FCC Test Report

FCC ID	:	**H8NAP5620W**
Equipment	:	**WIFI Tri-band Mesh RE**
Model Name	:	**AP5620W-RoHS**
Applicant/ Manufacturer	:	**Askey Computer Corp. 10F, No.119, Jiankang Road, Zhonghe Dist., New Taipei City, Taiwan**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Jun. 05, 2019, and testing was started from Jun. 05, 2019 and completed on Sep. 20, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR991916AD	01	Initial issue of report	Sep. 24, 2019

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)	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 Bandedge	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.
Comments and explanations:
None

Reviewed by: Sam Tsai

Report Producer: Kate Lo

1 General Description

1.1 Information

Radio	Chip	Function	TX
1	IPQ4019	WLAN 2.4G+WLAN 5G(U-NII-1/U-NII-2A)	2
2	QCA9984	WLAN 5G(U-NII-2C/U-NII-3)	4
3	CSR 8811	Bluetooth	1

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]

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 π/4-DQPSK (2Mbps) and 8DPSK (3Mbps).
- Bluetooth BR/EDR uses as a system using FHSS modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Remark
1	Airgain	F2430DL	FPC	Spring contact	For Radio 1
2	Airgain	F2430DL	FPC	Spring contact	
3	Airgain	N5X20BLOM3	PCB	I-PEX	For Radio 2
4	Airgain	F5X30BL	FPC	Spring contact	
5	Airgain	F5X30BL	FPC	Spring contact	
6	Airgain	N5X20BLOM2	PCB	I-PEX	
7	Airgain	N2430LTMSSBK4	SMT PCB antenna	N/A	For Radio 3

Ant.	Port	Gain (dBi)											
		2.4G		5G								BT	
				U-NII-1		U-NII-2A		U-NII-2C		U-NII-3			
		Peak	Correlated	Peak	Correlated	Peak	Correlated	Peak	Correlated	Peak	Correlated	Peak	Correlated
1	1	1.1	4.0	1.5	5.8	1.4	5.4	-	-	-	-	-	-
2	2	1.1	4.0	1.5	5.8	1.4	5.4	-	-	-	-	-	-
3	1	-	-	-	-	-	-	0.8	6.6	0.5	6.2	-	-
4	2	-	-	-	-	-	-	0.8	6.6	0.5	6.2	-	-
5	3	-	-	-	-	-	-	0.8	6.6	0.5	6.2	-	-
6	4	-	-	-	-	-	-	0.8	6.6	0.5	6.2	-	-
7	1	-	-	-	-	-	-	-	-	-	-	0.9	-

Note 1: The EUT have seven antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/ac mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

For 5GHz function:

U-NII-1/U-NII-2A:

For IEEE 802.11 a/n/ac mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

U-NII-2C/U-NII-3:

For IEEE 802.11 a/n/ac mode (4TX/4RX)

Ant. 3 (port 1), Ant. 4 (port 2), Ant. 5 (port 3) and Ant. 6 (port 4)could transmit/receive simultaneously.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 7 (port 1) could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From Switching Power Supply			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
AFH Function	☒	Non-AFH	☒	AFH

Note.
Non-AFH: DH5 Packet permit maximum 1600/ 79 / 6 = 3.37 hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times 3.37 x 1.185 = 4 within 1.185 seconds.
AFH: DH5 Packet permit maximum 800/ 20 / 6 = 6.67 hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times 13.33 x 8 = 106.6 within 8 seconds.

Under the above conditions, Non-AFH Mode configuration was found to be the worst case and measured during the test.

Type of EUT		
☒	Stand-alone	
☐	Combined (EUT where the radio part is fully integrated within another device)	
	Combined Equipment - Brand Name / Model No.:	…
☐	Plug-in radio (EUT intended for a variety of host systems)	
	Host System - Brand Name / Model No.:	…
☐	Other:	

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-BR(1Mbps)	0.464	3.33	2.903m	1k
BT-EDR(2Mbps)	0.466	3.32	2.913m	1k
BT-EDR(3Mbps)	0.466	3.32	2.913m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied Standards

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

- 47 CFR FCC Part 15
- KDB 558074 D01 v05r02
- ANSI C63.10-2013
- KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward	23.5~26.2°C / 61.8~67.2%	20/Sep/2019
RF Conducted	TH07-HY	Clara	23.3~25.3°C / 59~63%	05/Jun/2019~ 19/Sep/2019
Radiated	03CH09-HY	Andy	23.2~24.6°C / 52.1~53.2%	02/Sep/2019~ 18/Sep/2019

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)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software	DoS

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	0x08
2441MHz	0x08
2480MHz	0x08
BT-EDR(2Mbps)	-
2402MHz	0x08
2441MHz	0x08
2480MHz	0x08
BT-EDR(3Mbps)	-
2402MHz	0x08
2441MHz	0x08
2480MHz	0x08

2.3 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
Operating Mode	CTX
1	Switching Power Supply mode

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

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	Switching Power Supply mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT			V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	Radio 1(2.4G)+Radio 1(5G)+Radio 2(5G)+Radio 3(Bluetooth)
Refer to Sporton Test Report No.: FA991916 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Power Cable	Power Sync	PW-GPC180-3	-
2	LAN Cable	Power sync	CAT-6E-10	N/A

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	DOC
2	Adapter for NB	DELL	HA65NM130	DOC

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Client for BF	-	-	-

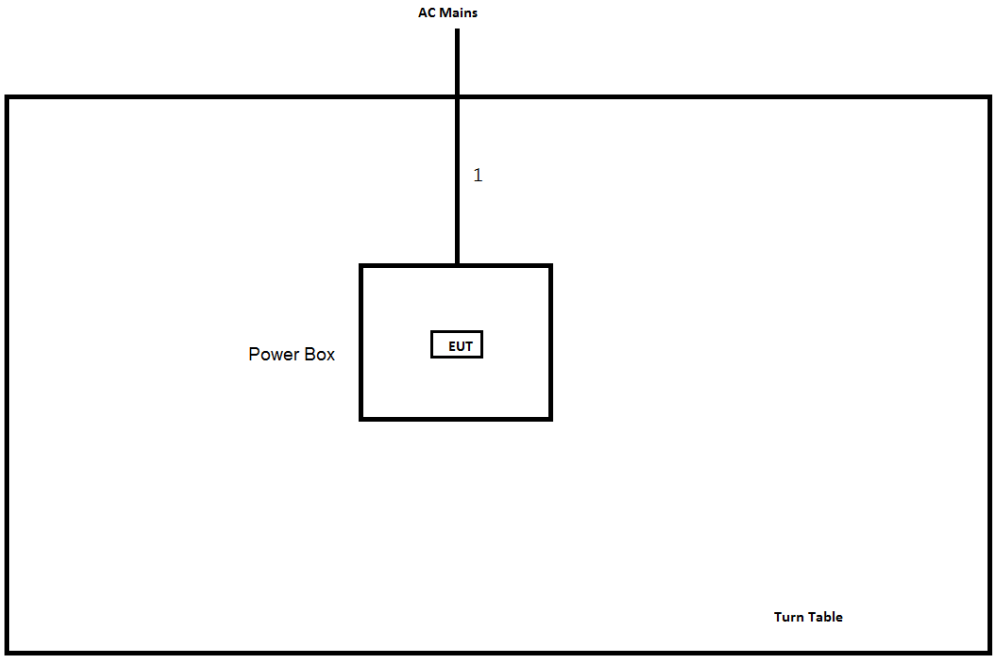
Note: Support equipment No.1 was provided by customer.

2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test

Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	Power Cable	No	1.8	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

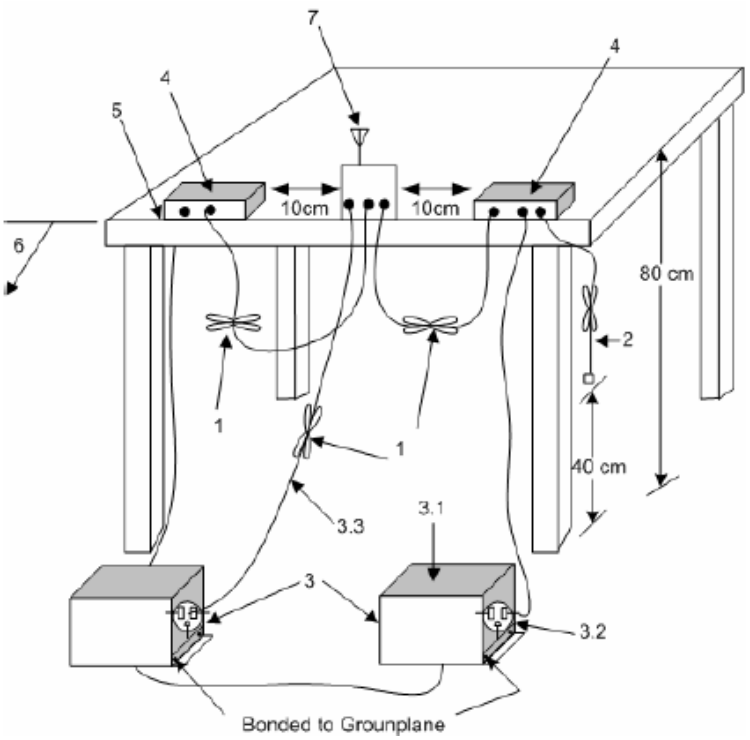
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



1—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.
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 50Ω 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.
5—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 plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

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	
▪ 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).
N:Number of Hopping Frequencies; **ChS**: Hopping Channel Separation	

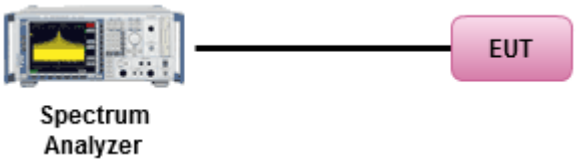
3.2.2 Measuring Instruments

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 6.9.2 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

20dB Bandwidth and Carrier Frequency Separation


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

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
▪ 2400-2483.5 MHz Band:	
	▪ N ≥ 75; Power 30dBm; EIRP 36dBm
	▪ 75 >N ≥ 15; Power 21dBm; EIRP 27dBm
N:Number of Hopping Frequencies	

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

Maximum Conducted Output Power (Peak Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

Number of Hopping Frequencies Limit	
▪ 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).
N:Number of Hopping Frequencies; **ChS** : Hopping Channel Separation	

3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

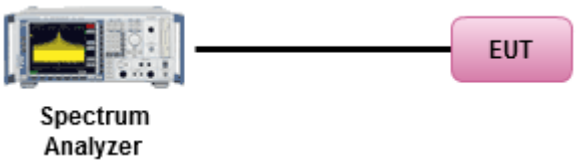
3.4.3 Measuring Instruments

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

Number of Hopping Frequencies and Hopping Frequencies Bandedge


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

3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

Time of Occupancy (Dwell Time) Limit for Frequency Hopping Systems	
▪ 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
N:Number of Hopping Frequencies	

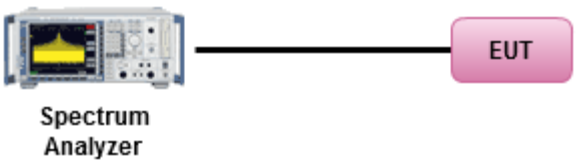
3.5.2 Measuring Instruments

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

Time of Occupancy (Dwell Time)
 Spectrum Analyzer

3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

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 (dB)**
Peak output power procedure	20
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.	

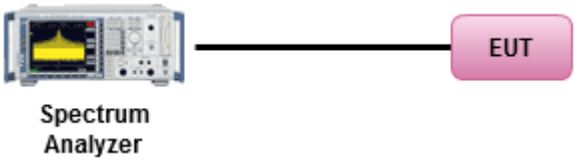
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F

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 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.

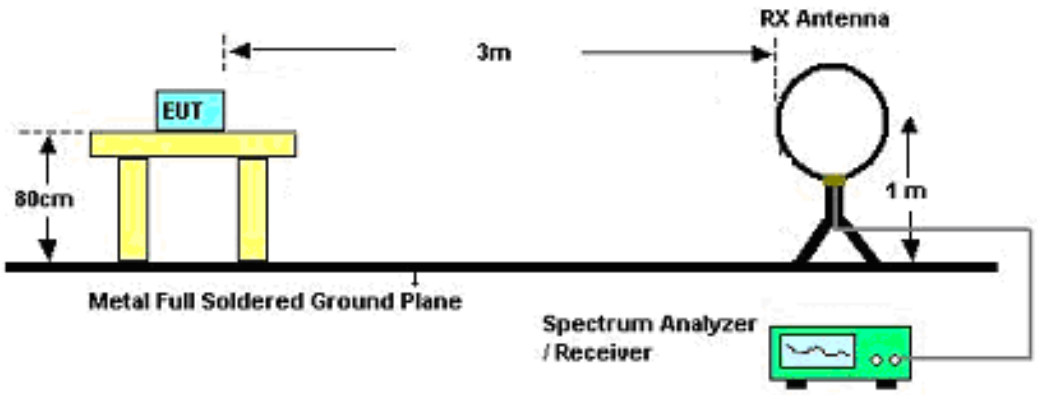
3.7.2 Measuring Instruments

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

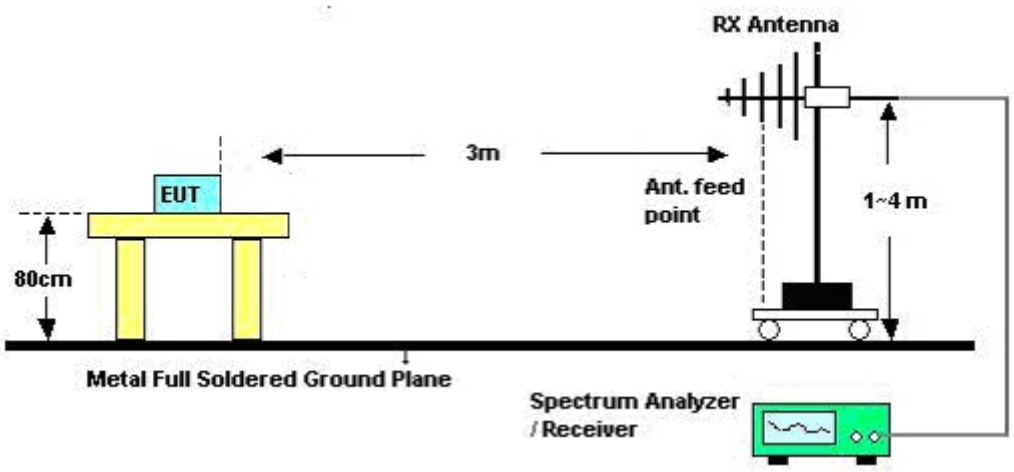
3.7.3 Test Procedures

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.
▪ KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	▪ Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

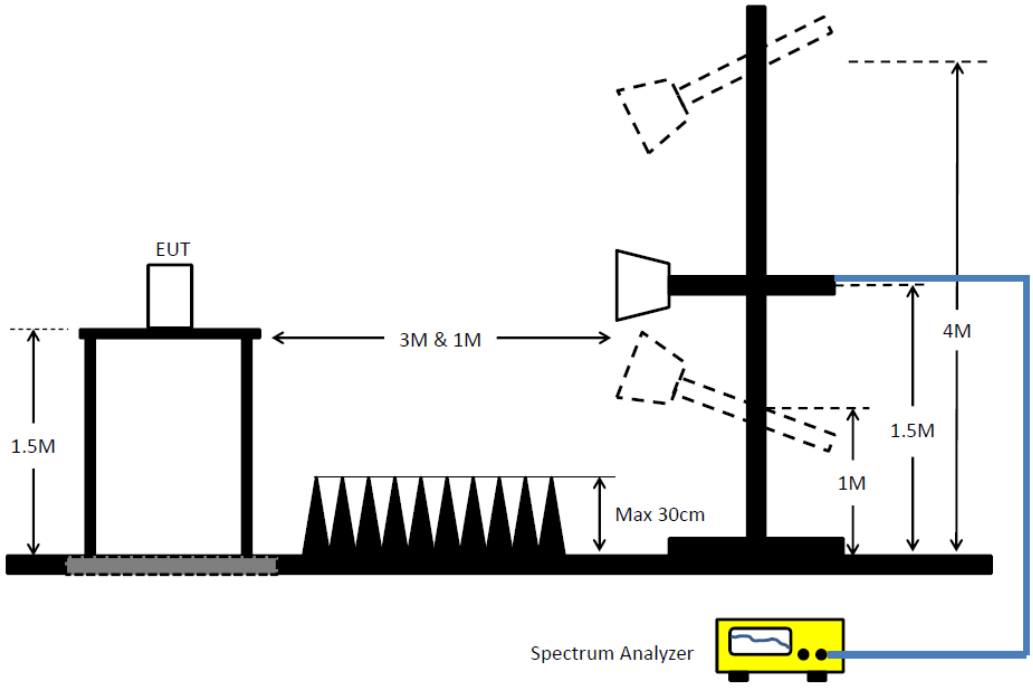
3.7.4 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz


30MHz~1GHz



Above 1GHz



3.7.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

3.7.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV216	101295	9kHz~30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz~200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz~30MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require

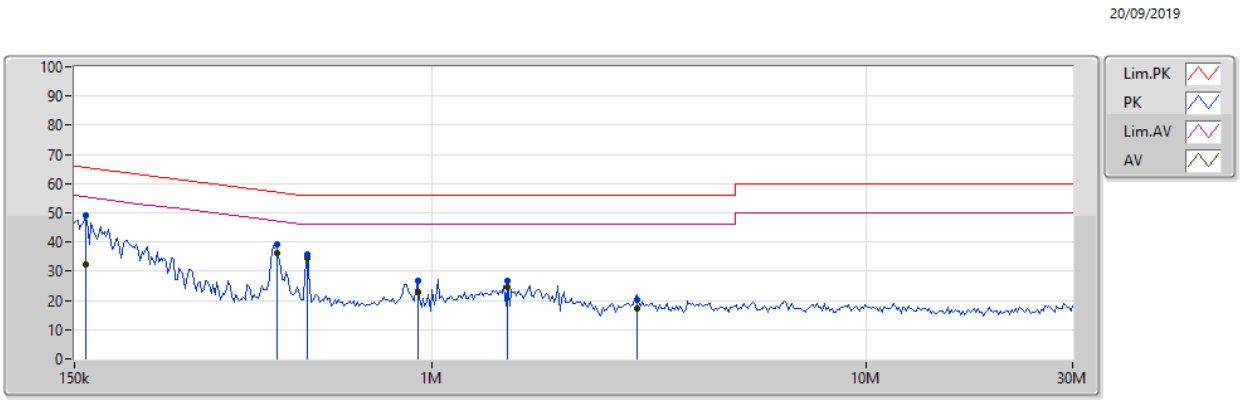
Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~18G	10/Jan/2019	09/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz~18G	10/Jan/2019	09/Jan/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz~1GHz	22/Apr/2019	21/Apr/2020
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz	13/Jun/2019	12/Jun/2020
Microwave System Premplifier	Agilent	8449B	3008A02326	1GHz~26.5GHz	15/Jul/2019	14/Jul/2020
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	22/Apr/2019	21/Apr/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	07/Aug/2019	06/Aug/2020
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	02/Oct/2018	03/Oct/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	22/May/2019	21/May/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170614	18GHz~40GHz	22/May/2019	21/May/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	05/Aug/2019	04/Aug/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k~30MHz	15/Mar/2019	14/Mar/2020
LF-CABLE-2019 0218	Jye Bao	RG142	CB028	9kHz~1GHz	18/Feb/2019	17/Feb/2020
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4+556627	1GHz~40GHz	13/Mar/2019	12/Mar/2020

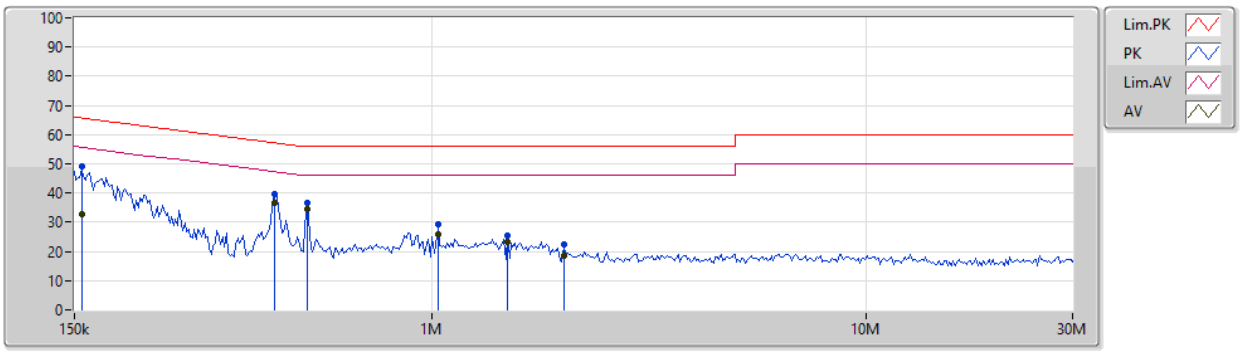
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Switching Power Supply mode		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	159.228k	49.14	65.50	-16.36	19.48	Neutral	-	29.66	9.60	0.01	9.87
AV	159.228k	32.24	55.50	-23.26	19.48	Neutral	-	12.76	9.60	0.01	9.87
QP	439.339k	39.32	57.07	-17.75	19.48	Neutral	-	19.84	9.59	0.01	9.88
AV	439.339k	36.20	47.07	-10.87	19.48	Neutral	"Worst"	16.72	9.59	0.01	9.88
QP	515.159k	35.83	56.00	-20.17	19.48	Neutral	-	16.35	9.59	0.01	9.88
AV	515.159k	34.60	46.00	-11.40	19.48	Neutral	-	15.12	9.59	0.01	9.88
QP	926.622k	26.66	56.00	-29.34	19.49	Neutral	-	7.17	9.59	0.02	9.88
AV	926.622k	22.97	46.00	-23.03	19.49	Neutral	-	3.48	9.59	0.02	9.88
QP	1.494M	26.53	56.00	-29.47	19.52	Neutral	-	7.01	9.60	0.03	9.89
AV	1.494M	24.49	46.00	-21.51	19.52	Neutral	-	4.97	9.60	0.03	9.89
QP	2.968M	20.35	56.00	-35.65	19.54	Neutral	-	0.81	9.61	0.04	9.89
AV	2.968M	17.42	46.00	-28.58	19.54	Neutral	-	-2.12	9.61	0.04	9.89

