

FCC Test Report

FCC ID : PPQ-WCBN3514A
Equipment : Wi-Fi (11a/b/g/n/ac 2Tx2R)+BT (V4.2LE) SDIO Combo Module
Brand Name : LITE-ON
Model Name : WCBN3514A
Applicant : LITE-ON Technology Corp.
Bldg. C, 90, Chien 1 Road, Chung Ho, New Taipei City
23585, Taiwan, R.O.C
Manufacturer : LITE-ON TECHNOLOGY (Changzhou) CO., LTD
A9 Building, No.88 Yanghu Road, Wujin Hi-Tech
Industrial Development Zone, Changzhou City, Jiangsu
Province 213100 China
Standard : 47 CFR FCC Part 15.247

The product was received on Jan. 04, 2019, and testing was started from Apr. 08, 2019 and completed on Apr. 27, 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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PHOTOGRAPHS OF EUT V01



History of this test report

Report No.	Version	Description	Issued Date
FR910405AD	01	Initial issue of report	May 30, 2019



Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	FCC 15.203
3.1	15.207	AC Power-line Conducted Emissions	PASS	FCC 15.207
3.2	15.247(a)	20dB Bandwidth	PASS	15.247(a)
3.2	15.247(a)	Carrier Frequency Separation	PASS	15.247(a)
3.3	15.247(b)	Maximum Conducted Output Power	PASS	15.247(b)
3.4	15.247(a)	Number of Hopping Frequencies and Hopping Bandedge	PASS	15.247(a)
3.5	15.247(a)	Time of Occupancy (Dwell Time)	PASS	15.247(a)
3.6	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	15.247(d)
3.7	15.247(d)	Emissions in Restricted Frequency Bands	PASS	Restricted Bands: FCC 15.209

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: Debby Hung



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]

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.

1.1.2 Antenna Information

Group.	Ant.	Project	Brand	P/N	Antenna Type	Connector
1	1	-	Walsin	RFMTA401020IMLB701	PIFA	Mini i-Pex
	2					
	3					
2	4	(Sparrow 10 inch)	Shenzhen South Star Technology Co., LTD	N12-4140-R0A	PIFA	N/A
	5			N12-4141-R0A		
	6			N14-0594-R0A		
3	7	(Sparrow 8 inch)	Shenzhen South Star Technology Co., LTD	N12-4142-R0A	PIFA	N/A
	8			N12-4143-R0A		
	9			N14-0595-R0A		
4	10	-	INPAQ	EAA65404602	PIFA	N/A
	11			EAA65404601		
	12			EAA65404701		
5	13	-	Airgain	N2420SDAR-T6-G120U4LI (Rev B)	PIFA	Mini i-Pex
	14			N2420DCB3-T10-G200U4LI (Rev B)		
	15			N2410MST-T-G85U4LI (Rev G)		



Group.	Ant.	Port	Gain (dBi)		
			2.4G	5G	BT
1	1	1	3.52	4.18	-
	2	2	3.52	4.18	-
	3	1	-	-	3.52
2	4	1	2.97	4.04	-
	5	2	3.41	4.05	-
	6	1	-	-	3.31
3	7	1	3.35	3.97	-
	8	2	3.35	3.86	-
	9	1	-	-	2.86
4	10	1	2.99	3.46	-
	11	2	3.06	3.23	-
	12	1	-	-	2.74
5	13	1	4.00	4.80	-
	14	2	4.00	4.30	-
	15	1	-	-	2.70

Note : EUT can match with above antennas for using. Higher gain in each type of antenna was used to perform the worst configuration and result of that was recorded as the final test result.

For 2.4GHz function:

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

Ant 1, 2, 4, 5, 7, 8, 10, 11, 13, 14 could transmit/receive.

For BT function:

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

Ant 3, 6, 9, 12, 15 could transmit/receive.

For 5GHz function:

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

Ant 1, 2, 4, 5, 7, 8, 10, 11, 13, 14 could transmit/receive.



1.1.3 EUT Information

Operational Condition	
EUT Power Type	From AC Adapter
EUT Function	<input checked="" type="checkbox"/> Point-to-multipoint <input type="checkbox"/> Point-to-point
Type of EUT	
<input checked="" type="checkbox"/>	Stand-alone
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)
	Combined Equipment - Brand Name / Model No.: ...
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)
	Host System - Brand Name / Model No.: ...
<input type="checkbox"/>	Other:

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-BR(1Mbps)	0.785	1.051	2.893m	1k
BT-EDR(2Mbps)	0.786	1.046	2.896m	1k
BT-EDR(3Mbps)	0.744	1.284	2.898m	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

1.3 Testing Location Information

Testing Location			
<input checked="" type="checkbox"/>	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.			
<input type="checkbox"/>	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	Lego	23.1~25.1°C / 54.1~56.3%	09/Apr/2019
RF Conducted	TH01-HY	Clara	23.2~24.5°C / 62.9~65.6%	23/Apr/2019
Radiated	03CH02-HY	Patrick	21.2~23.4°C / 53.9~57.8%	08/Apr/2019~27/Apr/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	110V

2.2 Test Channel Mode


Test Software Version	QCARCT 3.0.197.0
-----------------------	------------------

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	9
2441MHz	9
2480MHz	9
BT-EDR(2Mbps)	-
2402MHz	9
2441MHz	9
2480MHz	9
BT-EDR(3Mbps)	-
2402MHz	9
2441MHz	9
2480MHz	9
BT-BR(1Mbps)	-
2402MHz	9
2441MHz	9
2480MHz	9

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	Adapter 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	Adapter mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	Z Plane
	
Worst Planes of EUT	V

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Fixture	LITE-ON	WCBN3510A_EVB	-
2	AC adapter	AOBAOLIKE	ABLK-01	-

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

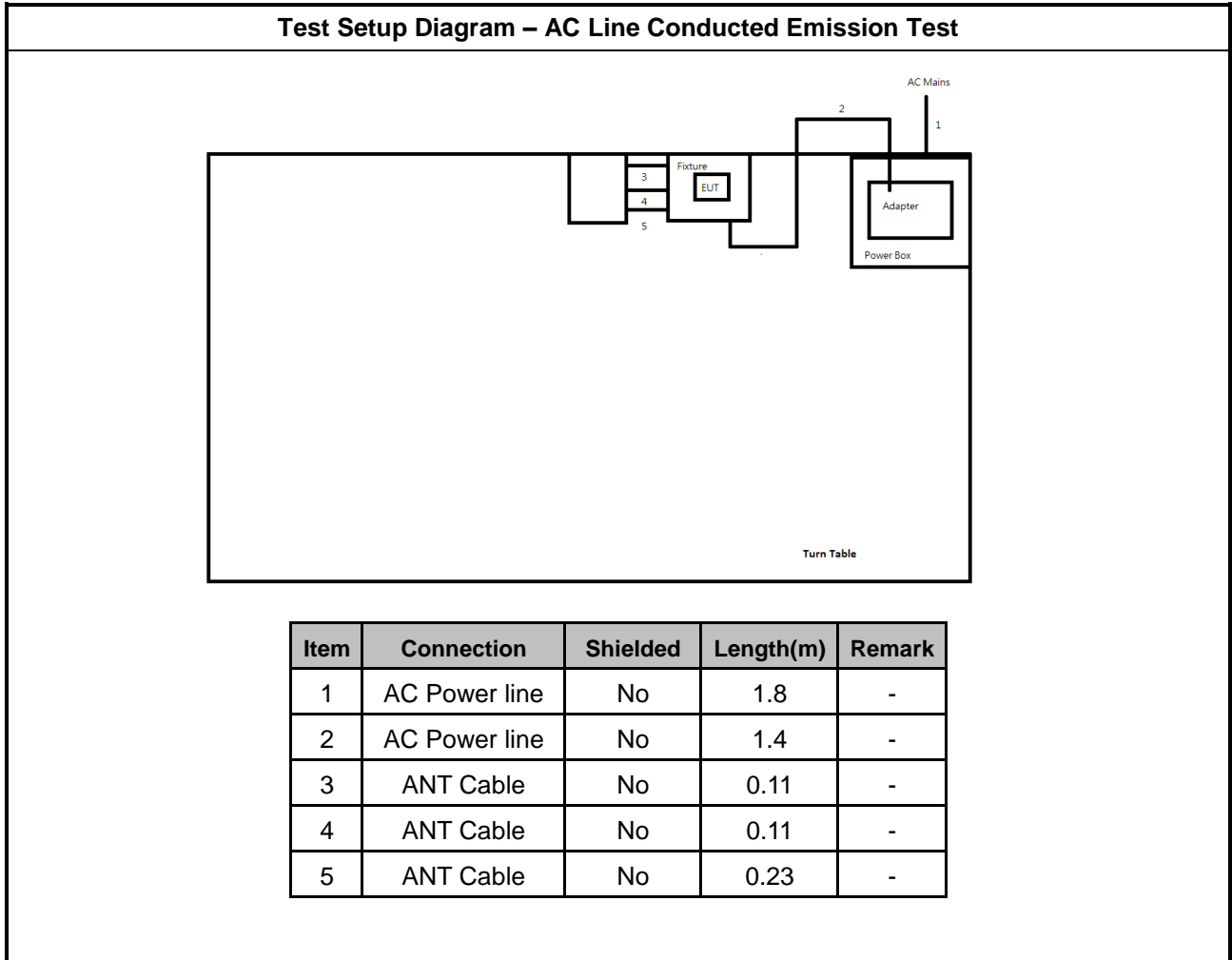
Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	R33002 / DOC
2	Adapter for NB	DELL	HA65NM130	R35737 / DOC
3	Fixture	LITE-ON	WCBN3510A_EVB	-
4	AC adapter	AOBAOLIKE	ABLK-01	-

Note.Support equipment No.3 was provided by customer.

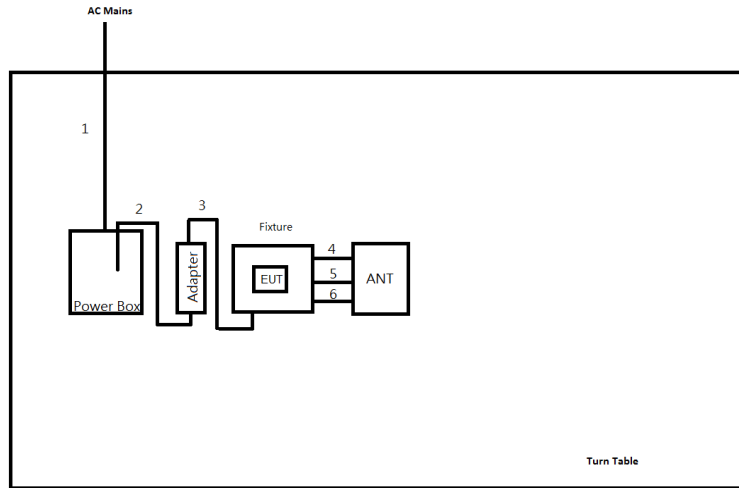
Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Fixture	LITE-ON	WCBN3510A_EVB	-
2	AC adapter	AOBAOLIKE	ABLK-01	-

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

2.5 Test Setup Diagram



Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8	-
2	AC Power line	No	0.4	-
3	DC Power line	No	0.42	-
4	ANT Cable	No	0.11	-
5	ANT Cable	No	0.11	-
6	ANT Cable	No	0.23	-

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.

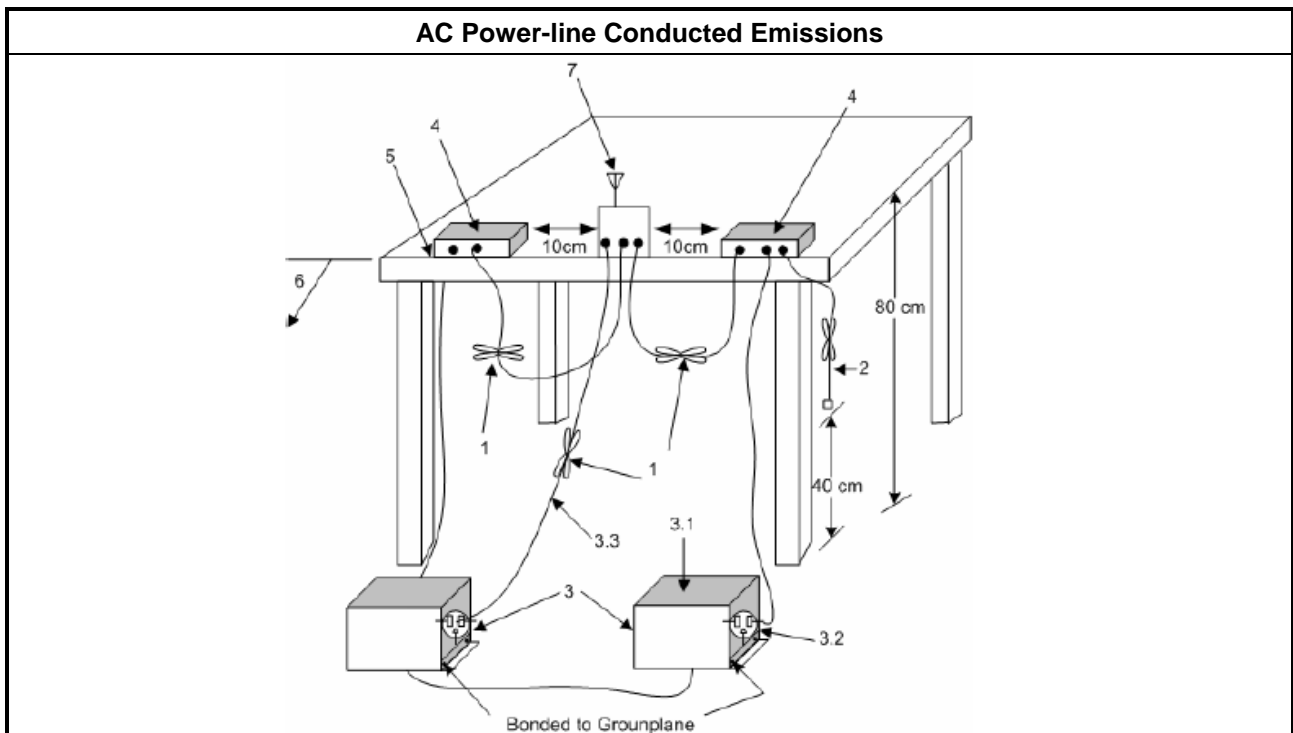
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

3.1.4 Test Setup



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	
<ul style="list-style-type: none"> 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	<ul style="list-style-type: none"> $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3,25 kHz).
N: Number of Hopping Frequencies; ChS: Hopping Channel Separation	

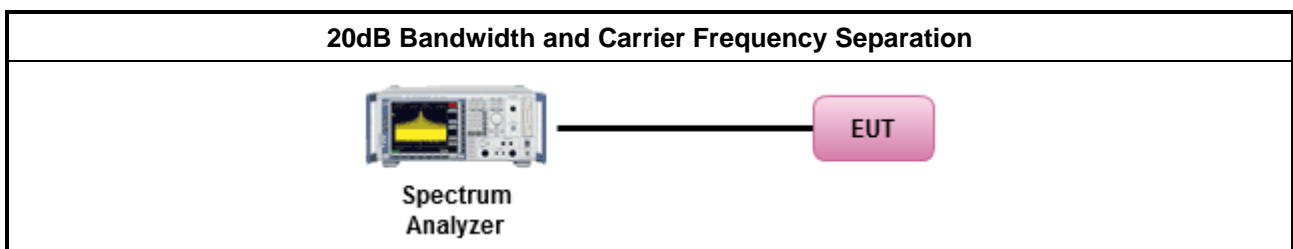
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.
<ul style="list-style-type: none"> 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

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
<ul style="list-style-type: none"> ▪ 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> ▪ $N \geq 75$; Power 30dBm; EIRP 36dBm
	<ul style="list-style-type: none"> ▪ $75 > N \geq 15$; Power 21dBm; EIRP 27dBm
N: Number of Hopping Frequencies	

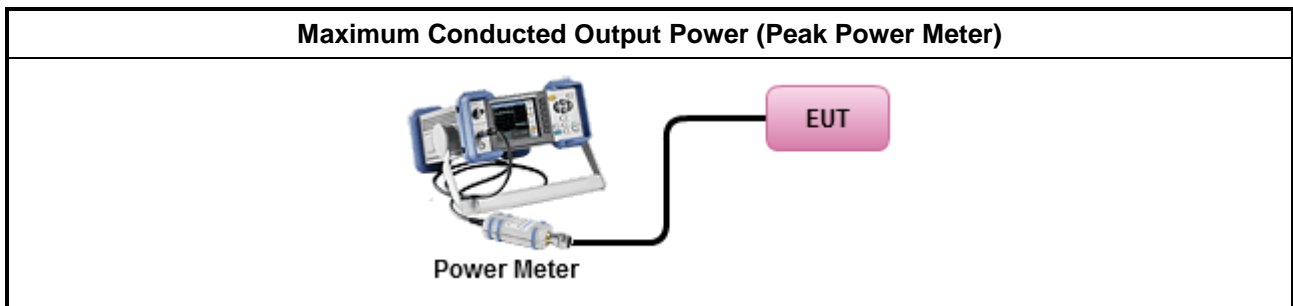
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ 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

3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

Number of Hopping Frequencies Limit	
<ul style="list-style-type: none"> 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	<ul style="list-style-type: none"> $75 > N \geq 15$ and $ChS \geq MAX$ (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

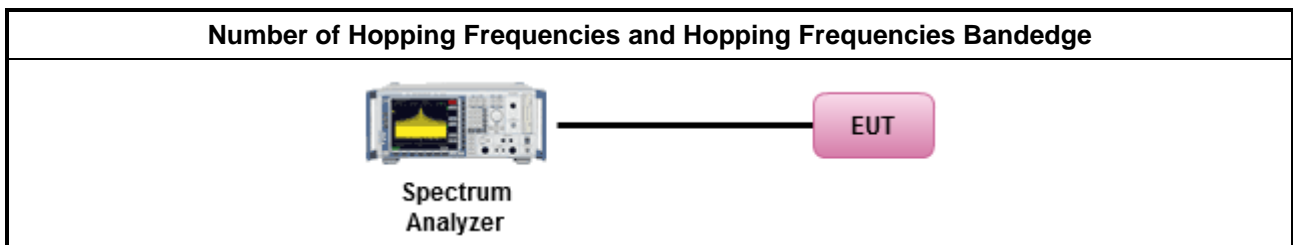
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.
<ul style="list-style-type: none"> 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

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	
<ul style="list-style-type: none"> 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> $N \geq 75$; 0.4s in $N \times 0.4$ period
	<ul style="list-style-type: none"> $75 > N \geq 15$; 0.4s in $N \times 0.4$ period
N: Number of Hopping Frequencies	

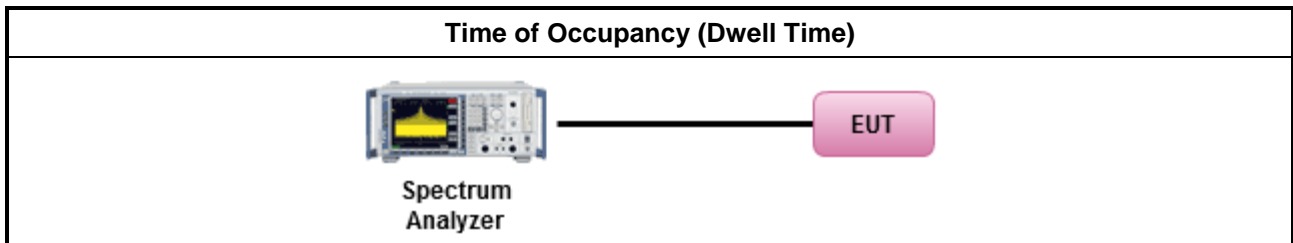
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement. 	
<ul style="list-style-type: none"> 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. 	
	<ul style="list-style-type: none"> 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

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.	

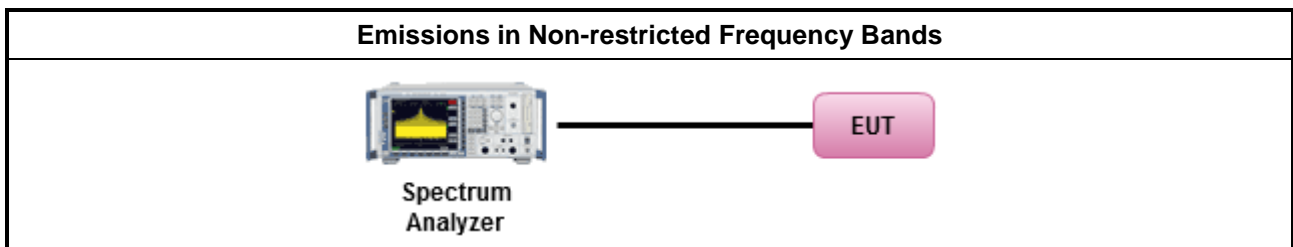
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
<ul style="list-style-type: none"> 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

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 below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

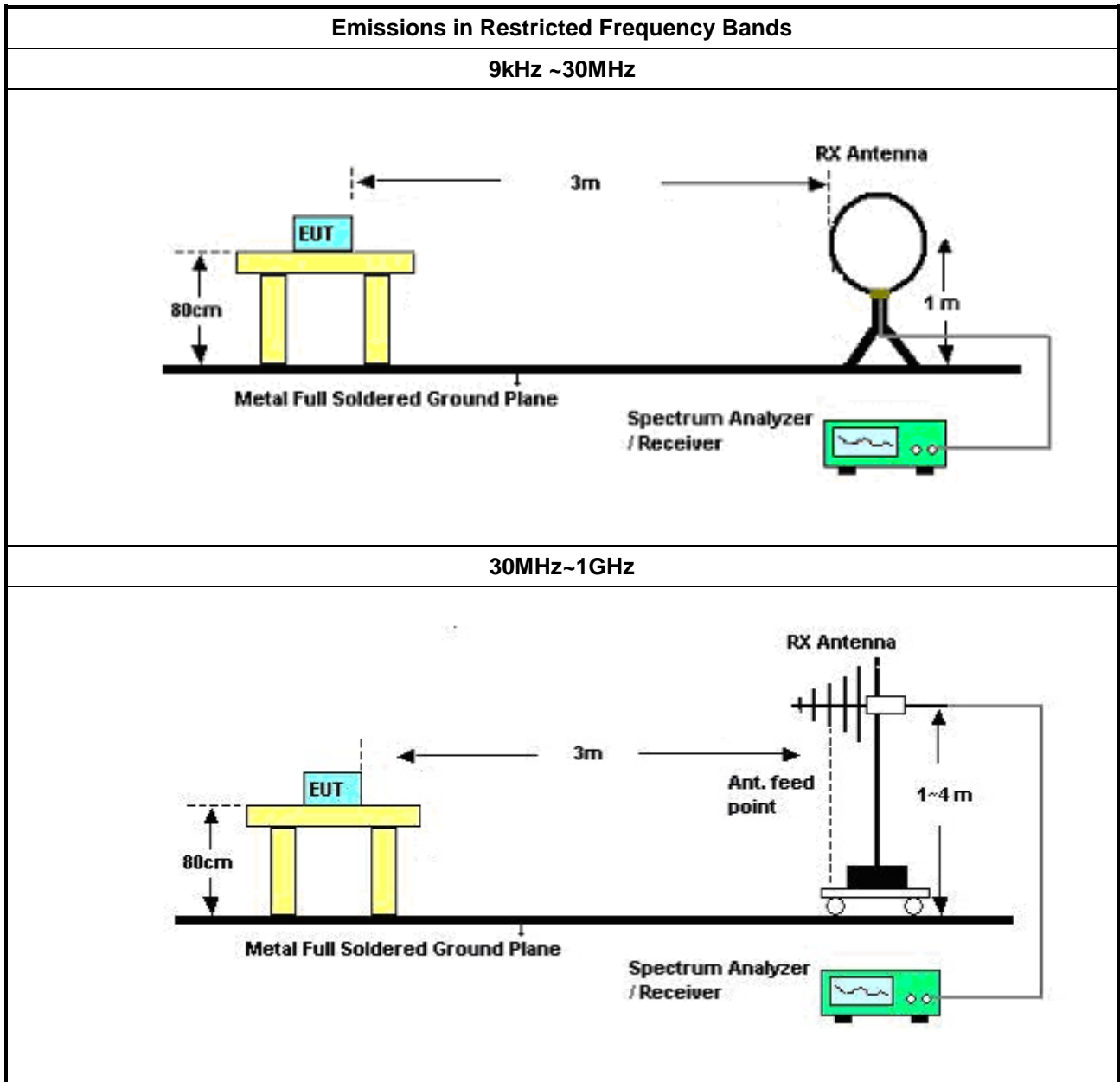
3.7.2 Measuring Instruments

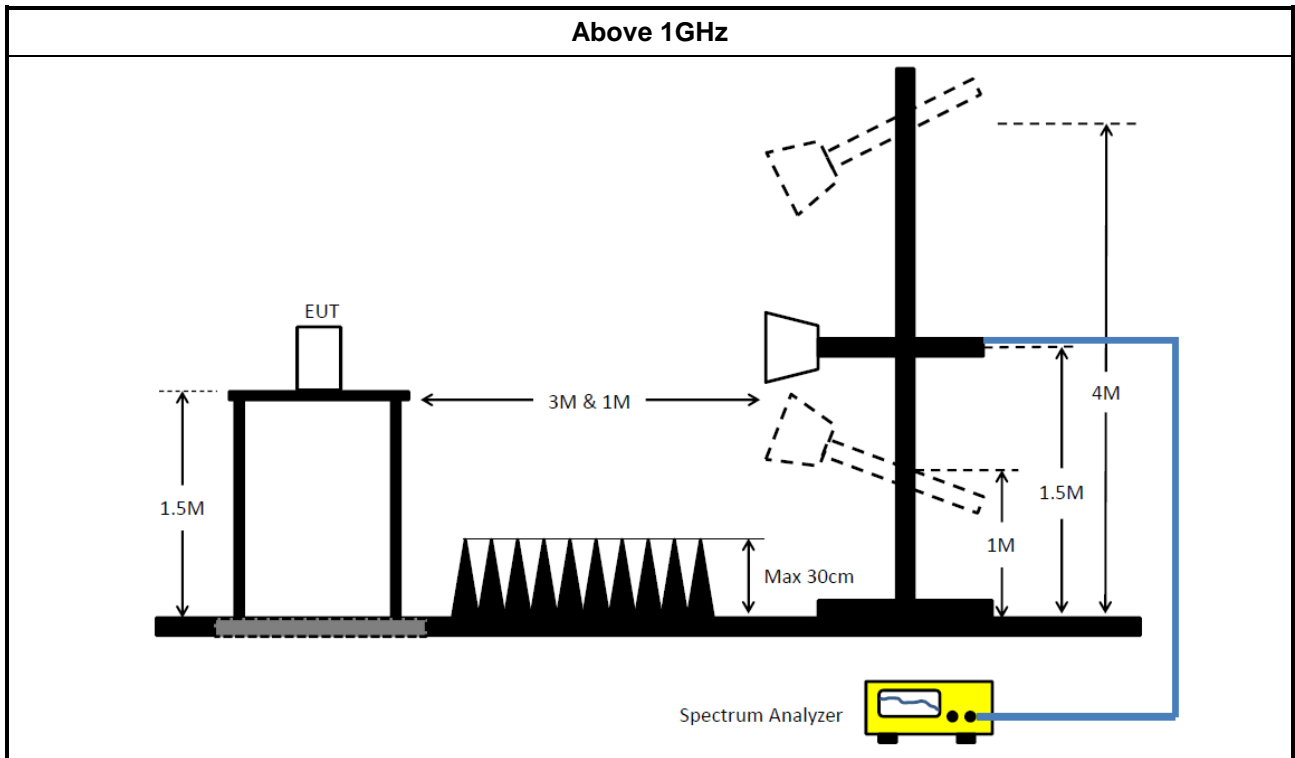
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [hopping duty factor].
	<ul style="list-style-type: none"> ▪ 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.
	<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: <ul style="list-style-type: none"> ▪ 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.

