FCC Test Report

FCC ID	:	**UDX-60084030**
Equipment	:	**Wireless Sensor**
Brand Name	:	**CISCO**
Model Name	:	**MT20-HW**
Applicant	:	**Cisco Systems, Inc. 170 West Tasman Drive San Jose, CA 95134 USA**
Manufacturer	:	**Cisco Systems, Inc. 170 West Tasman Drive San Jose, CA 95134 USA**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Jul. 13, 2020, and testing was started from Jul. 14, 2020 and completed on Jul. 15, 2020. 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 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 report

Report No.	Version	Description	Issued Date
FR042824AL	01	Initial issue of report	Aug. 21, 2020

Summary of Test Result

Report Clause	Ref.Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	Not Required	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

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: Sam 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.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Antenna Gain (dBi)
1	ENRACK	SHIELD ANTENNA MAG 22.7*9.7*4.75mm	PIFA Antenna	-	2.83

For Bluetooth function:

For Bluetooth mode (1TX/1RX)

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

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From Battery			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Type of EUT				
☒	Stand-alone			
☐	Combined (EUT where the radio part is fully integrated within another device)			
☐	Combined Equipment - Brand Name / Model No.:	…		
☐	Plug-in radio (EUT intended for a variety of host systems)			
	Host System - Brand Name / Model No.:	…		
☐	Other:			

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-LE(1Mbps)	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)

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

The following reference test guidance is not within the scope of accreditation of TAF:

- KDB 558074 D01 v05r02
- KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location			
☒	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.			
☐	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.			
☐	Wen Shan	ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)	
		TEL : 886-3-318-0787	FAX : 886-3-318-0287
Test site Designation No. TW1097 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Alan	20.1~26.9°C / 50~60%	14/Jul/2020~15/Jul/2020
Radiated	03CH02-HY	Edward	21.5~22.5°C / 52~56%	14/Jul/2020~15/Jul/2020

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)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	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-LE(1Mbps)	-
2402MHz	8
2440MHz	8
2480MHz	7

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	Battery 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	Battery mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT	V		

2.4 Accessories

Accessories				
Battery	Brand Name	Energizer	Model Name	E91
	Power Rating	1.5 Vdc, 3000mAh	Type	Alkaline Battery
magnet	Brand Name	X-MAG	Model Name	MAGNET N52

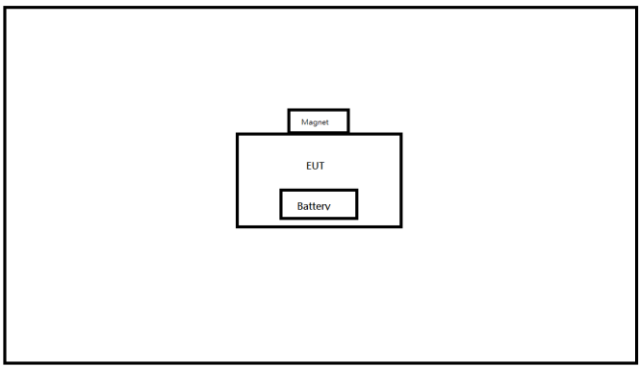
Reminder: Regarding to more detail and other information, please refer to user manual.

2.5 Support Equipment

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

2.6 Test Setup Diagram

Test Setup Diagram - Radiated Test



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

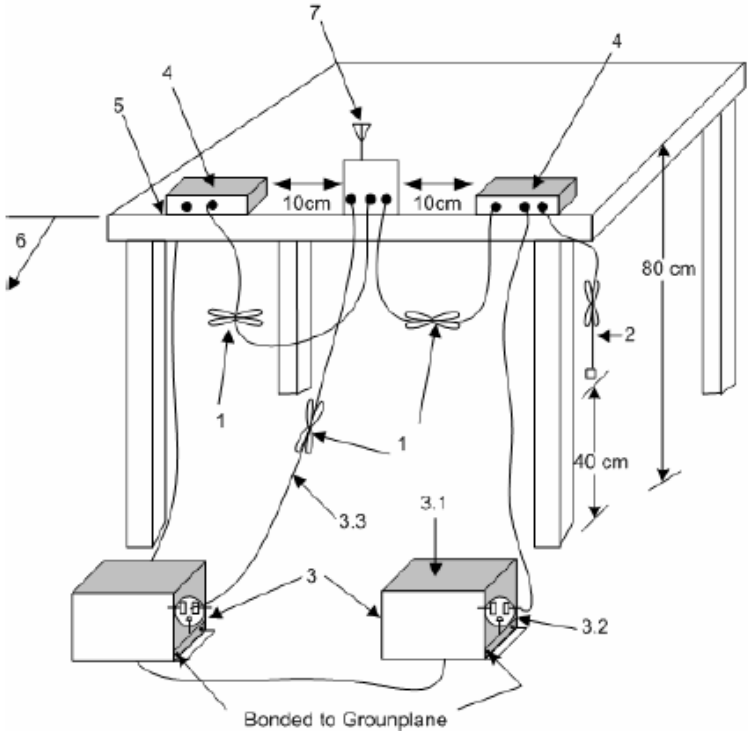
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) +LISN(LISN Factor) + CL(Cable Loss) - AT(Attenuator).

3.1.5 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.6 Test Result of AC Power-line Conducted Emissions

Please refer to FCC 15.207 which states, “Measurements to demonstrate compliance with the conducted limits are not required for devices employ Battery for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines”.
Therefore, for this device, AC Power Line Conducted Emissions investigation is not required.

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

3.2.2 Measuring Instruments

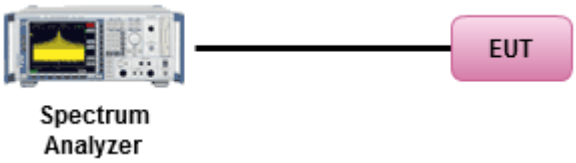
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
	☐ Refer as RSS-Gen, clause 6.7 for for occupied bandwidth testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪ If G_{TX} ≤ 6 dBi, then P_{Out} ≤ 30 dBm (1 W)	
	▪ Point-to-multipoint systems (P2M): If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6) dBm	
	▪ Point-to-point systems (P2P): If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm	
	▪ Smart antenna system (SAS):	
		- Single beam: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm
		- Overlap beam: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm
		- Aggregate power on all beams: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 + 8dB dBm
e.i.r.p. Power Limit:		
▪ 2400-2483.5 MHz Band		
	▪ Point-to-multipoint systems (P2M): P_{eirp} ≤ 36 dBm (4 W)	
	▪ Point-to-point systems (P2P): P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX}]) dBm	
	▪ Smart antenna system (SAS)	
		- Single beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		- Overlap beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		- Aggregate power on all beams: P_{eirp} ≤ 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	
▪ Maximum Peak Conducted Output Power	
	☐ Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
	☐ Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
	☐ Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
▪ Maximum Average Conducted Output Power	
	☐ Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
	☒ Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
▪ For conducted measurement.	
	▪ 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.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD)≤8 dBm/3kHz

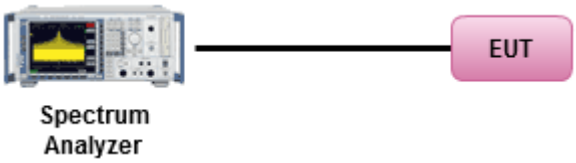
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method		
▪ 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).		
	☒ Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		▪ 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

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix C

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 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 level.	

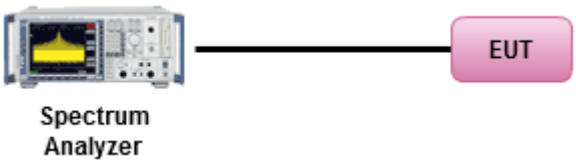
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
▪ Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix D

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 below30 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.