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Switching Power Supply mode		

20/09/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	156.091k	49.28	65.67	-16.39	19.48	Line	-	29.80	9.60	0.01	9.87
AV	156.091k	32.91	55.67	-22.76	19.48	Line	-	13.43	9.60	0.01	9.87
QP	434.989k	39.56	57.17	-17.61	19.48	Line	-	20.08	9.59	0.01	9.88
AV	434.989k	36.71	47.17	-10.46	19.48	Line	"Worst"	17.23	9.59	0.01	9.88
QP	515.159k	36.67	56.00	-19.33	19.48	Line	-	17.19	9.59	0.01	9.88
AV	515.159k	34.51	46.00	-11.49	19.48	Line	-	15.03	9.59	0.01	9.88
QP	1.034M	29.28	56.00	-26.72	19.50	Line	-	9.78	9.60	0.02	9.88
AV	1.034M	25.67	46.00	-20.33	19.50	Line	-	6.17	9.60	0.02	9.88
QP	1.494M	25.43	56.00	-30.57	19.53	Line	-	5.90	9.61	0.03	9.89
AV	1.494M	23.49	46.00	-22.51	19.53	Line	-	3.96	9.61	0.03	9.89
QP	2.014M	22.24	56.00	-33.76	19.54	Line	-	2.70	9.62	0.03	9.89
AV	2.014M	18.52	46.00	-27.48	19.54	Line	-	-1.02	9.62	0.03	9.89

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	920k	877.061k	877KF1D	918.75k	872.064k
BT-EDR(2Mbps)	1.341M	1.267M	1M27G1D	1.331M	1.222M
BT-EDR(3Mbps)	1.308M	1.233M	1M23G1D	1.288M	1.212M

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;

Result

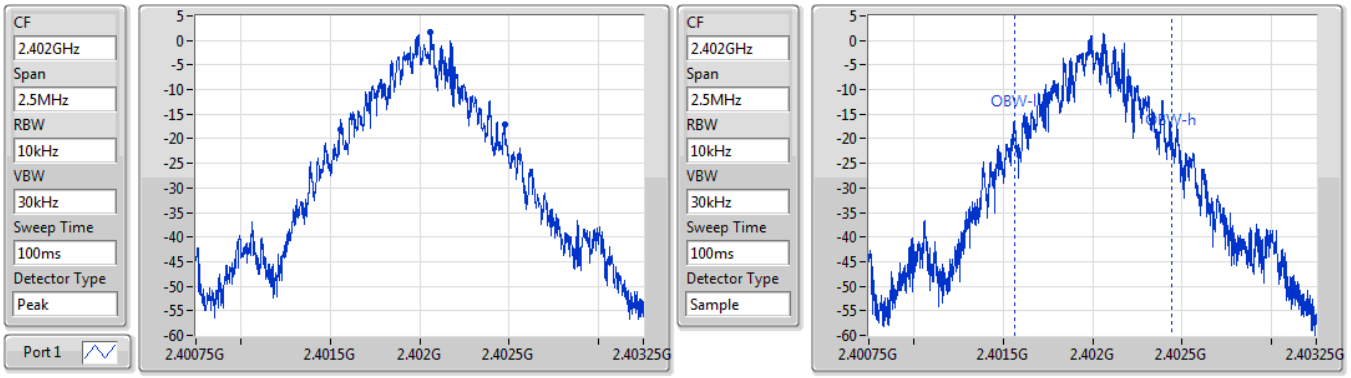
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	918.75k	877.061k
2441MHz	Pass	Inf	920k	872.064k
2480MHz	Pass	Inf	920k	874.563k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.331M	1.222M
2441MHz	Pass	Inf	1.339M	1.267M
2480MHz	Pass	Inf	1.341M	1.256M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.288M	1.212M
2441MHz	Pass	Inf	1.308M	1.231M
2480MHz	Pass	Inf	1.308M	1.233M

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

BT-BR(1Mbps) **EBW**

2402MHz

11/09/2019

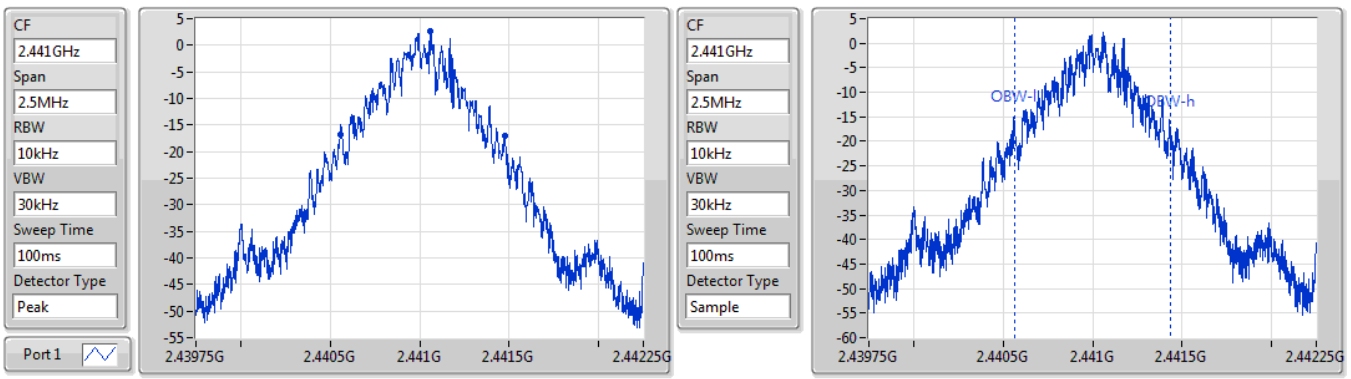


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
918.75k	2.401555G	2.402474G	877.061k	2.401565G	2.402442G	Inf	1

BT-BR(1Mbps) **EBW**

2441MHz

11/09/2019



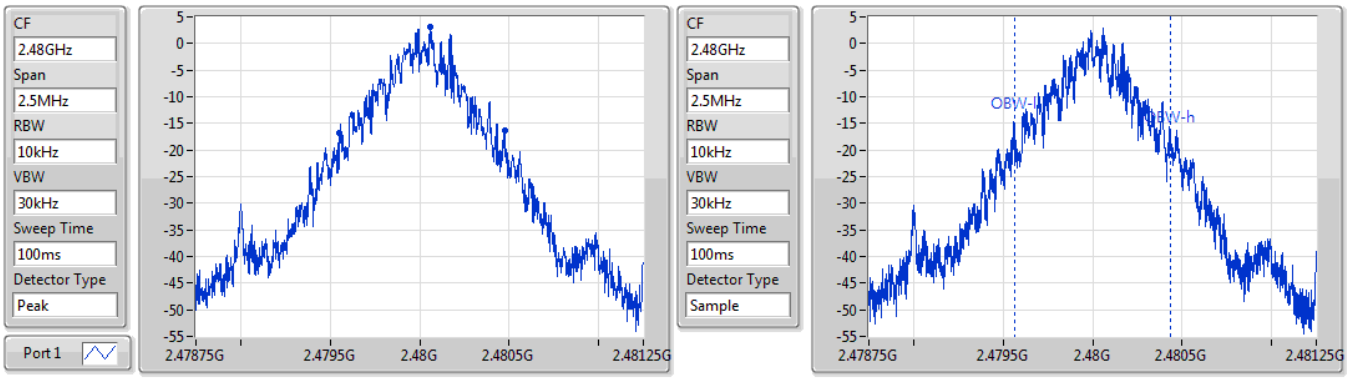
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
920k	2.440555G	2.441475G	872.064k	2.440563G	2.441435G	Inf	1

BT-BR(1Mbps)

EBW

2480MHz

11/09/2019



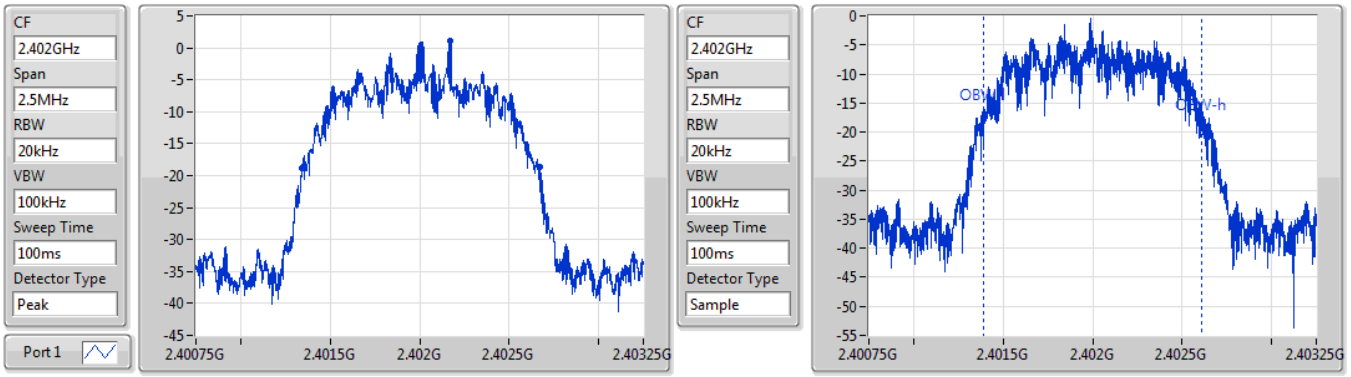
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
920k	2.479554G	2.480474G	874.563k	2.479563G	2.480437G	Inf	1

BT-EDR(2Mbps)

EBW

2402MHz

11/09/2019

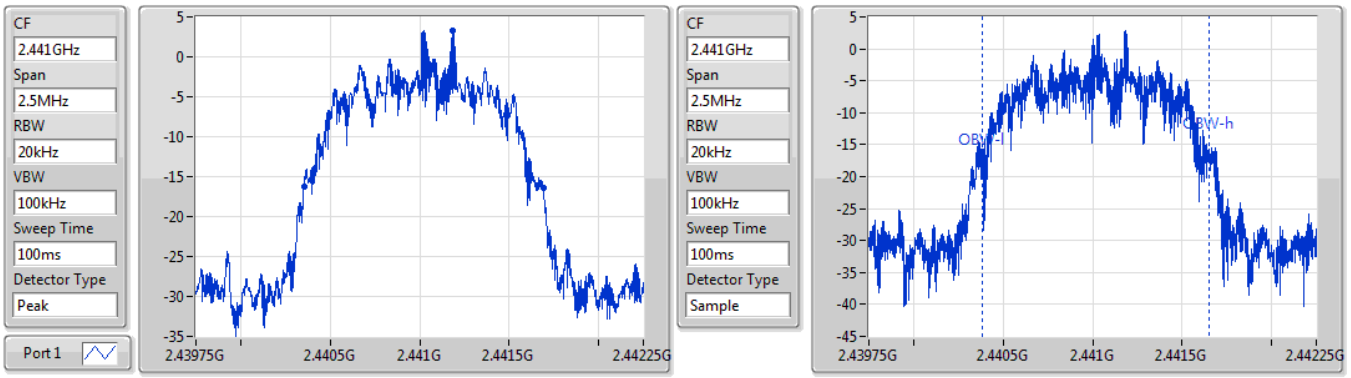


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.331M	2.401343G	2.402674G	1.222M	2.401389G	2.402611G	Inf	1

BT-EDR(2Mbps) EBW

2441MHz

11/09/2019

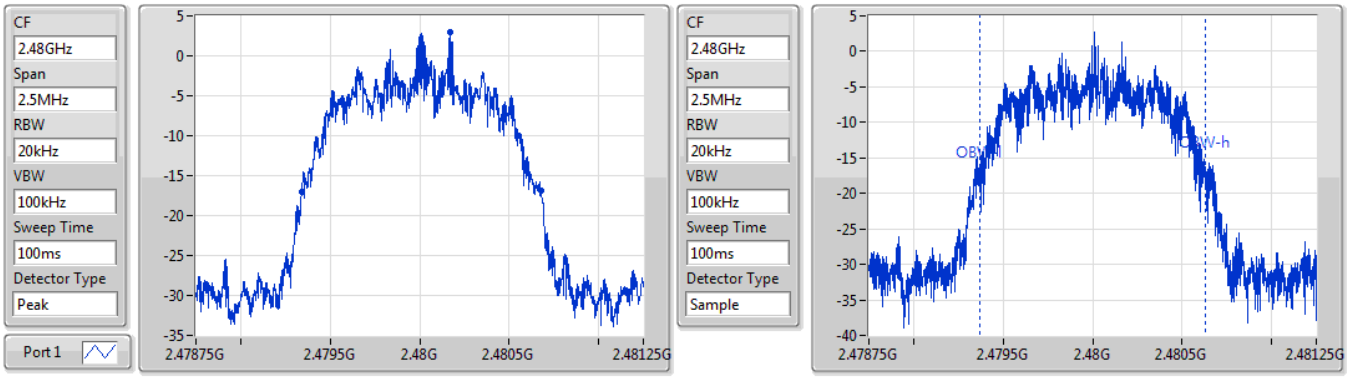


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.339M	2.440353G	2.441691G	1.267M	2.440382G	2.441648G	Inf	1

BT-EDR(2Mbps) EBW

2480MHz

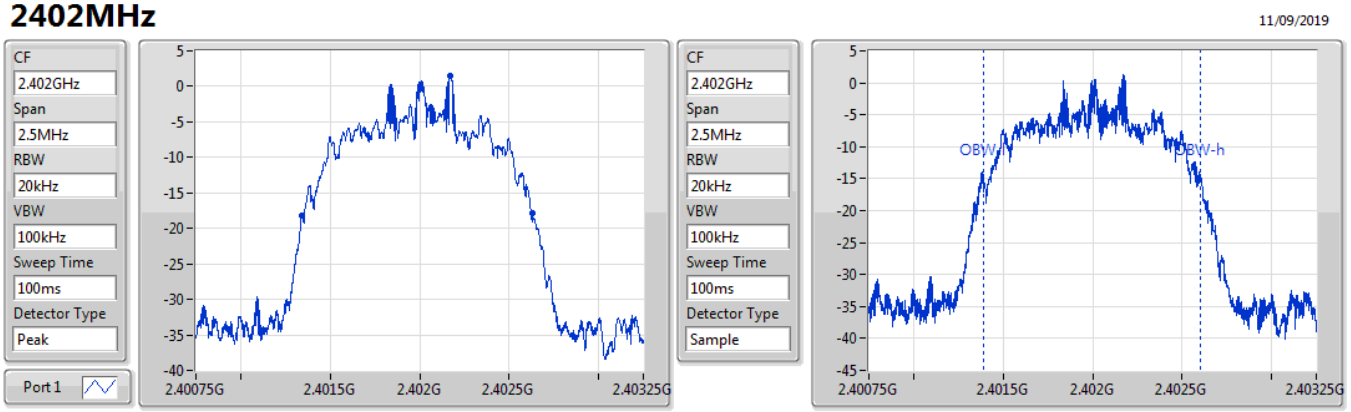
11/09/2019



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.341M	2.479339G	2.48068G	1.256M	2.479372G	2.480627G	Inf	1

BT-EDR(3Mbps) **EBW**

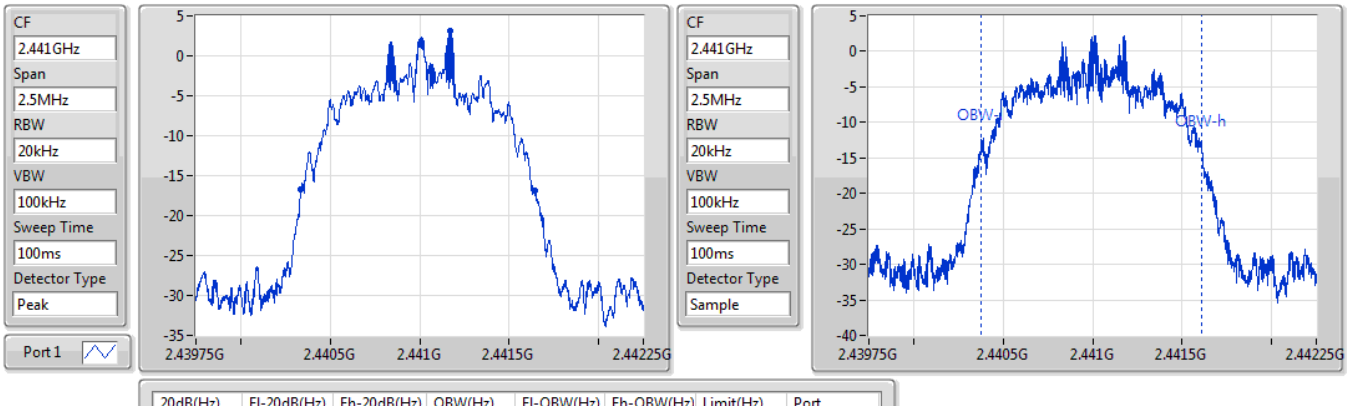
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.288M	2.401341G	2.402629G	1.212M	2.401388G	2.4026G	Inf	1

BT-EDR(3Mbps) **EBW**

2441MHz

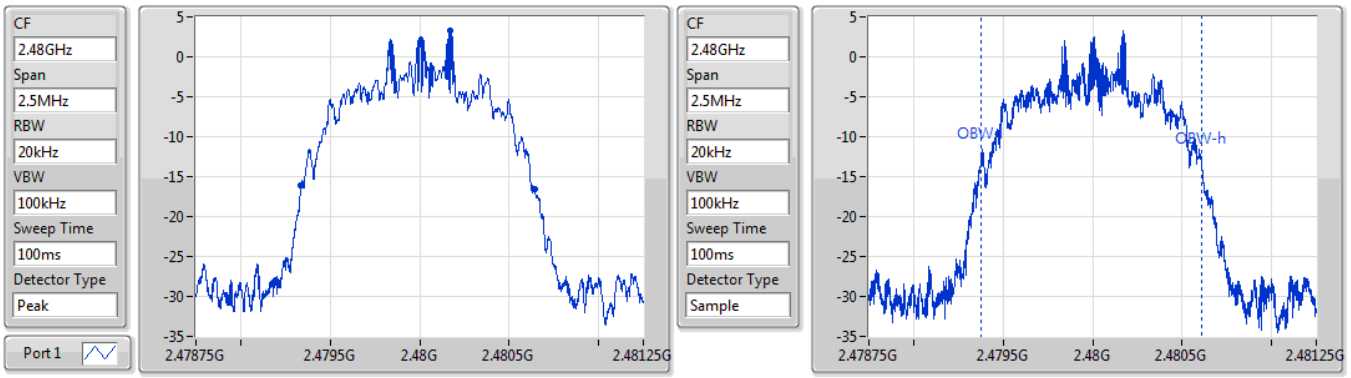


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.308M	2.440336G	2.441644G	1.231M	2.440378G	2.441608G	Inf	1

BT-EDR(3Mbps) **EBW**

2480MHz

11/09/2019



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.308M	2.479336G	2.480644G	1.233M	2.479377G	2.48061G	Inf	1

Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.002M	841.5k
BT-EDR(2Mbps)	1.0035M	997.5k
BT-EDR(3Mbps)	1.002M	1.0005M

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.40217G	2.403012G	841.5k	611.8875k
2441MHz	Pass	2.441007G	2.442007G	1.0005M	612.72k
2480MHz	Pass	2.479007G	2.480009G	1.002M	612.72k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402008G	2.403012G	1.0035M	886.446k
2441MHz	Pass	2.441014G	2.442012G	997.5k	891.774k
2480MHz	Pass	2.479007G	2.480009G	1.002M	893.106k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402169G	2.403171G	1.002M	857.808k
2441MHz	Pass	2.441167G	2.442168G	1.0005M	871.128k
2480MHz	Pass	2.479167G	2.480168G	1.0005M	871.128k

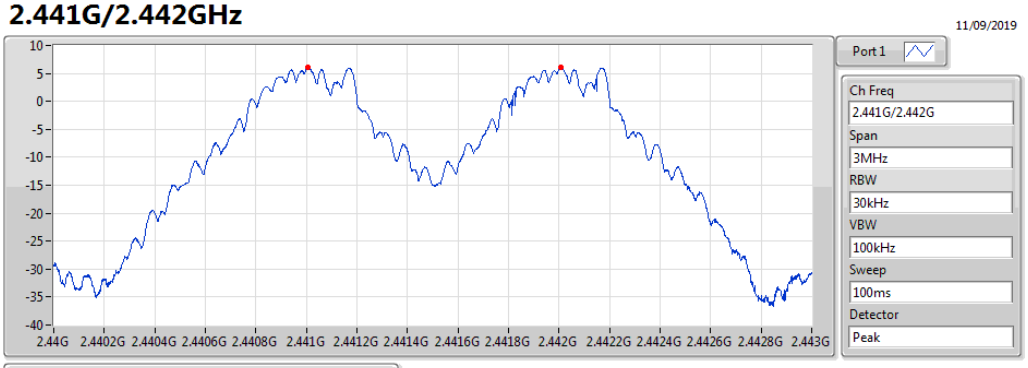
BT-BR(1Mbps) **Channel Separation**

2.402G/2.403GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.40217G	2.403012G	841.5k	611.8875k

