

FCC Test Report

FCC ID : PPQ-V723
Equipment : Wi-Fi Outdoor Bullet Camera
Brand Name : ALARM.COM
Model Name : ADC-V723
Applicant : LITE-ON Technology Corp.
Bldg. C, 90, Chien 1 Rd., Chung-Ho, New Taipei City,
23585 Taiwan
Manufacturer : Lite-On Network Communication (Dongguan) Limited
30#Keji Rd., Yin Hu Industrial Area, Qingxi
Town, DongGuan City, Guangdong, China
Standard : 47 CFR FCC Part 15.247

The product was received on Dec. 17, 2018, and testing was started from May 04, 2019 and completed on May 21, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

HISTORY OF THIS TEST REPORT3

SUMMARY OF TEST RESULT4

1 GENERAL DESCRIPTION5

1.1 Information.....5

1.2 Testing Applied Standards7

1.3 Testing Location Information7

1.4 Measurement Uncertainty7

2 TEST CONFIGURATION OF EUT.....8

2.1 Test Condition8

2.2 Test Channel Mode8

2.3 The Worst Case Measurement Configuration.....9

2.4 Accessories and Support Equipment10

2.5 Test Setup Diagram11

3 TRANSMITTER TEST RESULT13

3.1 AC Power-line Conducted Emissions13

3.2 DTS Bandwidth.....14

3.3 Maximum Conducted Output Power15

3.4 Power Spectral Density17

3.5 Emissions in Non-restricted Frequency Bands18

3.6 Emissions in Restricted Frequency Bands.....19

4 TEST EQUIPMENT AND CALIBRATION DATA.....22

APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS

APPENDIX B. TEST RESULTS OF DTS BANDWIDTH

APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER

APPENDIX D. TEST RESULTS OF POWER SPECTRAL DENSITY

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

APPENDIX F. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS

APPENDIX G. TEST PHOTOS

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)	DTS Bandwidth	PASS	≥500kHz
3.3	15.247(b)	Maximum Conducted Output Power	PASS	Power [dBm]:30
3.4	15.247(e)	Power Spectral Density	PASS	PSD [dBm/3kHz]:8
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	Non-Restricted Bands: >30 dBc
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	Restricted Bands: FCC 15.209

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None.

Reviewed by: Jackson Tsai

Report Producer: Amber Chiu

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2480	0-39 [40]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1.0	1TX

Note:

- ♦ Bluetooth LE uses a GFSK (1Mbps) modulation for DSSS.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	Lite-on	3010001121L7	Dipole antenna	I-PEX
2	Lite-on	3010001122L7	Dipole antenna	I-PEX

Ant.	Port	Gain (dBi)		
		2.4G	5G	BT
1	1	5.1	5.6	5.1
2	2	3.5	5.5	-

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 1(port 1) and it was record in this test report.

For BT function:

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

Support diversity function, the Ant. 1 (port 1) was declared to be tested only by customer.

For 5GHz function:

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

Support diversity function, Support diversity function and pre-tested on each single chain, the worst case was Ant. 1(port 1) and it was record in this test report.



1.1.3 EUT Information

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

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-LE(1Mbps)	0.613	2.13	318.75u	10k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013
- ◆ KDB 558074 D01 v05r02

1.3 Testing Location Information

Testing Location			
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
<input type="checkbox"/>	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Clara	23.3~23.9°C / 63~66%	06/May/2019
Radiated	03CH02-HY	Patrick	23.5~24.9°C / 52.3~54.5%	04/May/2019~14/May/2019
AC Conduction	CO01-HY	Jeff	22.2-25.8°C / 52.2-57.1%	21/May/2019

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode




Test Software Version	Dos
-----------------------	-----

Mode	PowerSetting
BT-LE(1Mbps)	-
2402MHz	23
2440MHz	23
2480MHz	23

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	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density 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	



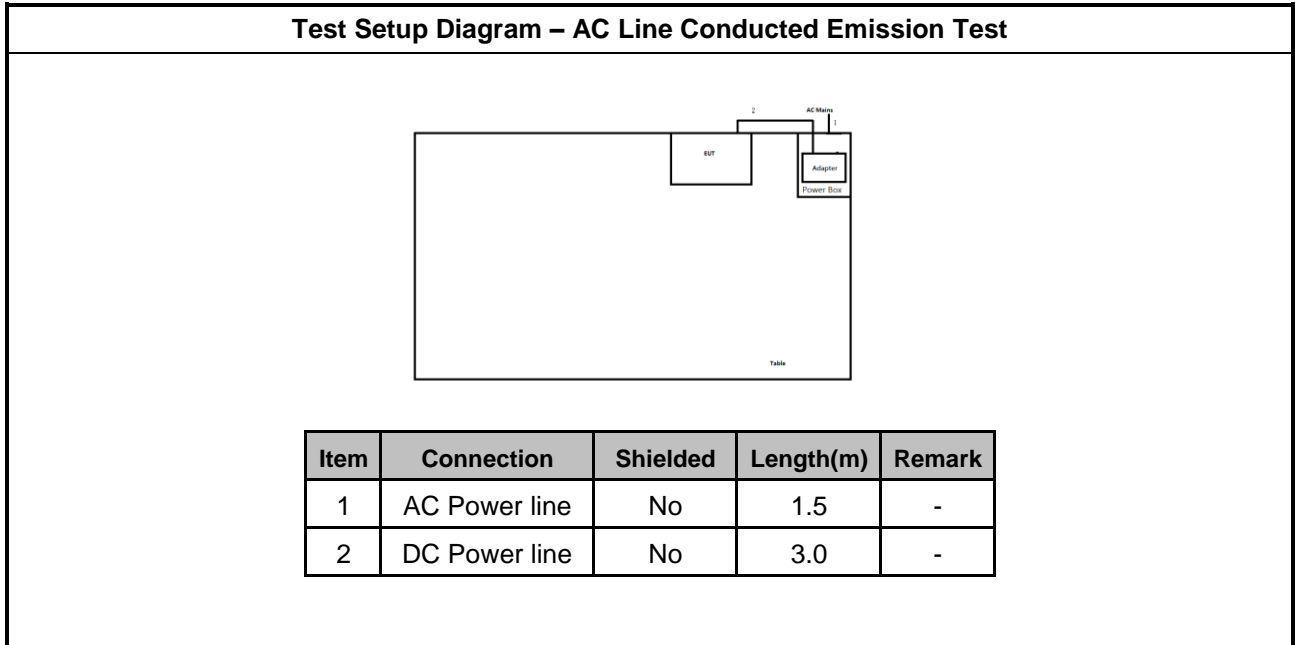
2.4 Accessories and Support Equipment

Accessories				
AC Adapter	Brand Name	Asian Power Devices Inc.	Model Name	WB-12G12FU
	Power Rating	I/P: 100 - 240Vac, 0.3 A Max, O/P: 12 Vdc, 1A		
	Power Cord	3 meter, non-shielded cable, w/o ferrite core		

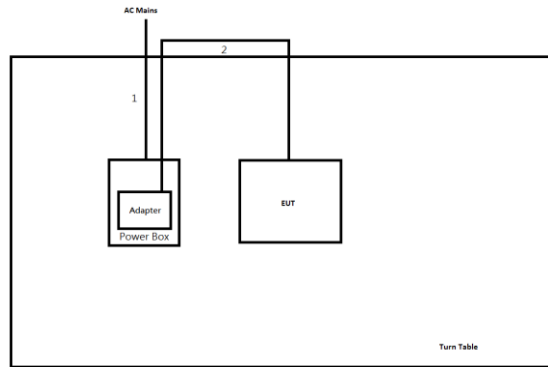
Reminder: Regarding to more detail and other information, please refer to user manual.

Support Equipment - RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC

2.5 Test Setup Diagram



Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.5	-
2	DC Power line	No	3.0	-

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.

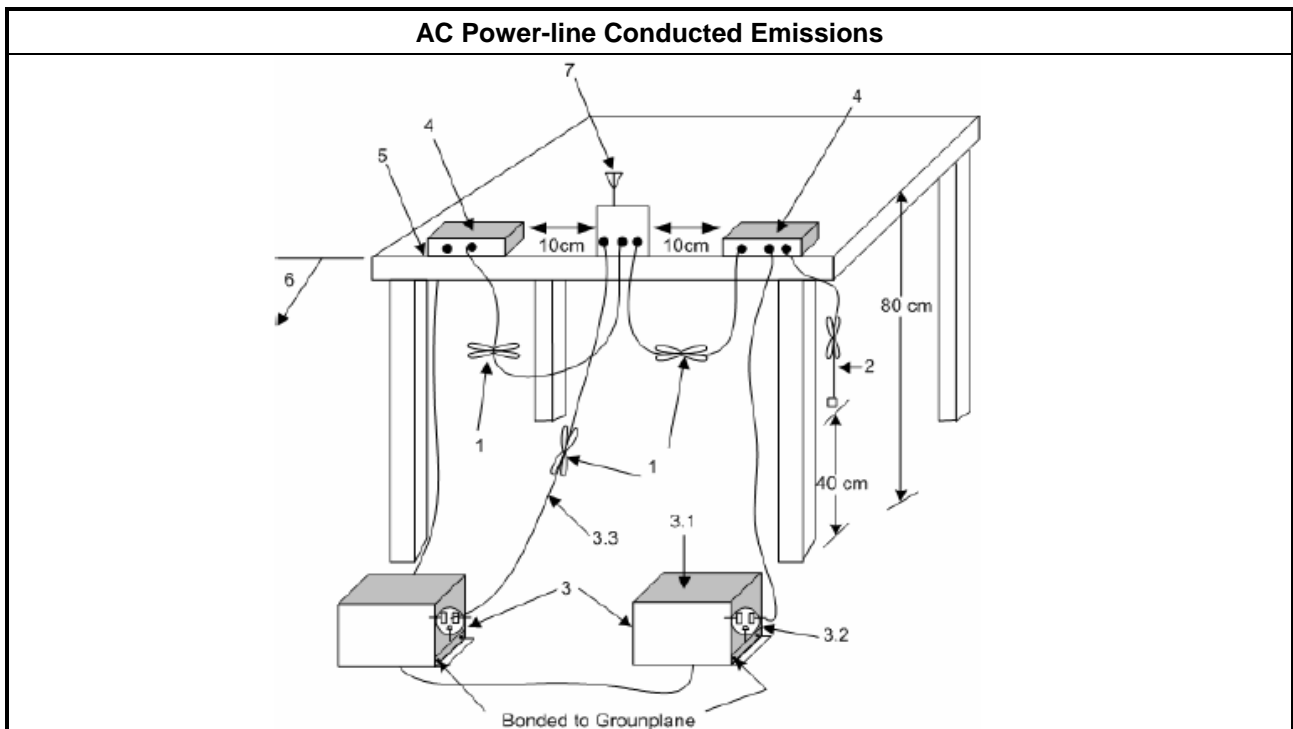
3.1.2 Measuring Instruments

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 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
<ul style="list-style-type: none"> ▪ 6 dB bandwidth \geq 500 kHz.

