



RADIO TEST REPORT

FCC ID : 2AI5IMTD2
Equipment : MEATER PRO DUO Charger
Brand Name : MEATER
Model Name : MT-CD20, MT-MD201
Applicant : Apption Labs Limited
66 Commercial Square, Leicester, LE2 7SR United Kingdom
Manufacturer (1) : AboCom Systems, Inc.
No. 77, Yu-Yih Rd, Chu-Nan Chen, Miao-Lih
Hsuan, Taiwan, R.O.C.
Manufacturer (2) : Jin Yeong Hann Technology CO., LTD
No. 6, Lane 187, Sec. 2, Chung Cheng Rd, Hu Kou
Hsiang, Hsin Chu Hsieh, Taiwan, R.O.C.
Standard : 47 CFR FCC Part 15.247

The product was received on Sep. 04, 2024, and testing was started from Oct. 04, 2024 and completed on Jan. 15, 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: Rex Liao

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A10_6 Ver1.3

Page Number : 3 of 28
Issued Date : Feb. 06, 2025
Report Version : 01



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	Note
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: For Battery Mode, the EUT is powered by battery, so it's not necessary to apply to AC Power-line Conducted Emissions test.

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/manufacture 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:

1. 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.
2. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.

Reviewed by: Sam Chen

Report Producer: Sophia Shiung



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

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	Bluetooth					WLAN 2.4GHz	Bluetooth
1	1	-	ApptionLabs	WIFI-01	PCB	N/A	1.74	-
2	-	1	ApptionLabs	BT-01	PCB	N/A	-	0.55

Note 1: The above information was declared by manufacturer.

Note 2: **For WLAN 2.4GHz function:**

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

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

For Bluetooth function (1TX/1RX):

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
BT-LE(1Mbps)	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)

Note:

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

**1.1.4 EUT Operational Condition**

EUT Power Type	From battery or host system with USB type-C cable		
Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/> Point-to-point	
Test Software Version	SmartRF Studio 7 v2.13.1		
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 type="checkbox"/> LE 2M PHY: 2 Mb/s		

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

The two models are identical except for the difference listed below:

Model Name	Marketed with Probes
MT-CD20	No
MT-MD201	Yes

Note 1: From the above models, model: MT-MD201 was selected to test all the test items.

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	TH01-CB	Ken Yeh	23.7~24.1 / 61~63	Dec. 13, 2024~ Jan. 15, 2025
Radiated < 1GHz	03CH05-CB	Alex Kuo	21.9~22.4 / 60~62	Oct. 04, 2024
Radiated > 1GHz	03CH03-CB	Eason Chen	22.2~22.6 / 59~61	Nov. 12, 2024~ Nov. 16, 2024
AC Conduction	CO01-CB	Tim Chen	22~23 / 58~59	Oct. 09, 2024



1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
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%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode
BT-LE(1Mbps)
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	Charge Mode: EUT (Powered by host system with USB type-C cable) + Probe

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	Normal Link After evaluating, EUT in Z axis was the worst case, so the measurement will follow this same test configuration.
1	Battery Mode: EUT in Z axis (Powered by battery) + Probe
2	Charge Mode: EUT in Z axis (Powered by host system with USB type-C cable) + Probe
For operating, mode 1 is the worst case and it was recorded in this test report.	
Operating Mode > 1GHz	CTX After evaluating, EUT in Z axis was the worst case, so the measurement will follow this same test configuration.
1	EUT in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + Bluetooth
Refer to Sporton Test Report No.: FA422340-02 for Co-location RF Exposure Evaluation.	



2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link Mode:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories
Probe*2 (Marketed with model: MT-MD201 only)
USB type-C cable*1: Shielded, 1.0m

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
-	Adapter	Apple	A1401	N/A

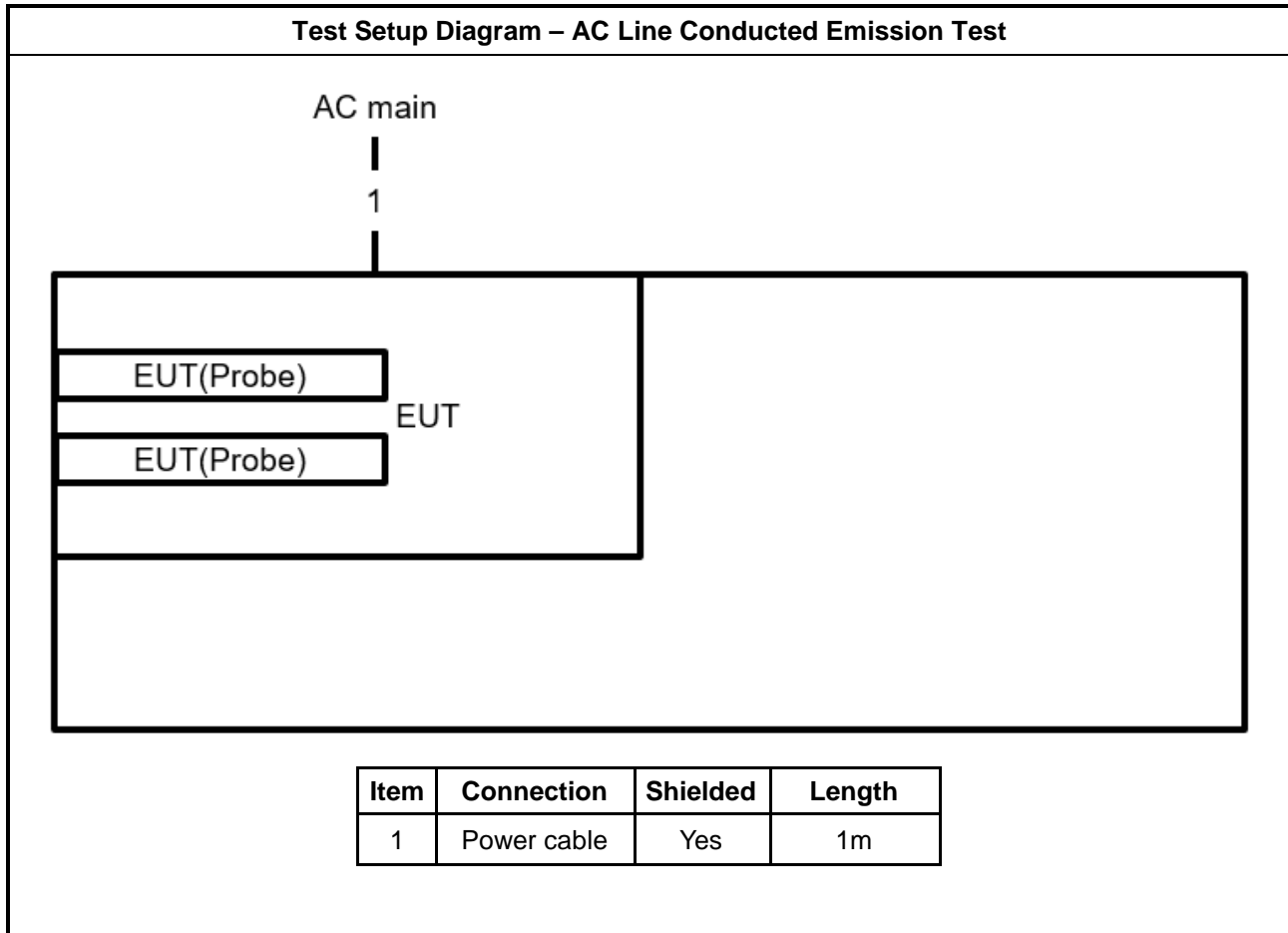
For Radiated < 1GHz:

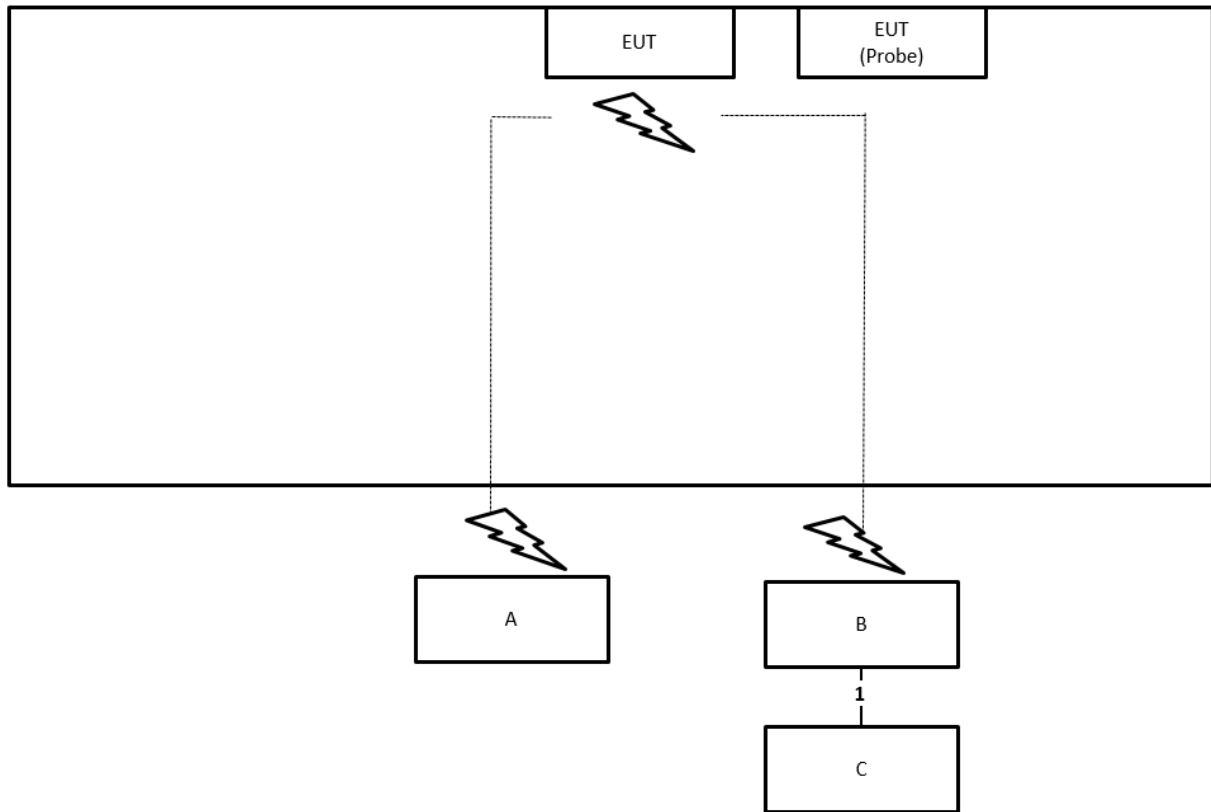
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Phone	OTTERBOX	VQP9MW0Y54	N/A
B	AP	ASUS	AX88U	N/A
C	Notebook	DELL	E4300	N/A

