

# FCC Test Report

FCC ID : 2AF82-TD0350H  
Equipment : Panel PC  
Brand Name : Qbic  
Model Name : TD-035XXX, (where X can be 0-9, A-Z or blank)  
Applicant / Manufacturer : Qbic technology Co., Ltd  
26F. -12, No.99, Sec.1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan(R.O.C)  
Standard : 47 CFR FCC Part 15.247

The product was received on Jun. 22, 2018, and testing was started from Jul. 10, 2018 and completed on Jul. 12, 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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## History of this test report

TEL : 886-3-3273456  
FAX : 886-3-3270973  
Report Template No.: HE1-C9 Ver2.0  
FCC ID: 2AF82-TD0350H

## 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: Sam Chen**

**Report Producer: Ann Hou**

# 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

Note:

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

### 1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	-	-	FPC	fixed on board	2

### 1.1.3 EUT Information

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

### 1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
BT-BR(1Mbps)	0.772	1.124	2.888m	1k
BT-EDR(2Mbps)	0.743	1.29	2.893m	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
AC Conduction	CO04-HY	Jeremy Lin	22.8°C / 60%	12/Jul/2018
RF Conducted	TH01-HY	Andy Lee	23.5°C / 65%	10/Jul/2018
Radiated	03CH09-HY	Andy Hsu	22.8°C / 59%	10/Jul/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	Ampak RFTTestTool VER:5.4
-----------------------	---------------------------

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

## 2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral
<b>Operating Mode</b>	CTX
1	Adapter mode

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	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
<b>Test Condition</b>	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
<b>Tests Item</b>	Emissions in Restricted Frequency Bands		
<b>Test Condition</b>	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.		
<b>Operating Mode &lt; 1GHz</b>	CTX		
1	Adapter mode		
<b>Operating Mode &gt; 1GHz</b>	CTX		
<b>Orthogonal Planes of EUT</b>	<b>X Plane</b>	<b>Y Plane</b>	<b>Z Plane</b>
			
<b>Worst Planes of EUT</b>			V



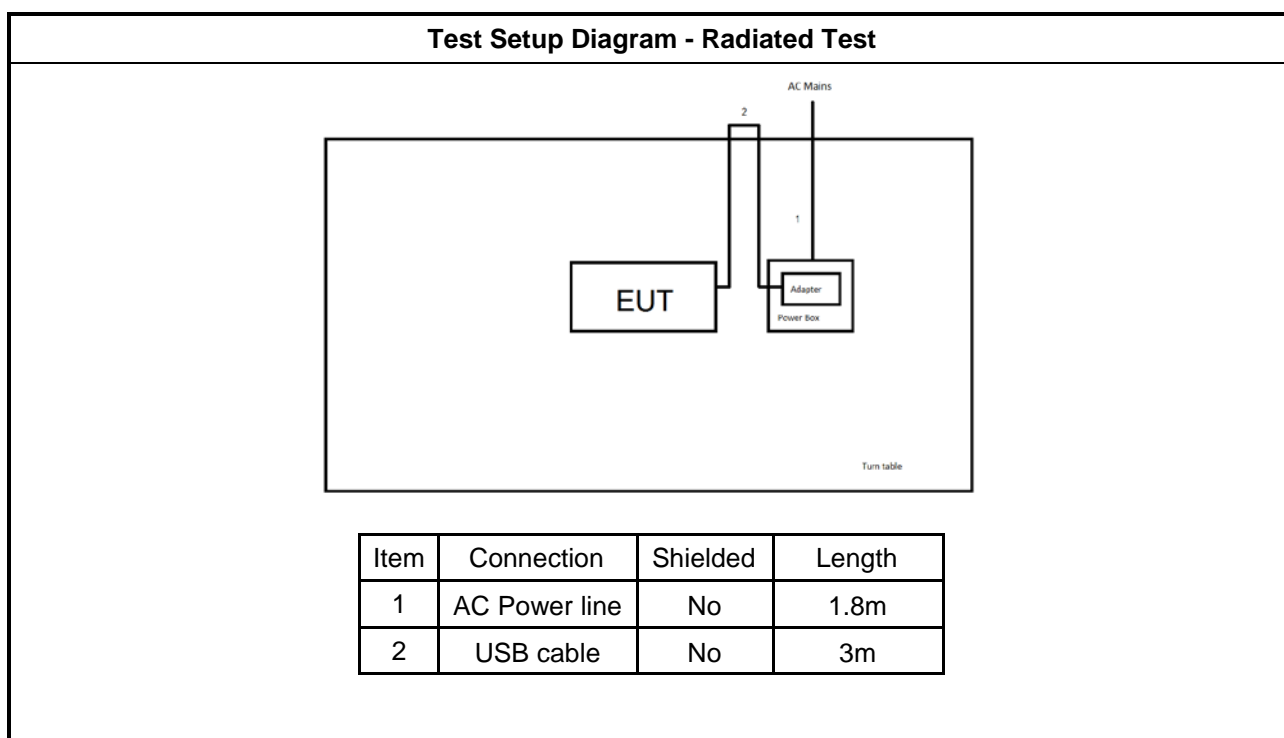
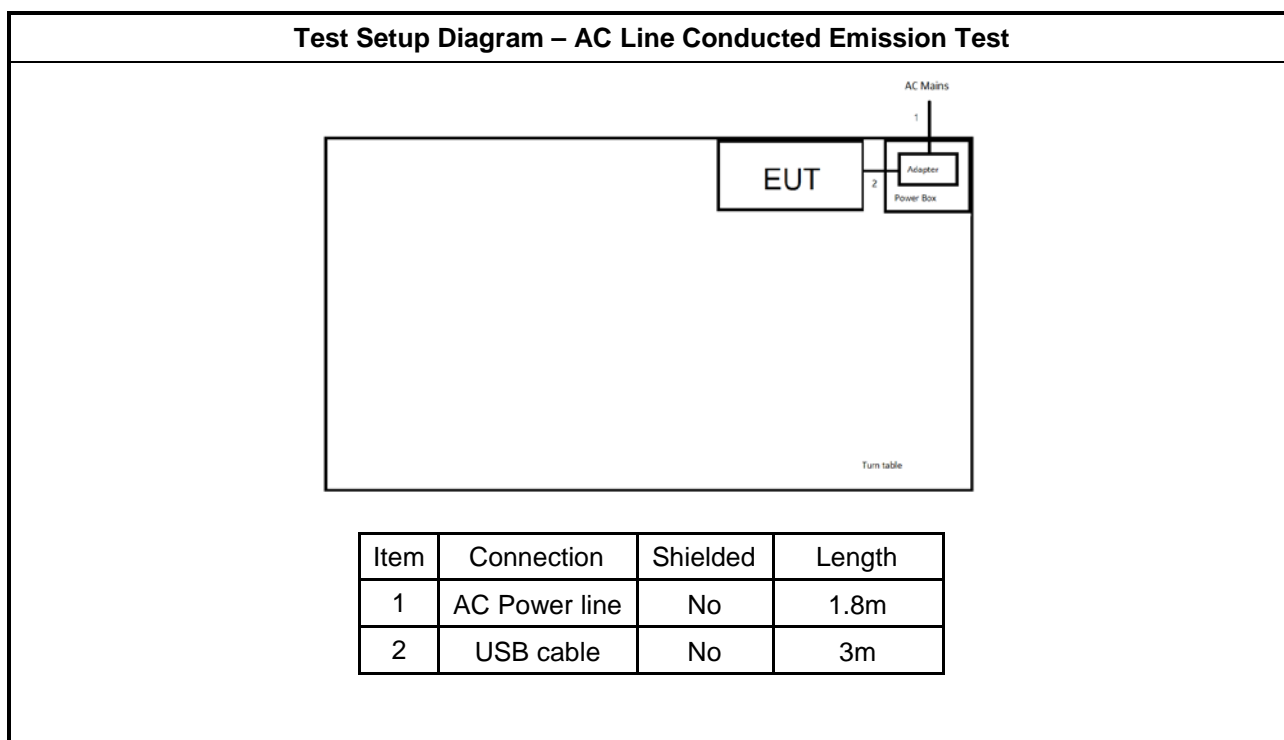
## 2.4 Accessories and Support Equipment

Accessories				
AC Adapter 1	<b>Brand Name</b>	SOY	<b>Model Name</b>	SOY-0500200-090
	<b>Power Rating</b>	I/P: 100 - 240Vac, 0.5A, O/P: 5Vdc, 2 A		
AC Adapter 1	<b>Brand Name</b>	PHIHONE	<b>Model Name</b>	PSAF10R-050Q
	<b>Power Rating</b>	I/P: 100 - 240Vac, 0.3A, O/P: 5Vdc, 2.0 A		
USB Cable	<b>Brand Name</b>	NA	<b>Model Name</b>	389G175GZAAFAMOOHF
	<b>Signal Line</b>	3 meter, non-shielded cable, without ferrite core		

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

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	AC Power Source	G.W	APS-9102	-

## 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.

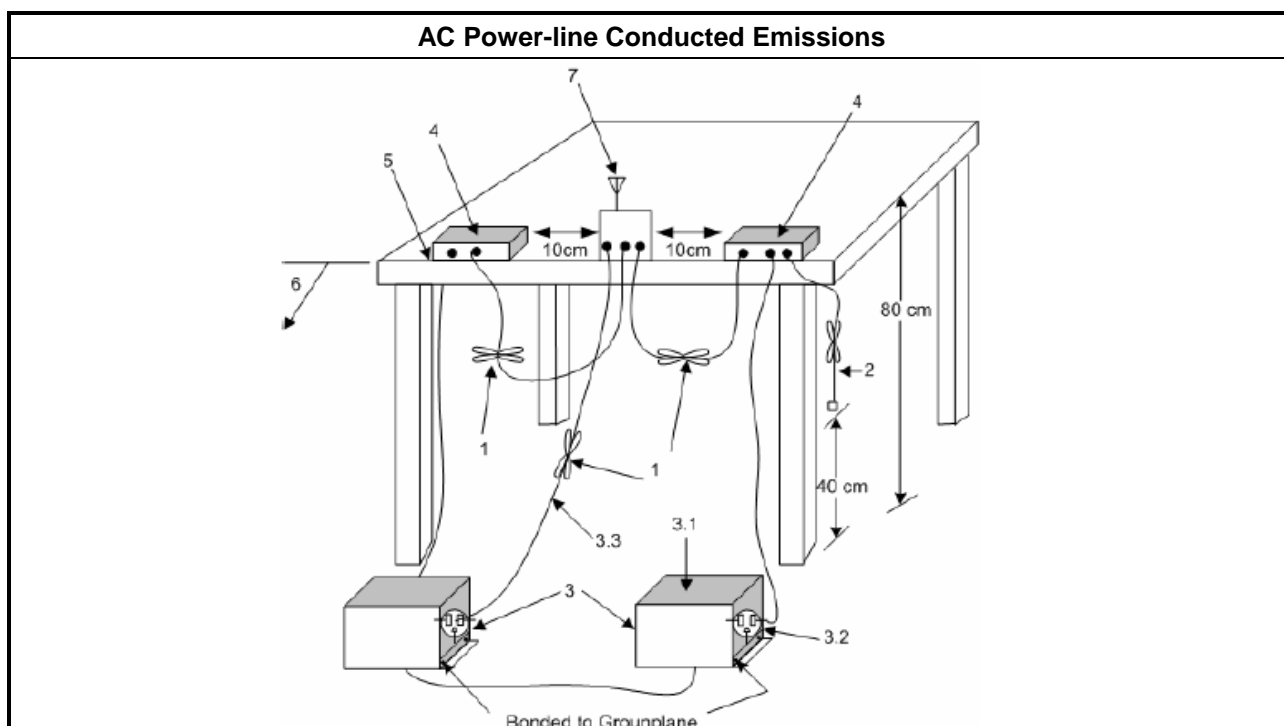
##### 3.1.2 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.</li> </ul>

##### 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	
▪ 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).
<b>N</b> : Number of Hopping Frequencies; <b>ChS</b> : Hopping Channel Separation	

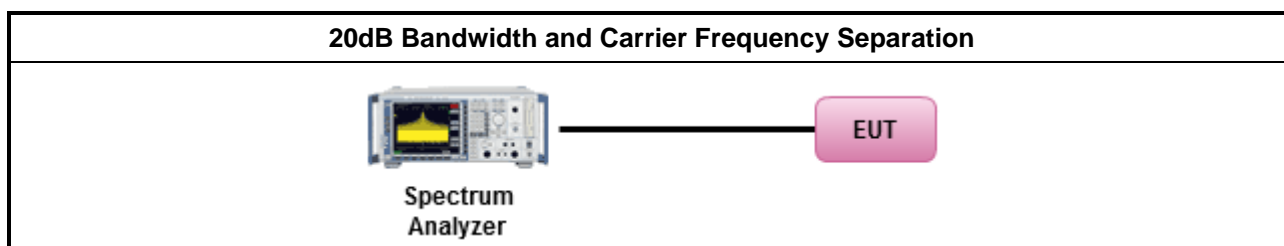
### 3.2.2 Measuring Instruments

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

### 3.2.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.

### 3.2.4 Test Setup



### 3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B.1

### 3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B.2

### 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"> <li>2400-2483.5 MHz Band:</li> </ul>	
	<ul style="list-style-type: none"> <li><math>N \geq 75</math>; Power 30dBm; EIRP 36dBm</li> </ul>
	<ul style="list-style-type: none"> <li><math>75 &gt; N \geq 15</math>; Power 21dBm; EIRP 27dBm</li> </ul>
N: Number of Hopping Frequencies	

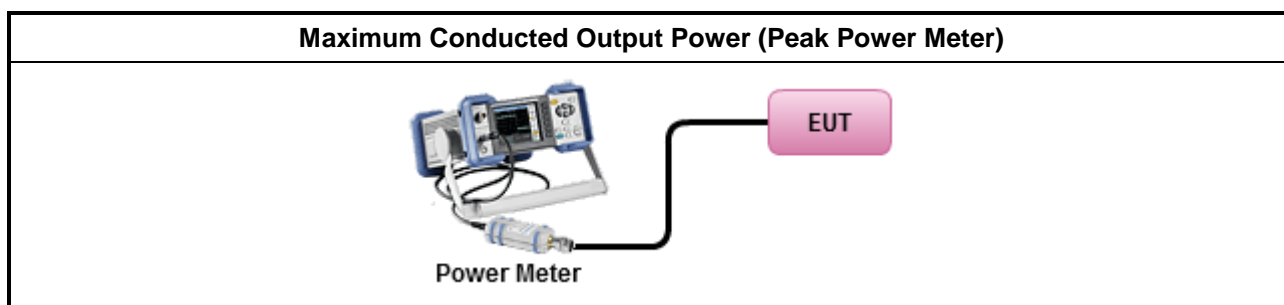
#### 3.3.2 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.</li> </ul>