3.7.4 Test Setup





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	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
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	SCHWARZBE CK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	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
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	19/Feb/2019	18/Feb/2020
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	19/Feb/2019	18/Feb/2020
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~18G	11/Jan/2019	10/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz~18G	11/Jan/2019	10/Jan/2020
Cable 0.5m	HUBER	MY10714/4	RF Cable - 05	30MHz~18G	11/Jan/2019	10/Jan/2020



Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	19/Oct/2018	18/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	17/Oct/2018	16/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	27Jul/2018	02/Jul/2019
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	23/Oct/2018	22/Oct/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	18/Jan/2019	17/Jan/2020
RF Cable-high	SUHNER	SUCOFLEX10 4	MY34918/4	1GHz ~ 40GHz	18/Jan/2019	17/Jan/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 1GHz	08/Sep/2018	07/Sep/2019
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	03/May/2018	02/May/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	15/Mar/2019	14/Mar/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar/2019	21/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz ~ 18GHz	11/May/2018	10/May/2019

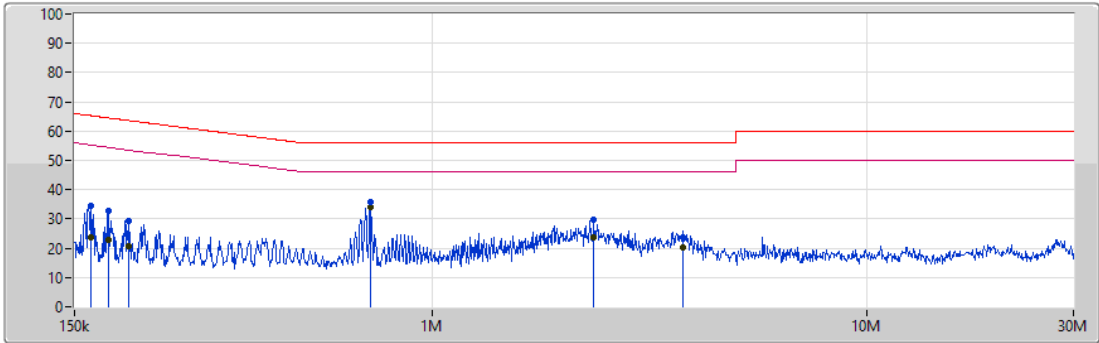


AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter Mode		

AC Conduction_Mode 1

09/04/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	163.769k	34.40	65.27	-30.87	19.48	Neutral	-	14.92	9.60	0.01	9.87
AV	163.769k	23.50	55.27	-31.77	19.48	Neutral	-	4.02	9.60	0.01	9.87
QP	180.236k	32.67	64.47	-31.80	19.47	Neutral	-	13.20	9.59	0.01	9.87
AV	180.236k	22.66	54.47	-31.81	19.47	Neutral	-	3.19	9.59	0.01	9.87
QP	199.949k	29.52	63.61	-34.09	19.47	Neutral	-	10.05	9.59	0.01	9.87
AV	199.949k	20.85	53.61	-32.76	19.47	Neutral	-	1.38	9.59	0.01	9.87
QP	720.179k	35.69	56.00	-20.31	19.49	Neutral	-	16.20	9.59	0.02	9.88
AV	720.179k	34.08	46.00	-11.92	19.49	Neutral	"Worst"	14.59	9.59	0.02	9.88
QP	2.357M	29.79	56.00	-26.21	19.54	Neutral	-	10.25	9.61	0.04	9.89
AV	2.357M	23.77	46.00	-22.23	19.54	Neutral	-	4.23	9.61	0.04	9.89
QP	3.79M	23.86	56.00	-32.14	19.54	Neutral	-	4.32	9.61	0.04	9.89
AV	3.79M	20.42	46.00	-25.58	19.54	Neutral	-	0.88	9.61	0.04	9.89

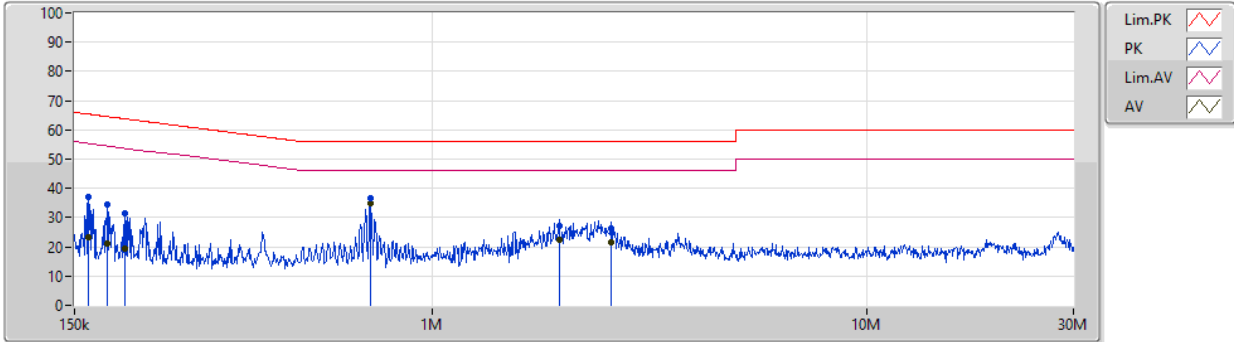


AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter Mode		

AC Conduction_Mode 1

09/04/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	161.82k	37.26	65.37	-28.11	19.48	Line	-	17.78	9.60	0.01	9.87
AV	161.82k	23.22	55.37	-32.15	19.48	Line	-	3.74	9.60	0.01	9.87
QP	178.803k	34.39	64.55	-30.16	19.48	Line	-	14.91	9.60	0.01	9.87
AV	178.803k	21.24	54.55	-33.31	19.48	Line	-	1.76	9.60	0.01	9.87
QP	195.997k	31.38	63.78	-32.40	19.48	Line	-	11.90	9.60	0.01	9.87
AV	195.997k	19.58	53.78	-34.20	19.48	Line	-	0.10	9.60	0.01	9.87
QP	720.179k	36.77	56.00	-19.23	19.50	Line	-	17.27	9.60	0.02	9.88
AV	720.179k	35.00	46.00	-11.00	19.50	Line	"Worst"	15.50	9.60	0.02	9.88
QP	1.962M	27.25	56.00	-28.75	19.54	Line	-	7.71	9.62	0.03	9.89
AV	1.962M	22.60	46.00	-23.40	19.54	Line	-	3.06	9.62	0.03	9.89
QP	2.584M	26.27	56.00	-29.73	19.55	Line	-	6.72	9.62	0.04	9.89
AV	2.584M	21.45	46.00	-24.55	19.55	Line	-	1.90	9.62	0.04	9.89



Summary

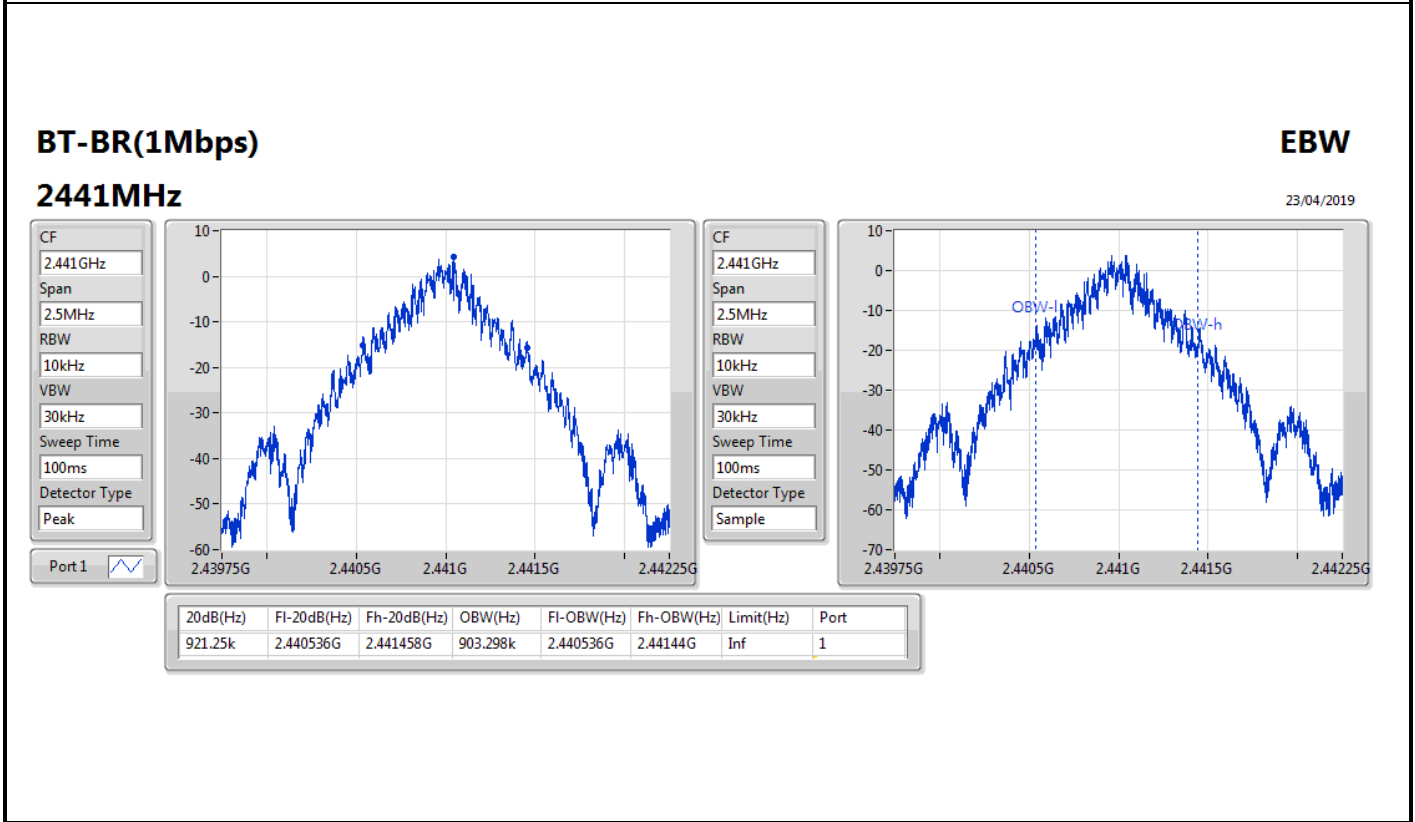
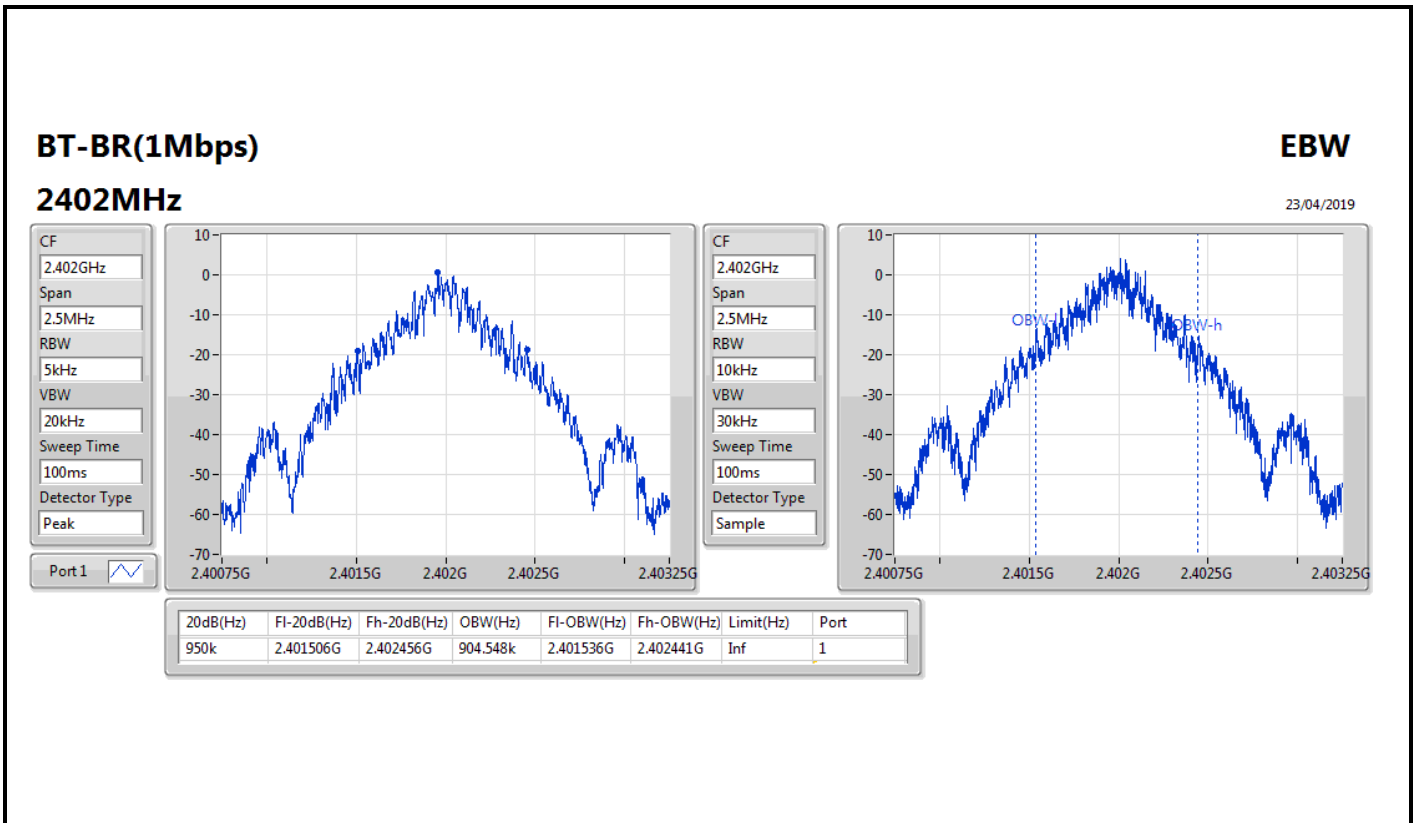
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	950k	904.548k	905KF1D	916.25k	897.051k
BT-EDR(2Mbps)	1.304M	1.194M	1M19G1D	1.276M	1.189M
BT-EDR(3Mbps)	1.263M	1.202M	1M20G1D	1.255M	1.194M

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	950k	904.548k
2441MHz	Pass	Inf	921.25k	903.298k
2480MHz	Pass	Inf	916.25k	897.051k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.278M	1.193M
2441MHz	Pass	Inf	1.304M	1.189M
2480MHz	Pass	Inf	1.276M	1.194M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.258M	1.202M
2441MHz	Pass	Inf	1.255M	1.194M
2480MHz	Pass	Inf	1.263M	1.198M

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



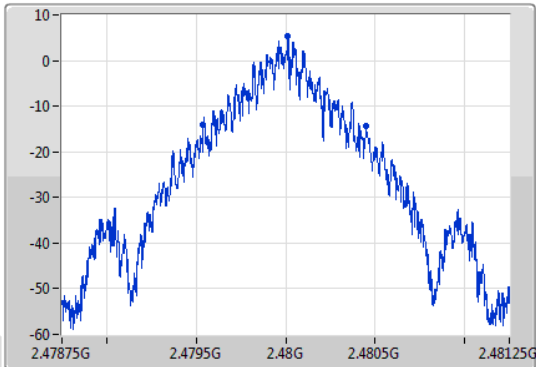
BT-BR(1Mbps)

EBW

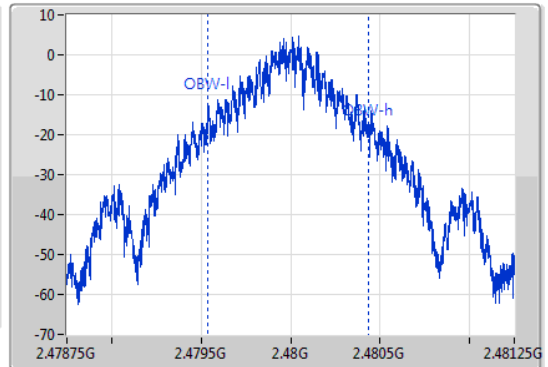
2480MHz

23/04/2019

CF
2.48GHz
Span
2.5MHz
RBW
10kHz
VBW
30kHz
Sweep Time
100ms
Detector Type
Peak
Port 1



CF
2.48GHz
Span
2.5MHz
RBW
10kHz
VBW
30kHz
Sweep Time
100ms
Detector Type
Sample



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
916.25k	2.479536G	2.480453G	897.051k	2.479538G	2.480435G	Inf	1

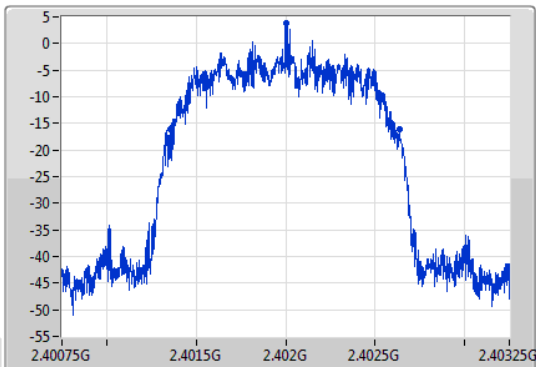
BT-EDR(2Mbps)

EBW

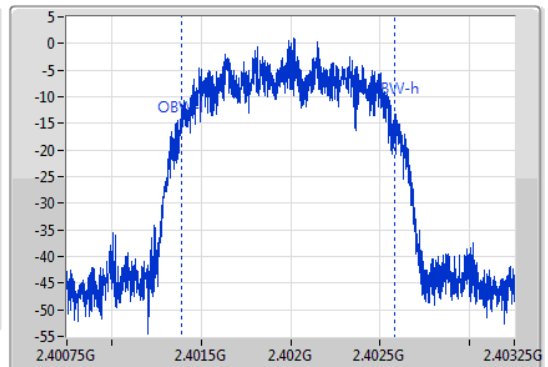
2402MHz

23/04/2019

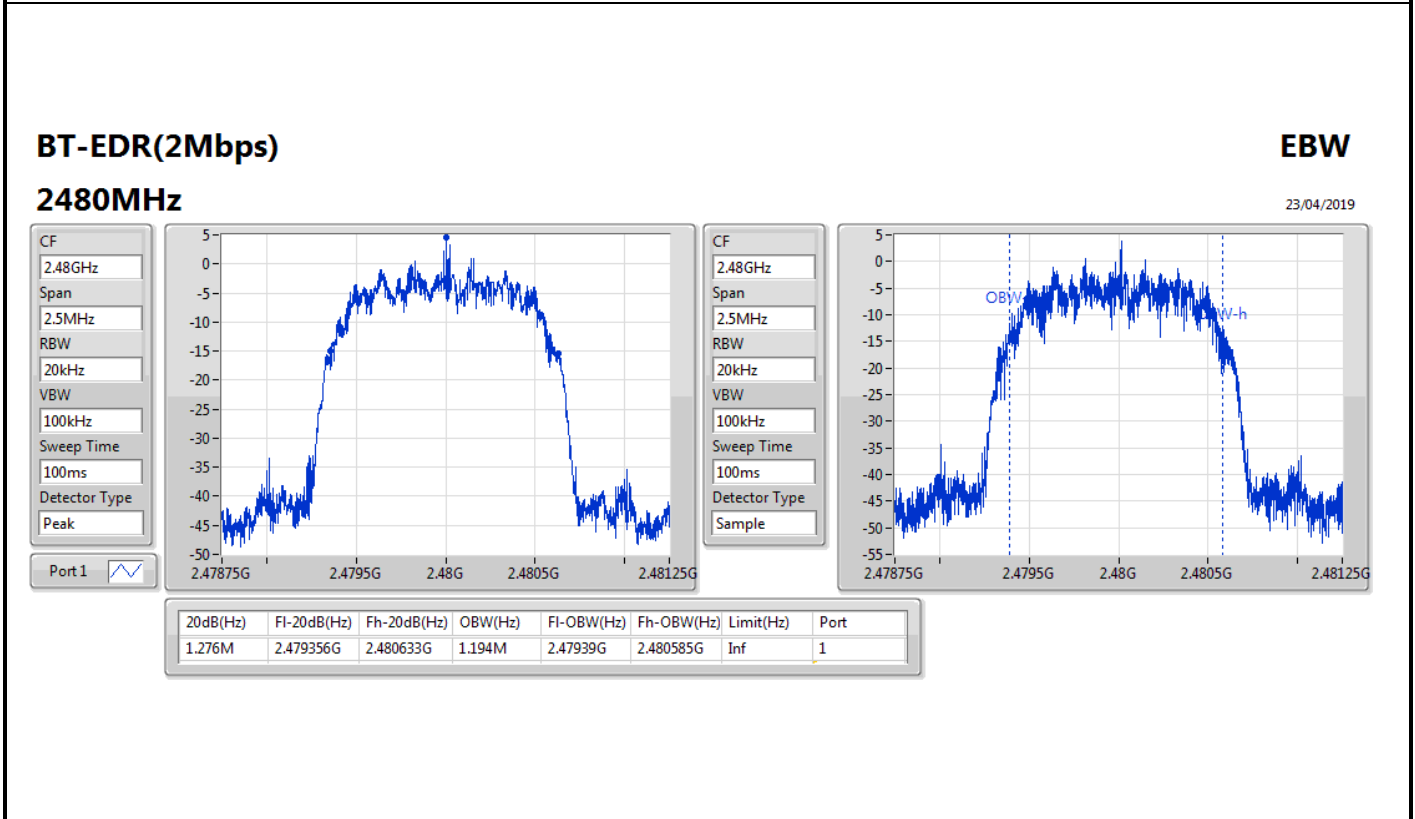
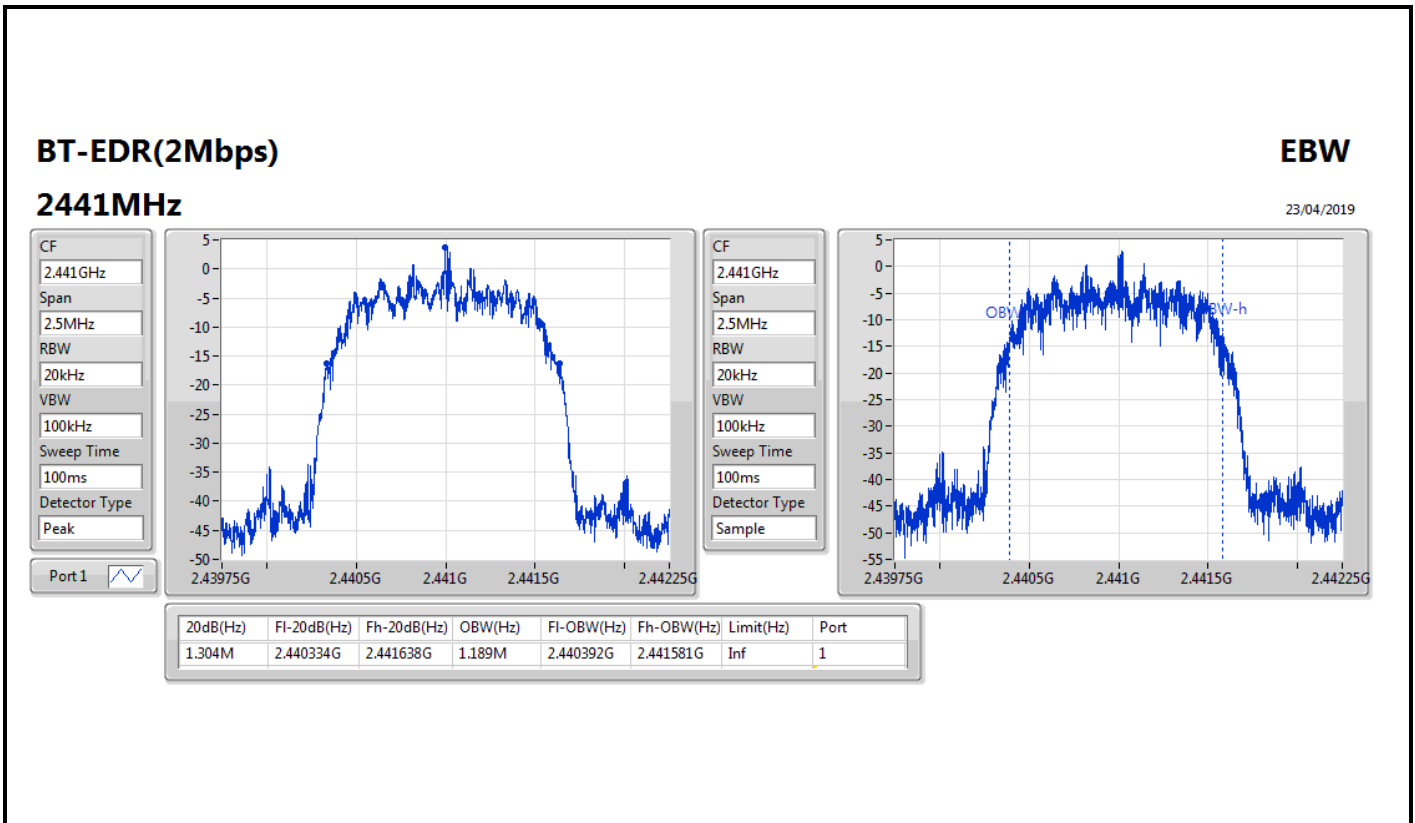
CF
2.402GHz
Span
2.5MHz
RBW
20kHz
VBW
100kHz
Sweep Time
100ms
Detector Type
Peak
Port 1