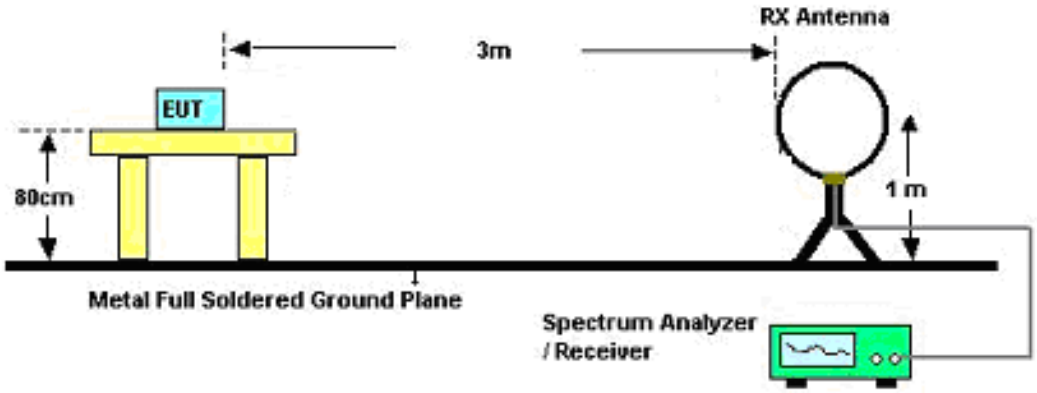
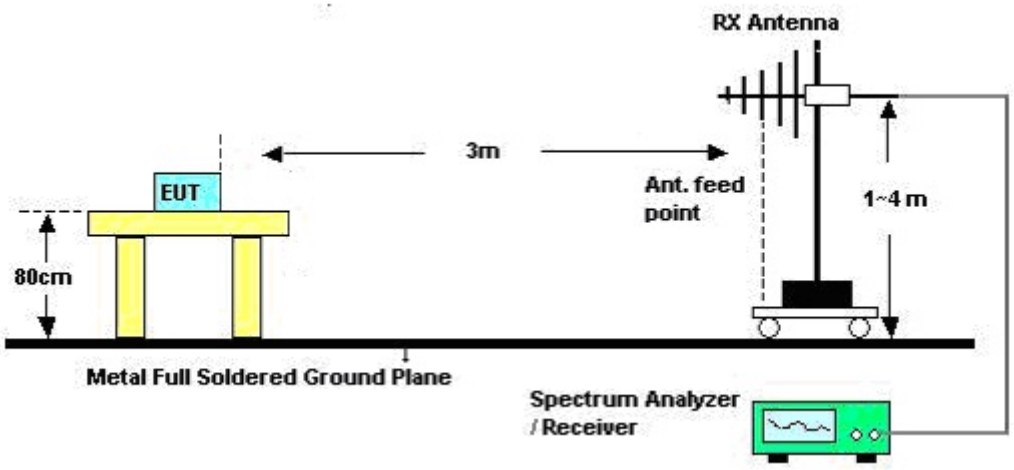
3.6.3 Test Procedures

Test Method	
▪	The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
▪	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.
▪	For the transmitter unwanted emissions shall be measured using following options below:
	▪ Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
▪	For the transmitter band-edge emissions shall be measured using following options below:
	▪ 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.
▪	Use the following spectrum analyzer settings:
	▪ 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 ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.
▪	KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.
	▪ Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

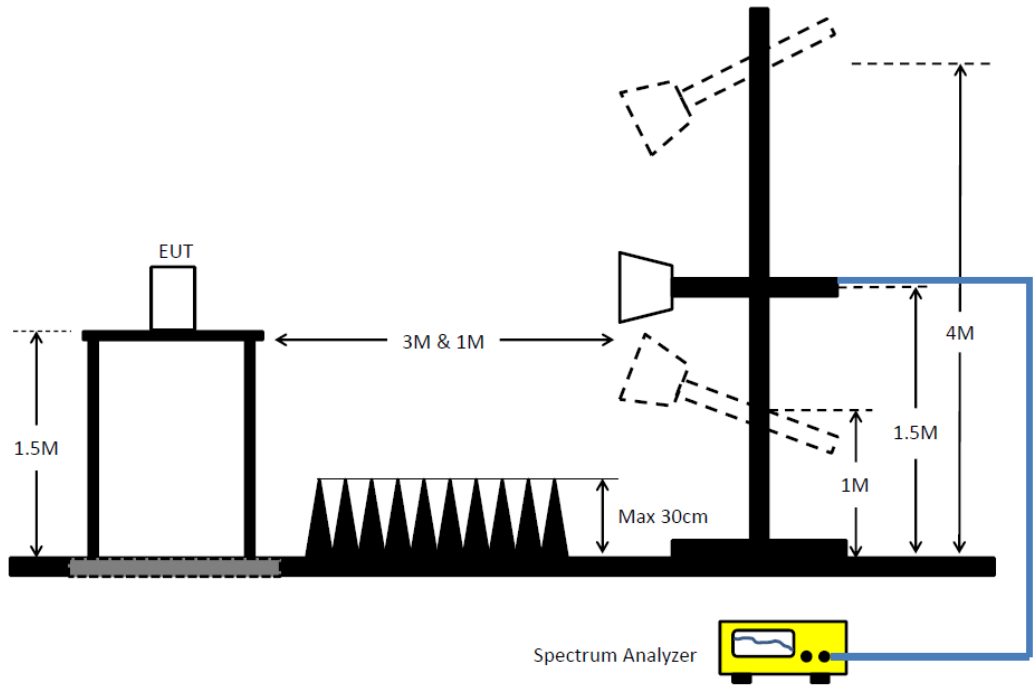
3.6.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

3.6.5 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.6.6 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.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10KHz ~ 40GHz	01/Oct/2019	30/Sep/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	11/Nov/2020
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	18/Mar/2020	17/Mar/2021
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	18/Mar/2020	17/Mar/2021

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	29/Aug/2019	28/Aug/2020
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	29/Aug/2019	28/Aug/2020
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	27/Feb/2020	26/Feb/2021
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	30/Jun/2020	29/Jun/2021
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~18GHz	16/Oct/2019	15/Oct/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	28/Feb/2020	27/Feb/2021
Double Ridged Guide Horn Antenna	SCHWARZBEC	BBHA 9120 D	BBHA 9120 D 01543	1GHz~18GHz	09/Jun/2020	08/Jun/2021
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz~1GHz	25/Mar/2020	24/Mar/2021
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	805193/4+805192/4	1GHz~40GHz	08/Apr/2020	07/Apr/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2020	15/Mar/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021

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)	737.5k	1.062M	1M06F1D	715k	1.045M

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

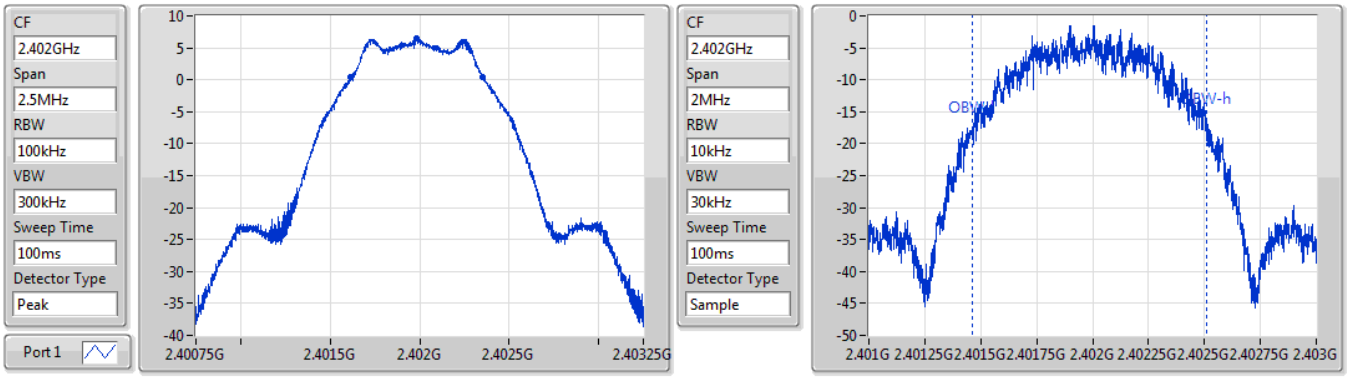
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	737.5k	1.045M
2440MHz	Pass	500k	721.25k	1.054M
2480MHz	Pass	500k	715k	1.062M

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

BT-LE(1Mbps) **EBW**

2402MHz

14/07/2020

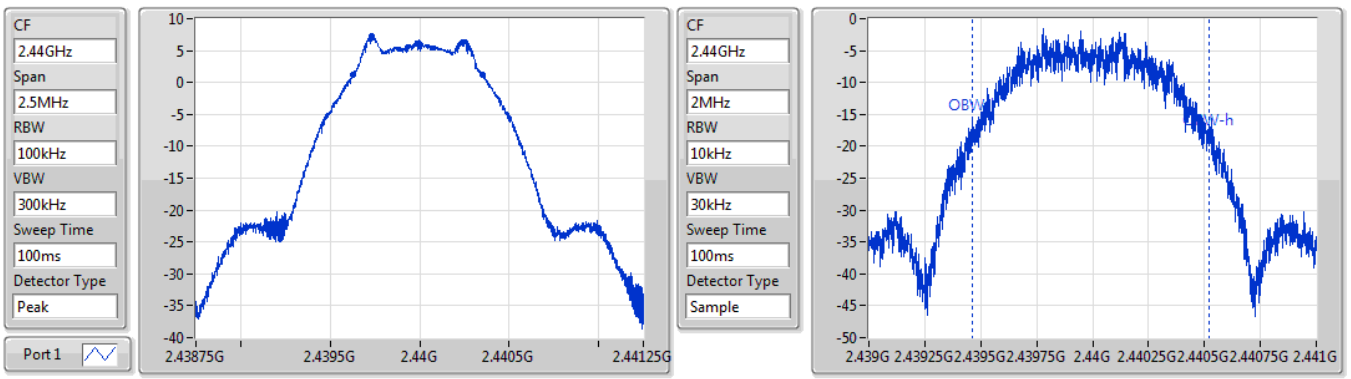


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
737.5k	2.401615G	2.402353G	1.045M	2.401464G	2.40251G	500k	1