#### 3.3.4 Test Setup



#### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

### 3.4 Number of Hopping Frequencies and Hopping Bandedge

#### 3.4.1 Number of Hopping Frequencies Limit

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

#### 3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

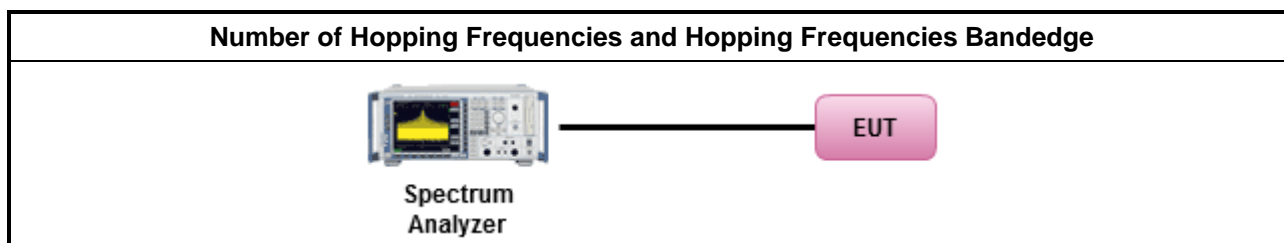
#### 3.4.3 Measuring Instruments

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

#### 3.4.4 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.</li> </ul>
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.</li> </ul>

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

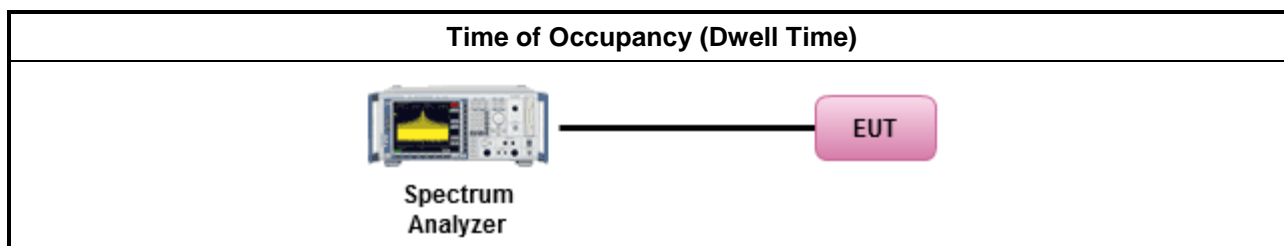
#### 3.5.2 Measuring Instruments

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"> <li>Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>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.</li> </ul>	
	<ul style="list-style-type: none"> <li>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 <math>5/1600</math> seconds, or 3.125ms. DH5 Packet permit maximum <math>1600 / 79 / 6 = 3.37</math> hops per second in each channel.</li> </ul>

#### 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.	

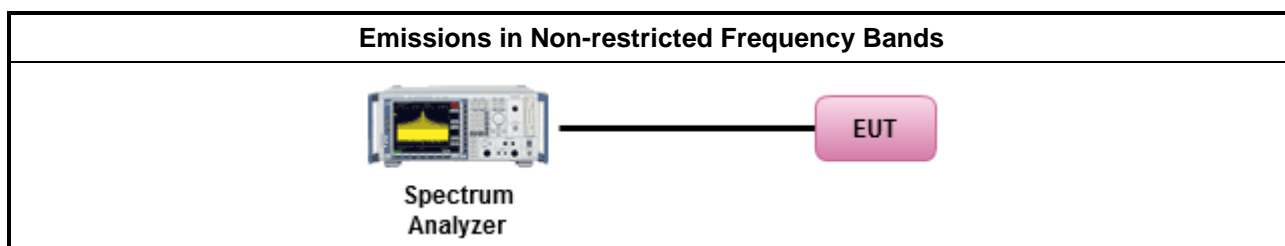
#### 3.6.2 Measuring Instruments

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

#### 3.6.4 Test Setup



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

Refer as Appendix F



### 3.7 Emissions in Restricted Frequency Bands

#### 3.7.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

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

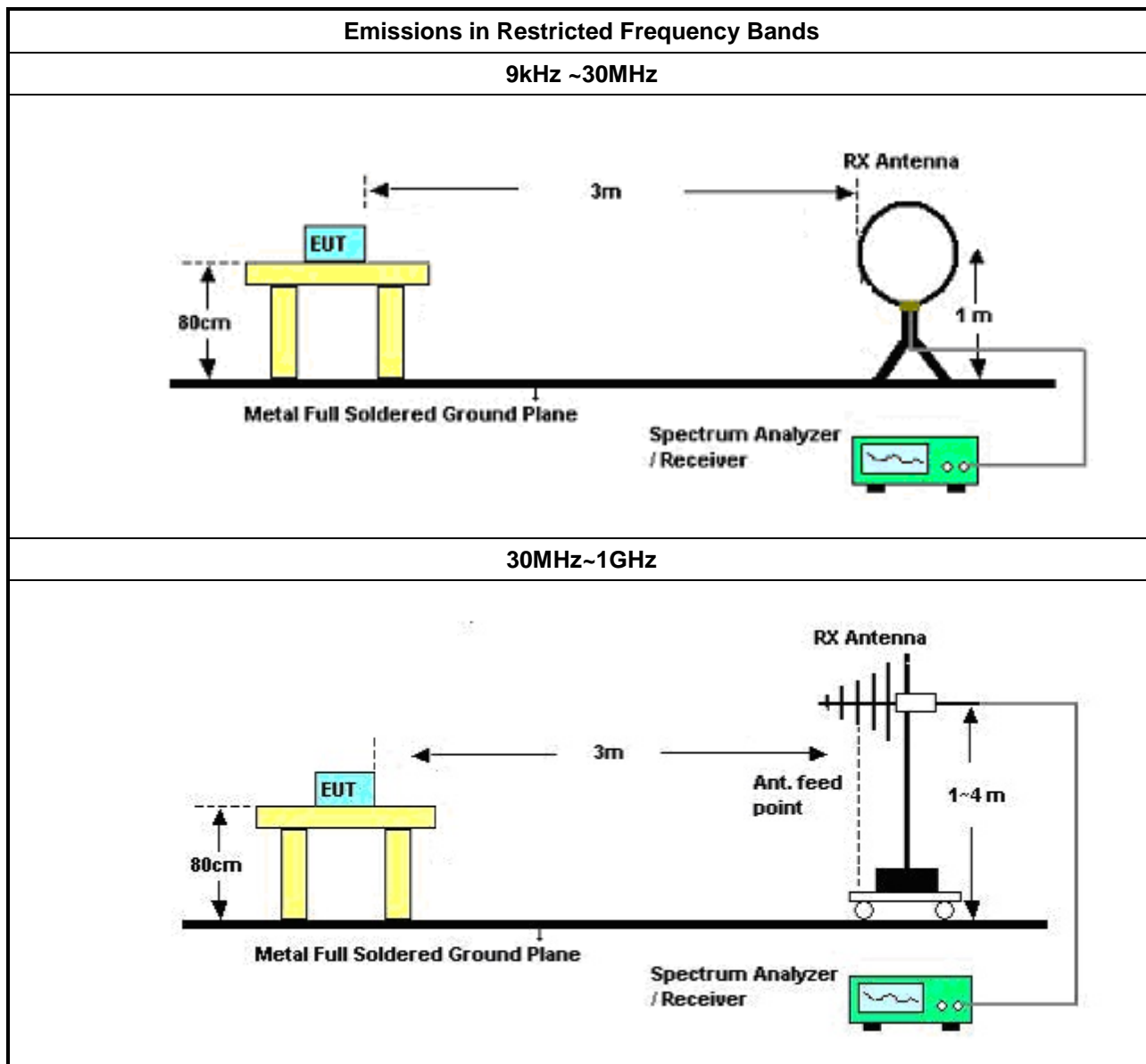
#### 3.7.2 Measuring Instruments

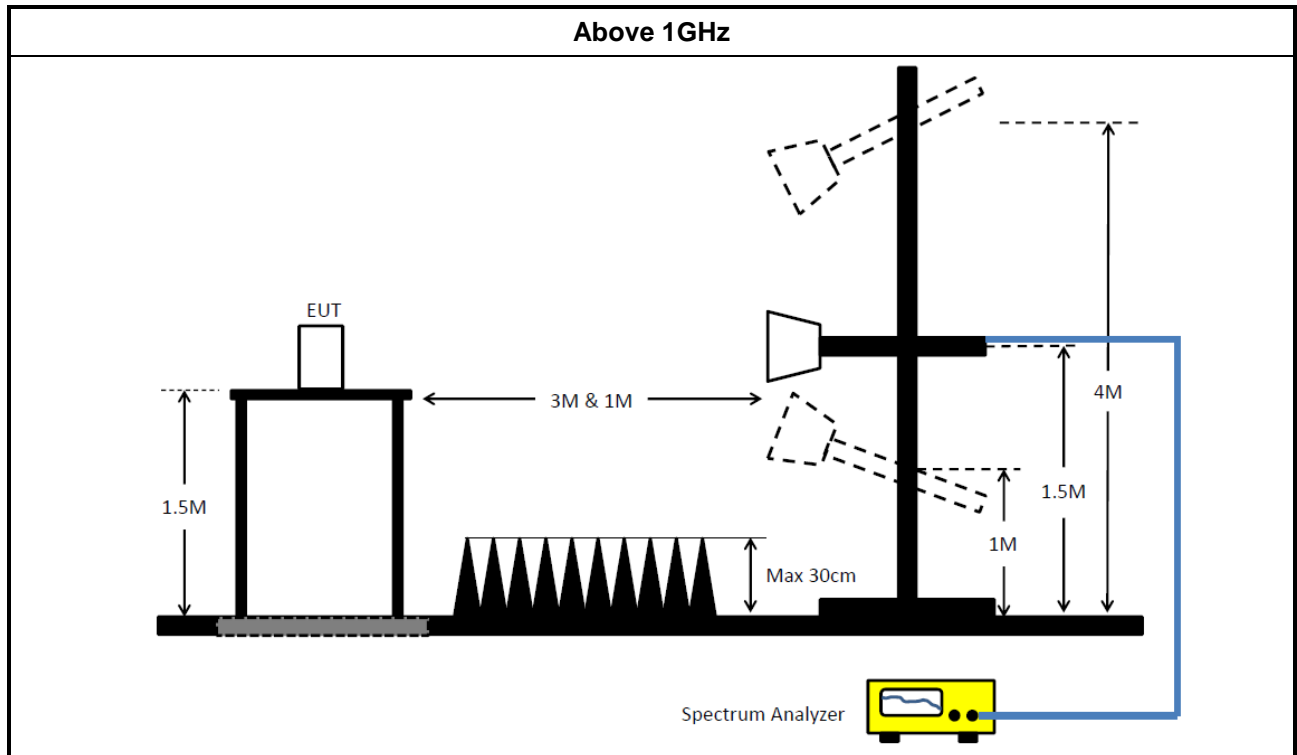
Refer a test equipment and calibration data table in this test report.

#### 3.7.3 Test Procedures

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

### 3.7.4 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 Pulse 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

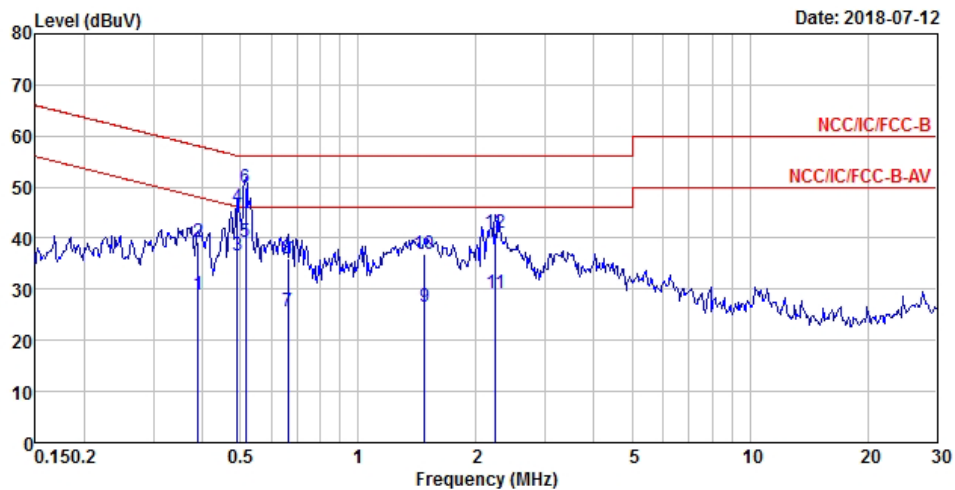
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	05/Feb/2018	04/Feb/2019
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	29/Mar/2018	28/May/2019
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	-20 ~ 100℃	22/May/2018	21/May/2019

### 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
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	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBECK	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	1/Feb/2018	31/Jan/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2018	13/Mar/2019

## AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode		

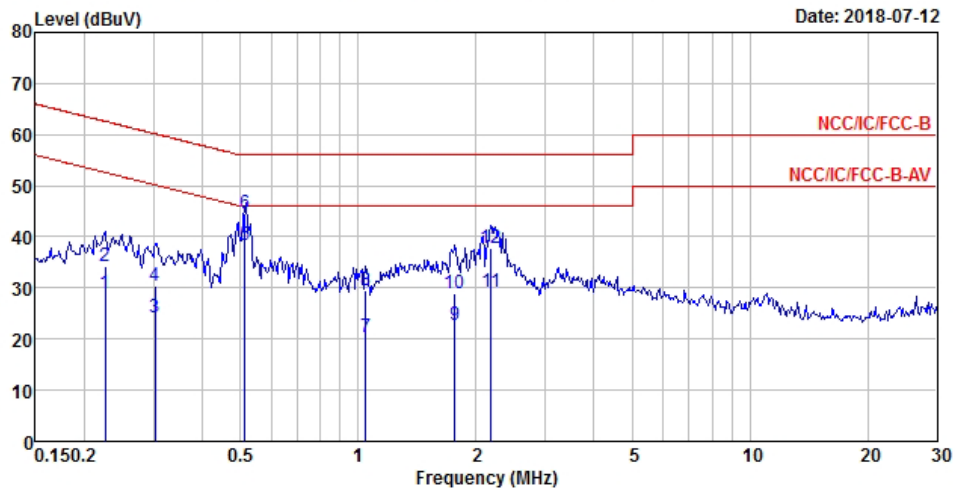


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.39	28.97	-19.09	48.06	19.26	9.61	0.10	Average
2	0.39	39.27	-18.79	58.06	29.56	9.61	0.10	QP
3	0.49	36.67	-9.47	46.14	26.98	9.61	0.08	Average
4	0.49	46.02	-10.12	56.14	36.33	9.61	0.08	QP
5	0.52	39.15	-6.85	46.00	29.47	9.61	0.07	Average
6 MAX	0.52	50.03	-5.97	56.00	40.35	9.61	0.07	QP
7	0.66	25.75	-20.25	46.00	16.08	9.62	0.05	Average
8	0.66	35.91	-20.09	56.00	26.24	9.62	0.05	QP
9	1.48	26.43	-19.57	46.00	16.80	9.63	0.00	Average
10	1.48	37.04	-18.96	56.00	27.41	9.63	0.00	QP
11	2.24	29.13	-16.87	46.00	19.49	9.63	0.01	Average
12	2.24	41.15	-14.85	56.00	31.51	9.63	0.01	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	Adapter mode		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.23	29.05	-23.56	52.61	19.41	9.62	0.02	Average
2	0.23	34.31	-28.30	62.61	24.67	9.62	0.02	QP
3	0.30	24.26	-25.89	50.15	14.59	9.61	0.06	Average
4	0.30	30.54	-29.61	60.15	20.87	9.61	0.06	QP
5 MAX	0.51	38.25	-7.75	46.00	28.57	9.61	0.07	Average
6	0.51	44.60	-11.40	56.00	34.92	9.61	0.07	QP
7	1.04	20.31	-25.69	46.00	10.70	9.61	0.00	Average
8	1.04	29.57	-26.43	56.00	19.96	9.61	0.00	QP
9	1.76	22.80	-23.20	46.00	13.18	9.62	0.00	Average
10	1.76	28.87	-27.13	56.00	19.25	9.62	0.00	QP
11	2.19	29.15	-16.85	46.00	19.52	9.62	0.01	Average
12	2.19	37.87	-18.13	56.00	28.24	9.62	0.01	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)	937.5k	987.006k	987KF1D	925k	944.528k
BT-EDR(2Mbps)	1.335M	1.367M	1M37G1D	1.33M	1.266M

**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;

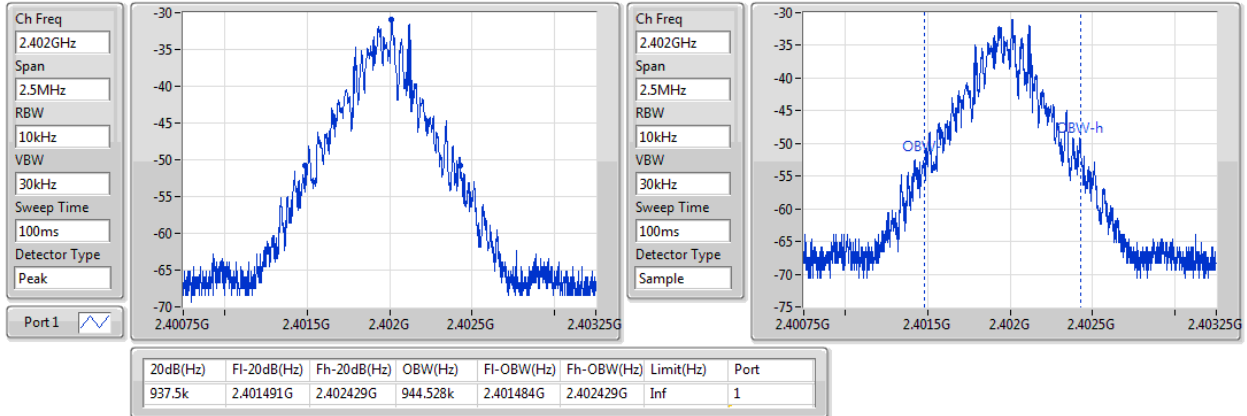
**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	937.5k	944.528k
2441MHz_TnomVnom	Pass	Inf	937.5k	987.006k
2480MHz_TnomVnom	Pass	Inf	925k	953.273k
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	1.33M	1.266M
2441MHz_TnomVnom	Pass	Inf	1.335M	1.367M
2480MHz_TnomVnom	Pass	Inf	1.335M	1.297M

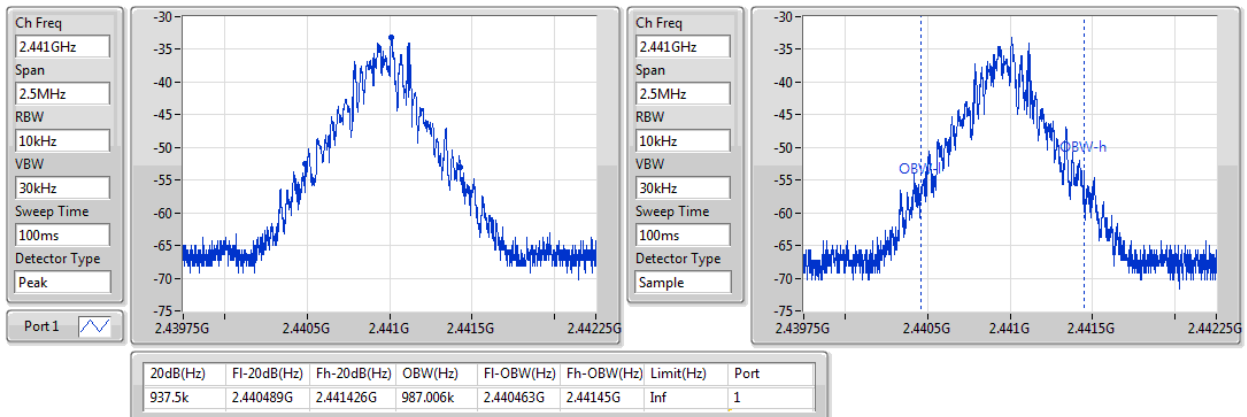
**Port X-N dB** = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**BT-BR(1Mbps)**
**EBW**
**2402MHz**

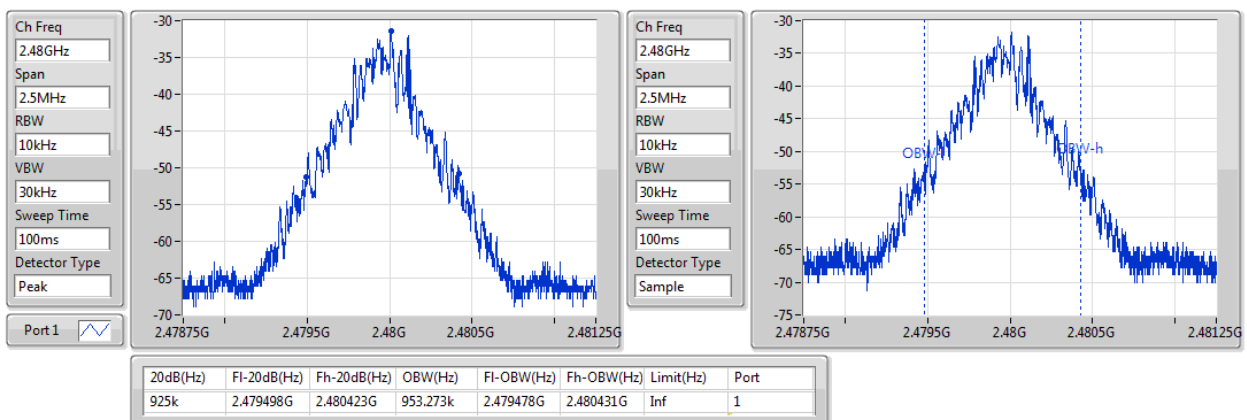
10/07/2018


**BT-BR(1Mbps)**
**EBW**
**2441MHz**

10/07/2018


**BT-BR(1Mbps)**
**EBW**
**2480MHz**

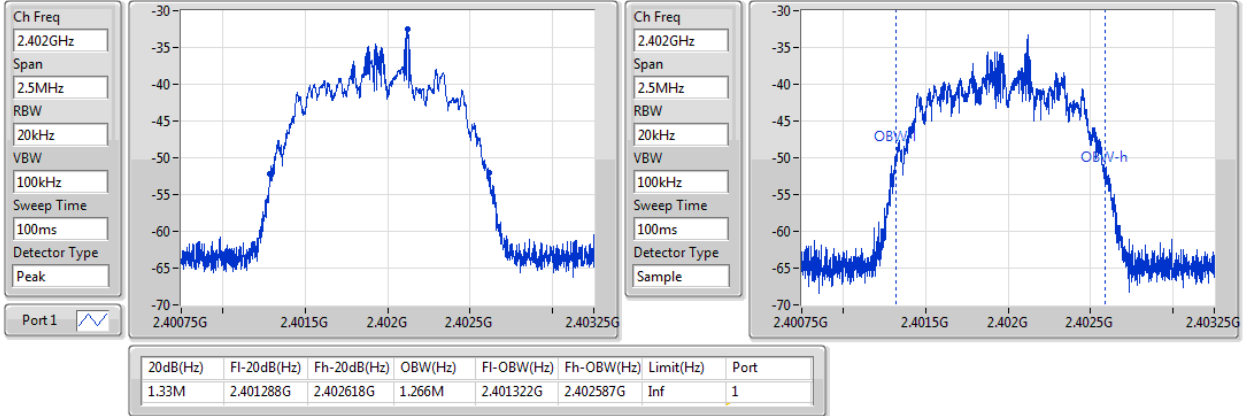
10/07/2018



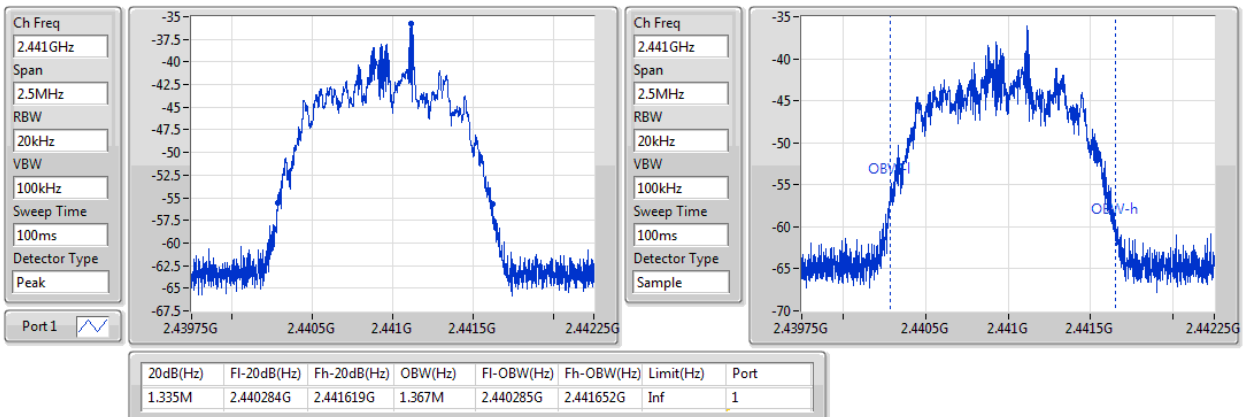


**BT-EDR(2Mbps)**
**EBW**
**2402MHz**

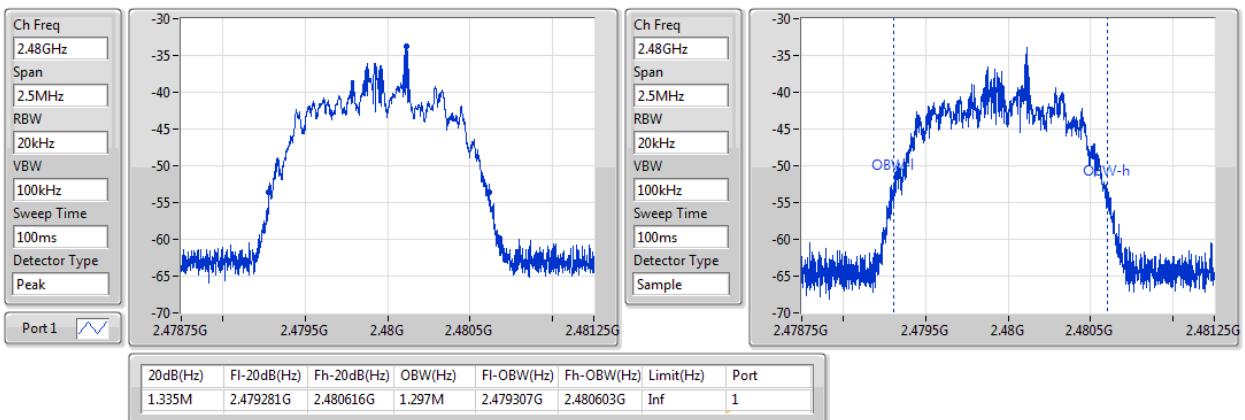
10/07/2018


**BT-EDR(2Mbps)**
**EBW**
**2441MHz**

10/07/2018


**BT-EDR(2Mbps)**
**EBW**
**2480MHz**

10/07/2018



## Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0065M	996k
BT-EDR(2Mbps)	1.0035M	997.5k