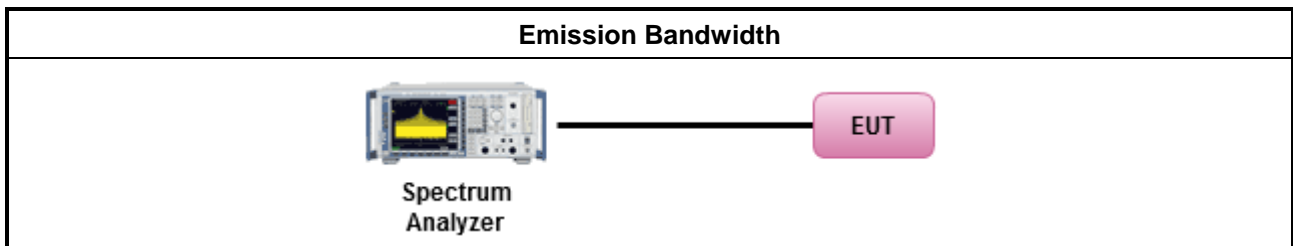
3.2.2 Measuring Instruments

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"> ▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
<input type="checkbox"/> Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

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"> ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:	
	<ul style="list-style-type: none"> ▪ 2400-2483.5 MHz Band
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS)
	<ul style="list-style-type: none"> - Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

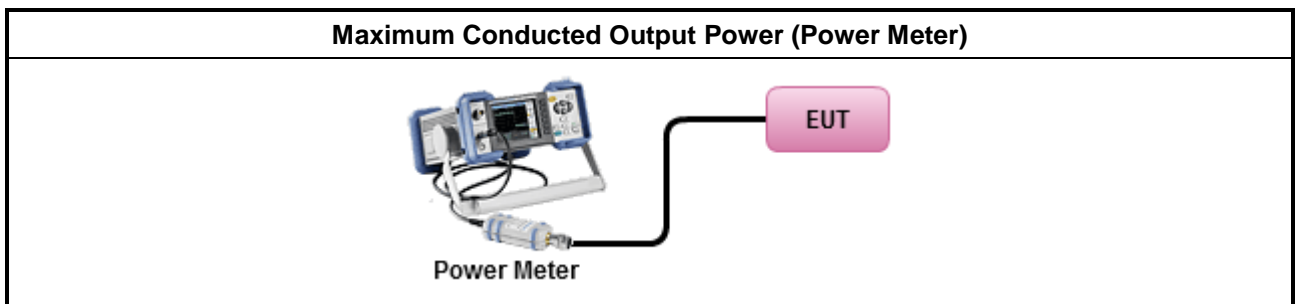
3.3.2 Measuring Instruments

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"> ▪ Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
<ul style="list-style-type: none"> ▪ Maximum Average Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> Power Spectral Density (PSD) ≤ 8 dBm/3kHz

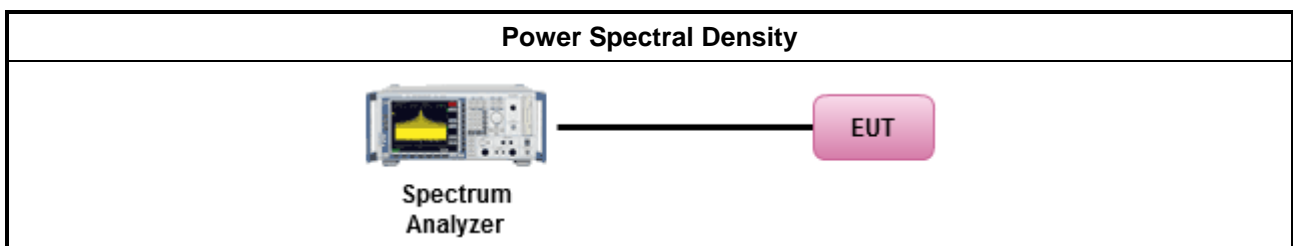
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.
	<ul style="list-style-type: none"> For conducted measurement.
	<ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below:
	<ul style="list-style-type: none"> Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30

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.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

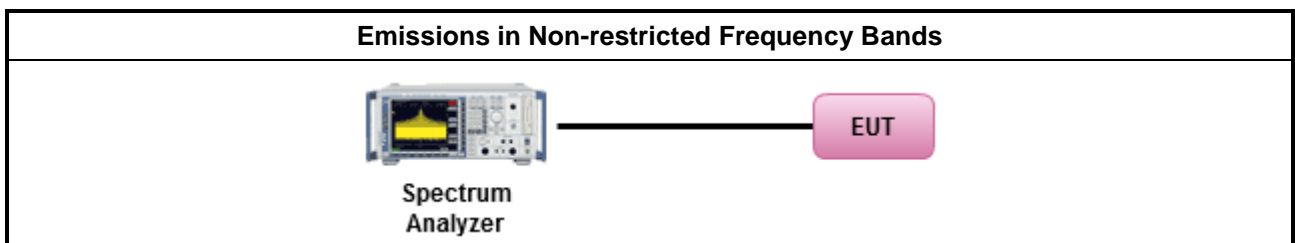
3.5.2 Measuring Instruments

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 KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 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.

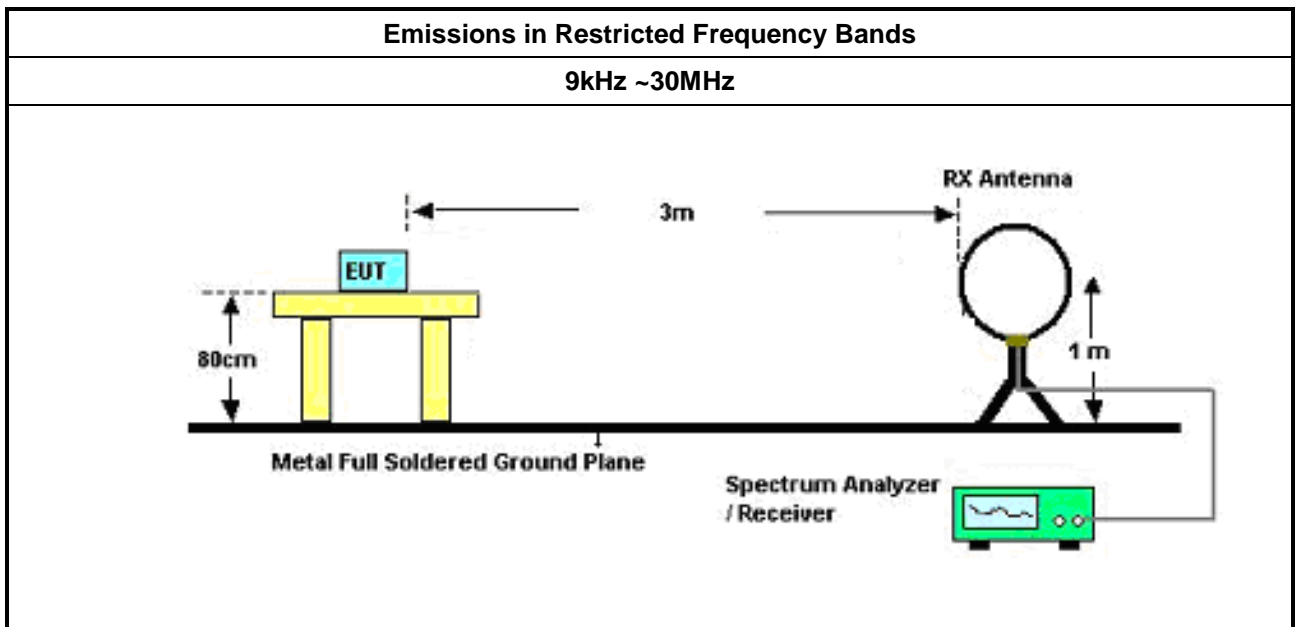
3.6.2 Measuring Instruments

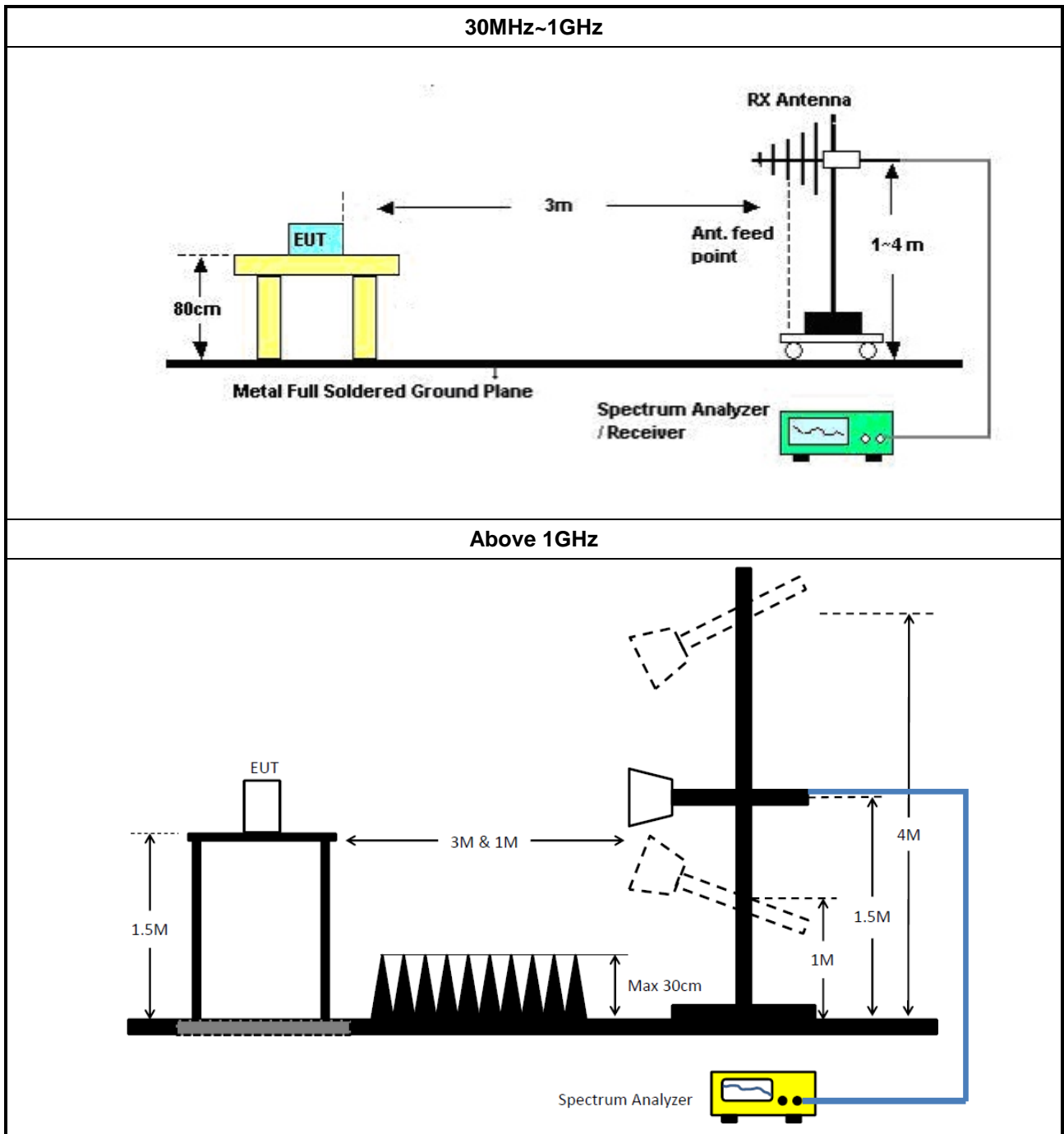
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. 	
<ul style="list-style-type: none"> For the transmitter unwanted emissions shall be measured using following options below: <ul style="list-style-type: none"> Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands. 	
<ul style="list-style-type: none"> For the transmitter band-edge emissions shall be measured using following options below: <ul style="list-style-type: none"> Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below. Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements. Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz). 	
<ul style="list-style-type: none"> Use the following spectrum analyzer settings: <ul style="list-style-type: none"> Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold. Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4. 	

3.6.4 Test Setup





3.6.5 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.

