





RADIO TEST REPORT

FCC ID : UDX-600107010

Equipment : SMART Camera

Brand Name : CISCO

Model Name : MV63X-HW, MV63-HW

Applicant : Cisco Systems, Inc.

170 West Tasman Drive, San Jose, CA 95134 USA

Manufacturer : Cisco Systems, Inc.

170 West Tasman Drive, San Jose, CA 95134 USA

Standard : 47 CFR FCC Part 15.247

The product was received on Sep. 14, 2022, and testing was started from Sep. 21, 2022 and completed on Oct. 11, 2022. 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

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History of this test report

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Report No.	Version	Description	Issued Date
FR291332AA	01	Initial issue of report	Oct. 31, 2022

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Summary of Test Result

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	20dB Bandwidth	PASS	-
3.2	15.247(a)	Carrier Frequency Separation	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(a)	Number of Hopping Frequencies and Hopping Band edge	PASS	-
3.5	15.247(a)	Time of Occupancy (Dwell Time)	PASS	-
3.6	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.7	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:

- The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
- 2. The measurement uncertainty please refer to report "Measurement Uncertainty".

Comments and Explanations:

- 1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
- 2. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen Report Producer: Wendy Pan

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1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Version	Ch. Frequency (MHz)	Channel Number
2400-2483.5	BR / EDR	2402-2480	0-78 [79]

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Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-BR(1Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(2Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(3Mbps)	1	1TX

Note:

- Bluetooth BR uses a GFSK (1Mbps).
- Bluetooth EDR uses a combination of $\pi/4$ -DQPSK (2Mbps) and 8DPSK (3Mbps).
- Bluetooth BR/EDR uses as a system using FHSS modulation.
- BWch is the nominal channel bandwidth.

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1.1.2 Antenna Information

	i	Port						Gain (dBi)				
Ant.			Brand	Model	Antenna	Connector	WLAN	٧	VLAN	5GH	Z	
,		Bluetooth	2.4	Name Type	Туре		2.4GHz	UNII 1	UNII 2A	UNII 2C	UNII 3	Bluetooth
1	1	-	SERCOMM	HC910	PIFA Antenna	I-PEX	3.38	5.50	5.50	4.79	5.17	-
2	2	1	SERCOMM	HC910	PIFA Antenna	I-PEX	2.54	5.33	5.33	6.64	5.68	2.54

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Note: The above information was declared by manufacturer.

For 2.4GHz function:

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

The EUT supports the antenna with TX and RX diversity functions.

Both Port 1 and Port 2 support transmit and receive functions, but only one of them will be used at one time.

The Port 1 generated the worst case, so it was selected to test and record in the report.

For 5GHz function:

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

For UNII 1 and UNII 2A:

The EUT supports the antenna with TX and RX diversity functions.

Both Port 1 and Port 2 support transmit and receive functions, but only one of them will be used at one time.

The Port 1 generated the worst case, so it was selected to test and record in the report.

For UNII2C and UNII 3:

The EUT supports the antenna with TX and RX diversity functions.

Both Port 1 and Port 2 support transmit and receive functions, but only one of them will be used at one time.

The Port 2 generated the worst case, so it was selected to test and record in the report.

For Bluetooth function (1TX/1RX):

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

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1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-BR(1Mbps)	0.784	1.06	2.888m	1k
BT-EDR(2Mbps)	0.747	1.27	2.889m	1k
BT-EDR(3Mbps)	0.785	1.05	2.891m	1k

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Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From PoE
Test Software Version	QRCT (Version :4.0.72.1)

1.1.5 Table for Multiple Listing

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

Brand Name	Model Name	EUT	Memory Capacities
CISCO	MV63X-HW	EUT 1	1TB
CISCO	MV63-HW	EUT 2	256GB

Note 1: From the above EUT 1 for all test items and EUT 2 for Emissions in Restricted Frequency Bands below 1GHz were selected as representative EUT for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

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1.2 Applicable Standards

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

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47 CFR FCC Part 15.247

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	TH03-CB	Jay Lo	23.4-23.6 / 58-66	Sep. 23, 2022 ~ Sep. 26, 2022
Radiated <1GHz	03CH05-CB	Simmon Cheng	23.4~24.4 / 55~60	Sep. 28, 2022~ Sep. 29, 2022
Radiated >1GHz	03CH01-CB	Simmon Cheng	23~23.5 / 55~60	Sep. 21, 2022~ Sep. 24, 2022
Radialeu >1GHZ	03CH04-CB	Simmon Cheng	24.4~25.3 / 60~63	Sep. 21, 2022~ Sep. 24, 2022
Radiated Co-location	03CH05-CB	Simmon Cheng	24.9~25.2 / 61~63	Oct. 11, 2022
AC Conduction	CO02-CB	Joe Chu	22~23 / 59~60	Sep. 29, 2022

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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

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level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.2 dB	Confidence levels of 95%
Bandwidth Measurement	2.0 %	Confidence levels of 95%

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2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	9
2440MHz	9
2480MHz	8
BT-EDR(2Mbps)	-
2402MHz	9
2440MHz	9
2480MHz	8
BT-EDR(3Mbps)	-
2402MHz	9
2440MHz	9
2480MHz	8

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2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests			
Tests Item	AC power-line conducted emissions		
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz		
Operating Mode	Normal Link		
1	EUT 1 connected via Ethernet - Day mode + PoE 1		
2	EUT 1 connected via Ethernet - Night mode + PoE 1		
	Mode 2 has been evaluated to be the worst case between Mode 1~2, thus measurement for Mode 3 ~ 6 will follow this same test mode.		
3	EUT 1 connected via WLAN 2.4GHz - Night mode + PoE 1		
4	EUT 1 connected via WLAN 2.4GHz - Night mode + PoE 2		
5	EUT 1 connected via WLAN 5GHz - Night mode + PoE 1		
6	EUT 1 connected via WLAN 5GHz - Night mode + PoE 2		
For operating mode 2 is the worst case and it was record in this test report.			

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The Worst Case Mode for Following Conformance Tests	
Tests Item	20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition Conducted measurement at transmit chains	
Test Mode	EUT 1

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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		
1	EUT 1 at Z axis connected via Ethernet - Day mode + PoE 1		
2	EUT 1 at Y axis connected via Ethernet - Day mode + PoE 1		
3	EUT 1 at X axis connected via Ethernet - Day mode + PoE 1		
Mode 2 has been evaluate this same test mode.	d to be the worst case among Mode 1~3, thus measurement for Mode 4 will follow		
4	EUT 1 at Y axis connected via Ethernet - Night mode + PoE 1		
Mode 4 has been evaluate follow this same test mode	ed to be the worst case among Mode 1~4, thus measurement for Mode 5 ~ 8 will \cdot .		
5	5 EUT 1 at Y axis connected via WLAN 2.4GHz - Night mode + PoE 1		
6	EUT 1 at Y axis connected via WLAN 2.4GHz - Night mode + PoE 2		
7	EUT 1 at Y axis connected via WLAN 5GHz - Night mode + PoE 1		
8	EUT 1 at Y axis connected via WLAN 5GHz - Night mode + PoE 2		
Mode 4 has been evaluate this same test mode.	Mode 4 has been evaluated to be the worst case among Mode 1~8, thus measurement for Mode 9 will follow this same test mode.		
9	EUT 2 at Y axis connected via Ethernet - Night mode + PoE 1		
For operating mode 9 is the worst case and it was record in this test report.			
	СТХ		
Operating Mode > 1GHz	The EUT was performed at X axis, Y axis and Z axis position and the worst case was found at Z axis. So the measurement will follow this same test configuration.		
1	EUT 1 at Z axis		

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The Worst Case Mode for Following Conformance Tests		
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location	
Test Condition	Radiated measurement	
	Normal Link	
Operating Mode	The EUT was performed at X axis, Y axis and Z axis position and the worst case was found at Y axis. So the measurement will follow this same test configuration.	
1	EUT 1 at Y axis + Bluetooth+WLAN 2.4GHz	
2	EUT 1 at Y axis + Bluetooth+WLAN 5GHz	
Refer to Appendix H for Radiated Emission Co-location.		

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The Worst Case Mode for Following Conformance Tests			
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation		
Operating Mode	Operating Mode		
1	EUT 1 + Bluetooth+WLAN 2.4GHz		
2	EUT 1 + Bluetooth+WLAN 5GHz		
Refer to Sporton Test Report No.: FA291332 for Co-location RF Exposure Evaluation.			

Note: The PoEs are for measurement only, would not be marketed.

PoEs information as below:

Power	Brand	Model
PoE 1	PHIHONG	POEA33U-1ATE
PoE 2	CISCO	MA-PWR-MV-LV

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Wall Bracket*4

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2.5 Support Equipment

For AC Conduction:

	Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID	
Α	PoE 1	PHIHONG	POEA33U-1ATE	N/A	
В	LAN NB	DELL	E6430	N/A	
С	Smart phone	Samsung	Galaxy J2	N/A	

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For Radiated (below 1GHz):

	Support Equipment			
No.	Equipment	Brand Name	Model Name	FCC ID
Α	PoE 1	PHIHONG	POEA33U-1ATE	N/A
В	Notebook	Lenovo	L440	N/A
С	iPhone 12	Apple	A2403	BCG-E3544A

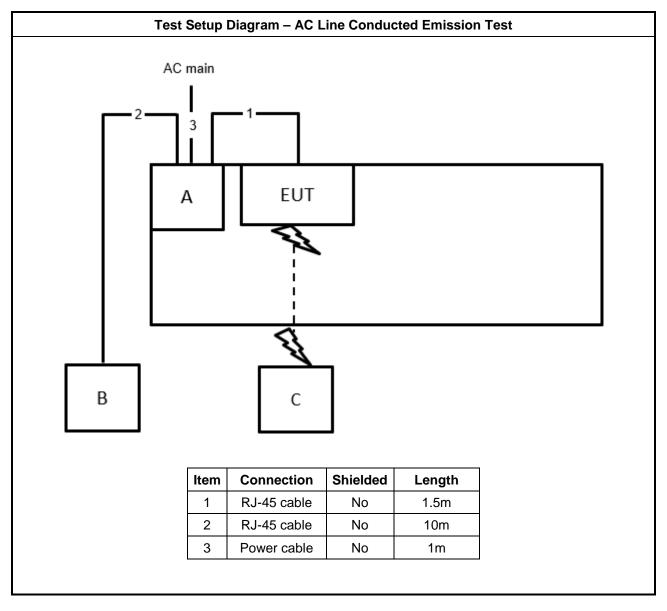
For Radiated (above 1GHz) and RF Conducted:

	Support Equipment			
No.	Equipment	Brand Name	Model Name	FCC ID
Α	Notebook	Lenovo	L440	N/A
В	PoE 1	PHIHONG	PORA33U-1ATE	N/A

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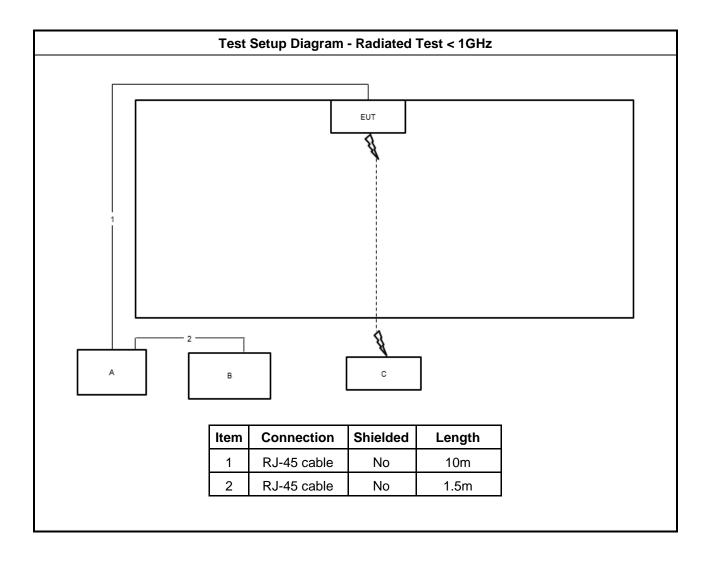


2.6 Test Setup Diagram



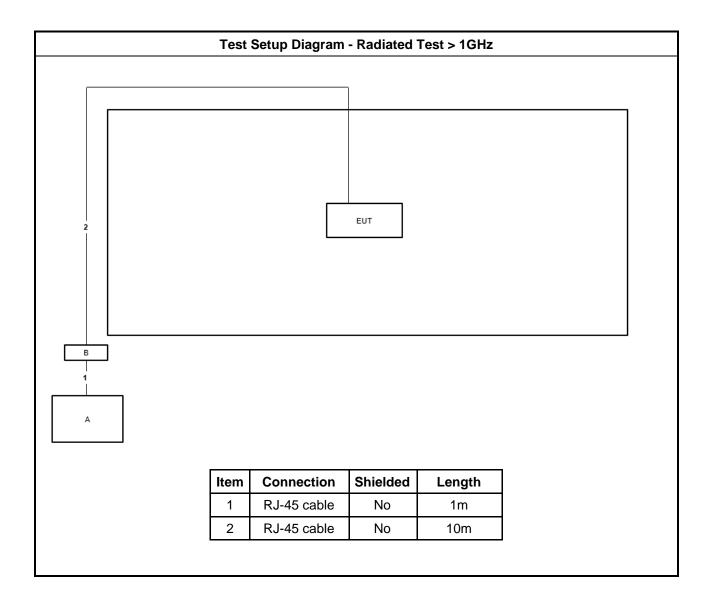
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3 Transmitter Test Result

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.		

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3.1.2 Measuring Instruments

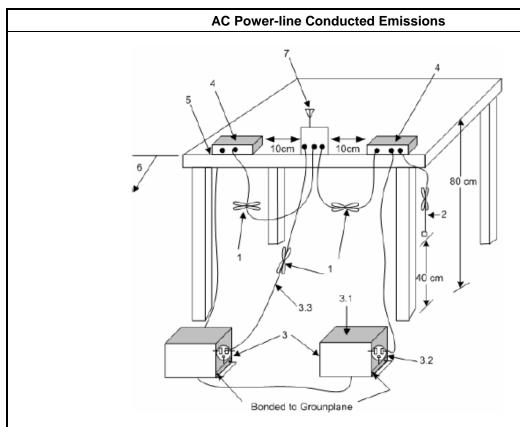
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

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3.1.4 **Test Setup**



-Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.

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- 2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
- 3.1—All other equipment powered from additional LISN(s).
- 3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
 3.3—LISN at least 80 cm from nearest part of EUT chassis.
 4—Non-EUT components of EUT system being tested.

- -Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
- 6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground
- 7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

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

Test Result of AC Power-line Conducted Emissions 3.1.5

Refer as Appendix A

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3.2 20dB Bandwidth and Carrier Frequency Separation

3.2.1 20dB Bandwidth and Carrier Frequency Separation Limit

	20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems		
•	902-928 MHz Band:		
	N ≥50 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 250 kHz.		
	■ 50 >N≥25 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth>250 kHz.		
•	• 2400-2483.5 MHz Band:		
	 N ≥75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz). 		
	 75>N ≥ 15 and ChS ≥ MAX (20 dB bandwidth 2/3,25 kHz). 		
•	■ 5725-5850 MHz Band:		
	 N ≥ 75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 1 MHz. 		
N:Number of Hopping Frequencies; ChS: Hopping Channel Separation			

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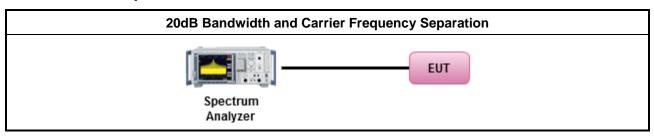
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

	Test Method						
•	Refer as ANSI C63.10-2013, clause 6.9.1 for 20 dB bandwidth measurement.						
•	Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.						