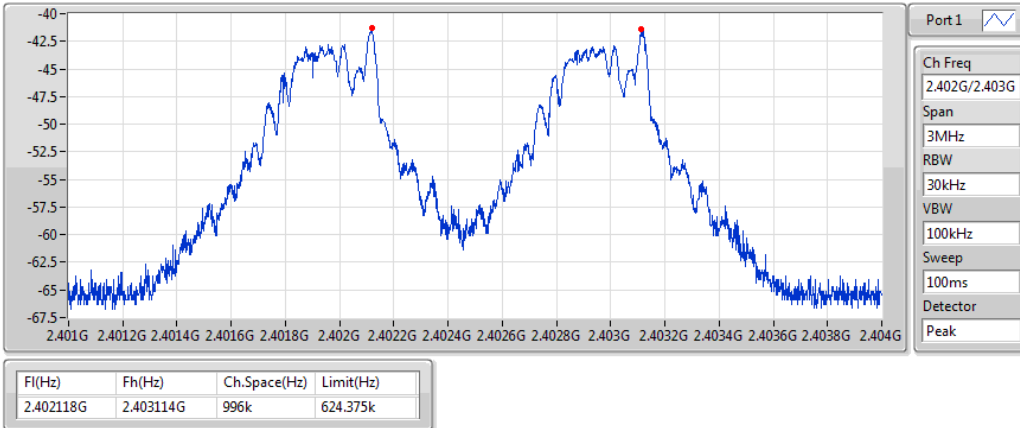
## Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402118G	2.403114G	996k	624.375k
2441MHz_TnomVnom	Pass	2.441109G	2.442115G	1.0065M	624.375k
2480MHz_TnomVnom	Pass	2.479112G	2.480111G	999k	616.05k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402116G	2.403114G	997.5k	885.78k
2441MHz_TnomVnom	Pass	2.441112G	2.442115G	1.0035M	889.11k
2480MHz_TnomVnom	Pass	2.479113G	2.480112G	999k	889.11k

## BT-BR(1Mbps)

## Channel Separation

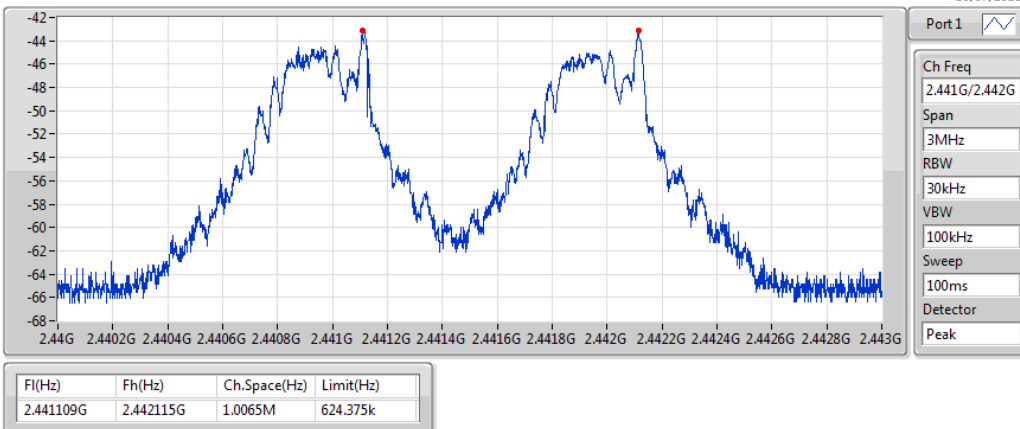
2.402G/2.403GHz



## BT-BR(1Mbps)

## Channel Separation

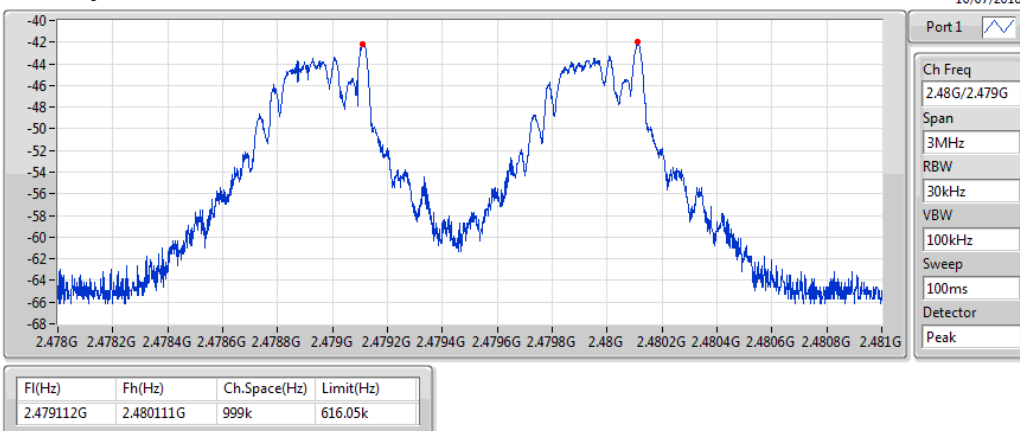
2.441G/2.442GHz



## BT-BR(1Mbps)

## Channel Separation

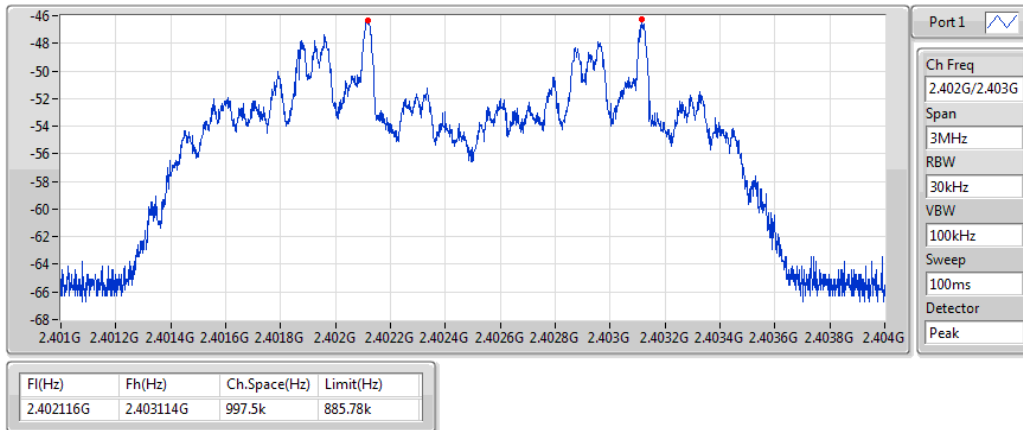
2.48G/2.479GHz



## BT-EDR(2Mbps)

## Channel Separation

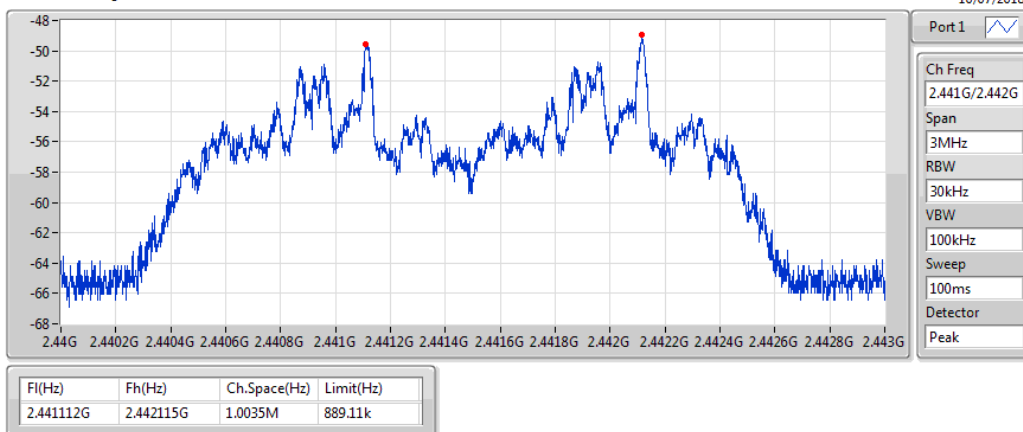
2.402G/2.403GHz



## BT-EDR(2Mbps)

## Channel Separation

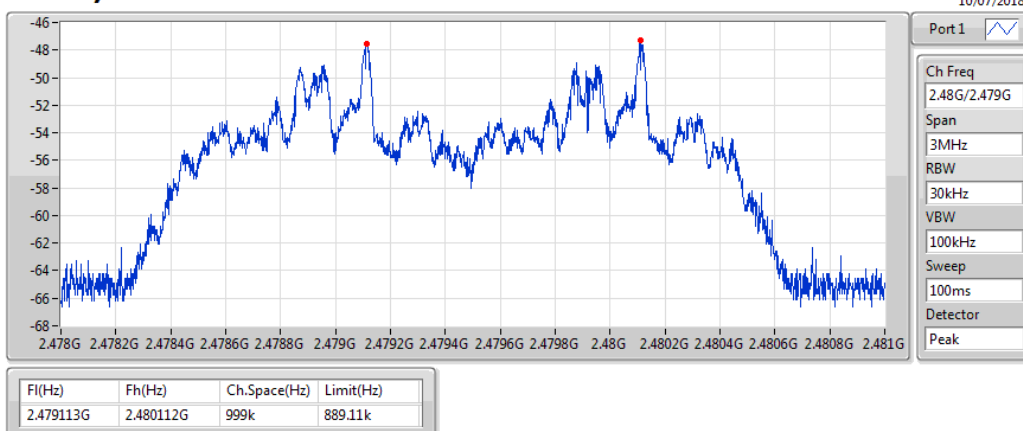
2.441G/2.442GHz



## BT-EDR(2Mbps)

## Channel Separation

2.48G/2.479GHz



**Summary**

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	15.41	0.03475
BT-EDR(2Mbps)	15.58	0.03614

**Result**

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	2.00	14.02	21.00
2441MHz_TnomVnom	Pass	2.00	14.02	21.00
2480MHz_TnomVnom	Pass	2.00	15.41	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	2.00	14.02	21.00
2441MHz_TnomVnom	Pass	2.00	15.58	21.00
2480MHz_TnomVnom	Pass	2.00	14.01	21.00

**Summary**

Mode	Power	Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	11.45	0.01396
BT-EDR(2Mbps)	11.45	0.01396

**Result**

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	2.00	11.45	30.00
2441MHz_TnomVnom	Pass	2.00	11.45	30.00
2480MHz_TnomVnom	Pass	2.00	11.45	30.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	2.00	11.44	30.00
2441MHz_TnomVnom	Pass	2.00	11.45	30.00
2480MHz_TnomVnom	Pass	2.00	11.45	30.00

**Summary**

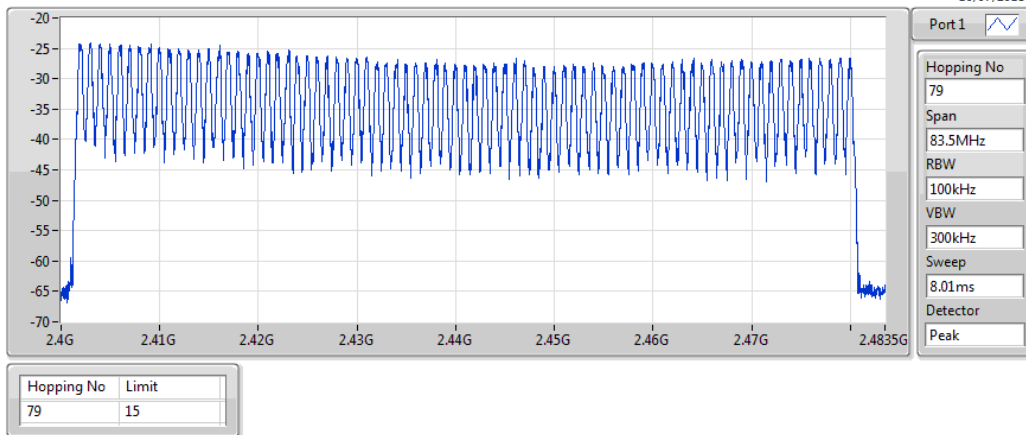
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79

