Report No. : FR461102AB





RADIO TEST REPORT

FCC ID	: ZQ6-WL72917
Equipment	: AloT Module
Brand Name	: AMPAK Technology Inc, SPARKLAN COMMUNICATIONS INC
Model Name	: WL72917
Applicant	: AMPAK Technology Inc.
	3F, No. 1, Jen Al Road, Hsinchu Industrial Park,Hsinchu City 30352 , Taiwan (R.O.C.)
Manufacturer	: BILLIONTON SYSTEMS INC.
	No. 21, Sui-Lih Rd., Hsin-Chu City 300, Taiwan (R.O.C.)
Standard	: 47 CFR FCC Part 15.247

The product was received on Jul. 05, 2024, and testing was started from Aug. 20, 2024 and completed on Dec. 05, 2024. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory 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 Report Template No.: CB-A10_6 Ver1.3 Page Number: 1 of 31Issued Date: Jan. 16, 2025Report Version: 02



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Photographs of EUT v01



History of this test report

Report No.	Version	Description	Issued Date
FR461102AB	01	Initial issue of report	Dec. 12, 2024
FR461102AB	FR461102AB02Add a PIFA antenna with the same type and gain (No. 9). (Please refer to section 1.1.2 for detail information.)		Jan. 16, 2025



Summary of Test Result

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

Conformity Assessment Condition:

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

Disclaimer:

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

Reviewed by: Sam Chen Report Producer: Sandy Chuang



1 General Description

1.1 Information

1.1.1 RF General Information

<For BT-LE(1Mbps)>

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

<For BT-LE(2Mbps)>

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2478	0-38 [39]

Band	Mode	BWch (MHz)	Nant
2.4G	BT-LE(1Mbps)	1	1
2.4G	BT-LE(500Kb/s)	1	1
2.4G	BT-LE(125Kb/s)	1	1
2.4G	BT-LE(2Mbps)	2	1

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)	Cable loss (dB)	Net Gain (dBi)	Equip EUT
1		SparkLAN	AD-305N	Dipole	Reverse SMA	5.00	0.4	4.60	2
2		SparkLAN	AD-103AG	Dipole	Reverse SMA	2.02	0.4	1.62	2
3		SparkLAN	AD-301N	Dipole	Reverse SMA	4.40	0.4	4.00	2
4	1	SparkLAN	AD-302N	Dipole	Reverse SMA	3.14	0.4	2.74	2
5		SparkLAN	AD-303N	Dipole	Reverse SMA	3.14	0.4	2.74	2
6		Pulse	TZ2412W	Dipole	Reverse SMA	3.60	0.4	3.20	2
7	-	Pulse	ANT8010LL04R2400A	Chip	N/A	0.70	-	0.70	1
8	1	TSKY	A8-A006-00XXX	PIFA	I-PEX	1.02	-	1.02	2
9	-	TSKY	A8-A006-00739	PIFA	I-PEX	1.02	-	1.02	2

Note 1: The above information was declared by manufacturer.

Note 2:

For RF Conducted:

only the Ant.1 highest antenna gain has been tested and recorded in the test report.

For Other tests:

Only the highest gain antenna (Ant.1, Ant.7 and Ant.8) were selected from each different types of antenna to test and record in report.

<WLAN 2.4GHz>

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

Only Port 1 can be used as transmitting antenna.

<Bluetooth> (1TX/1RX):

Only Port 1 can be used as transmitting antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF (dB)	Т (s)	VBW (Hz)_1/T
BT-LE(1Mbps)	0.879	0.56	2.198m	1k
BT-LE(2Mbps)	0.456	3.41	1.141m	1k

Note:

• DC is Duty Cycle.

DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From host system		
Function	Point-to-multipoint Depint-to-point		
Test Software Version	SUDT AccessPort v1.37		
	LE 1M PHY: 1 Mb/s		
Support Modo	LE Coded PHY (S=2): 500 Kb/s		
Support Mode	LE Coded PHY (S=8): 125 Kb/s		
]	LE 2M PHY: 2 Mb/s		

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

Brand Name	Model Name	Description
AMPAK Technology Inc	WI 70047	All the brands are identical, the difference brand
SPARKLAN COMMUNICATIONS INC	WL72917	for difference served as marketing strategy.

Note 1: From the above, brand: AMPAK Technology Inc was selected as representative model for the test and

its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.6 Table for EUT Information

EUT	Equip Antenna
1	Ant. 7
2	Ant. 1~6 (with I-PEX cable), Ant. 8~9

Note 1:

For RF Conducted:

"EUT 2 + Ant. 1 with I-PEX cable" was selected as representative EUT for the test and its data was recorded in this report.

For Other tests:

Only the highest gain antenna EUT 2 + Ant. 1 with I-PEX cable, EUT 1 + Ant. 7 and EUT 2 + Ant. 8, were selected from each different types of antenna to test and record in this report

Note 2: The above information was declared by manufacturer.



1.2 Applicable Standards

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

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

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

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

1.3 Testing Location Information

Testing Location Information Test Lab. : Sporton International Inc. Hsinchu Laboratory Hsinchu ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) (TAF: 3787) 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	Richard Pai	22.6~24.6 / 63~65	Nov. 29, 2024~ Dec. 02, 2024
Radiated (Below 1GHz)	03CH01-CB	Black Lu	21.3-22.6 / 54-59	Aug. 20, 2024~ Nov. 29, 2024
Radiated (Above 1GHz)	03CH01-CB 03CH03-CB 03CH04-CB	Black Lu	21.3-22.6 / 54-59 21.8-22.9 / 55-58 22.7-23.8 / 56-59	Aug. 20, 2024~ Nov. 29, 2024
AC Conduction	CO01-CB	Bob Chang	22~23 / 57~58	Dec. 03, 2024~ Dec. 05, 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
BT-LE(2Mbps)
2402MHz
2440MHz
2478MHz



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	СТХ	
1	WLAN 2.4GHz: EUT 1 + Ant. 7	
2	WLAN 2.4GHz: EUT 2 + Ant. 1 with I-PEX cable	
3	WLAN 2.4GHz: EUT 2 + Ant. 8	
4	Bluetooth: EUT 1 + Ant. 7	
5	Bluetooth: EUT 2 + Ant. 1 with I-PEX cable	
6	Bluetooth: EUT 2 + Ant. 8	
For operating mode 3 is the worst case and it was record in this test report.		

The Worst Case Mode for Following Conformance Tests		
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands	
Test Condition	Conducted measurement at transmit chains	
1	EUT 2 + Ant. 1 with I-PEX cable	



The Worst Case Mode for Following Conformance Tests			
Tests Ite	em	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 Mod	e < 1GHz	СТХ	
1GHz. Thus, the For Bluetooth The EUT was per- EUT 1 in Y axis has been evalua	the worst measurer erformed a + Ant. 7, E tted to be t	case was found at as below for Emissions in Restricted Frequency Bands above nent will follow this same test configuration. t X axis, Y axis and Z axis position. UT 2 in X axis + Ant. 1 with I-PEX cable and EUT 2 in Z axis + Ant. 8 he worst case at Restricted Frequency Bands above 1GHz; I follow this same test configuration	
1	WLAN 2.4	4GHz: EUT 1 in X axis + Ant. 7	
2	WLAN 2.4	4GHz: EUT 2 in X axis + Ant. 1 with I-PEX cable	
3	WLAN 2.4	4GHz: EUT 2 in X axis + Ant. 8	
4 Bluetooth: EUT 1 in Y axis + Ant. 7			
5 Bluetooth: EUT 2 in X axis + Ant. 1 with I-PEX cable			
6 Bluetooth: EUT 2 in Z axis + Ant. 8			
For operating mode 3 is the worst case and it was record in this test report.			
Operating Mode > 1GHz CTX			
The EUT was pe	The EUT was performed at X axis, Y axis and Z axis position, and the worst case as below:		
1	EUT 1 + A	Ant. 7 (Bandedge at Z axis / Harmonic at Y axis)	
2	EUT 2 + A	Ant. 1 with I-PEX cable (Bandedge at X axis / Harmonic at X axis)	
3	EUT 2 + A	Ant. 8 (Bandedge at X axis / Harmonic at Z axis)	

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A



2.5 Support Equipment

For AC Conduction:

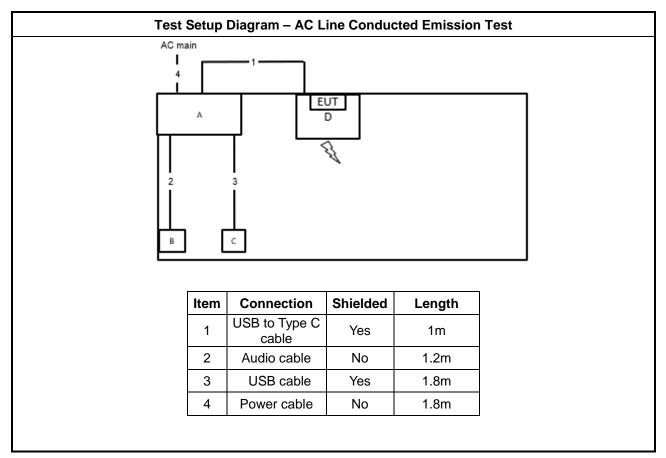
	Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID	
А	NB	DELL	PP13S	N/A	
В	Earphone	e-Power	GT-02	N/A	
С	Mouse	acer	MOJFUO	N/A	
D	Fixture	AMPAK	WL72917_EVB_S_V00	N/A	

For Radiated and RF Conducted:

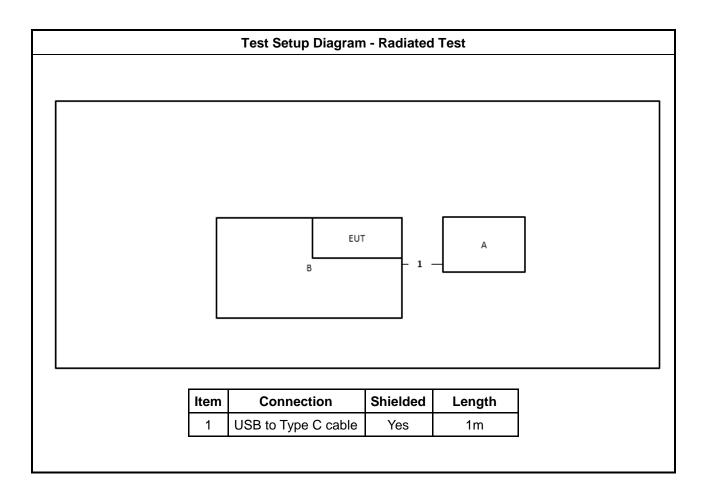
	Support Equipment			
No.	Equipment	Brand Name	Model Name	FCC ID
А	Notebook	DELL	E4300	N/A
В	Fixture	AMPAK	WL72917_EVB_S_V00	N/A



2.6 Test Setup Diagram









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	of the frequency.			

3.1.2 Measuring Instruments

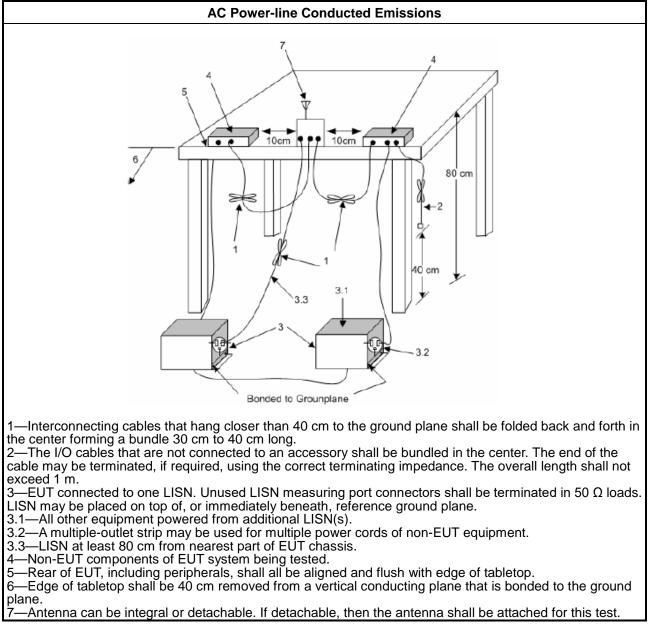
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method

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

3.1.4 Test Setup



1.1.1. Measurement Results Calculation

The measured Level is calculated using:

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

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A



3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
 6 dB bandwidth ≥ 500 kHz. 	

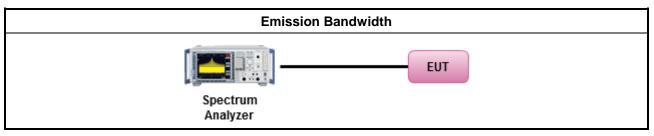
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

	Test Method				
•	 For the emission bandwidth shall be measured using one of the options below: 				
	\square	Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.			
		Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.			
		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

•	Point-to-multipoint systems	(P2M): If G _{TX} > 6 dBi,	i, 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 $G_{TX} > 6 \text{ dBi}$, then $P_{Out} = 30 (G_{TX} 6)/3 \text{ dBm}$
 - Aggregate power on all beams: If $G_{TX} > 6 \text{ dBi}$, then $P_{Out} = 30 (G_{TX} 6)/3 + 8 \text{dB dBm}$

 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.

