FCC Test Report

FCC ID	:	**U94EARIS1218-R**
Equipment	:	**Wireless Headset**
Brand Name	:	**Humantechnik**
Model Name	:	**Earis receiver,Earis PR receiver**
Applicant	:	**Adec & Partner AG** **Staldenbachstrasse 30, 8808 Pfaeffikon, Switzerland**
Manufacturer	:	**Humantechnik GmbH** **Im Woerth 25, 79576 Weil am Rhein, Germany**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Nov. 15, 2018, and testing was started from Nov. 28, 2018 and completed on Nov. 30, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

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History of this test report

Report No.	Version	Description	Issued Date
FR8N0218AC	Rev. 01	Initial issue of report	Mar. 05, 2019

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: > 20 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: Sam Tsai

Report Producer: Michelle Tsai

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Modulation	Ch. Frequency (MHz)	Channel Number
2400-2483.5	FSK	2406-2478	1-88 [88]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	FSK	3.8	2TX

Note:
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	OneWave Electronic Co., Ltd.	WAN3216F245M05	Chip Antenna 3216 M-Ant 2.45G	fixed on board
2	OneWave Electronic Co., Ltd.	WAN3216F245M05	Chip Antenna 3216 M-Ant 2.45G	fixed on board

Ant.	Port	Gain (dBi)
		SRD 2.4G
1	1	2.41
2	2	2.41

Note 1: The EUT has two antennas.

For SRD 2.4GHz function:

For SRD 2.4G mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition					
EUT Power Type	From DC Power Supply				
Beamforming Function	☐	With beamforming	☒	Without beamforming	
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)
FSK	1	0

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

1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Description
Earis receiver	All the models are identical, the difference as appearance.
Earis PR receiver	

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 v05
- KDB 662911 D01 v02r01

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.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Jeremy	23.1°C / 62%	30/Nov/2018
Radiated	03CH09-HY	Jeremy	21°C / 55%	30/Nov/2018
AC Conduction	CO04-HY	Andy	22.3°C / 58%	28/Nov/2018

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 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 ℃	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	2.2V

2.2 Test Channel Mode

Test Software Version	Setup_PurePath_Wireless_Commander.1.0.36940.exe

Mode	PowerSetting
FSK_Nss1,(5Mbps)_2TX	-
2406MHz	-4dBm
2442MHz	3dBm
2478MHz	1dBm

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	DC Power Supply Mode (Earis PR receiver)
2	DC Power Supply Mode (Earis receiver)

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	CTX		
1	DC Power Supply Mode (Earis PR receiver)		
2	DC Power Supply Mode (Earis receiver)		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT		V	

2.4 Accessories and Support Equipment

Accessories				
AC Adapter 1	Brand Name	HELMS-MEN	Model Name	SCA0501500P
	Power Rating	I/P: 100 - 240Vac,300 mA, O/P: 5 Vdc,1500mA		
	Power Cord	1.5 meter, non-shielded cable, w/o ferrite core		
AC Adapter 2	Brand Name	HELMS-MEN	Model Name	SJA0501500PU
	Power Rating	I/P: 100 - 240Vac,300 mA, O/P: 5 Vdc,1500mA		
	Power Cord	1.46 meter, non-shielded cable, w/o ferrite core		
Battery	Brand Name	Humantechnik	Model Name	AP18A
	Manufacturer	KAYO	Type	Li-ion, Y
	Power Rating	3.7V, 400mAh, 1.48Wh		
Wireless Pedestal	Brand Name	Humantechnik	Model Name	Earis transmitter
Toslink cable	Power Cord	1.46 meter, non-shielded cable, w/o ferrite core		
audio connection lead with 3.5 mm stereo jack plugs	Power Cord	2.1 meter, non-shielded cable, w/o ferrite core		
audio-adapter RCA to 3.5mm stereo jack	Power Cord	0.24 meter, non-shielded cable, w/o ferrite core		
inductive neckloop	Power Cord	0.73 meter, non-shielded cable, w/o ferrite core		

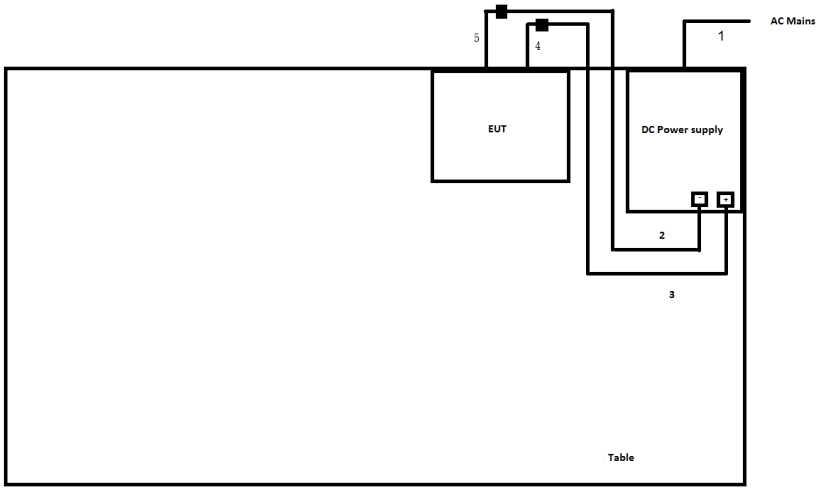
Reminder: Regarding to more detail and other information, please refer to user manual.

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	DC Power Supply	GW	GPS-3030DD	NA

Support Equipment – AC Conduction and Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	DC Power Supply	GW	GPS-3030DD	DoC

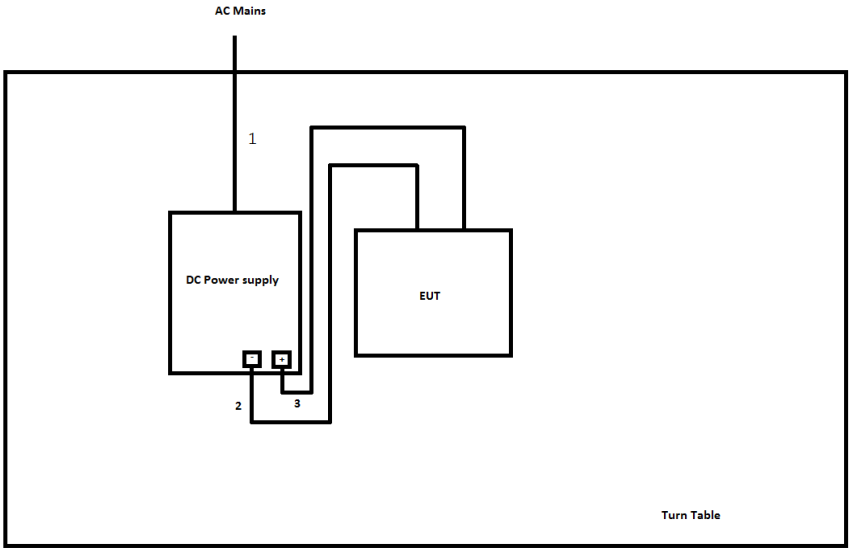
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.5	-
2	DC Power line	No	1.0	-
3	DC Power line	No	1.0	-
4	DC Power line	No	0.1	-
5	DC Power line	No	0.1	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.5	-
2	DC Power line	No	2.0	-
3	DC Power line	No	2.0	-

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

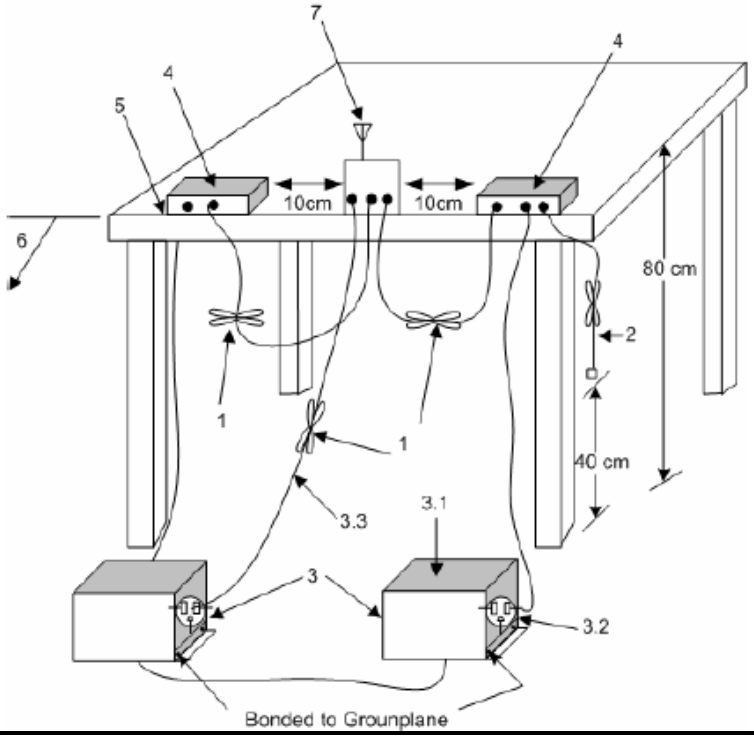
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



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:
▪ 6 dB bandwidth ≥ 500 kHz.

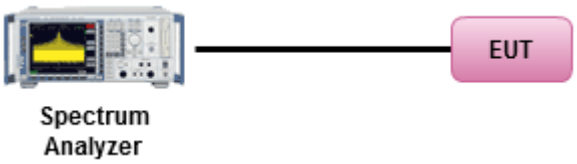
3.2.2 Measuring Instruments

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 B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ 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 $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm
e.i.r.p. Power Limit:		
▪ 2400-2483.5 MHz Band		
	▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)	
	▪ Point-to-point systems (P2P): $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX}])$ dBm	
	▪ Smart antenna system (SAS)	
		- Single beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm
		- Overlap beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm
		- Aggregate power on all beams: $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX} + 8])$ 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 C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

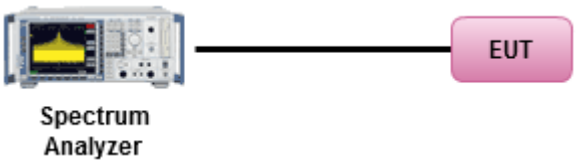
3.4.2 Measuring Instruments

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) Method PKPSD.	
▪ 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 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.	

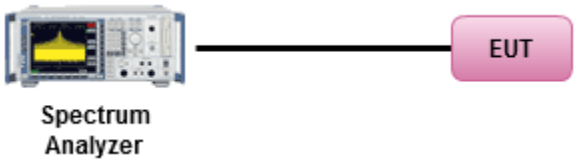
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
▪ 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 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.

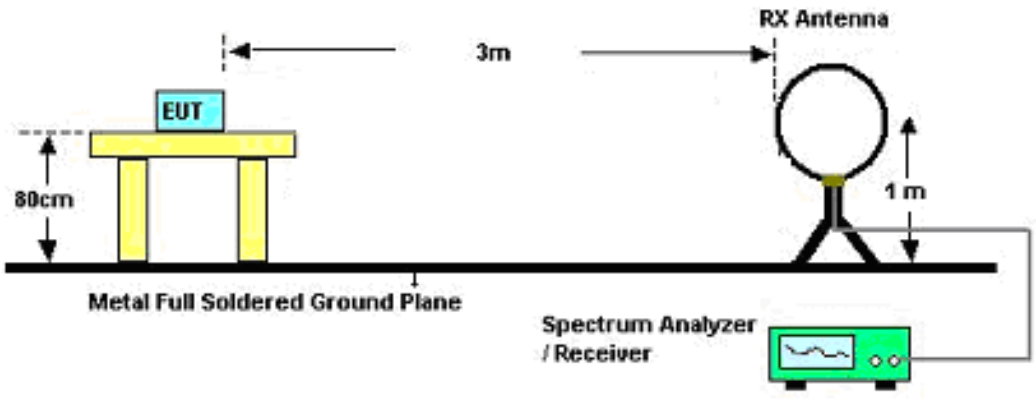
3.6.2 Measuring Instruments

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

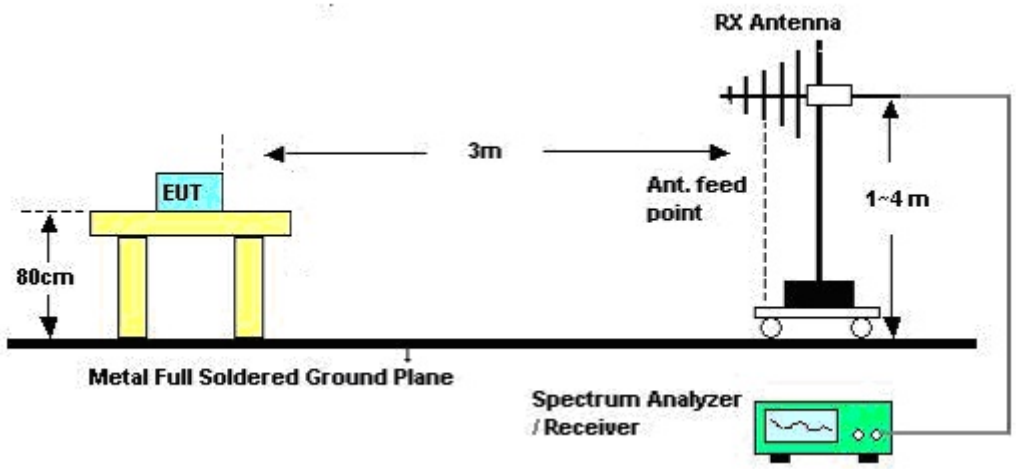
3.6.3 Test Procedures

Test Method	
▪ 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 (i.e., 1 MHz).
▪ 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.