BT-LE(1Mbps) **EBW**

2440MHz

14/07/2020

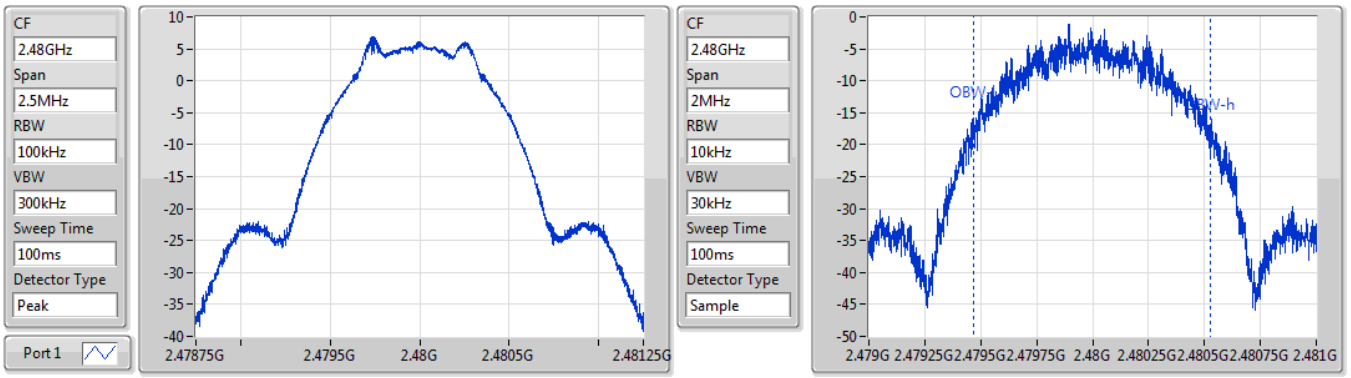


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
721.25k	2.439628G	2.440349G	1.054M	2.439464G	2.440519G	500k	1

BT-LE(1Mbps) **EBW**

2480MHz

15/07/2020



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
715k	2.479639G	2.480354G	1.062M	2.479466G	2.480529G	500k	1

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	7.35	0.00543

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.83	7.20	30.00
2440MHz	Pass	2.83	7.35	30.00
2480MHz	Pass	2.83	6.97	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-6.97

RBW=3 kHz.

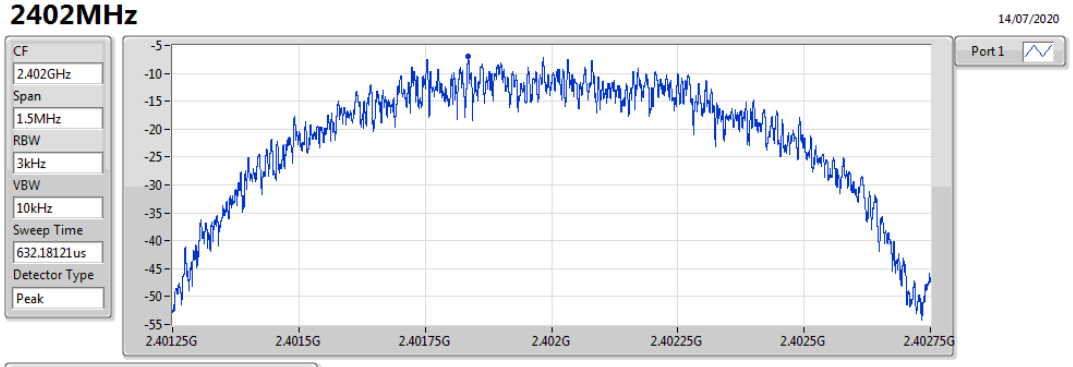
Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.83	-7.05	8.00
2440MHz	Pass	2.83	-6.97	8.00
2480MHz	Pass	2.83	-8.09	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;

BT-LE(1Mbps) **PSD**

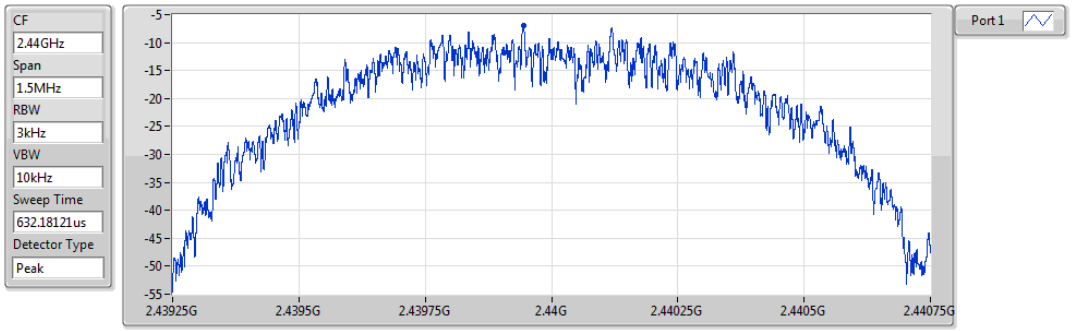
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.05	-7.05	-7.05

BT-LE(1Mbps) **PSD**

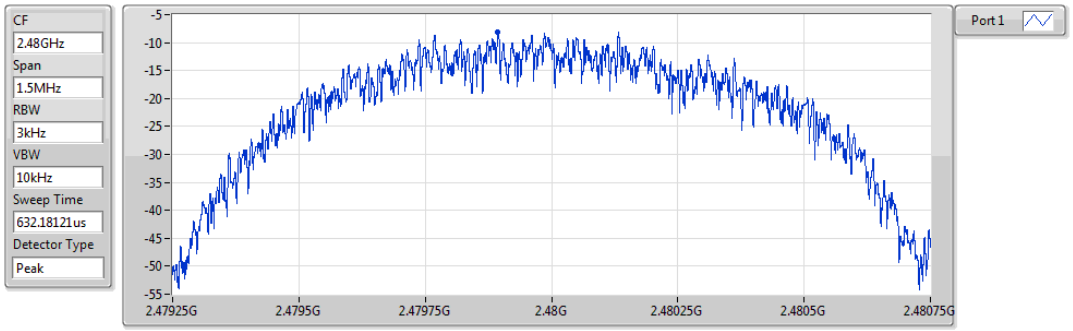
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.97	-6.97	-6.97

BT-LE(1Mbps) **PSD**

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.09	-8.09	-8.09

Summary

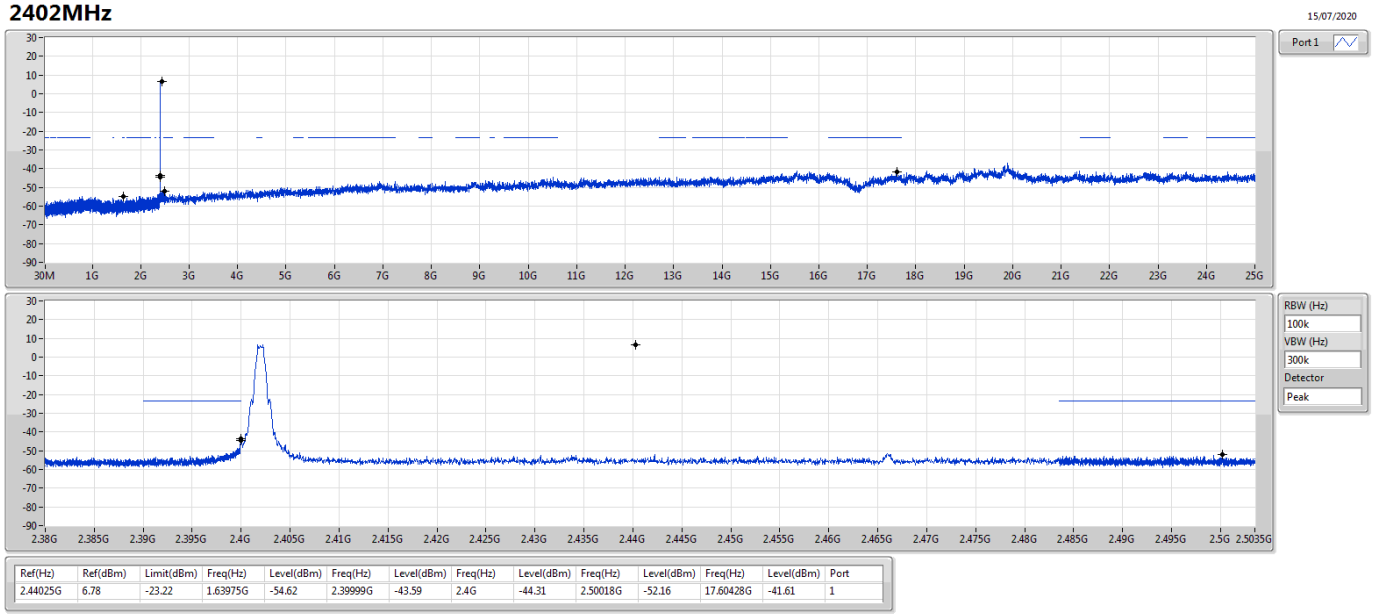
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.44025G	6.78	-23.22	1.63975G	-54.62	2.39999G	-43.59	2.4G	-44.31	2.50018G	-52.16	17.60428G	-41.61	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)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44025G	6.78	-23.22	1.63975G	-54.62	2.39999G	-43.59	2.4G	-44.31	2.50018G	-52.16	17.60428G	-41.61	1
2440MHz	Pass	2.44025G	6.78	-23.22	2.14206G	-54.23	2.39986G	-52.22	2.4835G	-54.82	2.49483G	-51.75	23.36057G	-41.05	1
2480MHz	Pass	2.44025G	6.78	-23.22	1.97668G	-54.57	2.39324G	-53.20	2.4835G	-52.50	2.48356G	-51.26	21.59459G	-41.27	1