BT-BR(1Mbps) **Channel Separation**

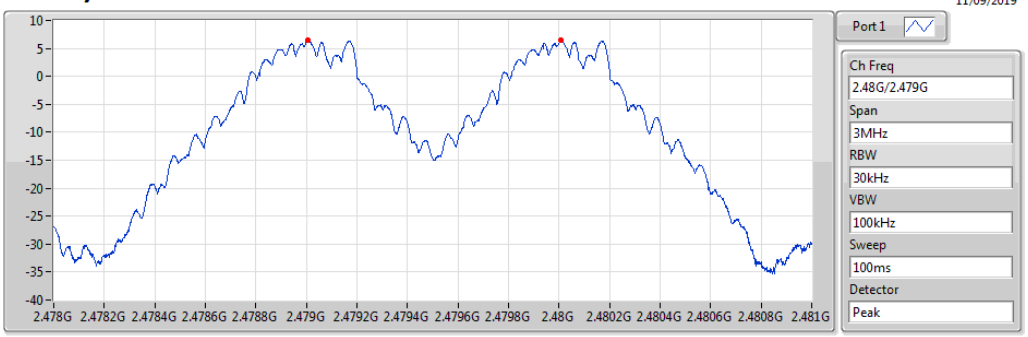
2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441007G	2.442007G	1.0005M	612.72k

BT-BR(1Mbps) **Channel Separation**

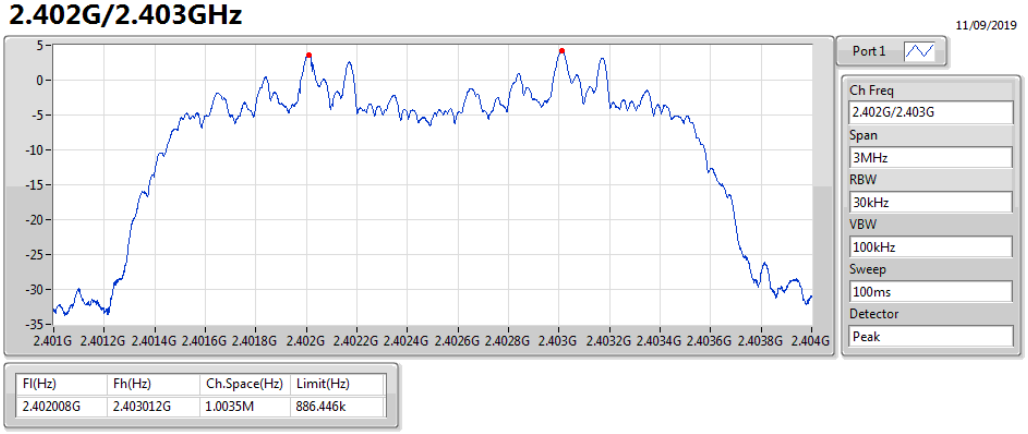
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479007G	2.480009G	1.002M	612.72k

BT-EDR(2Mbps) **Channel Separation**

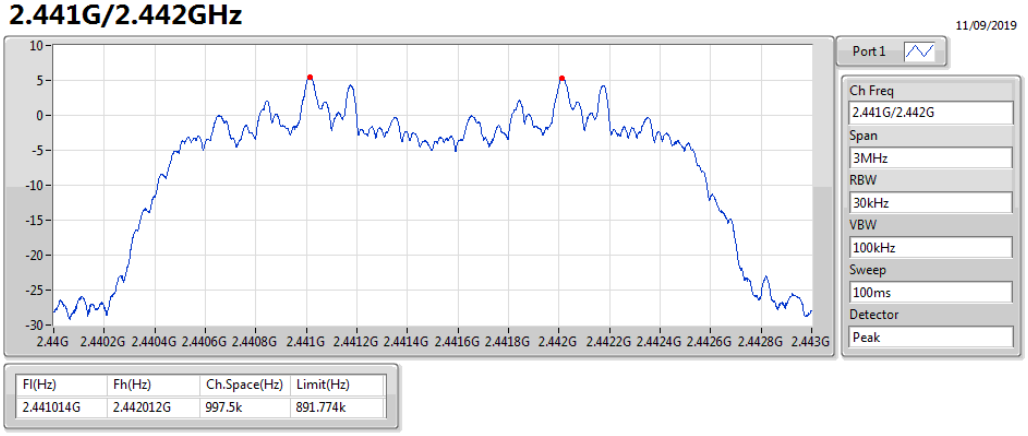
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402008G	2.403012G	1.0035M	886.446k

BT-EDR(2Mbps) **Channel Separation**

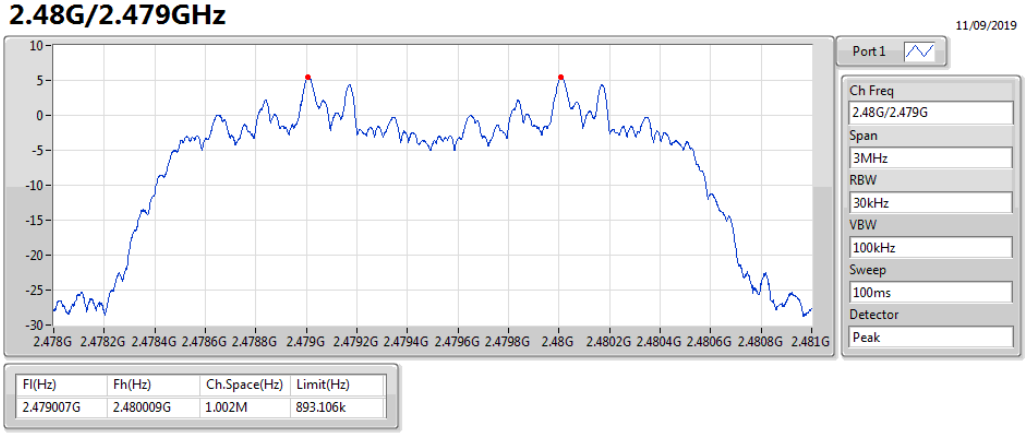
2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441014G	2.442012G	997.5k	891.774k

BT-EDR(2Mbps) **Channel Separation**

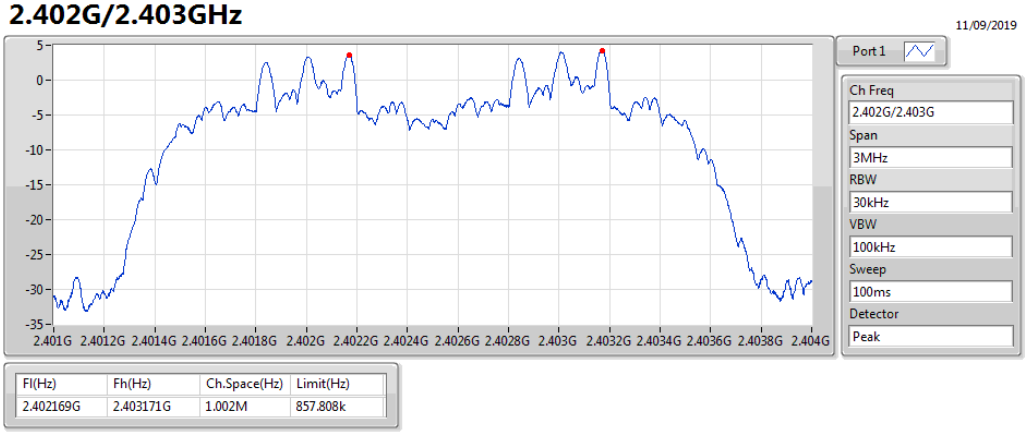
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479007G	2.480009G	1.002M	893.106k

BT-EDR(3Mbps) **Channel Separation**

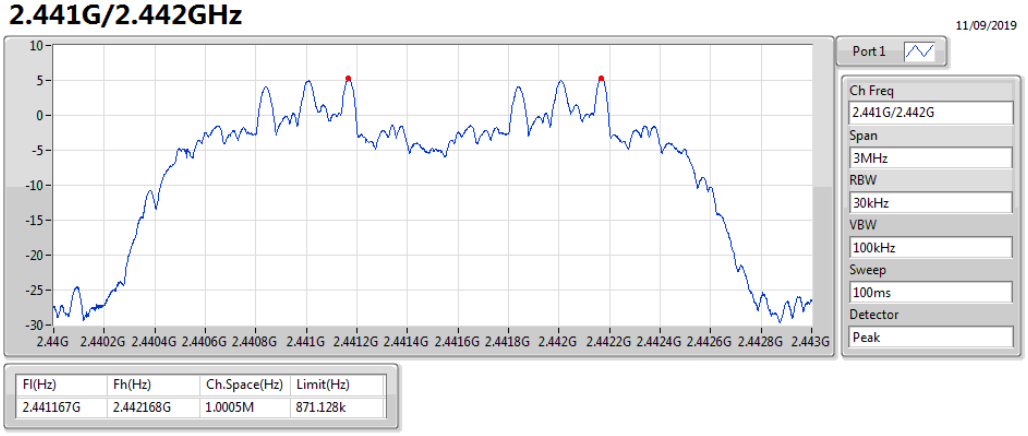
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402169G	2.403171G	1.002M	857.808k

BT-EDR(3Mbps) **Channel Separation**

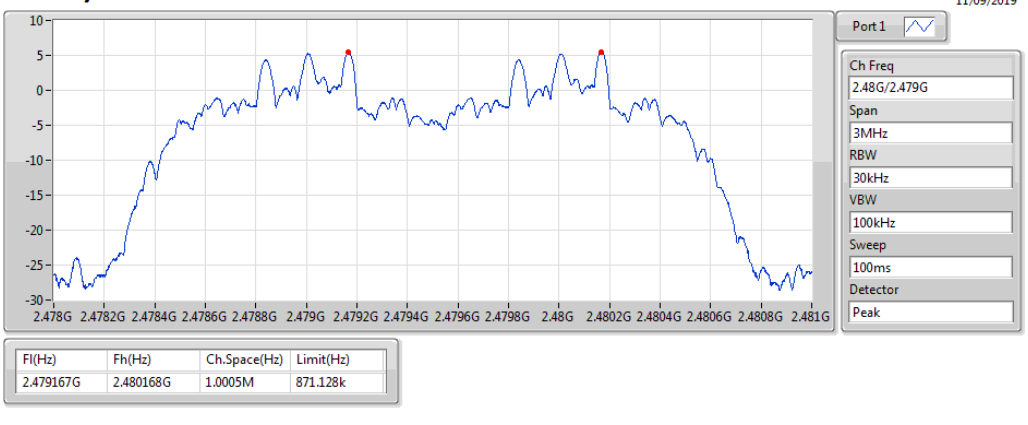
2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441167G	2.442168G	1.0005M	871.128k

BT-EDR(3Mbps) **Channel Separation**

2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479167G	2.480168G	1.0005M	871.128k

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	9.07	0.00807
BT-EDR(2Mbps)	8.51	0.00710
BT-EDR(3Mbps)	8.56	0.00718

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	1.10	7.75	21.00
2441MHz	Pass	1.10	8.61	21.00
2480MHz	Pass	1.10	9.07	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	1.10	6.79	21.00
2441MHz	Pass	1.10	8.47	21.00
2480MHz	Pass	1.10	8.51	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	1.10	7.03	21.00
2441MHz	Pass	1.10	8.11	21.00
2480MHz	Pass	1.10	8.56	21.00

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

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	8.91	0.00778
BT-EDR(2Mbps)	7.18	0.00522
BT-EDR(3Mbps)	7.02	0.00504

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	1.10	7.52	21.00
2441MHz	Pass	1.10	8.46	21.00
2480MHz	Pass	1.10	8.91	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	1.10	4.93	21.00
2441MHz	Pass	1.10	7.12	21.00
2480MHz	Pass	1.10	7.18	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	1.10	5.00	21.00
2441MHz	Pass	1.10	6.53	21.00
2480MHz	Pass	1.10	7.02	21.00

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

Summary

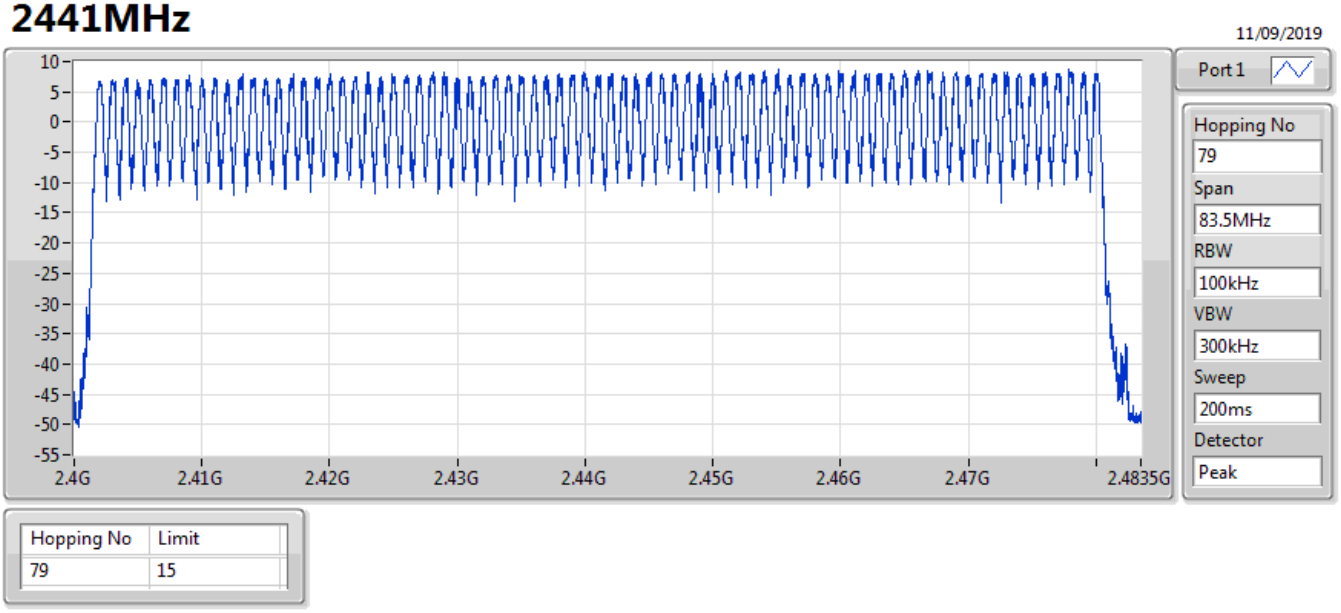
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

Result

Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2441MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2441MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2441MHz	Pass	79	15

BT-BR(1Mbps) **Hopping Ch**

2441MHz

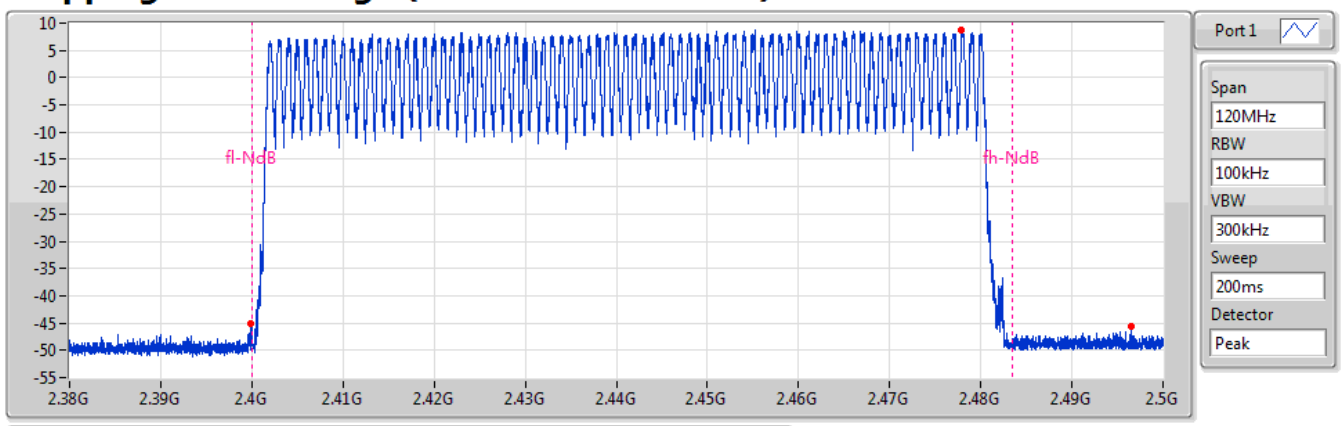


Hopping No	Limit
79	15

BT-BR(1Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

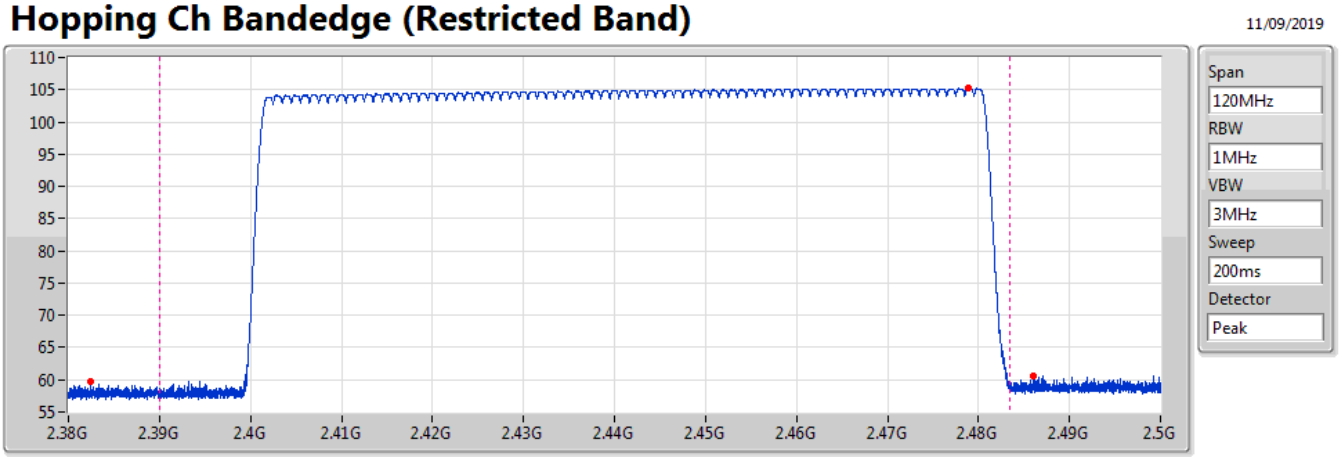


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-11.36	2.477845G	8.64	2.399905G	-45.17	2.49658G	-45.48

BT-BR(1Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)

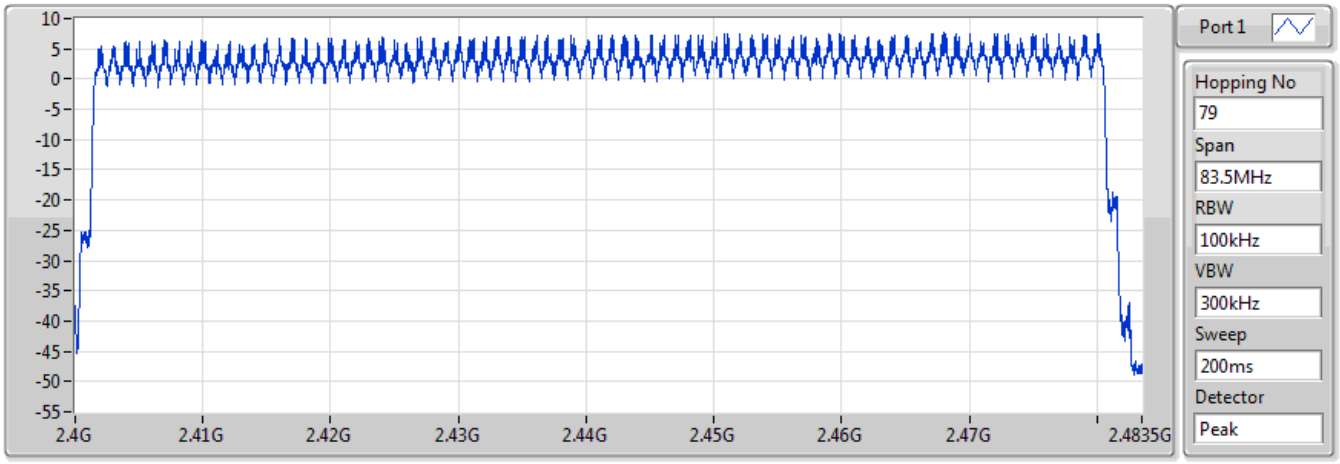


Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.47882G	105.18	2.38243G	59.63	29.53	2.485975G	60.57	30.47	74	54	3.125	-30.1

BT-EDR(2Mbps)

