GARMIN
Garmin International, Inc.
1200 East 151st Street
Olathe, Kansas 66062
P: 913-397-8200 F: 913-397-8282

13-Feb-26

Manufacturer: Garmin International, Inc.
Address: 1200 E. 151st St.
Olathe, KS 66062-3426
U.S.A.
Chile Representative: Matías Rodríguez Correa
La Pastora 170, Las Condes Santiago
Province CP 7550083, Chile
Contact Email: matias.rodriguez@garmin.com

Subject: SUBTEL, Chile (Resolution 737) Certification Compliance 2026

Commercial Name: Index Sleep Monitor

	Información (Information)
Tipo de equipo (Equipment type)	Portable Digital Transceiver
Marca (Brand)	Garmin GARMIN.
Modelo (Model)	A04990
Tecnología o modulación (Technology or modulation)	GFSK for BLE
Frecuencias (Frequencies)	2402-2480 MHz
Ganancia de antena (dBi) (Antenna gain (dBi)	BLE -1.64 dBi
P.i.r.e. (E.I R P.)	-3.13 dBm, 0.48 mW
Módulos (Modules)	BLE

Declaration of Conformity Statement: the equipment previously identified complies with the provisions established in the Technical Standard for Small Range Equipment, approved by Exempt Resolution No.1,985 of 2017, of the Undersecretary of Telecommunications.

Declaración de conformidad: El equipo anteriormente identificado cumple con las disposiciones establecidas en la Norma Técnica para Equipos de Corto Alcance, aprobada mediante la Resolución Exenta N° 1.985 de 2017, de la Subsecretaría de Telecomunicaciones.

FCC Test Report

FCC ID	:	**IPH-04990**
Equipment	:	**Fitness Product**
Model No.	:	**A04990**
Brand Name	:	**GARMIN**
Applicant	:	**Garmin International, Inc.**
Address	:	**1200 E. 151st Street Olathe, KS 66062 United States**
Standard	:	**47 CFR FCC Part 15.247**
Received Date	:	**Oct. 17, 2024**
Tested Date	:	**Nov. 05 ~ Nov. 21, 2024**

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: **Approved by:**

Along Chen / Assistant Manager **Gary Chang / Manager**

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FR4O1701	Rev. 01	Initial issue	Nov. 28, 2024
FR4O1701	Rev. 02	Corrected battery information.	Dec. 05, 2024

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	[dBuV]: 0.486MHz 30.43 (Margin -15.80dB) - AV	Pass
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 7.32GHz 52.44 (Margin -1.56dB) - AV	Pass
15.247(b)(3)	Conducted Output Power	Power [dBm]: -1.40	Pass
15.247(a)(2)	6dB Bandwidth	Meet the requirement of limit	Pass
15.247(e)	Power Spectral Density	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	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:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information				
Frequency Range (MHz)	**Bluetooth Mode**	**Ch. Freq. (MHz)**	**Channel Number**	**Data Rate**
2400-2483.5	LE	2402-2480	40	1 Mbps
		2404-2478	37	2 Mbps
Note 1: Bluetooth LE (Low energy) uses GFSK modulation.				

1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Connector	Gain (dBi)
1	Garmin	105-04990-00	Inverted F	No	-1.64

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	5Vdc from host 3.87Vdc from battery

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	Battery	Brand: Garmin Model: 361-00167-31 Rating: 3.87Vdc, 90mAh
2	USB cable	Brand: GARMIN Model: 320-01602-00 0.56m shielded without core.

1.1.5 Channel List

Frequency band (MHz)				2402-2480 / BT-LE(1Mbps)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
37	2402	9	2422	18	2442	28	2462
0	2404	10	2424	19	2444	29	2464
1	2406	38	2426	20	2446	30	2466
2	2408	11	2428	21	2448	31	2468
3	2410	12	2430	22	2450	32	2470
4	2412	13	2432	23	2452	33	2472
5	2414	14	2434	24	2454	34	2474
6	2416	15	2436	25	2456	35	2476
7	2418	16	2438	26	2458	36	2478
8	2420	17	2440	27	2460	39	2480

Frequency band (MHz)				2404-2478 / BT-LE(2Mbps)			
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2404	10	2424	20	2446	30	2466
1	2406	11	2428	21	2448	31	2468
2	2408	12	2430	22	2450	32	2470
3	2410	13	2432	23	2452	33	2472
4	2412	14	2434	24	2454	34	2474
5	2414	15	2436	25	2456	35	2476
6	2416	16	2438	26	2458	36	2478
7	2418	17	2440	27	2460	--	--
8	2420	18	2442	28	2462	--	--
9	2422	19	2444	29	2464	--	--

1.1.6 Test Tool and Duty Cycle

Test Tool	GarminUSBMonitor, Rev 3.0	
Modulation Mode	**Duty Cycle (%)**	**Duty Factor (dB)**
BT-LE(1Mbps)	85.61%	0.67
BT-LE(2Mbps)	57.76%	2.38

1.1.7 Power Index of Test Tool

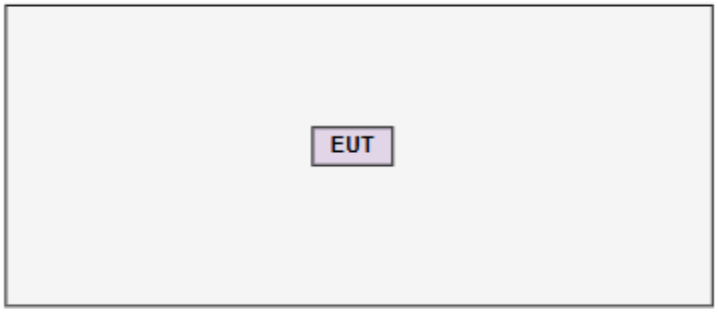
Modulation Mode	Test Frequency (MHz)		
	2402	**2440**	**2480**
BT-LE(1Mbps)	0dBm	0dBm	0dBm

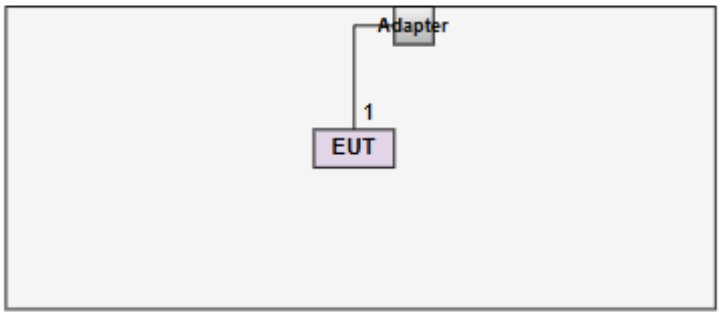
Modulation Mode	Test Frequency (MHz)		
	2404	**2440**	**2478**
BT-LE(2Mbps)	0dBm	0dBm	0dBm

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Adapter	Samsung	TA-800	---	---

1.3 Test Setup Chart

Test Setup Diagram (Battery Mode)


Test Setup Diagram (Charging Mode)	
	
No.	**Signal cable / Length (m)**
1	USB, 0.56m shielded.

1.4 Test Equipment List and Calibration Data

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Nov. 20 ~ Nov. 21, 2024				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 05, 2024	Mar. 04, 2025
Spectrum Analyzer	R&S	FSV40	101498	Nov. 12, 2024	Nov. 11, 2025
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 05, 2024	Nov. 04, 2025
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Aug. 09, 2024	Aug. 08, 2025
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Nov. 27, 2023	Nov. 26, 2024
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Dec. 28, 2023	Dec. 27, 2024
Preamplifier	EMC	EMC02325	980225	Jun. 17, 2024	Jun. 16, 2025
Preamplifier	EMC	EMC118A45SE	980898	Jul. 05, 2024	Jul. 04, 2025
Preamplifier	EMC	EMC184045SE	980903	Jul. 30, 2024	Jul. 29, 2025
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 02, 2024	Oct. 01, 2025
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 02, 2024	Oct. 01, 2025
LF cable 11M	EMC	EMCCFD400-NW-NW-11000	200801	Oct. 02, 2024	Oct. 01, 2025
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 02, 2024	Oct. 01, 2025
RF Cable	EMC	EMC104-35M-35M-8000	210920	Oct. 02, 2024	Oct. 01, 2025
RF Cable	EMC	EMC104-35M-35M-3000	210922	Oct. 02, 2024	Oct. 01, 2025
Attenuator	Pasternack	PE7005-10	10-1	Oct. 02, 2024	Oct. 01, 2025
HIGHPASS FILTER 3.1-18G	WHK	WHK3.1/18G-10SS	39	Oct. 02, 2024	Oct. 01, 2025
Measurement Software	Sporton	SENSE-15247_FS	V5.11	NA	NA
Measurement Software	Sporton	SENSE-EMI	V5.11	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Nov. 19, 2024				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101910	Apr. 18, 2024	Apr. 17, 2025
Power Meter	Anritsu	ML2495A	1241002	Nov. 21, 2023	Nov. 20, 2024
Power Sensor	Anritsu	MA2411B	1207366	Nov. 21, 2023	Nov. 20, 2024
Attenuator	Pasternack	PE7005-10	10-2	Oct. 04, 2024	Oct. 03, 2025
Measurement Software	Sporton	SENSE-15247_FS	V5.11	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Nov. 05, 2024				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101658	Feb. 23, 2024	Feb. 22, 2025
LISN	R&S	ENV216	101579	May 09, 2024	May 08, 2025
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127667	Jan. 10, 2024	Jan. 09, 2025
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 07, 2024	Oct. 08, 2025
50 ohm terminal (Support Unit)	NA	50	01	Jun. 19, 2024	Jun. 18, 2025
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

47 CFR FCC Part 15.247
ANSI C63.10-2013

1.6 Reference Guidance

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

1.7 Deviation from Test Standard and Measurement Procedure

None

1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Uncertainty	
Parameters	**Uncertainty**
Bandwidth	±34.130 Hz
Conducted power	±0.808 dB
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Unwanted Emission ≤ 1GHz	±3.96 dB
Unwanted Emission > 1GHz	±4.51 dB

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	CO01-WS, 03CH01-WS, TH01-WS
Address of Test Site	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

Test item	Mode	Test Frequency (MHz)	Data Rate	Test Configuration
AC Power Line Conducted Emissions	Charging	---	---	2
Unwanted Emissions ≤ 1GHz	BT LE	2402	1Mbps	1
	Charging	---	---	2
Unwanted Emissions > 1GHz	BT LE	2402 / 2440 / 2480 2404 / 2440 / 2478	1Mbps 2Mbps	1
Conducted Output Power 6dB bandwidth Power spectral density	BT LE	2402 / 2440 / 2480 2404 / 2440 / 2478	1Mbps 2Mbps	1

NOTE:
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **X-plane** result was found as the worst case and was shown in this report.
2. The test configurations are listed as follows:
   1) The test configuration 1: Battery mode
   2) The test configuration 2: Charging mode

3 Transmitter Test Results

3.1 6dB and Occupied Bandwidth

3.1.1 Limit of 6dB Bandwidth

The minimum 6dB bandwidth shall be at least 500 kHz.

3.1.2 Test Procedures

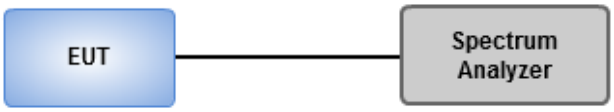
6dB Bandwidth

1. Set resolution bandwidth (RBW) = 100 kHz, Video bandwidth = 300 kHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6dB relative to the maximum level measured in the fundamental emission.

Occupied Bandwidth

1. Set resolution bandwidth (RBW) = 1% ~ 5 % of OBW, Video bandwidth = 3 x RBW
2. Detector = Sample, Trace mode = max hold.
3 Sweep = auto couple, Allow the trace to stabilize.
4. Use the OBW measurement function of spectrum analyzer to measure the occupied bandwidth.

3.1.3 Test Setup



3.1.4 Test Results

Ambient Condition	22°C / 67%	**Tested By**	Sean Yu

Refer to Appendix A.

3.2 Conducted Output Power

3.2.1 Limit of Conducted Output Power

Conducted power shall not exceed 1Watt.

Antenna gain <= 6dBi, no any corresponding reduction is in output power limit.

3.2.2 Test Procedures

A broadband RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

3.2.3 Test Setup

3.2.4 Test Results

Ambient Condition	22°C / 67%	**Tested By**	Sean Yu

Refer to Appendix B.

3.3 Power Spectral Density

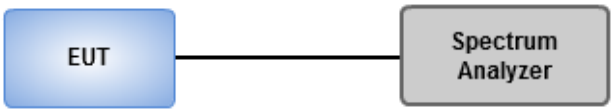
3.3.1 Limit of Power Spectral Density

Power spectral density shall not be greater than 8 dBm in any 3 kHz band.

3.3.2 Test Procedures

1. Set the RBW = 3 kHz, VBW = 10 kHz.
2. Detector = Peak, Sweep time = auto couple.
3. Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

3.3.3 Test Setup



3.3.4 Test Results

Ambient Condition	22°C / 67%	Tested By	Sean Yu

Refer to Appendix C.

