

FCC Test Report

FCC ID : UDX-60070010
Equipment : Network Camera
Brand Name : Cisco Systems, Inc.
Model Name : MV22-HW
Applicant / Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive San Jose, CA. 95134 USA
Standard : 47 CFR FCC Part 15.247

The product was received on May 11, 2018, and testing was started from May 16, 2018 and completed on May 22, 2018. 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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TEST SETUP PHOTOS V01

PHOTOGRAPHS OF EUT V01

[illegible]

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

Reviewed by: Jeremy Lin

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

Ant.	Brand	Model Name	Antenna Type	Connector
1	ARISTOTLE	RFA-25-AP609-DB1	PIFA Antenna	I-PEX
2	ARISTOTLE	RFA-25-AP609-DB2	Dipole Antenna	I-PEX

Ant.	Gain (dBi)		
	2.4G	5G	BT
1	-1.27	-1.07	-1.27
2	-1.12	-1.29	-

For 2.4 GHz function:

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

The EUT support diversity function, Ant. 1 or Ant. 2 can be used as transmitting/receiving antenna.

For 5 GHz function:

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

The EUT support diversity function, Ant. 1 or Ant. 2 can be used as transmitting/receiving antenna.

For Bluetooth function:

For Bluetooth mode (1TX/1RX)

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

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From PoE		
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) $\geq 1/T$
BT-BR(1Mbps)	0.773	1.118	2.888m	1k
BT-EDR(2Mbps)	0.776	1.101	2.891m	1k
BT-EDR(3Mbps)	0.772	1.124	2.894m	1k

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
- ♦ Public Notice DA 00-705
- ♦ 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
RF Conducted	TH06-HY	Tim	25.5°C / 63%	16/May/2018
Radiated	03CH09-HY	Jerry	24.5°C / 55%	22/May/2018
AC Conduction	CO04-HY	Daniel	23.8°C / 53%	16/May/2018

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)	3.6 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.0 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 Version	QRCT V3.0.210.0
-----------------------	-----------------

Mode	PowerSetting
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

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	PoE mode – PIFA antenna

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	PoE mode – PIFA antenna		
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	Normal Link
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Sporton Test Report No.: FA851622 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

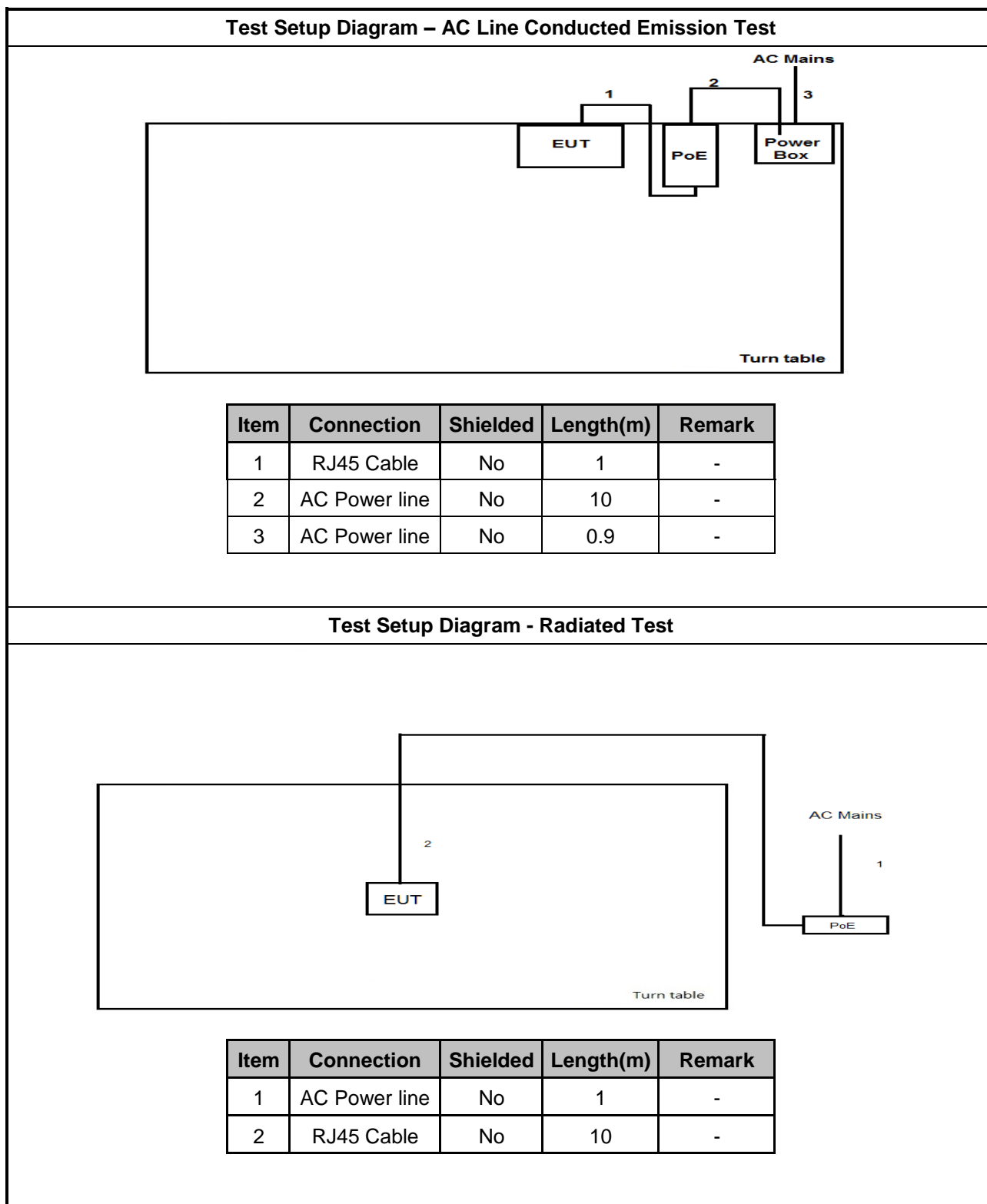
2.4 Support Equipment

Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	-
2	Adapter for NB	DELL	HA65NM130	-
3	AC Source	GW	APS-9102	-

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE (remote)	CISCO	MA-INJ-4	-

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE	CISCO	MA-INJ-4	-

2.5 Test Setup Diagram



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

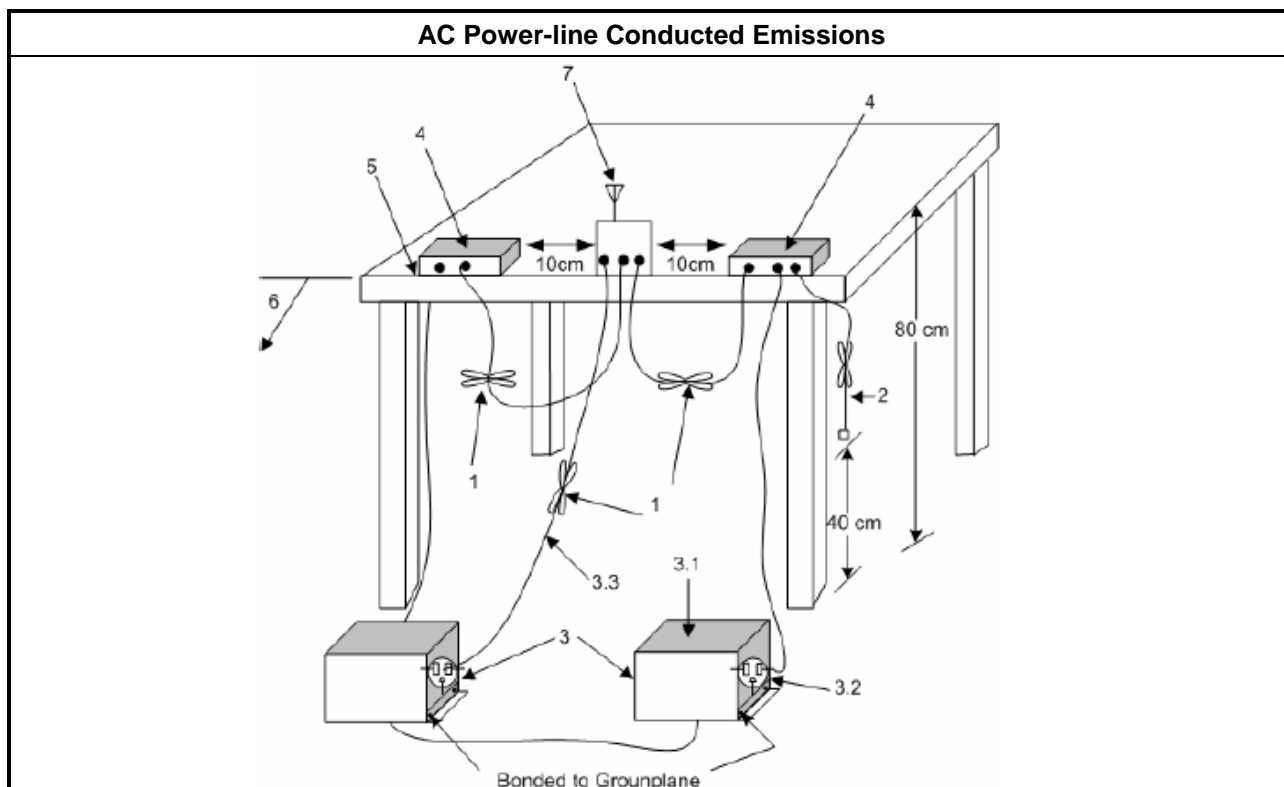
3.1.2 Measuring Instruments

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	

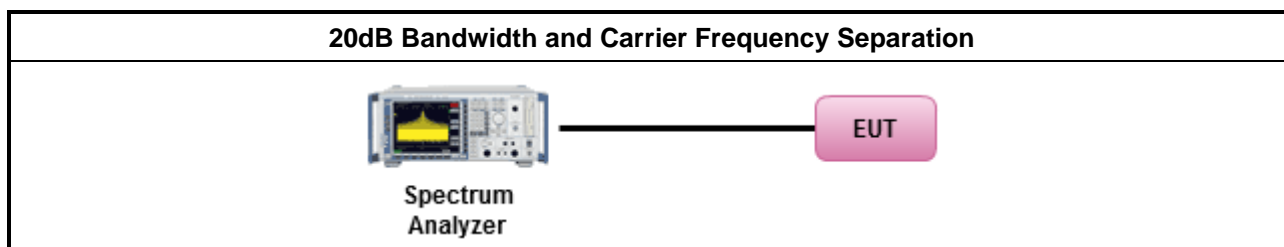
3.2.2 Measuring Instruments

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	

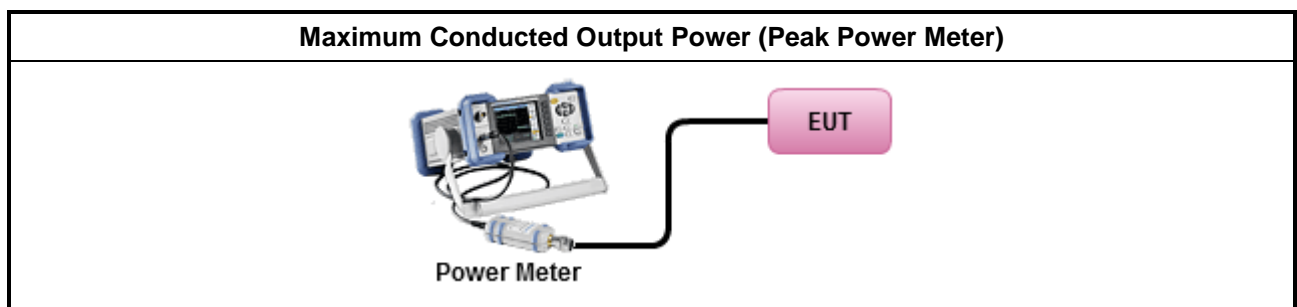
3.3.2 Measuring Instruments

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	
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$ and ChS \geq MAX (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ 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

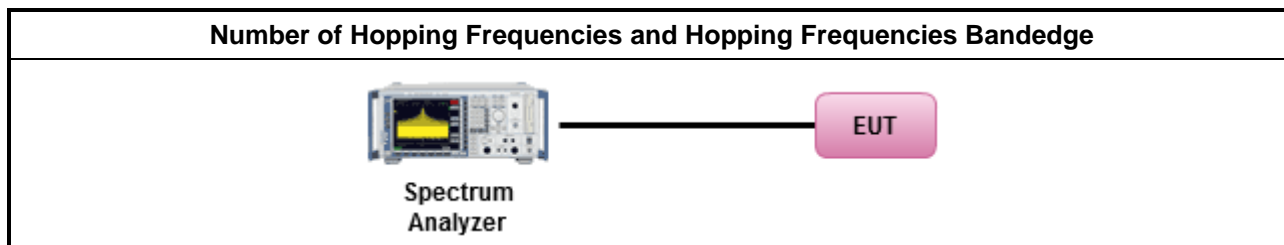
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

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

3.4.5 Test Setup



3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

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	

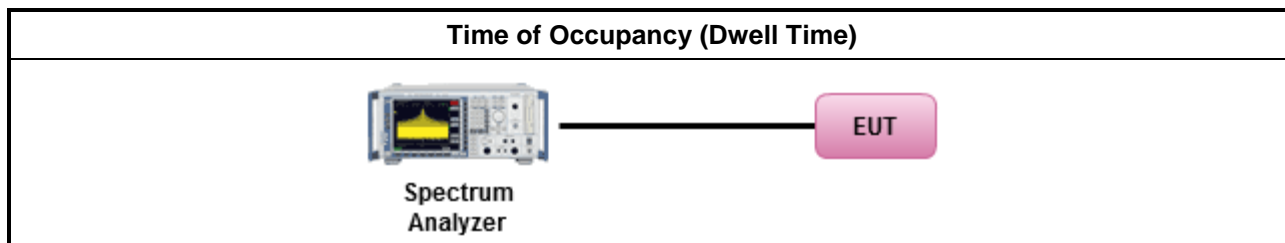
3.5.2 Measuring Instruments

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.	

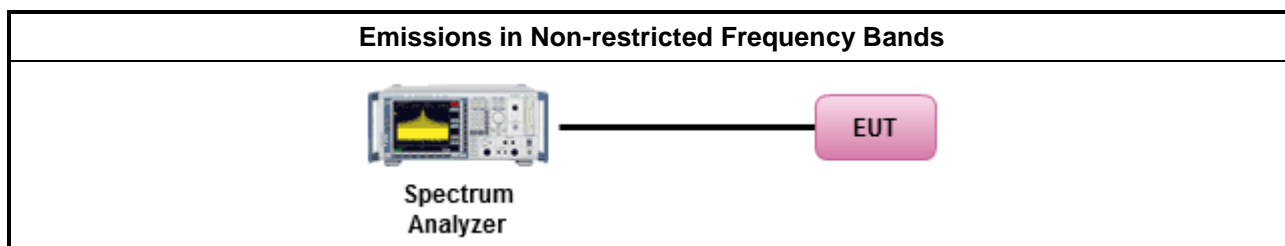
3.6.2 Measuring Instruments

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.

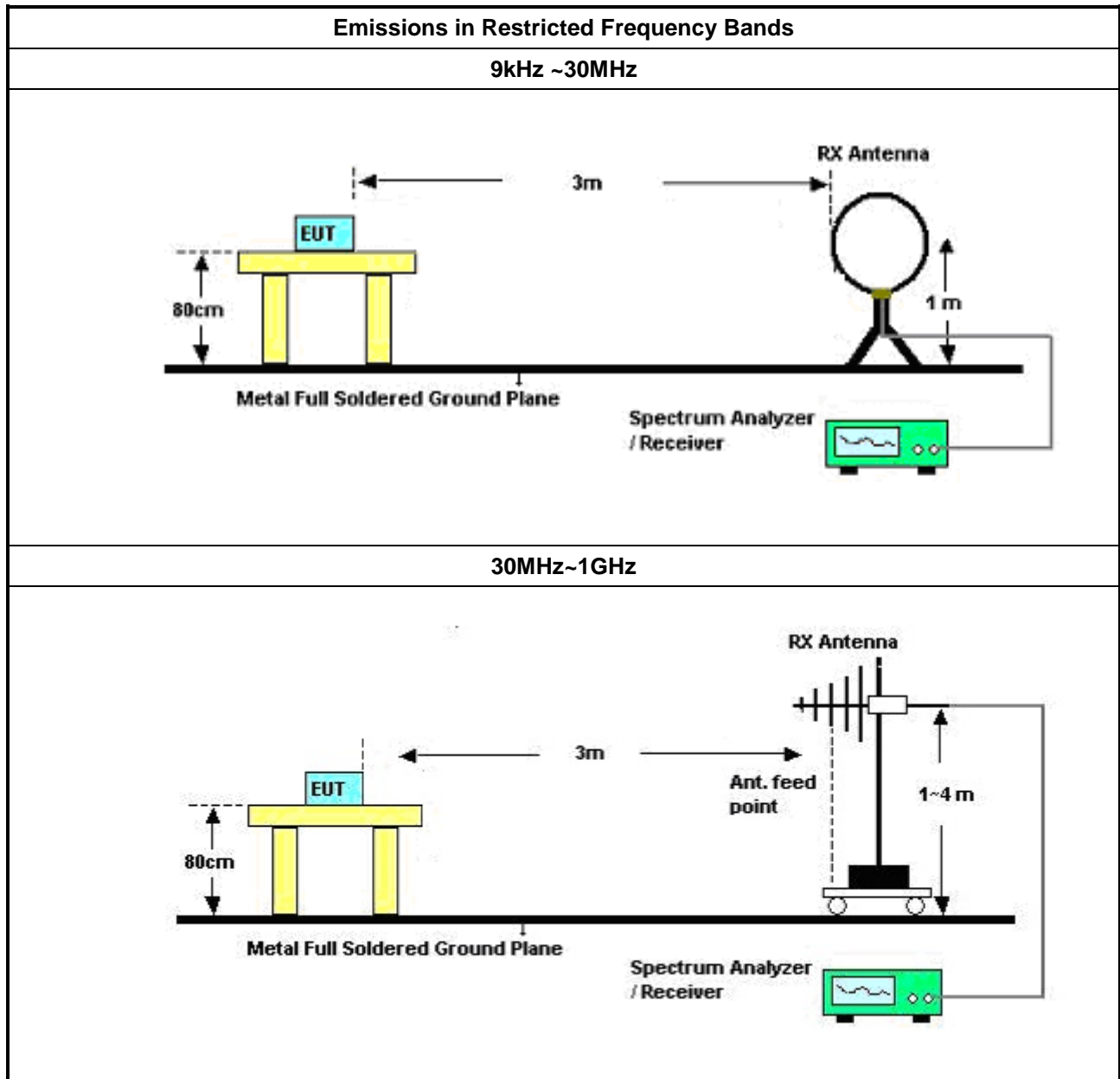
3.7.2 Measuring Instruments

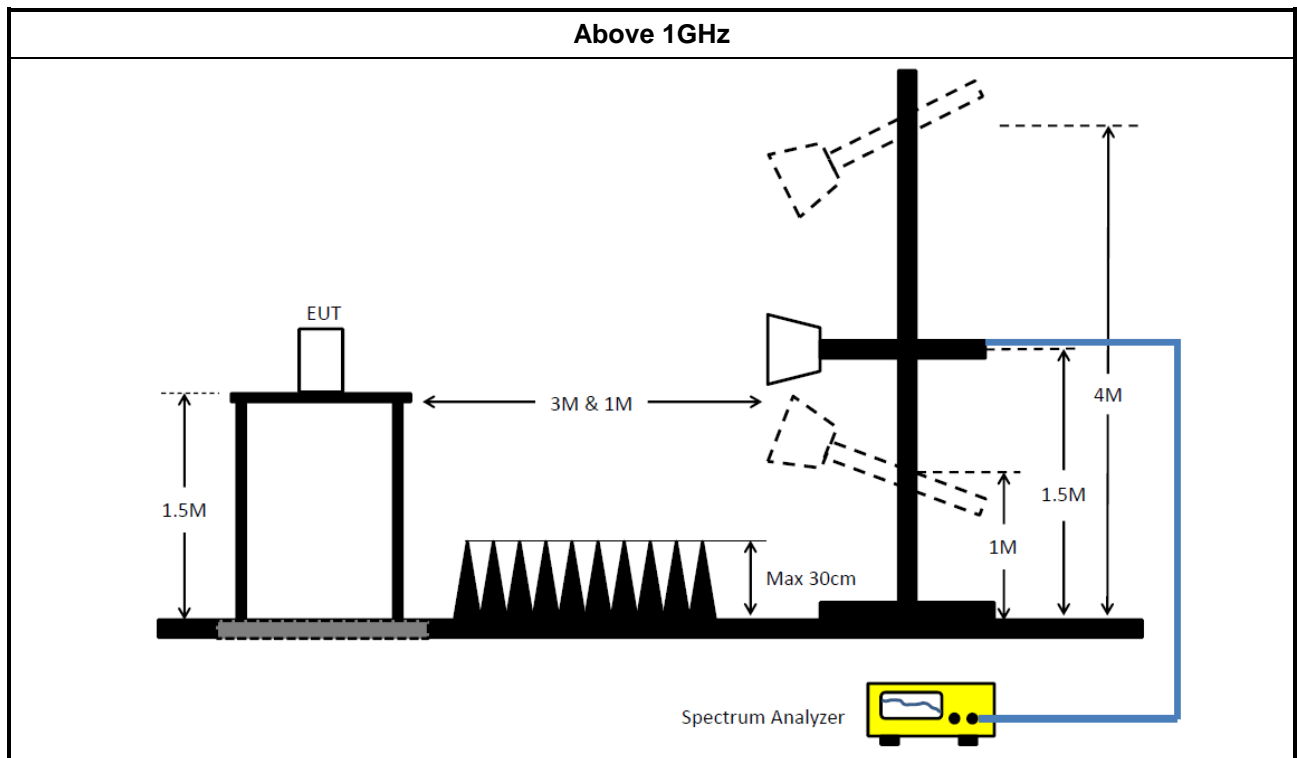
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [hopping duty factor].	
▪ Refer as ANSI C63.10; clause 6.9.2.2 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.

