

FCC Test Report

FCC ID : COFMT-52
Equipment : 802.11b/g/n + BT 4.2 IOT Module
Brand Name : USI
Model Name : MT-52
Applicant / Manufacturer : Universal Global Scientific Industrial Co., Ltd
141, Lane 351, Sec. 1, Taiping Road., Tsaotuen,
Nantou 54261, Taiwan
Standard : 47 CFR FCC Part 15.247

The product was received on Aug. 07, 2018, and completed on Sep. 15, 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.)



Table of Contents

HISTORY OF THIS TEST REPORT3

SUMMARY OF TEST RESULT4

1 GENERAL DESCRIPTION5

1.1 Information.....5

1.2 Testing Location Information6

1.3 Measurement Uncertainty6

2 TEST CONFIGURATION OF EUT.....7

2.1 The Worst Case Measurement Configuration7

2.2 Support Equipment.....7

2.3 Test Setup Diagram8

3 TRANSMITTER TEST RESULT9

3.1 Emissions in Restricted Frequency Bands.....9

4 TEST EQUIPMENT AND CALIBRATION DATA.....13

APPENDIX A. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS

APPENDIX B. 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	15.247(d)	Emissions in Restricted Frequency Bands	PASS	Restricted Bands: FCC 15.209

Reviewed by: Jackson Tsai

Report Producer: Debby Hung

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	Gain (dBi)
1	SmartAnt	USI05-220170	Dipole antenna	MHF-SW23	2.5

For 2.4GHz function:

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

Ant. 1 (port 1) could transmit/receive simultaneously.

For BT function:

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

Ant. 1 (port 1) could transmit/receive simultaneously.

1.1.3 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR880224AL

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

Modifications	Performance Checking
Dipole Antenna was added	Emissions in Restricted Frequency Bands was evaluated

1.2 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
Radiated	03CH03-HY	Jeff	24.2°C / 62%	15/Sep/2018




1.3 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
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%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 The Worst Case Measurement Configuration

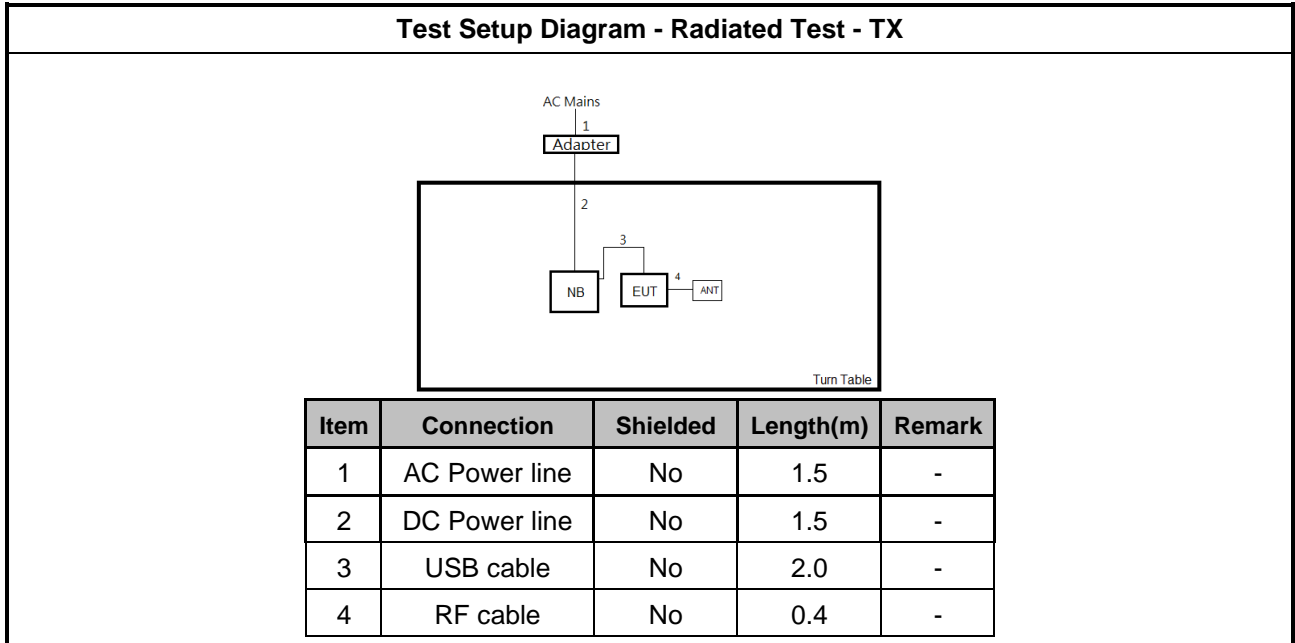
The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should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

2.2 Support Equipment

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5520	-
2	AC adapter	DELL	LA65NS2-01	-
3	Fixture	-	-	-

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

2.3 Test Setup Diagram



3 Transmitter Test Result

3.1 Emissions in Restricted Frequency Bands

3.1.1 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.