3.4 Unwanted Emissions in Restricted Frequency Bands

3.4.1 Limit of Unwanted Emissions in Restricted Frequency Bands

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:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit
Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

3.4.2 Test Procedures

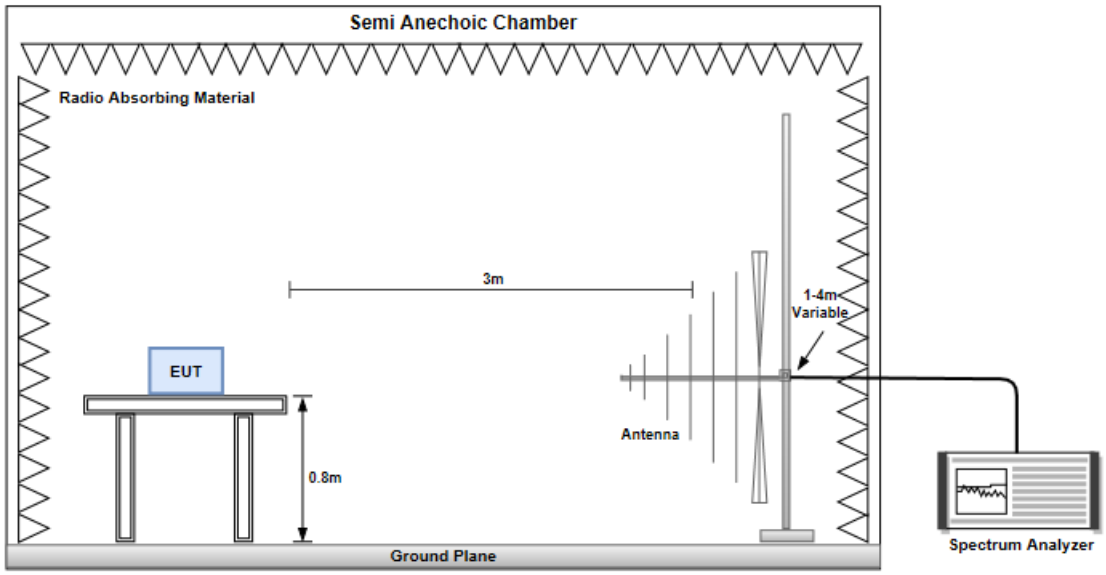
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

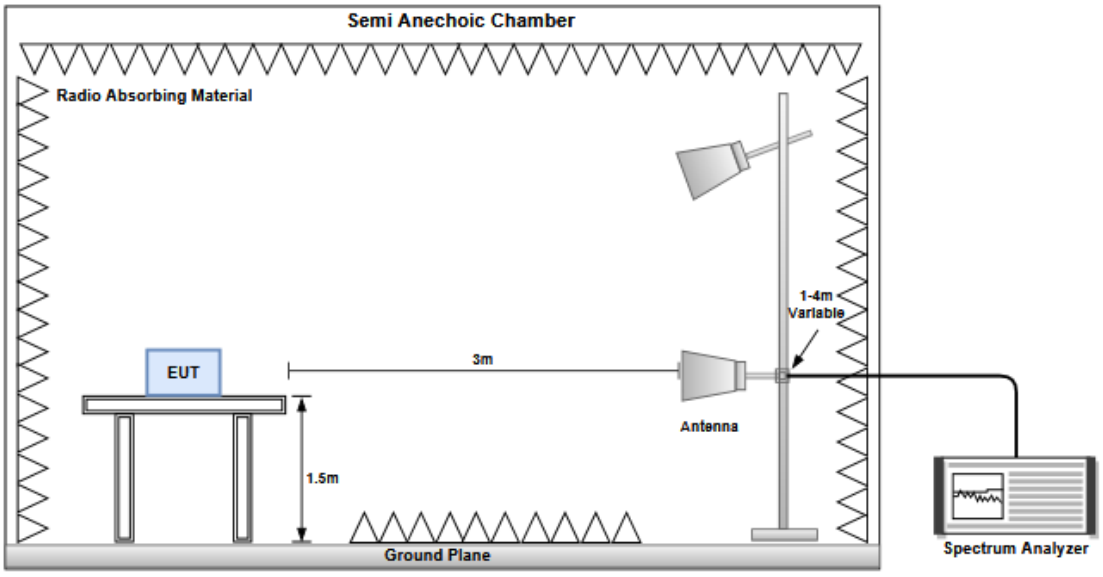
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.4.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.4.4 Test Results

Ambient Condition	22-23°C / 65-68%	Tested By	Allen Lee

Refer to Appendix D.

3.5 Emissions in non-restricted Frequency Bands

3.5.1 Emissions in non-restricted frequency bands limit

Peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz.

3.5.2 Test Procedures

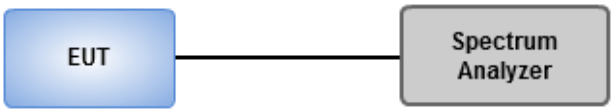
Reference level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Use the peak marker function to determine the maximum PSD level

Emission level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

3.5.3 Test Setup



3.5.4 Test Results

Ambient Condition	22°C / 67%	**Tested By**	Sean Yu

Refer to Appendix E.

3.6 AC Power Line Conducted Emissions

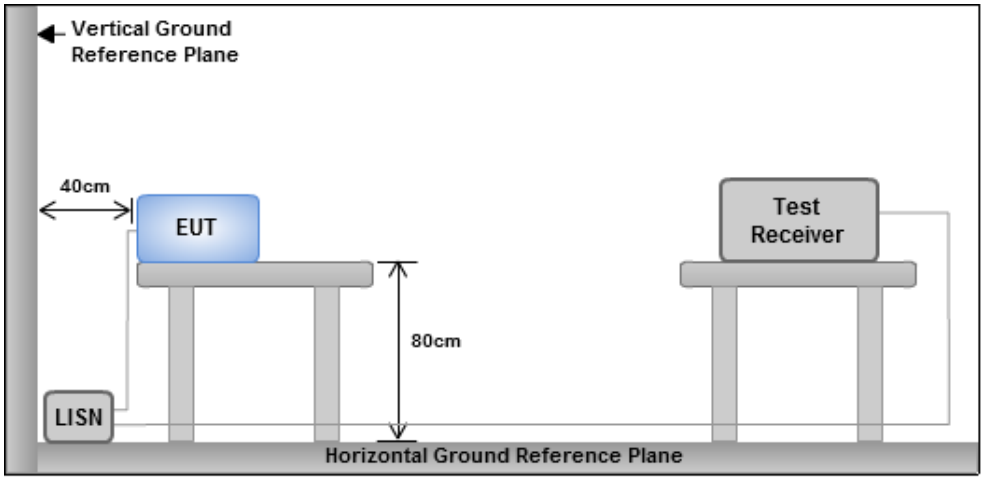
3.6.1 Limit of AC Power Line Conducted Emissions

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.		

3.6.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V/60Hz

3.6.3 Test Setup



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.6.4 Test Results

Refer to Appendix F.

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.) No.2-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)	No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

==END==

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)	710k	1.056M	1M06F1D	698.75k	1.053M
BT-LE(2Mbps)	1.155M	2.041M	2M04F1D	1.15M	2.034M

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

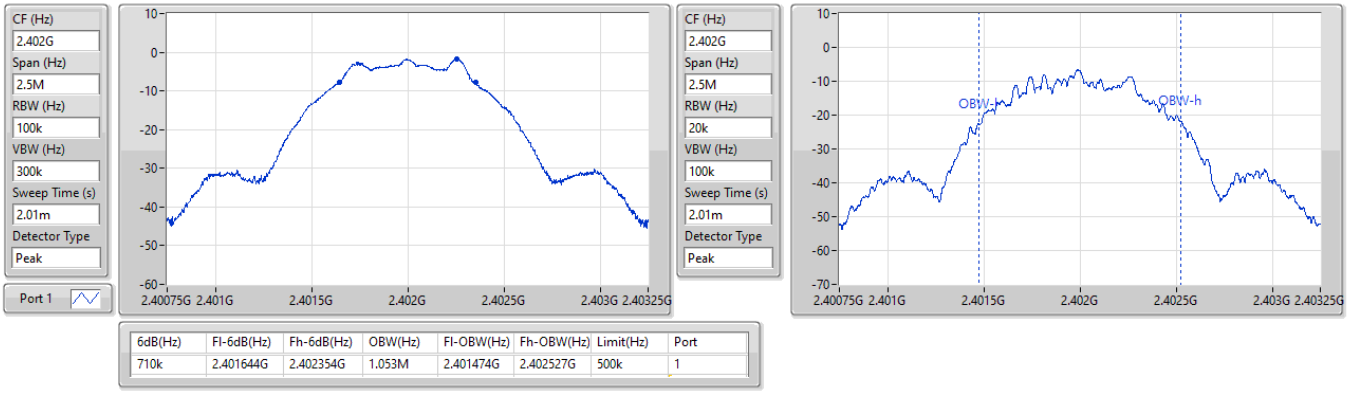
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	710k	1.053M
2440MHz	Pass	500k	698.75k	1.053M
2480MHz	Pass	500k	705k	1.056M
BT-LE(2Mbps)	-	-	-	-
2404MHz	Pass	500k	1.15M	2.034M
2440MHz	Pass	500k	1.153M	2.036M
2478MHz	Pass	500k	1.155M	2.041M

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**

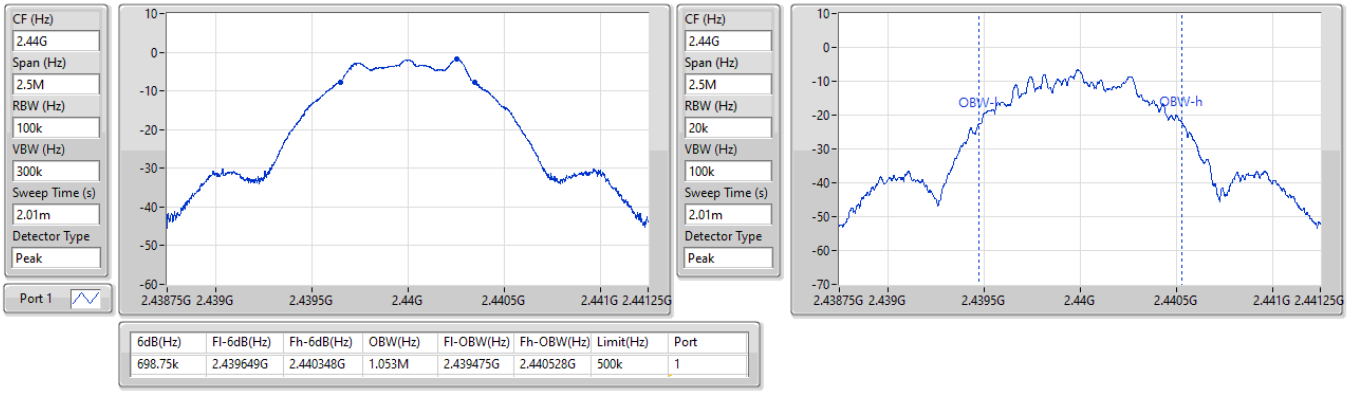
2402MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
710k	2.401644G	2.402354G	1.053M	2.401474G	2.402527G	500k	1

2.4-2.4835GHz_BT-LE(1Mbps) **EBW-DTS**

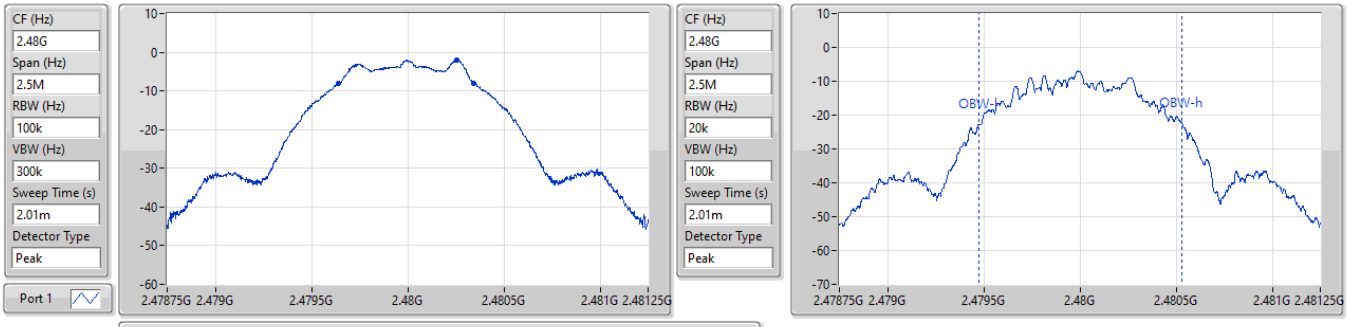
2440MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
698.75k	2.439649G	2.440348G	1.053M	2.439475G	2.440528G	500k	1

2.4-2.4835GHz_BT-LE(1Mbps) **EBW-DTS**

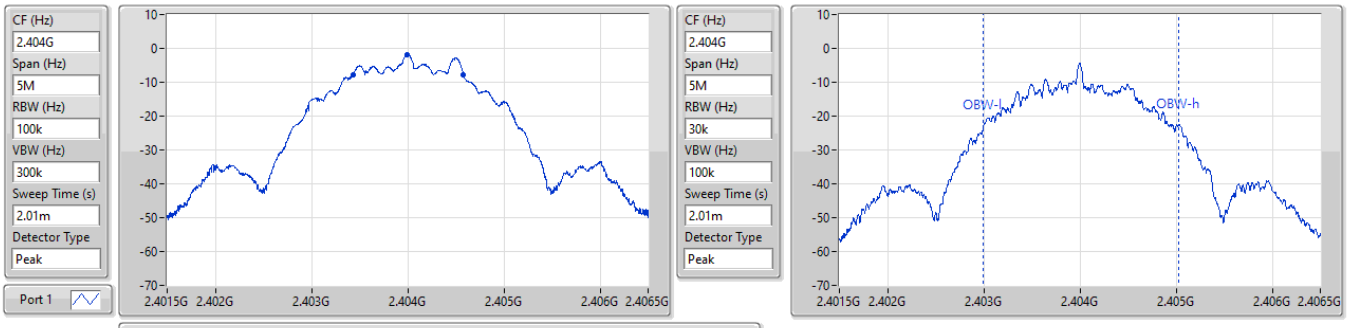
2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
705k	2.47964G	2.480345G	1.056M	2.479473G	2.480528G	500k	1