CF
2.402GHz
Span
2.5MHz
RBW
20kHz
VBW
100kHz
Sweep Time
100ms
Detector Type
Sample



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.278M	2.401356G	2.402634G	1.193M	2.401392G	2.402585G	Inf	1



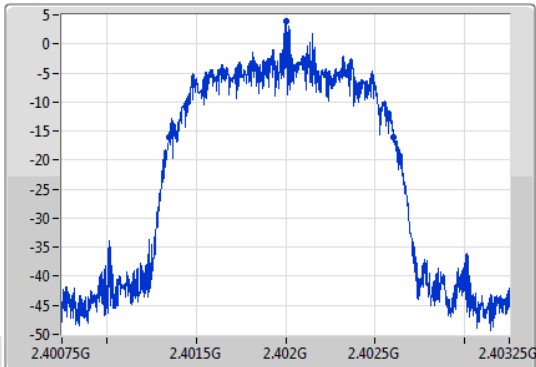
BT-EDR(3Mbps)

EBW

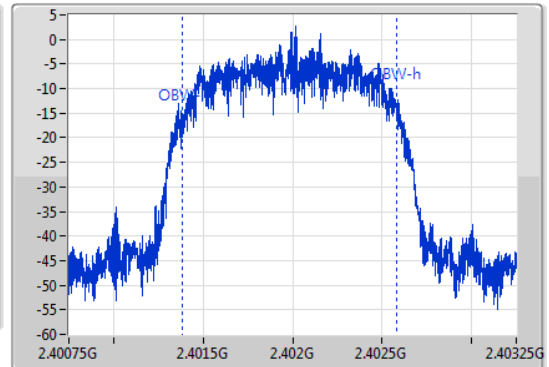
2402MHz

23/04/2019

CF
2.402GHz
Span
2.5MHz
RBW
20kHz
VBW
100kHz
Sweep Time
100ms
Detector Type
Peak
Port 1



CF
2.402GHz
Span
2.5MHz
RBW
20kHz
VBW
100kHz
Sweep Time
100ms
Detector Type
Sample



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.258M	2.401346G	2.402604G	1.202M	2.401383G	2.402585G	Inf	1

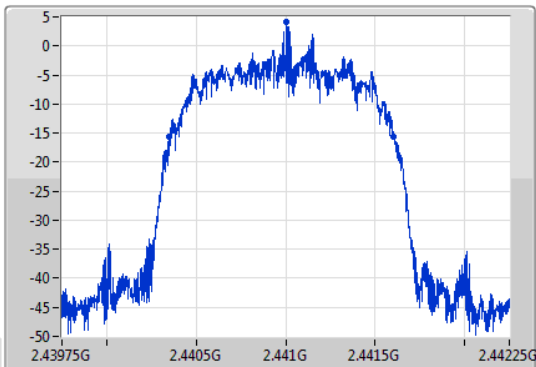
BT-EDR(3Mbps)

EBW

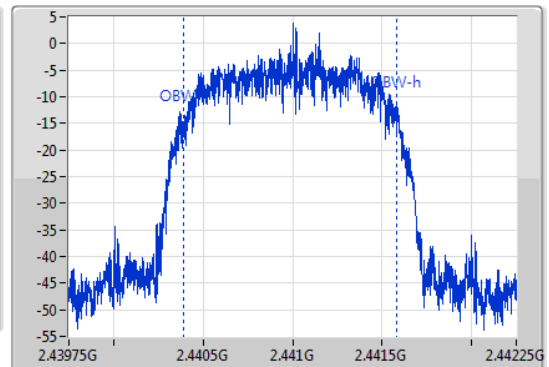
2441MHz

23/04/2019

CF
2.441GHz
Span
2.5MHz
RBW
20kHz
VBW
100kHz
Sweep Time
100ms
Detector Type
Peak
Port 1



CF
2.441GHz
Span
2.5MHz
RBW
20kHz
VBW
100kHz
Sweep Time
100ms
Detector Type
Sample



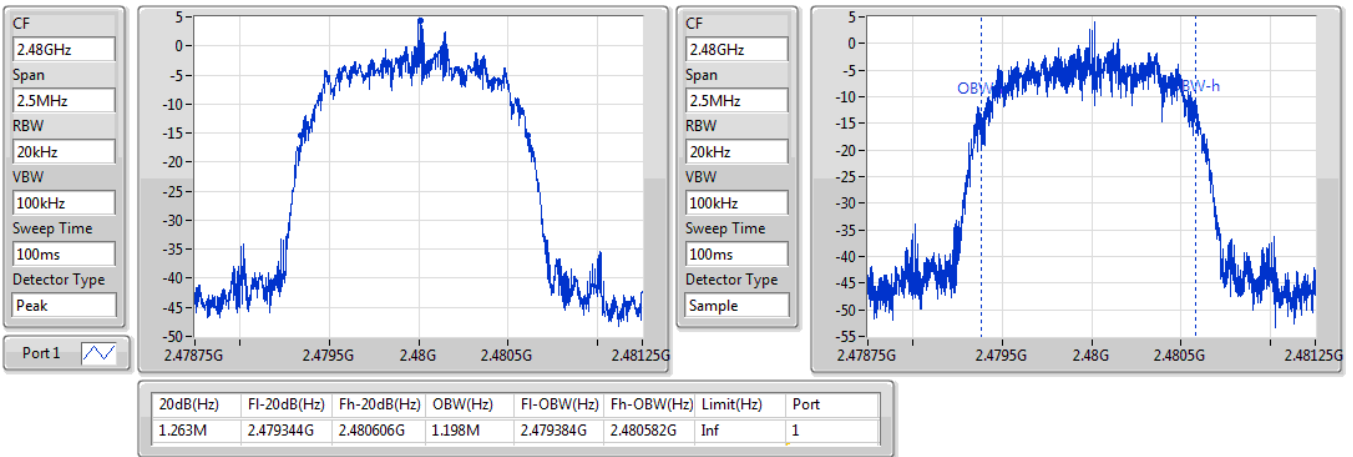
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.255M	2.440348G	2.441603G	1.194M	2.440388G	2.441582G	Inf	1

BT-EDR(3Mbps)

EBW

2480MHz

23/04/2019





Summary

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

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402002G	2.403001G	999k	632.7k
2441MHz	Pass	2.441002G	2.442001G	999k	613.5525k
2480MHz	Pass	2.479001G	2.480003G	1.002M	610.2225k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402002G	2.403003G	1.0005M	851.148k
2441MHz	Pass	2.441002G	2.442003G	1.0005M	868.464k
2480MHz	Pass	2.479001G	2.480003G	1.002M	849.816k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402004G	2.403003G	999k	837.828k
2441MHz	Pass	2.441002G	2.442003G	1.0005M	835.83k
2480MHz	Pass	2.479002G	2.480003G	1.0005M	841.158k

BT-BR(1Mbps)

Channel Separation

2.402G/2.403GHz



F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402002G	2.403001G	999k	632.7k

BT-BR(1Mbps)

Channel Separation

2.441G/2.442GHz

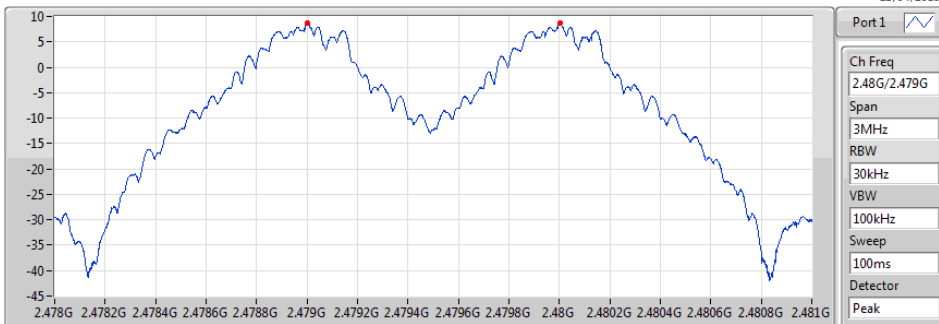


F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441002G	2.442001G	999k	613.5525k

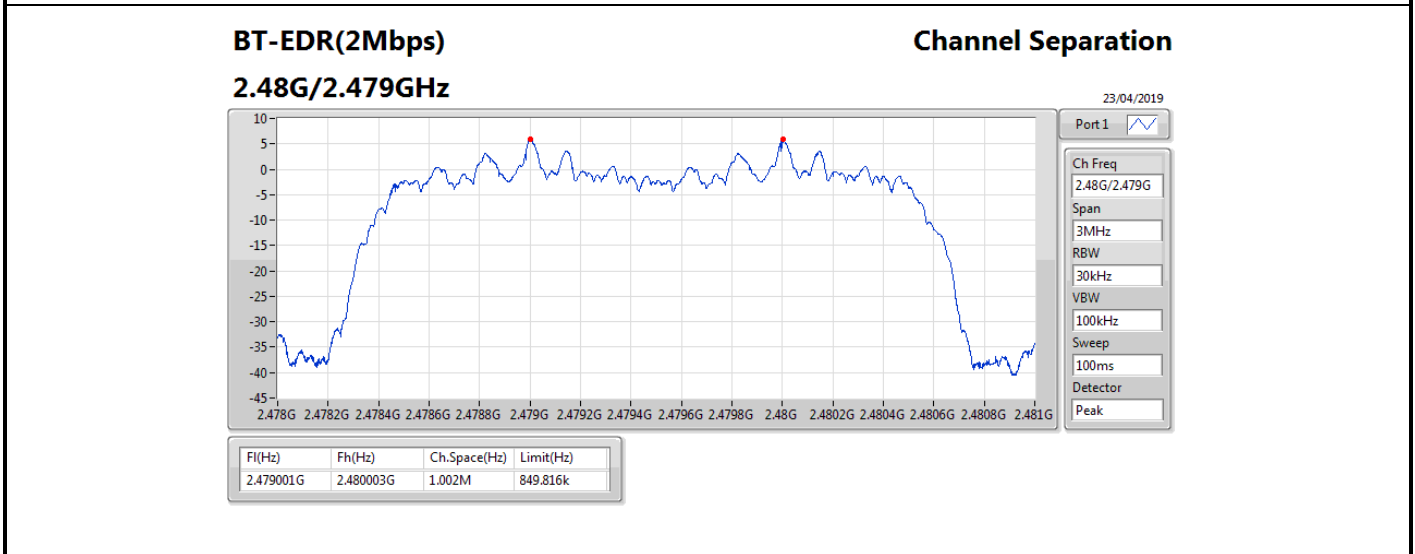
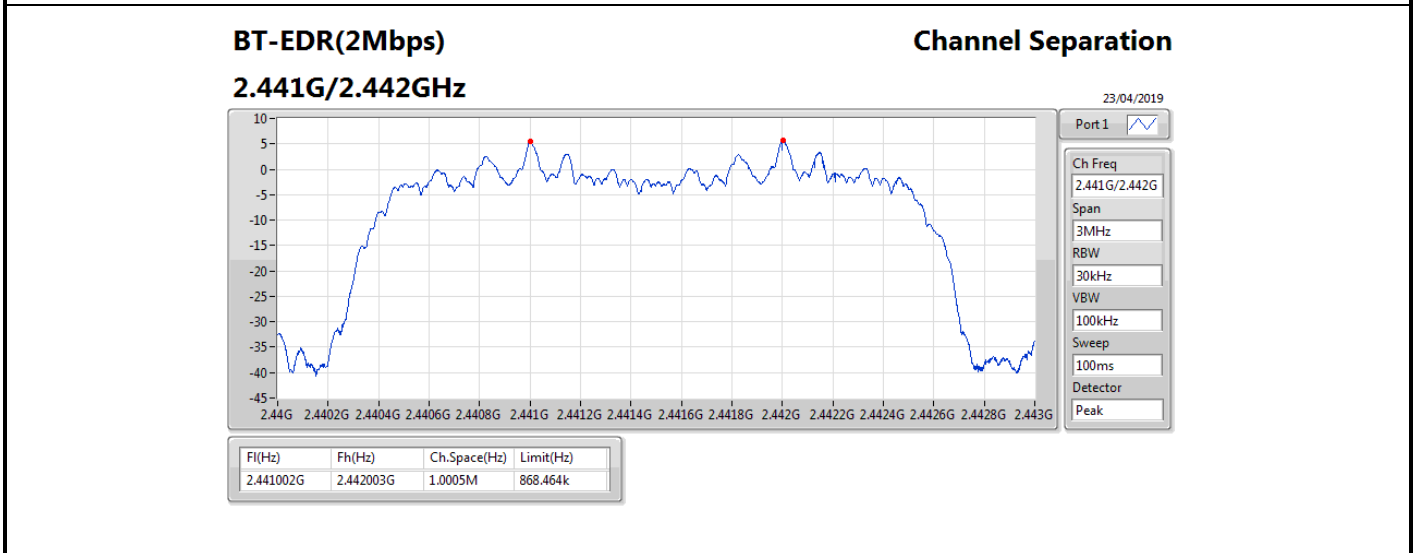
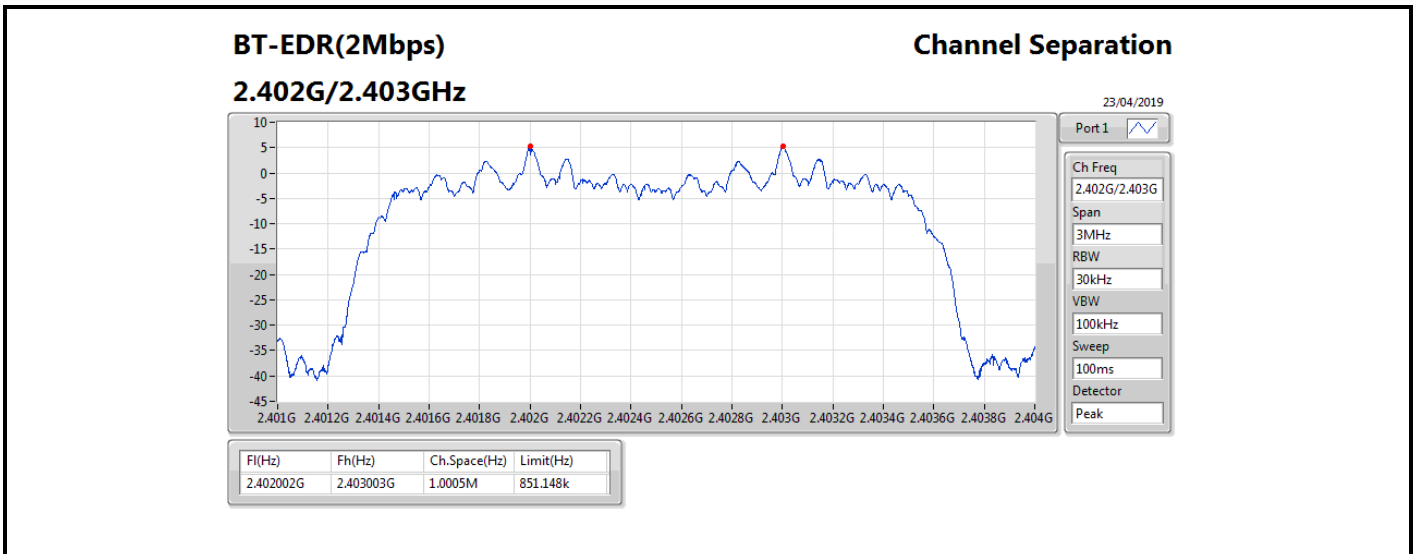
BT-BR(1Mbps)

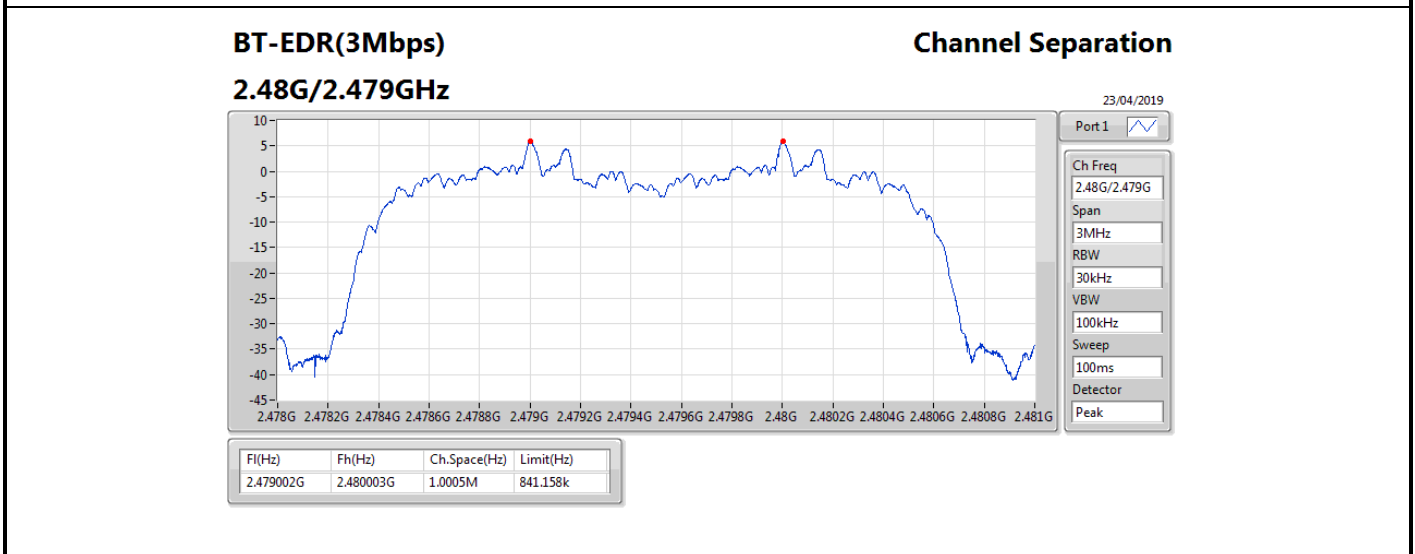
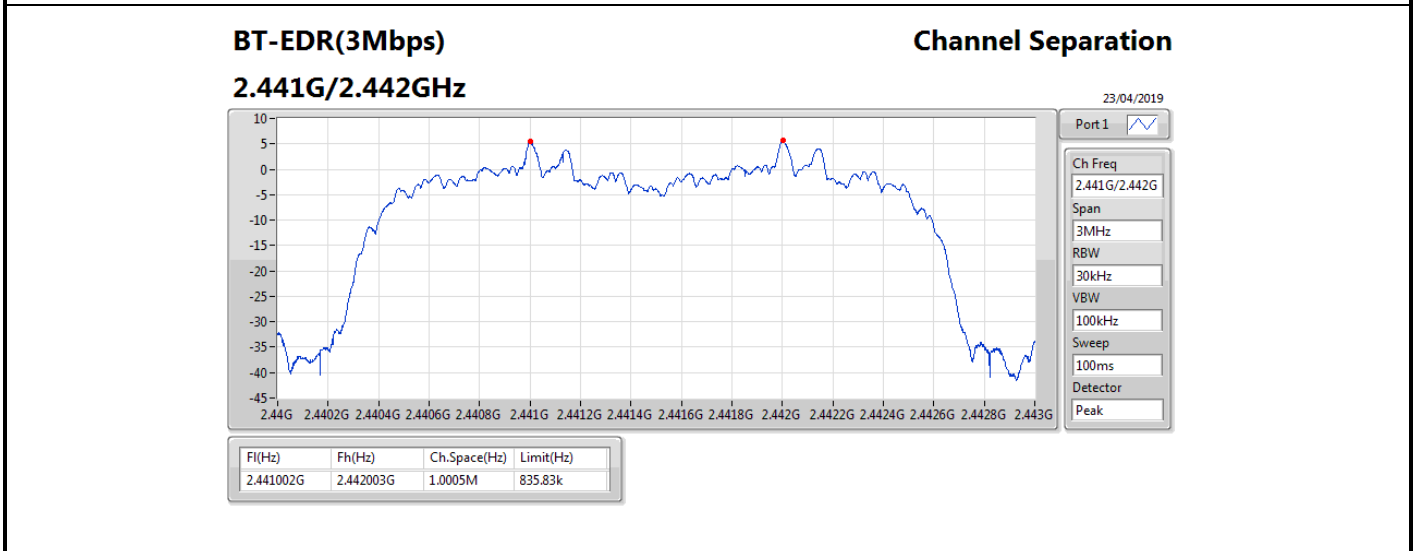
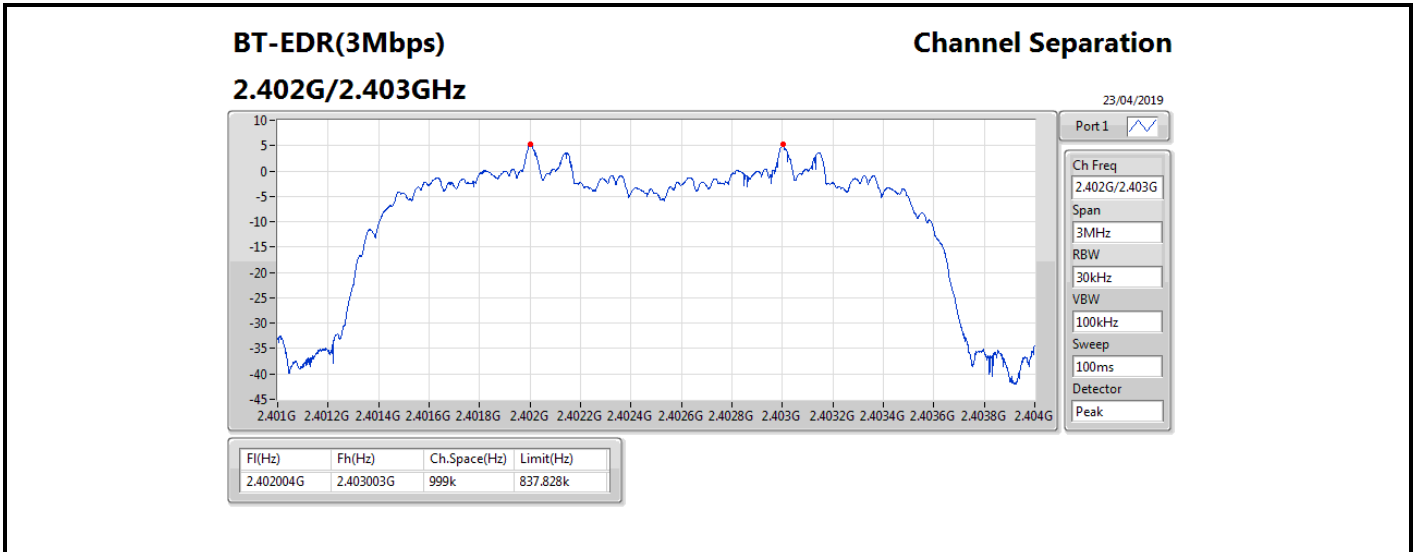
Channel Separation

2.48G/2.479GHz



F1(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479001G	2.480003G	1.002M	610.2225k







Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	11.19	0.01315
BT-EDR(2Mbps)	10.17	0.01040
BT-EDR(3Mbps)	10.46	0.01112



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.52	10.34	21.00
2441MHz	Pass	3.52	10.58	21.00
2480MHz	Pass	3.52	11.19	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.52	9.43	21.00
2441MHz	Pass	3.52	9.52	21.00
2480MHz	Pass	3.52	10.17	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.52	9.65	21.00
2441MHz	Pass	3.52	9.90	21.00
2480MHz	Pass	3.52	10.46	21.00

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



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	10.78	0.01197
BT-EDR(2Mbps)	7.45	0.00556
BT-EDR(3Mbps)	7.43	0.00553