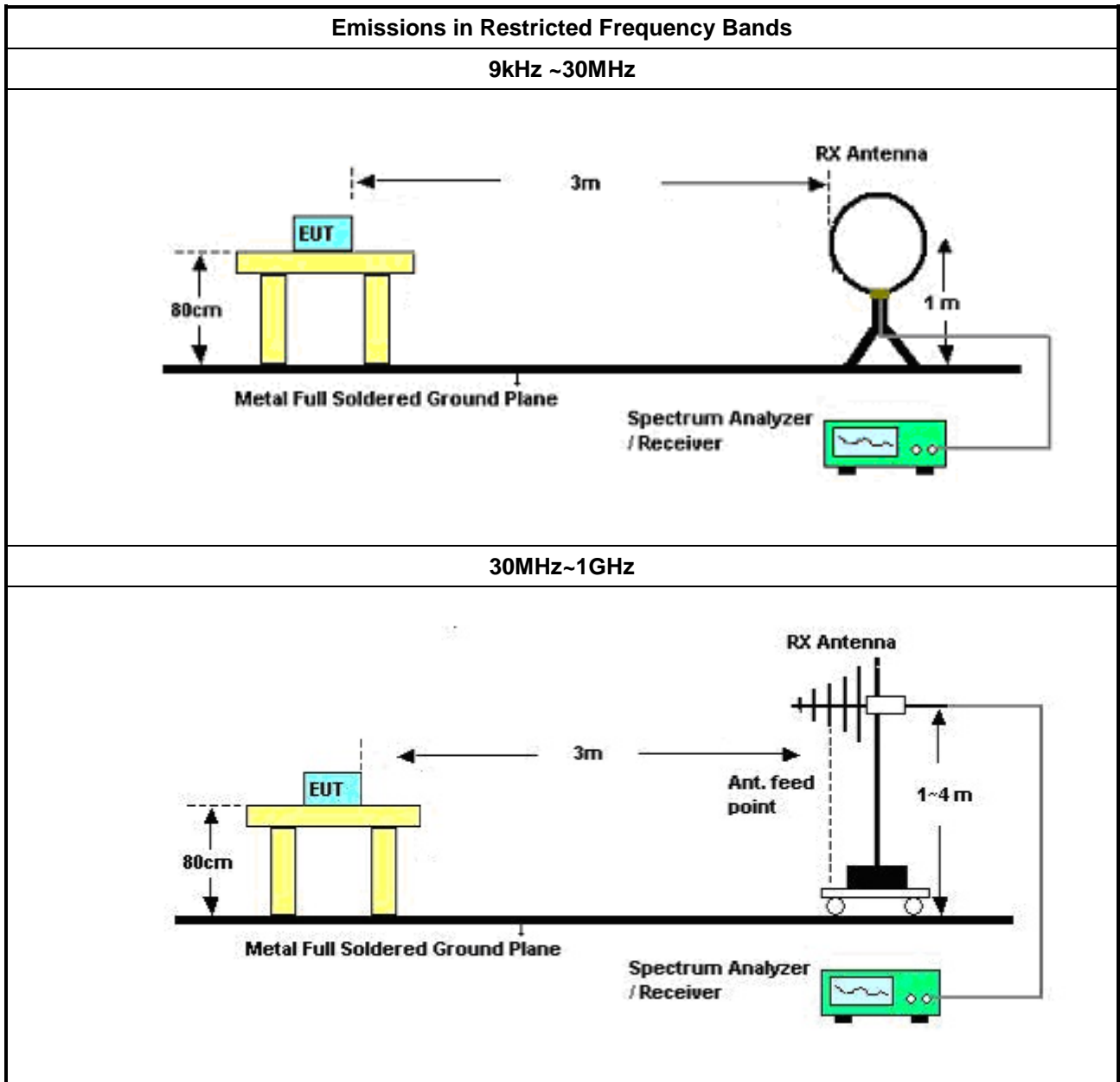
3.1.2 Measuring Instruments

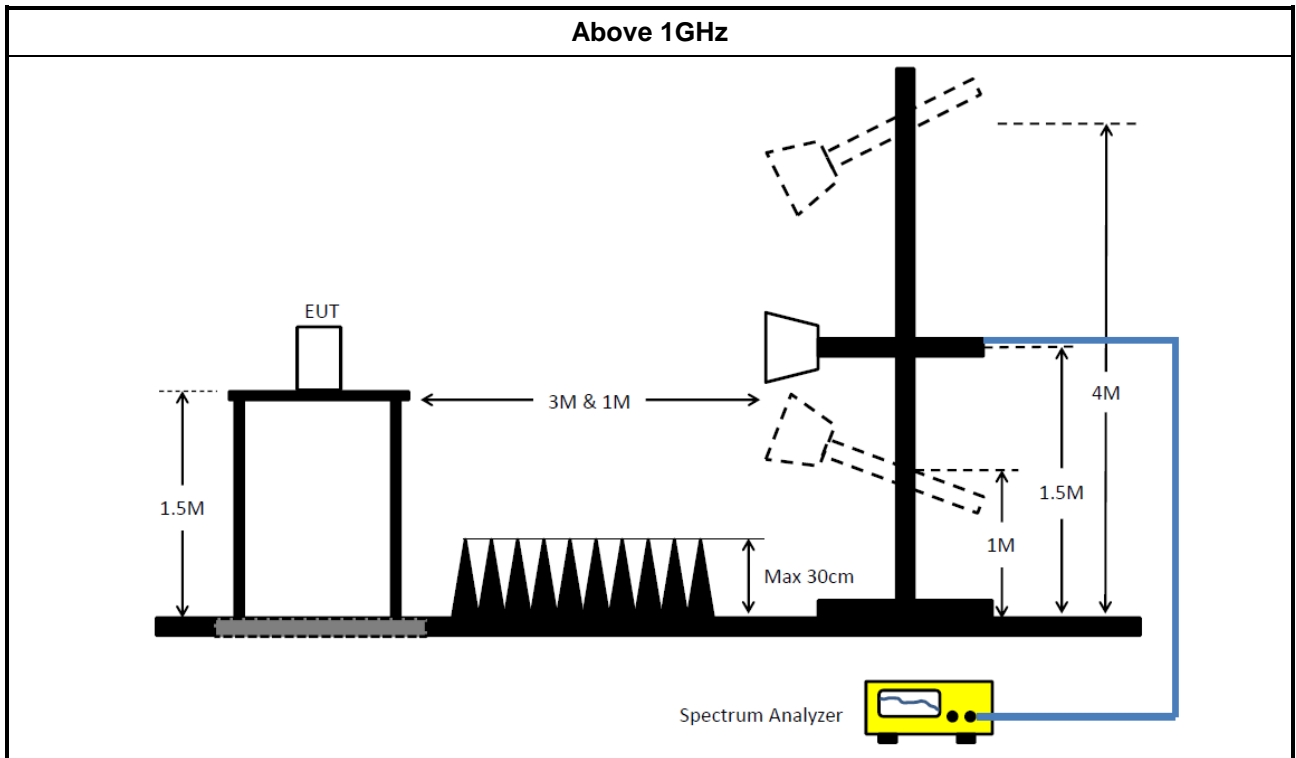
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ 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 12 for unwanted emissions into restricted bands. 	
	<input checked="" type="checkbox"/> Refer as KDB 558074, clause 12.2.5.3 (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW \geq 1/T.
	<input checked="" type="checkbox"/> Refer as KDB 558074, clause 12.2.4 measurement procedure peak limit.
<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 13.1, 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. 	
<ul style="list-style-type: none"> ▪ Refer as KDB 558074, clause 13.2 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements. 	
<ul style="list-style-type: none"> ▪ Refer as KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz). 	
<ul style="list-style-type: none"> ▪ For conducted and cabinet radiation measurement, refer as KDB 558074, clause 12.2.2. 	
<ul style="list-style-type: none"> ▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB 	
<ul style="list-style-type: none"> ▪ For KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred. 	

3.1.4 Test Setup





3.1.5 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.

