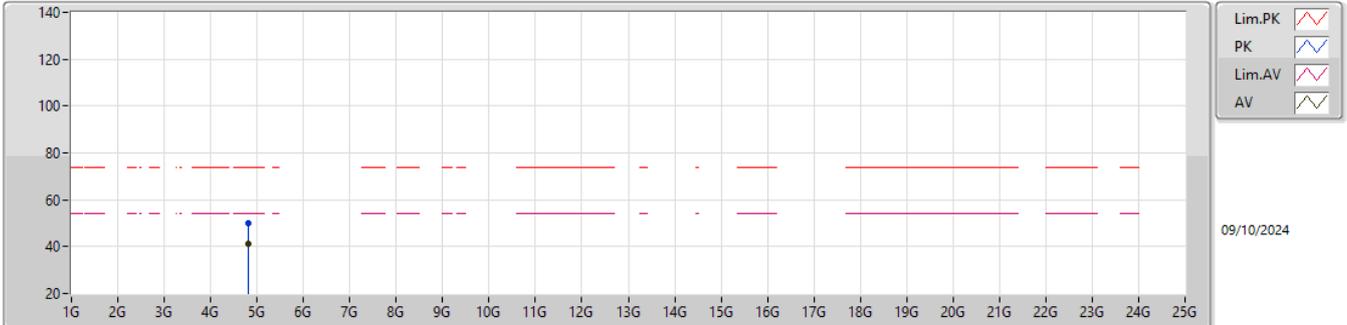


EUT Y_1TX
Setting Default
02-C-G-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA			
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)			
PK	4.80316G	49.44	74.00	-24.56	40.56	3	Vertical	133	2.17	-	33.11	6.77	31.00			
AV	4.80476G	42.41	54.00	-11.59	33.53	3	Vertical	133	2.17	-	33.11	6.77	31.00			

2.4-2.4835GHz_BT-LE(2Mbps)

2402MHz_TX

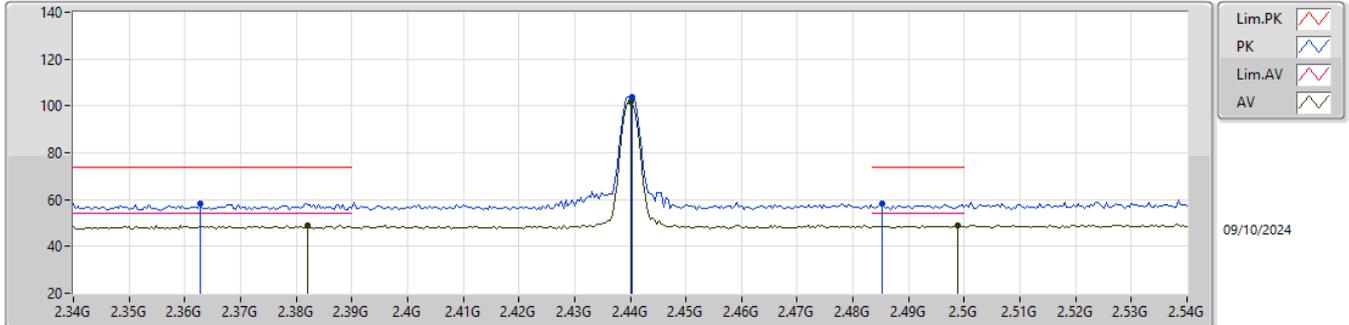


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80402G	49.85	74.00	-24.15	40.97	3	Horizontal	123	1.00	-	33.11	6.77	31.00
AV	4.80382G	41.18	54.00	-12.82	32.30	3	Horizontal	123	1.00	-	33.11	6.77	31.00

2.4-2.4835GHz_BT-LE(2Mbps)