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

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	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV 216	101274	9kHz ~ 30MHz	12/Jun/2018	11/Jun/2019
RF Cable-CON	MTJ	RG142	CB001-CO	9kHz ~ 30MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11003G	F308010045	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561F	9495	9kHz ~ 30MHz	11/Oct/2018	10/Oct/2019

NCR : Non-Calibration Require

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	19/Oct/2018	18/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	17/Oct/2018	16/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	27Jul/2018	02/Jul/2019
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	23/Oct/2018	22/Oct/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	18/Jan/2019	17/Jan/2020
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	18/Jan/2019	17/Jan/2020
Bilog Antenna	SCHAFFNER	CBL6111C	2737	30MHz ~ 1GHz	02/Oct/2018	03/Oct/2019



Instrument for Conducted Test

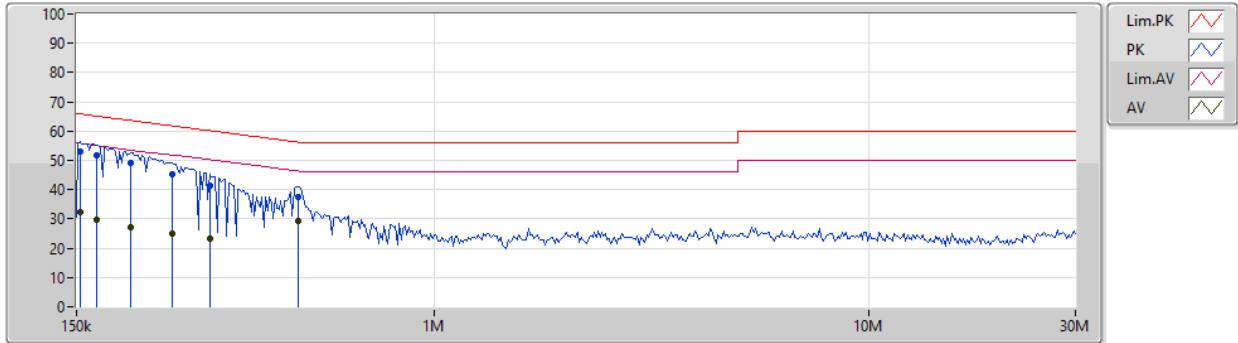
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~18GHz	10/Jan/2019	09/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz~18GHz	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY10714/4	RF Cable - 05	30MHz~18GHz	10/Jan/2019	09/Jan/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020



AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode		

21/05/2019



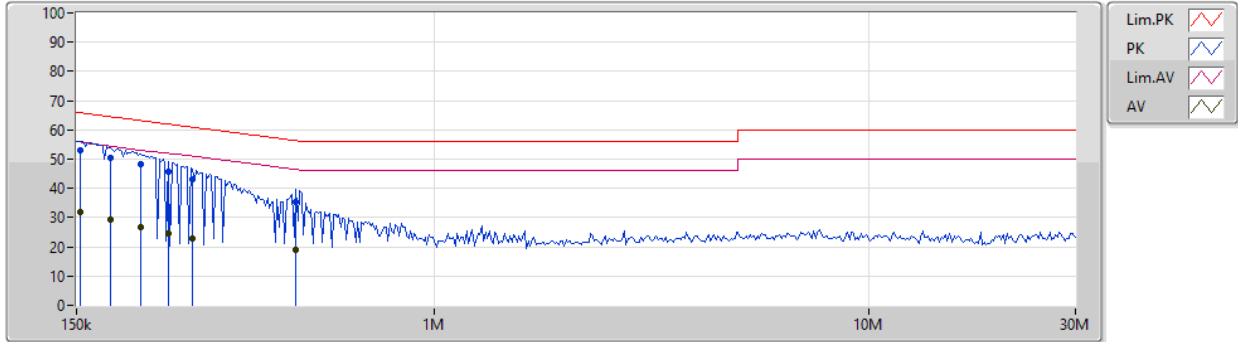
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	153.015k	52.86	65.83	-12.97	19.52	Neutral	"Worst"	33.34	9.65	0.01	9.86
AV	153.015k	32.14	55.83	-23.69	19.52	Neutral	-	12.62	9.65	0.01	9.86
QP	167.35k	51.64	65.08	-13.44	19.52	Neutral	-	32.12	9.65	0.01	9.86
AV	167.35k	29.65	55.08	-25.43	19.52	Neutral	-	10.13	9.65	0.01	9.86
QP	200.176k	49.12	63.61	-14.49	19.51	Neutral	-	29.61	9.64	0.01	9.86
AV	200.176k	27.35	53.61	-26.26	19.51	Neutral	-	7.84	9.64	0.01	9.86
QP	249.162k	45.43	61.79	-16.36	19.51	Neutral	-	25.92	9.64	0.01	9.86
AV	249.162k	24.89	51.79	-26.90	19.51	Neutral	-	5.38	9.64	0.01	9.86
QP	304.025k	41.49	60.13	-18.64	19.51	Neutral	-	21.98	9.64	0.01	9.86
AV	304.025k	23.11	50.13	-27.02	19.51	Neutral	-	3.60	9.64	0.01	9.86
QP	485.303k	37.48	56.25	-18.77	19.51	Neutral	-	17.97	9.64	0.01	9.86
AV	485.303k	29.45	46.25	-16.80	19.51	Neutral	-	9.94	9.64	0.01	9.86



AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode		

21/05/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	153.015k	52.88	65.83	-12.95	19.48	Line	"Worst"	33.40	9.61	0.01	9.86
AV	153.015k	31.91	55.83	-23.92	19.48	Line	-	12.43	9.61	0.01	9.86
QP	179.422k	50.49	64.51	-14.02	19.48	Line	-	31.01	9.61	0.01	9.86
AV	179.422k	29.37	54.51	-25.14	19.48	Line	-	9.89	9.61	0.01	9.86
QP	210.387k	48.37	63.19	-14.82	19.48	Line	-	28.89	9.61	0.01	9.86
AV	210.387k	26.92	53.19	-26.27	19.48	Line	-	7.44	9.61	0.01	9.86
QP	244.252k	45.61	61.95	-16.34	19.48	Line	-	26.13	9.61	0.01	9.86
AV	244.252k	24.60	51.95	-27.35	19.48	Line	-	5.12	9.61	0.01	9.86
QP	277.982k	43.11	60.88	-17.77	19.48	Line	-	23.63	9.61	0.01	9.86
AV	277.982k	22.94	50.88	-27.94	19.48	Line	-	3.46	9.61	0.01	9.86
QP	480.498k	35.41	56.33	-20.92	19.48	Line	-	15.93	9.61	0.01	9.86
AV	480.498k	19.14	46.33	-27.19	19.48	Line	-	-0.34	9.61	0.01	9.86



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	692.5k	1.049M	1M05F1D	686.25k	1.043M

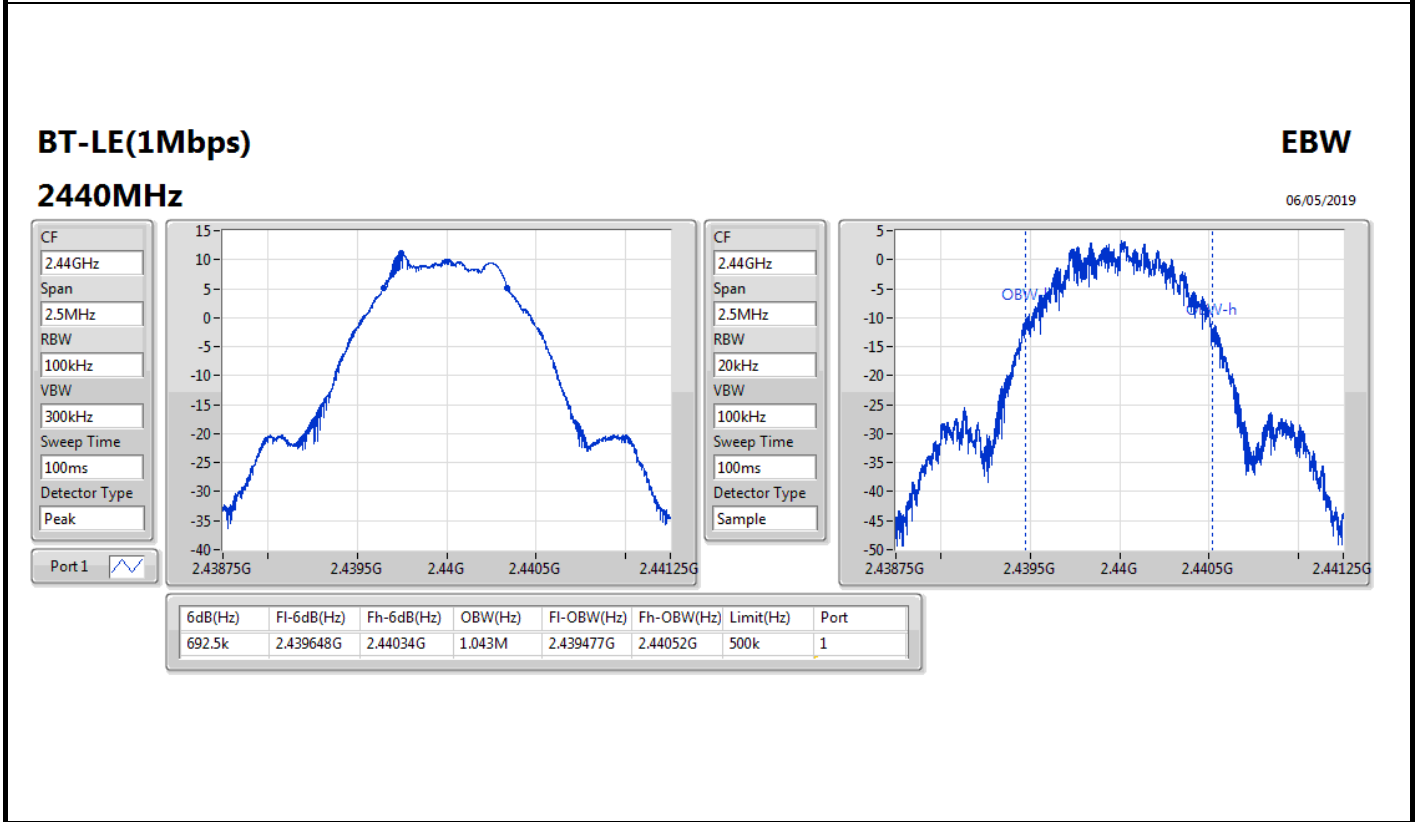
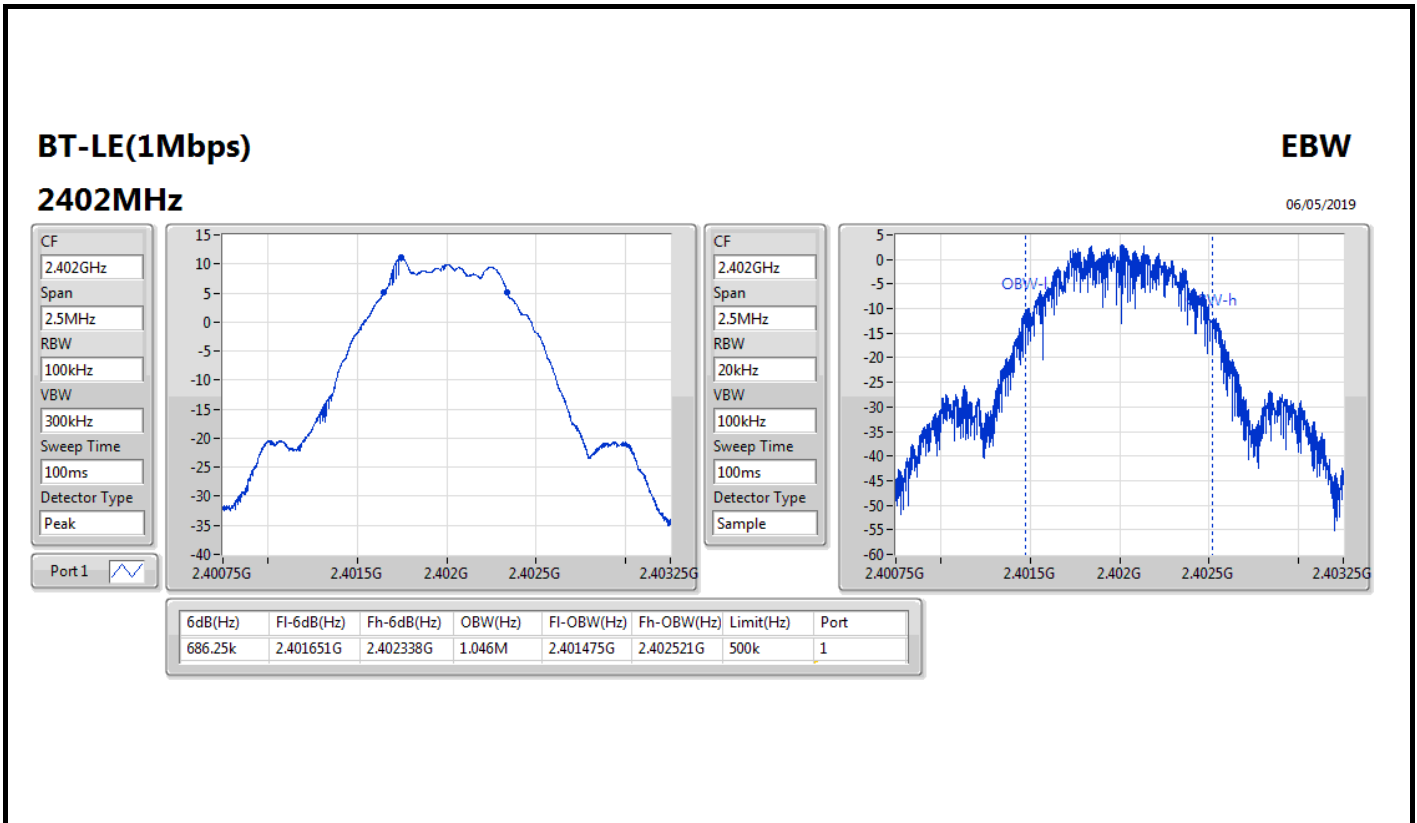
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