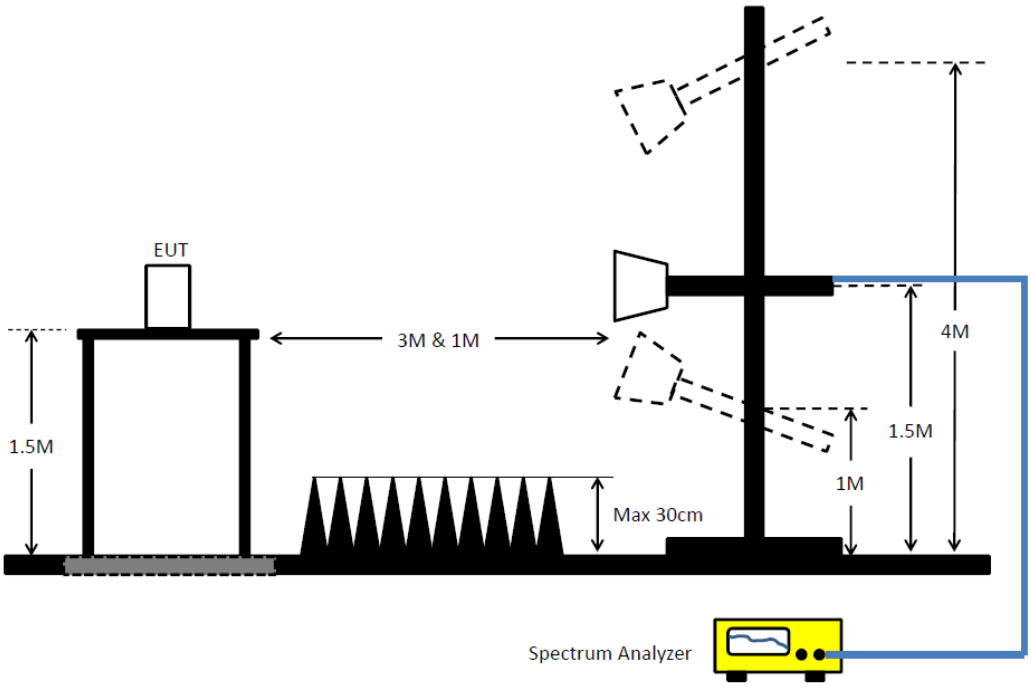
3.6.4 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz


30MHz~1GHz



Above 1GHz



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	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require

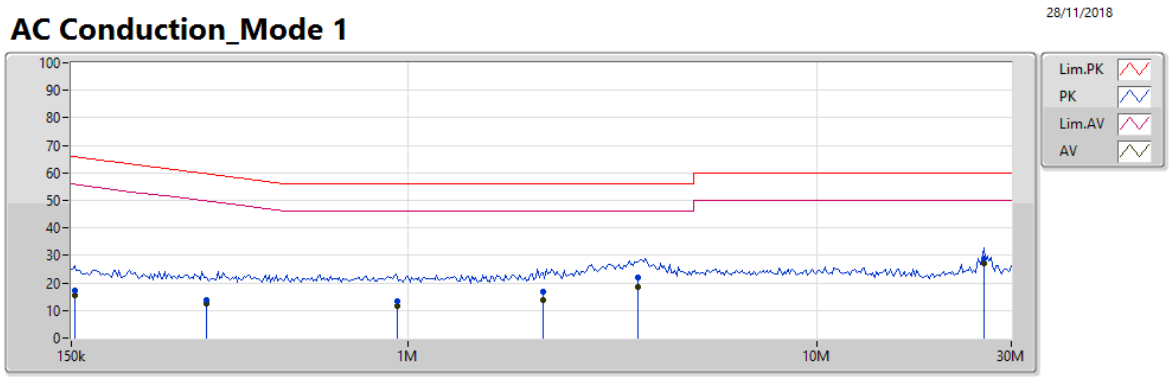
Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	23/Apr/2018	22/Apr/2019
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	14/Jun/2018	13/Jun/2019
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	10/May/2018	09/May/2019
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	27/Apr/2018	26/Apr/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	31/Jul/2018	30/Jul/2019
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	02/Oct/2018	03/Oct/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170614	18GHz~40GHz	09/Feb/2018	08/Feb/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
RF Cable-R03m	Jye Bao	RG142	CB031	9kHz ~ 1GHz	1/Feb/2018	31/Jan/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2018	13/Mar/2019

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	05/Feb/2018	04/Feb/2019
Pulse Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
RF Cable-1.5m	HUBER+SUHNER	SUCOFLEX_104	MY12585/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
Signal Generator	R&S	SMB100A	175727	100kHz~40GHz	26/Oct/2018	25/Oct/2019

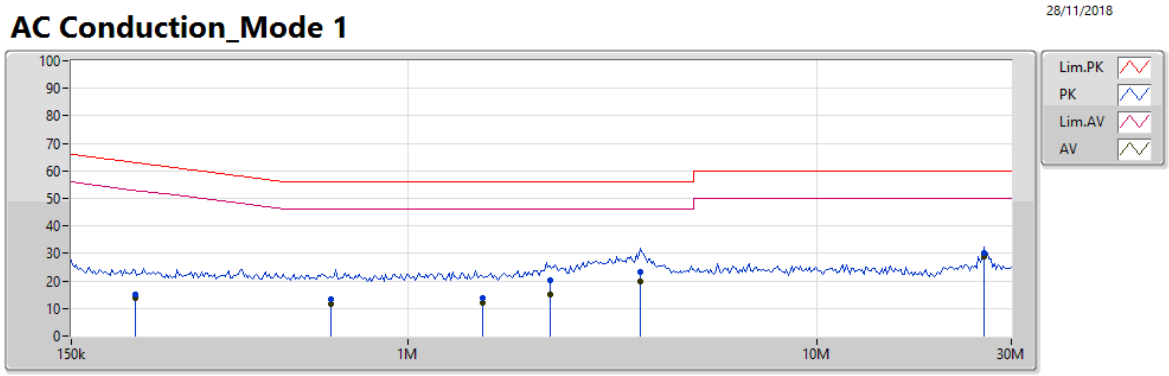
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	DC Power Supply Mode (Earis 1)		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	153.075k	17.30	65.83	-48.53	19.66	Line	-	-2.36	9.62	0.04	10.00
AV	153.075k	15.44	55.83	-40.39	19.66	Line	-	-4.22	9.62	0.04	10.00
QP	321.599k	13.75	59.67	-45.92	19.68	Line	-	-5.93	9.61	0.07	10.00
AV	321.599k	12.30	49.67	-37.37	19.68	Line	-	-7.38	9.61	0.07	10.00
QP	941.17k	13.20	56.00	-42.80	19.62	Line	-	-6.42	9.61	0.01	10.00
AV	941.17k	11.72	46.00	-34.28	19.62	Line	-	-7.90	9.61	0.01	10.00
QP	2.137M	16.90	56.00	-39.10	19.63	Line	-	-2.73	9.62	0.01	10.00
AV	2.137M	13.83	46.00	-32.17	19.63	Line	-	-5.80	9.62	0.01	10.00
QP	3.653M	22.13	56.00	-33.87	19.71	Line	-	2.42	9.63	0.08	10.00
AV	3.653M	18.55	46.00	-27.45	19.71	Line	-	-1.16	9.63	0.08	10.00
QP	25.642M	28.91	60.00	-31.09	19.60	Line	-	9.31	9.54	0.06	10.00
AV	25.642M	26.95	50.00	-23.05	19.60	Line	"Worst"	7.35	9.54	0.06	10.00

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	DC Power Supply Mode (Earis 1)		



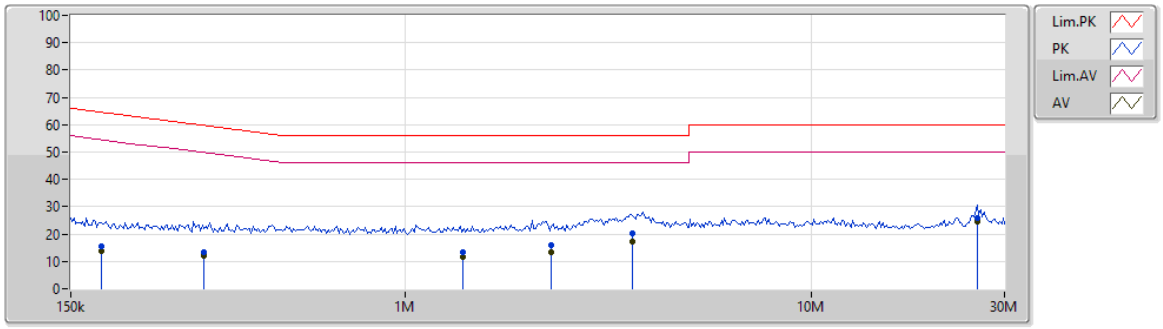
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	215.071k	14.96	63.00	-48.04	19.63	Neutral	-	-4.67	9.62	0.01	10.00
AV	215.071k	13.59	53.00	-39.41	19.63	Neutral	-	-6.04	9.62	0.01	10.00
QP	649.029k	13.56	56.00	-42.44	19.67	Neutral	-	-6.11	9.62	0.05	10.00
AV	649.029k	11.83	46.00	-34.17	19.67	Neutral	-	-7.84	9.62	0.05	10.00
QP	1.523M	13.66	56.00	-42.34	19.64	Neutral	-	-5.98	9.63	0.01	10.00
AV	1.523M	12.04	46.00	-33.96	19.64	Neutral	-	-7.60	9.63	0.01	10.00
QP	2.228M	20.13	56.00	-35.87	19.64	Neutral	-	0.49	9.63	0.01	10.00
AV	2.228M	15.15	46.00	-30.85	19.64	Neutral	-	-4.49	9.63	0.01	10.00
QP	3.706M	23.37	56.00	-32.63	19.72	Neutral	-	3.65	9.64	0.08	10.00
AV	3.706M	19.64	46.00	-26.36	19.72	Neutral	-	-0.08	9.64	0.08	10.00
QP	25.641M	29.96	60.00	-30.04	19.76	Neutral	-	10.20	9.70	0.06	10.00
AV	25.641M	28.92	50.00	-21.08	19.76	Neutral	"Worst"	9.16	9.70	0.06	10.00

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Neutral
Operating Function	DC Power Supply Mode (Earis 2)		

AC Conduction_Mode 2

28/11/2018



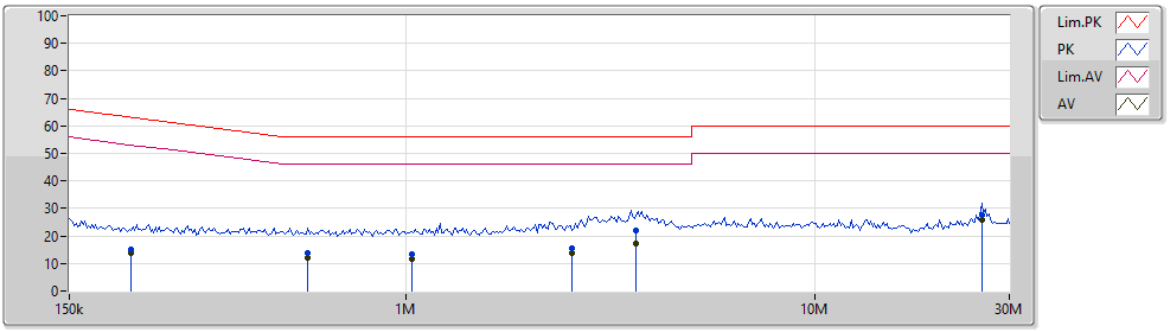
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	179.049k	15.32	64.53	-49.21	19.64	Line	-	-4.32	9.62	0.02	10.00
AV	179.049k	13.83	54.53	-40.70	19.64	Line	-	-5.81	9.62	0.02	10.00
QP	318.723k	13.57	59.75	-46.18	19.68	Line	-	-6.11	9.61	0.07	10.00
AV	318.723k	12.28	49.75	-37.47	19.68	Line	-	-7.40	9.61	0.07	10.00
QP	1.39M	13.46	56.00	-42.54	19.62	Line	-	-6.16	9.61	0.01	10.00
AV	1.39M	11.81	46.00	-34.19	19.62	Line	-	-7.81	9.61	0.01	10.00
QP	2.29M	15.84	56.00	-40.16	19.64	Line	-	-3.80	9.62	0.02	10.00
AV	2.29M	13.30	46.00	-32.70	19.64	Line	-	-6.34	9.62	0.02	10.00
QP	3.627M	20.32	56.00	-35.68	19.70	Line	-	0.62	9.63	0.07	10.00
AV	3.627M	17.33	46.00	-28.67	19.70	Line	-	-2.37	9.63	0.07	10.00
QP	25.683M	25.96	60.00	-34.04	19.60	Line	-	6.36	9.54	0.06	10.00
AV	25.683M	24.39	50.00	-25.61	19.60	Line	"Worst"	4.79	9.54	0.06	10.00

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Line
Operating Function	DC Power Supply Mode (Earis 2)		

AC Conduction_Mode 2

28/11/2018



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	212.561k	15.17	63.11	-47.94	19.63	Neutral	-	-4.46	9.62	0.01	10.00
AV	212.561k	13.64	53.11	-39.47	19.63	Neutral	-	-5.99	9.62	0.01	10.00
QP	573.806k	13.80	56.00	-42.20	19.67	Neutral	-	-5.87	9.61	0.06	10.00
AV	573.806k	11.93	46.00	-34.07	19.67	Neutral	-	-7.74	9.61	0.06	10.00
QP	1.032M	13.24	56.00	-42.76	19.63	Neutral	-	-6.39	9.62	0.01	10.00
AV	1.032M	11.80	46.00	-34.20	19.63	Neutral	-	-7.83	9.62	0.01	10.00
QP	2.555M	15.63	56.00	-40.37	19.66	Neutral	-	-4.03	9.63	0.03	10.00
AV	2.555M	13.70	46.00	-32.30	19.66	Neutral	-	-5.96	9.63	0.03	10.00
QP	3.648M	21.83	56.00	-34.17	19.71	Neutral	-	2.12	9.64	0.07	10.00
AV	3.648M	17.37	46.00	-28.63	19.71	Neutral	-	-2.34	9.64	0.07	10.00
QP	25.642M	27.78	60.00	-32.22	19.76	Neutral	-	8.02	9.70	0.06	10.00
AV	25.642M	25.81	50.00	-24.19	19.76	Neutral	"Worst"	6.05	9.70	0.06	10.00

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
FSK_Nss1,(5Mbps)_2TX	2.209M	3.77M	3M77F1D	2.157M	3.689M

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;