BT-LE(1Mbps) **CSE NdB**

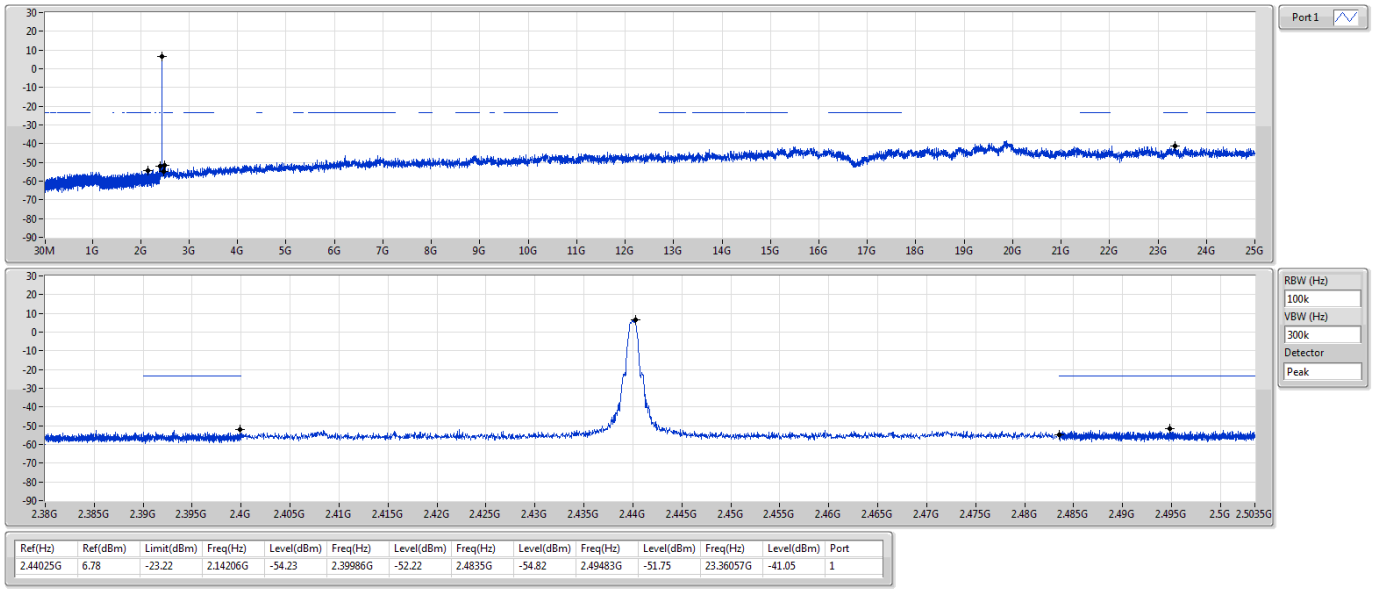
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44025G	6.78	-23.22	1.63975G	-54.62	2.39999G	-43.59	2.4G	-44.31	2.50018G	-52.16	17.60428G	-41.61	1

BT-LE(1Mbps) **CSE NdB**

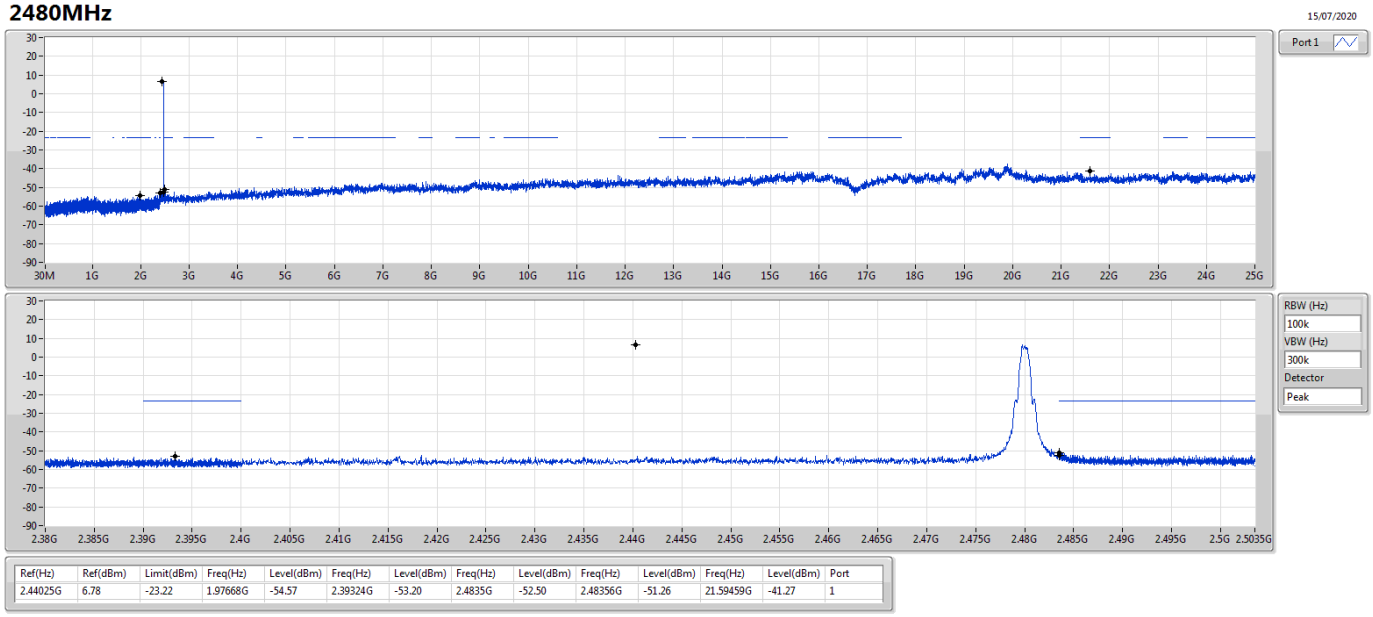
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44025G	6.78	-23.22	2.14206G	-54.23	2.39986G	-52.22	2.4835G	-54.82	2.49483G	-51.75	23.36057G	-41.05	1

BT-LE(1Mbps) **CSE NdB**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44025G	6.78	-23.22	1.97668G	-54.57	2.39324G	-53.20	2.4835G	-52.50	2.48356G	-51.26	21.59459G	-41.27	1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	PK	30M	35.64	40.00	-4.36	3	Vertical	360	1.00	-