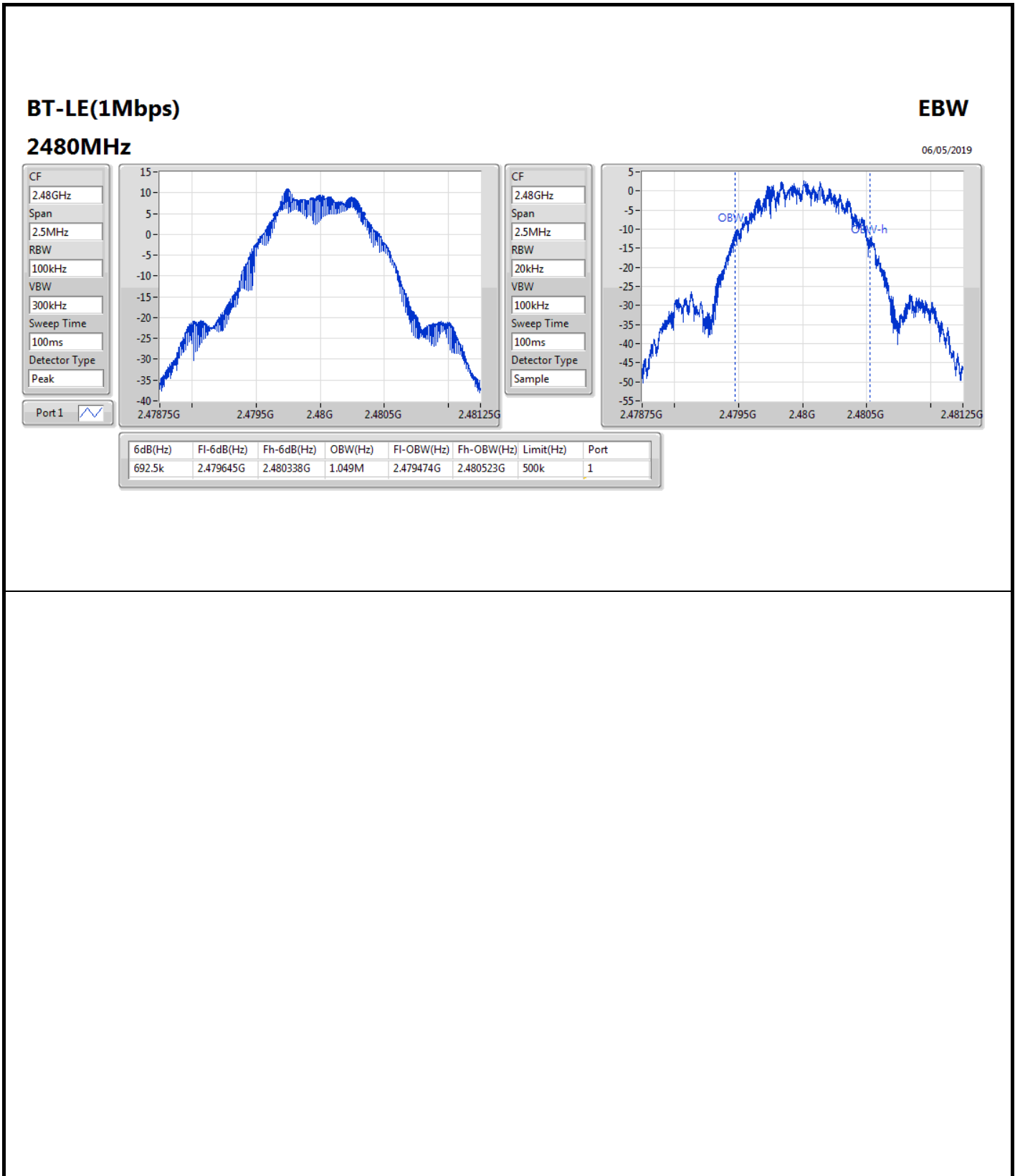


Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	686.25k	1.046M
2440MHz	Pass	500k	692.5k	1.043M
2480MHz	Pass	500k	692.5k	1.049M

Port X-N dB = Port X 6dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;







Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	11.35	0.01365



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	5.10	11.35	30.00
2440MHz	Pass	5.10	11.33	30.00
2480MHz	Pass	5.10	10.83	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-4.56

RBW=3 kHz.

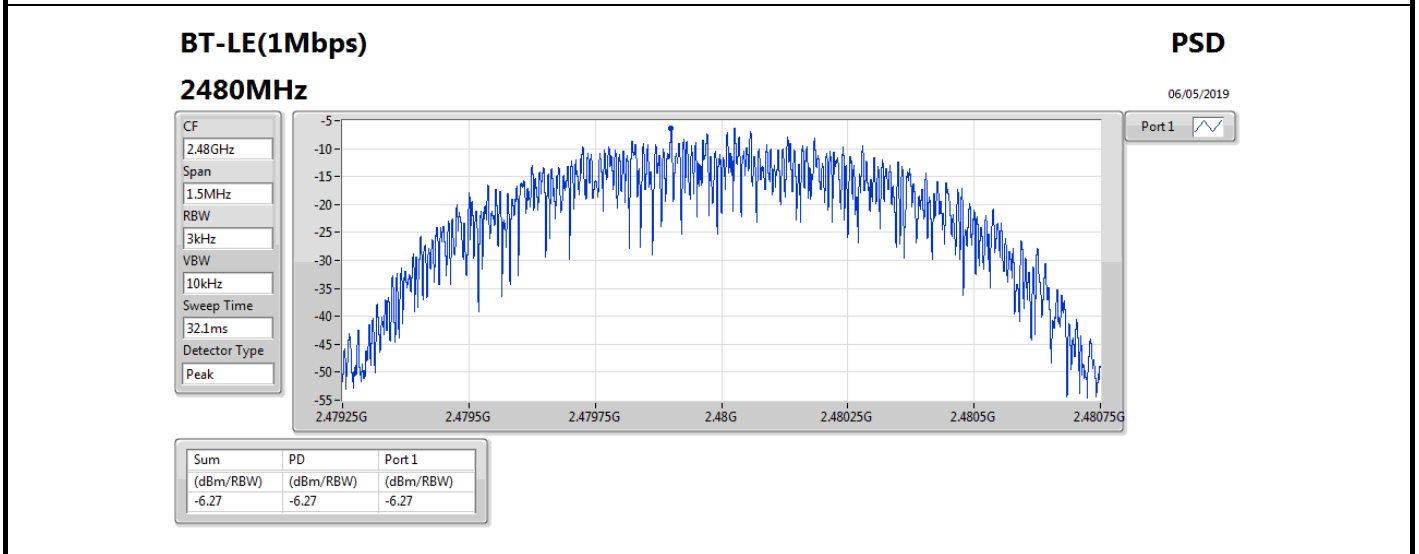
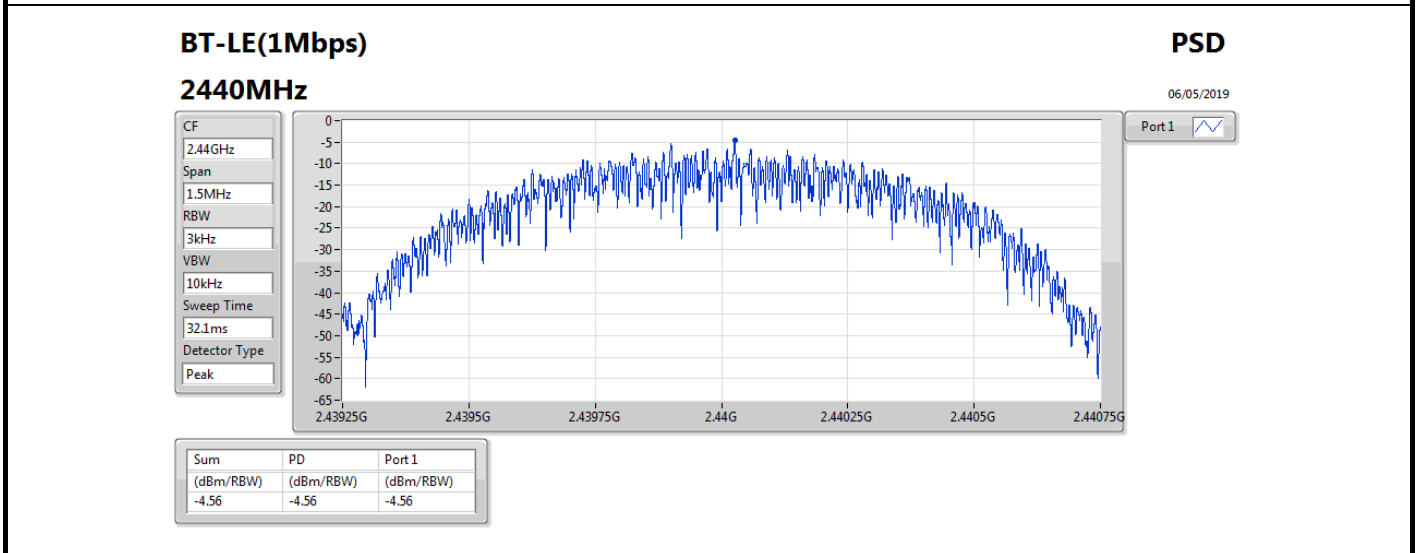
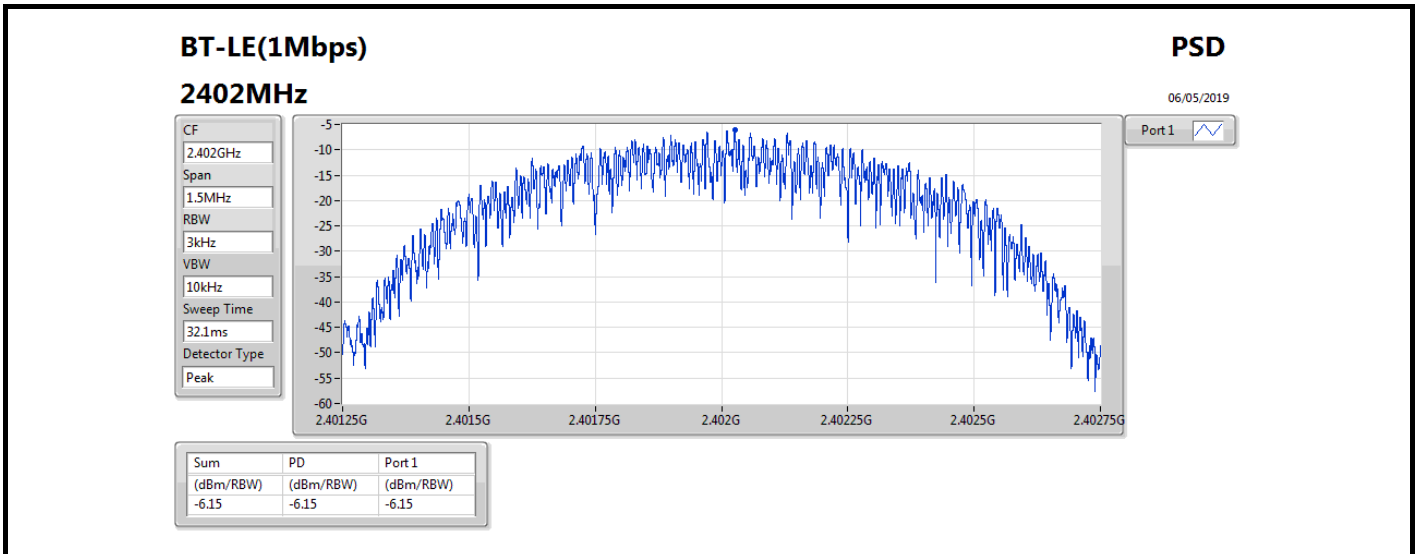


Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	5.10	-6.15	8.00
2440MHz	Pass	5.10	-4.56	8.00
2480MHz	Pass	5.10	-6.27	8.00

DG = Directional Gain; RBW=3 kHz;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X power density;





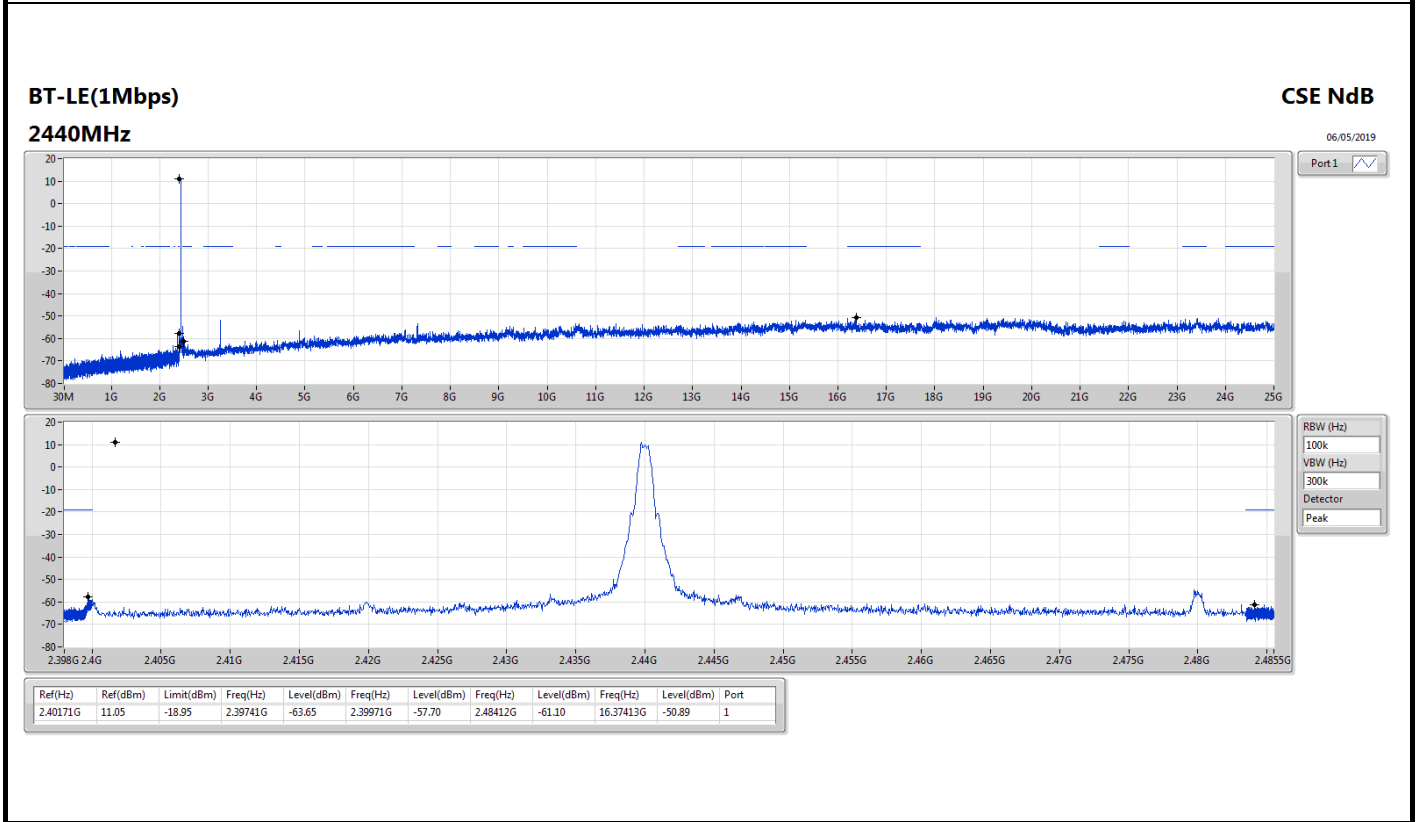
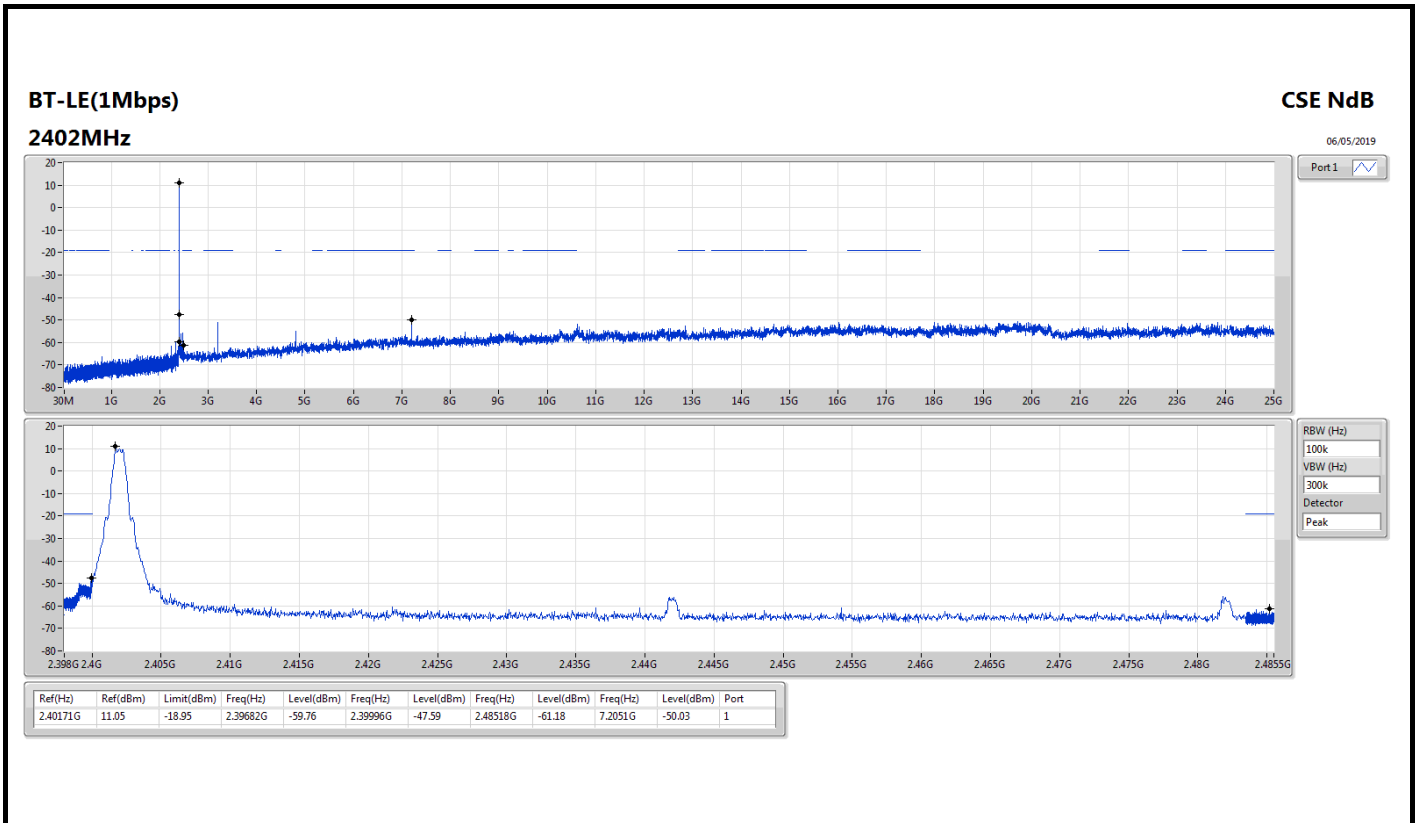
Summary

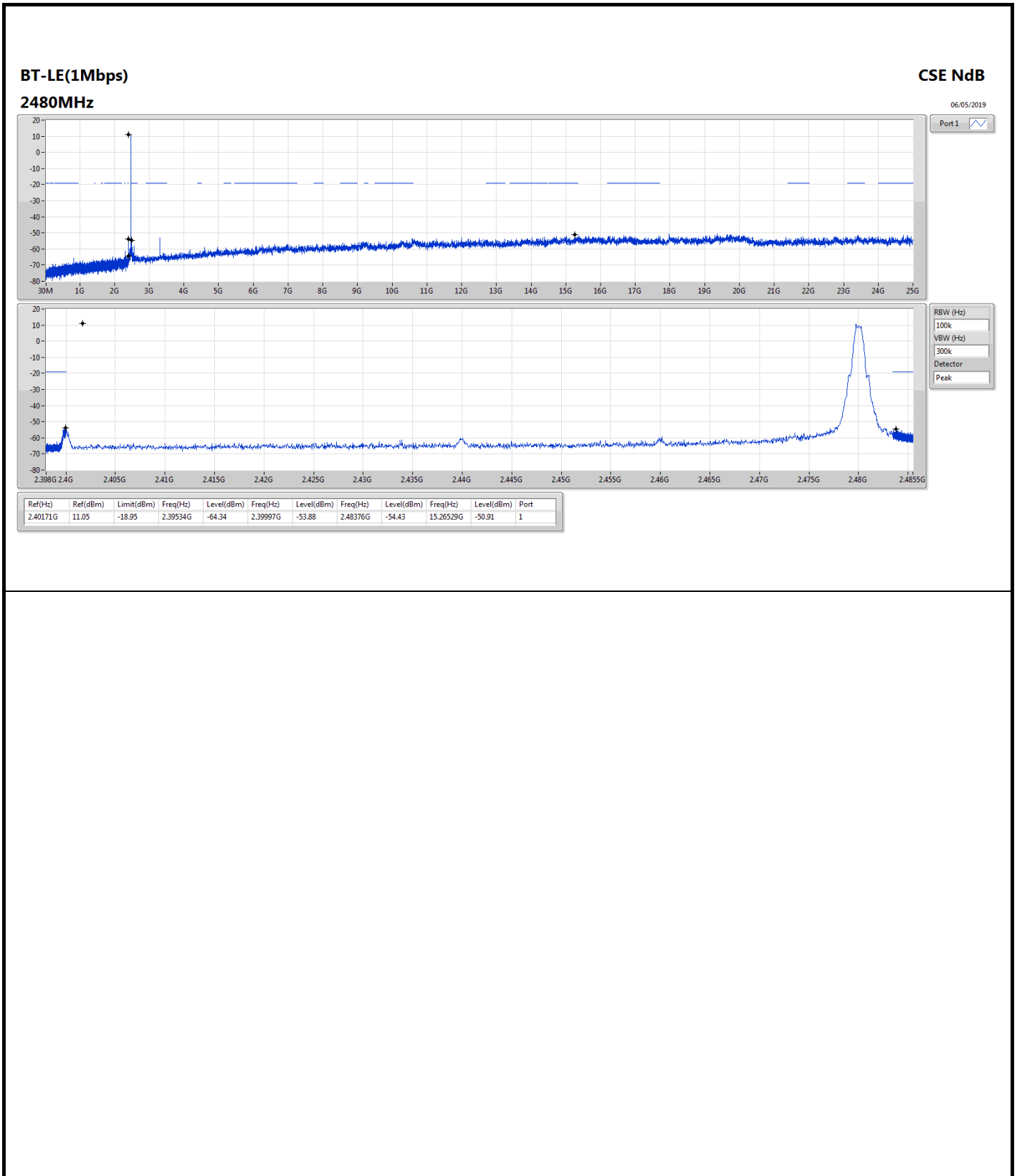
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40171G	11.05	-18.95	2.39682G	-59.76	2.39996G	-47.59	2.48518G	-61.18	7.2051G	-50.03	1