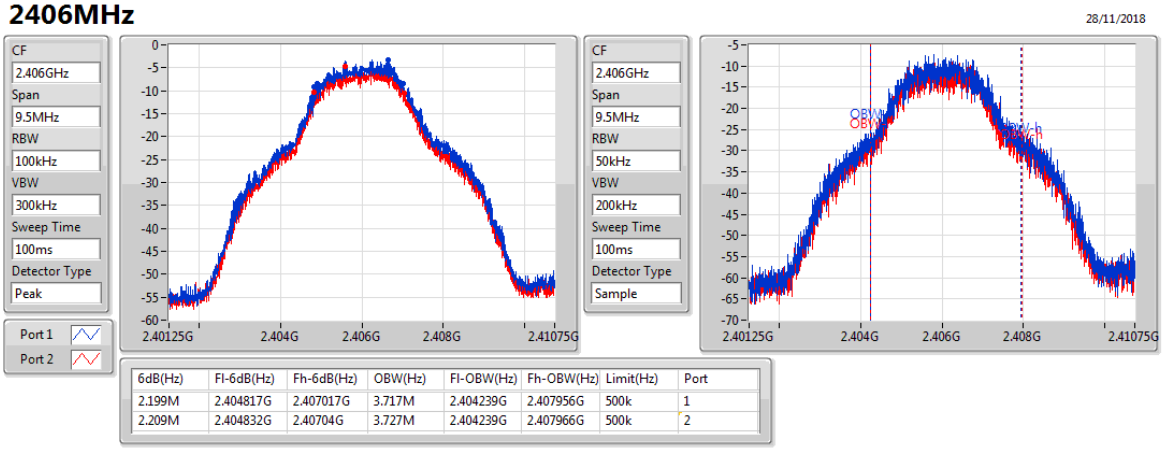
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
FSK_Nss1,(5Mbps)_2TX	-	-	-	-	-	-
2406MHz	Pass	500k	2.199M	3.717M	2.209M	3.727M
2442MHz	Pass	500k	2.157M	3.77M	2.204M	3.689M
2478MHz	Pass	500k	2.204M	3.741M	2.185M	3.727M

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

FSK **EBW**

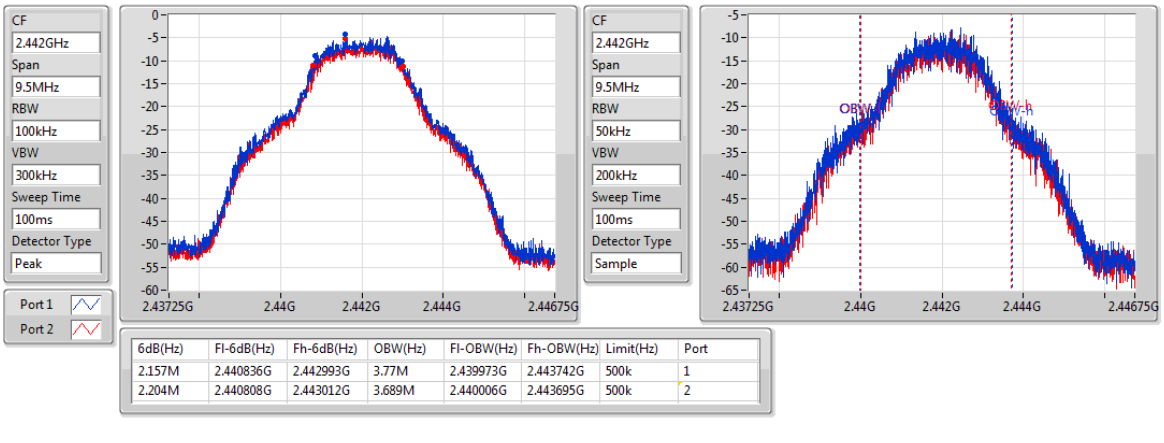
2406MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
2.199M	2.404817G	2.407017G	3.717M	2.404239G	2.407956G	500k	1
2.209M	2.404832G	2.40704G	3.727M	2.404239G	2.407966G	500k	2

FSK **EBW**

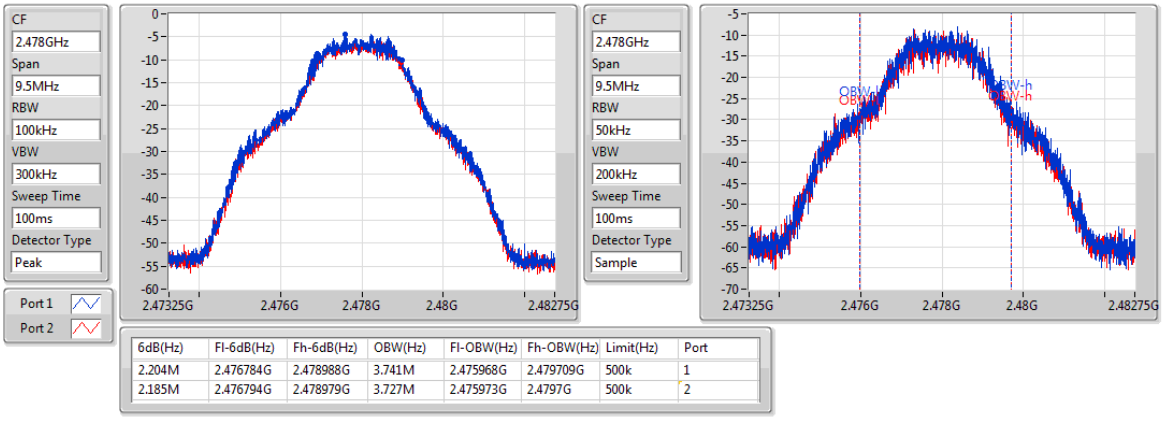
2442MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
2.157M	2.440836G	2.442993G	3.77M	2.439973G	2.443742G	500k	1
2.204M	2.440808G	2.443012G	3.689M	2.440006G	2.443695G	500k	2

FSK **EBW**

2478MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
2.204M	2.476784G	2.478988G	3.741M	2.475968G	2.479709G	500k	1
2.185M	2.476794G	2.478979G	3.727M	2.475973G	2.4797G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
FSK_Nss1,(5Mbps)_2TX	4.17	0.00261

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
FSK_Nss1,(5Mbps)_2TX	-	-	-	-	-	-
2406MHz	Pass	2.41	1.69	0.52	4.15	30.00
2442MHz	Pass	2.41	1.55	0.74	4.17	30.00
2478MHz	Pass	2.41	1.06	0.64	3.87	30.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
FSK_Nss1,(5Mbps)_2TX	3.30	0.00214

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
FSK_Nss1,(5Mbps)_2TX	-	-	-	-	-	-
2406MHz	Pass	2.41	0.81	-0.54	3.20	30.00
2442MHz	Pass	2.41	0.80	-0.29	3.30	30.00
2478MHz	Pass	2.41	-0.09	-0.60	2.67	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
FSK_Nss1,(5Mbps)_2TX	-18.39

RBW=3kHz.

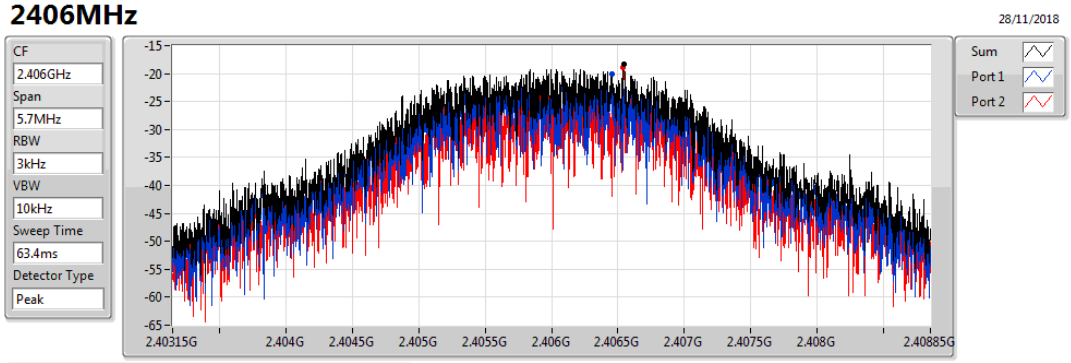
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
FSK_Nss1,(5Mbps)_2TX	-	-	-	-	-	-
2406MHz	Pass	5.42	-20.01	-18.97	-18.39	8.00
2442MHz	Pass	5.42	-20.79	-21.23	-19.75	8.00
2478MHz	Pass	5.42	-19.87	-20.60	-18.45	8.00

DG = Directional Gain; RBW=3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

FSK **PSD**

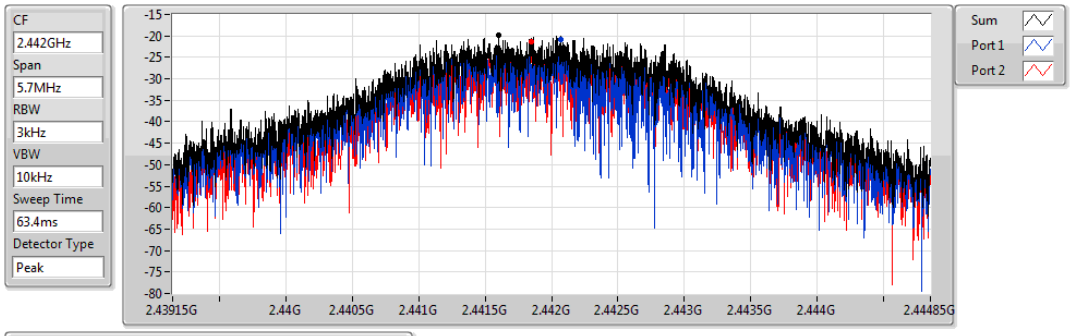
2406MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-18.39	-18.39	-20.01	-18.97

FSK **PSD**

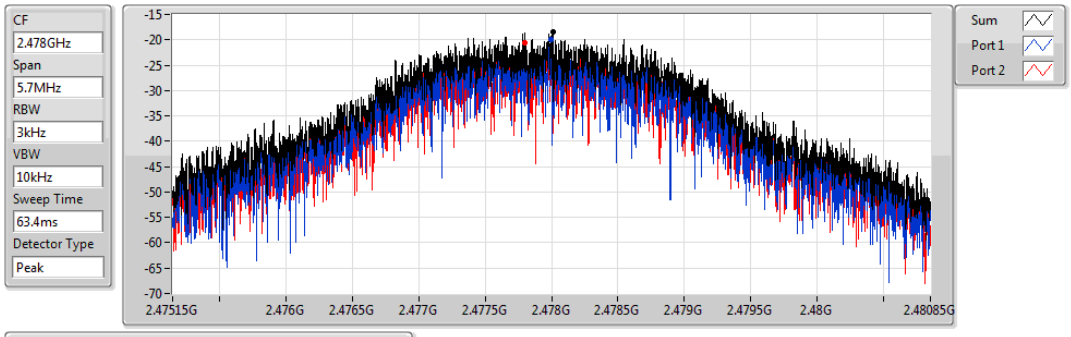
2442MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-19.75	-19.75	-20.79	-21.23

FSK **PSD**

2478MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-18.45	-18.45	-19.87	-20.60

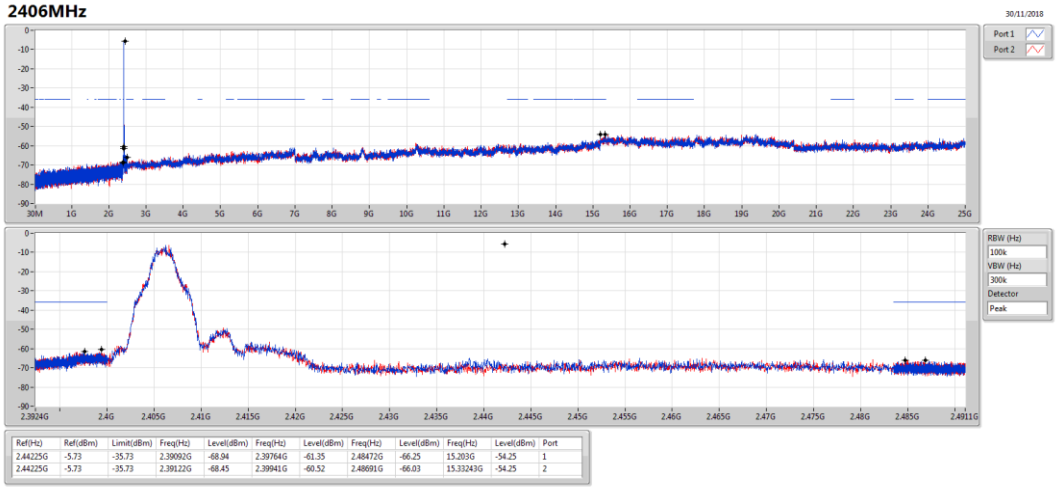
Summary

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	-	-	-	-	-	-	-	-	-	-	-	-	-
FSK_Nss1,(5Mbps)_2TX	Pass	2.44225G	-5.73	-35.73	1.76105G	-69.00	2.39865G	-65.92	2.48478G	-58.08	16.44099G	-53.78	1

Result

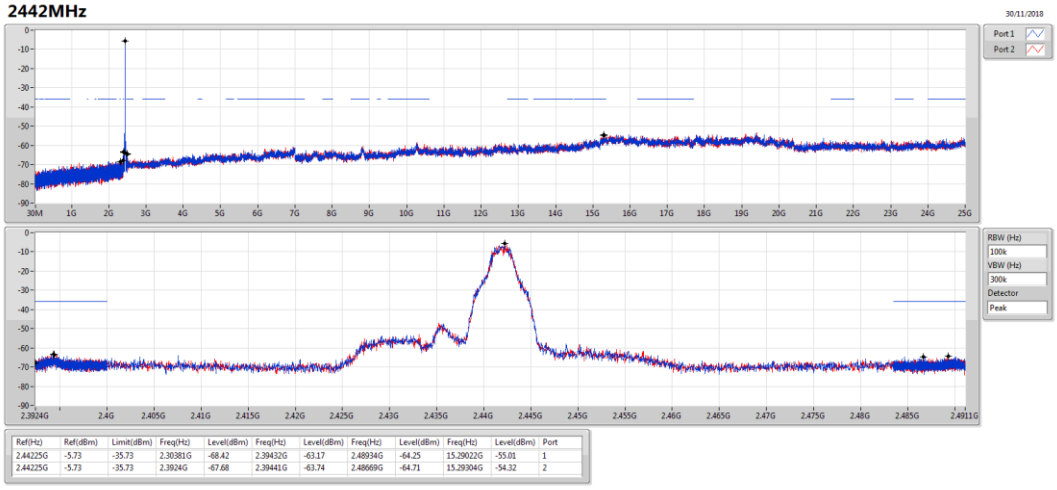
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
FSK_Nss1,(5Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2406MHz	Pass	2.44225G	-5.73	-35.73	2.39092G	-68.94	2.39764G	-61.35	2.48472G	-66.25	15.203G	-54.25	1
2406MHz	Pass	2.44225G	-5.73	-35.73	2.39122G	-68.45	2.39941G	-60.52	2.48691G	-66.03	15.33243G	-54.25	2
2442MHz	Pass	2.44225G	-5.73	-35.73	2.30381G	-68.42	2.39432G	-63.17	2.48934G	-64.25	15.29022G	-55.01	1
2442MHz	Pass	2.44225G	-5.73	-35.73	2.3924G	-67.68	2.39441G	-63.74	2.48669G	-64.71	15.29304G	-54.32	2
2478MHz	Pass	2.44225G	-5.73	-35.73	1.76105G	-69.00	2.39865G	-65.92	2.48478G	-58.08	16.44099G	-53.78	1
2478MHz	Pass	2.44225G	-5.73	-35.73	1.86824G	-68.84	2.3946G	-66.11	2.48477G	-58.77	17.26819G	-55.52	2