For Radiated > 1GHz and RF Conducted:

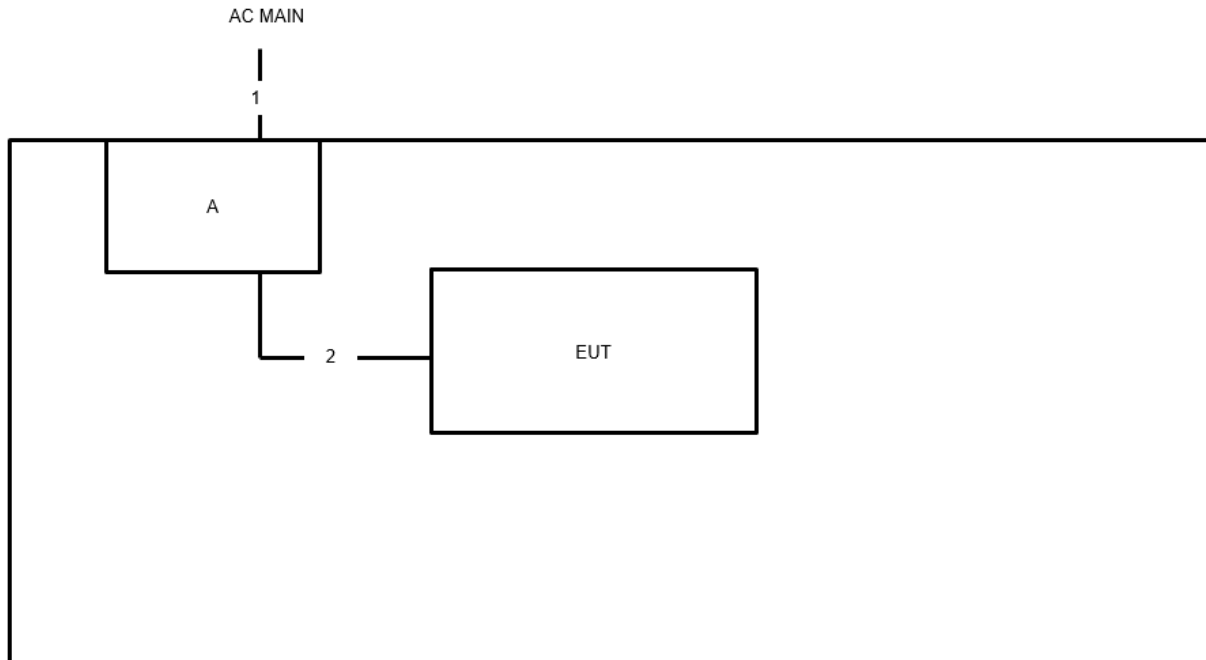
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test > 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	USB to TypeC cable	Yes	1m



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.

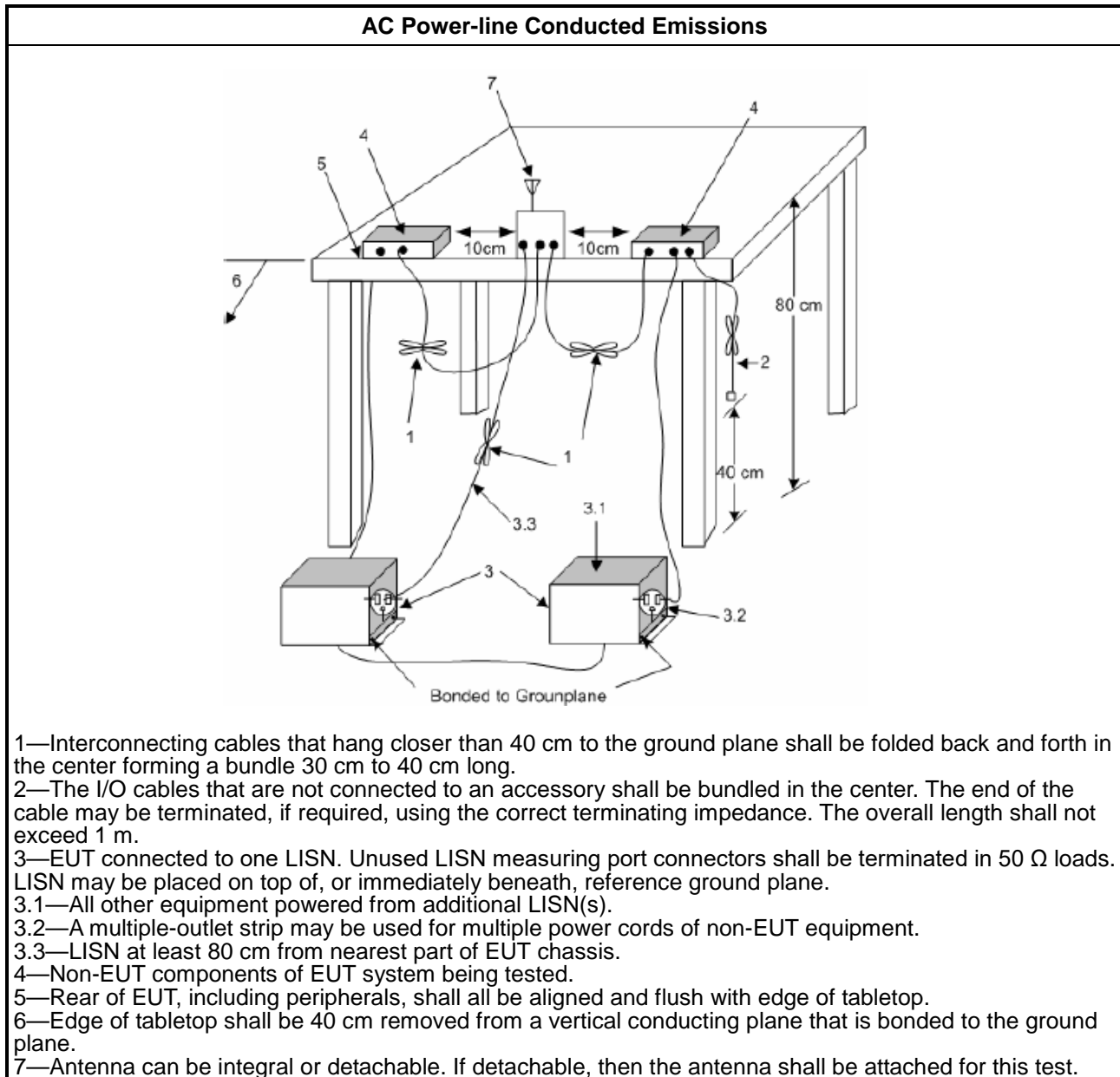
3.1.2 Measuring Instruments

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:

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

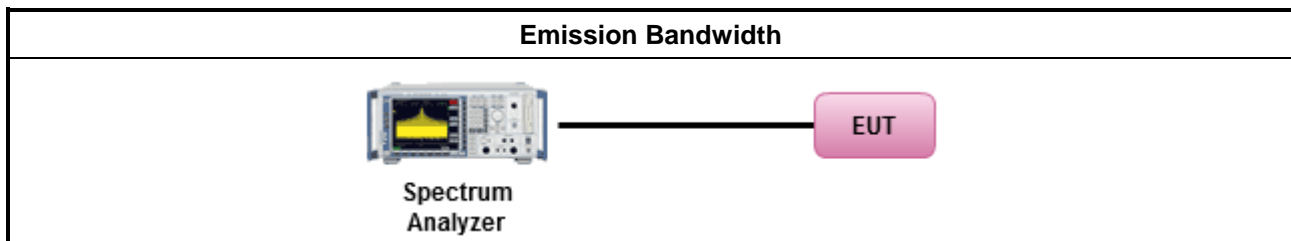
3.2.2 Measuring Instruments

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	
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪ Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
▪ 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 \geq 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).
▪ Maximum Conducted Output Power	
	[duty cycle $\geq 98\%$ 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).

▪ For conducted measurement.

- 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.
- If multiple transmit chains, EIRP calculation could be following as methods:

$$P_{\text{total}} = P_1 + P_2 + \dots + P_n$$
 (calculated in linear unit [mW] and transfer to log unit [dBm])

$$\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)



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
▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

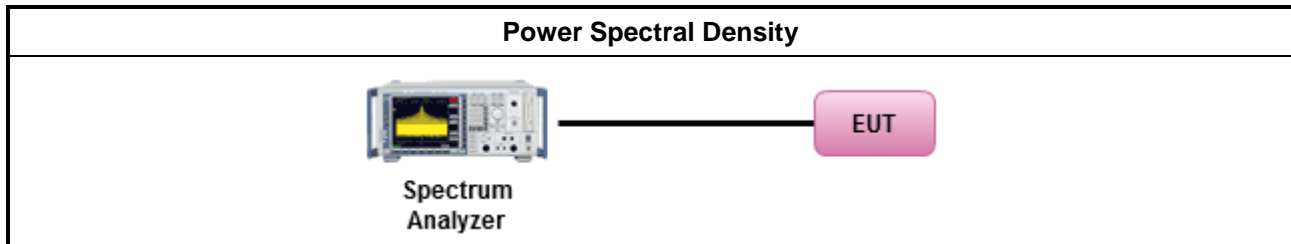
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪ 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 $\geq 98\%$ or external video / power trigger]
▪ For conducted measurement.	
▪ If The EUT supports multiple transmit chains using options given below:	
<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
<p>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.</p> <p>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.</p>	

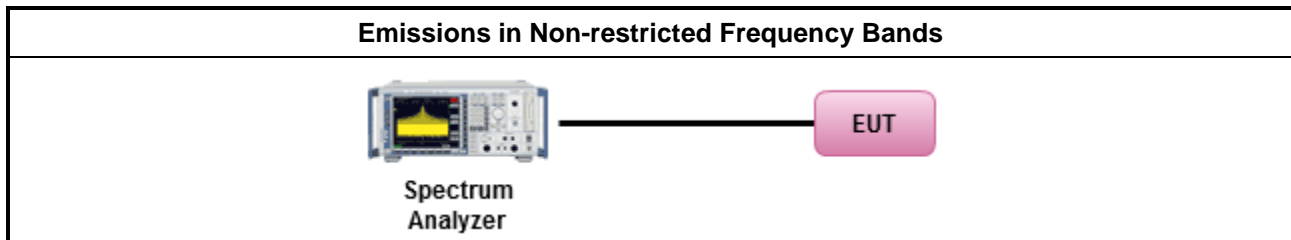
3.5.2 Measuring Instruments

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.