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	ESR3	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	17/Nov/2017	16/Nov/2018
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	06/Oct/2017	05/Oct/2018
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Puls e Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2017	11/Oct/2018

NCR : Non-Calibration Require

Instrument for Conducted Test

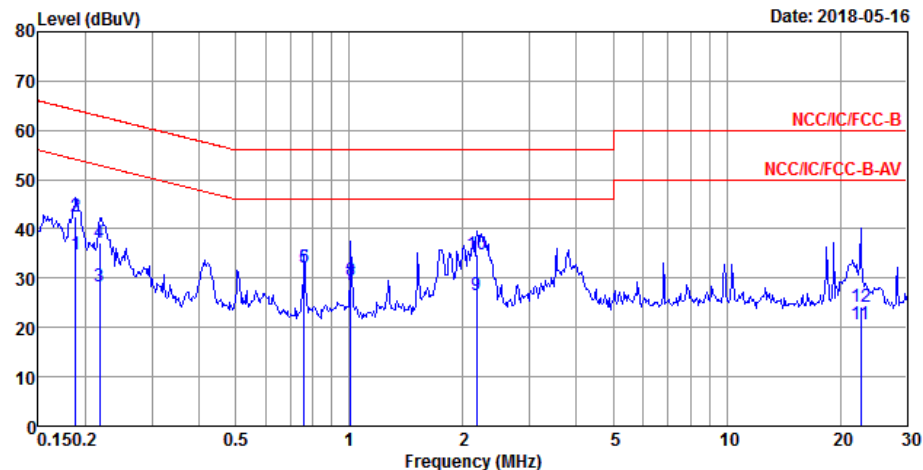
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	29/Dec/2017	28/Dec/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10712/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018

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	23/Apr/2018	22/Apr/2019
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	14/Jun/2018	13/Jun/2019
Amplifier	Agilent	8449B	3008A02326	1GHz ~ 26.5GHz	17/Jul/2017	16/Jul/2018
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	10/May/2018	09/May/2019
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	27/Apr/2018	26/Apr/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	20/Jul/2017	19/Jul/2018
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	09/Sep/2017	08/Sep/2018
Double Ridged Guide Horn Antenna	SCHWARZBEC K	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBEC K	BBHA 9170	BBHA9170614	18GHz~40GHz	09/Feb/2018	08/Feb/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2017	23/Aug/2018
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
RF Cable-R03m	Jye Bao	RG142	CB031	9kHz ~ 1GHz	01/Feb/2018	31/Jan/2019
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	02/Feb/2018	01/Feb/2019

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	PoE mode – PIFA antenna		

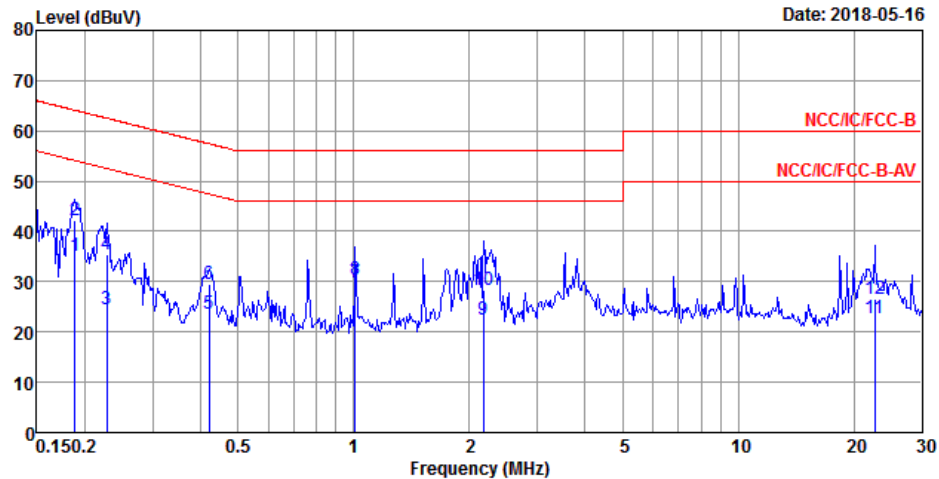


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.19	34.79	-19.32	54.11	25.16	9.62	0.01	Average
2	0.19	42.44	-21.67	64.11	32.81	9.62	0.01	QP
3	0.22	28.41	-24.47	52.88	18.78	9.62	0.01	Average
4	0.22	37.32	-25.56	62.88	27.69	9.62	0.01	QP
5 MAX	0.76	32.12	-13.88	46.00	22.47	9.62	0.03	Average
6	0.76	32.22	-23.78	56.00	22.57	9.62	0.03	QP
7	1.01	28.69	-17.31	46.00	19.07	9.62	0.00	Average
8	1.01	29.56	-26.44	56.00	19.94	9.62	0.00	QP
9	2.18	26.56	-19.44	46.00	16.92	9.63	0.01	Average
10	2.18	34.76	-21.24	56.00	25.12	9.63	0.01	QP
11	22.66	20.79	-29.21	50.00	11.00	9.70	0.09	Average
12	22.66	24.32	-35.68	60.00	14.53	9.70	0.09	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
 Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	PoE mode – PIFA antenna		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.19	35.17	-18.94	54.11	25.54	9.62	0.01	Average
2	0.19	42.27	-21.84	64.11	32.64	9.62	0.01	QP
3	0.23	24.52	-28.00	52.52	14.88	9.62	0.02	Average
4	0.23	35.53	-26.99	62.52	25.89	9.62	0.02	QP
5	0.42	23.53	-23.89	47.42	13.83	9.61	0.09	Average
6	0.42	29.55	-27.87	57.42	19.85	9.61	0.09	QP
7 MAX	1.01	29.93	-16.07	46.00	20.32	9.61	0.00	Average
8	1.01	30.36	-25.64	56.00	20.75	9.61	0.00	QP
9	2.18	22.31	-23.69	46.00	12.68	9.62	0.01	Average
10	2.18	28.35	-27.65	56.00	18.72	9.62	0.01	QP
11	22.66	22.68	-27.32	50.00	13.01	9.58	0.09	Average
12	22.66	26.59	-33.41	60.00	16.92	9.58	0.09	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
 Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

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)	921.25k	893.303k	893KF1D	916.25k	884.558k
BT-EDR(2Mbps)	1.305M	1.192M	1M19G1D	1.248M	1.184M
BT-EDR(3Mbps)	1.256M	1.206M	1M21G1D	1.256M	1.199M

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;

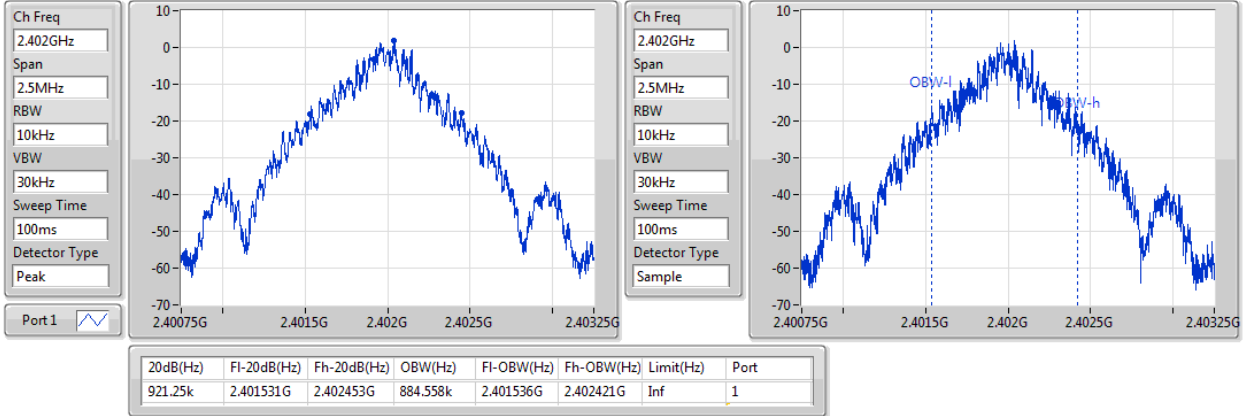
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	921.25k	884.558k
2441MHz	Pass	Inf	920k	889.555k
2480MHz	Pass	Inf	916.25k	893.303k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.305M	1.184M
2441MHz	Pass	Inf	1.254M	1.192M
2480MHz	Pass	Inf	1.248M	1.187M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.256M	1.206M
2441MHz	Pass	Inf	1.256M	1.203M
2480MHz	Pass	Inf	1.256M	1.199M

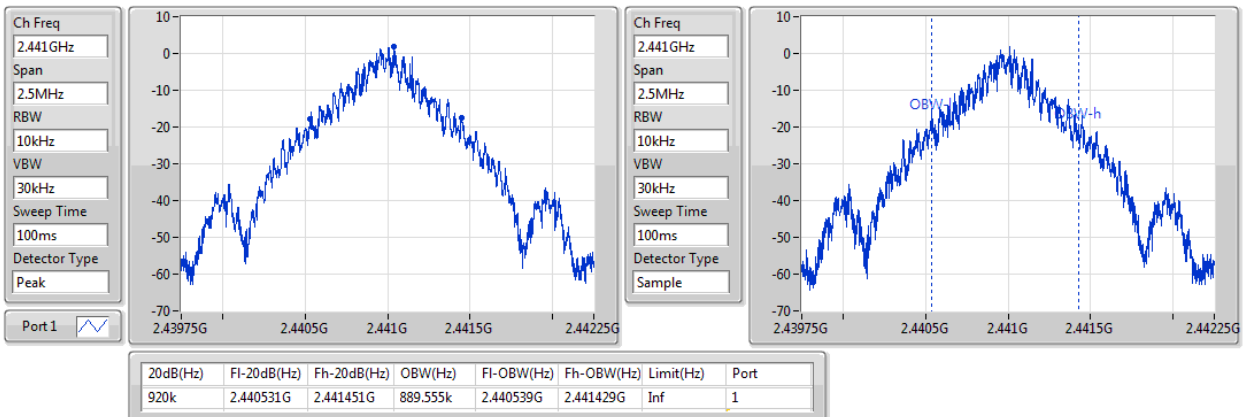
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
EBW
2402MHz

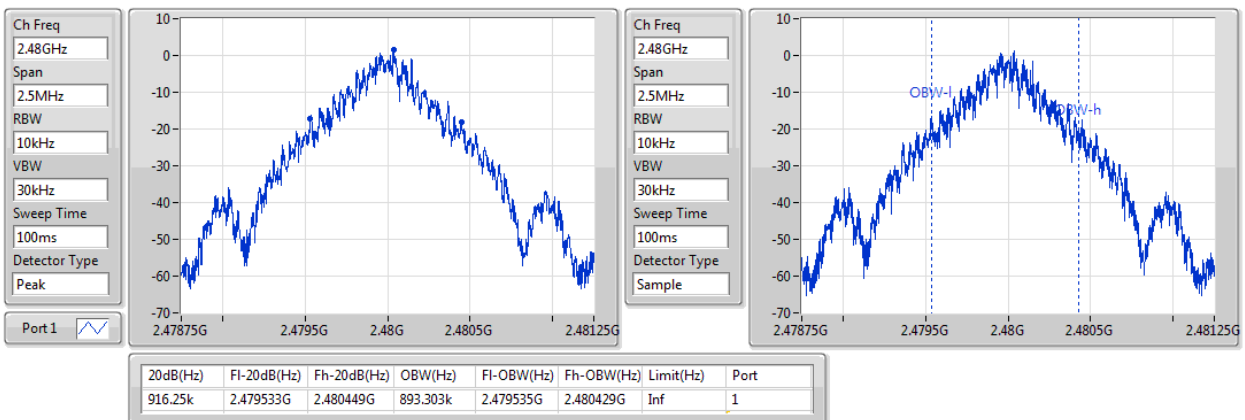
04/05/2018


BT-BR(1Mbps)
EBW
2441MHz

04/05/2018

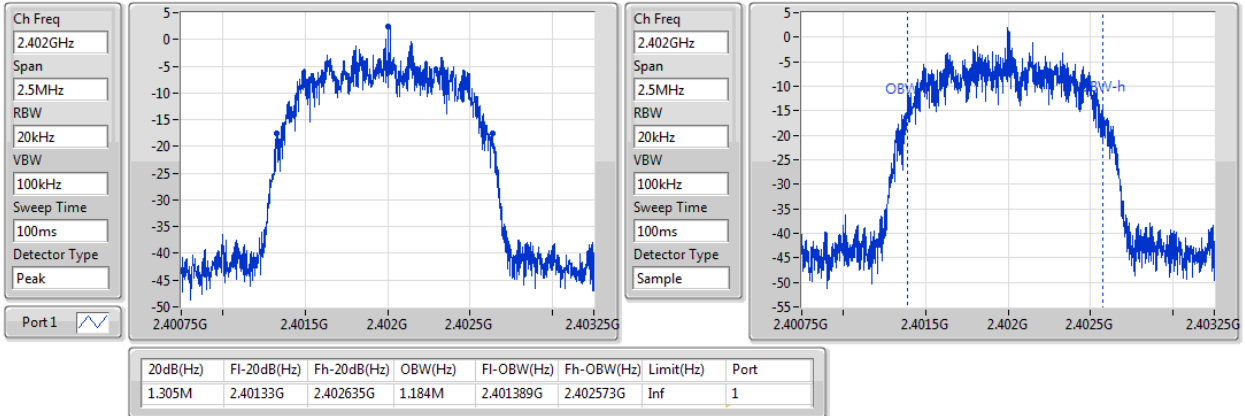

BT-BR(1Mbps)
EBW
2480MHz

04/05/2018

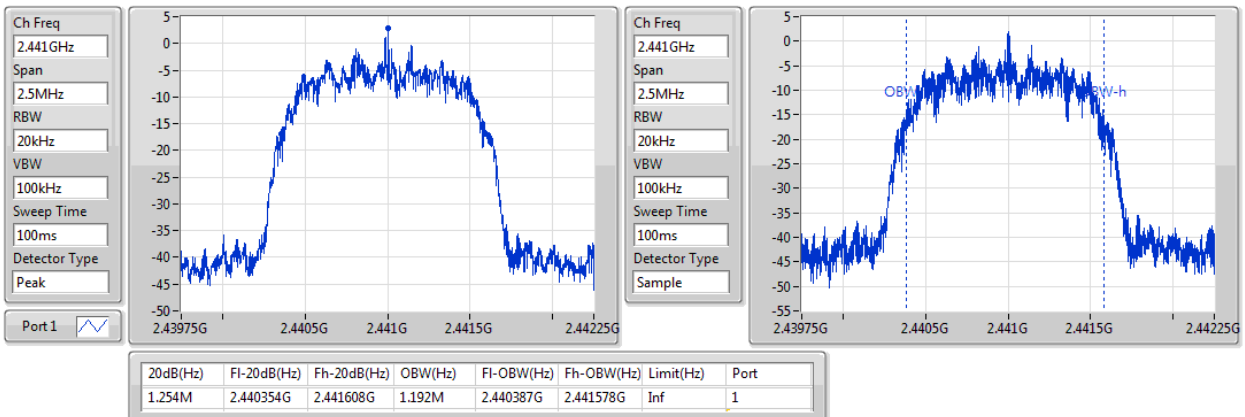


BT-EDR(2Mbps)
EBW
2402MHz

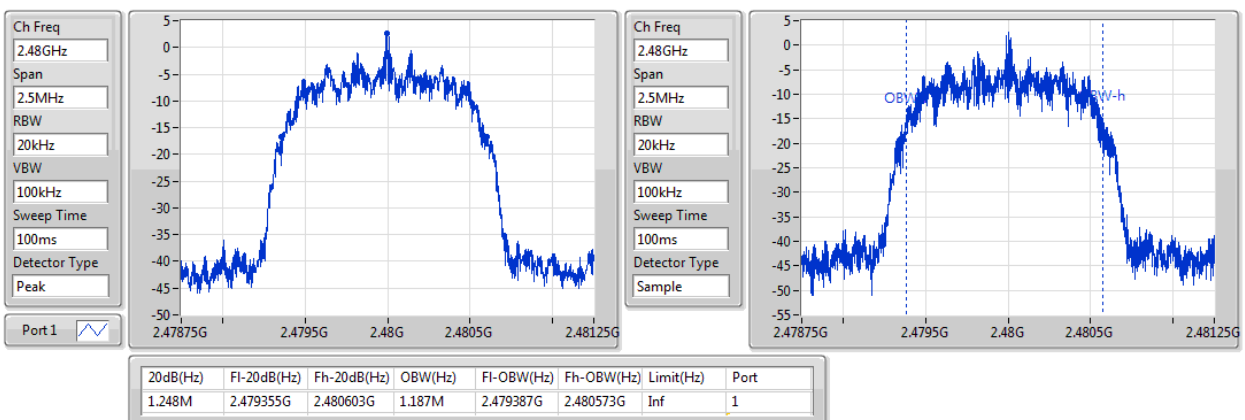
04/05/2018


BT-EDR(2Mbps)
EBW
2441MHz

04/05/2018

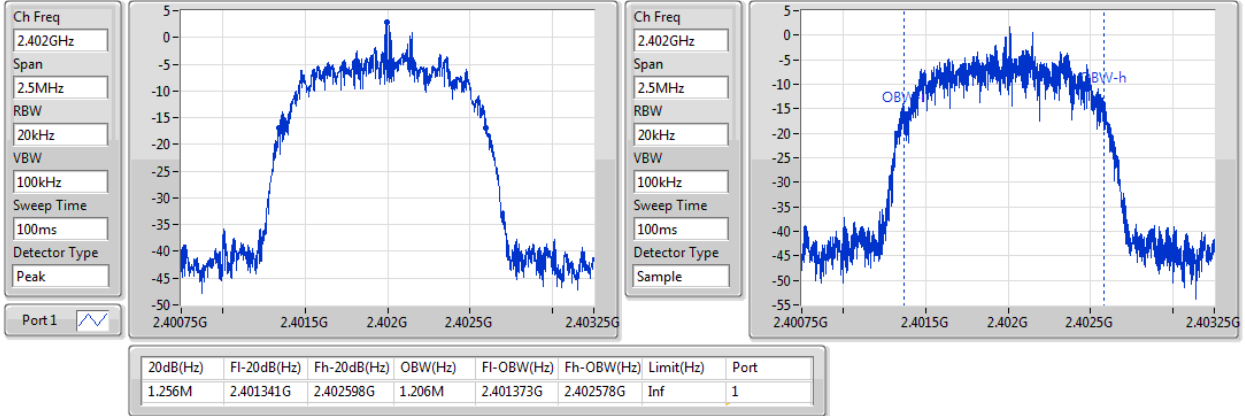

BT-EDR(2Mbps)
EBW
2480MHz

04/05/2018

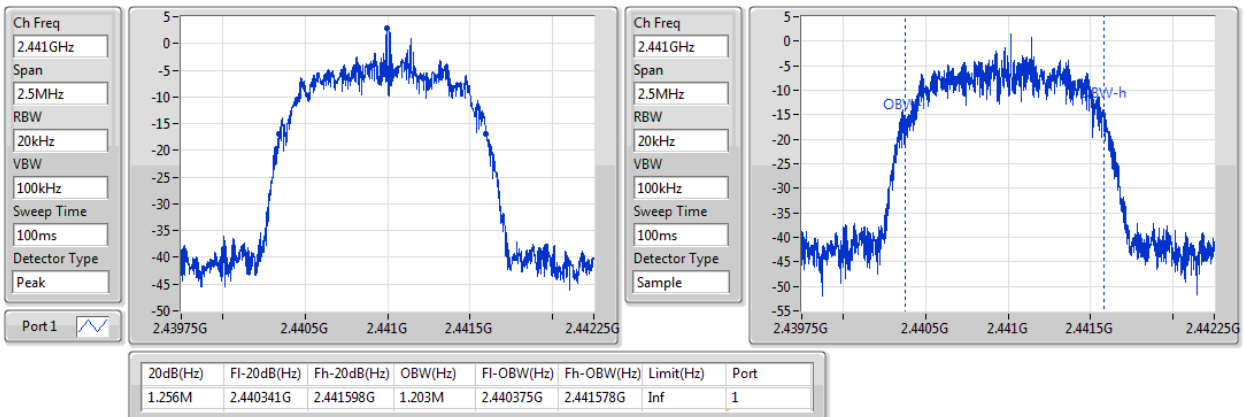


BT-EDR(3Mbps)
EBW
2402MHz

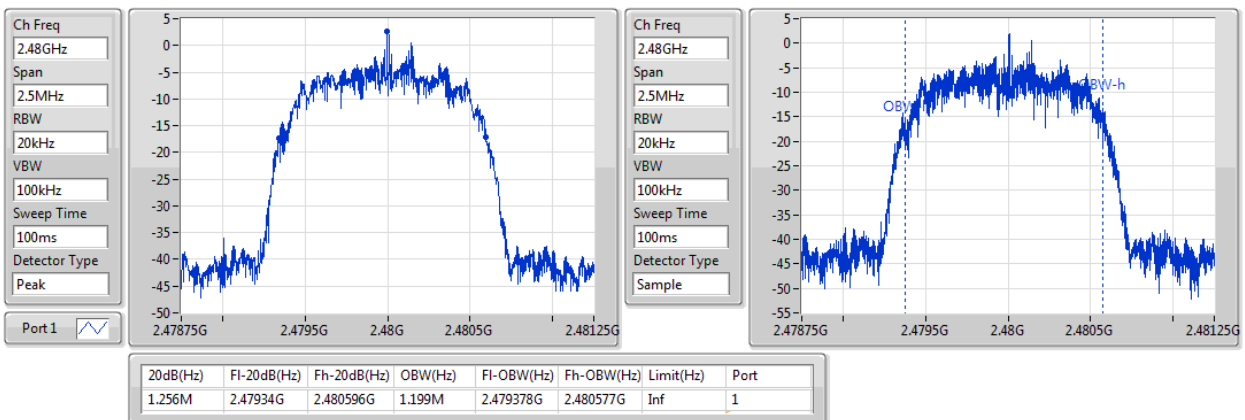
04/05/2018


BT-EDR(3Mbps)
EBW
2441MHz

04/05/2018


BT-EDR(3Mbps)
EBW
2480MHz

04/05/2018



Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0005M	1.0005M
BT-EDR(2Mbps)	1.002M	996k
BT-EDR(3Mbps)	1.002M	999k

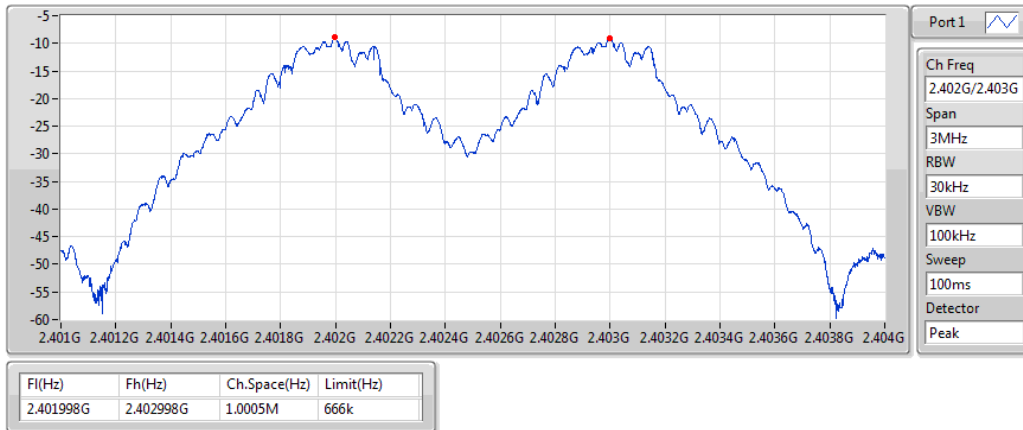
Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.401998G	2.402998G	1.0005M	666k
2441MHz	Pass	2.440998G	2.441998G	1.0005M	612.72k
2480MHz	Pass	2.478995G	2.479995G	1.0005M	610.2225k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402002G	2.402998G	996k	869.13k
2441MHz	Pass	2.440996G	2.441998G	1.002M	666k
2480MHz	Pass	2.478998G	2.479997G	999k	666k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.401998G	2.402997G	999k	836.496k
2441MHz	Pass	2.440996G	2.441998G	1.002M	836.496k
2480MHz	Pass	2.478996G	2.479997G	1.0005M	835.83k