**Result**

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

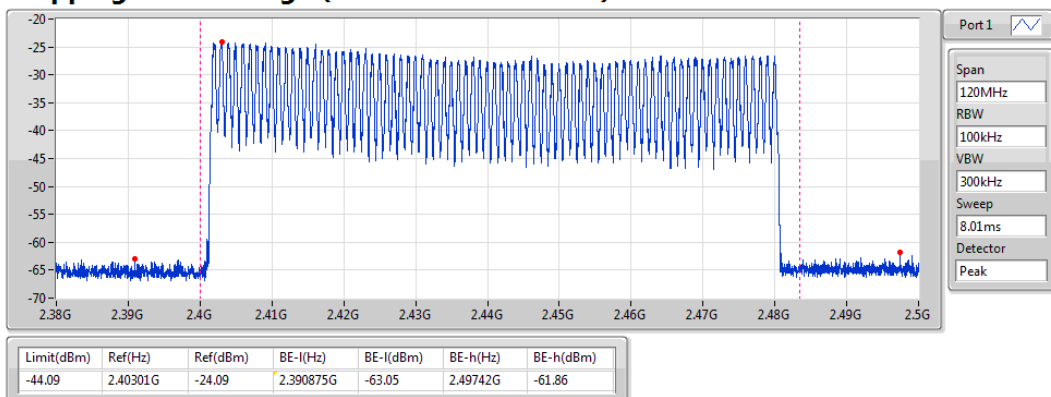
### BT-BR(1Mbps) 2441MHz

### Hopping Ch



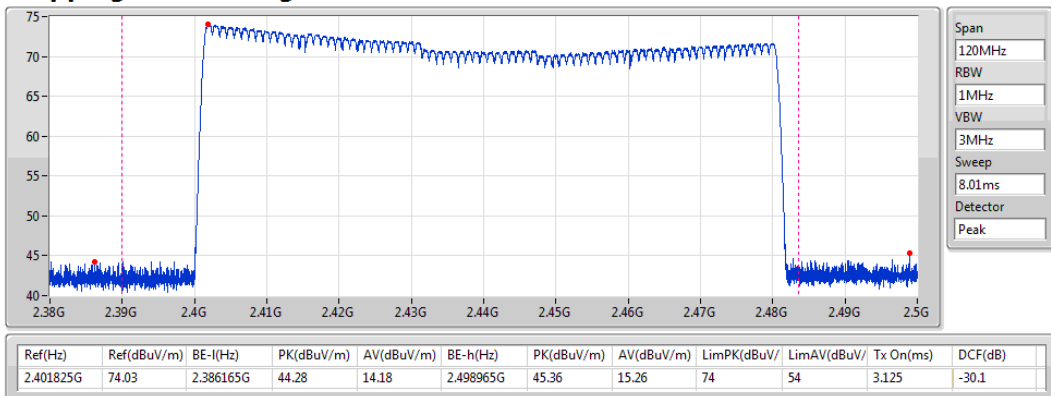
### BT-BR(1Mbps) 2441MHz

### Hopping Ch Bandedge (Non-restricted Band)



### BT-BR(1Mbps) 2441MHz

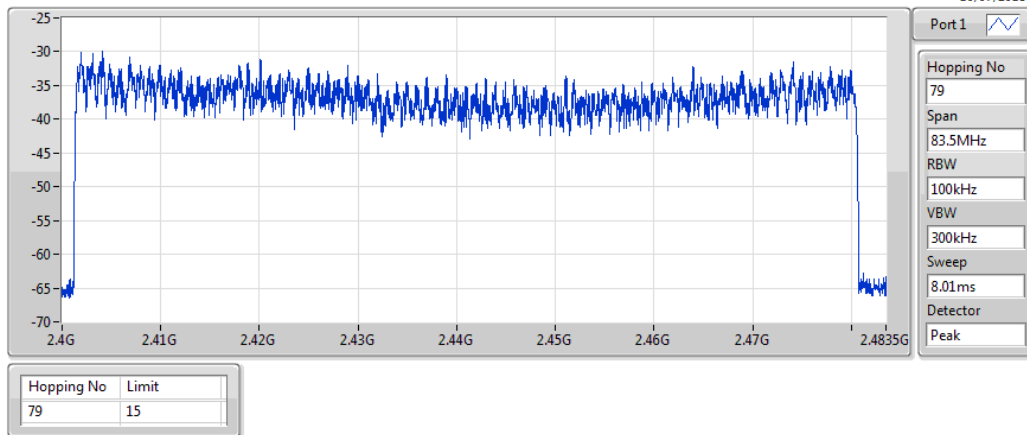
### Hopping Ch Bandedge (Restricted Band)





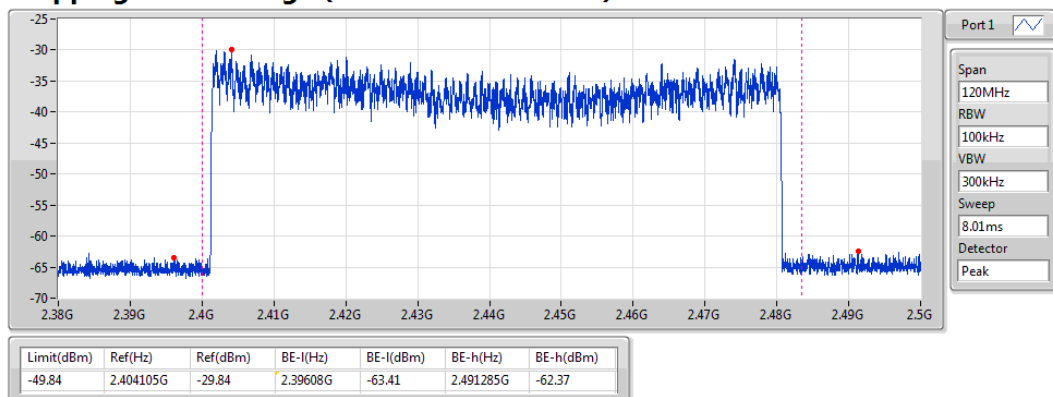
### BT-EDR(2Mbps) 2441MHz

### Hopping Ch



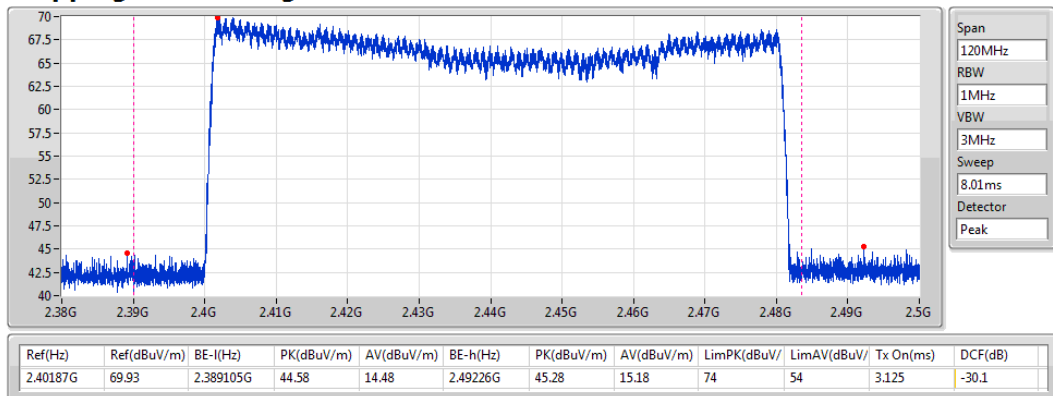
### BT-EDR(2Mbps) 2441MHz

### Hopping Ch Bandedge (Non-restricted Band)



### BT-EDR(2Mbps) 2441MHz

### Hopping Ch Bandedge (Restricted Band)



### Summary

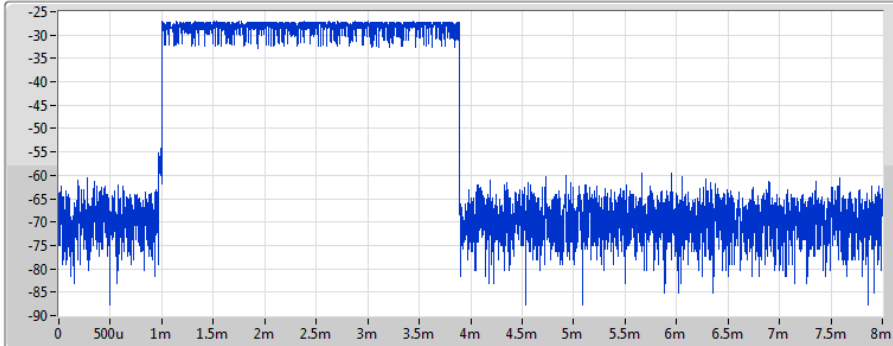
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.1806m
BT-EDR(2Mbps)	270.6574m

### Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	308.1806m	400m	2.891m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	270.6574m	400m	2.539m

## BT-BR(1Mbps)

2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.1806m	400m	2.891m

## Dwell

10/07/2018

Port 1 

Ch Freq  
2.441GHz

RBW  
300kHz

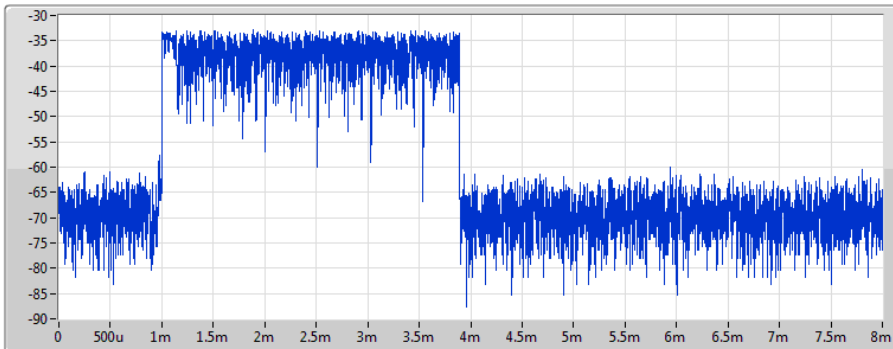
VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.891ms

## BT-EDR(2Mbps)

2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	270.6574m	400m	2.539m

## Dwell

10/07/2018

Port 1 

Ch Freq  
2.441GHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
8ms

TX Time  
2.539ms

**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	-5.92	-25.92	758.16M	-64.22	2.399924G	-44.23	2.483884G	-62.54	16.230602G	-54.59	1
BT-EDR(2Mbps)	Pass	2.40167G	-12.48	-32.48	616.08M	-64.50	2.399992G	-48.95	2.483968G	-63.00	17.485786G	-52.33	1

**Result**

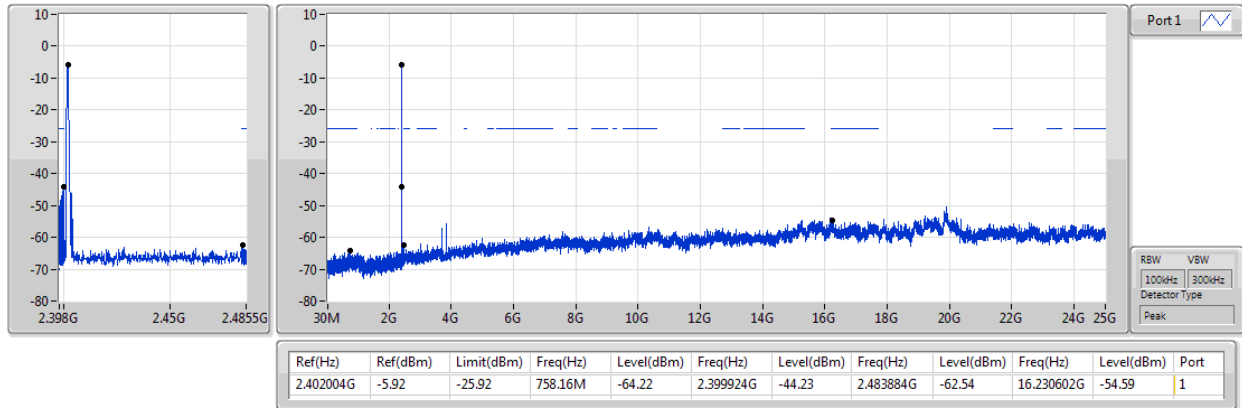
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402004G	-5.92	-25.92	758.16M	-64.22	2.399924G	-44.23	2.483884G	-62.54	16.230602G	-54.59	1
2441MHz	Pass	2.440915G	-7.08	-27.08	773.552M	-64.18	2.399372G	-63.61	2.485236G	-62.95	16.306589G	-54.72	1
2480MHz	Pass	2.479993G	-7.01	-27.01	816.176M	-64.09	2.399732G	-62.80	2.483544G	-52.01	17.466085G	-54.39	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40167G	-12.48	-32.48	616.08M	-64.50	2.399992G	-48.95	2.483968G	-63.00	17.485786G	-52.33	1
2441MHz	Pass	2.440915G	-12.32	-32.32	410.064M	-64.73	2.399808G	-64.14	2.484308G	-62.45	17.443571G	-53.49	1
2480MHz	Pass	2.479993G	-13.43	-33.43	424.272M	-64.36	2.399668G	-63.23	2.484152G	-57.64	16.236231G	-53.58	1