2440MHz_TX

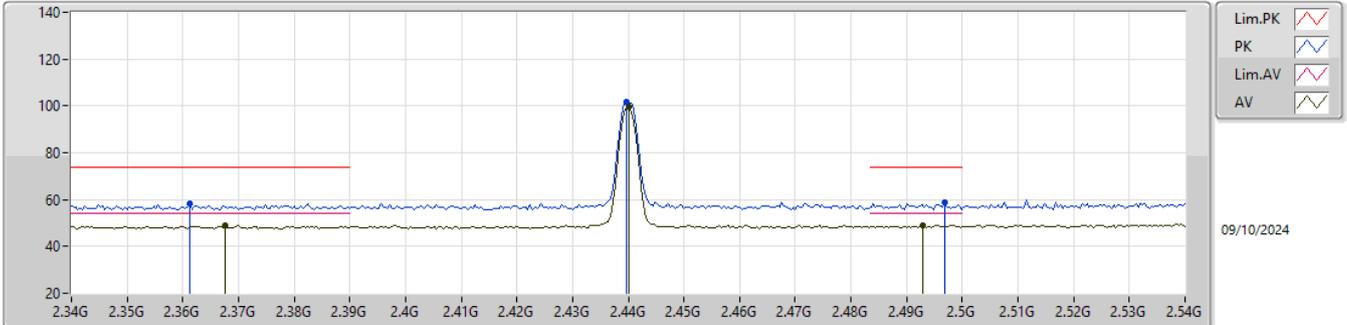


EUTY_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3628G	58.32	74.00	-15.68	25.88	3	Vertical	257	2.56	-	28.40	4.04	-
AV	2.382G	49.14	54.00	-4.86	16.66	3	Vertical	257	2.56	-	28.42	4.06	-
PK	2.4404G	103.88	Inf	-Inf	71.28	3	Vertical	257	2.56	-	28.50	4.10	-
AV	2.44G	101.83	Inf	-Inf	69.23	3	Vertical	257	2.56	-	28.50	4.10	-
PK	2.4852G	58.16	74.00	-15.84	25.43	3	Vertical	257	2.56	-	28.60	4.13	-
AV	2.4988G	48.96	54.00	-5.04	16.22	3	Vertical	257	2.56	-	28.60	4.14	-

2.4-2.4835GHz_BT-LE(2Mbps)

2440MHz_TX

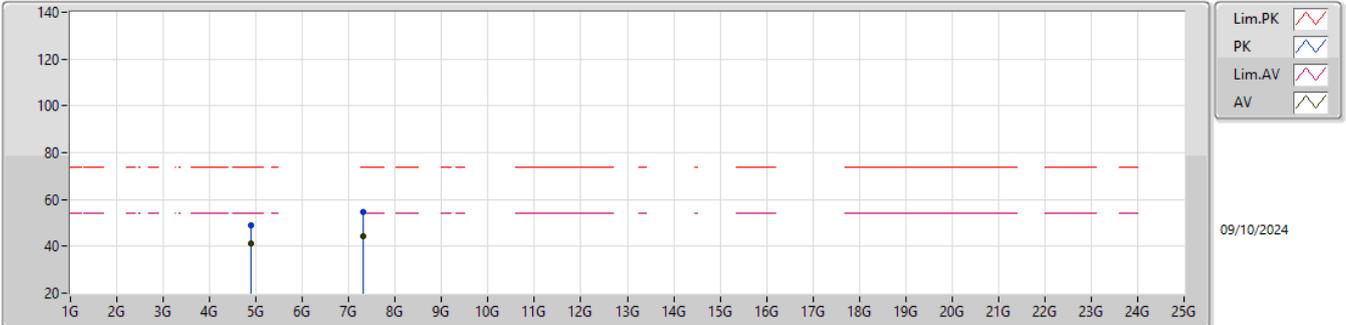


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3612G	58.51	74.00	-15.49	26.07	3	Horizontal	279	1.86	-	28.40	4.04	-
AV	2.3676G	49.06	54.00	-4.94	16.61	3	Horizontal	279	1.86	-	28.40	4.05	-
PK	2.4396G	101.49	Inf	-Inf	68.89	3	Horizontal	279	1.86	-	28.50	4.10	-
AV	2.44G	99.52	Inf	-Inf	66.92	3	Horizontal	279	1.86	-	28.50	4.10	-
PK	2.4968G	58.63	74.00	-15.37	25.89	3	Horizontal	279	1.86	-	28.60	4.14	-
AV	2.4928G	48.92	54.00	-5.08	16.18	3	Horizontal	279	1.86	-	28.60	4.14	-

2.4-2.4835GHz_BT-LE(2Mbps)