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.52	9.87	21.00
2441MHz	Pass	3.52	10.15	21.00
2480MHz	Pass	3.52	10.78	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.52	6.62	21.00
2441MHz	Pass	3.52	6.77	21.00
2480MHz	Pass	3.52	7.45	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.52	6.59	21.00
2441MHz	Pass	3.52	6.83	21.00
2480MHz	Pass	3.52	7.43	21.00

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



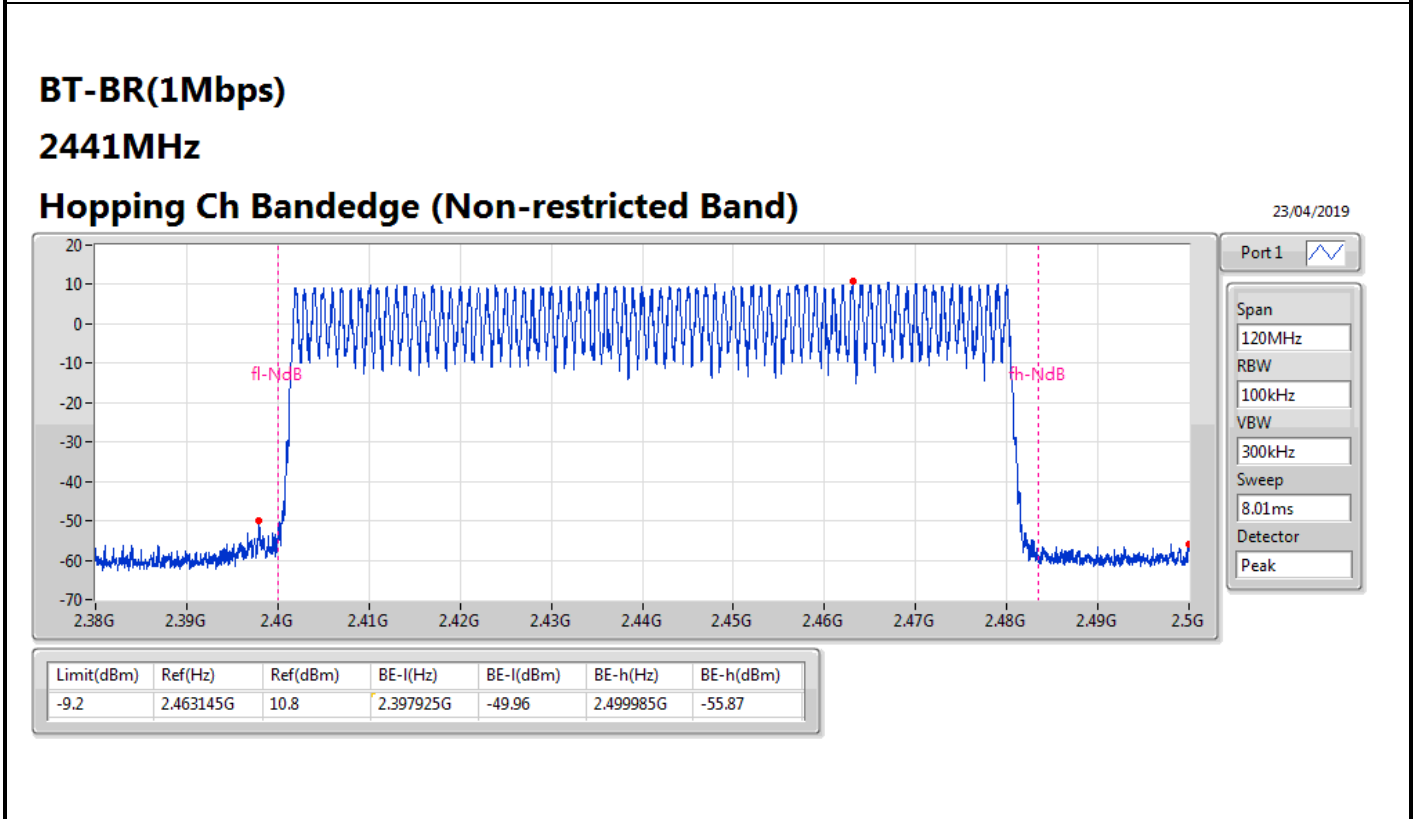
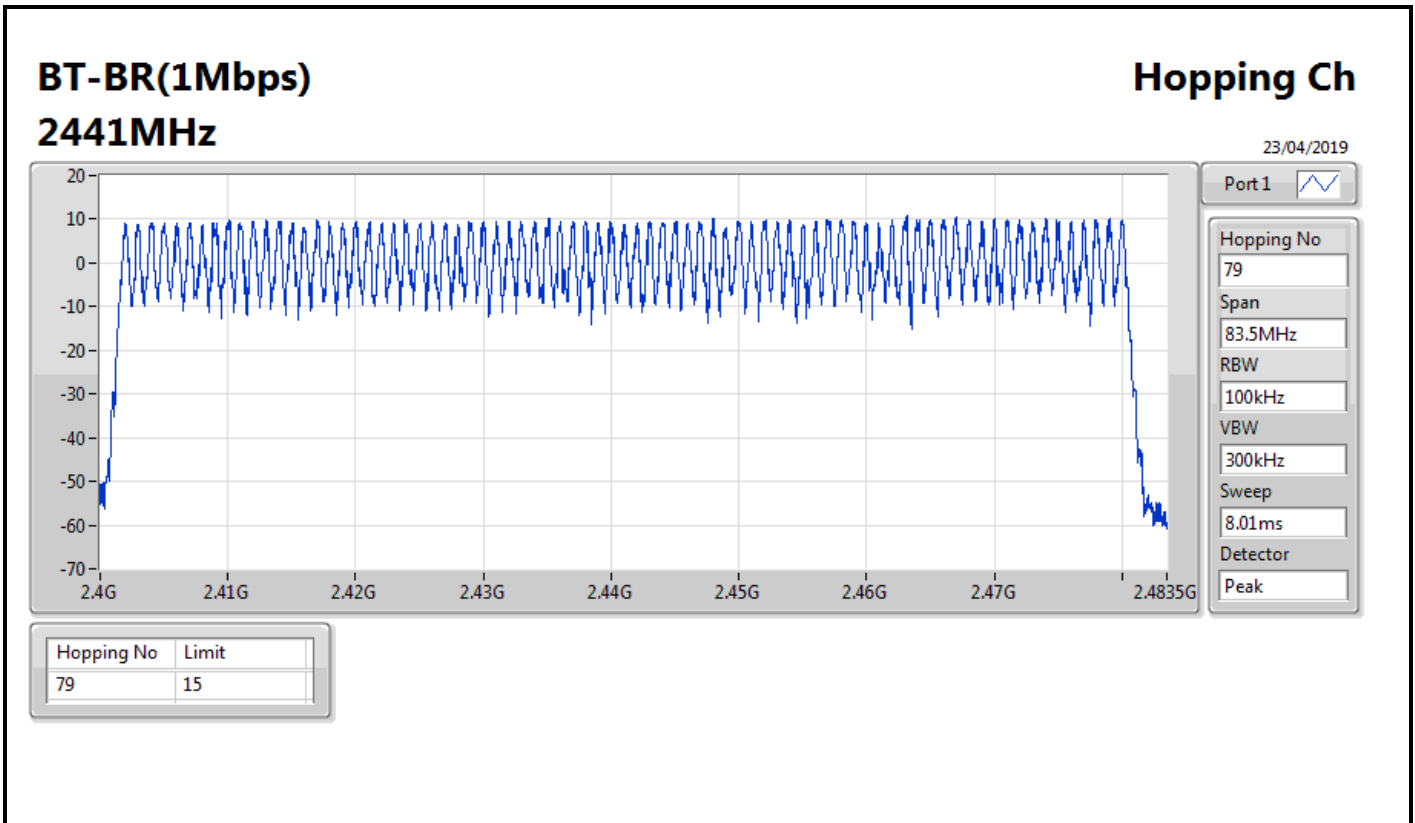
Summary

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)

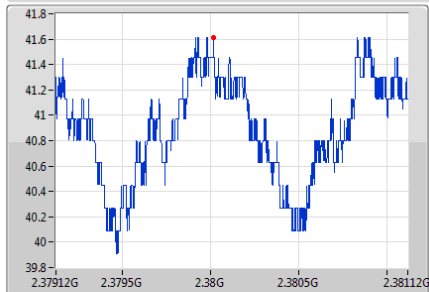
2441MHz

Hopping Ch Bandedge (Restricted Band)

23/04/2019



Span: 120MHz
 RBW: 1MHz
 VBW: 3MHz
 Sweep: 8.01ms
 Detector: Peak



Span: 2MHz
 RBW: 1MHz
 VBW: 500Hz
 Sweep: 20ms
 Detector: Peak

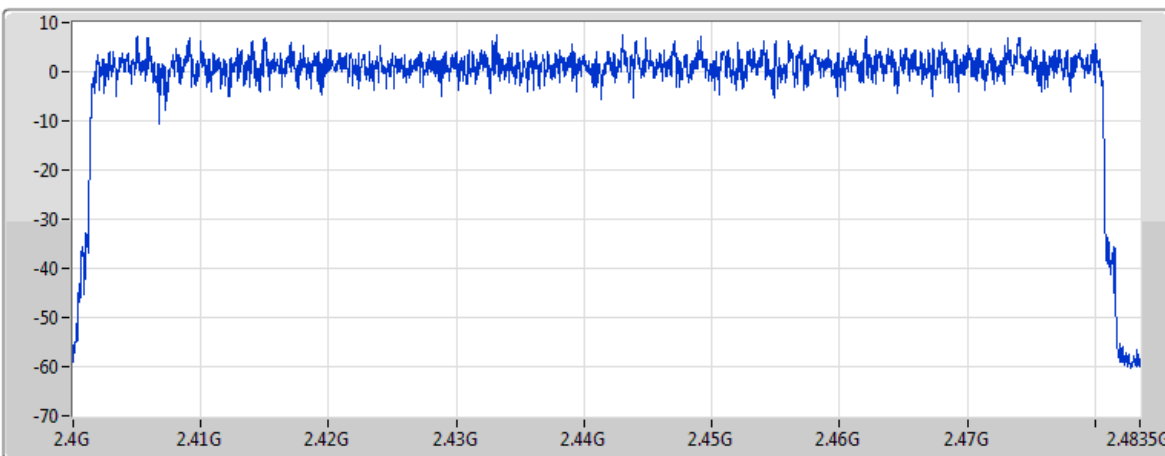
Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV)	LimAV(dBuV)	Tx On(ms)
2.462155G	109.69	2.38012G	54.19	41.61	2.484325G	59.05	44.01	74	54	3.125

BT-EDR(2Mbps)

2441MHz

Hopping Ch

23/04/2019



Port 1

Hopping No: 79

Span: 83.5MHz

RBW: 100kHz

VBW: 300kHz

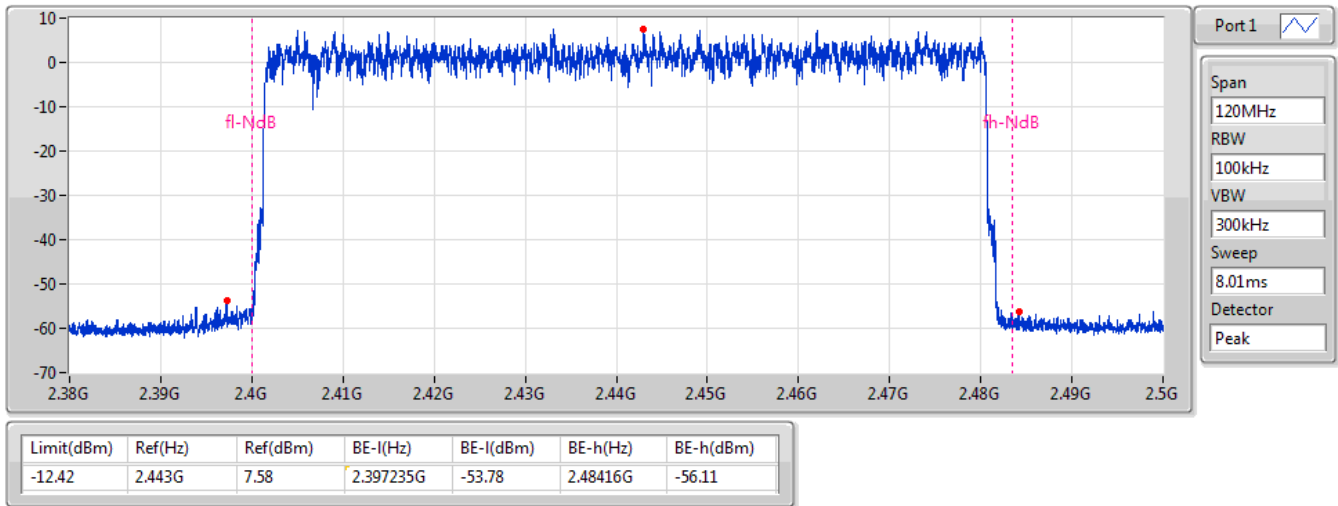
Sweep: 8.01ms

Detector: Peak

Hopping No	Limit
79	15

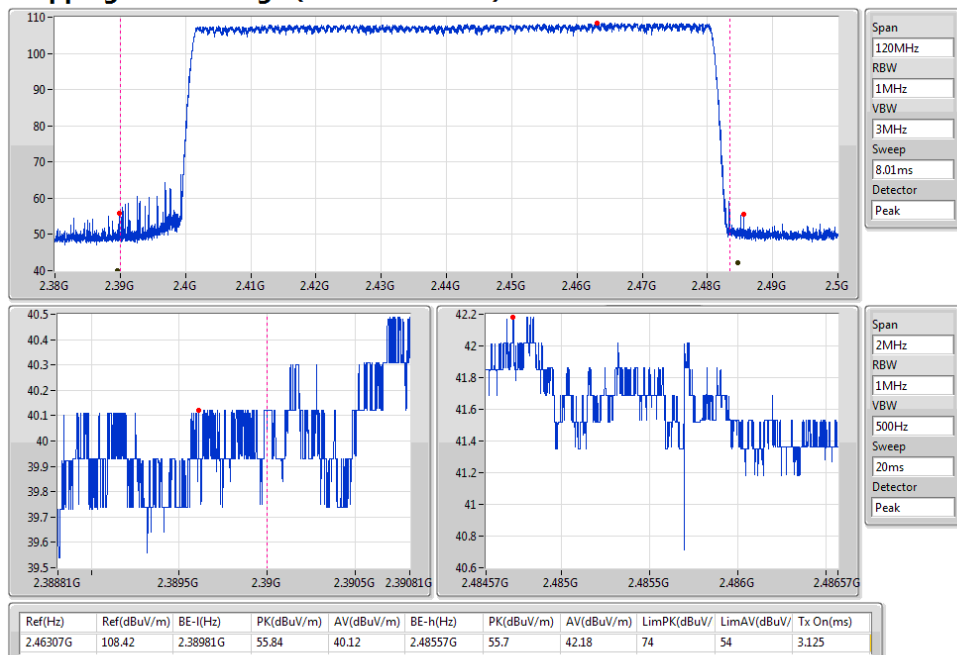
BT-EDR(2Mbps) 2441MHz Hopping Ch Bandedge (Non-restricted Band)

23/04/2019



BT-EDR(2Mbps) 2441MHz Hopping Ch Bandedge (Restricted Band)

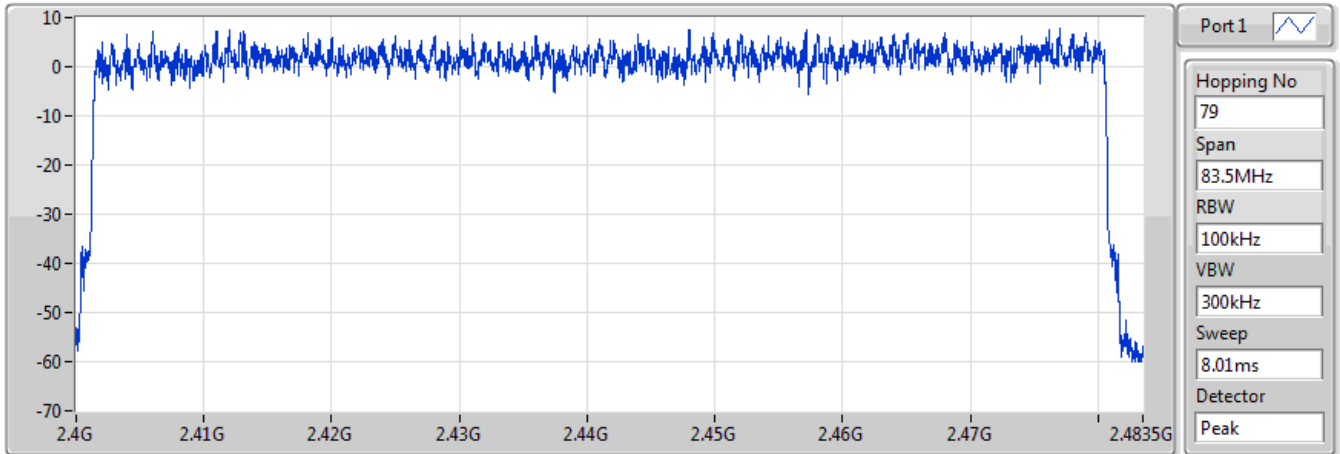
23/04/2019



BT-EDR(3Mbps)
2441MHz

Hopping Ch

23/04/2019



Port 1

Hopping No
79

Span
83.5MHz

RBW
100kHz

VBW
300kHz

Sweep
8.01ms

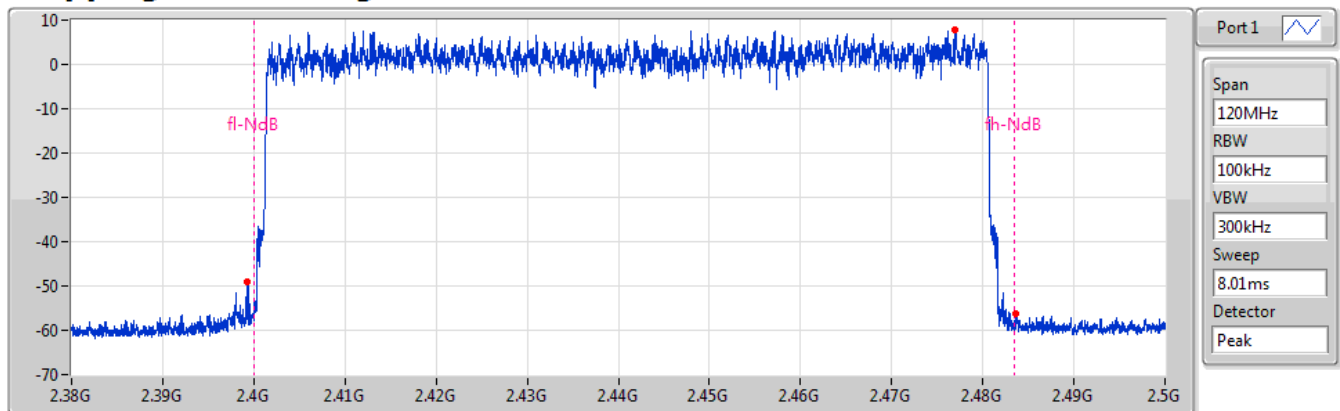
Detector
Peak

Hopping No	Limit
79	15

BT-EDR(3Mbps)
2441MHz

Hopping Ch Bandedge (Non-restricted Band)

23/04/2019



Port 1

Span
120MHz

RBW
100kHz

VBW
300kHz

Sweep
8.01ms

Detector
Peak

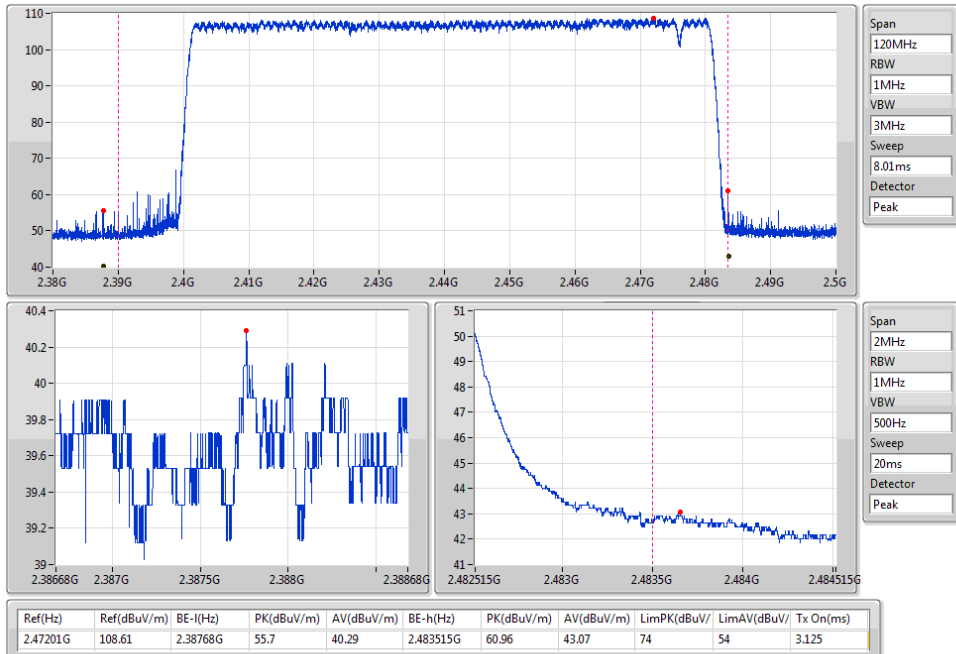
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-12.05	2.477005G	7.95	2.39923G	-49.17	2.48359G	-56.11

BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)

23/04/2019



Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep
8.01ms
Detector
Peak

Span
2MHz
RBW
1MHz
VBW
500Hz
Sweep
20ms
Detector
Peak



Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.607m
BT-EDR(2Mbps)	308.9268m
BT-EDR(3Mbps)	309.14m



Result

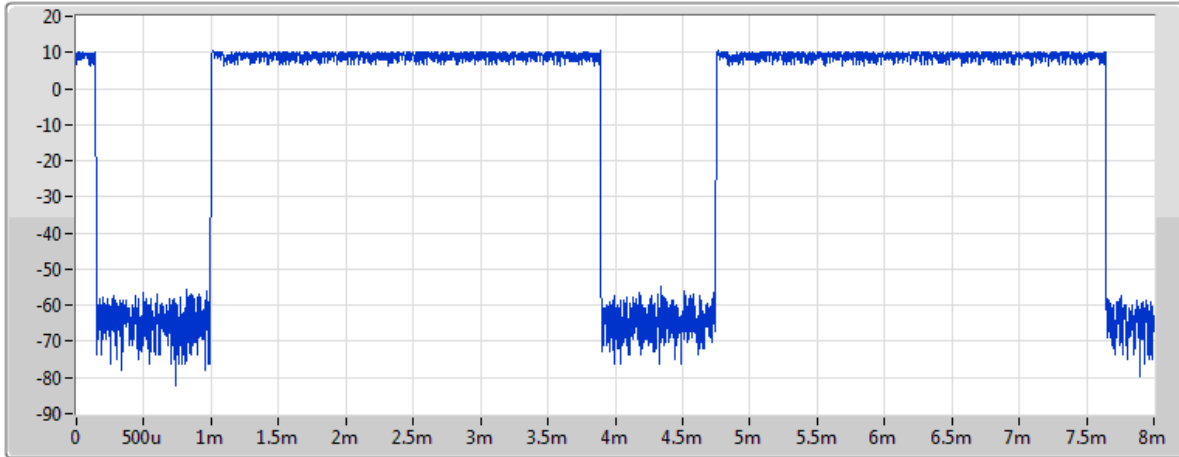
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.607m	400m	2.895m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.9268m	400m	2.898m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	309.14m	400m	2.9m

BT-BR(1Mbps)

2441MHz

23/04/2019

Dwell



Port 1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.895ms

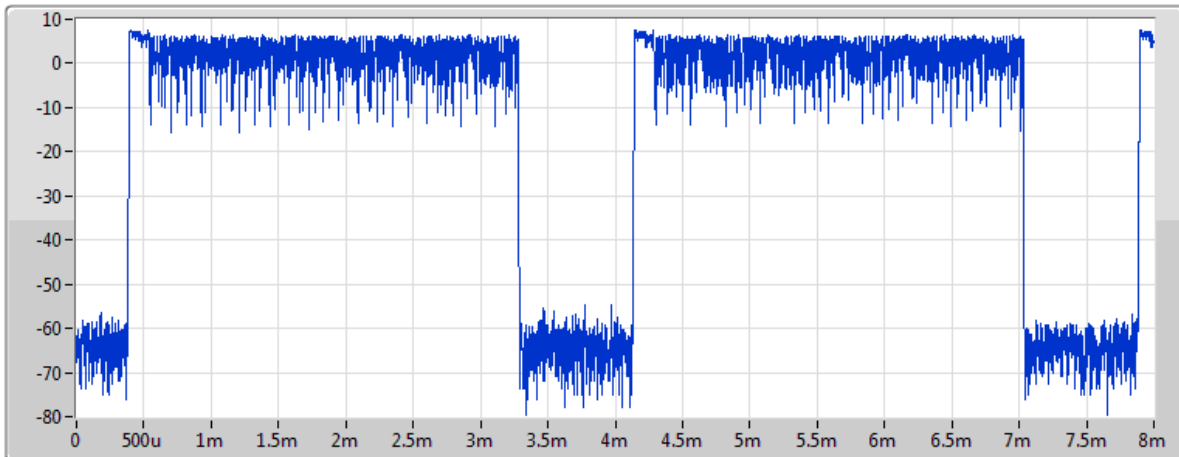
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.607m	400m	2.895m

BT-EDR(2Mbps)