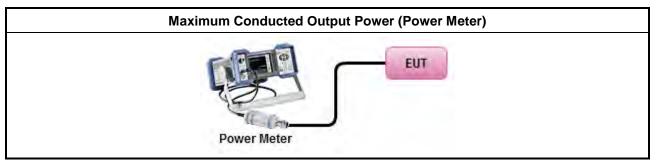


3.3.3 Test Procedures

		Test Method
•	Max	imum Peak Conducted Output Power
		Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
		Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
•	Max	imum Conducted Output Power
	[dut	y cycle ≥ 98% or external video / power trigger]
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
		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
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
		Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
	Mea	surement using a power meter (PM)
		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).
		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: $P_{total} = P_1 + P_2 + + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRP _{total} = P _{total} + DG



3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

3.4.2 Measuring Instruments

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

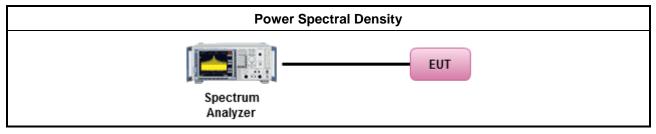
3.4.3 Test Procedures

•

	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).										
	\square	Refe	er as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.								
	[duty	/ cycl	e ≥ 98% or external video / power trigger]								
•	For	cond	ucted measurement.								
	•	lf Th	e EUT supports multiple transmit chains using options given below:								
			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.								
			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,								
			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)						
20						
30						

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

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

3.5.2 Measuring Instruments

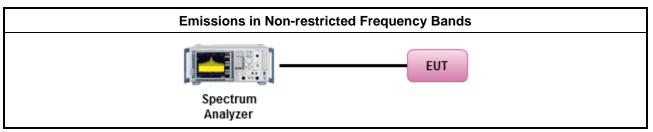
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method

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 below30 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.

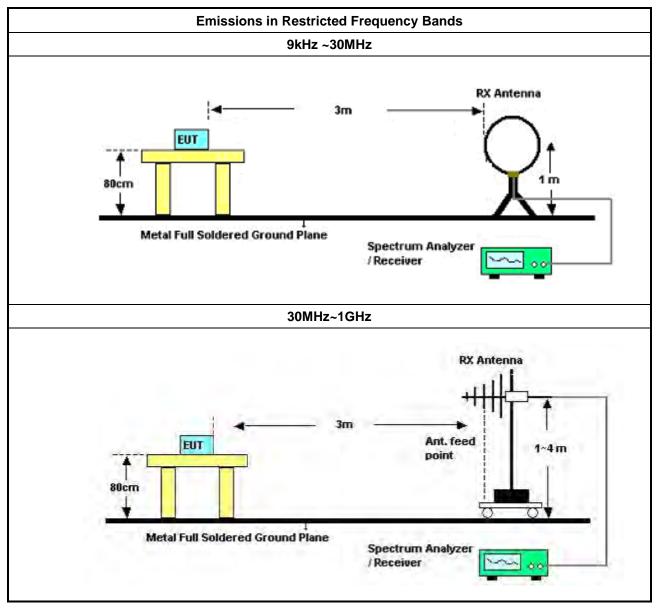


3.6.3 Test Procedures

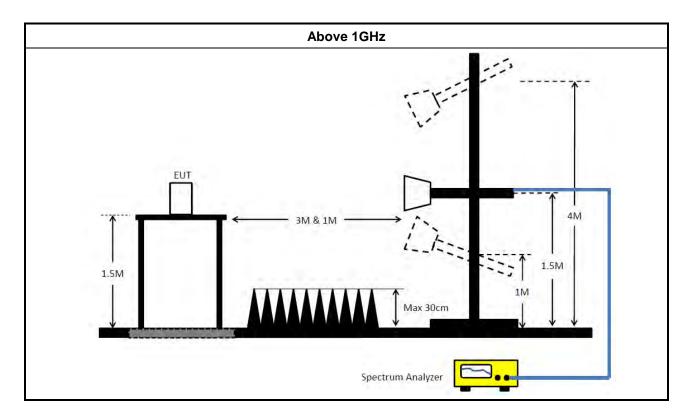
	Test Method									
•	The average emission levels shall be measured in [duty cycle \geq 98 or duty factor].									
•	Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.									
•	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. 									
	☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).									
	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).									
	☑ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).									
	□ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW \ge 1/T, where T is pulse time.									
	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.									
	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



Test Equipment and Calibration Data 4

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	Oct. 16, 2024	Oct. 15, 2025	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 16, 2024	Oct. 15, 2025	Conduction (CO01-CB)
Test Software	SPORTON	SENSE-EMI	V5.11	150kHz-30MHz	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 16, 2024	Oct. 15, 2025	Radiation (03CH01-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH01-CB	30 MHz ~ 1 GHz	Jan. 18, 2024	Jan. 17, 2025	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 04, 2024	May 03, 2025	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Feb. 18, 2024	Feb. 17, 2025	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120D-01816	1GHz~18GHz	Dec. 20, 2023	Dec. 19, 2024	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jul. 09, 2024	Jul. 08, 2025	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH0301	20230109-2	10M~1GHz	Jun. 22, 2024	Jun. 21, 2025	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 17, 2024	May 16, 2025	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH1840	20230109-3	18~40GHz	Jan. 12, 2024	Jan. 11, 2025	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 28, 2023	Nov. 27, 2024	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 26, 2024	Apr. 25, 2025	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 20, 2023	Oct. 19, 2024	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 21, 2024	Oct. 20, 2025	Radiation (03CH01-CB)
RF Cable-low	Woken	RG402	Low Cable-31+32	30 MHz ~ 1 GHz	Aug. 02, 2024	Aug. 01, 2025	Radiation (03CH01-CB)

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Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken RG402		High Cable-16	1 GHz ~ 18 GHz	Nov. 06, 2023	Nov. 05, 2024	Radiation (03CH01-CB)
RF Cable-high Woken RG		RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Nov. 06, 2023	Nov. 05, 2024	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE-EMI	V5.11.8	30MHz-40GHz	N.C.R.	N.C.R.	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE- 15247_FS	V5.11.18	2.4GHz- 2.4835GHz	N.C.R.	N.C.R.	Radiation (03CH01-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	Horn Antenna SCHWARZBECK		BBHA9170507	15GHz ~ 40GHz	Jul. 09, 2024	Jul. 08, 2025	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jun. 29, 2024	Jun. 28, 2025	Radiation (03CH03-CB)
Pre-Amplifier	SGH	SGH1840	20230109-3	18~40GHz	Jan. 12, 2024	Jan. 11, 2025	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 11, 2024	Jun. 10, 2025	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Feb. 29, 2024	Feb. 28, 2025	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Feb. 29, 2024	Feb. 28, 2025	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 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)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 22, 2024	Feb. 21, 2025	Radiation (03CH04-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120D-01816	1GHz~18GHz	Dec. 20, 2023	Dec. 19, 2024	Radiation (03CH04-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jul. 09, 2024	Jul. 08, 2025	Radiation (03CH04-CB)
Pre-Amplifier	SGH	SGH5265	20211115-1	1~ 26.5GHz	Jan. 17, 2024	Jan. 16, 2025	Radiation (03CH04-CB)
Pre-Amplifier	SGH	SGH1840	20230109-3	18~40GHz	Jan. 12, 2024	Jan. 11, 2025	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 19, 2024	Mar. 18, 2025	Radiation (03CH04-CB

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Instrument	Instrument Brand Model No.		Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken RG402		High Cable-21	1GHz - 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH04-CB)
RF Cable-high	RF Cable-high Woken		High Cable-21	1GHz - 18GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE- 15247_FS	V5.11.18	2.4GHz- 2.4835GHz	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	er R&S FSV40 100979 9kHz~40		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)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Mar. 01, 2024	Feb. 28, 2025	Conducted (TH01-CB)
Power Meter	ver Meter Agilent E4416A MY4510		MY45100745	50MHz~18GHz	Jul. 12, 2024	Jul. 11, 2025	Conducted (TH01-CB)
Test Software	SPORTON	SENSE- 15247_DTS	V5.11.18	2.4GHz- 2.4835GHz	N.C.R.	N.C.R.	Conducted (TH01-CB)

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

NCR means Non-Calibration required.



Conducted Emissions at Powerline

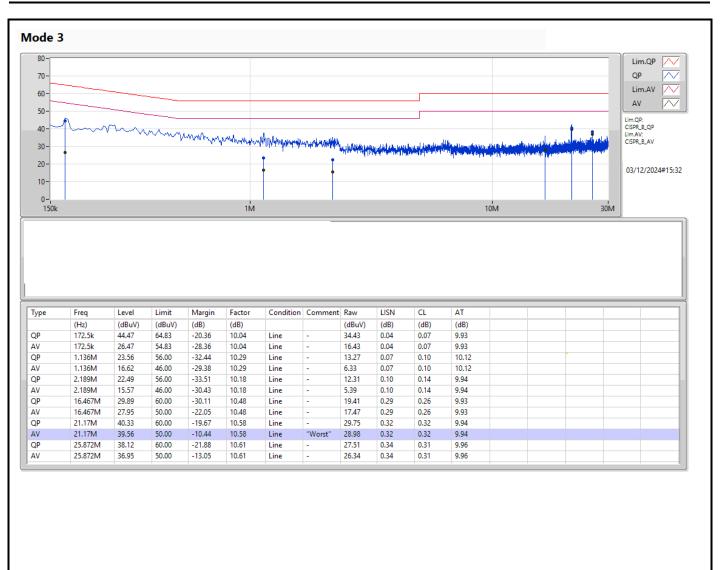
Appendix A

Summary										
Mode	Result	Туре	Freq	Level	Limit	Margin	Condition			
			(Hz)	(dBuV)	(dBuV)	(dB)				
Mode 3	Pass	AV	21.17M	39.95	50.00	-10.05	Neutral			



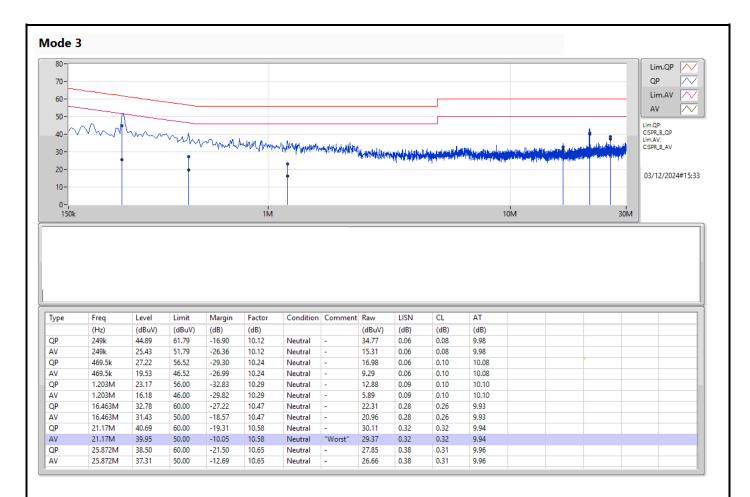
Conducted Emissions at Powerline

Appendix A











EBW-DTS

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)	802.5k	1.228M	1M23F1D	667.5k	1.215M
BT-LE(2Mbps)	1.55M	2.458M	2M46F1D	935k	2.423M

 $\label{eq:max-NdB} Max\cdot N\, dB = Maximum 6dB \ down \ bandwidth; \ Max-OBW = Maximum 99\% \ occupied \ bandwidth; \ Min-OBW = Minimum 99\% \ occupied \ bandwidth; \ bandwidth; \ Minimum 99\% \ occupied \ bandwidth; \ bandwidt$



EBW-DTS

Result

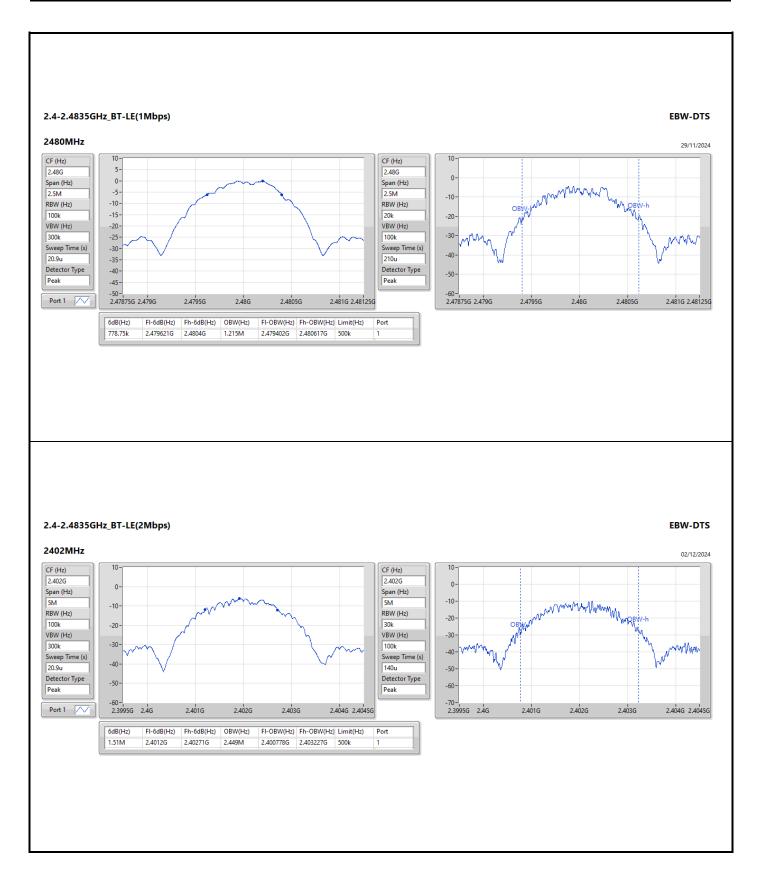
Mode	Result	Limit	Port 1-N dB	Port 1-OBW
		(Hz)	(Hz)	(Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	802.5k	1.226M
2440MHz	Pass	500k	667.5k	1.228M
2480MHz	Pass	500k	778.75k	1.215M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.51M	2.449M
2440MHz	Pass	500k	935k	2.423M
2478MHz	Pass	500k	1.55M	2.458M