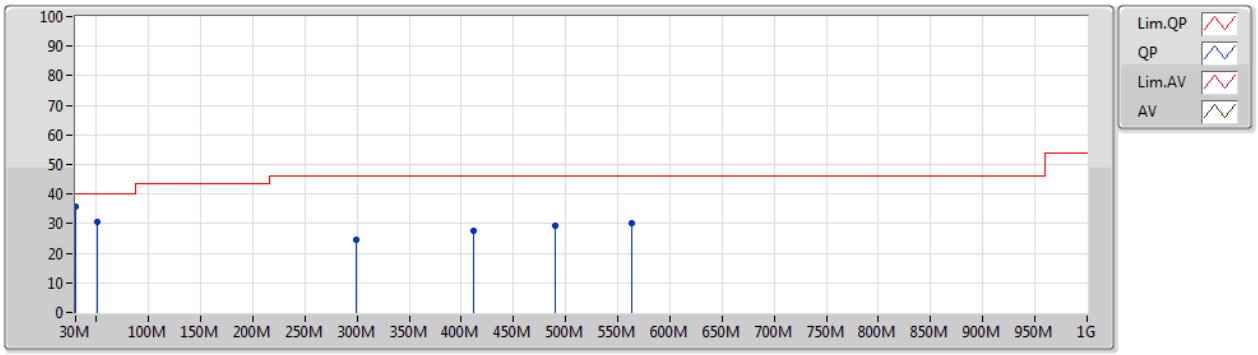
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	30M	35.64	40.00	-4.36	3	Vertical	360	1.00	-
2440MHz	Pass	PK	51.34M	30.49	40.00	-9.51	3	Vertical	360	1.00	-
2440MHz	Pass	PK	299.66M	24.48	46.00	-21.52	3	Vertical	360	1.00	-
2440MHz	Pass	PK	412.18M	27.59	46.00	-18.41	3	Vertical	360	1.00	-
2440MHz	Pass	PK	489.78M	29.30	46.00	-16.70	3	Vertical	360	1.00	-
2440MHz	Pass	PK	563.5M	30.29	46.00	-15.71	3	Vertical	360	1.00	-
2440MHz	Pass	PK	30M	29.38	40.00	-10.62	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	249.22M	26.02	46.00	-19.98	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	278.32M	31.90	46.00	-14.10	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	404.42M	26.89	46.00	-19.11	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	507.24M	28.95	46.00	-17.05	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	536.34M	30.61	46.00	-15.39	3	Horizontal	0	1.00	-

BT-LE(1Mbps)

15/07/2020

2440MHz_Battery

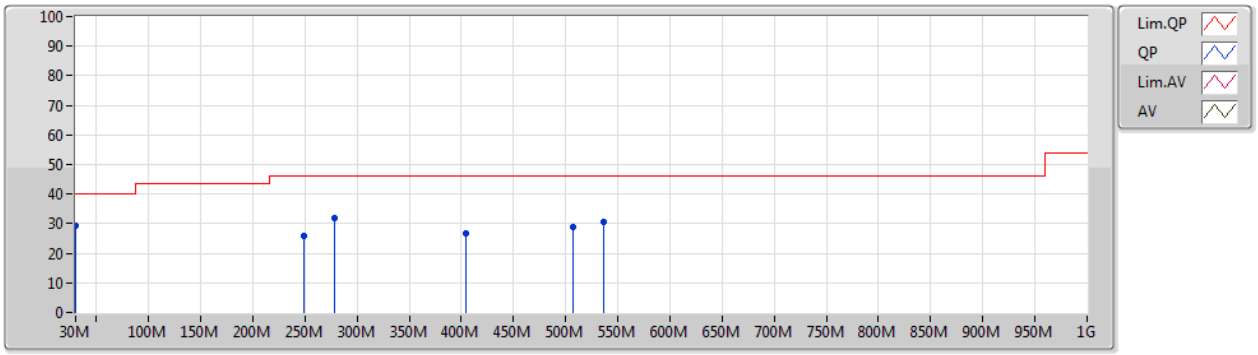


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	30M	35.64	40.00	-4.36	-2.89	3	Vertical	360	1.00	-	38.53	23.48	0.84	27.21
PK	51.34M	30.49	40.00	-9.51	-13.83	3	Vertical	360	1.00	-	44.32	12.84	1.05	27.72
PK	299.66M	24.48	46.00	-21.52	-5.97	3	Vertical	360	1.00	-	30.45	18.41	2.66	27.04
PK	412.18M	27.59	46.00	-18.41	-3.07	3	Vertical	360	1.00	-	30.66	21.61	3.13	27.81
PK	489.78M	29.30	46.00	-16.70	-1.94	3	Vertical	360	1.00	-	31.24	22.83	3.47	28.24
PK	563.5M	30.29	46.00	-15.71	-0.71	3	Vertical	360	1.00	-	31.00	23.93	3.71	28.35

BT-LE(1Mbps)

15/07/2020

2440MHz_Battery



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	30M	29.38	40.00	-10.62	-2.89	3	Horizontal	0	1.00	-	32.27	23.48	0.84	27.21
PK	249.22M	26.02	46.00	-19.98	-7.23	3	Horizontal	0	1.00	-	33.25	17.42	2.40	27.05
PK	278.32M	31.90	46.00	-14.10	-6.42	3	Horizontal	0	1.00	-	38.32	18.07	2.55	27.04
PK	404.42M	26.89	46.00	-19.11	-3.44	3	Horizontal	0	1.00	-	30.33	21.22	3.10	27.76
PK	507.24M	28.95	46.00	-17.05	-2.05	3	Horizontal	0	1.00	-	31.00	22.70	3.54	28.29
PK	536.34M	30.61	46.00	-15.39	-1.49	3	Horizontal	0	1.00	-	32.10	23.24	3.61	28.34

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	7.43942G	53.58	54.00	-0.42	3	Vertical	208	1.04	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3538G	46.23	54.00	-7.77	3	Vertical	253	1.08	-
2402MHz	Pass	AV	2.402G	98.45	Inf	-Inf	3	Vertical	253	1.08	-
2402MHz	Pass	PK	2.3564G	58.04	74.00	-15.96	3	Vertical	253	1.08	-
2402MHz	Pass	PK	2.402G	98.93	Inf	-Inf	3	Vertical	253	1.08	-
2402MHz	Pass	AV	2.37G	46.38	54.00	-7.62	3	Horizontal	348	2.91	-
2402MHz	Pass	AV	2.402G	102.58	Inf	-Inf	3	Horizontal	348	2.91	-
2402MHz	Pass	PK	2.358G	58.79	74.00	-15.21	3	Horizontal	348	2.91	-
2402MHz	Pass	PK	2.402G	103.08	Inf	-Inf	3	Horizontal	348	2.91	-
2402MHz	Pass	AV	4.80397G	46.70	54.00	-7.30	3	Vertical	183	1.00	-
2402MHz	Pass	PK	4.80384G	51.02	74.00	-22.98	3	Vertical	183	1.00	-
2402MHz	Pass	AV	4.804G	41.80	54.00	-12.20	3	Horizontal	66	1.00	-
2402MHz	Pass	PK	4.80404G	48.78	74.00	-25.22	3	Horizontal	66	1.00	-
2440MHz	Pass	AV	2.3412G	46.23	54.00	-7.77	3	Vertical	248	1.03	-
2440MHz	Pass	AV	2.44G	96.79	Inf	-Inf	3	Vertical	248	1.03	-
2440MHz	Pass	AV	2.4976G	45.85	54.00	-8.15	3	Vertical	248	1.03	-
2440MHz	Pass	PK	2.3536G	58.50	74.00	-15.50	3	Vertical	248	1.03	-
2440MHz	Pass	PK	2.4396G	98.46	Inf	-Inf	3	Vertical	248	1.03	-
2440MHz	Pass	PK	2.4948G	57.63	74.00	-16.37	3	Vertical	248	1.03	-
2440MHz	Pass	AV	2.34G	46.22	54.00	-7.78	3	Horizontal	328	1.15	-
2440MHz	Pass	AV	2.44G	102.06	Inf	-Inf	3	Horizontal	328	1.15	-
2440MHz	Pass	AV	2.4856G	45.94	54.00	-8.06	3	Horizontal	328	1.15	-
2440MHz	Pass	PK	2.3864G	58.75	74.00	-15.25	3	Horizontal	328	1.15	-
2440MHz	Pass	PK	2.4396G	103.73	Inf	-Inf	3	Horizontal	328	1.15	-
2440MHz	Pass	PK	2.4904G	57.43	74.00	-16.57	3	Horizontal	328	1.15	-
2440MHz	Pass	AV	4.88003G	42.79	54.00	-11.21	3	Vertical	188	2.77	-
2440MHz	Pass	AV	7.32049G	52.29	54.00	-1.71	3	Vertical	212	1.10	-
2440MHz	Pass	PK	4.87946G	51.42	74.00	-22.58	3	Vertical	188	2.77	-
2440MHz	Pass	PK	7.3208G	62.27	74.00	-11.73	3	Vertical	212	1.10	-
2440MHz	Pass	AV	4.88G	38.63	54.00	-15.37	3	Horizontal	64	1.00	-
2440MHz	Pass	AV	7.32051G	51.27	54.00	-2.73	3	Horizontal	323	1.00	-
2440MHz	Pass	PK	4.87945G	49.28	74.00	-24.72	3	Horizontal	64	1.00	-
2440MHz	Pass	PK	7.32074G	61.55	74.00	-12.45	3	Horizontal	323	1.00	-
2480MHz	Pass	AV	2.48G	94.55	Inf	-Inf	3	Vertical	253	1.29	-
2480MHz	Pass	AV	2.4835G	46.87	54.00	-7.13	3	Vertical	253	1.29	-
2480MHz	Pass	PK	2.4798G	96.22	Inf	-Inf	3	Vertical	253	1.29	-
2480MHz	Pass	PK	2.4936G	57.53	74.00	-16.47	3	Vertical	253	1.29	-
2480MHz	Pass	AV	2.48G	102.68	Inf	-Inf	3	Horizontal	346	1.18	-
2480MHz	Pass	AV	2.4835G	50.71	54.00	-3.29	3	Horizontal	346	1.18	-
2480MHz	Pass	PK	2.4802G	104.36	Inf	-Inf	3	Horizontal	346	1.18	-
2480MHz	Pass	PK	2.4835G	59.73	74.00	-14.27	3	Horizontal	346	1.18	-
2480MHz	Pass	AV	4.95979G	34.05	54.00	-19.95	3	Vertical	356	1.69	-
2480MHz	Pass	AV	7.43942G	53.58	54.00	-0.42	3	Vertical	208	1.04	-
2480MHz	Pass	PK	4.96064G	47.02	74.00	-26.98	3	Vertical	356	1.69	-
2480MHz	Pass	PK	7.43913G	63.80	74.00	-10.20	3	Vertical	208	1.04	-
2480MHz	Pass	AV	4.9598G	32.93	54.00	-21.07	3	Horizontal	66	1.00	-
2480MHz	Pass	AV	7.44057G	52.89	54.00	-1.11	3	Horizontal	328	1.00	-
2480MHz	Pass	PK	4.96042G	45.99	74.00	-28.01	3	Horizontal	66	1.00	-

