

FCC Test Report

FCC ID : QIS-IPP7960
Equipment : IP Phone
Brand Name : HUAWEI
Model Name : HUAWEI IP Phone 7960
**Applicant/
Manufacturer** : Huawei Technologies Co.,Ltd.
Administration Building, Headquarters of Huawei
Technologies Co., Ltd., Bantian, Longgang District,
Shenzhen, 518129, P.R.C
Standard : 47 CFR FCC Part 15.247

The product was received on Aug. 13, 2018, and testing was started from Aug. 16, 2018 and completed on Aug. 21, 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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PHOTOGRAPHS OF EUT V01

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: Jackson Tsai

Report Producer: Jenny Yang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Version	Ch. Frequency (MHz)	Channel Number
2400-2483.5	BR / EDR	2402-2480	0-78 [79]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-BR(1Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(2Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(3Mbps)	1	1TX

Note:

- ◆ Bluetooth BR uses a GFSK (1Mbps).
- ◆ Bluetooth EDR uses a combination of $\pi/4$ -DQPSK (2Mbps) and 8DPSK (3Mbps).
- ◆ Bluetooth BR/EDR uses as a system using FHSS modulation.
- ◆ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	-	-	PCB Antenna	mini Murata	4.47

For BT function:

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

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

1.1.3 EUT Information

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

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-BR(1Mbps)	0.763	1.175	2.889m	1k
BT-EDR(2Mbps)	0.764	1.169	2.891m	1k
BT-EDR(3Mbps)	0.782	1.068	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
- ◆ KDB 558074 D01v05
- ◆ 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	Jerry	24.5°C / 55.5%	21/Aug/2018
RF Conducted	TH01-HY	Barry	23.3°C / 62%	16/Aug/2018
Radiated	03CH03-HY	Jeff	24.2°C / 59%	19/Aug/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	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	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	Adapter mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

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

2.4 Accessories and Support Equipment

Accessories		
RJ45 Cable	In/Out door	In door
	Power Cord	1.46 meter, non-shielded cable, w/o ferrite core

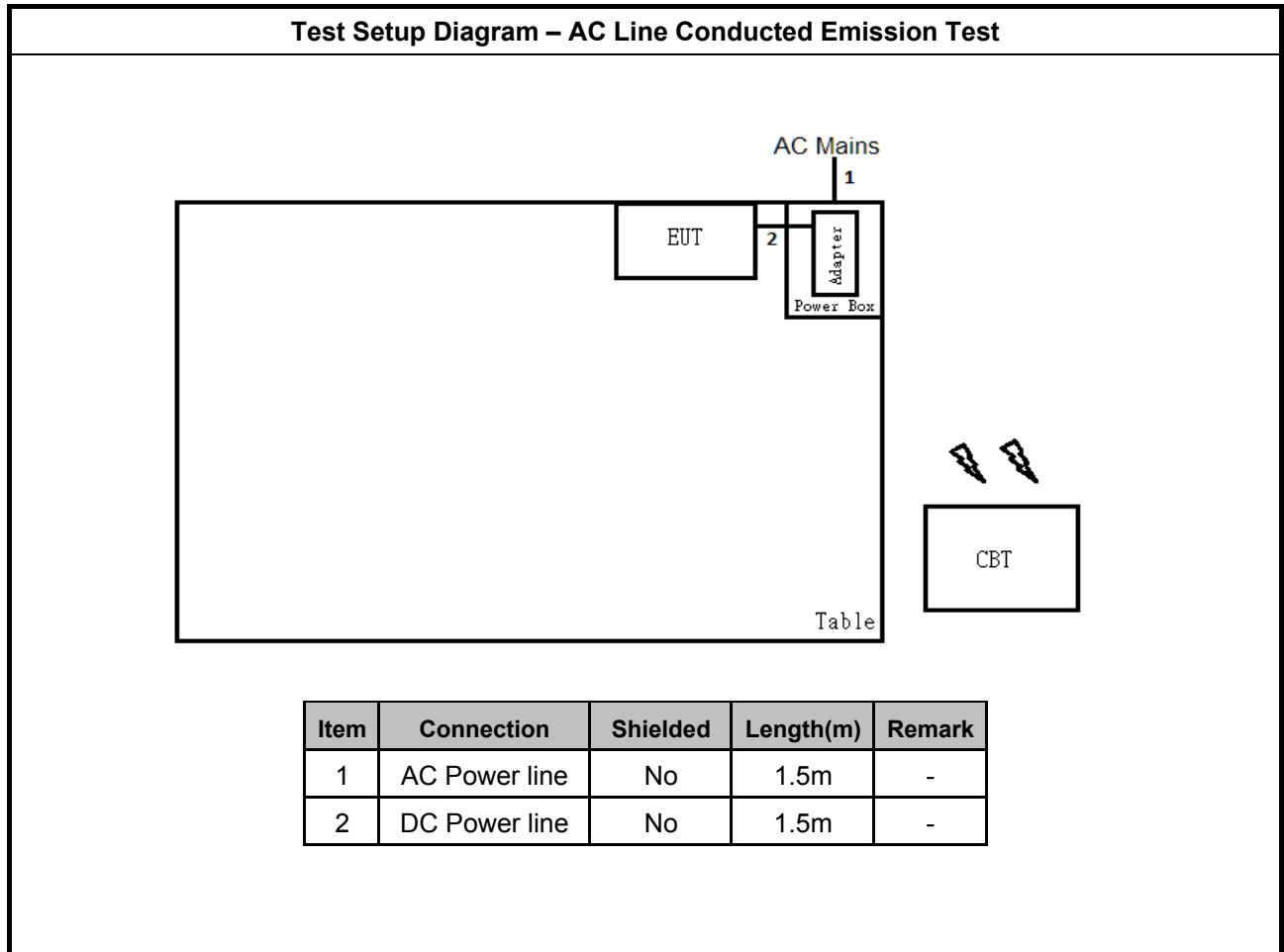
Reminder: Regarding to more detail and other information, please refer to user manual.

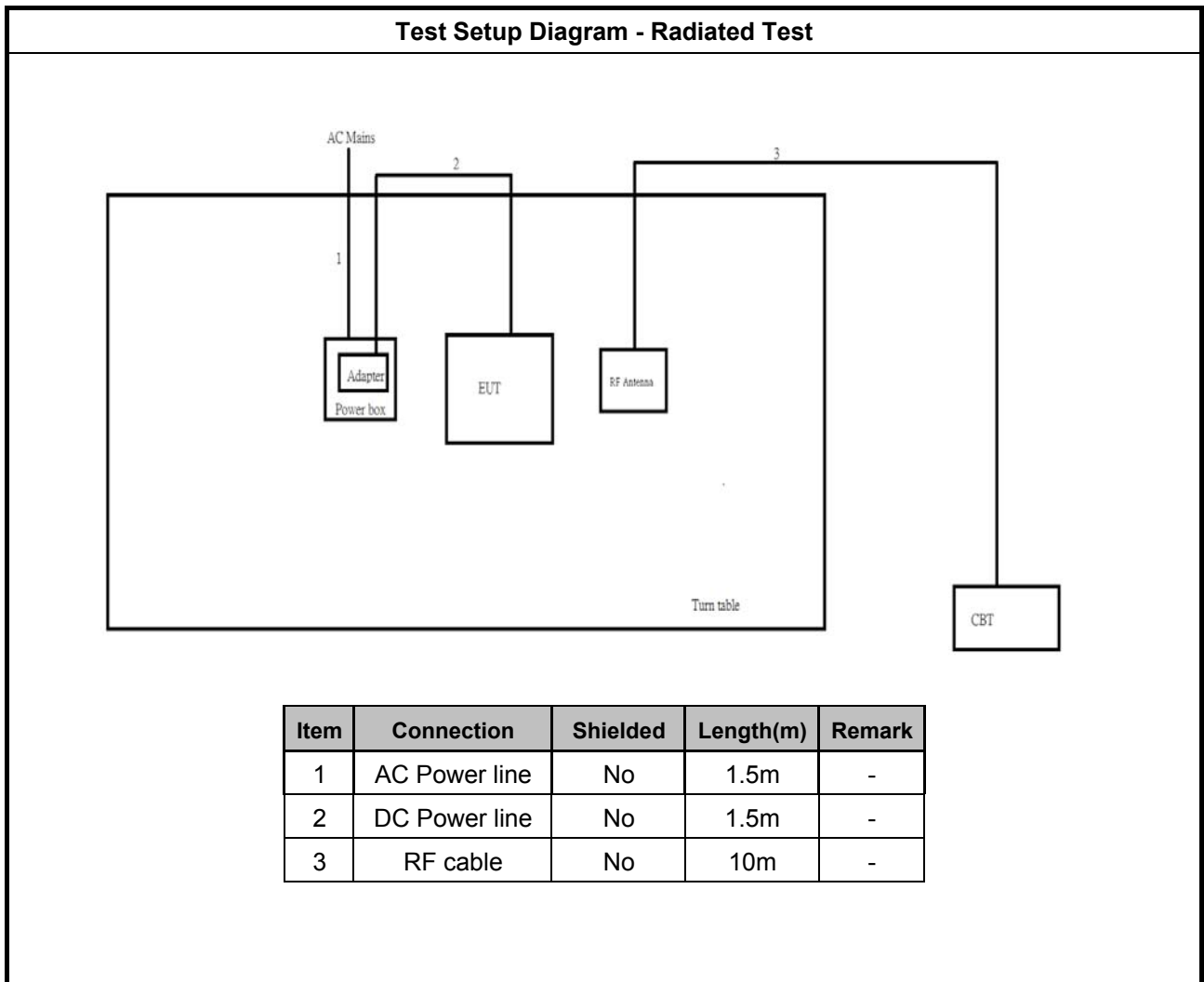
Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Bluetooth Tester (remote)	R&S	CBT	-
2	AC Adapter	HUAWEL	HKA02412020-1K	-

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	Bluetooth Tester	ROHDE & SCHWARZ	CBT	DoC
4	AC Power Source	GW	APS-9102	DoC

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Bluetooth Tester (remote)	R&S	CBT	-
2	AC Adapter	HUAWEL	HKA02412020-1K	-
3	RF Antenna	-	-	-

2.5 Test Setup Diagram





3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

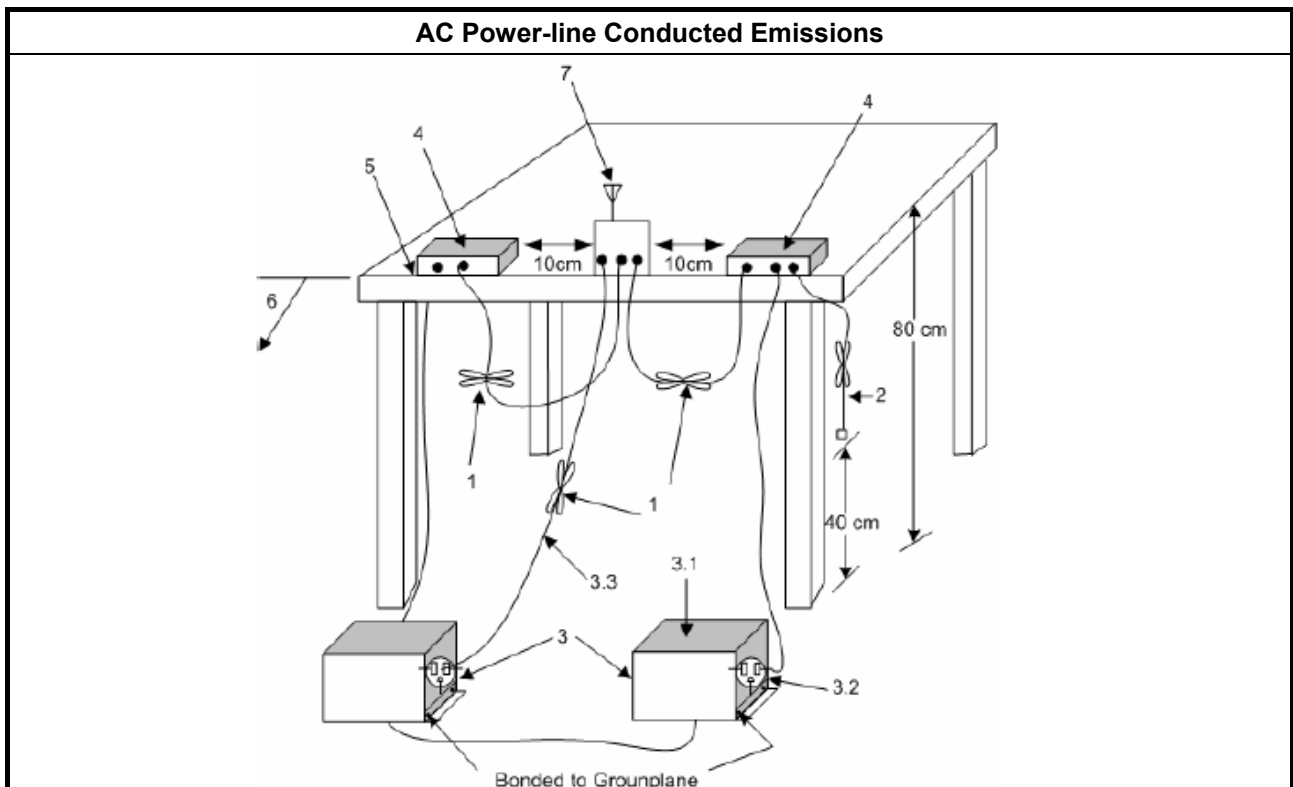
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 20dB Bandwidth and Carrier Frequency Separation

3.2.1 20dB Bandwidth and Carrier Frequency Separation Limit

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

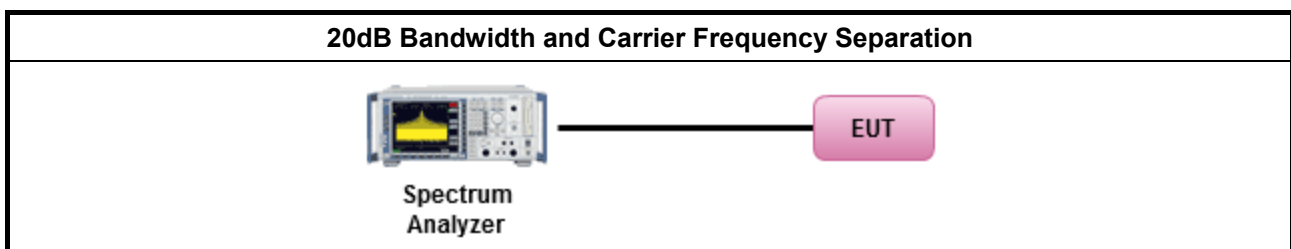
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.

3.2.4 Test Setup



3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

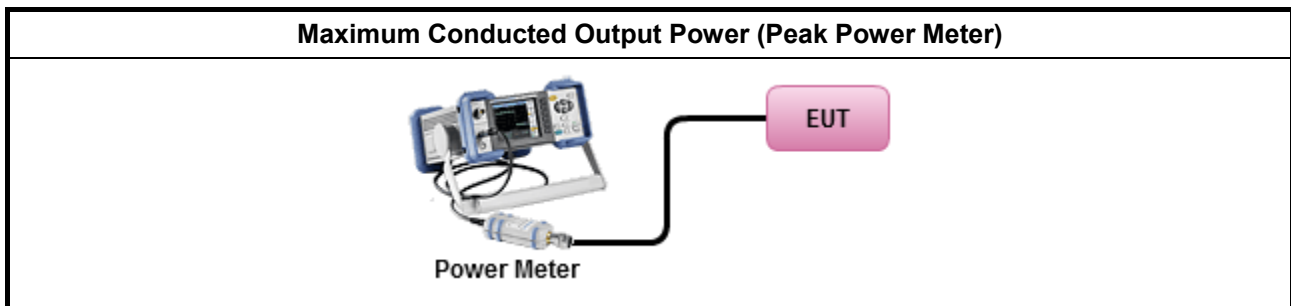
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

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

3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

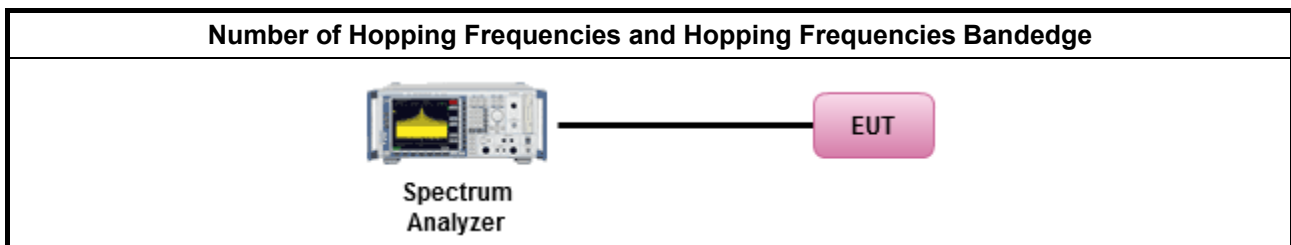
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

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

3.4.5 Test Setup



3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

Time of Occupancy (Dwell Time) Limit for Frequency Hopping Systems	
<ul style="list-style-type: none"> 2400-2483.5 MHz Band: 	
	<ul style="list-style-type: none"> $N \geq 75$; 0.4s in $N \times 0.4$ period
	<ul style="list-style-type: none"> $75 > N \geq 15$; 0.4s in $N \times 0.4$ period
N: Number of Hopping Frequencies	

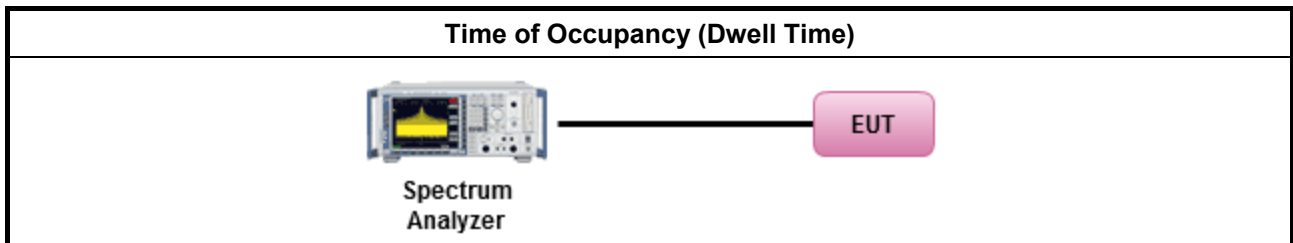
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement. 	
<ul style="list-style-type: none"> Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle. 	
	<ul style="list-style-type: none"> The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is $5/1600$ seconds, or 3.125ms. DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel.

3.5.4 Test Setup



3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

3.6 Emissions in Non-restricted Frequency Bands

3.6.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.	

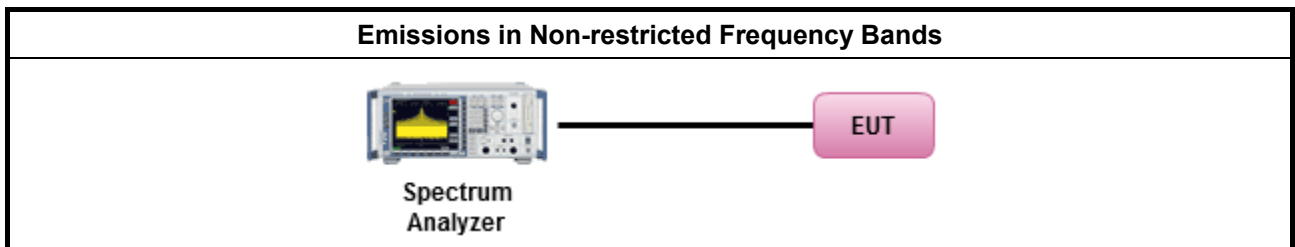
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.