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-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40171G	11.05	-18.95	2.39682G	-59.76	2.39996G	-47.59	2.48518G	-61.18	7.2051G	-50.03	1
2440MHz	Pass	2.40171G	11.05	-18.95	2.39741G	-63.65	2.39971G	-57.70	2.48412G	-61.10	16.37413G	-50.89	1
2480MHz	Pass	2.40171G	11.05	-18.95	2.39534G	-64.34	2.39997G	-53.88	2.48376G	-54.43	15.26529G	-50.91	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-LE(1Mbps)	Pass	PK	600.36M	41.29	46.00	-4.71	0.85	3	Vertical	360	1.00	-

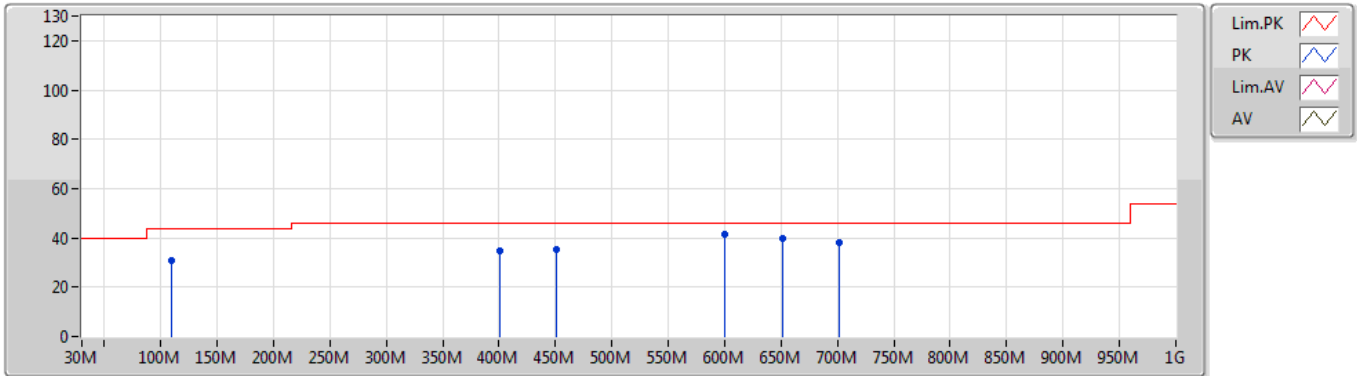


Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	109.54M	31.09	43.50	-12.41	-9.22	3	Vertical	360	1.00	-
2440MHz	Pass	PK	400.54M	34.77	46.00	-11.23	-2.82	3	Vertical	360	1.00	-
2440MHz	Pass	PK	450.98M	35.42	46.00	-10.58	-1.73	3	Vertical	360	1.00	-
2440MHz	Pass	PK	600.36M	41.29	46.00	-4.71	0.85	3	Vertical	360	1.00	-
2440MHz	Pass	PK	650.8M	39.98	46.00	-6.02	1.82	3	Vertical	360	1.00	-
2440MHz	Pass	PK	701.24M	37.84	46.00	-8.16	2.47	3	Vertical	360	1.00	-
2440MHz	Pass	PK	113.42M	30.46	43.50	-13.04	-8.94	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	350.1M	39.42	46.00	-6.58	-4.01	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	400.54M	37.26	46.00	-8.74	-2.82	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	450.98M	37.05	46.00	-8.95	-1.73	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	549.92M	39.61	46.00	-6.39	0.31	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	600.36M	40.62	46.00	-5.38	0.85	3	Horizontal	0	1.00	-

BT-LE(1Mbps)
2440MHz_Adapter

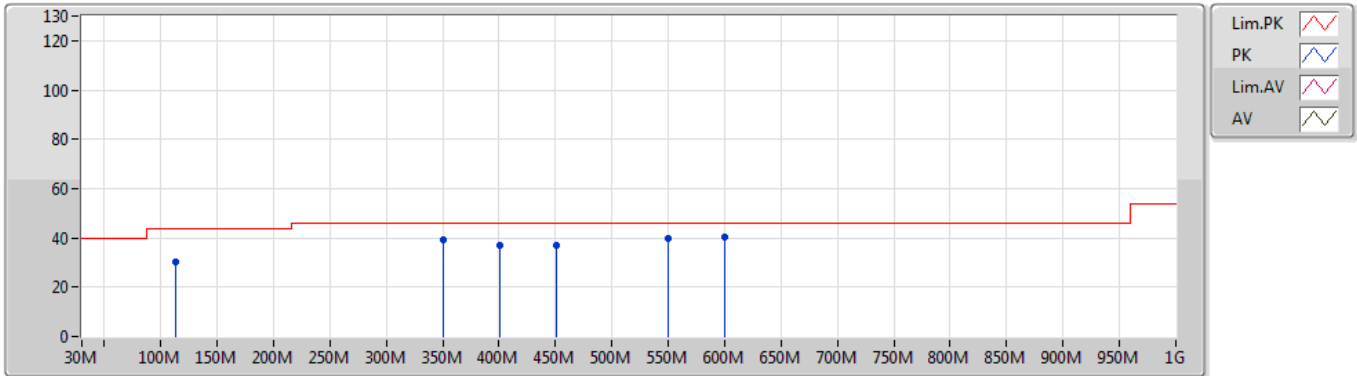
14/05/2019



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	109.54M	31.09	43.50	-12.41	-9.22	3	Vertical	360	1.00	-
PK	400.54M	34.77	46.00	-11.23	-2.82	3	Vertical	360	1.00	-
PK	450.98M	35.42	46.00	-10.58	-1.73	3	Vertical	360	1.00	-
PK	600.36M	41.29	46.00	-4.71	0.85	3	Vertical	360	1.00	-
PK	650.8M	39.98	46.00	-6.02	1.82	3	Vertical	360	1.00	-
PK	701.24M	37.84	46.00	-8.16	2.47	3	Vertical	360	1.00	-

BT-LE(1Mbps)
2440MHz_Adapter

14/05/2019



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	113.42M	30.46	43.50	-13.04	-8.94	3	Horizontal	0	1.00	-
PK	350.1M	39.42	46.00	-6.58	-4.01	3	Horizontal	0	1.00	-
PK	400.54M	37.26	46.00	-8.74	-2.82	3	Horizontal	0	1.00	-
PK	450.98M	37.05	46.00	-8.95	-1.73	3	Horizontal	0	1.00	-
PK	549.92M	39.61	46.00	-6.39	0.31	3	Horizontal	0	1.00	-
PK	600.36M	40.62	46.00	-5.38	0.85	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-LE(1Mbps)	Pass	AV	4.87957G	53.57	54.00	-0.43	3.60	3	Vertical	108	2.94	-



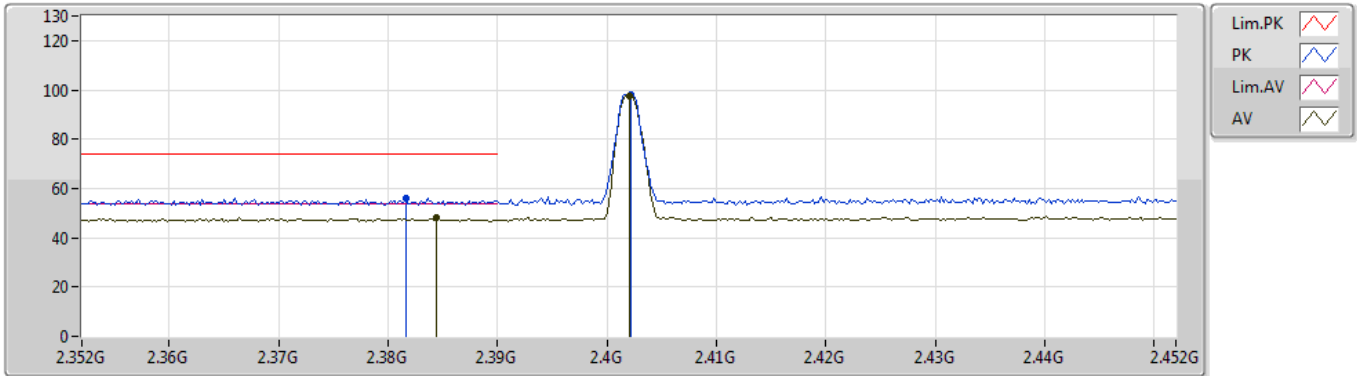
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3844G	48.17	54.00	-5.83	31.09	3	Vertical	10	1.45	-
2402MHz	Pass	AV	2.402G	97.78	Inf	-Inf	31.17	3	Vertical	10	1.45	-
2402MHz	Pass	PK	2.3816G	55.97	74.00	-18.03	31.08	3	Vertical	10	1.45	-
2402MHz	Pass	PK	2.4022G	98.25	Inf	-Inf	31.17	3	Vertical	10	1.45	-
2402MHz	Pass	AV	2.354G	48.04	54.00	-5.96	30.96	3	Horizontal	94	1.21	-
2402MHz	Pass	AV	2.402G	104.04	Inf	-Inf	31.17	3	Horizontal	94	1.21	-
2402MHz	Pass	PK	2.3828G	56.28	74.00	-17.72	31.08	3	Horizontal	94	1.21	-
2402MHz	Pass	PK	2.4018G	104.47	Inf	-Inf	31.17	3	Horizontal	94	1.21	-
2402MHz	Pass	AV	4.80358G	50.82	54.00	-3.18	3.40	3	Vertical	133	1.30	-
2402MHz	Pass	PK	4.80395G	55.41	74.00	-18.59	3.40	3	Vertical	133	1.30	-
2402MHz	Pass	AV	4.80362G	50.74	54.00	-3.26	3.40	3	Horizontal	181	2.23	-
2402MHz	Pass	PK	4.80383G	55.23	74.00	-18.77	3.40	3	Horizontal	181	2.23	-
2440MHz	Pass	AV	2.3788G	48.27	54.00	-5.73	31.06	3	Vertical	10	1.41	-
2440MHz	Pass	AV	2.44G	101.36	Inf	-Inf	31.32	3	Vertical	10	1.41	-
2440MHz	Pass	AV	2.4844G	48.84	54.00	-5.16	31.52	3	Vertical	10	1.41	-
2440MHz	Pass	PK	2.3456G	56.29	74.00	-17.71	30.92	3	Vertical	10	1.41	-
2440MHz	Pass	PK	2.4404G	101.76	Inf	-Inf	31.32	3	Vertical	10	1.41	-
2440MHz	Pass	PK	2.4872G	56.43	74.00	-17.57	31.52	3	Vertical	10	1.41	-
2440MHz	Pass	AV	2.3808G	48.00	54.00	-6.00	31.08	3	Horizontal	111	1.29	-
2440MHz	Pass	AV	2.44G	105.75	Inf	-Inf	31.32	3	Horizontal	111	1.29	-
2440MHz	Pass	AV	2.49G	48.51	54.00	-5.49	31.54	3	Horizontal	111	1.29	-
2440MHz	Pass	PK	2.3736G	55.85	74.00	-18.15	31.05	3	Horizontal	111	1.29	-
2440MHz	Pass	PK	2.4396G	106.18	Inf	-Inf	31.32	3	Horizontal	111	1.29	-
2440MHz	Pass	PK	2.4888G	56.18	74.00	-17.82	31.53	3	Horizontal	111	1.29	-
2440MHz	Pass	AV	4.87957G	53.57	54.00	-0.43	3.60	3	Vertical	108	2.94	-
2440MHz	Pass	PK	4.8805G	57.85	74.00	-16.15	3.60	3	Vertical	108	2.94	-
2440MHz	Pass	AV	4.87968G	50.41	54.00	-3.59	3.60	3	Horizontal	170	2.09	-
2440MHz	Pass	PK	4.87995G	55.02	74.00	-18.98	3.60	3	Horizontal	170	2.09	-
2480MHz	Pass	AV	2.48G	99.77	Inf	-Inf	31.49	3	Vertical	7	1.17	-
2480MHz	Pass	AV	2.486G	49.36	54.00	-4.64	31.52	3	Vertical	7	1.17	-
2480MHz	Pass	PK	2.4798G	100.24	Inf	-Inf	31.49	3	Vertical	7	1.17	-
2480MHz	Pass	PK	2.487G	56.43	74.00	-17.57	31.52	3	Vertical	7	1.17	-
2480MHz	Pass	AV	2.48G	106.17	Inf	-Inf	31.49	3	Horizontal	104	1.07	-
2480MHz	Pass	AV	2.4846G	49.13	54.00	-4.87	31.52	3	Horizontal	104	1.07	-
2480MHz	Pass	PK	2.4798G	106.65	Inf	-Inf	31.49	3	Horizontal	104	1.07	-
2480MHz	Pass	PK	2.4938G	56.97	74.00	-17.03	31.55	3	Horizontal	104	1.07	-
2480MHz	Pass	AV	4.95987G	49.25	54.00	-4.75	3.73	3	Vertical	101	2.84	-
2480MHz	Pass	PK	4.96027G	53.83	74.00	-20.17	3.73	3	Vertical	101	2.84	-
2480MHz	Pass	AV	4.96004G	47.43	54.00	-6.57	3.73	3	Horizontal	178	2.01	-
2480MHz	Pass	PK	4.96023G	52.64	74.00	-21.36	3.73	3	Horizontal	178	2.01	-