2.4-2.4835GHz_BT-LE(2Mbps) **EBW-DTS**

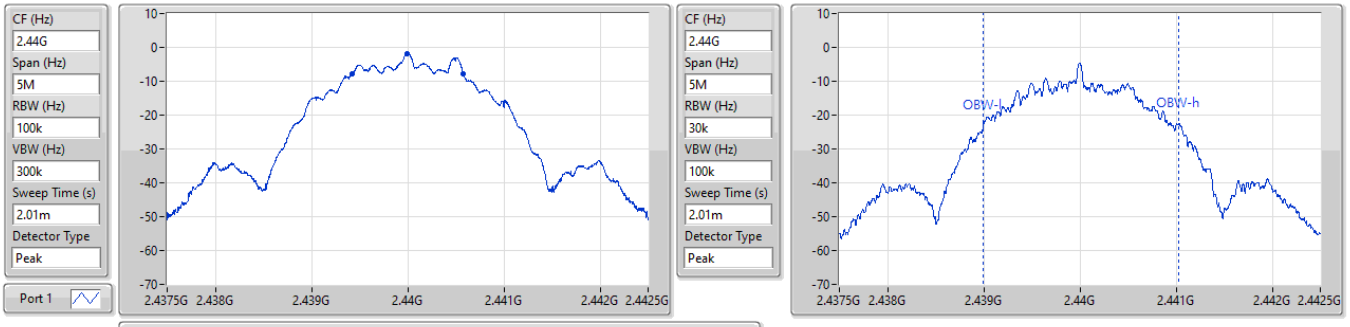
2404MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.15M	2.40343G	2.40458G	2.034M	2.402998G	2.405032G	500k	1

2.4-2.4835GHz_BT-LE(2Mbps) **EBW-DTS**

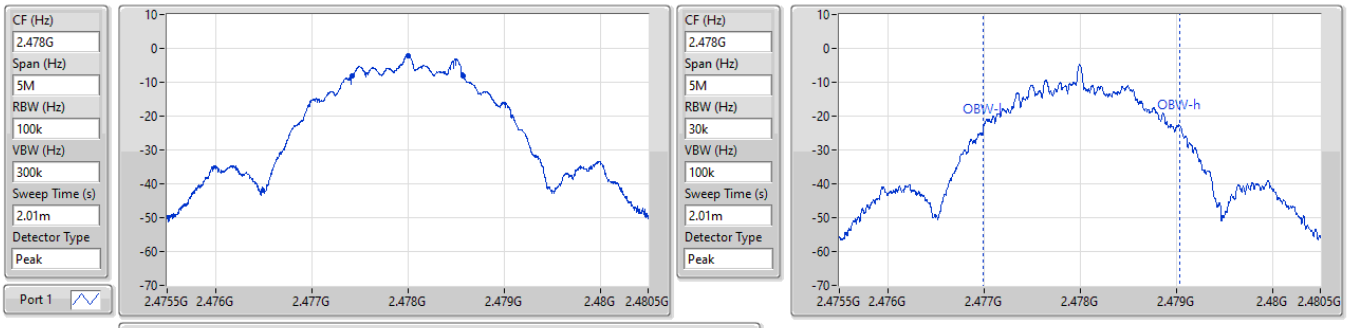
2440MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.153M	2.439425G	2.440578G	2.036M	2.438996G	2.441032G	500k	1

2.4-2.4835GHz_BT-LE(2Mbps) **EBW-DTS**

2478MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.155M	2.477425G	2.47858G	2.041M	2.476993G	2.479034G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	-1.40	0.00072
BT-LE(2Mbps)	-1.47	0.00071

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	-1.64	-1.40	30.00	-3.04	36.00
2440MHz	Pass	-1.64	-1.66	30.00	-3.30	36.00
2480MHz	Pass	-1.64	-1.94	30.00	-3.58	36.00
BT-LE(2Mbps)	-	-	-	-	-	-
2404MHz	Pass	-1.64	-1.47	30.00	-3.11	36.00
2440MHz	Pass	-1.64	-1.69	30.00	-3.33	36.00
2478MHz	Pass	-1.64	-1.92	30.00	-3.56	36.00

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	-1.49	0.00071
BT-LE(2Mbps)	-1.55	0.00070

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	-1.64	-1.49	-	-3.13	-
2440MHz	Pass	-1.64	-1.76	-	-3.40	-
2480MHz	Pass	-1.64	-2.04	-	-3.68	-
BT-LE(2Mbps)	-	-	-	-	-	-
2404MHz	Pass	-1.64	-1.55	-	-3.19	-
2440MHz	Pass	-1.64	-1.78	-	-3.42	-
2478MHz	Pass	-1.64	-2.01	-	-3.65	-

Note: Average power is for reference only.

Summary

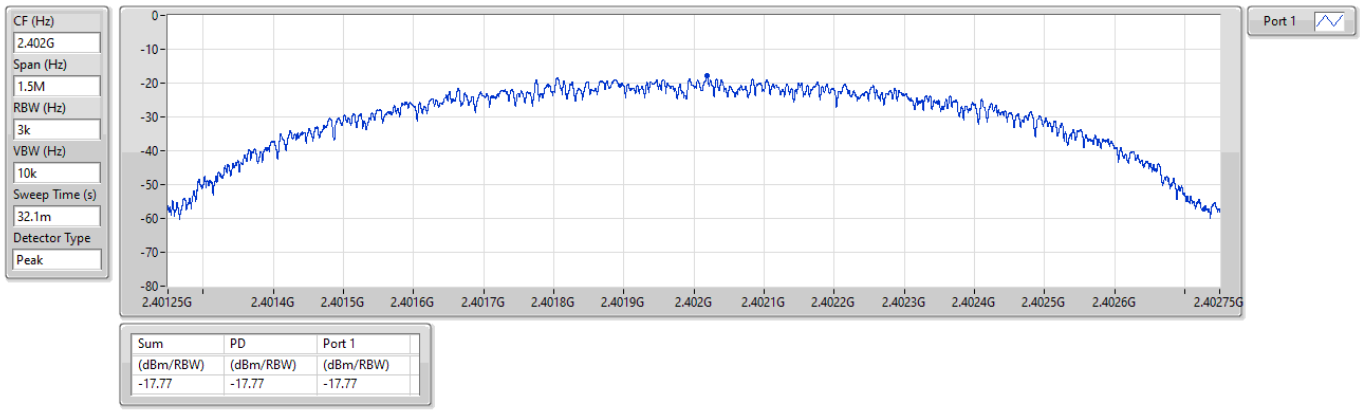
Mode	PD (dBm/3kHz)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-17.77
BT-LE(2Mbps)	-19.70

Result

Mode	Result	Antenna Gain (dBi)	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	-1.64	-17.77	8.00
2440MHz	Pass	-1.64	-17.91	8.00
2480MHz	Pass	-1.64	-18.28	8.00
BT-LE(2Mbps)	-	-	-	-
2404MHz	Pass	-1.64	-19.70	8.00
2440MHz	Pass	-1.64	-19.75	8.00
2478MHz	Pass	-1.64	-20.14	8.00

2.4-2.4835GHz_BT-LE(1Mbps) **PSD**

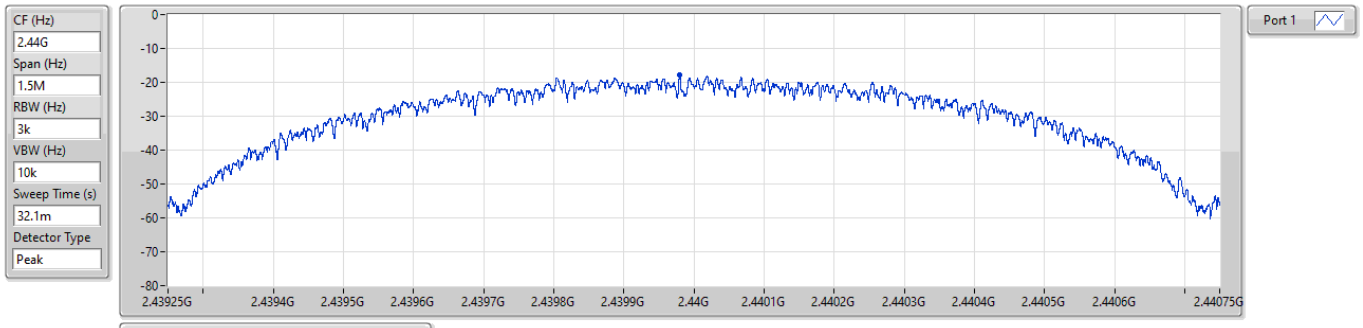
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-17.77	-17.77	-17.77

2.4-2.4835GHz_BT-LE(1Mbps) **PSD**

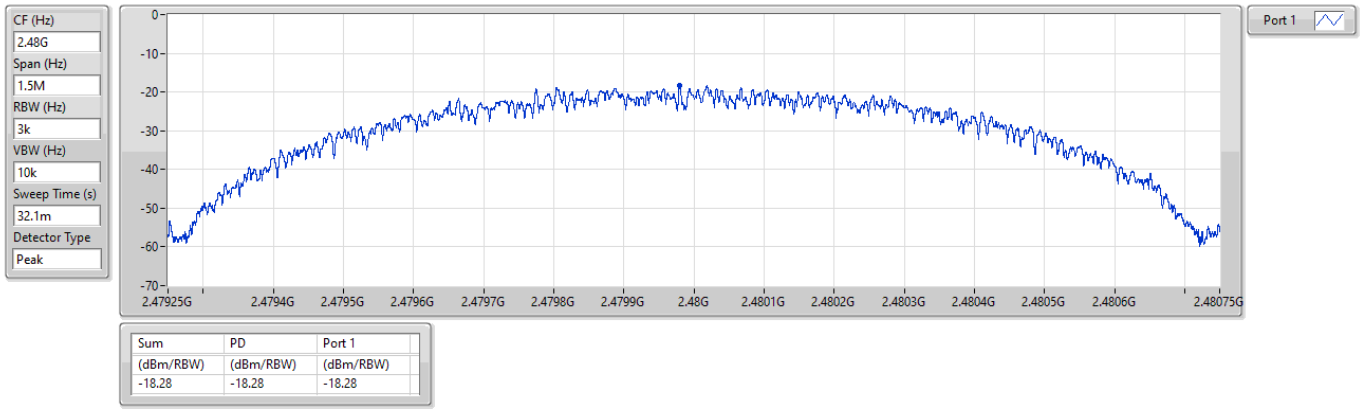
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-17.91	-17.91	-17.91

2.4-2.4835GHz_BT-LE(1Mbps) **PSD**

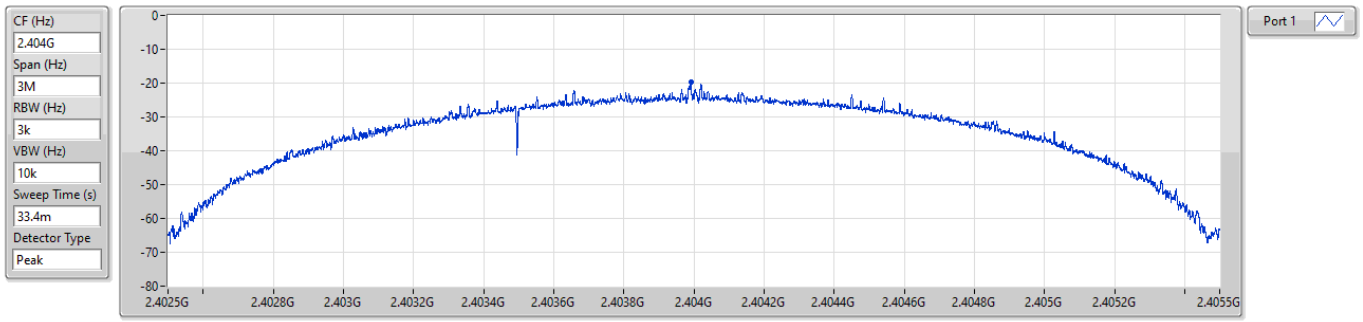
2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-18.28	-18.28	-18.28

2.4-2.4835GHz_BT-LE(2Mbps) **PSD**

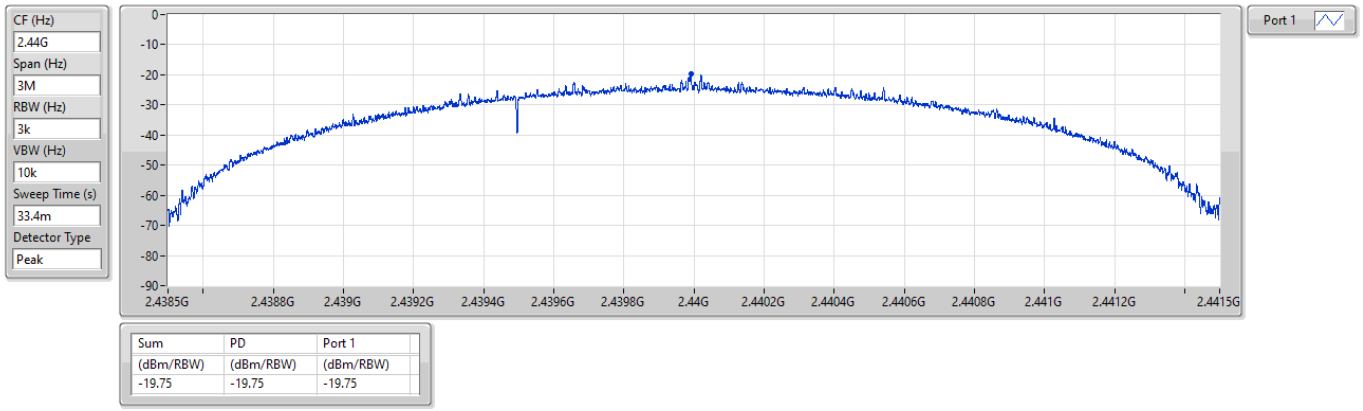
2404MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-19.70	-19.70	-19.70