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











2.4-2.4835GHz_BT-LE(2Mbps) EBW-DTS 2440MHz 02/12/2024 10-10 CF (Hz) CF (Hz) 2.44G 2.44G 0. 0. Span (Hz) Span (Hz) man 5M -10-5M -10 MANNAL. RBW (Hz) RBW (Hz) "NUM -20 ନ୍ମ 100k 30k -20 VBW (Hz) VBW (Hz) -30 300k -30 100k W Amagan -40 Sweep Time (s) Sweep Time (s) -40 20.9u 140u -50 Detector Type Detector Type -50 -60 Peak Peak -70-2.4375G 2.438G -60-2.4375G 2.438G Port 1 📈 2.44G 2.439G 2.44G 2.441G 2.442G 2.4425G 2.439G 2.441G 2.442G 2.4425G FI-6dB(Hz) Fh-6dB(Hz) OBW(Hz) FI-OBW(Hz) Fh-OBW(Hz) Limit(Hz) 6dB(Hz) Port 935k 2.423M 2.439623G 2.440558G 2.438789G 2.441212G 500k 1 2.4-2.4835GHz_BT-LE(2Mbps) EBW-DTS 2478MHz 02/12/2024 10-10 CF (Hz) CF (Hz) 2.478G 2.478G 0-0 Span (Hz) Span (Hz) 5M 5M -10--10-RBW (Hz) RBW (Hz) OBW-L 100k -20 50k -20 VBW (Hz) VBW (Hz) 300k -30 200k -30 Sweep Time (s) Sweep Time (s) -40 -40 20.9u 83.6u Detector Type Detector Type -50 -50 Peak Peak -60-2.4755G 2.476G -60-2.4755G 2.476G Port 1 📈 2.477G 2.478G 2.479G 2.477G 2.478G 2.479G 2.48G 2.4805G 2.48G 2.4805G 6dB(Hz) FI-6dB(Hz) Fh-6dB(Hz) OBW(Hz) FI-OBW(Hz) Fh-OBW(Hz) Limit(Hz) Port 1.55M 2.477253G 2.478803G 2.458M 2.476785G 2.479242G 500k 1



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	7.50	0.00562
BT-LE(2Mbps)	3.09	0.00204



Average Power-DTS

Result

Mode	Result	DG	Total Power	Power Limit
		(dBi)	(dBm)	(dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.60	7.50	30.00
2440MHz	Pass	4.60	-3.71	30.00
2480MHz	Pass	4.60	2.30	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.60	-1.03	30.00
2440MHz	Pass	4.60	-1.08	30.00
2478MHz	Pass	4.60	3.09	30.00

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

Sporton International Inc. Hsinchu Laboratory



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-6.13
BT-LE(2Mbps)	-14.54

RBW = 3kHz;

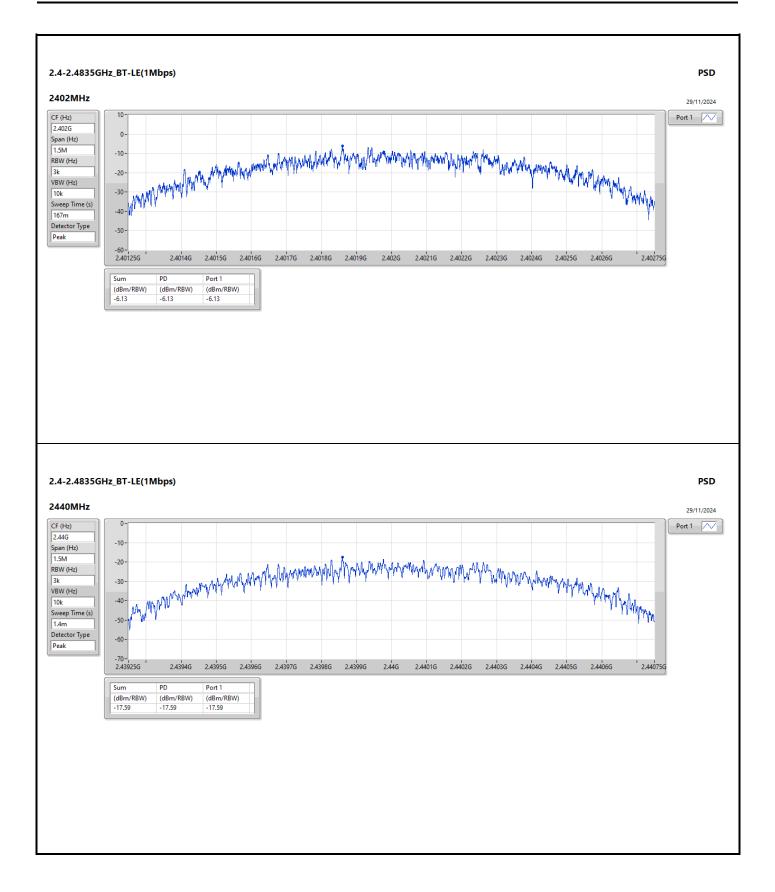


Result

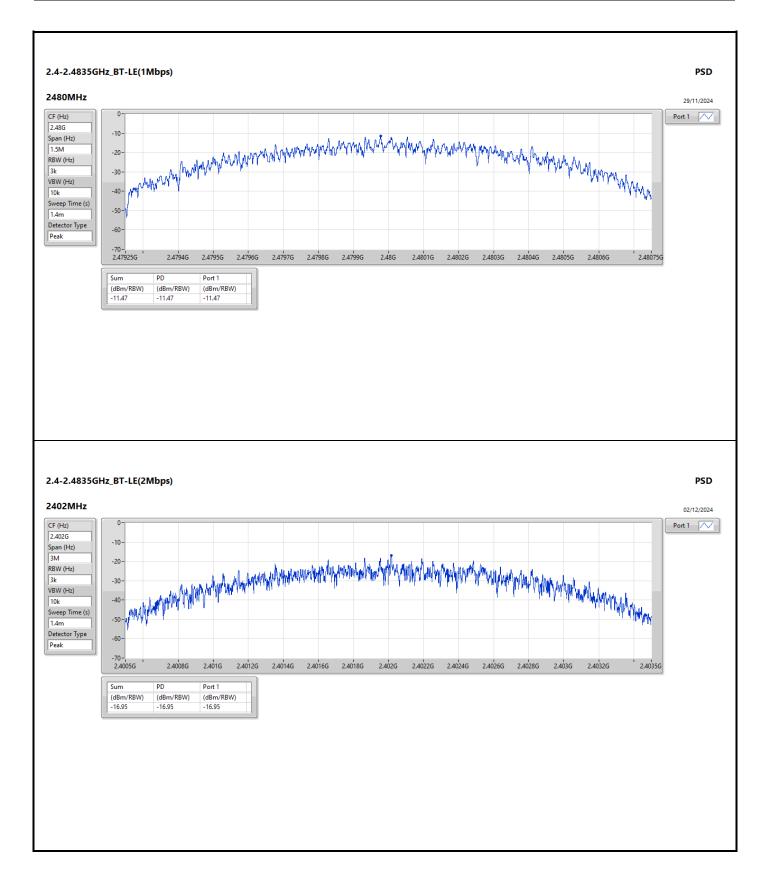
Mode	Result	DG	PD (ID / IDDIM)	PD Limit
		(dBi)	(dBm/RBW)	(dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.60	-6.13	8.00
2440MHz	Pass	4.60	-17.59	8.00
2480MHz	Pass	4.60	-11.47	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.60	-16.95	8.00
2440MHz	Pass	4.60	-17.30	8.00
2478MHz	Pass	4.60	-14.54	8.00

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

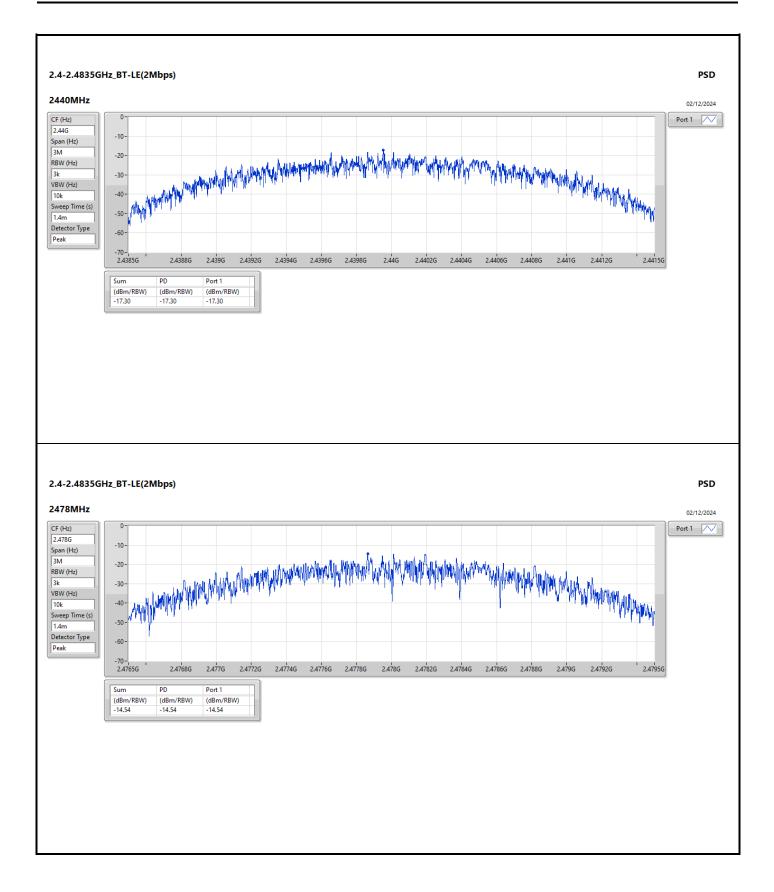














CSE NdB-DTS

Appendix E

Summary

Mode	Result	Ref	Ref	Limit	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Freq	Level	Port
		(Hz)	(dBm)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	(Hz)	(dBm)	
2.4-2.4835GHz	-		-	-	-	-		-	-	-	-	-	-	-	
BT-LE(1Mbps)	Pass	2.40167G	7.40	-22.60	1.75373G	-54.04	2.39996G	-40.29	2.4G	-38.75	2.50234G	-55.84	21.67333G	-47.70	1
BT-LE(2Mbps)	Pass	2.47816G	3.11	-26.89	61.73M	-61.62	2.4G	-28.03	2.4G	-30.27	2.50022G	-60.78	21.51867G	-54.33	1



CSE NdB-DTS

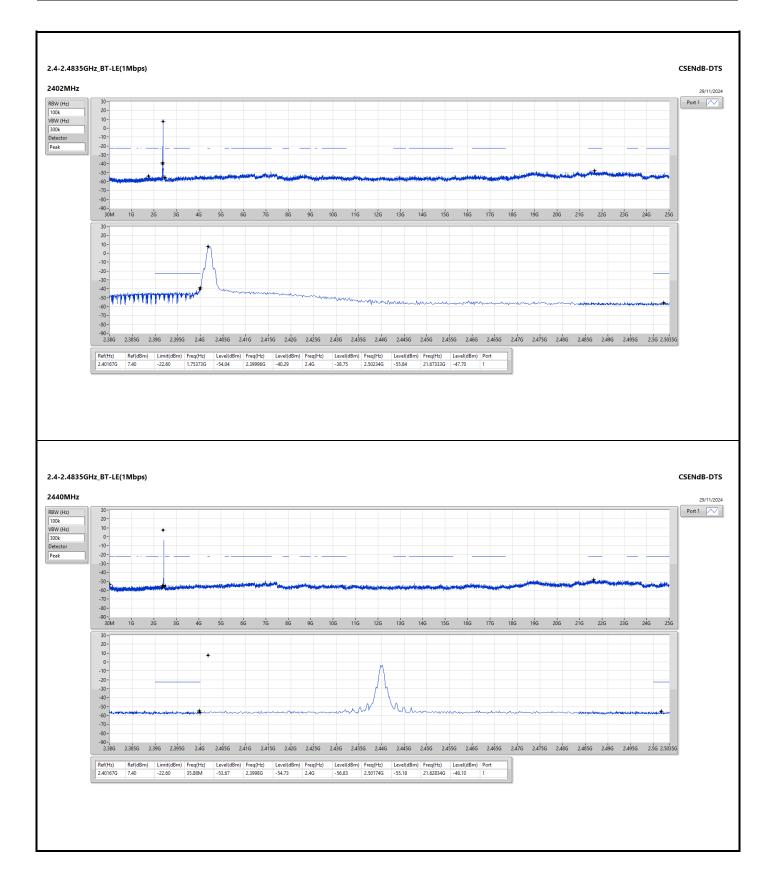
Appendix E

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Port								
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40167G	7.40	-22.60	1.75373G	-54.04	2.39996G	-40.29	2.4G	-38.75	2.50234G	-55.84	21.67333G	-47.70	1
2440MHz	Pass	2.40167G	7.40	-22.60	35.88M	-53.67	2.3998G	-54.73	2.4G	-56.83	2.50174G	-55.18	21.62834G	-48.10	1
2480MHz	Pass	2.40167G	7.40	-22.60	2.07098G	-53.99	2.39852G	-54.85	2.4G	-56.56	2.50046G	-48.83	21.97141G	-48.53	1
BT-LE(2Mbps)	-	-	-	-	-	-		-	-	-		-		-	-
2402MHz	Pass	2.47816G	3.11	-26.89	61.73M	-61.62	2.4G	-28.03	2.4G	-30.27	2.50022G	-60.78	21.51867G	-54.33	1
2440MHz	Pass	2.47816G	3.11	-26.89	2.03808G	-60.88	2.397G	-57.44	2.4G	-60.04	2.5015G	-60.89	21.50742G	-54.63	1
2478MHz	Pass	2.47816G	3.11	-26.89	2.16145G	-61.36	2.39004G	-59.14	2.4G	-62.74	2.50094G	-50.07	21.65083G	-54.48	1

