



# FCC Test Report

**Equipment** : Wi-Fi enabled Video Doorbell  
**Brand Name** : RING  
**Model No.** : Video Doorbell Pro  
**FCC ID** : 2AEUPBHALP011  
**Standard** : 47 CFR FCC Part 15.247  
**Operating Band** : 2400 MHz – 2483.5 MHz  
**Function** : Point-to-multipoint; Point-to-point  
**Applicant** : Ring, Inc.  
1523 26th St, Santa Monica, CA 90404, USA  
**Manufacturer** : Chicony Electronics (Dong Guan ) Co.,Ltd.  
San Zhong Guan Li Qu, Qingxi Town, Dongguan City  
Guangdong 523651 China

This report was evaluated for permissive change. The product sample received on Dec. 05, 2017 and completely tested on Jan. 09, 2018. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

  
Phoenix Chen / Assistant Manager





# Table of Contents

- 1 GENERAL DESCRIPTION .....5**
- 1.1 Information.....5
- 1.2 Testing Applied Standards .....6
- 1.3 Testing Location Information .....7
- 1.4 Measurement Uncertainty .....7
- 2 TEST CONFIGURATION OF EUT.....8**
- 2.1 Test Condition .....8
- 2.2 Test Channel Mode .....8
- 2.3 The Worst Case Measurement Configuration.....9
- 2.4 Accessories .....10
- 2.5 Support Equipment.....10
- 2.6 Test Setup Diagram .....11
- 3 TRANSMITTER TEST RESULT .....12**
- 3.1 Emissions in Non-restricted Frequency Bands .....12
- 3.2 Emissions in Restricted Frequency Bands.....13
- 4 TEST EQUIPMENT AND CALIBRATION DATA .....16**

**APPENDIX A. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS**

**APPENDIX B. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS**

**APPENDIX C. TEST PHOTOS**

**PHOTOGRAPHS OF EUT v01**



## Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
3.1	15.247(d)	Emissions in Non-restricted Frequency Bands	15.247(d)	Complied
3.2	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied





# 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 EUT Information

Operational Condition	
EUT Power Type	From Transformer
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:



1.1.3 Mode Test Duty Cycle

Operated Mode for Worst Duty Cycle	
<input checked="" type="checkbox"/> Operated test mode for worst duty cycle	
Test Signal Duty Cycle (x)	Power Duty Factor [dB] – (10 log 1/x)
<input checked="" type="checkbox"/> 78.38% - test mode single channel - BR-1Mbps	1.06
<input checked="" type="checkbox"/> 78.76% - test mode single channel - EDR-2Mbps	1.04
<input checked="" type="checkbox"/> 78.76% - test mode single channel - EDR-3Mbps	1.04
Bluetooth ACL packets can be 1, 3, or 5 time slots. The DH1 packet can cover a single time slot. The DH3 packet can cover up to 3 time slots. The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle.	

1.1.4 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR5N2432-03AD

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
The name of the applicant is modified.	N/A
The material of back enclosure is changed from plastic to metal.	The worst case of Emissions in Non-restricted Frequency Bands and Emissions in Restricted Frequency Bands were evaluated.

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	22.5°C / 65%	09/Jan/2018
Radiated	03CH09-HY	Jerry	23.5°C / 55%	04/Jan/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%



## 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	Dos
---------------	-----

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



### 2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	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	AC Mains		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V		



## 2.4 Accessories

Accessories Information				
Li-ion Battery	Brand Name	Fuji	Model Name	334060
	Power Rating	3.8 Vdc, 300 mAh		

Reminder: Regarding to more detail and other information, please refer to user manual.

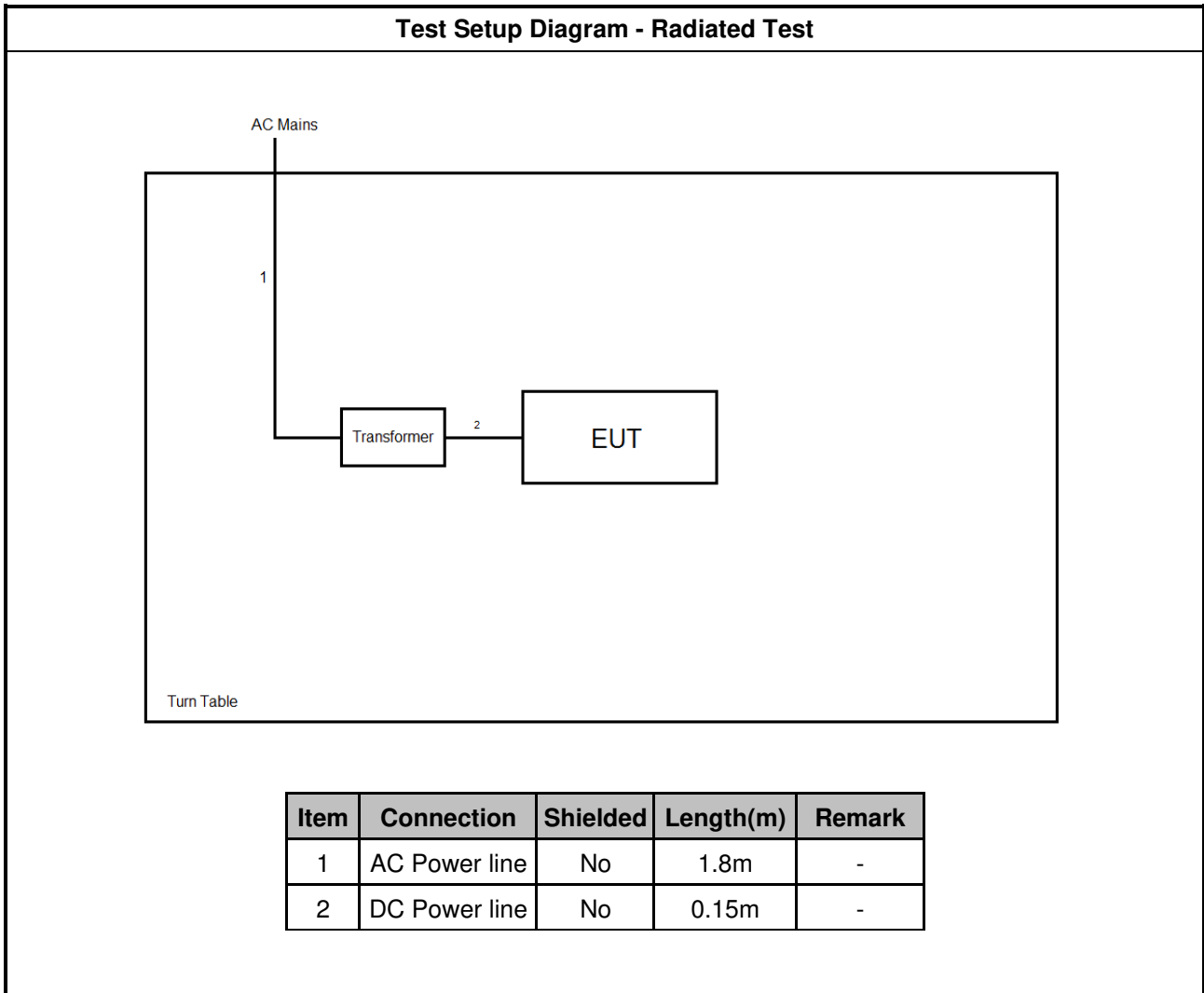
## 2.5 Support Equipment

Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	DC Source	GW	GPS-3030DD	-

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Transformer	TRIAD	VPL16-1600	-

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

## 2.6 Test Setup Diagram



### 3 Transmitter Test Result

#### 3.1 Emissions in Non-restricted Frequency Bands

##### 3.1.1 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.	

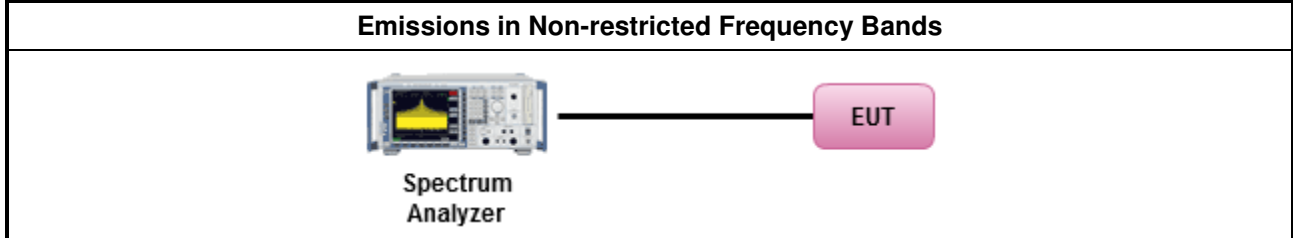
##### 3.1.2 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.</li> </ul>