3.2.4 Test Setup



3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

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3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit							
■ 902-928 MHz Band:	■ 902-928 MHz Band:						
N ≥50; Power 30dBm; EIRP 36	■ N ≥50; Power 30dBm; EIRP 36dBm						
■ 50 >N≥ 25; Power 23.98dBm; I	EIRP 29.98dBm						
■ 2400-2483.5 MHz Band:							
N ≥ 75; Power 30dBm; EIRP 36	6dBm						
■ 75 >N ≥ 15; Power 21dBm; EIF	RP 27dBm						
■ 5725-5850 MHz Band:	■ 5725-5850 MHz Band:						
N ≥ 75; Power 30dBm; EIRP 36dBm							
N:Number of Hopping Frequencies							

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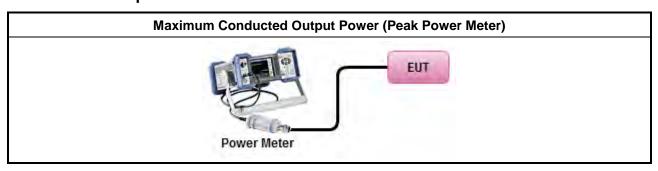
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

	Test Method
•	Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

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3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

	Number of Hopping Frequencies Limit							
•	■ 902-928 MHz Band:							
	N ≥50 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 250 kHz.							
	■ 50 >N≥ 25 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth>250 kHz.							
•	2400-2483.5 MHz Band:							
	 N ≥ 75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz). 							
	 75 >N ≥ 15 and ChS ≥ MAX (20 dB bandwidth 2/3,25 kHz). 							
-	■ 5725-5850 MHz Band:							
	 N ≥ 75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 1 MHz. 							
N:N	Number of Hopping Frequencies; ChS : Hopping Channel Separation							

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3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

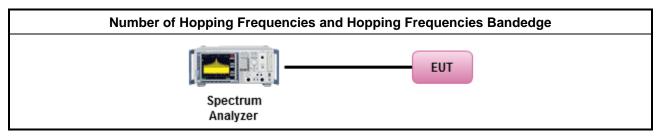
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

Test Method ■ Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement. ■ Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.

3.4.5 Test Setup



3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

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3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

	20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems							
•	■ 902-928 MHz Band:							
	■ N ≥50; 0.4s in 20s period							
	■ 50 >N≥ 25; 0.4s in 10s period							
•	2400-2483.5 MHz Band:							
	■ N ≥ 75; 0.4s in N x 0.4 period							
	■ 75 >N ≥ 15; 0.4s in N x 0.4 period							
•	5725-5850 MHz Band:							
	■ N ≥ 75; 0.4s in 30s period							
N:N	umber of Hopping Frequencies							

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3.5.2 Measuring Instruments

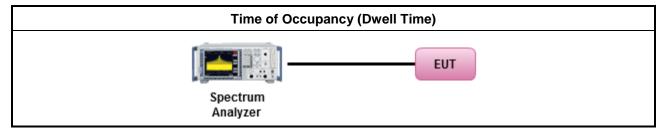
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method

- Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.
- Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle.
 - The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is 5/1600 seconds, or 3.125ms.DH5 Packet permit maximum 1600/79 / 6 = 3.37 hops per second in each channel.

3.5.4 Test Setup



3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

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3.6 Emissions in Non-restricted Frequency Bands

3.6.1 Emissions in Non-restricted Frequency Bands Limit

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

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

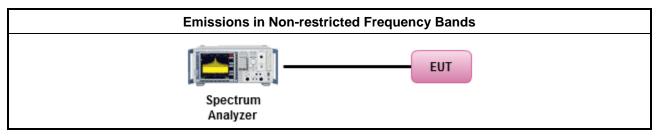
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Г	Test Method
	 Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.

3.6.4 Test Setup



3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F

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3.7 Emissions in Restricted Frequency Bands

3.7.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit								
Frequency Range (MHz) Field Strength (uV/m) Field Strength (dBuV/m) Measure Distan								
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					

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- 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.

3.7.2 Measuring Instruments

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

3.7.3 Test Procedures

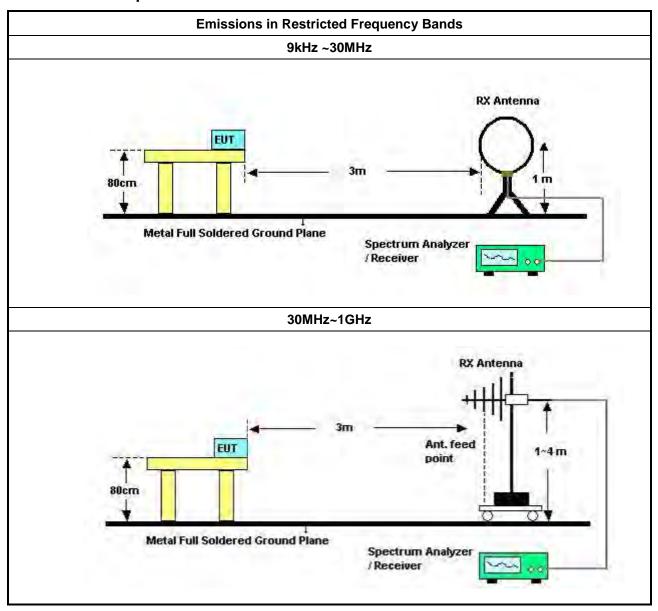
Test Method

- The average emission levels shall be measured in [hopping duty factor].
- Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
- For the transmitter unwanted emissions shall be measured using following options below:
 - Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.
 - Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.
 - Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.

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3.7.4 Test Setup



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3.7.5 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.

3.7.6 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.

3.7.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G

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4 Test Equipment and Calibration Data

1	Doord	Madel No	Coriol No.	Characteristics	Calibration	Calibration	Remark
Instrument	Brand	Model No.	Serial No.	Characteristics	Date	Due Date	
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 22, 2021	Dec. 21, 2022	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 06, 2022	May 05, 2023	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Mar. 18, 2022	Mar. 17, 2023	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 19, 2021	Oct. 18, 2022	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 03, 2022	Aug. 02, 2023	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH05-CB	1GHz ~18GHz 3m	Nov. 07, 2021	Nov. 06, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBE CK	BBHA9120D	BBHA 9120 D-1291	1GHz~18GHz	Jun. 23, 2022	Jun. 22, 2023	Radiation (03CH05-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz – 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 20, 2022	Jul. 19, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH05-CB)

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Calibration Calibration Instrument Model No. Serial No. Characteristics Remark **Brand Due Date** Date Radiation WCA0929M 40G#5 1GHz ~ 40 GHz Dec. 08, 2021 Dec. 07, 2022 High Cable Woken (03CH05-CB) Radiation High Cable Woken WCA0929M 40G#7 1GHz ~ 40 GHz Dec. 14, 2021 Dec. 13, 2022 (03CH05-CB) Radiation **SPORTON** Test Software SENSE N.C.R. N.C.R. V5.10 (03CH05-CB) 3m Semi Anechoic 1GHz ~18GHz Radiation TDK SAC-3M 03CH01-CB May 06, 2022 May 05, 2023 Chamber (03CH01-CB) 3m **VSWR ETS-LINDGRE** Radiation Horn Antenna 3115 00075790 750MHz ~ 18GHz Nov. 06, 2021 Nov. 05, 2022 (03CH01-CB) Radiation BBHA9170252 Aug. 22, 2022 Horn Antenna **BBHA 9170** 15GHz ~ 40GHz Schwarzbeck Aug. 21, 2023 (03CH01-CB) Radiation Pre-Amplifier 8449B 3008A02121 1GHz ~ 26.5GHz May 19, 2022 May 18, 2023 Agilent (03CH01-CB) TTA1840-35-H Radiation Pre-Amplifier **MITEQ** 1864479 18GHz ~ 40GHz Jul. 20, 2022 Jul. 19, 2023 (03CH01-CB) Spectrum Radiation R&S FSP40 100056 9kHz ~ 40GHz May 06, 2022 May 05, 2023 (03CH01-CB) Analyzer Radiation RF Cable-high Woken RG402 High Cable-16 1 GHz ~ 18 GHz Oct. 04, 2021 Oct. 03, 2022 (03CH01-CB) High Radiation RF Cable-high Woken RG402 1 GHz ~ 18 GHz Oct. 04, 2021 Oct. 03, 2022 Cable-16+17 (03CH01-CB) Radiation 1GHz ~ 40 GHz High Cable Woken WCA0929M 40G#5+7 Dec. 14, 2021 Dec. 13, 2022 (03CH01-CB) Radiation High Cable Woken WCA0929M 40G#5 1GHz ~ 40 GHz Dec. 08, 2021 Dec. 07, 2022 (03CH01-CB) Radiation High Cable WCA0929M Woken 40G#7 1GHz ~ 40 GHz Dec. 14, 2021 Dec. 13, 2022 (03CH01-CB) Radiation **SPORTON** N.C.R. Test Software SENSE V5.10 N.C.R. (03CH01-CB) 3m Semi Anechoic 1GHz ~18GHz Radiation TDK SAC-3M 03CH04-CB Feb. 24, 2022 Feb. 23, 2023 (03CH04-CB) Chamber **VSWR** Radiation ETS · Lindgren 3115 00143147 750MHz~18GHz Oct. 25, 2021 Oct. 24, 2022 Horn Antenna (03CH04-CB) Radiation Schwarzbeck **BBHA 9170** BBHA9170252 15GHz ~ 40GHz Horn Antenna Aug. 22, 2022 Aug. 21, 2023 (03CH04-CB) 0.5GHz ~ Radiation Pre-Amplifier 83017A MY53270063 Jul. 01, 2022 Jun. 30, 2023 Agilent 26.5GHz (03CH04-CB) Radiation TTA1840-35-H **MITEQ** 18GHz ~ 40GHz Jul. 20, 2022 Jul. 19, 2023 Pre-Amplifier 1864479 (03CH04-CB) Spectrum Radiation R&S FSP40 100142 9kHz~40GHz Mar. 28, 2022 Mar. 27, 2023 Analyzer (03CH04-CB Radiation RF Cable-high Woken RG402 High Cable-21 1GHz - 18GHz Oct. 04, 2021 Oct. 03, 2022 (03CH04-CB)

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Calibration Calibration Instrument Model No. Serial No. Characteristics Remark **Brand Due Date** Date Radiation Hiah RF Cable-high RG402 1GHz - 18GHz Oct. 04, 2021 Oct. 03, 2022 Woken Cable-21+67 (03CH04-CB) Radiation High Cable WCA0929M 40G#5+7 1GHz ~ 40 GHz Woken Dec. 14, 2021 Dec. 13, 2022 (03CH04-CB) Radiation High Cable Woken WCA0929M 40G#5 1GHz ~ 40 GHz Dec. 08, 2021 Dec. 07, 2022 (03CH04-CB) Radiation High Cable WCA0929M 40G#7 1GHz ~ 40 GHz Woken Dec. 14, 2021 Dec. 13, 2022 (03CH04-CB) Radiation **SPORTON** Test Software SENSE V5.10 N.C.R. N.C.R. (03CH04-CB) Spectrum Conducted R&S FSV40 101028 9kHz~40GHz Jan. 07, 2022 Jan. 06, 2023 (TH03-CB) analyzer Conducted Power Sensor Anritsu MA2411B 1531344 300MHz~40GHz Jul. 31, 2022 Jul. 30, 2023 (TH03-CB) Conducted Jul. 31, 2022 Power Meter Anritsu ML2495A 1728002 300MHz~40GHz Jul. 30, 2023 (TH03-CB) Conducted RF Cable-high Woken RG402 High Cable-11 1 GHz -18 GHz Oct. 04, 2021 Oct. 03, 2022 (TH03-CB) Conducted RF Cable-high Woken RG402 High Cable-12 1 GHz -18 GHz Oct. 04, 2021 Oct. 03, 2022 (TH03-CB) Conducted RF Cable-high Woken RG402 High Cable-13 1 GHz -18 GHz Oct. 04, 2021 Oct. 03, 2022 (TH03-CB) Conducted RF Cable-high Woken RG402 High Cable-14 1 GHz -18 GHz Oct. 04, 2021 Oct. 03, 2022 (TH03-CB) Conducted RF Cable-high Woken RG402 High Cable-15 1 GHz -18 GHz Oct. 04, 2021 Oct. 03, 2022 (TH03-CB) Conducted SPTCB SP-SWI **SWI-03** Switch 1 GHz -26.5 GHz Dec. 13, 2021 Dec. 12, 2022 (TH03-CB) Conducted Dec. 12, 2022 SWI-03-P1 RF Cable-high Woken RG402 1 GHz -26.5 GHz Dec. 13, 2021 (TH03-CB) Conducted RF Cable-high Woken RG402 SWI-03-P2 1 GHz -26.5 GHz Dec. 13, 2021 Dec. 12, 2022 (TH03-CB) Conducted RF Cable-high Woken RG402 SWI-03-P3 1 GHz -26.5 GHz Dec. 13, 2021 Dec. 12, 2022 (TH03-CB) Conducted RF Cable-high Woken RG402 SWI-03-P4 1 GHz -26.5 GHz Dec. 13, 2021 Dec. 12, 2022 (TH03-CB) Conducted RG402 SWI-03-P5 1 GHz -26.5 GHz RF Cable-high Woken Dec. 13, 2021 Dec. 12, 2022 (TH03-CB)

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Conducted

(TH03-CB)

N.C.R.

N.C.R.

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

SENSE

N.C.R. means Non-Calibration required.

SPORTON

Test Software

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V5.10



Conducted Emissions at Powerline

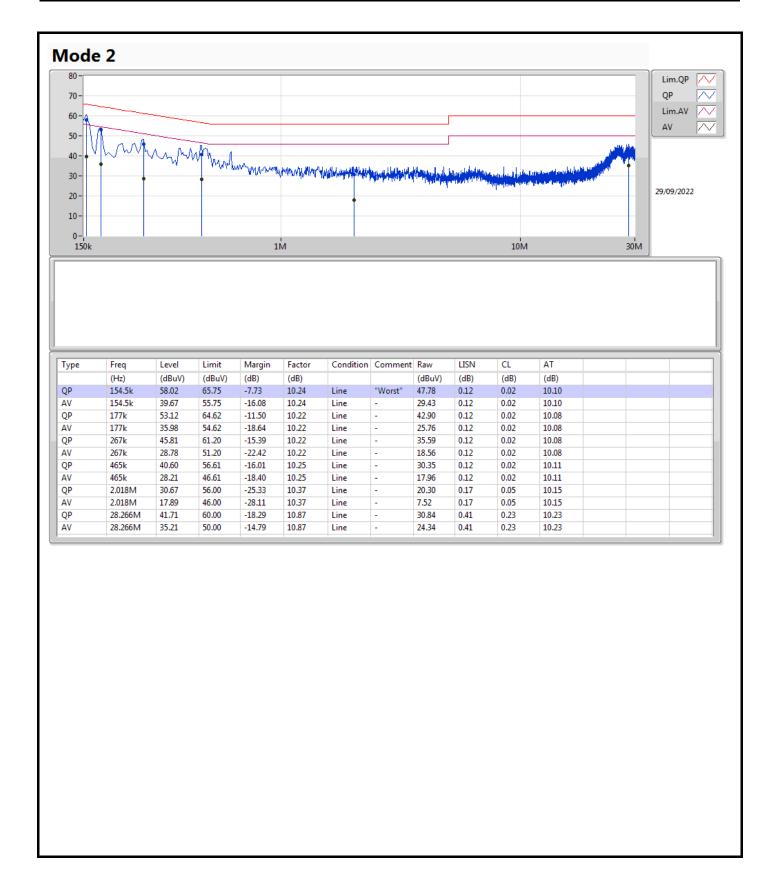
Appendix A

Summary

Mode	Result	Туре	Freq	Level	Limit	Margin	Condition
			(Hz)	(dBuV)	(dBuV)	(dB)	
Mode 2	Pass	QP	154.5k	58.02	65.75	-7.73	Line

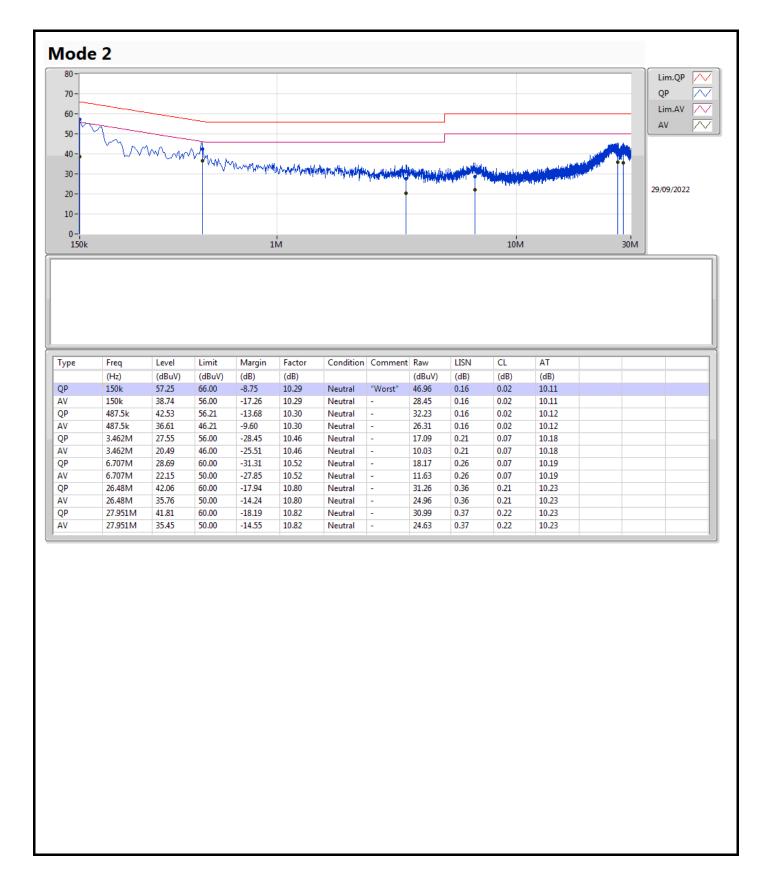
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EBW-FHSS Appendix B.1

Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW
	(Hz)	(Hz)		(Hz)	(Hz)
2.4-2.4835GHz	=	-	-	-	-
BT-BR(1Mbps)	880k	854.088k	854KF1D	880k	848.693k
BT-EDR(2Mbps)	1.256M	1.194M	1M19G1D	1.254M	1.188M
BT-EDR(3Mbps)	1.258M	1.2M	1M20G1D	1.255M	1.189M

 $\label{eq:max-N} $$ Max-N dB = Maximum 20dB down bandwidth; Max-OBW = Maximum 99\% occupied bandwidth; Min-N dB = Minimum 20dB down bandwidth; Min-OBW = Minimum 99\% occupied bandwidth; Minimum 99\% occupied b$

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EBW-FHSS Appendix B.1

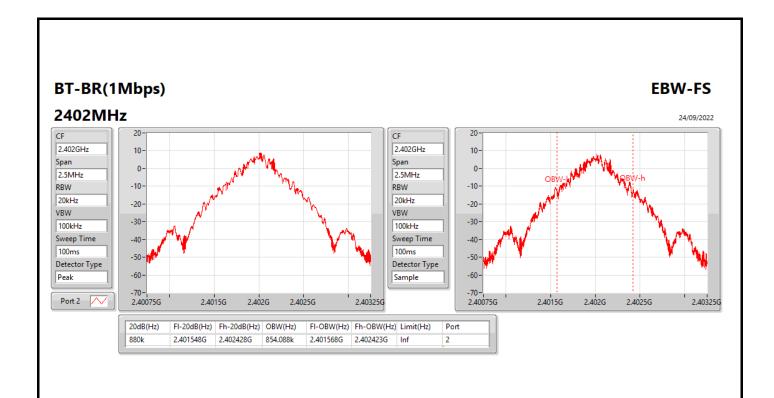
Result

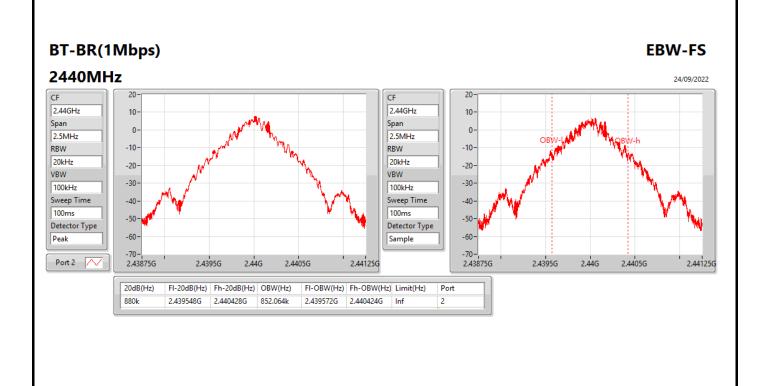
Mode	Result	Limit	Port 1-N dB	Port 1-OBW	Port 2-N dB	Port 2-OBW
		(Hz)	(Hz)	(Hz)	(Hz)	(Hz)
BT-BR(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	Inf			880k	854.088k
2440MHz	Pass	Inf			880k	852.064k
2480MHz	Pass	Inf			880k	848.693k
BT-EDR(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	Inf			1.255M	1.189M
2440MHz	Pass	Inf			1.254M	1.188M
2480MHz	Pass	Inf			1.256M	1.194M
BT-EDR(3Mbps)	-	-	-	-	-	-
2402MHz	Pass	Inf			1.256M	1.198M
2440MHz	Pass	Inf			1.255M	1.189M
2480MHz	Pass	Inf			1.258M	1.2M

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

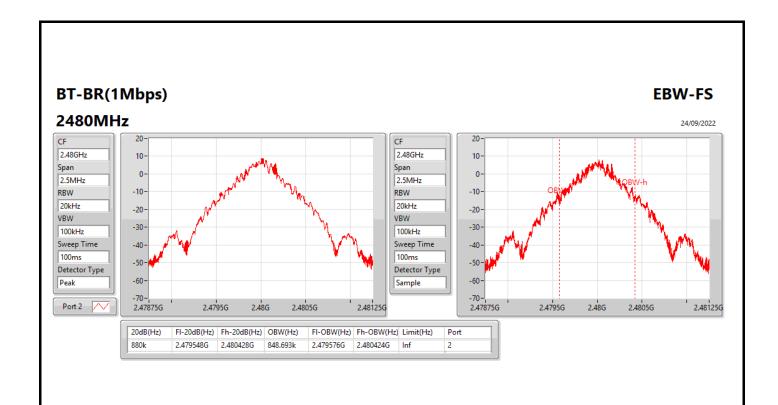
Page No. : 2 of 7 Report No. : FR291332AA SPORTON LAB.

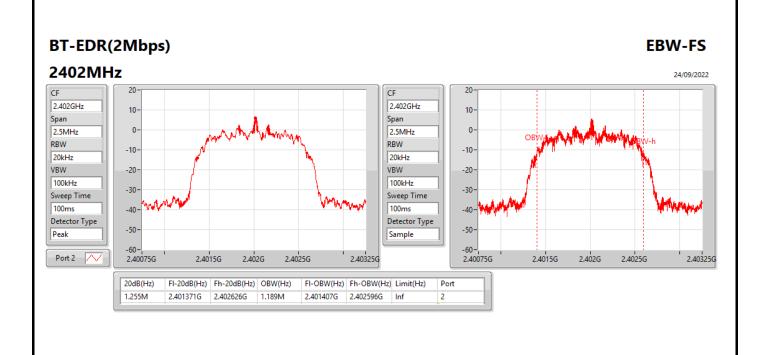
EBW-FHSS Appendix B.1





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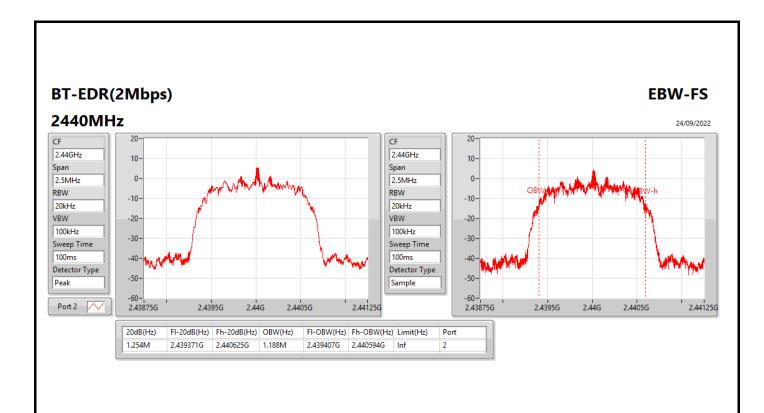


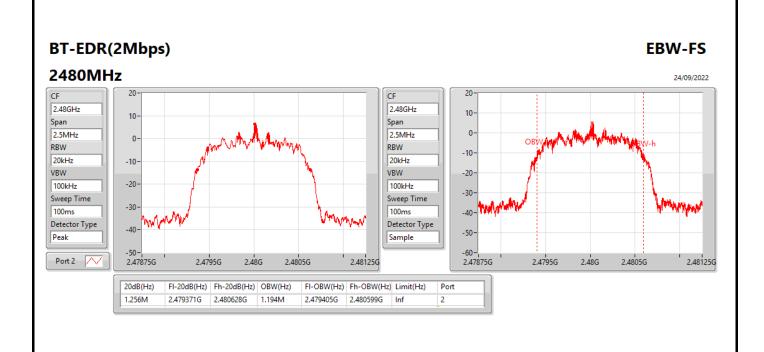


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Appendix B.1



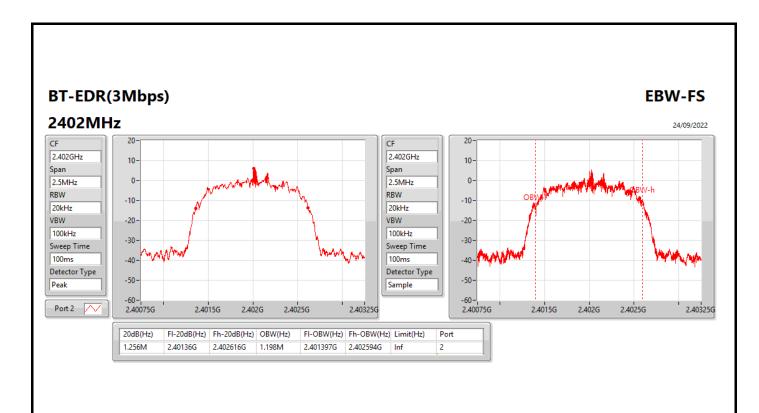


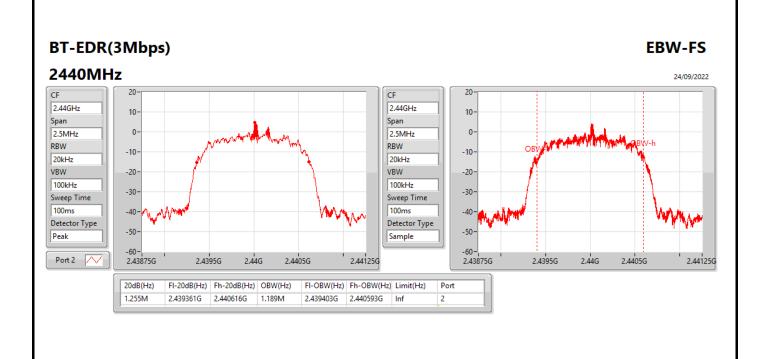


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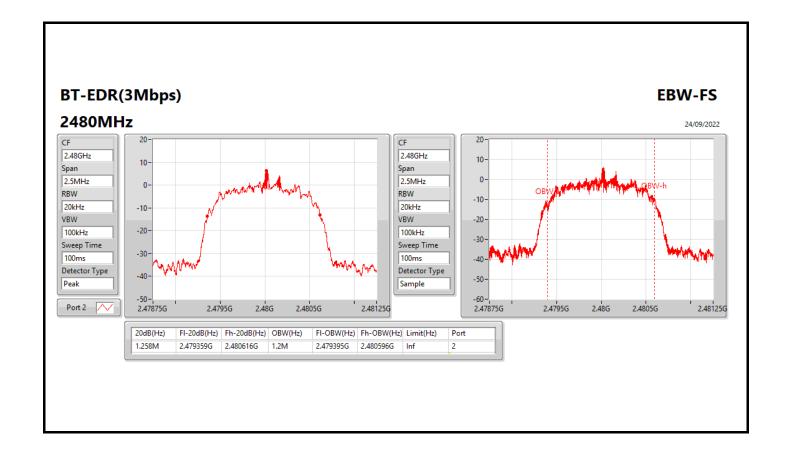
Appendix B.1







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Channel Separation-FHSS

Appendix B.2

Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.002M	999k
BT-EDR(2Mbps)	1.002M	999k
BT-EDR(3Mbps)	1.0005M	1.0005M

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Channel Separation-FHSS

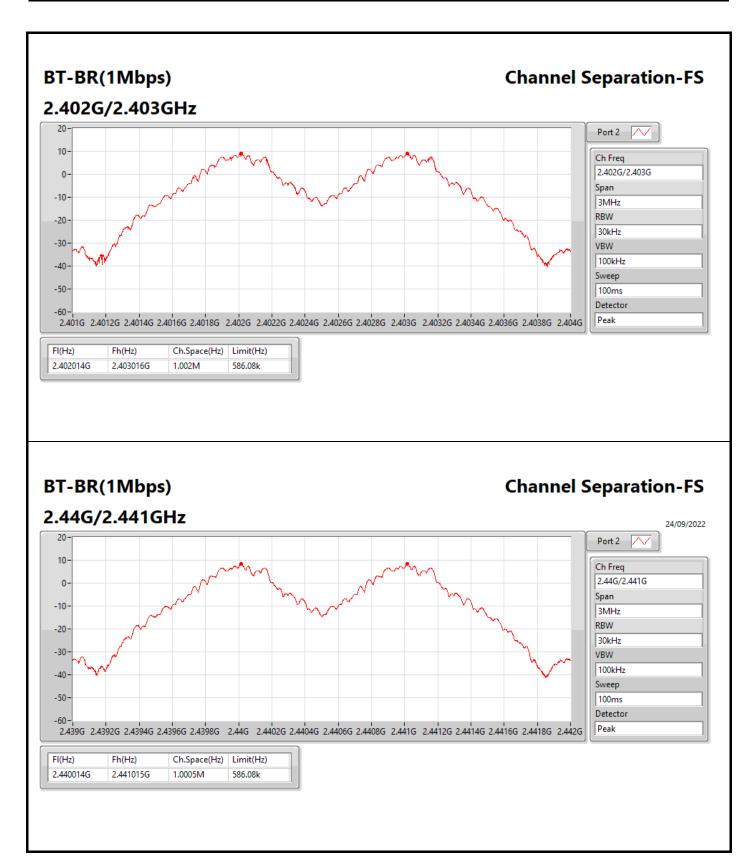
Appendix B.2

Result

Mode	Result	FI	Fh	Ch.Space	Limit
		(Hz)	(Hz)	(Hz)	(Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402014G	2.403016G	1.002M	586.08k
2440MHz	Pass	2.440014G	2.441015G	1.0005M	586.08k
2480MHz	Pass	2.479014G	2.480013G	999k	586.08k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402013G	2.403015G	1.002M	835.83k
2440MHz	Pass	2.440016G	2.441015G	999k	835.164k
2480MHz	Pass	2.479014G	2.480013G	999k	586.08k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402014G	2.403015G	1.0005M	836.496k
2440MHz	Pass	2.440014G	2.441015G	1.0005M	835.83k
2480MHz	Pass	2.479014G	2.480015G	1.0005M	837.828k