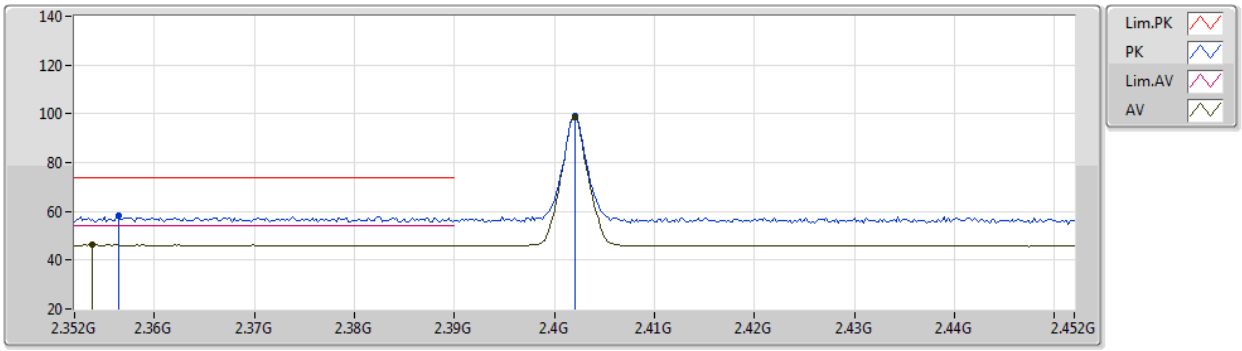
Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	7.44076G	63.03	74.00	-10.97	3	Horizontal	328	1.00	-

BT-LE(1Mbps)

2402MHz_TX

14/07/2020

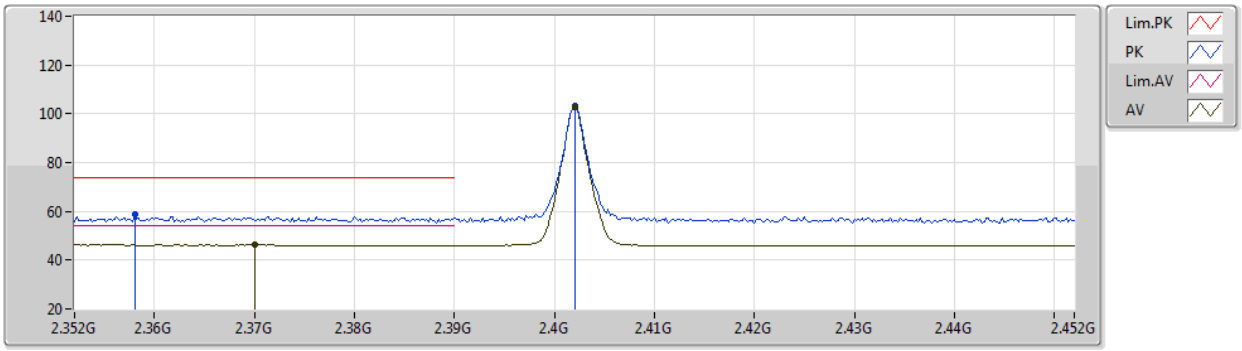


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3538G	46.23	54.00	-7.77	33.62	3	Vertical	253	1.08	-	12.61	27.69	5.93	-
AV	2.402G	98.45	Inf	-Inf	33.55	3	Vertical	253	1.08	-	64.90	27.59	5.96	-
PK	2.3564G	58.04	74.00	-15.96	33.62	3	Vertical	253	1.08	-	24.42	27.69	5.93	-
PK	2.402G	98.93	Inf	-Inf	33.55	3	Vertical	253	1.08	-	65.38	27.59	5.96	-

BT-LE(1Mbps)

2402MHz_TX

14/07/2020

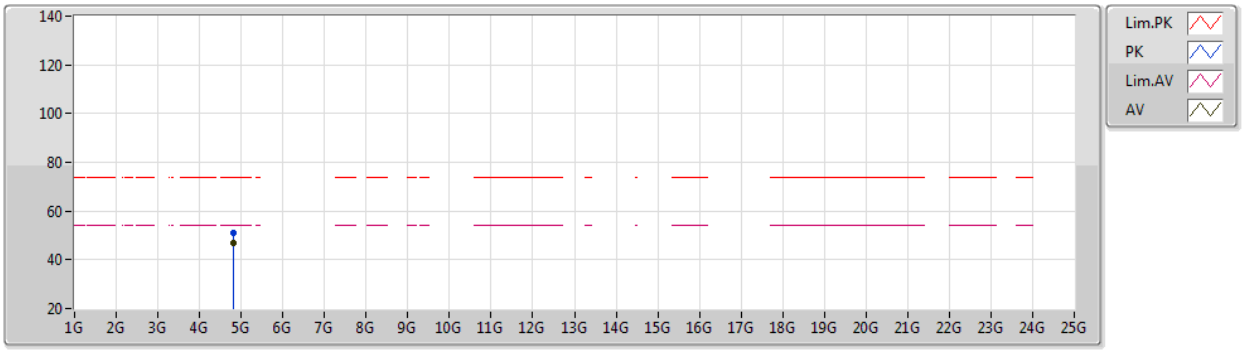


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.37G	46.38	54.00	-7.62	33.60	3	Horizontal	348	2.91	-	12.78	27.66	5.94	-
AV	2.402G	102.58	Inf	-Inf	33.55	3	Horizontal	348	2.91	-	69.03	27.59	5.96	-
PK	2.358G	58.79	74.00	-15.21	33.61	3	Horizontal	348	2.91	-	25.18	27.68	5.93	-
PK	2.402G	103.08	Inf	-Inf	33.55	3	Horizontal	348	2.91	-	69.53	27.59	5.96	-

BT-LE(1Mbps)

2402MHz_TX

14/07/2020

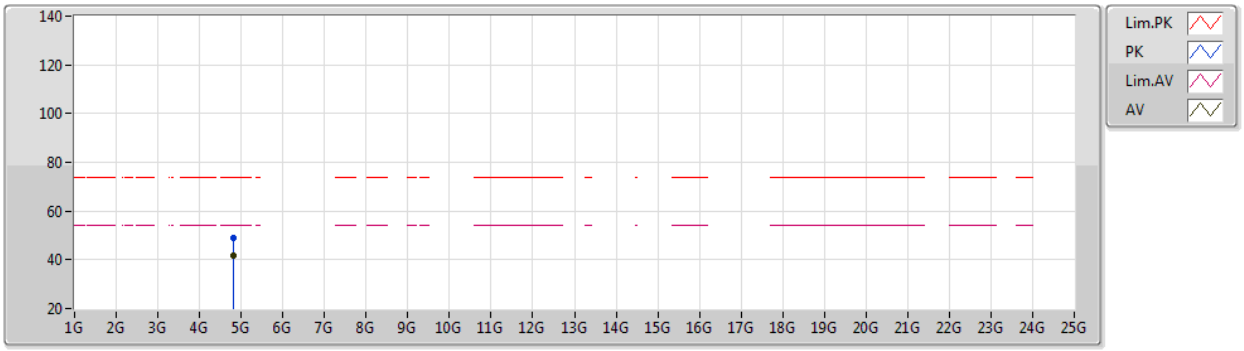


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80397G	46.70	54.00	-7.30	5.26	3	Vertical	183	1.00	-	41.44	30.92	8.25	33.91
PK	4.80384G	51.02	74.00	-22.98	5.26	3	Vertical	183	1.00	-	45.76	30.92	8.25	33.91