3.1.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix A



4 Test Equipment and Calibration Data

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	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	30/Aug/2018	29/Aug/2019
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 & 5db Attenuator	SCHAFFNER/M TJ	CBL6112D / MTJ6102-05	2678 / 001	30MHz ~ 2GHz	07/July/2018	06/July/2019
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



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	62.98M	34.15	40.00	-5.85	-14.36	3	Horizontal	0	1.00	-



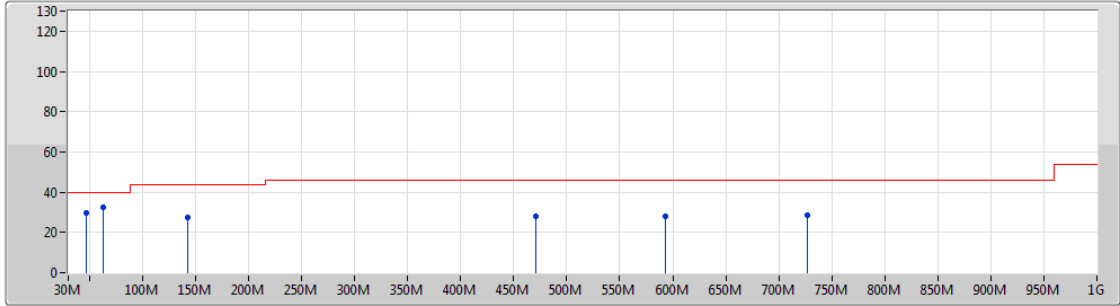
Result





Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	47.46M	29.53	40.00	-10.47	-11.62	3	Vertical	360	1.00	-
2440MHz	Pass	PK	62.98M	32.28	40.00	-7.72	-14.36	3	Vertical	360	1.00	-
2440MHz	Pass	PK	142.52M	27.62	43.50	-15.88	-8.95	3	Vertical	360	1.00	-
2440MHz	Pass	PK	470.38M	27.74	46.00	-18.26	-1.56	3	Vertical	360	1.00	-
2440MHz	Pass	PK	592.6M	28.13	46.00	-17.87	-0.37	3	Vertical	360	1.00	-
2440MHz	Pass	PK	726.46M	28.73	46.00	-17.27	1.08	3	Vertical	360	1.00	-
2440MHz	Pass	PK	62.98M	34.15	40.00	-5.85	-14.36	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	142.52M	33.21	43.50	-10.29	-8.95	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	173.56M	30.98	43.50	-12.52	-9.84	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	410.24M	26.63	46.00	-19.37	-2.54	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	480.08M	27.33	46.00	-18.67	-1.41	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	743.92M	28.21	46.00	-17.79	1.49	3	Horizontal	0	1.00	-

BT-LE(1Mbps)

2440MHz_TX

15/09/2018



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

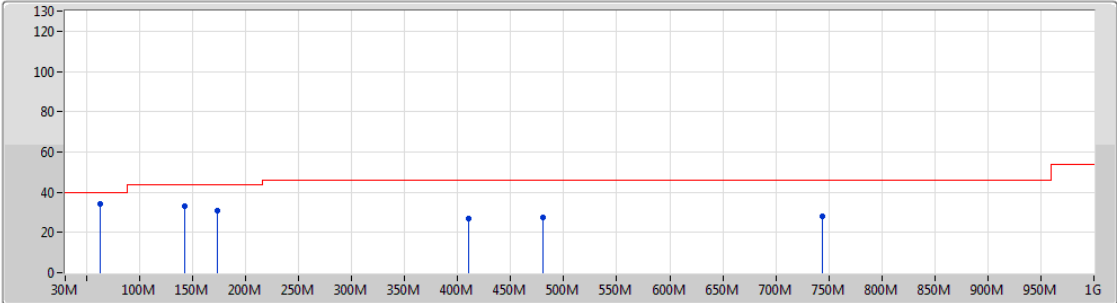
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	47.46M	29.53	40.00	-10.47	-11.62	3	Vertical	360	1.00	-
PK	62.98M	32.28	40.00	-7.72	-14.36	3	Vertical	360	1.00	-
PK	142.52M	27.62	43.50	-15.88	-8.95	3	Vertical	360	1.00	-
PK	470.38M	27.74	46.00	-18.26	-1.56	3	Vertical	360	1.00	-
PK	592.6M	28.13	46.00	-17.87	-0.37	3	Vertical	360	1.00	-
PK	726.46M	28.73	46.00	-17.27	1.08	3	Vertical	360	1.00	-



BT-LE(1Mbps)