2441MHz

Hopping Ch

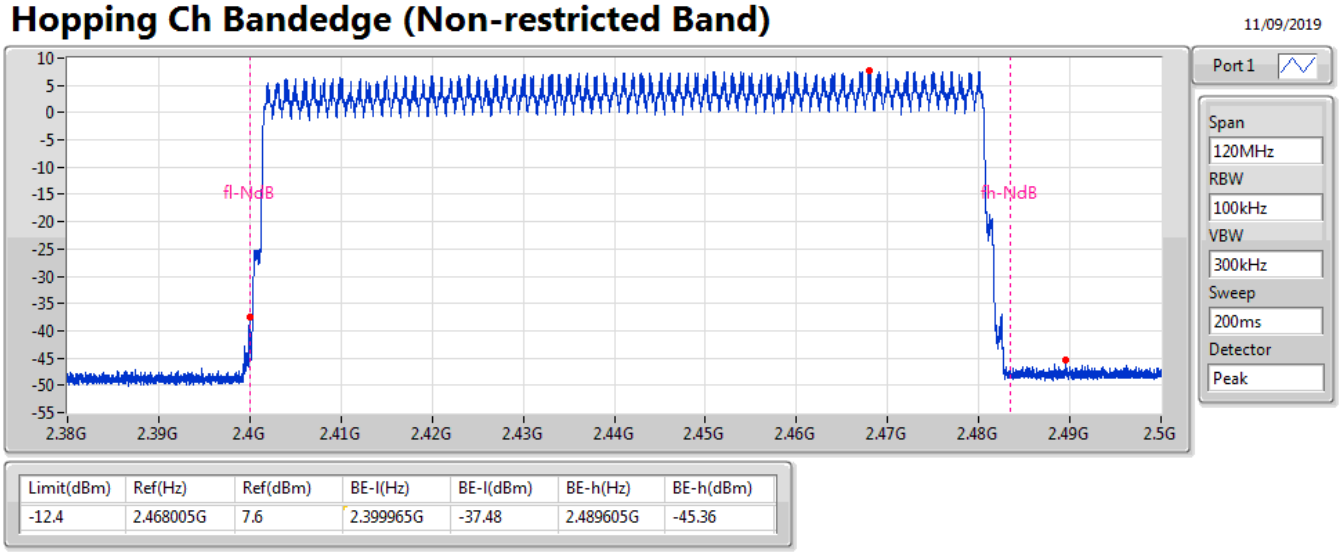


Hopping No	Limit
79	15

BT-EDR(2Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

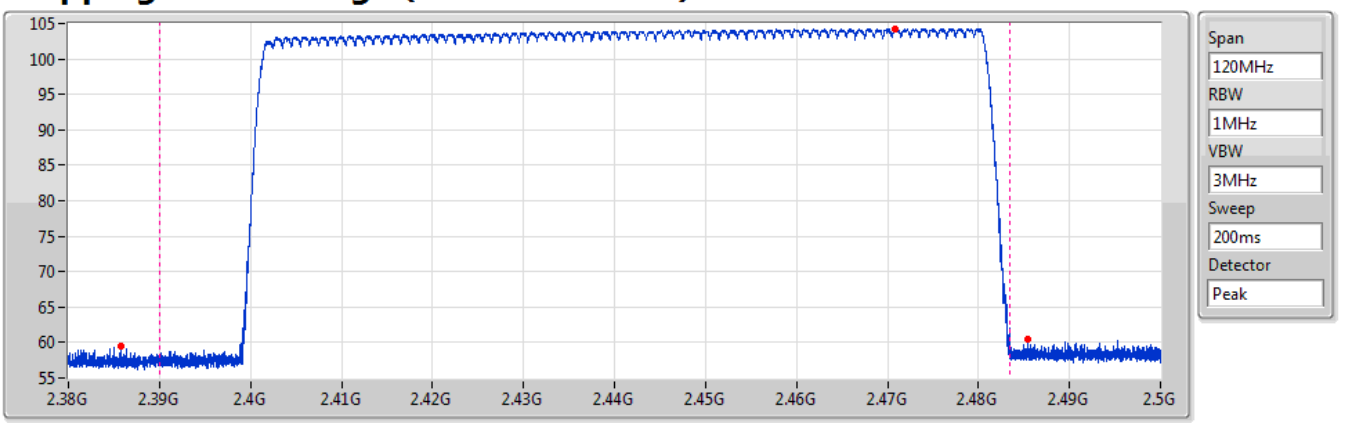


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-12.4	2.468005G	7.6	2.399965G	-37.48	2.489605G	-45.36

BT-EDR(2Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)

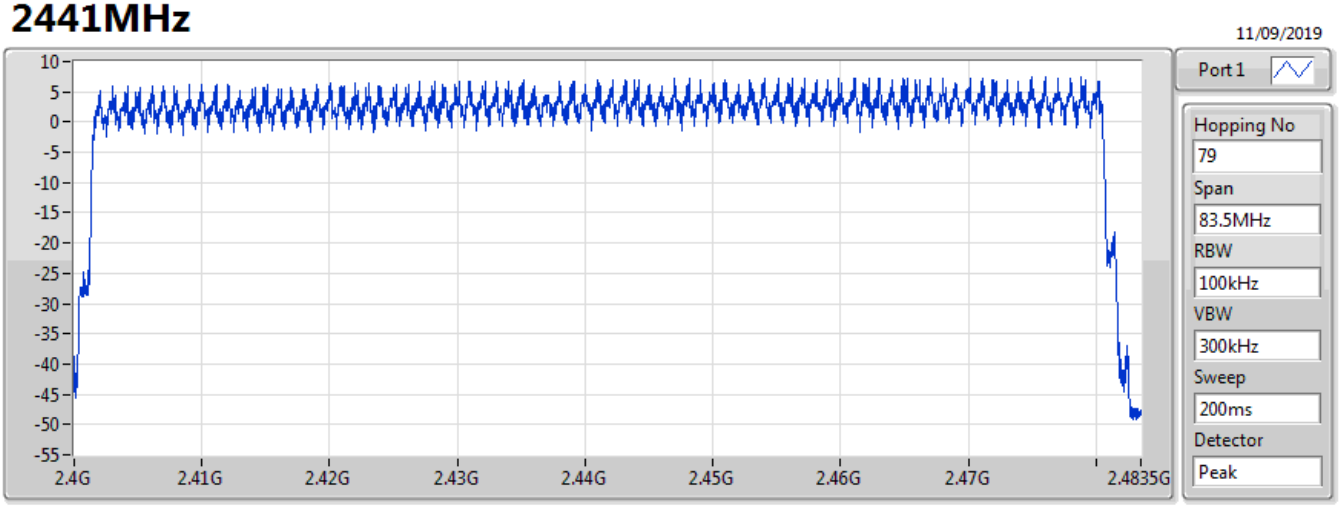


Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.47084G	104.26	2.385715G	59.46	29.36	2.48548G	60.48	30.38	74	54	3.125	-30.1

BT-EDR(3Mbps)

2441MHz

Hopping Ch

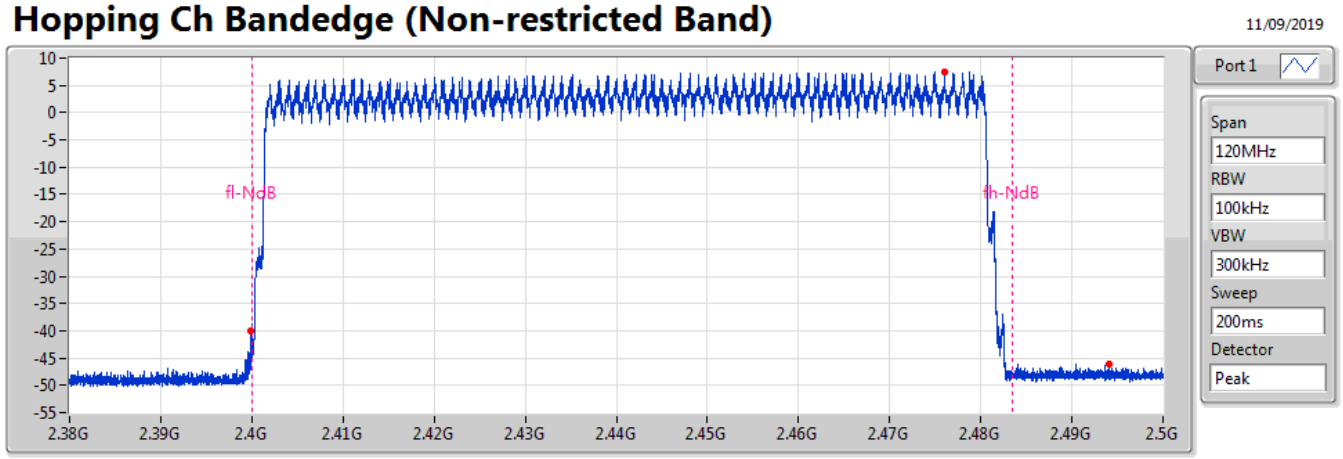


Hopping No	Limit
79	15

BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

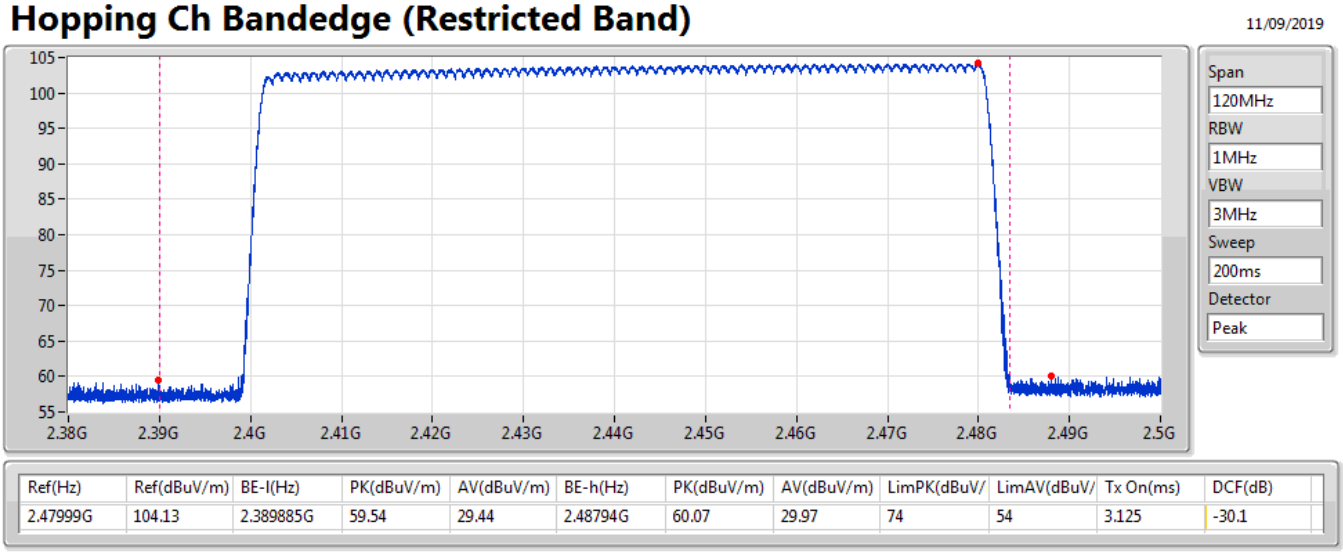


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-12.63	2.476015G	7.37	2.39992G	-40.03	2.494105G	-46.04

BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)



Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.47999G	104.13	2.389885G	59.54	29.44	2.48794G	60.07	29.97	74	54	3.125	-30.1

Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	310.6324m
BT-EDR(2Mbps)	311.6984m
BT-EDR(3Mbps)	311.6984m

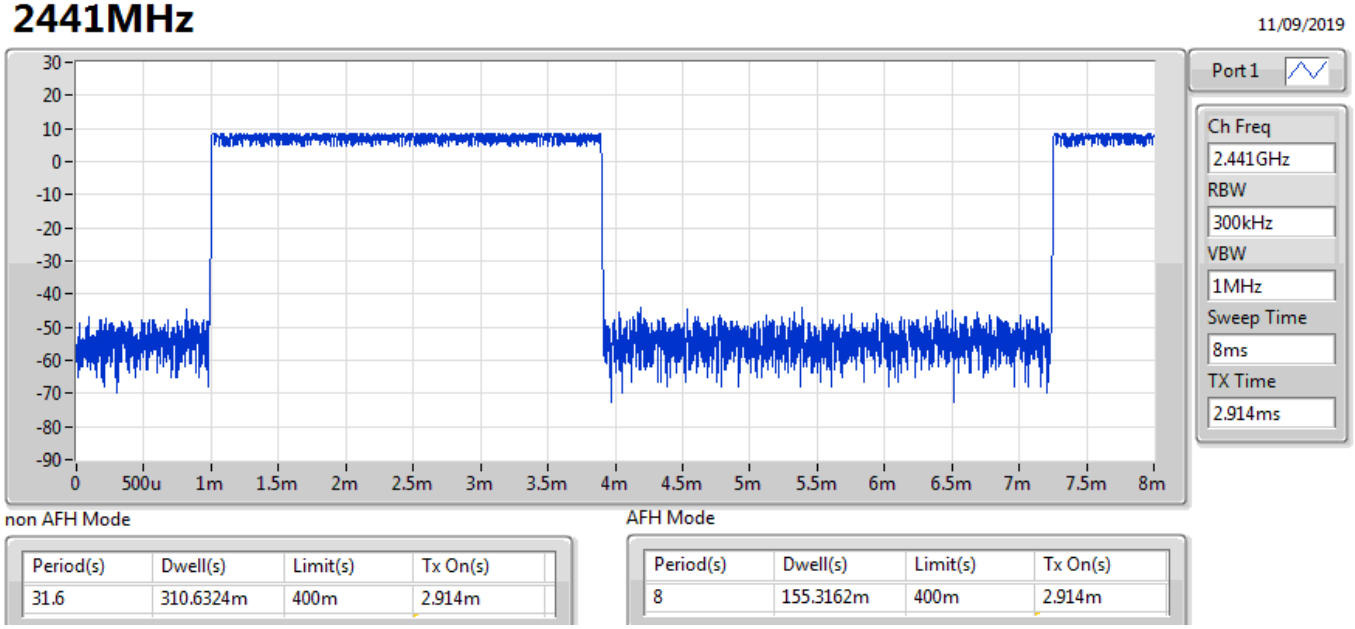
Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	310.6324m	400m	2.914m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	311.6984m	400m	2.924m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	311.6984m	400m	2.924m

BT-BR(1Mbps)

Dwell

2441MHz



non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	310.6324m	400m	2.914m

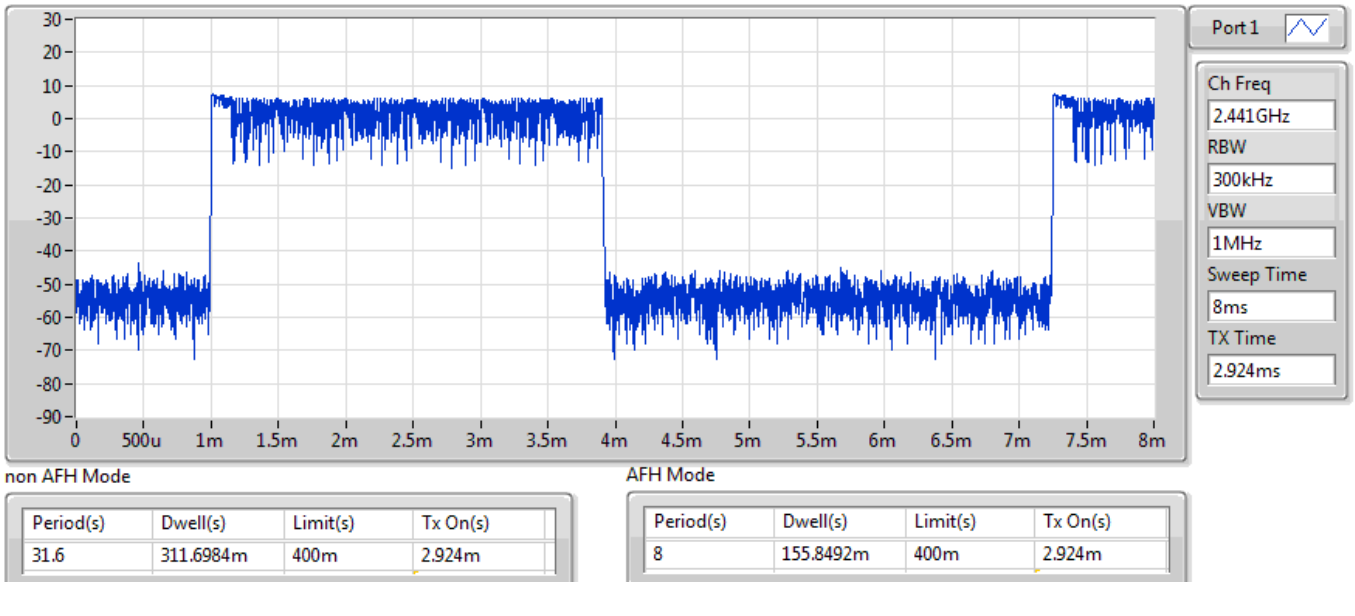
AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	155.3162m	400m	2.914m

BT-EDR(2Mbps)

Dwell

2441MHz



non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	311.6984m	400m	2.924m

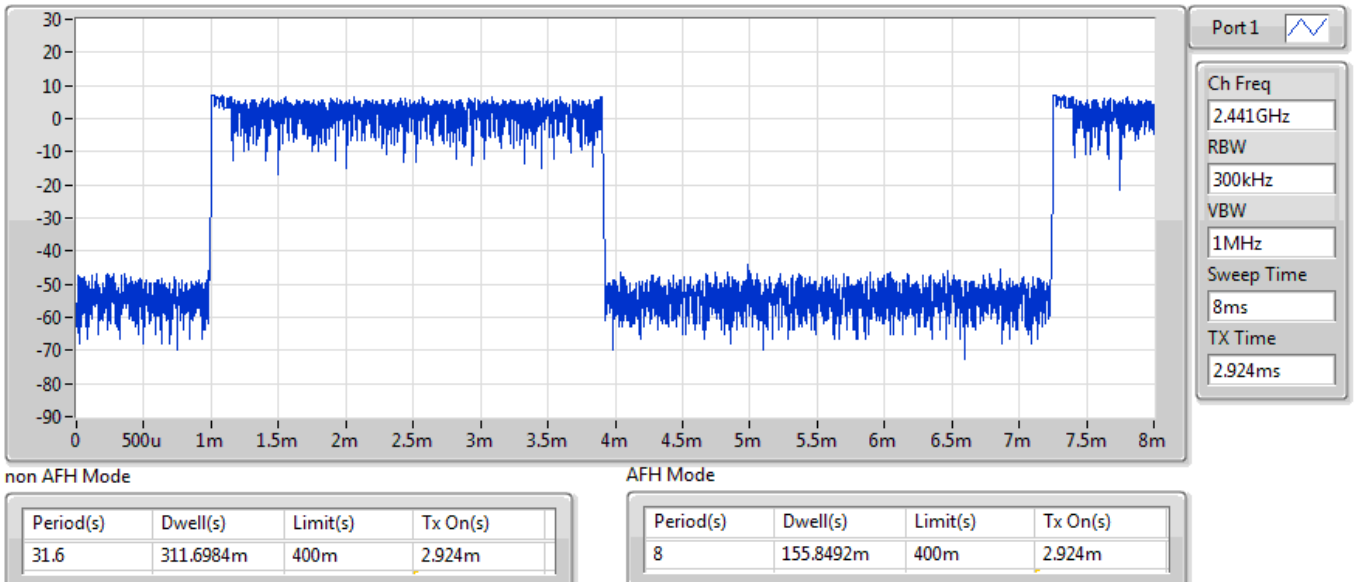
AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	155.8492m	400m	2.924m

BT-EDR(3Mbps) **Dwell**

2441MHz

11/09/2019



non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	311.6984m	400m	2.924m

AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	155.8492m	400m	2.924m

Summary

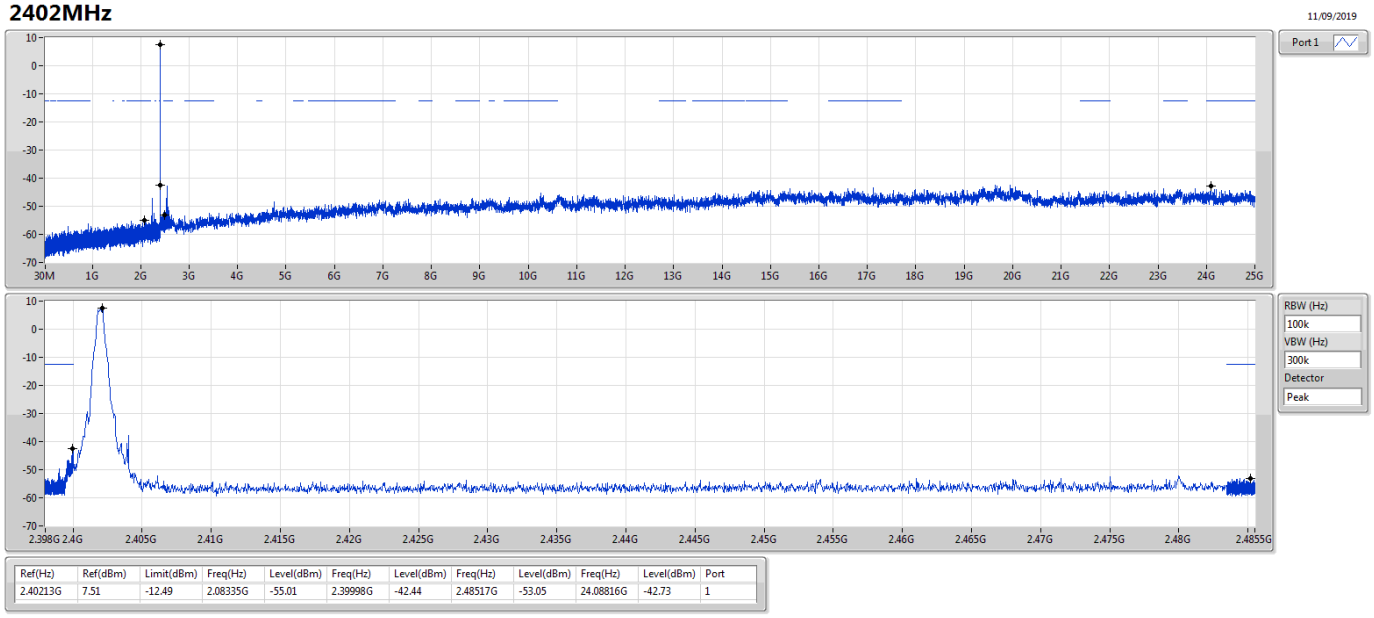
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.40213G	7.51	-12.49	2.08335G	-55.01	2.39998G	-42.44	2.48517G	-53.05	24.08816G	-42.73	1
BT-EDR(2Mbps)	Pass	2.40213G	4.64	-15.36	2.14314G	-55.21	2.39999G	-37.04	2.48524G	-52.68	16.64149G	-43.31	1
BT-EDR(3Mbps)	Pass	2.40301G	6.44	-13.56	1.98449G	-54.12	2.39998G	-45.60	2.48528G	-52.71	16.25875G	-42.63	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	7.51	-12.49	2.08335G	-55.01	2.39998G	-42.44	2.48517G	-53.05	24.08816G	-42.73	1
2441MHz	Pass	2.44221G	8.21	-11.79	2.18814G	-54.71	2.39901G	-53.71	2.48399G	-53.43	24.00655G	-43.32	1
2480MHz	Pass	2.47987G	8.71	-11.29	1.99899G	-55.75	2.3995G	-54.31	2.48445G	-49.60	23.39303G	-42.27	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	4.64	-15.36	2.14314G	-55.21	2.39999G	-37.04	2.48524G	-52.68	16.64149G	-43.31	1
2441MHz	Pass	2.44117G	7.34	-12.66	2.14995G	-54.63	2.39837G	-53.84	2.48398G	-52.92	24.12193G	-42.00	1
2480MHz	Pass	2.47903G	7.93	-12.07	2.30298G	-54.36	2.39989G	-53.13	2.48387G	-52.09	24.88743G	-42.55	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40301G	6.44	-13.56	1.98449G	-54.12	2.39998G	-45.60	2.48528G	-52.71	16.25875G	-42.63	1
2441MHz	Pass	2.44087G	7.28	-12.72	1.9611G	-54.46	2.39871G	-53.10	2.48454G	-52.99	23.3874G	-43.06	1
2480MHz	Pass	2.47887G	7.78	-12.22	2.30535G	-54.36	2.39932G	-53.79	2.48351G	-51.39	23.53093G	-42.92	1