BT-LE(1Mbps)

2402MHz_TX

14/07/2020

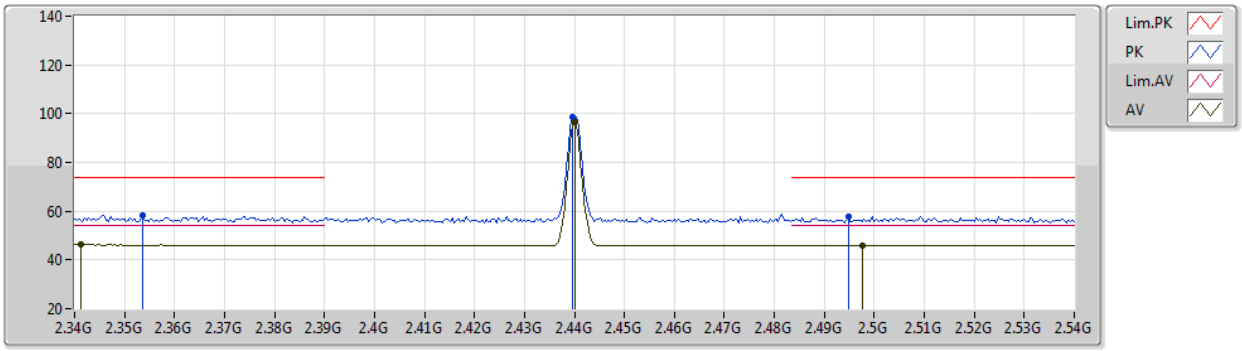


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.804G	41.80	54.00	-12.20	5.26	3	Horizontal	66	1.00	-	36.54	30.92	8.25	33.91
PK	4.80404G	48.78	74.00	-25.22	5.26	3	Horizontal	66	1.00	-	43.52	30.92	8.25	33.91

BT-LE(1Mbps)

2440MHz_TX

14/07/2020

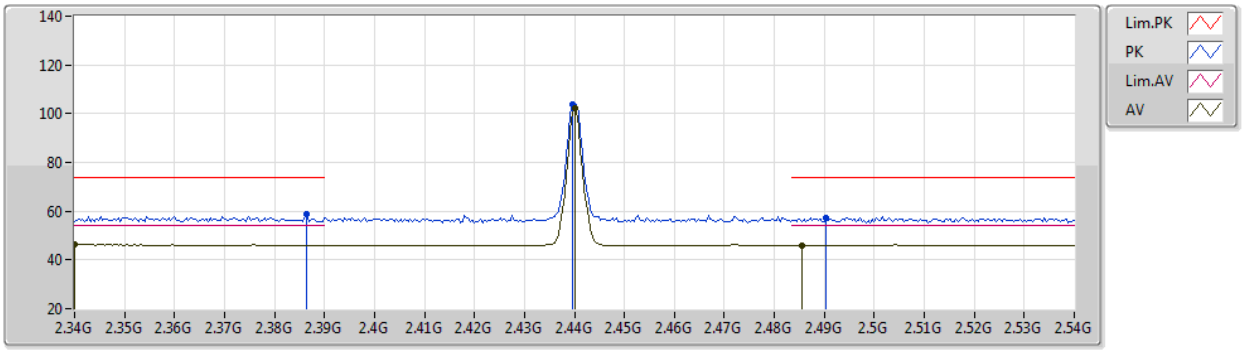


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3412G	46.23	54.00	-7.77	33.66	3	Vertical	248	1.03	-	12.57	27.74	5.92	-
AV	2.44G	96.79	Inf	-Inf	33.45	3	Vertical	248	1.03	-	63.34	27.44	6.01	-
AV	2.4976G	45.85	54.00	-8.15	33.48	3	Vertical	248	1.03	-	12.37	27.40	6.08	-
PK	2.3536G	58.50	74.00	-15.50	33.62	3	Vertical	248	1.03	-	24.88	27.69	5.93	-
PK	2.4396G	98.46	Inf	-Inf	33.45	3	Vertical	248	1.03	-	65.01	27.44	6.01	-
PK	2.4948G	57.63	74.00	-16.37	33.47	3	Vertical	248	1.03	-	24.16	27.40	6.07	-

BT-LE(1Mbps)

2440MHz_TX

14/07/2020

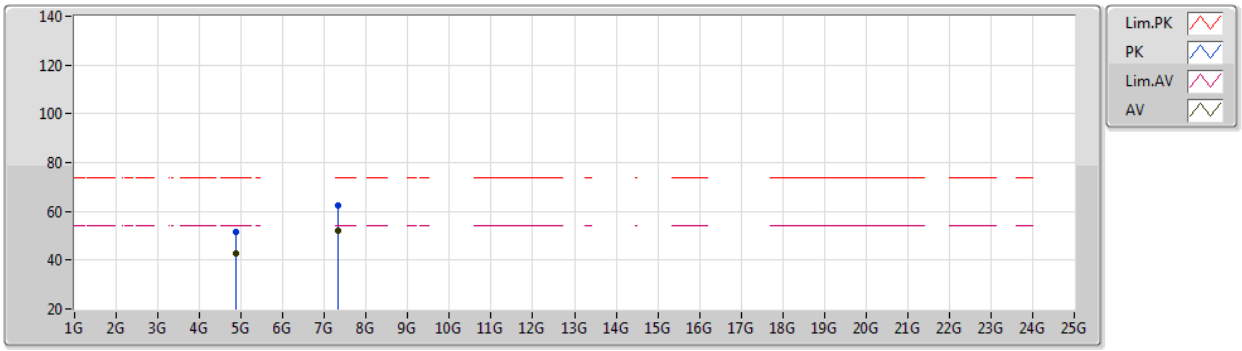


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.34G	46.22	54.00	-7.78	33.66	3	Horizontal	328	1.15	-	12.56	27.74	5.92	-
AV	2.44G	102.06	Inf	-Inf	33.45	3	Horizontal	328	1.15	-	68.61	27.44	6.01	-
AV	2.4856G	45.94	54.00	-8.06	33.46	3	Horizontal	328	1.15	-	12.48	27.40	6.06	-
PK	2.3864G	58.75	74.00	-15.25	33.58	3	Horizontal	328	1.15	-	25.17	27.63	5.95	-
PK	2.4396G	103.73	Inf	-Inf	33.45	3	Horizontal	328	1.15	-	70.28	27.44	6.01	-
PK	2.4904G	57.43	74.00	-16.57	33.47	3	Horizontal	328	1.15	-	23.96	27.40	6.07	-

BT-LE(1Mbps)

2440MHz_TX

14/07/2020

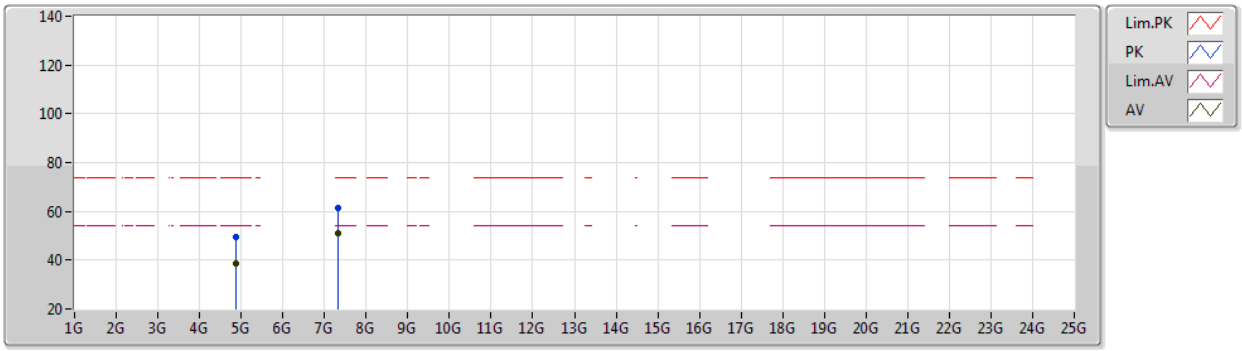


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88003G	42.79	54.00	-11.21	5.47	3	Vertical	188	2.77	-	37.32	31.04	8.30	33.87
AV	7.32049G	52.29	54.00	-1.71	12.24	3	Vertical	212	1.10	-	40.05	36.32	10.03	34.11
PK	4.87946G	51.42	74.00	-22.58	5.47	3	Vertical	188	2.77	-	45.95	31.04	8.30	33.87
PK	7.3208G	62.27	74.00	-11.73	12.24	3	Vertical	212	1.10	-	50.03	36.32	10.03	34.11

BT-LE(1Mbps)