2440MHz_TX

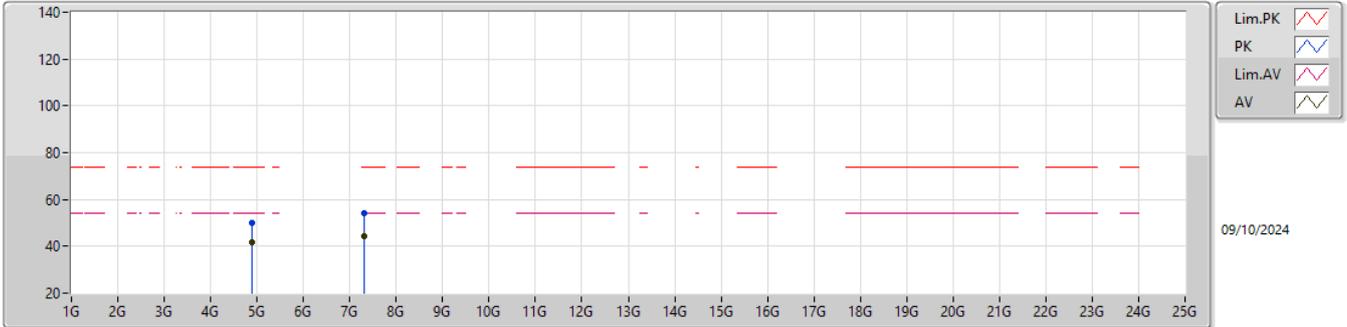


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88088G	49.16	74.00	-24.84	40.09	3	Vertical	216	1.67	-	33.26	6.81	31.00
AV	4.879G	41.16	54.00	-12.84	32.09	3	Vertical	216	1.67	-	33.26	6.81	31.00
PK	7.3188G	54.54	74.00	-19.46	40.12	3	Vertical	273	2.63	-	36.48	9.37	31.43
AV	7.31528G	44.24	54.00	-9.76	29.84	3	Vertical	273	2.63	-	36.46	9.37	31.43

2.4-2.4835GHz_BT-LE(2Mbps)

2440MHz_TX

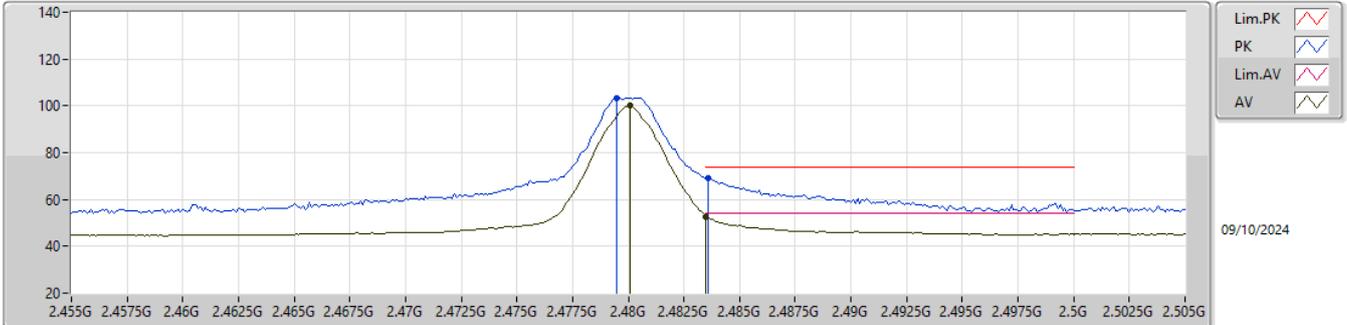


EUT_Y_1TX
Setting Default
02-C-G-2

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87886G	49.95	74.00	-24.05	40.88	3	Horizontal	1	2.01	-	33.26	6.81	31.00
AV	4.87848G	41.90	54.00	-12.10	32.83	3	Horizontal	1	2.01	-	33.26	6.81	31.00
PK	7.32042G	54.21	74.00	-19.79	39.79	3	Horizontal	331	1.64	-	36.48	9.37	31.43
AV	7.32056G	44.26	54.00	-9.74	29.84	3	Horizontal	331	1.64	-	36.48	9.37	31.43