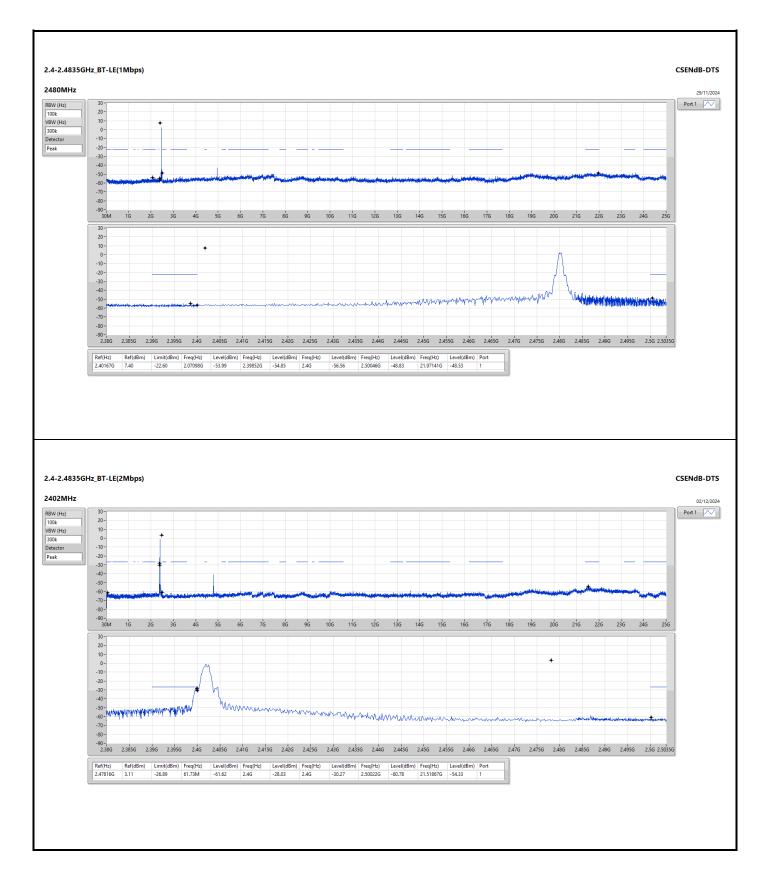


Appendix E



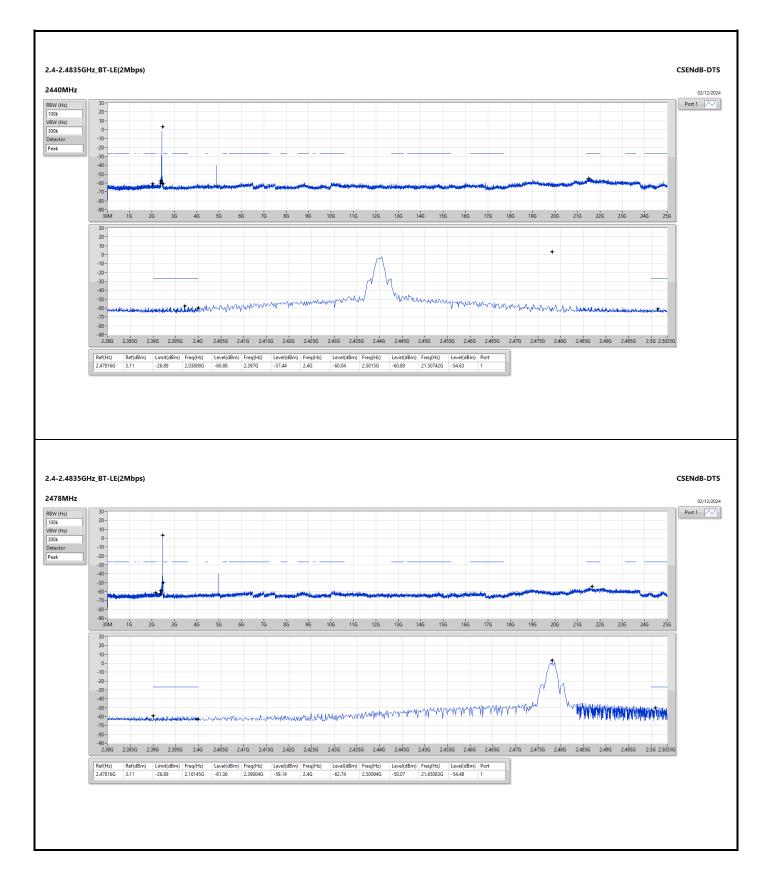


Appendix E





Appendix E





Radiated Emissions below 1GHz

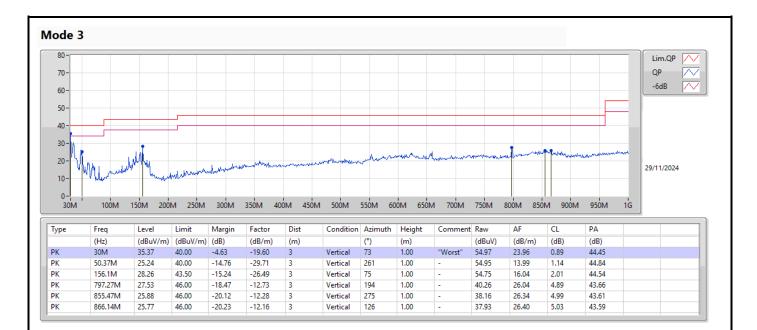
Appendix F.1

Summary							-
Mode	Result	Туре	Freq	Level	Limit	Margin	Condition
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	
Mode 3	Pass	PK	30M	36.99	40.00	-3.01	Horizontal



Radiated Emissions below 1GHz

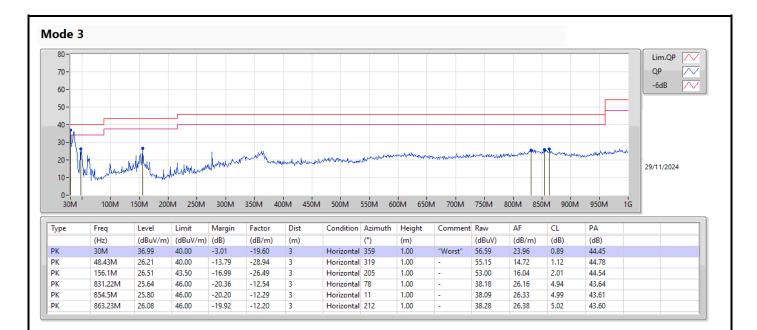
Appendix F.1





Radiated Emissions below 1GHz

Appendix F.1

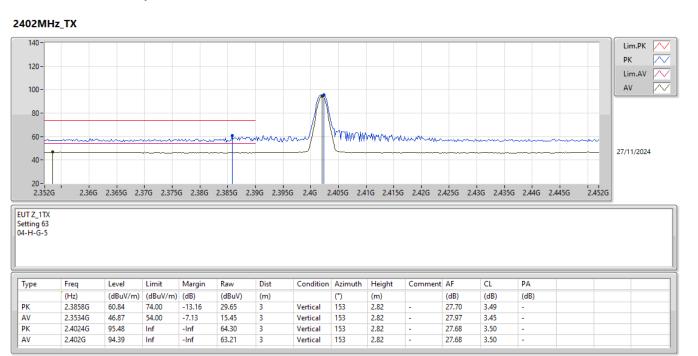




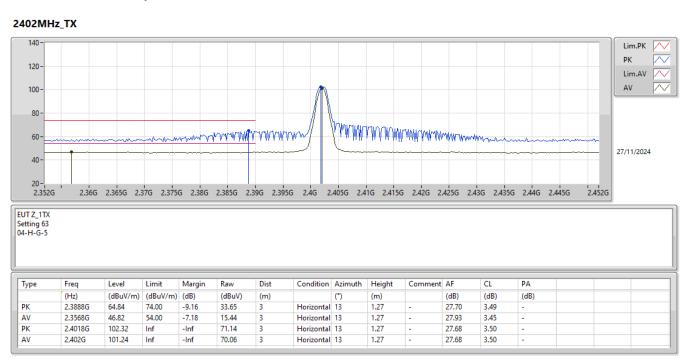
Summary

<u></u>											
Mode	Result	Туре	Freq	Level	Limit	Margin	Dist	Condition	Azimuth	Height	Comments
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(m)		(°)	(m)	
2.4-2.4835GHz			-	-	-		-	-	-	-	-
BT-LE(1Mbps)	Pass	PK	2.4835G	73.78	74.00	-0.22	3	Horizontal	5	1.47	



















2.4-2.4835GHz_BT-LE(1Mbps)

2.4848G

46.80

54.00

-7.20

15.76

3

Vertical

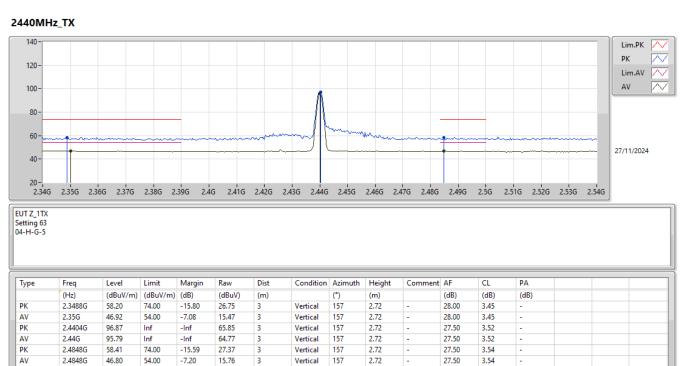
157

2.72

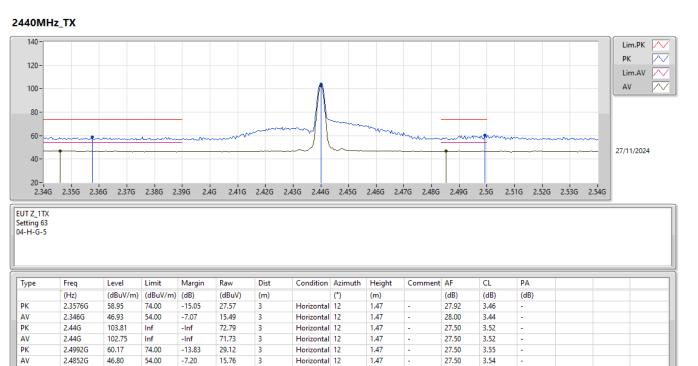
3.54

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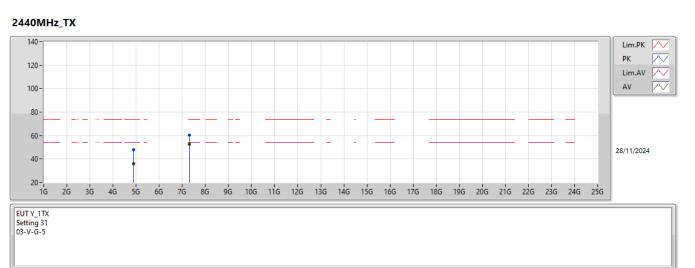
AV











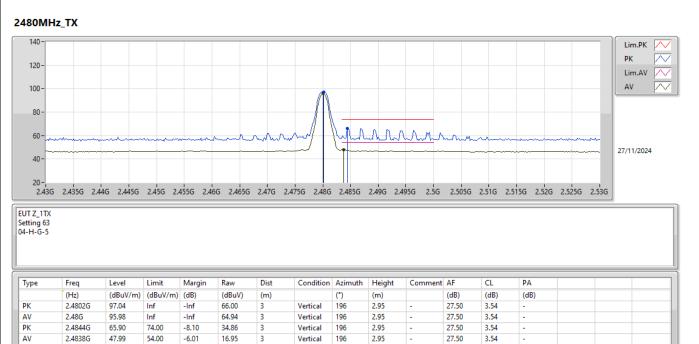
Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.88094G	47.78	74.00	-26.22	42.57	3	Vertical	161	2.48	-	33.36	7.18	35.33		
AV	4.8801G	36.12	54.00	-17.88	30.91	3	Vertical	161	2.48	-	33.36	7.18	35.33		
PK	7.32084G	60.12	74.00	-13.88	49.88	3	Vertical	355	1.87	-	36.78	8.62	35.16		
AV	7.3208G	52.65	54.00	-1.35	42.41	3	Vertical	355	1.87	-	36.78	8.62	35.16		