BT-BR(1Mbps) **CSE NdB**

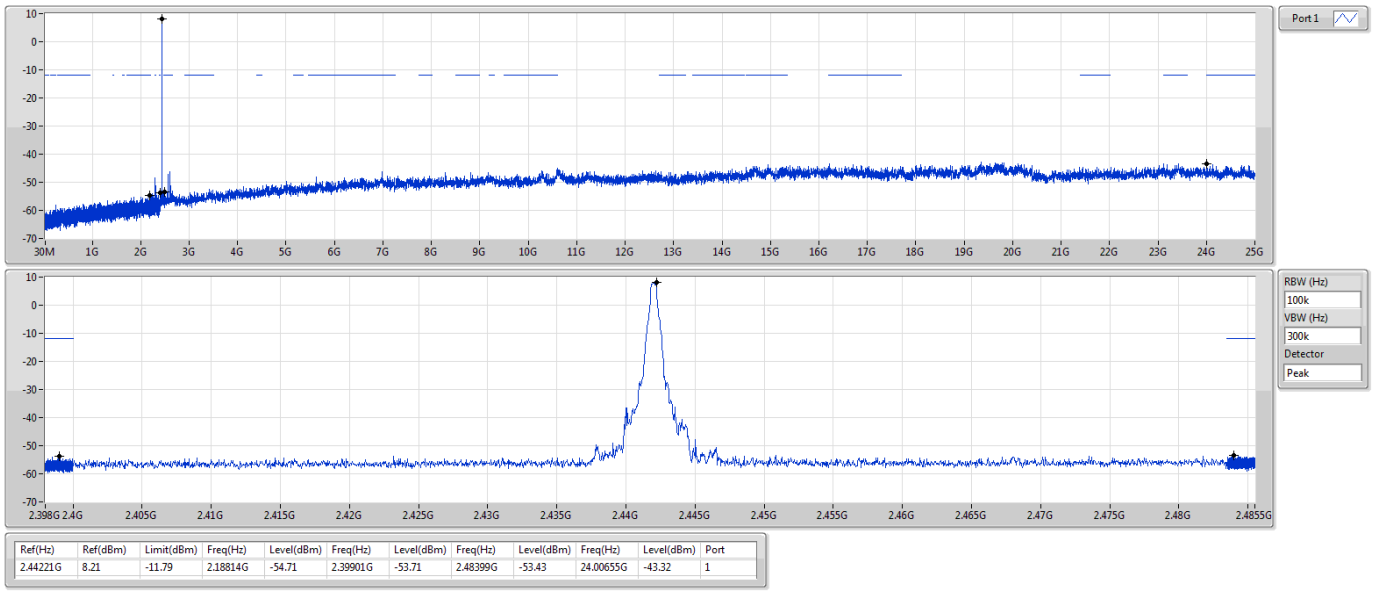
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40213G	7.51	-12.49	2.08335G	-55.01	2.39998G	-42.44	2.48517G	-53.05	24.08816G	-42.73	1

BT-BR(1Mbps) **CSE NdB**

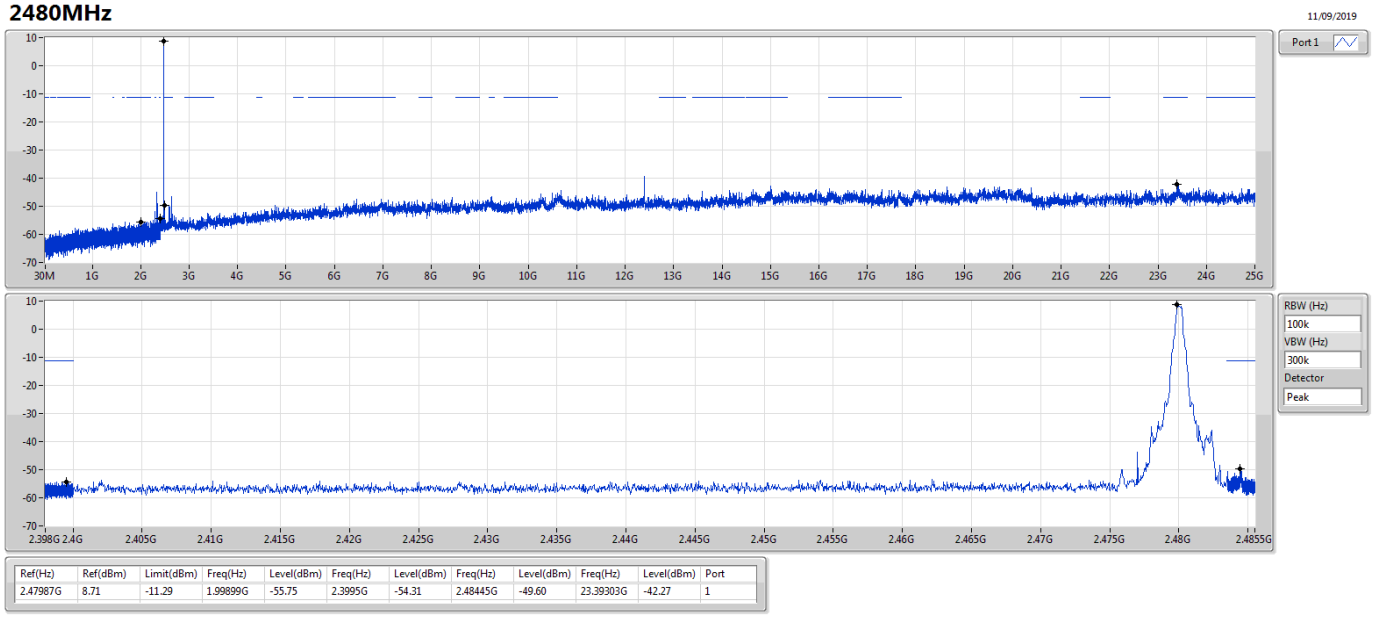
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44221G	8.21	-11.79	2.18814G	-54.71	2.39901G	-53.71	2.48399G	-53.43	24.00655G	-43.32	1

BT-BR(1Mbps) **CSE NdB**

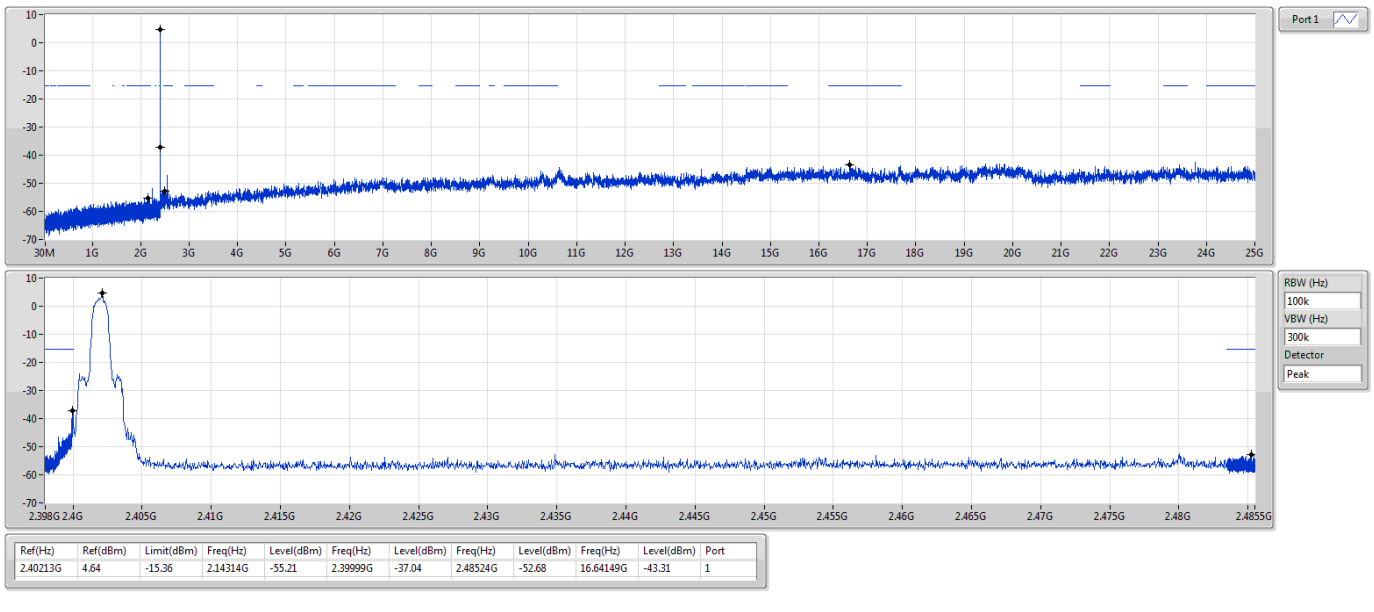
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47987G	8.71	-11.29	1.99899G	-55.75	2.3995G	-54.31	2.48445G	-49.60	23.39303G	-42.27	1

BT-EDR(2Mbps) **CSE NdB**

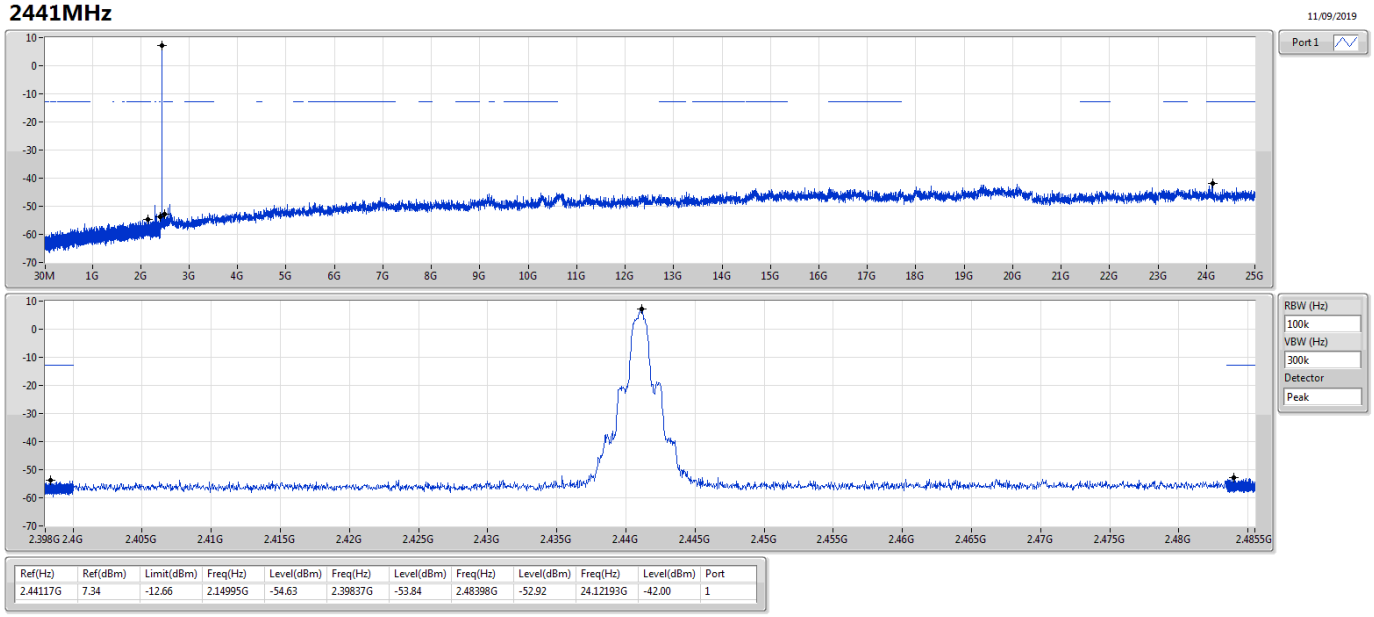
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40213G	4.64	-15.36	2.14314G	-55.21	2.39999G	-37.04	2.48524G	-52.68	16.64149G	-43.31	1

BT-EDR(2Mbps) **CSE NdB**

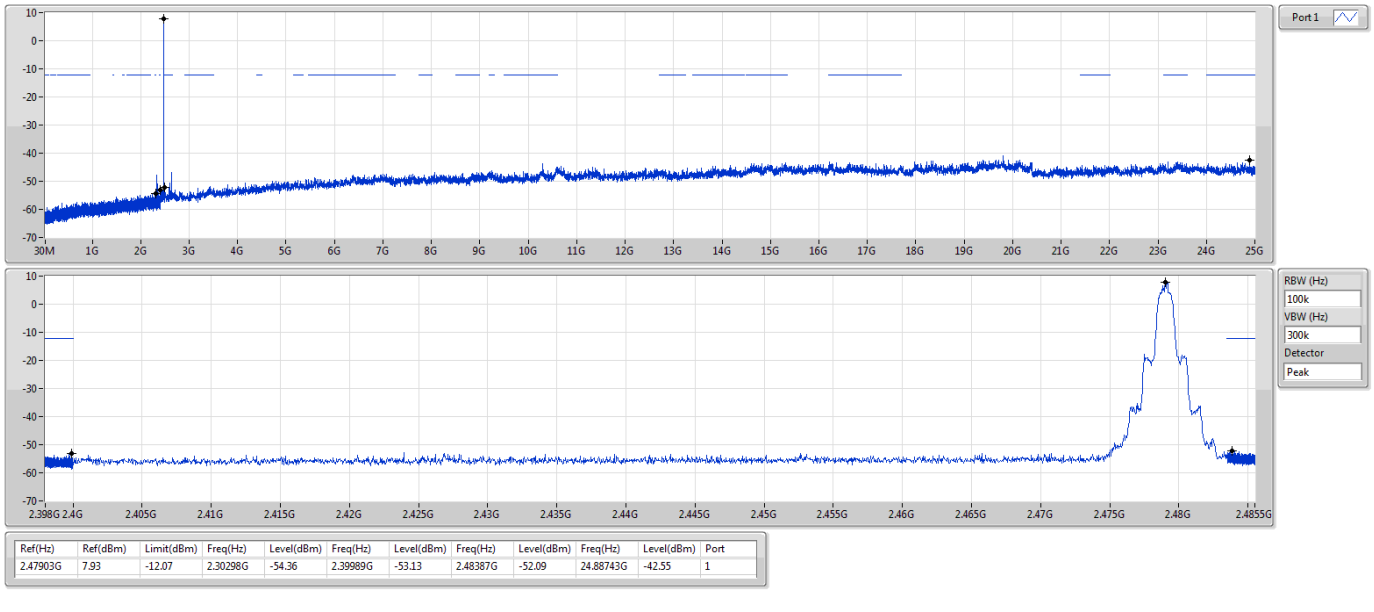
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44117G	7.34	-12.66	2.14995G	-54.63	2.39837G	-53.84	2.48398G	-52.92	24.12193G	-42.00	1

BT-EDR(2Mbps) **CSE NdB**

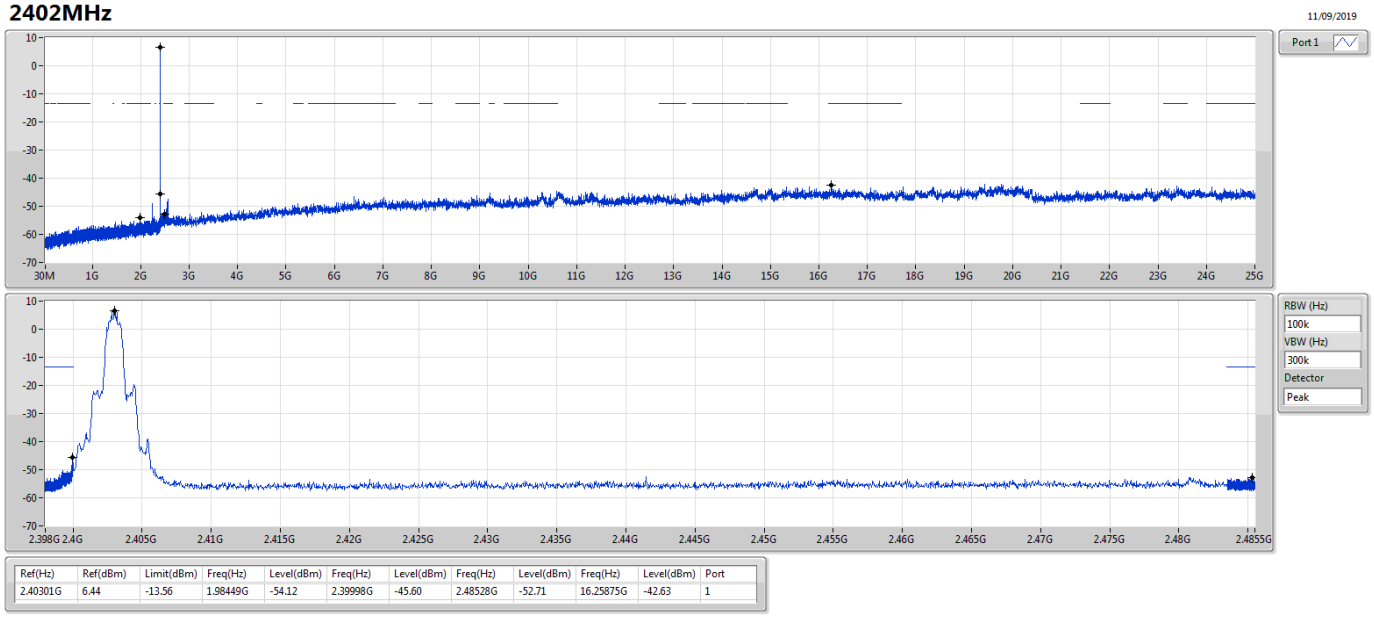
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47903G	7.93	-12.07	2.30298G	-54.36	2.39989G	-53.13	2.48387G	-52.09	24.88743G	-42.55	1

BT-EDR(3Mbps) **CSE NdB**

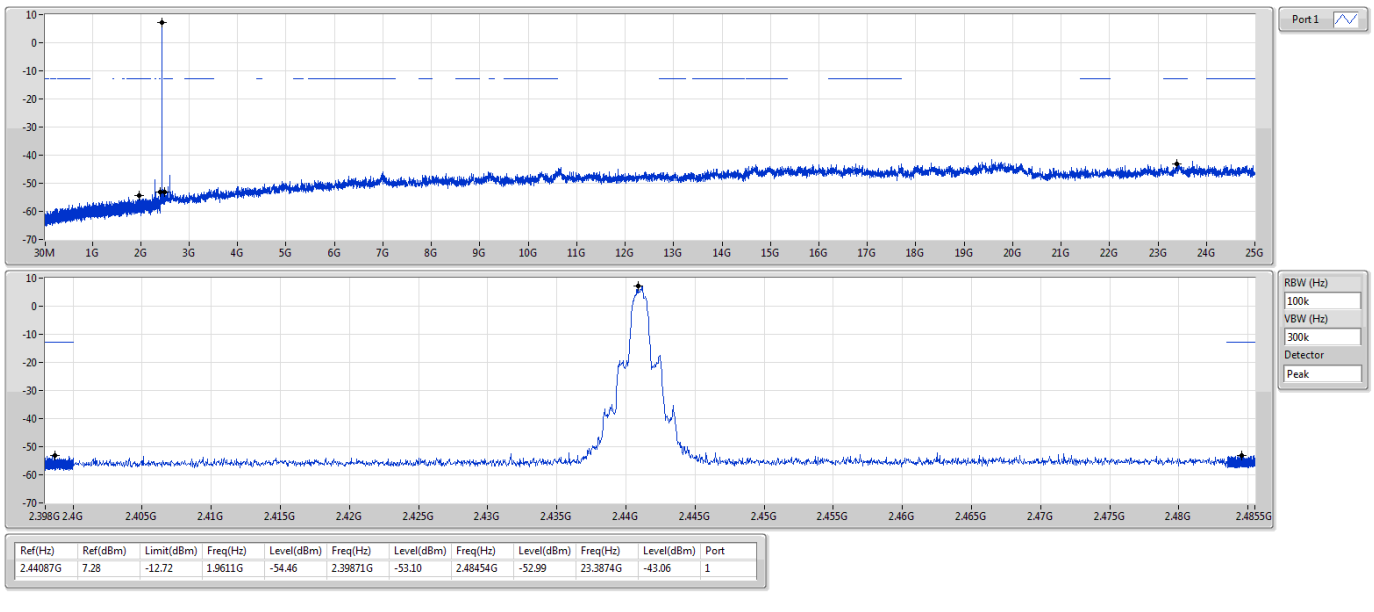
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40301G	6.44	-13.56	1.98449G	-54.12	2.39998G	-45.60	2.48528G	-52.71	16.25875G	-42.63	1