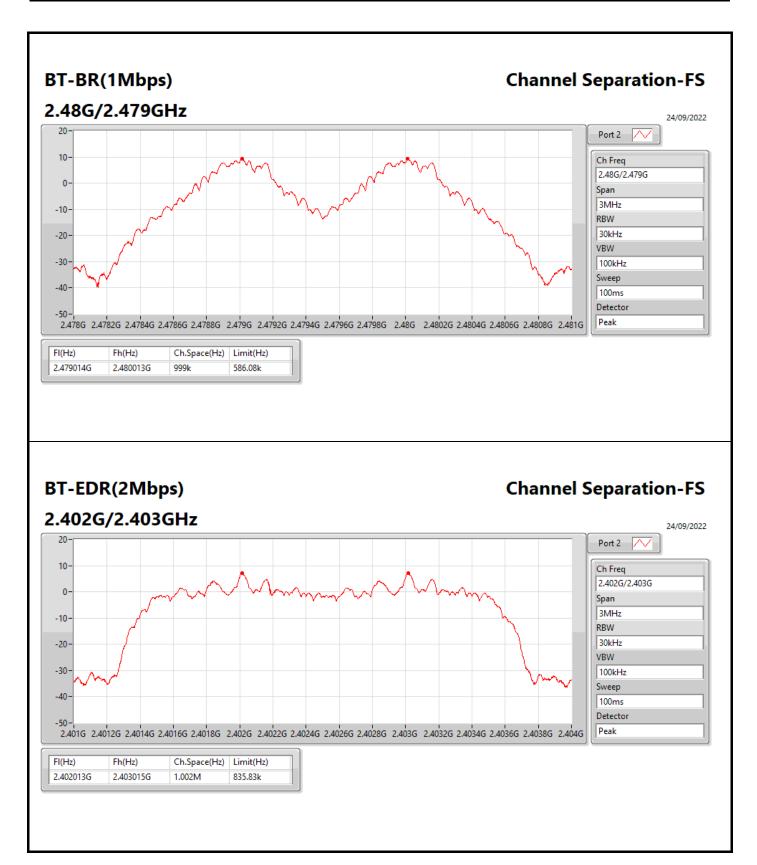
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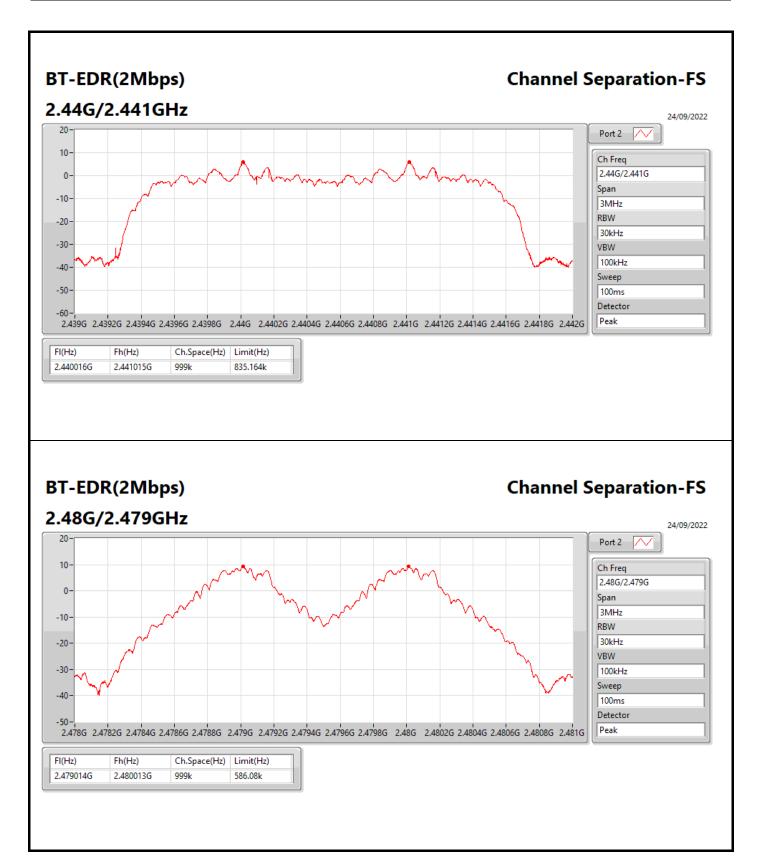
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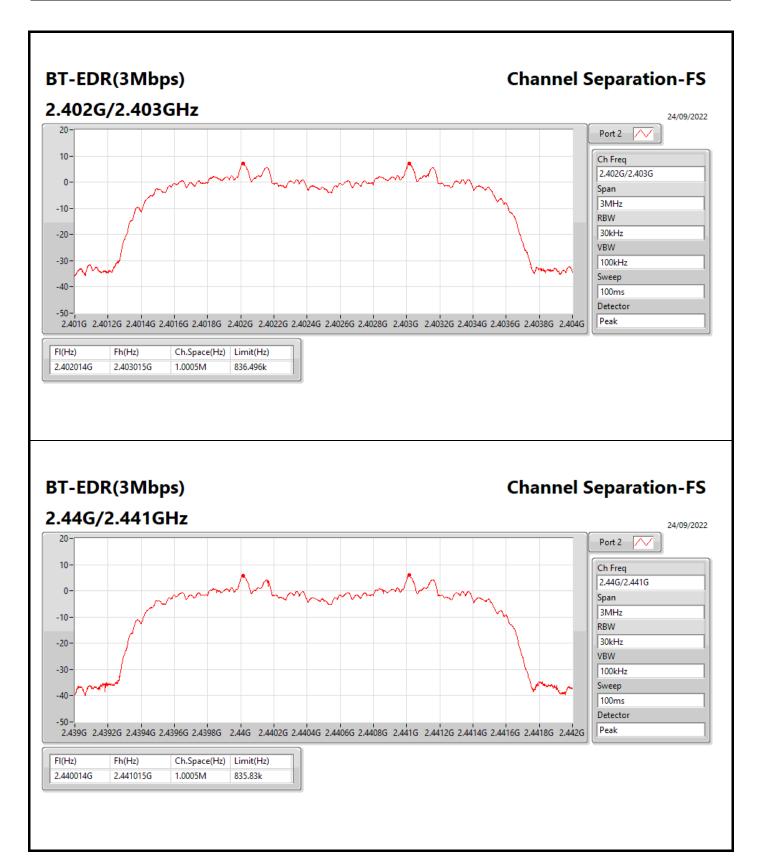
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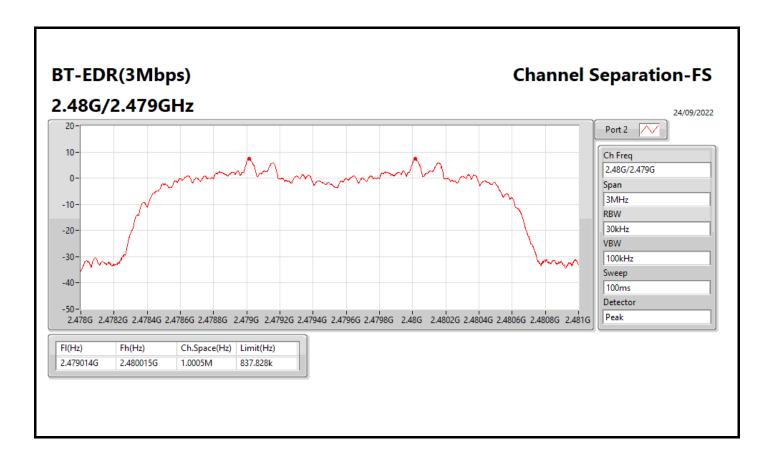
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Average Power-FHSS

Appendix C.1

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	11.48	0.01406
BT-EDR(2Mbps)	8.96	0.00787
BT-EDR(3Mbps)	8.94	0.00783

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Result

Mode	Result	Gain	Power	Power Limit
		(dBi)	(dBm)	(dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.54	11.48	21.00
2440MHz	Pass	2.54	10.53	21.00
2480MHz	Pass	2.54	7.53	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.54	8.96	21.00
2440MHz	Pass	2.54	7.60	21.00
2480MHz	Pass	2.54	4.15	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.54	8.94	21.00
2440MHz	Pass	2.54	7.59	21.00
2480MHz	Pass	2.54	4.13	21.00

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

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Peak Power-FHSS Appendix C.2

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	11.23	0.01327
BT-EDR(2Mbps)	10.71	0.01178
BT-EDR(3Mbps)	10.87	0.01222

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Peak Power-FHSS Appendix C.2

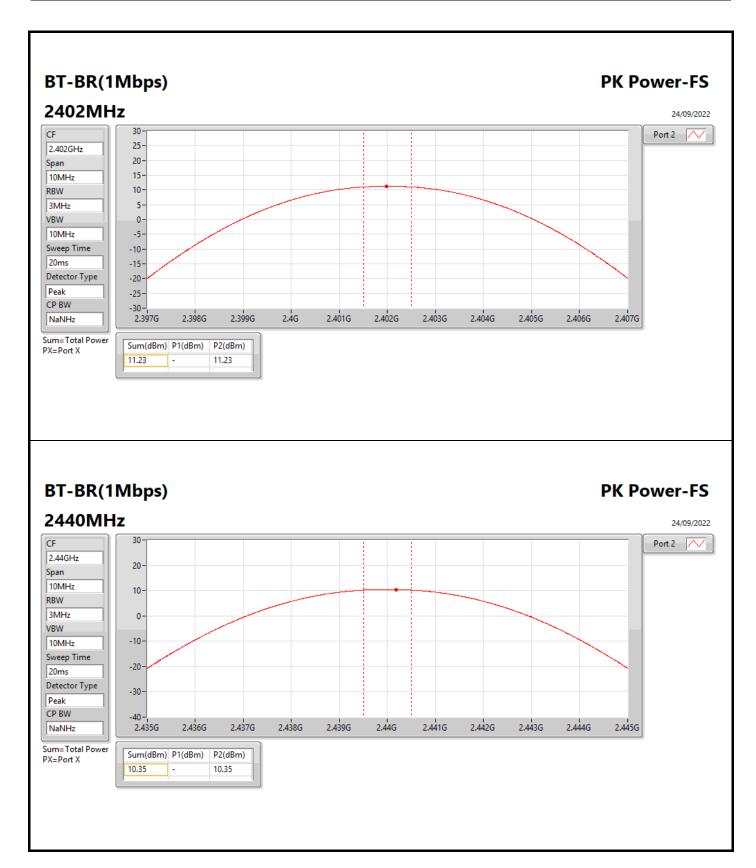
Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.54	11.23	21.00
2440MHz	Pass	2.54	10.35	21.00
2480MHz	Pass	2.54	7.39	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.54	10.71	21.00
2440MHz	Pass	2.54	9.66	21.00
2480MHz	Pass	2.54	6.56	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.54	10.87	21.00
2440MHz	Pass	2.54	9.99	21.00
2480MHz	Pass	2.54	6.83	21.00

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

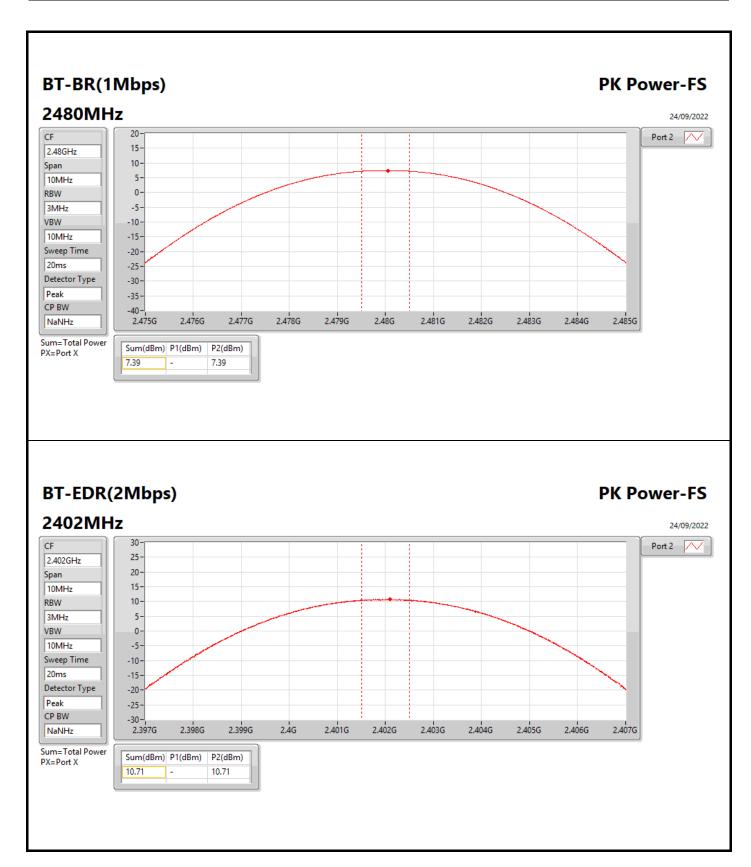
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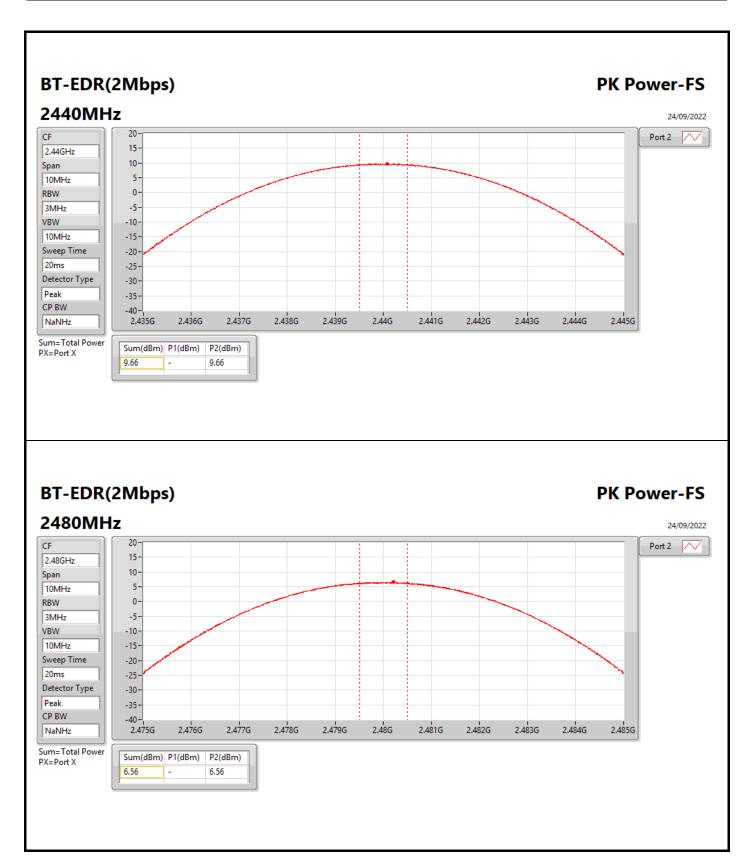
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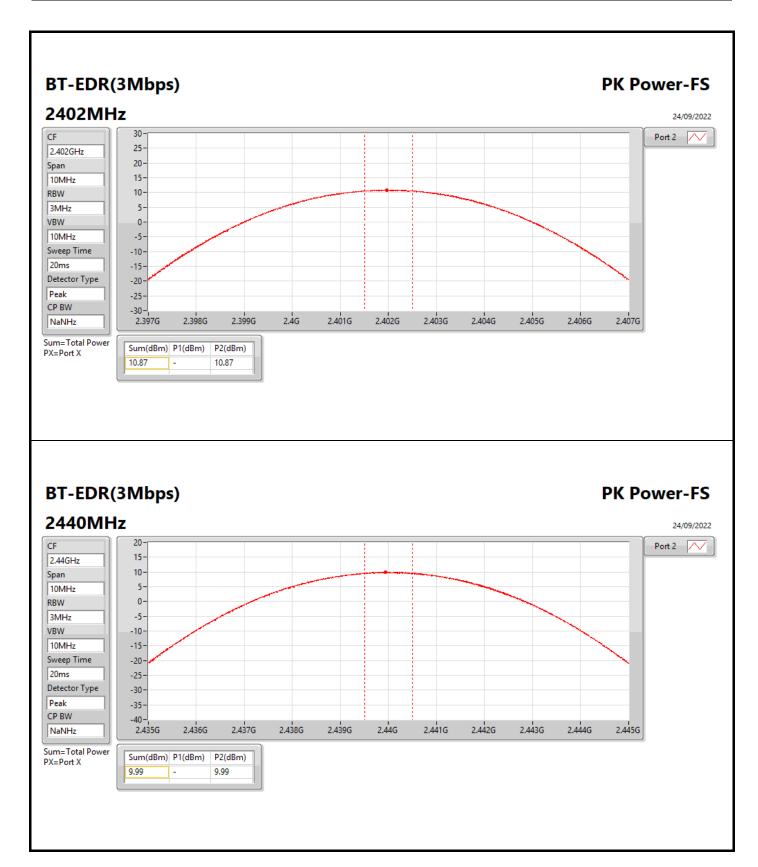
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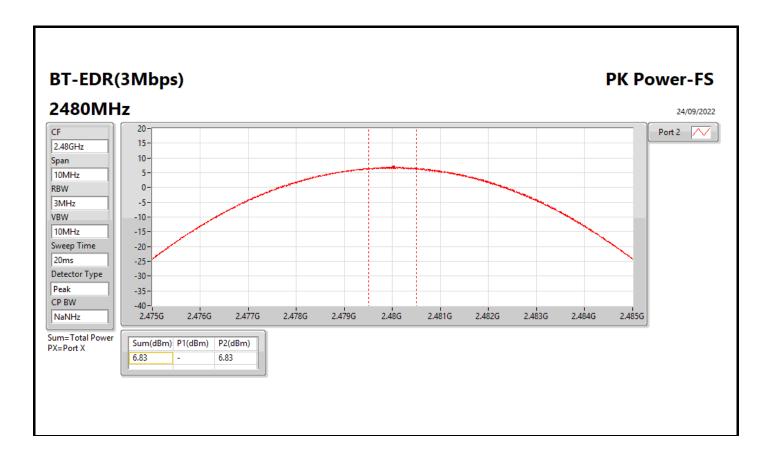
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Hopping Channel and Bandedge-FHSS

Appendix D

Summary

Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

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Hopping Channel and Bandedge-FHSS