##### 3.1.4 Test Setup



##### 3.1.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix A



### 3.2 Emissions in Restricted Frequency Bands

#### 3.2.1 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.

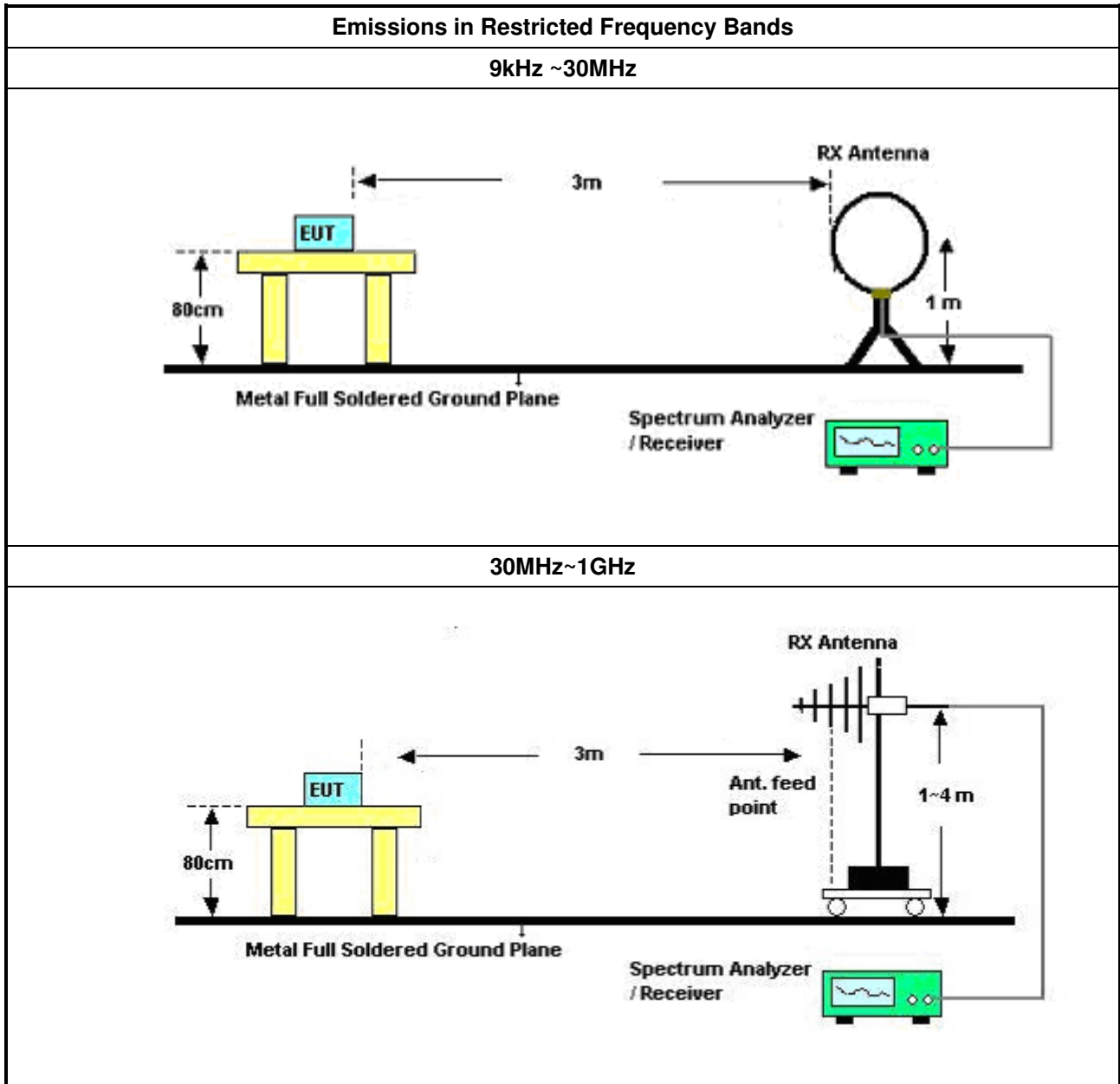
#### 3.2.2 Measuring Instruments

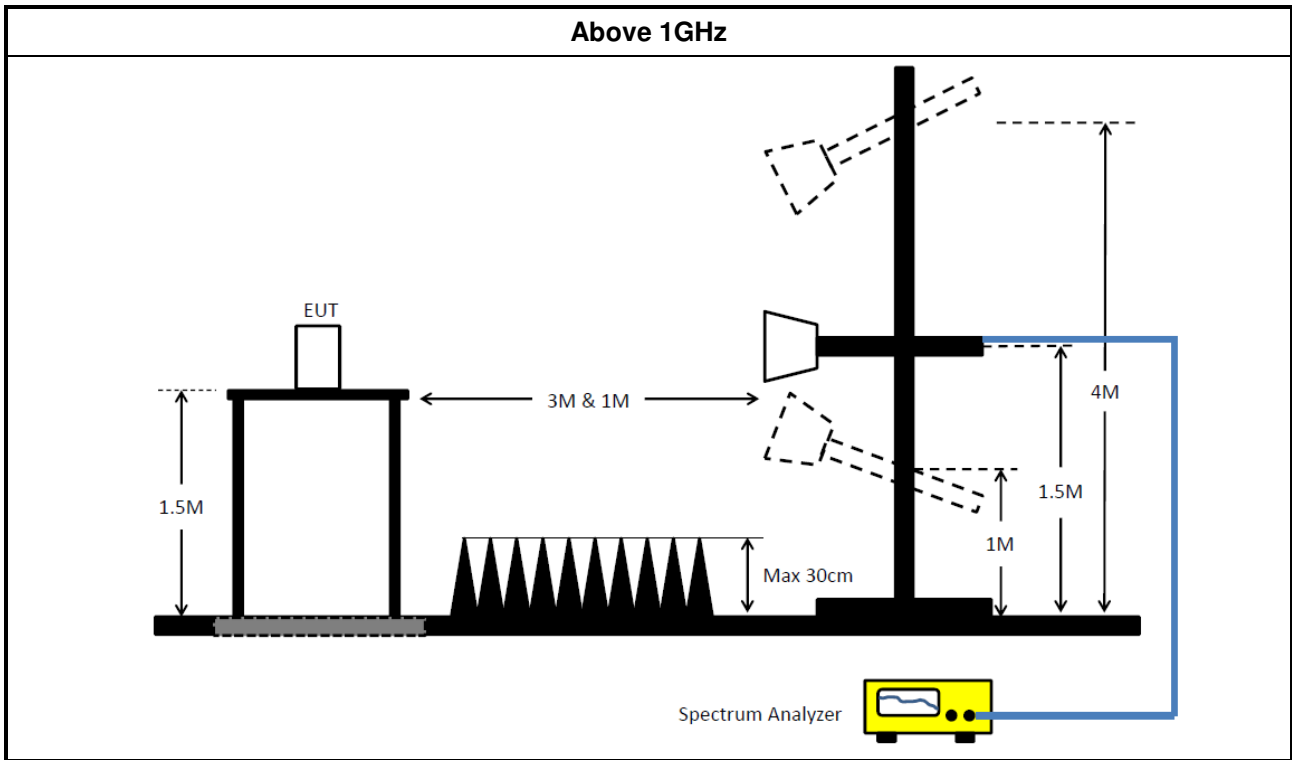
Refer a test equipment and calibration data table in this test report.

#### 3.2.3 Test Procedures

Test Method							
	<ul style="list-style-type: none"> <li>▪ The average emission levels shall be measured in [hopping duty factor].</li> </ul>						
	<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>						
	<ul style="list-style-type: none"> <li>▪ For the transmitter unwanted emissions shall be measured using following options below:               <table border="1" style="width: 100%; margin-top: 5px;"> <tbody> <tr> <td style="width: 5%;"></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.</li> </ul> </td> </tr> <tr> <td style="width: 5%;"></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.</li> </ul> </td> </tr> <tr> <td style="width: 5%;"></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.</li> </ul> </td> </tr> </tbody> </table> </li> </ul>		<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.</li> </ul>		<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.</li> </ul>		<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.</li> </ul>						
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.</li> </ul>						
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.</li> </ul>						

### 3.2.4 Test Setup





### 3.2.5 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.

### 3.2.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix B



## 4 Test Equipment and Calibration Data

### 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	25/Apr/2017	24/Apr/2018
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	28/Jun/2017	27/Jun/2018
Amplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	25/Apr/2017	24/Apr/2018
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	25/Apr/2017	24/Apr/2018
Spectrum Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	20/Jul/2017	19/Jul/2018
Bilog Antenna	TESEQ	CBL 6111D	35418	30MHz~1GHz	09/Sep/2017	08/Sep/2018
Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA9120D 1534	1GHz~18GHz	28/Apr/2017	27/Apr/2018
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170614	18GHz ~ 40GHz	06/Feb/2017	05/Feb/2018
Loop Antenna	TESTQ	HLA 6120	31244	9kHz ~ 30MHz	02/Mar/2017	01/Mar/2018
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	02/Feb/2017	01/Feb/2018
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	02/Feb/2017	01/Feb/2018
Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018

### Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101515	9kHz ~ 40GHz	08/Dec/2017	07/Dec/2018
Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018