BT-BR(1Mbps)

Channel Separation

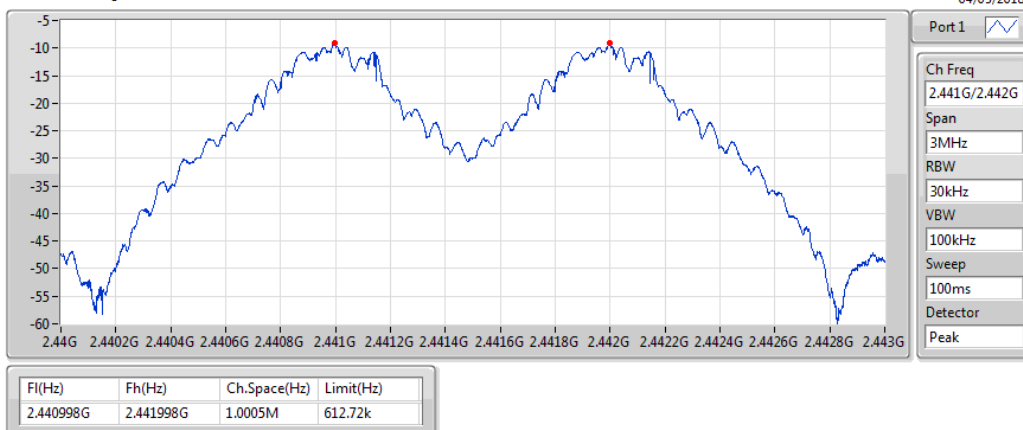
2.402G/2.403GHz



BT-BR(1Mbps)

Channel Separation

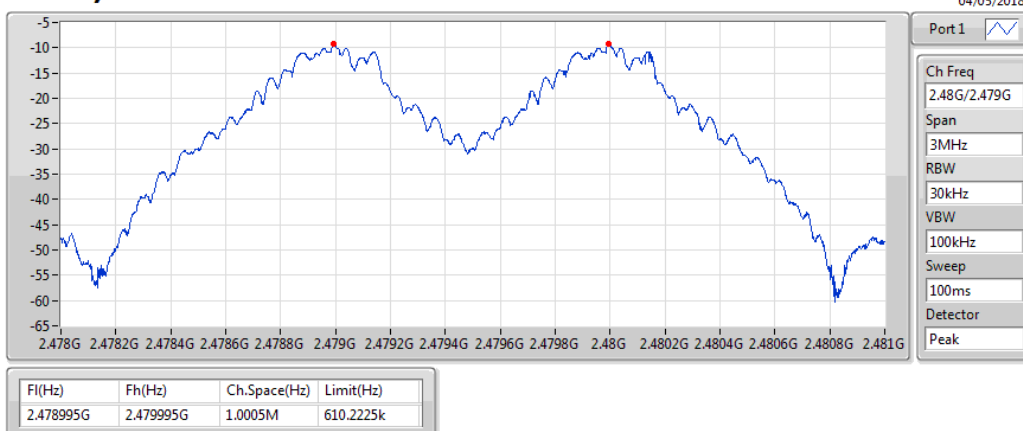
2.441G/2.442GHz



BT-BR(1Mbps)

Channel Separation

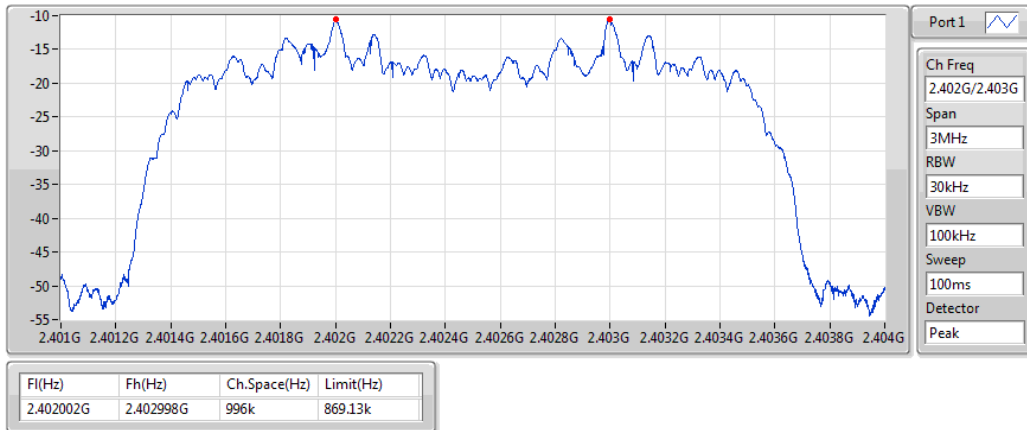
2.48G/2.479GHz



BT-EDR(2Mbps)

Channel Separation

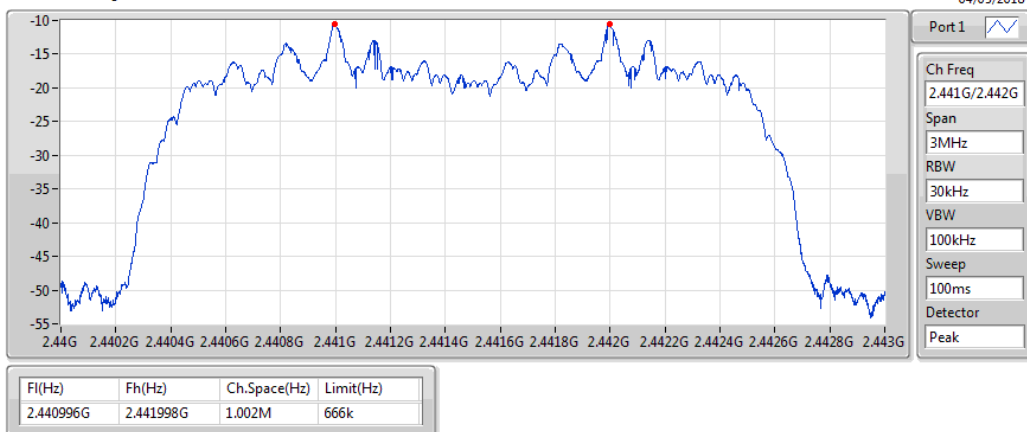
2.402G/2.403GHz



BT-EDR(2Mbps)

Channel Separation

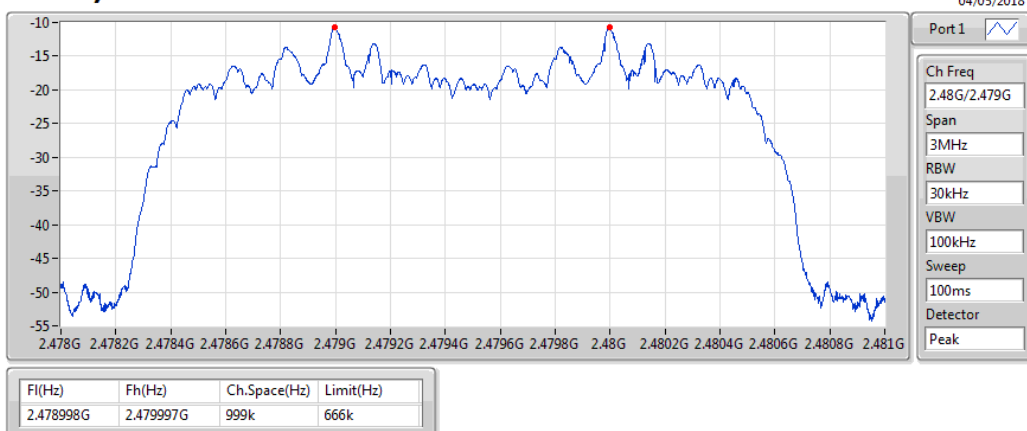
2.441G/2.442GHz



BT-EDR(2Mbps)

Channel Separation

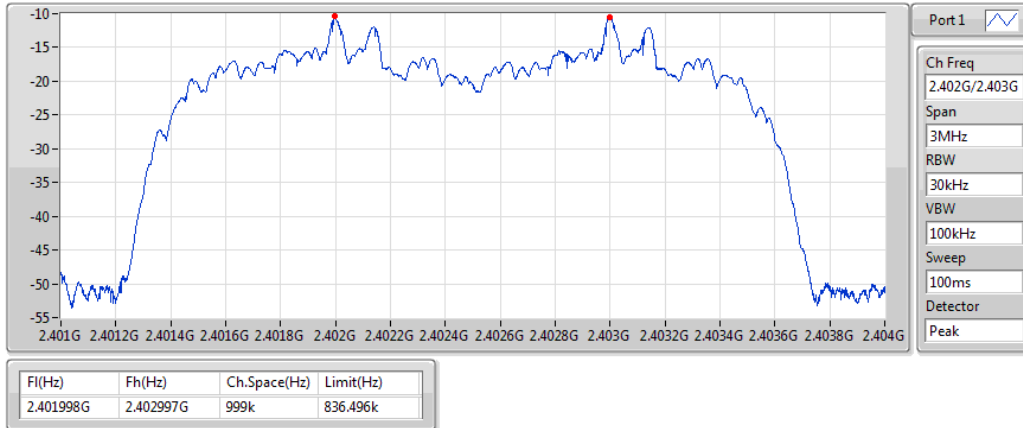
2.48G/2.479GHz



BT-EDR(3Mbps)

Channel Separation

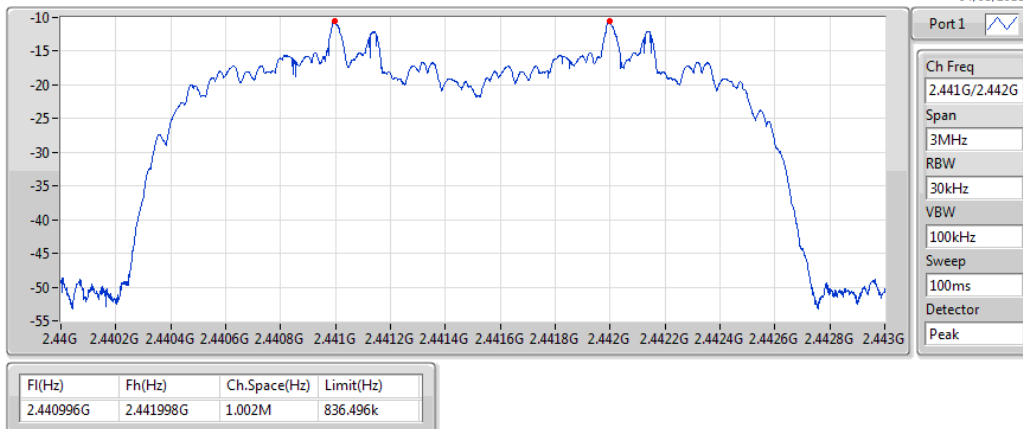
2.402G/2.403GHz



BT-EDR(3Mbps)

Channel Separation

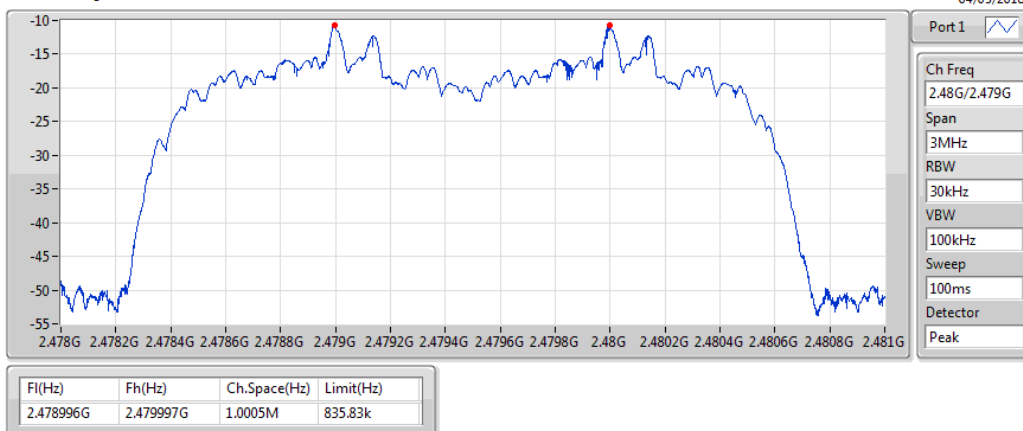
2.441G/2.442GHz



BT-EDR(3Mbps)

Channel Separation

2.48G/2.479GHz



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	8.58	0.00721
BT-EDR(2Mbps)	8.59	0.00723
BT-EDR(3Mbps)	8.85	0.00767

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	-1.27	8.58	21.00
2441MHz	Pass	-1.27	8.18	21.00
2480MHz	Pass	-1.27	7.87	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	-1.27	8.59	21.00
2441MHz	Pass	-1.27	8.25	21.00
2480MHz	Pass	-1.27	7.89	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	-1.27	8.85	21.00
2441MHz	Pass	-1.27	8.52	21.00
2480MHz	Pass	-1.27	8.16	21.00

Summary

Mode	Power	Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	8.21	0.00662
BT-EDR(2Mbps)	6.09	0.00406
BT-EDR(3Mbps)	6.17	0.00414

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	-1.27	8.21	21.00
2441MHz	Pass	-1.27	8.01	21.00
2480MHz	Pass	-1.27	7.68	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	-1.27	6.09	21.00
2441MHz	Pass	-1.27	5.98	21.00
2480MHz	Pass	-1.27	5.63	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	-1.27	6.17	21.00
2441MHz	Pass	-1.27	5.95	21.00
2480MHz	Pass	-1.27	5.56	21.00

Summary

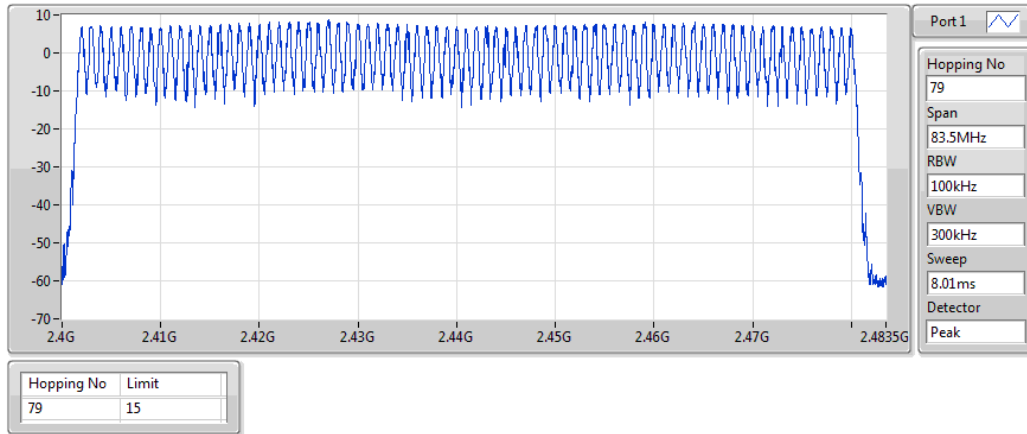
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

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

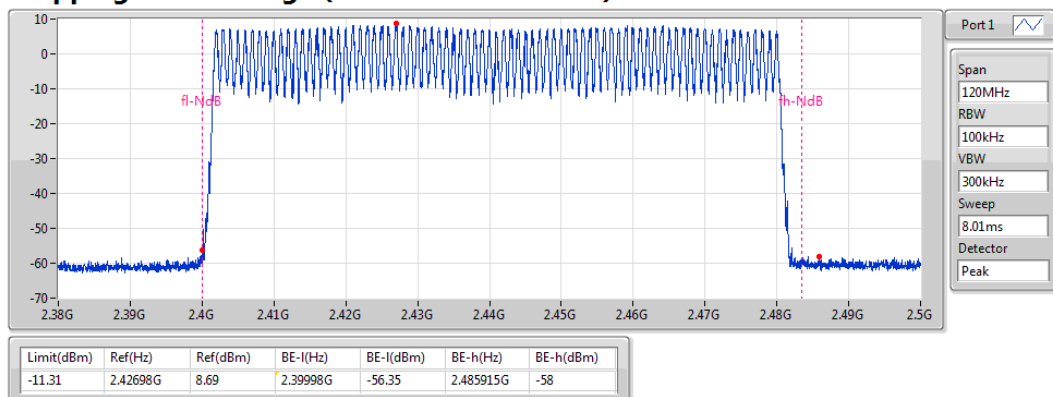
BT-BR(1Mbps) 2441MHz

Hopping Ch



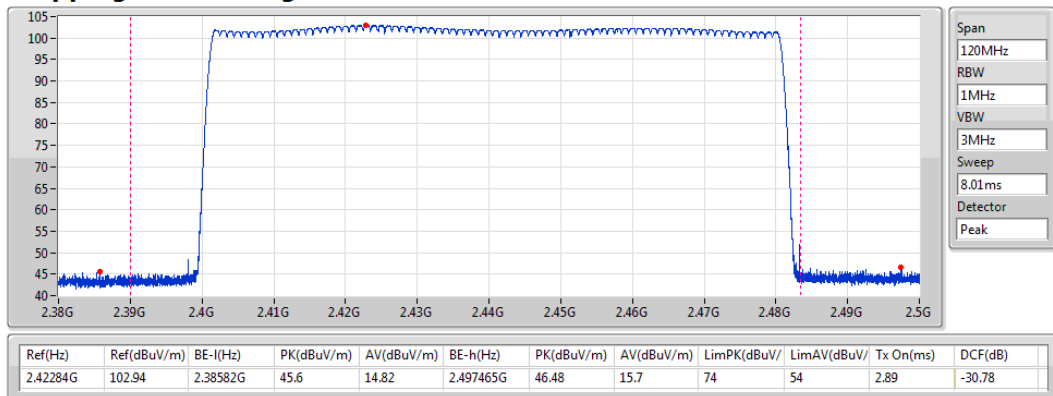
BT-BR(1Mbps) 2441MHz

Hopping Ch Bandedge (Non-restricted Band)



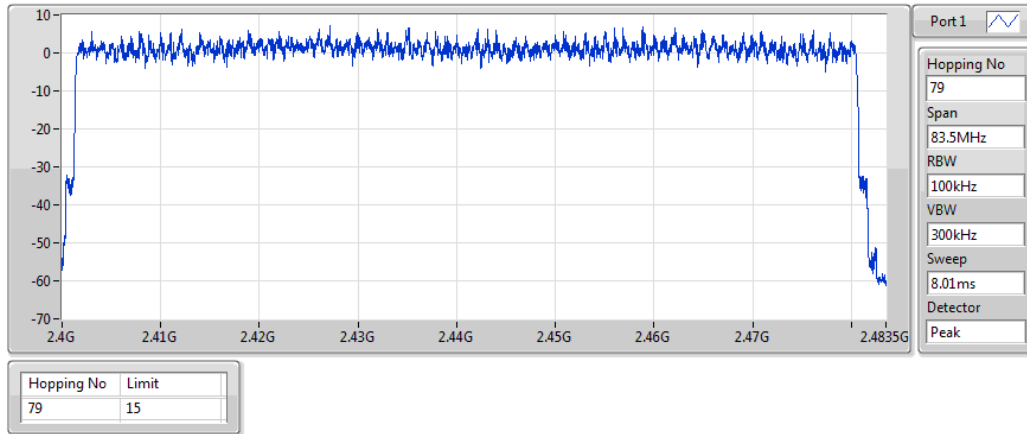
BT-BR(1Mbps) 2441MHz

Hopping Ch Bandedge (Restricted Band)



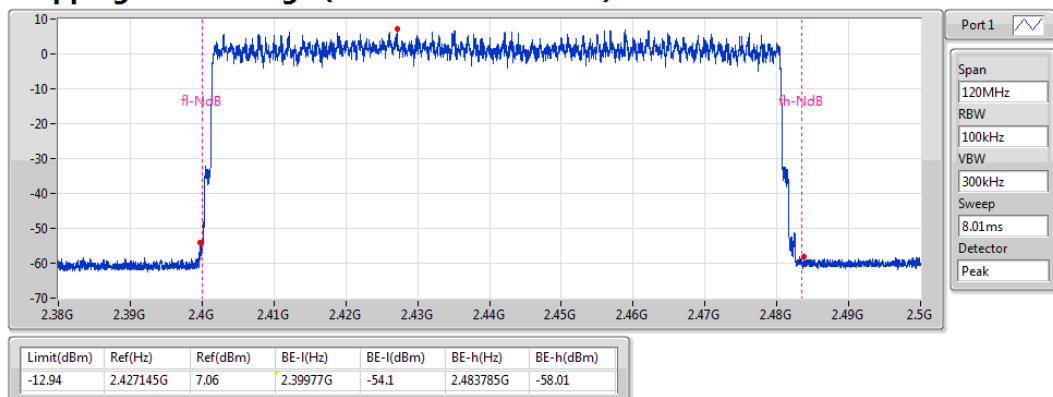
BT-EDR(2Mbps) 2441MHz

Hopping Ch



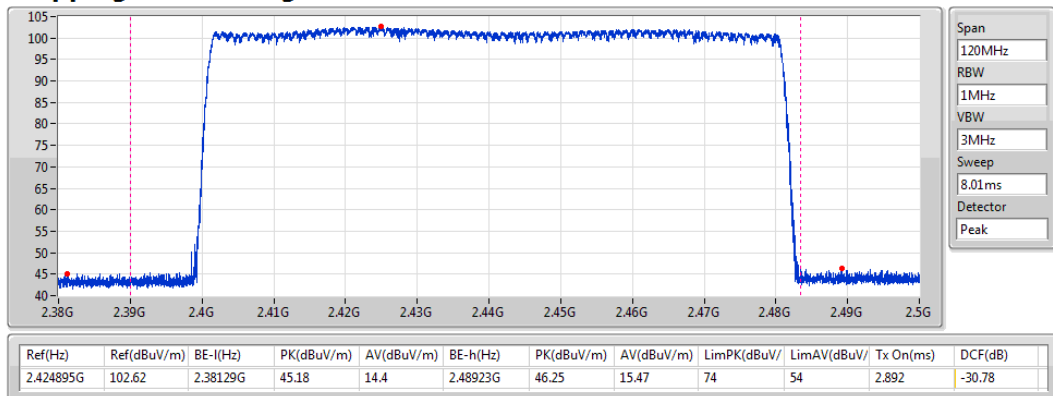
BT-EDR(2Mbps) 2441MHz

Hopping Ch Bandedge (Non-restricted Band)



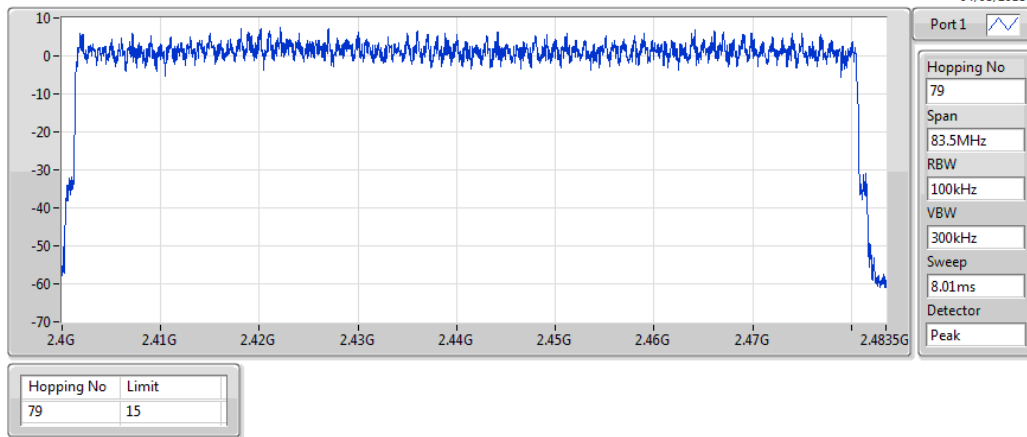
BT-EDR(2Mbps) 2441MHz

Hopping Ch Bandedge (Restricted Band)