BT-EDR(3Mbps) **CSE NdB**

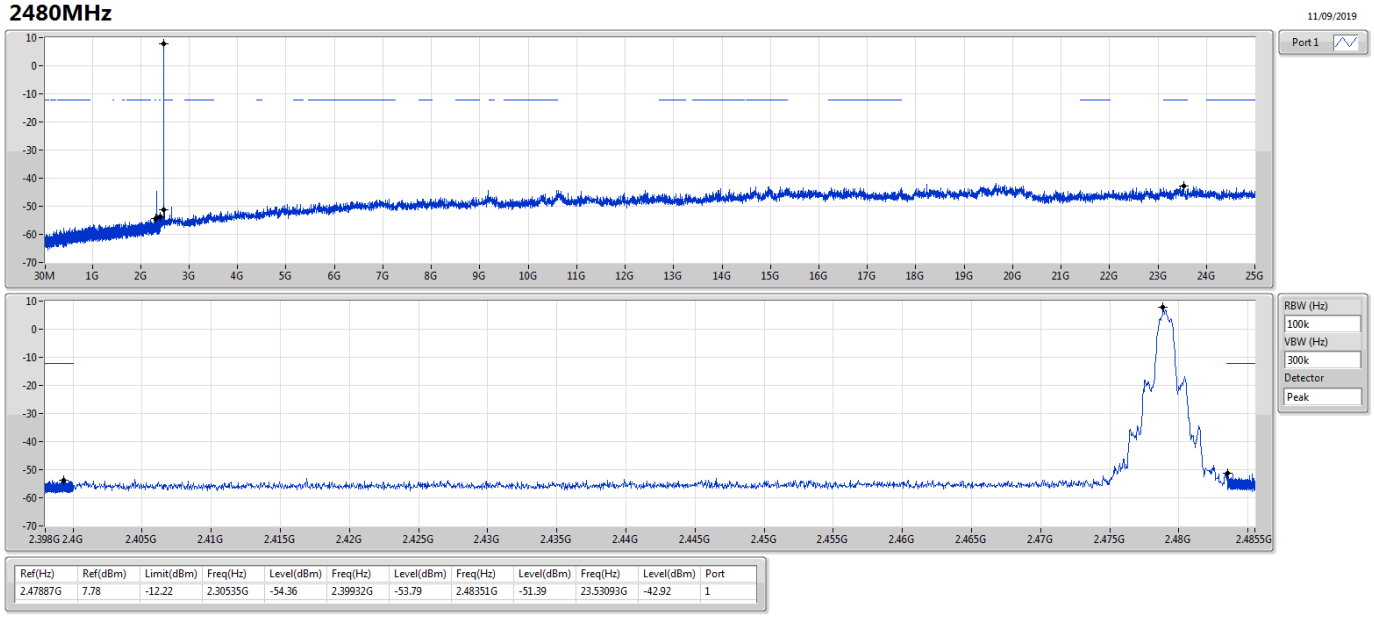
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44087G	7.28	-12.72	1.9611G	-54.46	2.39871G	-53.10	2.48454G	-52.99	23.3874G	-43.06	1

BT-EDR(3Mbps) **CSE NdB**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47887G	7.78	-12.22	2.30535G	-54.36	2.39932G	-53.79	2.48351G	-51.39	23.53093G	-42.92	1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	86.26M	33.57	40.00	-6.43	3	Vertical	360	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	PK	37.76M	30.57	40.00	-9.43	3	Vertical	360	1.00	-
2441MHz	Pass	PK	86.26M	33.57	40.00	-6.43	3	Vertical	360	1.00	-
2441MHz	Pass	PK	253.1M	31.69	46.00	-14.31	3	Vertical	360	1.00	-
2441MHz	Pass	PK	344.28M	25.67	46.00	-20.33	3	Vertical	360	1.00	-
2441MHz	Pass	PK	600.36M	38.05	46.00	-7.95	3	Vertical	360	1.00	-
2441MHz	Pass	PK	980.6M	29.94	54.00	-24.06	3	Vertical	360	1.00	-
2441MHz	Pass	PK	43.58M	16.06	40.00	-23.94	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	103.72M	29.15	43.50	-14.35	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	253.1M	30.30	46.00	-15.70	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	324.88M	32.63	46.00	-13.37	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	592.6M	33.74	46.00	-12.26	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	641.1M	32.51	46.00	-13.49	3	Horizontal	0	1.00	-

BT-BR(1Mbps)

16/09/2019

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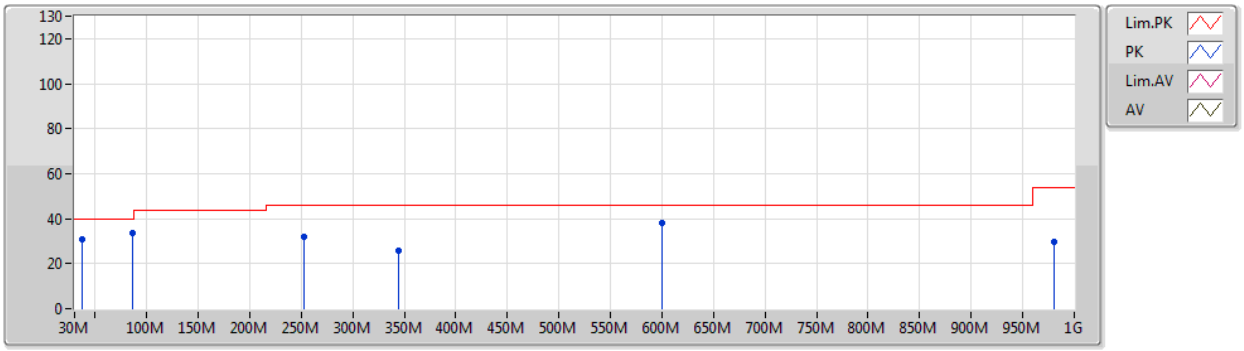
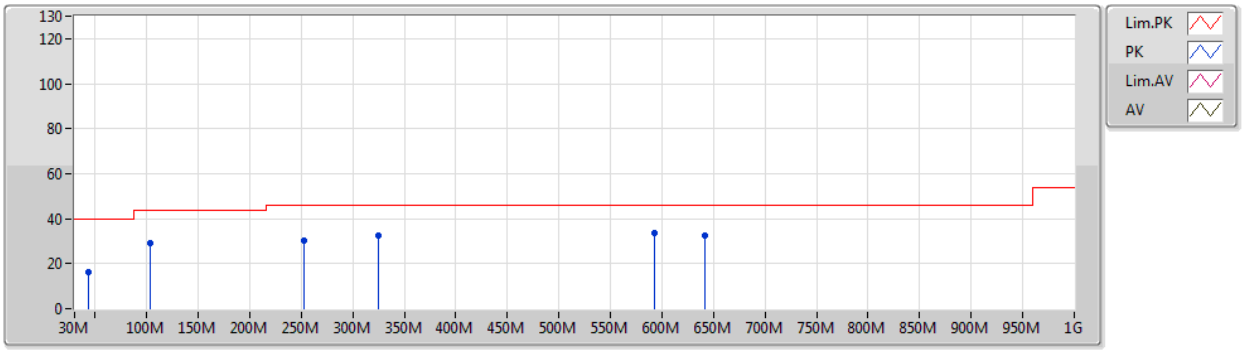


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	37.76M	30.57	40.00	-9.43	-17.07	3	Vertical	360	1.00	-	47.64	19.67	0.53	37.27
PK	86.26M	33.57	40.00	-6.43	-22.89	3	Vertical	360	1.00	-	56.46	13.24	0.76	36.89
PK	253.1M	31.69	46.00	-14.31	-16.64	3	Vertical	360	1.00	-	48.33	18.48	1.30	36.42
PK	344.28M	25.67	46.00	-20.33	-15.55	3	Vertical	360	1.00	-	41.22	19.44	1.56	36.55
PK	600.36M	38.05	46.00	-7.95	-10.43	3	Vertical	360	1.00	-	48.48	24.70	2.09	37.22
PK	980.6M	29.94	54.00	-24.06	-4.49	3	Vertical	360	1.00	-	34.43	30.05	2.62	37.16

BT-BR(1Mbps)

16/09/2019

2441MHz_Switching Power Supply



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	43.58M	16.06	40.00	-23.94	-20.09	3	Horizontal	0	1.00	-	36.15	16.57	0.56	37.22
PK	103.72M	29.15	43.50	-14.35	-20.43	3	Horizontal	0	1.00	-	49.58	15.52	0.82	36.77
PK	253.1M	30.30	46.00	-15.70	-16.64	3	Horizontal	0	1.00	-	46.94	18.48	1.30	36.42
PK	324.88M	32.63	46.00	-13.37	-16.20	3	Horizontal	0	1.00	-	48.83	18.81	1.51	36.52
PK	592.6M	33.74	46.00	-12.26	-10.50	3	Horizontal	0	1.00	-	44.24	24.62	2.08	37.20
PK	641.1M	32.51	46.00	-13.49	-9.44	3	Horizontal	0	1.00	-	41.95	25.66	2.18	37.28

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	2.3778G	60.49	74.00	-13.51	3	Horizontal	187	1.00	-
BT-EDR(3Mbps)	Pass	PK	2.3662G	60.78	74.00	-13.22	3	Horizontal	188	1.00	-

Result

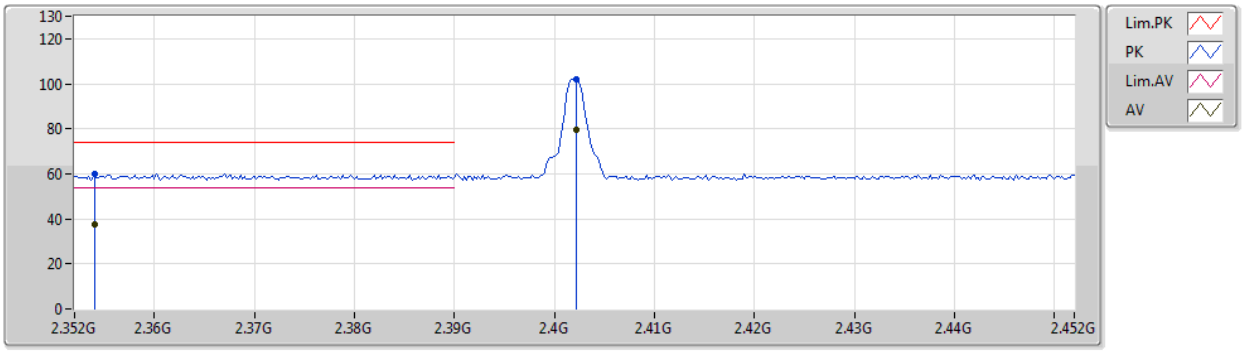
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.354G	37.47	54.00	-16.53	3	Vertical	197	1.01	-
2402MHz	Pass	AV	2.4022G	79.51	Inf	-Inf	3	Vertical	197	1.01	-
2402MHz	Pass	PK	2.354G	59.97	74.00	-14.03	3	Vertical	197	1.01	-
2402MHz	Pass	PK	2.4022G	102.01	Inf	-Inf	3	Vertical	197	1.01	-
2402MHz	Pass	AV	2.3824G	37.46	54.00	-16.54	3	Horizontal	192	1.47	-
2402MHz	Pass	AV	2.4022G	81.00	Inf	-Inf	3	Horizontal	192	1.47	-
2402MHz	Pass	PK	2.3824G	59.96	74.00	-14.04	3	Horizontal	192	1.47	-
2402MHz	Pass	PK	2.4022G	103.50	Inf	-Inf	3	Horizontal	192	1.47	-
2402MHz	Pass	AV	4.80408G	27.26	54.00	-26.74	3	Vertical	84	3.00	-
2402MHz	Pass	PK	4.80408G	49.76	74.00	-24.24	3	Vertical	84	3.00	-
2402MHz	Pass	AV	4.80365G	27.62	54.00	-26.38	3	Horizontal	212	3.00	-
2402MHz	Pass	PK	4.80365G	50.12	74.00	-23.88	3	Horizontal	212	3.00	-
2441MHz	Pass	AV	2.3838G	37.25	54.00	-16.75	3	Vertical	197	1.02	-
2441MHz	Pass	AV	2.441G	78.48	Inf	-Inf	3	Vertical	197	1.02	-
2441MHz	Pass	AV	2.4986G	37.09	54.00	-16.91	3	Vertical	197	1.02	-
2441MHz	Pass	PK	2.3838G	59.75	74.00	-14.25	3	Vertical	197	1.02	-
2441MHz	Pass	PK	2.441G	100.98	Inf	-Inf	3	Vertical	197	1.02	-
2441MHz	Pass	PK	2.4986G	59.59	74.00	-14.41	3	Vertical	197	1.02	-
2441MHz	Pass	AV	2.3778G	37.99	54.00	-16.01	3	Horizontal	187	1.00	-
2441MHz	Pass	AV	2.441G	77.23	Inf	-Inf	3	Horizontal	187	1.00	-
2441MHz	Pass	AV	2.495G	37.29	54.00	-16.71	3	Horizontal	187	1.00	-
2441MHz	Pass	PK	2.3778G	60.49	74.00	-13.51	3	Horizontal	187	1.00	-
2441MHz	Pass	PK	2.441G	99.73	Inf	-Inf	3	Horizontal	187	1.00	-
2441MHz	Pass	PK	2.495G	59.79	74.00	-14.21	3	Horizontal	187	1.00	-
2441MHz	Pass	AV	4.88226G	27.97	54.00	-26.03	3	Vertical	232	1.20	-
2441MHz	Pass	PK	4.88226G	50.47	74.00	-23.53	3	Vertical	232	1.20	-
2441MHz	Pass	AV	4.88204G	27.13	54.00	-26.87	3	Horizontal	200	2.08	-
2441MHz	Pass	PK	4.88204G	49.63	74.00	-24.37	3	Horizontal	200	2.08	-
2480MHz	Pass	AV	2.4798G	77.45	Inf	-Inf	3	Vertical	195	1.00	-
2480MHz	Pass	AV	2.4848G	37.68	54.00	-16.32	3	Vertical	195	1.00	-
2480MHz	Pass	PK	2.4798G	99.95	Inf	-Inf	3	Vertical	195	1.00	-
2480MHz	Pass	PK	2.4848G	60.18	74.00	-13.82	3	Vertical	195	1.00	-
2480MHz	Pass	AV	2.4798G	75.57	Inf	-Inf	3	Horizontal	186	1.50	-
2480MHz	Pass	AV	2.4966G	37.67	54.00	-16.33	3	Horizontal	186	1.50	-
2480MHz	Pass	PK	2.4798G	98.07	Inf	-Inf	3	Horizontal	186	1.50	-
2480MHz	Pass	PK	2.4966G	60.17	74.00	-13.83	3	Horizontal	186	1.50	-
2480MHz	Pass	AV	4.9601G	28.14	54.00	-25.86	3	Vertical	250	2.12	-
2480MHz	Pass	PK	4.9601G	50.64	74.00	-23.36	3	Vertical	250	2.12	-
2480MHz	Pass	AV	4.95955G	28.25	54.00	-25.75	3	Horizontal	207	2.12	-
2480MHz	Pass	PK	4.95955G	50.75	74.00	-23.25	3	Horizontal	207	2.12	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.368G	37.34	54.00	-16.66	3	Vertical	196	1.04	-
2402MHz	Pass	AV	2.4018G	74.87	Inf	-Inf	3	Vertical	196	1.04	-
2402MHz	Pass	PK	2.368G	59.84	74.00	-14.16	3	Vertical	196	1.04	-
2402MHz	Pass	PK	2.4018G	97.37	Inf	-Inf	3	Vertical	196	1.04	-
2402MHz	Pass	AV	2.3662G	38.28	54.00	-15.72	3	Horizontal	188	1.00	-
2402MHz	Pass	AV	2.402G	76.08	Inf	-Inf	3	Horizontal	188	1.00	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.3662G	60.78	74.00	-13.22	3	Horizontal	188	1.00	-
2402MHz	Pass	PK	2.402G	98.58	Inf	-Inf	3	Horizontal	188	1.00	-
2402MHz	Pass	AV	4.80346G	27.48	54.00	-26.52	3	Vertical	123	3.00	-
2402MHz	Pass	PK	4.80346G	49.98	74.00	-24.02	3	Vertical	123	3.00	-
2402MHz	Pass	AV	4.80473G	27.53	54.00	-26.47	3	Horizontal	210	2.60	-
2402MHz	Pass	PK	4.80473G	50.03	74.00	-23.97	3	Horizontal	210	2.60	-
2441MHz	Pass	AV	2.347G	37.67	54.00	-16.33	3	Vertical	196	1.02	-
2441MHz	Pass	AV	2.441G	74.87	Inf	-Inf	3	Vertical	196	1.02	-
2441MHz	Pass	AV	2.4838G	37.41	54.00	-16.59	3	Vertical	196	1.02	-
2441MHz	Pass	PK	2.347G	60.17	74.00	-13.83	3	Vertical	196	1.02	-
2441MHz	Pass	PK	2.441G	97.37	Inf	-Inf	3	Vertical	196	1.02	-
2441MHz	Pass	PK	2.4838G	59.91	74.00	-14.09	3	Vertical	196	1.02	-
2441MHz	Pass	AV	2.3454G	37.42	54.00	-16.58	3	Horizontal	188	1.40	-
2441MHz	Pass	AV	2.441G	75.33	Inf	-Inf	3	Horizontal	188	1.40	-
2441MHz	Pass	AV	2.4922G	37.31	54.00	-16.69	3	Horizontal	188	1.40	-
2441MHz	Pass	PK	2.3454G	59.92	74.00	-14.08	3	Horizontal	188	1.40	-
2441MHz	Pass	PK	2.441G	97.83	Inf	-Inf	3	Horizontal	188	1.40	-
2441MHz	Pass	PK	2.4922G	59.81	74.00	-14.19	3	Horizontal	188	1.40	-
2441MHz	Pass	AV	4.88181G	26.59	54.00	-27.41	3	Vertical	229	1.01	-
2441MHz	Pass	PK	4.88181G	49.09	74.00	-24.91	3	Vertical	229	1.01	-
2441MHz	Pass	AV	4.88204G	26.88	54.00	-27.12	3	Horizontal	257	2.56	-
2441MHz	Pass	PK	4.88204G	49.38	74.00	-24.62	3	Horizontal	257	2.56	-
2480MHz	Pass	AV	2.4798G	75.19	Inf	-Inf	3	Vertical	196	1.00	-
2480MHz	Pass	AV	2.4842G	37.57	54.00	-16.43	3	Vertical	196	1.00	-
2480MHz	Pass	PK	2.4798G	97.69	Inf	-Inf	3	Vertical	196	1.00	-
2480MHz	Pass	PK	2.4842G	60.07	74.00	-13.93	3	Vertical	196	1.00	-
2480MHz	Pass	AV	2.4798G	74.07	Inf	-Inf	3	Horizontal	189	1.10	-
2480MHz	Pass	AV	2.491G	38.11	54.00	-15.89	3	Horizontal	189	1.10	-
2480MHz	Pass	PK	2.4798G	96.57	Inf	-Inf	3	Horizontal	189	1.10	-
2480MHz	Pass	PK	2.491G	60.61	74.00	-13.39	3	Horizontal	189	1.10	-
2480MHz	Pass	AV	4.95931G	27.30	54.00	-26.70	3	Vertical	240	2.09	-
2480MHz	Pass	PK	4.95931G	49.80	74.00	-24.20	3	Vertical	240	2.09	-
2480MHz	Pass	AV	4.95977G	28.03	54.00	-25.97	3	Horizontal	210	2.44	-
2480MHz	Pass	PK	4.95977G	50.53	74.00	-23.47	3	Horizontal	210	2.44	-

BT-BR(1Mbps)

2402MHz_TX

13/09/2019

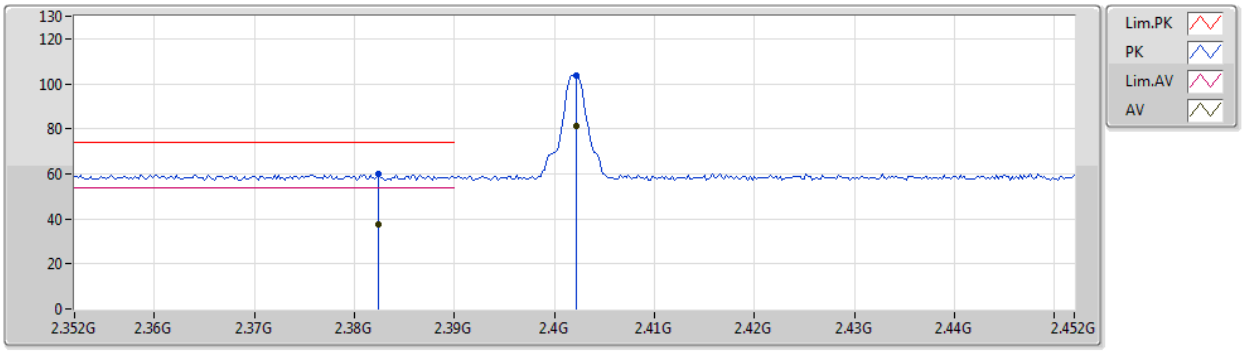


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.354G	37.47	54.00	-16.53	35.12	3	Vertical	197	1.01	-	2.35	27.78	7.34	-
AV	2.4022G	79.51	Inf	-Inf	34.93	3	Vertical	197	1.01	-	44.58	27.60	7.33	-
PK	2.354G	59.97	74.00	-14.03	35.12	3	Vertical	197	1.01	-	24.85	27.78	7.34	-
PK	2.4022G	102.01	Inf	-Inf	34.93	3	Vertical	197	1.01	-	67.08	27.60	7.33	-