2441MHz

23/04/2019

Dwell



Port 1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.898ms

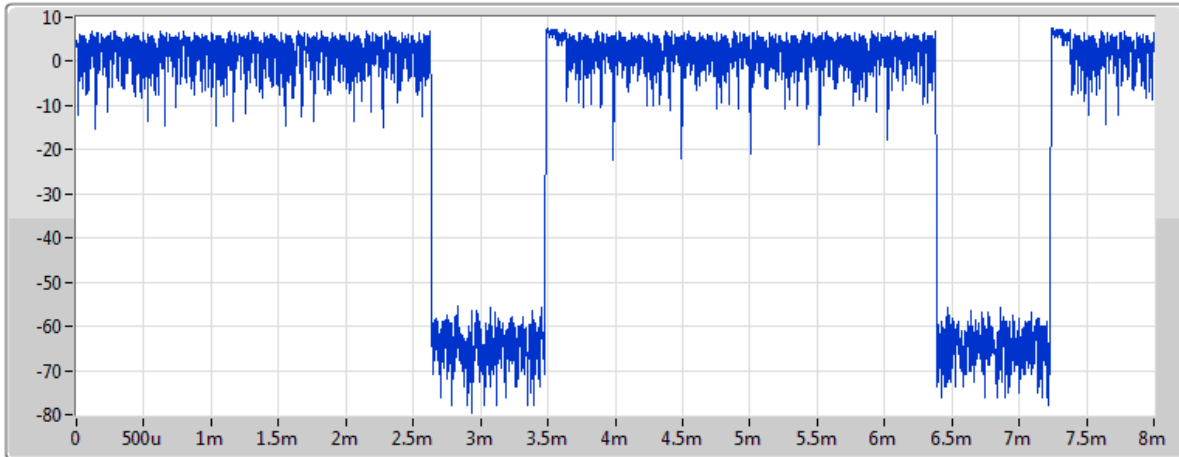
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.9268m	400m	2.898m


BT-EDR(3Mbps)

Dwell

2441MHz

23/04/2019



Port 1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.9ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.14m	400m	2.9m

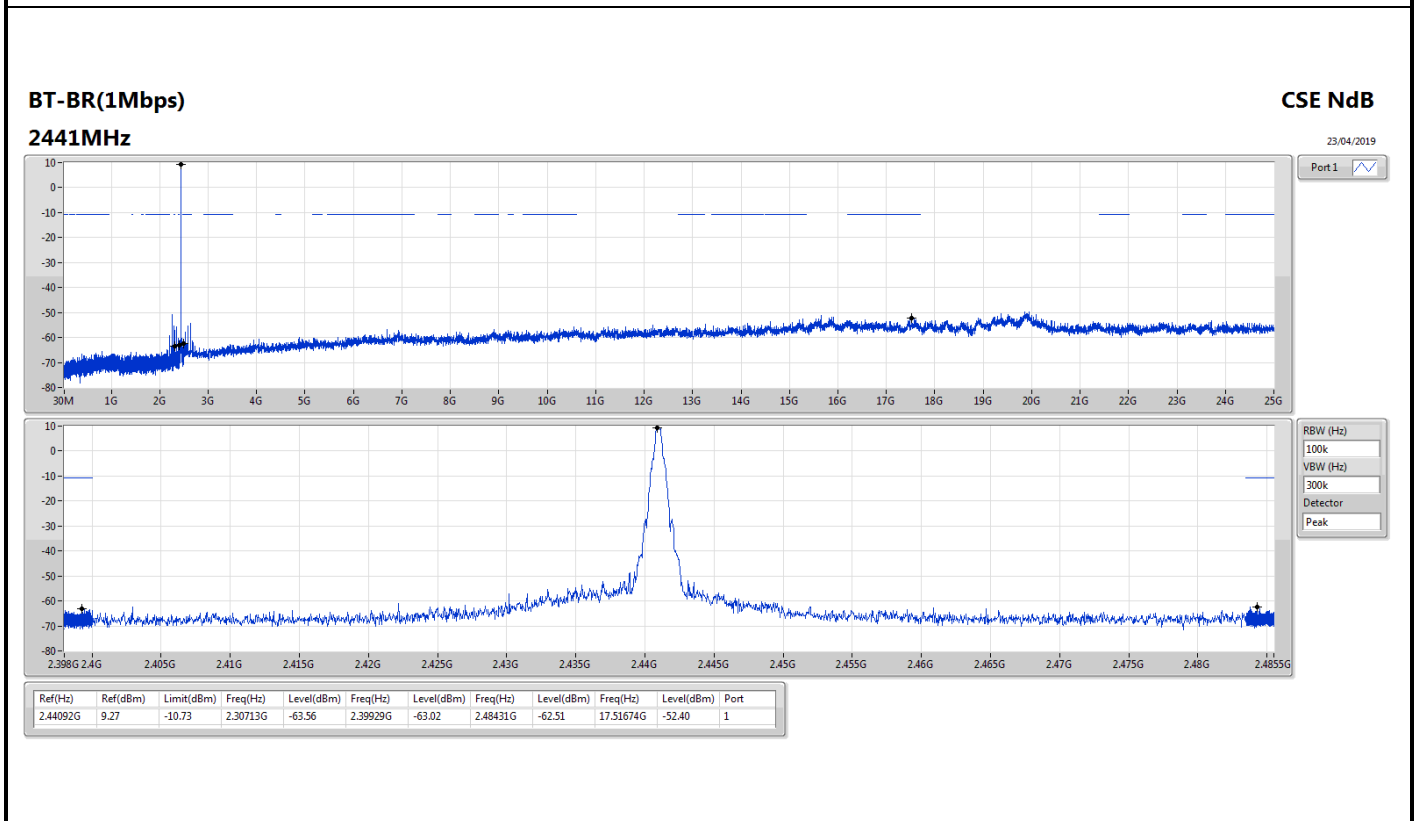
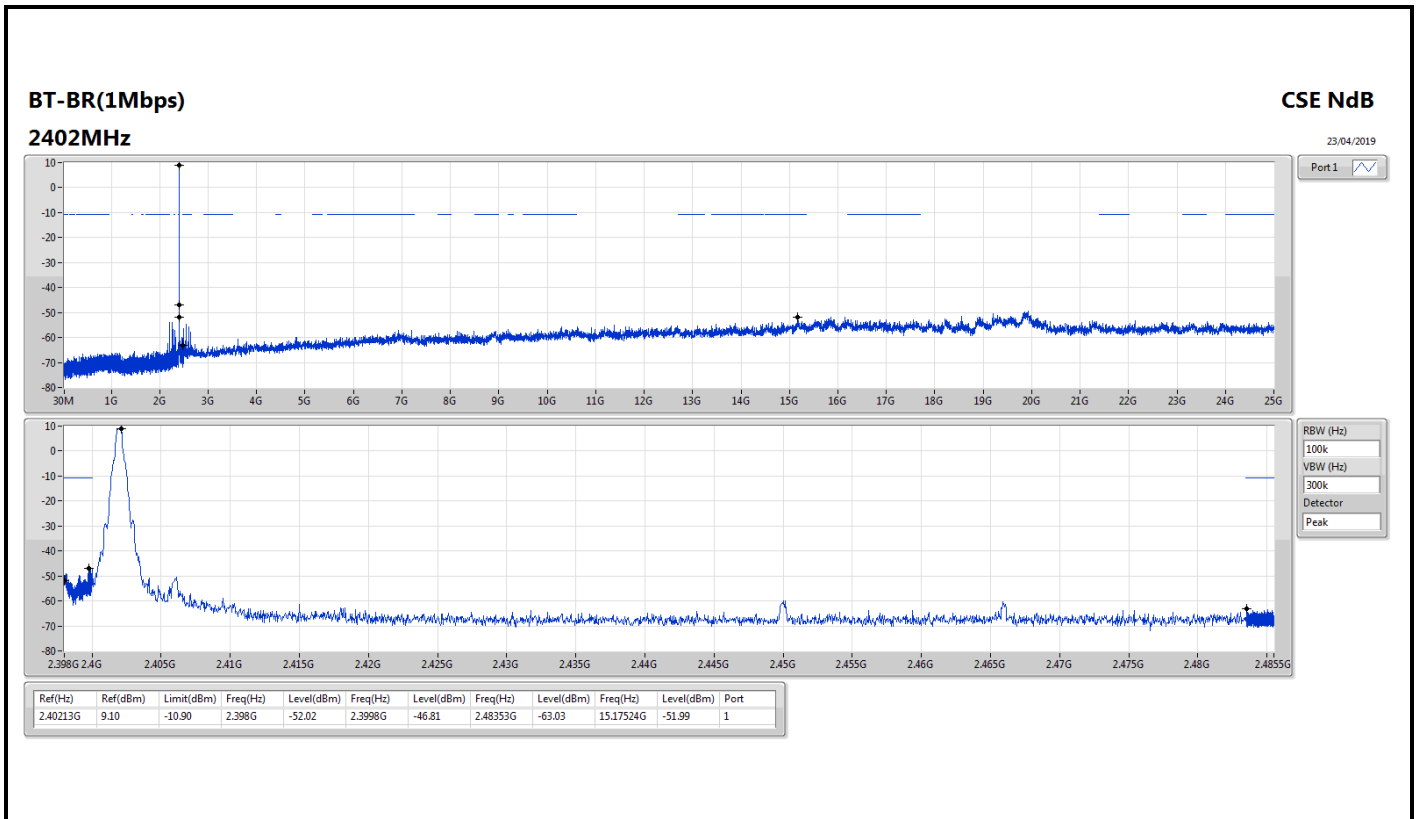


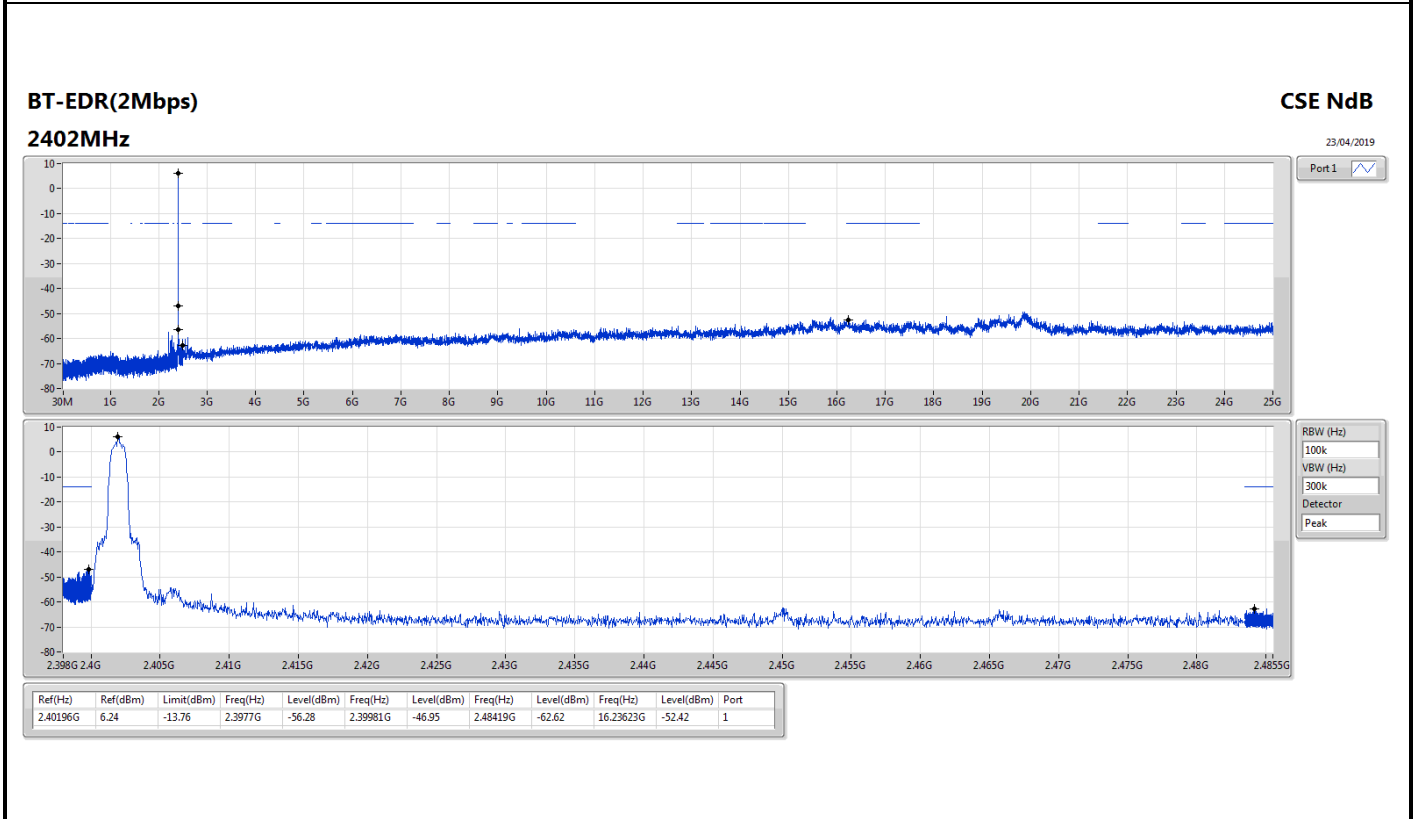
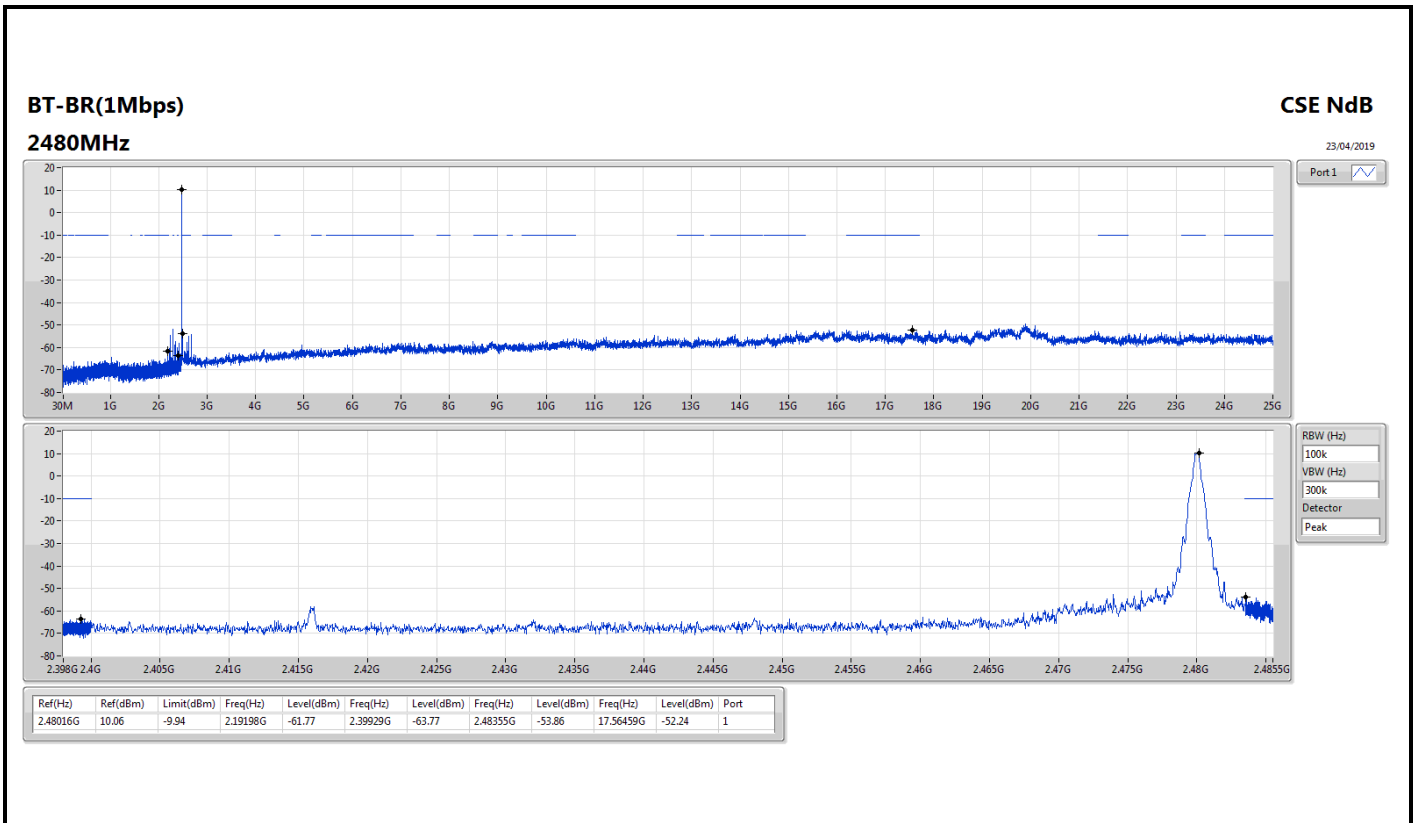
Summary

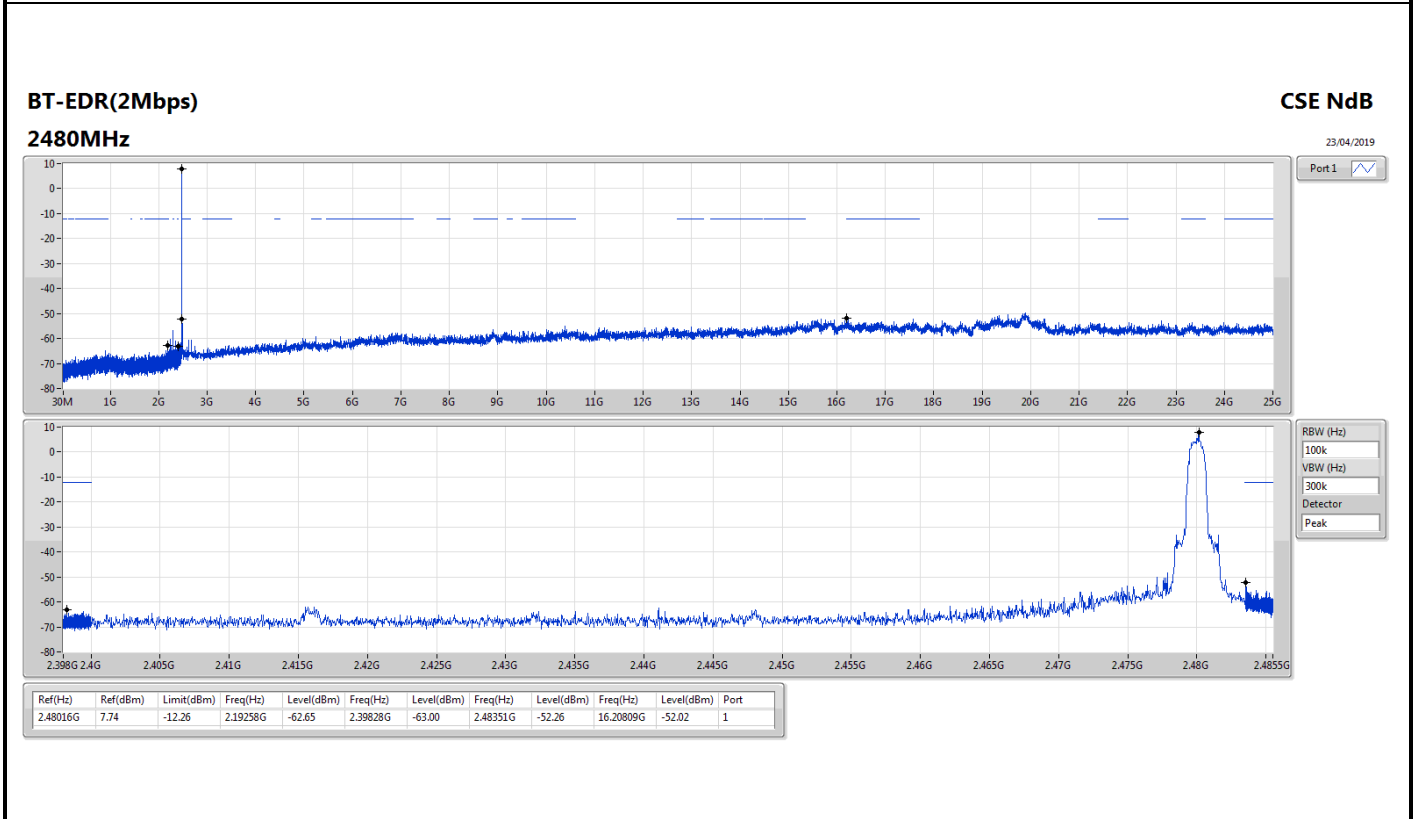
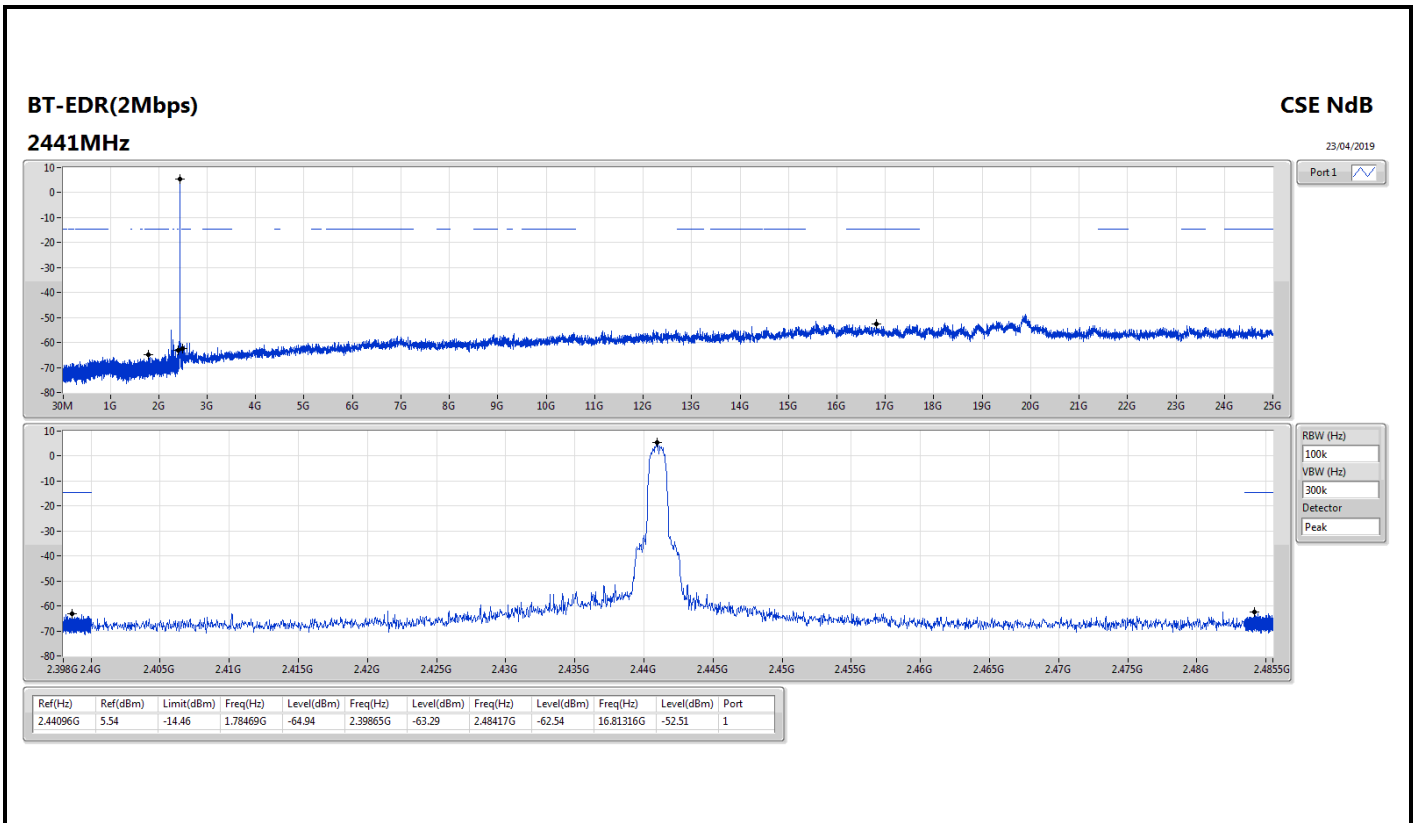
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.40213G	9.10	-10.90	2.398G	-52.02	2.3998G	-46.81	2.48353G	-63.03	15.17524G	-51.99	1
BT-EDR(2Mbps)	Pass	2.40196G	6.24	-13.76	2.3977G	-56.28	2.39981G	-46.95	2.48419G	-62.62	16.23623G	-52.42	1
BT-EDR(3Mbps)	Pass	2.40188G	4.38	-15.62	2.398G	-56.38	2.39988G	-46.65	2.48502G	-62.27	15.21464G	-52.01	1