FSK
2406MHz
CSE NdB



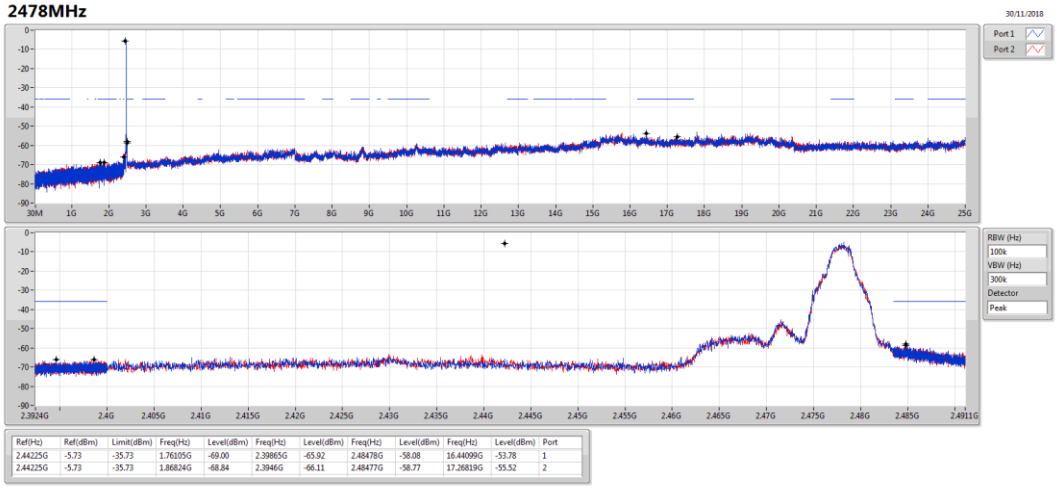
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44225G	-5.73	-35.73	2.39092G	-68.94	2.39764G	-61.35	2.48472G	-66.25	15.203G	-54.25	1
2.44225G	-5.73	-35.73	2.39122G	-68.45	2.39941G	-60.52	2.48691G	-66.03	15.33243G	-54.25	2

FSK
2442MHz
CSE NdB



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44225G	-5.73	-35.73	2.30381G	-68.42	2.39432G	-63.17	2.48934G	-64.25	15.29022G	-55.01	1
2.44225G	-5.73	-35.73	2.3924G	-67.68	2.39441G	-63.74	2.48669G	-64.71	15.29304G	-54.32	2

FSK
2478MHz
CSE NdB



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44225G	-5.73	-35.73	1.76105G	-69.00	2.39865G	-65.92	2.48478G	-58.08	16.44099G	-53.78	1
2.44225G	-5.73	-35.73	1.86824G	-68.84	2.3946G	-66.11	2.48477G	-58.77	17.26819G	-55.52	2

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	-	-	-	-	-	-	-	-	-	-	-	-
FSK	Pass	PK	59.1M	29.34	40.00	-10.66	-25.56	3	Vertical	360	1.00	-

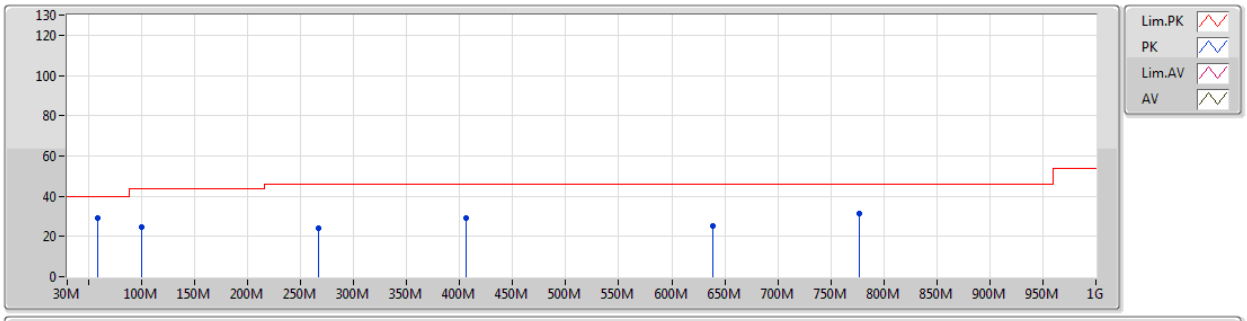
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
FSK	-	-	-	-	-	-	-	-	-	-	-	-
2442MHz	Pass	PK	59.1M	29.34	40.00	-10.66	-25.56	3	Vertical	360	1.00	-
2442MHz	Pass	PK	99.84M	24.38	43.50	-19.12	-21.09	3	Vertical	360	1.00	-
2442MHz	Pass	PK	266.68M	23.92	46.00	-22.08	-16.12	3	Vertical	360	1.00	-
2442MHz	Pass	PK	406.36M	29.00	46.00	-17.00	-13.77	3	Vertical	360	1.00	-
2442MHz	Pass	PK	639.16M	24.95	46.00	-21.05	-9.91	3	Vertical	360	1.00	-
2442MHz	Pass	PK	776.9M	31.13	46.00	-14.87	-8.12	3	Vertical	360	1.00	-
2442MHz	Pass	PK	61.04M	25.03	40.00	-14.97	-25.64	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	94.02M	26.39	43.50	-17.11	-21.90	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	268.62M	24.76	46.00	-21.24	-16.26	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	406.36M	30.25	46.00	-15.75	-13.77	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	720.64M	26.36	46.00	-19.64	-9.24	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	842.86M	27.96	46.00	-18.04	-7.14	3	Horizontal	0	1.00	-

FSK

27/11/2018

2442MHz_DC Power Supply

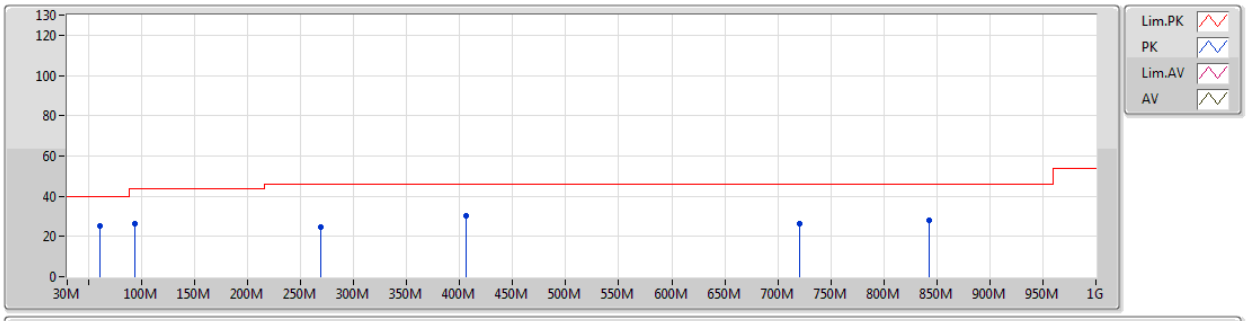


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	59.1M	29.34	40.00	-10.66	-25.56	3	Vertical	360	1.00	-
PK	99.84M	24.38	43.50	-19.12	-21.09	3	Vertical	360	1.00	-
PK	266.68M	23.92	46.00	-22.08	-16.12	3	Vertical	360	1.00	-
PK	406.36M	29.00	46.00	-17.00	-13.77	3	Vertical	360	1.00	-
PK	639.16M	24.95	46.00	-21.05	-9.91	3	Vertical	360	1.00	-
PK	776.9M	31.13	46.00	-14.87	-8.12	3	Vertical	360	1.00	-

FSK

27/11/2018

2442MHz_DC Power Supply



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	61.04M	25.03	40.00	-14.97	-25.64	3	Horizontal	0	1.00	-
PK	94.02M	26.39	43.50	-17.11	-21.90	3	Horizontal	0	1.00	-
PK	268.62M	24.76	46.00	-21.24	-16.26	3	Horizontal	0	1.00	-
PK	406.36M	30.25	46.00	-15.75	-13.77	3	Horizontal	0	1.00	-
PK	720.64M	26.36	46.00	-19.64	-9.24	3	Horizontal	0	1.00	-
PK	842.86M	27.96	46.00	-18.04	-7.14	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	-	-	-	-	-	-	-	-	-	-	-	-
FSK	Pass	AV	7.3254G	49.63	54.00	-4.37	8.05	3	Horizontal	300	2.13	-

Result

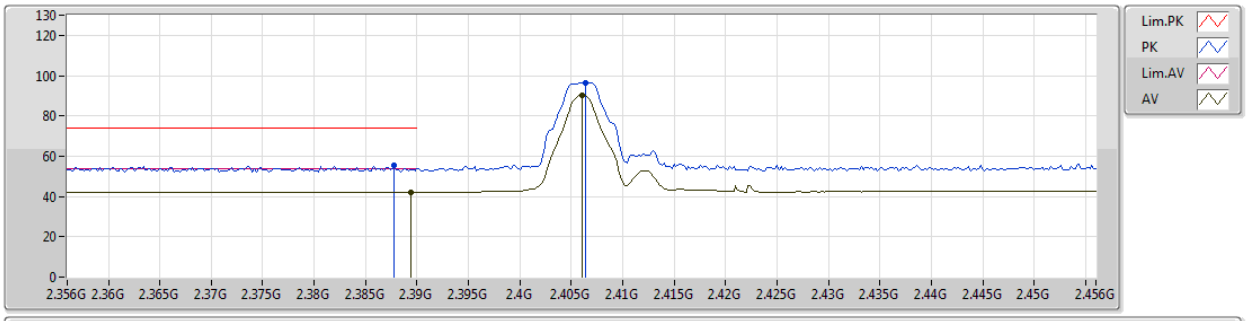
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
FSK	-	-	-	-	-	-	-	-	-	-	-	-
2406MHz	Pass	AV	2.3894G	42.15	54.00	-11.85	30.77	3	Vertical	336	1.83	-
2406MHz	Pass	AV	2.406G	90.42	Inf	-Inf	30.83	3	Vertical	336	1.83	-
2406MHz	Pass	PK	2.3878G	55.47	74.00	-18.53	30.77	3	Vertical	336	1.83	-
2406MHz	Pass	PK	2.4064G	96.39	Inf	-Inf	30.84	3	Vertical	336	1.83	-
2406MHz	Pass	AV	2.3854G	42.06	54.00	-11.94	30.76	3	Horizontal	165	1.09	-
2406MHz	Pass	AV	2.406G	88.48	Inf	-Inf	30.83	3	Horizontal	165	1.09	-
2406MHz	Pass	PK	2.3782G	55.11	74.00	-18.89	30.73	3	Horizontal	165	1.09	-
2406MHz	Pass	PK	2.4068G	94.42	Inf	-Inf	30.84	3	Horizontal	165	1.09	-
2406MHz	Pass	AV	4.818G	47.01	54.00	-6.99	2.12	3	Vertical	27	2.47	-
2406MHz	Pass	PK	4.81788G	49.99	74.00	-24.01	2.12	3	Vertical	27	2.47	-
2406MHz	Pass	AV	4.818G	44.77	54.00	-9.23	2.12	3	Horizontal	34	2.41	-
2406MHz	Pass	PK	4.818G	48.10	74.00	-25.90	2.12	3	Horizontal	34	2.41	-
2442MHz	Pass	AV	2.3892G	42.13	54.00	-11.87	30.77	3	Vertical	337	2.27	-
2442MHz	Pass	AV	2.442G	91.73	Inf	-Inf	30.96	3	Vertical	337	2.27	-
2442MHz	Pass	AV	2.4992G	42.83	54.00	-11.17	31.17	3	Vertical	337	2.27	-
2442MHz	Pass	PK	2.386G	55.26	74.00	-18.74	30.76	3	Vertical	337	2.27	-
2442MHz	Pass	PK	2.4412G	97.61	Inf	-Inf	30.96	3	Vertical	337	2.27	-
2442MHz	Pass	PK	2.4868G	55.35	74.00	-18.65	31.12	3	Vertical	337	2.27	-
2442MHz	Pass	AV	2.3896G	42.10	54.00	-11.90	30.77	3	Horizontal	170	1.29	-
2442MHz	Pass	AV	2.442G	90.68	Inf	-Inf	30.96	3	Horizontal	170	1.29	-
2442MHz	Pass	AV	2.4988G	42.86	54.00	-11.14	31.17	3	Horizontal	170	1.29	-
2442MHz	Pass	PK	2.3888G	55.22	74.00	-18.78	30.77	3	Horizontal	170	1.29	-
2442MHz	Pass	PK	2.4412G	96.53	Inf	-Inf	30.96	3	Horizontal	170	1.29	-
2442MHz	Pass	PK	2.4984G	55.49	74.00	-18.51	31.17	3	Horizontal	170	1.29	-
2442MHz	Pass	AV	4.88388G	47.62	54.00	-6.38	2.28	3	Vertical	18	2.31	-
2442MHz	Pass	AV	7.32528G	43.59	54.00	-10.41	8.05	3	Vertical	34	2.19	-
2442MHz	Pass	PK	4.88274G	57.65	74.00	-16.35	2.27	3	Vertical	18	2.31	-
2442MHz	Pass	PK	7.32444G	54.89	74.00	-19.11	8.04	3	Vertical	34	2.19	-
2442MHz	Pass	AV	4.87794G	45.29	54.00	-8.71	2.26	3	Horizontal	41	2.13	-
2442MHz	Pass	AV	7.3254G	49.63	54.00	-4.37	8.05	3	Horizontal	300	2.13	-
2442MHz	Pass	PK	4.8831G	50.84	74.00	-23.16	2.27	3	Horizontal	41	2.13	-
2442MHz	Pass	PK	7.32648G	61.16	74.00	-12.84	8.05	3	Horizontal	300	2.13	-
2478MHz	Pass	AV	2.478G	91.37	Inf	-Inf	31.09	3	Vertical	336	1.93	-
2478MHz	Pass	AV	2.4835G	44.00	54.00	-10.00	31.11	3	Vertical	336	1.93	-
2478MHz	Pass	PK	2.4772G	97.48	Inf	-Inf	31.09	3	Vertical	336	1.93	-
2478MHz	Pass	PK	2.4894G	56.10	74.00	-17.90	31.13	3	Vertical	336	1.93	-
2478MHz	Pass	AV	2.478G	91.04	Inf	-Inf	31.09	3	Horizontal	171	1.26	-
2478MHz	Pass	AV	2.4835G	43.93	54.00	-10.07	31.11	3	Horizontal	171	1.26	-
2478MHz	Pass	PK	2.477G	97.24	Inf	-Inf	31.09	3	Horizontal	171	1.26	-
2478MHz	Pass	PK	2.485G	55.92	74.00	-18.08	31.12	3	Horizontal	171	1.26	-
2478MHz	Pass	AV	4.956G	47.10	54.00	-6.90	2.46	3	Vertical	22	2.36	-
2478MHz	Pass	AV	7.43346G	44.21	54.00	-9.79	8.36	3	Vertical	34	2.08	-
2478MHz	Pass	PK	4.95462G	57.24	74.00	-16.76	2.46	3	Vertical	22	2.36	-
2478MHz	Pass	PK	7.43088G	56.00	74.00	-18.00	8.35	3	Vertical	34	2.08	-
2478MHz	Pass	AV	4.95G	44.16	54.00	-9.84	2.45	3	Horizontal	37	2.43	-
2478MHz	Pass	AV	7.43346G	48.56	54.00	-5.44	8.36	3	Horizontal	301	2.19	-
2478MHz	Pass	PK	4.95522G	49.24	74.00	-24.76	2.46	3	Horizontal	37	2.43	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2478MHz	Pass	PK	7.43172G	60.23	74.00	-13.77	8.35	3	Horizontal	301	2.19	-