BT-LE(1Mbps)

04/05/2019

2402MHz_TX

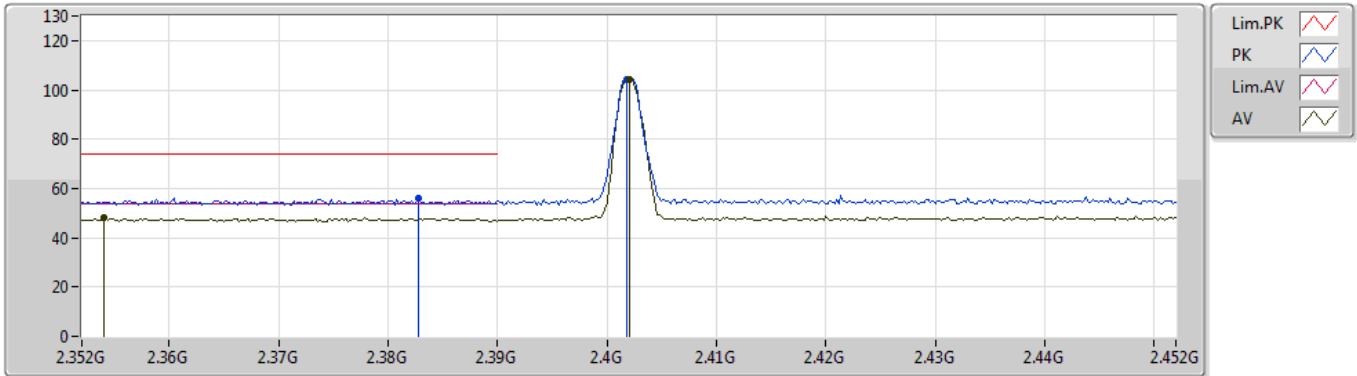


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.3844G	48.17	54.00	-5.83	31.09	3	Vertical	10	1.45	-
AV	2.402G	97.78	Inf	-Inf	31.17	3	Vertical	10	1.45	-
PK	2.3816G	55.97	74.00	-18.03	31.08	3	Vertical	10	1.45	-
PK	2.4022G	98.25	Inf	-Inf	31.17	3	Vertical	10	1.45	-

BT-LE(1Mbps)

04/05/2019

2402MHz_TX

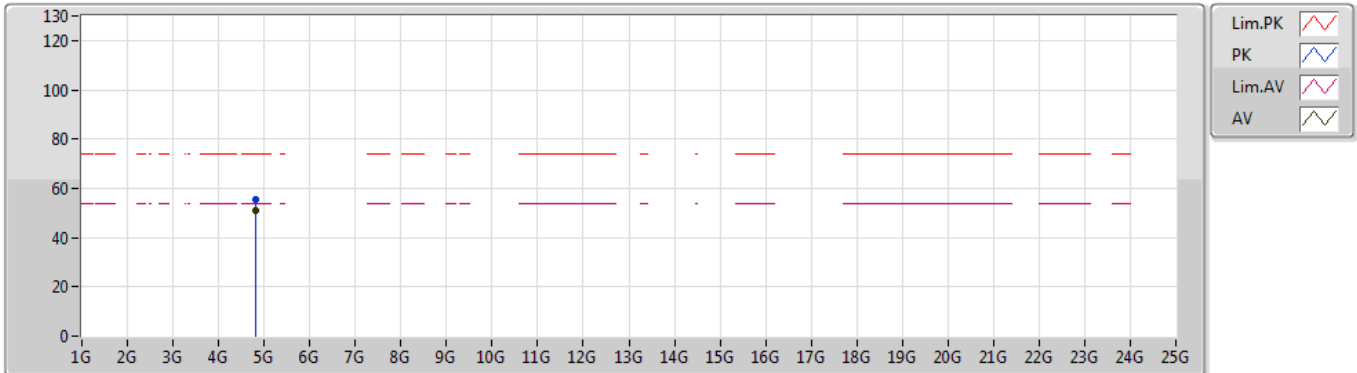


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.354G	48.04	54.00	-5.96	30.96	3	Horizontal	94	1.21	-
AV	2.402G	104.04	Inf	-Inf	31.17	3	Horizontal	94	1.21	-
PK	2.3828G	56.28	74.00	-17.72	31.08	3	Horizontal	94	1.21	-
PK	2.4018G	104.47	Inf	-Inf	31.17	3	Horizontal	94	1.21	-

BT-LE(1Mbps)

04/05/2019

2402MHz_TX

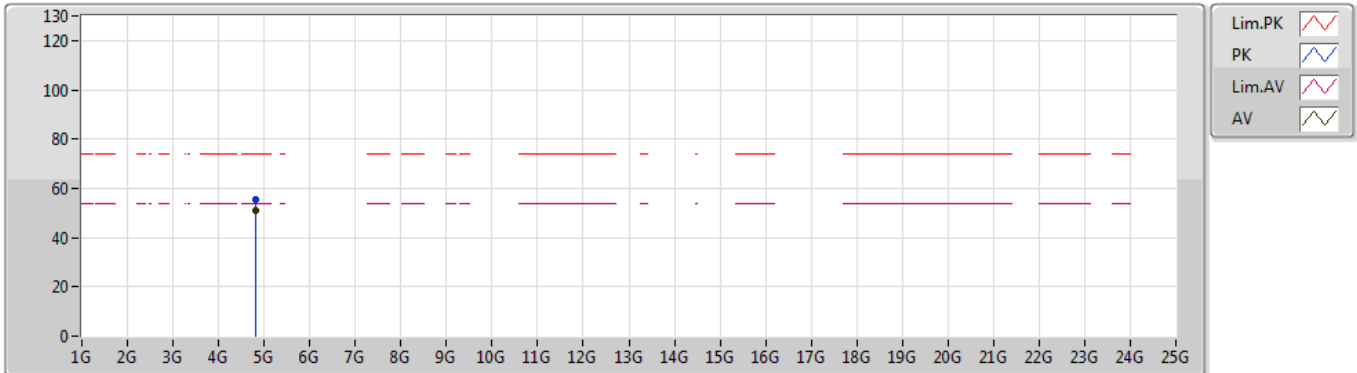


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.80358G	50.82	54.00	-3.18	3.40	3	Vertical	133	1.30	-
PK	4.80395G	55.41	74.00	-18.59	3.40	3	Vertical	133	1.30	-

BT-LE(1Mbps)

04/05/2019

2402MHz_TX

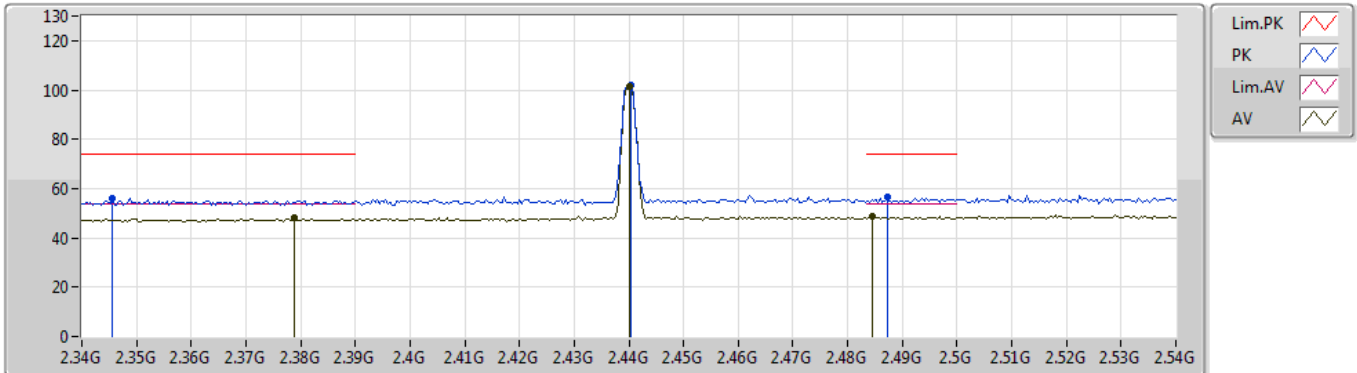


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.80362G	50.74	54.00	-3.26	3.40	3	Horizontal	181	2.23	-
PK	4.80383G	55.23	74.00	-18.77	3.40	3	Horizontal	181	2.23	-

BT-LE(1Mbps)

04/05/2019

2440MHz_TX

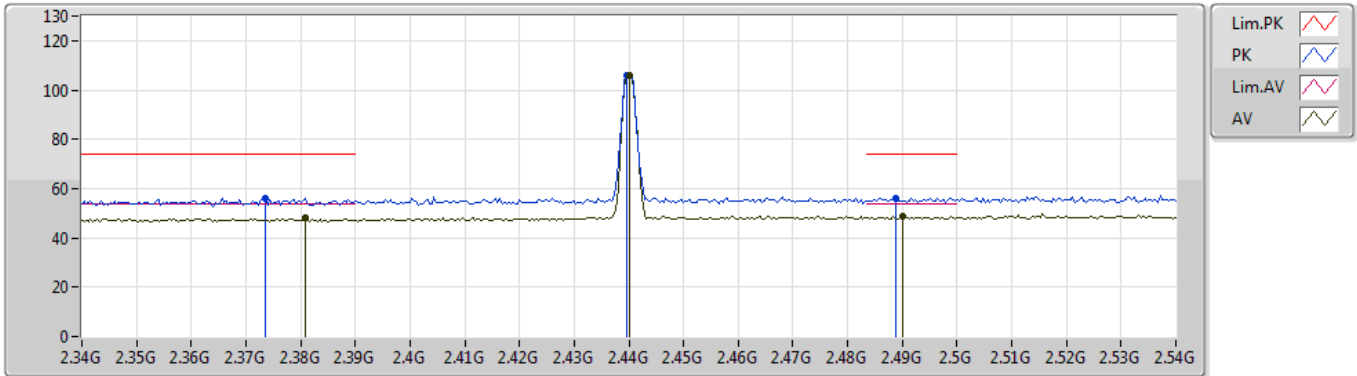


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.3788G	48.27	54.00	-5.73	31.06	3	Vertical	10	1.41	-
AV	2.44G	101.36	Inf	-Inf	31.32	3	Vertical	10	1.41	-
AV	2.4844G	48.84	54.00	-5.16	31.52	3	Vertical	10	1.41	-
PK	2.3456G	56.29	74.00	-17.71	30.92	3	Vertical	10	1.41	-
PK	2.4404G	101.76	Inf	-Inf	31.32	3	Vertical	10	1.41	-
PK	2.4872G	56.43	74.00	-17.57	31.52	3	Vertical	10	1.41	-

BT-LE(1Mbps)