Appendix D

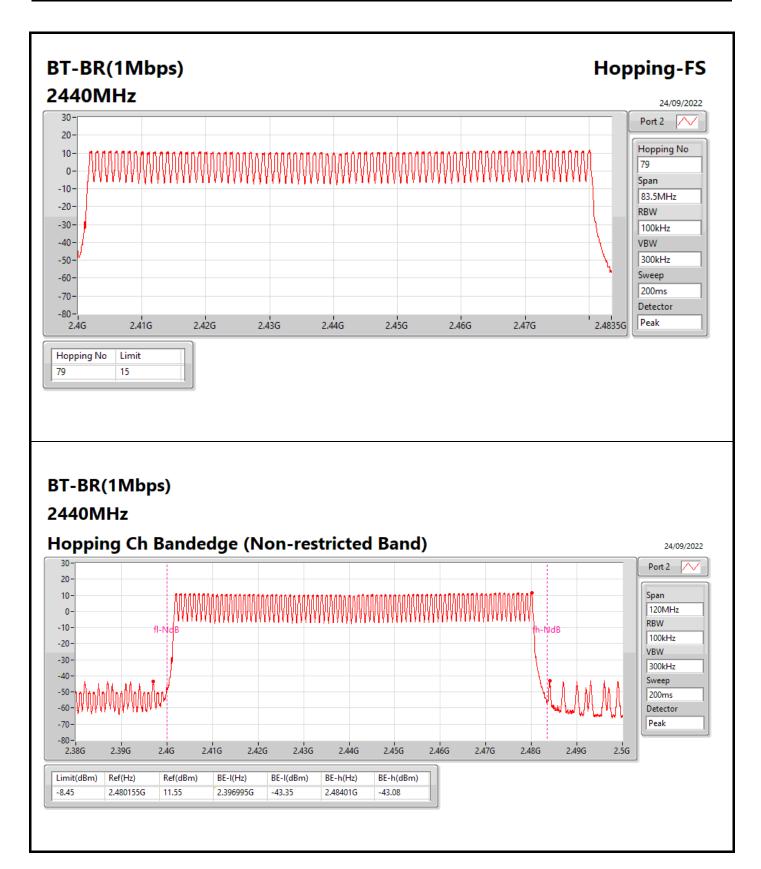
Result

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

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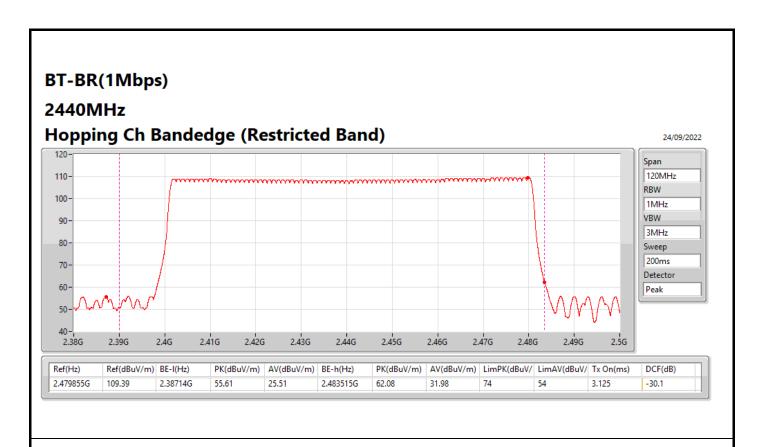
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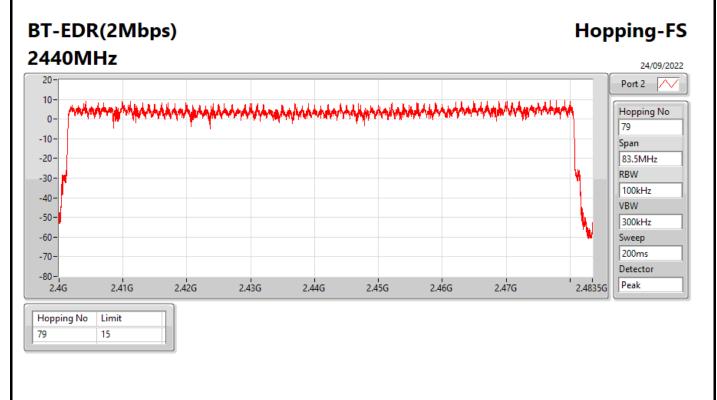




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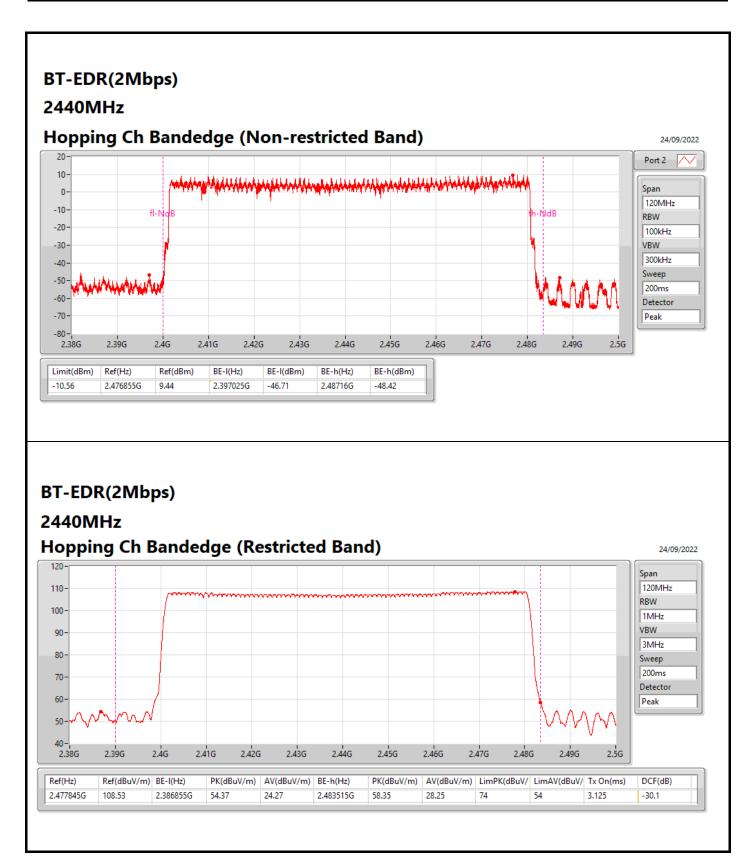






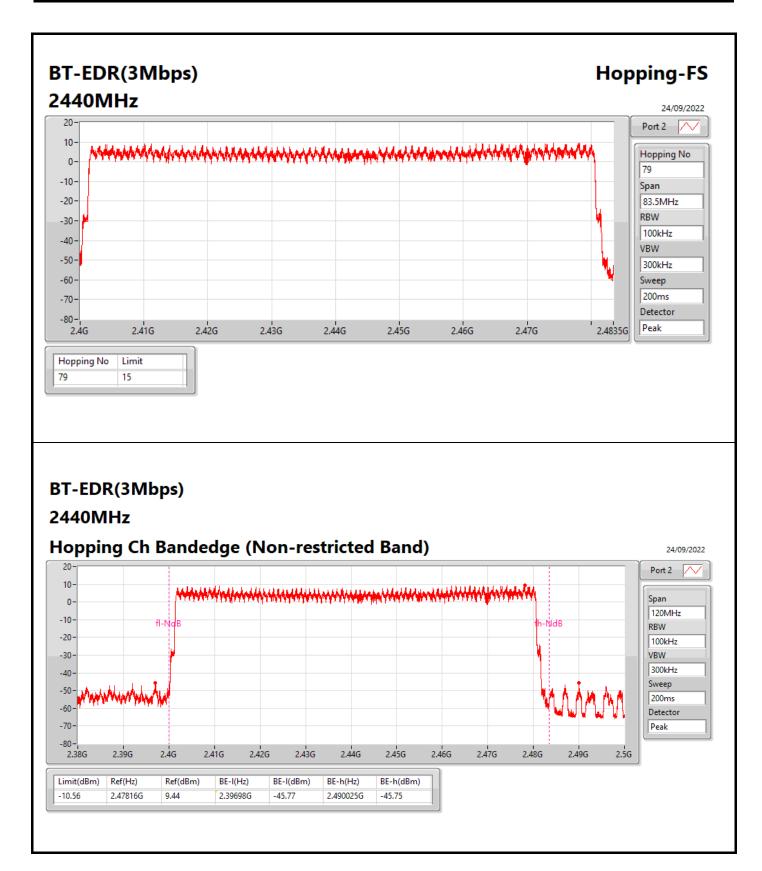
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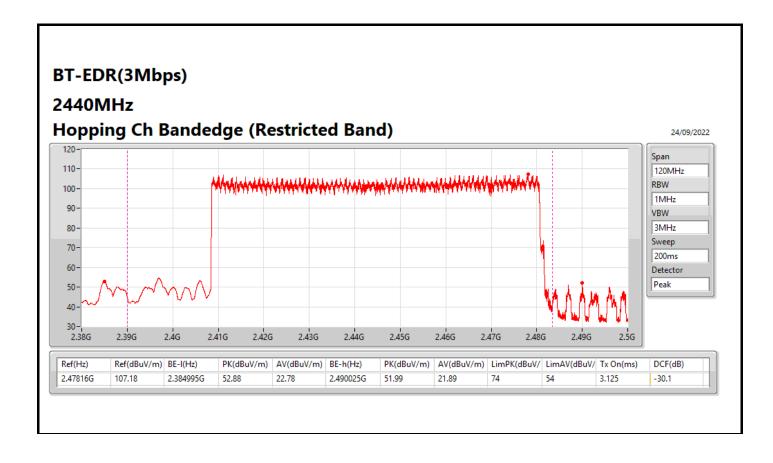
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Dwell Time-FHSS Appendix E

Summary

Mode	Max-Dwell
	(s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.10065m_DH5
BT-EDR(2Mbps)	308.9801m_DH5
BT-EDR(3Mbps)	309.16665m_DH5

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Dwell Time-FHSS Appendix E

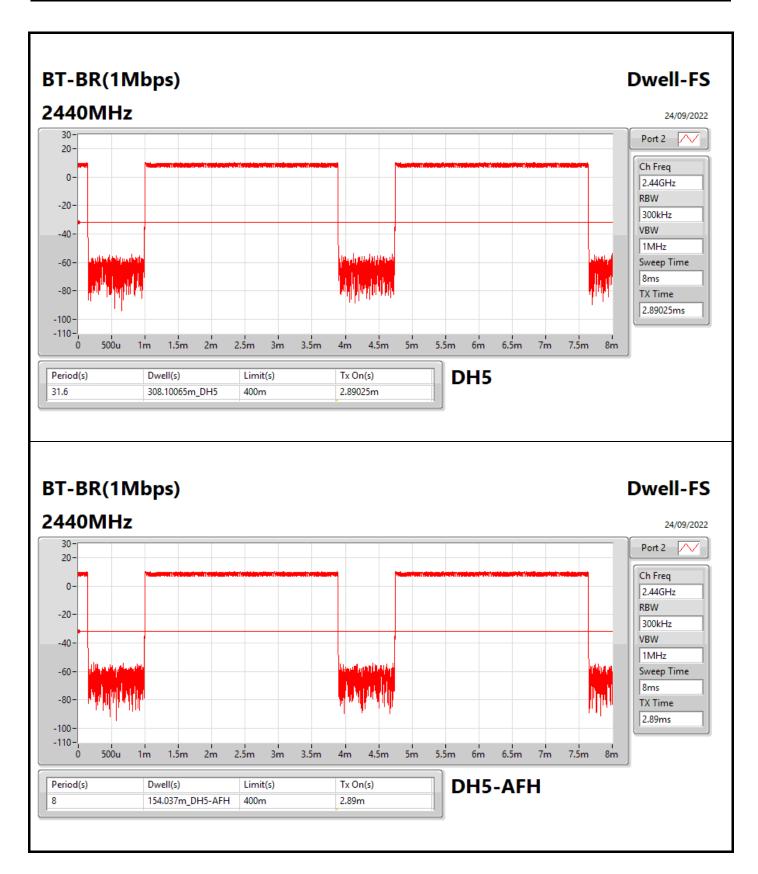
Result

Mode	Result	Period	Dwell	Limit	Tx On
		(s)	(s)	(s)	(s)
BT-BR(1Mbps)	=	=	-	-	-
2440MHz	Pass	31.6	308.10065m_DH5	400m	2.89025m
2440MHz	Pass	8	154.037m_DH5-AFH	400m	2.89m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.9801m_DH5	400m	2.8985m
2440MHz	Pass	8	154.476725m_DH5-AFH	400m	2.89825m
BT-EDR(3Mbps)	-	-	-	٠	-
2440MHz	Pass	31.6	309.16665m_DH5	400m	2.90025m
2440MHz	Pass	8	154.57m_DH5-AFH	400m	2.9m

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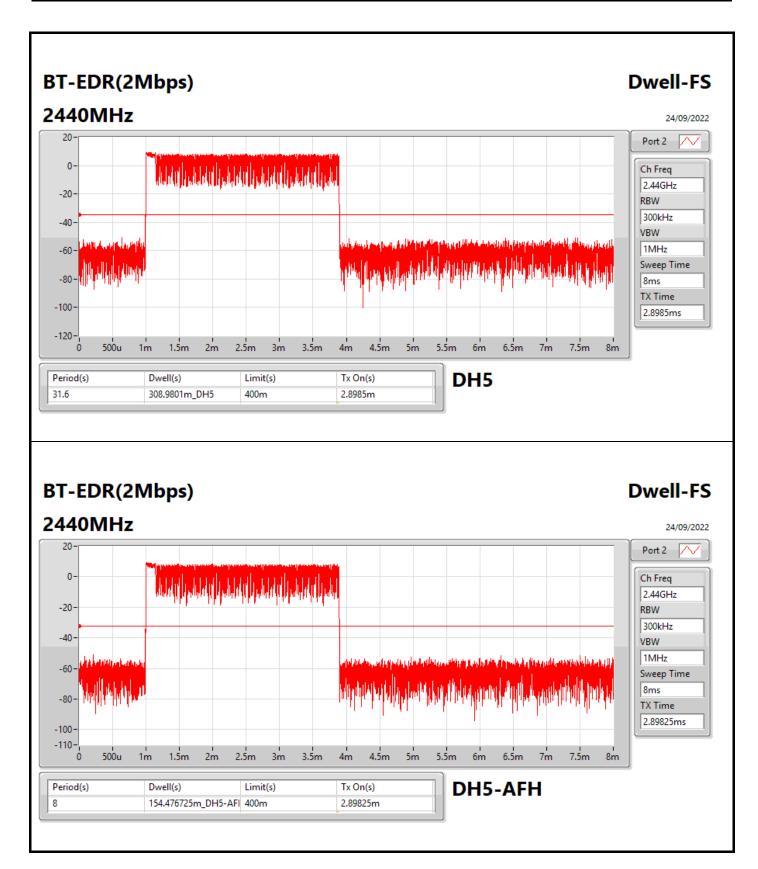
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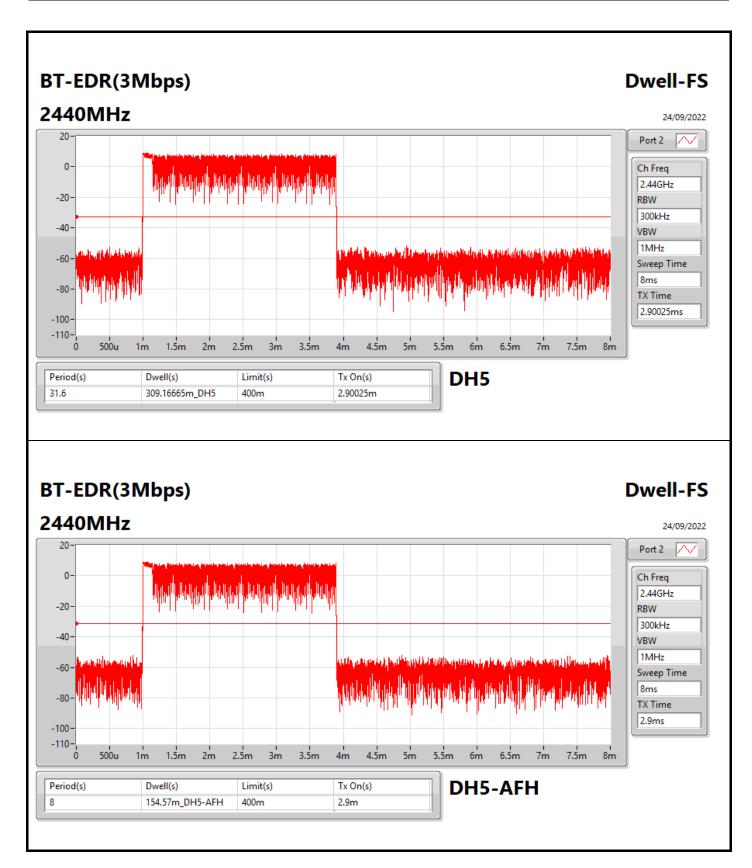
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CSE (Non-restricted Band)-FHSS