FSK

2406MHz_TX

30/11/2018

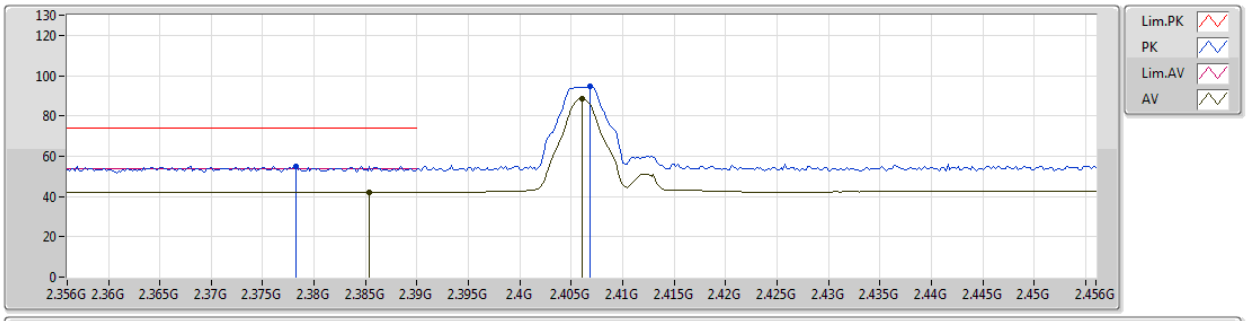


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3894G	42.15	54.00	-11.85	30.77	3	Vertical	336	1.83	-
AV	2.406G	90.42	Inf	-Inf	30.83	3	Vertical	336	1.83	-
PK	2.3878G	55.47	74.00	-18.53	30.77	3	Vertical	336	1.83	-
PK	2.4064G	96.39	Inf	-Inf	30.84	3	Vertical	336	1.83	-

FSK

2406MHz_TX

30/11/2018

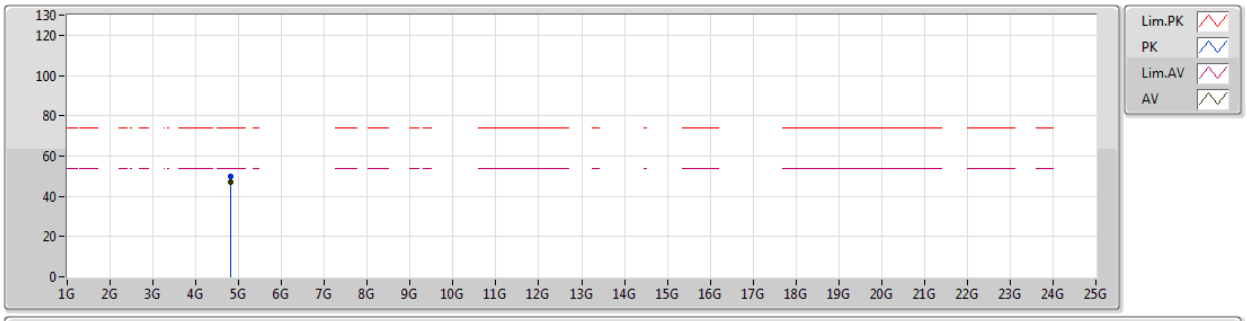


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3854G	42.06	54.00	-11.94	30.76	3	Horizontal	165	1.09	-
AV	2.406G	88.48	Inf	-Inf	30.83	3	Horizontal	165	1.09	-
PK	2.3782G	55.11	74.00	-18.89	30.73	3	Horizontal	165	1.09	-
PK	2.4068G	94.42	Inf	-Inf	30.84	3	Horizontal	165	1.09	-

FSK

2406MHz_TX

30/11/2018

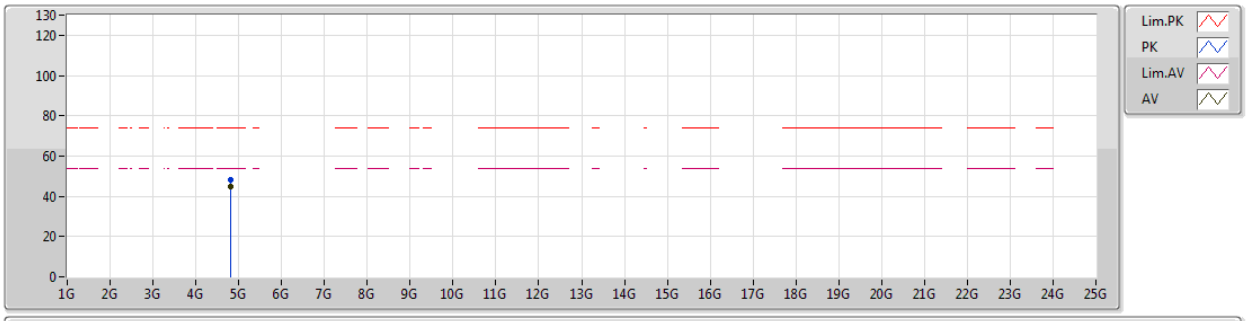


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.818G	47.01	54.00	-6.99	2.12	3	Vertical	27	2.47	-
PK	4.81788G	49.99	74.00	-24.01	2.12	3	Vertical	27	2.47	-

FSK

2406MHz_TX

30/11/2018

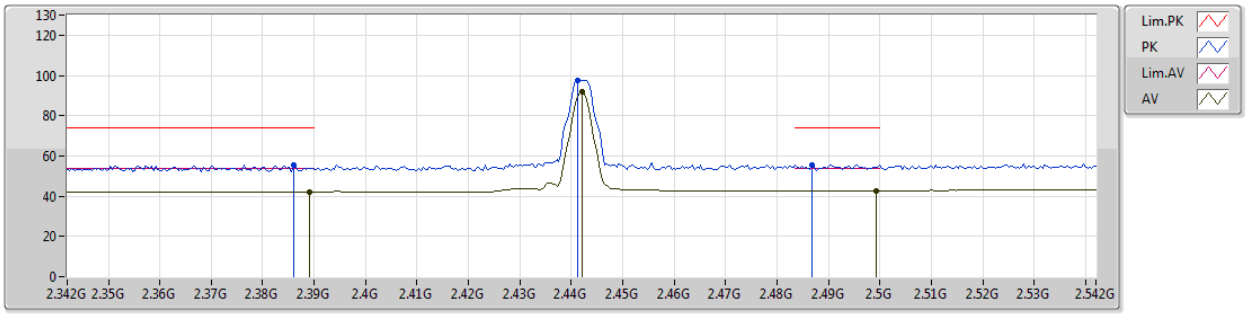


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.818G	44.77	54.00	-9.23	2.12	3	Horizontal	34	2.41	-
PK	4.818G	48.10	74.00	-25.90	2.12	3	Horizontal	34	2.41	-

FSK

2442MHz_TX

30/11/2018

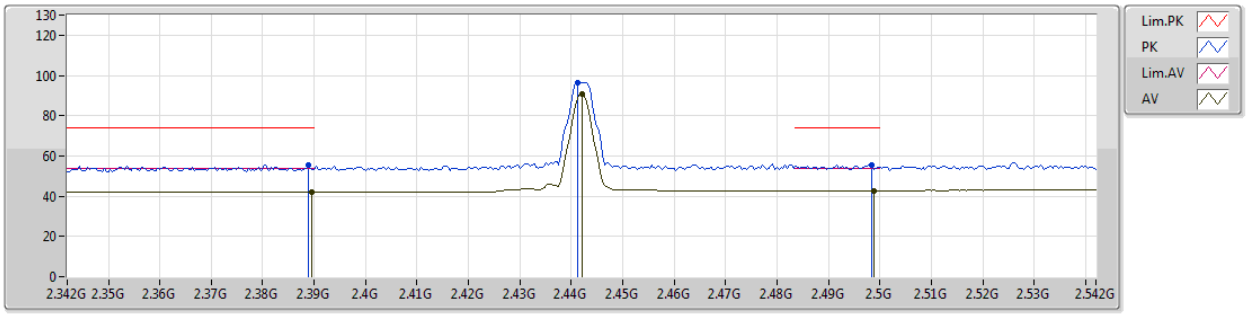


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3892G	42.13	54.00	-11.87	30.77	3	Vertical	337	2.27	-
AV	2.442G	91.73	Inf	-Inf	30.96	3	Vertical	337	2.27	-
AV	2.4992G	42.83	54.00	-11.17	31.17	3	Vertical	337	2.27	-
PK	2.386G	55.26	74.00	-18.74	30.76	3	Vertical	337	2.27	-
PK	2.4412G	97.61	Inf	-Inf	30.96	3	Vertical	337	2.27	-
PK	2.4868G	55.35	74.00	-18.65	31.12	3	Vertical	337	2.27	-

FSK

2442MHz_TX

30/11/2018

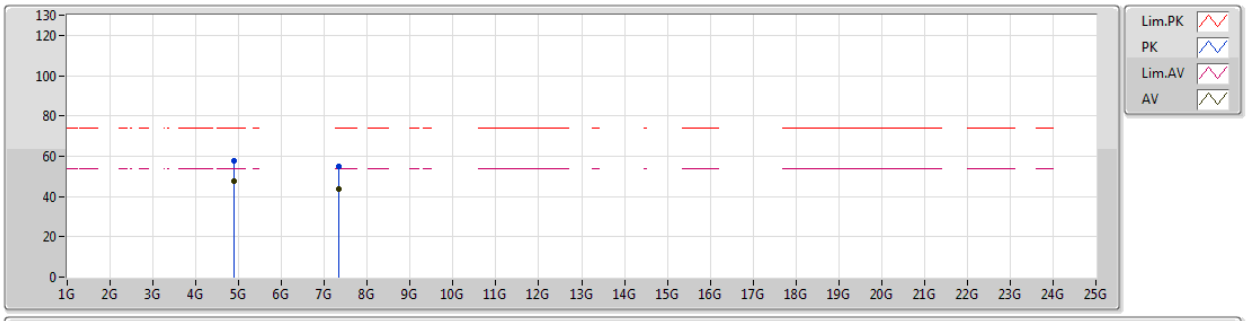


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3896G	42.10	54.00	-11.90	30.77	3	Horizontal	170	1.29	-
AV	2.442G	90.68	Inf	-Inf	30.96	3	Horizontal	170	1.29	-
AV	2.4988G	42.86	54.00	-11.14	31.17	3	Horizontal	170	1.29	-
PK	2.3888G	55.22	74.00	-18.78	30.77	3	Horizontal	170	1.29	-
PK	2.4412G	96.53	Inf	-Inf	30.96	3	Horizontal	170	1.29	-
PK	2.4984G	55.49	74.00	-18.51	31.17	3	Horizontal	170	1.29	-

FSK

2442MHz_TX

30/11/2018

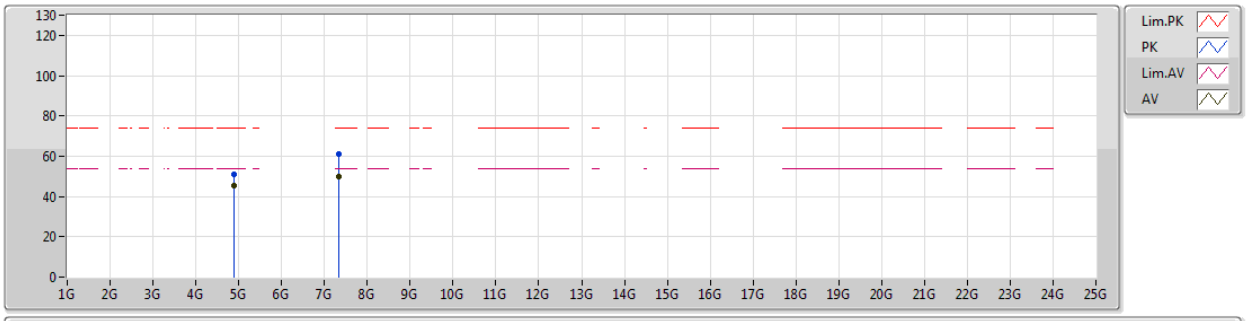


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.88388G	47.62	54.00	-6.38	2.28	3	Vertical	18	2.31	-
AV	7.32528G	43.59	54.00	-10.41	8.05	3	Vertical	34	2.19	-
PK	4.88274G	57.65	74.00	-16.35	2.27	3	Vertical	18	2.31	-
PK	7.32444G	54.89	74.00	-19.11	8.04	3	Vertical	34	2.19	-