## BT-BR(1Mbps)

CSE NdB

2402MHz

10/07/2018

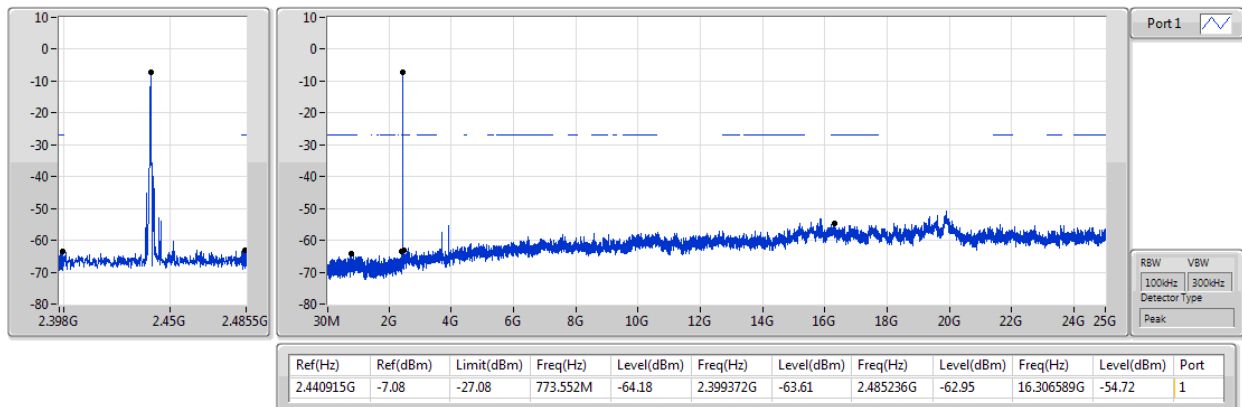


## BT-BR(1Mbps)

CSE NdB

2441MHz

10/07/2018

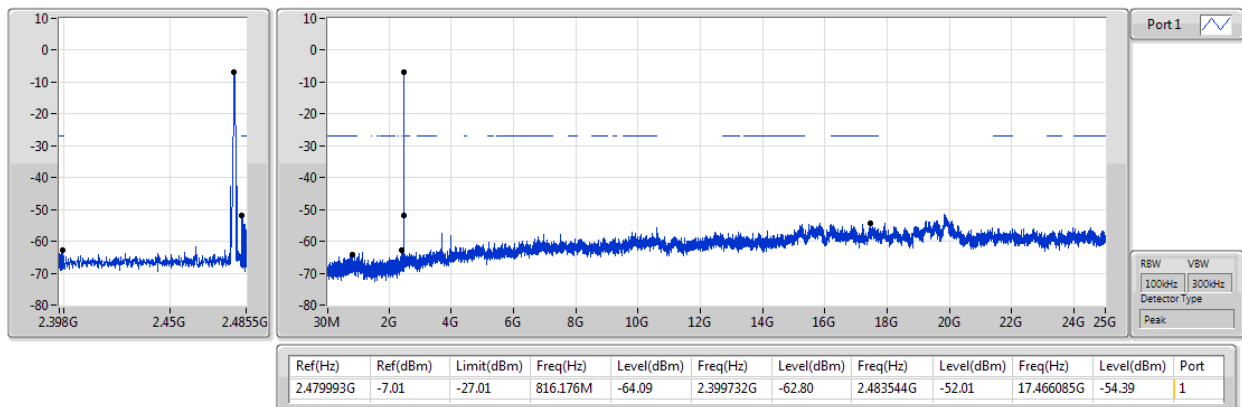


## BT-BR(1Mbps)

CSE NdB

2480MHz

10/07/2018

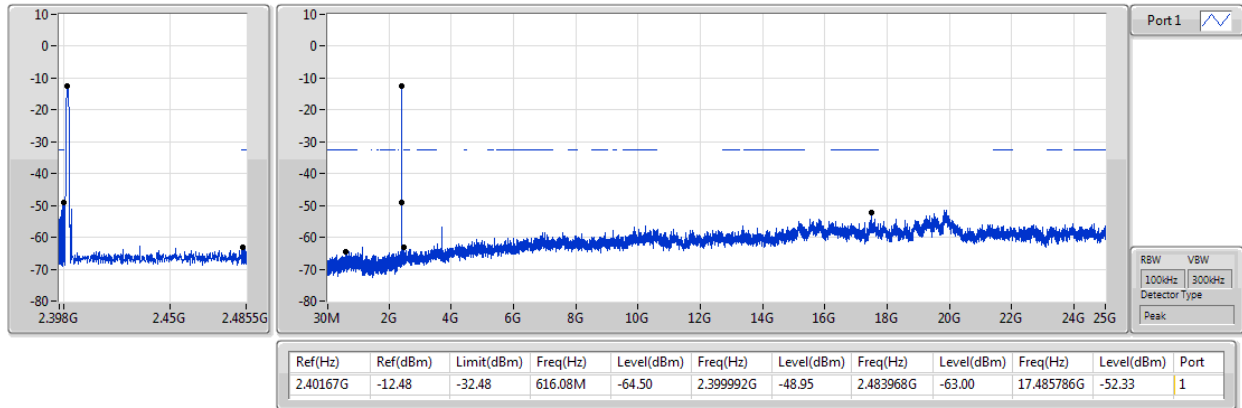


## BT-EDR(2Mbps)

CSE NdB

2402MHz

10/07/2018

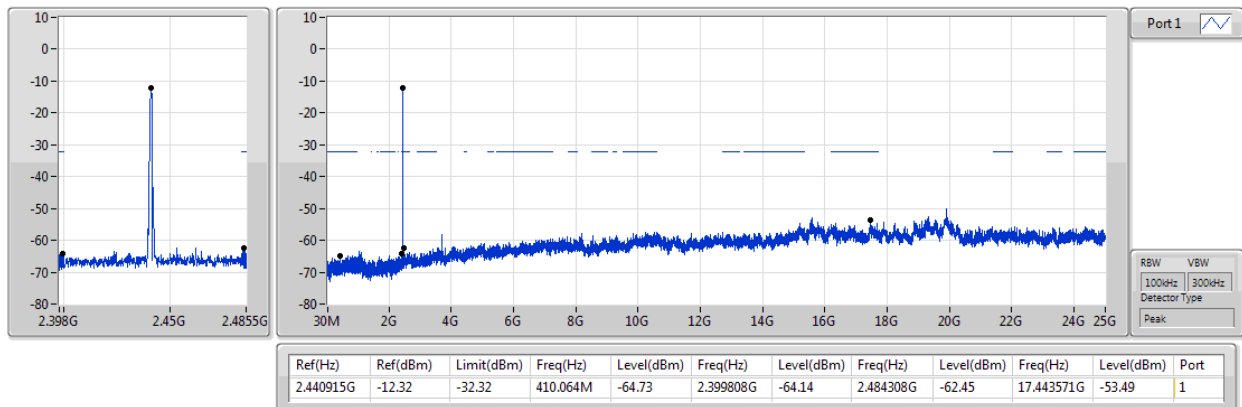


## BT-EDR(2Mbps)

CSE NdB

2441MHz

10/07/2018

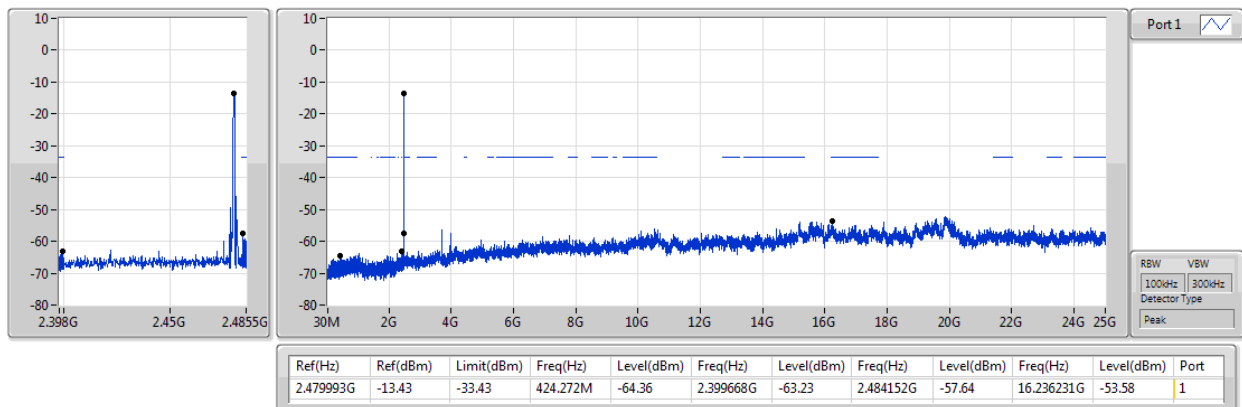


## BT-EDR(2Mbps)

CSE NdB

2480MHz

10/07/2018



**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	480.08M	38.23	46.00	-7.77	-12.38	3	Vertical	360	1.00	-

**Result**

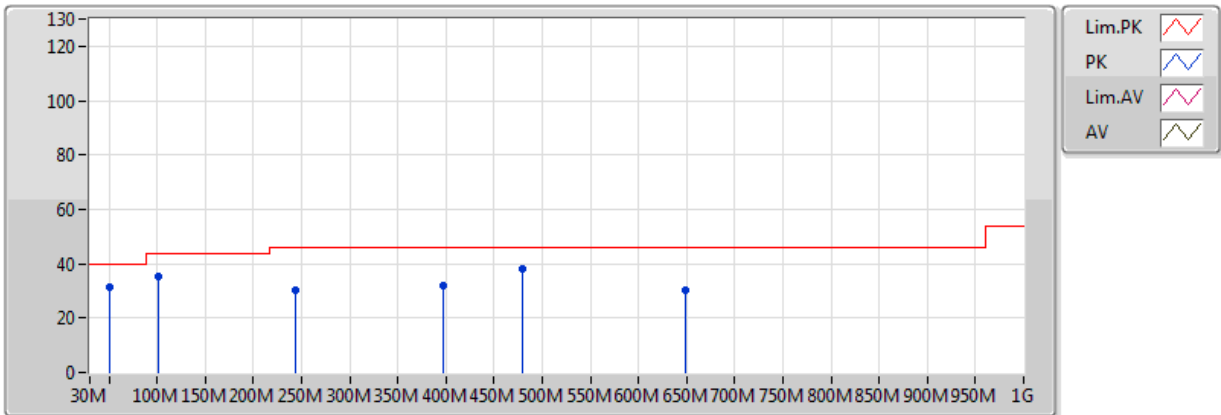
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	PK	51.34M	31.61	40.00	-8.39	-23.89	3	Vertical	360	1.00	-
2441MHz	Pass	PK	101.78M	35.07	43.50	-8.43	-20.88	3	Vertical	360	1.00	-
2441MHz	Pass	PK	243.4M	30.48	46.00	-15.52	-18.13	3	Vertical	360	1.00	-
2441MHz	Pass	PK	396.66M	32.21	46.00	-13.79	-14.16	3	Vertical	360	1.00	-
2441MHz	Pass	PK	480.08M	38.23	46.00	-7.77	-12.38	3	Vertical	360	1.00	-
2441MHz	Pass	PK	648.86M	30.09	46.00	-15.91	-9.94	3	Vertical	360	1.00	-
2441MHz	Pass	PK	101.78M	32.97	43.50	-10.53	-20.88	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	132.82M	31.60	43.50	-11.90	-19.19	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	179.38M	31.27	43.50	-12.23	-21.28	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	480.08M	35.53	46.00	-10.47	-12.38	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	648.86M	34.79	46.00	-11.21	-9.94	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	771.08M	36.06	46.00	-9.94	-8.18	3	Horizontal	0	1.00	-



## BT-BR(1Mbps)

## 2441MHz\_Adapter

10/07/2018

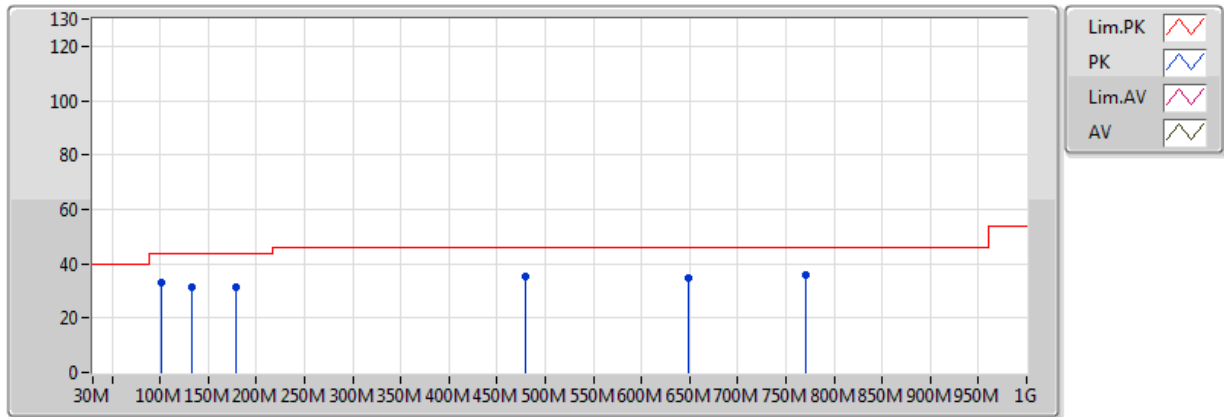


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	51.34M	31.61	40.00	-8.39	-23.89	3	Vertical	360	1.00	-
PK	101.78M	35.07	43.50	-8.43	-20.88	3	Vertical	360	1.00	-
PK	243.4M	30.48	46.00	-15.52	-18.13	3	Vertical	360	1.00	-
PK	396.66M	32.21	46.00	-13.79	-14.16	3	Vertical	360	1.00	-
PK	480.08M	38.23	46.00	-7.77	-12.38	3	Vertical	360	1.00	-
PK	648.86M	30.09	46.00	-15.91	-9.94	3	Vertical	360	1.00	-

## BT-BR(1Mbps)

## 2441MHz\_Adapter

10/07/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	101.78M	32.97	43.50	-10.53	-20.88	3	Horizontal	0	1.00	-
PK	132.82M	31.60	43.50	-11.90	-19.19	3	Horizontal	0	1.00	-
PK	179.38M	31.27	43.50	-12.23	-21.28	3	Horizontal	0	1.00	-
PK	480.08M	35.53	46.00	-10.47	-12.38	3	Horizontal	0	1.00	-
PK	648.86M	34.79	46.00	-11.21	-9.94	3	Horizontal	0	1.00	-
PK	771.08M	36.06	46.00	-9.94	-8.18	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	2.4946G	43.61	54.00	-10.39	31.15	3	Vertical	67	2.48	-