04/05/2019

2440MHz_TX

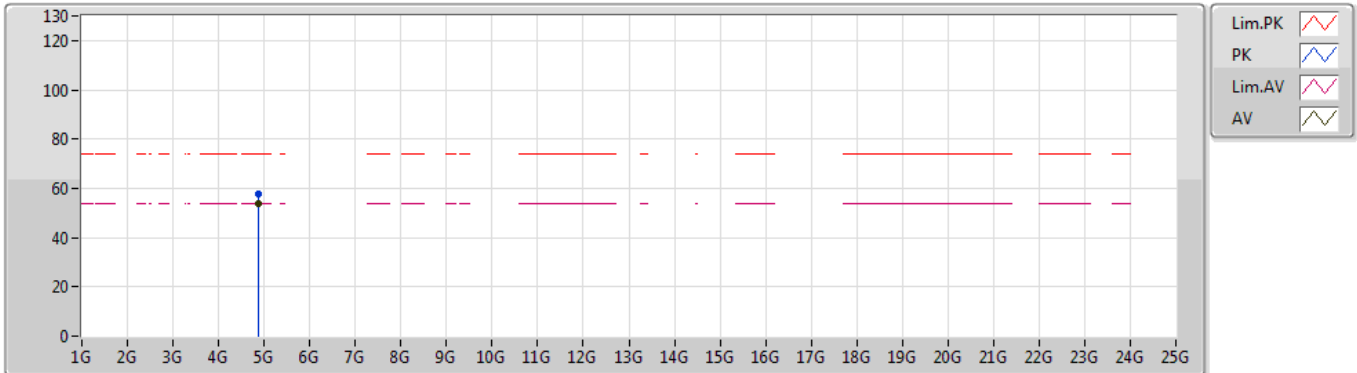


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.3808G	48.00	54.00	-6.00	31.08	3	Horizontal	111	1.29	-
AV	2.44G	105.75	Inf	-Inf	31.32	3	Horizontal	111	1.29	-
AV	2.49G	48.51	54.00	-5.49	31.54	3	Horizontal	111	1.29	-
PK	2.3736G	55.85	74.00	-18.15	31.05	3	Horizontal	111	1.29	-
PK	2.4396G	106.18	Inf	-Inf	31.32	3	Horizontal	111	1.29	-
PK	2.4888G	56.18	74.00	-17.82	31.53	3	Horizontal	111	1.29	-

BT-LE(1Mbps)

04/05/2019

2440MHz_TX

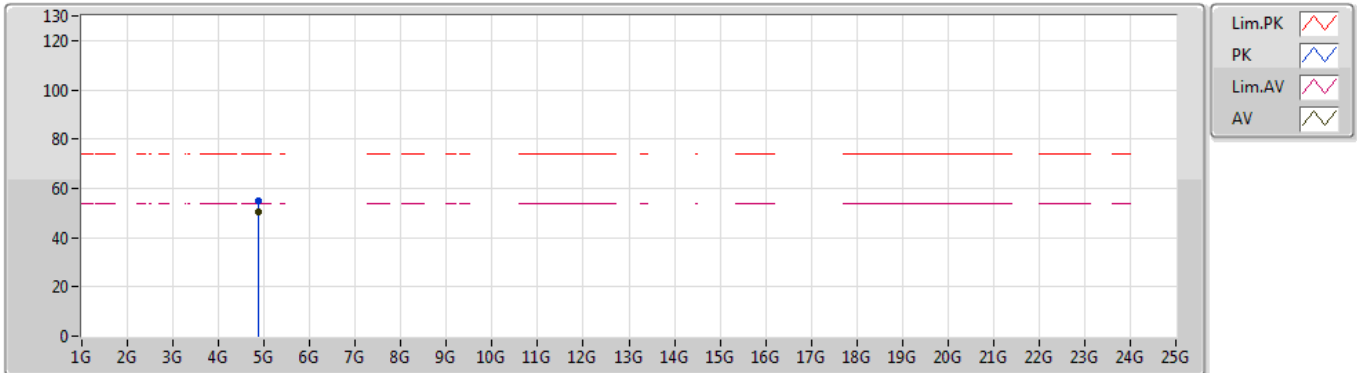


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.87957G	53.57	54.00	-0.43	3.60	3	Vertical	108	2.94	-
PK	4.8805G	57.85	74.00	-16.15	3.60	3	Vertical	108	2.94	-

BT-LE(1Mbps)

04/05/2019

2440MHz_TX

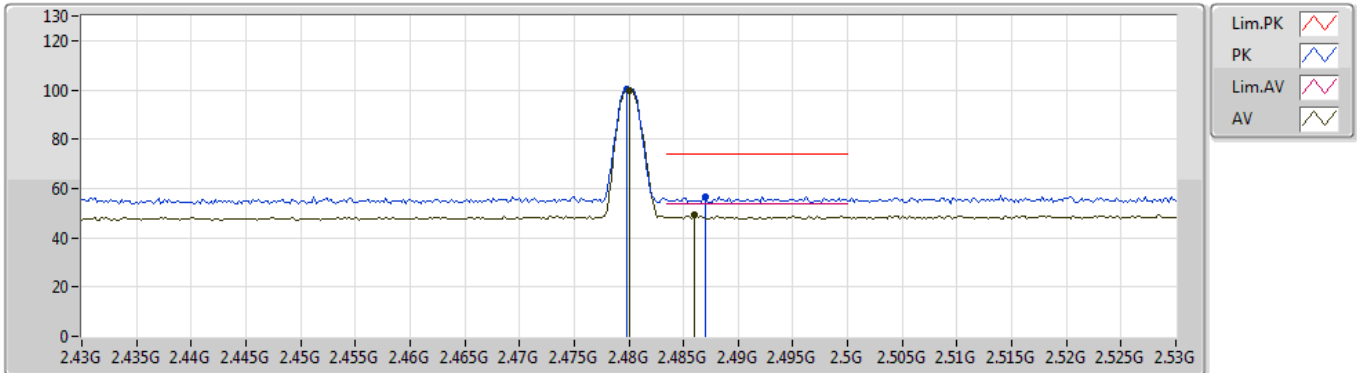


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.87968G	50.41	54.00	-3.59	3.60	3	Horizontal	170	2.09	-
PK	4.87995G	55.02	74.00	-18.98	3.60	3	Horizontal	170	2.09	-

BT-LE(1Mbps)

04/05/2019

2480MHz_TX

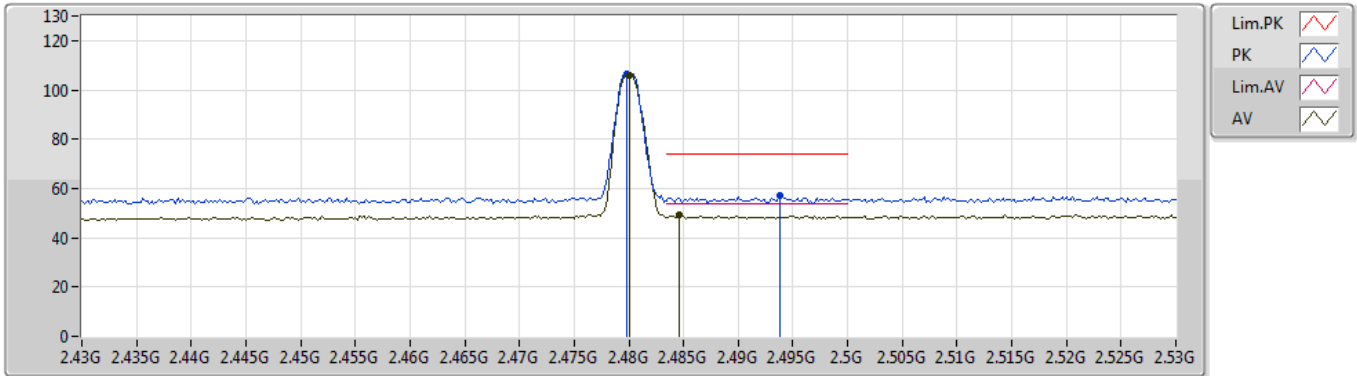


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.48G	99.77	Inf	-Inf	31.49	3	Vertical	7	1.17	-
AV	2.486G	49.36	54.00	-4.64	31.52	3	Vertical	7	1.17	-
PK	2.4798G	100.24	Inf	-Inf	31.49	3	Vertical	7	1.17	-
PK	2.487G	56.43	74.00	-17.57	31.52	3	Vertical	7	1.17	-

BT-LE(1Mbps)

04/05/2019

2480MHz_TX

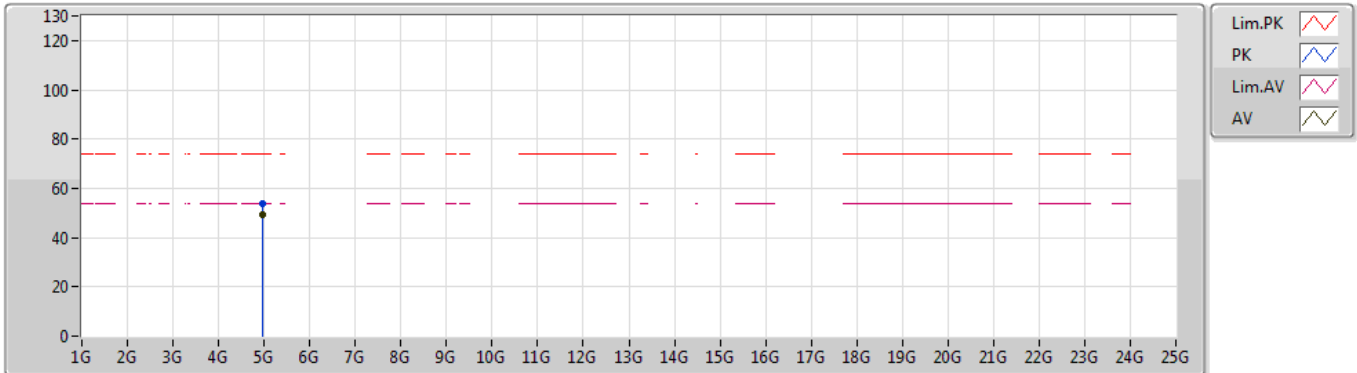


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	2.48G	106.17	Inf	-Inf	31.49	3	Horizontal	104	1.07	-
AV	2.4846G	49.13	54.00	-4.87	31.52	3	Horizontal	104	1.07	-
PK	2.4798G	106.65	Inf	-Inf	31.49	3	Horizontal	104	1.07	-
PK	2.4938G	56.97	74.00	-17.03	31.55	3	Horizontal	104	1.07	-

BT-LE(1Mbps)

04/05/2019

2480MHz_TX

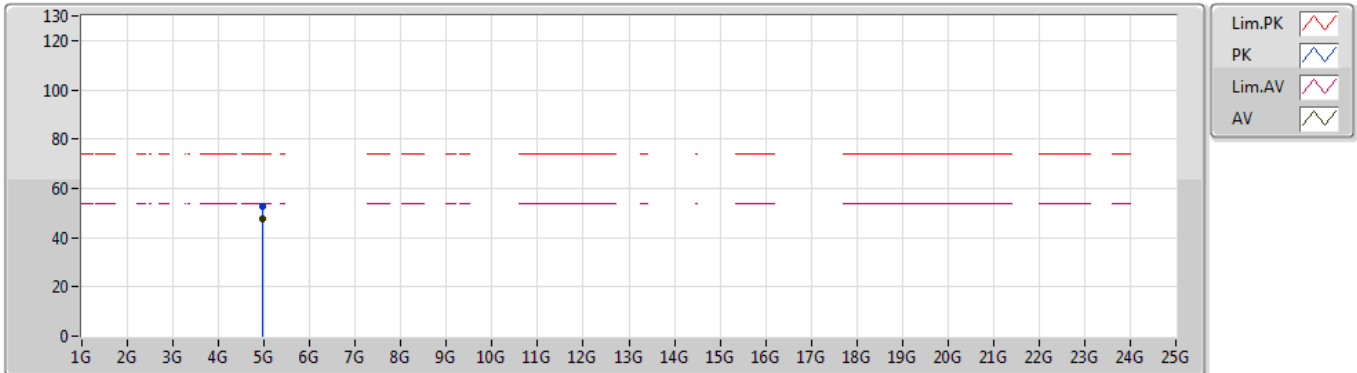


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.95987G	49.25	54.00	-4.75	3.73	3	Vertical	101	2.84	-
PK	4.96027G	53.83	74.00	-20.17	3.73	3	Vertical	101	2.84	-

BT-LE(1Mbps)

04/05/2019

2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	4.96004G	47.43	54.00	-6.57	3.73	3	Horizontal	178	2.01	-
PK	4.96023G	52.64	74.00	-21.36	3.73	3	Horizontal	178	2.01	-