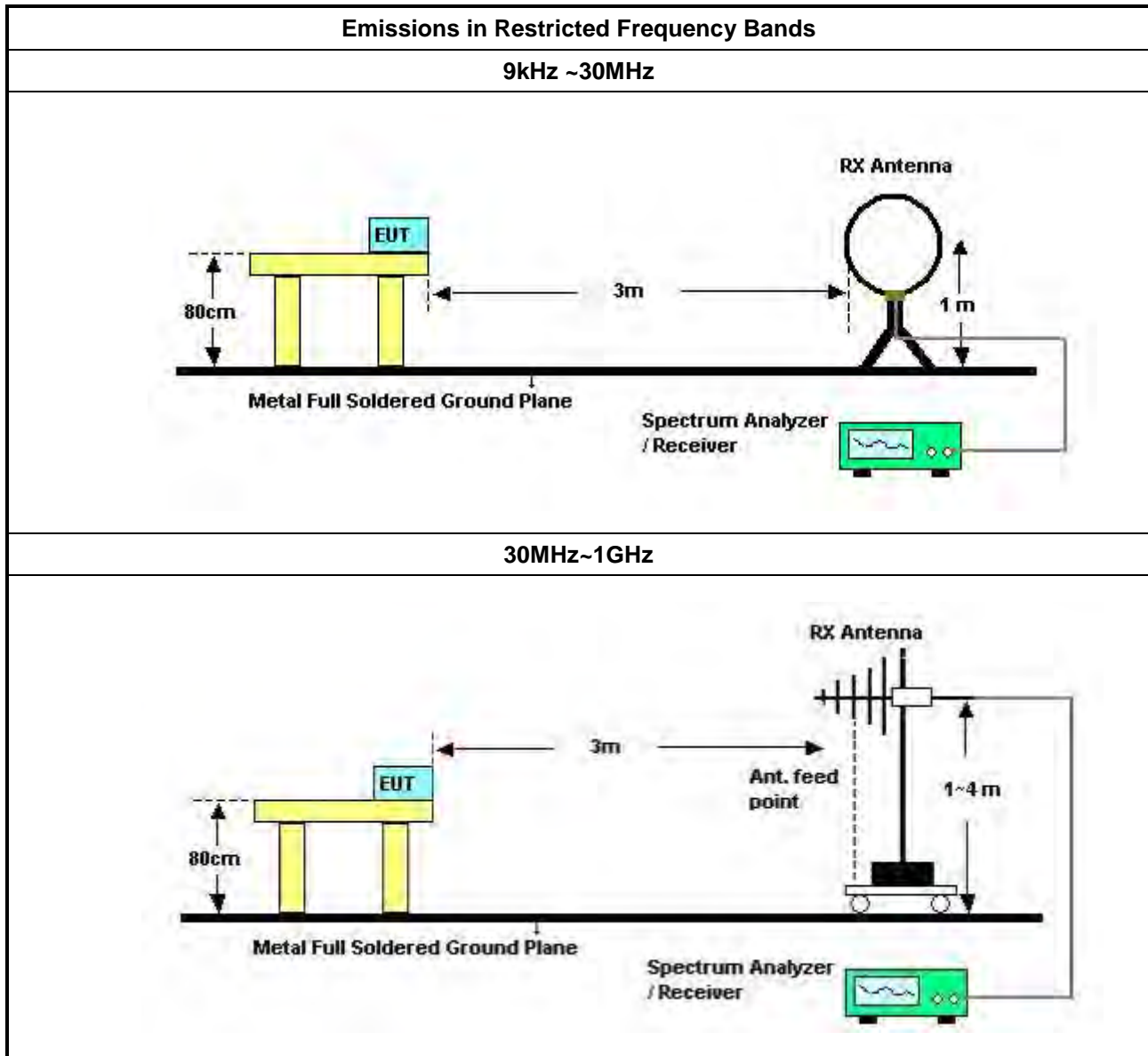
3.6.2 Measuring Instruments

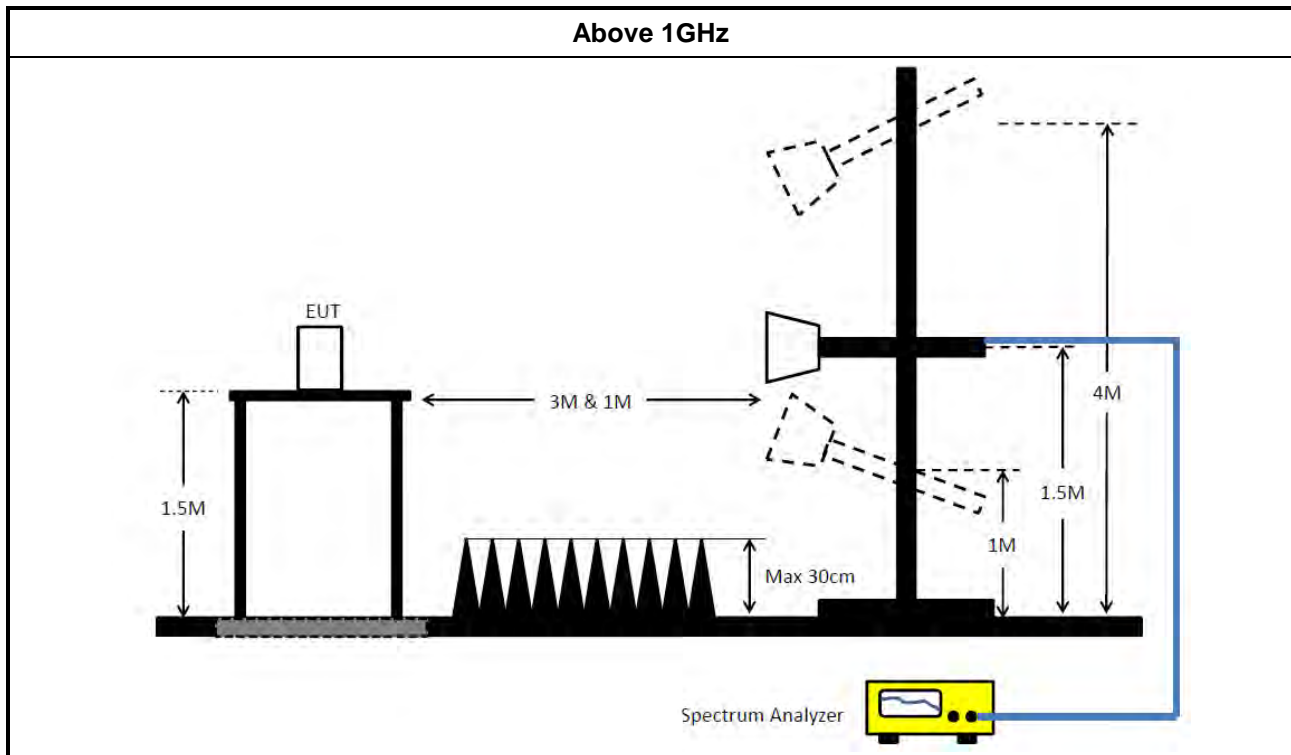
Refer a test equipment and calibration data table in this test report.

**3.6.3 Test Procedures**

Test Method	
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as 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 $\geq 98\%$).
	<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 $\geq 1/T$).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq 1/T$, 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.
▪ For the transmitter band-edge emissions shall be measured using following options below:	
	▪ 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.
	▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	▪ 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).
	▪ 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
	▪ 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. 01, 2024	Feb. 28, 2025	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 19, 2024	Feb. 18, 2025	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	Feb. 08, 2024	Feb. 07, 2025	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 17, 2023	Oct. 16, 2024	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. 13, 2023	Oct. 12, 2024	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30MHz ~ 1GHz	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. 23, 2024	Mar. 22, 2025	Radiation (03CH05-CB)
Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 02, 2024	May 01, 2025	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 17, 2024	Apr. 16, 2025	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 20, 2023	Oct. 19, 2024	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)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 03, 2024	May 02, 2025	Radiation (03CH03-CB)
Horn Antenna	ETS-Lindgren	3115	6821	750MHz~18GHz	Jan. 24, 2024	Jan. 23, 2025	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 23, 2024	Sep. 22, 2025	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jun. 29, 2024	Jun. 28, 2025	Radiation (03CH03-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 11, 2024	Jun. 10, 2025	Radiation (03CH03-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE-15247_FS	V5.11.18	2.4GHz-2.4835GHz	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 27, 2024	May 26, 2025	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1~18 GHz	Oct. 02, 2024	Oct. 01, 2025	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH01-CB)
Cable 9k-18G	Woken	RG402	Cable-95	9 kHz –18 GHz	Oct. 01, 2024	Sep. 30, 2025	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1339408	300MHz~40GHz	Sep. 13, 2024	Sep. 12, 2025	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1517009	300MHz~40GHz	Sep. 13, 2024	Sep. 12, 2025	Conducted (TH01-CB)
Test Software	SPORTON	SENSE-15247_FS	V5.11.18	2.4GHz-2.4835GHz	N.C.R.	N.C.R.	Conducted (TH01-CB)

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

NCR means Non-Calibration required.