3.6.4 Test Setup



3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F

3.7 Emissions in Restricted Frequency Bands

3.7.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

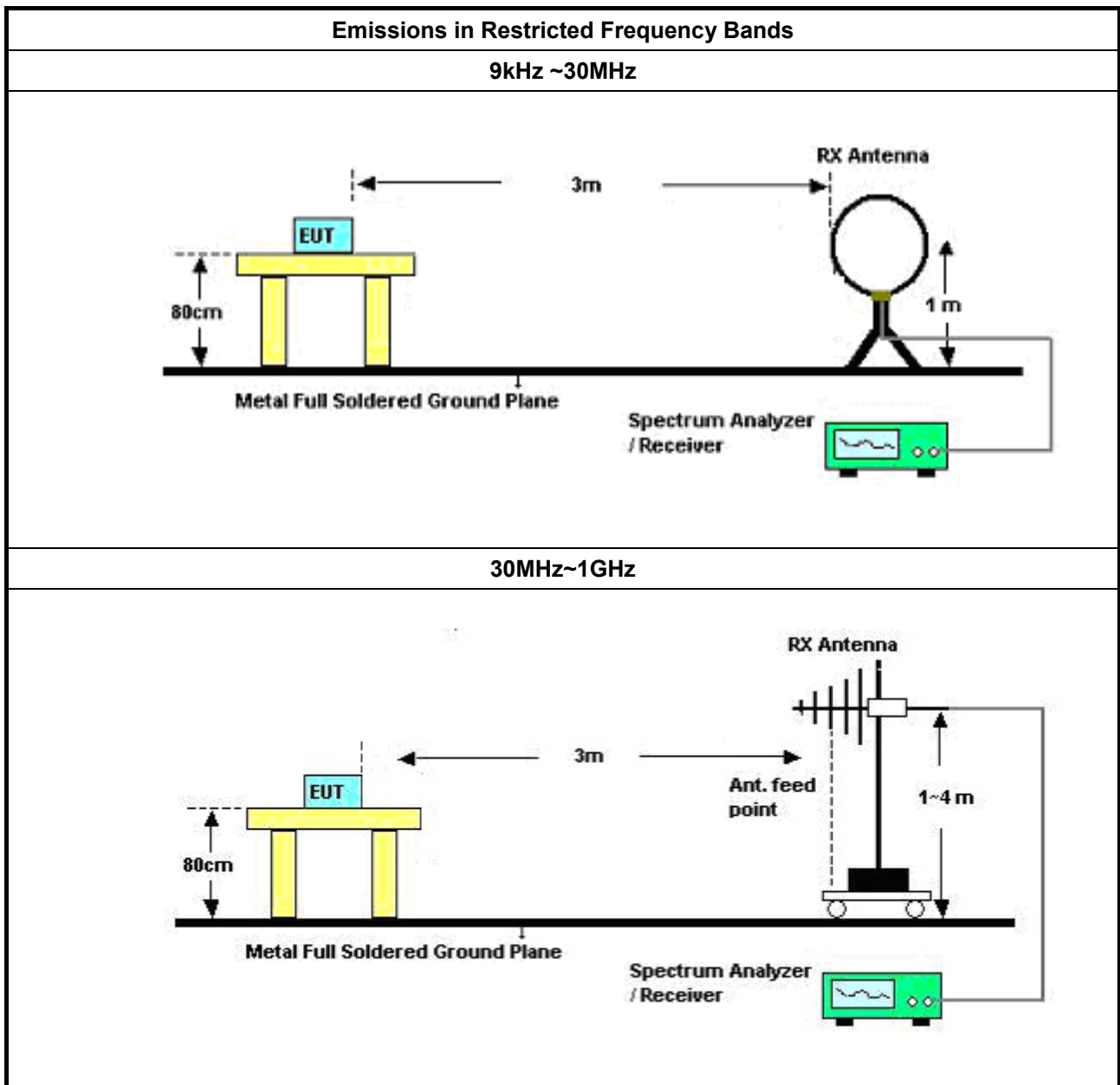
3.7.2 Measuring Instruments

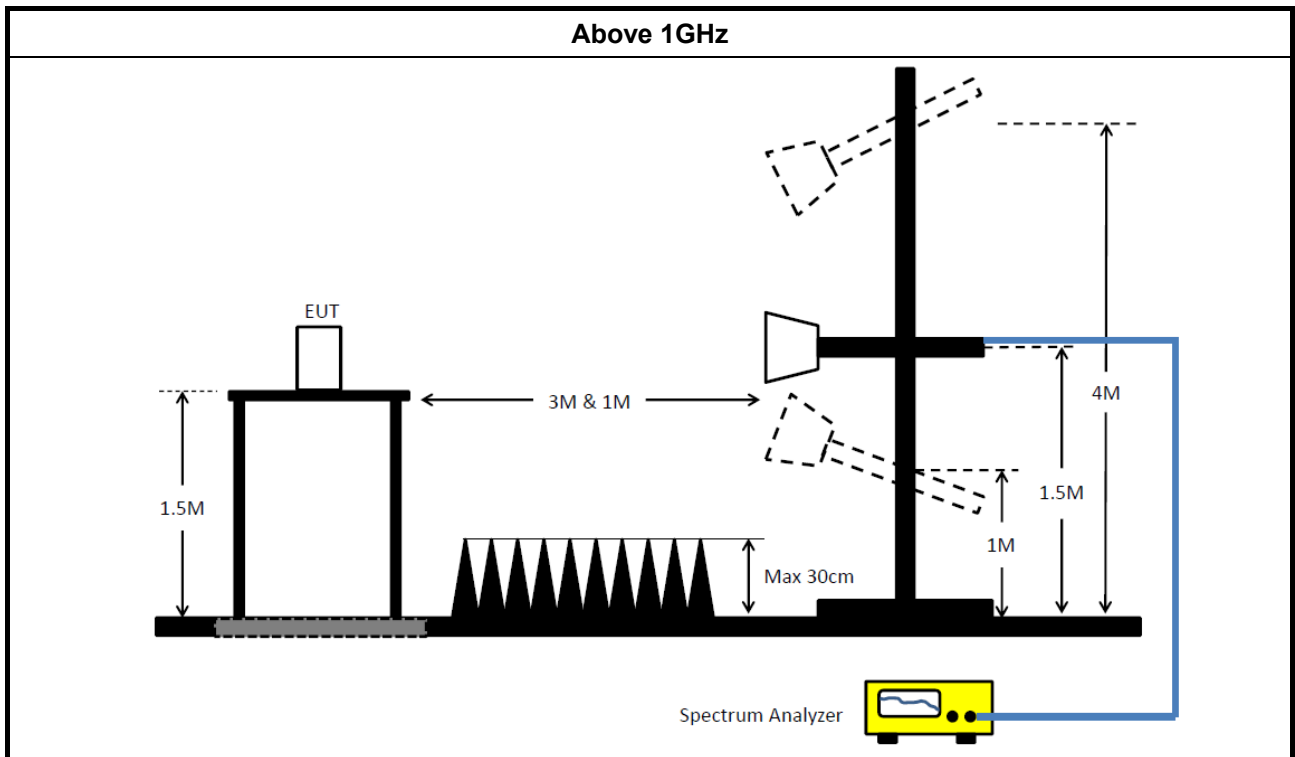
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [hopping duty factor].
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10; clause 6.9.2.2 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
	<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: <ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value. ▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak. ▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.

3.7.4 Test Setup





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

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

3.7.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G



4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	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	29/Dec/2017	28/Dec/2018
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
RF Cable-0.2m	HUBER+ SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	17/Jan/2018	16/Jan/2019
RF Cable-0.2m	HUBER+ SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	17/Jan/2018	16/Jan/2019
RF Cable-0.5m	HUBER+ SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	17/Jan/2018	16/Jan/2019
Signal Generator	R&S	SMB100A	175727	100kHz~40GHz	26/Oct/2017	25/Oct/2018

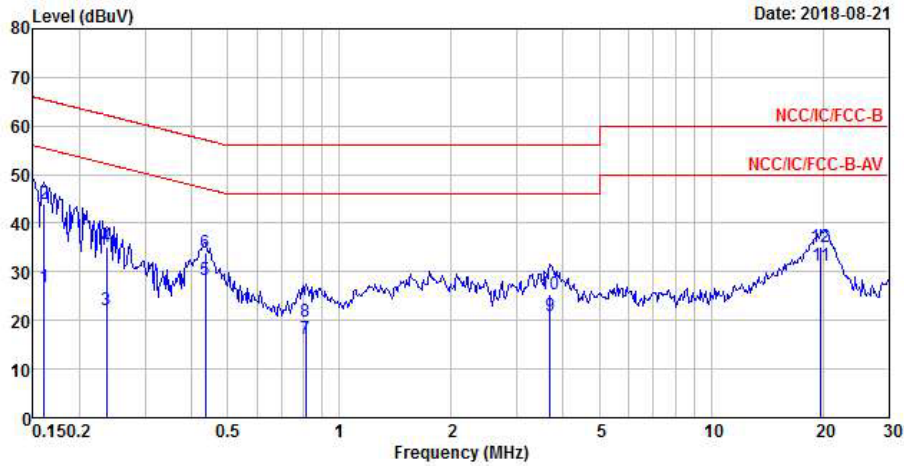
**Instrument for Radiated Test**

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	31/Oct/2017	30/Oct/2018
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	01/Nov/2017	31/Oct/2018
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	23/Apr/2018	19/Apr/2019
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	31/Aug/2017	30/Aug/2018
Signal Analyzer	R&S	FSP40	100305	10Hz ~ 40GHz	04/Jan/2018	03/Jan/2019
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	29/Jan/2018	28/Jan/2019
RF Cable-high	SUHNER	SUCOFLEX 106	CB222	1GHz ~ 40GHz	29/Jan/2018	28/Jan/2019
Bilog Antenna	SCHAFFNER	CBL 6112B	2723	30MHz ~ 1GHz	09/Sep/2017	08/Sep/2018
Receiver	R&S	ESCS 30	100354	9kHz ~ 2.75GHz	08/Dec/2017	07/Dec/2018
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz ~ 40GHz	06/Feb/ 2018	05/Feb/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	18/Apr/ 2018	17/Apr/2019
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	28/Mar/2018	27/Mar/2019



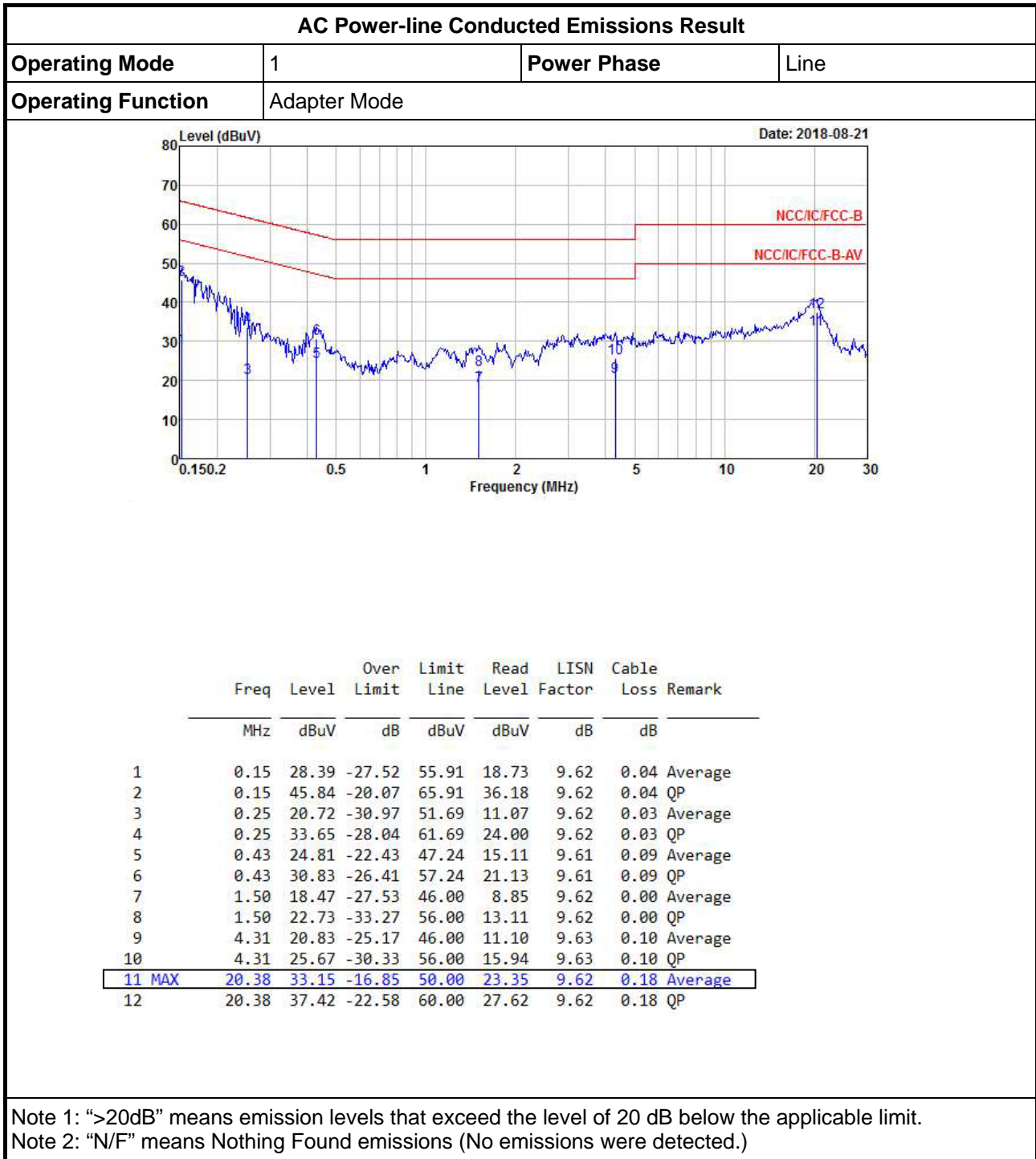
AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter Mode		



	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.16	26.86	-28.57	55.43	17.20	9.63	0.03	Average
2	0.16	44.01	-21.42	65.43	34.35	9.63	0.03	QP
3	0.24	22.14	-30.08	52.22	12.50	9.62	0.02	Average
4	0.24	35.03	-27.19	62.22	25.39	9.62	0.02	QP
5	0.44	28.22	-18.93	47.15	18.52	9.61	0.09	Average
6	0.44	33.87	-23.28	57.15	24.17	9.61	0.09	QP
7	0.81	16.16	-29.84	46.00	6.52	9.62	0.02	Average
8	0.81	19.83	-36.17	56.00	10.19	9.62	0.02	QP
9	3.68	21.06	-24.94	46.00	11.34	9.64	0.08	Average
10	3.68	25.27	-30.73	56.00	15.55	9.64	0.08	QP
11 MAX	19.74	31.40	-18.60	50.00	21.50	9.71	0.19	Average
12	19.74	35.27	-24.73	60.00	25.37	9.71	0.19	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

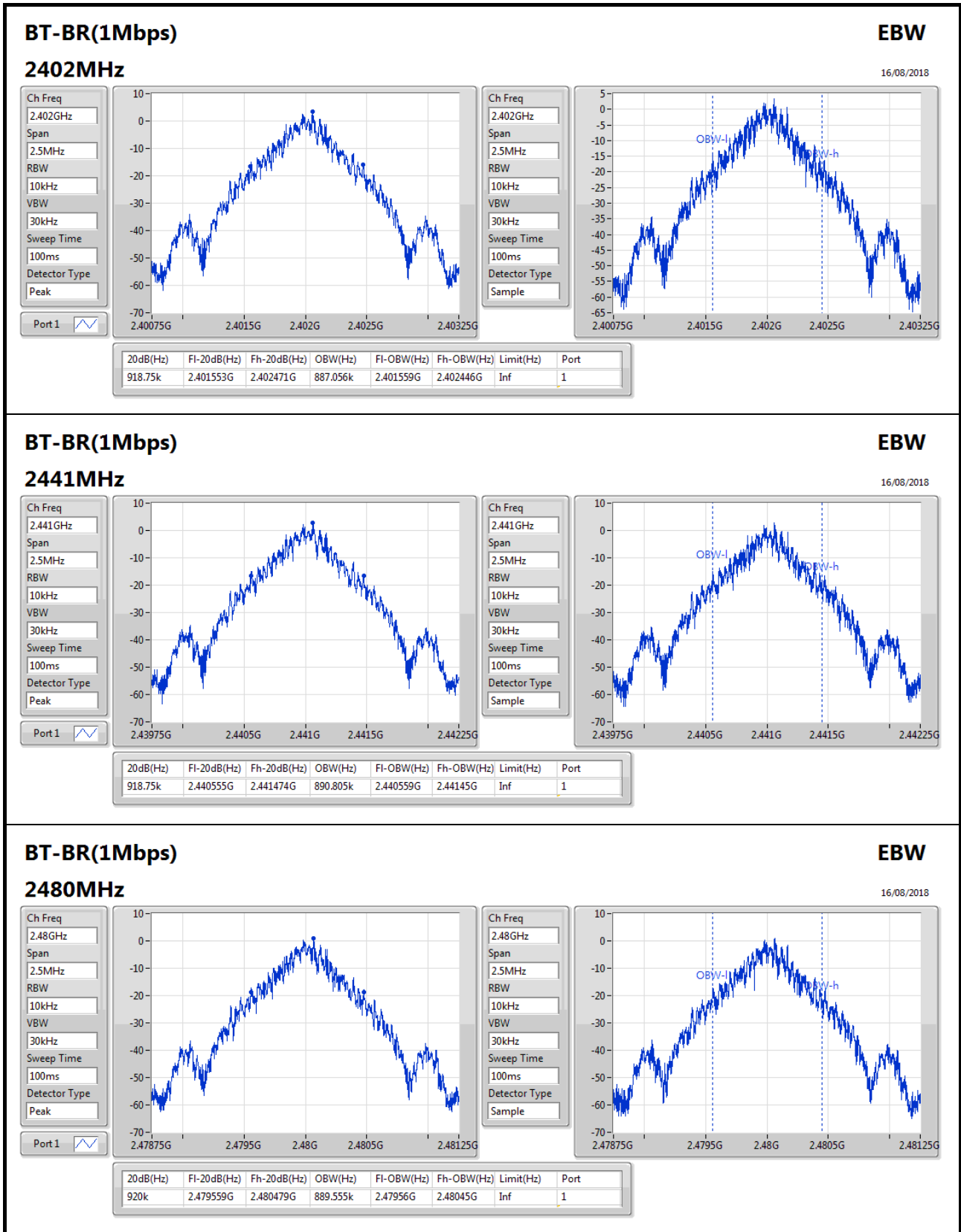
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	920k	890.805k	891KF1D	918.75k	887.056k
BT-EDR(2Mbps)	1.333M	1.226M	1M23G1D	1.33M	1.222M
BT-EDR(3Mbps)	1.333M	1.227M	1M23G1D	1.306M	1.219M