FSK

2442MHz_TX

30/11/2018

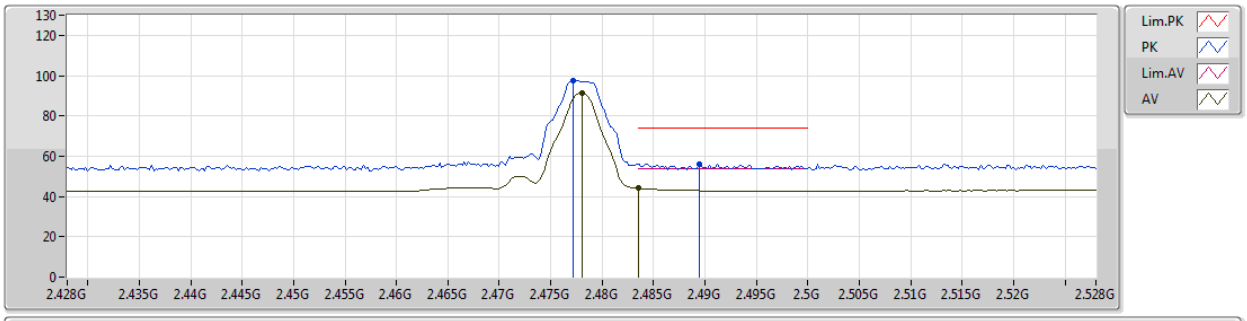


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87794G	45.29	54.00	-8.71	2.26	3	Horizontal	41	2.13	-
AV	7.3254G	49.63	54.00	-4.37	8.05	3	Horizontal	300	2.13	-
PK	4.8831G	50.84	74.00	-23.16	2.27	3	Horizontal	41	2.13	-
PK	7.32648G	61.16	74.00	-12.84	8.05	3	Horizontal	300	2.13	-

FSK

2478MHz_TX

30/11/2018

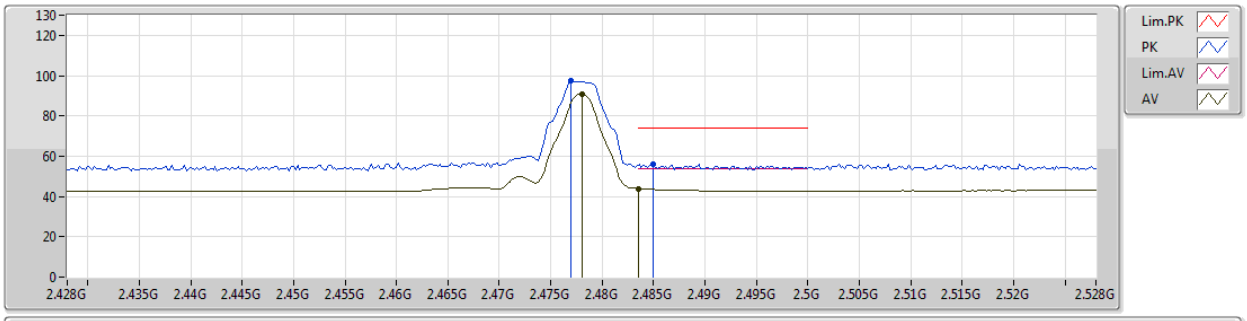


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.478G	91.37	Inf	-Inf	31.09	3	Vertical	336	1.93	-
AV	2.4835G	44.00	54.00	-10.00	31.11	3	Vertical	336	1.93	-
PK	2.4772G	97.48	Inf	-Inf	31.09	3	Vertical	336	1.93	-
PK	2.4894G	56.10	74.00	-17.90	31.13	3	Vertical	336	1.93	-

FSK

2478MHz_TX

30/11/2018

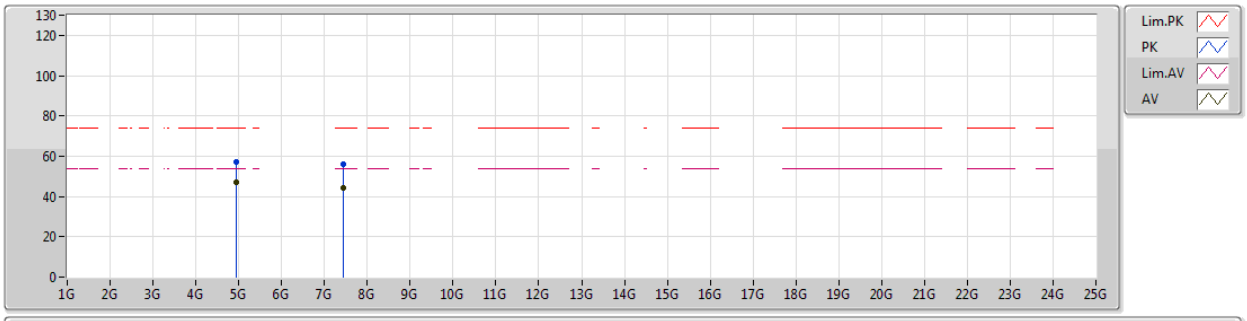


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.478G	91.04	Inf	-Inf	31.09	3	Horizontal	171	1.26	-
AV	2.4835G	43.93	54.00	-10.07	31.11	3	Horizontal	171	1.26	-
PK	2.477G	97.24	Inf	-Inf	31.09	3	Horizontal	171	1.26	-
PK	2.485G	55.92	74.00	-18.08	31.12	3	Horizontal	171	1.26	-

FSK

2478MHz_TX

30/11/2018

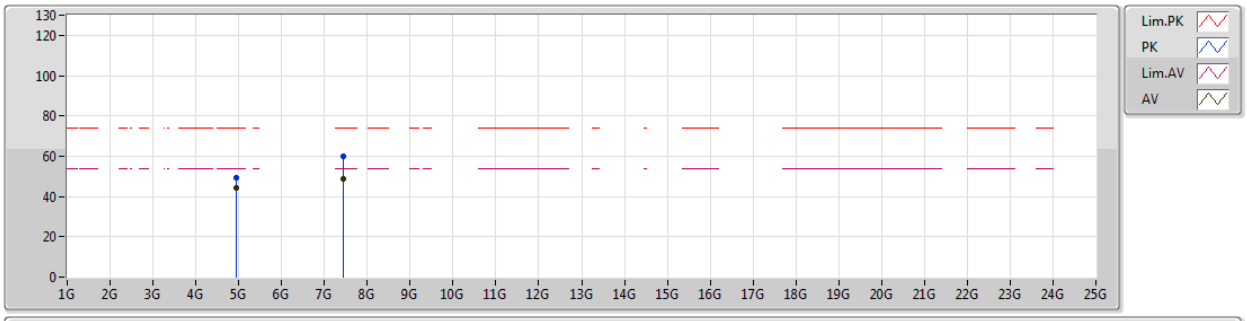


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.956G	47.10	54.00	-6.90	2.46	3	Vertical	22	2.36	-
AV	7.43346G	44.21	54.00	-9.79	8.36	3	Vertical	34	2.08	-
PK	4.95462G	57.24	74.00	-16.76	2.46	3	Vertical	22	2.36	-
PK	7.43088G	56.00	74.00	-18.00	8.35	3	Vertical	34	2.08	-

FSK

2478MHz_TX

30/11/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.95G	44.16	54.00	-9.84	2.45	3	Horizontal	37	2.43	-
AV	7.43346G	48.56	54.00	-5.44	8.36	3	Horizontal	301	2.19	-
PK	4.95522G	49.24	74.00	-24.76	2.46	3	Horizontal	37	2.43	-
PK	7.43172G	60.23	74.00	-13.77	8.35	3	Horizontal	301	2.19	-

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	-	-	-	-	-	-	-	-	-	-	-	-
FSK	Pass	PK	769.14M	32.66	46.00	-13.34	-8.20	3	Horizontal	0	1.00	-

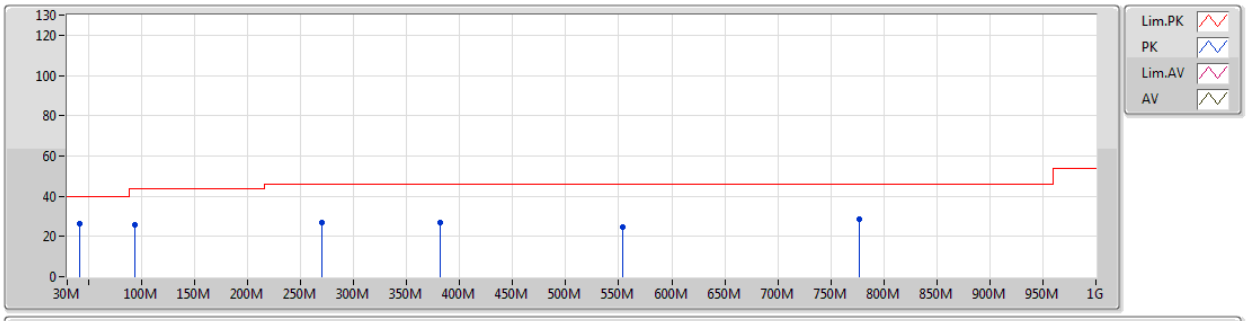
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
FSK	-	-	-	-	-	-	-	-	-	-	-	-
2442MHz	Pass	PK	41.64M	26.08	40.00	-13.92	-19.21	3	Vertical	360	1.00	-
2442MHz	Pass	PK	94.02M	25.71	43.50	-17.79	-21.90	3	Vertical	360	1.00	-
2442MHz	Pass	PK	270.56M	26.80	46.00	-19.20	-16.39	3	Vertical	360	1.00	-
2442MHz	Pass	PK	381.14M	27.04	46.00	-18.96	-14.68	3	Vertical	360	1.00	-
2442MHz	Pass	PK	553.8M	24.65	46.00	-21.35	-10.82	3	Vertical	360	1.00	-
2442MHz	Pass	PK	776.9M	28.83	46.00	-17.17	-8.12	3	Vertical	360	1.00	-
2442MHz	Pass	PK	53.28M	25.84	40.00	-14.16	-24.56	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	105.66M	22.02	43.50	-21.48	-20.46	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	264.74M	27.97	46.00	-18.03	-15.98	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	443.22M	27.48	46.00	-18.52	-12.99	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	769.14M	32.66	46.00	-13.34	-8.20	3	Horizontal	0	1.00	-
2442MHz	Pass	PK	960M	30.77	46.00	-15.23	-4.52	3	Horizontal	0	1.00	-

FSK

27/11/2018

2442MHz_DC Power Supply

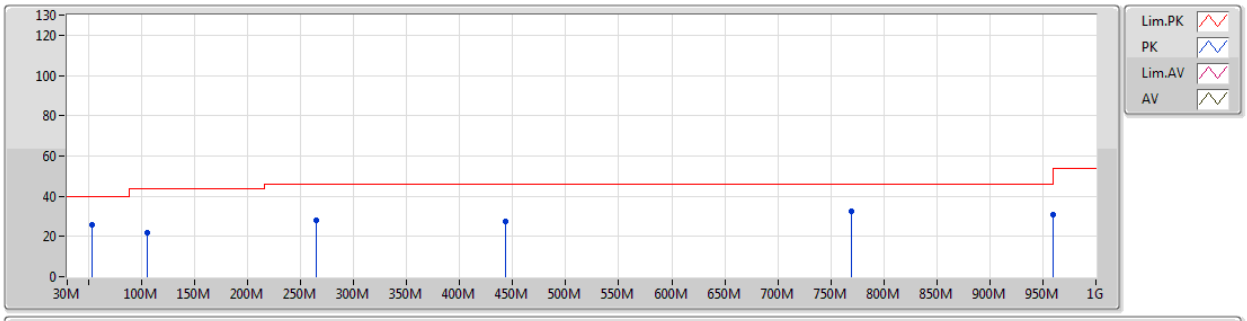


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	41.64M	26.08	40.00	-13.92	-19.21	3	Vertical	360	1.00	-
PK	94.02M	25.71	43.50	-17.79	-21.90	3	Vertical	360	1.00	-
PK	270.56M	26.80	46.00	-19.20	-16.39	3	Vertical	360	1.00	-
PK	381.14M	27.04	46.00	-18.96	-14.68	3	Vertical	360	1.00	-
PK	553.8M	24.65	46.00	-21.35	-10.82	3	Vertical	360	1.00	-
PK	776.9M	28.83	46.00	-17.17	-8.12	3	Vertical	360	1.00	-

FSK

27/11/2018

2442MHz_DC Power Supply

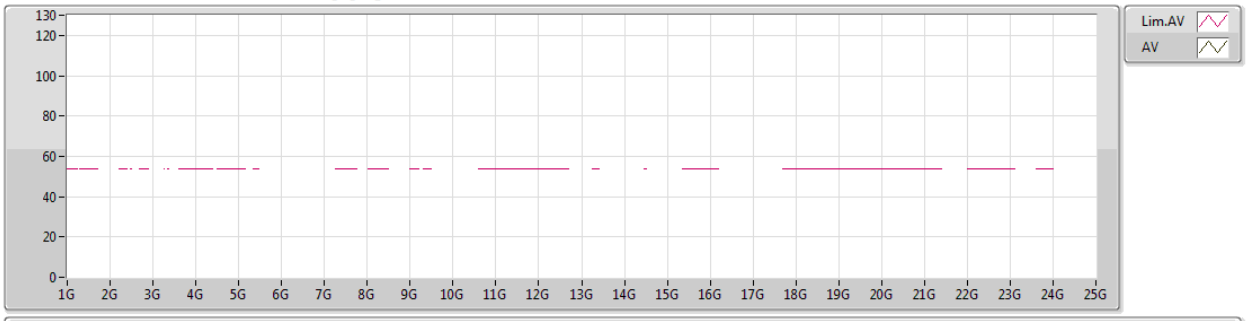


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	53.28M	25.84	40.00	-14.16	-24.56	3	Horizontal	0	1.00	-
PK	105.66M	22.02	43.50	-21.48	-20.46	3	Horizontal	0	1.00	-
PK	264.74M	27.97	46.00	-18.03	-15.98	3	Horizontal	0	1.00	-
PK	443.22M	27.48	46.00	-18.52	-12.99	3	Horizontal	0	1.00	-
PK	769.14M	32.66	46.00	-13.34	-8.20	3	Horizontal	0	1.00	-
PK	960M	30.77	46.00	-15.23	-4.52	3	Horizontal	0	1.00	-