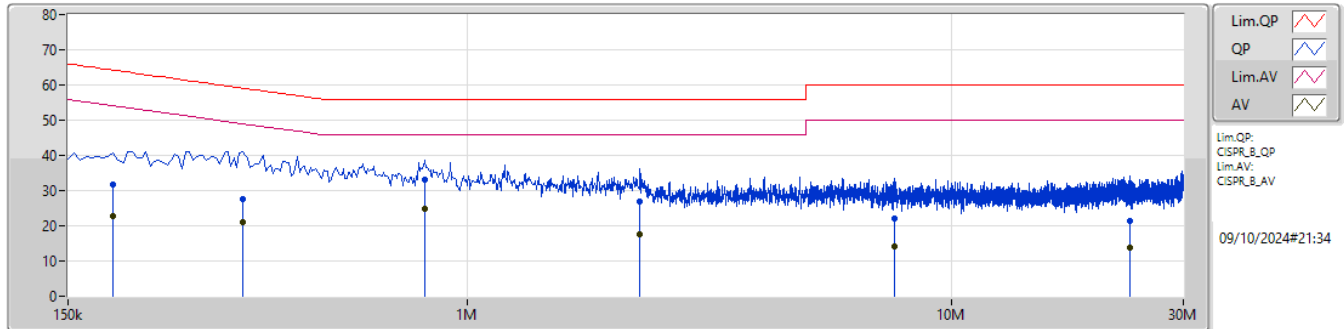
Conducted Emissions at Powerline

Appendix A

Summary

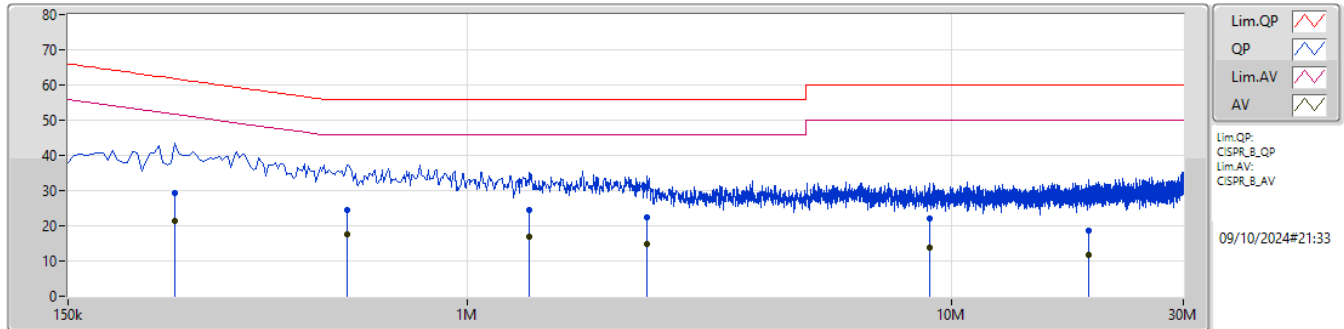
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	816k	24.94	46.00	-21.06	Line

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	186k	31.81	64.20	-32.39	9.91	Line	-	21.90	0.04	0.02	9.85						
AV	186k	22.63	54.20	-31.57	9.91	Line	-	12.72	0.04	0.02	9.85						
QP	343.5k	27.71	59.12	-31.41	9.95	Line	-	17.76	0.05	0.02	9.88						
AV	343.5k	20.87	49.12	-28.25	9.95	Line	-	10.92	0.05	0.02	9.88						
QP	816k	33.23	56.00	-22.77	9.99	Line	-	23.24	0.07	0.01	9.91						
AV	816k	24.94	46.00	-21.06	9.99	Line	"Worst"	14.95	0.07	0.01	9.91						
QP	2.27M	27.02	56.00	-28.98	10.07	Line	-	16.95	0.10	0.08	9.89						
AV	2.27M	17.74	46.00	-28.26	10.07	Line	-	7.67	0.10	0.08	9.89						
QP	7.611M	22.16	60.00	-37.84	10.25	Line	-	11.91	0.20	0.14	9.91						
AV	7.611M	14.10	50.00	-35.90	10.25	Line	-	3.85	0.20	0.14	9.91						
QP	23.33M	21.47	60.00	-38.53	10.61	Line	-	10.86	0.33	0.24	10.04						
AV	23.33M	13.92	50.00	-36.08	10.61	Line	-	3.31	0.33	0.24	10.04						

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	249k	29.33	61.79	-32.46	9.94	Neutral	-	19.39	0.06	0.02	9.86						
AV	249k	21.23	51.79	-30.56	9.94	Neutral	-	11.29	0.06	0.02	9.86						
QP	564k	24.55	56.00	-31.45	9.99	Neutral	-	14.56	0.07	0.02	9.90						
AV	564k	17.72	46.00	-28.28	9.99	Neutral	"Worst"	7.73	0.07	0.02	9.90						
QP	1.343M	24.42	56.00	-31.58	10.03	Neutral	-	14.39	0.09	0.04	9.90						
AV	1.343M	16.73	46.00	-29.27	10.03	Neutral	-	6.70	0.09	0.04	9.90						
QP	2.346M	22.52	56.00	-33.48	10.09	Neutral	-	12.43	0.11	0.09	9.89						
AV	2.346M	14.75	46.00	-31.25	10.09	Neutral	-	4.66	0.11	0.09	9.89						
QP	8.975M	22.15	60.00	-37.85	10.28	Neutral	-	11.87	0.23	0.14	9.91						
AV	8.975M	13.84	50.00	-36.16	10.28	Neutral	-	3.56	0.23	0.14	9.91						
QP	19.176M	18.58	60.00	-41.42	10.53	Neutral	-	8.05	0.30	0.22	10.01						
AV	19.176M	11.86	50.00	-38.14	10.53	Neutral	-	1.33	0.30	0.22	10.01						



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	1.081M	1M08F1D	617.5k	1.046M

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

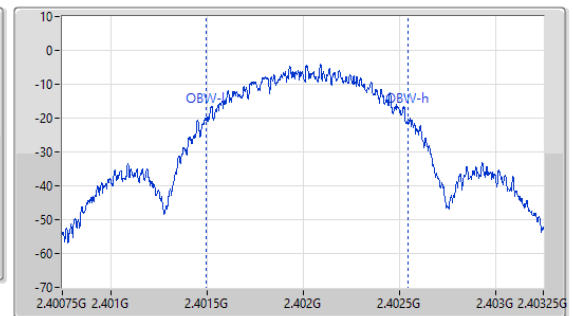
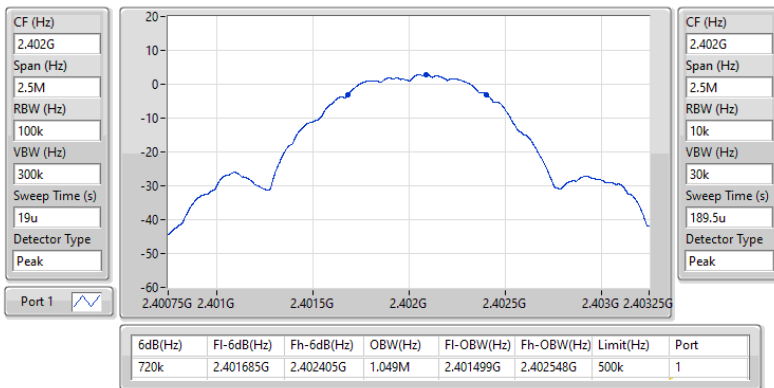
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	720k	1.049M
2440MHz	Pass	500k	617.5k	1.046M
2480MHz	Pass	500k	648.75k	1.081M

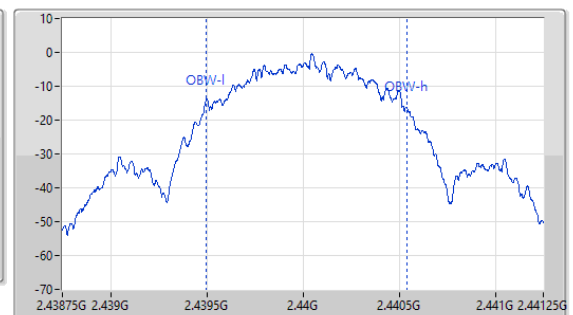
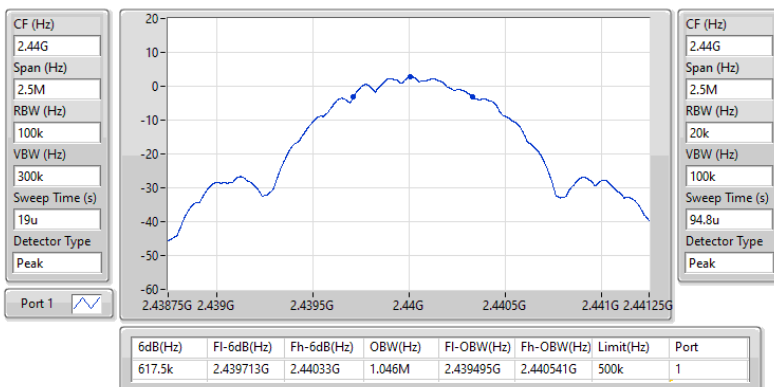
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-LE(1Mbps)
EBW-DTS
2402MHz

13/12/2024


2.4-2.4835GHz_BT-LE(1Mbps)
EBW-DTS
2440MHz

13/12/2024

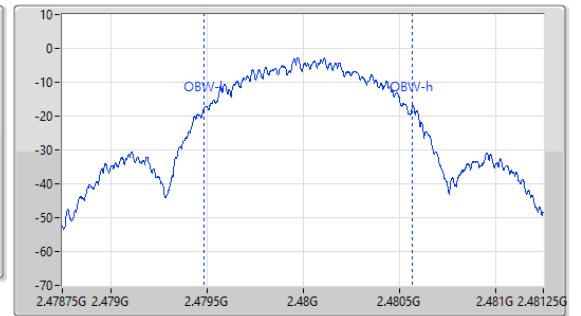
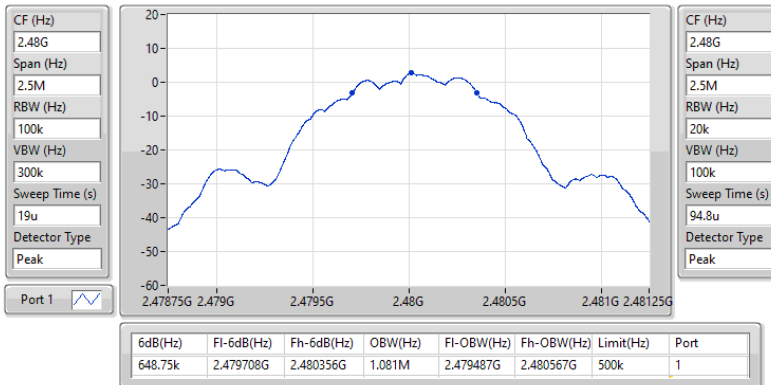


2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2480MHz

13/12/2024





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	4.77	0.00300



Average Power-DTS

Appendix C

Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	0.55	4.77	30.00
2440MHz	Pass	0.55	4.61	30.00
2480MHz	Pass	0.55	4.23	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-6.99

RBW = 3kHz;

Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	0.55	-8.01	8.00
2440MHz	Pass	0.55	-6.99	8.00
2480MHz	Pass	0.55	-7.47	8.00

DG = Directional Gain; RBW = 3kHz;