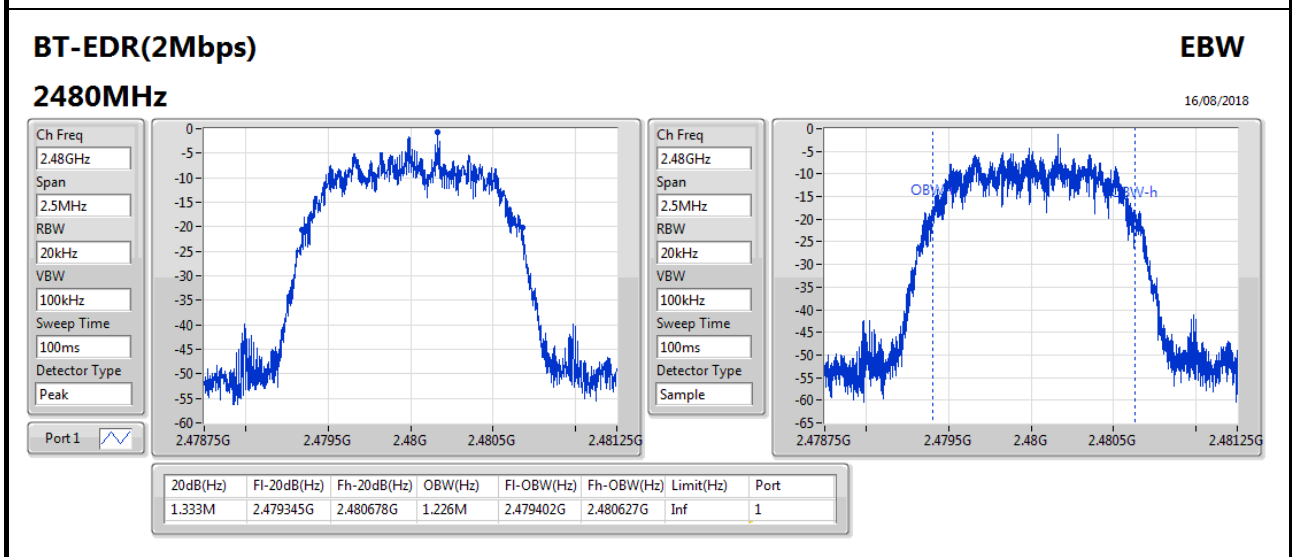
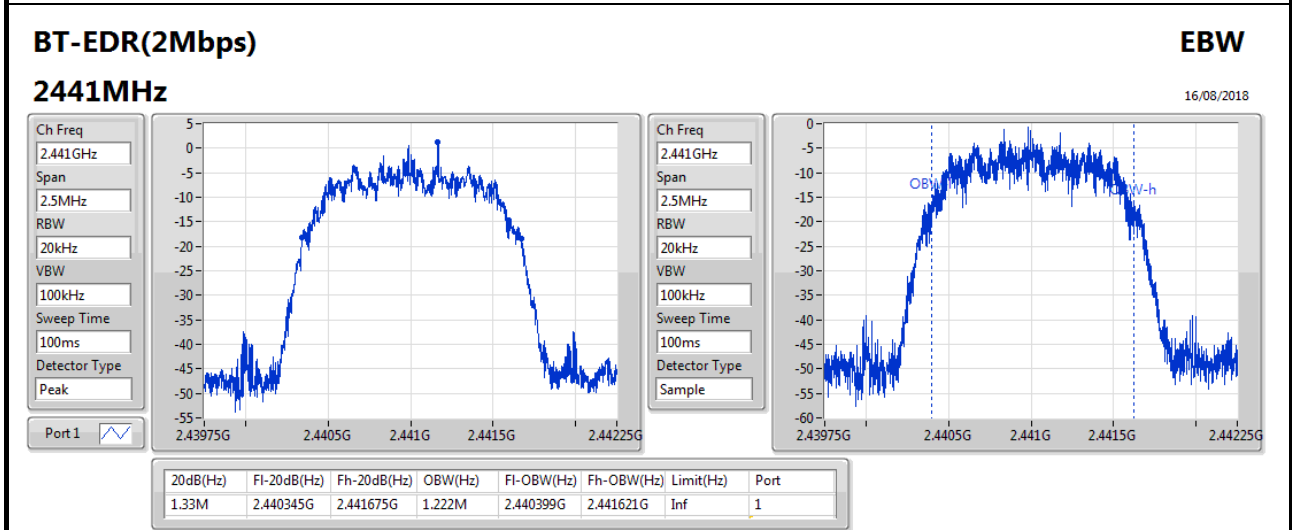
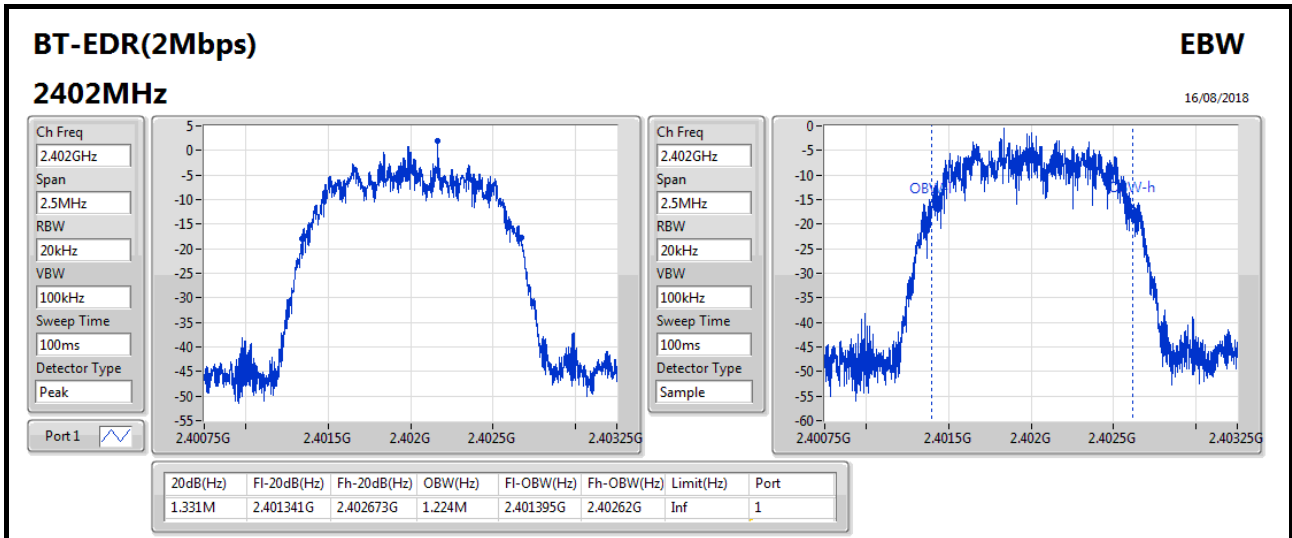
Max-N dB = Maximum 20dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 20dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

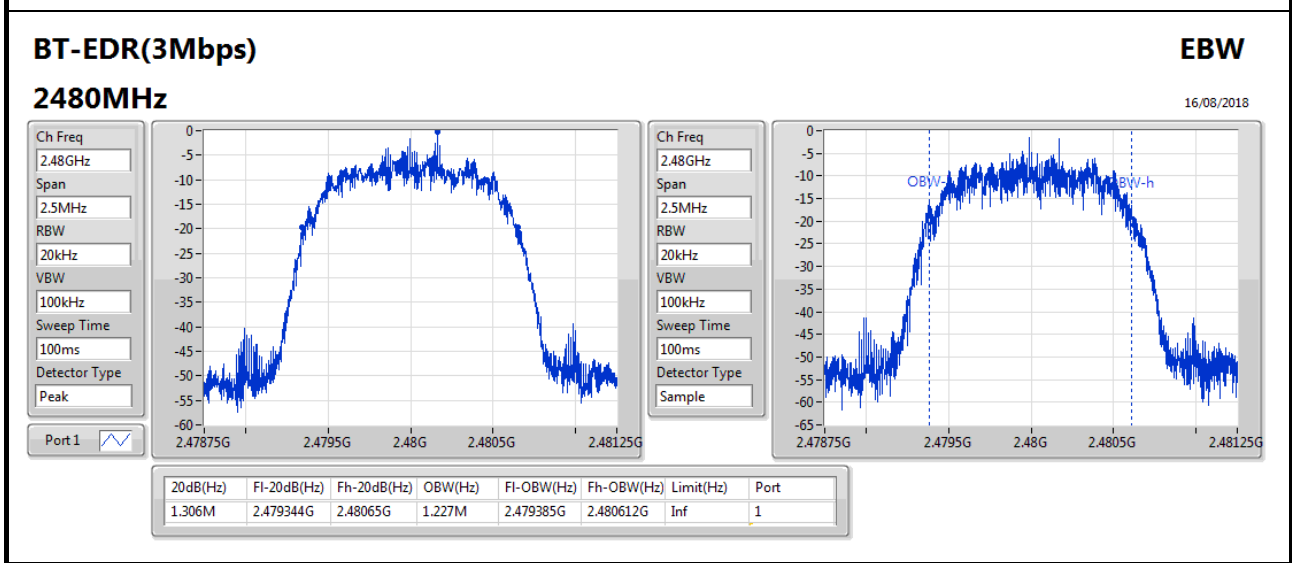
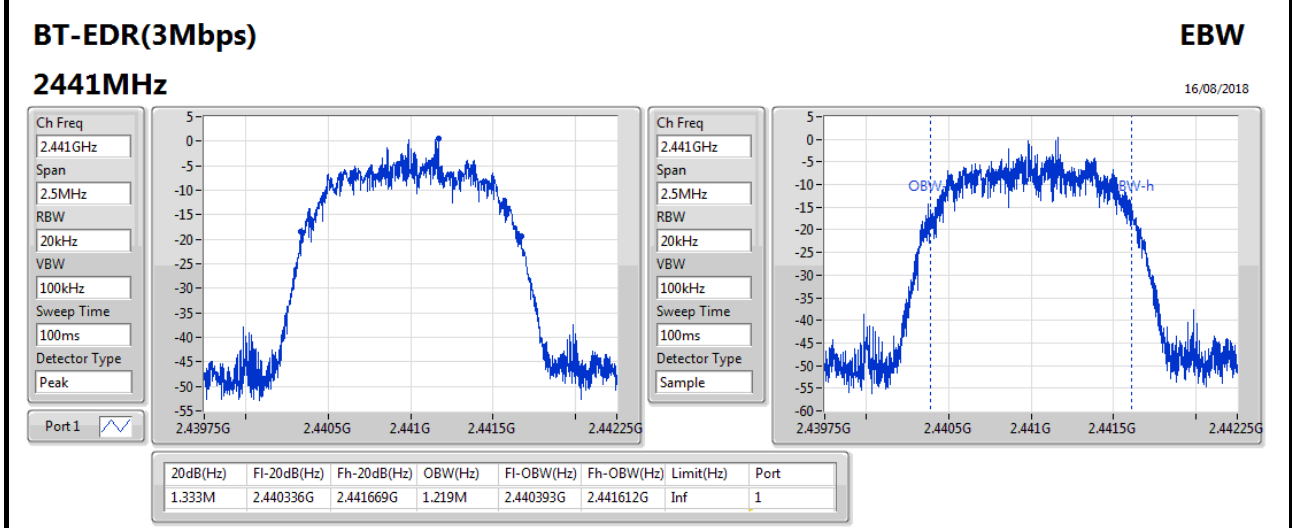
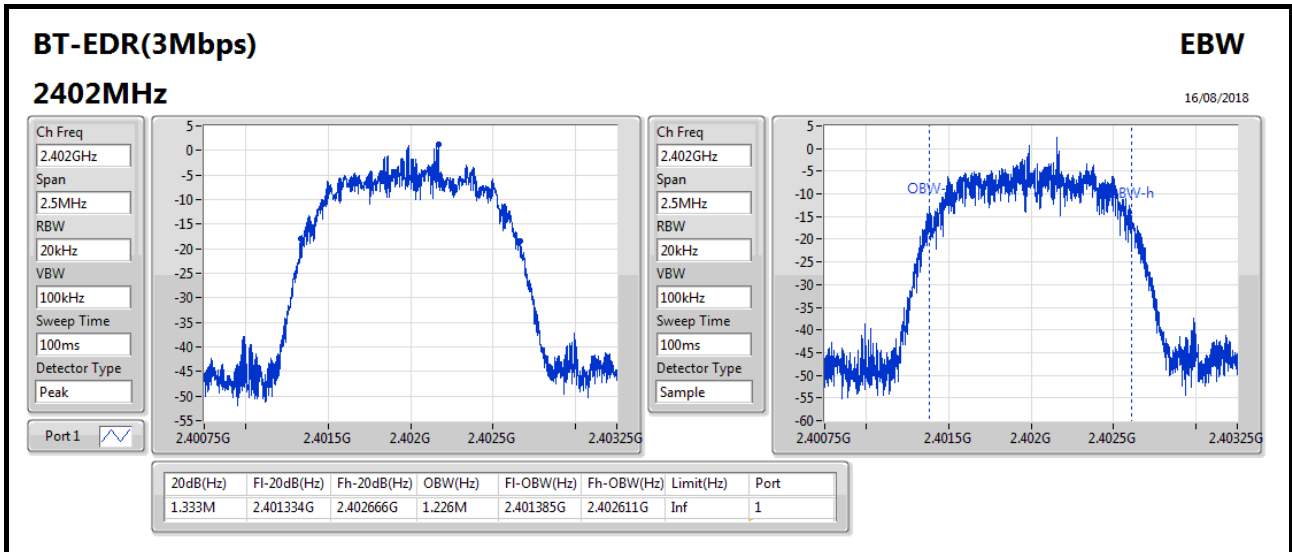
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	918.75k	887.056k
2441MHz	Pass	Inf	918.75k	890.805k
2480MHz	Pass	Inf	920k	889.555k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.331M	1.224M
2441MHz	Pass	Inf	1.33M	1.222M
2480MHz	Pass	Inf	1.333M	1.226M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.333M	1.226M
2441MHz	Pass	Inf	1.333M	1.219M
2480MHz	Pass	Inf	1.306M	1.227M