2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX

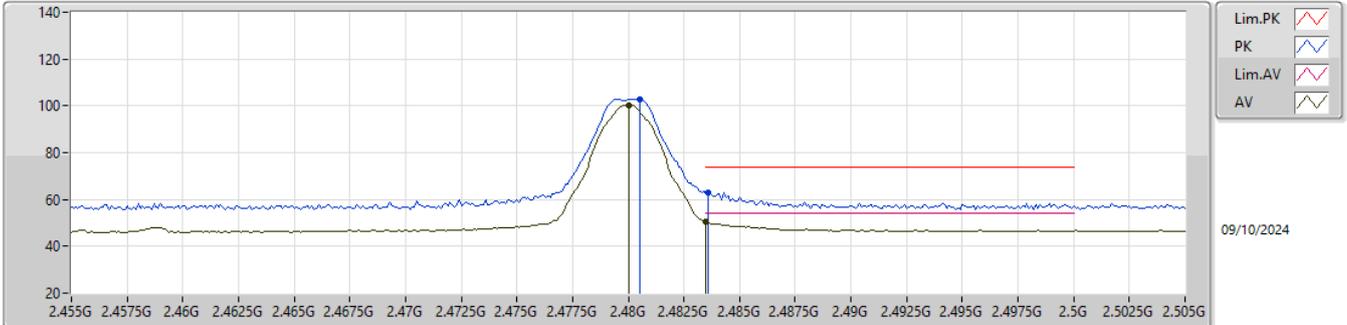


EUT_Y_1TX
Setting Default
02-E-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4795G	103.47	Inf	-Inf	70.75	3	Vertical	273	2.32	-	28.59	4.13	-
AV	2.4801G	99.96	Inf	-Inf	67.23	3	Vertical	273	2.32	-	28.60	4.13	-
PK	2.4836G	69.01	74.00	-4.99	36.28	3	Vertical	273	2.32	-	28.60	4.13	-
AV	2.4835G	52.71	54.00	-1.29	19.98	3	Vertical	273	2.32	-	28.60	4.13	-

2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX

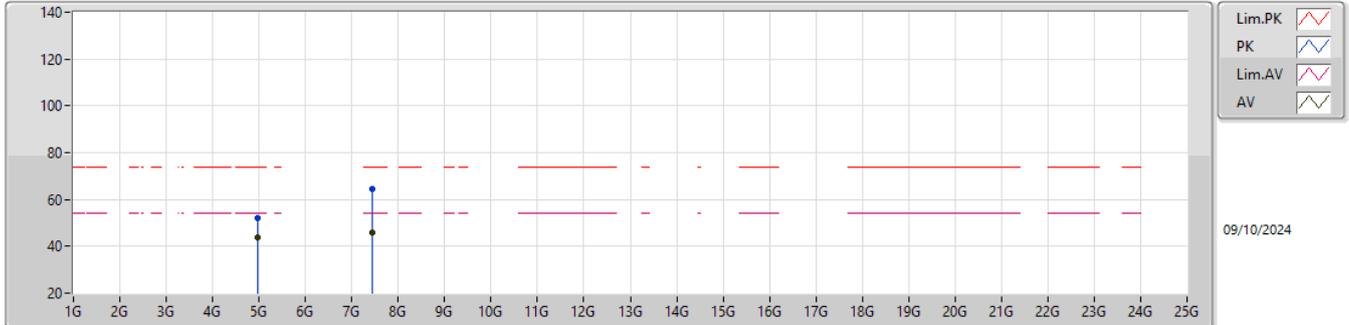


EUT_Y_1TX
Setting Default
02-E-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4805G	102.97	Inf	-Inf	70.24	3	Horizontal	146	1.47	-	28.60	4.13	-
AV	2.48G	100.42	Inf	-Inf	67.69	3	Horizontal	146	1.47	-	28.60	4.13	-
PK	2.4836G	63.02	74.00	-10.98	30.29	3	Horizontal	146	1.47	-	28.60	4.13	-
AV	2.4835G	50.31	54.00	-3.69	17.58	3	Horizontal	146	1.47	-	28.60	4.13	-