BT-BR(1Mbps)

2402MHz_TX

13/09/2019

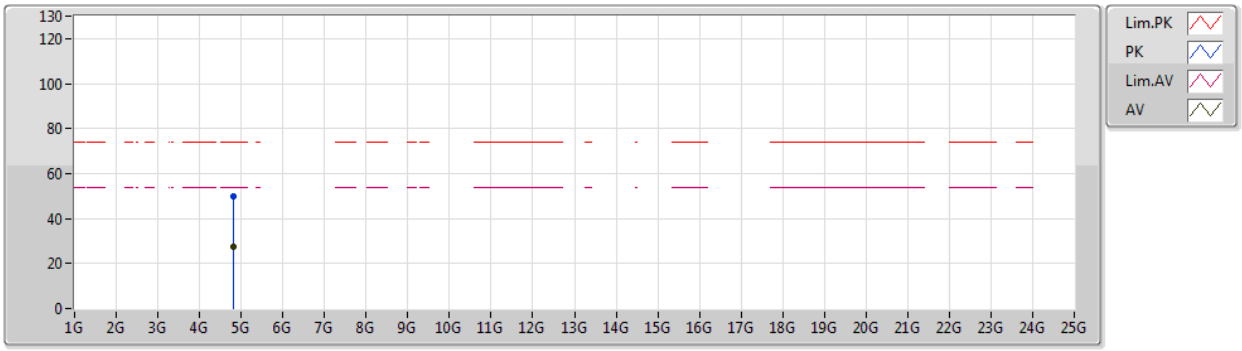


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3824G	37.46	54.00	-16.54	35.00	3	Horizontal	192	1.47	-	2.46	27.67	7.33	-
AV	2.4022G	81.00	Inf	-Inf	34.93	3	Horizontal	192	1.47	-	46.07	27.60	7.33	-
PK	2.3824G	59.96	74.00	-14.04	35.00	3	Horizontal	192	1.47	-	24.96	27.67	7.33	-
PK	2.4022G	103.50	Inf	-Inf	34.93	3	Horizontal	192	1.47	-	68.57	27.60	7.33	-

BT-BR(1Mbps)

2402MHz_TX

13/09/2019

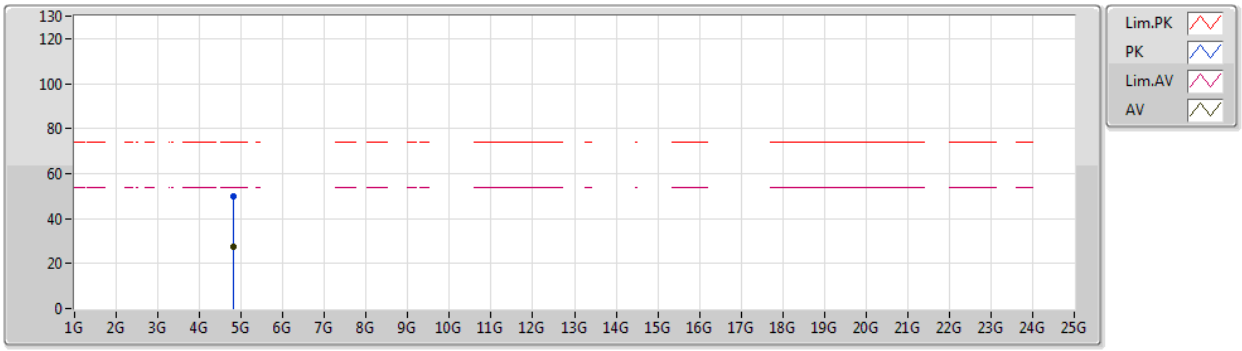


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80408G	27.26	54.00	-26.74	7.17	3	Vertical	84	3.00	-	20.09	31.10	10.12	34.05
PK	4.80408G	49.76	74.00	-24.24	7.17	3	Vertical	84	3.00	-	42.59	31.10	10.12	34.05

BT-BR(1Mbps)

2402MHz_TX

13/09/2019

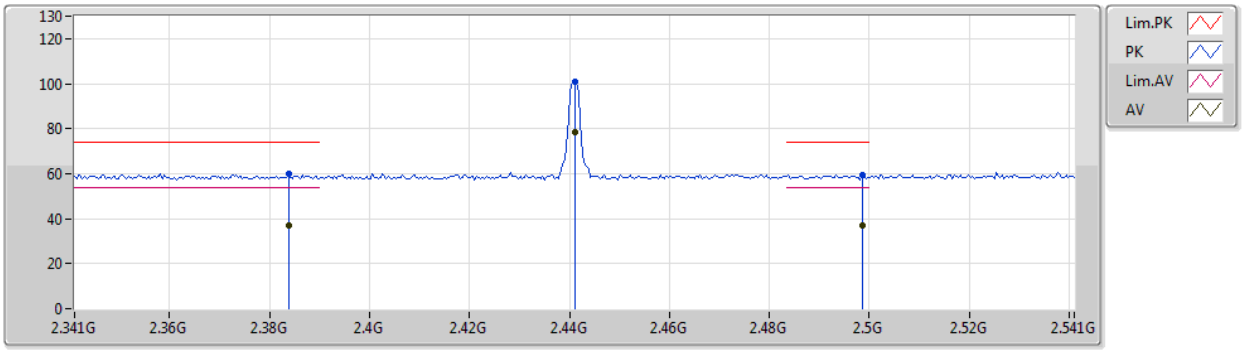


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80365G	27.62	54.00	-26.38	7.17	3	Horizontal	212	3.00	-	20.45	31.10	10.12	34.05
PK	4.80365G	50.12	74.00	-23.88	7.17	3	Horizontal	212	3.00	-	42.95	31.10	10.12	34.05

BT-BR(1Mbps)

2441MHz_TX

13/09/2019

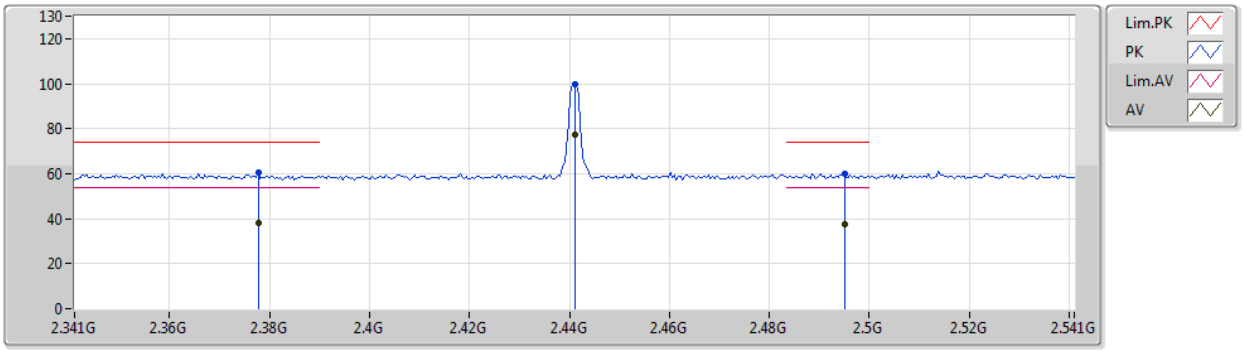


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3838G	37.25	54.00	-16.75	34.99	3	Vertical	197	1.02	-	2.26	27.66	7.33	-
AV	2.441G	78.48	Inf	-Inf	34.91	3	Vertical	197	1.02	-	43.57	27.56	7.35	-
AV	2.4986G	37.09	54.00	-16.91	34.87	3	Vertical	197	1.02	-	2.22	27.50	7.37	-
PK	2.3838G	59.75	74.00	-14.25	34.99	3	Vertical	197	1.02	-	24.76	27.66	7.33	-
PK	2.441G	100.98	Inf	-Inf	34.91	3	Vertical	197	1.02	-	66.07	27.56	7.35	-
PK	2.4986G	59.59	74.00	-14.41	34.87	3	Vertical	197	1.02	-	24.72	27.50	7.37	-

BT-BR(1Mbps)

2441MHz_TX

13/09/2019

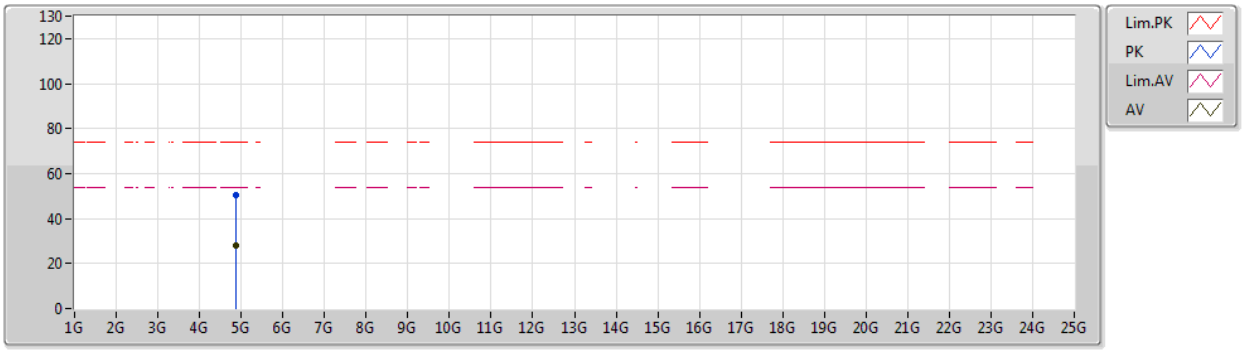


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3778G	37.99	54.00	-16.01	35.02	3	Horizontal	187	1.00	-	2.97	27.69	7.33	-
AV	2.441G	77.23	Inf	-Inf	34.91	3	Horizontal	187	1.00	-	42.32	27.56	7.35	-
AV	2.495G	37.29	54.00	-16.71	34.87	3	Horizontal	187	1.00	-	2.42	27.50	7.37	-
PK	2.3778G	60.49	74.00	-13.51	35.02	3	Horizontal	187	1.00	-	25.47	27.69	7.33	-
PK	2.441G	99.73	Inf	-Inf	34.91	3	Horizontal	187	1.00	-	64.82	27.56	7.35	-
PK	2.495G	59.79	74.00	-14.21	34.87	3	Horizontal	187	1.00	-	24.92	27.50	7.37	-

BT-BR(1Mbps)

2441MHz_TX

13/09/2019

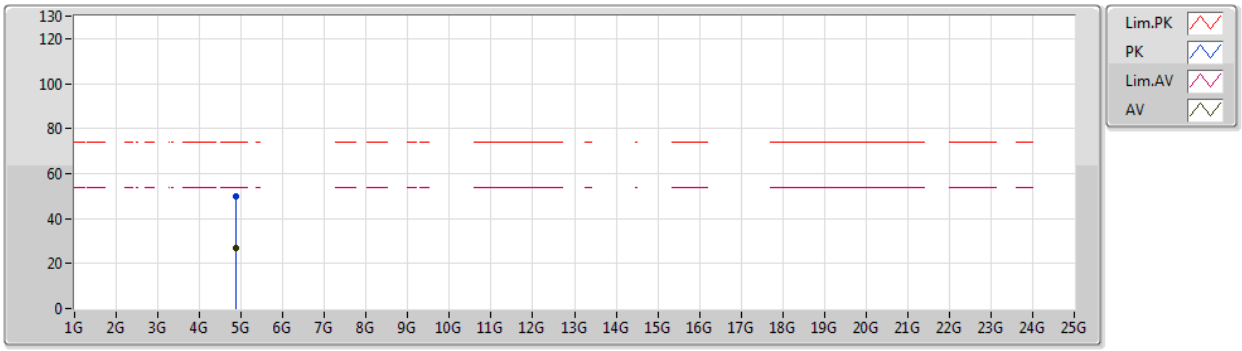


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88226G	27.97	54.00	-26.03	7.23	3	Vertical	232	1.20	-	20.74	31.10	10.18	34.05
PK	4.88226G	50.47	74.00	-23.53	7.23	3	Vertical	232	1.20	-	43.24	31.10	10.18	34.05

BT-BR(1Mbps)

2441MHz_TX

13/09/2019

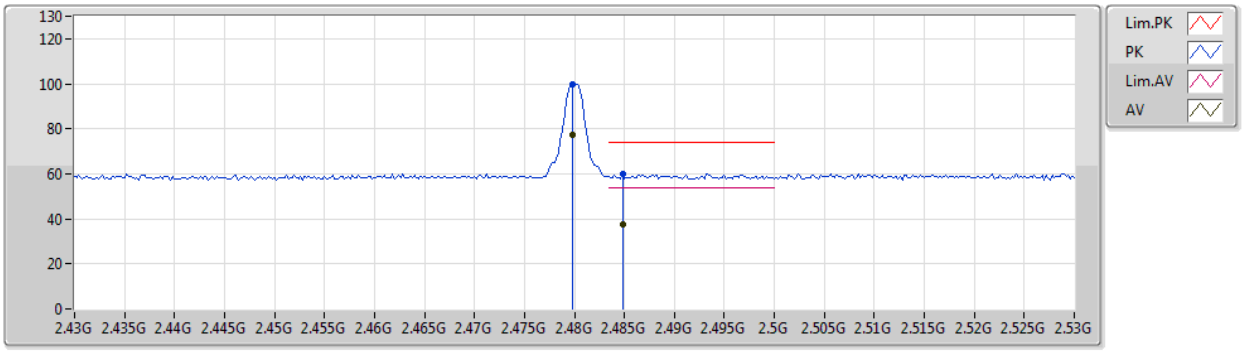


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88204G	27.13	54.00	-26.87	7.23	3	Horizontal	200	2.08	-	19.90	31.10	10.18	34.05
PK	4.88204G	49.63	74.00	-24.37	7.23	3	Horizontal	200	2.08	-	42.40	31.10	10.18	34.05

BT-BR(1Mbps)

2480MHz_TX

13/09/2019

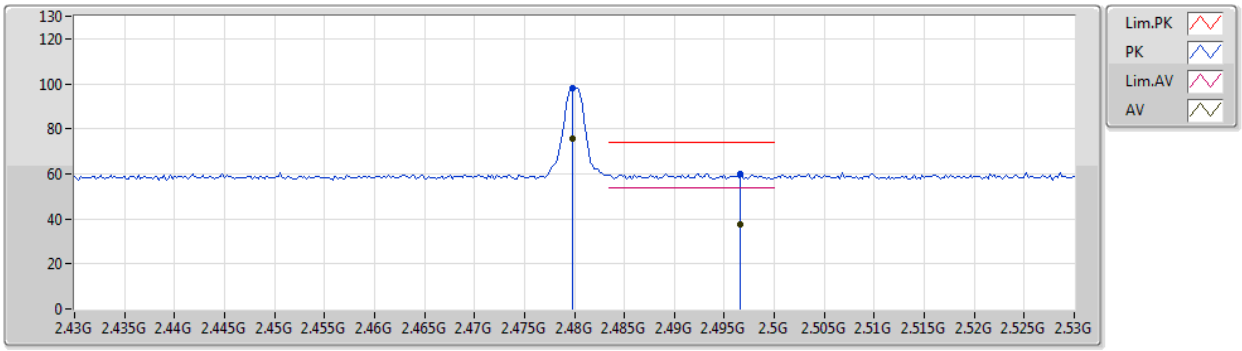


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	77.45	Inf	-Inf	34.88	3	Vertical	195	1.00	-	42.57	27.52	7.36	-
AV	2.4848G	37.68	54.00	-16.32	34.89	3	Vertical	195	1.00	-	2.79	27.52	7.37	-
PK	2.4798G	99.95	Inf	-Inf	34.88	3	Vertical	195	1.00	-	65.07	27.52	7.36	-
PK	2.4848G	60.18	74.00	-13.82	34.89	3	Vertical	195	1.00	-	25.29	27.52	7.37	-

BT-BR(1Mbps)

2480MHz_TX

13/09/2019

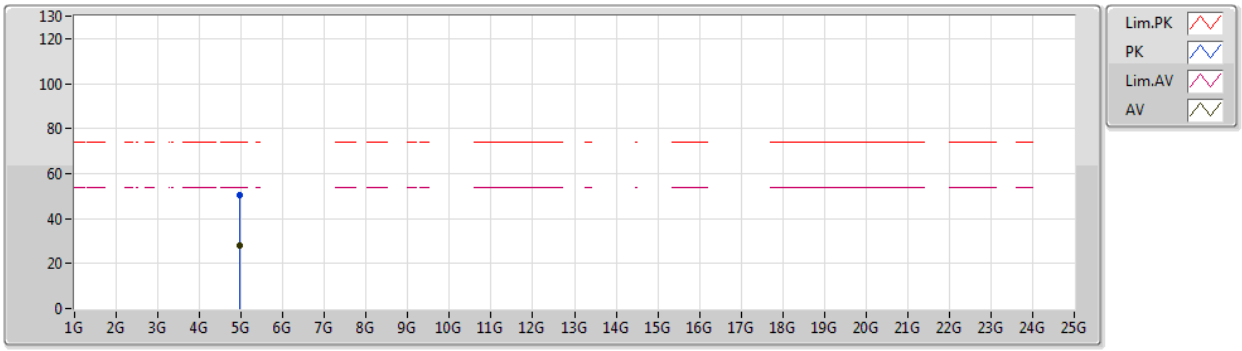


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	75.57	Inf	-Inf	34.88	3	Horizontal	186	1.50	-	40.69	27.52	7.36	-
AV	2.4966G	37.67	54.00	-16.33	34.87	3	Horizontal	186	1.50	-	2.80	27.50	7.37	-
PK	2.4798G	98.07	Inf	-Inf	34.88	3	Horizontal	186	1.50	-	63.19	27.52	7.36	-
PK	2.4966G	60.17	74.00	-13.83	34.87	3	Horizontal	186	1.50	-	25.30	27.50	7.37	-

BT-BR(1Mbps)

2480MHz_TX

13/09/2019

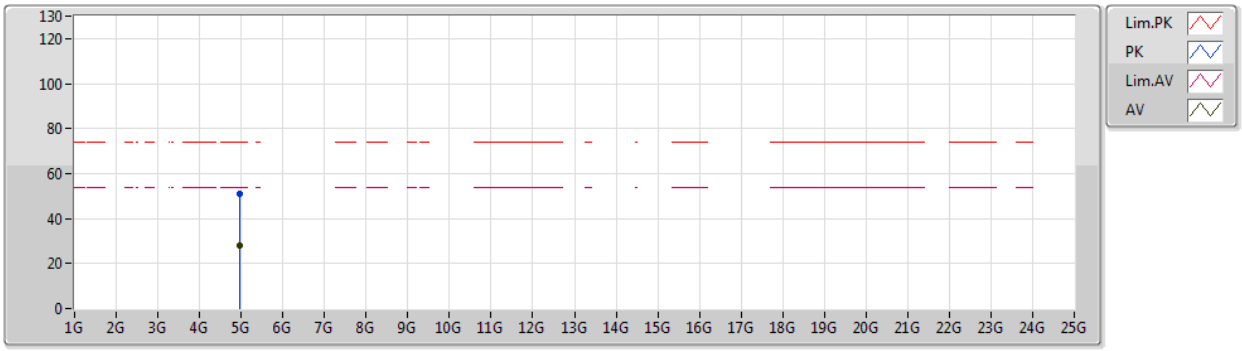


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.9601G	28.14	54.00	-25.86	7.55	3	Vertical	250	2.12	-	20.59	31.34	10.25	34.04
PK	4.9601G	50.64	74.00	-23.36	7.55	3	Vertical	250	2.12	-	43.09	31.34	10.25	34.04

BT-BR(1Mbps)

2480MHz_TX

13/09/2019

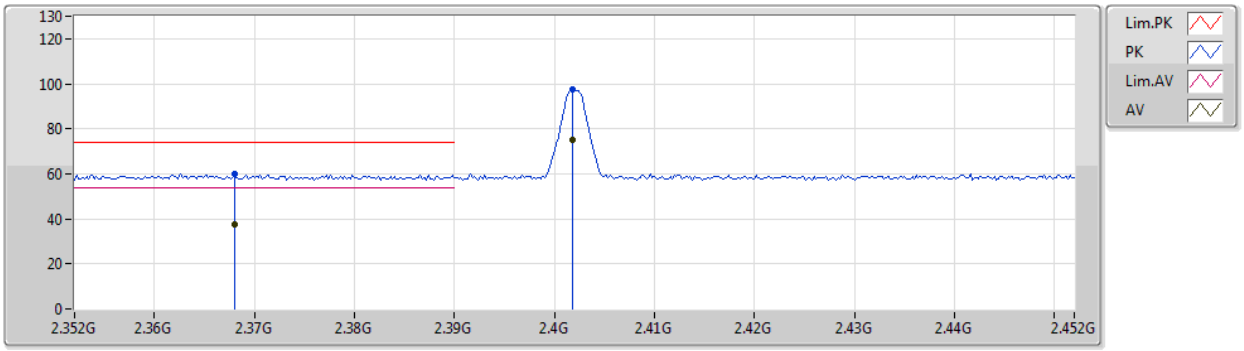


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95955G	28.25	54.00	-25.75	7.55	3	Horizontal	207	2.12	-	20.70	31.34	10.25	34.04
PK	4.95955G	50.75	74.00	-23.25	7.55	3	Horizontal	207	2.12	-	43.20	31.34	10.25	34.04

BT-EDR(3Mbps)