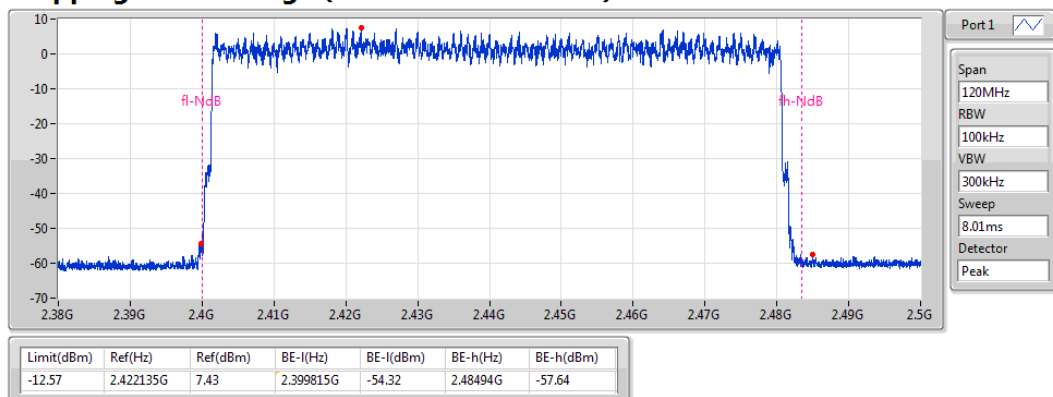
BT-EDR(3Mbps) 2441MHz

Hopping Ch



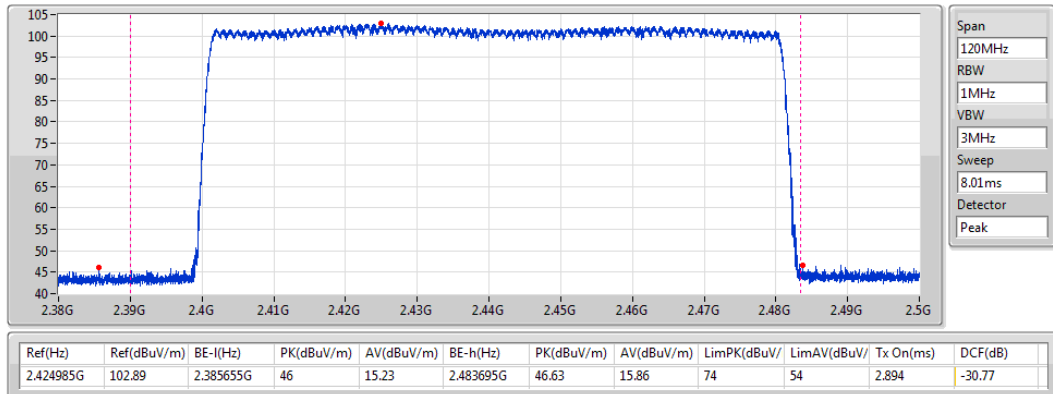
BT-EDR(3Mbps) 2441MHz

Hopping Ch Bandedge (Non-restricted Band)



BT-EDR(3Mbps) 2441MHz

Hopping Ch Bandedge (Restricted Band)



Summary

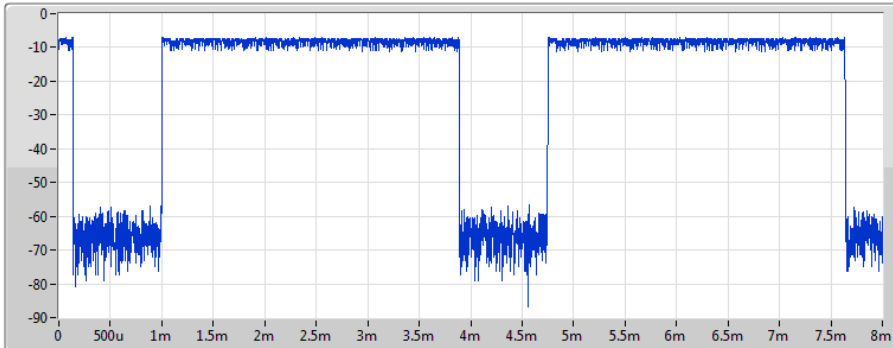
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.074m
BT-EDR(2Mbps)	308.2872m
BT-EDR(3Mbps)	308.5004m

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.074m	400m	2.89m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.2872m	400m	2.892m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.5004m	400m	2.894m

BT-BR(1Mbps)


2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.074m	400m	2.89m

Dwell

04/05/2018

Port 1 

Ch Freq
2.441GHz

RBW
300kHz

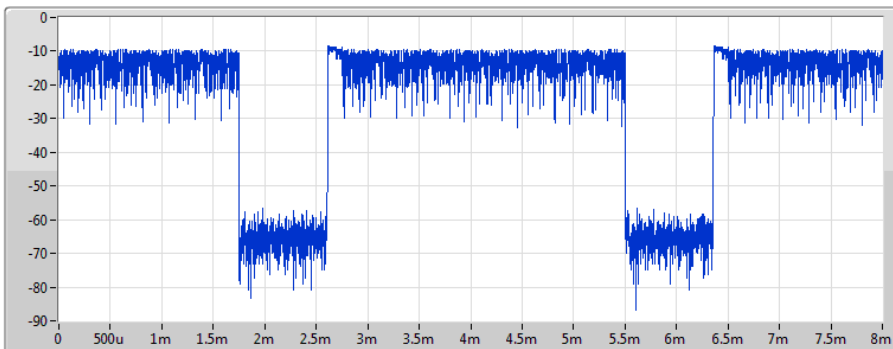
VBW
1MHz

Sweep Time
8ms

TX Time
2.89ms

BT-EDR(2Mbps)


2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.2872m	400m	2.892m

Dwell

04/05/2018

Port 1 

Ch Freq
2.441GHz

RBW
300kHz

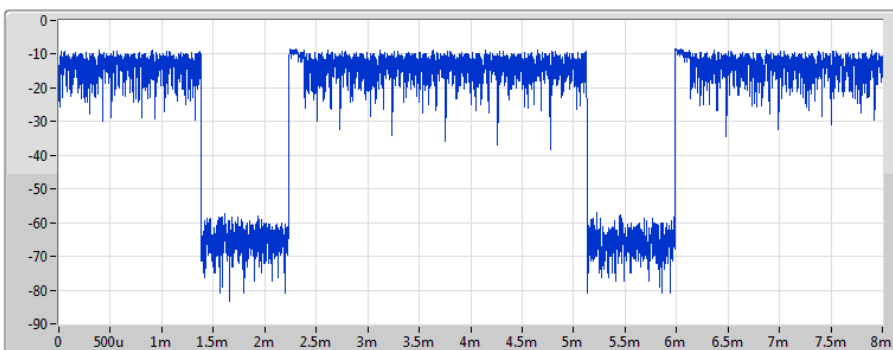
VBW
1MHz

Sweep Time
8ms

TX Time
2.892ms

BT-EDR(3Mbps)


2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.5004m	400m	2.894m

Dwell

04/05/2018

Port 1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

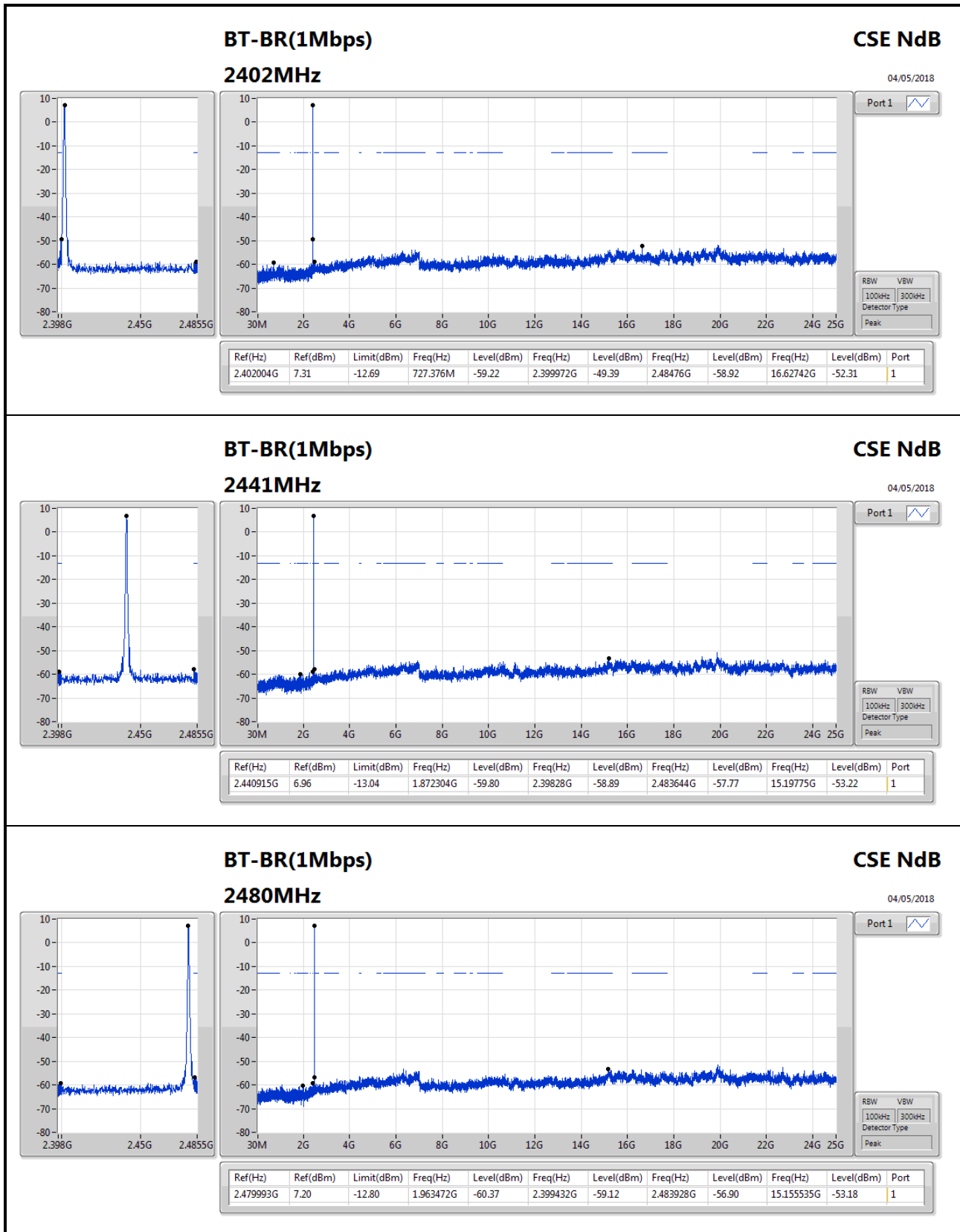
TX Time
2.894ms

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	2.402004G	7.31	-12.69	727.376M	-59.22	2.399972G	-49.39	2.48476G	-58.92	16.62742G	-52.31	1
BT-EDR(2Mbps)	Pass	2.402004G	2.94	-17.06	1.852176G	-60.46	2.399916G	-50.41	2.485236G	-58.91	15.223078G	-52.44	1
BT-EDR(3Mbps)	Pass	2.40167G	4.57	-15.43	1.980048G	-57.84	2.399504G	-50.01	2.485084G	-57.86	15.163978G	-53.15	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	2.402004G	7.31	-12.69	727.376M	-59.22	2.399972G	-49.39	2.48476G	-58.92	16.62742G	-52.31	1
2441MHz	Pass	2.440915G	6.96	-13.04	1.872304G	-59.80	2.39828G	-58.89	2.483644G	-57.77	15.19775G	-53.22	1
2480MHz	Pass	2.479993G	7.20	-12.80	1.963472G	-60.37	2.399432G	-59.12	2.483928G	-56.90	15.155535G	-53.18	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402004G	2.94	-17.06	1.852176G	-60.46	2.399916G	-50.41	2.485236G	-58.91	15.223078G	-52.44	1
2441MHz	Pass	2.440915G	2.87	-17.13	2.300912G	-58.95	2.399644G	-58.99	2.483524G	-58.29	16.239045G	-53.44	1
2480MHz	Pass	2.48016G	3.53	-16.47	1.81784G	-60.22	2.399136G	-59.20	2.483908G	-57.01	15.172421G	-52.77	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40167G	4.57	-15.43	1.980048G	-57.84	2.399504G	-50.01	2.485084G	-57.86	15.163978G	-53.15	1
2441MHz	Pass	2.441082G	3.89	-16.11	761.712M	-60.31	2.398088G	-58.46	2.485028G	-58.81	17.626501G	-53.28	1
2480MHz	Pass	2.479826G	2.88	-17.12	865.904M	-58.90	2.398424G	-58.40	2.484216G	-57.40	15.220264G	-53.29	1

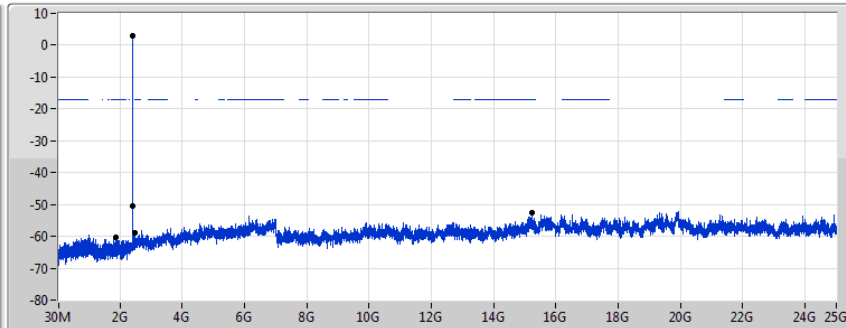
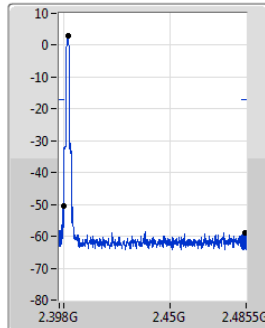


BT-EDR(2Mbps)

CSE NdB

2402MHz

04/05/2018



Port 1

RBW VBW
100kHz 300kHz
Detector Type
Peak

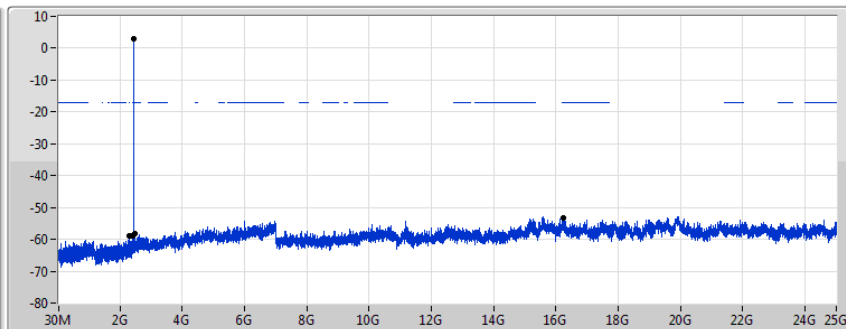
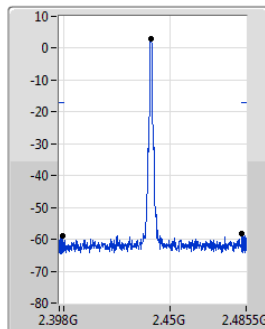
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.402004G	2.94	-17.06	1.852176G	-60.46	2.399916G	-50.41	2.485236G	-58.91	15.223078G	-52.44	1

BT-EDR(2Mbps)

CSE NdB

2441MHz

04/05/2018



Port 1

RBW VBW
100kHz 300kHz
Detector Type
Peak

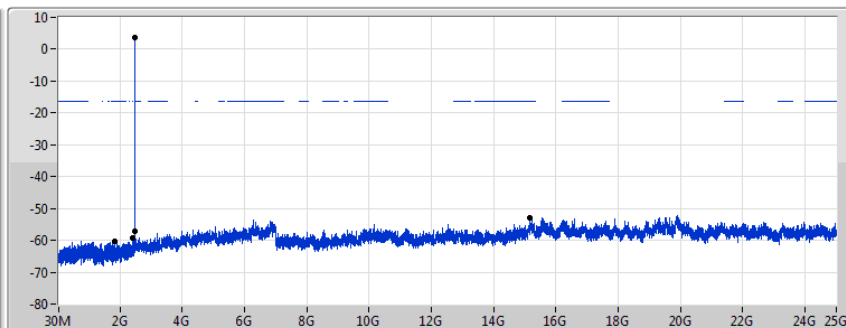
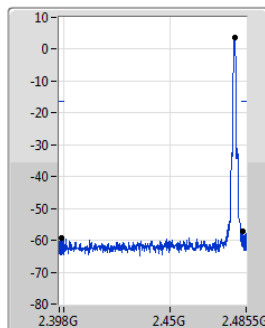
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.440915G	2.87	-17.13	2.300912G	-58.95	2.399644G	-58.99	2.483524G	-58.29	16.239045G	-53.44	1

BT-EDR(2Mbps)

CSE NdB

2480MHz

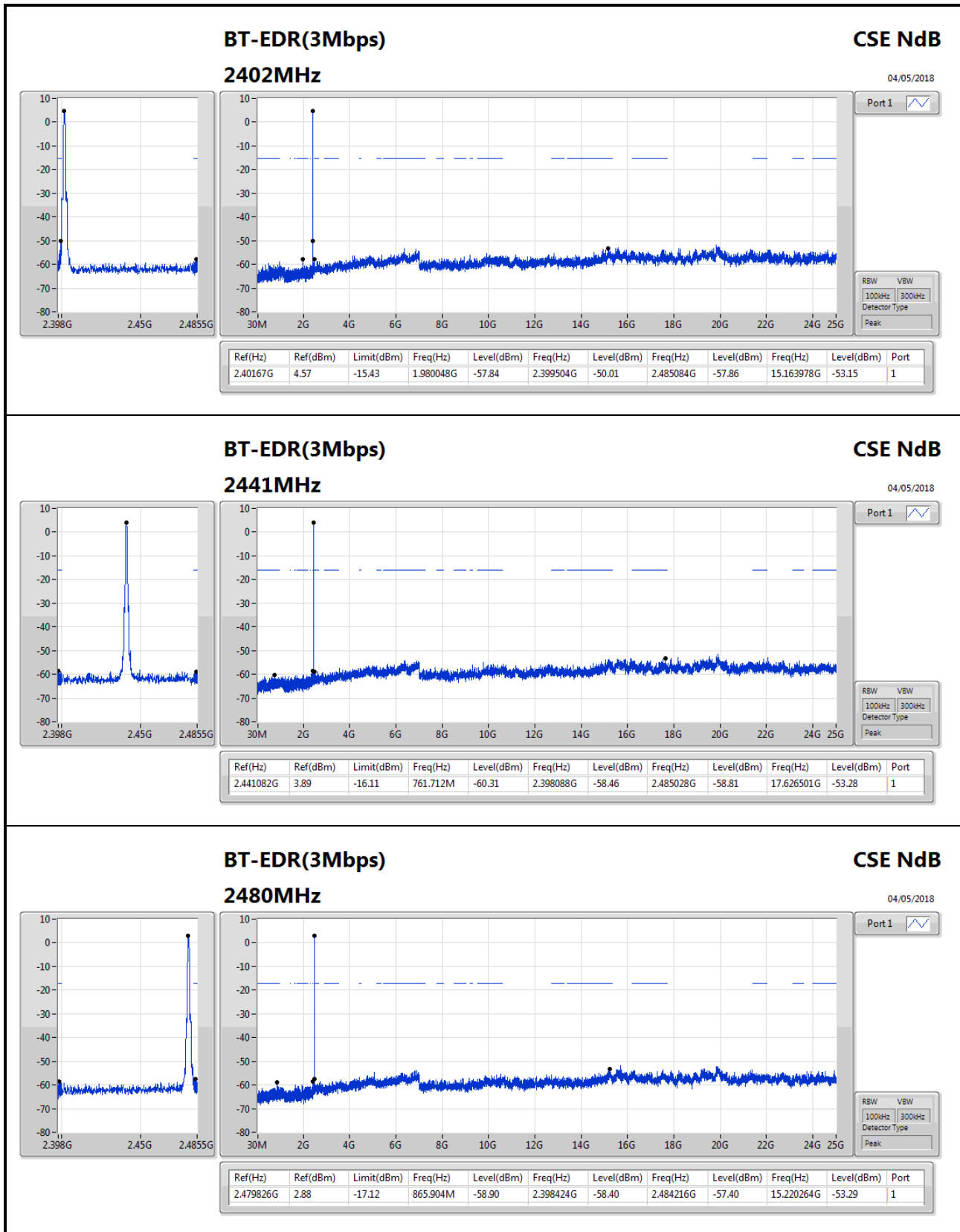
04/05/2018



Port 1

RBW VBW
100kHz 300kHz
Detector Type
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48016G	3.53	-16.47	1.81784G	-60.22	2.399136G	-59.20	2.483908G	-57.01	15.172421G	-52.77	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-BR(1Mbps)	Pass	QP	46.49M	36.28	40.00	-3.72	-21.74	3	Vertical	31	1.19	-

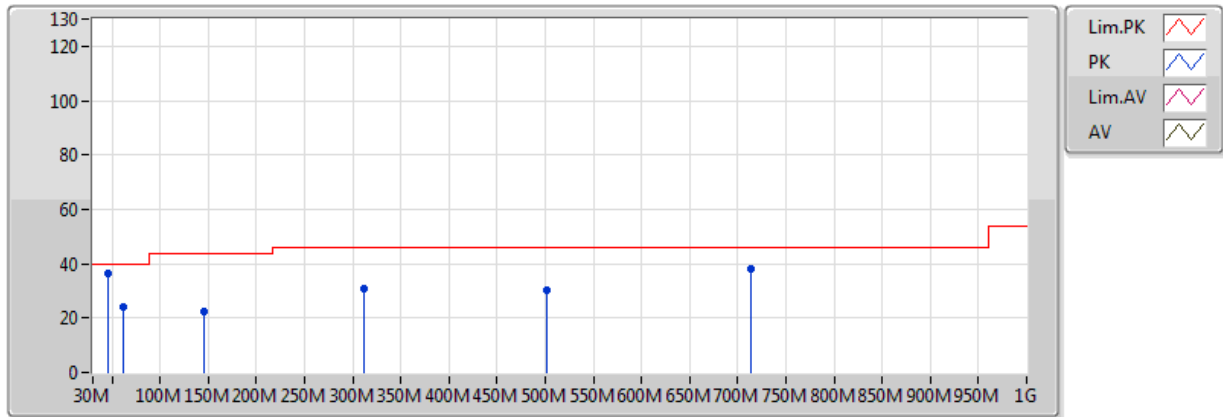
Result

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)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	PK	62.01M	24.34	40.00	-15.66	-25.61	3	Vertical	360	1.00	-
2441MHz	Pass	PK	145.43M	22.58	43.50	-20.92	-19.37	3	Vertical	360	1.00	-
2441MHz	Pass	PK	312.27M	30.66	46.00	-15.34	-16.50	3	Vertical	360	1.00	-
2441MHz	Pass	PK	501.42M	30.31	46.00	-15.69	-12.09	3	Vertical	360	1.00	-
2441MHz	Pass	PK	712.88M	38.26	46.00	-7.74	-9.43	3	Vertical	360	1.00	-
2441MHz	Pass	QP	46.49M	36.28	40.00	-3.72	-21.74	3	Vertical	31	1.19	-
2441MHz	Pass	PK	46.49M	21.53	40.00	-18.47	-21.74	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	147.37M	19.48	43.50	-24.02	-19.41	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	251.16M	24.59	46.00	-21.41	-16.97	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	312.27M	35.41	46.00	-10.59	-16.50	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	502.39M	29.48	46.00	-16.52	-12.10	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	711.91M	39.23	46.00	-6.77	-9.45	3	Horizontal	0	1.00	-