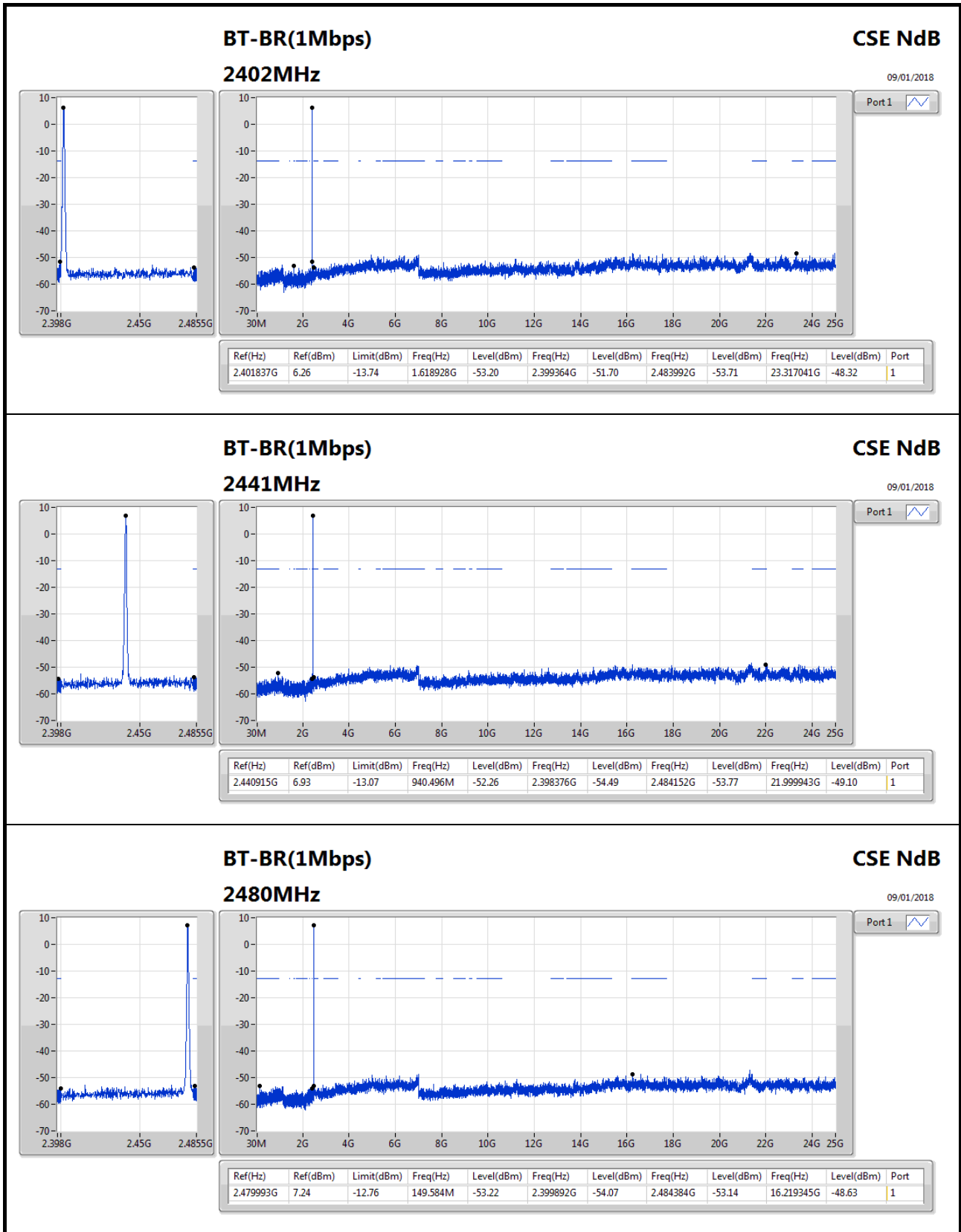


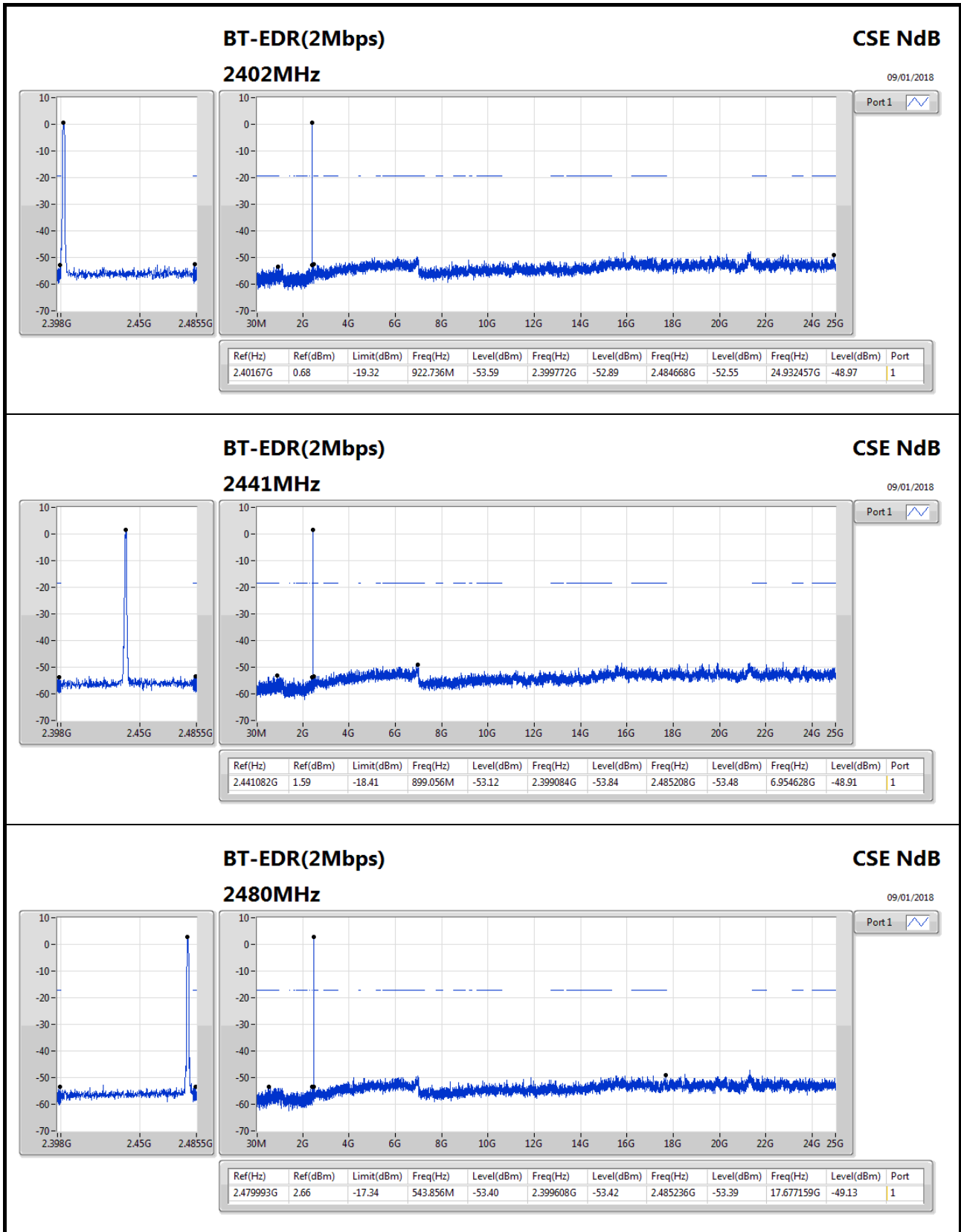
Summary

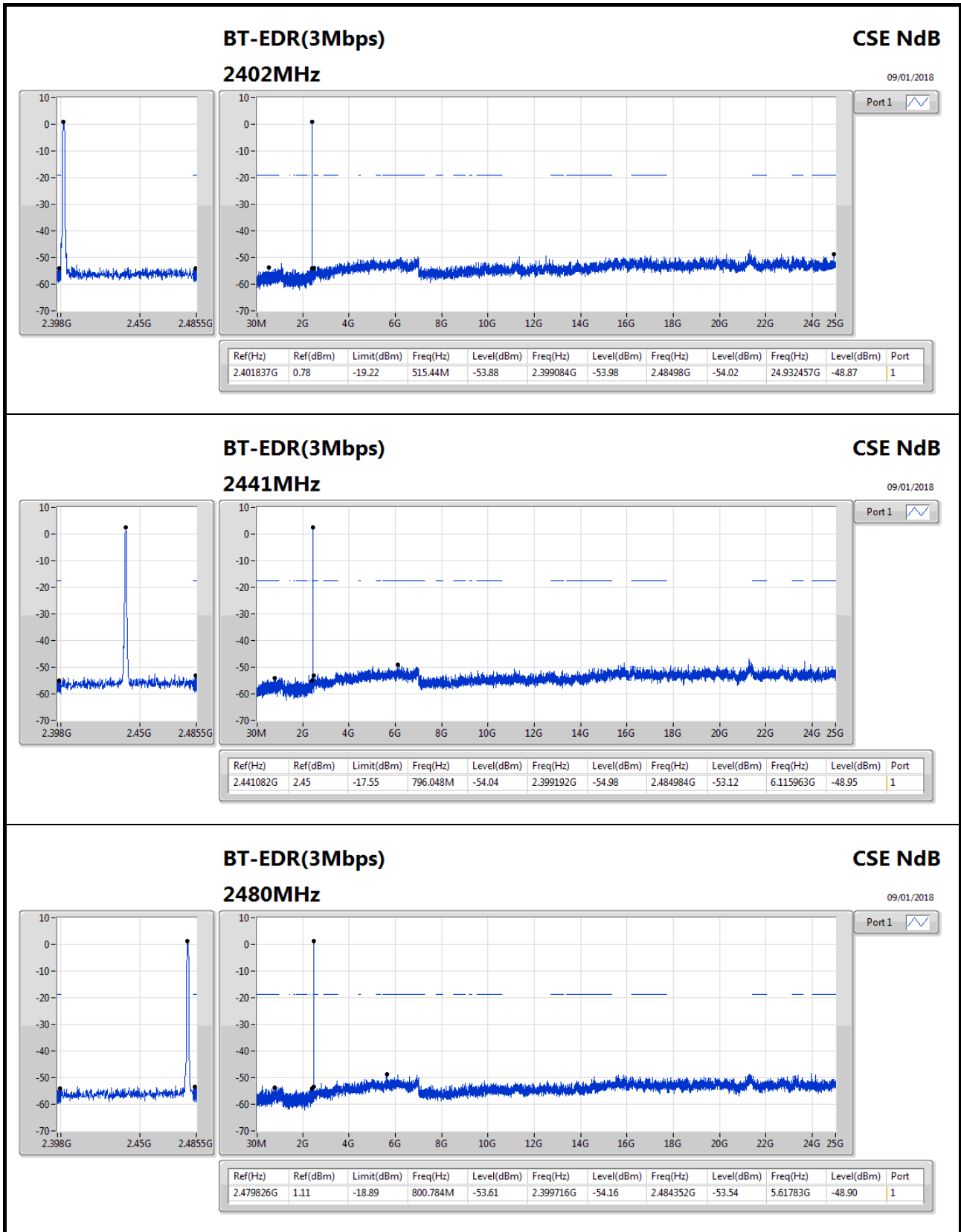
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.401837G	6.26	-13.74	1.618928G	-53.20	2.399364G	-51.70	2.483992G	-53.71	23.317041G	-48.32	1
BT-EDR(2Mbps)	Pass	2.40167G	0.68	-19.32	922.736M	-53.59	2.399772G	-52.89	2.484668G	-52.55	24.932457G	-48.97	1
BT-EDR(3Mbps)	Pass	2.401837G	0.78	-19.22	515.44M	-53.88	2.399084G	-53.98	2.48498G	-54.02	24.932457G	-48.87	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_TnomVnom	Pass	2.401837G	6.26	-13.74	1.618928G	-53.20	2.399364G	-51.70	2.483992G	-53.71	23.317041G	-48.32	1
2441MHz_TnomVnom	Pass	2.440915G	6.93	-13.07	940.496M	-52.26	2.398376G	-54.49	2.484152G	-53.77	21.999943G	-49.10	1
2480MHz_TnomVnom	Pass	2.479993G	7.24	-12.76	149.584M	-53.22	2.399892G	-54.07	2.484384G	-53.14	16.219345G	-48.63	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.40167G	0.68	-19.32	922.736M	-53.59	2.399772G	-52.89	2.484668G	-52.55	24.932457G	-48.97	1
2441MHz_TnomVnom	Pass	2.441082G	1.59	-18.41	899.056M	-53.12	2.399084G	-53.84	2.485208G	-53.48	6.954628G	-48.91	1
2480MHz_TnomVnom	Pass	2.479993G	2.66	-17.34	543.856M	-53.40	2.399608G	-53.42	2.485236G	-53.39	17.677159G	-49.13	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.401837G	0.78	-19.22	515.44M	-53.88	2.399084G	-53.98	2.48498G	-54.02	24.932457G	-48.87	1
2441MHz_TnomVnom	Pass	2.441082G	2.45	-17.55	796.048M	-54.04	2.399192G	-54.98	2.484984G	-53.12	6.115963G	-48.95	1
2480MHz_TnomVnom	Pass	2.479826G	1.11	-18.89	800.784M	-53.61	2.399716G	-54.16	2.484352G	-53.54	5.61783G	-48.90	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	PK	759.44M	39.67	46.00	-6.33	-5.61	3	Horizontal	0	1.00	-



Result

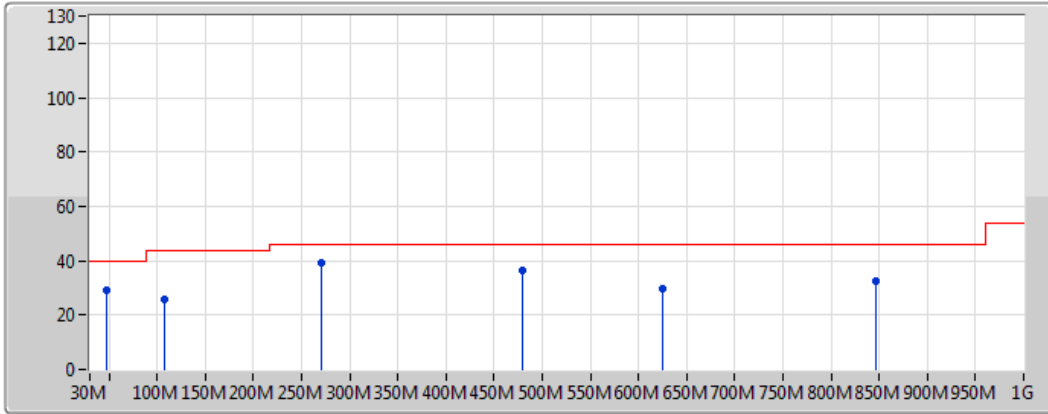
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	PK	105.66M	23.56	43.50	-19.94	-19.40	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	185.2M	26.37	43.50	-17.13	-20.19	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	237.58M	32.01	46.00	-13.99	-17.64	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	480.08M	31.91	46.00	-14.09	-10.18	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	759.44M	39.67	46.00	-6.33	-5.61	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	924.34M	35.16	46.00	-10.84	-3.15	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	47.46M	29.12	40.00	-10.88	-21.47	3	Vertical	360	1.00	-
2441MHz	Pass	PK	107.6M	25.55	43.50	-17.95	-19.18	3	Vertical	360	1.00	-
2441MHz	Pass	PK	270.56M	39.17	46.00	-6.83	-14.97	3	Vertical	360	1.00	-
2441MHz	Pass	PK	480.08M	36.25	46.00	-9.75	-10.18	3	Vertical	360	1.00	-
2441MHz	Pass	PK	625.58M	29.47	46.00	-16.53	-7.58	3	Vertical	360	1.00	-
2441MHz	Pass	PK	846.74M	32.30	46.00	-13.70	-4.16	3	Vertical	360	1.00	-



**BT-BR(1Mbps)**

**2441MHz\_AC**

04/01/2018



Legend for the plot:

- Lim.PK: Red stepped line
- PK: Blue vertical line

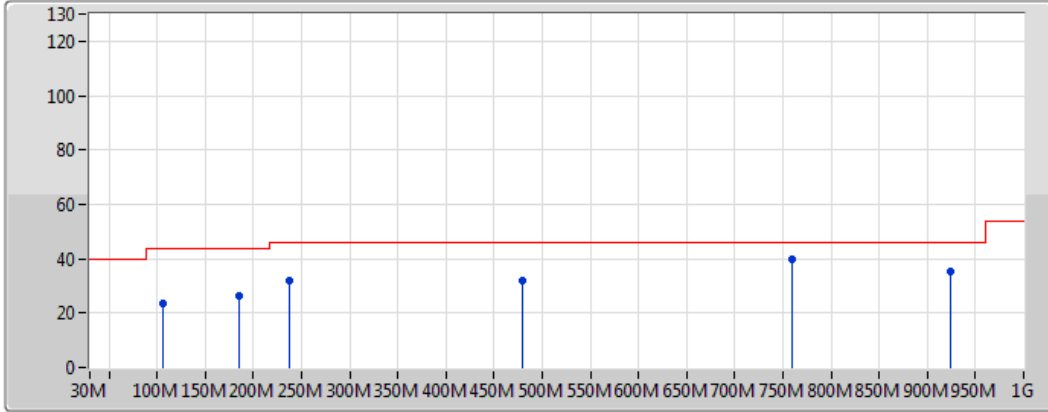
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	47.46M	29.12	40.00	-10.88	-21.47	3	Vertical	360	1.00	-	50.59	14.56	1.14	37.18
PK	107.6M	25.55	43.50	-17.95	-19.18	3	Vertical	360	1.00	-	44.73	15.91	1.68	36.77
PK	270.56M	39.17	46.00	-6.83	-14.97	3	Vertical	360	1.00	-	54.14	18.72	2.73	36.42
PK	480.08M	36.25	46.00	-9.75	-10.18	3	Vertical	360	1.00	-	46.43	22.90	3.78	36.86
PK	625.58M	29.47	46.00	-16.53	-7.58	3	Vertical	360	1.00	-	37.05	25.38	4.27	37.23
PK	846.74M	32.30	46.00	-13.70	-4.16	3	Vertical	360	1.00	-	36.46	28.30	5.04	37.50



**BT-BR(1Mbps)**

**2441MHz\_AC**

04/01/2018



Legend for the spectrum plot:

- Lim.PK: Red line with a sawtooth pattern
- PK: Blue line with a sawtooth pattern

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)
PK	105.66M	23.56	43.50	-19.94	-19.40	3	Horizontal	0	1.00	-	42.96	15.72	1.66	36.78
PK	185.2M	26.37	43.50	-17.13	-20.19	3	Horizontal	0	1.00	-	46.56	14.02	2.23	36.44
PK	237.58M	32.01	46.00	-13.99	-17.64	3	Horizontal	0	1.00	-	49.65	16.27	2.50	36.40
PK	480.08M	31.91	46.00	-14.09	-10.18	3	Horizontal	0	1.00	-	42.09	22.90	3.78	36.86
PK	759.44M	39.67	46.00	-6.33	-5.61	3	Horizontal	0	1.00	-	45.28	27.24	4.57	37.43
PK	924.34M	35.16	46.00	-10.84	-3.15	3	Horizontal	0	1.00	-	38.31	29.05	5.24	37.43





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	4.95999G	49.57	54.00	-4.43	2.53	3	Vertical	68	1.01	-
BT-EDR(2Mbps)	Pass	AV	2.483502G	45.79	54.00	-8.21	31.27	3	Horizontal	156	1.01	-
BT-EDR(3Mbps)	Pass	AV	2.483502G	45.65	54.00	-8.35	31.27	3	Horizontal	156	1.01	-