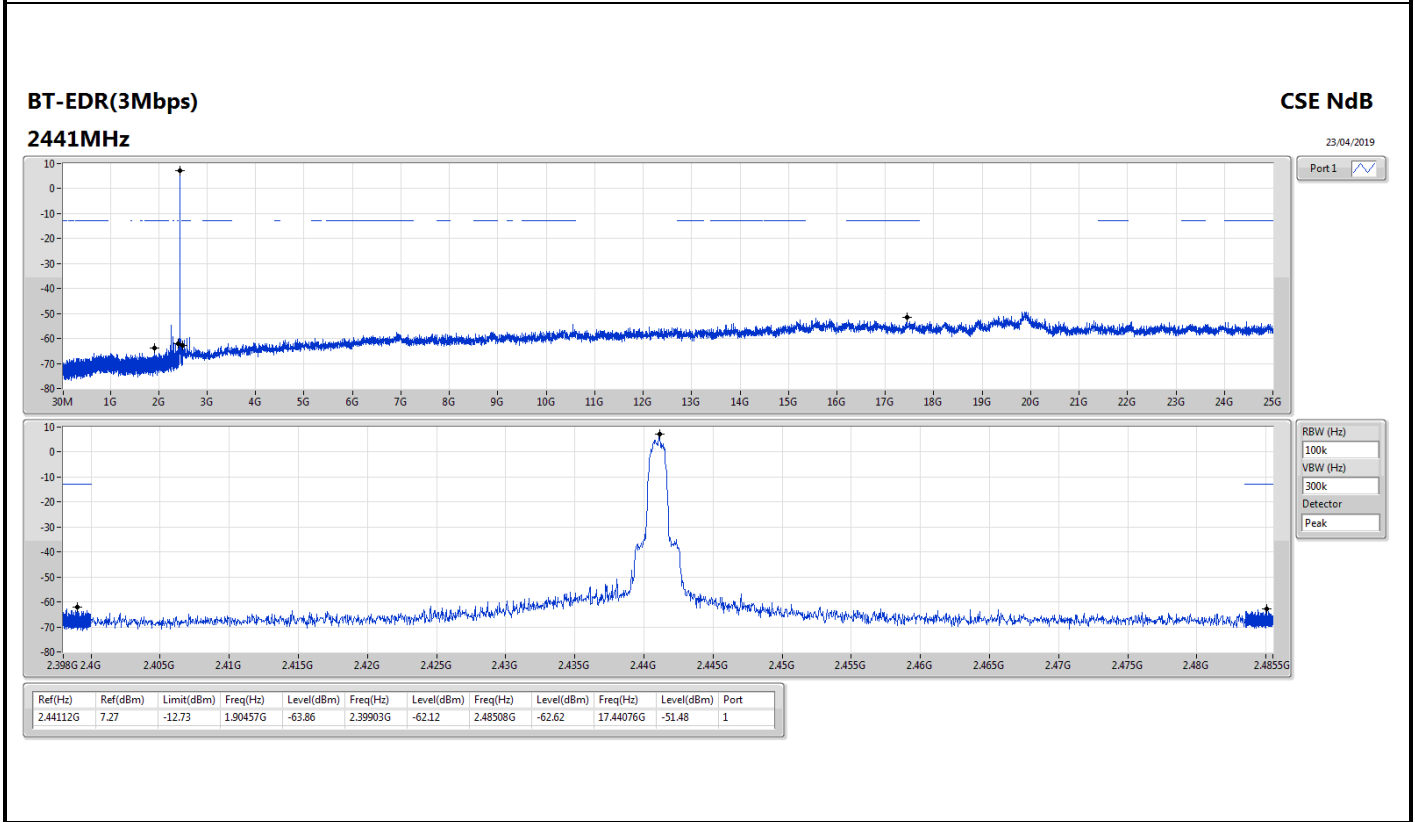
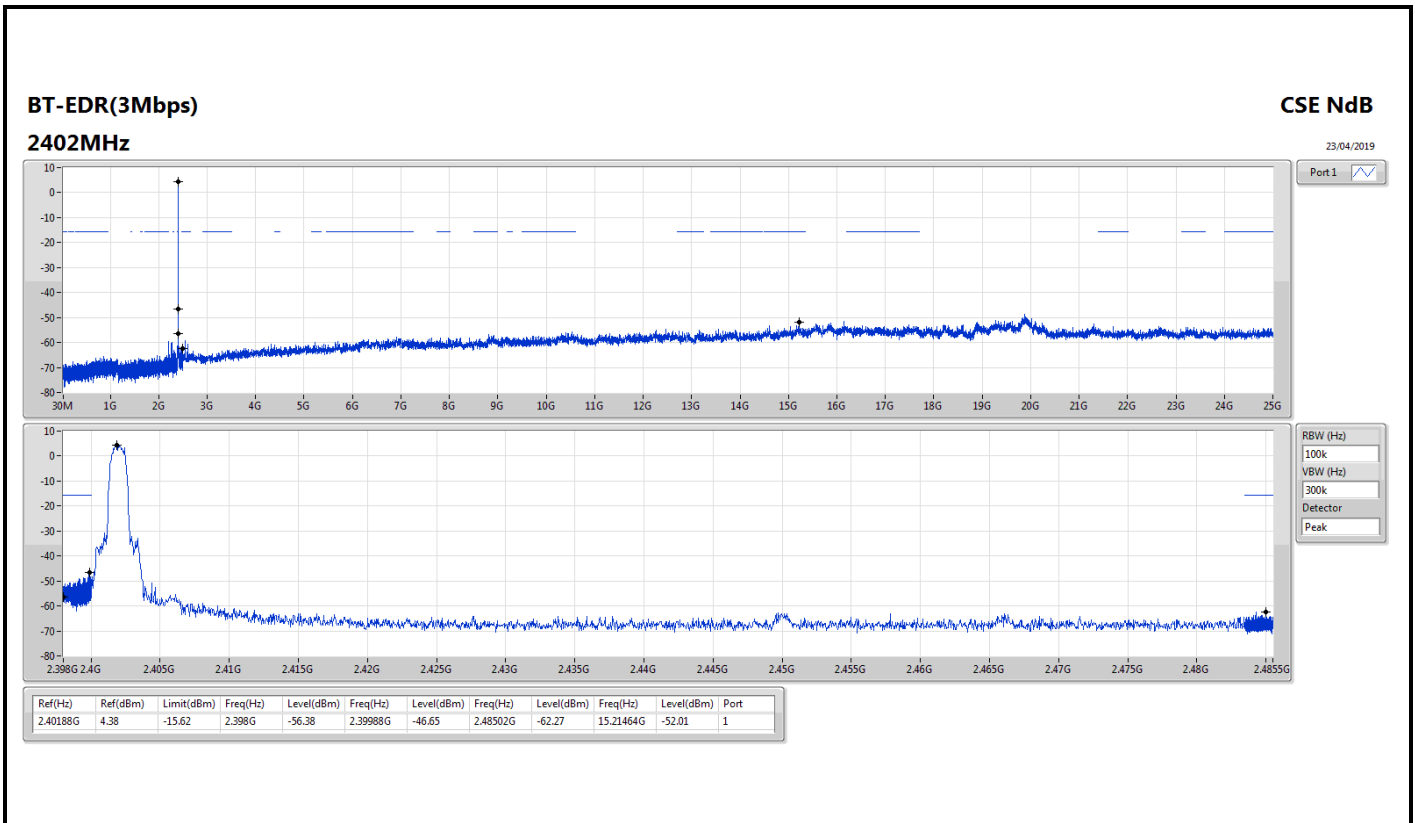
Result

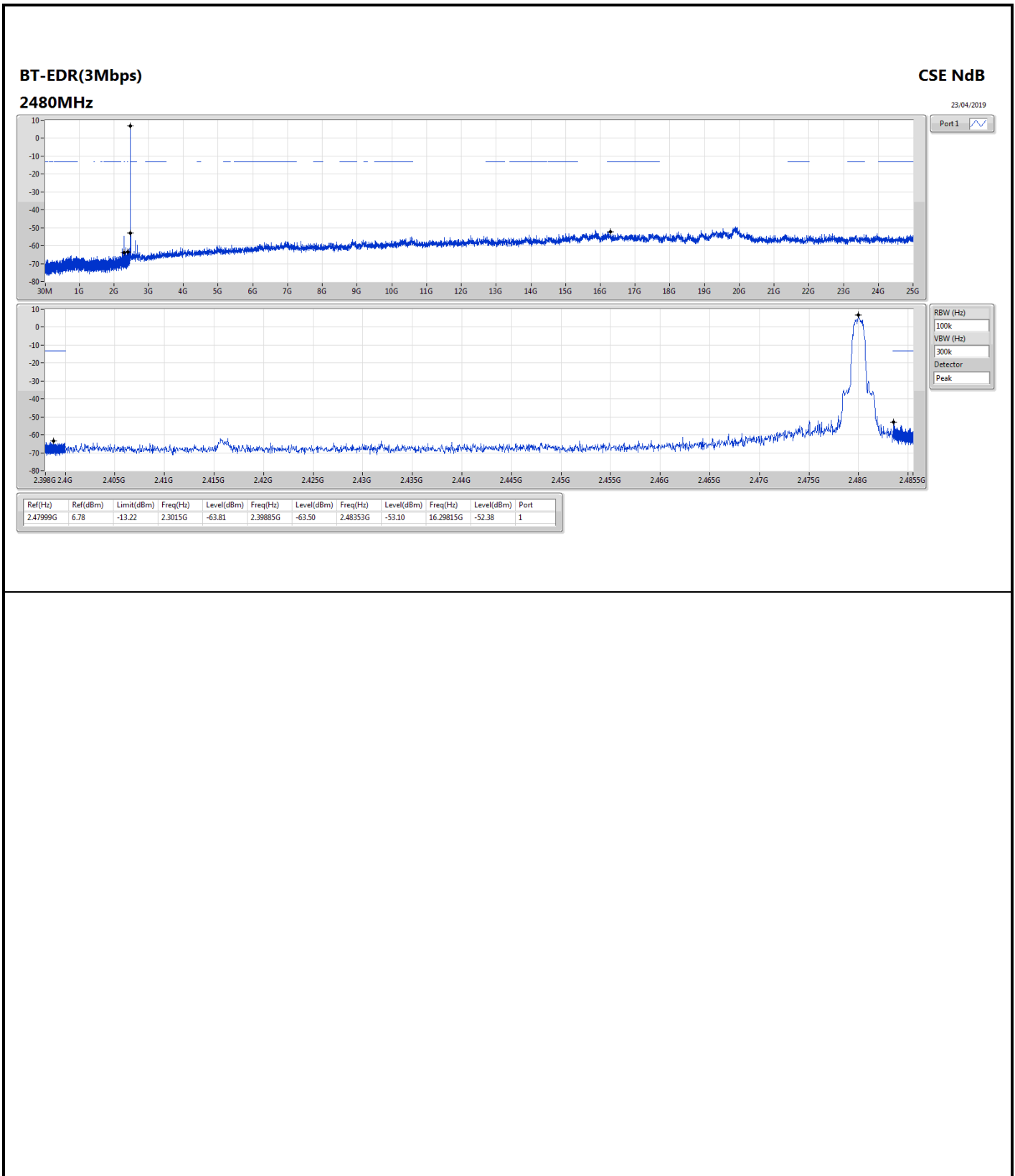
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	9.10	-10.90	2.398G	-52.02	2.3998G	-46.81	2.48353G	-63.03	15.17524G	-51.99	1
2441MHz	Pass	2.44092G	9.27	-10.73	2.30713G	-63.56	2.39929G	-63.02	2.48431G	-62.51	17.51674G	-52.40	1
2480MHz	Pass	2.48016G	10.06	-9.94	2.19198G	-61.77	2.39929G	-63.77	2.48355G	-53.86	17.56459G	-52.24	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	6.24	-13.76	2.3977G	-56.28	2.39981G	-46.95	2.48419G	-62.62	16.23623G	-52.42	1
2441MHz	Pass	2.44096G	5.54	-14.46	1.78469G	-64.94	2.39865G	-63.29	2.48417G	-62.54	16.81316G	-52.51	1
2480MHz	Pass	2.48016G	7.74	-12.26	2.19258G	-62.65	2.39828G	-63.00	2.48351G	-52.26	16.20809G	-52.02	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40188G	4.38	-15.62	2.398G	-56.38	2.39988G	-46.65	2.48502G	-62.27	15.21464G	-52.01	1
2441MHz	Pass	2.44112G	7.27	-12.73	1.90457G	-63.86	2.39903G	-62.12	2.48508G	-62.62	17.44076G	-51.48	1
2480MHz	Pass	2.47999G	6.78	-13.22	2.3015G	-63.81	2.39885G	-63.50	2.48353G	-53.10	16.29815G	-52.38	1













Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-EDR(3Mbps)	Pass	PK	76.56M	35.40	40.00	-4.60	-15.15	3	Vertical	360	1.00	-

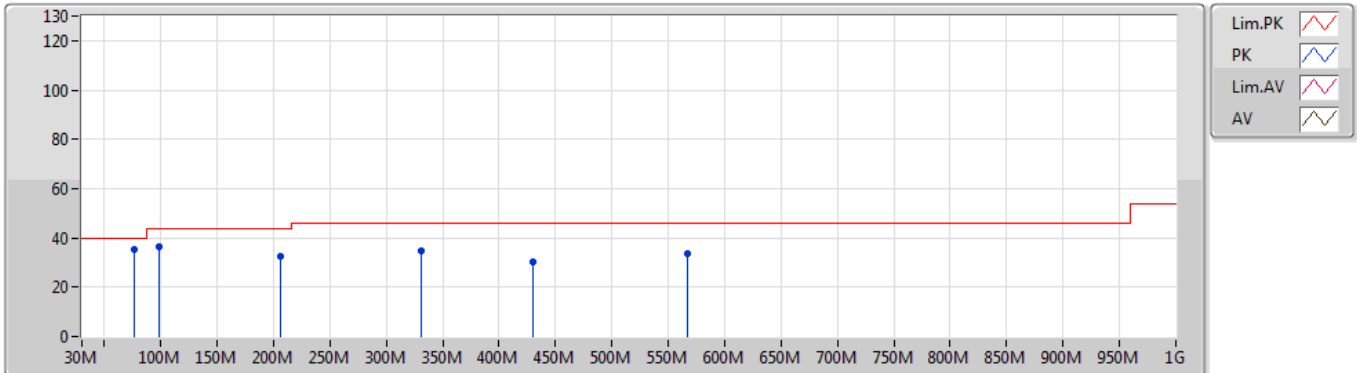
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	PK	76.56M	35.40	40.00	-4.60	-15.15	3	Vertical	360	1.00	-
2441MHz	Pass	PK	97.9M	36.46	43.50	-7.04	-10.66	3	Vertical	360	1.00	-
2441MHz	Pass	PK	206.54M	32.38	43.50	-11.12	-10.55	3	Vertical	360	1.00	-
2441MHz	Pass	PK	330.7M	34.66	46.00	-11.34	-5.42	3	Vertical	360	1.00	-
2441MHz	Pass	PK	429.64M	30.22	46.00	-15.78	-2.93	3	Vertical	360	1.00	-
2441MHz	Pass	PK	567.38M	33.74	46.00	-12.26	-1.10	3	Vertical	360	1.00	-
2441MHz	Pass	PK	119.24M	31.05	43.50	-12.45	-8.84	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	159.98M	31.08	43.50	-12.42	-10.55	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	280.26M	32.96	46.00	-13.04	-6.32	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	332.64M	39.07	46.00	-6.93	-5.41	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	452.92M	34.11	46.00	-11.89	-2.86	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	501.42M	33.14	46.00	-12.86	-2.38	3	Horizontal	0	1.00	-

BT-EDR(3Mbps)

27/04/2019

2441MHz_Adapter

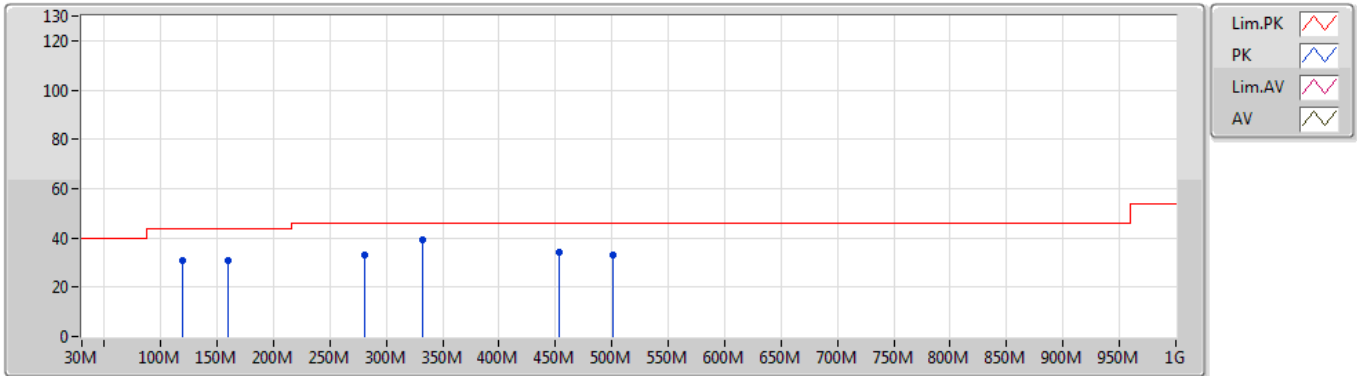


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	76.56M	35.40	40.00	-4.60	-15.15	3	Vertical	360	1.00	-
PK	97.9M	36.46	43.50	-7.04	-10.66	3	Vertical	360	1.00	-
PK	206.54M	32.38	43.50	-11.12	-10.55	3	Vertical	360	1.00	-
PK	330.7M	34.66	46.00	-11.34	-5.42	3	Vertical	360	1.00	-
PK	429.64M	30.22	46.00	-15.78	-2.93	3	Vertical	360	1.00	-
PK	567.38M	33.74	46.00	-12.26	-1.10	3	Vertical	360	1.00	-

BT-EDR(3Mbps)

27/04/2019

2441MHz_Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	119.24M	31.05	43.50	-12.45	-8.84	3	Horizontal	0	1.00	-
PK	159.98M	31.08	43.50	-12.42	-10.55	3	Horizontal	0	1.00	-
PK	280.26M	32.96	46.00	-13.04	-6.32	3	Horizontal	0	1.00	-
PK	332.64M	39.07	46.00	-6.93	-5.41	3	Horizontal	0	1.00	-
PK	452.92M	34.11	46.00	-11.89	-2.86	3	Horizontal	0	1.00	-
PK	501.42M	33.14	46.00	-12.86	-2.38	3	Horizontal	0	1.00	-



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	2.4836G	60.15	74.00	-13.85	32.19	3	Horizontal	65	1.22	-
BT-EDR(3Mbps)	Pass	PK	2.4836G	59.04	74.00	-14.96	32.19	3	Horizontal	65	1.22	-



Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3642G	34.88	54.00	-19.12	31.76	3	Vertical	303	2.75	-
2402MHz	Pass	AV	2.402G	76.65	Inf	-Inf	31.89	3	Vertical	303	2.75	-
2402MHz	Pass	PK	2.3642G	57.38	74.00	-16.62	31.76	3	Vertical	303	2.75	-
2402MHz	Pass	PK	2.402G	99.15	Inf	-Inf	31.89	3	Vertical	303	2.75	-
2402MHz	Pass	PK	2.3882G	56.64	74.00	-17.36	31.85	3	Horizontal	289	1.01	-
2402MHz	Pass	PK	2.4018G	107.46	Inf	-Inf	31.89	3	Horizontal	289	1.01	-
2402MHz	Pass	AV	2.3882G	34.14	54.00	-19.86	31.85	3	Horizontal	289	1.01	-
2402MHz	Pass	AV	2.4018G	84.96	Inf	-Inf	31.89	3	Horizontal	289	1.01	-
2402MHz	Pass	AV	4.7905G	20.79	54.00	-33.21	3.41	3	Vertical	187	2.26	-
2402MHz	Pass	PK	4.7905G	43.29	74.00	-30.71	3.41	3	Vertical	187	2.26	-
2402MHz	Pass	AV	4.79458G	20.64	54.00	-33.36	3.42	3	Horizontal	197	1.54	-
2402MHz	Pass	PK	4.79458G	43.14	74.00	-30.86	3.42	3	Horizontal	197	1.54	-
2441MHz	Pass	AV	2.3766G	33.98	54.00	-20.02	31.80	3	Vertical	225	2.99	-
2441MHz	Pass	AV	2.441G	79.54	Inf	-Inf	32.04	3	Vertical	225	2.99	-
2441MHz	Pass	AV	2.493G	35.13	54.00	-18.87	32.22	3	Vertical	225	2.99	-
2441MHz	Pass	PK	2.3766G	56.48	74.00	-17.52	31.80	3	Vertical	225	2.99	-
2441MHz	Pass	PK	2.441G	102.04	Inf	-Inf	32.04	3	Vertical	225	2.99	-
2441MHz	Pass	PK	2.493G	57.63	74.00	-16.37	32.22	3	Vertical	225	2.99	-
2441MHz	Pass	AV	2.3846G	33.98	54.00	-20.02	31.83	3	Horizontal	317	1.50	-
2441MHz	Pass	AV	2.441G	82.28	Inf	-Inf	32.04	3	Horizontal	317	1.50	-
2441MHz	Pass	AV	2.4886G	34.63	54.00	-19.37	32.20	3	Horizontal	317	1.50	-
2441MHz	Pass	PK	2.3846G	56.48	74.00	-17.52	31.83	3	Horizontal	317	1.50	-
2441MHz	Pass	PK	2.441G	104.78	Inf	-Inf	32.04	3	Horizontal	317	1.50	-
2441MHz	Pass	PK	2.4886G	57.13	74.00	-16.87	32.20	3	Horizontal	317	1.50	-
2441MHz	Pass	AV	4.8763G	21.35	54.00	-32.65	3.62	3	Vertical	55	1.78	-
2441MHz	Pass	PK	4.8763G	43.85	74.00	-30.15	3.62	3	Vertical	55	1.78	-
2441MHz	Pass	AV	4.87672G	21.03	54.00	-32.97	3.62	3	Horizontal	216	1.79	-
2441MHz	Pass	PK	4.87672G	43.53	74.00	-30.47	3.62	3	Horizontal	216	1.79	-
2480MHz	Pass	AV	2.48G	75.15	Inf	-Inf	32.17	3	Vertical	119	1.08	-
2480MHz	Pass	AV	2.4836G	34.40	54.00	-19.60	32.19	3	Vertical	119	1.08	-
2480MHz	Pass	PK	2.48G	97.65	Inf	-Inf	32.17	3	Vertical	119	1.08	-
2480MHz	Pass	PK	2.4836G	56.90	74.00	-17.10	32.19	3	Vertical	119	1.08	-
2480MHz	Pass	AV	2.4802G	83.51	Inf	-Inf	32.17	3	Horizontal	65	1.22	-
2480MHz	Pass	AV	2.4836G	37.65	54.00	-16.35	32.19	3	Horizontal	65	1.22	-
2480MHz	Pass	PK	2.4802G	106.01	Inf	-Inf	32.17	3	Horizontal	65	1.22	-
2480MHz	Pass	PK	2.4836G	60.15	74.00	-13.85	32.19	3	Horizontal	65	1.22	-
2480MHz	Pass	AV	4.95334G	20.89	54.00	-33.11	3.81	3	Vertical	34	1.22	-
2480MHz	Pass	PK	4.95334G	43.39	74.00	-30.61	3.81	3	Vertical	34	1.22	-
2480MHz	Pass	AV	4.96324G	21.43	54.00	-32.57	3.83	3	Horizontal	124	2.16	-
2480MHz	Pass	PK	4.96324G	43.93	74.00	-30.07	3.83	3	Horizontal	124	2.16	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.366G	33.77	54.00	-20.23	31.77	3	Vertical	115	1.04	-
2402MHz	Pass	AV	2.402G	77.15	Inf	-Inf	31.89	3	Vertical	115	1.04	-
2402MHz	Pass	PK	2.366G	56.27	74.00	-17.73	31.77	3	Vertical	115	1.04	-
2402MHz	Pass	PK	2.402G	99.65	Inf	-Inf	31.89	3	Vertical	115	1.04	-
2402MHz	Pass	AV	2.39G	34.53	54.00	-19.47	31.86	3	Horizontal	71	1.26	-
2402MHz	Pass	AV	2.402G	84.18	Inf	-Inf	31.89	3	Horizontal	71	1.26	-