Appendix F

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-BR(1Mbps)	Pass	2.40184G	10.69	-9.31	2.30186G	-46.58	2.39992G	-44.21	2.4G	-51.16	2.50201G	-43.54	21.85611G	-49.02	2
BT-EDR(2Mbps)	Pass	2.40196G	8.57	-11.43	2.30216G	-49.81	2.39998G	-46.36	2.4G	-46.99	2.50204G	-47.53	21.57491G	-49.14	2
BT-EDR(3Mbps)	Pass	2.40196G	9.07	-10.93	2.30216G	-48.75	2.39988G	-45.92	2.4G	-51.35	2.50201G	-44.44	21.65927G	-48.55	2

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CSE (Non-restricted Band)-FHSS

Appendix F

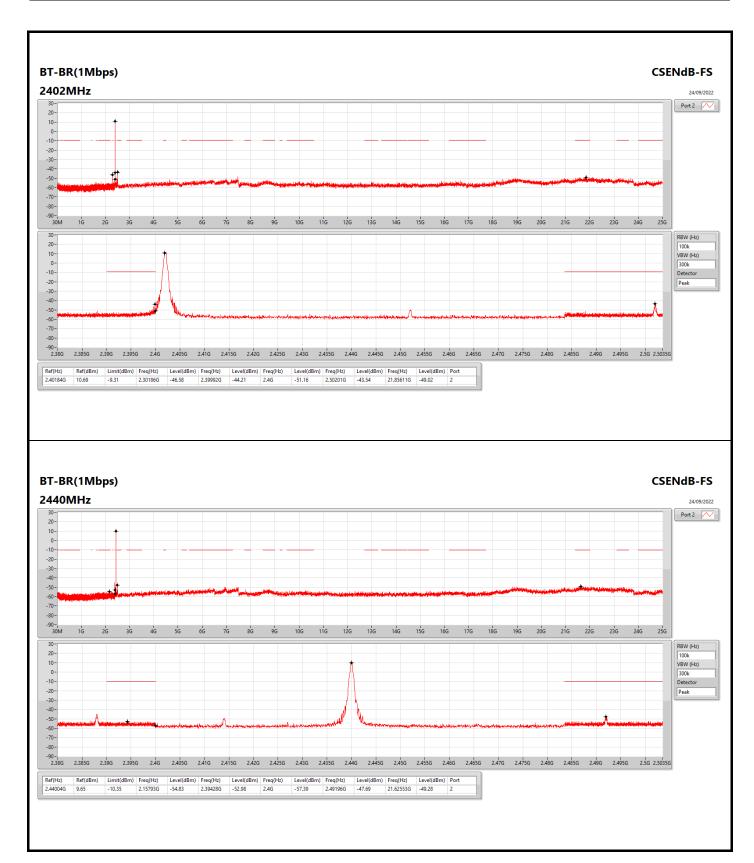
Result

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)	
BT-BR(1Mbps)	-		-			-				-	-			-	-
2402MHz	Pass	2.40184G	10.69	-9.31	2.30186G	-46.58	2.39992G	-44.21	2.4G	-51.16	2.50201G	-43.54	21.85611G	-49.02	2
2440MHz	Pass	2.44004G	9.65	-10.35	2.15793G	-54.83	2.39428G	-52.98	2.4G	-57.39	2.49196G	-47.69	21.62553G	-49.28	2
2480MHz	Pass	2.4802G	11.20	-8.80	1.89649G	-54.73	2.39029G	-52.83	2.4835G	-55.34	2.48365G	-51.51	21.90954G	-48.29	2
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2402MHz	Pass	2.40196G	8.57	-11.43	2.30216G	-49.81	2.39998G	-46.36	2.4G	-46.99	2.50204G	-47.53	21.57491G	-49.14	2
2440MHz	Pass	2.44004G	6.67	-13.33	169.24M	-54.91	2.3961G	-52.73	2.4835G	-57.00	2.49233G	-49.45	21.95735G	-48.73	2
2480MHz	Pass	2.48003G	9.25	-10.75	2.06774G	-54.76	2.39562G	-51.04	2.4835G	-56.39	2.48368G	-50.73	23.15247G	-49.16	2
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2402MHz	Pass	2.40196G	9.07	-10.93	2.30216G	-48.75	2.39988G	-45.92	2.4G	-51.35	2.50201G	-44.44	21.65927G	-48.55	2
2440MHz	Pass	2.44G	7.48	-12.52	2.02045G	-53.99	2.39782G	-52.86	2.4835G	-56.04	2.49198G	-49.58	21.98266G	-48.31	2
2480MHz	Pass	2.48003G	9.03	-10.97	2.19553G	-55.02	2.39824G	-51.32	2.4835G	-54.28	2.48375G	-51.99	21.67052G	-49.20	2

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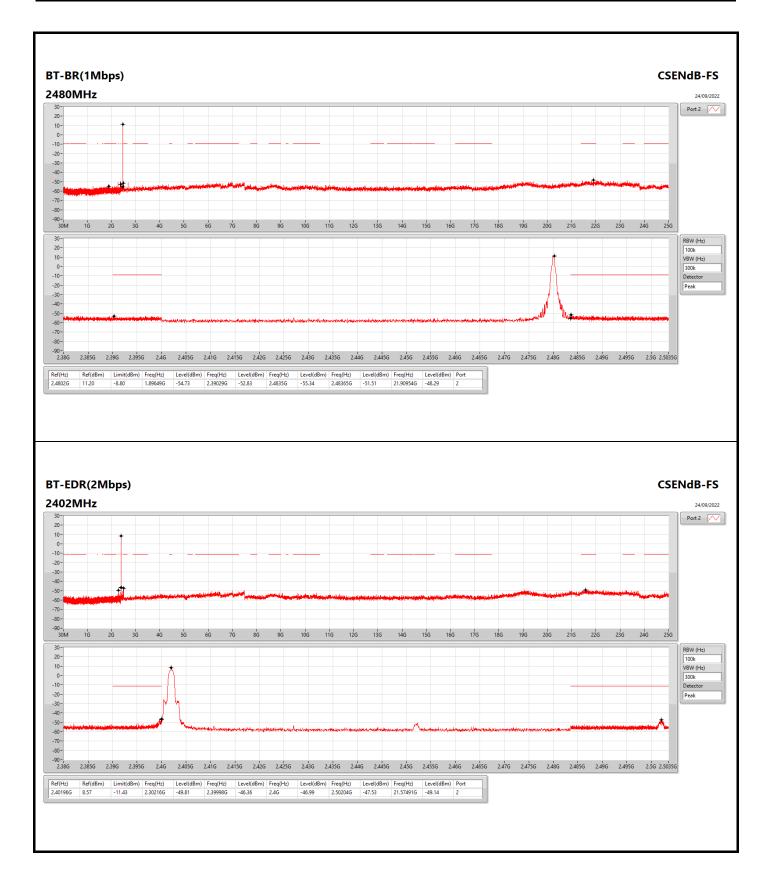
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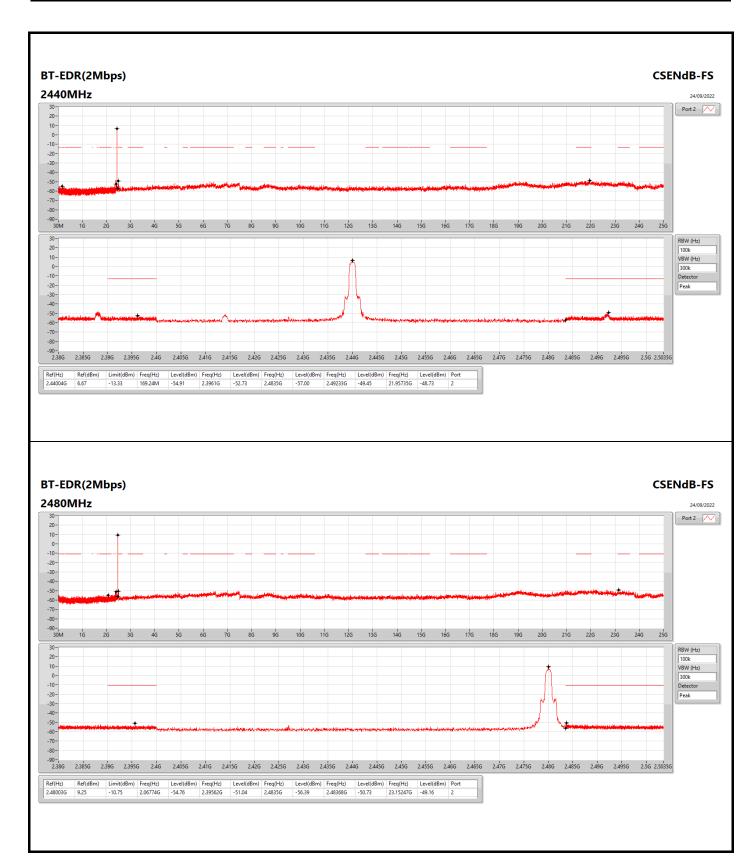
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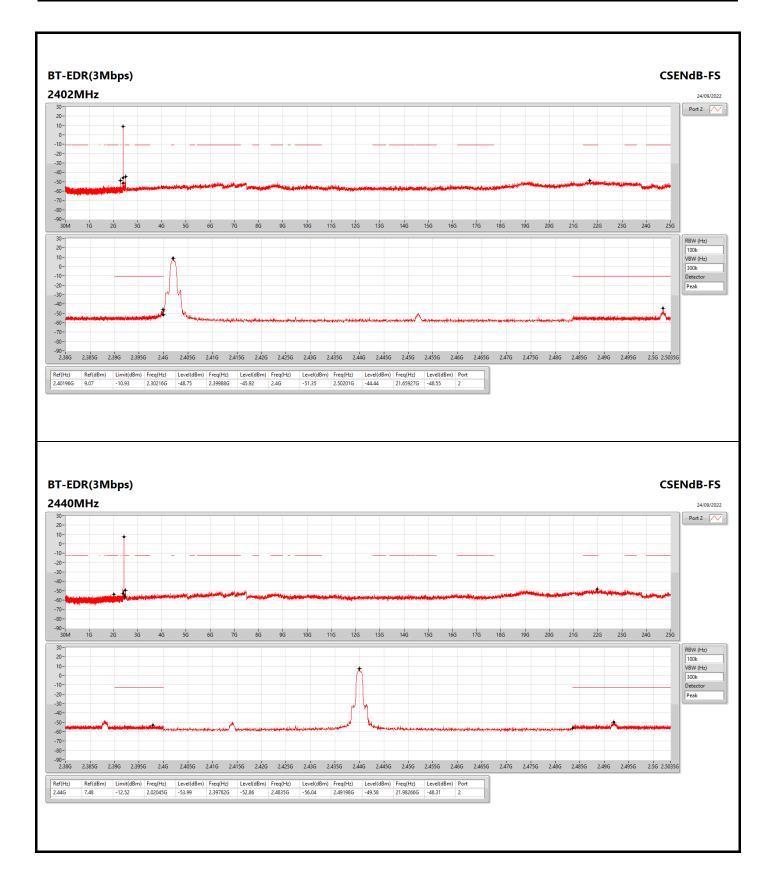
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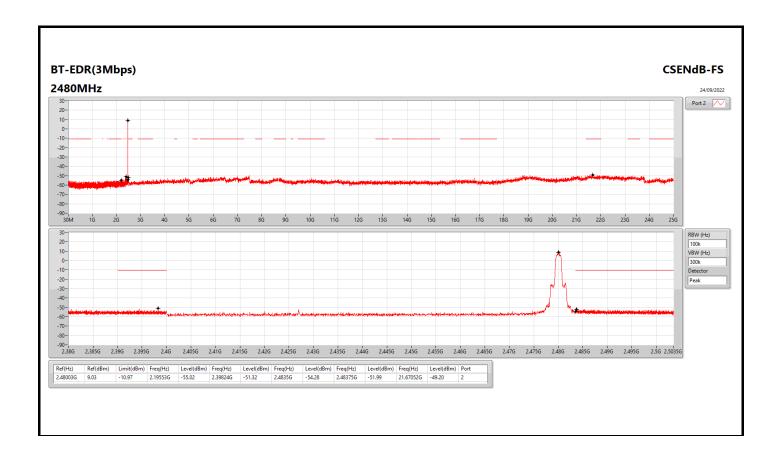


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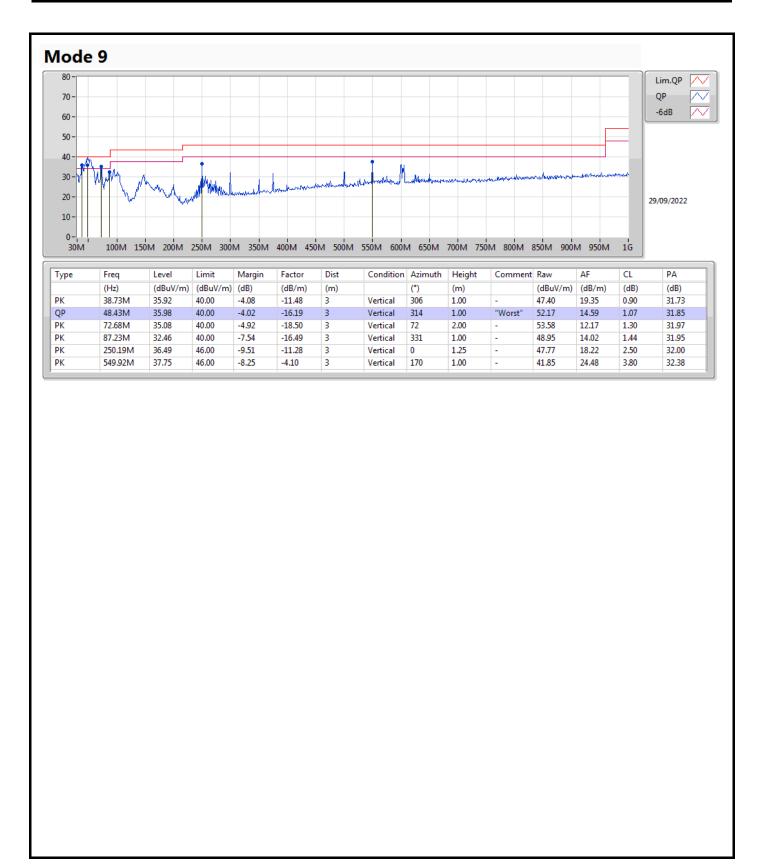
Radiated Emissions below 1GHz

Appendix G.1

Summary

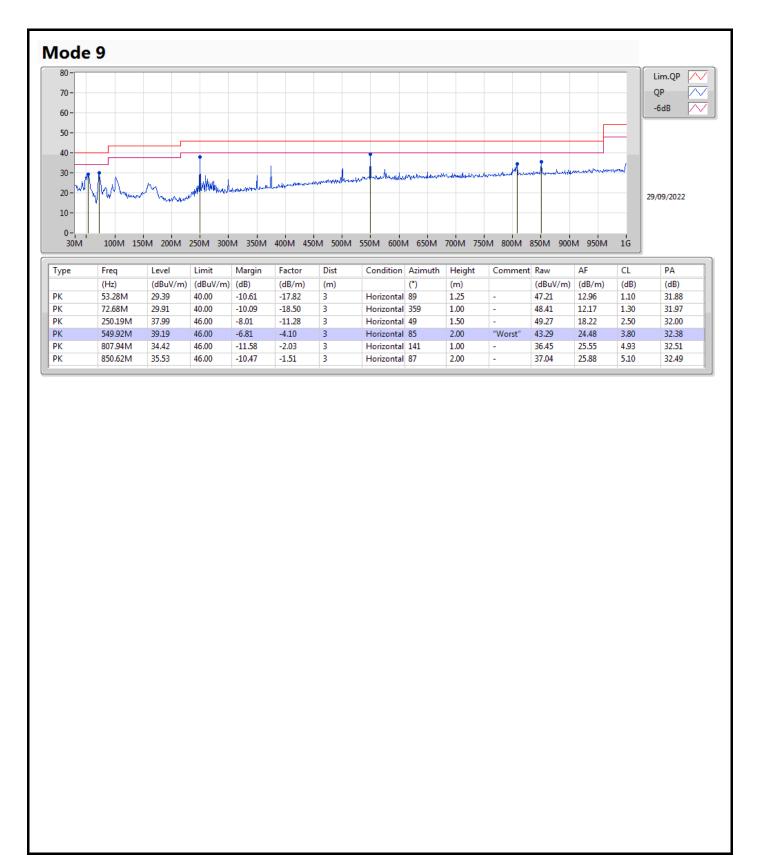
Mode	Result	Туре	Freq (Hz)	Level Limit (dBuV/m) (dBuV/m)		Margin (dB)	Condition
Mode 9	Pass	QP	48.43M	35.98	40.00	-4.02	Vertical