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	2.3888G	42.49	54.00	-11.51	30.93	3	Horizontal	44	1.01	-
2402MHz	Pass	AV	2.402G	87.69	Inf	-Inf	30.98	3	Horizontal	44	1.01	-
2402MHz	Pass	PK	2.389G	53.69	74.00	-20.31	30.93	3	Horizontal	44	1.01	-
2402MHz	Pass	PK	2.4022G	101.35	Inf	-Inf	30.98	3	Horizontal	44	1.01	-
2402MHz	Pass	AV	2.3884G	42.52	54.00	-11.48	30.93	3	Vertical	19	1.14	-
2402MHz	Pass	AV	2.402G	88.01	Inf	-Inf	30.98	3	Vertical	19	1.14	-
2402MHz	Pass	PK	2.3864G	54.25	74.00	-19.75	30.92	3	Vertical	19	1.14	-
2402MHz	Pass	PK	2.4018G	101.89	Inf	-Inf	30.98	3	Vertical	19	1.14	-
2402MHz	Pass	AV	4.804G	44.70	54.00	-9.30	2.04	3	Horizontal	39	1.01	-
2402MHz	Pass	PK	4.80371G	50.32	74.00	-23.68	2.04	3	Horizontal	39	1.01	-
2402MHz	Pass	AV	4.80401G	45.91	54.00	-8.09	2.04	3	Vertical	68	1.00	-
2402MHz	Pass	PK	4.80384G	51.52	74.00	-22.48	2.04	3	Vertical	68	1.00	-
2441MHz	Pass	AV	2.389G	42.48	54.00	-11.52	30.93	3	Horizontal	147	1.34	-
2441MHz	Pass	AV	2.441G	88.51	Inf	-Inf	31.12	3	Horizontal	147	1.34	-
2441MHz	Pass	AV	2.499998G	43.19	54.00	-10.81	31.33	3	Horizontal	147	1.34	-
2441MHz	Pass	PK	2.3782G	53.48	74.00	-20.52	30.89	3	Horizontal	147	1.34	-
2441MHz	Pass	PK	2.441G	102.43	Inf	-Inf	31.12	3	Horizontal	147	1.34	-
2441MHz	Pass	PK	2.4914G	54.40	74.00	-19.60	31.30	3	Horizontal	147	1.34	-
2441MHz	Pass	AV	2.389998G	42.48	54.00	-11.52	30.93	3	Vertical	196	1.36	-
2441MHz	Pass	AV	2.441G	88.86	Inf	-Inf	31.12	3	Vertical	196	1.36	-
2441MHz	Pass	AV	2.499998G	43.23	54.00	-10.77	31.33	3	Vertical	196	1.36	-
2441MHz	Pass	PK	2.3818G	54.10	74.00	-19.90	30.91	3	Vertical	196	1.36	-
2441MHz	Pass	PK	2.441G	102.65	Inf	-Inf	31.12	3	Vertical	196	1.36	-
2441MHz	Pass	PK	2.4982G	54.40	74.00	-19.60	31.32	3	Vertical	196	1.36	-
2441MHz	Pass	AV	4.88202G	46.17	54.00	-7.83	2.28	3	Horizontal	293	1.18	-
2441MHz	Pass	PK	4.88169G	51.32	74.00	-22.68	2.28	3	Horizontal	293	1.18	-
2441MHz	Pass	AV	4.88202G	47.68	54.00	-6.32	2.28	3	Vertical	66	1.03	-
2441MHz	Pass	PK	4.88245G	52.36	74.00	-21.64	2.29	3	Vertical	66	1.03	-
2480MHz	Pass	AV	2.48G	90.05	Inf	-Inf	31.26	3	Horizontal	157	1.00	-
2480MHz	Pass	AV	2.483502G	47.59	54.00	-6.41	31.27	3	Horizontal	157	1.00	-
2480MHz	Pass	PK	2.4798G	104.02	Inf	-Inf	31.26	3	Horizontal	157	1.00	-
2480MHz	Pass	PK	2.483502G	55.63	74.00	-18.37	31.27	3	Horizontal	157	1.00	-
2480MHz	Pass	AV	2.48G	89.07	Inf	-Inf	31.26	3	Vertical	248	1.16	-
2480MHz	Pass	AV	2.483502G	46.95	54.00	-7.05	31.27	3	Vertical	248	1.16	-
2480MHz	Pass	PK	2.4802G	103.01	Inf	-Inf	31.26	3	Vertical	248	1.16	-
2480MHz	Pass	PK	2.483502G	55.31	74.00	-18.69	31.27	3	Vertical	248	1.16	-
2480MHz	Pass	AV	4.95995G	46.68	54.00	-7.32	2.53	3	Horizontal	292	1.11	-
2480MHz	Pass	PK	4.95956G	52.19	74.00	-21.81	2.52	3	Horizontal	292	1.11	-
2480MHz	Pass	AV	4.95999G	49.57	54.00	-4.43	2.53	3	Vertical	68	1.01	-
2480MHz	Pass	PK	4.95972G	53.79	74.00	-20.21	2.53	3	Vertical	68	1.01	-
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3882G	42.49	54.00	-11.51	30.93	3	Horizontal	47	1.01	-
2402MHz	Pass	AV	2.402G	84.52	Inf	-Inf	30.98	3	Horizontal	47	1.01	-
2402MHz	Pass	PK	2.3898G	53.38	74.00	-20.62	30.93	3	Horizontal	47	1.01	-
2402MHz	Pass	PK	2.402G	100.01	Inf	-Inf	30.98	3	Horizontal	47	1.01	-
2402MHz	Pass	AV	2.39G	42.50	54.00	-11.50	30.93	3	Vertical	19	1.12	-
2402MHz	Pass	AV	2.402G	84.75	Inf	-Inf	30.98	3	Vertical	19	1.12	-



RSE TX above 1GHz Result

Appendix B

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	2.3852G	53.76	74.00	-20.24	30.92	3	Vertical	19	1.12	-
2402MHz	Pass	PK	2.4022G	100.50	Inf	-Inf	30.98	3	Vertical	19	1.12	-
2441MHz	Pass	AV	2.3882G	42.46	54.00	-11.54	30.93	3	Horizontal	147	1.18	-
2441MHz	Pass	AV	2.441G	83.94	Inf	-Inf	31.12	3	Horizontal	147	1.18	-
2441MHz	Pass	AV	2.499998G	43.19	54.00	-10.81	31.33	3	Horizontal	147	1.18	-
2441MHz	Pass	PK	2.387G	53.57	74.00	-20.43	30.92	3	Horizontal	147	1.18	-
2441MHz	Pass	PK	2.441G	99.65	Inf	-Inf	31.12	3	Horizontal	147	1.18	-
2441MHz	Pass	PK	2.4978G	54.01	74.00	-19.99	31.32	3	Horizontal	147	1.18	-
2441MHz	Pass	AV	2.389G	42.46	54.00	-11.54	30.93	3	Vertical	195	1.36	-
2441MHz	Pass	AV	2.441G	83.96	Inf	-Inf	31.12	3	Vertical	195	1.36	-
2441MHz	Pass	AV	2.499998G	43.25	54.00	-10.75	31.33	3	Vertical	195	1.36	-
2441MHz	Pass	PK	2.3794G	53.87	74.00	-20.13	30.90	3	Vertical	195	1.36	-
2441MHz	Pass	PK	2.441G	99.80	Inf	-Inf	31.12	3	Vertical	195	1.36	-
2441MHz	Pass	PK	2.4858G	55.36	74.00	-18.64	31.28	3	Vertical	195	1.36	-
2480MHz	Pass	AV	2.48G	85.24	Inf	-Inf	31.26	3	Horizontal	156	1.01	-
2480MHz	Pass	AV	2.483502G	45.79	54.00	-8.21	31.27	3	Horizontal	156	1.01	-
2480MHz	Pass	PK	2.4798G	101.05	Inf	-Inf	31.26	3	Horizontal	156	1.01	-
2480MHz	Pass	PK	2.4936G	54.96	74.00	-19.04	31.31	3	Horizontal	156	1.01	-
2480MHz	Pass	AV	2.48G	84.24	Inf	-Inf	31.26	3	Vertical	216	1.39	-
2480MHz	Pass	AV	2.483502G	45.28	54.00	-8.72	31.27	3	Vertical	216	1.39	-
2480MHz	Pass	PK	2.4798G	99.72	Inf	-Inf	31.26	3	Vertical	216	1.39	-
2480MHz	Pass	PK	2.484G	55.10	74.00	-18.90	31.27	3	Vertical	216	1.39	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.388G	42.49	54.00	-11.51	30.93	3	Horizontal	45	1.00	-
2402MHz	Pass	AV	2.402G	84.51	Inf	-Inf	30.98	3	Horizontal	45	1.00	-
2402MHz	Pass	PK	2.3878G	53.43	74.00	-20.57	30.93	3	Horizontal	45	1.00	-
2402MHz	Pass	PK	2.402G	100.21	Inf	-Inf	30.98	3	Horizontal	45	1.00	-
2402MHz	Pass	AV	2.39G	42.49	54.00	-11.51	30.93	3	Vertical	16	1.15	-
2402MHz	Pass	AV	2.402G	84.72	Inf	-Inf	30.98	3	Vertical	16	1.15	-
2402MHz	Pass	PK	2.369G	53.92	74.00	-20.08	30.86	3	Vertical	16	1.15	-
2402MHz	Pass	PK	2.4018G	100.31	Inf	-Inf	30.98	3	Vertical	16	1.15	-
2441MHz	Pass	AV	2.389998G	42.46	54.00	-11.54	30.93	3	Horizontal	148	1.34	-
2441MHz	Pass	AV	2.441G	83.79	Inf	-Inf	31.12	3	Horizontal	148	1.34	-
2441MHz	Pass	AV	2.499998G	43.17	54.00	-10.83	31.33	3	Horizontal	148	1.34	-
2441MHz	Pass	PK	2.3822G	53.51	74.00	-20.49	30.91	3	Horizontal	148	1.34	-
2441MHz	Pass	PK	2.441G	99.63	Inf	-Inf	31.12	3	Horizontal	148	1.34	-
2441MHz	Pass	PK	2.491G	54.06	74.00	-19.94	31.30	3	Horizontal	148	1.34	-
2441MHz	Pass	AV	2.3878G	42.47	54.00	-11.53	30.93	3	Vertical	196	1.36	-
2441MHz	Pass	AV	2.441G	84.15	Inf	-Inf	31.12	3	Vertical	196	1.36	-
2441MHz	Pass	AV	2.499998G	43.21	54.00	-10.79	31.33	3	Vertical	196	1.36	-
2441MHz	Pass	PK	2.3862G	53.56	74.00	-20.44	30.92	3	Vertical	196	1.36	-
2441MHz	Pass	PK	2.441G	99.75	Inf	-Inf	31.12	3	Vertical	196	1.36	-
2441MHz	Pass	PK	2.4946G	54.51	74.00	-19.49	31.31	3	Vertical	196	1.36	-
2480MHz	Pass	AV	2.48G	84.98	Inf	-Inf	31.26	3	Horizontal	156	1.01	-
2480MHz	Pass	AV	2.483502G	45.85	54.00	-8.35	31.27	3	Horizontal	156	1.01	-
2480MHz	Pass	PK	2.4798G	100.81	Inf	-Inf	31.26	3	Horizontal	156	1.01	-
2480MHz	Pass	PK	2.4998G	54.67	74.00	-19.33	31.33	3	Horizontal	156	1.01	-
2480MHz	Pass	AV	2.48G	84.25	Inf	-Inf	31.26	3	Vertical	247	1.17	-
2480MHz	Pass	AV	2.483502G	45.38	54.00	-8.62	31.27	3	Vertical	247	1.17	-



## RSE TX above 1GHz Result

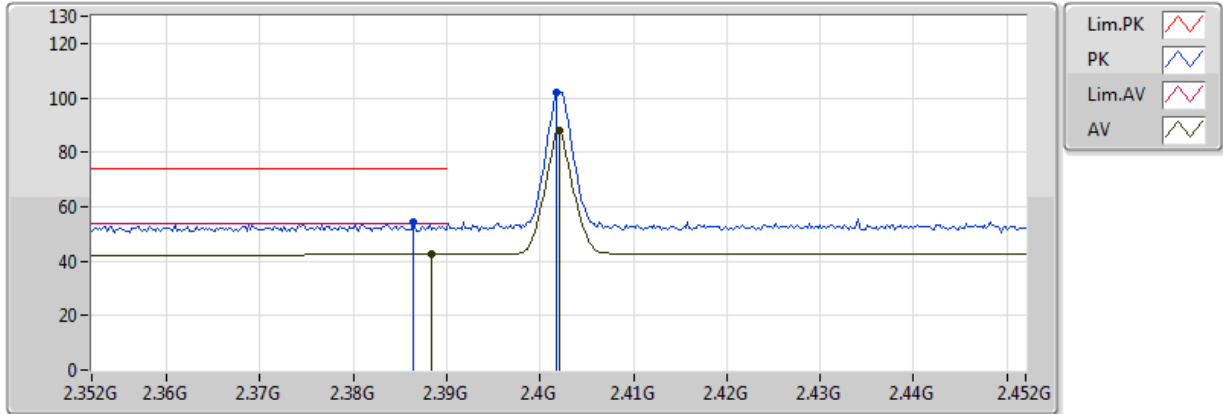
## Appendix B

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	2.48G	99.98	Inf	-Inf	31.26	3	Vertical	247	1.17	-
2480MHz	Pass	PK	2.4948G	54.43	74.00	-19.57	31.31	3	Vertical	247	1.17	-