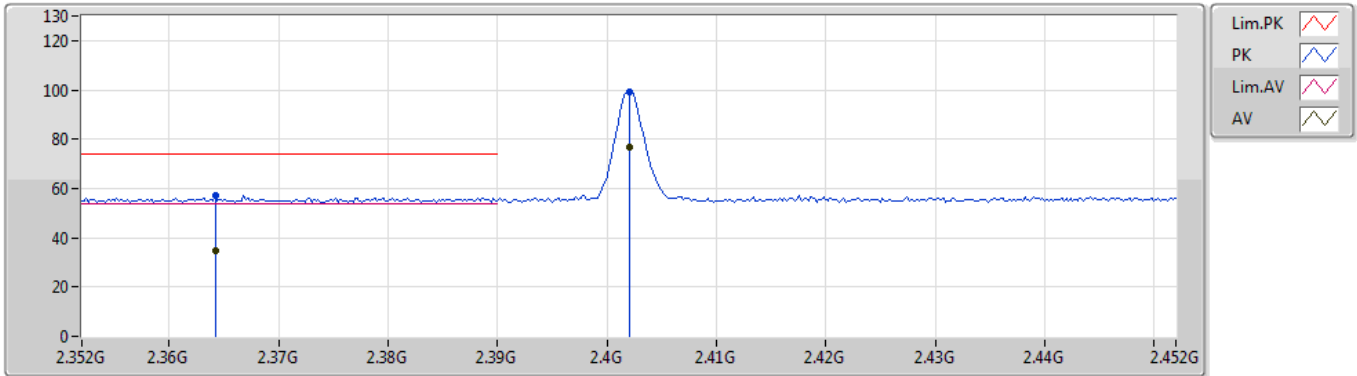


Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.39G	57.03	74.00	-16.97	31.86	3	Horizontal	71	1.26	-
2402MHz	Pass	PK	2.402G	106.68	Inf	-Inf	31.89	3	Horizontal	71	1.26	-
2402MHz	Pass	AV	4.79074G	20.72	54.00	-33.28	3.41	3	Vertical	249	2.24	-
2402MHz	Pass	PK	4.79074G	43.22	74.00	-30.78	3.41	3	Vertical	249	2.24	-
2402MHz	Pass	AV	4.79992G	20.82	54.00	-33.18	3.43	3	Horizontal	264	1.97	-
2402MHz	Pass	PK	4.79992G	43.32	74.00	-30.68	3.43	3	Horizontal	264	1.97	-
2441MHz	Pass	AV	2.343G	34.35	54.00	-19.65	31.68	3	Vertical	114	1.26	-
2441MHz	Pass	AV	2.441G	72.05	Inf	-Inf	32.04	3	Vertical	114	1.26	-
2441MHz	Pass	AV	2.489G	33.79	54.00	-20.21	32.20	3	Vertical	114	1.26	-
2441MHz	Pass	PK	2.343G	56.85	74.00	-17.15	31.68	3	Vertical	114	1.26	-
2441MHz	Pass	PK	2.441G	94.55	Inf	-Inf	32.04	3	Vertical	114	1.26	-
2441MHz	Pass	PK	2.489G	56.29	74.00	-17.71	32.20	3	Vertical	114	1.26	-
2441MHz	Pass	AV	2.3426G	33.97	54.00	-20.03	31.68	3	Horizontal	65	1.00	-
2441MHz	Pass	AV	2.441G	82.45	Inf	-Inf	32.04	3	Horizontal	65	1.00	-
2441MHz	Pass	AV	2.4998G	33.93	54.00	-20.07	32.25	3	Horizontal	65	1.00	-
2441MHz	Pass	PK	2.3426G	56.47	74.00	-17.53	31.68	3	Horizontal	65	1.00	-
2441MHz	Pass	PK	2.441G	104.95	Inf	-Inf	32.04	3	Horizontal	65	1.00	-
2441MHz	Pass	PK	2.4998G	56.43	74.00	-17.57	32.25	3	Horizontal	65	1.00	-
2441MHz	Pass	AV	4.87384G	20.76	54.00	-33.24	3.61	3	Vertical	173	1.23	-
2441MHz	Pass	PK	4.87384G	43.26	74.00	-30.74	3.61	3	Vertical	173	1.23	-
2441MHz	Pass	AV	4.87414G	20.72	54.00	-33.28	3.61	3	Horizontal	191	1.22	-
2441MHz	Pass	PK	4.87414G	43.22	74.00	-30.78	3.61	3	Horizontal	191	1.22	-
2480MHz	Pass	AV	2.48G	73.15	Inf	-Inf	32.17	3	Vertical	117	1.07	-
2480MHz	Pass	AV	2.484G	34.36	54.00	-19.64	32.19	3	Vertical	117	1.07	-
2480MHz	Pass	PK	2.48G	95.65	Inf	-Inf	32.17	3	Vertical	117	1.07	-
2480MHz	Pass	PK	2.484G	56.86	74.00	-17.14	32.19	3	Vertical	117	1.07	-
2480MHz	Pass	AV	2.48G	81.26	Inf	-Inf	32.17	3	Horizontal	65	1.22	-
2480MHz	Pass	AV	2.4836G	36.54	54.00	-17.46	32.19	3	Horizontal	65	1.22	-
2480MHz	Pass	PK	2.48G	103.76	Inf	-Inf	32.17	3	Horizontal	65	1.22	-
2480MHz	Pass	PK	2.4836G	59.04	74.00	-14.96	32.19	3	Horizontal	65	1.22	-
2480MHz	Pass	AV	4.95828G	20.99	54.00	-33.01	3.81	3	Vertical	254	2.46	-
2480MHz	Pass	PK	4.95828G	43.49	74.00	-30.51	3.81	3	Vertical	254	2.46	-
2480MHz	Pass	AV	4.94518G	20.59	54.00	-33.41	3.78	3	Horizontal	189	1.50	-
2480MHz	Pass	PK	4.94518G	43.09	74.00	-30.91	3.78	3	Horizontal	189	1.50	-

BT-BR(1Mbps)

27/04/2019

2402MHz_TX

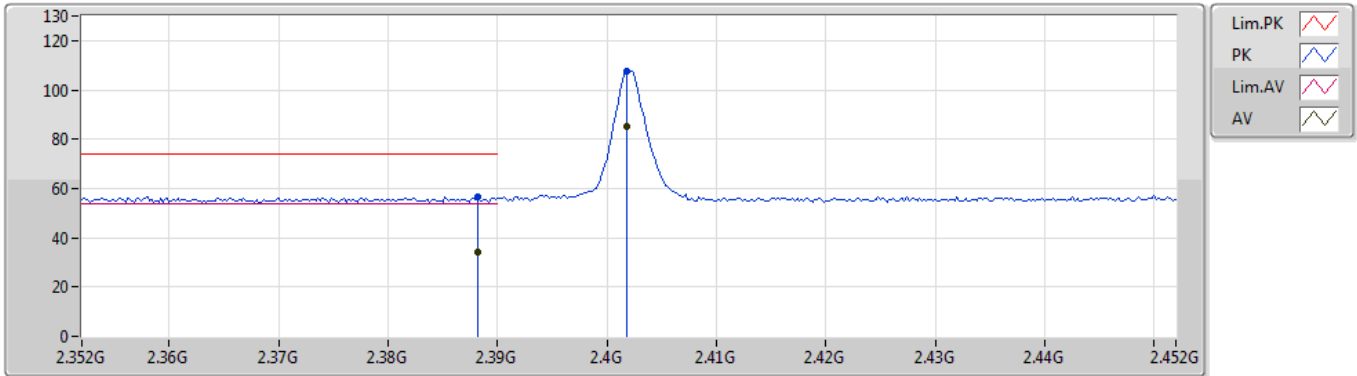


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.3642G	34.88	54.00	-19.12	31.76	3	Vertical	303	2.75	-
AV	2.402G	76.65	Inf	-Inf	31.89	3	Vertical	303	2.75	-
PK	2.3642G	57.38	74.00	-16.62	31.76	3	Vertical	303	2.75	-
PK	2.402G	99.15	Inf	-Inf	31.89	3	Vertical	303	2.75	-

BT-BR(1Mbps)

27/04/2019

2402MHz_TX

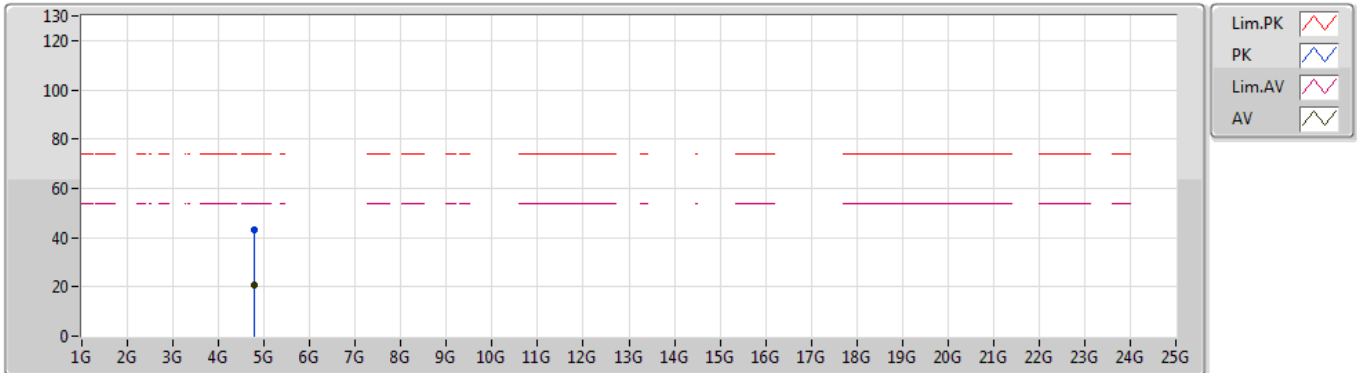


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.3882G	34.14	54.00	-19.86	31.85	3	Horizontal	289	1.01	-
AV	2.4018G	84.96	Inf	-Inf	31.89	3	Horizontal	289	1.01	-
PK	2.3882G	56.64	74.00	-17.36	31.85	3	Horizontal	289	1.01	-
PK	2.4018G	107.46	Inf	-Inf	31.89	3	Horizontal	289	1.01	-

BT-BR(1Mbps)

27/04/2019

2402MHz_TX

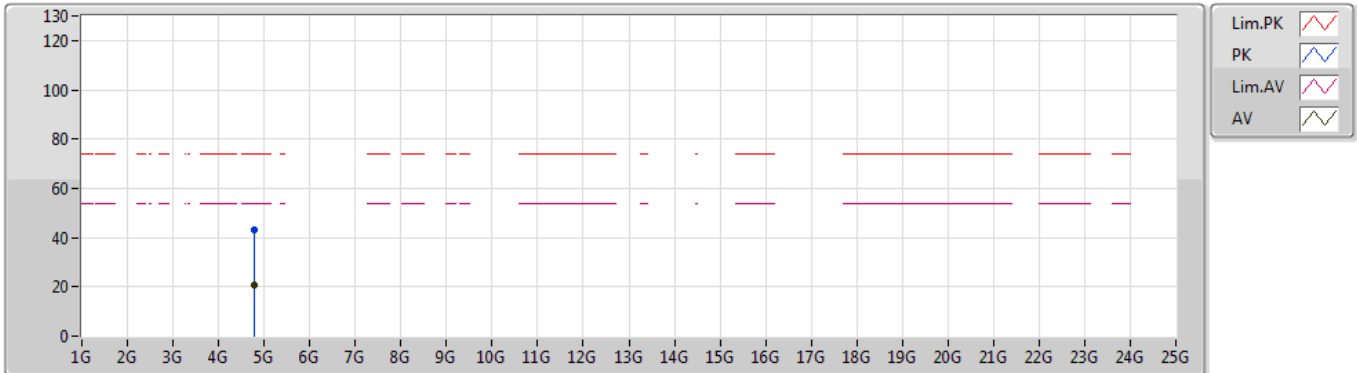


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.7905G	20.79	54.00	-33.21	3.41	3	Vertical	187	2.26	-
PK	4.7905G	43.29	74.00	-30.71	3.41	3	Vertical	187	2.26	-

BT-BR(1Mbps)

27/04/2019

2402MHz_TX

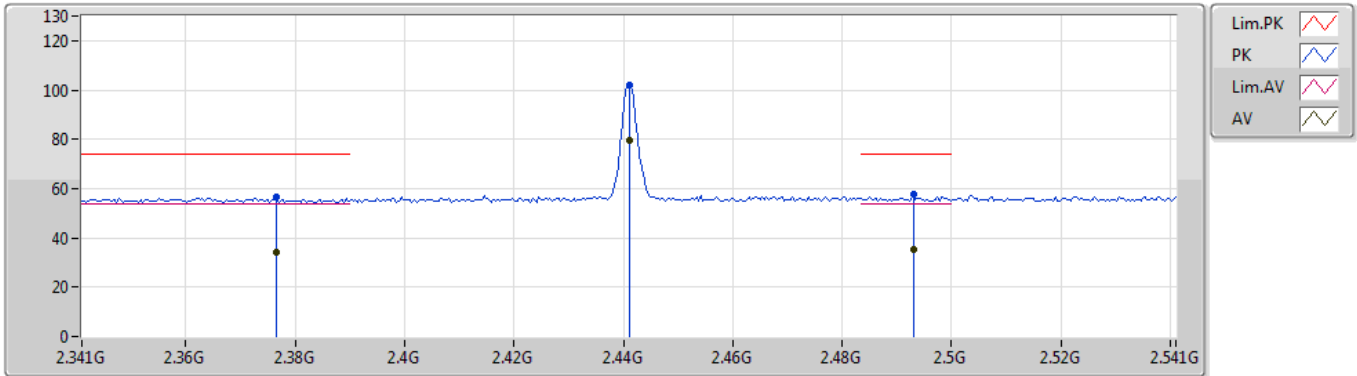


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.79458G	20.64	54.00	-33.36	3.42	3	Horizontal	197	1.54	-
PK	4.79458G	43.14	74.00	-30.86	3.42	3	Horizontal	197	1.54	-

BT-BR(1Mbps)

27/04/2019

2441MHz_TX

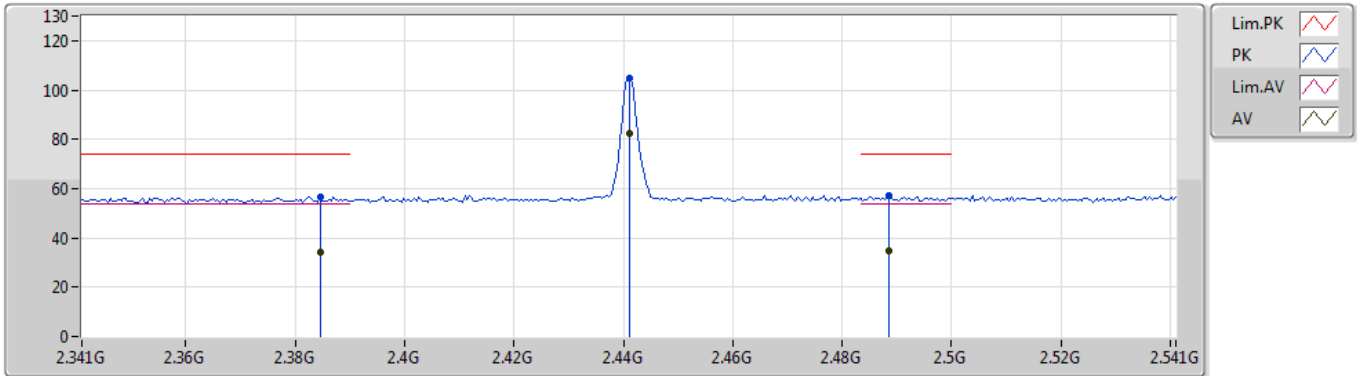


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.3766G	33.98	54.00	-20.02	31.80	3	Vertical	225	2.99	-
AV	2.441G	79.54	Inf	-Inf	32.04	3	Vertical	225	2.99	-
AV	2.493G	35.13	54.00	-18.87	32.22	3	Vertical	225	2.99	-
PK	2.3766G	56.48	74.00	-17.52	31.80	3	Vertical	225	2.99	-
PK	2.441G	102.04	Inf	-Inf	32.04	3	Vertical	225	2.99	-
PK	2.493G	57.63	74.00	-16.37	32.22	3	Vertical	225	2.99	-

BT-BR(1Mbps)

27/04/2019

2441MHz_TX

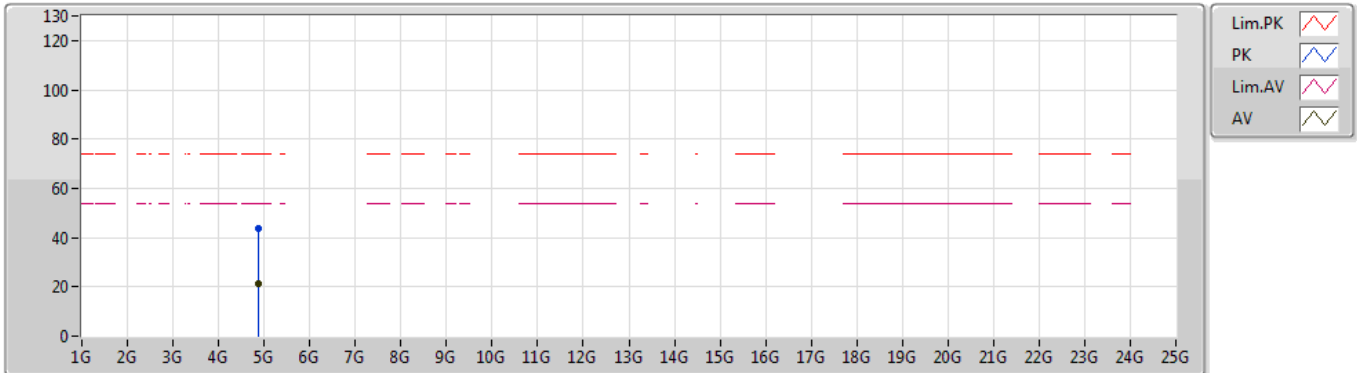


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.3846G	33.98	54.00	-20.02	31.83	3	Horizontal	317	1.50	-
AV	2.441G	82.28	Inf	-Inf	32.04	3	Horizontal	317	1.50	-
AV	2.4886G	34.63	54.00	-19.37	32.20	3	Horizontal	317	1.50	-
PK	2.3846G	56.48	74.00	-17.52	31.83	3	Horizontal	317	1.50	-
PK	2.441G	104.78	Inf	-Inf	32.04	3	Horizontal	317	1.50	-
PK	2.4886G	57.13	74.00	-16.87	32.20	3	Horizontal	317	1.50	-

BT-BR(1Mbps)

27/04/2019

2441MHz_TX

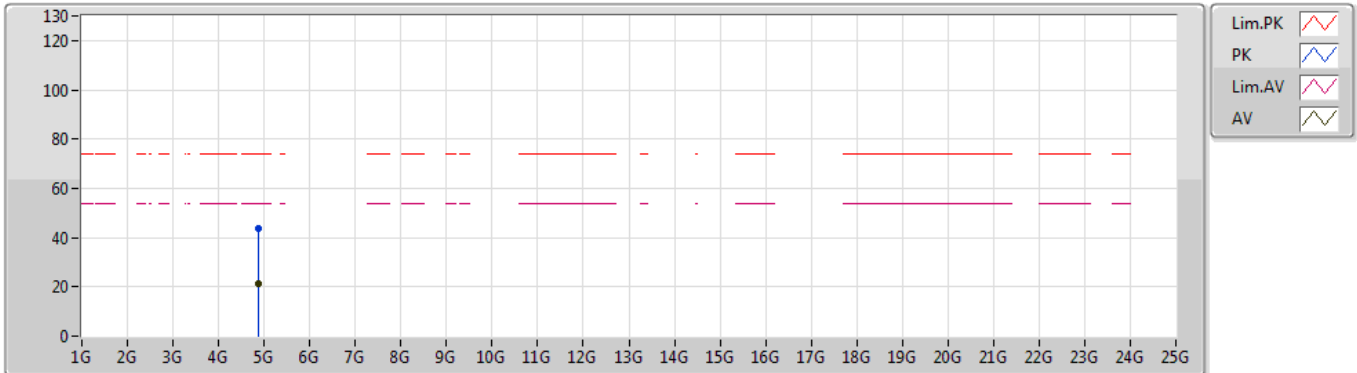


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.8763G	21.35	54.00	-32.65	3.62	3	Vertical	55	1.78	-
PK	4.8763G	43.85	74.00	-30.15	3.62	3	Vertical	55	1.78	-

BT-BR(1Mbps)

27/04/2019

2441MHz_TX

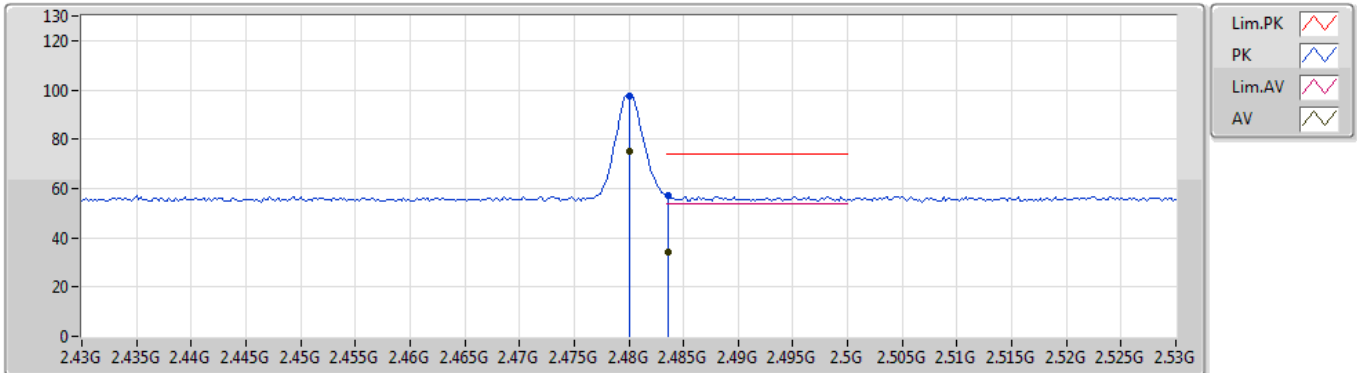


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.87672G	21.03	54.00	-32.97	3.62	3	Horizontal	216	1.79	-
PK	4.87672G	43.53	74.00	-30.47	3.62	3	Horizontal	216	1.79	-

BT-BR(1Mbps)

27/04/2019

2480MHz_TX

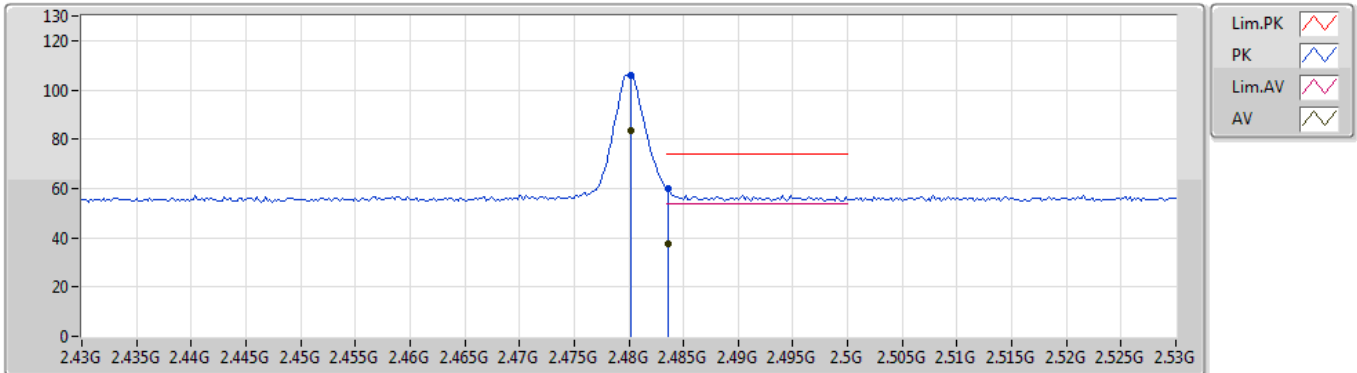


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.48G	75.15	Inf	-Inf	32.17	3	Vertical	119	1.08	-
AV	2.4836G	34.40	54.00	-19.60	32.19	3	Vertical	119	1.08	-
PK	2.48G	97.65	Inf	-Inf	32.17	3	Vertical	119	1.08	-
PK	2.4836G	56.90	74.00	-17.10	32.19	3	Vertical	119	1.08	-

BT-BR(1Mbps)

27/04/2019

2480MHz_TX

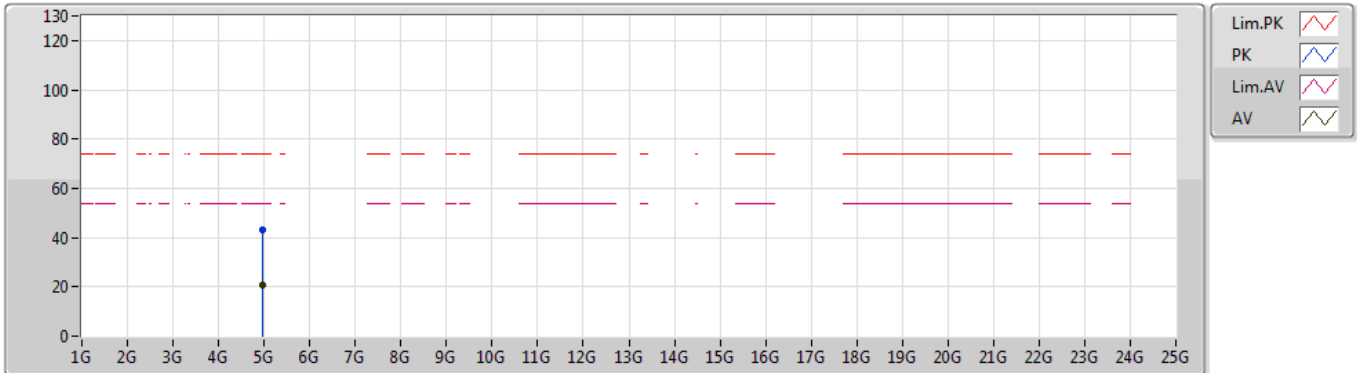


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.4802G	83.51	Inf	-Inf	32.17	3	Horizontal	65	1.22	-
AV	2.4836G	37.65	54.00	-16.35	32.19	3	Horizontal	65	1.22	-
PK	2.4802G	106.01	Inf	-Inf	32.17	3	Horizontal	65	1.22	-
PK	2.4836G	60.15	74.00	-13.85	32.19	3	Horizontal	65	1.22	-

BT-BR(1Mbps)

27/04/2019

2480MHz_TX

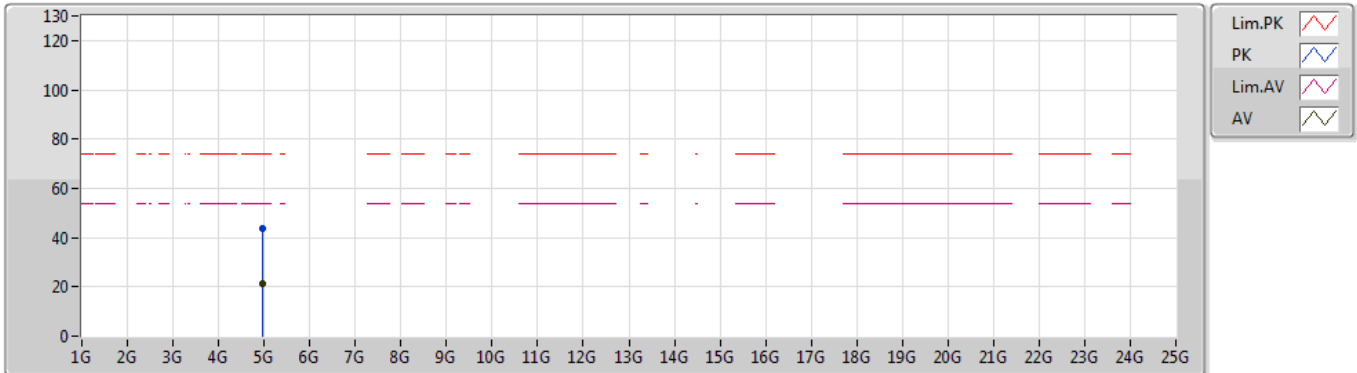


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.95334G	20.89	54.00	-33.11	3.81	3	Vertical	34	1.22	-
PK	4.95334G	43.39	74.00	-30.61	3.81	3	Vertical	34	1.22	-