2440MHz_TX

15/09/2018



Lim.PK
 PK
 Lim.AV
 AV

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	62.98M	34.15	40.00	-5.85	-14.36	3	Horizontal	0	1.00	-
PK	142.52M	33.21	43.50	-10.29	-8.95	3	Horizontal	0	1.00	-
PK	173.56M	30.98	43.50	-12.52	-9.84	3	Horizontal	0	1.00	-
PK	410.24M	26.63	46.00	-19.37	-2.54	3	Horizontal	0	1.00	-
PK	480.08M	27.33	46.00	-18.67	-1.41	3	Horizontal	0	1.00	-
PK	743.92M	28.21	46.00	-17.79	1.49	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	2.485G	47.52	54.00	-6.48	31.12	3	Horizontal	73	1.01	-



Result

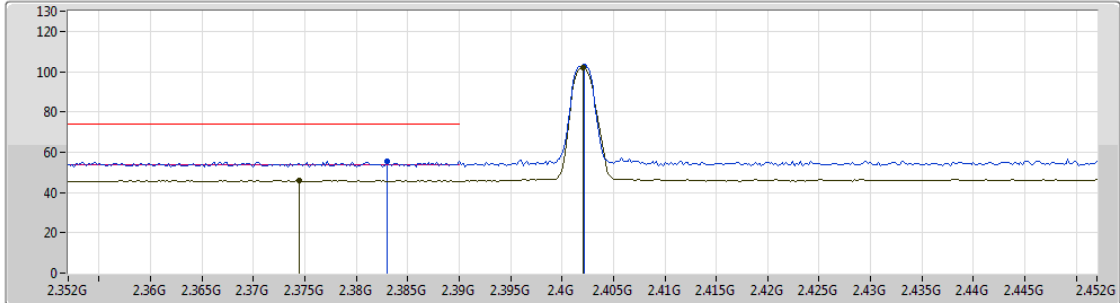
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3744G	46.21	54.00	-7.79	30.72	3	Horizontal	83	1.12	-
2402MHz	Pass	AV	2.402G	102.23	Inf	-Inf	30.82	3	Horizontal	83	1.12	-
2402MHz	Pass	PK	2.383G	55.54	74.00	-18.46	30.75	3	Horizontal	83	1.12	-
2402MHz	Pass	PK	2.4022G	102.77	Inf	-Inf	30.82	3	Horizontal	83	1.12	-
2402MHz	Pass	AV	4.8044G	36.83	54.00	-17.17	2.08	3	Vertical	239	2.81	-
2402MHz	Pass	PK	4.80398G	44.88	74.00	-29.12	2.08	3	Vertical	239	2.81	-
2402MHz	Pass	AV	4.80388G	37.43	54.00	-16.57	2.08	3	Horizontal	52	1.02	-
2402MHz	Pass	PK	4.80382G	46.21	74.00	-27.79	2.08	3	Horizontal	52	1.02	-
2440MHz	Pass	AV	2.3856G	45.96	54.00	-8.04	30.76	3	Horizontal	78	3.18	-
2440MHz	Pass	AV	2.44G	102.10	Inf	-Inf	30.95	3	Horizontal	78	3.18	-
2440MHz	Pass	AV	2.4992G	46.90	54.00	-7.10	31.17	3	Horizontal	78	3.18	-
2440MHz	Pass	PK	2.3632G	55.79	74.00	-18.21	30.68	3	Horizontal	78	3.18	-
2440MHz	Pass	PK	2.4404G	102.60	Inf	-Inf	30.95	3	Horizontal	78	3.18	-
2440MHz	Pass	PK	2.4872G	56.15	74.00	-17.85	31.12	3	Horizontal	78	3.18	-
2440MHz	Pass	AV	4.87982G	36.62	54.00	-17.38	2.27	3	Vertical	239	2.72	-
2440MHz	Pass	PK	4.87932G	44.71	74.00	-29.29	2.27	3	Vertical	239	2.72	-
2440MHz	Pass	AV	4.87998G	36.44	54.00	-17.56	2.27	3	Horizontal	50	1.00	-
2440MHz	Pass	PK	4.88044G	45.38	74.00	-28.62	2.27	3	Horizontal	50	1.00	-
2480MHz	Pass	AV	2.48G	102.52	Inf	-Inf	31.09	3	Horizontal	73	1.01	-
2480MHz	Pass	AV	2.485G	47.52	54.00	-6.48	31.12	3	Horizontal	73	1.01	-
2480MHz	Pass	PK	2.4798G	103.08	Inf	-Inf	31.09	3	Horizontal	73	1.01	-
2480MHz	Pass	PK	2.4842G	57.01	74.00	-16.99	31.12	3	Horizontal	73	1.01	-
2480MHz	Pass	AV	4.95972G	36.03	54.00	-17.97	2.47	3	Vertical	239	2.60	-
2480MHz	Pass	PK	4.95938G	45.29	74.00	-28.71	2.47	3	Vertical	239	2.60	-
2480MHz	Pass	AV	4.96026G	36.47	54.00	-17.53	2.47	3	Horizontal	70	1.01	-
2480MHz	Pass	PK	4.96012G	44.57	74.00	-29.43	2.47	3	Horizontal	70	1.01	-