2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX

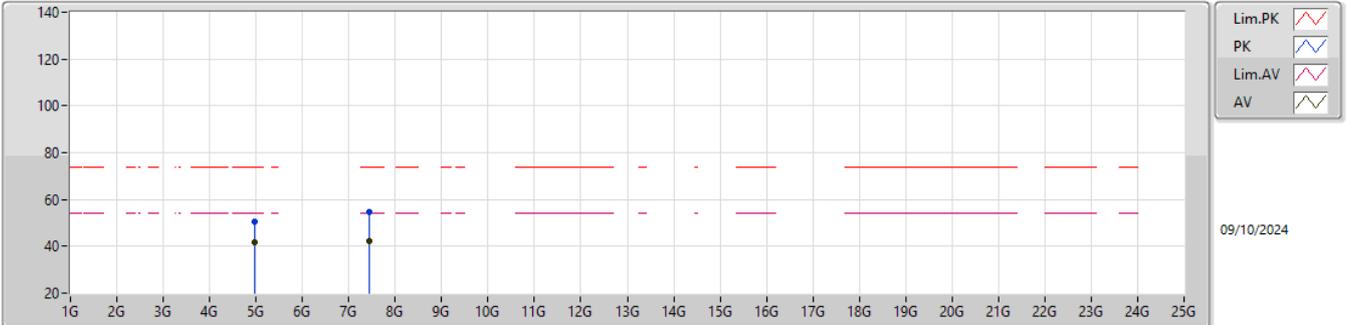


EUT_Y_1TX
Setting Default
02-E-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.96008G	52.19	74.00	-21.81	42.94	3	Vertical	176	2.40	-	33.40	6.86	31.01
AV	4.95996G	43.98	54.00	-10.02	34.73	3	Vertical	176	2.40	-	33.40	6.86	31.01
PK	7.44992G	64.27	74.00	-9.73	49.75	3	Vertical	185	1.77	-	36.60	9.35	31.43
AV	7.44708G	45.77	54.00	-8.23	31.25	3	Vertical	185	1.77	-	36.60	9.35	31.43

2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX



EUT_Y_1TX
Setting Default
02-E-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.96064G	50.42	74.00	-23.58	41.17	3	Horizontal	138	1.96	-	33.40	6.86	31.01
AV	4.96028G	41.65	54.00	-12.35	32.40	3	Horizontal	138	1.96	-	33.40	6.86	31.01
PK	7.4366G	54.51	74.00	-19.49	39.98	3	Horizontal	305	1.14	-	36.60	9.36	31.43
AV	7.44388G	42.43	54.00	-11.57	27.91	3	Horizontal	305	1.14	-	36.60	9.35	31.43

1. Photographs of Conducted Emissions Test Configuration

Test mode: Mode 2

FRONT VIEW



REAR VIEW



2. Photographs of Radiated Emissions Test Configuration

Test Configuration: 30MHz~1GHz / Test mode: Mode 2

FRONT VIEW

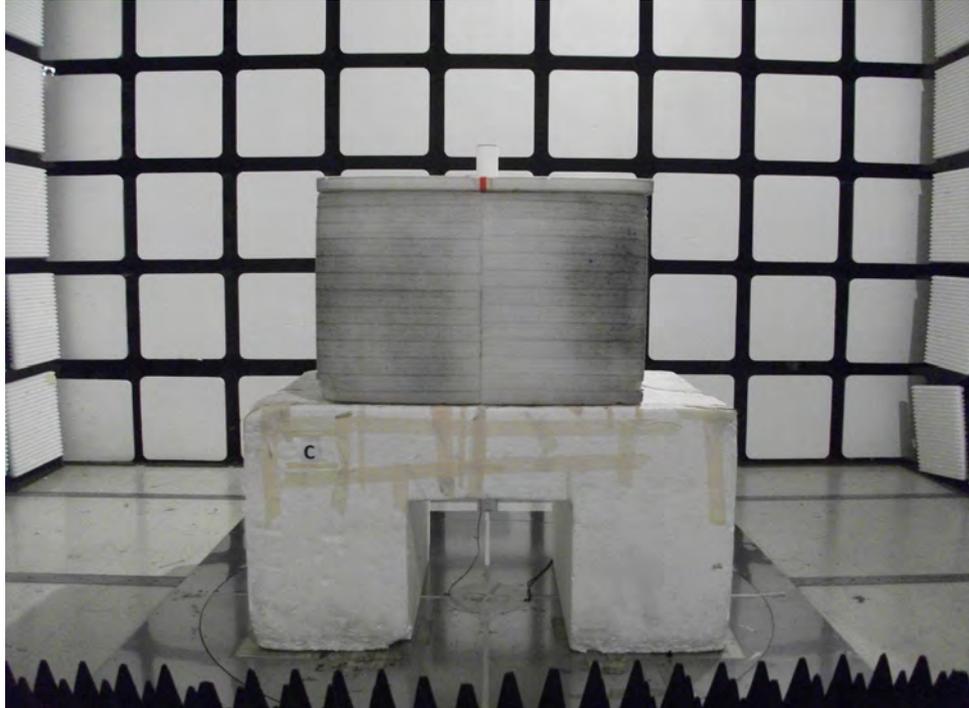


REAR VIEW



Test Configuration: Above 1GHz

FRONT VIEW



REAR VIEW



————THE END————