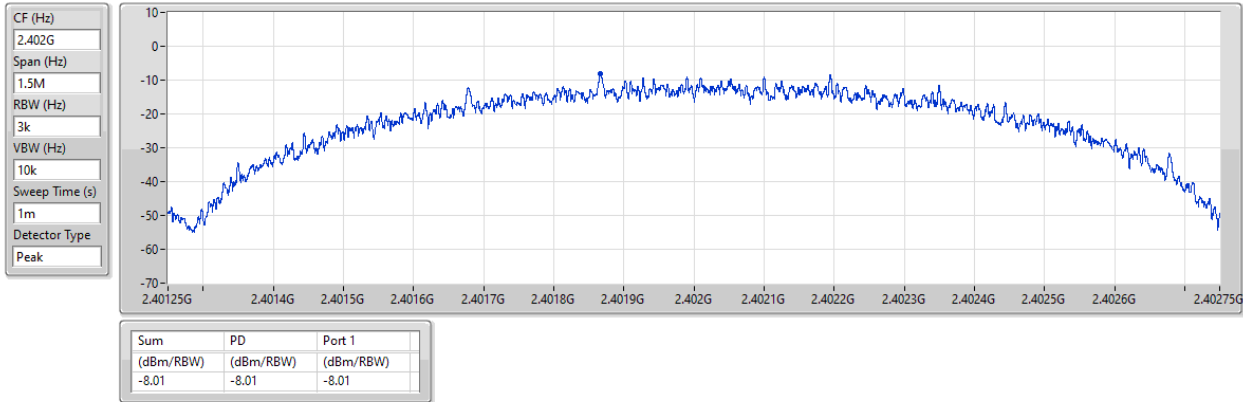
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2402MHz

13/12/2024

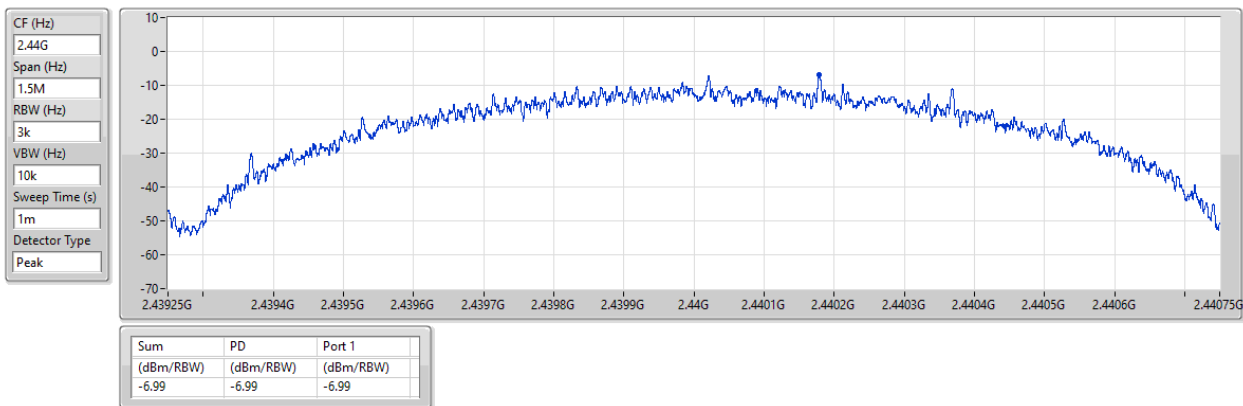


2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2440MHz

13/12/2024

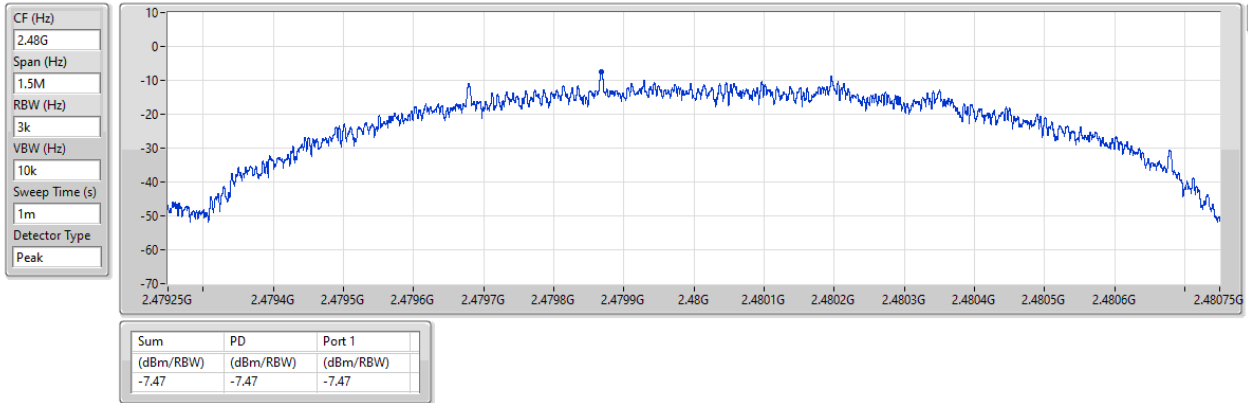


2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2480MHz

13/12/2024



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40167G	3.97	-26.03	787.88M	-52.73	2.4G	-44.95	2.4G	-43.22	2.5019G	-51.14	21.83081G	-42.77	1

Result

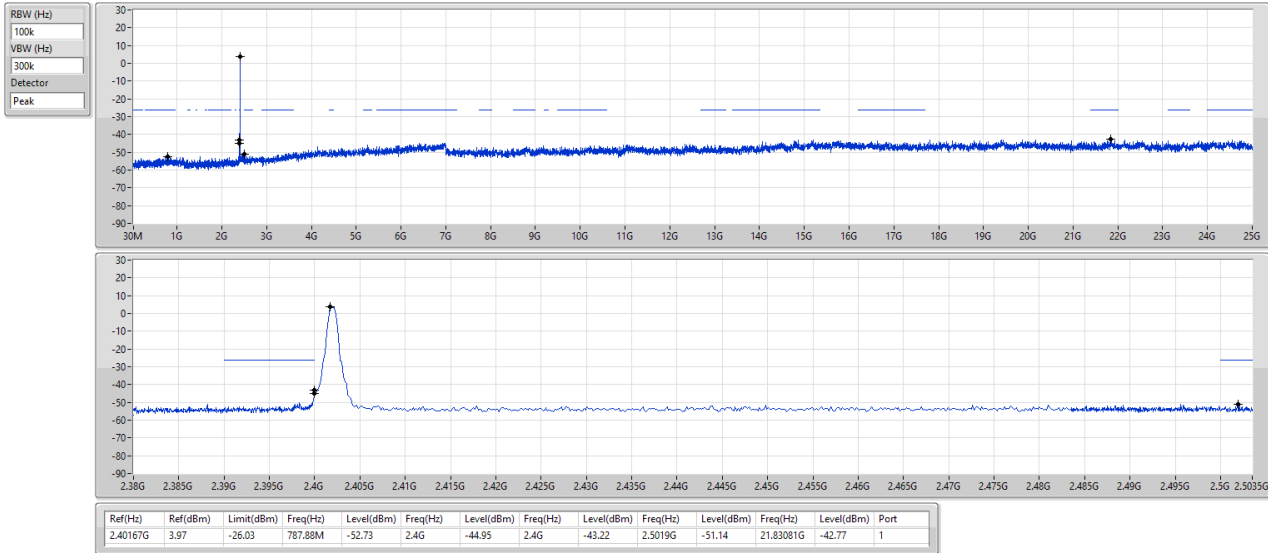
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40167G	3.97	-26.03	787.88M	-52.73	2.4G	-44.95	2.4G	-43.22	2.5019G	-51.14	21.83081G	-42.77	1
2440MHz	Pass	2.40167G	3.97	-26.03	2.30245G	-53.02	2.39028G	-52.44	2.4G	-54.92	2.50142G	-51.02	15.00593G	-42.79	1
2480MHz	Pass	2.40167G	3.97	-26.03	2.17438G	-52.59	2.39664G	-51.56	2.4G	-54.23	2.5015G	-51.69	15.19434G	-40.14	1

2.4-2.4835GHz_BT-LE(1Mbps)

CSEndB-DTS

2402MHz

13/12/2024

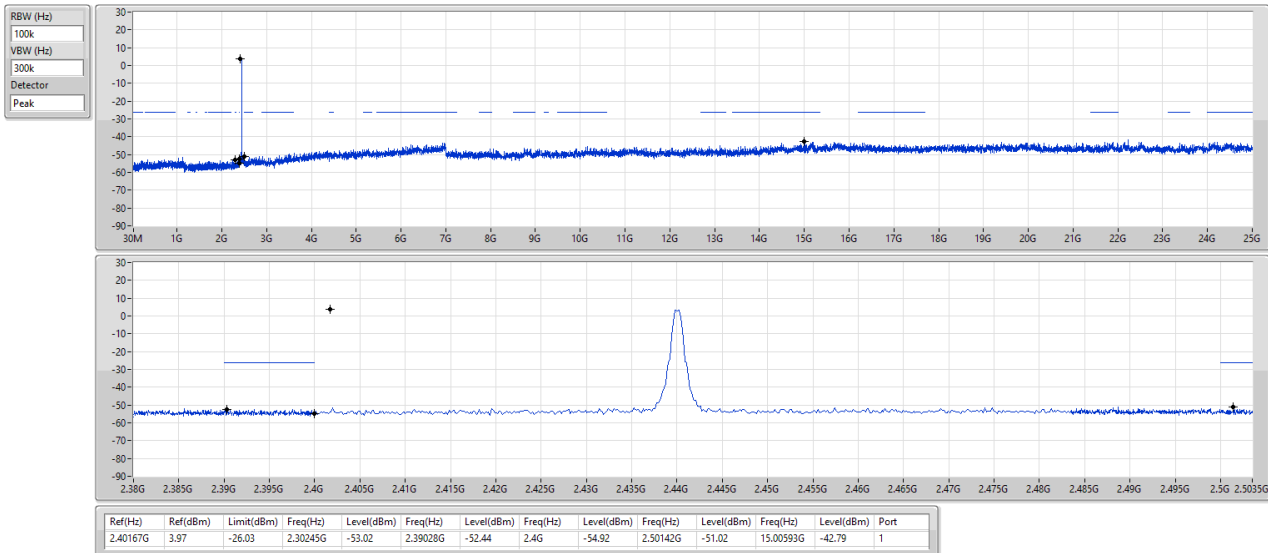


2.4-2.4835GHz_BT-LE(1Mbps)