BT-BR(1Mbps)

2441MHz_PoE

22/05/2018

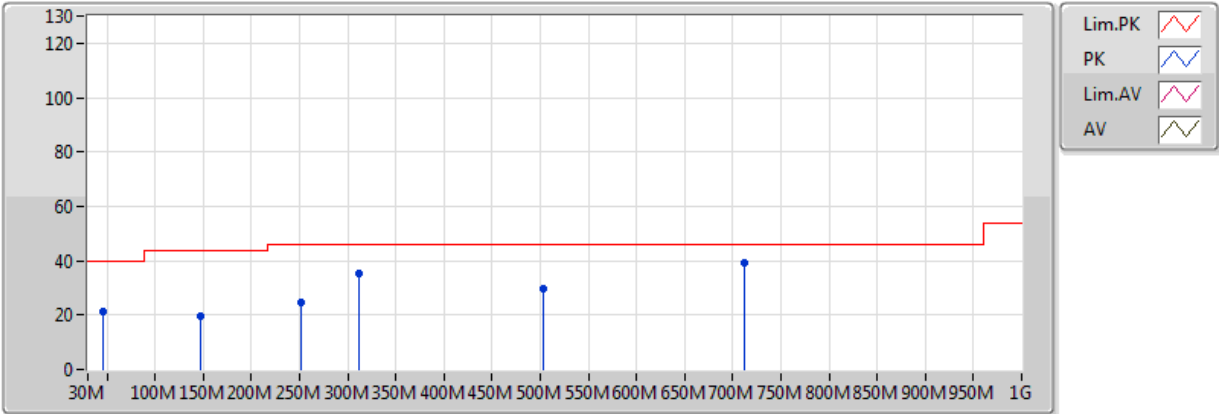


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	62.01M	24.34	40.00	-15.66	-25.61	3	Vertical	360	1.00	-
PK	145.43M	22.58	43.50	-20.92	-19.37	3	Vertical	360	1.00	-
PK	312.27M	30.66	46.00	-15.34	-16.50	3	Vertical	360	1.00	-
PK	501.42M	30.31	46.00	-15.69	-12.09	3	Vertical	360	1.00	-
PK	712.88M	38.26	46.00	-7.74	-9.43	3	Vertical	360	1.00	-
QP	46.49M	36.28	40.00	-3.72	-21.74	3	Vertical	31	1.19	-

BT-BR(1Mbps)

2441MHz_PoE

22/05/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	46.49M	21.53	40.00	-18.47	-21.74	3	Horizontal	0	1.00	-
PK	147.37M	19.48	43.50	-24.02	-19.41	3	Horizontal	0	1.00	-
PK	251.16M	24.59	46.00	-21.41	-16.97	3	Horizontal	0	1.00	-
PK	312.27M	35.41	46.00	-10.59	-16.50	3	Horizontal	0	1.00	-
PK	502.39M	29.48	46.00	-16.52	-12.10	3	Horizontal	0	1.00	-
PK	711.91M	39.23	46.00	-6.77	-9.45	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	AV	2.483502G	50.17	54.00	-3.83	30.69	3	Vertical	246	1.73	-
BT-EDR(2Mbps)	Pass	AV	2.483502G	48.86	54.00	-5.14	30.69	3	Vertical	250	1.08	-
BT-EDR(3Mbps)	Pass	AV	2.483502G	48.96	54.00	-5.04	30.69	3	Vertical	251	1.09	-

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	2.385G	43.24	54.00	-10.76	30.36	3	Vertical	251	1.01	-
2402MHz	Pass	AV	2.402G	105.73	Inf	-Inf	30.42	3	Vertical	251	1.01	-
2402MHz	Pass	PK	2.38G	54.23	74.00	-19.77	30.34	3	Vertical	251	1.01	-
2402MHz	Pass	PK	2.4022G	106.78	Inf	-Inf	30.42	3	Vertical	251	1.01	-
2402MHz	Pass	AV	2.3896G	43.26	54.00	-10.74	30.38	3	Horizontal	27	1.68	-
2402MHz	Pass	AV	2.402G	103.50	Inf	-Inf	30.42	3	Horizontal	27	1.68	-
2402MHz	Pass	PK	2.377G	53.96	74.00	-20.04	30.33	3	Horizontal	27	1.68	-
2402MHz	Pass	PK	2.4022G	104.54	Inf	-Inf	30.42	3	Horizontal	27	1.68	-
2402MHz	Pass	AV	4.80384G	33.34	54.00	-20.66	5.79	3	Vertical	25	2.20	-
2402MHz	Pass	PK	4.8044G	45.29	74.00	-28.71	5.79	3	Vertical	25	2.20	-
2402MHz	Pass	AV	4.80392G	33.04	54.00	-20.96	5.79	3	Horizontal	122	2.15	-
2402MHz	Pass	PK	4.80372G	45.37	74.00	-28.63	5.79	3	Horizontal	122	2.15	-
2441MHz	Pass	AV	2.3878G	43.14	54.00	-10.86	30.37	3	Vertical	284	1.48	-
2441MHz	Pass	AV	2.441G	102.56	Inf	-Inf	30.55	3	Vertical	284	1.48	-
2441MHz	Pass	AV	2.4966G	43.73	54.00	-10.27	30.74	3	Vertical	284	1.48	-
2441MHz	Pass	PK	2.383G	54.87	74.00	-19.13	30.35	3	Vertical	284	1.48	-
2441MHz	Pass	PK	2.441G	103.76	Inf	-Inf	30.55	3	Vertical	284	1.48	-
2441MHz	Pass	PK	2.4894G	54.08	74.00	-19.92	30.71	3	Vertical	284	1.48	-
2441MHz	Pass	PK	2.3842G	54.33	74.00	-19.67	30.36	3	Horizontal	186	1.53	-
2441MHz	Pass	AV	2.3898G	43.14	54.00	-10.86	30.38	3	Horizontal	186	1.53	-
2441MHz	Pass	PK	2.441G	102.77	Inf	-Inf	30.55	3	Horizontal	186	1.53	-
2441MHz	Pass	AV	2.441G	101.59	Inf	-Inf	30.55	3	Horizontal	186	1.53	-
2441MHz	Pass	PK	2.4866G	54.54	74.00	-19.46	30.71	3	Horizontal	186	1.53	-
2441MHz	Pass	AV	2.4998G	43.73	54.00	-10.27	30.75	3	Horizontal	186	1.53	-
2441MHz	Pass	AV	4.882G	32.27	54.00	-21.73	5.95	3	Vertical	186	1.45	-
2441MHz	Pass	AV	7.32294G	44.30	54.00	-9.70	11.15	3	Vertical	207	3.07	-
2441MHz	Pass	PK	4.8832G	45.36	74.00	-28.64	5.95	3	Vertical	186	1.45	-
2441MHz	Pass	PK	7.32264G	54.39	74.00	-19.61	11.15	3	Vertical	207	3.07	-
2441MHz	Pass	AV	4.882G	32.66	54.00	-21.34	5.95	3	Horizontal	109	1.01	-
2441MHz	Pass	AV	7.32306G	39.44	54.00	-14.56	11.15	3	Horizontal	29	1.36	-
2441MHz	Pass	PK	4.88188G	44.87	74.00	-29.13	5.95	3	Horizontal	109	1.01	-
2441MHz	Pass	PK	7.32342G	51.73	74.00	-22.27	11.16	3	Horizontal	29	1.36	-
2480MHz	Pass	AV	2.48G	103.75	Inf	-Inf	30.68	3	Vertical	246	1.73	-
2480MHz	Pass	AV	2.483502G	50.17	54.00	-3.83	30.69	3	Vertical	246	1.73	-
2480MHz	Pass	PK	2.4802G	104.90	Inf	-Inf	30.68	3	Vertical	246	1.73	-
2480MHz	Pass	PK	2.483502G	57.60	74.00	-16.40	30.69	3	Vertical	246	1.73	-
2480MHz	Pass	AV	2.48G	101.40	Inf	-Inf	30.68	3	Horizontal	176	1.14	-
2480MHz	Pass	AV	2.483502G	48.48	54.00	-5.52	30.69	3	Horizontal	176	1.14	-
2480MHz	Pass	PK	2.4802G	102.61	Inf	-Inf	30.68	3	Horizontal	176	1.14	-
2480MHz	Pass	PK	2.484G	55.53	74.00	-18.47	30.69	3	Horizontal	176	1.14	-
2480MHz	Pass	AV	4.95968G	31.83	54.00	-22.17	6.12	3	Vertical	341	1.44	-
2480MHz	Pass	AV	7.44G	42.84	54.00	-11.16	11.48	3	Vertical	205	3.17	-
2480MHz	Pass	PK	4.95972G	45.05	74.00	-28.95	6.12	3	Vertical	341	1.44	-
2480MHz	Pass	PK	7.44028G	53.21	74.00	-20.79	11.48	3	Vertical	205	3.17	-
2480MHz	Pass	AV	4.95988G	31.77	54.00	-22.23	6.12	3	Horizontal	19	1.50	-
2480MHz	Pass	AV	7.4398G	38.63	54.00	-15.37	11.48	3	Horizontal	31	1.81	-
2480MHz	Pass	PK	4.95776G	44.82	74.00	-29.18	6.11	3	Horizontal	19	1.50	-

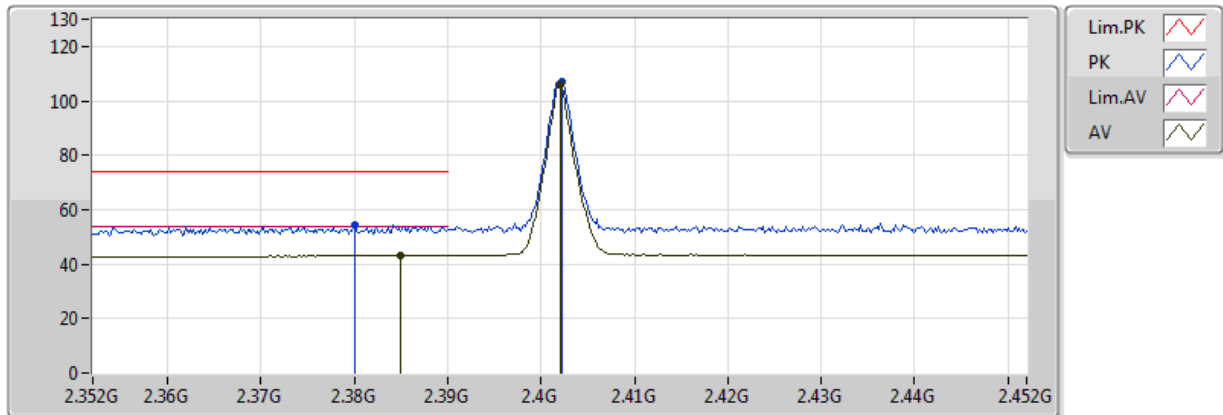
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	7.44004G	51.07	74.00	-22.93	11.48	3	Horizontal	31	1.81	-
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3862G	43.07	54.00	-10.93	30.37	3	Vertical	250	1.14	-
2402MHz	Pass	AV	2.402G	101.65	Inf	-Inf	30.42	3	Vertical	250	1.14	-
2402MHz	Pass	PK	2.3554G	54.58	74.00	-19.42	30.26	3	Vertical	250	1.14	-
2402MHz	Pass	PK	2.4022G	105.88	Inf	-Inf	30.42	3	Vertical	250	1.14	-
2402MHz	Pass	AV	2.38998G	43.06	54.00	-10.94	30.38	3	Horizontal	214	1.50	-
2402MHz	Pass	AV	2.402G	97.72	Inf	-Inf	30.42	3	Horizontal	214	1.50	-
2402MHz	Pass	PK	2.37G	54.74	74.00	-19.26	30.31	3	Horizontal	214	1.50	-
2402MHz	Pass	PK	2.4022G	101.98	Inf	-Inf	30.42	3	Horizontal	214	1.50	-
2441MHz	Pass	AV	2.3898G	43.15	54.00	-10.85	30.38	3	Vertical	250	1.01	-
2441MHz	Pass	AV	2.441G	99.34	Inf	-Inf	30.55	3	Vertical	250	1.01	-
2441MHz	Pass	AV	2.4994G	43.67	54.00	-10.33	30.75	3	Vertical	250	1.01	-
2441MHz	Pass	PK	2.3858G	54.66	74.00	-19.34	30.37	3	Vertical	250	1.01	-
2441MHz	Pass	PK	2.441G	103.64	Inf	-Inf	30.55	3	Vertical	250	1.01	-
2441MHz	Pass	PK	2.4842G	54.93	74.00	-19.07	30.69	3	Vertical	250	1.01	-
2441MHz	Pass	AV	2.389G	43.14	54.00	-10.86	30.37	3	Horizontal	186	1.53	-
2441MHz	Pass	AV	2.441G	97.57	Inf	-Inf	30.55	3	Horizontal	186	1.53	-
2441MHz	Pass	AV	2.4986G	43.72	54.00	-10.28	30.75	3	Horizontal	186	1.53	-
2441MHz	Pass	PK	2.3854G	53.64	74.00	-20.36	30.36	3	Horizontal	186	1.53	-
2441MHz	Pass	PK	2.4414G	101.65	Inf	-Inf	30.55	3	Horizontal	186	1.53	-
2441MHz	Pass	PK	2.4858G	55.36	74.00	-18.64	30.71	3	Horizontal	186	1.53	-
2480MHz	Pass	AV	2.48G	98.99	Inf	-Inf	30.68	3	Vertical	250	1.08	-
2480MHz	Pass	AV	2.483502G	48.86	54.00	-5.14	30.69	3	Vertical	250	1.08	-
2480MHz	Pass	PK	2.4802G	102.99	Inf	-Inf	30.68	3	Vertical	250	1.08	-
2480MHz	Pass	PK	2.483502G	56.27	74.00	-17.73	30.69	3	Vertical	250	1.08	-
2480MHz	Pass	AV	2.48G	96.92	Inf	-Inf	30.68	3	Horizontal	168	1.15	-
2480MHz	Pass	AV	2.483502G	47.41	54.00	-6.59	30.69	3	Horizontal	168	1.15	-
2480MHz	Pass	PK	2.4802G	101.07	Inf	-Inf	30.68	3	Horizontal	168	1.15	-
2480MHz	Pass	PK	2.4972G	54.60	74.00	-19.40	30.74	3	Horizontal	168	1.15	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3866G	43.21	54.00	-10.79	30.37	3	Vertical	252	1.14	-
2402MHz	Pass	AV	2.402G	101.36	Inf	-Inf	30.42	3	Vertical	252	1.14	-
2402MHz	Pass	PK	2.3878G	55.30	74.00	-18.70	30.37	3	Vertical	252	1.14	-
2402MHz	Pass	PK	2.4018G	105.67	Inf	-Inf	30.42	3	Vertical	252	1.14	-
2402MHz	Pass	AV	2.3886G	43.19	54.00	-10.81	30.37	3	Horizontal	30	1.67	-
2402MHz	Pass	AV	2.402G	98.67	Inf	-Inf	30.42	3	Horizontal	30	1.67	-
2402MHz	Pass	PK	2.3774G	54.35	74.00	-19.65	30.34	3	Horizontal	30	1.67	-
2402MHz	Pass	PK	2.402G	102.95	Inf	-Inf	30.42	3	Horizontal	30	1.67	-
2441MHz	Pass	AV	2.385G	43.22	54.00	-10.78	30.36	3	Vertical	286	1.17	-
2441MHz	Pass	AV	2.441G	98.70	Inf	-Inf	30.55	3	Vertical	286	1.17	-
2441MHz	Pass	AV	2.4966G	43.69	54.00	-10.31	30.74	3	Vertical	286	1.17	-
2441MHz	Pass	PK	2.353G	54.88	74.00	-19.12	30.26	3	Vertical	286	1.17	-
2441MHz	Pass	PK	2.441G	103.03	Inf	-Inf	30.55	3	Vertical	286	1.17	-
2441MHz	Pass	PK	2.483502G	54.47	74.00	-19.53	30.69	3	Vertical	286	1.17	-
2441MHz	Pass	AV	2.3894G	43.14	54.00	-10.86	30.37	3	Horizontal	186	1.54	-
2441MHz	Pass	AV	2.441G	97.41	Inf	-Inf	30.55	3	Horizontal	186	1.54	-
2441MHz	Pass	AV	2.4998G	43.68	54.00	-10.32	30.75	3	Horizontal	186	1.54	-
2441MHz	Pass	PK	2.3818G	54.49	74.00	-19.51	30.35	3	Horizontal	186	1.54	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2441MHz	Pass	PK	2.441G	101.65	Inf	-Inf	30.55	3	Horizontal	186	1.54	-
2441MHz	Pass	PK	2.4914G	54.70	74.00	-19.30	30.72	3	Horizontal	186	1.54	-
2480MHz	Pass	AV	2.48G	98.86	Inf	-Inf	30.68	3	Vertical	251	1.09	-
2480MHz	Pass	AV	2.483502G	48.96	54.00	-5.04	30.69	3	Vertical	251	1.09	-
2480MHz	Pass	PK	2.48G	103.06	Inf	-Inf	30.68	3	Vertical	251	1.09	-
2480MHz	Pass	PK	2.483502G	57.65	74.00	-16.35	30.69	3	Vertical	251	1.09	-
2480MHz	Pass	AV	2.48G	96.83	Inf	-Inf	30.68	3	Horizontal	169	1.14	-
2480MHz	Pass	AV	2.483502G	47.38	54.00	-6.62	30.69	3	Horizontal	169	1.14	-
2480MHz	Pass	PK	2.48G	101.01	Inf	-Inf	30.68	3	Horizontal	169	1.14	-
2480MHz	Pass	PK	2.483502G	54.97	74.00	-19.03	30.69	3	Horizontal	169	1.14	-

BT-BR(1Mbps)

2402MHz_TX

12/05/2018

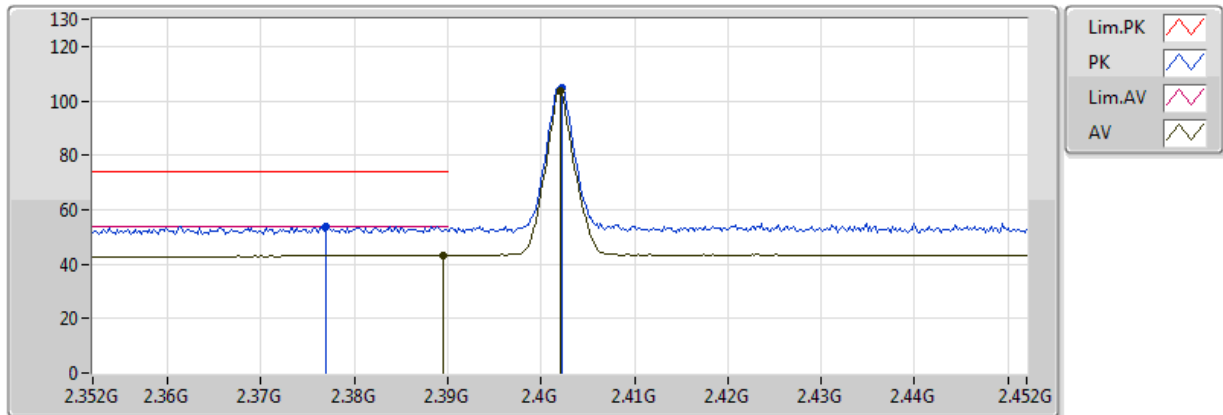


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.385G	43.24	54.00	-10.76	30.36	3	Vertical	251	1.01	-
AV	2.402G	105.73	Inf	-Inf	30.42	3	Vertical	251	1.01	-
PK	2.38G	54.23	74.00	-19.77	30.34	3	Vertical	251	1.01	-
PK	2.4022G	106.78	Inf	-Inf	30.42	3	Vertical	251	1.01	-

BT-BR(1Mbps)

2402MHz_TX

12/05/2018

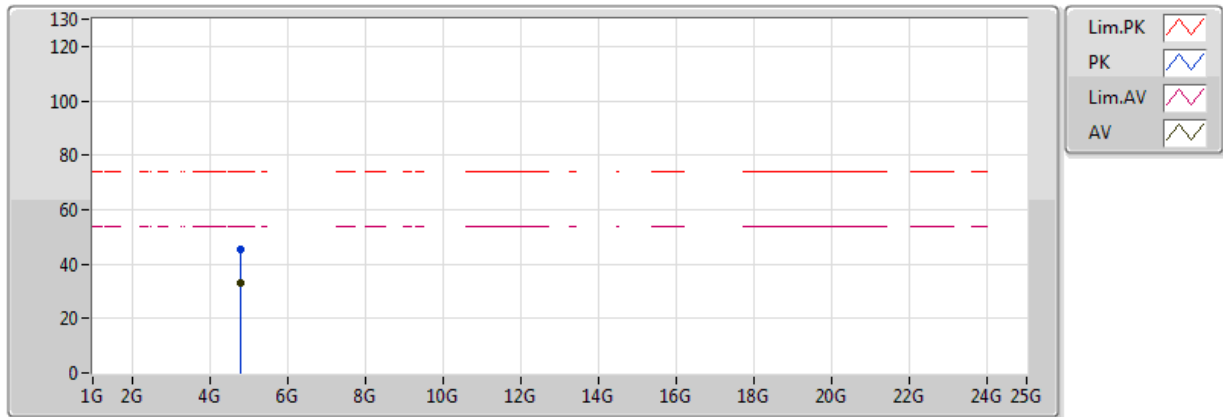


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3896G	43.26	54.00	-10.74	30.38	3	Horizontal	27	1.68	-
AV	2.402G	103.50	Inf	-Inf	30.42	3	Horizontal	27	1.68	-
PK	2.377G	53.96	74.00	-20.04	30.33	3	Horizontal	27	1.68	-
PK	2.4022G	104.54	Inf	-Inf	30.42	3	Horizontal	27	1.68	-

BT-BR(1Mbps)