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







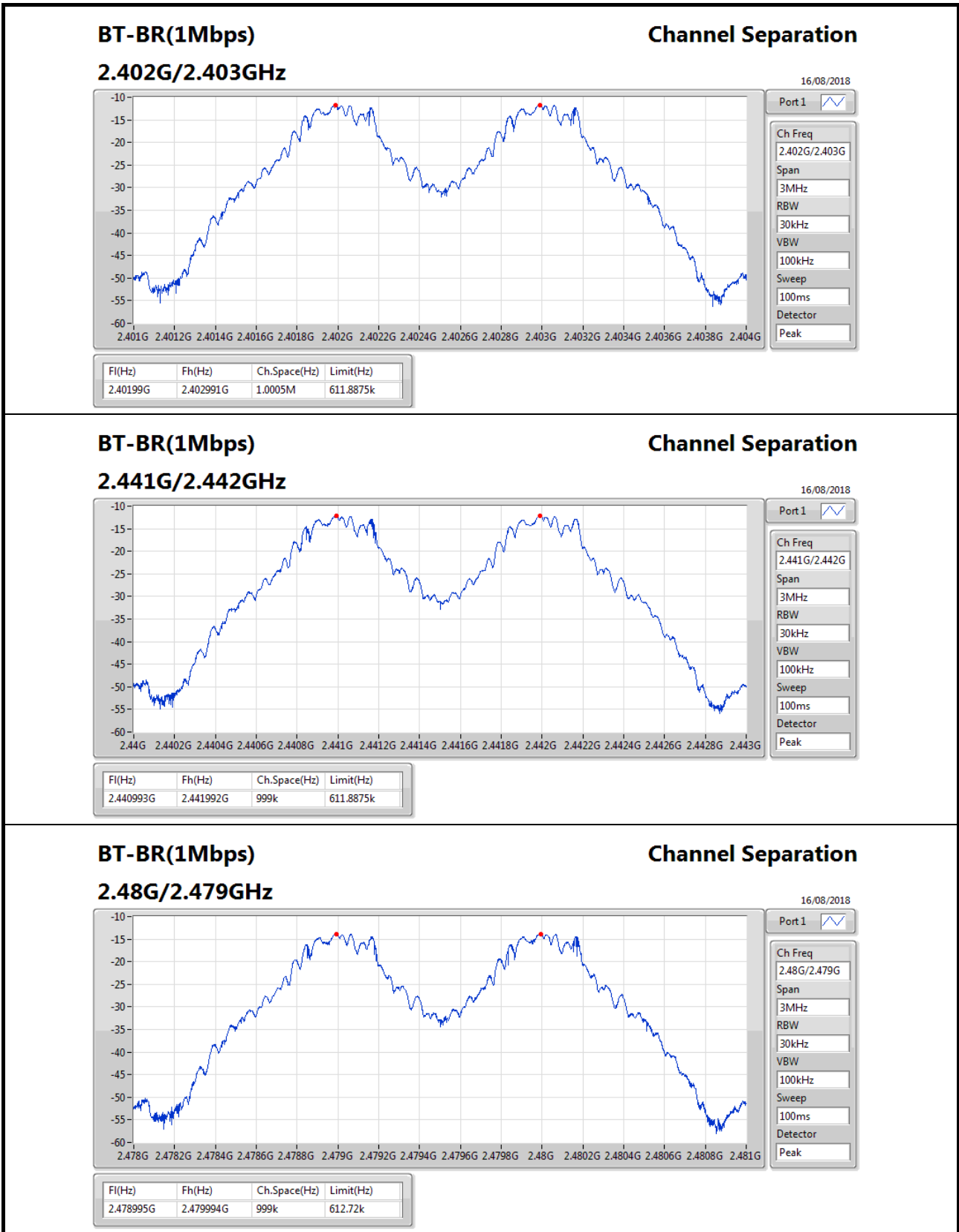


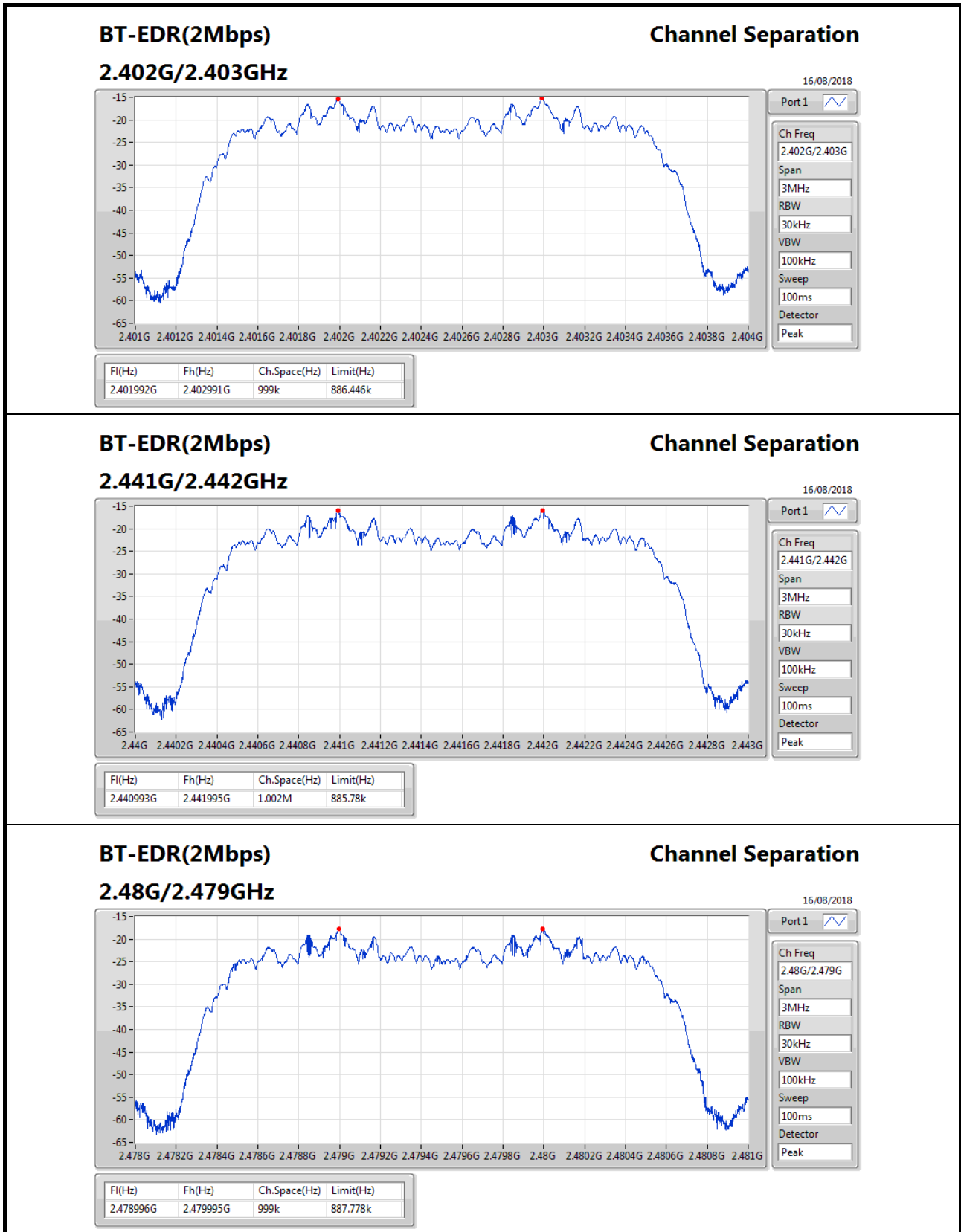
Summary

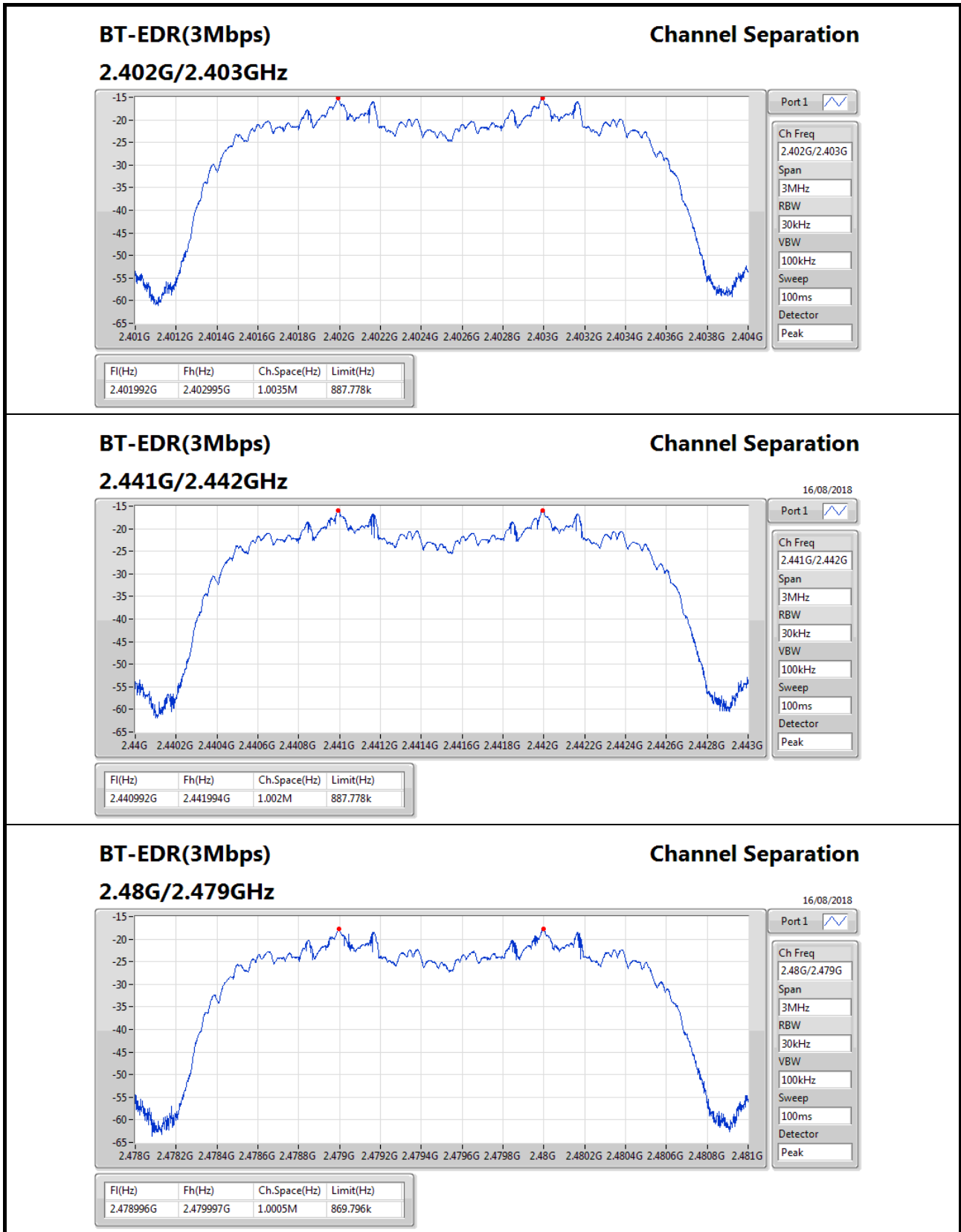
Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0005M	999k
BT-EDR(2Mbps)	1.002M	999k
BT-EDR(3Mbps)	1.0035M	1.0005M

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.40199G	2.402991G	1.0005M	611.8875k
2441MHz	Pass	2.440993G	2.441992G	999k	611.8875k
2480MHz	Pass	2.478995G	2.479994G	999k	612.72k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.401992G	2.402991G	999k	886.446k
2441MHz	Pass	2.440993G	2.441995G	1.002M	885.78k
2480MHz	Pass	2.478996G	2.479995G	999k	887.778k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.401992G	2.402995G	1.0035M	887.778k
2441MHz	Pass	2.440992G	2.441994G	1.002M	887.778k
2480MHz	Pass	2.478996G	2.479997G	1.0005M	869.796k









Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	9.39	0.00869
BT-EDR(2Mbps)	8.21	0.00662
BT-EDR(3Mbps)	8.49	0.00706

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	4.47	9.39	21.00
2441MHz	Pass	4.47	8.82	21.00
2480MHz	Pass	4.47	7.26	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	4.47	8.21	21.00
2441MHz	Pass	4.47	7.55	21.00
2480MHz	Pass	4.47	5.76	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	4.47	8.49	21.00
2441MHz	Pass	4.47	7.81	21.00
2480MHz	Pass	4.47	5.96	21.00



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	9.03	0.00800
BT-EDR(2Mbps)	5.52	0.00356
BT-EDR(3Mbps)	5.54	0.00358

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	4.47	9.03	21.00
2441MHz	Pass	4.47	8.47	21.00
2480MHz	Pass	4.47	6.65	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	4.47	5.52	21.00
2441MHz	Pass	4.47	4.77	21.00
2480MHz	Pass	4.47	2.61	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	4.47	5.54	21.00
2441MHz	Pass	4.47	4.72	21.00
2480MHz	Pass	4.47	2.80	21.00

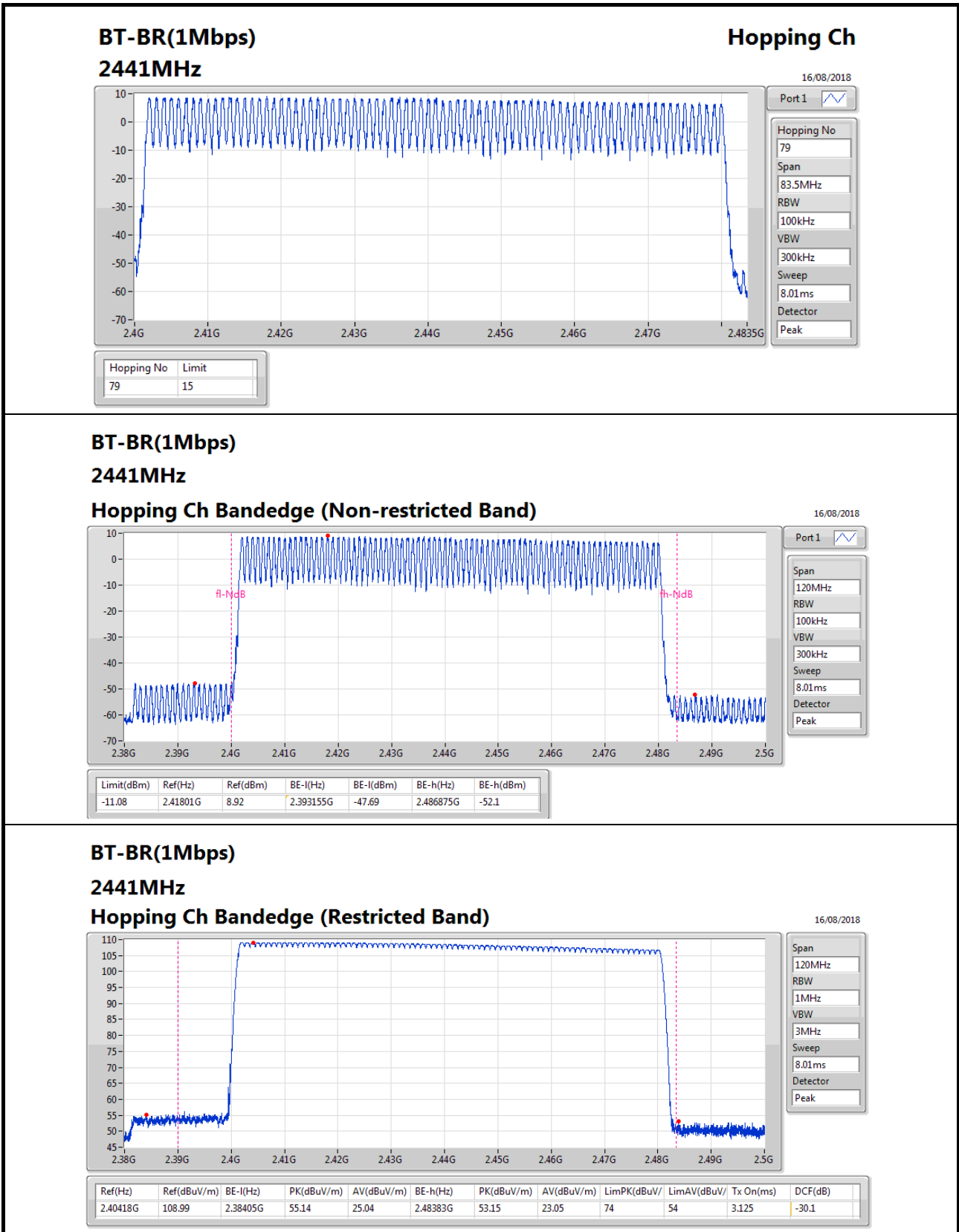


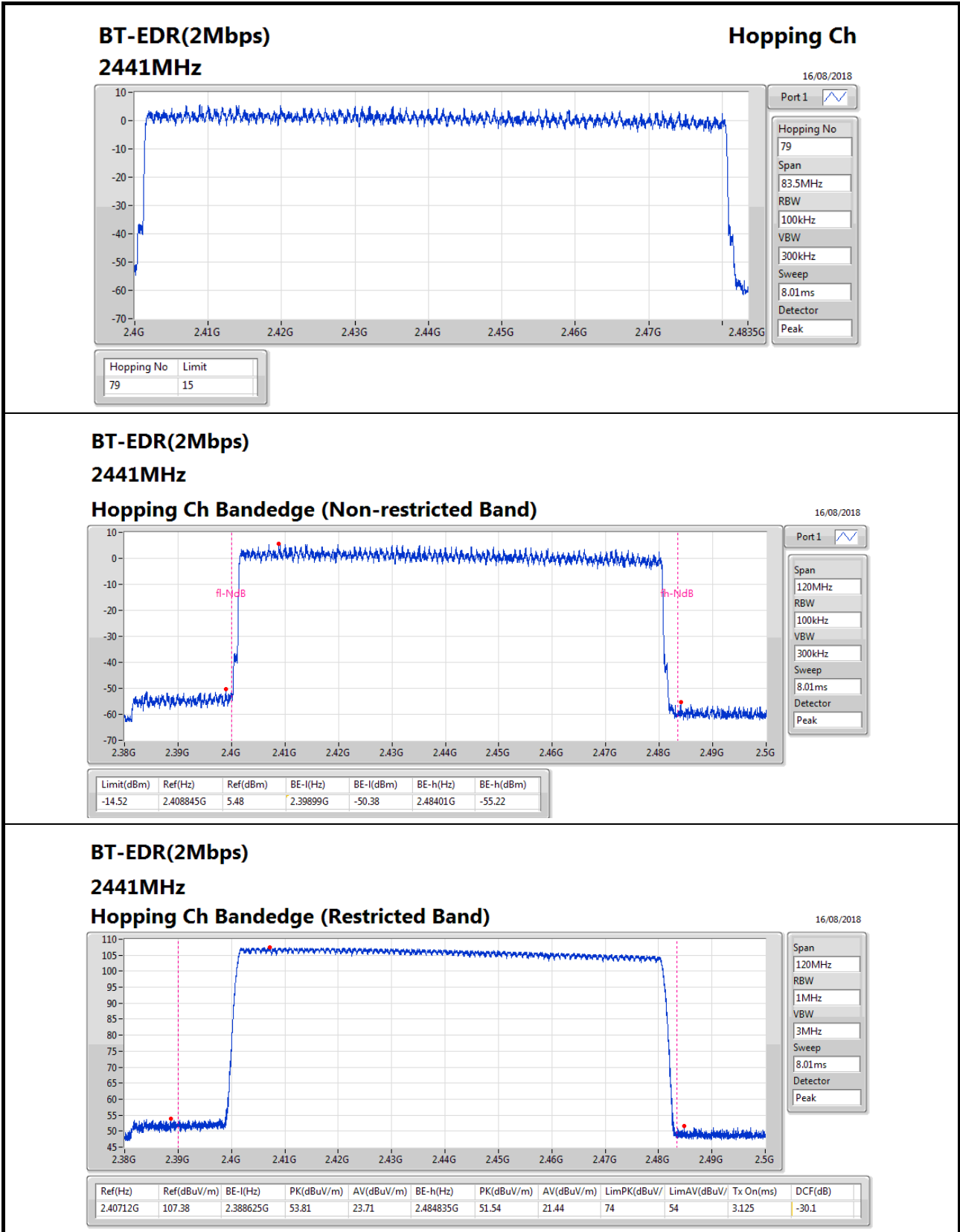
Summary

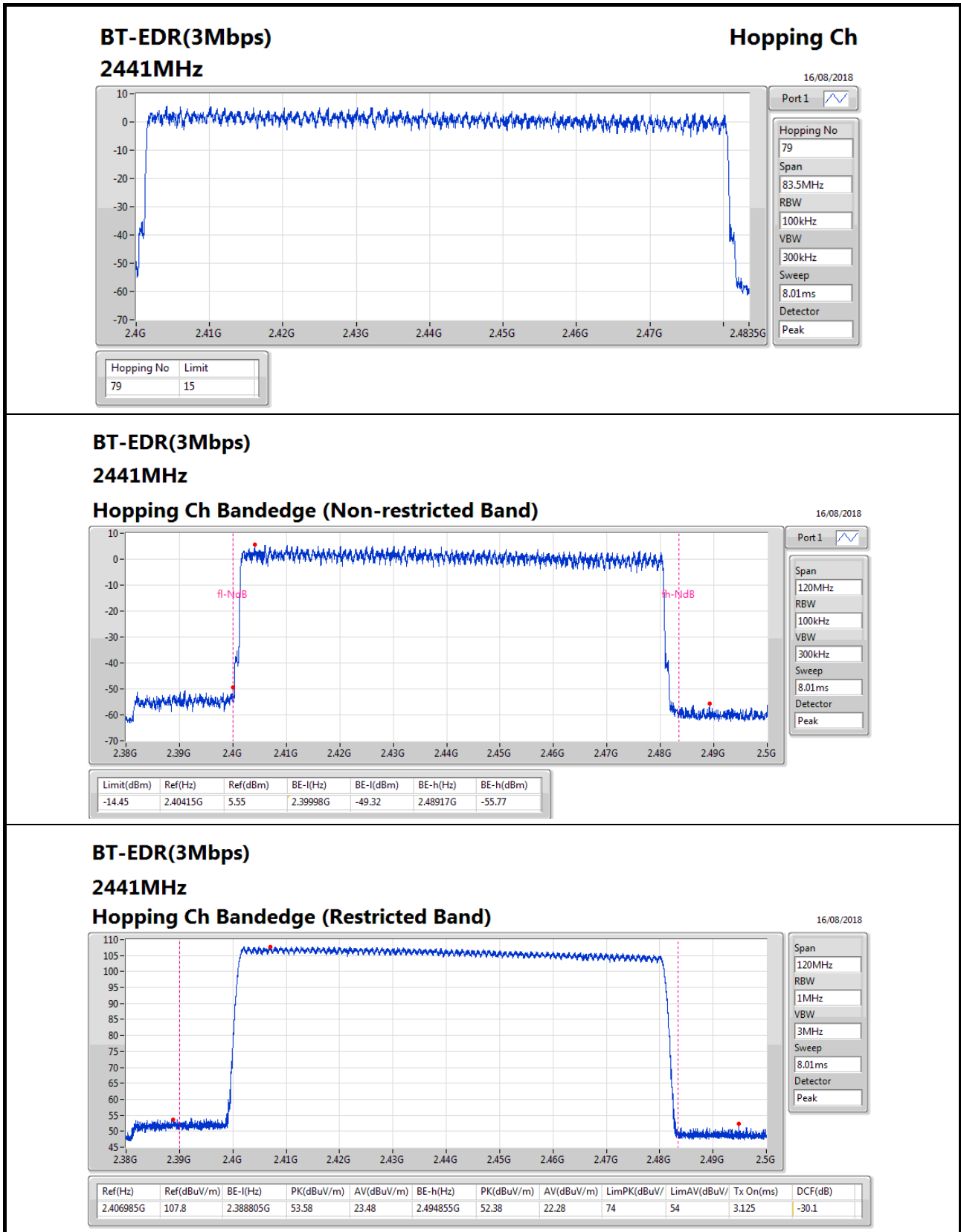
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

Result

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







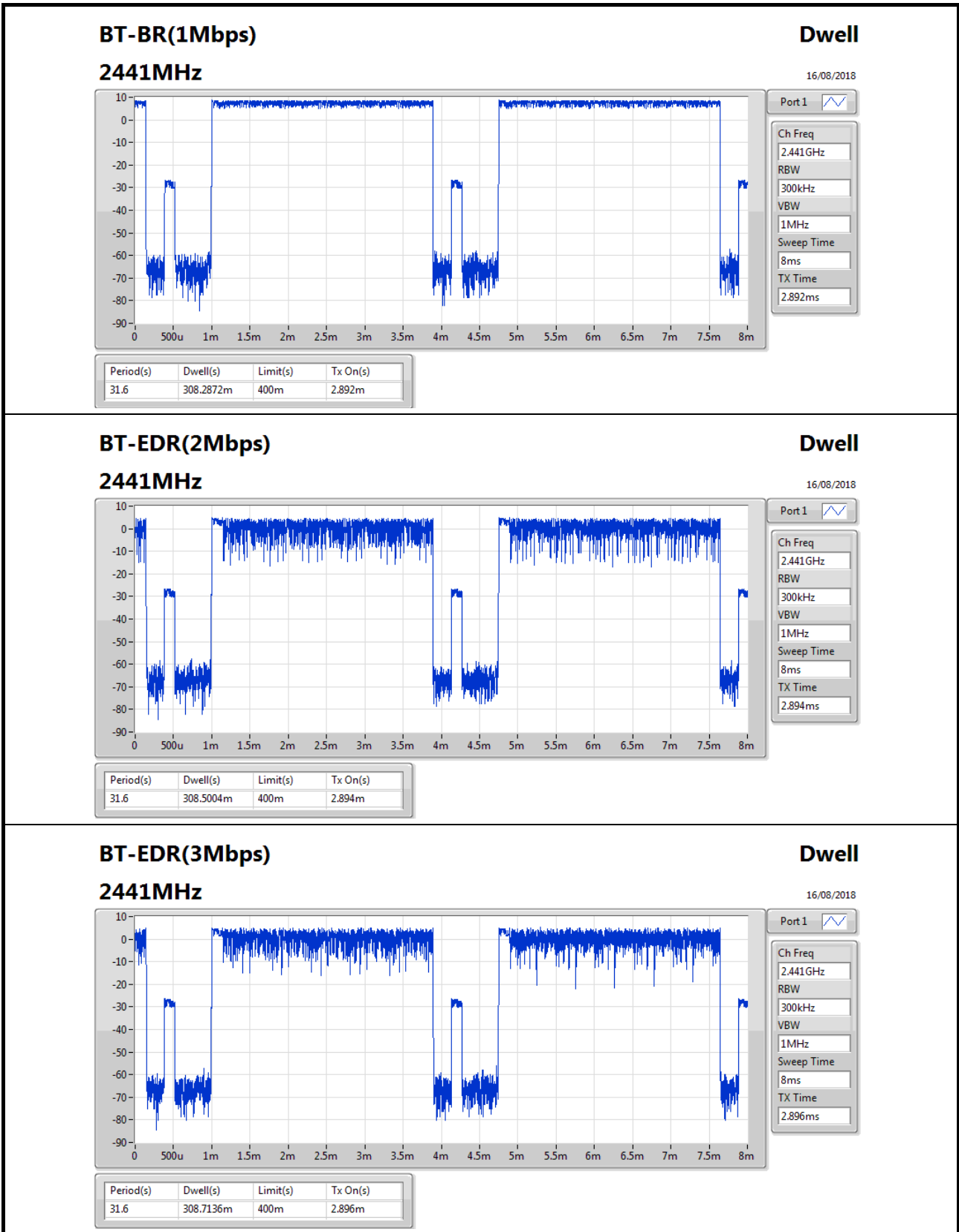


Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.2872m
BT-EDR(2Mbps)	308.5004m
BT-EDR(3Mbps)	308.7136m

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.2872m	400m	2.892m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.5004m	400m	2.894m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.7136m	400m	2.896m