### BT-BR(1Mbps)

### 2402MHz\_TX

09/01/2018



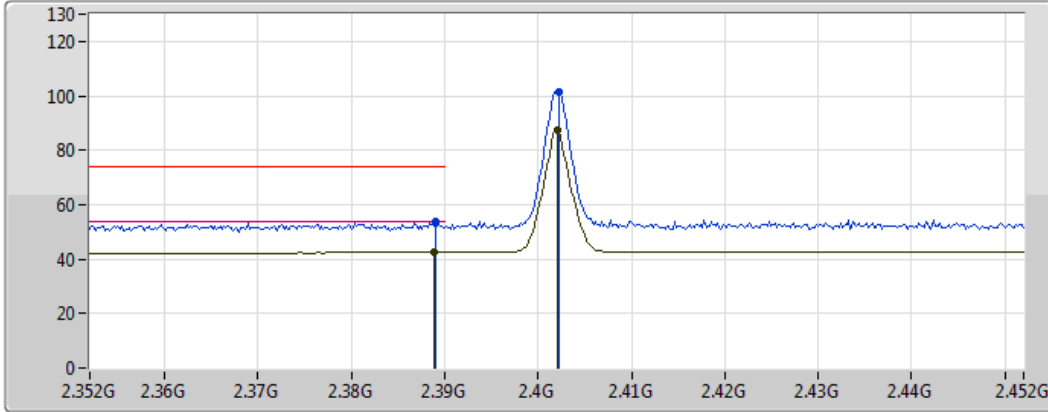
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3884G	42.52	54.00	-11.48	30.93	3	Vertical	19	1.14	-	11.59	27.31	3.62	-
AV	2.402G	88.01	Inf	-Inf	30.98	3	Vertical	19	1.14	-	57.04	27.35	3.63	-
PK	2.3864G	54.25	74.00	-19.75	30.92	3	Vertical	19	1.14	-	23.33	27.30	3.62	-
PK	2.4018G	101.89	Inf	-Inf	30.98	3	Vertical	19	1.14	-	70.91	27.34	3.63	-



**BT-BR(1Mbps)**

**2402MHz\_TX**

09/01/2018



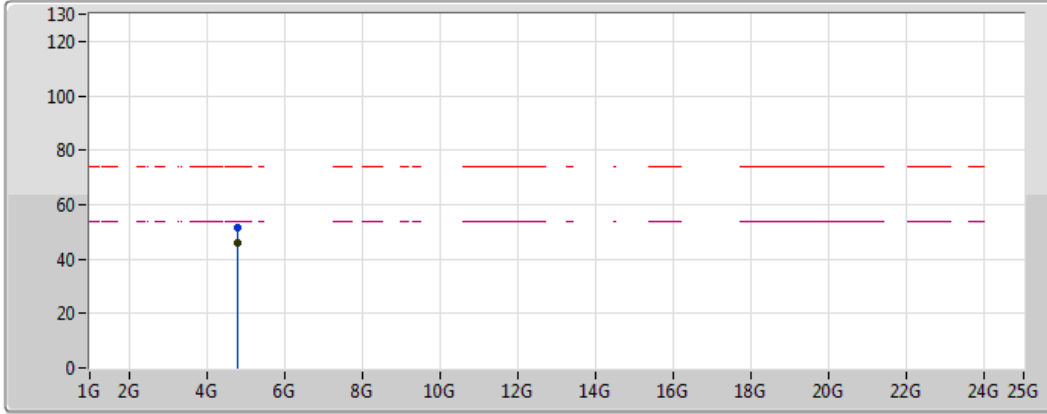
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3888G	42.49	54.00	-11.51	30.93	3	Horizontal	44	1.01	-	11.56	27.31	3.62	-
AV	2.402G	87.69	Inf	-Inf	30.98	3	Horizontal	44	1.01	-	56.71	27.35	3.63	-
PK	2.389G	53.69	74.00	-20.31	30.93	3	Horizontal	44	1.01	-	22.76	27.31	3.62	-
PK	2.4022G	101.35	Inf	-Inf	30.98	3	Horizontal	44	1.01	-	70.37	27.35	3.63	-



**BT-BR(1Mbps)**

**2402MHz\_TX**

09/01/2018



Legend for plot:

- Lim.PK (Red dashed line)
- PK (Blue line)
- Lim.AV (Magenta dashed line)
- AV (Black line)

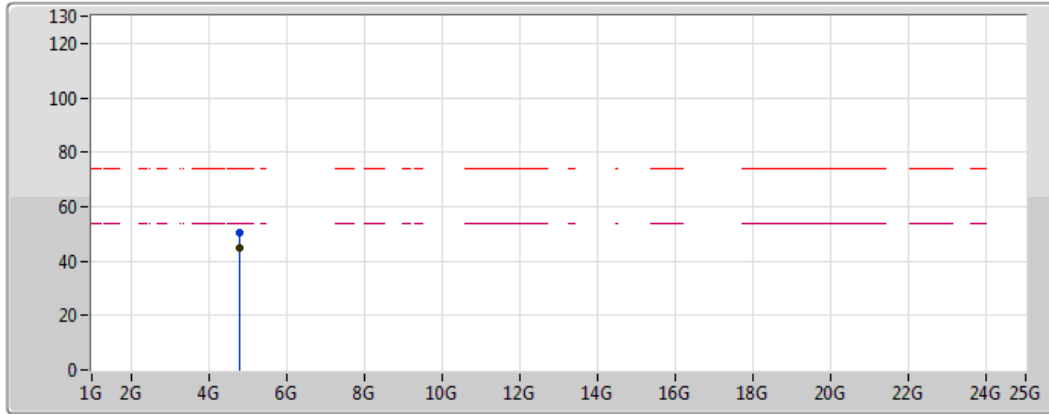
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80401G	45.91	54.00	-8.09	2.04	3	Vertical	68	1.00	-	43.87	31.25	5.38	34.59
PK	4.80384G	51.52	74.00	-22.48	2.04	3	Vertical	68	1.00	-	49.48	31.25	5.38	34.59



### BT-BR(1Mbps)

### 2402MHz\_TX

09/01/2018



Lim.PK	
PK	
Lim.AV	
AV	

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	4.804G	44.70	54.00	-9.30	2.04	3	Horizontal	39	1.01	-	42.66	31.25	5.38	34.59
PK	4.80371G	50.32	74.00	-23.68	2.04	3	Horizontal	39	1.01	-	48.28	31.25	5.38	34.59

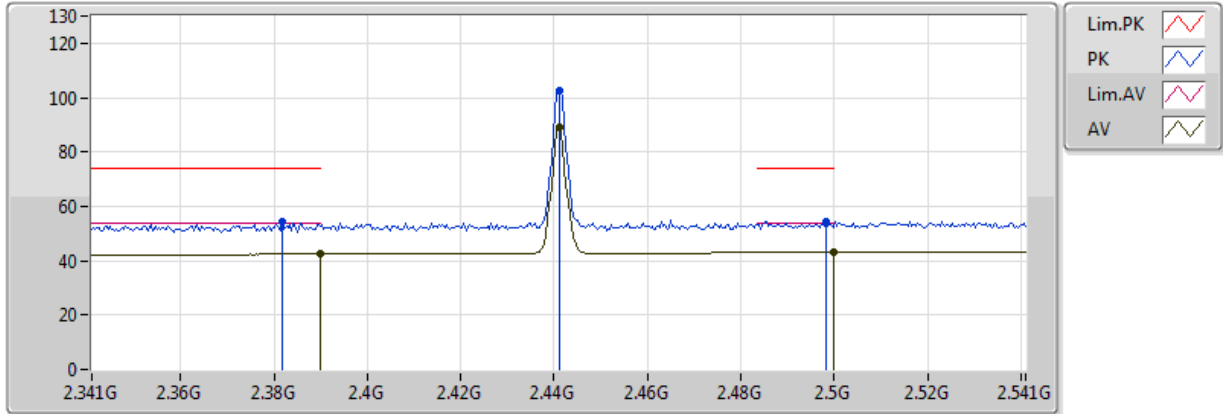




**BT-BR(1Mbps)**

**2441MHz\_TX**

09/01/2018



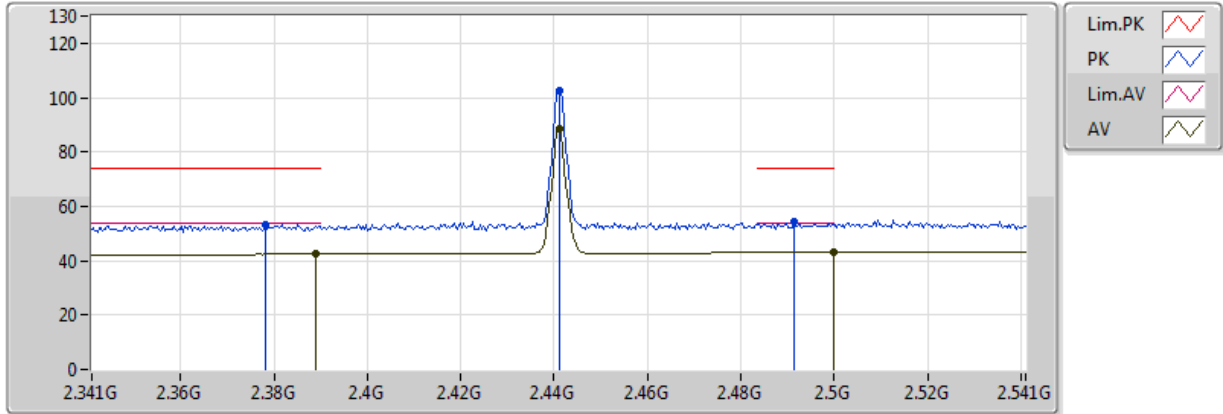
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.389998G	42.48	54.00	-11.52	30.93	3	Vertical	196	1.36	-	11.55	27.31	3.62	-
AV	2.499998G	43.23	54.00	-10.77	31.33	3	Vertical	196	1.36	-	11.90	27.60	3.73	-
AV	2.441G	88.86	Inf	-Inf	31.12	3	Vertical	196	1.36	-	57.74	27.45	3.67	-
PK	2.3818G	54.10	74.00	-19.90	30.91	3	Vertical	196	1.36	-	23.19	27.29	3.61	-
PK	2.4982G	54.40	74.00	-19.60	31.32	3	Vertical	196	1.36	-	23.08	27.60	3.73	-
PK	2.441G	102.65	Inf	-Inf	31.12	3	Vertical	196	1.36	-	71.53	27.45	3.67	-



**BT-BR(1Mbps)**

**2441MHz\_TX**

09/01/2018

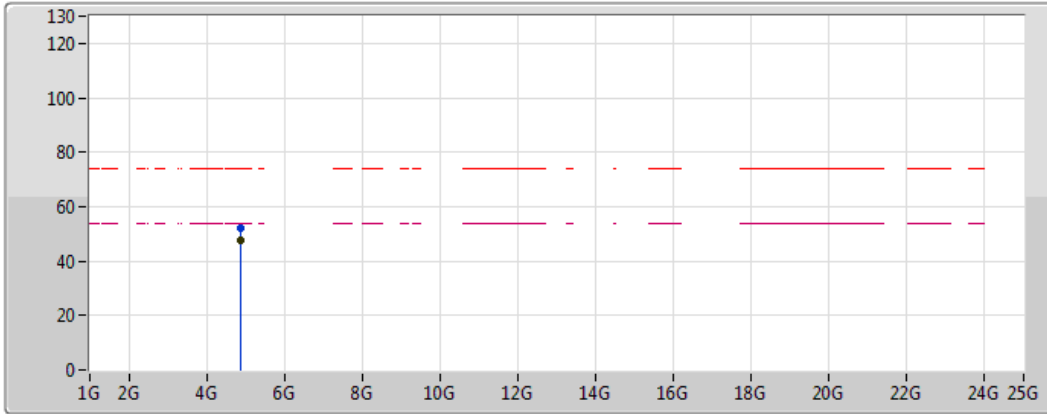


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.389G	42.48	54.00	-11.52	30.93	3	Horizontal	147	1.34	-	11.55	27.31	3.62	-
AV	2.499998G	43.19	54.00	-10.81	31.33	3	Horizontal	147	1.34	-	11.86	27.60	3.73	-
AV	2.441G	88.51	Inf	-Inf	31.12	3	Horizontal	147	1.34	-	57.39	27.45	3.67	-
PK	2.3782G	53.48	74.00	-20.52	30.89	3	Horizontal	147	1.34	-	22.59	27.28	3.61	-
PK	2.4914G	54.40	74.00	-19.60	31.30	3	Horizontal	147	1.34	-	23.10	27.58	3.72	-
PK	2.441G	102.43	Inf	-Inf	31.12	3	Horizontal	147	1.34	-	71.31	27.45	3.67	-