## 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	2.3772G	42.70	54.00	-11.30	30.73	3	Vertical	76	1.42	-
2402MHz	Pass	AV	2.402G	74.81	Inf	-Inf	30.82	3	Vertical	76	1.42	-
2402MHz	Pass	AV	2.4996G	43.41	54.00	-10.59	31.17	3	Vertical	76	1.42	-
2402MHz	Pass	PK	2.3732G	55.59	74.00	-18.41	30.71	3	Vertical	76	1.42	-
2402MHz	Pass	PK	2.402G	76.06	Inf	-Inf	30.82	3	Vertical	76	1.42	-
2402MHz	Pass	PK	2.4964G	56.27	74.00	-17.73	31.16	3	Vertical	76	1.42	-
2402MHz	Pass	AV	2.386G	42.73	54.00	-11.27	30.76	3	Horizontal	23	1.80	-
2402MHz	Pass	AV	2.402G	79.48	Inf	-Inf	30.82	3	Horizontal	23	1.80	-
2402MHz	Pass	AV	2.4988G	43.53	54.00	-10.47	31.17	3	Horizontal	23	1.80	-
2402MHz	Pass	PK	2.3532G	56.01	74.00	-17.99	30.65	3	Horizontal	23	1.80	-
2402MHz	Pass	PK	2.402G	80.48	Inf	-Inf	30.82	3	Horizontal	23	1.80	-
2402MHz	Pass	PK	2.486G	56.53	74.00	-17.47	31.12	3	Horizontal	23	1.80	-
2402MHz	Pass	AV	4.80382G	31.04	54.00	-22.96	2.08	3	Vertical	142	1.50	-
2402MHz	Pass	PK	4.79836G	44.67	74.00	-29.33	2.07	3	Vertical	142	1.50	-
2402MHz	Pass	AV	4.80436G	30.54	54.00	-23.46	2.08	3	Horizontal	95	1.50	-
2402MHz	Pass	PK	4.80046G	43.94	74.00	-30.06	2.07	3	Horizontal	95	1.50	-
2441MHz	Pass	AV	2.3762G	42.64	54.00	-11.36	30.72	3	Vertical	67	2.48	-
2441MHz	Pass	AV	2.441G	81.39	Inf	-Inf	30.96	3	Vertical	67	2.48	-
2441MHz	Pass	AV	2.4946G	43.61	54.00	-10.39	31.15	3	Vertical	67	2.48	-
2441MHz	Pass	PK	2.357G	55.91	74.00	-18.09	30.66	3	Vertical	67	2.48	-
2441MHz	Pass	PK	2.441G	82.87	Inf	-Inf	30.96	3	Vertical	67	2.48	-
2441MHz	Pass	PK	2.4858G	56.79	74.00	-17.21	31.12	3	Vertical	67	2.48	-
2441MHz	Pass	AV	2.3834G	42.66	54.00	-11.34	30.75	3	Horizontal	142	1.27	-
2441MHz	Pass	AV	2.441G	87.92	Inf	-Inf	30.96	3	Horizontal	142	1.27	-
2441MHz	Pass	AV	2.4986G	43.43	54.00	-10.57	31.17	3	Horizontal	142	1.27	-
2441MHz	Pass	PK	2.3458G	55.93	74.00	-18.07	30.62	3	Horizontal	142	1.27	-
2441MHz	Pass	PK	2.441G	88.98	Inf	-Inf	30.96	3	Horizontal	142	1.27	-
2441MHz	Pass	PK	2.4882G	56.23	74.00	-17.77	31.13	3	Horizontal	142	1.27	-
2441MHz	Pass	AV	4.88352G	29.53	54.00	-24.47	2.28	3	Vertical	148	1.50	-
2441MHz	Pass	PK	4.88676G	43.34	74.00	-30.66	2.29	3	Vertical	148	1.50	-
2441MHz	Pass	AV	4.8836G	29.66	54.00	-24.34	2.28	3	Horizontal	295	1.50	-
2441MHz	Pass	PK	4.8857G	43.05	74.00	-30.95	2.28	3	Horizontal	295	1.50	-
2480MHz	Pass	AV	2.376G	42.76	54.00	-11.24	30.72	3	Vertical	70	2.49	-
2480MHz	Pass	AV	2.48G	84.37	Inf	-Inf	31.10	3	Vertical	70	2.49	-
2480MHz	Pass	AV	2.4848G	43.47	54.00	-10.53	31.12	3	Vertical	70	2.49	-
2480MHz	Pass	PK	2.3488G	56.01	74.00	-17.99	30.63	3	Vertical	70	2.49	-
2480MHz	Pass	PK	2.48G	85.37	Inf	-Inf	31.10	3	Vertical	70	2.49	-
2480MHz	Pass	PK	2.4856G	57.16	74.00	-16.84	31.12	3	Vertical	70	2.49	-
2480MHz	Pass	AV	2.3728G	42.62	54.00	-11.38	30.71	3	Horizontal	138	1.09	-
2480MHz	Pass	AV	2.48G	87.92	Inf	-Inf	31.10	3	Horizontal	138	1.09	-
2480MHz	Pass	AV	2.4928G	43.53	54.00	-10.47	31.14	3	Horizontal	138	1.09	-
2480MHz	Pass	PK	2.3368G	55.56	74.00	-18.44	30.59	3	Horizontal	138	1.09	-
2480MHz	Pass	PK	2.48G	89.78	Inf	-Inf	31.10	3	Horizontal	138	1.09	-
2480MHz	Pass	PK	2.4928G	55.86	74.00	-18.14	31.14	3	Horizontal	138	1.09	-
2480MHz	Pass	AV	4.96274G	29.40	54.00	-24.60	2.48	3	Vertical	150	1.50	-
2480MHz	Pass	PK	4.964G	42.87	74.00	-31.13	2.48	3	Vertical	150	1.50	-
2480MHz	Pass	AV	4.9637G	29.43	54.00	-24.57	2.48	3	Horizontal	272	1.50	-



## RSE TX above 1GHz Result

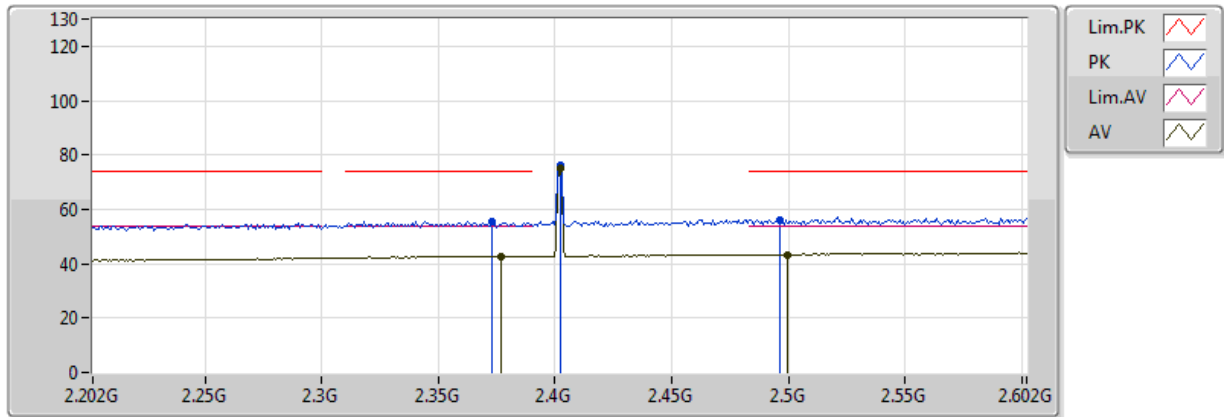
## Appendix G.2

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	4.96118G	42.79	74.00	-31.21	2.47	3	Horizontal	272	1.50	-

### BT-BR(1Mbps)

### 2402MHz\_TX

09/07/2018

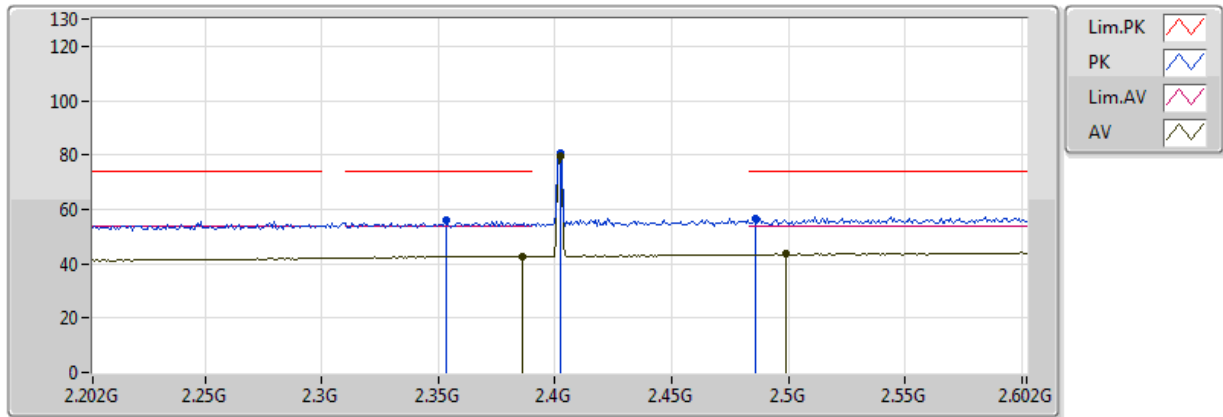


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3772G	42.70	54.00	-11.30	30.73	3	Vertical	76	1.42	-
AV	2.402G	74.81	Inf	-Inf	30.82	3	Vertical	76	1.42	-
AV	2.4996G	43.41	54.00	-10.59	31.17	3	Vertical	76	1.42	-
PK	2.3732G	55.59	74.00	-18.41	30.71	3	Vertical	76	1.42	-
PK	2.402G	76.06	Inf	-Inf	30.82	3	Vertical	76	1.42	-
PK	2.4964G	56.27	74.00	-17.73	31.16	3	Vertical	76	1.42	-

### BT-BR(1Mbps)

### 2402MHz\_TX

09/07/2018

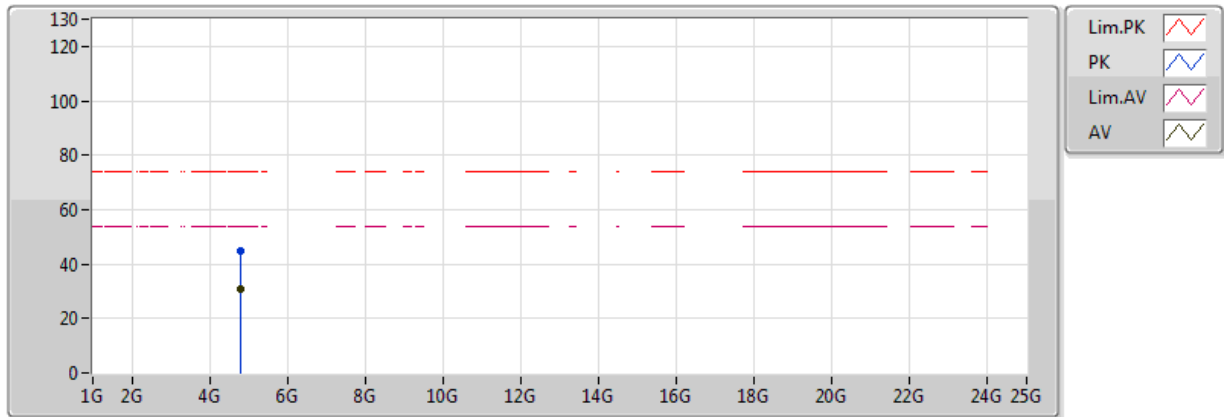


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.386G	42.73	54.00	-11.27	30.76	3	Horizontal	23	1.80	-
AV	2.402G	79.48	Inf	-Inf	30.82	3	Horizontal	23	1.80	-
AV	2.4988G	43.53	54.00	-10.47	31.17	3	Horizontal	23	1.80	-
PK	2.3532G	56.01	74.00	-17.99	30.65	3	Horizontal	23	1.80	-
PK	2.402G	80.48	Inf	-Inf	30.82	3	Horizontal	23	1.80	-
PK	2.486G	56.53	74.00	-17.47	31.12	3	Horizontal	23	1.80	-

### BT-BR(1Mbps)

### 2402MHz\_TX

09/07/2018



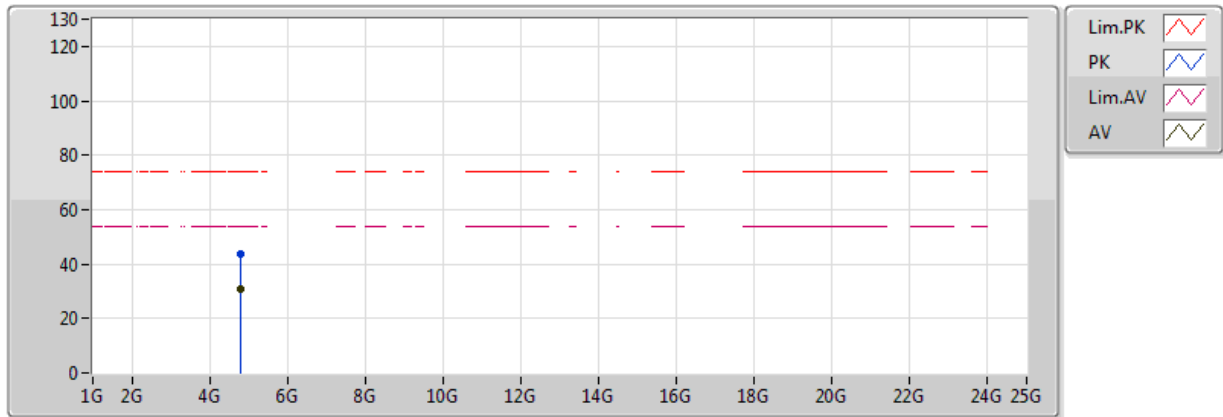
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80382G	31.04	54.00	-22.96	2.08	3	Vertical	142	1.50	-
PK	4.79836G	44.67	74.00	-29.33	2.07	3	Vertical	142	1.50	-



### BT-BR(1Mbps)

### 2402MHz\_TX

09/07/2018

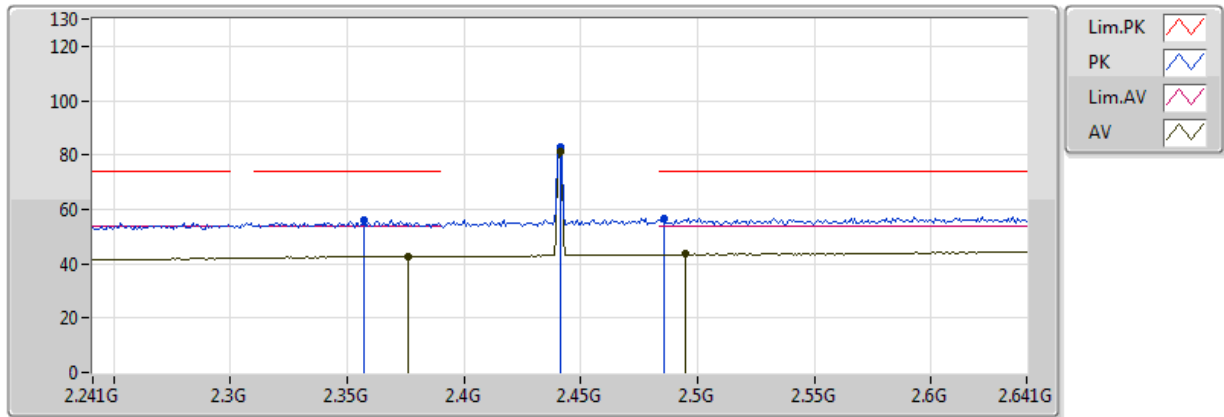


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.80436G	30.54	54.00	-23.46	2.08	3	Horizontal	95	1.50	-
PK	4.80046G	43.94	74.00	-30.06	2.07	3	Horizontal	95	1.50	-