Туре	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)		
РК	4.88112G	48.75	74.00	-25.25	43.54	3	Horizontal	57	2.18	-	33.36	7.18	35.33		
AV	4.88004G	38.81	54.00	-15.19	33.60	3	Horizontal	57	2.18	-	33.36	7.18	35.33		
PK	7.32064G	60.12	74.00	-13.88	49.88	3	Horizontal	327	2.05	-	36.78	8.62	35.16		
AV	7.32076G	52.89	54.00	-1.11	42.65	3	Horizontal	327	2.05	-	36.78	8.62	35.16		







AV

РК

AV

2.48G

2.4835G

2.484G

104.12

73.78

51.29

Inf

74.00

54.00

-Inf

-0.22

-2.71

73.08

42.74

20.25

3

3

3

Appendix F.2

Lim.PK PK

Lim.AV AV

27/11/2024

2.4-2.4835GHz_BT-LE(1Mbps) 2480MHz_TX 140-120-100-80-MARANA 60-40-20-2.436 2.4356 2.446 2.4456 2.456 2.4556 2.466 2.4656 2.476 2.4756 2.4856 2.4856 2.496 2.4956 2.56 2.5056 2.516 2.5156 2.526 2.5256 2.536 EUT Z_1TX Setting 63 04-H-G-5 Туре Freq Level Limit Margin Raw Dist Condition Azimuth Height Comment AF CL PA (Hz) (dBuV/m) (dBuV/m) (dB) (dBuV) (m) (dB) (dB) (dB) (°) (m) Horizontal 5 PK 2.4798G 105.15 Inf -Inf 74.11 3 1.47 27.50 3.54

Horizontal 5

Horizontal 5

Horizontal 5

1.47

1.47

1.47

27.50

27.50

27.50

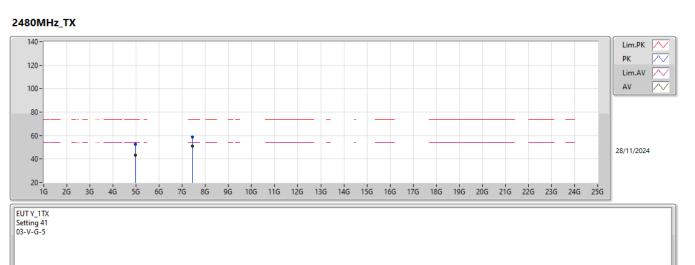
3.54

3.54

3.54

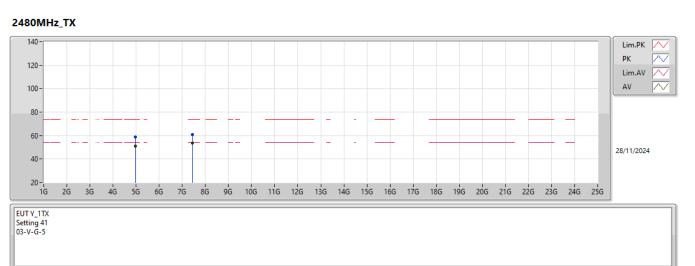
Sporton International Inc. Hsinchu Laboratory





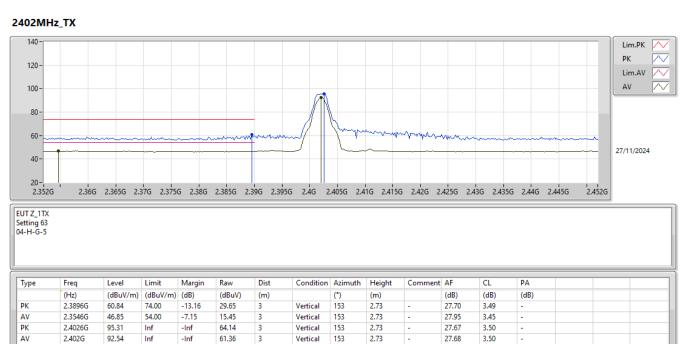
Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.9602G	52.51	74.00	-21.49	47.09	3	Vertical	185	2.20	-	33.60	7.15	35.33		
AV	4.95984G	43.51	54.00	-10.49	38.09	3	Vertical	185	2.20	-	33.60	7.15	35.33		
РК	7.43946G	58.97	74.00	-15.03	48.60	3	Vertical	337	2.74	-	36.82	8.72	35.17		
AV	7.43954G	51.20	54.00	-2.80	40.83	3	Vertical	337	2.74	-	36.82	8.72	35.17		



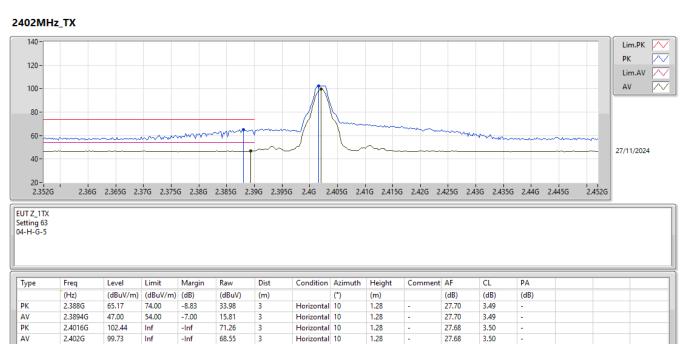


Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
PK	4.96028G	58.61	74.00	-15.39	53.19	3	Horizontal	53	2.01	-	33.60	7.15	35.33		
AV	4.96018G	51.01	54.00	-2.99	45.59	3	Horizontal	53	2.01	-	33.60	7.15	35.33		
PK	7.43952G	61.01	74.00	-12.99	50.64	3	Horizontal	338	2.01	-	36.82	8.72	35.17		
AV	7.4395G	53.72	54.00	-0.28	43.35	3	Horizontal	338	2.01	-	36.82	8.72	35.17		









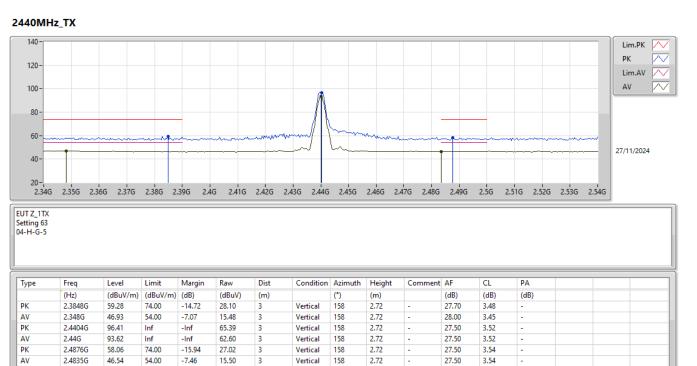




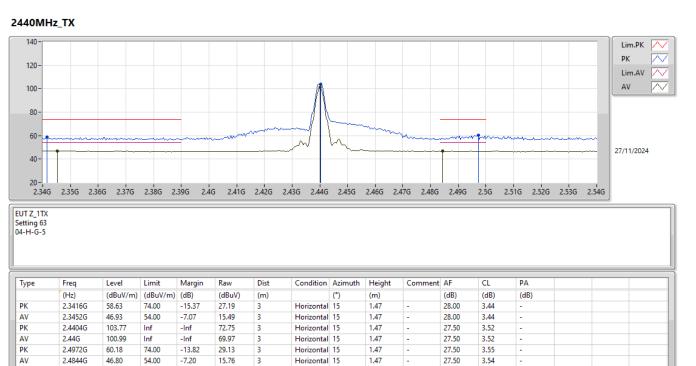




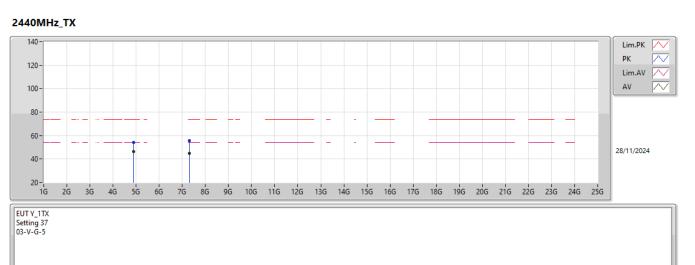






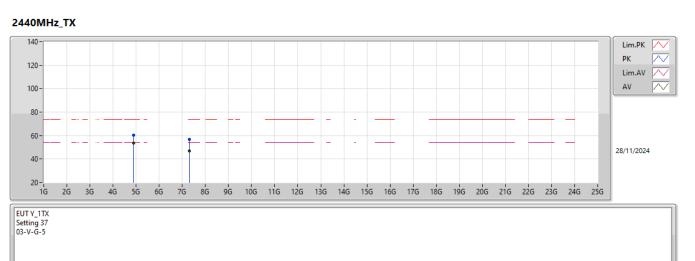






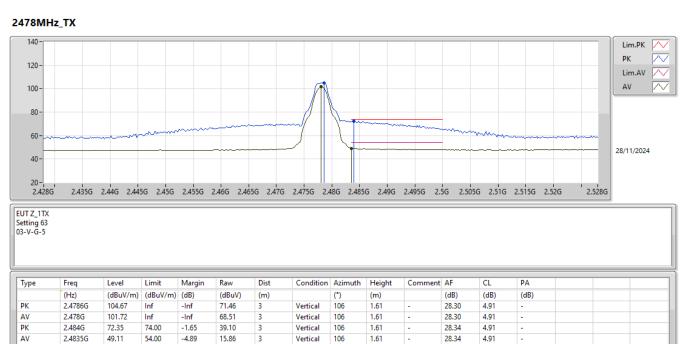
Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.87908G	54.28	74.00	-19.72	49.07	3	Vertical	179	2.23	-	33.36	7.18	35.33		
AV	4.87908G	46.40	54.00	-7.60	41.19	3	Vertical	179	2.23	-	33.36	7.18	35.33		
PK	7.31882G	55.81	74.00	-18.19	45.57	3	Vertical	339	2.83	-	36.78	8.62	35.16		
AV	7.3189G	45.04	54.00	-8.96	34.80	3	Vertical	339	2.83	-	36.78	8.62	35.16		



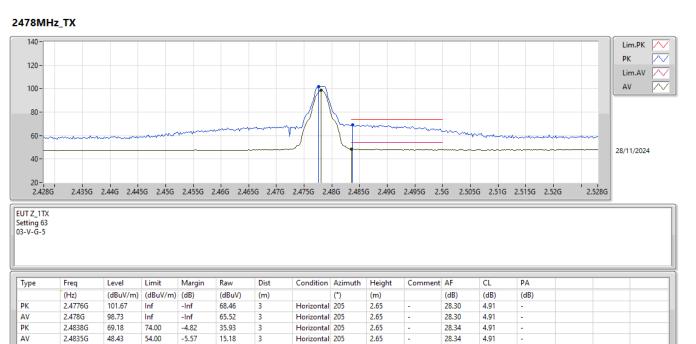


Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
PK	4.87908G	60.13	74.00	-13.87	54.92	3	Horizontal	49	2.16	-	33.36	7.18	35.33		
AV	4.87912G	53.58	54.00	-0.42	48.37	3	Horizontal	49	2.16	-	33.36	7.18	35.33		
PK	7.32172G	56.90	74.00	-17.10	46.65	3	Horizontal	327	2.05	-	36.79	8.62	35.16		
AV	7.32144G	46.81	54.00	-7.19	36.56	3	Horizontal	327	2.05	-	36.79	8.62	35.16		

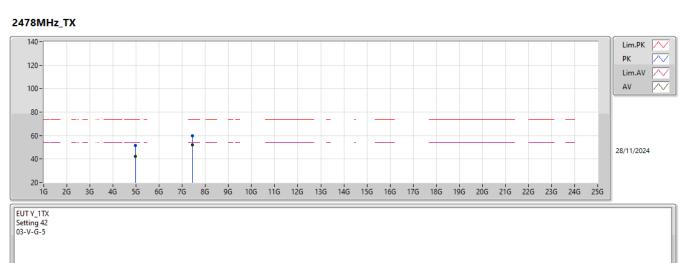






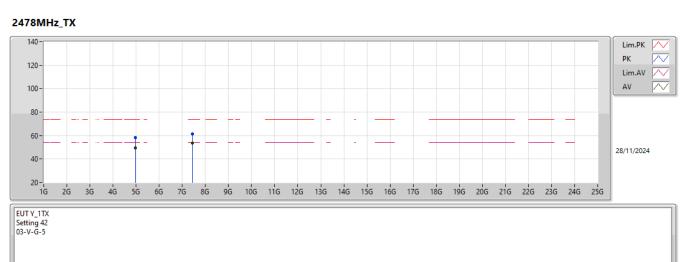






Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.95712G	51.80	74.00	-22.20	46.37	3	Vertical	186	2.20	-	33.60	7.16	35.33		
AV	4.95698G	42.17	54.00	-11.83	36.74	3	Vertical	186	2.20	-	33.60	7.16	35.33		
PK	7.43272G	60.00	74.00	-14.00	49.62	3	Vertical	333	2.71	-	36.83	8.71	35.16		
AV	7.43542G	51.84	54.00	-2.16	41.45	3	Vertical	333	2.71	-	36.83	8.72	35.16		