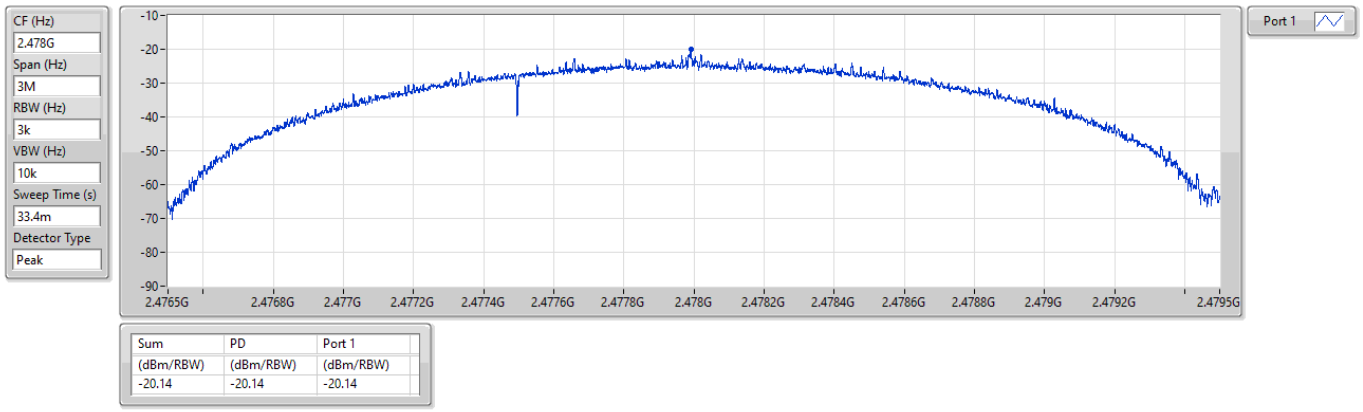
2.4-2.4835GHz_BT-LE(2Mbps) **PSD**

2440MHz



2.4-2.4835GHz_BT-LE(2Mbps) **PSD**

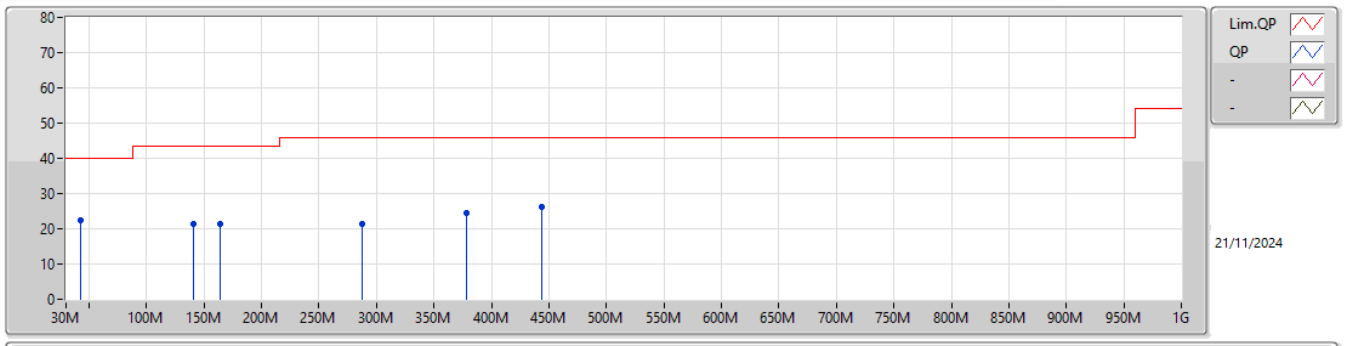
2478MHz



Summary

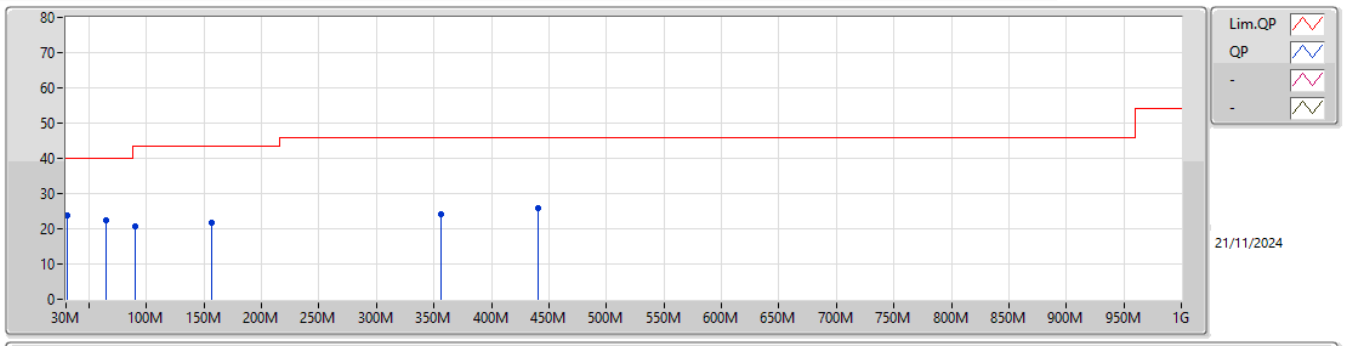
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	31.41M	23.70	40.00	-16.30	Horizontal
Mode 2	Pass	PK	32.81M	28.11	40.00	-11.89	Vertical

Mode 1



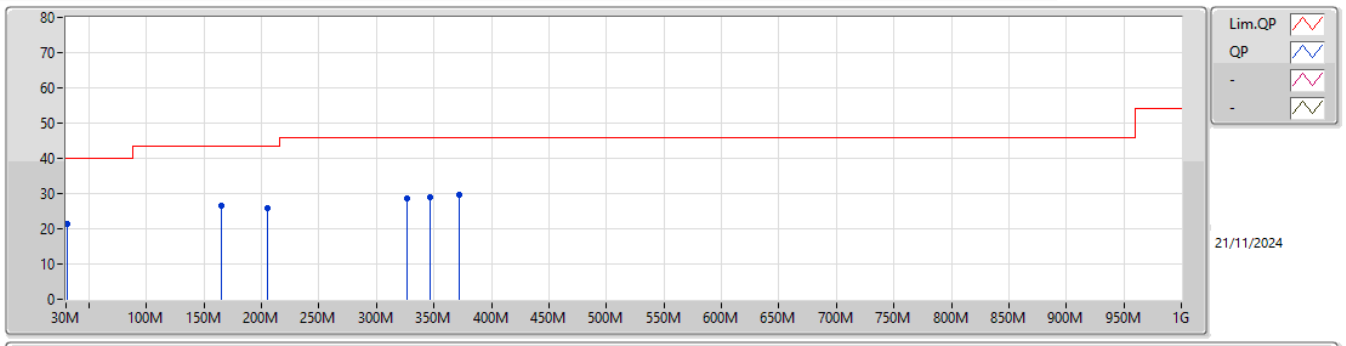
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV)	(dB/m)	(dB)	(dB)
PK	42.65M	22.37	40.00	-17.63	-8.59	3	Horizontal	-	-	-	30.96	18.93	0.60	28.12
PK	141.06M	21.22	43.50	-22.28	-9.17	3	Horizontal	-	-	-	30.39	17.91	1.17	28.25
PK	163.55M	21.29	43.50	-22.21	-8.79	3	Horizontal	-	-	-	30.08	18.20	1.27	28.26
PK	287.26M	21.47	46.00	-24.53	-8.16	3	Horizontal	-	-	-	29.63	18.35	1.73	28.24
PK	378.64M	24.36	46.00	-21.64	-5.86	3	Horizontal	-	-	-	30.22	20.45	1.87	28.18
PK	443.3M	26.37	46.00	-19.63	-4.34	3	Horizontal	-	-	-	30.71	21.87	1.97	28.18

Mode 1



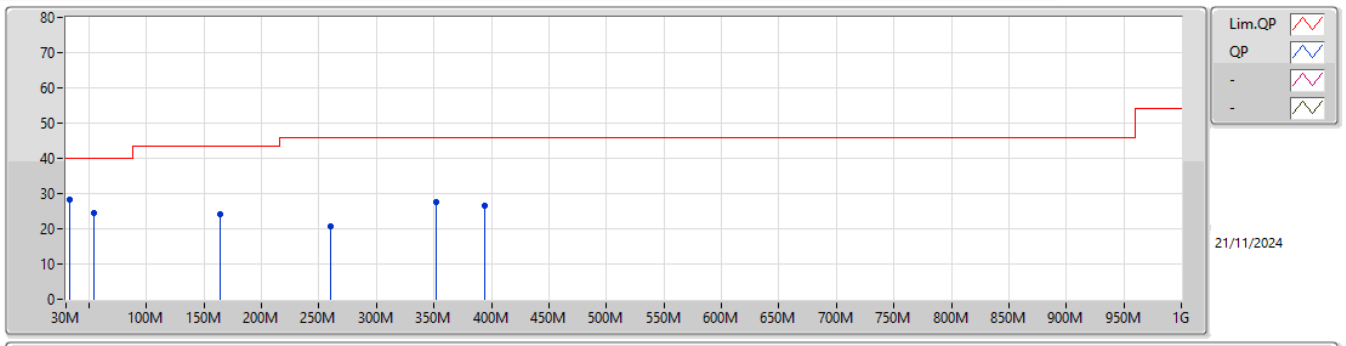
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV)	(dB/m)	(dB)	(dB)
PK	31.41M	23.70	40.00	-16.30	-9.76	3	Horizontal	-	-	-	33.46	17.78	0.54	28.08
PK	65.14M	22.40	40.00	-17.60	-9.91	3	Horizontal	-	-	-	32.31	17.44	0.82	28.17
PK	90.45M	20.81	43.50	-22.69	-14.51	3	Horizontal	-	-	-	35.32	12.74	0.96	28.21
PK	156.52M	21.82	43.50	-21.68	-8.62	3	Horizontal	-	-	-	30.44	18.40	1.24	28.26
PK	356.14M	24.24	46.00	-21.76	-6.65	3	Horizontal	-	-	-	30.89	19.72	1.83	28.20
PK	440.49M	25.83	46.00	-20.17	-4.41	3	Horizontal	-	-	-	30.24	21.81	1.96	28.18

Mode 2



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV)	(dB/m)	(dB)	(dB)
PK	31.41M	21.50	40.00	-18.50	-9.76	3	Horizontal	-	-	-	31.26	17.78	0.54	28.08
PK	164.96M	26.58	43.50	-16.92	-8.89	3	Horizontal	-	-	-	35.47	18.10	1.27	28.26
PK	205.72M	25.92	43.50	-17.58	-11.68	3	Horizontal	-	-	-	37.60	15.17	1.43	28.28
PK	326.62M	28.48	46.00	-17.52	-7.17	3	Horizontal	-	-	-	35.65	19.23	1.81	28.21
PK	346.3M	28.93	46.00	-17.07	-6.95	3	Horizontal	-	-	-	35.88	19.43	1.82	28.20
PK	371.61M	29.71	46.00	-16.29	-6.18	3	Horizontal	-	-	-	35.89	20.16	1.85	28.19

Mode 2



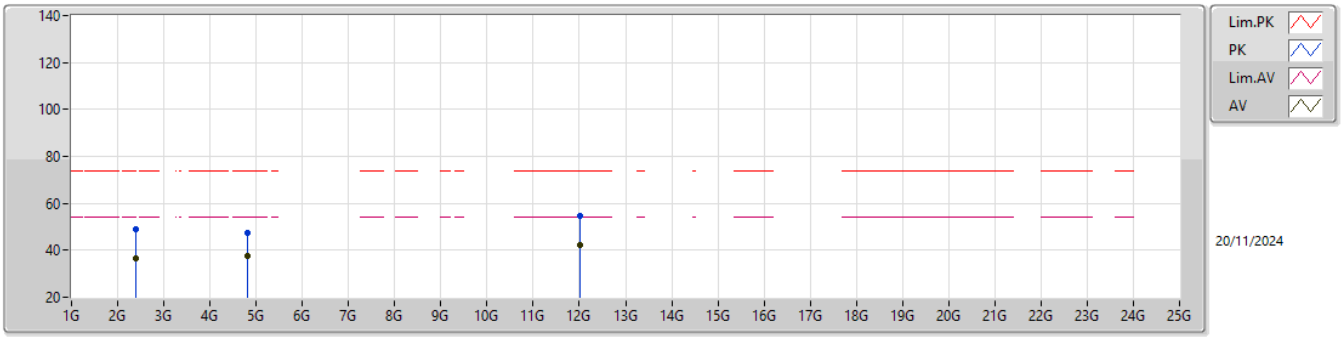
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV)	(dB/m)	(dB)	(dB)
PK	32.81M	28.11	40.00	-11.89	-9.89	3	Vertical	-	-	-	38.00	17.66	0.54	28.09
PK	53.9M	24.45	40.00	-15.55	-8.30	3	Vertical	-	-	-	32.75	19.11	0.74	28.15
PK	163.55M	24.02	43.50	-19.48	-8.79	3	Vertical	-	-	-	32.81	18.20	1.27	28.26
PK	260.55M	20.62	46.00	-25.38	-9.31	3	Vertical	-	-	-	29.93	17.32	1.62	28.25
PK	351.93M	27.74	46.00	-18.26	-6.80	3	Vertical	-	-	-	34.54	19.58	1.82	28.20
PK	394.1M	26.57	46.00	-19.43	-5.60	3	Vertical	-	-	-	32.17	20.68	1.89	28.17