2402MHz_TX

12/05/2018

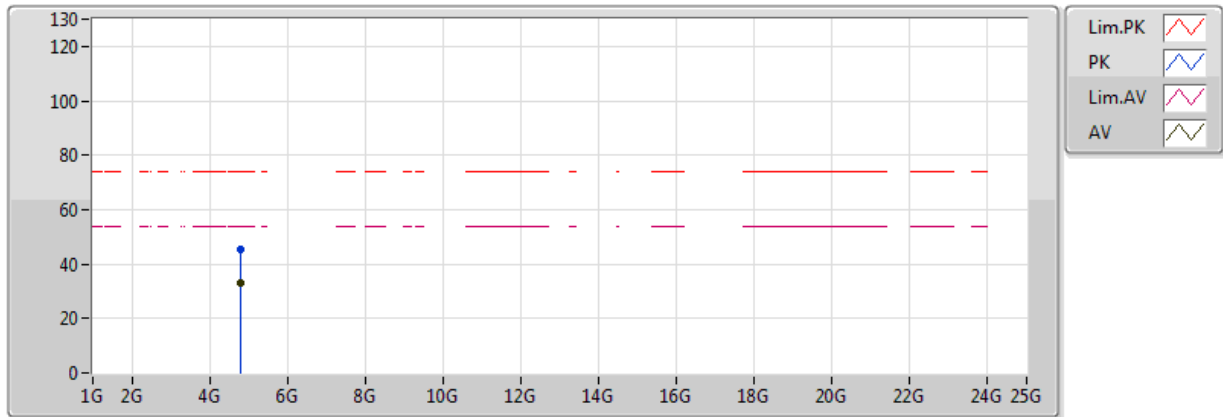


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80384G	33.34	54.00	-20.66	5.79	3	Vertical	25	2.20	-
PK	4.8044G	45.29	74.00	-28.71	5.79	3	Vertical	25	2.20	-

BT-BR(1Mbps)

2402MHz_TX

12/05/2018

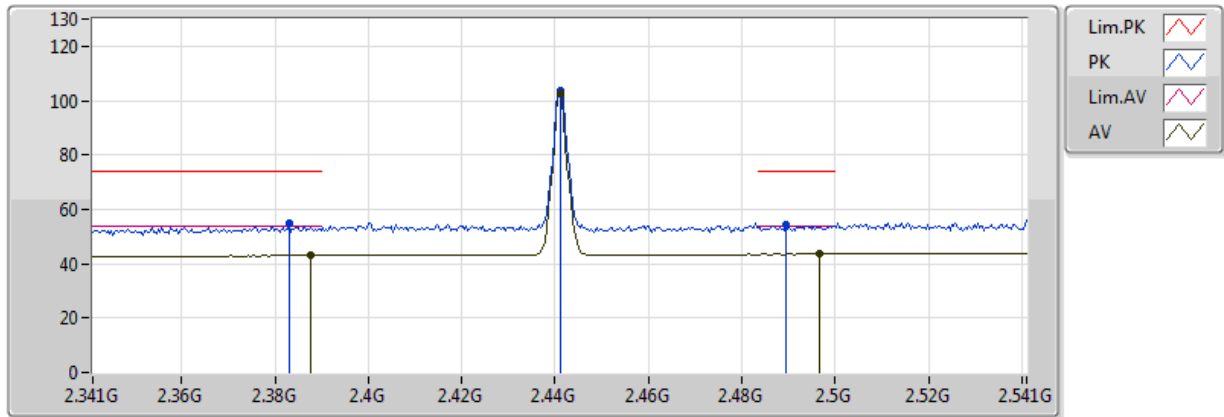


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.80392G	33.04	54.00	-20.96	5.79	3	Horizontal	122	2.15	-
PK	4.80372G	45.37	74.00	-28.63	5.79	3	Horizontal	122	2.15	-

BT-BR(1Mbps)

2441MHz_TX

12/05/2018

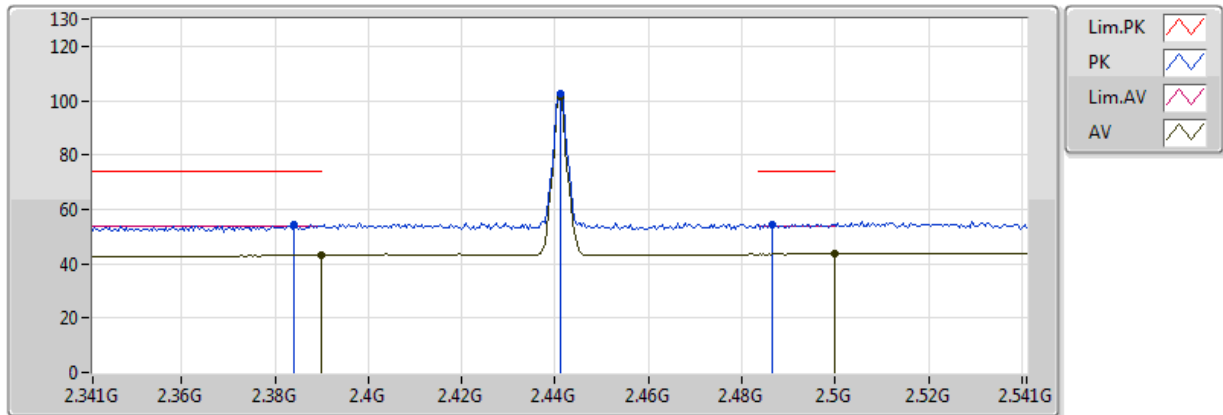


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3878G	43.14	54.00	-10.86	30.37	3	Vertical	284	1.48	-
AV	2.441G	102.56	Inf	-Inf	30.55	3	Vertical	284	1.48	-
AV	2.4966G	43.73	54.00	-10.27	30.74	3	Vertical	284	1.48	-
PK	2.383G	54.87	74.00	-19.13	30.35	3	Vertical	284	1.48	-
PK	2.441G	103.76	Inf	-Inf	30.55	3	Vertical	284	1.48	-
PK	2.4894G	54.08	74.00	-19.92	30.71	3	Vertical	284	1.48	-

BT-BR(1Mbps)

2441MHz_TX

12/05/2018

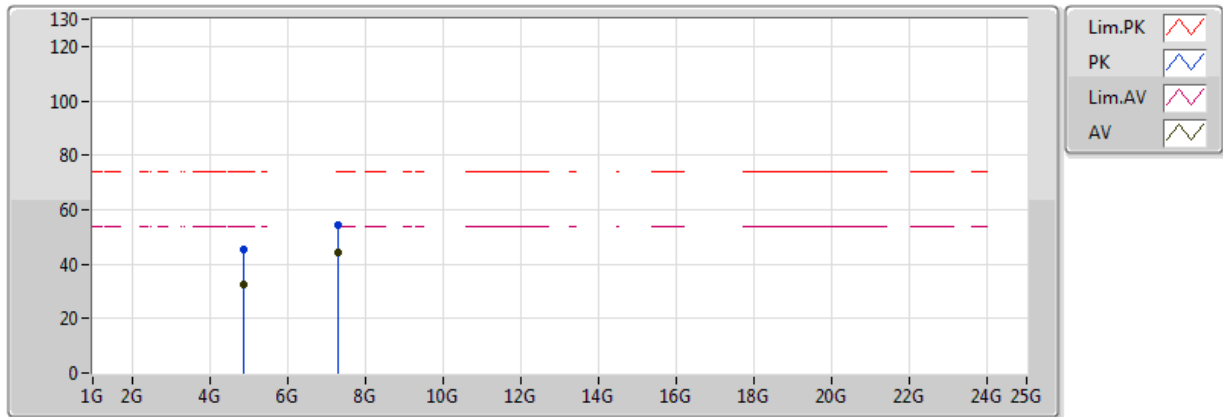


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	2.3842G	54.33	74.00	-19.67	30.36	3	Horizontal	186	1.53	-
AV	2.3898G	43.14	54.00	-10.86	30.38	3	Horizontal	186	1.53	-
PK	2.441G	102.77	Inf	-Inf	30.55	3	Horizontal	186	1.53	-
AV	2.441G	101.59	Inf	-Inf	30.55	3	Horizontal	186	1.53	-
PK	2.4866G	54.54	74.00	-19.46	30.71	3	Horizontal	186	1.53	-
AV	2.4998G	43.73	54.00	-10.27	30.75	3	Horizontal	186	1.53	-

BT-BR(1Mbps)

2441MHz_TX

12/05/2018

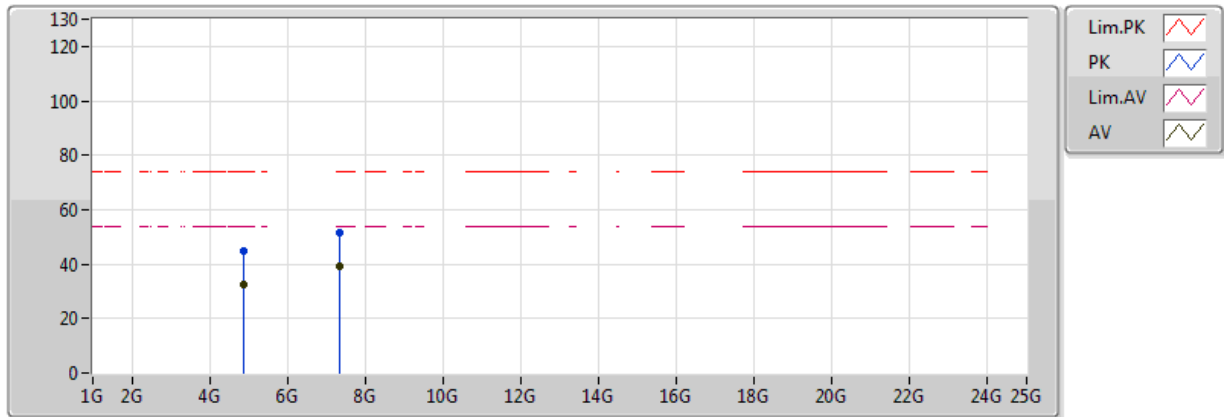


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.882G	32.27	54.00	-21.73	5.95	3	Vertical	186	1.45	-
AV	7.32294G	44.30	54.00	-9.70	11.15	3	Vertical	207	3.07	-
PK	4.8832G	45.36	74.00	-28.64	5.95	3	Vertical	186	1.45	-
PK	7.32264G	54.39	74.00	-19.61	11.15	3	Vertical	207	3.07	-

BT-BR(1Mbps)

2441MHz_TX

12/05/2018

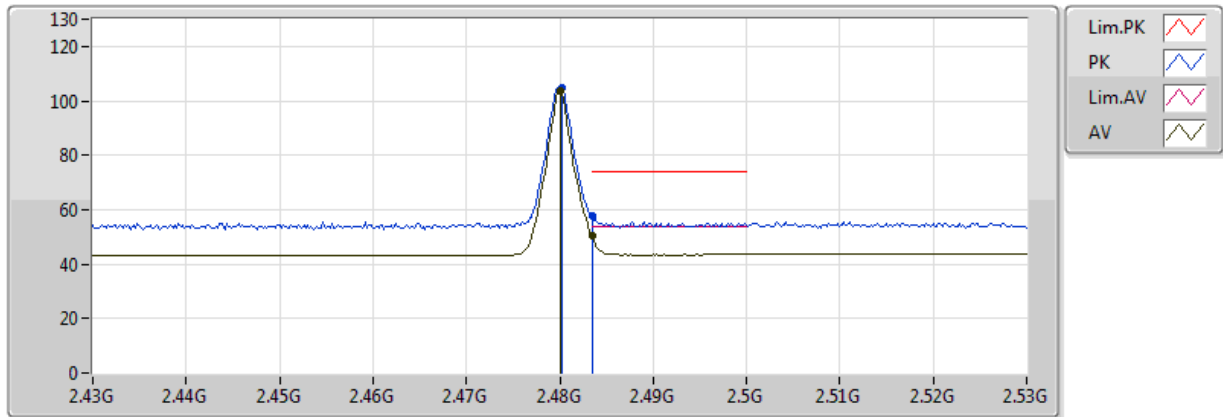


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.882G	32.66	54.00	-21.34	5.95	3	Horizontal	109	1.01	-
AV	7.32306G	39.44	54.00	-14.56	11.15	3	Horizontal	29	1.36	-
PK	4.88188G	44.87	74.00	-29.13	5.95	3	Horizontal	109	1.01	-
PK	7.32342G	51.73	74.00	-22.27	11.16	3	Horizontal	29	1.36	-

BT-BR(1Mbps)

2480MHz_TX

12/05/2018

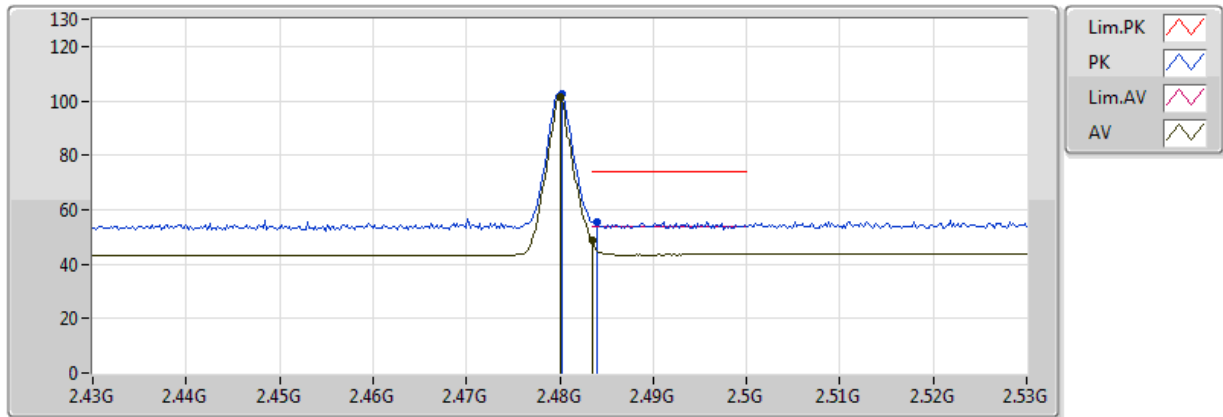


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	103.75	Inf	-Inf	30.68	3	Vertical	246	1.73	-
AV	2.483502G	50.17	54.00	-3.83	30.69	3	Vertical	246	1.73	-
PK	2.4802G	104.90	Inf	-Inf	30.68	3	Vertical	246	1.73	-
PK	2.483502G	57.60	74.00	-16.40	30.69	3	Vertical	246	1.73	-

BT-BR(1Mbps)

2480MHz_TX

12/05/2018

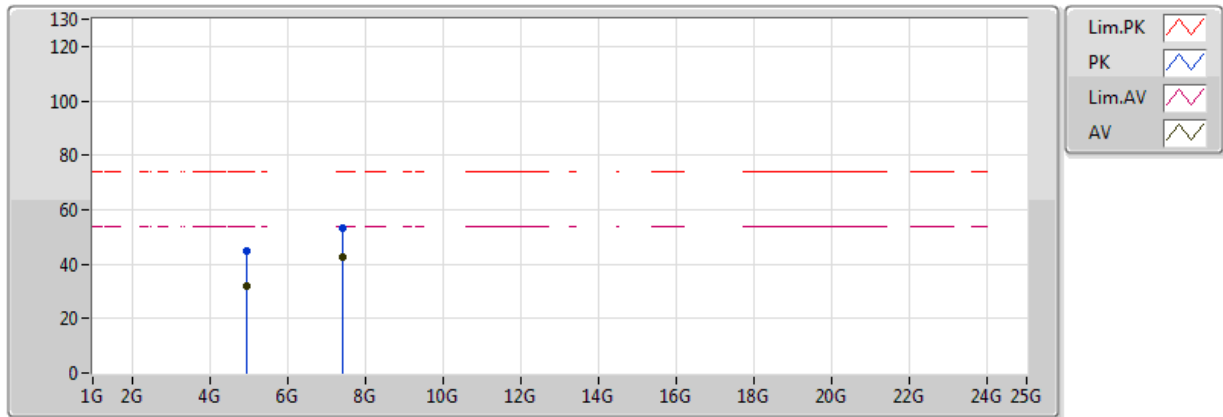


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	101.40	Inf	-Inf	30.68	3	Horizontal	176	1.14	-
AV	2.483502G	48.48	54.00	-5.52	30.69	3	Horizontal	176	1.14	-
PK	2.4802G	102.61	Inf	-Inf	30.68	3	Horizontal	176	1.14	-
PK	2.484G	55.53	74.00	-18.47	30.69	3	Horizontal	176	1.14	-

BT-BR(1Mbps)

2480MHz_TX

12/05/2018

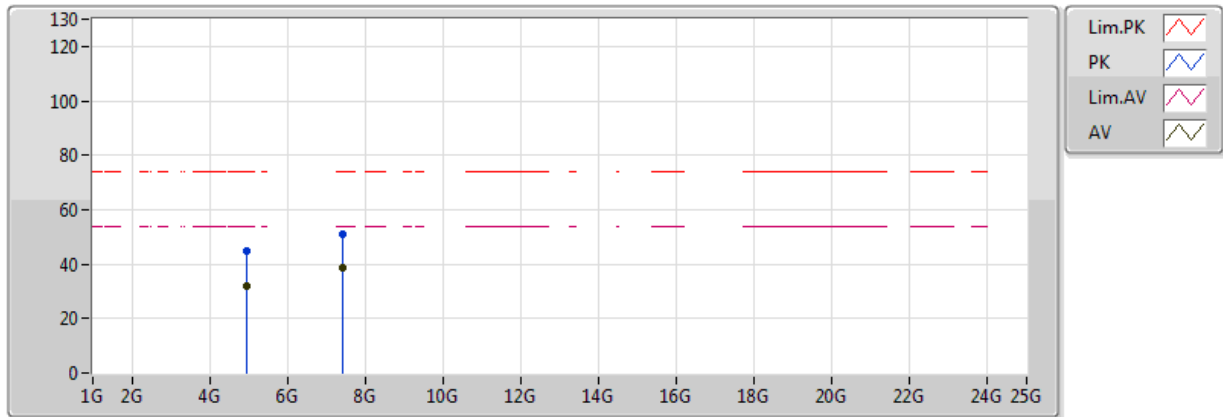


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.95968G	31.83	54.00	-22.17	6.12	3	Vertical	341	1.44	-
AV	7.44G	42.84	54.00	-11.16	11.48	3	Vertical	205	3.17	-
PK	4.95972G	45.05	74.00	-28.95	6.12	3	Vertical	341	1.44	-
PK	7.44028G	53.21	74.00	-20.79	11.48	3	Vertical	205	3.17	-

BT-BR(1Mbps)

2480MHz_TX

12/05/2018

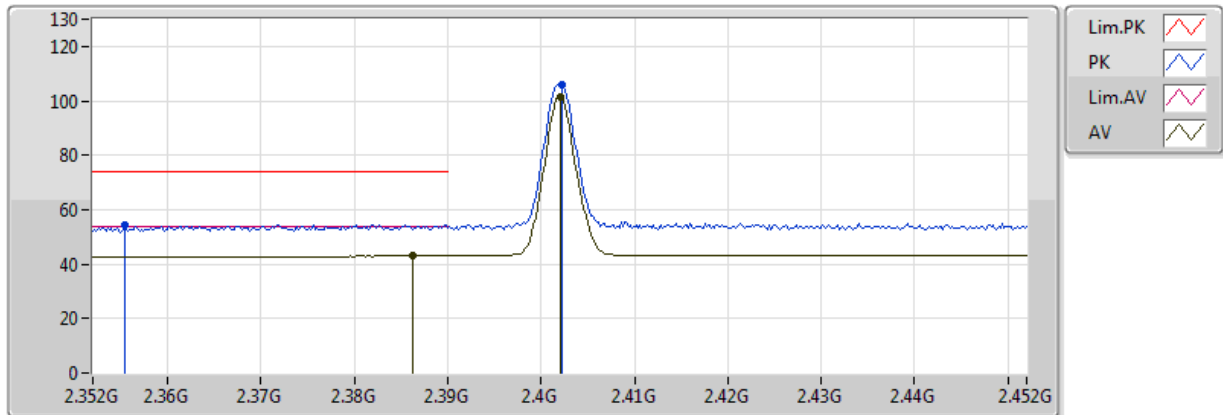


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.95988G	31.77	54.00	-22.23	6.12	3	Horizontal	19	1.50	-
AV	7.4398G	38.63	54.00	-15.37	11.48	3	Horizontal	31	1.81	-
PK	4.95776G	44.82	74.00	-29.18	6.11	3	Horizontal	19	1.50	-
PK	7.44004G	51.07	74.00	-22.93	11.48	3	Horizontal	31	1.81	-

BT-EDR(2Mbps)

2402MHz_TX

12/05/2018

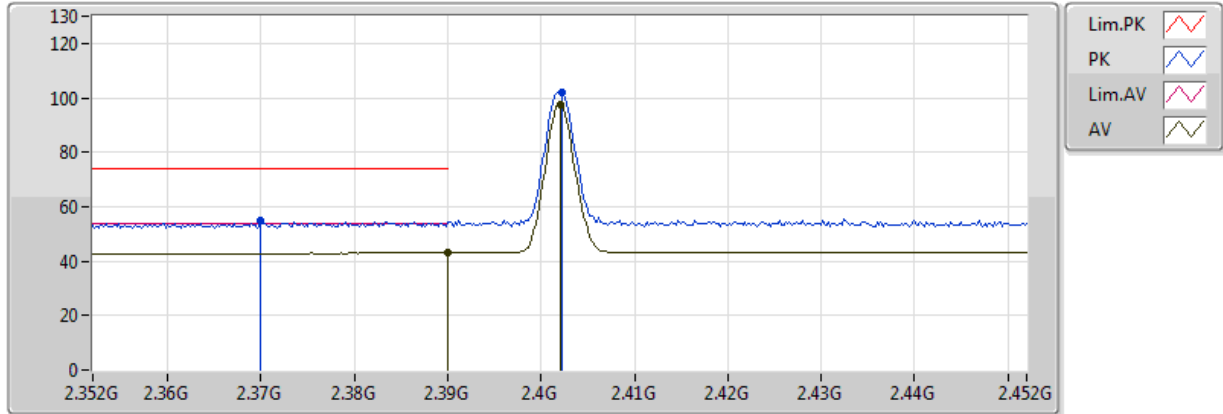


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3862G	43.07	54.00	-10.93	30.37	3	Vertical	250	1.14	-
AV	2.402G	101.65	Inf	-Inf	30.42	3	Vertical	250	1.14	-
PK	2.3554G	54.58	74.00	-19.42	30.26	3	Vertical	250	1.14	-
PK	2.4022G	105.88	Inf	-Inf	30.42	3	Vertical	250	1.14	-

BT-EDR(2Mbps)