Туре	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	4.95626G	58.09	74.00	-15.91	52.66	3	Horizontal	52	2.03	-	33.60	7.16	35.33		
AV	4.95712G	49.52	54.00	-4.48	44.09	3	Horizontal	52	2.03	-	33.60	7.16	35.33		
РК	7.4327G	61.44	74.00	-12.56	51.06	3	Horizontal	336	1.94	-	36.83	8.71	35.16		
AV	7.43538G	53.76	54.00	-0.24	43.37	3	Horizontal	336	1.94	-	36.83	8.72	35.16		

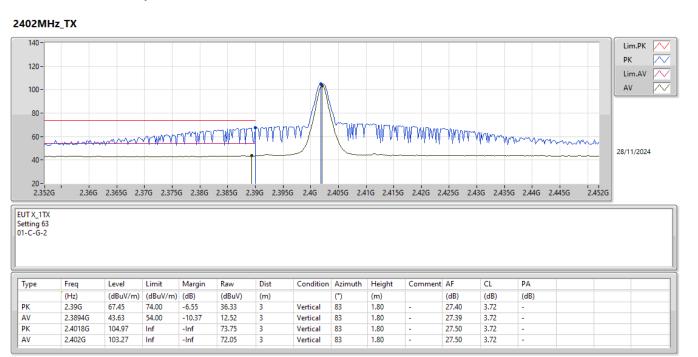


RSE TX above 1GHz_Test Mode: Mode 2

Appendix F.3

Summary											
Mode	Result	Туре	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz		-	-	-	-	-		-		-	-
BT-LE(1Mbps)	Pass	AV	2.4835G	53.14	54.00	-0.86	3	Vertical	281	1.20	-

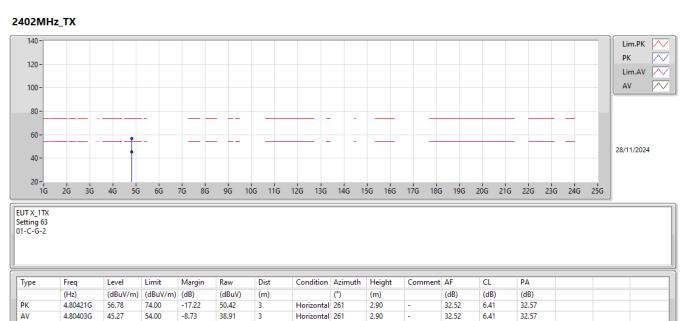




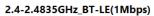


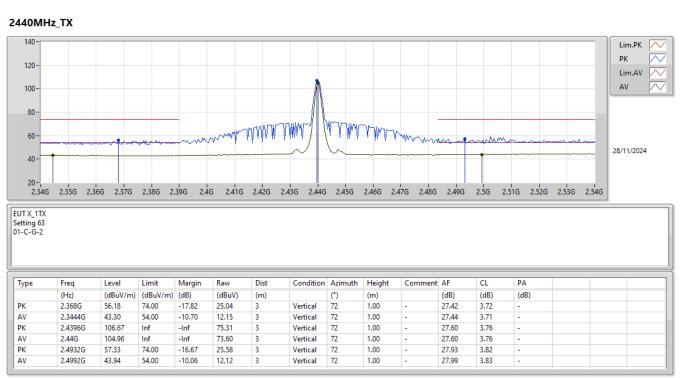




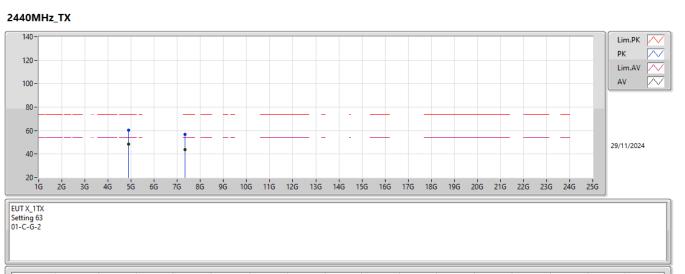






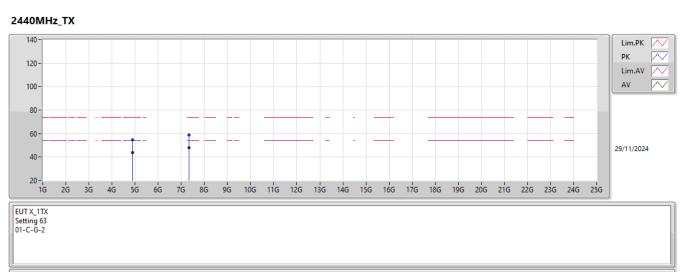






Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.88211G	60.24	74.00	-13.76	53.48	3	Vertical	357	1.02	-	32.83	6.51	32.58		
AV	4.88122G	48.61	54.00	-5.39	41.86	3	Vertical	357	1.02	-	32.82	6.51	32.58		
РК	7.32226G	56.84	74.00	-17.16	43.95	3	Vertical	196	2.31	-	37.54	7.98	32.63		
AV	7.32228G	43.87	54.00	-10.13	30.98	3	Vertical	196	2.31	-	37.54	7.98	32.63		



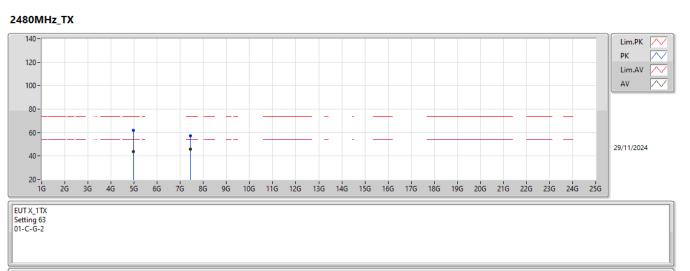


Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.88084G	54.67	74.00	-19.33	47.92	3	Horizontal	265	2.64	-	32.82	6.51	32.58		
AV	4.88168G	43.66	54.00	-10.34	36.90	3	Horizontal	265	2.64	-	32.83	6.51	32.58		
PK	7.32292G	58.56	74.00	-15.44	45.66	3	Horizontal	16	2.11	-	37.55	7.98	32.63		
AV	7.32288G	47.94	54.00	-6.06	35.04	3	Horizontal	16	2.11	-	37.55	7.98	32.63		



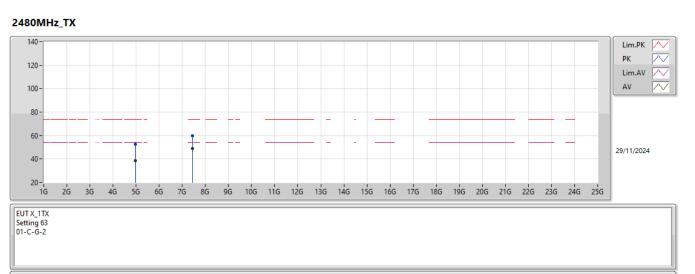
2.4-2.4835GHz_BT-LE(1Mbps) 2480MHz_TX 140-Lim.PK РК 120-Lim.AV AV 100-80www.www.www.www. <u>60</u>. 28/11/2024 40 20-2.436 2.435G 2.446 2.445G 2.456 2.455G 2.466 2.465G 2.476 2.475G 2.485G 2.49G 2.495G 2.56 2.505G 2.51G 2.515G 2.526 2.525G 2.53G EUT X_1TX Setting 63 01-C-G-2 Туре Freq Level Limit Margin Raw Dist Condition Azimuth Height Comment AF CL PA (Hz) (dBuV/m) (dBuV/m) (dB) (dBuV) (dB) (dB) (dB) (m) (°) (m) PK 2.4798G 106.06 Inf -Inf 74.45 3 Vertical 281 1.20 27.80 3.81 AV 2.48G 104.45 Inf -Inf 72.84 3 Vertical 281 1.20 27.80 3.81 РК 2.4835G 72.42 74.00 -1.58 40.77 3 Vertical 281 1.20 27.84 3.81 AV 27.84 2.4835G 53.14 54.00 -0.86 21.49 3 Vertical 281 1.20 3.81





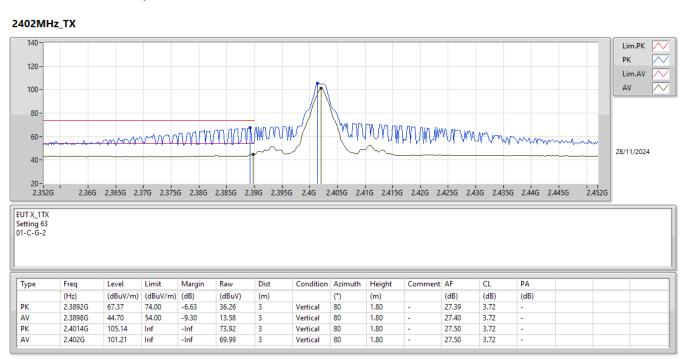
Тур)e	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
		(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК		4.96068G	61.89	74.00	-12.11	54.87	3	Vertical	124	1.95	-	32.98	6.62	32.58		
AV		4.96045G	43.77	54.00	-10.23	36.75	3	Vertical	124	1.95	-	32.98	6.62	32.58		
PK		7.4387G	57.30	74.00	-16.70	44.31	3	Vertical	244	2.03	-	37.52	8.05	32.58		
AV		7.43968G	45.64	54.00	-8.36	32.64	3	Vertical	244	2.03	-	37.52	8.06	32.58		



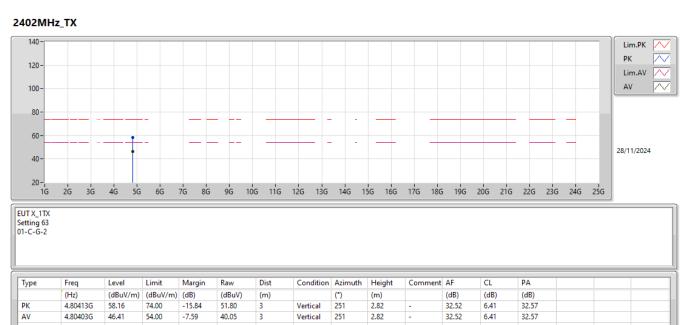


Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.96091G	52.54	74.00	-21.46	45.52	3	Horizontal	158	2.01	-	32.98	6.62	32.58		
AV	4.96171G	38.83	54.00	-15.17	31.81	3	Horizontal	158	2.01	-	32.98	6.62	32.58		
РК	7.44145G	59.60	74.00	-14.40	46.60	3	Horizontal	17	2.11	-	37.52	8.06	32.58		
AV	7.44223G	48.81	54.00	-5.19	35.81	3	Horizontal	17	2.11	-	37.52	8.06	32.58		









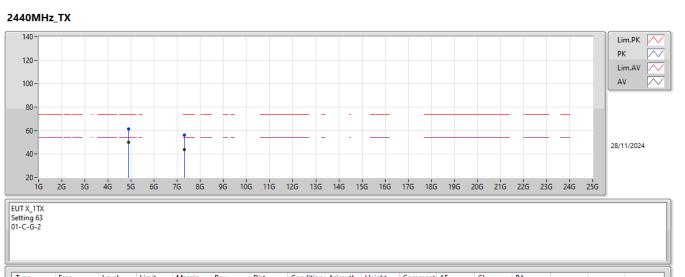






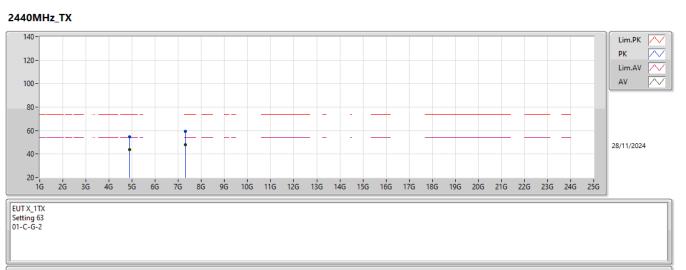
2.4-2.4835GHz_BT-LE(2Mbps) 2440MHz_TX 140-Lim.PK РК 120-Lim.AV AV 100-80printer manufactures mannin <u>60</u>. 28/11/2024 40-20-2.34G 2.35G 2.36G 2.37G 2.38G 2.39G 2.4G 2.41G 2.42G 2.43G 2.44G 2.45G 2.45G 2.47G 2.48G 2.49G 2.5G 2.51G 2.52G 2.53G 2.54G EUT X_1TX Setting 63 01-C-G-2 Туре Freq Level Limit Margin Raw Dist Condition Azimuth Height Comment AF CL PA (Hz) (dBuV/m) (dBuV/m) (dB) (dBuV) (dB) (dB) (dB) (m) (°) (m) 71 PK 2.3764G 56.61 74.00 -17.39 25.55 3 Vertical 1.00 27.34 3.72 AV 2.344G 43.46 54.00 -10.54 12.31 3 Vertical 71 1.00 27.44 3.71 PK 2.4396G 106.93 Inf -Inf 75.57 3 Vertical 71 1.00 27.60 3.76 AV PK 2.44G 102.99 Inf -Inf 71.63 3 Vertical 71 1.00 27.60 3.76 27.94 27.98 74.00 2.4944G 25.92 71 57.68 -16.32 3 Vertical 1.00 3.82 71 2.4984G AV 44.02 54.00 -9.98 12.21 3 Vertical 1.00 3.83





Туре	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)		
РК	4.88015G	61.27	74.00	-12.73	54.52	3	Vertical	356	1.00	-	32.82	6.51	32.58		
AV	4.879G	49.82	54.00	-4.18	43.07	3	Vertical	356	1.00	-	32.82	6.51	32.58		
РК	7.32146G	56.02	74.00	-17.98	43.13	3	Vertical	198	2.62	-	37.54	7.98	32.63		
AV	7.32136G	43.98	54.00	-10.02	31.09	3	Vertical	198	2.62	-	37.54	7.98	32.63		