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RSE TX above 1GHz

Appendix G.2

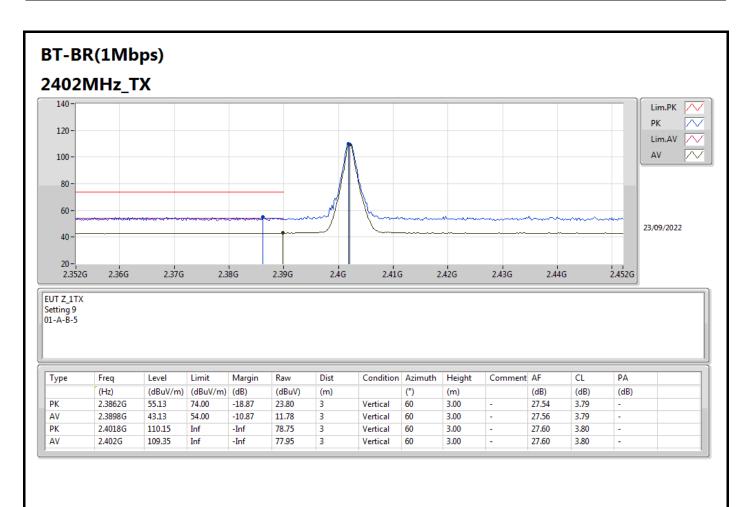
Summary

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-BR(1Mbps)	Pass	AV	2.4835G	53.45	54.00	-0.55	3	Vertical	72	2.79	-

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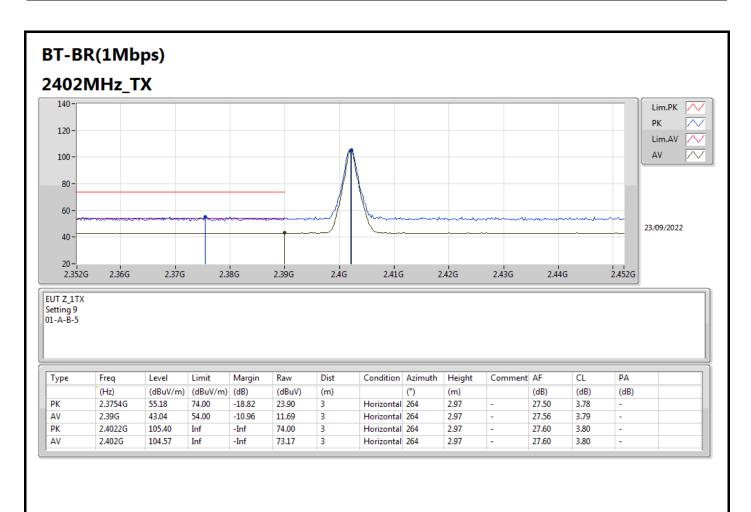
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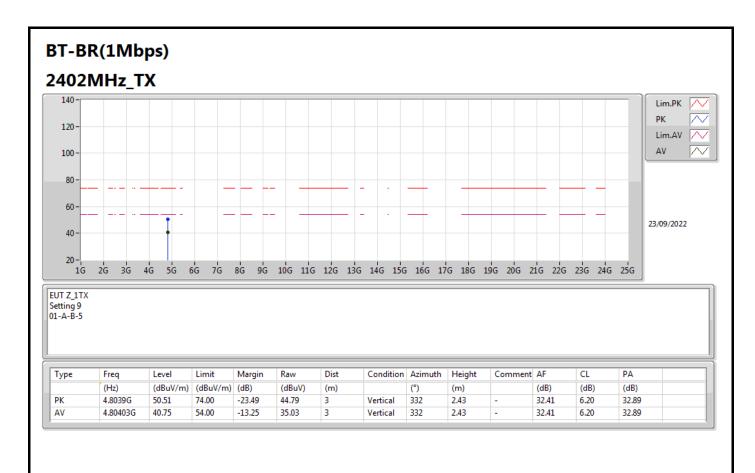
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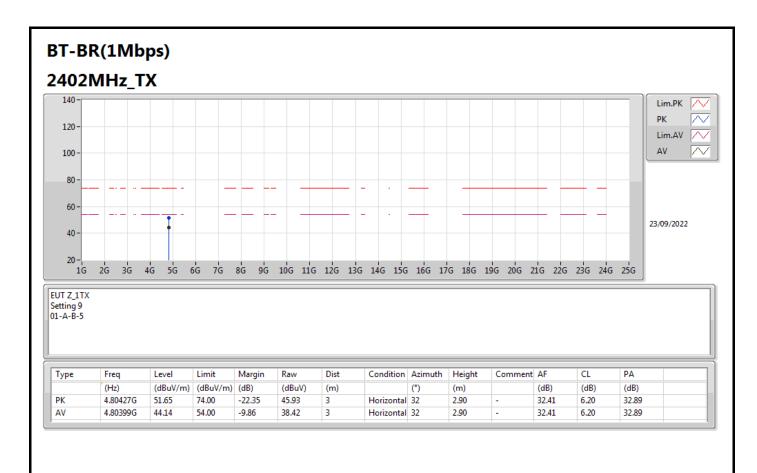
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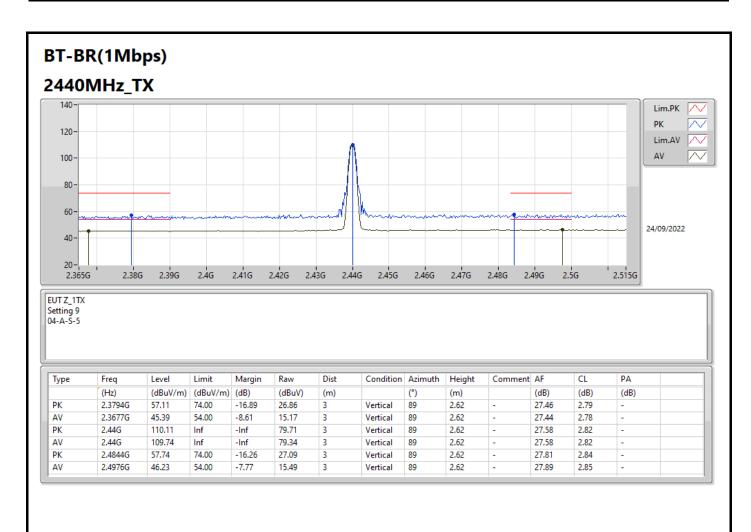


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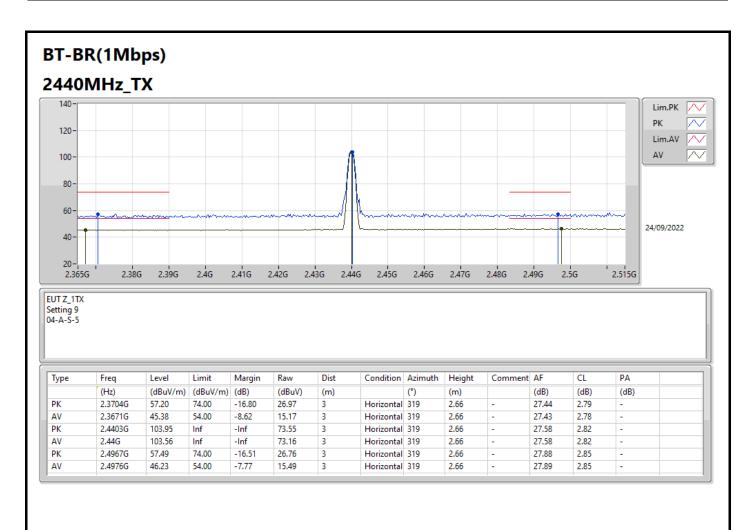




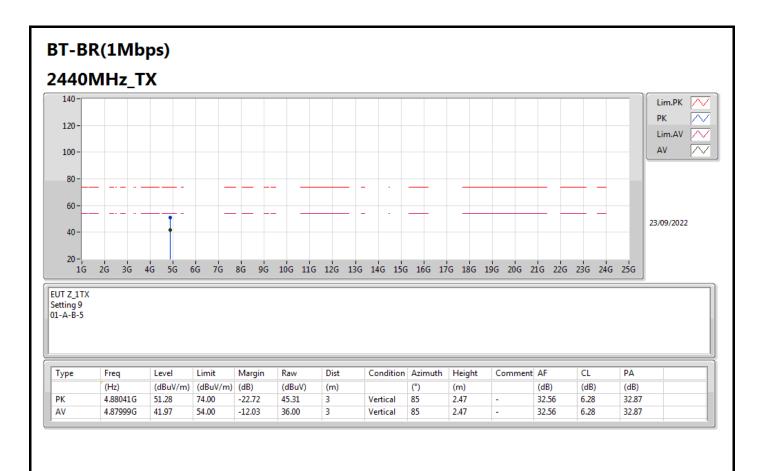


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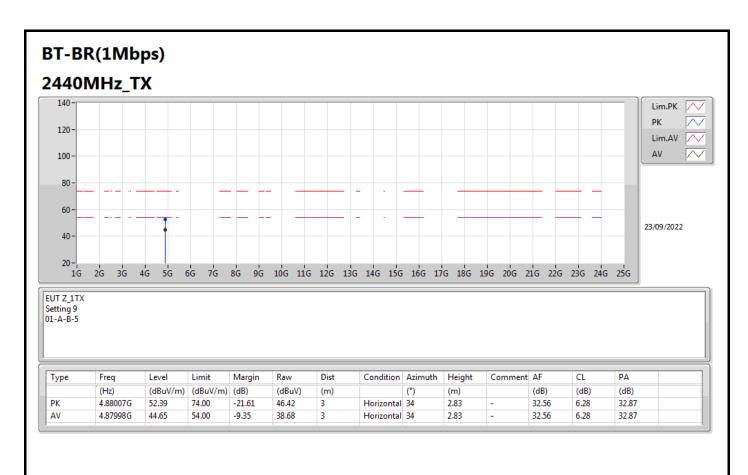