FSK

27/11/2018

2442MHz_DC Power Supply

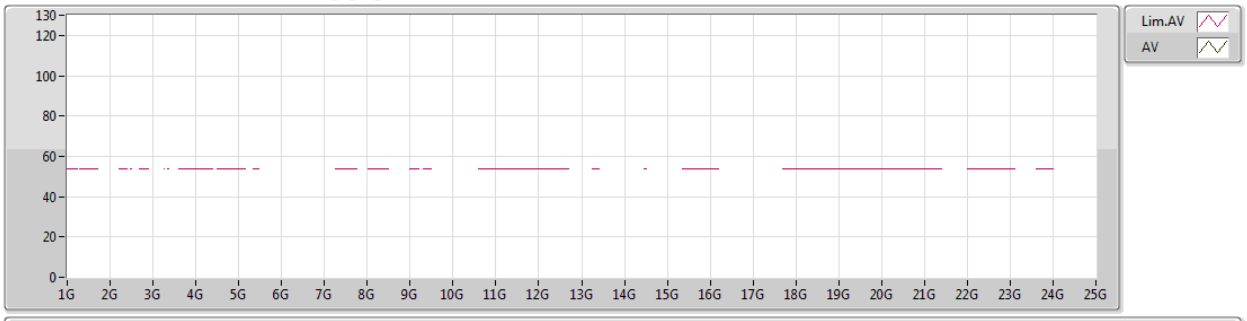


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	

FSK

27/11/2018

2442MHz_DC Power Supply



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	

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	-	-	-	-	-	-	-	-	-	-	-	-
FSK	Pass	AV	7.3254G	48.15	54.00	-5.85	8.05	3	Horizontal	291	2.24	-

Result

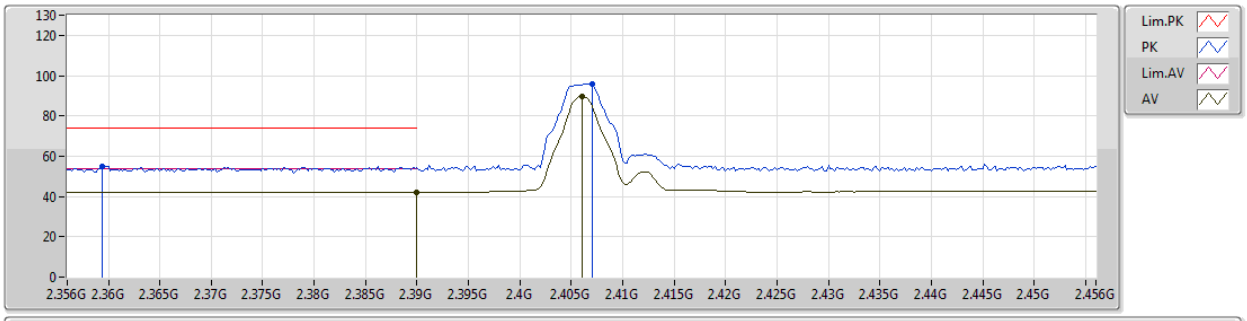
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
FSK	-	-	-	-	-	-	-	-	-	-	-	-
2406MHz	Pass	AV	2.39G	42.04	54.00	-11.96	30.77	3	Vertical	301	2.47	-
2406MHz	Pass	AV	2.406G	89.72	Inf	-Inf	30.83	3	Vertical	301	2.47	-
2406MHz	Pass	PK	2.3594G	54.96	74.00	-19.04	30.67	3	Vertical	301	2.47	-
2406MHz	Pass	PK	2.407G	95.82	Inf	-Inf	30.84	3	Vertical	301	2.47	-
2406MHz	Pass	AV	2.3864G	42.06	54.00	-11.94	30.76	3	Horizontal	344	1.49	-
2406MHz	Pass	AV	2.406G	88.42	Inf	-Inf	30.83	3	Horizontal	344	1.49	-
2406MHz	Pass	PK	2.3764G	55.40	74.00	-18.60	30.72	3	Horizontal	344	1.49	-
2406MHz	Pass	PK	2.4064G	94.36	Inf	-Inf	30.84	3	Horizontal	344	1.49	-
2406MHz	Pass	AV	4.81794G	45.92	54.00	-8.08	2.12	3	Vertical	20	1.12	-
2406MHz	Pass	PK	4.81776G	49.51	74.00	-24.49	2.12	3	Vertical	20	1.12	-
2406MHz	Pass	AV	4.818G	45.14	54.00	-8.86	2.12	3	Horizontal	72	2.14	-
2406MHz	Pass	PK	4.81782G	48.28	74.00	-25.72	2.12	3	Horizontal	72	2.14	-
2442MHz	Pass	AV	2.39G	42.12	54.00	-11.88	30.77	3	Vertical	333	1.68	-
2442MHz	Pass	AV	2.442G	88.84	Inf	-Inf	30.96	3	Vertical	333	1.68	-
2442MHz	Pass	AV	2.4988G	42.84	54.00	-11.16	31.17	3	Vertical	333	1.68	-
2442MHz	Pass	PK	2.3592G	56.04	74.00	-17.96	30.67	3	Vertical	333	1.68	-
2442MHz	Pass	PK	2.4412G	94.69	Inf	-Inf	30.96	3	Vertical	333	1.68	-
2442MHz	Pass	PK	2.4976G	55.95	74.00	-18.05	31.16	3	Vertical	333	1.68	-
2442MHz	Pass	AV	2.3896G	42.13	54.00	-11.87	30.77	3	Horizontal	352	1.48	-
2442MHz	Pass	AV	2.442G	88.36	Inf	-Inf	30.96	3	Horizontal	352	1.48	-
2442MHz	Pass	AV	2.5G	42.85	54.00	-11.15	31.17	3	Horizontal	352	1.48	-
2442MHz	Pass	PK	2.3812G	55.05	74.00	-18.95	30.75	3	Horizontal	352	1.48	-
2442MHz	Pass	PK	2.4412G	94.35	Inf	-Inf	30.96	3	Horizontal	352	1.48	-
2442MHz	Pass	PK	2.4956G	55.40	74.00	-18.60	31.16	3	Horizontal	352	1.48	-
2442MHz	Pass	AV	4.88382G	46.26	54.00	-7.74	2.28	3	Vertical	351	2.29	-
2442MHz	Pass	AV	7.32534G	46.13	54.00	-7.87	8.05	3	Vertical	10	2.99	-
2442MHz	Pass	PK	4.88244G	57.22	74.00	-16.78	2.27	3	Vertical	351	2.29	-
2442MHz	Pass	PK	7.32546G	59.12	74.00	-14.88	8.05	3	Vertical	10	2.99	-
2442MHz	Pass	AV	4.87794G	46.27	54.00	-7.73	2.26	3	Horizontal	74	2.39	-
2442MHz	Pass	AV	7.3254G	48.15	54.00	-5.85	8.05	3	Horizontal	291	2.24	-
2442MHz	Pass	PK	4.88268G	50.62	74.00	-23.38	2.27	3	Horizontal	74	2.39	-
2442MHz	Pass	PK	7.32534G	59.77	74.00	-14.23	8.05	3	Horizontal	291	2.24	-
2478MHz	Pass	AV	2.478G	89.44	Inf	-Inf	31.09	3	Vertical	334	1.48	-
2478MHz	Pass	AV	2.4835G	43.13	54.00	-10.87	31.11	3	Vertical	334	1.48	-
2478MHz	Pass	PK	2.477G	95.70	Inf	-Inf	31.09	3	Vertical	334	1.48	-
2478MHz	Pass	PK	2.4884G	55.50	74.00	-18.50	31.13	3	Vertical	334	1.48	-
2478MHz	Pass	AV	2.478G	89.10	Inf	-Inf	31.09	3	Horizontal	347	2.97	-
2478MHz	Pass	AV	2.4835G	43.10	54.00	-10.90	31.11	3	Horizontal	347	2.97	-
2478MHz	Pass	PK	2.477G	95.20	Inf	-Inf	31.09	3	Horizontal	347	2.97	-
2478MHz	Pass	PK	2.4856G	56.90	74.00	-17.10	31.12	3	Horizontal	347	2.97	-
2478MHz	Pass	AV	4.94994G	45.79	54.00	-8.21	2.44	3	Vertical	320	1.49	-
2478MHz	Pass	AV	7.4334G	46.00	54.00	-8.00	8.36	3	Vertical	13	2.91	-
2478MHz	Pass	PK	4.95006G	49.35	74.00	-24.65	2.45	3	Vertical	320	1.49	-
2478MHz	Pass	PK	7.43208G	57.21	74.00	-16.79	8.35	3	Vertical	13	2.91	-
2478MHz	Pass	AV	4.95G	44.58	54.00	-9.42	2.45	3	Horizontal	123	2.05	-
2478MHz	Pass	AV	7.43346G	43.50	54.00	-10.50	8.36	3	Horizontal	55	1.79	-
2478MHz	Pass	PK	4.95G	48.17	74.00	-25.83	2.45	3	Horizontal	123	2.05	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2478MHz	Pass	PK	7.43304G	54.72	74.00	-19.28	8.36	3	Horizontal	55	1.79	-

FSK

2406MHz_TX

30/11/2018

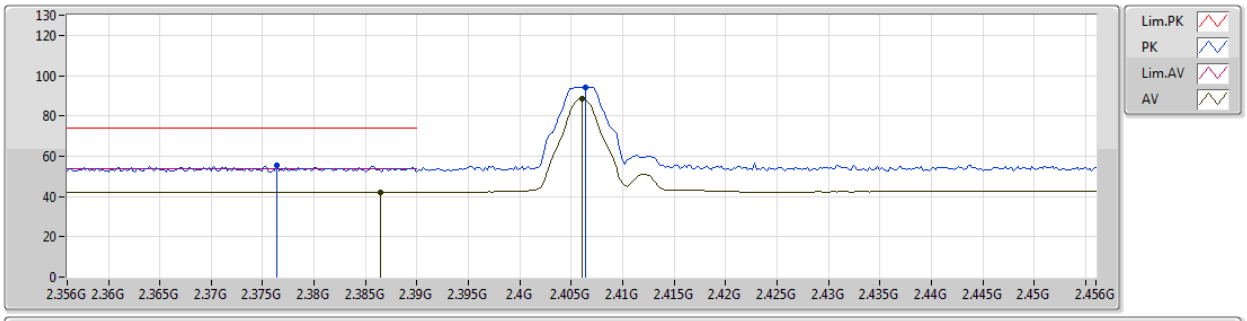


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	42.04	54.00	-11.96	30.77	3	Vertical	301	2.47	-
AV	2.406G	89.72	Inf	-Inf	30.83	3	Vertical	301	2.47	-
PK	2.3594G	54.96	74.00	-19.04	30.67	3	Vertical	301	2.47	-
PK	2.407G	95.82	Inf	-Inf	30.84	3	Vertical	301	2.47	-

FSK

2406MHz_TX

30/11/2018

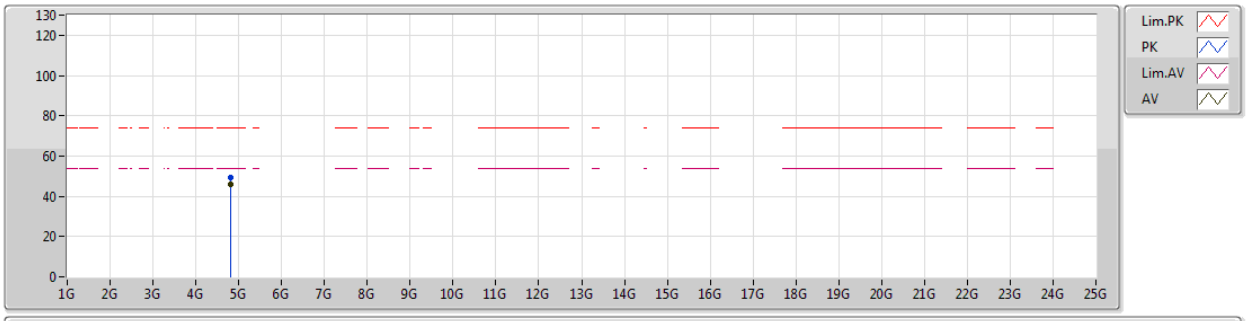


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3864G	42.06	54.00	-11.94	30.76	3	Horizontal	344	1.49	-
AV	2.406G	88.42	Inf	-Inf	30.83	3	Horizontal	344	1.49	-
PK	2.3764G	55.40	74.00	-18.60	30.72	3	Horizontal	344	1.49	-
PK	2.4064G	94.36	Inf	-Inf	30.84	3	Horizontal	344	1.49	-

FSK

2406MHz_TX

30/11/2018

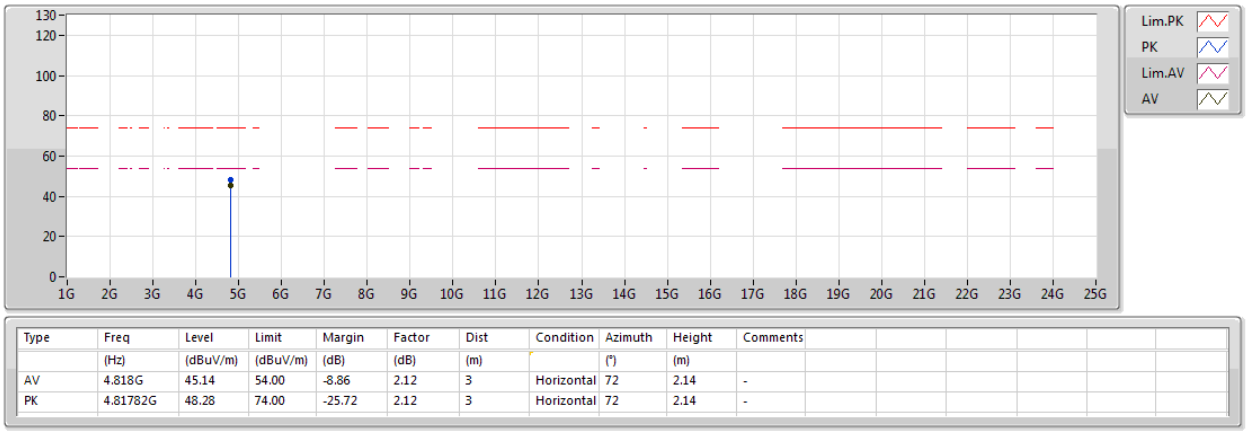


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.81794G	45.92	54.00	-8.08	2.12	3	Vertical	20	1.12	-
PK	4.81776G	49.51	74.00	-24.49	2.12	3	Vertical	20	1.12	-