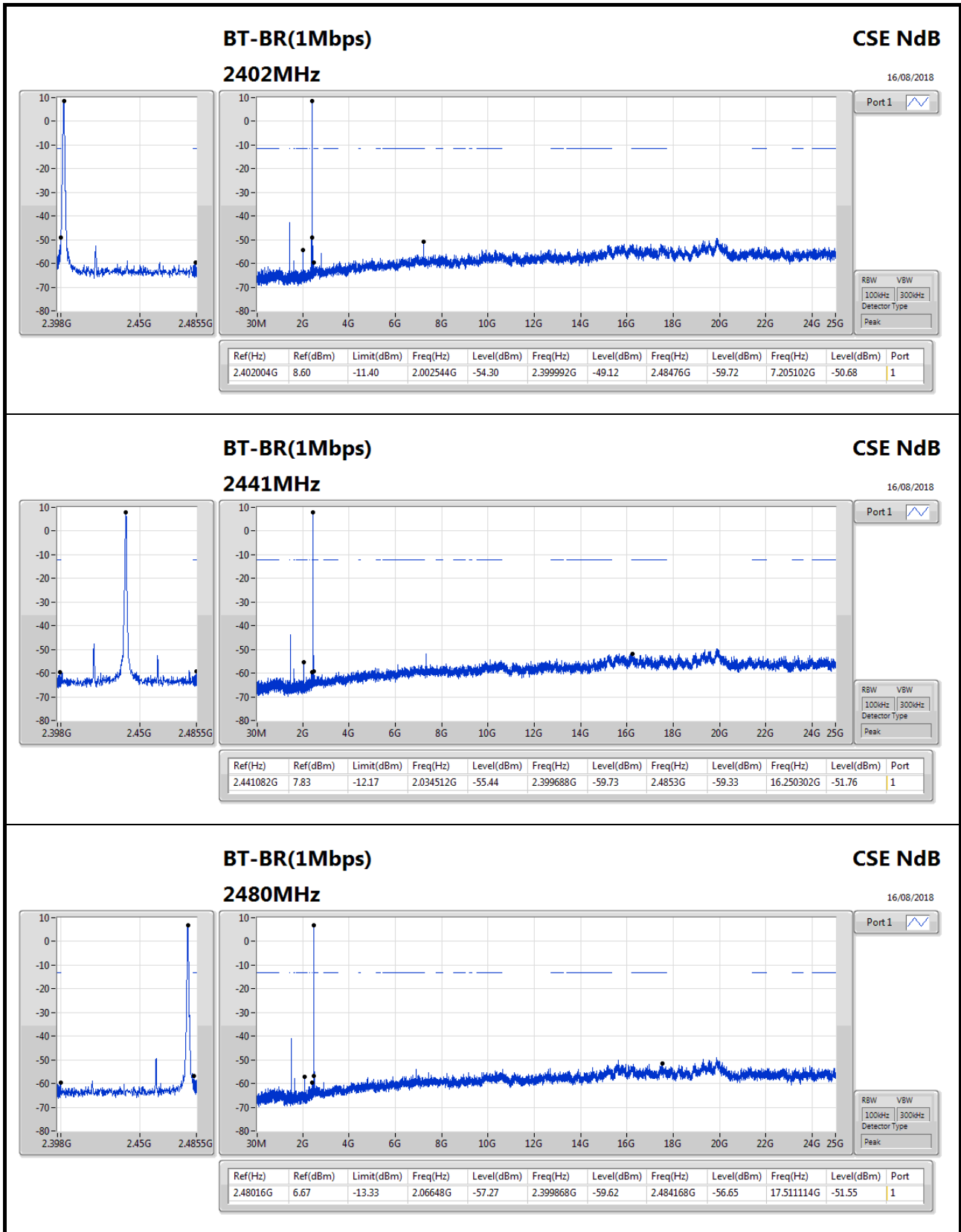


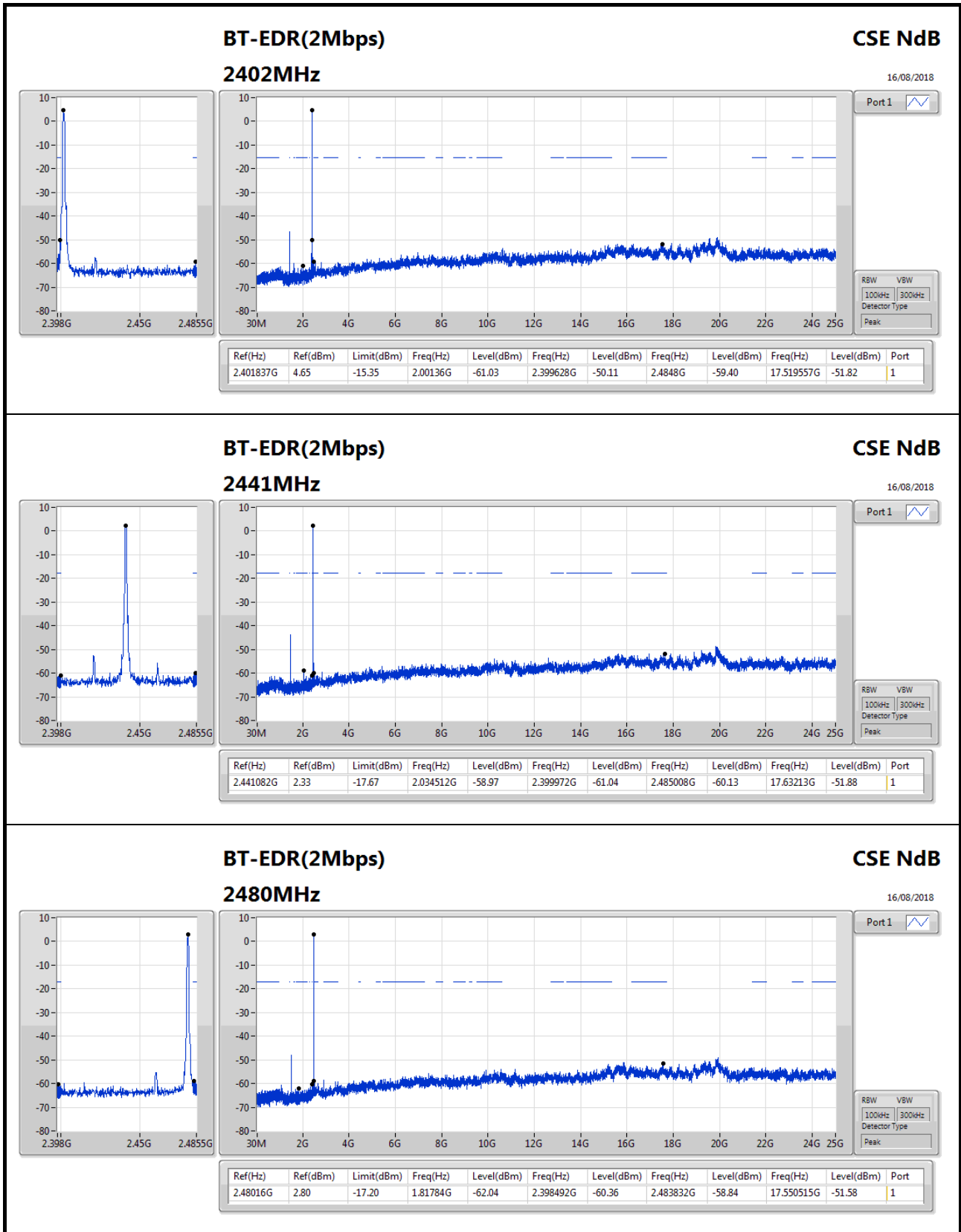
Summary

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	8.60	-11.40	2.002544G	-54.30	2.399992G	-49.12	2.48476G	-59.72	7.205102G	-50.68	1
BT-EDR(2Mbps)	Pass	2.441082G	2.33	-17.67	2.034512G	-58.97	2.399972G	-61.04	2.485008G	-60.13	17.63213G	-51.88	1
BT-EDR(3Mbps)	Pass	2.401837G	3.30	-16.70	2.398G	-59.84	2.399528G	-48.67	2.485052G	-59.64	15.166792G	-51.91	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	8.60	-11.40	2.002544G	-54.30	2.399992G	-49.12	2.48476G	-59.72	7.205102G	-50.68	1
2441MHz	Pass	2.441082G	7.83	-12.17	2.034512G	-55.44	2.399688G	-59.73	2.4853G	-59.33	16.250302G	-51.76	1
2480MHz	Pass	2.48016G	6.67	-13.33	2.06648G	-57.27	2.399868G	-59.62	2.484168G	-56.65	17.511114G	-51.55	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.401837G	4.65	-15.35	2.00136G	-61.03	2.399628G	-50.11	2.4848G	-59.40	17.519557G	-51.82	1
2441MHz	Pass	2.441082G	2.33	-17.67	2.034512G	-58.97	2.399972G	-61.04	2.485008G	-60.13	17.63213G	-51.88	1
2480MHz	Pass	2.48016G	2.80	-17.20	1.81784G	-62.04	2.398492G	-60.36	2.483832G	-58.84	17.550515G	-51.58	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.401837G	3.30	-16.70	2.398G	-59.84	2.399528G	-48.67	2.485052G	-59.64	15.166792G	-51.91	1
2441MHz	Pass	2.440915G	2.98	-17.02	2.022672G	-60.56	2.39846G	-61.05	2.484716G	-60.22	15.180864G	-50.61	1
2480MHz	Pass	2.479993G	1.30	-18.70	2.067664G	-59.83	2.399348G	-60.30	2.483912G	-59.31	16.222159G	-51.39	1





BT-EDR(2Mbps)

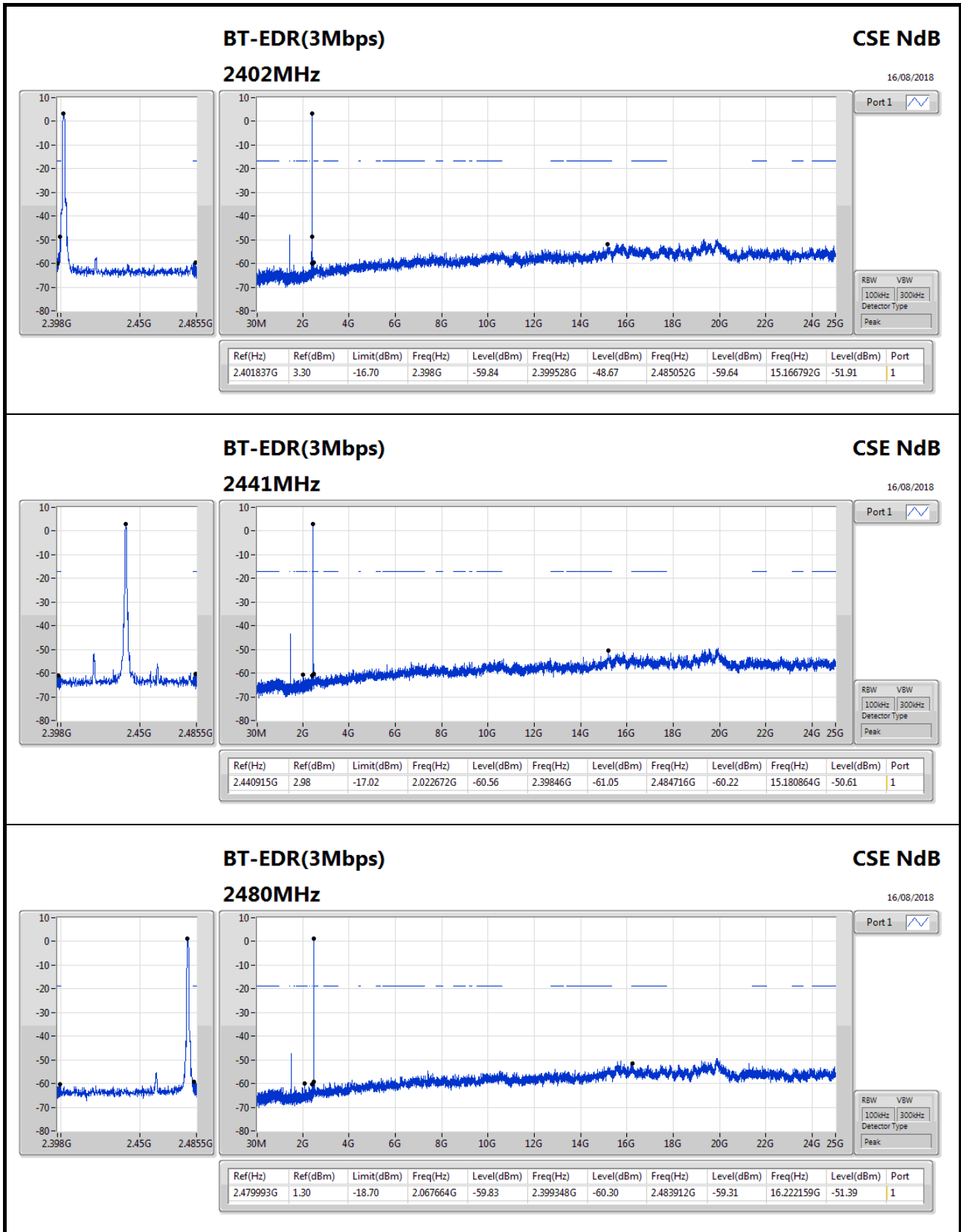
2480MHz

CSE NdB

16/08/2018

Port1

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48016G	2.80	-17.20	1.81784G	-62.04	2.398492G	-60.36	2.483832G	-58.84	17.550515G	-51.58	1





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	QP	350.1M	42.07	46.00	-3.93	-4.61	3	Vertical	226	1.01	-

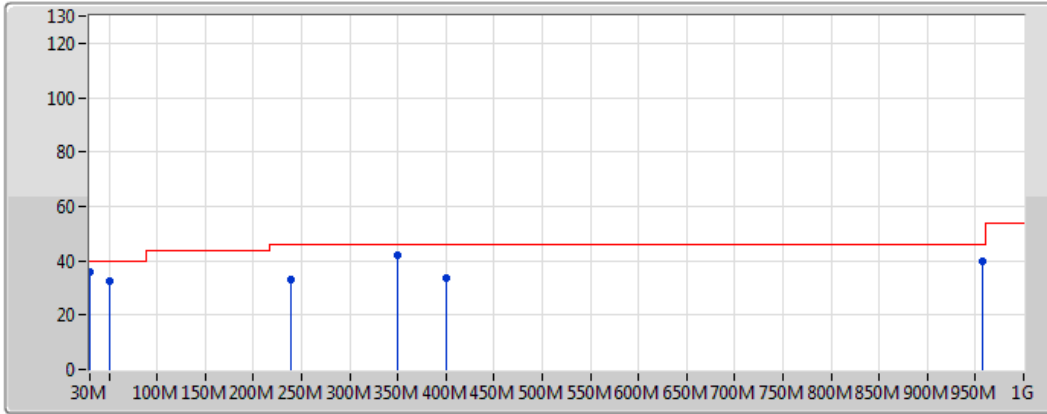


Result

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)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	PK	51.34M	32.54	40.00	-7.46	-13.06	3	Vertical	360	1.00	-
2441MHz	Pass	PK	239.52M	33.30	46.00	-12.70	-7.70	3	Vertical	360	1.00	-
2441MHz	Pass	PK	400.54M	33.81	46.00	-12.19	-3.38	3	Vertical	360	1.00	-
2441MHz	Pass	PK	957.32M	39.58	46.00	-6.42	3.91	3	Vertical	360	1.00	-
2441MHz	Pass	QP	30M	35.87	40.00	-4.13	-2.38	3	Vertical	43	1.00	-
2441MHz	Pass	QP	350.1M	42.07	46.00	-3.93	-4.61	3	Vertical	226	1.01	-
2441MHz	Pass	PK	94.02M	32.22	43.50	-11.28	-10.53	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	158.04M	31.80	43.50	-11.70	-9.91	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	239.52M	34.40	46.00	-11.60	-7.70	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	297.72M	37.24	46.00	-8.76	-5.87	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	357.86M	40.45	46.00	-5.55	-4.36	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	957.32M	37.39	46.00	-8.61	3.91	3	Horizontal	0	1.00	-

BT-BR(1Mbps)
2441MHz_Adapter

19/08/2018



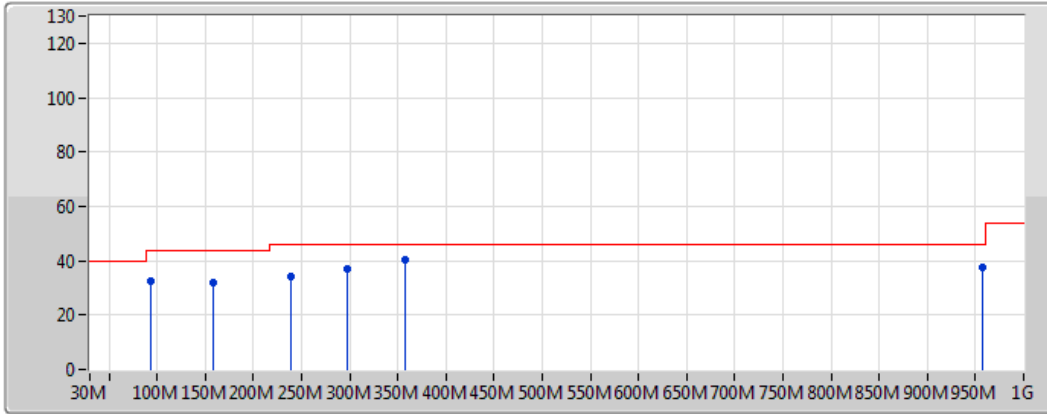
Legend for the spectrum plot:

- Lim.PK: Red line with a peak symbol
- PK: Blue line with a peak symbol
- Lim.AV: Red line with a valley symbol
- AV: Blue line with a valley symbol

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	51.34M	32.54	40.00	-7.46	-13.06	3	Vertical	360	1.00	-
PK	239.52M	33.30	46.00	-12.70	-7.70	3	Vertical	360	1.00	-
PK	400.54M	33.81	46.00	-12.19	-3.38	3	Vertical	360	1.00	-
PK	957.32M	39.58	46.00	-6.42	3.91	3	Vertical	360	1.00	-
QP	30M	35.87	40.00	-4.13	-2.38	3	Vertical	43	1.00	-
QP	350.1M	42.07	46.00	-3.93	-4.61	3	Vertical	226	1.01	-

BT-BR(1Mbps)
2441MHz_Adapter

19/08/2018



Legend for the spectrum plot:

- Lim.PK: Red line with a peak symbol
- PK: Blue line with a peak symbol
- Lim.AV: Red line with a valley symbol
- AV: Black line with a valley symbol

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	94.02M	32.22	43.50	-11.28	-10.53	3	Horizontal	0	1.00	-
PK	158.04M	31.80	43.50	-11.70	-9.91	3	Horizontal	0	1.00	-
PK	239.52M	34.40	46.00	-11.60	-7.70	3	Horizontal	0	1.00	-
PK	297.72M	37.24	46.00	-8.76	-5.87	3	Horizontal	0	1.00	-
PK	357.86M	40.45	46.00	-5.55	-4.36	3	Horizontal	0	1.00	-
PK	957.32M	37.39	46.00	-8.61	3.91	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	2.382G	48.00	54.00	-6.00	30.35	3	Horizontal	13	1.50	-
BT-EDR(2Mbps)	Pass	AV	2.499998G	45.21	54.00	-8.79	30.75	3	Horizontal	10	1.38	-
BT-EDR(3Mbps)	Pass	AV	2.499998G	45.36	54.00	-8.64	30.75	3	Horizontal	12	1.40	-