2402MHz_TX

12/05/2018

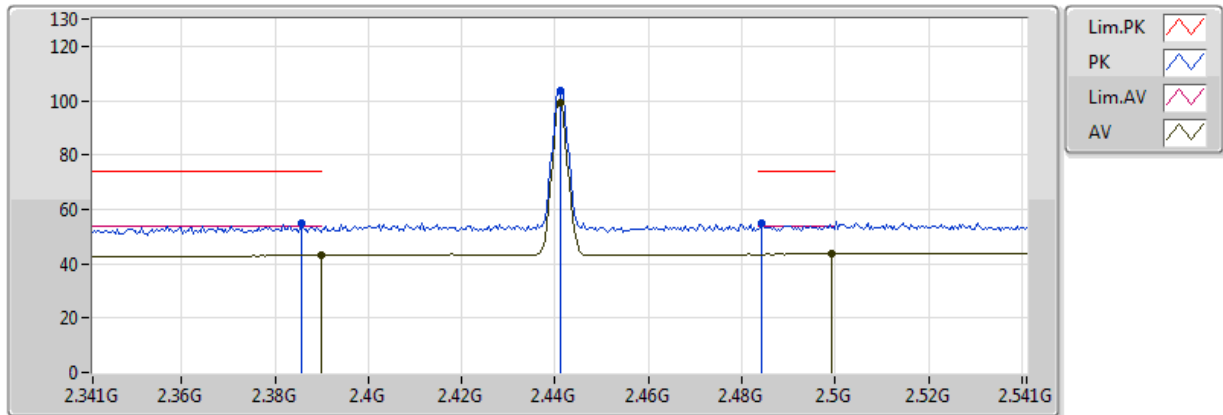


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389998G	43.06	54.00	-10.94	30.38	3	Horizontal	214	1.50	-
AV	2.402G	97.72	Inf	-Inf	30.42	3	Horizontal	214	1.50	-
PK	2.37G	54.74	74.00	-19.26	30.31	3	Horizontal	214	1.50	-
PK	2.4022G	101.98	Inf	-Inf	30.42	3	Horizontal	214	1.50	-

BT-EDR(2Mbps)

2441MHz_TX

12/05/2018

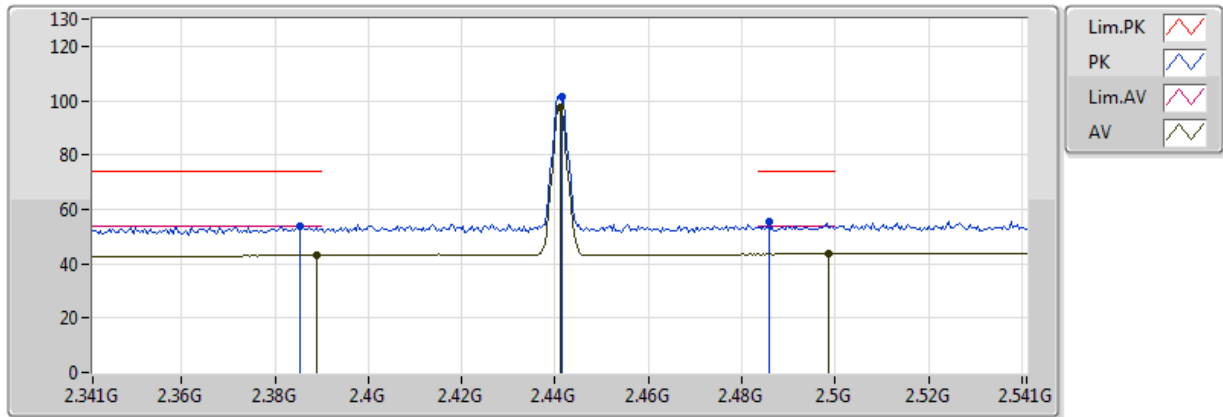


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	43.15	54.00	-10.85	30.38	3	Vertical	250	1.01	-
AV	2.441G	99.34	Inf	-Inf	30.55	3	Vertical	250	1.01	-
AV	2.4994G	43.67	54.00	-10.33	30.75	3	Vertical	250	1.01	-
PK	2.3858G	54.66	74.00	-19.34	30.37	3	Vertical	250	1.01	-
PK	2.441G	103.64	Inf	-Inf	30.55	3	Vertical	250	1.01	-
PK	2.4842G	54.93	74.00	-19.07	30.69	3	Vertical	250	1.01	-

BT-EDR(2Mbps)

2441MHz_TX

12/05/2018

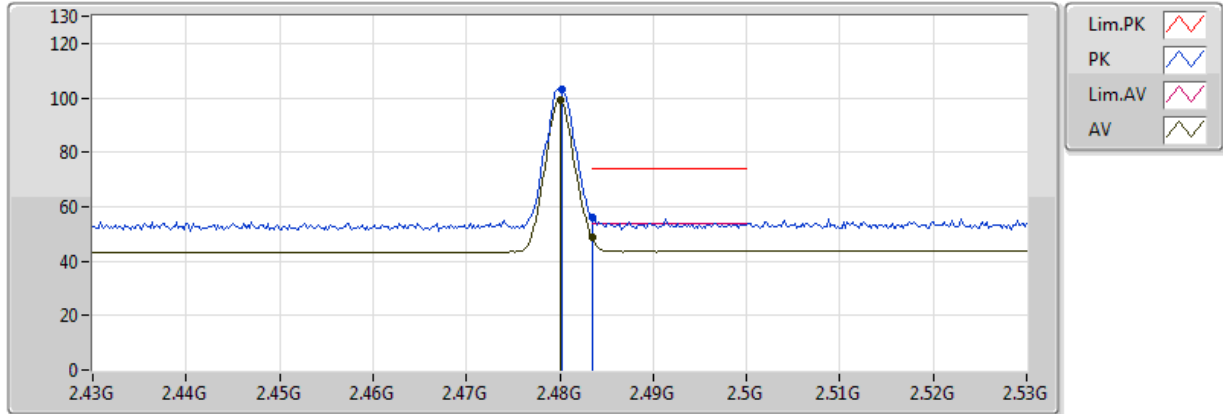


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389G	43.14	54.00	-10.86	30.37	3	Horizontal	186	1.53	-
AV	2.441G	97.57	Inf	-Inf	30.55	3	Horizontal	186	1.53	-
AV	2.4986G	43.72	54.00	-10.28	30.75	3	Horizontal	186	1.53	-
PK	2.3854G	53.64	74.00	-20.36	30.36	3	Horizontal	186	1.53	-
PK	2.4414G	101.65	Inf	-Inf	30.55	3	Horizontal	186	1.53	-
PK	2.4858G	55.36	74.00	-18.64	30.71	3	Horizontal	186	1.53	-

BT-EDR(2Mbps)

2480MHz_TX

12/05/2018

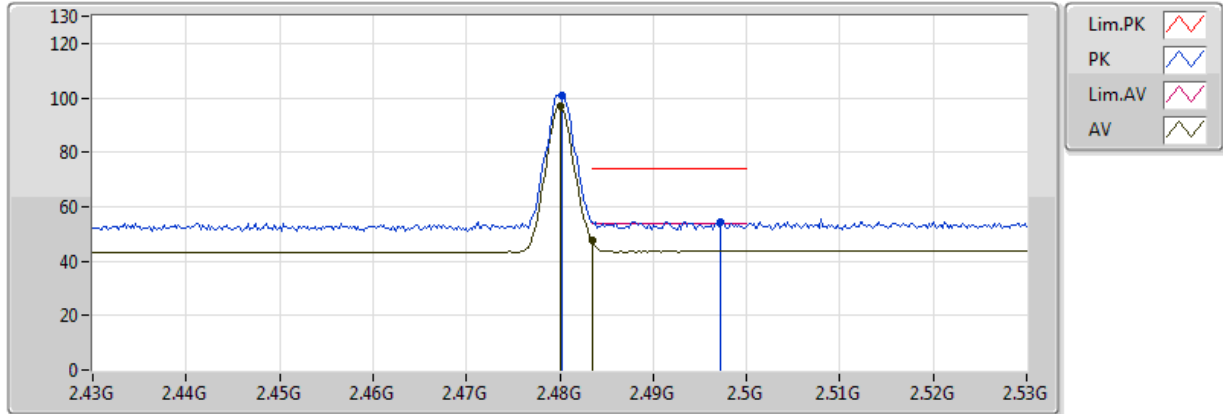


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	98.99	Inf	-Inf	30.68	3	Vertical	250	1.08	-
AV	2.483502G	48.86	54.00	-5.14	30.69	3	Vertical	250	1.08	-
PK	2.4802G	102.99	Inf	-Inf	30.68	3	Vertical	250	1.08	-
PK	2.483502G	56.27	74.00	-17.73	30.69	3	Vertical	250	1.08	-

BT-EDR(2Mbps)

2480MHz_TX

12/05/2018

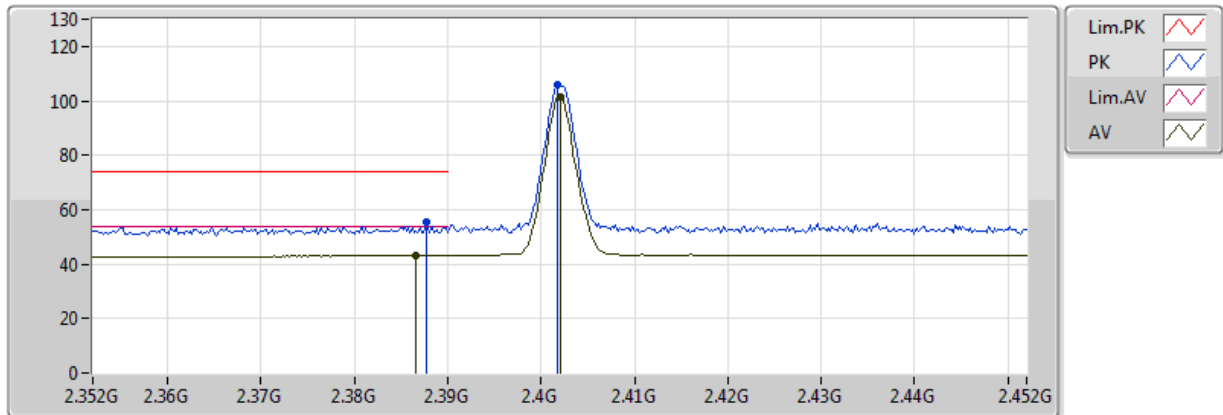


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	96.92	Inf	-Inf	30.68	3	Horizontal	168	1.15	-
AV	2.483502G	47.41	54.00	-6.59	30.69	3	Horizontal	168	1.15	-
PK	2.4802G	101.07	Inf	-Inf	30.68	3	Horizontal	168	1.15	-
PK	2.4972G	54.60	74.00	-19.40	30.74	3	Horizontal	168	1.15	-

BT-EDR(3Mbps)

2402MHz_TX

12/05/2018

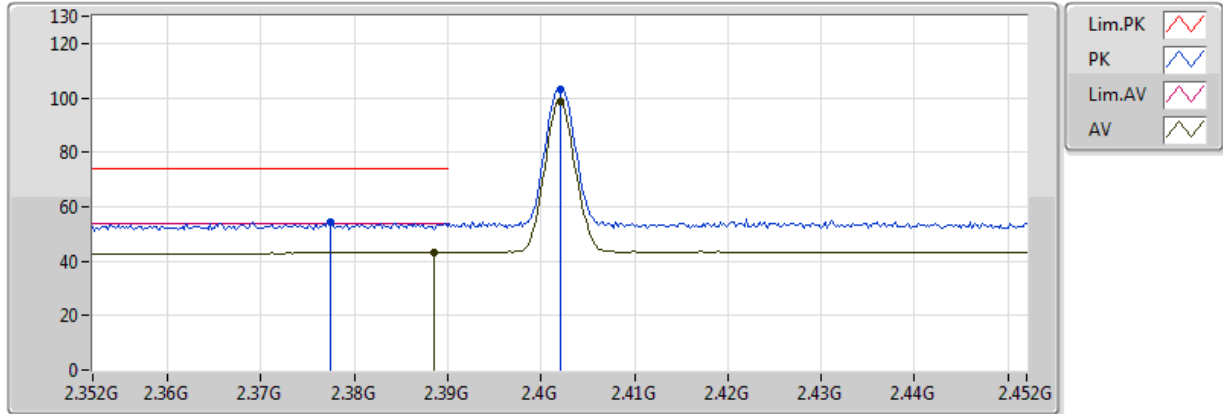


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3866G	43.21	54.00	-10.79	30.37	3	Vertical	252	1.14	-
AV	2.402G	101.36	Inf	-Inf	30.42	3	Vertical	252	1.14	-
PK	2.3878G	55.30	74.00	-18.70	30.37	3	Vertical	252	1.14	-
PK	2.4018G	105.67	Inf	-Inf	30.42	3	Vertical	252	1.14	-

BT-EDR(3Mbps)

2402MHz_TX

12/05/2018

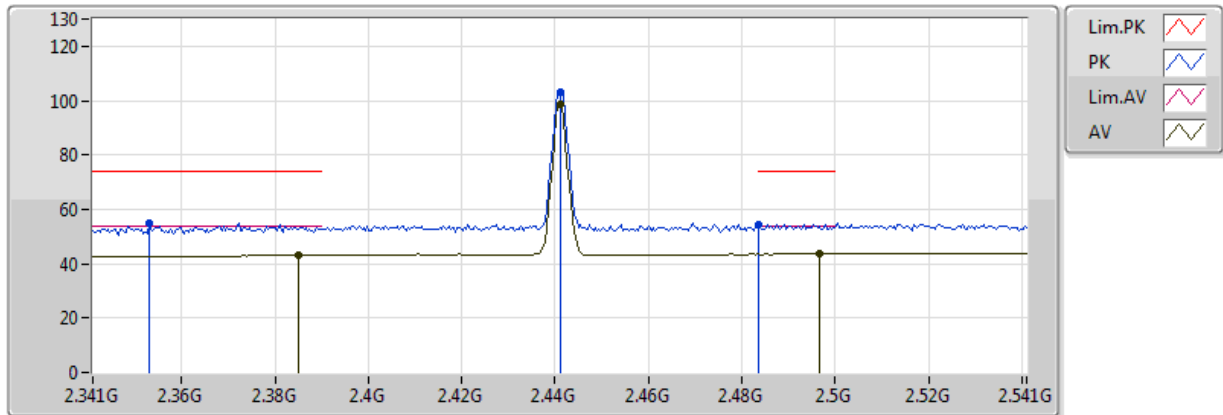


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3886G	43.19	54.00	-10.81	30.37	3	Horizontal	30	1.67	-
AV	2.402G	98.67	Inf	-Inf	30.42	3	Horizontal	30	1.67	-
PK	2.3774G	54.35	74.00	-19.65	30.34	3	Horizontal	30	1.67	-
PK	2.402G	102.95	Inf	-Inf	30.42	3	Horizontal	30	1.67	-

BT-EDR(3Mbps)

2441MHz_TX

12/05/2018

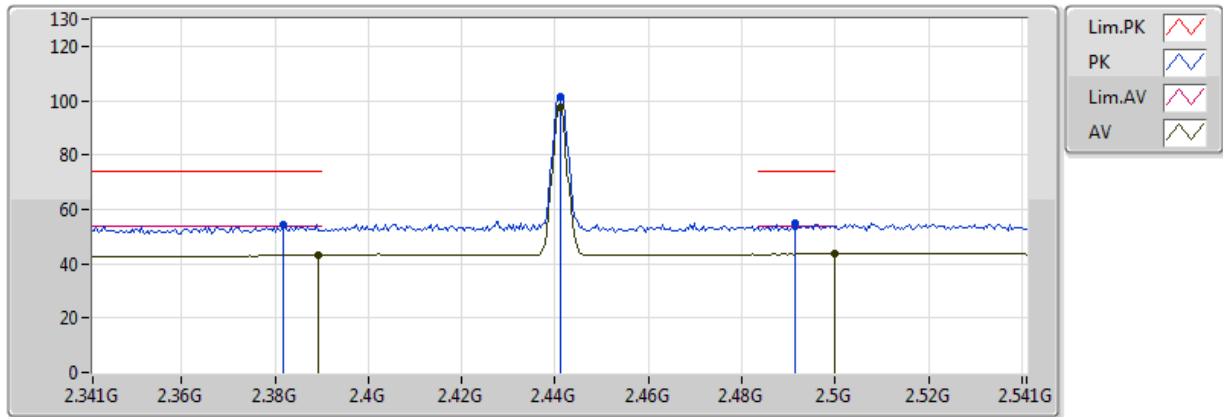


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.385G	43.22	54.00	-10.78	30.36	3	Vertical	286	1.17	-
AV	2.441G	98.70	Inf	-Inf	30.55	3	Vertical	286	1.17	-
AV	2.4966G	43.69	54.00	-10.31	30.74	3	Vertical	286	1.17	-
PK	2.353G	54.88	74.00	-19.12	30.26	3	Vertical	286	1.17	-
PK	2.441G	103.03	Inf	-Inf	30.55	3	Vertical	286	1.17	-
PK	2.483502G	54.47	74.00	-19.53	30.69	3	Vertical	286	1.17	-

BT-EDR(3Mbps)

2441MHz_TX

12/05/2018

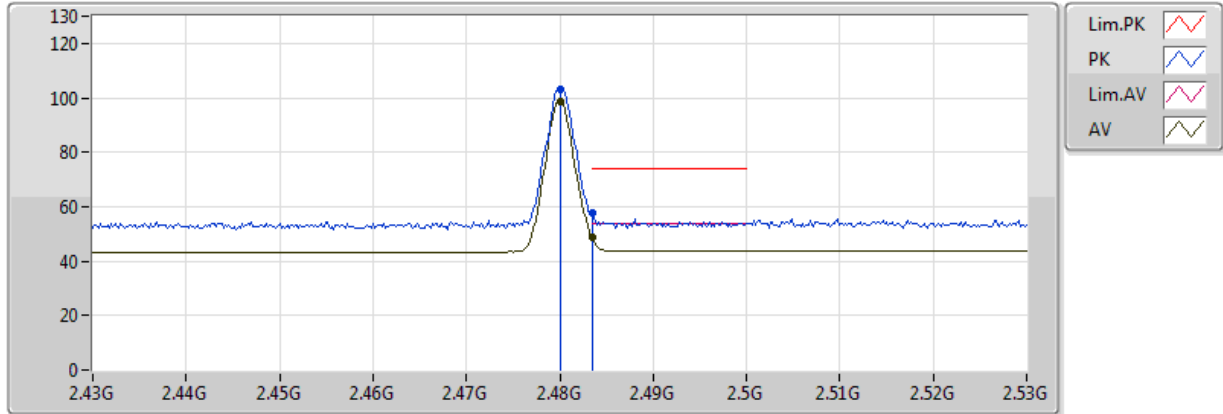


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3894G	43.14	54.00	-10.86	30.37	3	Horizontal	186	1.54	-
AV	2.441G	97.41	Inf	-Inf	30.55	3	Horizontal	186	1.54	-
AV	2.4998G	43.68	54.00	-10.32	30.75	3	Horizontal	186	1.54	-
PK	2.3818G	54.49	74.00	-19.51	30.35	3	Horizontal	186	1.54	-
PK	2.441G	101.65	Inf	-Inf	30.55	3	Horizontal	186	1.54	-
PK	2.4914G	54.70	74.00	-19.30	30.72	3	Horizontal	186	1.54	-

BT-EDR(3Mbps)

2480MHz_TX

12/05/2018

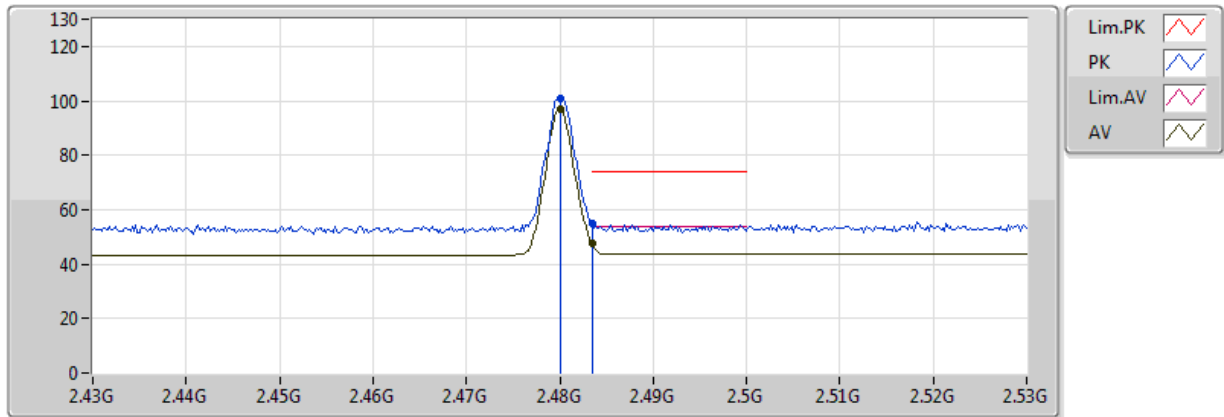


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	98.86	Inf	-Inf	30.68	3	Vertical	251	1.09	-
AV	2.483502G	48.96	54.00	-5.04	30.69	3	Vertical	251	1.09	-
PK	2.48G	103.06	Inf	-Inf	30.68	3	Vertical	251	1.09	-
PK	2.483502G	57.65	74.00	-16.35	30.69	3	Vertical	251	1.09	-

BT-EDR(3Mbps)

2480MHz_TX

12/05/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	96.83	Inf	-Inf	30.68	3	Horizontal	169	1.14	-
AV	2.483502G	47.38	54.00	-6.62	30.69	3	Horizontal	169	1.14	-
PK	2.48G	101.01	Inf	-Inf	30.68	3	Horizontal	169	1.14	-
PK	2.483502G	54.97	74.00	-19.03	30.69	3	Horizontal	169	1.14	-