### BT-BR(1Mbps)

### 2441MHz\_TX

09/01/2018



Legend:

- Lim.PK 
- PK 
- Lim.AV 
- AV 

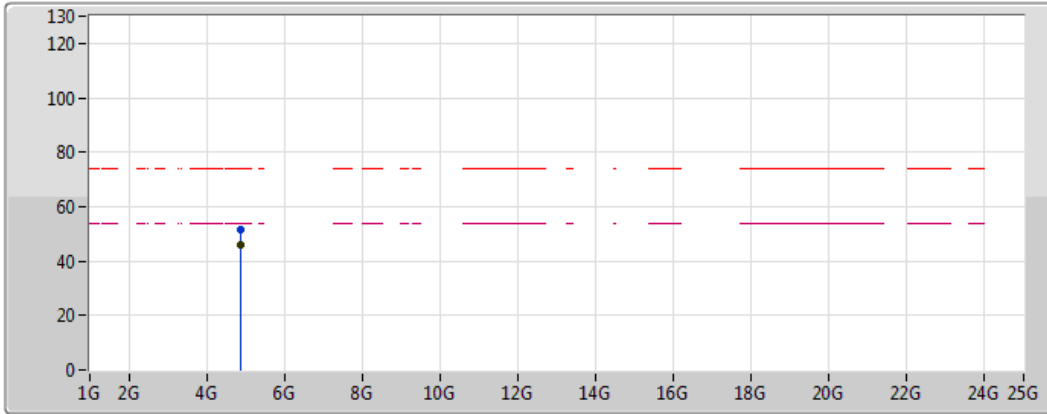
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88202G	47.68	54.00	-6.32	2.28	3	Vertical	66	1.03	-	45.40	31.39	5.47	34.57
PK	4.88245G	52.36	74.00	-21.64	2.29	3	Vertical	66	1.03	-	50.07	31.39	5.47	34.57



**BT-BR(1Mbps)**

**2441MHz\_TX**

09/01/2018



Legend for the spectrum plot:

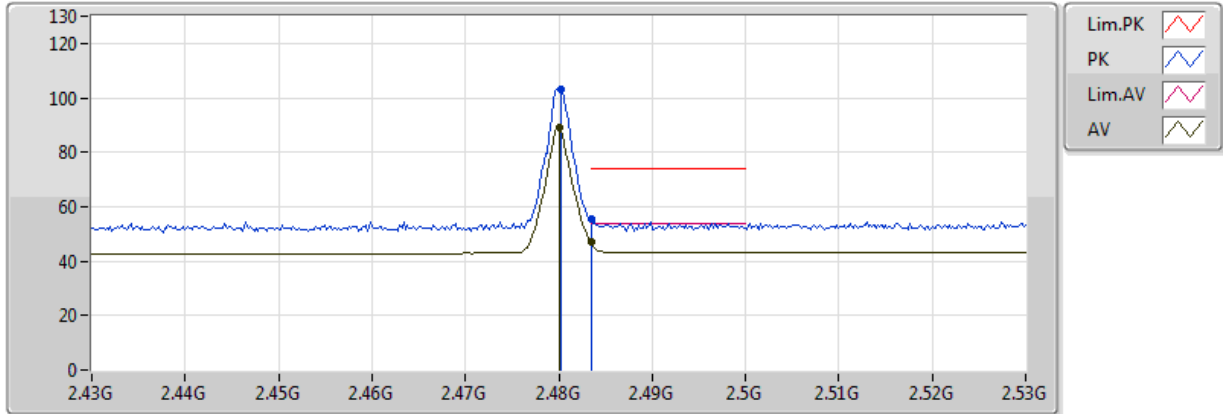
- Lim.PK: Red dashed line
- PK: Blue solid line
- Lim.AV: Magenta dashed line
- AV: Green solid line

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	4.88202G	46.17	54.00	-7.83	2.28	3	Horizontal	293	1.18	-	43.89	31.39	5.47	34.57
PK	4.88169G	51.32	74.00	-22.68	2.28	3	Horizontal	293	1.18	-	49.04	31.39	5.47	34.57

**BT-BR(1Mbps)**

**2480MHz\_TX**

09/01/2018



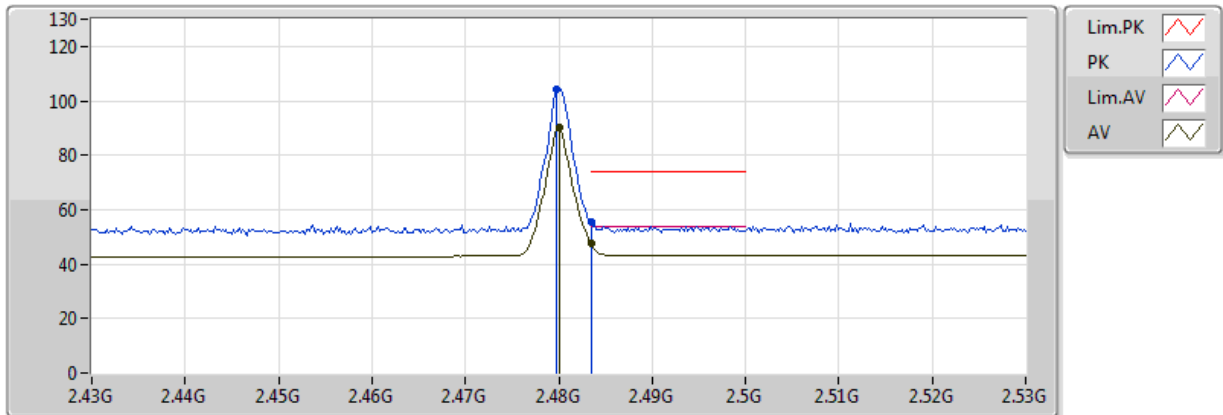
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.483502G	46.95	54.00	-7.05	31.27	3	Vertical	248	1.16	-	15.68	27.56	3.71	-
AV	2.48G	89.07	Inf	-Inf	31.26	3	Vertical	248	1.16	-	57.81	27.55	3.71	-
PK	2.483502G	55.31	74.00	-18.69	31.27	3	Vertical	248	1.16	-	24.04	27.56	3.71	-
PK	2.4802G	103.01	Inf	-Inf	31.26	3	Vertical	248	1.16	-	71.75	27.55	3.71	-



### BT-BR(1Mbps)

### 2480MHz\_TX

09/01/2018



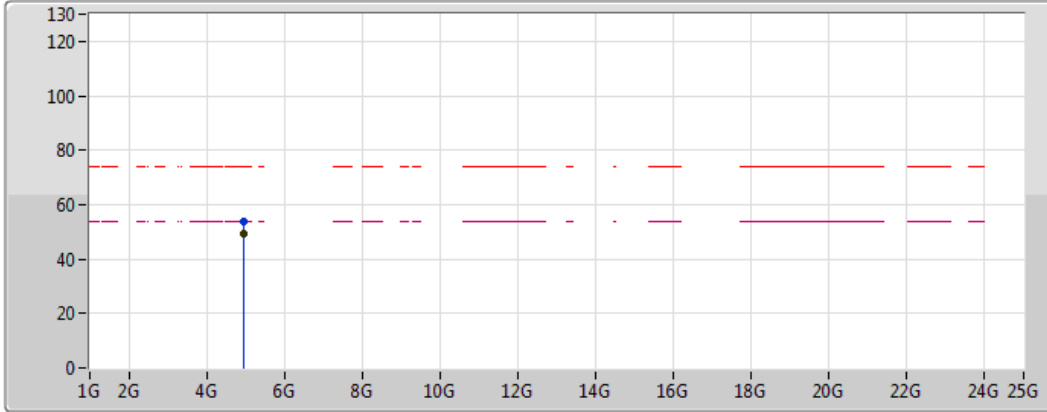
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.483502G	47.59	54.00	-6.41	31.27	3	Horizontal	157	1.00	-	16.32	27.56	3.71	-
AV	2.48G	90.05	Inf	-Inf	31.26	3	Horizontal	157	1.00	-	58.80	27.55	3.71	-
PK	2.483502G	55.63	74.00	-18.37	31.27	3	Horizontal	157	1.00	-	24.36	27.56	3.71	-
PK	2.4798G	104.02	Inf	-Inf	31.26	3	Horizontal	157	1.00	-	72.77	27.55	3.71	-



**BT-BR(1Mbps)**

**2480MHz\_TX**

09/01/2018



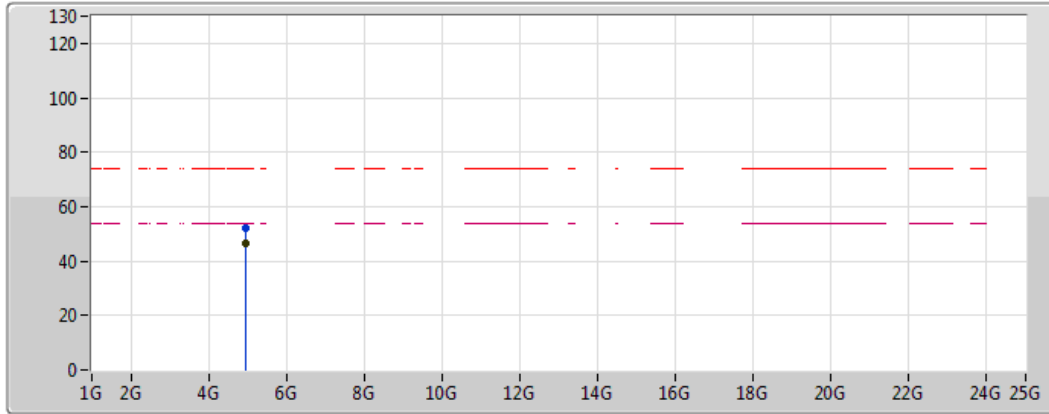
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95999G	49.57	54.00	-4.43	2.53	3	Vertical	68	1.01	-	47.05	31.53	5.56	34.56
PK	4.95972G	53.79	74.00	-20.21	2.53	3	Vertical	68	1.01	-	51.26	31.53	5.56	34.56



**BT-BR(1Mbps)**

**2480MHz\_TX**

09/01/2018



Legend for plot:

- Lim.PK: Red dashed line
- PK: Blue line with peak marker
- Lim.AV: Magenta dashed line
- AV: Black line with average marker

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	4.95995G	46.68	54.00	-7.32	2.53	3	Horizontal	292	1.11	-	44.15	31.53	5.56	34.56
PK	4.95956G	52.19	74.00	-21.81	2.52	3	Horizontal	292	1.11	-	49.67	31.53	5.56	34.56

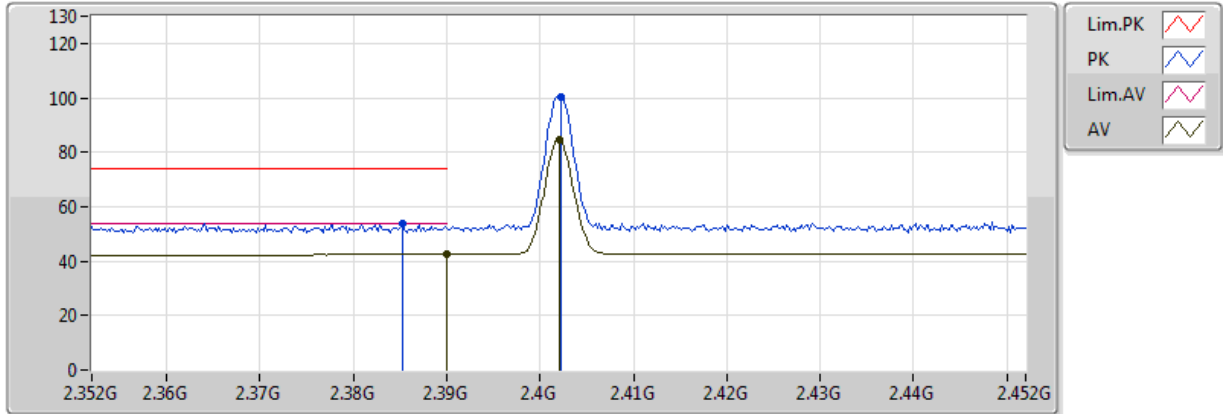




### BT-EDR(2Mbps)

### 2402MHz\_TX

09/01/2018



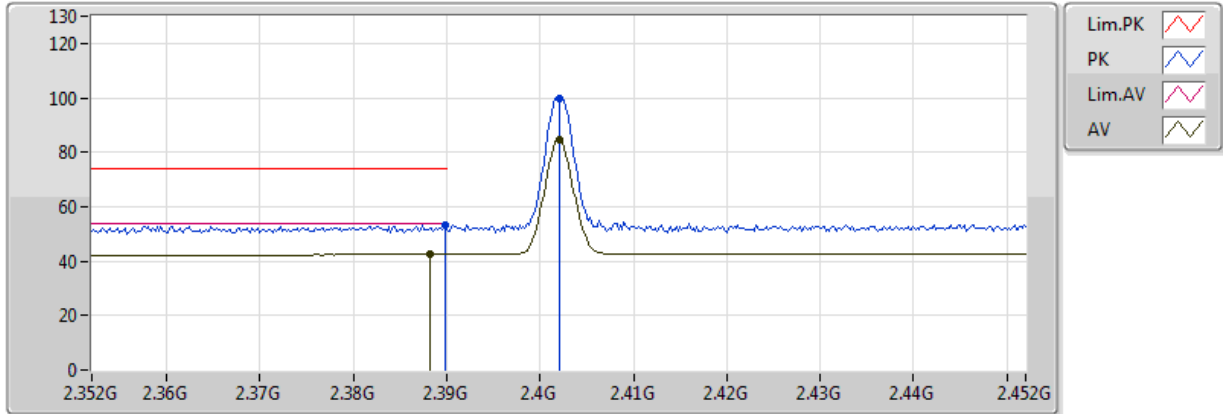
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	42.50	54.00	-11.50	30.93	3	Vertical	19	1.12	-	11.57	27.31	3.62	-
AV	2.402G	84.75	Inf	-Inf	30.98	3	Vertical	19	1.12	-	53.78	27.35	3.63	-
PK	2.3852G	53.76	74.00	-20.24	30.92	3	Vertical	19	1.12	-	22.84	27.30	3.62	-
PK	2.4022G	100.50	Inf	-Inf	30.98	3	Vertical	19	1.12	-	69.52	27.35	3.63	-