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	2.382G	44.73	54.00	-9.27	30.35	3	Vertical	347	1.09	-
2402MHz	Pass	AV	2.4018G	98.75	Inf	-Inf	30.41	3	Vertical	347	1.09	-
2402MHz	Pass	PK	2.3608G	56.94	74.00	-17.06	30.28	3	Vertical	347	1.09	-
2402MHz	Pass	PK	2.4022G	99.73	Inf	-Inf	30.42	3	Vertical	347	1.09	-
2402MHz	Pass	AV	2.382G	48.00	54.00	-6.00	30.35	3	Horizontal	13	1.50	-
2402MHz	Pass	AV	2.402G	103.39	Inf	-Inf	30.41	3	Horizontal	13	1.50	-
2402MHz	Pass	PK	2.382G	59.22	74.00	-14.78	30.35	3	Horizontal	13	1.50	-
2402MHz	Pass	PK	2.4022G	104.15	Inf	-Inf	30.42	3	Horizontal	13	1.50	-
2402MHz	Pass	AV	4.80412G	31.07	54.00	-22.93	5.79	3	Vertical	1	1.50	-
2402MHz	Pass	PK	4.805437G	44.31	74.00	-29.69	5.79	3	Vertical	1	1.50	-
2402MHz	Pass	AV	4.80396G	30.95	54.00	-23.05	5.79	3	Horizontal	203	2.52	-
2402MHz	Pass	PK	4.8042G	44.75	74.00	-29.25	5.79	3	Horizontal	203	2.52	-
2441MHz	Pass	AV	2.3862G	43.76	54.00	-10.24	30.37	3	Vertical	246	2.44	-
2441MHz	Pass	AV	2.441G	98.11	Inf	-Inf	30.55	3	Vertical	246	2.44	-
2441MHz	Pass	AV	2.4902G	44.83	54.00	-9.17	30.72	3	Vertical	246	2.44	-
2441MHz	Pass	PK	2.3898G	59.42	74.00	-14.58	30.38	3	Vertical	246	2.44	-
2441MHz	Pass	PK	2.441G	98.94	Inf	-Inf	30.55	3	Vertical	246	2.44	-
2441MHz	Pass	PK	2.4882G	58.34	74.00	-15.66	30.71	3	Vertical	246	2.44	-
2441MHz	Pass	AV	2.357G	43.72	54.00	-10.28	30.27	3	Horizontal	8	1.45	-
2441MHz	Pass	AV	2.441G	104.50	Inf	-Inf	30.55	3	Horizontal	8	1.45	-
2441MHz	Pass	AV	2.4994G	44.84	54.00	-9.16	30.75	3	Horizontal	8	1.45	-
2441MHz	Pass	PK	2.385G	58.31	74.00	-15.69	30.36	3	Horizontal	8	1.45	-
2441MHz	Pass	PK	2.441G	105.49	Inf	-Inf	30.55	3	Horizontal	8	1.45	-
2441MHz	Pass	PK	2.4986G	58.66	74.00	-15.34	30.75	3	Horizontal	8	1.45	-
2441MHz	Pass	AV	7.32312G	41.14	54.00	-12.86	11.15	3	Vertical	191	1.03	-
2441MHz	Pass	PK	7.322681G	52.91	74.00	-21.09	11.15	3	Vertical	191	1.03	-
2441MHz	Pass	AV	7.32298G	40.27	54.00	-13.73	11.15	3	Horizontal	236	1.76	-
2441MHz	Pass	PK	7.322421G	52.90	74.00	-21.10	11.15	3	Horizontal	236	1.76	-
2480MHz	Pass	AV	2.48G	96.98	Inf	-Inf	30.68	3	Vertical	247	2.59	-
2480MHz	Pass	AV	2.495G	45.05	54.00	-8.95	30.74	3	Vertical	247	2.59	-
2480MHz	Pass	PK	2.48G	97.72	Inf	-Inf	30.68	3	Vertical	247	2.59	-
2480MHz	Pass	PK	2.499G	59.72	74.00	-14.28	30.75	3	Vertical	247	2.59	-
2480MHz	Pass	AV	2.48G	103.74	Inf	-Inf	30.68	3	Horizontal	8	1.38	-
2480MHz	Pass	AV	2.499998G	46.44	54.00	-7.56	30.75	3	Horizontal	8	1.38	-
2480MHz	Pass	PK	2.48G	104.47	Inf	-Inf	30.68	3	Horizontal	8	1.38	-
2480MHz	Pass	PK	2.4974G	58.51	74.00	-15.49	30.74	3	Horizontal	8	1.38	-
2480MHz	Pass	AV	7.44004G	39.53	54.00	-14.47	11.48	3	Vertical	191	1.00	-
2480MHz	Pass	PK	7.440319G	51.81	74.00	-22.19	11.48	3	Vertical	191	1.00	-
2480MHz	Pass	AV	7.43982G	38.89	54.00	-15.11	11.48	3	Horizontal	181	1.88	-
2480MHz	Pass	PK	7.439721G	51.64	74.00	-22.36	11.48	3	Horizontal	181	1.88	-
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3818G	44.03	54.00	-9.97	30.35	3	Vertical	348	1.10	-
2402MHz	Pass	AV	2.402G	93.37	Inf	-Inf	30.41	3	Vertical	348	1.10	-
2402MHz	Pass	PK	2.357G	57.92	74.00	-16.08	30.27	3	Vertical	348	1.10	-
2402MHz	Pass	PK	2.4022G	97.43	Inf	-Inf	30.42	3	Vertical	348	1.10	-
2402MHz	Pass	AV	2.382G	44.83	54.00	-9.17	30.35	3	Horizontal	7	1.27	-
2402MHz	Pass	AV	2.402G	99.34	Inf	-Inf	30.41	3	Horizontal	7	1.27	-



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
2402MHz	Pass	PK	2.3542G	57.32	74.00	-16.68	30.26	3	Horizontal	7	1.27	-
2402MHz	Pass	PK	2.4022G	103.41	Inf	-Inf	30.42	3	Horizontal	7	1.27	-
2441MHz	Pass	AV	2.3862G	43.84	54.00	-10.16	30.37	3	Vertical	244	2.44	-
2441MHz	Pass	AV	2.441G	92.50	Inf	-Inf	30.55	3	Vertical	244	2.44	-
2441MHz	Pass	AV	2.4922G	44.99	54.00	-9.01	30.72	3	Vertical	244	2.44	-
2441MHz	Pass	PK	2.377G	57.95	74.00	-16.05	30.33	3	Vertical	244	2.44	-
2441MHz	Pass	PK	2.441G	96.60	Inf	-Inf	30.55	3	Vertical	244	2.44	-
2441MHz	Pass	PK	2.4938G	58.65	74.00	-15.35	30.73	3	Vertical	244	2.44	-
2441MHz	Pass	AV	2.3826G	43.87	54.00	-10.13	30.35	3	Horizontal	3	1.50	-
2441MHz	Pass	AV	2.441G	98.36	Inf	-Inf	30.55	3	Horizontal	3	1.50	-
2441MHz	Pass	AV	2.4918G	44.93	54.00	-9.07	30.72	3	Horizontal	3	1.50	-
2441MHz	Pass	PK	2.3878G	58.27	74.00	-15.73	30.37	3	Horizontal	3	1.50	-
2441MHz	Pass	PK	2.441G	102.51	Inf	-Inf	30.55	3	Horizontal	3	1.50	-
2441MHz	Pass	PK	2.4874G	59.00	74.00	-15.00	30.71	3	Horizontal	3	1.50	-
2480MHz	Pass	AV	2.48G	90.63	Inf	-Inf	30.68	3	Vertical	251	2.59	-
2480MHz	Pass	AV	2.499998G	44.88	54.00	-9.12	30.75	3	Vertical	251	2.59	-
2480MHz	Pass	PK	2.4802G	94.83	Inf	-Inf	30.68	3	Vertical	251	2.59	-
2480MHz	Pass	PK	2.4836G	59.19	74.00	-14.81	30.69	3	Vertical	251	2.59	-
2480MHz	Pass	AV	2.48G	98.07	Inf	-Inf	30.68	3	Horizontal	10	1.38	-
2480MHz	Pass	AV	2.499998G	45.21	54.00	-8.79	30.75	3	Horizontal	10	1.38	-
2480MHz	Pass	PK	2.4798G	102.19	Inf	-Inf	30.68	3	Horizontal	10	1.38	-
2480MHz	Pass	PK	2.491G	58.77	74.00	-15.23	30.72	3	Horizontal	10	1.38	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3892G	43.89	54.00	-10.11	30.37	3	Vertical	347	1.09	-
2402MHz	Pass	AV	2.402G	93.13	Inf	-Inf	30.41	3	Vertical	347	1.09	-
2402MHz	Pass	PK	2.3564G	57.49	74.00	-16.51	30.27	3	Vertical	347	1.09	-
2402MHz	Pass	PK	2.402G	97.66	Inf	-Inf	30.41	3	Vertical	347	1.09	-
2402MHz	Pass	AV	2.382G	44.88	54.00	-9.12	30.35	3	Horizontal	9	1.25	-
2402MHz	Pass	AV	2.402G	99.35	Inf	-Inf	30.41	3	Horizontal	9	1.25	-
2402MHz	Pass	PK	2.3784G	58.32	74.00	-15.68	30.34	3	Horizontal	9	1.25	-
2402MHz	Pass	PK	2.402G	103.83	Inf	-Inf	30.41	3	Horizontal	9	1.25	-
2441MHz	Pass	AV	2.3894G	43.74	54.00	-10.26	30.37	3	Vertical	246	2.43	-
2441MHz	Pass	AV	2.441G	92.46	Inf	-Inf	30.55	3	Vertical	246	2.43	-
2441MHz	Pass	AV	2.4922G	44.87	54.00	-9.13	30.72	3	Vertical	246	2.43	-
2441MHz	Pass	PK	2.3898G	58.66	74.00	-15.34	30.38	3	Vertical	246	2.43	-
2441MHz	Pass	PK	2.441G	96.97	Inf	-Inf	30.55	3	Vertical	246	2.43	-
2441MHz	Pass	PK	2.4938G	58.71	74.00	-15.29	30.73	3	Vertical	246	2.43	-
2441MHz	Pass	AV	2.389G	43.87	54.00	-10.13	30.37	3	Horizontal	8	1.45	-
2441MHz	Pass	AV	2.441G	99.02	Inf	-Inf	30.55	3	Horizontal	8	1.45	-
2441MHz	Pass	AV	2.4934G	44.99	54.00	-9.01	30.72	3	Horizontal	8	1.45	-
2441MHz	Pass	PK	2.3798G	58.78	74.00	-15.22	30.34	3	Horizontal	8	1.45	-
2441MHz	Pass	PK	2.441G	103.54	Inf	-Inf	30.55	3	Horizontal	8	1.45	-
2441MHz	Pass	PK	2.4938G	58.53	74.00	-15.47	30.73	3	Horizontal	8	1.45	-
2480MHz	Pass	AV	2.48G	91.24	Inf	-Inf	30.68	3	Vertical	248	2.58	-
2480MHz	Pass	AV	2.4996G	44.91	54.00	-9.09	30.75	3	Vertical	248	2.58	-
2480MHz	Pass	PK	2.48G	95.74	Inf	-Inf	30.68	3	Vertical	248	2.58	-
2480MHz	Pass	PK	2.483502G	59.68	74.00	-14.32	30.69	3	Vertical	248	2.58	-
2480MHz	Pass	AV	2.48G	97.74	Inf	-Inf	30.68	3	Horizontal	12	1.40	-
2480MHz	Pass	AV	2.499998G	45.36	54.00	-8.64	30.75	3	Horizontal	12	1.40	-



RSE TX above 1GHz Result

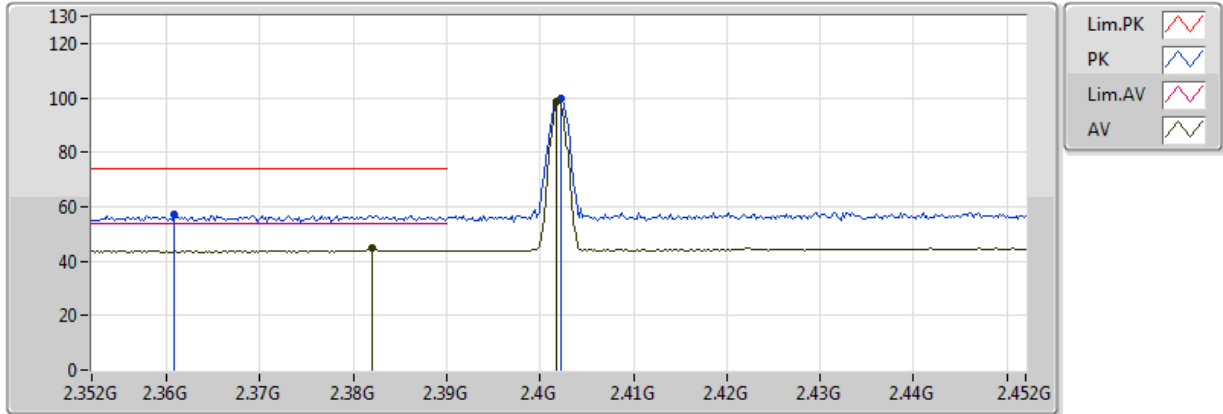
Appendix G.2

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	2.48G	102.30	Inf	-Inf	30.68	3	Horizontal	12	1.40	-
2480MHz	Pass	PK	2.4858G	58.89	74.00	-15.11	30.71	3	Horizontal	12	1.40	-

BT-BR(1Mbps)

2402MHz_TX

19/08/2018

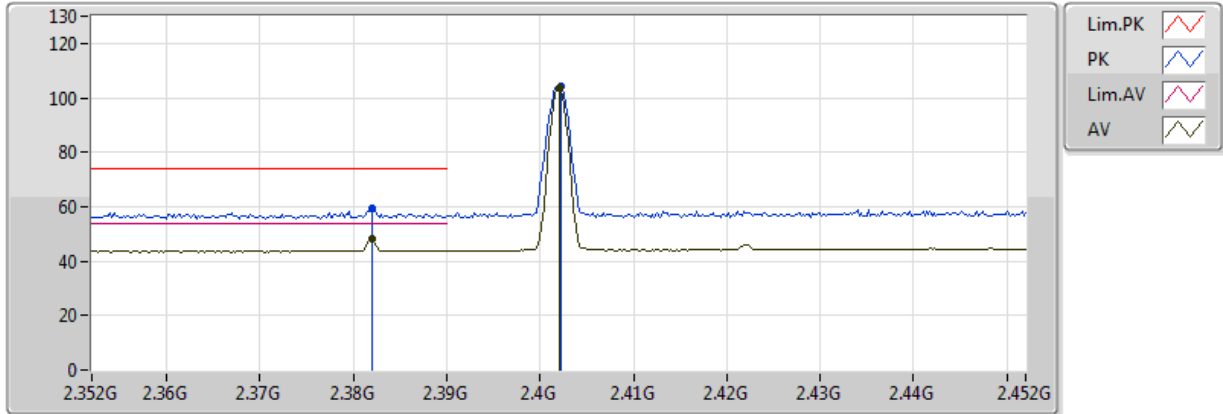


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.382G	44.73	54.00	-9.27	30.35	3	Vertical	347	1.09	-
AV	2.4018G	98.75	Inf	-Inf	30.41	3	Vertical	347	1.09	-
PK	2.3608G	56.94	74.00	-17.06	30.28	3	Vertical	347	1.09	-
PK	2.4022G	99.73	Inf	-Inf	30.42	3	Vertical	347	1.09	-

BT-BR(1Mbps)

2402MHz_TX

19/08/2018

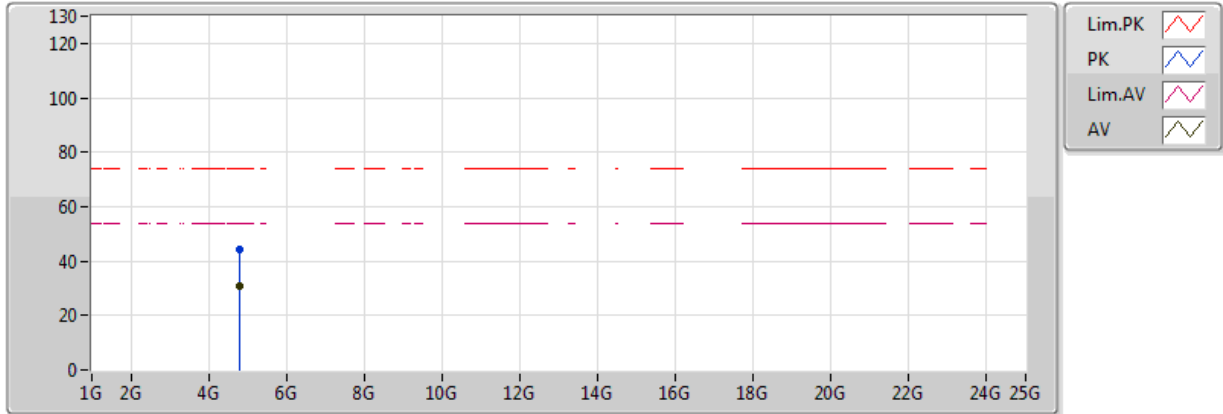


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.382G	48.00	54.00	-6.00	30.35	3	Horizontal	13	1.50	-
AV	2.402G	103.39	Inf	-Inf	30.41	3	Horizontal	13	1.50	-
PK	2.382G	59.22	74.00	-14.78	30.35	3	Horizontal	13	1.50	-
PK	2.4022G	104.15	Inf	-Inf	30.42	3	Horizontal	13	1.50	-

BT-BR(1Mbps)

2402MHz_TX

19/08/2018

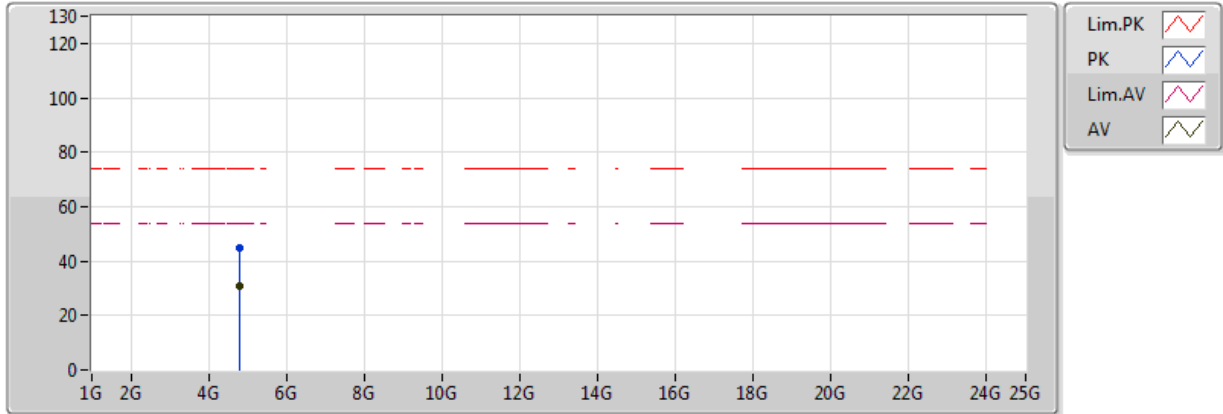


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.80412G	31.07	54.00	-22.93	5.79	3	Vertical	1	1.50	-
PK	4.805437G	44.31	74.00	-29.69	5.79	3	Vertical	1	1.50	-

BT-BR(1Mbps)

2402MHz_TX

19/08/2018

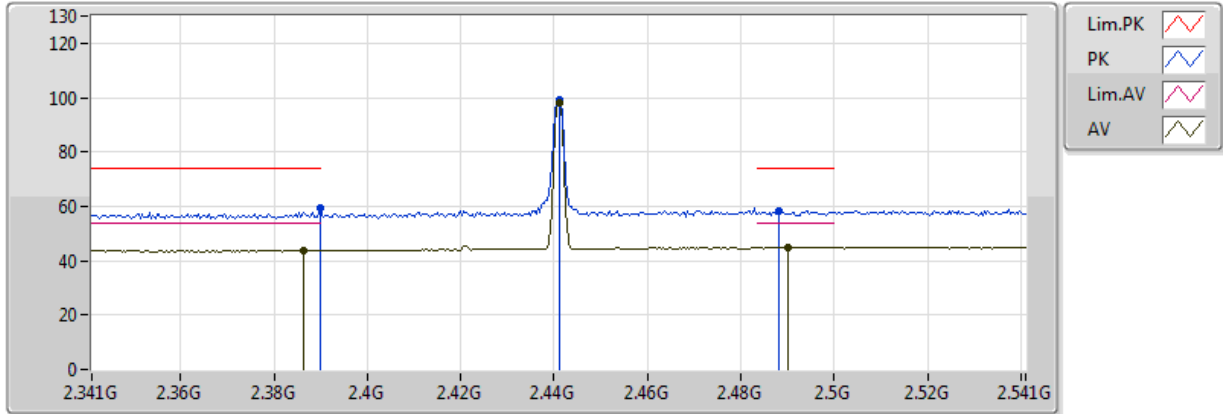


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.80396G	30.95	54.00	-23.05	5.79	3	Horizontal	203	2.52	-
PK	4.8042G	44.75	74.00	-29.25	5.79	3	Horizontal	203	2.52	-