BT-BR(1Mbps)

27/04/2019

2480MHz_TX

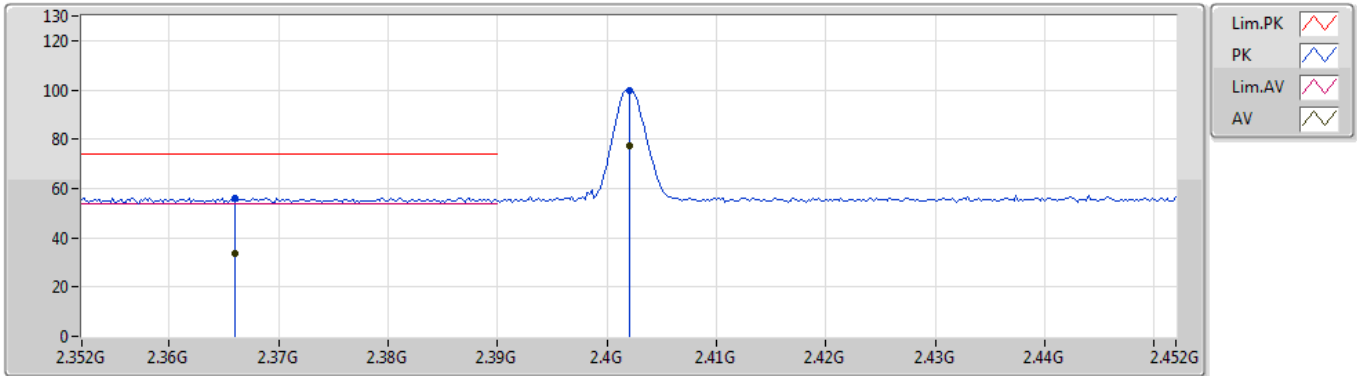


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.96324G	21.43	54.00	-32.57	3.83	3	Horizontal	124	2.16	-
PK	4.96324G	43.93	74.00	-30.07	3.83	3	Horizontal	124	2.16	-

BT-EDR(3Mbps)

27/04/2019

2402MHz_TX

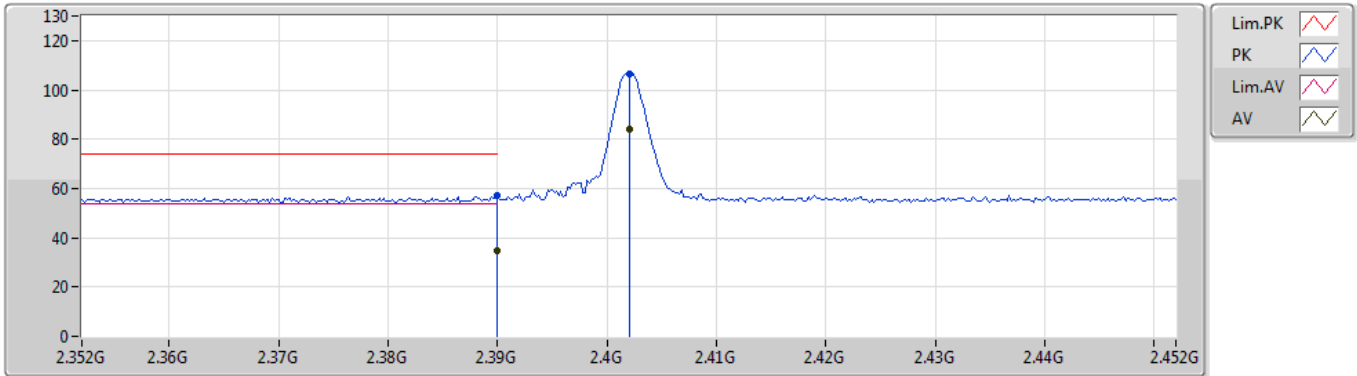


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.366G	33.77	54.00	-20.23	31.77	3	Vertical	115	1.04	-
AV	2.402G	77.15	Inf	-Inf	31.89	3	Vertical	115	1.04	-
PK	2.366G	56.27	74.00	-17.73	31.77	3	Vertical	115	1.04	-
PK	2.402G	99.65	Inf	-Inf	31.89	3	Vertical	115	1.04	-

BT-EDR(3Mbps)

27/04/2019

2402MHz_TX

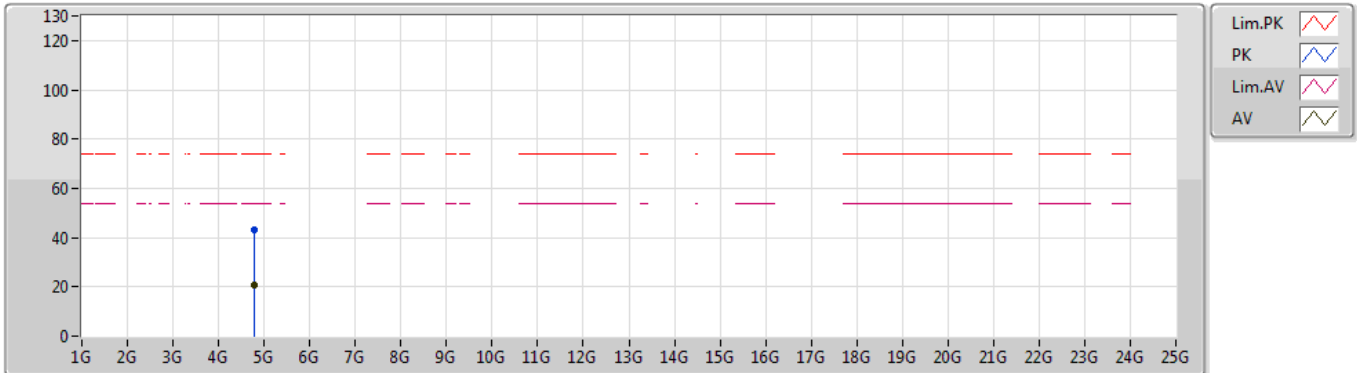


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.39G	34.53	54.00	-19.47	31.86	3	Horizontal	71	1.26	-
AV	2.402G	84.18	Inf	-Inf	31.89	3	Horizontal	71	1.26	-
PK	2.39G	57.03	74.00	-16.97	31.86	3	Horizontal	71	1.26	-
PK	2.402G	106.68	Inf	-Inf	31.89	3	Horizontal	71	1.26	-

BT-EDR(3Mbps)

27/04/2019

2402MHz_TX

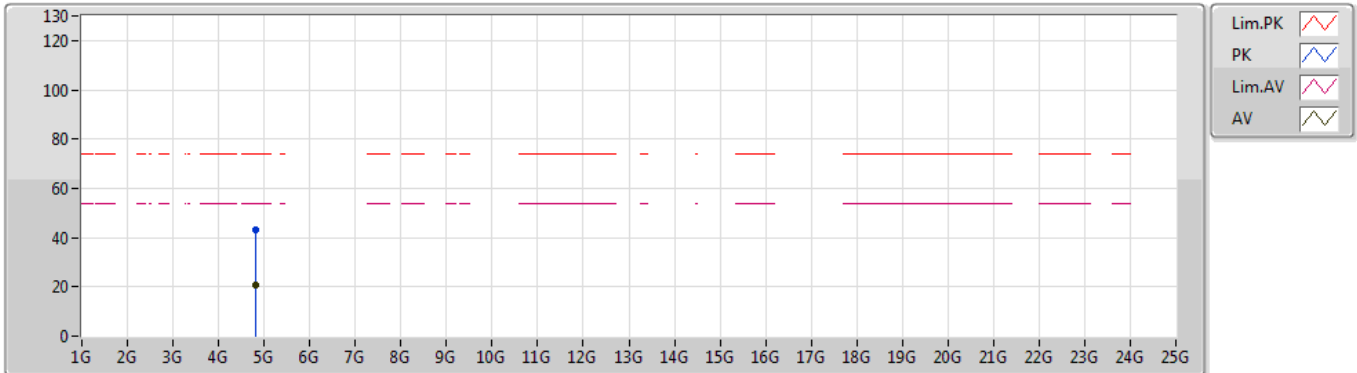


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.79074G	20.72	54.00	-33.28	3.41	3	Vertical	249	2.24	-
PK	4.79074G	43.22	74.00	-30.78	3.41	3	Vertical	249	2.24	-

BT-EDR(3Mbps)

27/04/2019

2402MHz_TX

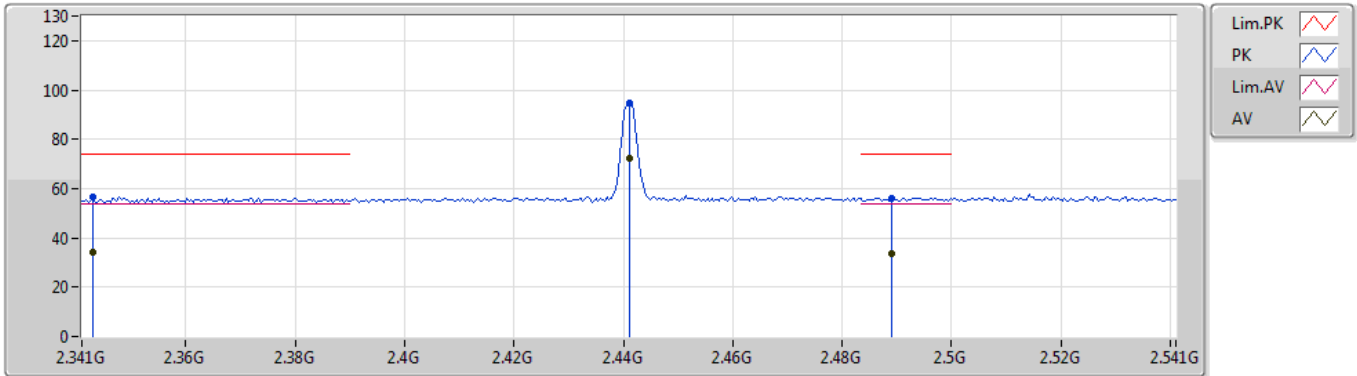


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.79992G	20.82	54.00	-33.18	3.43	3	Horizontal	264	1.97	-
PK	4.79992G	43.32	74.00	-30.68	3.43	3	Horizontal	264	1.97	-

BT-EDR(3Mbps)

27/04/2019

2441MHz_TX

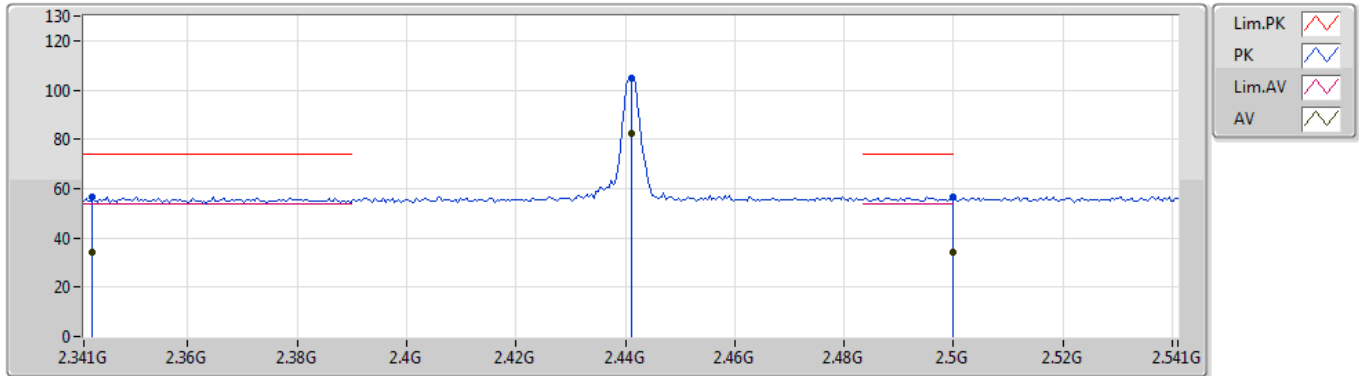


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.343G	34.35	54.00	-19.65	31.68	3	Vertical	114	1.26	-
AV	2.441G	72.05	Inf	-Inf	32.04	3	Vertical	114	1.26	-
AV	2.489G	33.79	54.00	-20.21	32.20	3	Vertical	114	1.26	-
PK	2.343G	56.85	74.00	-17.15	31.68	3	Vertical	114	1.26	-
PK	2.441G	94.55	Inf	-Inf	32.04	3	Vertical	114	1.26	-
PK	2.489G	56.29	74.00	-17.71	32.20	3	Vertical	114	1.26	-

BT-EDR(3Mbps)

27/04/2019

2441MHz_TX

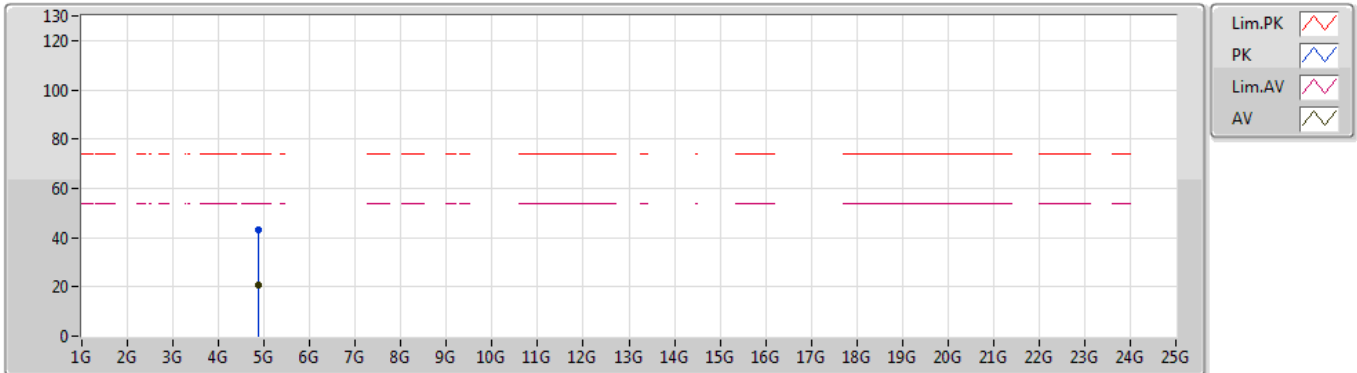


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.3426G	33.97	54.00	-20.03	31.68	3	Horizontal	65	1.00	-
AV	2.441G	82.45	Inf	-Inf	32.04	3	Horizontal	65	1.00	-
AV	2.4998G	33.93	54.00	-20.07	32.25	3	Horizontal	65	1.00	-
PK	2.3426G	56.47	74.00	-17.53	31.68	3	Horizontal	65	1.00	-
PK	2.441G	104.95	Inf	-Inf	32.04	3	Horizontal	65	1.00	-
PK	2.4998G	56.43	74.00	-17.57	32.25	3	Horizontal	65	1.00	-

BT-EDR(3Mbps)

27/04/2019

2441MHz_TX

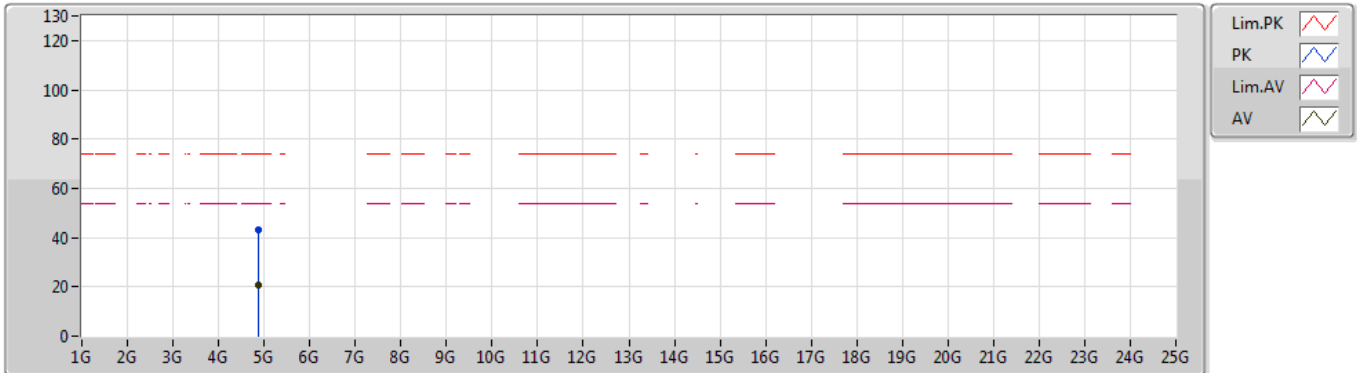


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.87384G	20.76	54.00	-33.24	3.61	3	Vertical	173	1.23	-
PK	4.87384G	43.26	74.00	-30.74	3.61	3	Vertical	173	1.23	-

BT-EDR(3Mbps)

27/04/2019

2441MHz_TX

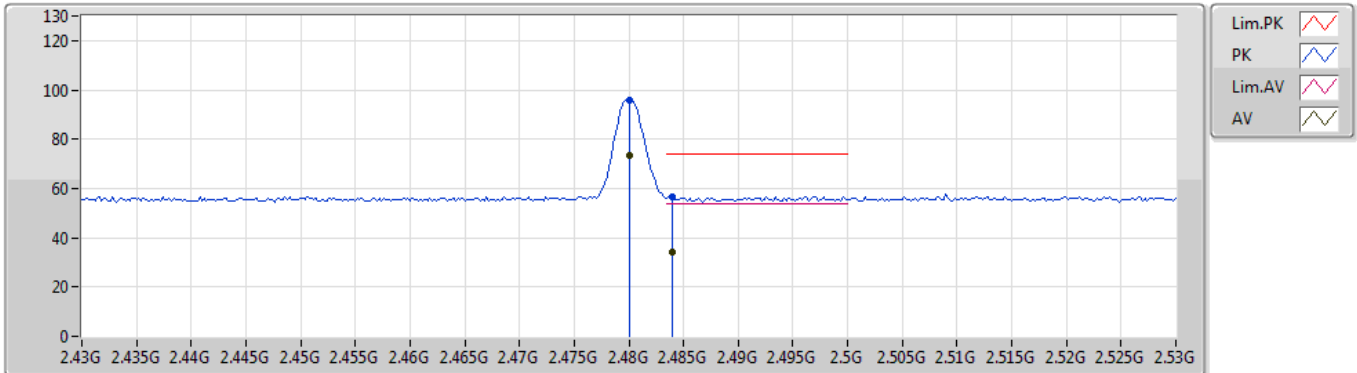


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.87414G	20.72	54.00	-33.28	3.61	3	Horizontal	191	1.22	-
PK	4.87414G	43.22	74.00	-30.78	3.61	3	Horizontal	191	1.22	-

BT-EDR(3Mbps)

27/04/2019

2480MHz_TX

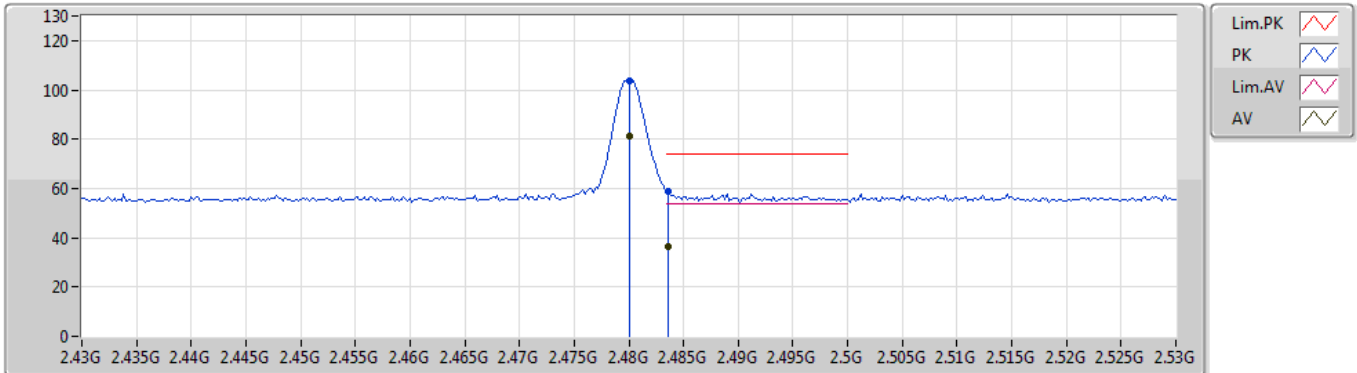


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.48G	73.15	Inf	-Inf	32.17	3	Vertical	117	1.07	-
AV	2.484G	34.36	54.00	-19.64	32.19	3	Vertical	117	1.07	-
PK	2.48G	95.65	Inf	-Inf	32.17	3	Vertical	117	1.07	-
PK	2.484G	56.86	74.00	-17.14	32.19	3	Vertical	117	1.07	-

BT-EDR(3Mbps)

27/04/2019

2480MHz_TX

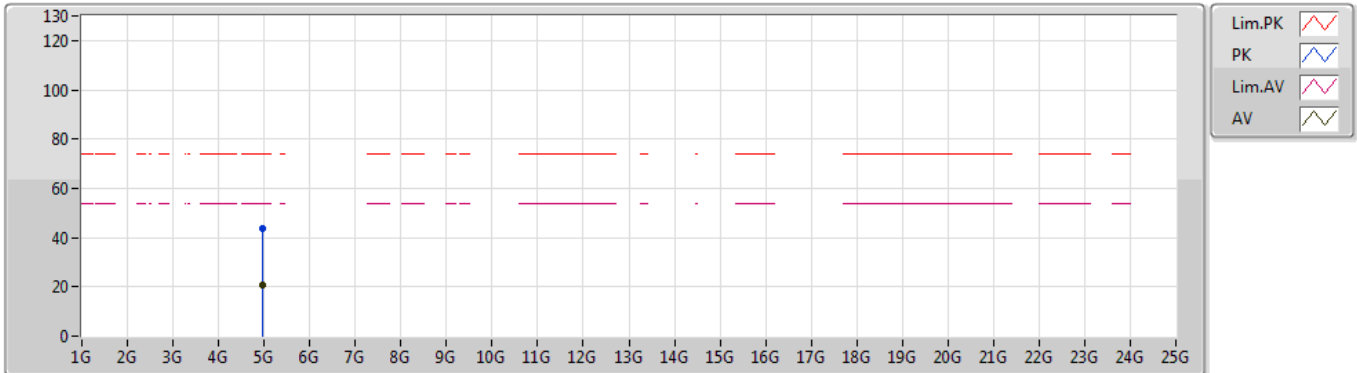


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.48G	81.26	Inf	-Inf	32.17	3	Horizontal	65	1.22	-
AV	2.4836G	36.54	54.00	-17.46	32.19	3	Horizontal	65	1.22	-
PK	2.48G	103.76	Inf	-Inf	32.17	3	Horizontal	65	1.22	-
PK	2.4836G	59.04	74.00	-14.96	32.19	3	Horizontal	65	1.22	-

BT-EDR(3Mbps)

27/04/2019

2480MHz_TX

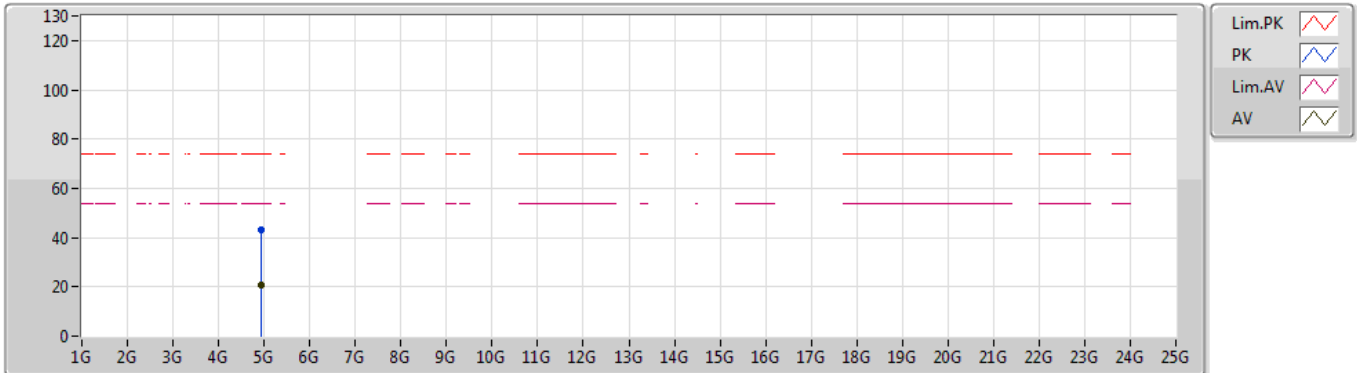


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.95828G	20.99	54.00	-33.01	3.81	3	Vertical	254	2.46	-
PK	4.95828G	43.49	74.00	-30.51	3.81	3	Vertical	254	2.46	-

BT-EDR(3Mbps)

27/04/2019

2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.94518G	20.59	54.00	-33.41	3.78	3	Horizontal	189	1.50	-
PK	4.94518G	43.09	74.00	-30.91	3.78	3	Horizontal	189	1.50	-