## BT-BR(1Mbps)

## 2441MHz\_TX

09/07/2018

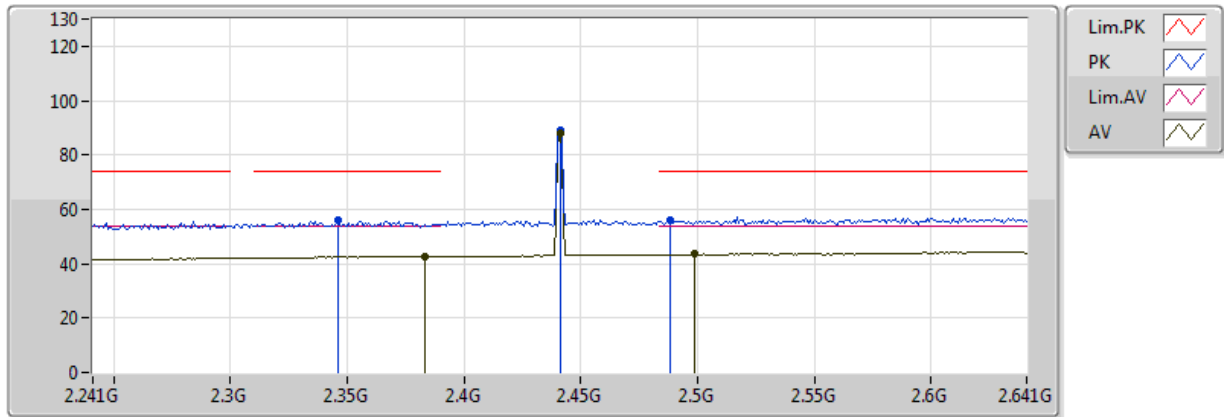


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3762G	42.64	54.00	-11.36	30.72	3	Vertical	67	2.48	-
AV	2.441G	81.39	Inf	-Inf	30.96	3	Vertical	67	2.48	-
AV	2.4946G	43.61	54.00	-10.39	31.15	3	Vertical	67	2.48	-
PK	2.357G	55.91	74.00	-18.09	30.66	3	Vertical	67	2.48	-
PK	2.441G	82.87	Inf	-Inf	30.96	3	Vertical	67	2.48	-
PK	2.4858G	56.79	74.00	-17.21	31.12	3	Vertical	67	2.48	-

### BT-BR(1Mbps)

### 2441MHz\_TX

09/07/2018

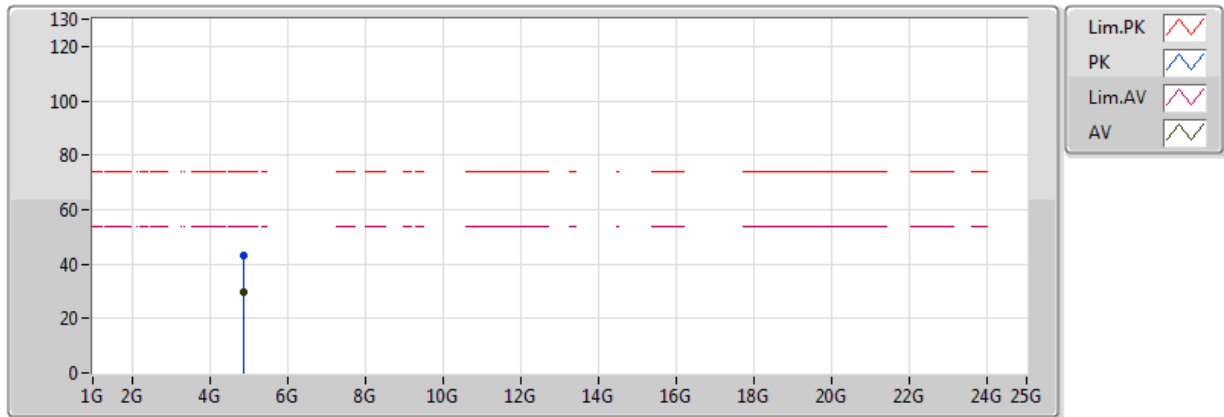


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3834G	42.66	54.00	-11.34	30.75	3	Horizontal	142	1.27	-
AV	2.441G	87.92	Inf	-Inf	30.96	3	Horizontal	142	1.27	-
AV	2.4986G	43.43	54.00	-10.57	31.17	3	Horizontal	142	1.27	-
PK	2.3458G	55.93	74.00	-18.07	30.62	3	Horizontal	142	1.27	-
PK	2.441G	88.98	Inf	-Inf	30.96	3	Horizontal	142	1.27	-
PK	2.4882G	56.23	74.00	-17.77	31.13	3	Horizontal	142	1.27	-

### BT-BR(1Mbps)

### 2441MHz\_TX

09/07/2018

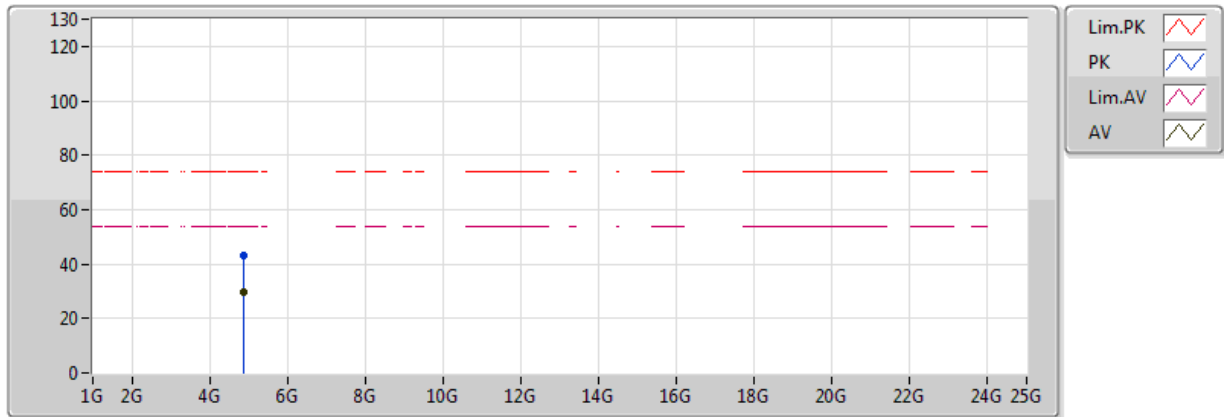


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.88352G	29.53	54.00	-24.47	2.28	3	Vertical	148	1.50	-
PK	4.88676G	43.34	74.00	-30.66	2.29	3	Vertical	148	1.50	-

### BT-BR(1Mbps)

### 2441MHz\_TX

09/07/2018

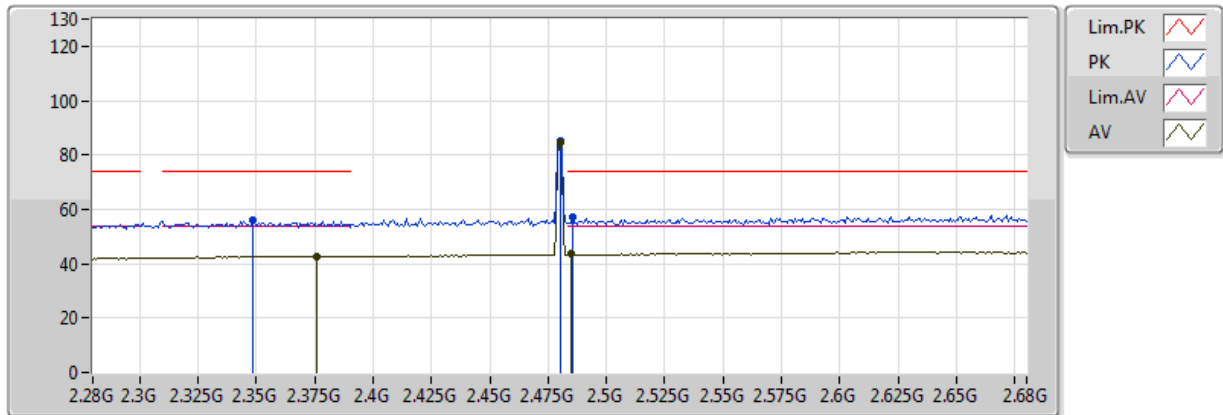


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8836G	29.66	54.00	-24.34	2.28	3	Horizontal	295	1.50	-
PK	4.8857G	43.05	74.00	-30.95	2.28	3	Horizontal	295	1.50	-

## BT-BR(1Mbps)

## 2480MHz\_TX

09/07/2018

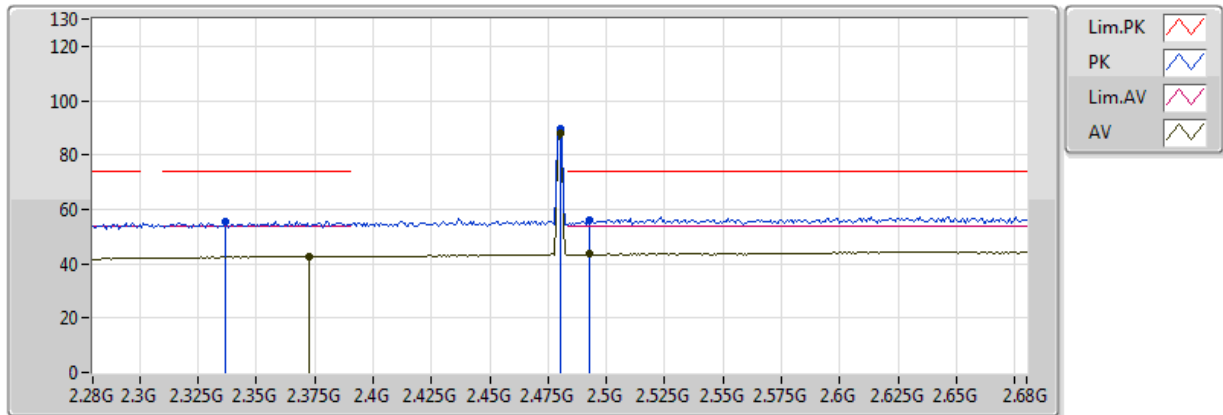


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.376G	42.76	54.00	-11.24	30.72	3	Vertical	70	2.49	-
AV	2.48G	84.37	Inf	-Inf	31.10	3	Vertical	70	2.49	-
AV	2.4848G	43.47	54.00	-10.53	31.12	3	Vertical	70	2.49	-
PK	2.3488G	56.01	74.00	-17.99	30.63	3	Vertical	70	2.49	-
PK	2.48G	85.37	Inf	-Inf	31.10	3	Vertical	70	2.49	-
PK	2.4856G	57.16	74.00	-16.84	31.12	3	Vertical	70	2.49	-

### BT-BR(1Mbps)

### 2480MHz\_TX

09/07/2018

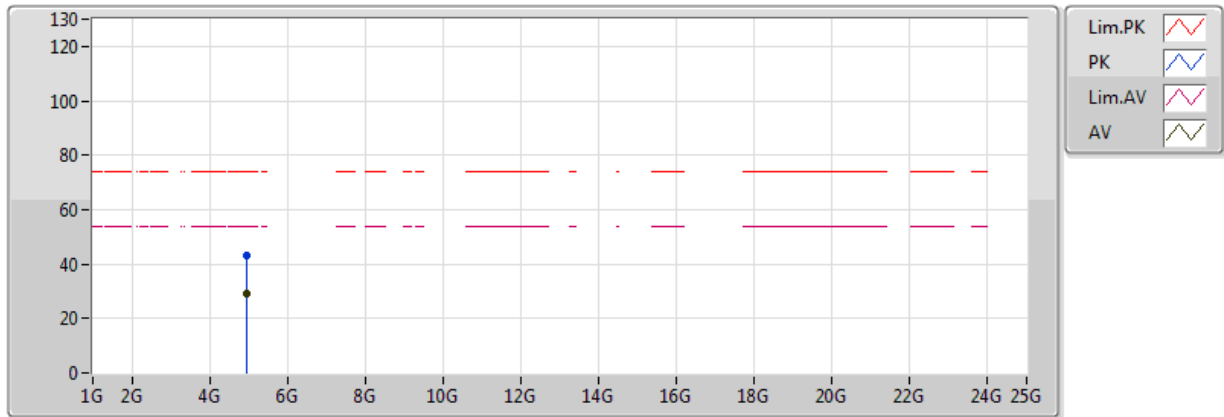


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3728G	42.62	54.00	-11.38	30.71	3	Horizontal	138	1.09	-
AV	2.48G	87.92	Inf	-Inf	31.10	3	Horizontal	138	1.09	-
AV	2.4928G	43.53	54.00	-10.47	31.14	3	Horizontal	138	1.09	-
PK	2.3368G	55.56	74.00	-18.44	30.59	3	Horizontal	138	1.09	-
PK	2.48G	89.78	Inf	-Inf	31.10	3	Horizontal	138	1.09	-
PK	2.4928G	55.86	74.00	-18.14	31.14	3	Horizontal	138	1.09	-

### BT-BR(1Mbps)

### 2480MHz\_TX

09/07/2018



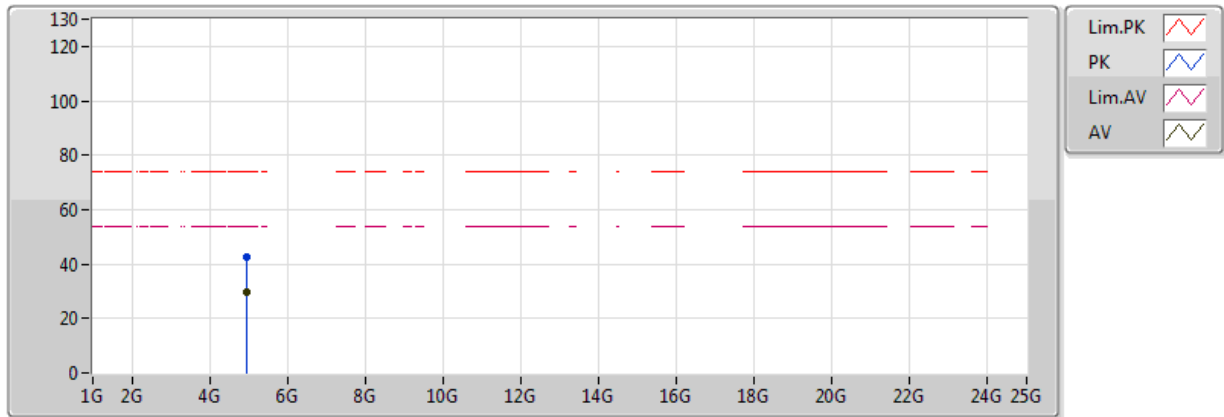
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.96274G	29.40	54.00	-24.60	2.48	3	Vertical	150	1.50	-
PK	4.964G	42.87	74.00	-31.13	2.48	3	Vertical	150	1.50	-



### BT-BR(1Mbps)

### 2480MHz\_TX

09/07/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.9637G	29.43	54.00	-24.57	2.48	3	Horizontal	272	1.50	-
PK	4.96118G	42.79	74.00	-31.21	2.47	3	Horizontal	272	1.50	-