CSEndB-DTS

2440MHz

13/12/2024



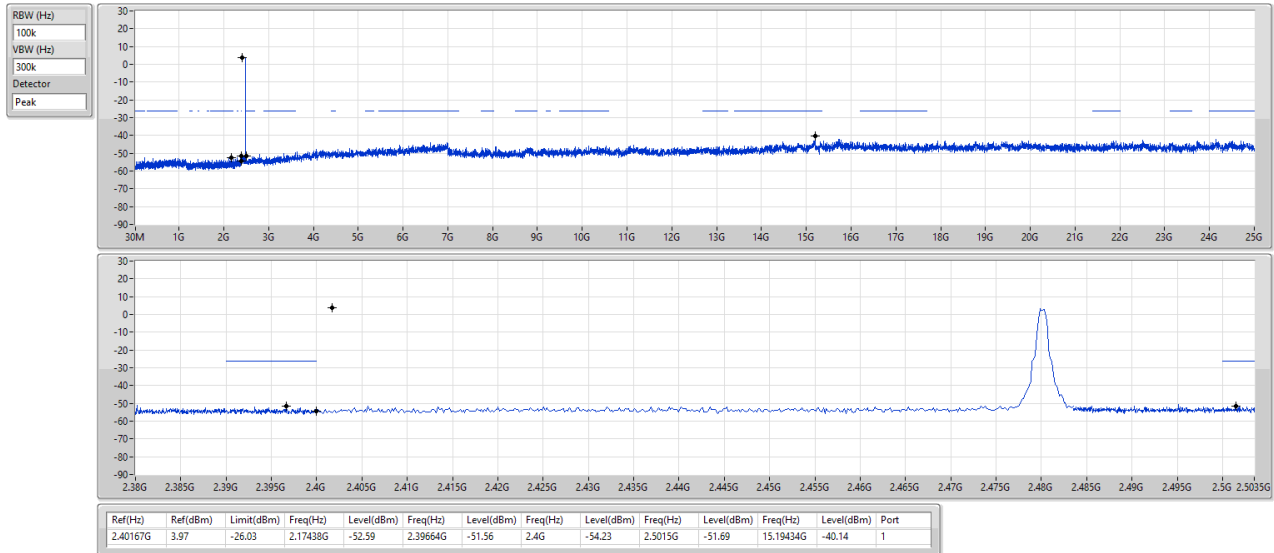
2.4-2.4835GHz_BT-LE(1Mbps)

CSEndB-DTS

2480MHz

13/12/2024

Port 1





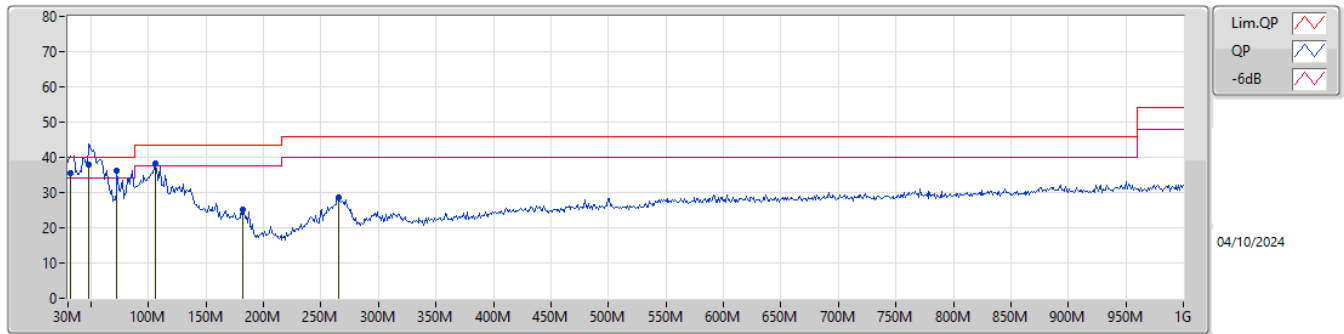
Radiated Emissions below 1GHz

Appendix F.1

Summary

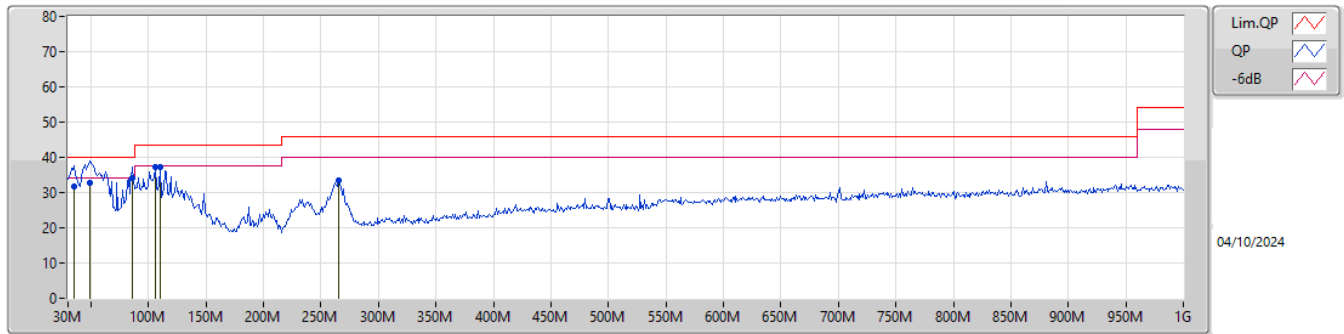
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	48.43M	38.04	40.00	-1.96	Vertical

Mode 1



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	35.48	40.00	-4.52	-6.73	3	Vertical	54	1.25	-	42.21	23.53	1.16	31.42		
QP	48.43M	38.04	40.00	-1.96	-15.38	3	Vertical	19	1.25	"Worst"	53.42	14.92	1.32	31.62		
PK	72.68M	36.05	40.00	-3.95	-17.58	3	Vertical	209	1.00	-	53.63	12.55	1.58	31.71		
PK	105.66M	38.14	43.50	-5.36	-12.63	3	Vertical	165	1.25	-	50.77	17.27	1.84	31.74		
PK	182.29M	25.34	43.50	-18.16	-14.13	3	Vertical	246	1.00	-	39.47	15.17	2.48	31.78		
PK	265.71M	28.47	46.00	-17.53	-9.85	3	Vertical	307	3.00	-	38.32	19.07	2.91	31.83		

Mode 1



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	34.85M	31.75	40.00	-8.25	-8.40	3	Horizontal	336	2.00	-	40.15	21.90	1.19	31.49		
QP	49.4M	32.63	40.00	-7.37	-15.73	3	Horizontal	169	2.00	-	48.36	14.57	1.33	31.63		
QP	86.26M	34.10	40.00	-5.90	-15.92	3	Horizontal	124	2.00	"Worst"	50.02	14.23	1.58	31.73		
PK	105.66M	37.23	43.50	-6.27	-12.63	3	Horizontal	150	1.50	-	49.86	17.27	1.84	31.74		
PK	110.51M	37.34	43.50	-6.16	-12.01	3	Horizontal	115	1.50	-	49.35	17.84	1.90	31.75		
PK	265.71M	33.38	46.00	-12.62	-9.85	3	Horizontal	200	1.00	-	43.23	19.07	2.91	31.83		

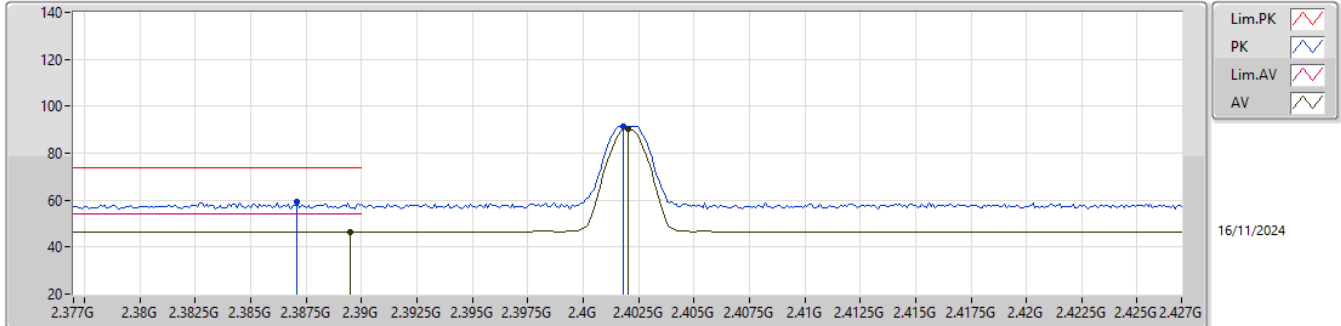


Summary

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	2.4998G	47.35	54.00	-6.65	3	Horizontal	355	1.44	-

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

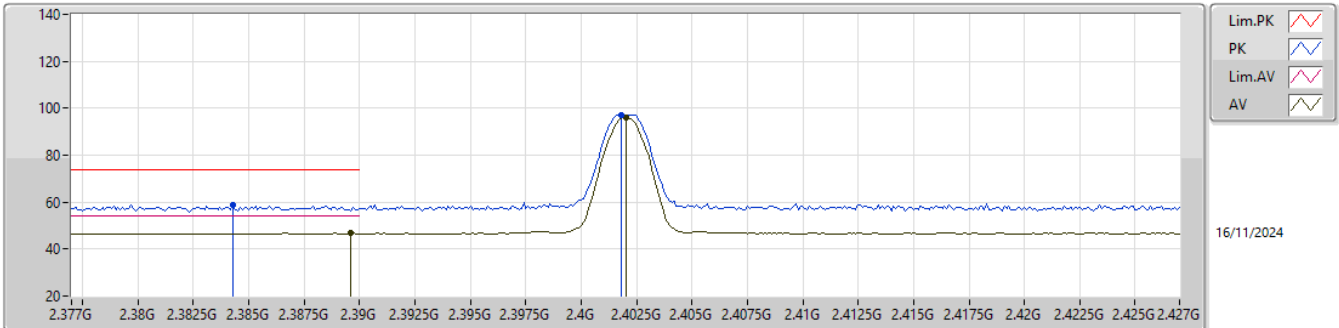


EUT_Z_1TX
Setting 5
03-V-S-5

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	2.3871G	59.40	74.00	-14.60	26.33	3	Vertical	14	1.29	-	28.27	4.80	-				
AV	2.3895G	46.52	54.00	-7.48	13.42	3	Vertical	14	1.29	-	28.29	4.81	-				
PK	2.4018G	91.52	Inf	-Inf	58.40	3	Vertical	14	1.29	-	28.30	4.82	-				
AV	2.402G	90.44	Inf	-Inf	57.32	3	Vertical	14	1.29	-	28.30	4.82	-				