BT-LE(1Mbps)

2402MHz_TX

15/09/2018



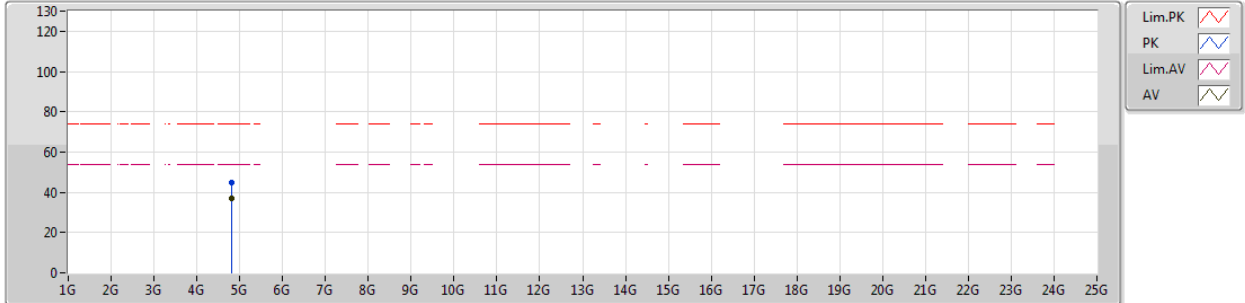
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3744G	46.21	54.00	-7.79	30.72	3	Horizontal	83	1.12	-
AV	2.402G	102.23	Inf	-Inf	30.82	3	Horizontal	83	1.12	-
PK	2.383G	55.54	74.00	-18.46	30.75	3	Horizontal	83	1.12	-
PK	2.4022G	102.77	Inf	-Inf	30.82	3	Horizontal	83	1.12	-



BT-LE(1Mbps)

15/09/2018

2402MHz_TX



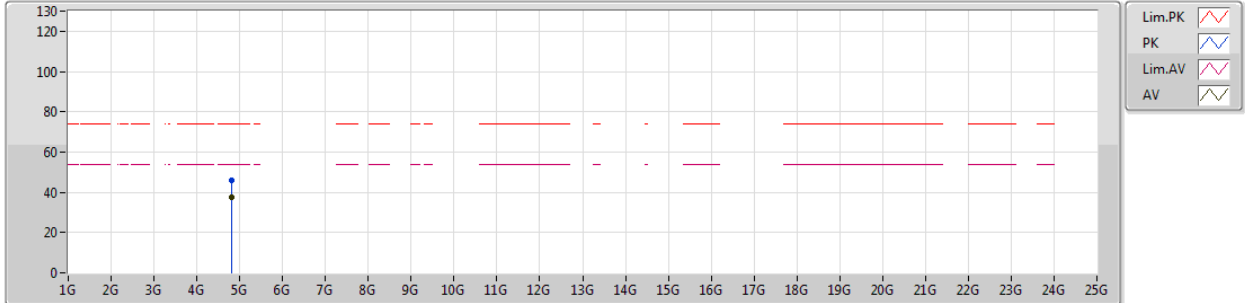
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8044G	36.83	54.00	-17.17	2.08	3	Vertical	239	2.81	-
PK	4.80398G	44.88	74.00	-29.12	2.08	3	Vertical	239	2.81	-



BT-LE(1Mbps)

15/09/2018

2402MHz_TX

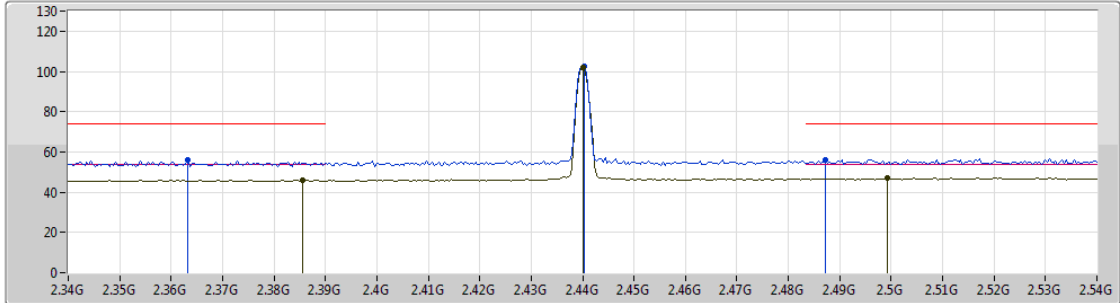


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.80388G	37.43	54.00	-16.57	2.08	3	Horizontal	52	1.02	-
PK	4.80382G	46.21	74.00	-27.79	2.08	3	Horizontal	52	1.02	-