### BT-EDR(2Mbps)

### 2402MHz\_TX

09/01/2018

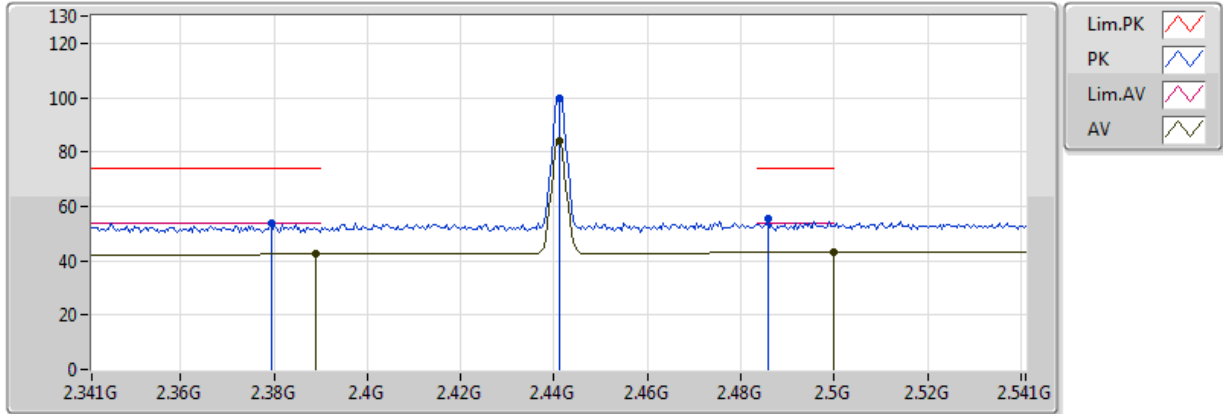


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3882G	42.49	54.00	-11.51	30.93	3	Horizontal	47	1.01	-	11.56	27.31	3.62	-
AV	2.402G	84.52	Inf	-Inf	30.98	3	Horizontal	47	1.01	-	53.54	27.35	3.63	-
PK	2.3898G	53.38	74.00	-20.62	30.93	3	Horizontal	47	1.01	-	22.44	27.31	3.62	-
PK	2.402G	100.01	Inf	-Inf	30.98	3	Horizontal	47	1.01	-	69.03	27.35	3.63	-

### BT-EDR(2Mbps)

### 2441MHz\_TX

09/01/2018



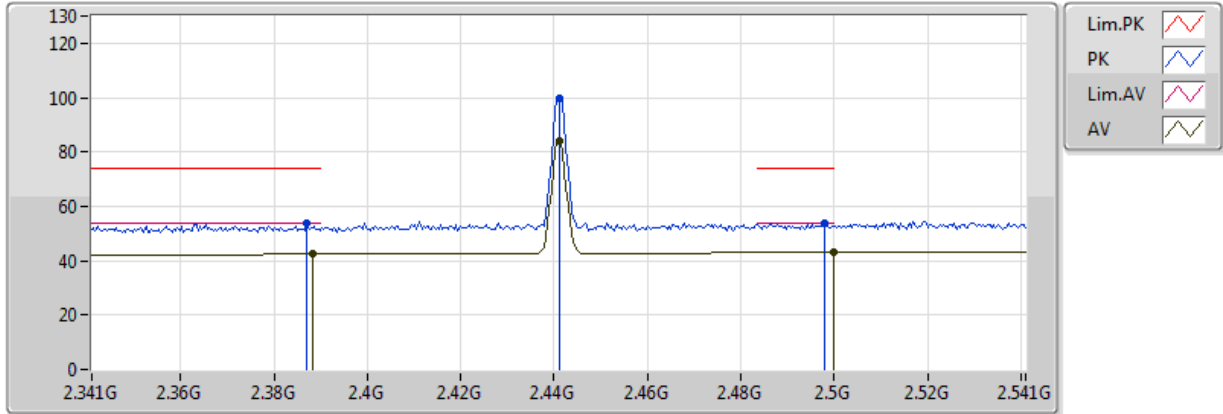
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.389G	42.46	54.00	-11.54	30.93	3	Vertical	195	1.36	-	11.53	27.31	3.62	-
AV	2.499998G	43.25	54.00	-10.75	31.33	3	Vertical	195	1.36	-	11.92	27.60	3.73	-
AV	2.441G	83.96	Inf	-Inf	31.12	3	Vertical	195	1.36	-	52.84	27.45	3.67	-
PK	2.3794G	53.87	74.00	-20.13	30.90	3	Vertical	195	1.36	-	22.98	27.29	3.61	-
PK	2.4858G	55.36	74.00	-18.64	31.28	3	Vertical	195	1.36	-	24.08	27.56	3.72	-
PK	2.441G	99.80	Inf	-Inf	31.12	3	Vertical	195	1.36	-	68.68	27.45	3.67	-



### BT-EDR(2Mbps)

### 2441MHz\_TX

09/01/2018



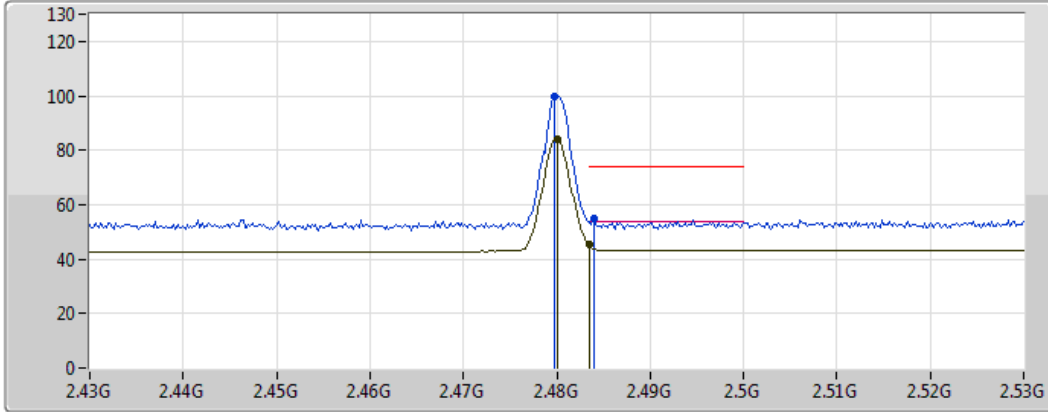
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3882G	42.46	54.00	-11.54	30.93	3	Horizontal	147	1.18	-	11.53	27.31	3.62	-
AV	2.499998G	43.19	54.00	-10.81	31.33	3	Horizontal	147	1.18	-	11.86	27.60	3.73	-
AV	2.441G	83.94	Inf	-Inf	31.12	3	Horizontal	147	1.18	-	52.82	27.45	3.67	-
PK	2.387G	53.57	74.00	-20.43	30.92	3	Horizontal	147	1.18	-	22.64	27.31	3.62	-
PK	2.4978G	54.01	74.00	-19.99	31.32	3	Horizontal	147	1.18	-	22.69	27.59	3.73	-
PK	2.441G	99.65	Inf	-Inf	31.12	3	Horizontal	147	1.18	-	68.53	27.45	3.67	-



**BT-EDR(2Mbps)**

**2480MHz\_TX**

09/01/2018



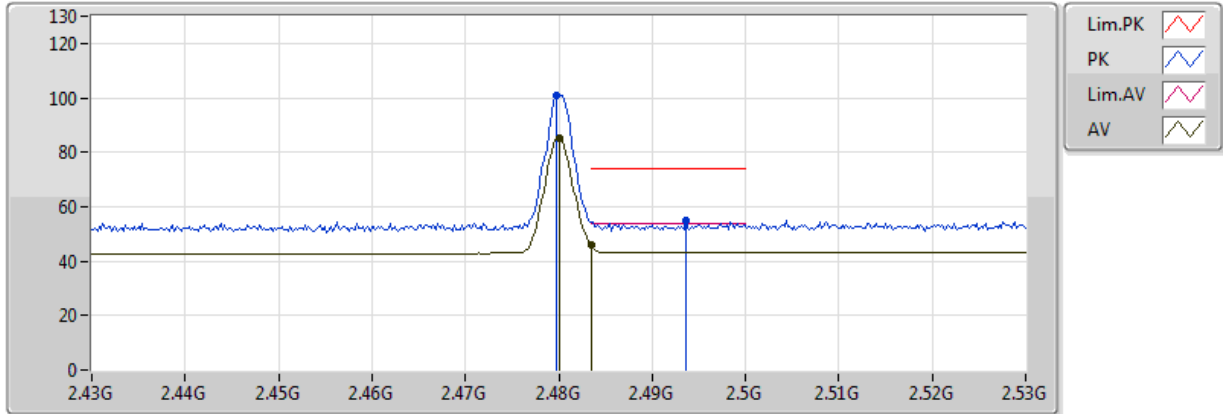
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.483502G	45.28	54.00	-8.72	31.27	3	Vertical	216	1.39	-	14.01	27.56	3.71	-
AV	2.48G	84.24	Inf	-Inf	31.26	3	Vertical	216	1.39	-	52.98	27.55	3.71	-
PK	2.484G	55.10	74.00	-18.90	31.27	3	Vertical	216	1.39	-	23.83	27.56	3.71	-
PK	2.4798G	99.72	Inf	-Inf	31.26	3	Vertical	216	1.39	-	68.46	27.55	3.71	-



**BT-EDR(2Mbps)**

**2480MHz\_TX**

09/01/2018



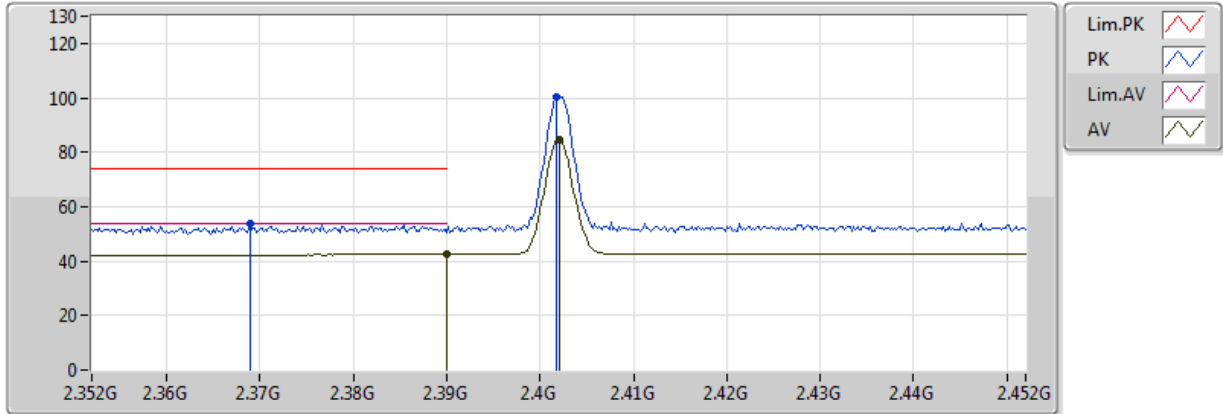
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.483502G	45.79	54.00	-8.21	31.27	3	Horizontal	156	1.01	-	14.52	27.56	3.71	-
AV	2.48G	85.24	Inf	-Inf	31.26	3	Horizontal	156	1.01	-	53.99	27.55	3.71	-
PK	2.4936G	54.96	74.00	-19.04	31.31	3	Horizontal	156	1.01	-	23.66	27.58	3.72	-
PK	2.4798G	101.05	Inf	-Inf	31.26	3	Horizontal	156	1.01	-	69.80	27.55	3.71	-