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

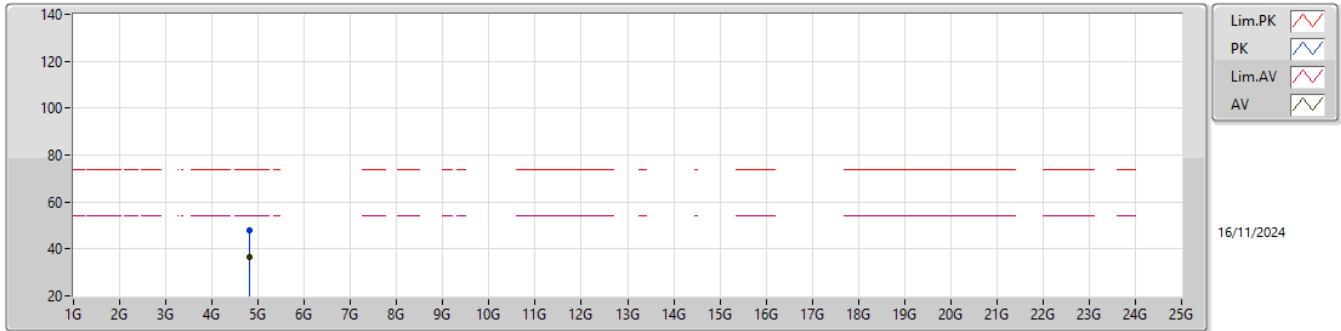


EUT_Z_1TX
Setting 5
03-V-S-5

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	2.3843G	58.83	74.00	-15.17	25.79	3	Horizontal	355	1.73	-	28.24	4.80	-				
AV	2.3896G	46.68	54.00	-7.32	13.57	3	Horizontal	355	1.73	-	28.30	4.81	-				
PK	2.4018G	97.20	Inf	-Inf	64.08	3	Horizontal	355	1.73	-	28.30	4.82	-				
AV	2.402G	96.15	Inf	-Inf	63.03	3	Horizontal	355	1.73	-	28.30	4.82	-				

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

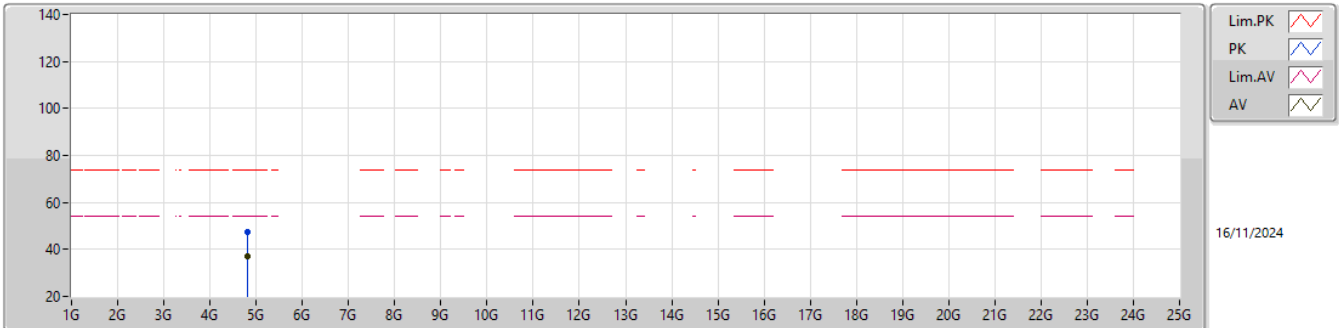


EUT_Z_1TX
Setting 5
03-V-S-5

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	4.80344G	47.97	74.00	-26.03	42.88	3	Vertical	297	2.32	-	33.21	7.21	35.33			
AV	4.80384G	36.55	54.00	-17.45	31.46	3	Vertical	297	2.32	-	33.21	7.21	35.33			

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

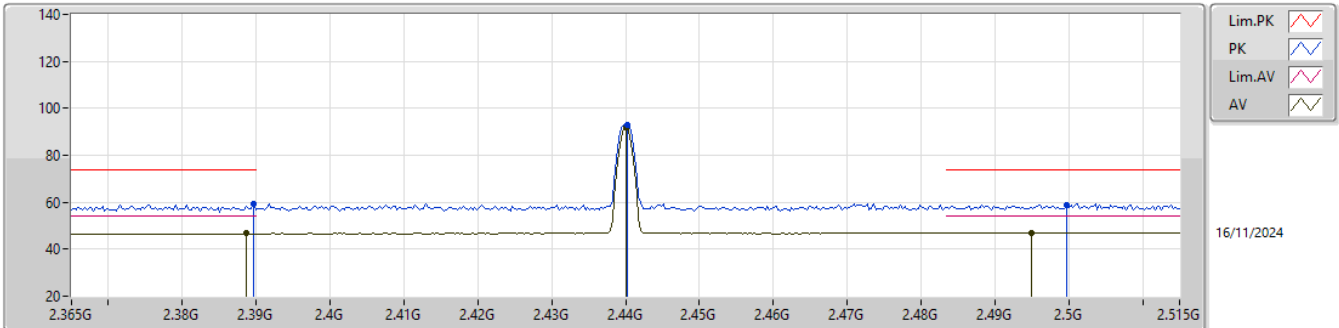


EUT_Z_1TX
Setting 5
03-V-S-5

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	4.80368G	47.25	74.00	-26.75	42.16	3	Horizontal	130	1.26	-	33.21	7.21	35.33			
AV	4.80424G	37.03	54.00	-16.97	31.94	3	Horizontal	130	1.26	-	33.21	7.21	35.33			

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

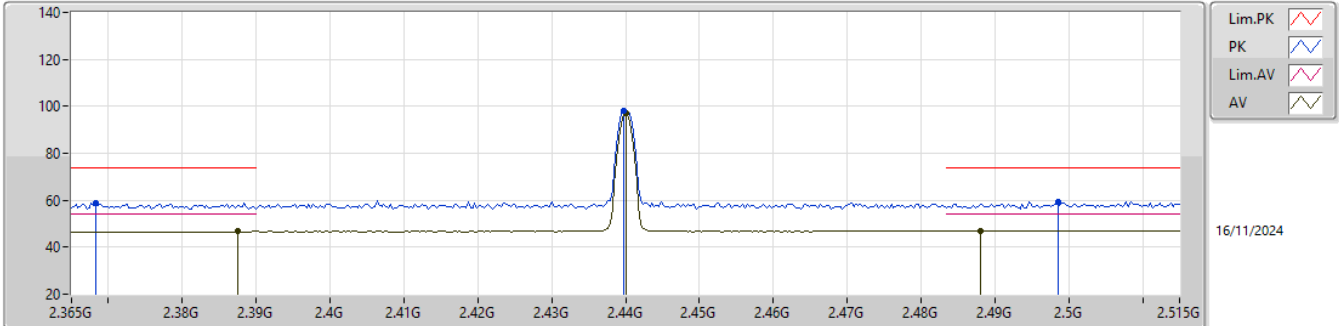


EUT_Z_1TX
Setting 5
03-V-S-5

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	2.3896G	59.15	74.00	-14.85	26.04	3	Vertical	18	3.00	-	28.30	4.81	-			
AV	2.3887G	46.66	54.00	-7.34	13.57	3	Vertical	18	3.00	-	28.29	4.80	-			
PK	2.4403G	93.06	Inf	-Inf	59.90	3	Vertical	18	3.00	-	28.30	4.86	-			
AV	2.44G	91.98	Inf	-Inf	58.82	3	Vertical	18	3.00	-	28.30	4.86	-			
PK	2.4997G	58.76	74.00	-15.24	25.43	3	Vertical	18	3.00	-	28.40	4.93	-			
AV	2.4949G	47.05	54.00	-6.95	13.73	3	Vertical	18	3.00	-	28.40	4.92	-			

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

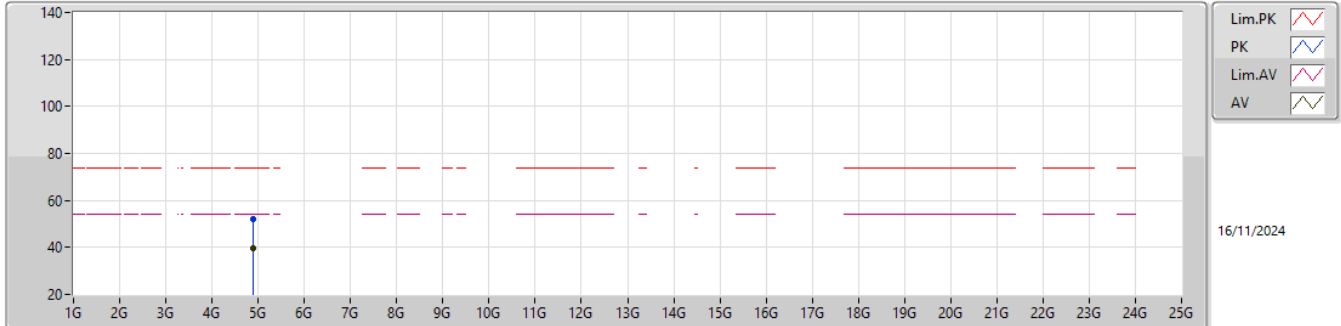


EUT_Z_1TX
Setting 5
03-V-S-5

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	2.3683G	59.00	74.00	-15.00	26.02	3	Horizontal	355	1.10	-	28.20	4.78	-			
AV	2.3875G	46.69	54.00	-7.31	13.62	3	Horizontal	355	1.10	-	28.27	4.80	-			
PK	2.4397G	97.99	Inf	-Inf	64.83	3	Horizontal	355	1.10	-	28.30	4.86	-			
AV	2.44G	96.94	Inf	-Inf	63.78	3	Horizontal	355	1.10	-	28.30	4.86	-			
PK	2.4985G	59.46	74.00	-14.54	26.13	3	Horizontal	355	1.10	-	28.40	4.93	-			
AV	2.488G	47.09	54.00	-6.91	13.79	3	Horizontal	355	1.10	-	28.38	4.92	-			