Туре	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)		
РК	4.88019G	54.56	74.00	-19.44	47.81	3	Horizontal	260	2.69	-	32.82	6.51	32.58		
AV	4.87902G	43.93	54.00	-10.07	37.18	3	Horizontal	260	2.69	-	32.82	6.51	32.58		
PK	7.32184G	59.12	74.00	-14.88	46.23	3	Horizontal	19	2.19	-	37.54	7.98	32.63		
AV	7.31879G	48.01	54.00	-5.99	35.12	3	Horizontal	19	2.19	-	37.54	7.98	32.63		



PK

AV

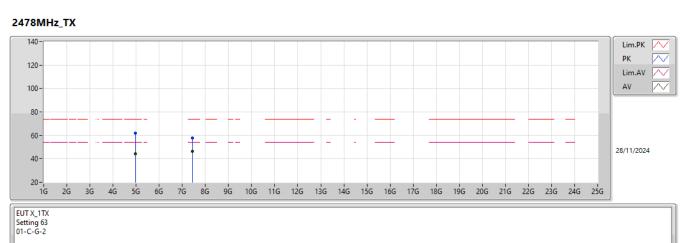
РК

AV

Appendix F.3

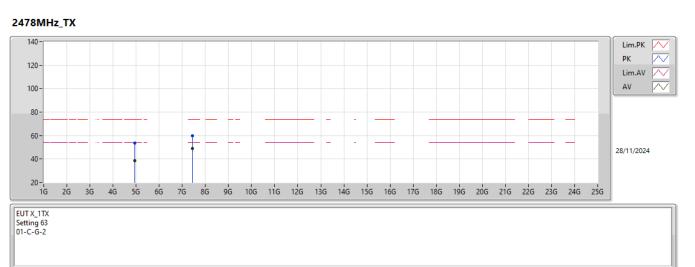
2.4-2.4835GHz_BT-LE(2Mbps) 2478MHz_TX 140-Lim.PK РК 120-Lim.AV AV 100-80-VIN TIM V 60-28/11/2024 40-20-2.428G 2.435G 2.445G 2.45G 2.45G 2.45G 2.45G 2.45G 2.47G 2.475G 2.48G 2.485G 2.49G 2.495G 2.5G 2.505G 2.51G 2.515G 2.52G 2.528G EUT X_1TX Setting 63 01-C-G-2 Туре Freq Level Limit Margin Raw Dist Condition Azimuth Height Comment AF CL PA (Hz) (dBuV/m) (dBuV/m) (dB) (dBuV) (dB) (dB) (dB) (m) (°) (m) 2.478G 105.66 Inf -Inf 74.07 3 Vertical 293 1.40 27.78 3.81 2.478G 101.72 Inf -Inf 70.13 3 Vertical 293 1.40 27.78 3.81 2.4835G 71.02 74.00 -2.98 39.37 3 Vertical 293 1.40 27.84 3.81 2.4835G 27.84 47.17 54.00 -6.83 15.52 3 Vertical 293 1.40 3.81





Туре	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)		
РК	4.95691G	61.98	74.00	-12.02	54.96	3	Vertical	1	1.04	-	32.99	6.61	32.58		
AV	4.95702G	44.30	54.00	-9.70	37.28	3	Vertical	1	1.04	-	32.99	6.61	32.58		
РК	7.43566G	57.73	74.00	-16.27	44.73	3	Vertical	202	2.27	-	37.53	8.05	32.58		
AV	7.43525G	46.60	54.00	-7.40	33.60	3	Vertical	202	2.27	-	37.53	8.05	32.58		





Туре	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	4.9561G	53.58	74.00	-20.42	46.56	3	Horizontal	247	2.57	-	32.99	6.61	32.58		
AV	4.95499G	38.49	54.00	-15.51	31.47	3	Horizontal	247	2.57	-	32.99	6.61	32.58		
PK	7.43558G	59.72	74.00	-14.28	46.72	3	Horizontal	18	2.18	-	37.53	8.05	32.58		
AV	7.4329G	48.99	54.00	-5.01	36.00	3	Horizontal	18	2.18	-	37.53	8.05	32.59		



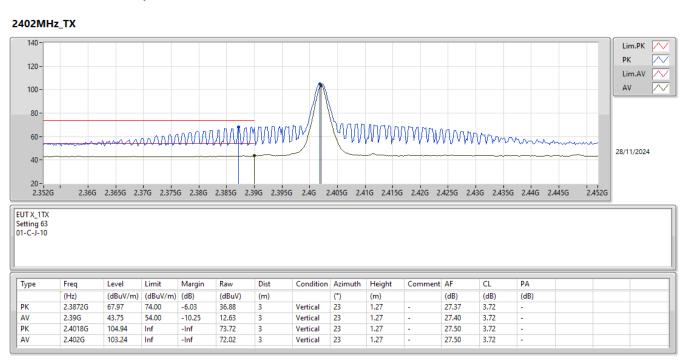
RSE TX above 1GHz_Test Mode: Mode 3

Appendix F.4

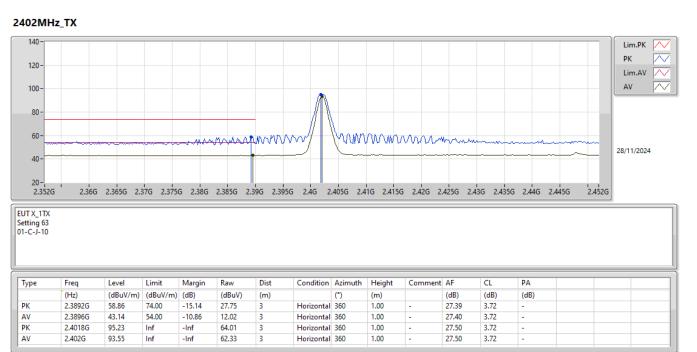
Summary

<u> </u>											
Mode	Result	Туре	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	4.96006G	51.36	54.00	-2.64	3	Horizontal	330	2.12	-
BT-LE(2Mbps)	Pass	AV	4.80305G	52.47	54.00	-1.53	3	Horizontal	175	2.58	-

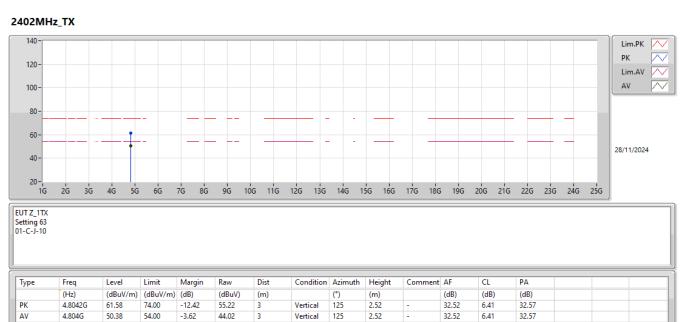




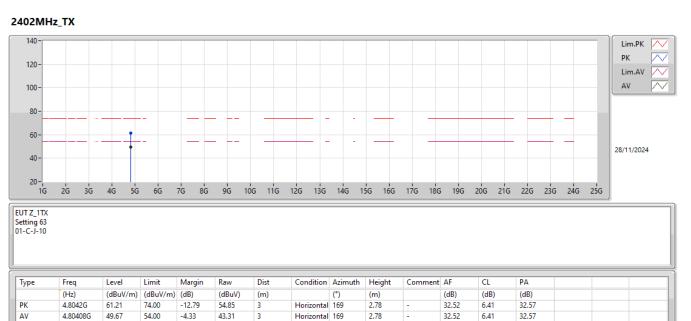








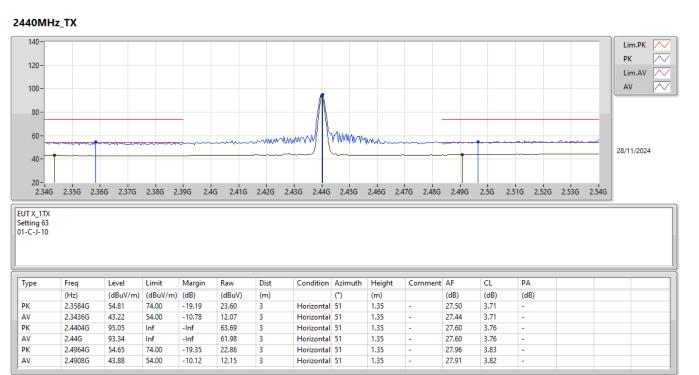




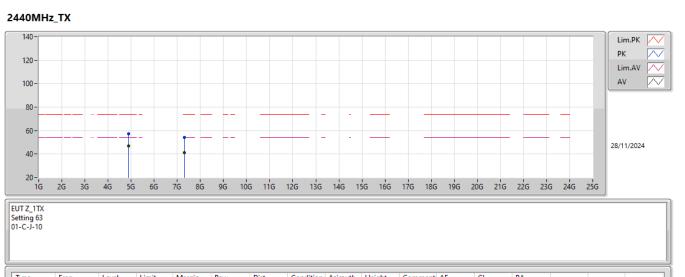


2.4-2.4835GHz_BT-LE(1Mbps) 2440MHz_TX 140-Lim.PK РК 120-Lim.AV AV 100-80-WWWWWWWWW WIMMMMM 60-28/11/2024 40-20-2.34G 2.35G 2.36G 2.37G 2.38G 2.39G 2.4G 2.41G 2.42G 2.43G 2.44G 2.45G 2.46G 2.47G 2.48G 2.49G 2.5G 2.51G 2.52G 2.53G 2.54G EUT X_1TX Setting 63 01-C-J-10 Туре Freq Level Limit Margin Raw Dist Condition Azimuth Height Comment AF CL PA (Hz) (dBuV/m) (dBuV/m) (dB) (dBuV) (dB) (dB) (dB) (m) (°) (m) PK 2.3796G 54.86 74.00 -19.14 23.84 3 Vertical 25 1.10 27.30 3.72 AV 2.3408G 43.29 54.00 -10.71 12.17 3 Vertical 25 1.10 27.41 3.71 PK 2.4396G 101.37 Inf -Inf 70.01 3 Vertical 25 1.10 27.60 3.76 AV PK 2.44G 99.59 Inf -Inf 68.23 3 Vertical 25 1.10 27.60 3.76 74.00 27.98 2.4976G -18.75 55.25 23.44 3 Vertical 25 1.10 3.83 AV 2.4996G 43.94 54.00 -10.06 12.11 3 Vertical 25 1.10 28.00 3.83



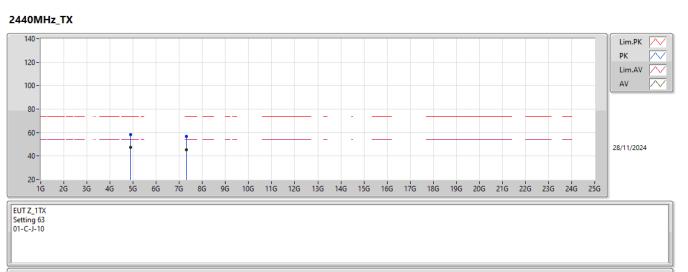






Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.88024G	57.41	74.00	-16.59	50.66	3	Vertical	126	2.86	-	32.82	6.51	32.58		
AV	4.88012G	47.03	54.00	-6.97	40.28	3	Vertical	126	2.86	-	32.82	6.51	32.58		
РК	7.31924G	54.04	74.00	-19.96	41.15	3	Vertical	126	2.86	-	37.54	7.98	32.63		
AV	7.3192G	41.46	54.00	-12.54	28.57	3	Vertical	126	2.86	-	37.54	7.98	32.63		



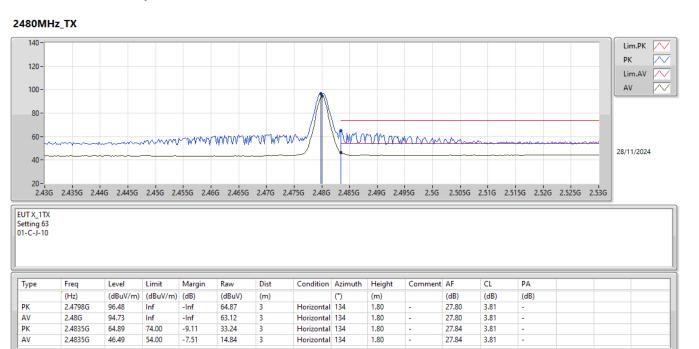


Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.88008G	58.53	74.00	-15.47	51.78	3	Horizontal	171	2.66	-	32.82	6.51	32.58		
AV	4.88G	47.17	54.00	-6.83	40.42	3	Horizontal	171	2.66	-	32.82	6.51	32.58		
PK	7.3195G	56.51	74.00	-17.49	43.62	3	Horizontal	167	1.00	-	37.54	7.98	32.63		
AV	7.31941G	45.43	54.00	-8.57	32.54	3	Horizontal	167	1.00	-	37.54	7.98	32.63		