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	7.32G	51.47	54.00	-2.53	3	Horizontal	315	1.00	-
BT-LE(2Mbps)	**Pass**	**AV**	**7.32G**	**52.44**	**54.00**	**-1.56**	**3**	**Horizontal**	**190**	**1.13**	**-**

2.4-2.4835GHz_BT-LE(1Mbps)

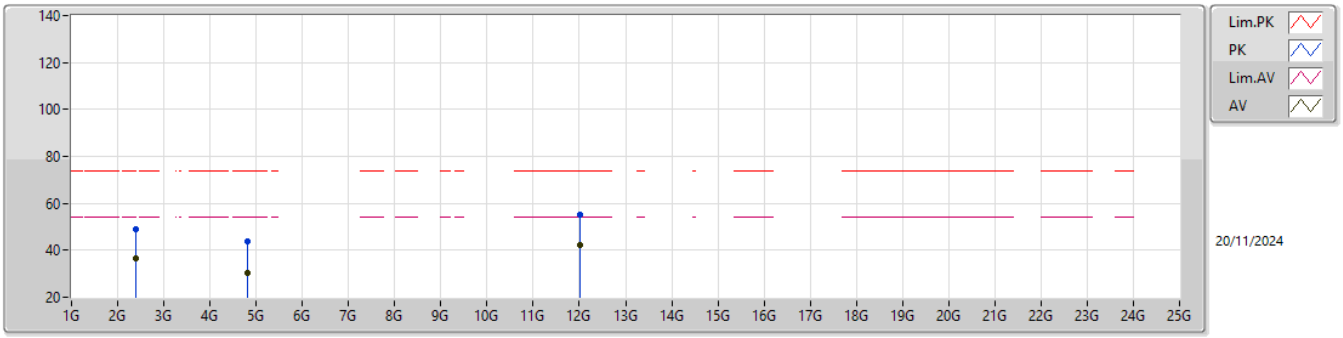
2402MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.39G	36.73	54.00	-17.27	41.32	3	Horizontal	280	2.30	-	27.60	4.70	36.89
PK	2.39G	49.03	74.00	-24.97	53.62	3	Horizontal	280	2.30	-	27.60	4.70	36.89
AV	4.804G	37.50	54.00	-16.50	38.05	3	Horizontal	165	1.73	-	31.29	6.68	38.52
PK	4.804G	47.35	74.00	-26.65	47.90	3	Horizontal	165	1.73	-	31.29	6.68	38.52
AV	12.01G	42.19	54.00	-11.81	35.66	3	Horizontal	100	1.00	-	39.20	10.23	42.90
PK	12.01G	54.69	74.00	-19.31	48.16	3	Horizontal	100	1.00	-	39.20	10.23	42.90

2.4-2.4835GHz_BT-LE(1Mbps)

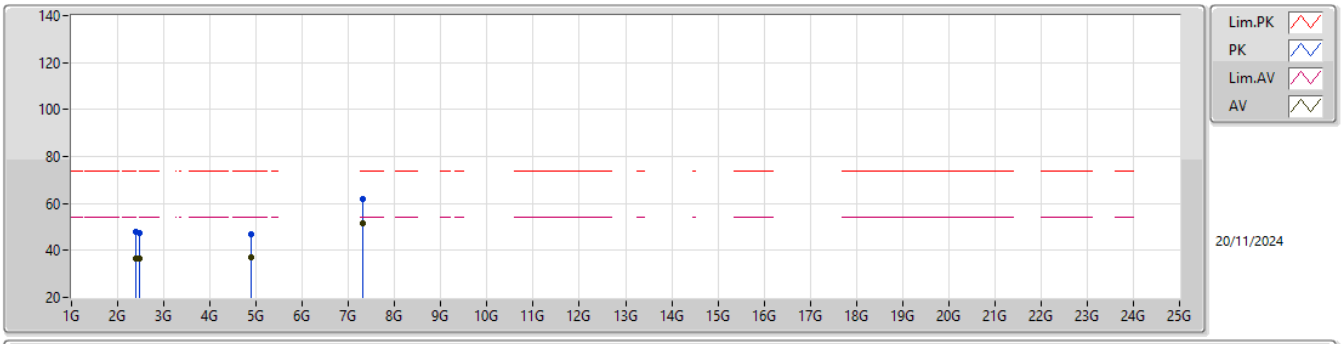
2402MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.39G	36.53	54.00	-17.47	41.12	3	Vertical	353	2.32	-	27.60	4.70	36.89
PK	2.39G	48.75	74.00	-25.25	53.34	3	Vertical	353	2.32	-	27.60	4.70	36.89
AV	4.804G	30.54	54.00	-23.46	31.09	3	Vertical	229	1.00	-	31.29	6.68	38.52
PK	4.804G	43.72	74.00	-30.28	44.27	3	Vertical	229	1.00	-	31.29	6.68	38.52
AV	12.01G	42.05	54.00	-11.95	35.52	3	Vertical	198	1.00	-	39.20	10.23	42.90
PK	12.01G	55.42	74.00	-18.58	48.89	3	Vertical	198	1.00	-	39.20	10.23	42.90

2.4-2.4835GHz_BT-LE(1Mbps)

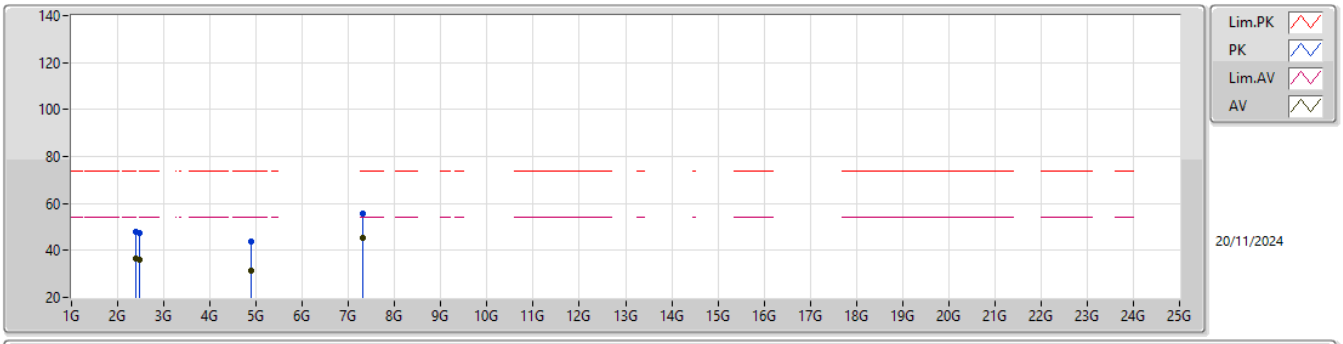
2440MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.39G	36.64	54.00	-17.36	41.23	3	Horizontal	269	1.22	-	27.60	4.70	36.89
PK	2.39G	48.14	74.00	-25.86	52.73	3	Horizontal	269	1.22	-	27.60	4.70	36.89
AV	2.4835G	36.70	54.00	-17.30	41.67	3	Horizontal	269	1.22	-	27.20	4.81	36.98
PK	2.4835G	47.28	74.00	-26.72	52.25	3	Horizontal	269	1.22	-	27.20	4.81	36.98
AV	4.88G	37.15	54.00	-16.85	37.81	3	Horizontal	172	1.00	-	31.14	6.77	38.57
PK	4.88G	46.83	74.00	-27.17	47.49	3	Horizontal	172	1.00	-	31.14	6.77	38.57
AV	7.32G	51.47	54.00	-2.53	46.07	3	Horizontal	315	1.00	-	36.16	8.63	39.39
PK	7.32G	62.04	74.00	-11.96	56.64	3	Horizontal	315	1.00	-	36.16	8.63	39.39

2.4-2.4835GHz_BT-LE(1Mbps)

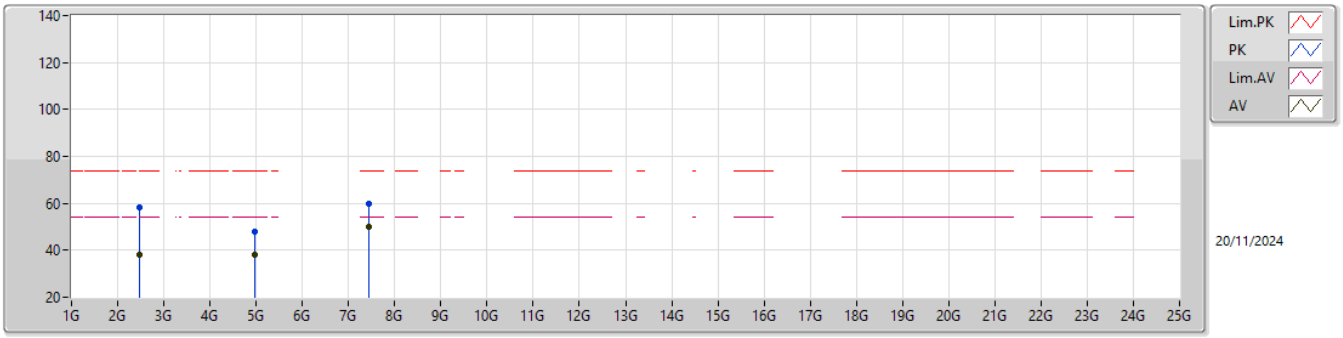
2440MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.39G	36.78	54.00	-17.22	41.37	3	Vertical	356	3.21	-	27.60	4.70	36.89
PK	2.39G	47.97	74.00	-26.03	52.56	3	Vertical	356	3.21	-	27.60	4.70	36.89
AV	2.4835G	36.17	54.00	-17.83	41.14	3	Vertical	356	3.21	-	27.20	4.81	36.98
PK	2.4835G	47.40	74.00	-26.60	52.37	3	Vertical	356	3.21	-	27.20	4.81	36.98
AV	4.88G	31.16	54.00	-22.84	31.82	3	Vertical	56	1.00	-	31.14	6.77	38.57
PK	4.88G	43.80	74.00	-30.20	44.46	3	Vertical	56	1.00	-	31.14	6.77	38.57
AV	7.32G	45.22	54.00	-8.78	39.82	3	Vertical	262	3.73	-	36.16	8.63	39.39
PK	7.32G	55.85	74.00	-18.15	50.45	3	Vertical	262	3.73	-	36.16	8.63	39.39

2.4-2.4835GHz_BT-LE(1Mbps)

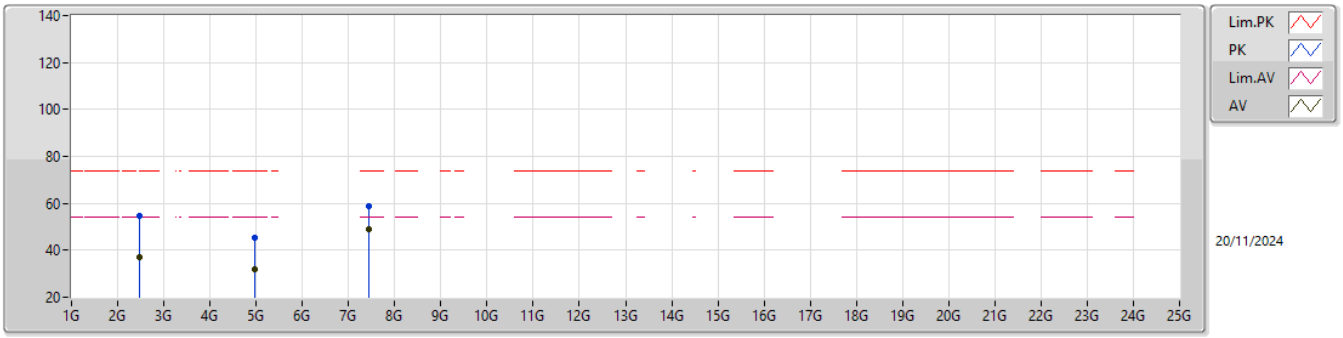
2480MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.4835G	38.13	54.00	-15.87	43.10	3	Horizontal	275	2.15	-	27.20	4.81	36.98
PK	2.4835G	58.40	74.00	-15.60	63.37	3	Horizontal	275	2.15	-	27.20	4.81	36.98
AV	4.96G	37.88	54.00	-16.12	38.28	3	Horizontal	170	1.00	-	31.36	6.86	38.62
PK	4.96G	47.69	74.00	-26.31	48.09	3	Horizontal	170	1.00	-	31.36	6.86	38.62
AV	7.44G	50.09	54.00	-3.91	44.63	3	Horizontal	316	1.00	-	36.34	8.66	39.54
PK	7.44G	60.02	74.00	-13.98	54.56	3	Horizontal	316	1.00	-	36.34	8.66	39.54

2.4-2.4835GHz_BT-LE(1Mbps)