### BT-EDR(3Mbps)

### 2402MHz\_TX

09/01/2018



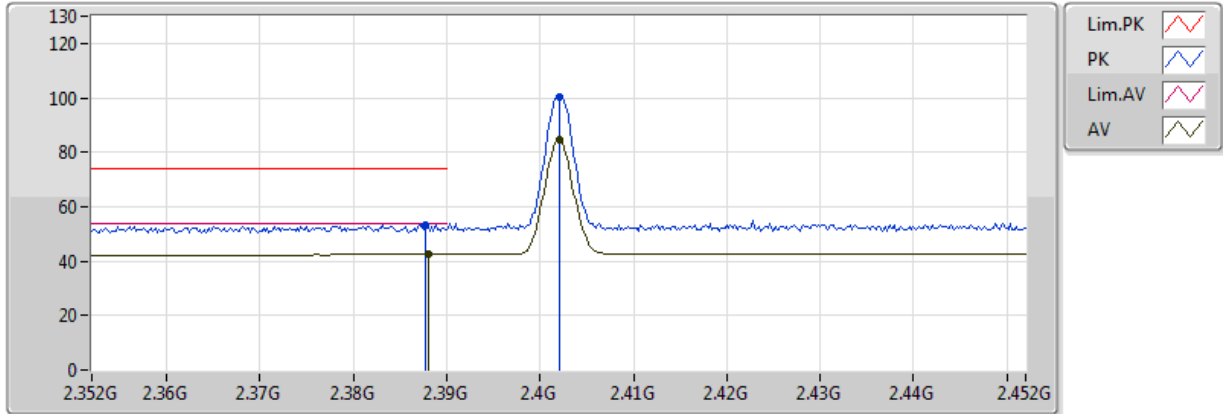
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	42.49	54.00	-11.51	30.93	3	Vertical	16	1.15	-	11.55	27.31	3.62	-
AV	2.402G	84.72	Inf	-Inf	30.98	3	Vertical	16	1.15	-	53.74	27.35	3.63	-
PK	2.369G	53.92	74.00	-20.08	30.86	3	Vertical	16	1.15	-	23.05	27.26	3.60	-
PK	2.4018G	100.31	Inf	-Inf	30.98	3	Vertical	16	1.15	-	69.33	27.34	3.63	-



**BT-EDR(3Mbps)**

**2402MHz\_TX**

09/01/2018



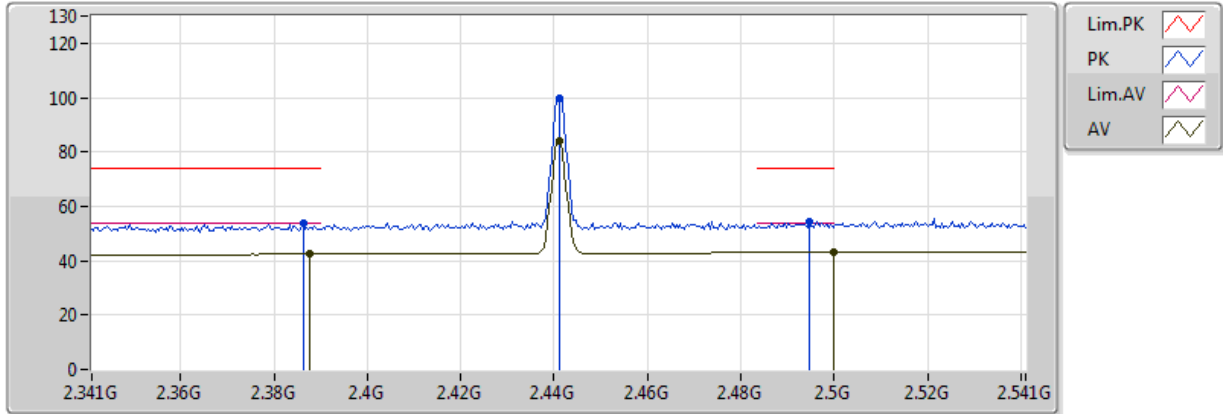
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.388G	42.49	54.00	-11.51	30.93	3	Horizontal	45	1.00	-	11.56	27.31	3.62	-
AV	2.402G	84.51	Inf	-Inf	30.98	3	Horizontal	45	1.00	-	53.53	27.35	3.63	-
PK	2.3878G	53.43	74.00	-20.57	30.93	3	Horizontal	45	1.00	-	22.50	27.31	3.62	-
PK	2.402G	100.21	Inf	-Inf	30.98	3	Horizontal	45	1.00	-	69.24	27.35	3.63	-



### BT-EDR(3Mbps)

### 2441MHz\_TX

09/01/2018



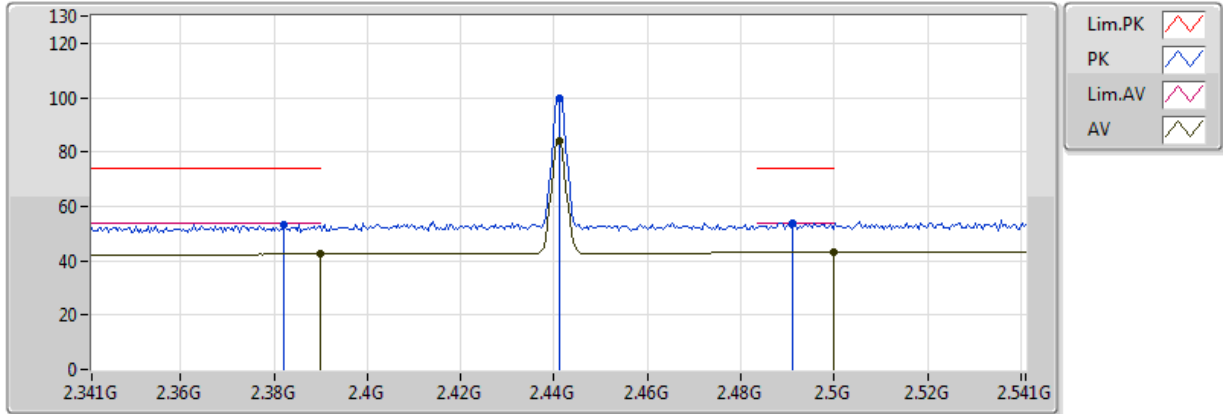
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3878G	42.47	54.00	-11.53	30.93	3	Vertical	196	1.36	-	11.54	27.31	3.62	-
AV	2.499998G	43.21	54.00	-10.79	31.33	3	Vertical	196	1.36	-	11.88	27.60	3.73	-
AV	2.441G	84.15	Inf	-Inf	31.12	3	Vertical	196	1.36	-	53.03	27.45	3.67	-
PK	2.3862G	53.56	74.00	-20.44	30.92	3	Vertical	196	1.36	-	22.64	27.30	3.62	-
PK	2.4946G	54.51	74.00	-19.49	31.31	3	Vertical	196	1.36	-	23.20	27.59	3.72	-
PK	2.441G	99.75	Inf	-Inf	31.12	3	Vertical	196	1.36	-	68.63	27.45	3.67	-



### BT-EDR(3Mbps)

### 2441MHz\_TX

09/01/2018



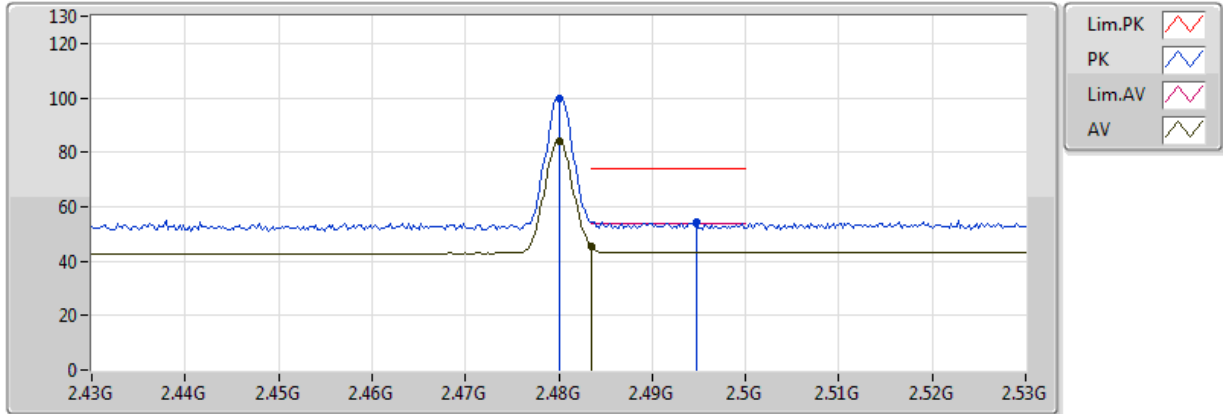
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.389998G	42.46	54.00	-11.54	30.93	3	Horizontal	148	1.34	-	11.53	27.31	3.62	-
AV	2.499998G	43.17	54.00	-10.83	31.33	3	Horizontal	148	1.34	-	11.84	27.60	3.73	-
AV	2.441G	83.79	Inf	-Inf	31.12	3	Horizontal	148	1.34	-	52.67	27.45	3.67	-
PK	2.3822G	53.51	74.00	-20.49	30.91	3	Horizontal	148	1.34	-	22.60	27.29	3.61	-
PK	2.491G	54.06	74.00	-19.94	31.30	3	Horizontal	148	1.34	-	22.76	27.58	3.72	-
PK	2.441G	99.63	Inf	-Inf	31.12	3	Horizontal	148	1.34	-	68.52	27.45	3.67	-



### BT-EDR(3Mbps)

### 2480MHz\_TX

09/01/2018

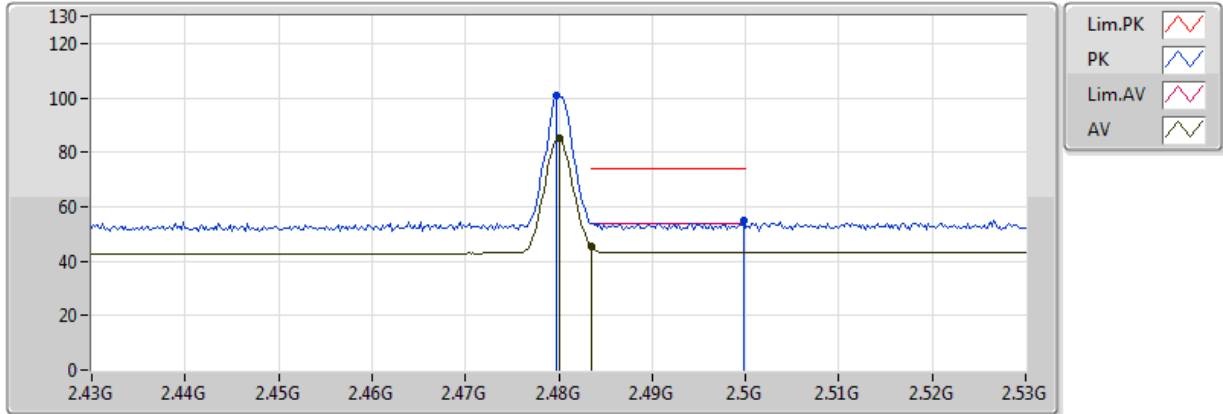


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.483502G	45.38	54.00	-8.62	31.27	3	Vertical	247	1.17	-	14.11	27.56	3.71	-
AV	2.48G	84.25	Inf	-Inf	31.26	3	Vertical	247	1.17	-	53.00	27.55	3.71	-
PK	2.4948G	54.43	74.00	-19.57	31.31	3	Vertical	247	1.17	-	23.12	27.59	3.72	-
PK	2.48G	99.98	Inf	-Inf	31.26	3	Vertical	247	1.17	-	68.72	27.55	3.71	-

### BT-EDR(3Mbps)

### 2480MHz\_TX

09/01/2018



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	2.483502G	45.65	54.00	-8.35	31.27	3	Horizontal	156	1.01	-	14.38	27.56	3.71	-
AV	2.48G	84.98	Inf	-Inf	31.26	3	Horizontal	156	1.01	-	53.72	27.55	3.71	-
PK	2.4998G	54.67	74.00	-19.33	31.33	3	Horizontal	156	1.01	-	23.34	27.60	3.73	-
PK	2.4798G	100.81	Inf	-Inf	31.26	3	Horizontal	156	1.01	-	69.55	27.55	3.71	-