BT-BR(1Mbps)

2441MHz_TX

19/08/2018

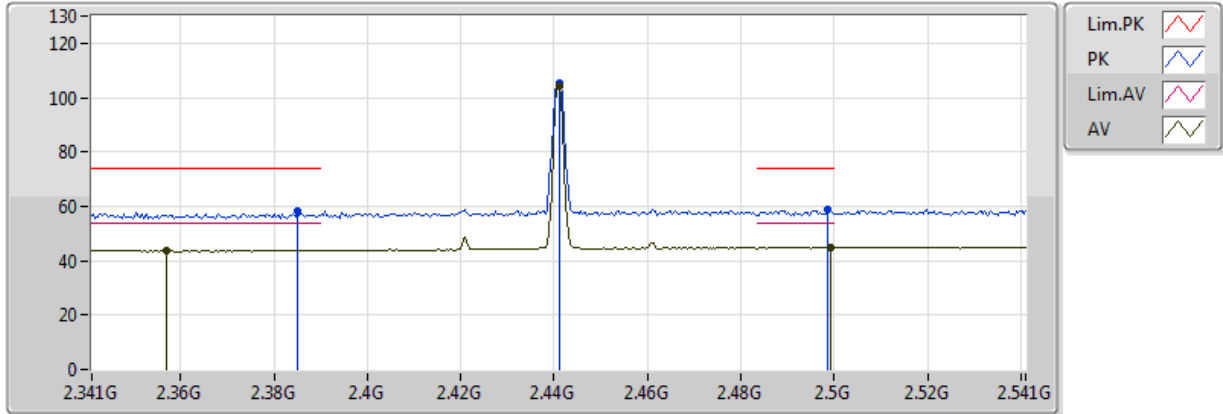


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3862G	43.76	54.00	-10.24	30.37	3	Vertical	246	2.44	-
AV	2.441G	98.11	Inf	-Inf	30.55	3	Vertical	246	2.44	-
AV	2.4902G	44.83	54.00	-9.17	30.72	3	Vertical	246	2.44	-
PK	2.3898G	59.42	74.00	-14.58	30.38	3	Vertical	246	2.44	-
PK	2.441G	98.94	Inf	-Inf	30.55	3	Vertical	246	2.44	-
PK	2.4882G	58.34	74.00	-15.66	30.71	3	Vertical	246	2.44	-

BT-BR(1Mbps)

2441MHz_TX

19/08/2018

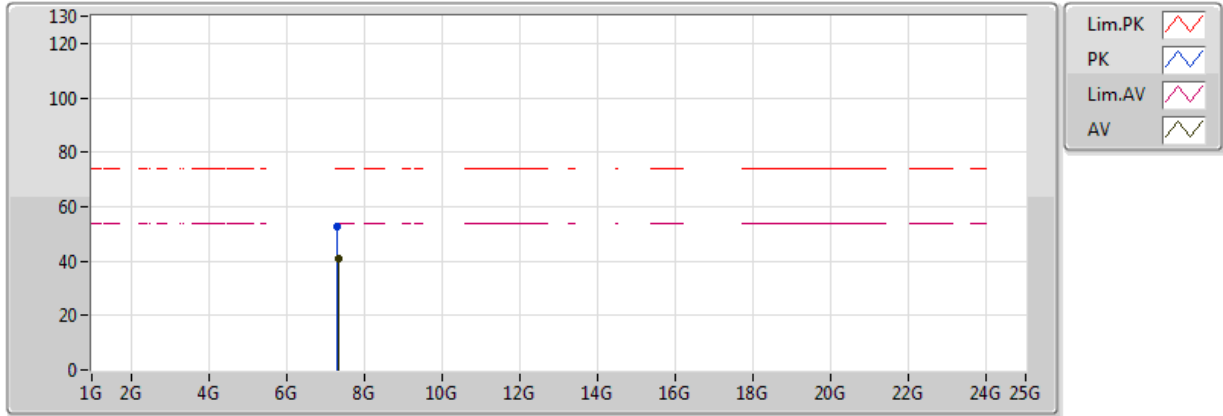


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.357G	43.72	54.00	-10.28	30.27	3	Horizontal	8	1.45	-
AV	2.441G	104.50	Inf	-Inf	30.55	3	Horizontal	8	1.45	-
AV	2.4994G	44.84	54.00	-9.16	30.75	3	Horizontal	8	1.45	-
PK	2.385G	58.31	74.00	-15.69	30.36	3	Horizontal	8	1.45	-
PK	2.441G	105.49	Inf	-Inf	30.55	3	Horizontal	8	1.45	-
PK	2.4986G	58.66	74.00	-15.34	30.75	3	Horizontal	8	1.45	-

BT-BR(1Mbps)

2441MHz_TX

19/08/2018

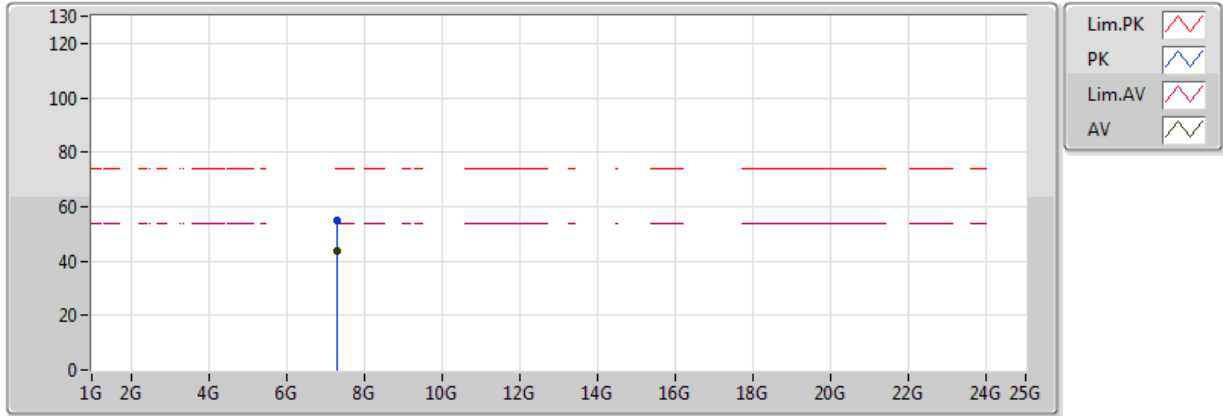


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	7.32312G	41.14	54.00	-12.86	11.15	3	Vertical	191	1.03	-
PK	7.322681G	52.91	74.00	-21.09	11.15	3	Vertical	191	1.03	-

BT-BR(1Mbps)

2441MHz_TX

19/08/2018

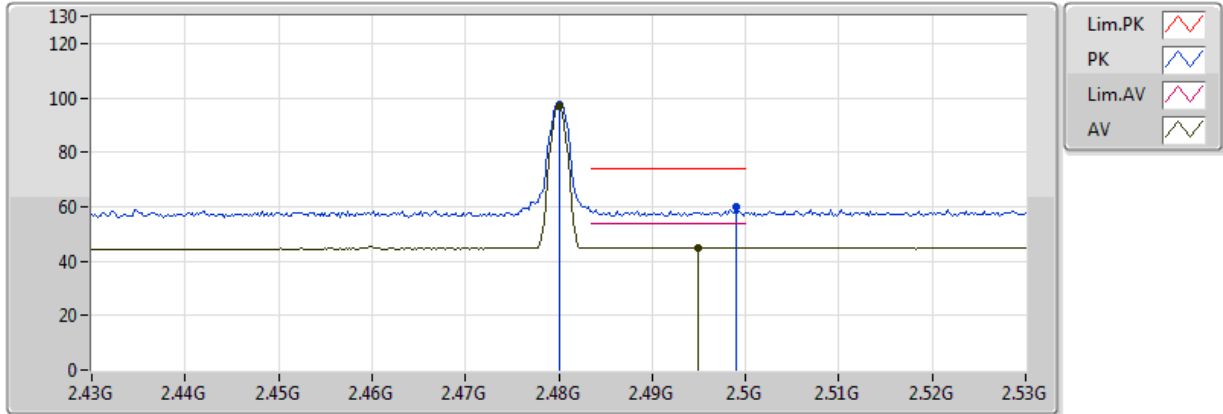


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	7.323G	43.93	54.00	-10.07	11.15	3	Horizontal	237	2.04	-
PK	7.322481G	54.76	74.00	-19.24	11.15	3	Horizontal	237	2.04	-

BT-BR(1Mbps)

2480MHz_TX

19/08/2018

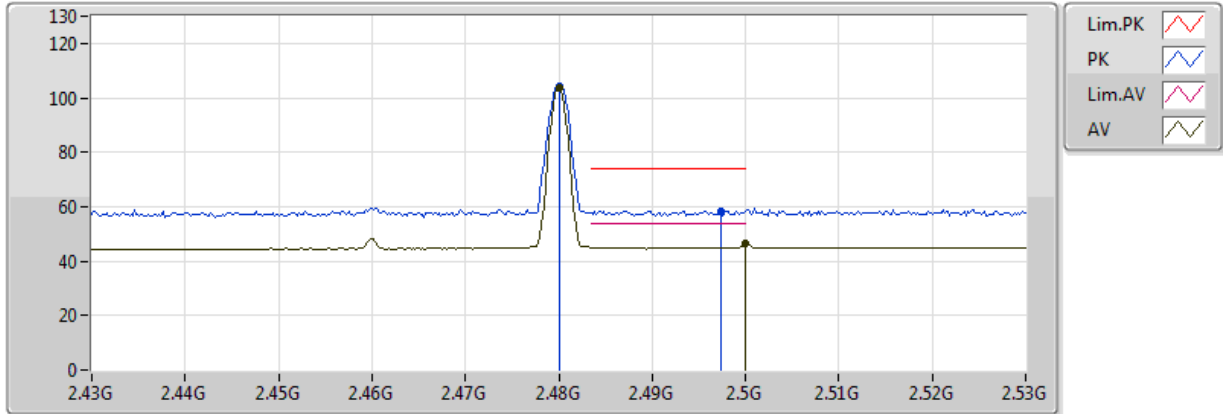


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	96.98	Inf	-Inf	30.68	3	Vertical	247	2.59	-
AV	2.495G	45.05	54.00	-8.95	30.74	3	Vertical	247	2.59	-
PK	2.48G	97.72	Inf	-Inf	30.68	3	Vertical	247	2.59	-
PK	2.499G	59.72	74.00	-14.28	30.75	3	Vertical	247	2.59	-

BT-BR(1Mbps)

2480MHz_TX

19/08/2018

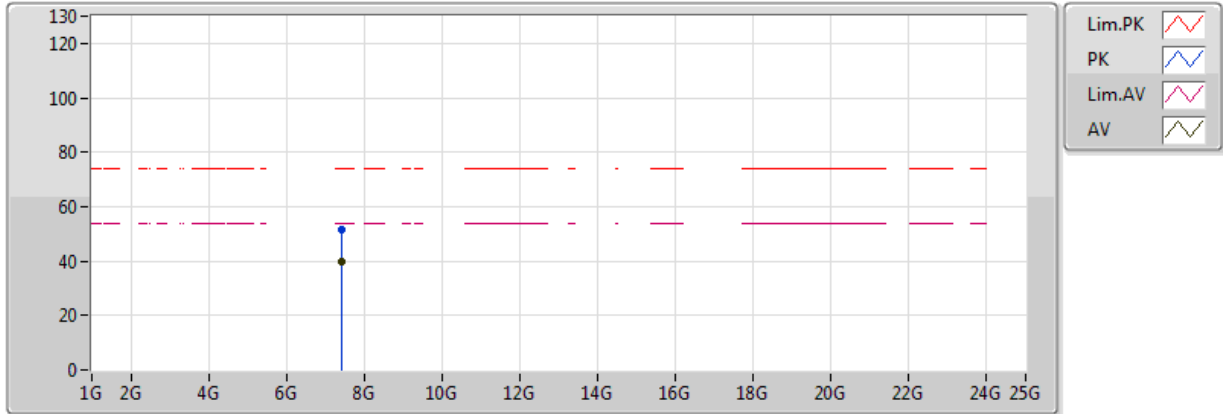


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	103.74	Inf	-Inf	30.68	3	Horizontal	8	1.38	-
AV	2.499998G	46.44	54.00	-7.56	30.75	3	Horizontal	8	1.38	-
PK	2.48G	104.47	Inf	-Inf	30.68	3	Horizontal	8	1.38	-
PK	2.4974G	58.51	74.00	-15.49	30.74	3	Horizontal	8	1.38	-

BT-BR(1Mbps)

2480MHz_TX

19/08/2018

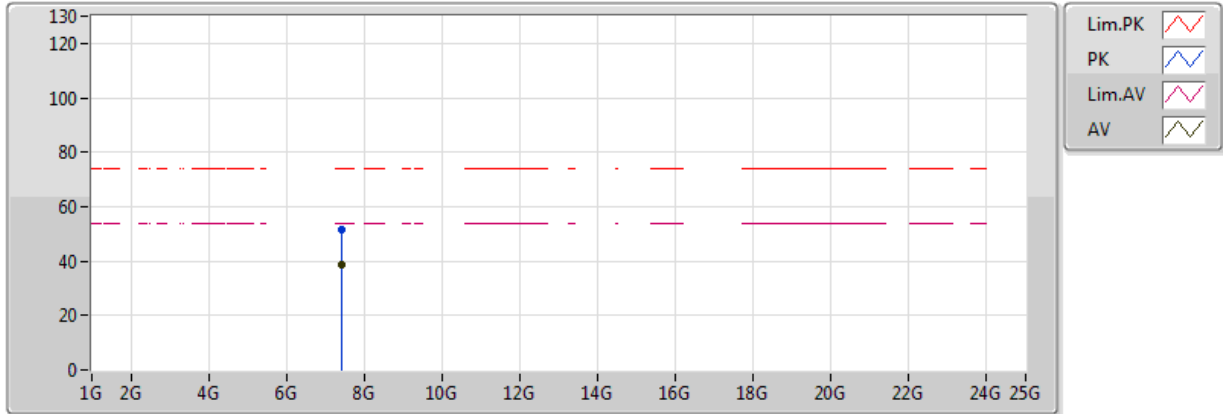


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	7.44004G	39.53	54.00	-14.47	11.48	3	Vertical	191	1.00	-
PK	7.440319G	51.81	74.00	-22.19	11.48	3	Vertical	191	1.00	-

BT-BR(1Mbps)

2480MHz_TX

19/08/2018

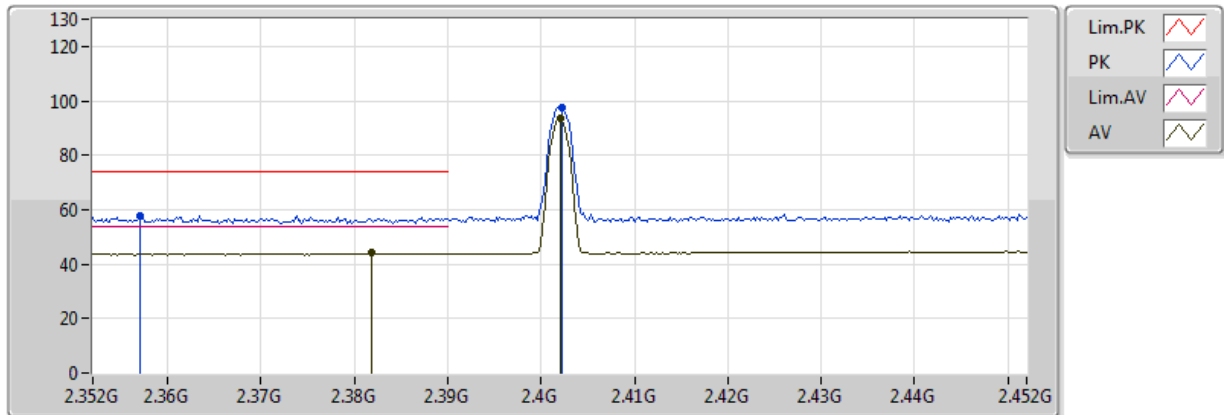


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	7.43982G	38.89	54.00	-15.11	11.48	3	Horizontal	181	1.88	-
PK	7.439721G	51.64	74.00	-22.36	11.48	3	Horizontal	181	1.88	-

BT-EDR(2Mbps)

2402MHz_TX

19/08/2018

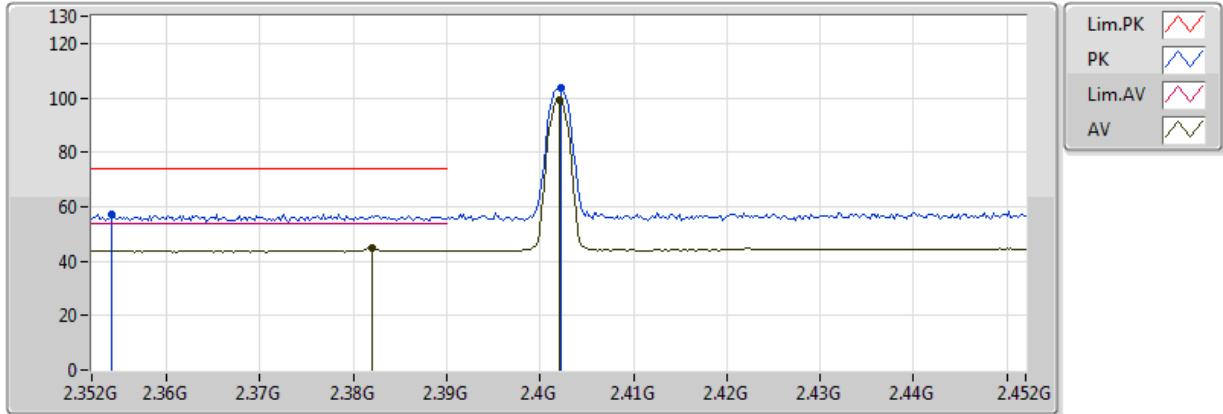


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3818G	44.03	54.00	-9.97	30.35	3	Vertical	348	1.10	-
AV	2.402G	93.37	Inf	-Inf	30.41	3	Vertical	348	1.10	-
PK	2.357G	57.92	74.00	-16.08	30.27	3	Vertical	348	1.10	-
PK	2.4022G	97.43	Inf	-Inf	30.42	3	Vertical	348	1.10	-

BT-EDR(2Mbps)

2402MHz_TX

19/08/2018

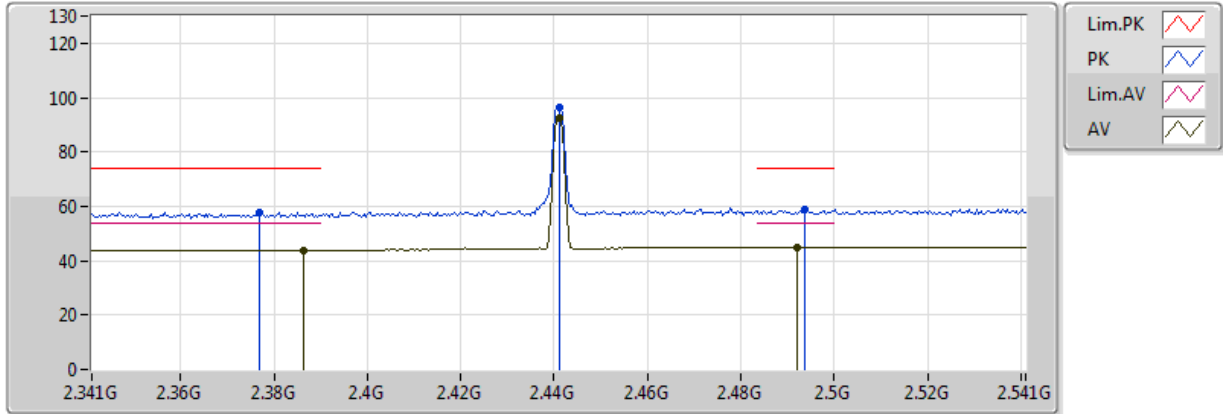


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.382G	44.83	54.00	-9.17	30.35	3	Horizontal	7	1.27	-
AV	2.402G	99.34	Inf	-Inf	30.41	3	Horizontal	7	1.27	-
PK	2.3542G	57.32	74.00	-16.68	30.26	3	Horizontal	7	1.27	-
PK	2.4022G	103.41	Inf	-Inf	30.42	3	Horizontal	7	1.27	-