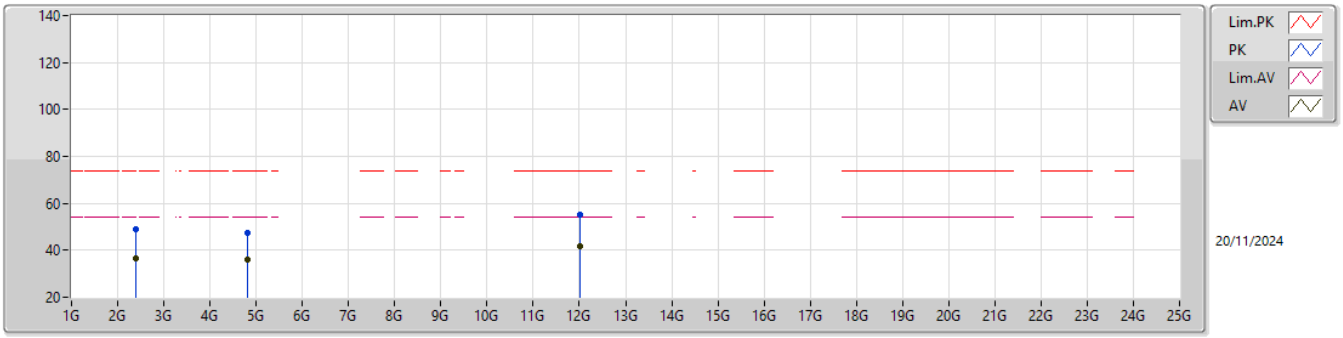
2480MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.4835G	37.03	54.00	-16.97	42.00	3	Vertical	1	3.89	-	27.20	4.81	36.98
PK	2.4835G	54.62	74.00	-19.38	59.59	3	Vertical	1	3.89	-	27.20	4.81	36.98
AV	4.96G	32.08	54.00	-21.92	32.48	3	Vertical	248	1.00	-	31.36	6.86	38.62
PK	4.96G	45.36	74.00	-28.64	45.76	3	Vertical	248	1.00	-	31.36	6.86	38.62
AV	7.44G	48.85	54.00	-5.15	43.39	3	Vertical	103	3.69	-	36.34	8.66	39.54
PK	7.44G	58.77	74.00	-15.23	53.31	3	Vertical	103	3.69	-	36.34	8.66	39.54

2.4-2.4835GHz_BT-LE(2Mbps)

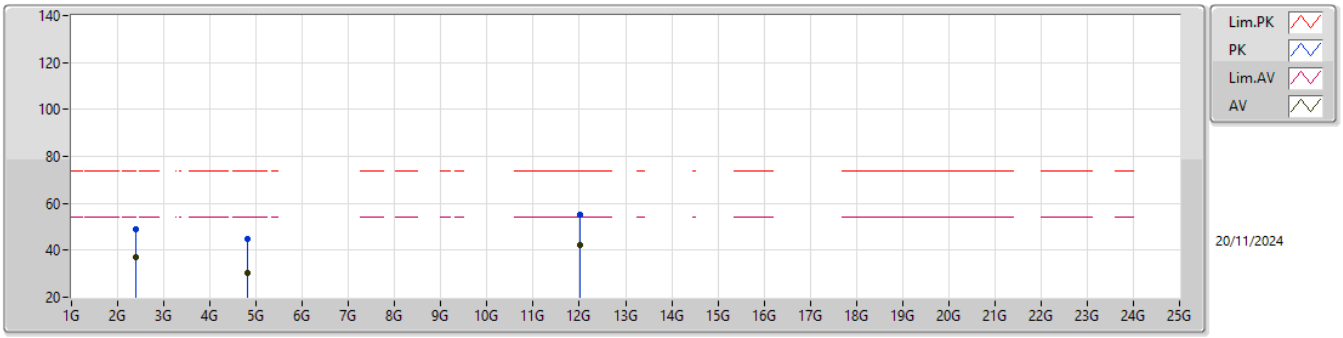
2404MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.39G	36.74	54.00	-17.26	41.33	3	Horizontal	281	2.30	-	27.60	4.70	36.89
PK	2.39G	48.82	74.00	-25.18	53.41	3	Horizontal	281	2.30	-	27.60	4.70	36.89
AV	4.808G	35.79	54.00	-18.21	36.34	3	Horizontal	174	1.12	-	31.28	6.69	38.52
PK	4.808G	47.59	74.00	-26.41	48.14	3	Horizontal	174	1.12	-	31.28	6.69	38.52
AV	12.02G	41.65	54.00	-12.35	35.11	3	Horizontal	87	1.00	-	39.20	10.23	42.89
PK	12.02G	55.29	74.00	-18.71	48.75	3	Horizontal	87	1.00	-	39.20	10.23	42.89

2.4-2.4835GHz_BT-LE(2Mbps)

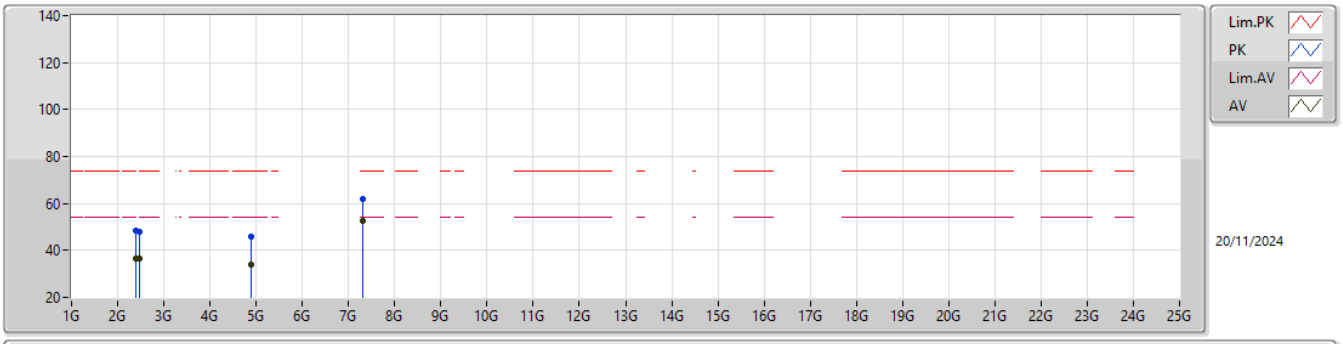
2404MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.39G	37.02	54.00	-16.98	41.61	3	Vertical	353	2.31	-	27.60	4.70	36.89
PK	2.39G	49.19	74.00	-24.81	53.78	3	Vertical	353	2.31	-	27.60	4.70	36.89
AV	4.808G	30.31	54.00	-23.69	30.86	3	Vertical	217	1.00	-	31.28	6.69	38.52
PK	4.808G	44.67	74.00	-29.33	45.22	3	Vertical	217	1.00	-	31.28	6.69	38.52
AV	12.02G	42.02	54.00	-11.98	35.48	3	Vertical	132	1.00	-	39.20	10.23	42.89
PK	12.02G	55.38	74.00	-18.62	48.84	3	Vertical	132	1.00	-	39.20	10.23	42.89

2.4-2.4835GHz_BT-LE(2Mbps)

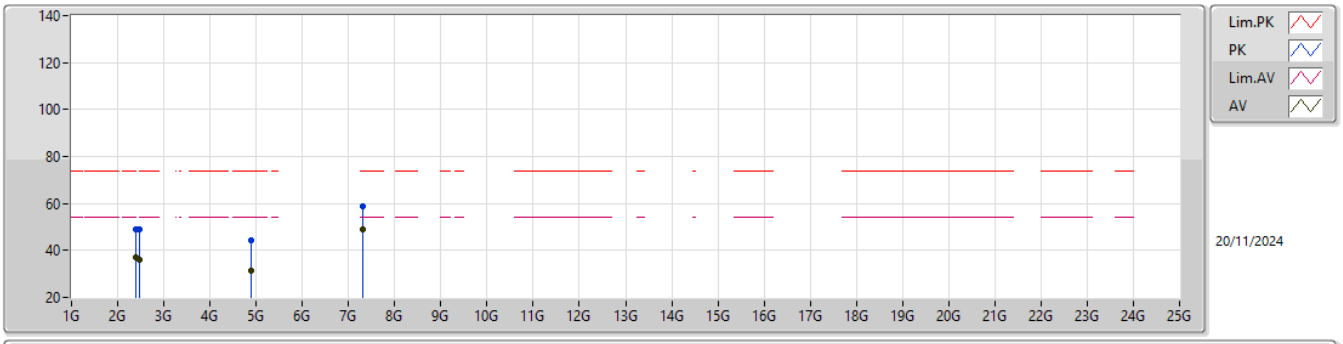
2440MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.39G	36.76	54.00	-17.24	41.35	3	Horizontal	271	1.21	-	27.60	4.70	36.89
PK	2.39G	48.70	74.00	-25.30	53.29	3	Horizontal	271	1.21	-	27.60	4.70	36.89
AV	2.4835G	36.63	54.00	-17.37	41.60	3	Horizontal	271	1.21	-	27.20	4.81	36.98
PK	2.4835G	48.13	74.00	-25.87	53.10	3	Horizontal	271	1.21	-	27.20	4.81	36.98
AV	4.88G	34.20	54.00	-19.80	34.86	3	Horizontal	161	1.81	-	31.14	6.77	38.57
PK	4.88G	46.08	74.00	-27.92	46.74	3	Horizontal	161	1.81	-	31.14	6.77	38.57
AV	7.32G	52.44	54.00	-1.56	47.04	3	Horizontal	190	1.13	-	36.16	8.63	39.39
PK	7.32G	61.98	74.00	-12.02	56.58	3	Horizontal	196	1.13	-	36.16	8.63	39.39

2.4-2.4835GHz_BT-LE(2Mbps)

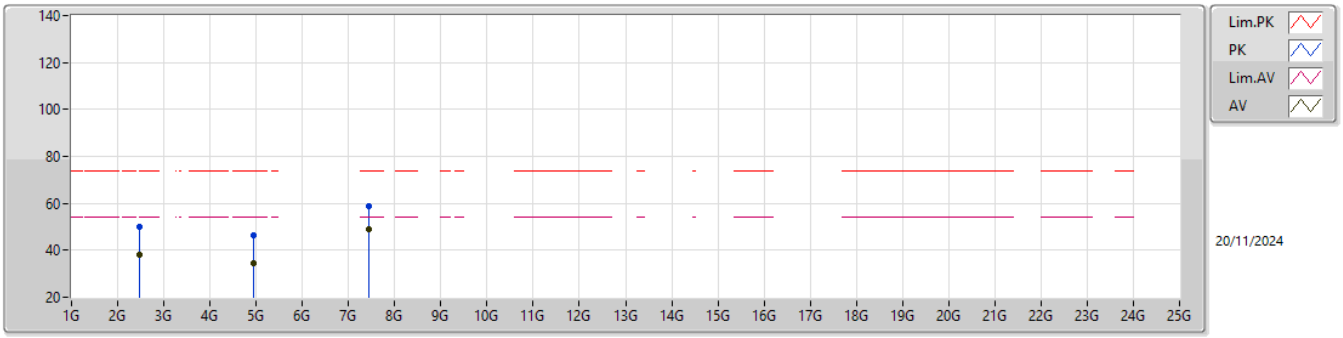
2440MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.39G	36.96	54.00	-17.04	41.55	3	Vertical	358	3.21	-	27.60	4.70	36.89
PK	2.39G	49.01	74.00	-24.99	53.60	3	Vertical	358	3.21	-	27.60	4.70	36.89
AV	2.4835G	36.29	54.00	-17.71	41.26	3	Vertical	358	3.21	-	27.20	4.81	36.98
PK	2.4835G	48.74	74.00	-25.26	53.71	3	Vertical	358	3.21	-	27.20	4.81	36.98
AV	4.88G	31.17	54.00	-22.83	31.83	3	Vertical	229	1.00	-	31.14	6.77	38.57
PK	4.88G	44.07	74.00	-29.93	44.73	3	Vertical	229	1.00	-	31.14	6.77	38.57
AV	7.32G	49.10	54.00	-4.90	43.70	3	Vertical	107	3.23	-	36.16	8.63	39.39
PK	7.32G	58.92	74.00	-15.08	53.52	3	Vertical	107	3.23	-	36.16	8.63	39.39

2.4-2.4835GHz_BT-LE(2Mbps)

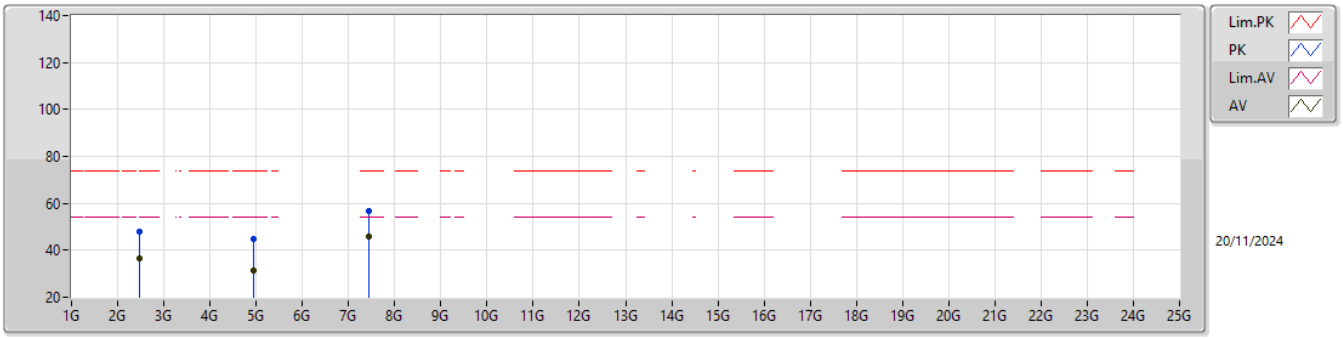
2478MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.4835G	38.02	54.00	-15.98	42.99	3	Horizontal	276	1.87	-	27.20	4.81	36.98
PK	2.4835G	50.12	74.00	-23.88	55.09	3	Horizontal	276	1.87	-	27.20	4.81	36.98
AV	4.956G	34.42	54.00	-19.58	34.84	3	Horizontal	163	1.78	-	31.34	6.86	38.62
PK	4.956G	46.50	74.00	-27.50	46.92	3	Horizontal	163	1.78	-	31.34	6.86	38.62
AV	7.434G	49.14	54.00	-4.86	43.72	3	Horizontal	330	1.26	-	36.30	8.66	39.54
PK	7.434G	59.05	74.00	-14.95	53.63	3	Horizontal	330	1.26	-	36.30	8.66	39.54