BT-LE(1Mbps)

2440MHz_TX

15/09/2018



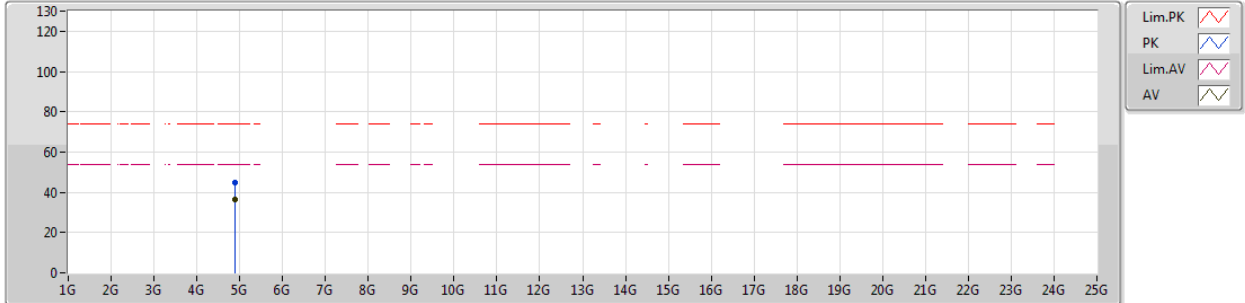
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3856G	45.96	54.00	-8.04	30.76	3	Horizontal	78	3.18	-
AV	2.44G	102.10	Inf	-Inf	30.95	3	Horizontal	78	3.18	-
AV	2.4992G	46.90	54.00	-7.10	31.17	3	Horizontal	78	3.18	-
PK	2.3632G	55.79	74.00	-18.21	30.68	3	Horizontal	78	3.18	-
PK	2.4404G	102.60	Inf	-Inf	30.95	3	Horizontal	78	3.18	-
PK	2.4872G	56.15	74.00	-17.85	31.12	3	Horizontal	78	3.18	-



BT-LE(1Mbps)

2440MHz_TX

15/09/2018



Legend for plot:

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

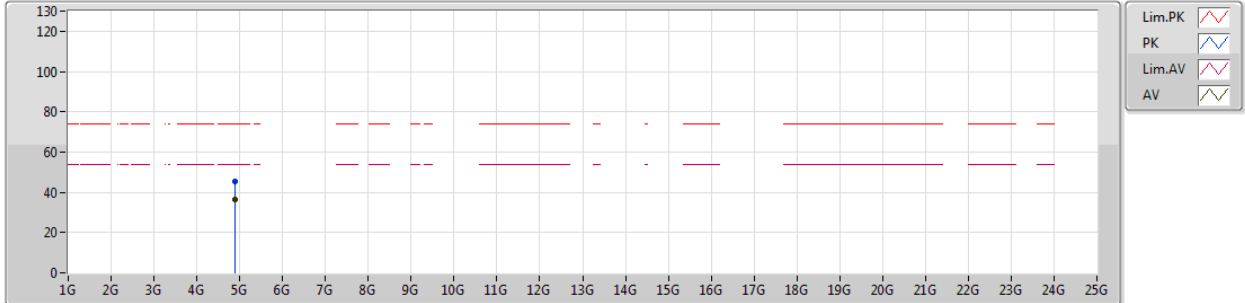
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87982G	36.62	54.00	-17.38	2.27	3	Vertical	239	2.72	-
PK	4.87932G	44.71	74.00	-29.29	2.27	3	Vertical	239	2.72	-



BT-LE(1Mbps)