BT-EDR(2Mbps)

2441MHz_TX

19/08/2018

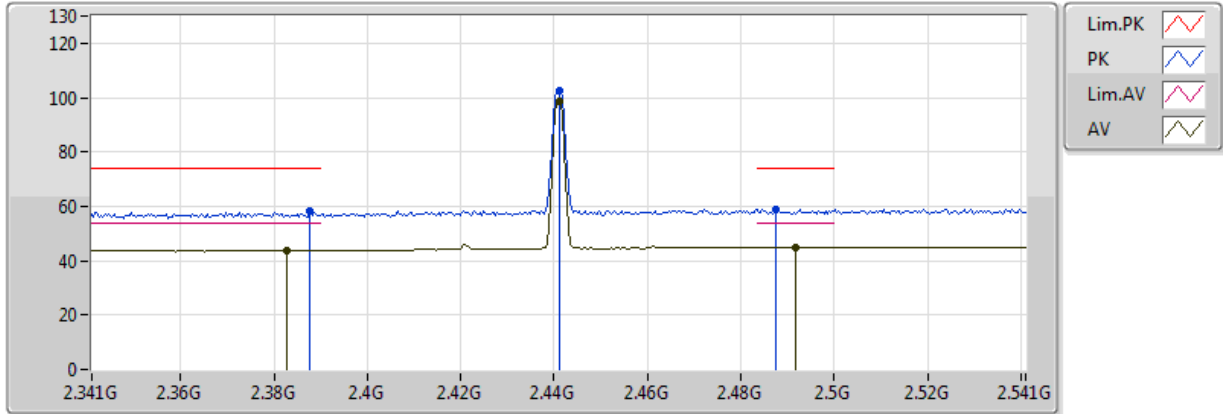


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3862G	43.84	54.00	-10.16	30.37	3	Vertical	244	2.44	-
AV	2.441G	92.50	Inf	-Inf	30.55	3	Vertical	244	2.44	-
AV	2.4922G	44.99	54.00	-9.01	30.72	3	Vertical	244	2.44	-
PK	2.377G	57.95	74.00	-16.05	30.33	3	Vertical	244	2.44	-
PK	2.441G	96.60	Inf	-Inf	30.55	3	Vertical	244	2.44	-
PK	2.4938G	58.65	74.00	-15.35	30.73	3	Vertical	244	2.44	-

BT-EDR(2Mbps)

2441MHz_TX

19/08/2018

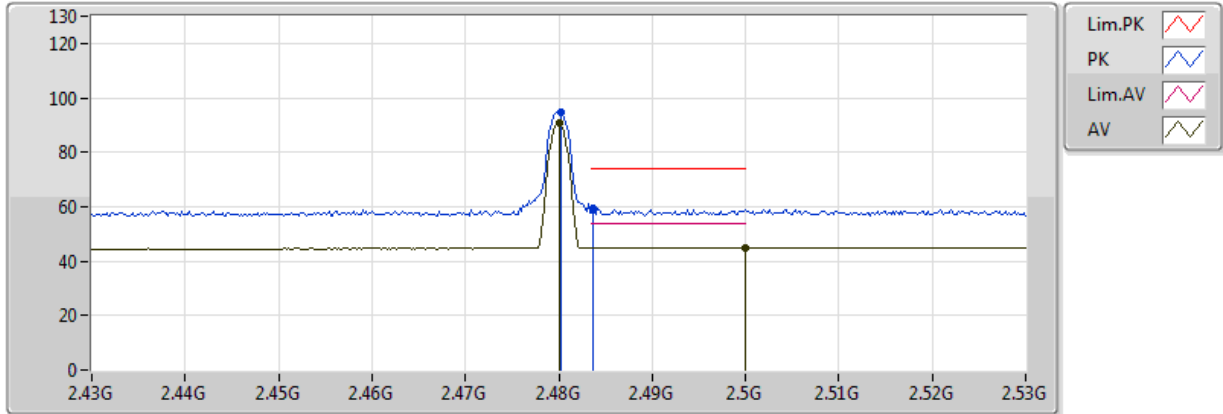


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3826G	43.87	54.00	-10.13	30.35	3	Horizontal	3	1.50	-
AV	2.441G	98.36	Inf	-Inf	30.55	3	Horizontal	3	1.50	-
AV	2.4918G	44.93	54.00	-9.07	30.72	3	Horizontal	3	1.50	-
PK	2.3878G	58.27	74.00	-15.73	30.37	3	Horizontal	3	1.50	-
PK	2.441G	102.51	Inf	-Inf	30.55	3	Horizontal	3	1.50	-
PK	2.4874G	59.00	74.00	-15.00	30.71	3	Horizontal	3	1.50	-

BT-EDR(2Mbps)

2480MHz_TX

19/08/2018

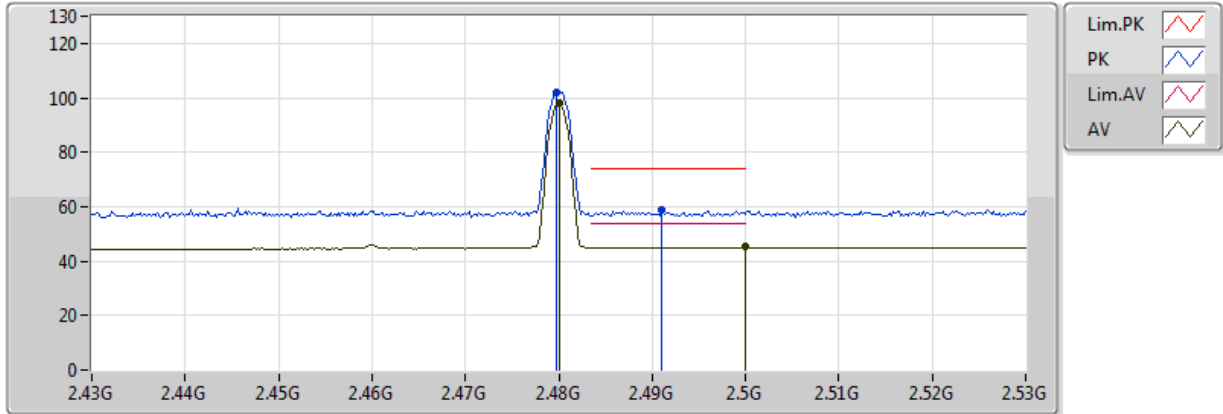


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	90.63	Inf	-Inf	30.68	3	Vertical	251	2.59	-
AV	2.499998G	44.88	54.00	-9.12	30.75	3	Vertical	251	2.59	-
PK	2.4802G	94.83	Inf	-Inf	30.68	3	Vertical	251	2.59	-
PK	2.4836G	59.19	74.00	-14.81	30.69	3	Vertical	251	2.59	-

BT-EDR(2Mbps)

2480MHz_TX

19/08/2018

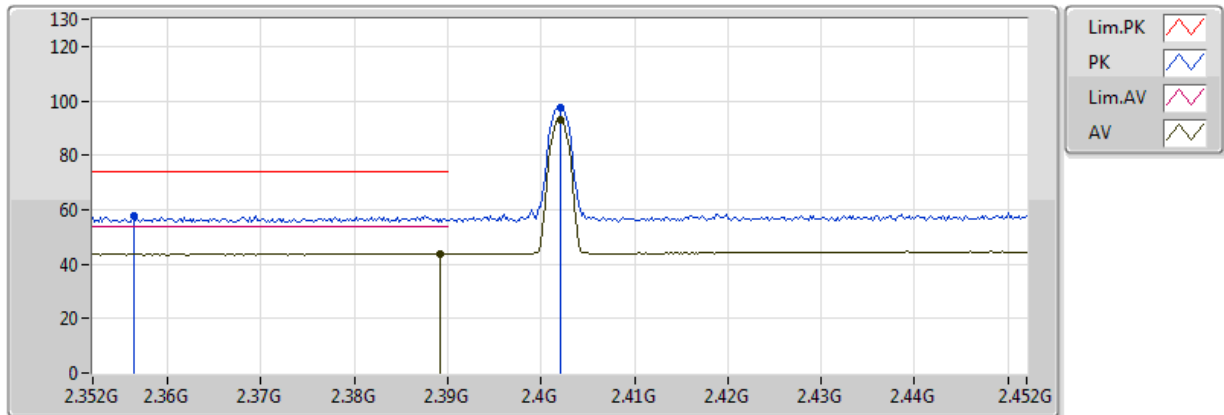


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	98.07	Inf	-Inf	30.68	3	Horizontal	10	1.38	-
AV	2.499998G	45.21	54.00	-8.79	30.75	3	Horizontal	10	1.38	-
PK	2.4798G	102.19	Inf	-Inf	30.68	3	Horizontal	10	1.38	-
PK	2.491G	58.77	74.00	-15.23	30.72	3	Horizontal	10	1.38	-

BT-EDR(3Mbps)

2402MHz_TX

19/08/2018

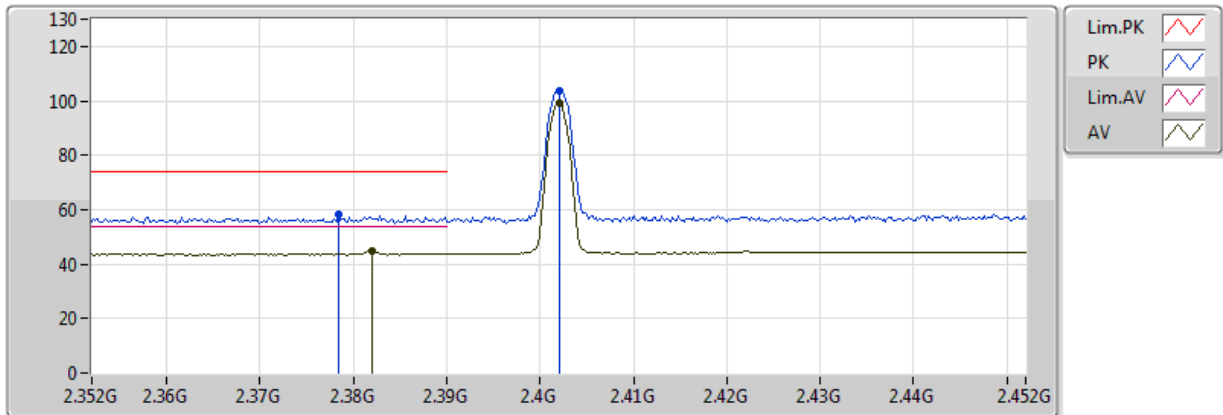


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3892G	43.89	54.00	-10.11	30.37	3	Vertical	347	1.09	-
AV	2.402G	93.13	Inf	-Inf	30.41	3	Vertical	347	1.09	-
PK	2.3564G	57.49	74.00	-16.51	30.27	3	Vertical	347	1.09	-
PK	2.402G	97.66	Inf	-Inf	30.41	3	Vertical	347	1.09	-

BT-EDR(3Mbps)

2402MHz_TX

19/08/2018

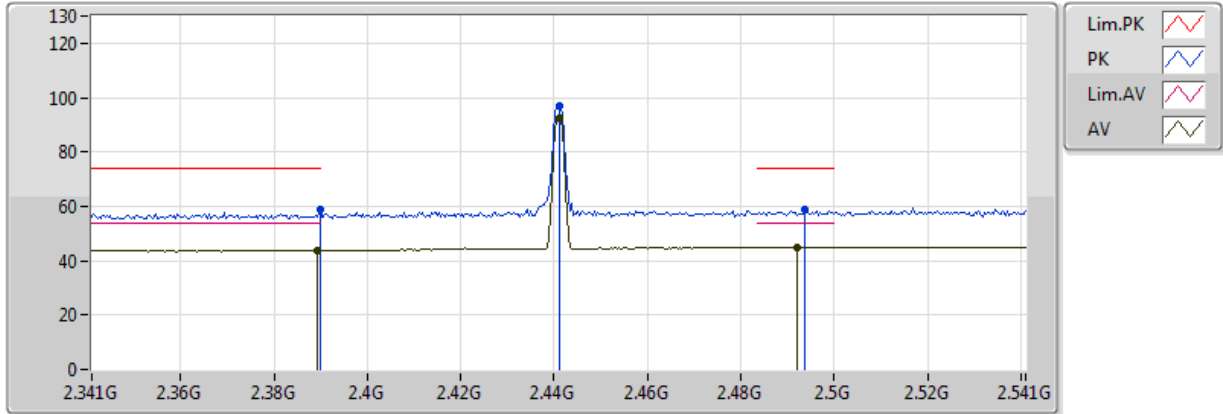


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.382G	44.88	54.00	-9.12	30.35	3	Horizontal	9	1.25	-
AV	2.402G	99.35	Inf	-Inf	30.41	3	Horizontal	9	1.25	-
PK	2.3784G	58.32	74.00	-15.68	30.34	3	Horizontal	9	1.25	-
PK	2.402G	103.83	Inf	-Inf	30.41	3	Horizontal	9	1.25	-

BT-EDR(3Mbps)

2441MHz_TX

19/08/2018

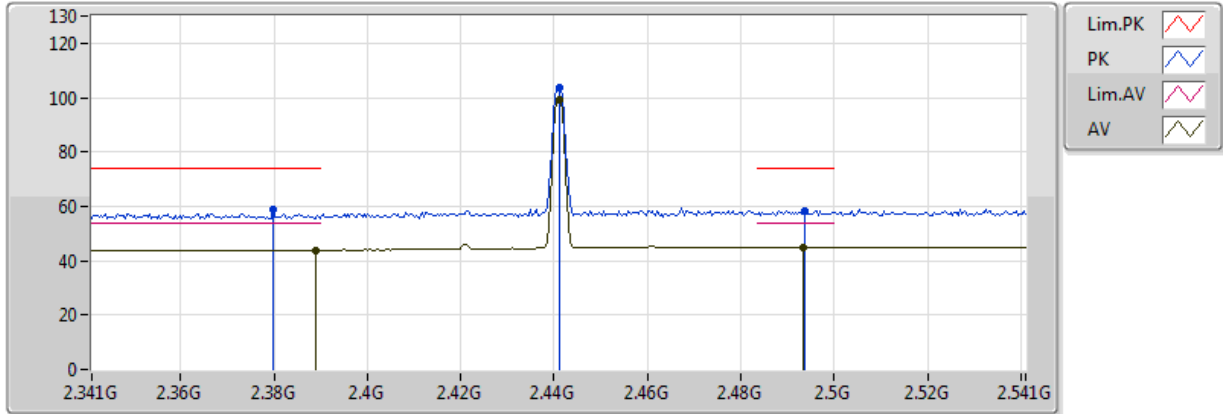


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3894G	43.74	54.00	-10.26	30.37	3	Vertical	246	2.43	-
AV	2.441G	92.46	Inf	-Inf	30.55	3	Vertical	246	2.43	-
AV	2.4922G	44.87	54.00	-9.13	30.72	3	Vertical	246	2.43	-
PK	2.3898G	58.66	74.00	-15.34	30.38	3	Vertical	246	2.43	-
PK	2.441G	96.97	Inf	-Inf	30.55	3	Vertical	246	2.43	-
PK	2.4938G	58.71	74.00	-15.29	30.73	3	Vertical	246	2.43	-

BT-EDR(3Mbps)

2441MHz_TX

19/08/2018

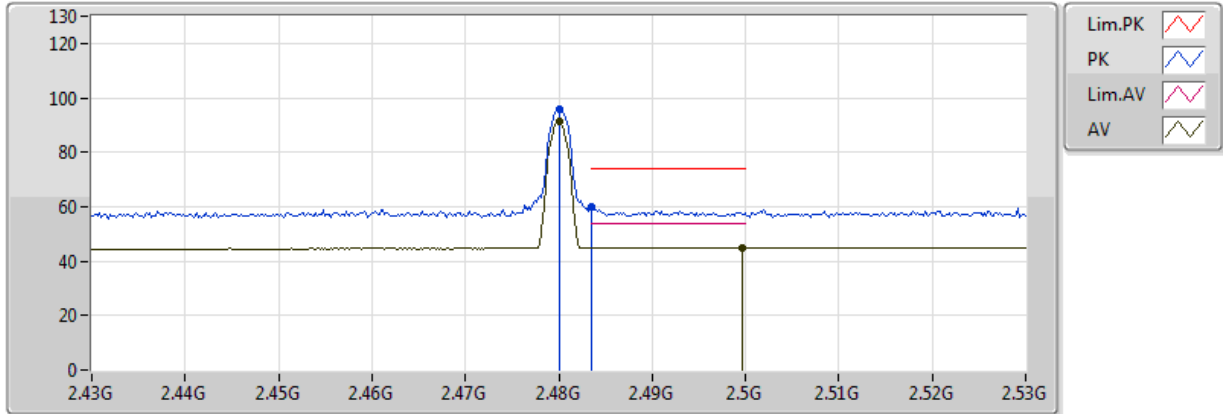


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389G	43.87	54.00	-10.13	30.37	3	Horizontal	8	1.45	-
AV	2.441G	99.02	Inf	-Inf	30.55	3	Horizontal	8	1.45	-
AV	2.4934G	44.99	54.00	-9.01	30.72	3	Horizontal	8	1.45	-
PK	2.3798G	58.78	74.00	-15.22	30.34	3	Horizontal	8	1.45	-
PK	2.441G	103.54	Inf	-Inf	30.55	3	Horizontal	8	1.45	-
PK	2.4938G	58.53	74.00	-15.47	30.73	3	Horizontal	8	1.45	-

BT-EDR(3Mbps)

2480MHz_TX

19/08/2018

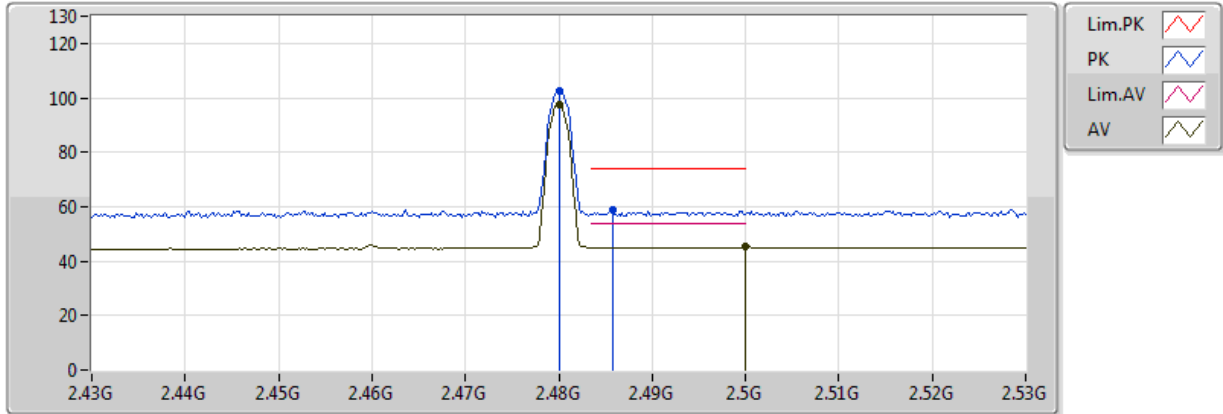


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	91.24	Inf	-Inf	30.68	3	Vertical	248	2.58	-
AV	2.4996G	44.91	54.00	-9.09	30.75	3	Vertical	248	2.58	-
PK	2.48G	95.74	Inf	-Inf	30.68	3	Vertical	248	2.58	-
PK	2.483502G	59.68	74.00	-14.32	30.69	3	Vertical	248	2.58	-

BT-EDR(3Mbps)

2480MHz_TX

19/08/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	97.74	Inf	-Inf	30.68	3	Horizontal	12	1.40	-
AV	2.499998G	45.36	54.00	-8.64	30.75	3	Horizontal	12	1.40	-
PK	2.48G	102.30	Inf	-Inf	30.68	3	Horizontal	12	1.40	-
PK	2.4858G	58.89	74.00	-15.11	30.71	3	Horizontal	12	1.40	-