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

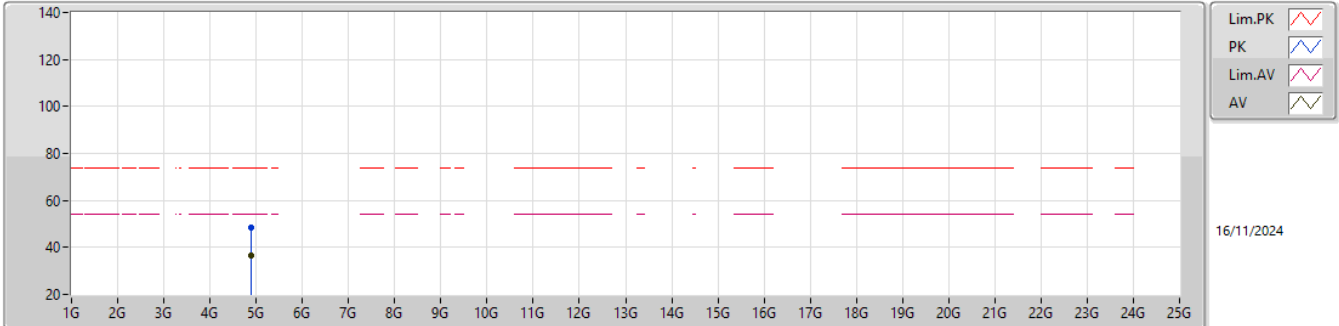


EUT_Z_1TX
Setting 5
03-V-S-5

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	4.88188G	51.98	74.00	-22.02	46.77	3	Vertical	28	2.58	-	33.36	7.18	35.33			
AV	4.87984G	39.75	54.00	-14.25	34.54	3	Vertical	28	2.58	-	33.36	7.18	35.33			

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

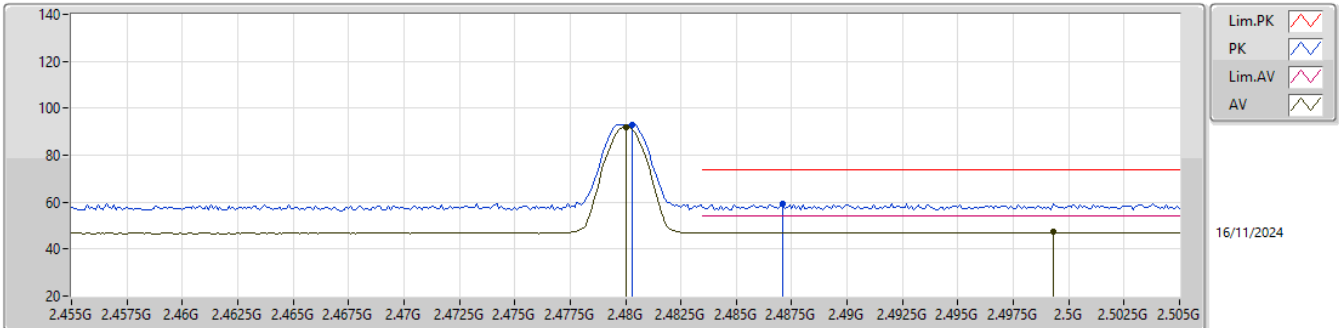


EUT_Z_1TX
Setting 5
03-V-S-5

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	4.8796G	48.59	74.00	-25.41	43.38	3	Horizontal	51	1.36	-	33.36	7.18	35.33			
AV	4.87976G	36.52	54.00	-17.48	31.31	3	Horizontal	51	1.36	-	33.36	7.18	35.33			

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

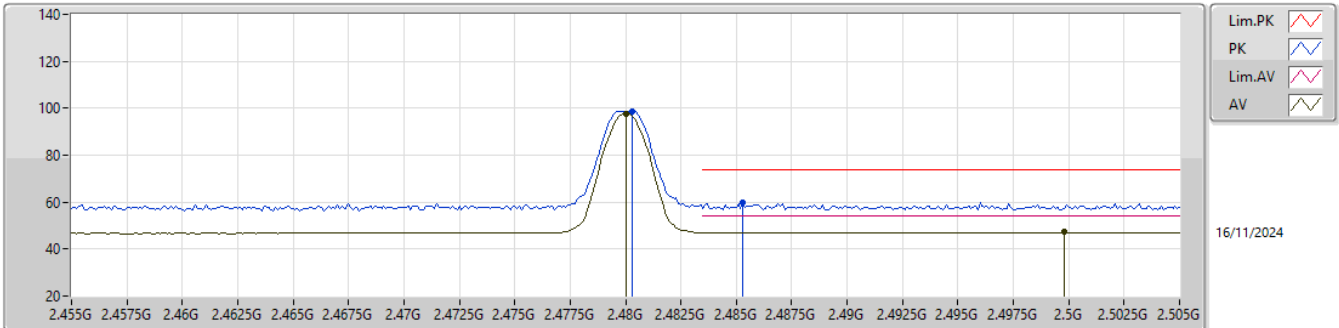


EUT_Z_1TX
Setting 5
03-V-S-5

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	2.4803G	93.09	Inf	-Inf	59.88	3	Vertical	18	1.80	-	28.30	4.91	-				
AV	2.48G	92.04	Inf	-Inf	58.83	3	Vertical	18	1.80	-	28.30	4.91	-				
PK	2.4871G	59.51	74.00	-14.49	26.22	3	Vertical	18	1.80	-	28.37	4.92	-				
AV	2.4993G	47.32	54.00	-6.68	13.99	3	Vertical	18	1.80	-	28.40	4.93	-				

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

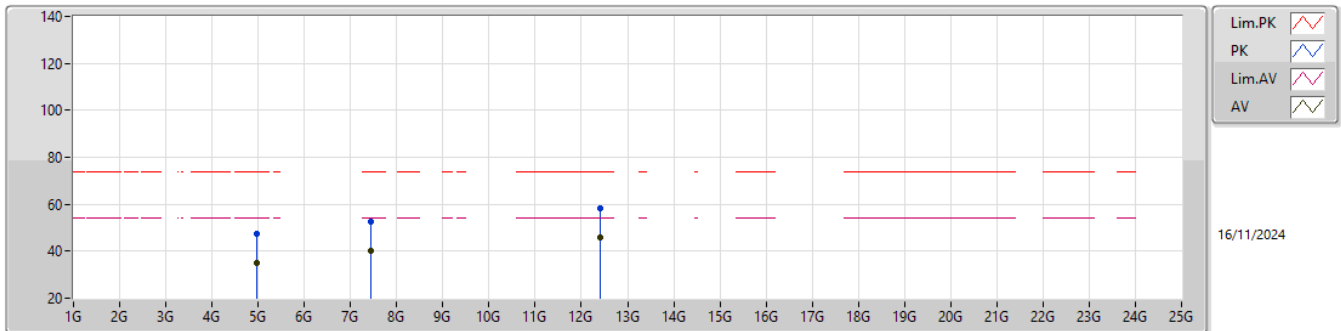


EUT_Z_1TX
Setting 5
03-V-S-5

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	2.4803G	98.74	Inf	-Inf	65.53	3	Horizontal	355	1.44	-	28.30	4.91	-			
AV	2.48G	97.74	Inf	-Inf	64.53	3	Horizontal	355	1.44	-	28.30	4.91	-			
PK	2.4853G	59.99	74.00	-14.01	26.73	3	Horizontal	355	1.44	-	28.35	4.91	-			
AV	2.4998G	47.35	54.00	-6.65	14.02	3	Horizontal	355	1.44	-	28.40	4.93	-			

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

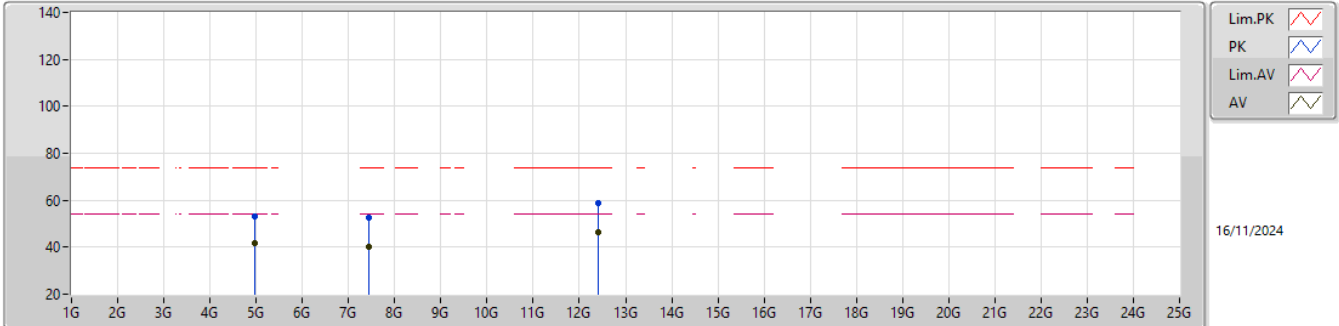


EUTZ_1TX
Setting 5
03-V-S-5

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	4.95984G	47.23	74.00	-26.77	41.81	3	Vertical	166	2.30	-	33.60	7.15	35.33			
AV	4.96G	35.21	54.00	-18.79	29.79	3	Vertical	166	2.30	-	33.60	7.15	35.33			
PK	7.43698G	52.67	74.00	-21.33	42.28	3	Vertical	353	2.52	-	36.83	8.72	35.16			
AV	7.43536G	39.96	54.00	-14.04	29.57	3	Vertical	353	2.52	-	36.83	8.72	35.16			
PK	12.39928G	58.08	74.00	-15.92	41.74	3	Vertical	111	1.86	-	38.60	11.80	34.06			
AV	12.40252G	45.95	54.00	-8.05	29.60	3	Vertical	111	1.86	-	38.60	11.80	34.05			

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX



EUT_Z_1TX
Setting 5
03-V-S-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	4.95948G	53.08	74.00	-20.92	47.66	3	Horizontal	293	3.00	-	33.60	7.15	35.33			
AV	4.95992G	41.63	54.00	-12.37	36.21	3	Horizontal	293	3.00	-	33.60	7.15	35.33			
PK	7.4368G	52.47	74.00	-21.53	42.08	3	Horizontal	21	2.08	-	36.83	8.72	35.16			
AV	7.43946G	39.99	54.00	-14.01	29.62	3	Horizontal	21	2.08	-	36.82	8.72	35.17			
PK	12.40458G	58.60	74.00	-15.40	42.25	3	Horizontal	251	2.91	-	38.60	11.80	34.05			
AV	12.39642G	46.45	54.00	-7.55	30.10	3	Horizontal	251	2.91	-	38.61	11.80	34.06			