2.4-2.4835GHz_BT-LE(2Mbps)

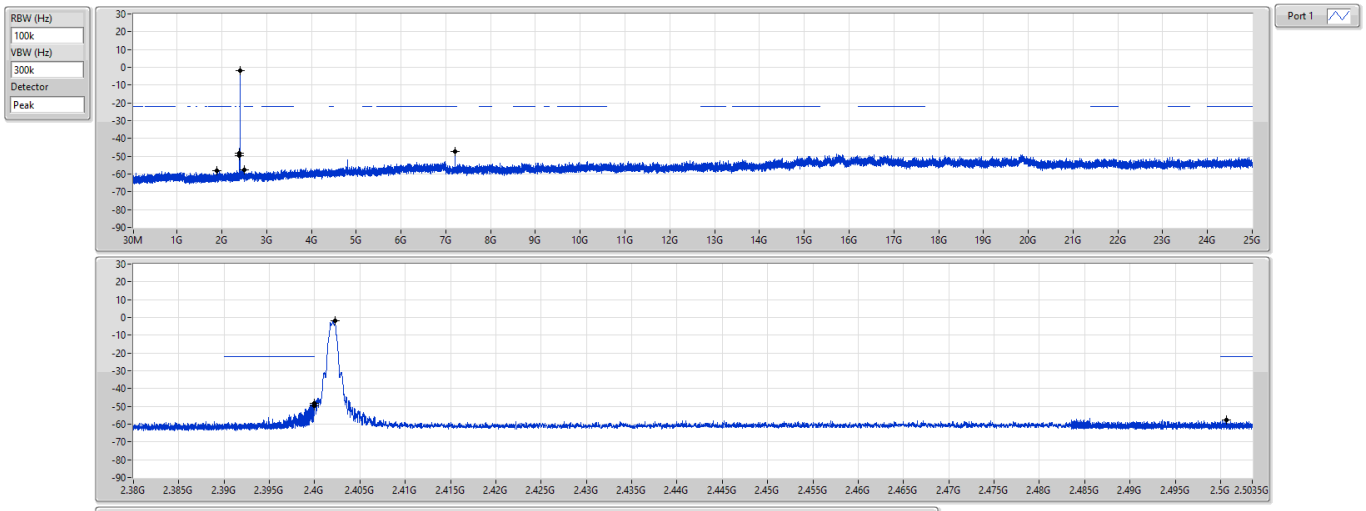
2478MHz_TX



Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB/m)	(dB)	(dB)
AV	2.4835G	36.42	54.00	-17.58	41.39	3	Vertical	357	3.03	-	27.20	4.81	36.98
PK	2.4835G	48.10	74.00	-25.90	53.07	3	Vertical	357	3.03	-	27.20	4.81	36.98
AV	4.956G	31.62	54.00	-22.38	32.04	3	Vertical	243	1.00	-	31.34	6.86	38.62
PK	4.956G	44.92	74.00	-29.08	45.34	3	Vertical	243	1.00	-	31.34	6.86	38.62
AV	7.434G	46.02	54.00	-7.98	40.60	3	Vertical	104	3.13	-	36.30	8.66	39.54
PK	7.434G	56.53	74.00	-17.47	51.11	3	Vertical	104	3.13	-	36.30	8.66	39.54

2.4-2.4835GHz_BT-LE(1Mbps) **CSENdB-DTS**

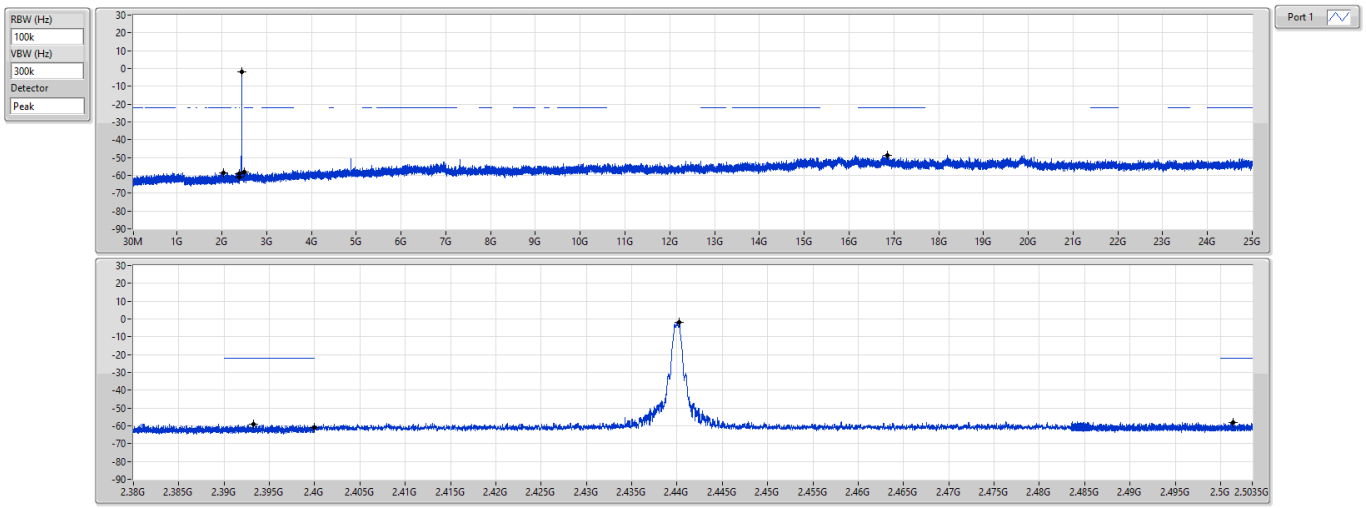
2402MHz



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
2.40225G	-1.96	-21.96	1.89032G	-58.25	2.39998G	-48.39	2.4G	-49.51	2.50064G	-57.80	7.20667G	-47.47	1

2.4-2.4835GHz_BT-LE(1Mbps) **CSENdB-DTS**

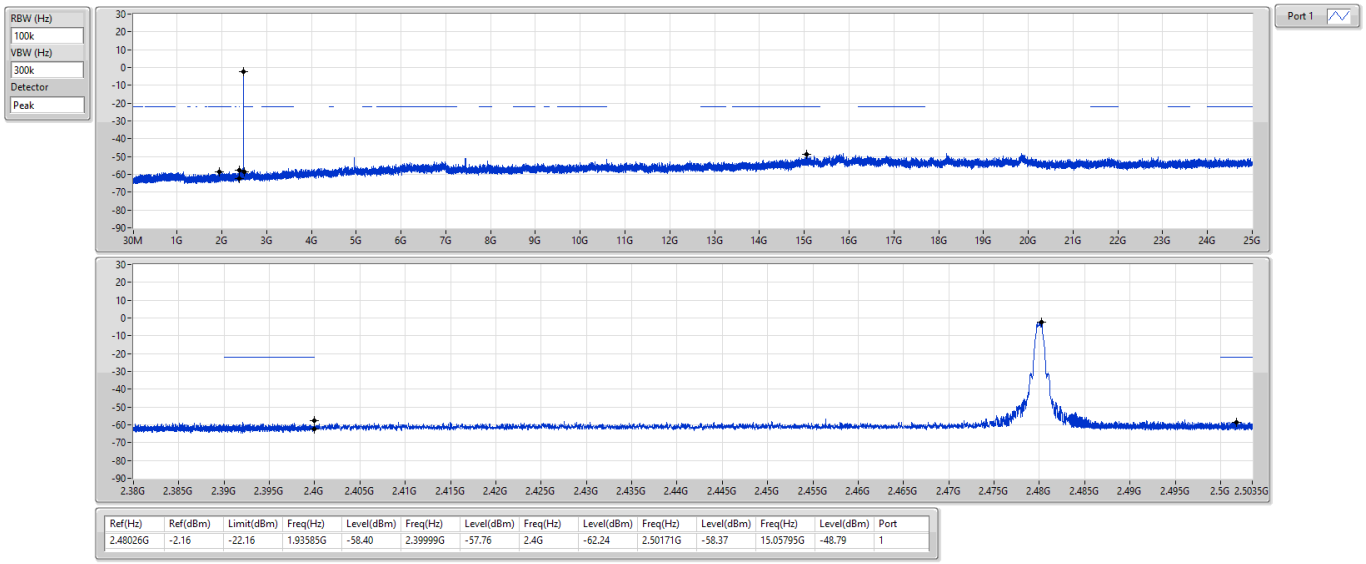
2440MHz



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
2.44026G	-2.05	-22.05	2.0322G	-58.53	2.3932G	-59.12	2.4G	-61.16	2.50141G	-58.17	16.84924G	-48.57	1

2.4-2.4835GHz_BT-LE(1Mbps) **CSENdB-DTS**

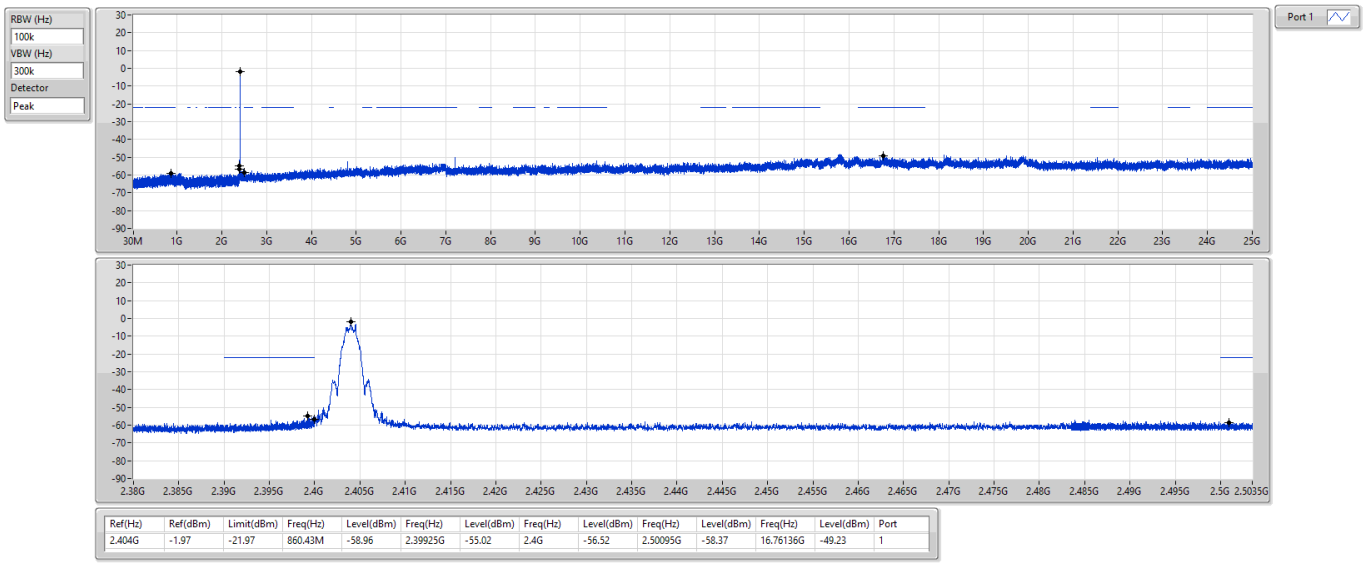
2480MHz



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
2.48026G	-2.16	-22.16	1.93585G	-58.40	2.39999G	-57.76	2.4G	-62.24	2.50171G	-58.37	15.05795G	-48.79	1