FSK

30/11/2018

2406MHz_TX

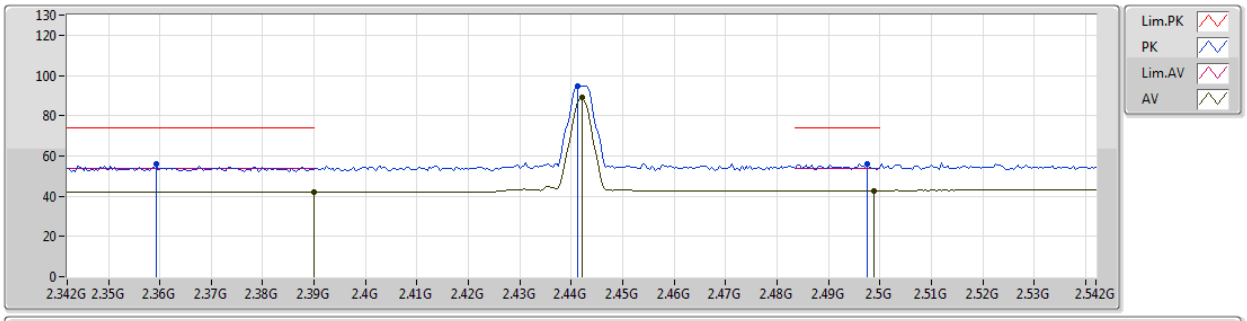


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.818G	45.14	54.00	-8.86	2.12	3	Horizontal	72	2.14	-
PK	4.81782G	48.28	74.00	-25.72	2.12	3	Horizontal	72	2.14	-

FSK

2442MHz_TX

29/11/2018

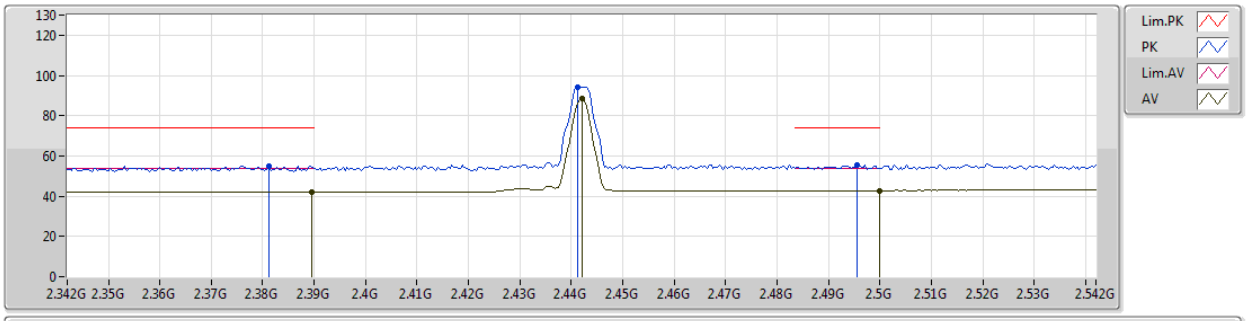


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	42.12	54.00	-11.88	30.77	3	Vertical	333	1.68	-
AV	2.442G	88.84	Inf	-Inf	30.96	3	Vertical	333	1.68	-
AV	2.4988G	42.84	54.00	-11.16	31.17	3	Vertical	333	1.68	-
PK	2.3592G	56.04	74.00	-17.96	30.67	3	Vertical	333	1.68	-
PK	2.4412G	94.69	Inf	-Inf	30.96	3	Vertical	333	1.68	-
PK	2.4976G	55.95	74.00	-18.05	31.16	3	Vertical	333	1.68	-

FSK

2442MHz_TX

29/11/2018

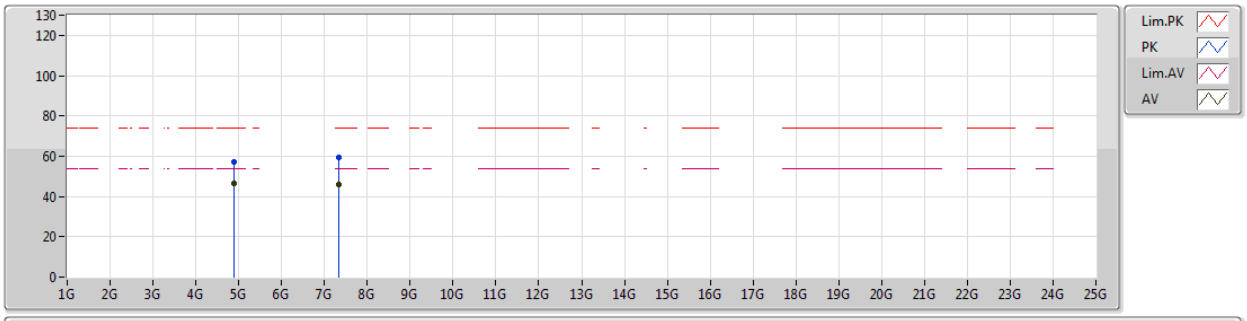


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3896G	42.13	54.00	-11.87	30.77	3	Horizontal	352	1.48	-
AV	2.442G	88.36	Inf	-Inf	30.96	3	Horizontal	352	1.48	-
AV	2.5G	42.85	54.00	-11.15	31.17	3	Horizontal	352	1.48	-
PK	2.3812G	55.05	74.00	-18.95	30.75	3	Horizontal	352	1.48	-
PK	2.4412G	94.35	Inf	-Inf	30.96	3	Horizontal	352	1.48	-
PK	2.4956G	55.40	74.00	-18.60	31.16	3	Horizontal	352	1.48	-

FSK

2442MHz_TX

29/11/2018

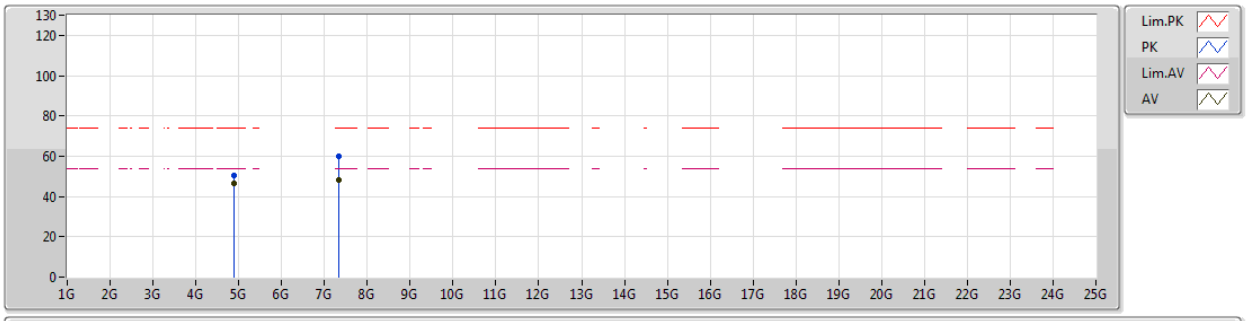


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.88382G	46.26	54.00	-7.74	2.28	3	Vertical	351	2.29	-
AV	7.32534G	46.13	54.00	-7.87	8.05	3	Vertical	10	2.99	-
PK	4.88244G	57.22	74.00	-16.78	2.27	3	Vertical	351	2.29	-
PK	7.32546G	59.12	74.00	-14.88	8.05	3	Vertical	10	2.99	-

FSK

2442MHz_TX

29/11/2018

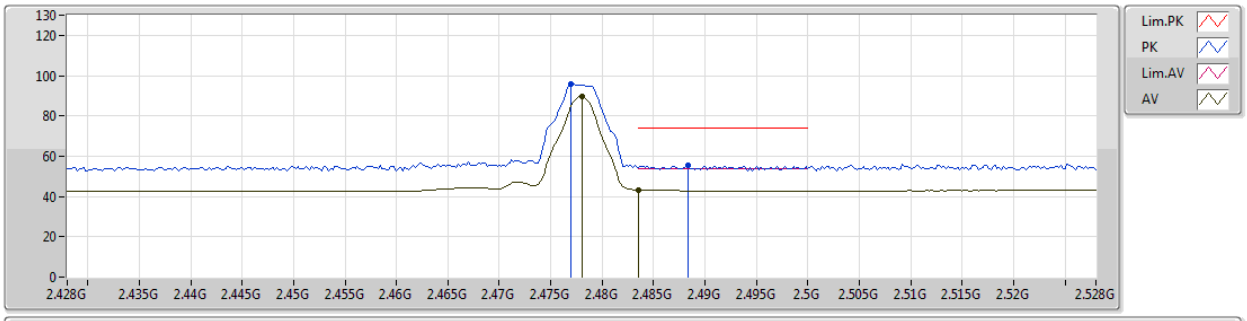


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87794G	46.27	54.00	-7.73	2.26	3	Horizontal	74	2.39	-
AV	7.3254G	48.15	54.00	-5.85	8.05	3	Horizontal	291	2.24	-
PK	4.88268G	50.62	74.00	-23.38	2.27	3	Horizontal	74	2.39	-
PK	7.32534G	59.77	74.00	-14.23	8.05	3	Horizontal	291	2.24	-

FSK

2478MHz_TX

29/11/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.478G	89.44	Inf	-Inf	31.09	3	Vertical	334	1.48	-
AV	2.4835G	43.13	54.00	-10.87	31.11	3	Vertical	334	1.48	-
PK	2.477G	95.70	Inf	-Inf	31.09	3	Vertical	334	1.48	-
PK	2.4884G	55.50	74.00	-18.50	31.13	3	Vertical	334	1.48	-

FSK

2478MHz_TX

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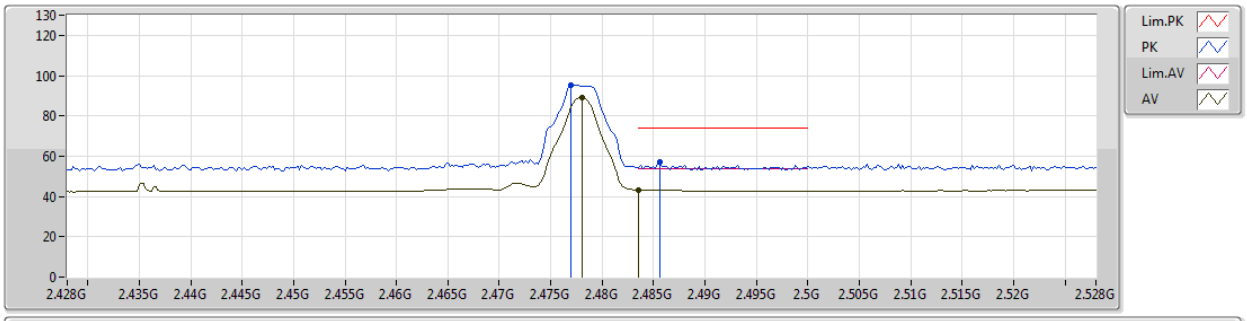
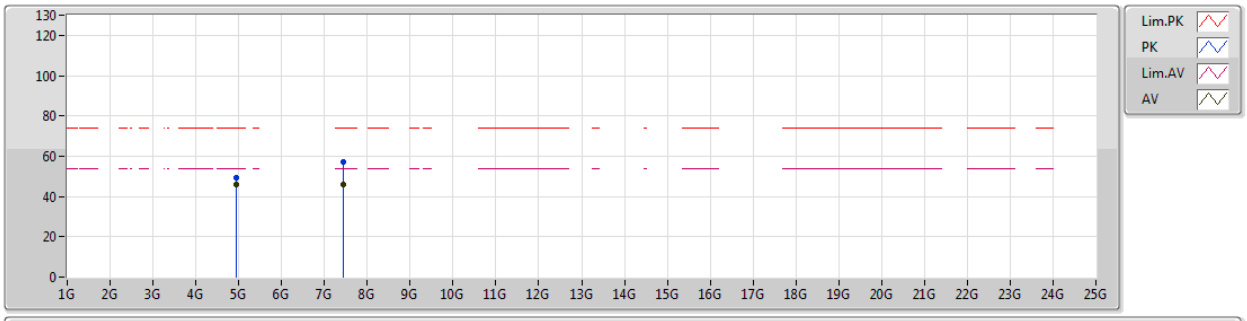


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.478G	89.10	Inf	-Inf	31.09	3	Horizontal	347	2.97	-
AV	2.4835G	43.10	54.00	-10.90	31.11	3	Horizontal	347	2.97	-
PK	2.477G	95.20	Inf	-Inf	31.09	3	Horizontal	347	2.97	-
PK	2.4856G	56.90	74.00	-17.10	31.12	3	Horizontal	347	2.97	-

FSK

2478MHz_TX

29/11/2018

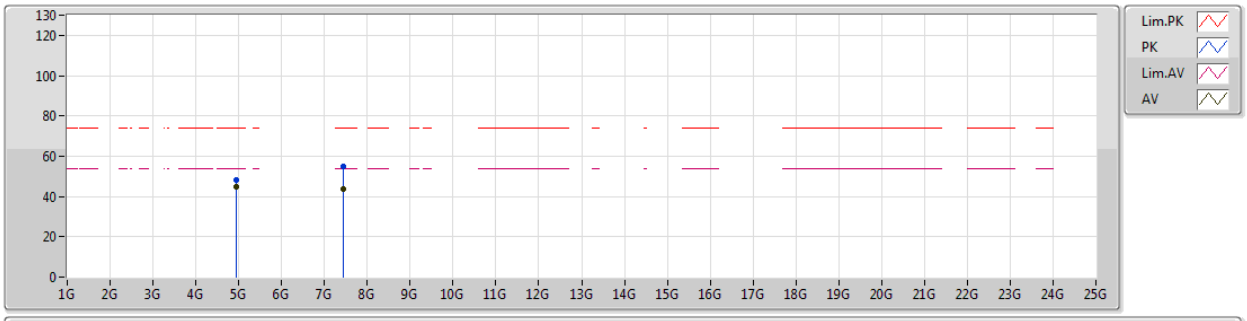


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.94994G	45.79	54.00	-8.21	2.44	3	Vertical	320	1.49	-
AV	7.4334G	46.00	54.00	-8.00	8.36	3	Vertical	13	2.91	-
PK	4.95006G	49.35	74.00	-24.65	2.45	3	Vertical	320	1.49	-
PK	7.43208G	57.21	74.00	-16.79	8.35	3	Vertical	13	2.91	-

FSK

2478MHz_TX

29/11/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.95G	44.58	54.00	-9.42	2.45	3	Horizontal	123	2.05	-
AV	7.43346G	43.50	54.00	-10.50	8.36	3	Horizontal	55	1.79	-
PK	4.95G	48.17	74.00	-25.83	2.45	3	Horizontal	123	2.05	-
PK	7.43304G	54.72	74.00	-19.28	8.36	3	Horizontal	55	1.79	-