2402MHz_TX

13/09/2019

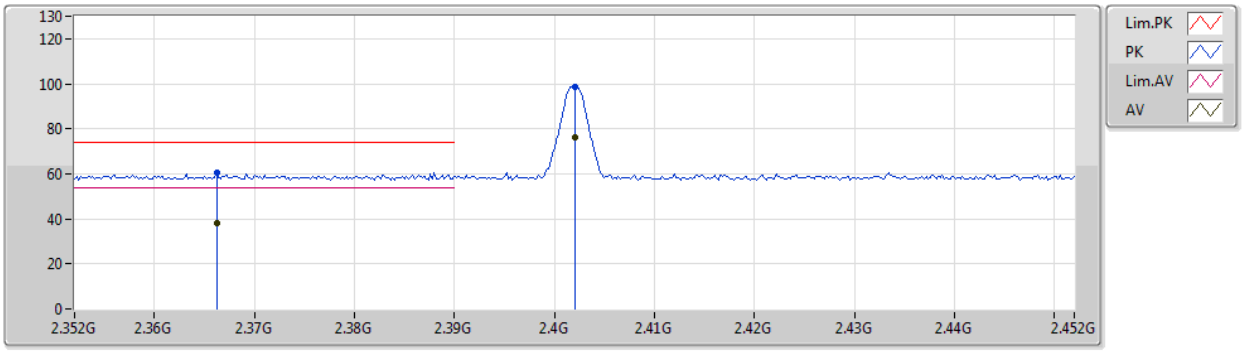


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.368G	37.34	54.00	-16.66	35.07	3	Vertical	196	1.04	-	2.27	27.73	7.34	-
AV	2.4018G	74.87	Inf	-Inf	34.93	3	Vertical	196	1.04	-	39.94	27.60	7.33	-
PK	2.368G	59.84	74.00	-14.16	35.07	3	Vertical	196	1.04	-	24.77	27.73	7.34	-
PK	2.4018G	97.37	Inf	-Inf	34.93	3	Vertical	196	1.04	-	62.44	27.60	7.33	-

BT-EDR(3Mbps)

2402MHz_TX

13/09/2019

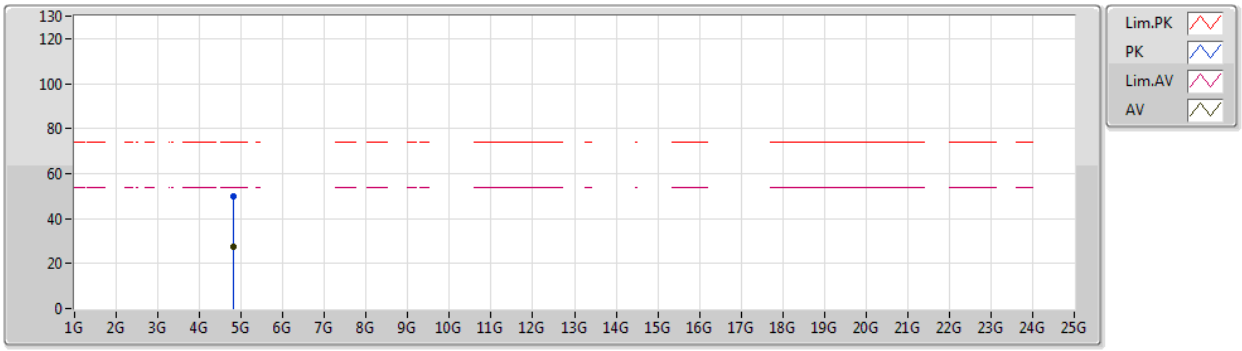


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3662G	38.28	54.00	-15.72	35.08	3	Horizontal	188	1.00	-	3.20	27.74	7.34	-
AV	2.402G	76.08	Inf	-Inf	34.93	3	Horizontal	188	1.00	-	41.15	27.60	7.33	-
PK	2.3662G	60.78	74.00	-13.22	35.08	3	Horizontal	188	1.00	-	25.70	27.74	7.34	-
PK	2.402G	98.58	Inf	-Inf	34.93	3	Horizontal	188	1.00	-	63.65	27.60	7.33	-

BT-EDR(3Mbps)

2402MHz_TX

13/09/2019

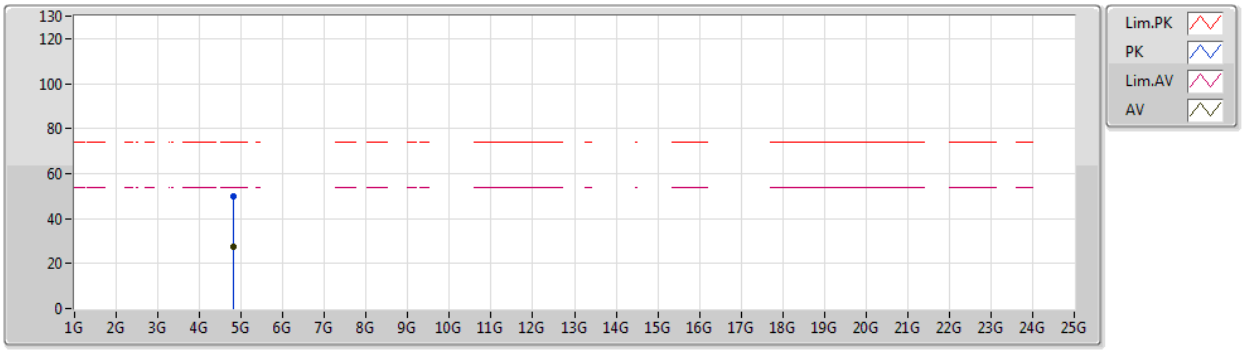


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80346G	27.48	54.00	-26.52	7.17	3	Vertical	123	3.00	-	20.31	31.10	10.12	34.05
PK	4.80346G	49.98	74.00	-24.02	7.17	3	Vertical	123	3.00	-	42.81	31.10	10.12	34.05

BT-EDR(3Mbps)

2402MHz_TX

13/09/2019

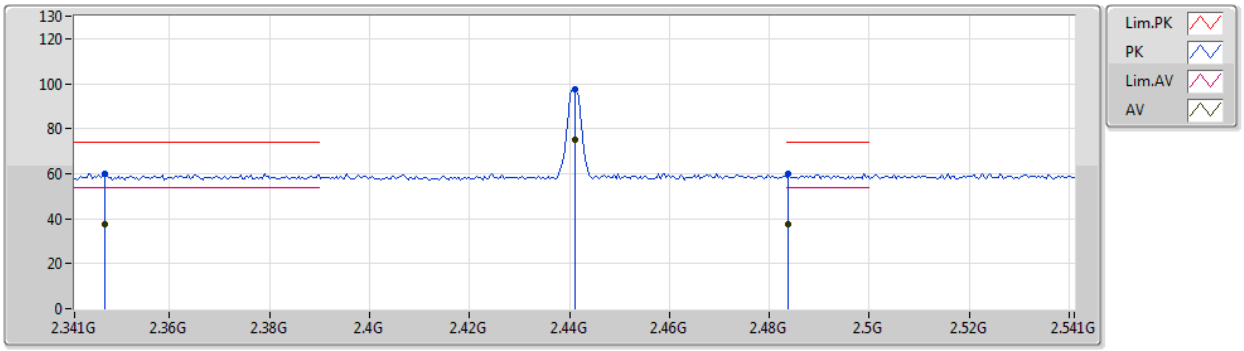


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80473G	27.53	54.00	-26.47	7.17	3	Horizontal	210	2.60	-	20.36	31.10	10.12	34.05
PK	4.80473G	50.03	74.00	-23.97	7.17	3	Horizontal	210	2.60	-	42.86	31.10	10.12	34.05

BT-EDR(3Mbps)

13/09/2019

2441MHz_TX

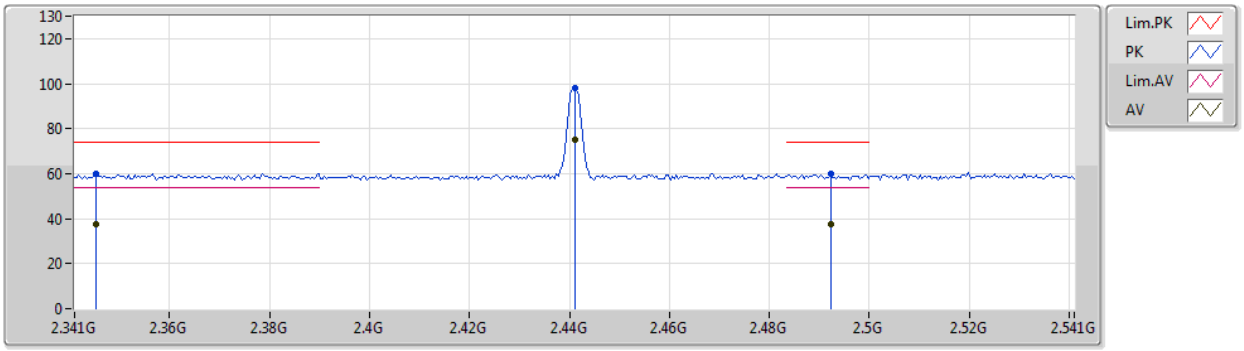


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.347G	37.67	54.00	-16.33	35.15	3	Vertical	196	1.02	-	2.52	27.81	7.34	-
AV	2.441G	74.87	Inf	-Inf	34.91	3	Vertical	196	1.02	-	39.96	27.56	7.35	-
AV	2.4838G	37.41	54.00	-16.59	34.89	3	Vertical	196	1.02	-	2.52	27.52	7.37	-
PK	2.347G	60.17	74.00	-13.83	35.15	3	Vertical	196	1.02	-	25.02	27.81	7.34	-
PK	2.441G	97.37	Inf	-Inf	34.91	3	Vertical	196	1.02	-	62.46	27.56	7.35	-
PK	2.4838G	59.91	74.00	-14.09	34.89	3	Vertical	196	1.02	-	25.02	27.52	7.37	-

BT-EDR(3Mbps)

13/09/2019

2441MHz_TX

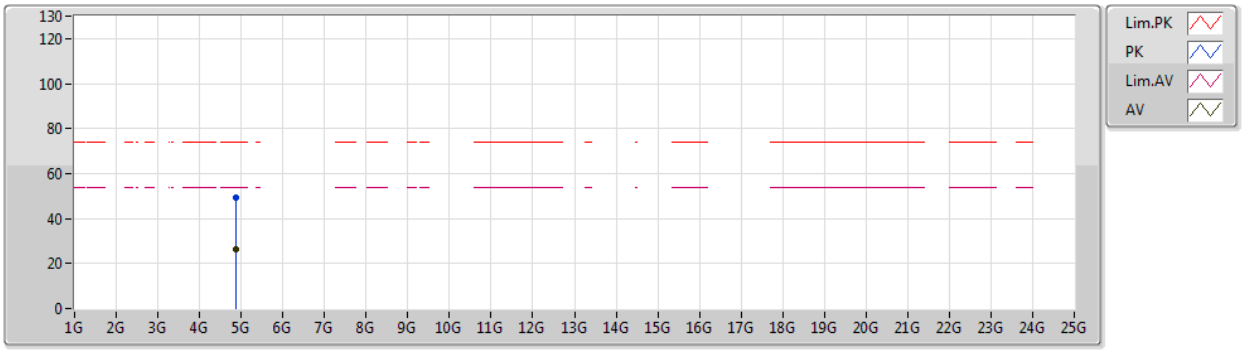


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3454G	37.42	54.00	-16.58	35.16	3	Horizontal	188	1.40	-	2.26	27.82	7.34	-
AV	2.441G	75.33	Inf	-Inf	34.91	3	Horizontal	188	1.40	-	40.42	27.56	7.35	-
AV	2.4922G	37.31	54.00	-16.69	34.88	3	Horizontal	188	1.40	-	2.43	27.51	7.37	-
PK	2.3454G	59.92	74.00	-14.08	35.16	3	Horizontal	188	1.40	-	24.76	27.82	7.34	-
PK	2.441G	97.83	Inf	-Inf	34.91	3	Horizontal	188	1.40	-	62.92	27.56	7.35	-
PK	2.4922G	59.81	74.00	-14.19	34.88	3	Horizontal	188	1.40	-	24.93	27.51	7.37	-

BT-EDR(3Mbps)

2441MHz_TX

13/09/2019

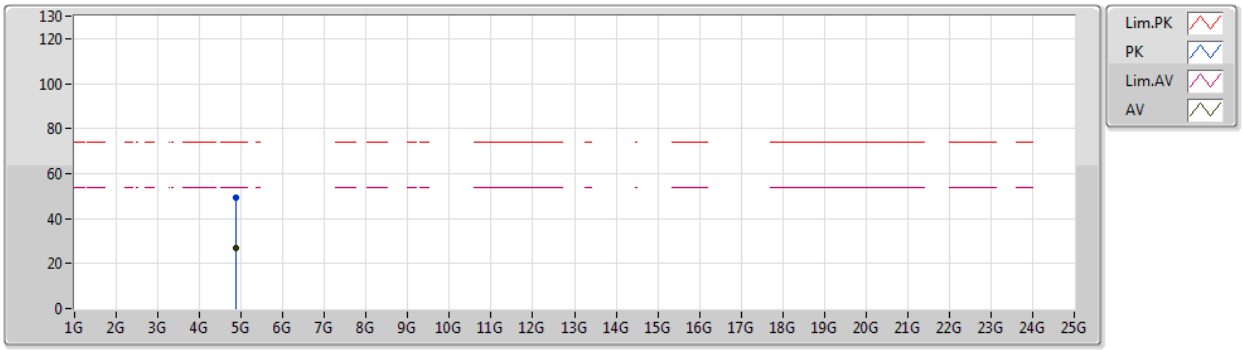


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88181G	26.59	54.00	-27.41	7.23	3	Vertical	229	1.01	-	19.36	31.10	10.18	34.05
PK	4.88181G	49.09	74.00	-24.91	7.23	3	Vertical	229	1.01	-	41.86	31.10	10.18	34.05

BT-EDR(3Mbps)

2441MHz_TX

13/09/2019

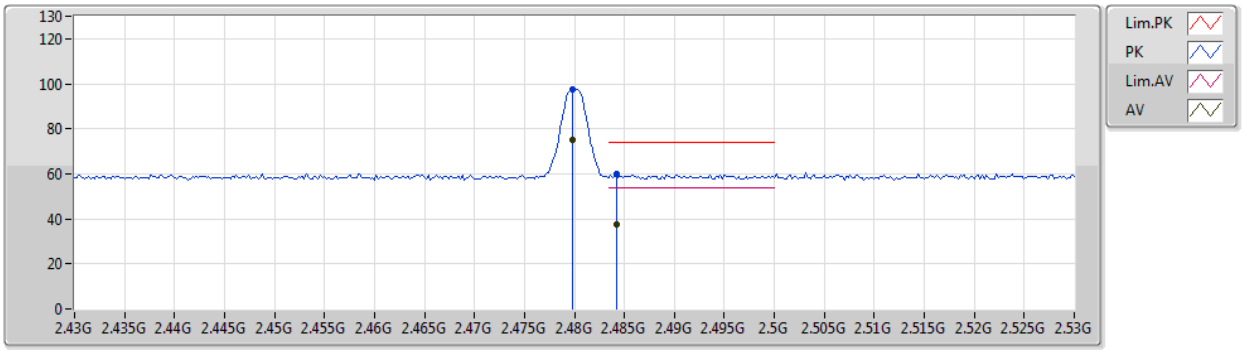


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88204G	26.88	54.00	-27.12	7.23	3	Horizontal	257	2.56	-	19.65	31.10	10.18	34.05
PK	4.88204G	49.38	74.00	-24.62	7.23	3	Horizontal	257	2.56	-	42.15	31.10	10.18	34.05

BT-EDR(3Mbps)

2480MHz_TX

13/09/2019

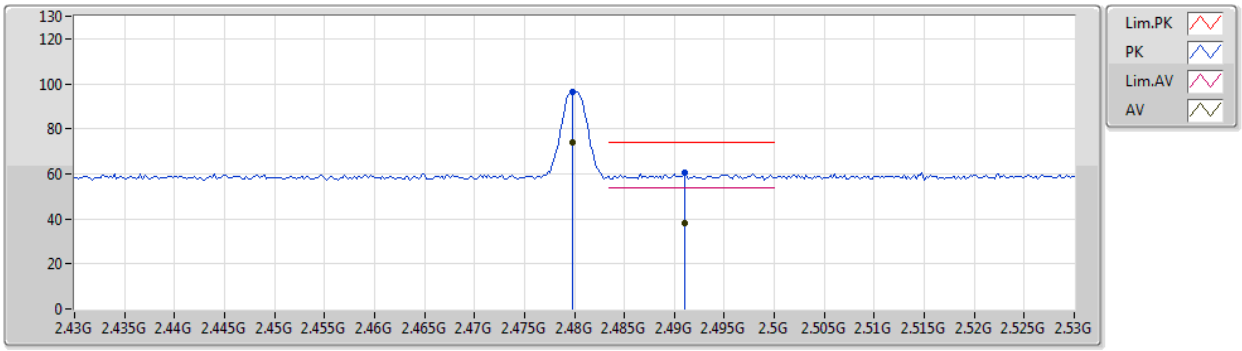


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	75.19	Inf	-Inf	34.88	3	Vertical	196	1.00	-	40.31	27.52	7.36	-
AV	2.4842G	37.57	54.00	-16.43	34.89	3	Vertical	196	1.00	-	2.68	27.52	7.37	-
PK	2.4798G	97.69	Inf	-Inf	34.88	3	Vertical	196	1.00	-	62.81	27.52	7.36	-
PK	2.4842G	60.07	74.00	-13.93	34.89	3	Vertical	196	1.00	-	25.18	27.52	7.37	-

BT-EDR(3Mbps)

2480MHz_TX

13/09/2019

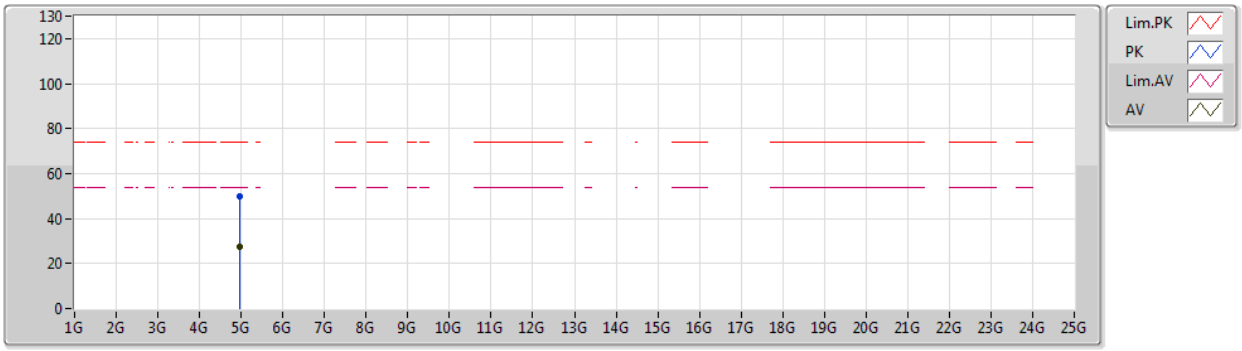


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	74.07	Inf	-Inf	34.88	3	Horizontal	189	1.10	-	39.19	27.52	7.36	-
AV	2.491G	38.11	54.00	-15.89	34.88	3	Horizontal	189	1.10	-	3.23	27.51	7.37	-
PK	2.4798G	96.57	Inf	-Inf	34.88	3	Horizontal	189	1.10	-	61.69	27.52	7.36	-
PK	2.491G	60.61	74.00	-13.39	34.88	3	Horizontal	189	1.10	-	25.73	27.51	7.37	-

BT-EDR(3Mbps)

2480MHz_TX

13/09/2019

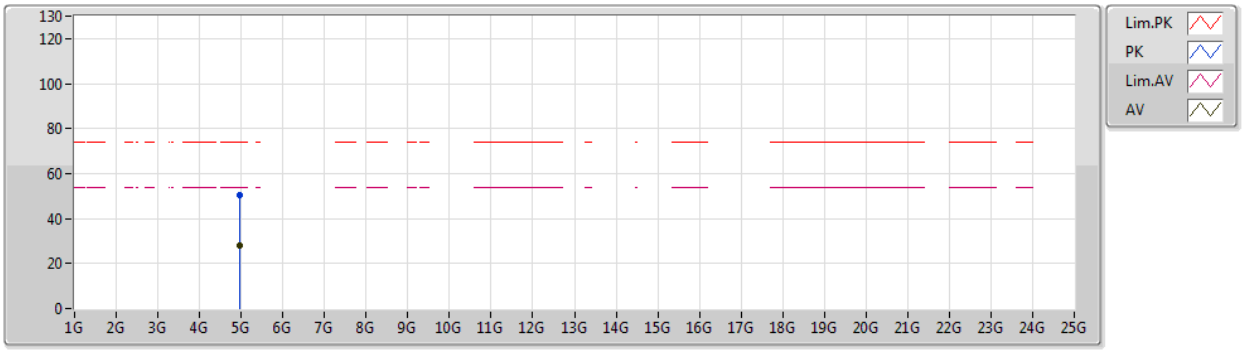


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95931G	27.30	54.00	-26.70	7.55	3	Vertical	240	2.09	-	19.75	31.34	10.25	34.04
PK	4.95931G	49.80	74.00	-24.20	7.55	3	Vertical	240	2.09	-	42.25	31.34	10.25	34.04

BT-EDR(3Mbps)

2480MHz_TX

13/09/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95977G	28.03	54.00	-25.97	7.55	3	Horizontal	210	2.44	-	20.48	31.34	10.25	34.04
PK	4.95977G	50.53	74.00	-23.47	7.55	3	Horizontal	210	2.44	-	42.98	31.34	10.25	34.04