2440MHz_TX

14/07/2020

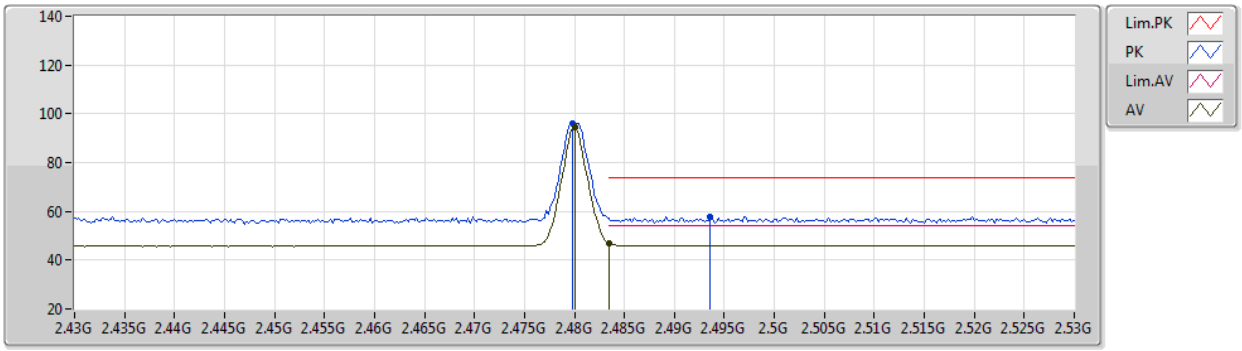


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88G	38.63	54.00	-15.37	5.47	3	Horizontal	64	1.00	-	33.16	31.04	8.30	33.87
AV	7.32051G	51.27	54.00	-2.73	12.24	3	Horizontal	323	1.00	-	39.03	36.32	10.03	34.11
PK	4.87945G	49.28	74.00	-24.72	5.47	3	Horizontal	64	1.00	-	43.81	31.04	8.30	33.87
PK	7.32074G	61.55	74.00	-12.45	12.24	3	Horizontal	323	1.00	-	49.31	36.32	10.03	34.11

BT-LE(1Mbps)

2480MHz_TX

14/07/2020

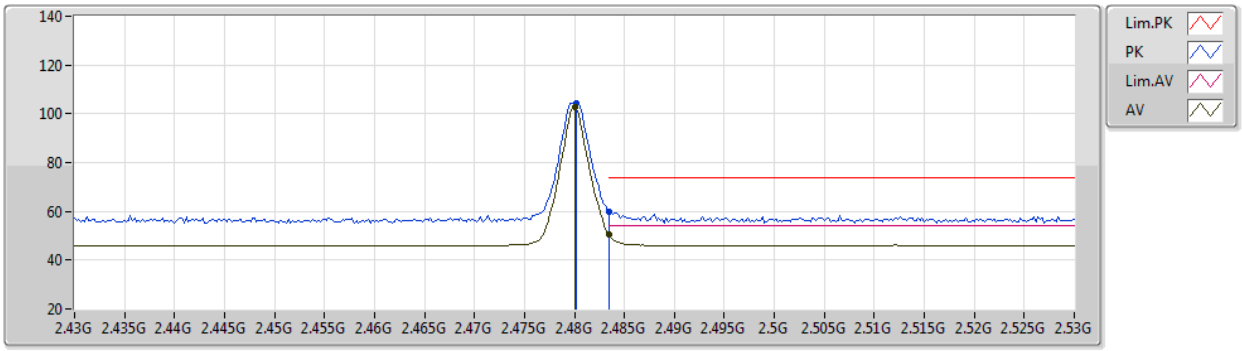


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	94.55	Inf	-Inf	33.46	3	Vertical	253	1.29	-	61.09	27.40	6.06	-
AV	2.4835G	46.87	54.00	-7.13	33.46	3	Vertical	253	1.29	-	13.41	27.40	6.06	-
PK	2.4798G	96.22	Inf	-Inf	33.46	3	Vertical	253	1.29	-	62.76	27.40	6.06	-
PK	2.4936G	57.53	74.00	-16.47	33.47	3	Vertical	253	1.29	-	24.06	27.40	6.07	-

BT-LE(1Mbps)

2480MHz_TX

14/07/2020

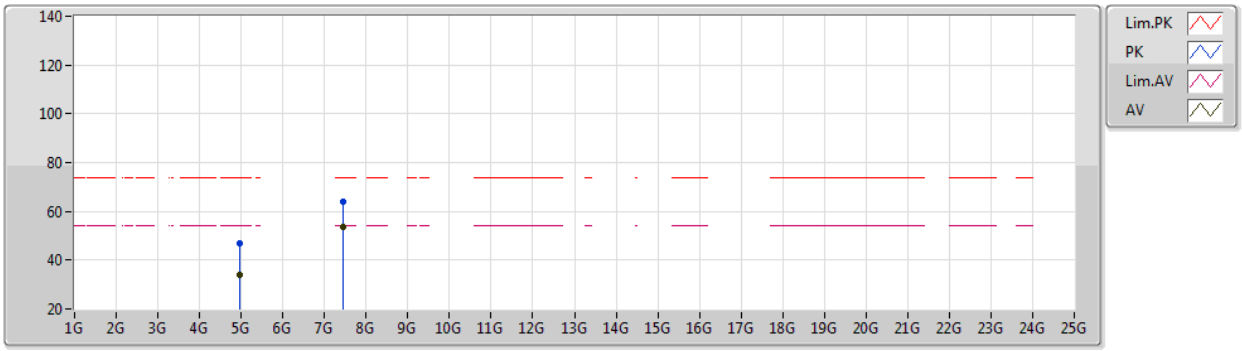


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	102.68	Inf	-Inf	33.46	3	Horizontal	346	1.18	-	69.22	27.40	6.06	-
AV	2.4835G	50.71	54.00	-3.29	33.46	3	Horizontal	346	1.18	-	17.25	27.40	6.06	-
PK	2.4802G	104.36	Inf	-Inf	33.46	3	Horizontal	346	1.18	-	70.90	27.40	6.06	-
PK	2.4835G	59.73	74.00	-14.27	33.46	3	Horizontal	346	1.18	-	26.27	27.40	6.06	-

BT-LE(1Mbps)

2480MHz_TX

14/07/2020

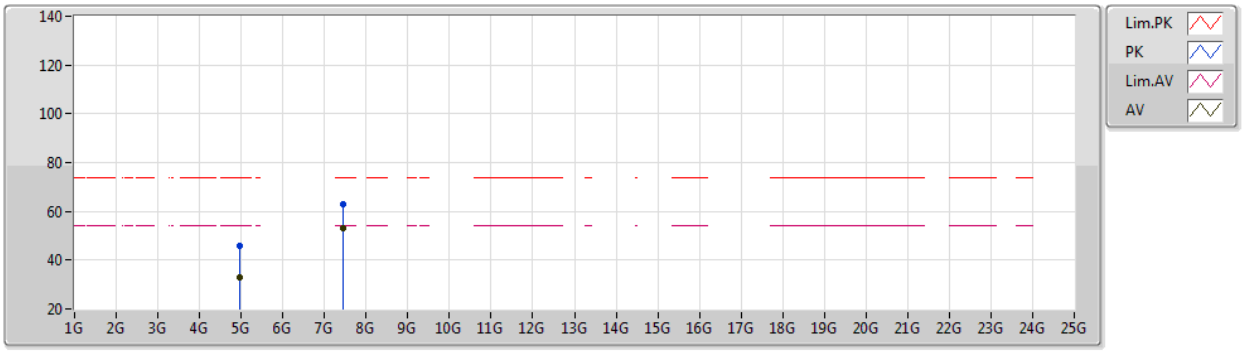


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95979G	34.05	54.00	-19.95	5.75	3	Vertical	356	1.69	-	28.30	31.22	8.35	33.82
AV	7.43942G	53.58	54.00	-0.42	12.17	3	Vertical	208	1.04	-	41.41	36.18	10.10	34.11
PK	4.96064G	47.02	74.00	-26.98	5.75	3	Vertical	356	1.69	-	41.27	31.22	8.35	33.82
PK	7.43913G	63.80	74.00	-10.20	12.17	3	Vertical	208	1.04	-	51.63	36.18	10.10	34.11

BT-LE(1Mbps)

2480MHz_TX

14/07/2020



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.9598G	32.93	54.00	-21.07	5.75	3	Horizontal	66	1.00	-	27.18	31.22	8.35	33.82
AV	7.44057G	52.89	54.00	-1.11	12.17	3	Horizontal	328	1.00	-	40.72	36.18	10.10	34.11
PK	4.96042G	45.99	74.00	-28.01	5.75	3	Horizontal	66	1.00	-	40.24	31.22	8.35	33.82
PK	7.44076G	63.03	74.00	-10.97	12.17	3	Horizontal	328	1.00	-	50.86	36.18	10.10	34.11