2.4-2.4835GHz_BT-LE(2Mbps) **CSENdB-DTS**

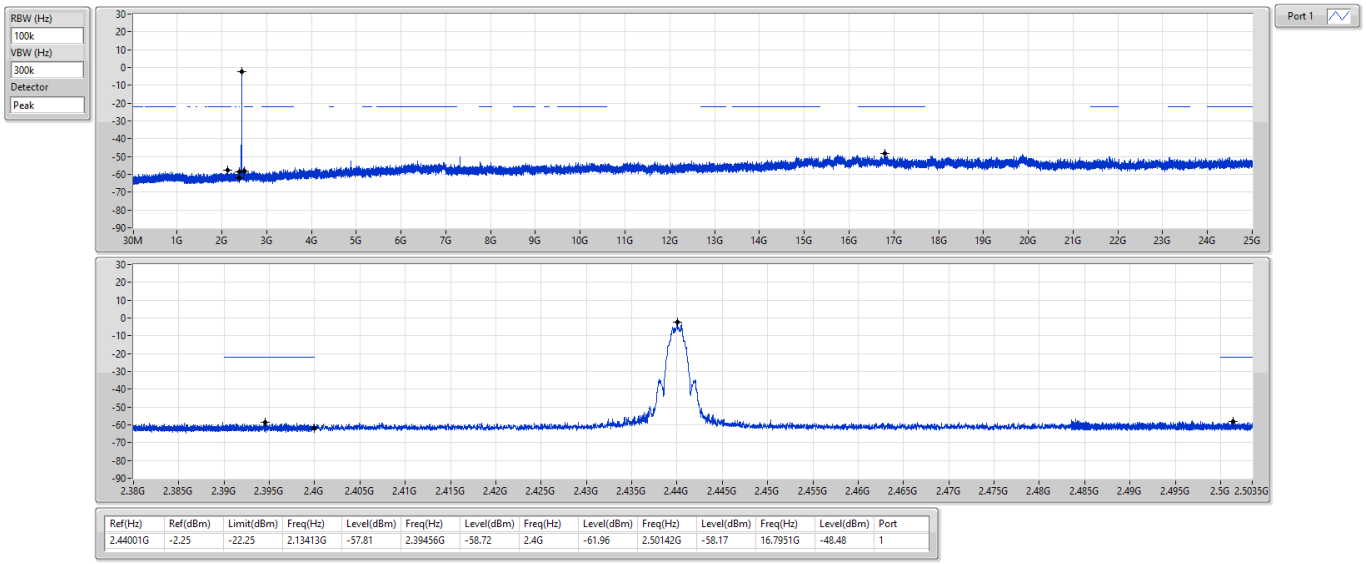
2404MHz



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
2.404G	-1.97	-21.97	860.43M	-58.96	2.39925G	-55.02	2.4G	-56.52	2.50095G	-58.37	16.76136G	-49.23	1

2.4-2.4835GHz_BT-LE(2Mbps) **CSENdB-DTS**

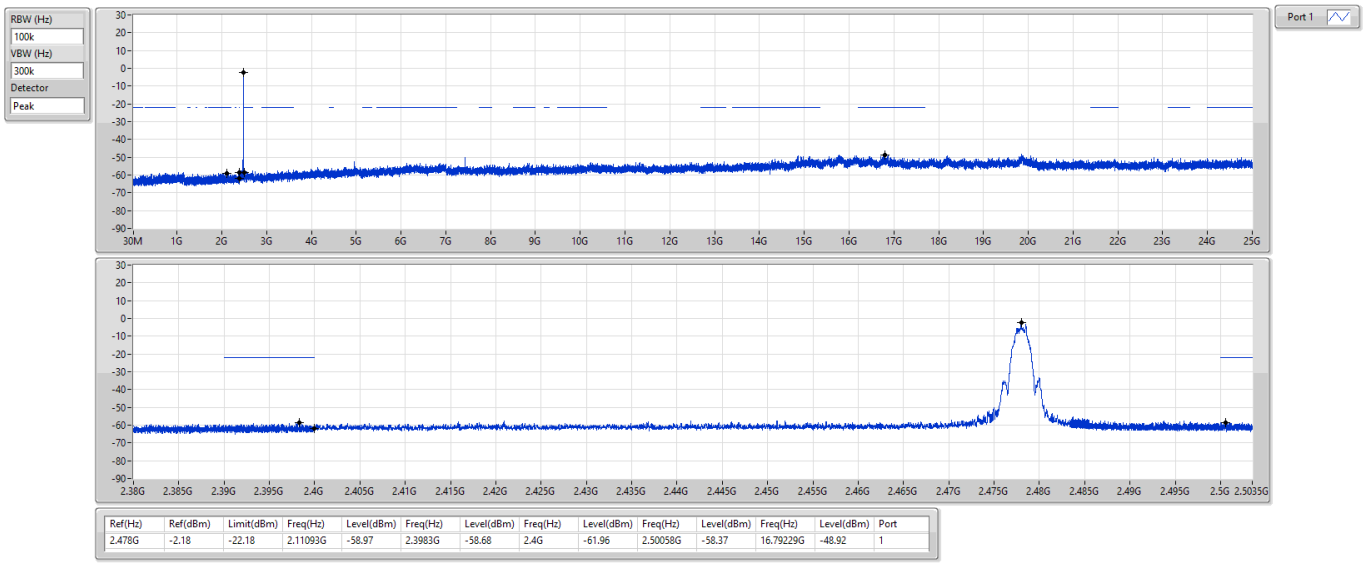
2440MHz



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
2.44001G	-2.25	-22.25	2.13413G	-57.81	2.39456G	-58.72	2.4G	-61.96	2.50142G	-58.17	16.7951G	-48.48	1

2.4-2.4835GHz_BT-LE(2Mbps) **CSENdB-DTS**

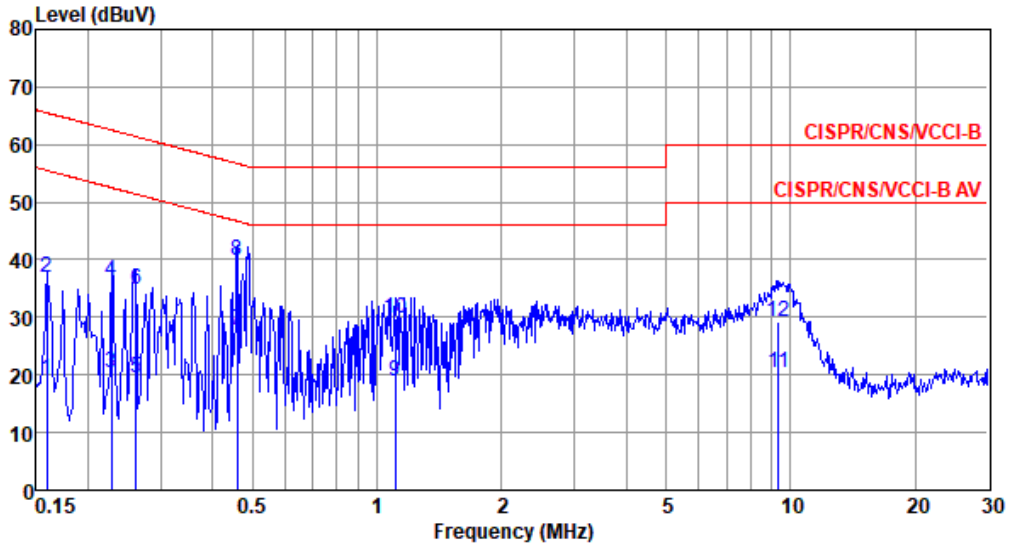
2478MHz



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
2.478G	-2.18	-22.18	2.11093G	-58.97	2.3983G	-58.68	2.4G	-61.96	2.50058G	-58.37	16.79229G	-48.92	1

Mode	Charging mode
Power Phase	Line

Test by : Brad Wu Temperature: 24°C Humidity: 63%

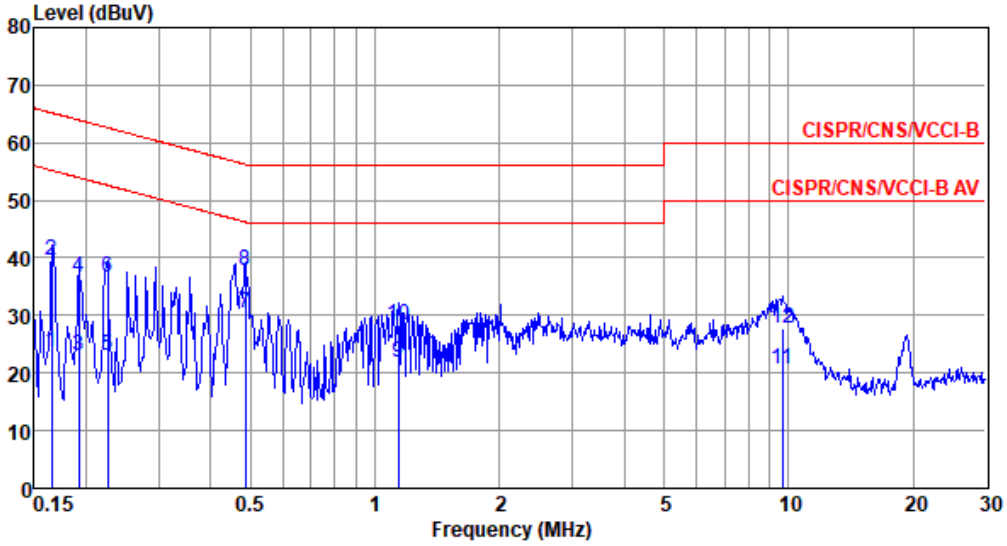


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.159	19.08	55.52	-36.44	9.13	9.65	0.08	0.22	Average
2	0.159	36.79	65.52	-28.73	26.84	9.65	0.08	0.22	QP
3	0.228	20.50	52.52	-32.02	10.50	9.65	0.08	0.27	Average
4	0.228	36.35	62.52	-26.17	26.35	9.65	0.08	0.27	QP
5	0.262	19.44	51.38	-31.94	9.43	9.65	0.08	0.28	Average
6	0.262	34.87	61.38	-26.51	24.86	9.65	0.08	0.28	QP
7	0.459	27.83	46.71	-18.88	17.77	9.64	0.09	0.33	Average
8*	0.459	39.91	56.71	-16.80	29.85	9.64	0.09	0.33	QP
9	1.106	18.77	46.00	-27.23	8.61	9.65	0.11	0.40	Average
10	1.106	29.77	56.00	-26.23	19.61	9.65	0.11	0.40	QP
11	9.352	20.31	50.00	-29.69	9.81	9.71	0.29	0.50	Average
12	9.352	29.33	60.00	-30.67	18.83	9.71	0.29	0.50	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Mode	Charging mode
Power Phase	Neutral

Test by : Brad Wu Temperature: 24°C Humidity: 63%



	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.165	23.71	55.21	-31.50	13.81	9.66	0.08	0.16	Average
2	0.165	39.52	65.21	-25.69	29.62	9.66	0.08	0.16	QP
3	0.192	23.06	53.93	-30.87	13.14	9.65	0.08	0.19	Average
4	0.192	36.57	63.93	-27.36	26.65	9.65	0.08	0.19	QP
5	0.226	22.88	52.61	-29.73	12.94	9.65	0.08	0.21	Average
6	0.226	36.63	62.61	-25.98	26.69	9.65	0.08	0.21	QP
7*	0.486	30.43	46.23	-15.80	20.42	9.64	0.09	0.28	Average
8	0.486	37.80	56.23	-18.43	27.79	9.64	0.09	0.28	QP
9	1.141	21.76	46.00	-24.24	11.64	9.65	0.11	0.36	Average
10	1.141	28.28	56.00	-27.72	18.16	9.65	0.11	0.36	QP
11	9.654	20.57	50.00	-29.43	9.99	9.74	0.30	0.54	Average
12	9.654	27.66	60.00	-32.34	17.08	9.74	0.30	0.54	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

FCC RF Exposure Report

FCC ID	:	**IPH-04990**
Equipment	:	**Fitness Product**
Model No.	:	**A04990**
Brand Name	:	**GARMIN**
Applicant	:	**Garmin International, Inc.**
Address	:	**1200 E. 151st Street Olathe, KS 66062 United States**
Standard	:	**47 CFR FCC Part 2.1093**
Received Date	:	**Oct. 17, 2024**
Tested Date	:	**Nov. 05 ~ Nov. 21, 2024**

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: **Approved by:**

Along Chen / Assistant Manager **Gary Chang / Manager**

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FA4O1701	Rev. 01	Initial issue	Nov. 28, 2024

1 RF Exposure Test Exemptions

1.1 1-mW TEST EXEMPTION

Available maximum time-averaged power is no more than 1 mW.

1.2 SAR-BASED EXEMPTION

This exemption is applicable to the frequency range between 300 MHz and 6 GHz, with test separation distances between 0.5 cm and 40 cm, and for all RF sources in fixed, mobile, and portable device exposure conditions.

The maximum time-averaged power or effective radiated power (ERP), whichever is greater, ≤ Pth

Pth (mW) = $ERP_{20cm}(d/20)^x$ d≤20cm
Pth (mW) = ERP_{20cm} 20 cm < d ≤40cm

Where $x = -\log_{10}\left(\frac{60}{ERP_{20cm}\sqrt{f}}\right)$

Pth (mW) = ERP_{20cm}(mW) = 2040f 0.3GHz ≤ f < 1.5 GHz
Pth (mW) = ERP_{20cm}(mW) = 3060 1.5GHz ≤ f < 6 GHz

Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

1.3 MPE-BASED EXEMPTION

For a much wider frequency range, from 300 kHz to 100 GHz, applicable for separation distances greater or equal to λ/2π, where λ is the free-space operating wavelength in meters.

Radio Source Frequency			Minimum Distance			Threshold ERP
F_L MHz		F_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W
0.3	-	1.34	159 m	-	35.6 m	1920 R^2
1.34	-	30	35.6 m	-	1.6 m	3450 R^2/f^2
30	-	300	1.6 m	-	159 mm	3.83 R^2
300	-	1500	159 mm	-	31.8 mm	0.0128 R^2f
1500	-	100000	31.8 mm	-	0.5 mm	19.2 R^2

Note: R is the antenna-person separation distance.

1.4 REFERENCE GUIDANCE

447498 D04 Interim General RF Exposure Guidance v01

1.5 DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE

None

1.6 MEASUREMENT UNCERTAINTY

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Parameters	Uncertainty
Conducted power	±0.808 dB

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:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1.7 EXEMPTION CALCULATION

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Maximum Tune Up Limit		Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)		SAR-Based Exemption Thresholds (mW)	Pass/ Fail
		(dBm)	(mW)			(dBm)	(mW)		
2402~2480	-1.49	-1	0.794	-1.64	-2.64	-4.79	0.332	3	Pass

2 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.) No.2-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)	No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666
Fax: 886-3-318-0345
Email: ICC_Service@icertifi.com.tw

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