15/09/2018

2440MHz_TX

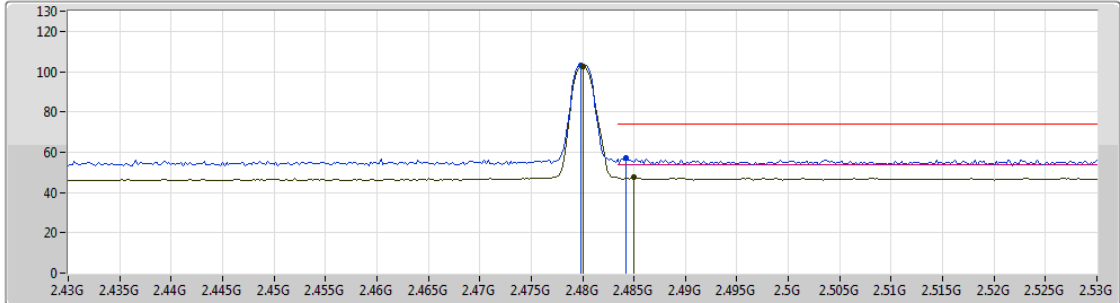


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87998G	36.44	54.00	-17.56	2.27	3	Horizontal	50	1.00	-
PK	4.88044G	45.38	74.00	-28.62	2.27	3	Horizontal	50	1.00	-

BT-LE(1Mbps)

2480MHz_TX

15/09/2018



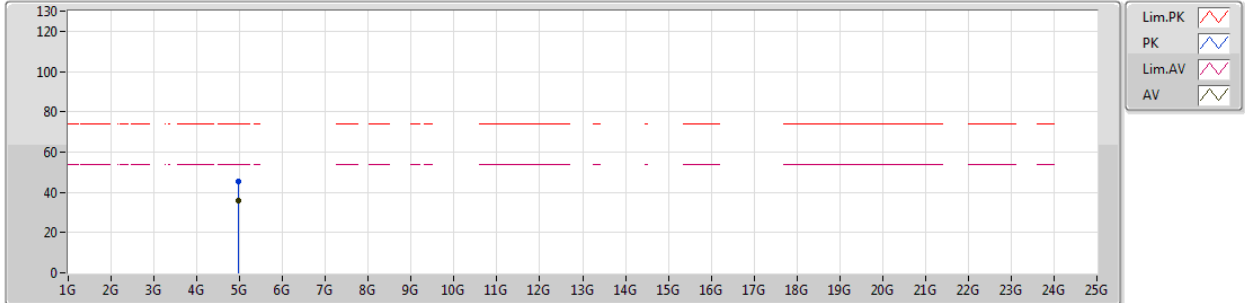
- Lim.PK
- PK
- Lim.AV
- AV

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.48G	102.52	Inf	-Inf	31.09	3	Horizontal	73	1.01	-
AV	2.485G	47.52	54.00	-6.48	31.12	3	Horizontal	73	1.01	-
PK	2.4798G	103.08	Inf	-Inf	31.09	3	Horizontal	73	1.01	-
PK	2.4842G	57.01	74.00	-16.99	31.12	3	Horizontal	73	1.01	-

BT-LE(1Mbps)

2480MHz_TX

15/09/2018



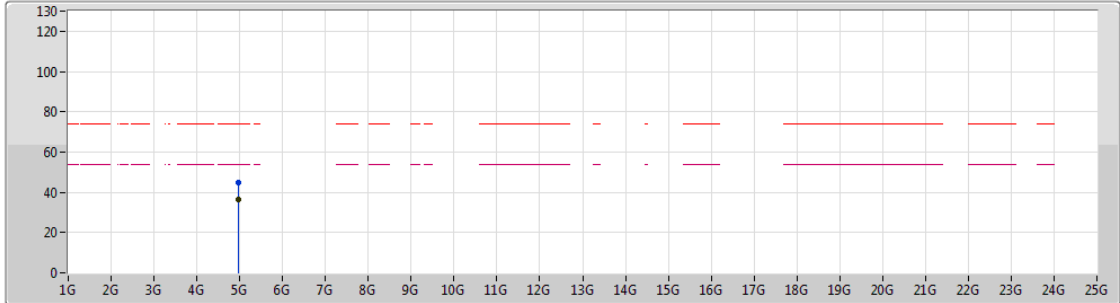
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.95972G	36.03	54.00	-17.97	2.47	3	Vertical	239	2.60	-
PK	4.95938G	45.29	74.00	-28.71	2.47	3	Vertical	239	2.60	-



BT-LE(1Mbps)

15/09/2018

2480MHz_TX



Legend for plot:

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

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.96026G	36.47	54.00	-17.53	2.47	3	Horizontal	70	1.01	-
PK	4.96012G	44.57	74.00	-29.43	2.47	3	Horizontal	70	1.01	-