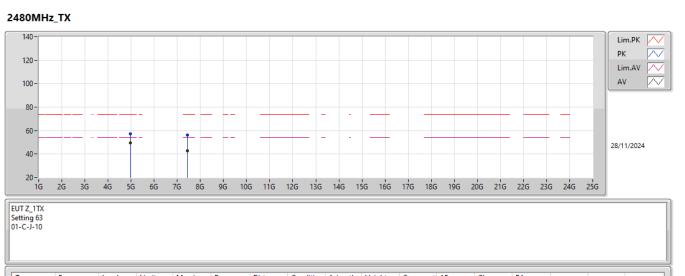


2.4-2.4835GHz_BT-LE(1Mbps) 2480MHz_TX 140-Lim.PK РК 120-Lim.AV AV 100-80-<u>60</u>. mananananananananan 28/11/2024 40-20-2.43G 2.435G 2.44G 2.445G 2.455G 2.455G 2.465G 2.465G 2.47G 2.475G 2.485G 2.485G 2.495G 2.495G 2.5G 2.505G 2.515G 2.515G 2.525G 2.525G 2.53G EUT X_1TX Setting 63 01-C-J-10 Туре Freq Level Limit Margin Raw Dist Condition Azimuth Height Comment AF CL PA (Hz) (dBuV/m) (dBuV/m) (dB) (dBuV) (dB) (dB) (dB) (m) (°) (m) 75 PK 2.4802G 99.48 Inf -Inf 67.87 3 Vertical 1.80 27.80 3.81 AV 2.48G 97.71 Inf -Inf 66.10 3 Vertical 75 1.80 27.80 3.81 РК 2.4836G 67.38 74.00 -6.62 35.73 3 Vertical 75 1.80 27.84 3.81 AV 75 27.84 2.4835G 48.04 54.00 -5.96 16.39 3 Vertical 1.80 3.81



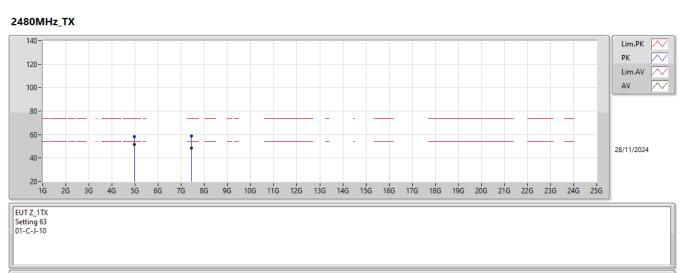






Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.9594G	57.22	74.00	-16.78	50.20	3	Vertical	350	1.80	-	32.98	6.62	32.58		
AV	4.96006G	49.37	54.00	-4.63	42.35	3	Vertical	350	1.80	-	32.98	6.62	32.58		
PK	7.44106G	56.11	74.00	-17.89	43.11	3	Vertical	275	1.80	-	37.52	8.06	32.58		
AV	7.4408G	42.81	54.00	-11.19	29.81	3	Vertical	275	1.80	-	37.52	8.06	32.58		





Туре	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)		
РК	4.96058G	58.44	74.00	-15.56	51.42	3	Horizontal	330	2.12	-	32.98	6.62	32.58		
AV	4.96006G	51.36	54.00	-2.64	44.34	3	Horizontal	330	2.12	-	32.98	6.62	32.58		
РК	7.43913G	58.70	74.00	-15.30	45.71	3	Horizontal	29	1.00	-	37.52	8.05	32.58		
AV	7.43943G	48.21	54.00	-5.79	35.21	3	Horizontal	29	1.00	-	37.52	8.06	32.58		



EUT X_1TX Setting 63 01-C-J-10

Appendix F.4

Lim.PK PK

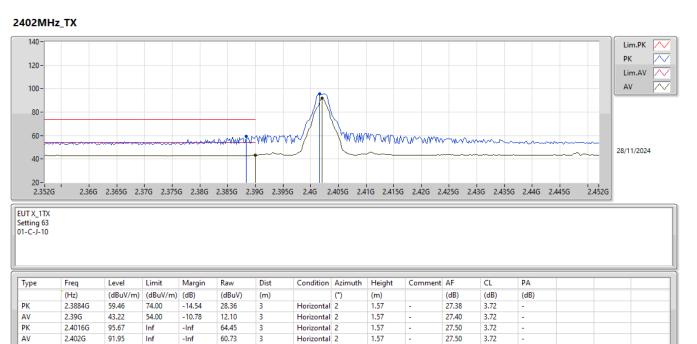
Lim.AV AV

28/11/2024

2.452G

Гуре	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	2.389G	67.75	74.00	-6.25	36.64	3	Vertical	20	1.00	-	27.39	3.72	-	
AV	2.39G	44.83	54.00	-9.17	13.71	3	Vertical	20	1.00	-	27.40	3.72	-	
PK	2.4014G	104.41	Inf	-Inf	73.19	3	Vertical	20	1.00	-	27.50	3.72	-	
AV	2.402G	100.58	Inf	-Inf	69.36	3	Vertical	20	1.00	-	27.50	3.72	-	

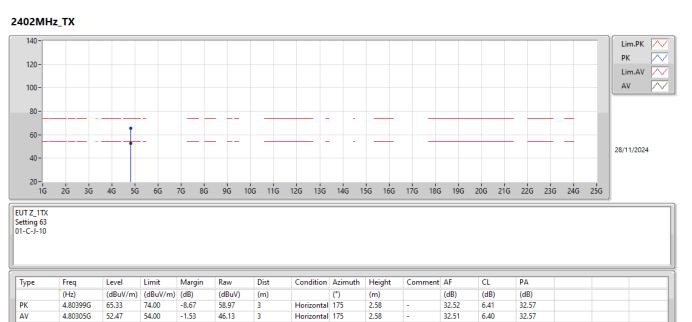














Lim.PK PK

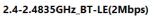
Lim.AV AV

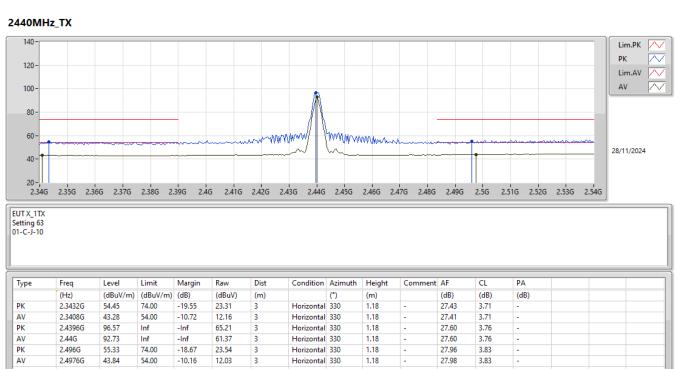
28/11/2024

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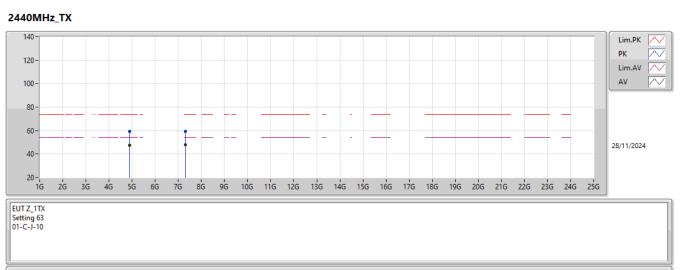
Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
PK	2.3468G	54.59	74.00	-19.41	23.41	3	Vertical	46	1.19	-	27.47	3.71	-		
AV	2.3404G	43.27	54.00	-10.73	12.16	3	Vertical	46	1.19	-	27.40	3.71	-		
PK	2.4396G	102.87	Inf	-Inf	71.51	3	Vertical	46	1.19	-	27.60	3.76	-		
AV	2.44G	98.87	Inf	-Inf	67.51	3	Vertical	46	1.19	-	27.60	3.76	-		
PK	2.486G	56.24	74.00	-17.76	24.57	3	Vertical	46	1.19	-	27.86	3.81	-		
AV	2.5G	43.95	54.00	-10.05	12.12	3	Vertical	46	1.19	-	28.00	3.83	-		





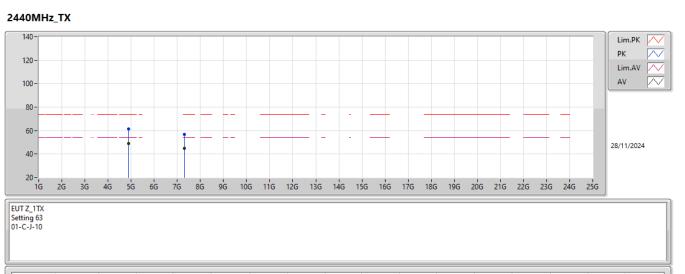






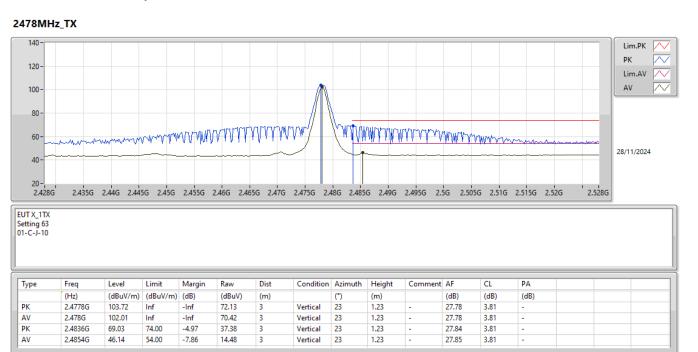
Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA	
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)	
PK	4.87996G	59.29	74.00	-14.71	52.54	3	Vertical	242	1.01	-	32.82	6.51	32.58	
AV	4.88103G	47.27	54.00	-6.73	40.52	3	Vertical	242	1.01	-	32.82	6.51	32.58	
PK	7.31984G	59.21	74.00	-14.79	46.32	3	Vertical	216	2.86	-	37.54	7.98	32.63	
AV	7.32122G	47.81	54.00	-6.19	34.92	3	Vertical	216	2.86	-	37.54	7.98	32.63	



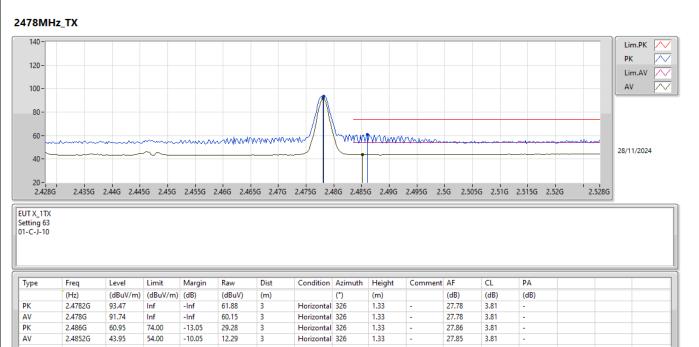


Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.88017G	61.35	74.00	-12.65	54.60	3	Horizontal	173	2.62	-	32.82	6.51	32.58		
AV	4.88101G	49.17	54.00	-4.83	42.42	3	Horizontal	173	2.62	-	32.82	6.51	32.58		
РК	7.31837G	56.81	74.00	-17.19	43.92	3	Horizontal	159	1.05	-	37.54	7.98	32.63		
AV	7.31875G	44.81	54.00	-9.19	31.92	3	Horizontal	159	1.05	-	37.54	7.98	32.63		

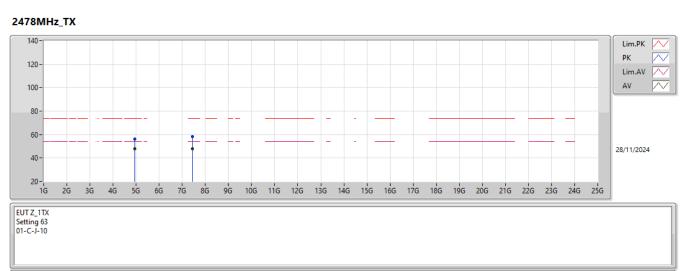






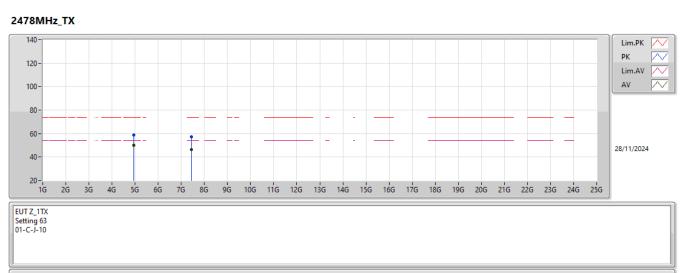






Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	4.95608G	56.34	74.00	-17.66	49.32	3	Vertical	318	1.02	-	32.99	6.61	32.58		
AV	4.956G	47.85	54.00	-6.15	40.83	3	Vertical	318	1.02	-	32.99	6.61	32.58		
PK	7.43416G	58.53	74.00	-15.47	45.54	3	Vertical	0	1.01	-	37.53	8.05	32.59		
AV	7.4334G	47.86	54.00	-6.14	34.87	3	Vertical	0	1.01	-	37.53	8.05	32.59		





Туре	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)		
РК	4.95602G	58.84	74.00	-15.16	51.82	3	Horizontal	180	1.00	-	32.99	6.61	32.58		
AV	4.95604G	50.09	54.00	-3.91	43.07	3	Horizontal	180	1.00	-	32.99	6.61	32.58		
PK	7.43484G	57.39	74.00	-16.61	44.39	3	Horizontal	294	1.01	-	37.53	8.05	32.58		
AV	7.43468G	46.33	54.00	-7.67	33.33	3	Horizontal	294	1.01	-	37.53	8.05	32.58		