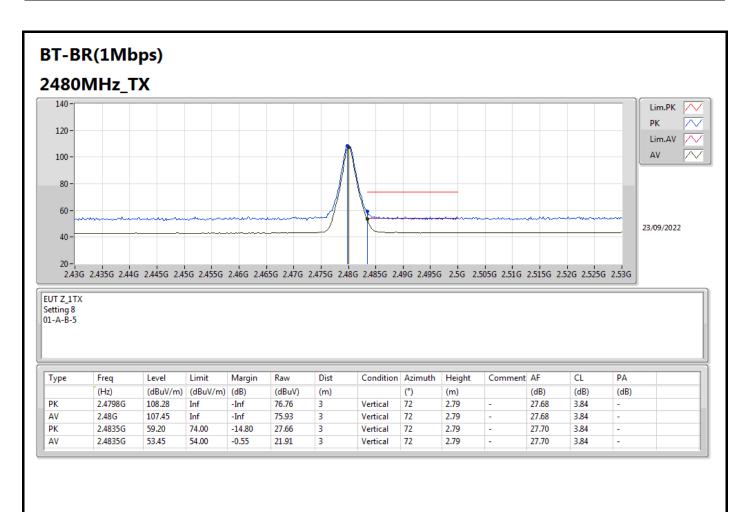






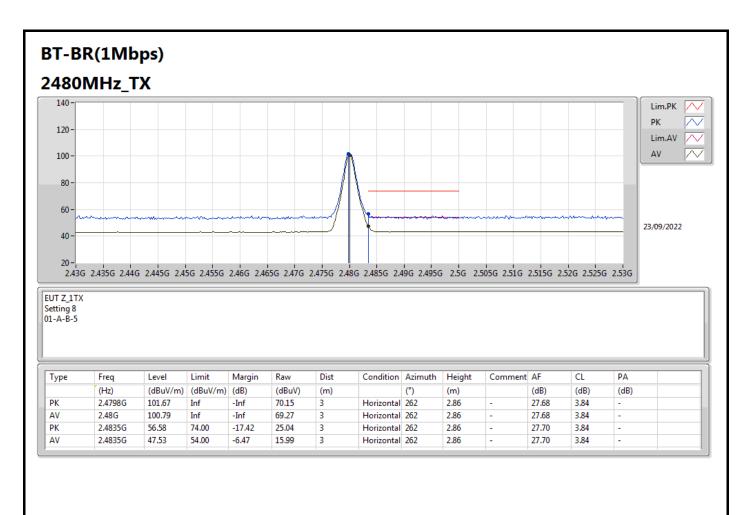






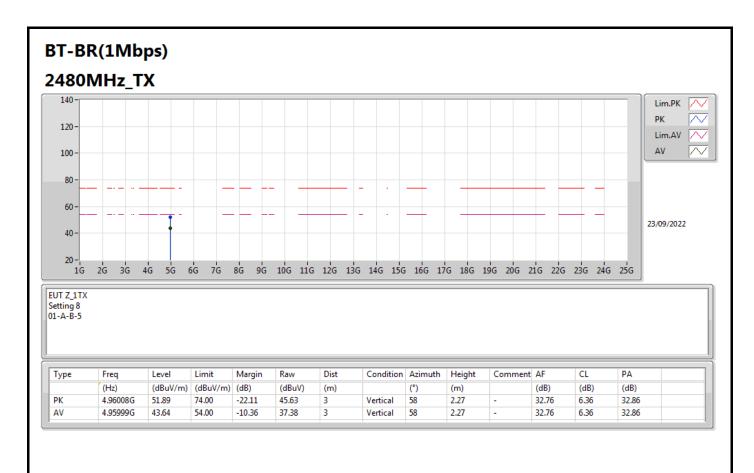
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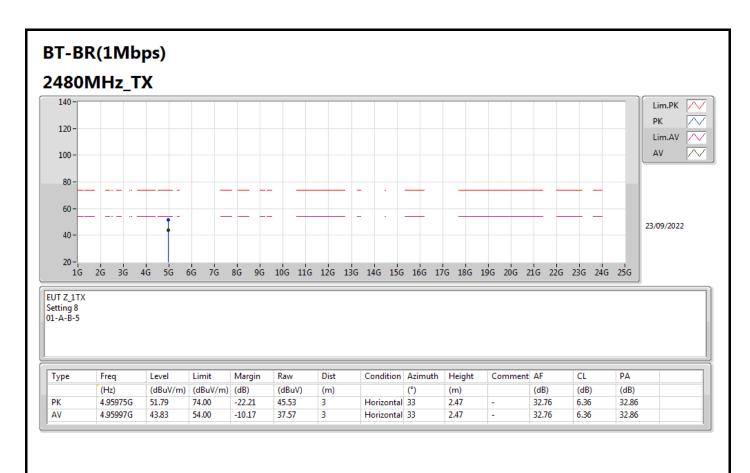
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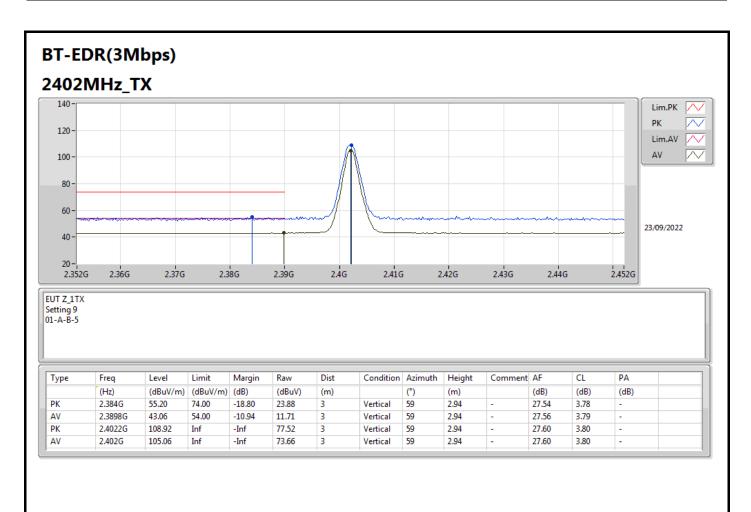
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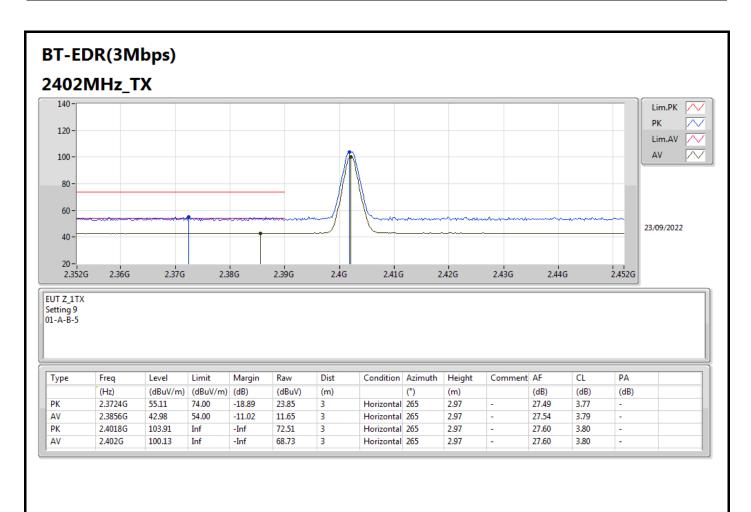
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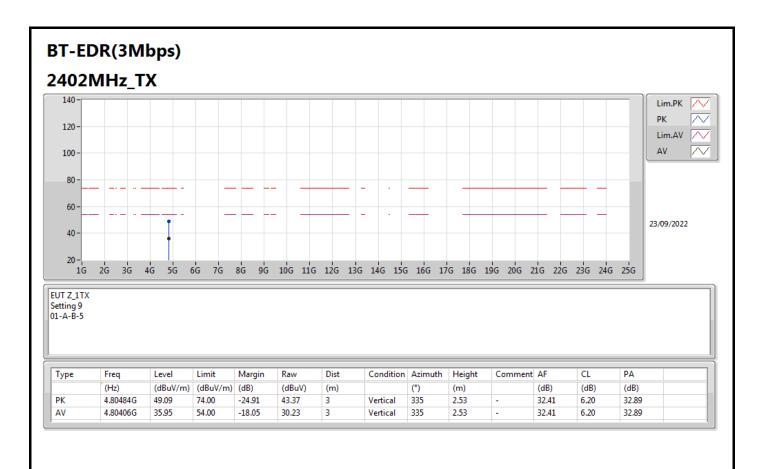
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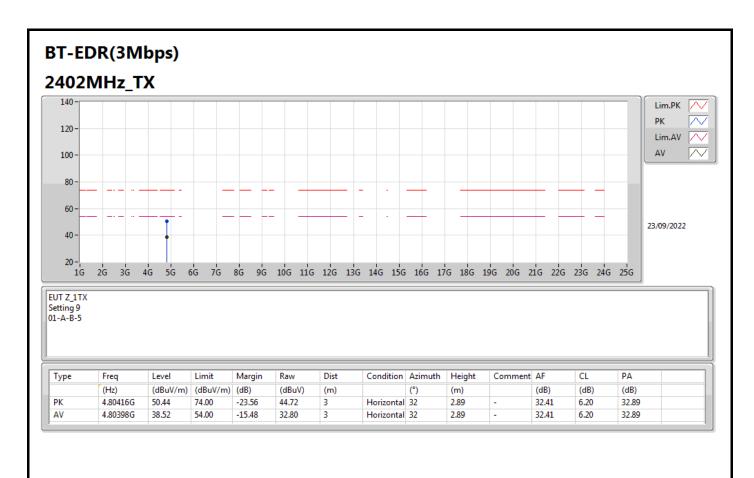
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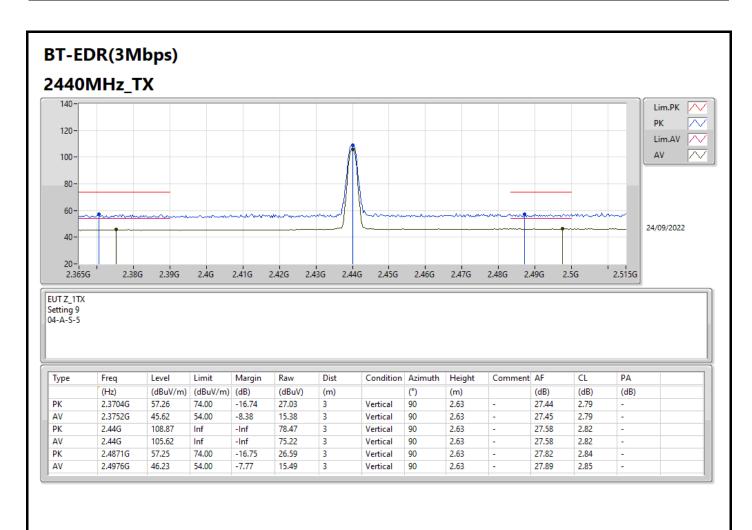
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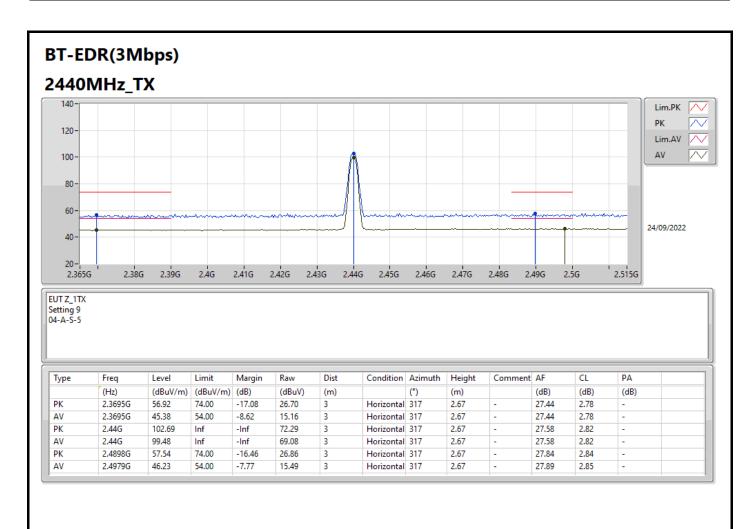
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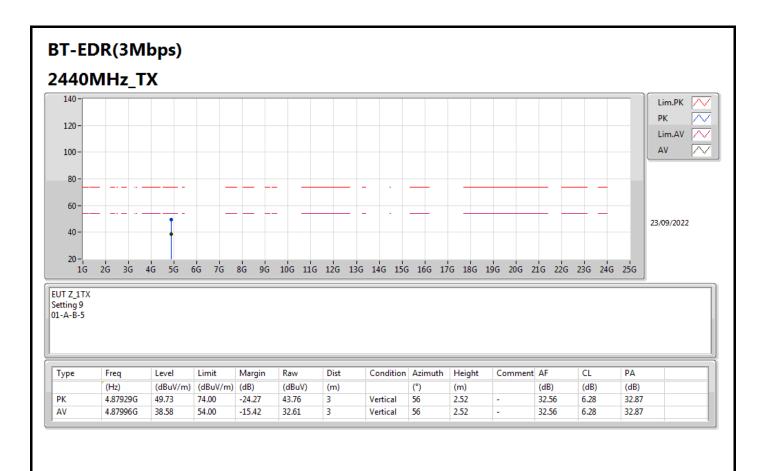
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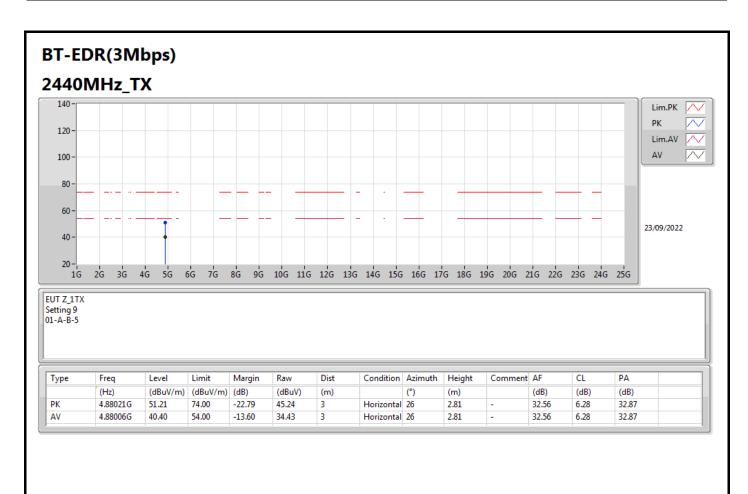


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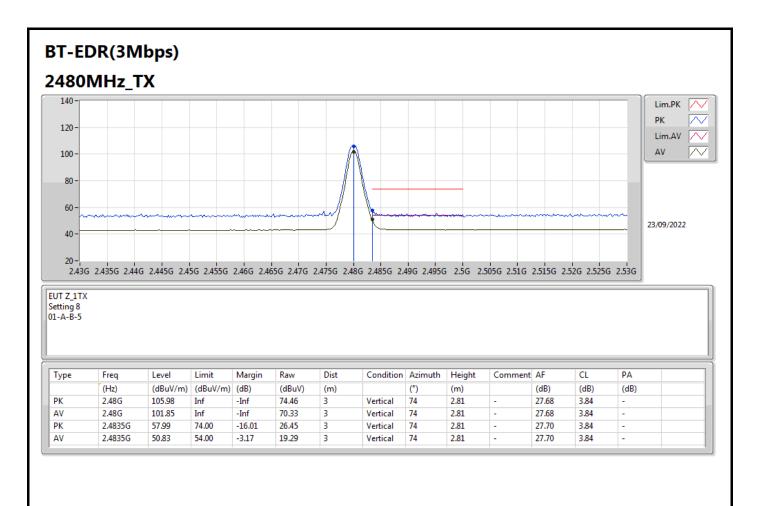






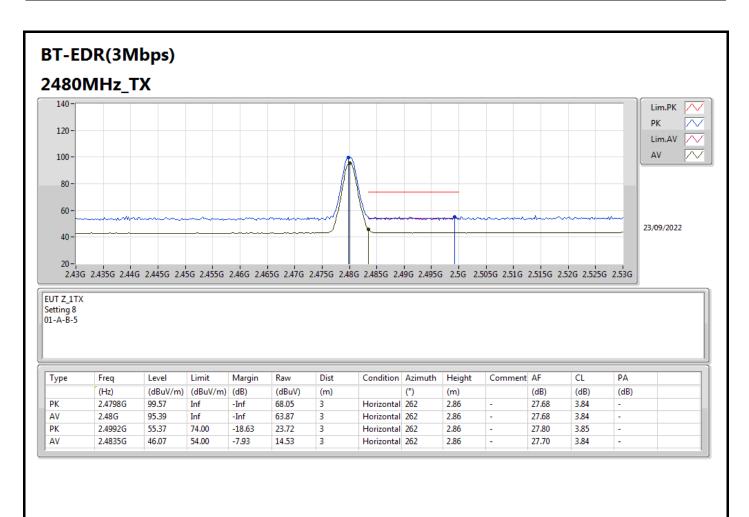
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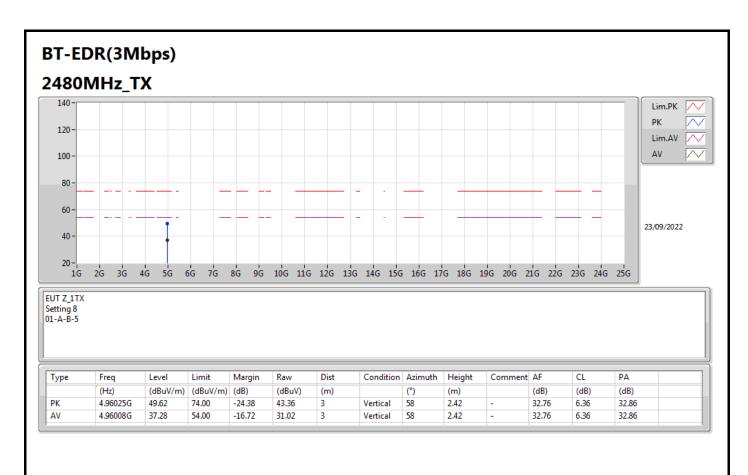
Page No. : 22 of 25 Report No. : FR291332AA





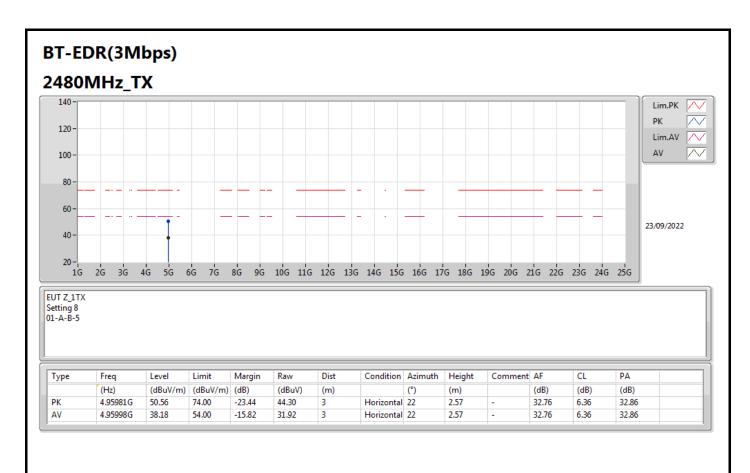
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Radiated Emissions above 1GHz

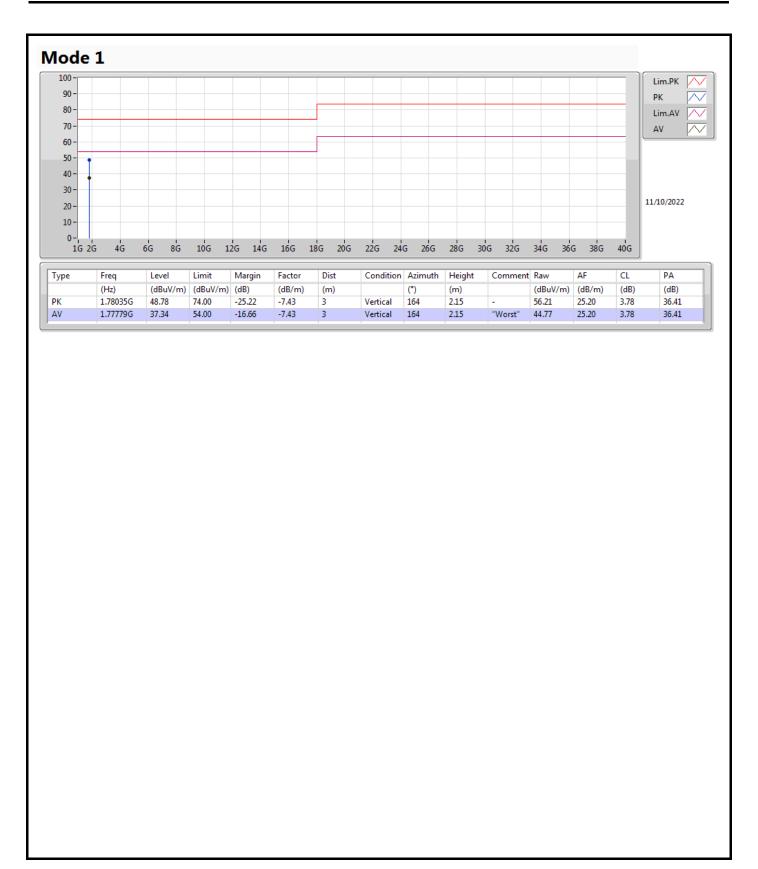
Appendix H

Summary

Mode	Result	Туре	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	1.77765G	41.14	54.00	-12.86	Horizontal

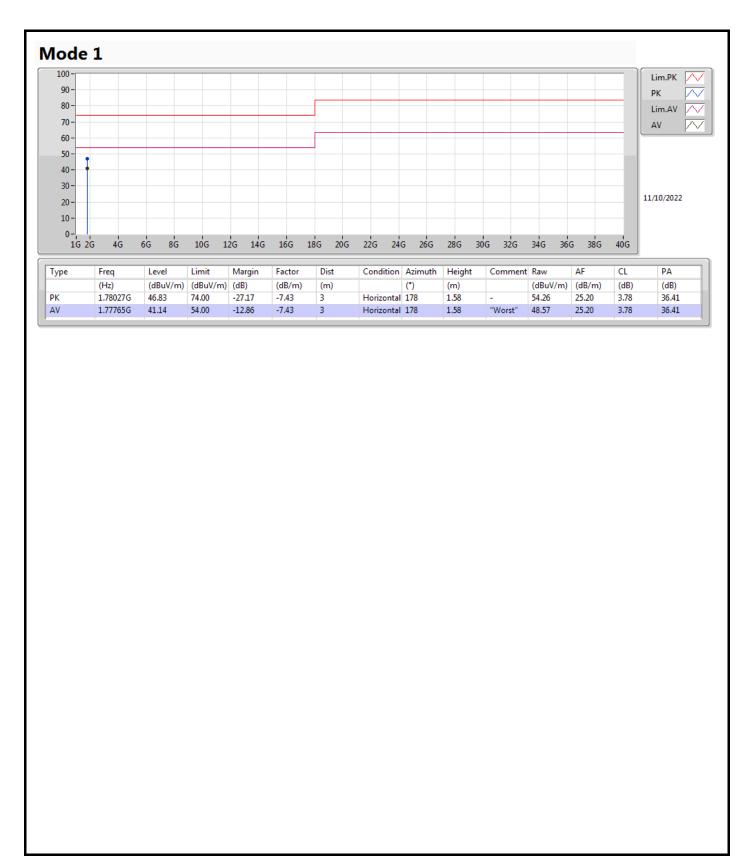
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