Summary

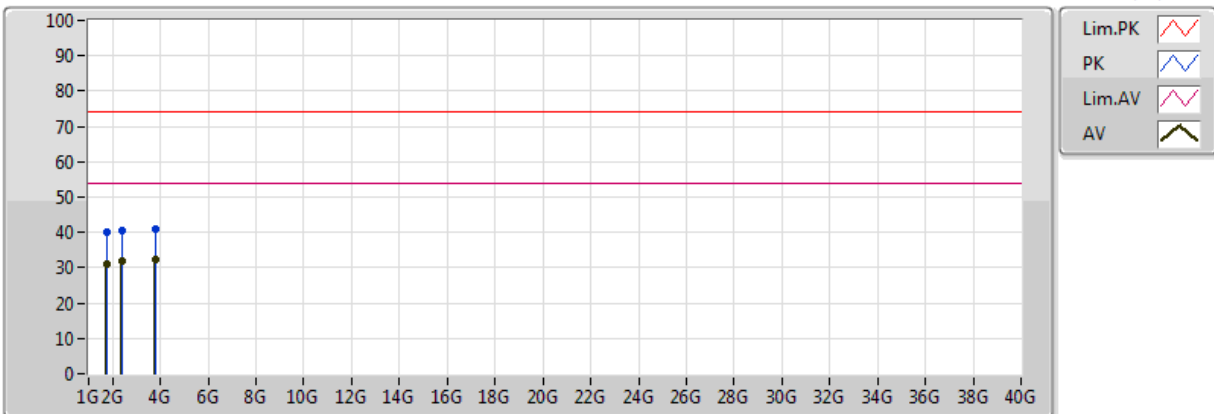
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1	Pass	AV	3.774G	32.47	54.00	-21.53	0.33	3	Vertical	360	1.00	-
Mode 2	Pass	AV	3.861G	36.85	54.00	-17.15	0.66	3	Horizontal	0	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1	Pass	AV	1.667G	31.10	54.00	-22.90	-4.84	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	2.387G	31.27	54.00	-22.73	-2.48	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	3.337G	31.36	54.00	-22.64	-0.63	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	1.667G	40.12	74.00	-33.88	-4.84	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	2.387G	39.64	74.00	-34.36	-2.48	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	3.337G	40.34	74.00	-33.66	-0.63	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	1.745G	30.88	54.00	-23.12	-4.61	3	Vertical	360	1.00	-
Mode 1	Pass	AV	2.38G	32.05	54.00	-21.95	-2.50	3	Vertical	360	1.00	-
Mode 1	Pass	AV	3.774G	32.47	54.00	-21.53	0.33	3	Vertical	360	1.00	-
Mode 1	Pass	PK	1.745G	39.88	74.00	-34.12	-4.61	3	Vertical	360	1.00	-
Mode 1	Pass	PK	2.38G	40.67	74.00	-33.33	-2.50	3	Vertical	360	1.00	-
Mode 1	Pass	PK	3.774G	40.80	74.00	-33.12	0.33	3	Vertical	360	1.00	-
Mode 2	Pass	AV	1.227G	29.38	54.00	-24.62	-6.79	3	Horizontal	0	1.00	
Mode 2	Pass	AV	2.552G	32.56	54.00	-21.44	-1.91	3	Horizontal	0	1.00	
Mode 2	Pass	AV	3.861G	36.85	54.00	-17.15	0.66	3	Horizontal	0	1.00	
Mode 2	Pass	PK	1.227G	38.48	74.00	-35.52	-6.79	3	Horizontal	0	1.00	
Mode 2	Pass	PK	2.552G	41.15	74.00	-32.85	-1.91	3	Horizontal	0	1.00	
Mode 2	Pass	PK	3.861G	41.21	74.00	-32.79	0.66	3	Horizontal	0	1.00	
Mode 2	Pass	AV	1.174G	28.15	54.00	-25.85	-7.07	3	Vertical	360	1.00	
Mode 2	Pass	AV	2.447G	30.20	54.00	-23.80	-2.26	3	Vertical	360	1.00	
Mode 2	Pass	AV	3.881G	32.84	54.00	-21.16	0.73	3	Vertical	360	1.00	
Mode 2	Pass	PK	1.174G	37.55	74.00	-36.45	-7.07	3	Vertical	360	1.00	
Mode 2	Pass	PK	2.447G	38.31	74.00	-35.69	-2.26	3	Vertical	360	1.00	
Mode 2	Pass	PK	3.881G	41.74	74.00	-32.26	0.73	3	Vertical	360	1.00	

Radiation-above 1GHz_Mode 1

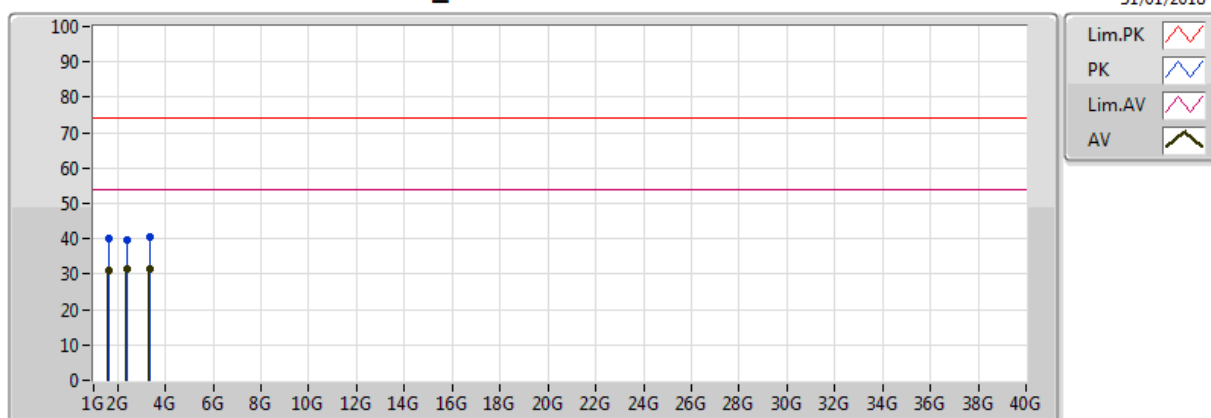
31/01/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.745G	30.88	54.00	-23.12	-4.61	3	Vertical	360	1.00	-	35.49	25.64	4.91	35.16
AV	2.38G	32.05	54.00	-21.95	-2.50	3	Vertical	360	1.00	-	34.55	26.96	5.72	35.18
AV	3.774G	32.47	54.00	-21.53	0.33	3	Vertical	360	1.00	-	32.14	29.15	6.44	35.26
PK	1.745G	39.88	74.00	-34.12	-4.61	3	Vertical	360	1.00	-	44.49	25.64	4.91	35.16
PK	2.38G	40.67	74.00	-33.33	-2.50	3	Vertical	360	1.00	-	43.17	26.96	5.72	35.18
PK	3.774G	40.88	74.00	-33.12	0.33	3	Vertical	360	1.00	-	40.55	29.15	6.44	35.26

Radiation-above 1GHz_Mode 1

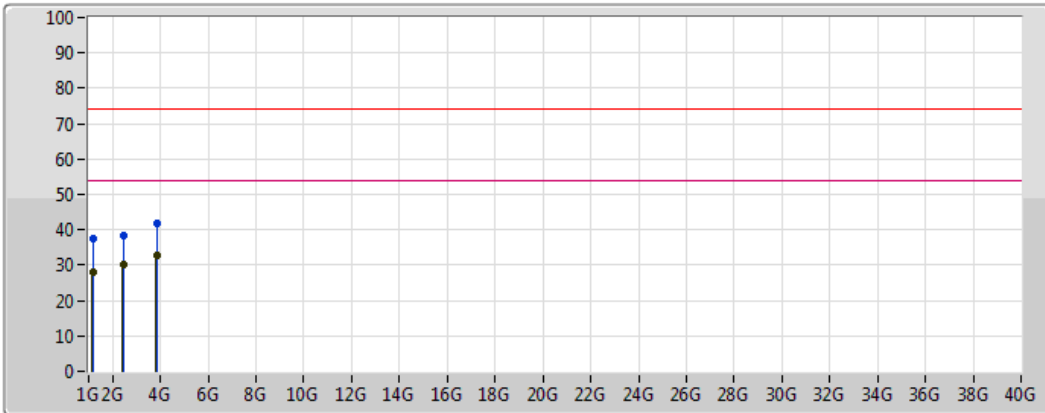
31/01/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	1.667G	31.10	54.00	-22.90	-4.84	3	Horizontal	0	1.00	-	35.94	25.57	4.79	35.20
AV	2.387G	31.27	54.00	-22.73	-2.48	3	Horizontal	0	1.00	-	33.75	26.98	5.73	35.19
AV	3.337G	31.36	54.00	-22.64	-0.63	3	Horizontal	0	1.00	-	31.99	28.60	6.09	35.33
PK	1.667G	40.12	74.00	-33.88	-4.84	3	Horizontal	0	1.00	-	44.96	25.57	4.79	35.20
PK	2.387G	39.64	74.00	-34.36	-2.48	3	Horizontal	0	1.00	-	42.12	26.98	5.73	35.19
PK	3.337G	40.34	74.00	-33.66	-0.63	3	Horizontal	0	1.00	-	40.97	28.60	6.09	35.33

Radiation-above 1GHz_Mode 2

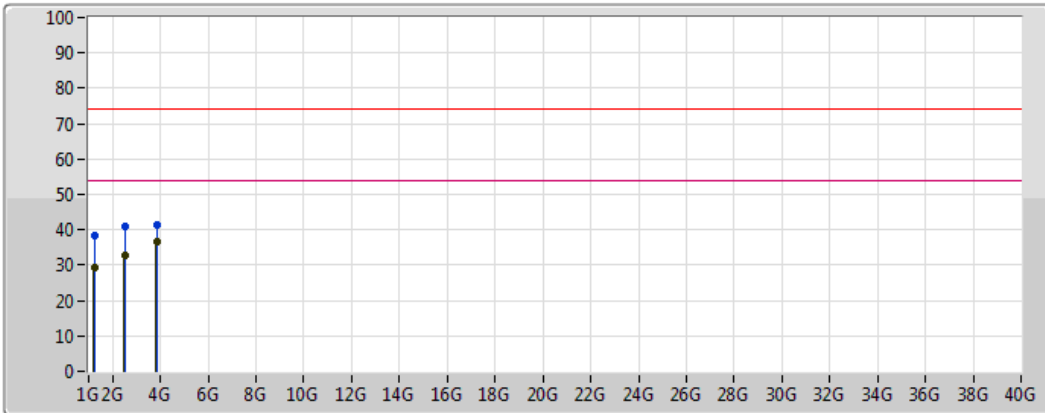
31/01/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	1.174G	28.15	54.00	-25.85	-7.07	3	Vertical	360	1.00	-	35.22	24.75	4.06	35.88
AV	2.447G	30.20	54.00	-23.80	-2.26	3	Vertical	360	1.00	-	32.46	27.15	5.80	35.21
AV	3.881G	32.84	54.00	-21.16	0.73	3	Vertical	360	1.00	-	32.11	29.36	6.60	35.23
PK	1.174G	37.55	74.00	-36.45	-7.07	3	Vertical	360	1.00	-	44.62	24.75	4.06	35.88
PK	2.447G	38.31	74.00	-35.69	-2.26	3	Vertical	360	1.00	-	40.57	27.15	5.80	35.21
PK	3.881G	41.74	74.00	-32.26	0.73	3	Vertical	360	1.00	-	41.01	29.36	6.60	35.23

Radiation-above 1GHz_Mode 2

31/01/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	1.227G	29.38	54.00	-24.62	-6.79	3	Horizontal	0	1.00	-	36.17	24.85	4.14	35.78
AV	2.552G	32.56	54.00	-21.44	-1.91	3	Horizontal	0	1.00	-	34.47	27.44	5.90	35.25
AV	3.861G	36.85	54.00	-17.15	0.66	3	Horizontal	0	1.00	-	36.19	29.32	6.57	35.24
PK	1.227G	38.48	74.00	-35.52	-6.79	3	Horizontal	0	1.00	-	45.27	24.85	4.14	35.78
PK	2.552G	41.15	74.00	-32.85	-1.91	3	Horizontal	0	1.00	-	43.06	27.44	5.90	35.25
PK	3.861G	41.21	74.00	-32.79	0.66	3	Horizontal	0	1.00	-	40.55	29.32	6.57	35.24



Summary

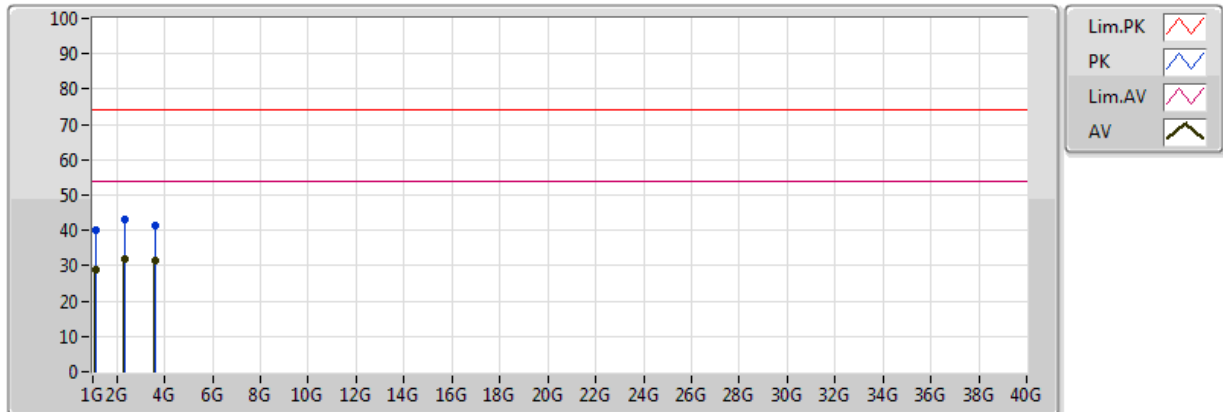
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1.	Pass	AV	4.031G	33.02	54.00	-20.98	1.31	3	Horizontal	0	1.00	-
Mode 2.	Pass	AV	3.951G	33.18	54.00	-20.82	0.99	3	Vertical	360	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1	Pass	AV	1.21G	28.59	54.00	-25.41	-6.88	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	2.23G	31.04	54.00	-22.96	-3.04	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	4.031G	33.02	54.00	-20.98	1.31	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	1.21G	38.55	74.00	-35.45	-6.88	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	2.23G	40.43	74.00	-33.57	-3.04	3	Horizontal	0	1.00	-
Mode 1	Pass	PK	4.031G	42.09	74.00	-31.91	1.31	3	Horizontal	0	1.00	-
Mode 1	Pass	AV	1.135G	28.80	54.00	-25.20	-7.28	3	Vertical	360	1.00	-
Mode 1	Pass	AV	2.307G	31.70	54.00	-22.30	-2.76	3	Vertical	360	1.00	-
Mode 1	Pass	AV	3.595G	31.39	54.00	-22.61	-0.34	3	Vertical	360	1.00	-
Mode 1	Pass	PK	1.135G	40.10	74.00	-33.90	-7.28	3	Vertical	360	1.00	-
Mode 1	Pass	PK	2.307G	43.17	74.00	-30.83	-2.76	3	Vertical	360	1.00	-
Mode 1	Pass	PK	3.595G	41.55	74.00	-32.45	-0.34	3	Vertical	360	1.00	-
Mode 2	Pass	AV	1.165G	29.57	54.00	-24.43	-7.12	3	Horizontal	0	1.00	
Mode 2	Pass	AV	2.28G	31.97	54.00	-22.03	-2.86	3	Horizontal	0	1.00	
Mode 2	Pass	AV	3.695G	32.27	54.00	-21.73	0.03	3	Horizontal	0	1.00	
Mode 2	Pass	PK	1.165G	38.58	74.00	-35.42	-7.12	3	Horizontal	0	1.00	
Mode 2	Pass	PK	2.28G	40.74	74.00	-33.26	-2.86	3	Horizontal	0	1.00	
Mode 2	Pass	PK	3.695G	40.79	74.00	-33.21	0.03	3	Horizontal	0	1.00	
Mode 2	Pass	AV	1.189G	29.13	54.00	-24.87	-6.99	3	Vertical	360	1.00	
Mode 2	Pass	AV	2.427G	30.53	54.00	-23.47	-2.33	3	Vertical	360	1.00	
Mode 2	Pass	AV	3.951G	33.18	54.00	-20.82	0.99	3	Vertical	360	1.00	
Mode 2	Pass	PK	1.189G	38.74	74.00	-35.26	-6.99	3	Vertical	360	1.00	
Mode 2	Pass	PK	2.427G	38.54	74.00	-35.46	-2.33	3	Vertical	360	1.00	
Mode 2	Pass	PK	3.951G	42.60	74.00	-31.40	0.99	3	Vertical	360	1.00	

Radiation-above 1GHz_Mode 1

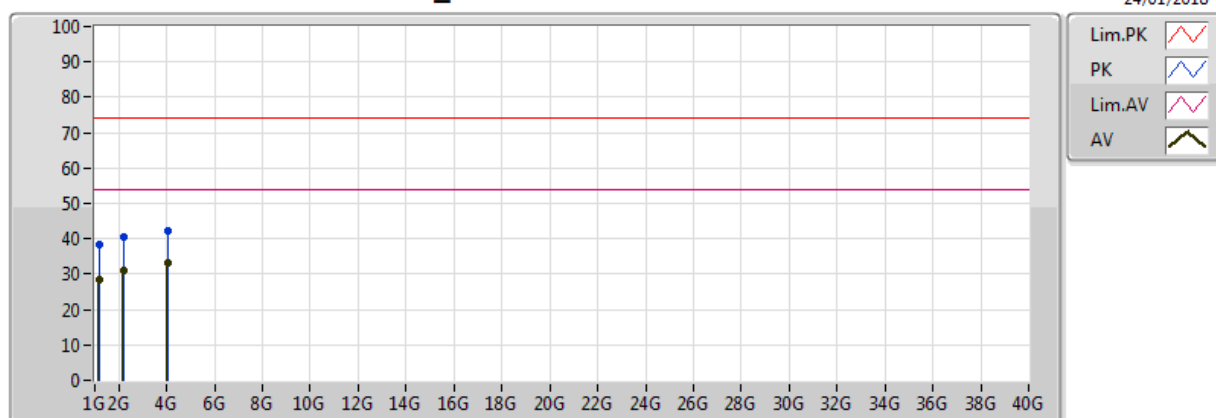
24/01/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.135G	28.80	54.00	-25.20	-7.28	3	Vertical	360	1.00	-	36.08	24.67	4.00	35.95
AV	2.307G	31.70	54.00	-22.30	-2.76	3	Vertical	360	1.00	-	34.46	26.76	5.64	35.16
AV	3.595G	31.39	54.00	-22.61	-0.34	3	Vertical	360	1.00	-	31.73	28.79	6.16	35.29
PK	1.135G	40.10	74.00	-33.90	-7.28	3	Vertical	360	1.00	-	47.38	24.67	4.00	35.95
PK	2.307G	43.17	74.00	-30.83	-2.76	3	Vertical	360	1.00	-	45.94	26.76	5.64	35.16
PK	3.595G	41.55	74.00	-32.45	-0.34	3	Vertical	360	1.00	-	41.89	28.79	6.16	35.29

Radiation-above 1GHz_Mode 1

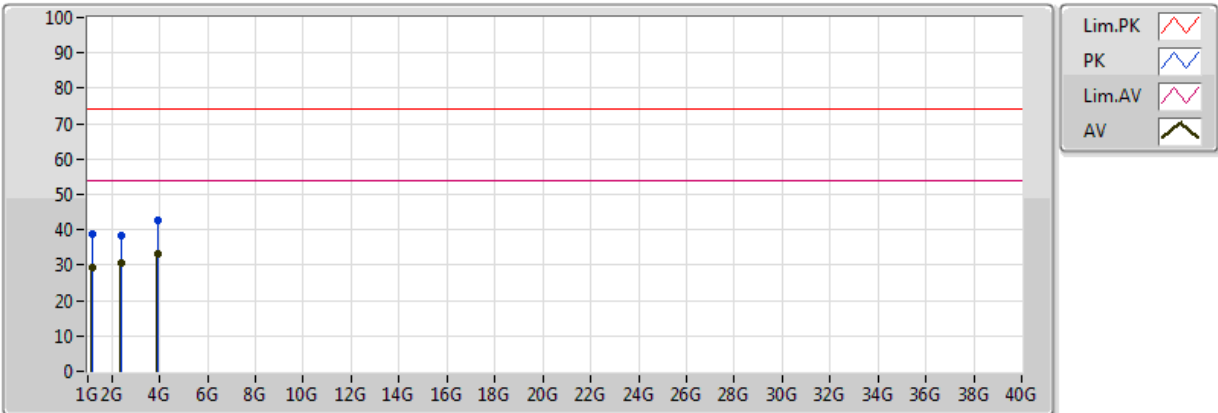
24/01/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	1.21G	28.59	54.00	-25.41	-6.88	3	Horizontal	0	1.00	-	35.47	24.82	4.11	35.81
AV	2.23G	31.04	54.00	-22.96	-3.04	3	Horizontal	0	1.00	-	34.08	26.54	5.55	35.13
AV	4.031G	33.02	54.00	-20.98	1.31	3	Horizontal	0	1.00	-	31.71	29.67	6.85	35.20
PK	1.21G	38.55	74.00	-35.45	-6.88	3	Horizontal	0	1.00	-	45.43	24.82	4.11	35.81
PK	2.23G	40.43	74.00	-33.57	-3.04	3	Horizontal	0	1.00	-	43.47	26.54	5.55	35.13
PK	4.031G	42.09	74.00	-31.91	1.31	3	Horizontal	0	1.00	-	40.77	29.67	6.85	35.20

Radiation-above 1GHz_Mode 2

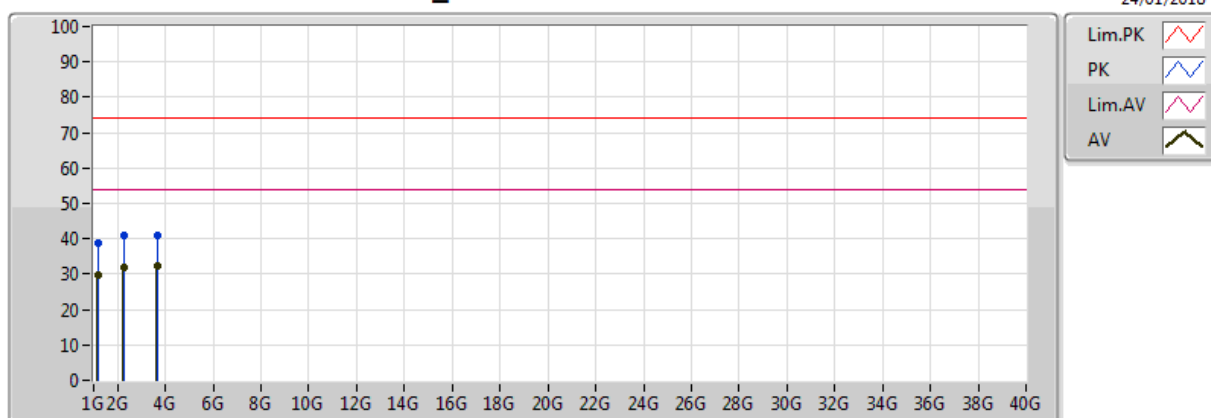
24/01/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.189G	29.13	54.00	-24.87	-6.99	3	Vertical	360	1.00	-	36.12	24.78	4.08	35.85
AV	2.427G	30.53	54.00	-23.47	-2.33	3	Vertical	360	1.00	-	32.86	27.10	5.77	35.20
AV	3.951G	33.18	54.00	-20.82	0.99	3	Vertical	360	1.00	-	32.19	29.50	6.71	35.22
PK	1.189G	38.74	74.00	-35.26	-6.99	3	Vertical	360	1.00	-	45.73	24.78	4.08	35.85
PK	2.427G	38.54	74.00	-35.46	-2.33	3	Vertical	360	1.00	-	40.87	27.10	5.77	35.20
PK	3.951G	42.60	74.00	-31.40	0.99	3	Vertical	360	1.00	-	41.61	29.50	6.71	35.22

Radiation-above 1GHz_Mode 2

24/01/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	1.165G	29.57	54.00	-24.43	-7.12	3	Horizontal	0	1.00	-	36.69	24.73	4.05	35.90
AV	2.28G	31.97	54.00	-22.03	-2.86	3	Horizontal	0	1.00	-	34.84	26.68	5.61	35.15
AV	3.695G	32.27	54.00	-21.73	0.03	3	Horizontal	0	1.00	-	32.24	28.99	6.31	35.27
PK	1.165G	38.58	74.00	-35.42	-7.12	3	Horizontal	0	1.00	-	45.70	24.73	4.05	35.90
PK	2.28G	40.74	74.00	-33.26	-2.86	3	Horizontal	0	1.00	-	43.60	26.68	5.61	35.15
PK	3.695G	40.79	74.00	-33.21	0.03	3	Horizontal	0	1.00	-	40.75	28.99	6.31	35.27