Testing Laboratory 3785

FCC Radio Test Report

FCC ID	:	**2APYSG5SPY**
Equipment	:	**Wireless Device**
Model Name	:	**G5SPY**
Applicant	:	**Lanto Electronic Ltd No.399 baisheng Road, jinxi Town, Kunshan City, Jiangsu, 215324, China**
Manufacturer	:	**Lanto Electronic Ltd No.399 baisheng Road, jinxi Town, Kunshan City, Jiangsu, 215324, China**
Standard	:	**47 CFR FCC Part 15.209**

The product was received on May 06, 2021, and testing was started from May 18, 2021 and completed on May 24, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua 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. Hsinhua Laboratory, the test report shall not be reproduced except in full.

Allen Lin

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR150605AW	01	Initial issue of report	Jun. 11, 2021

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	PASS	-
3.2	15.209	Transmitter Radiated Emissions	PASS	-
3.3	15.215(c)	Emission Bandwidth	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: Jenny Yang

1 General Description

1.1 Information

1.1.1 General Information

Wireless Power Transfer General Information			
Frequency Range	**Modulation**	**Operating Freq. (kHz)**	**Field Strength (dBuV/m)**
112-148.5 kHz	FSK	132.54	75.08
Power Transfer Method	**Output power from each primary coil**	**That may have multiple primary coils**	**Operating Method**
Multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.	≥ 15W	Yes	Client directly contact
Note 1: Field strength performed peak level at 3m.			

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	-	-	coils	-

1.1.3 EUT Information

Operational Condition	
EUT Power Type	From AC Adapter
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 Test Signal Duty Cycle

Operated Mode for Worst Duty Cycle	
☐	Operated normally mode for worst duty cycle
☒	Operated test mode for worst duty cycle
Test Signal Duty Cycle (x)	
☒	100%

1.2 Testing Applied Standards

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

- FCC Part 15 Subpart C §15.209
- FCC KDB 414788 D01 Radiated Test Site v01r01
- FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01
- ANSI C63.10-2013

Remark: The TAF code is not including all the FCC KDB listed without accreditation.

1.3 Testing Location Information

Test Lab.：Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua **(TAF:** 3785**)**	**ADD:** No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		**FAX:** 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
AC Conduction	CO04-HY	Billy Wang	20.5~22.1°C / 59~65%	18/May/2021~19/May/2021
RF Conducted	TH06-HY	Johnny Yu	20.1~26.9°C / 50~60%	24/May/2021
Radiated	03CH02-HY	Billy Wang	20.1~26.9°C / 57~62%	20/May/2021
☐ Wen 33rd. St. **(TAF:** 3785**)**	**ADD:** No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		**FAX:** 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

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 The Worst Case Configuration

Mode	Field Strength (dBuV/m at 3 m)	Device Frequencies (kHz)
WPC	75.08	132.54
Note.1: Wireless device were performed all charging conditions including variable loading and non-charging operation, the worst mode is full charging loading. Note.2: Wireless device frequencies are variable frequency range (112-148.5 kHz) and depend on charging loading.		

2.2 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 Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
	1. 30W Adapter(Aohai) with 5W Load TX
	2. 30W Adapter(Aohai) with 22.5W Load TX
	3. 65W Adapter(HUAWEI) with 30W Load TX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Transmitter Radiated Emissions, Emission Bandwidth
Test Condition	Radiated measurement
Operating Mode	CTX
	1. 30W Adapter(Aohai) with 5W Load TX
	2. 30W Adapter(Aohai) with 22.5W Load TX
	3. 65W Adapter(HUAWEI) with 30W Load TX
Orthogonal Planes of EUT	**Y Plane**
	

2.3 Accessories

Accessories				
USB Type-C Cable	**Brand Name**	luxshare	**Model Name**	LZ6UC025-CS-H
	Signal Line	1.5 meter, shielded cable, w/o ferrite core		

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

2.4 Support Equipment

Support Equipment – AC Conduction					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Adapter	Aohai	G9BR1	-	Note 1
2	Adapter	HUAWEI	HW-2020200CP1	-	Note 1
3	LOAD 5W	Lanto	A1	-	Note 1
4	LOAD 22.5W	Lanto	A2	-	Note 1
5	LOAD 30W	Lanto	A3	-	Note 1

Note 1: Provided by Customer

Support Equipment – Conducted					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	LOAD 5W	Lanto	A1	-	Note 1
2	LOAD 22.5W	Lanto	A2	-	Note 1
3	LOAD 30W	Lanto	A3	-	Note 1
4	AC adapter	Aohai	G9BR1	-	Note 1
5	AC adapter	HUAWEI	HW-200200CP1	-	Note 1

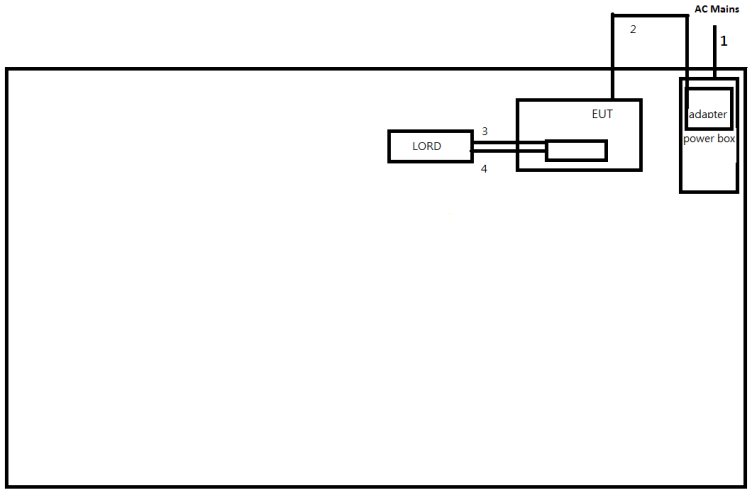
Note 1: Provided by Customer

Support Equipment – Radiated					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	LOAD 5W	Lanto	A1	-	Note 1
2	LOAD 22.5W	Lanto	A2	-	Note 1
3	LOAD 30W	Lanto	A3	-	Note 1
4	AC adapter	Aohai	G9BR1	-	Note 1
5	AC adapter	HUAWEI	HW-200200CP1	-	Note 1

Note 1: Provided by Customer

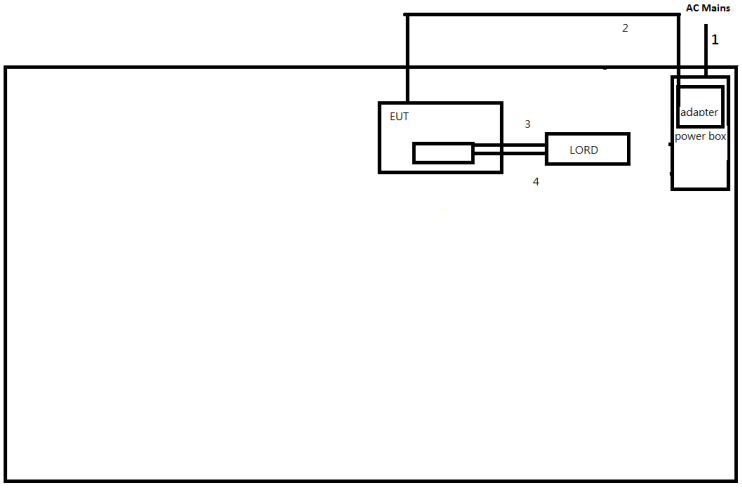
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test (Mode 1, 3)



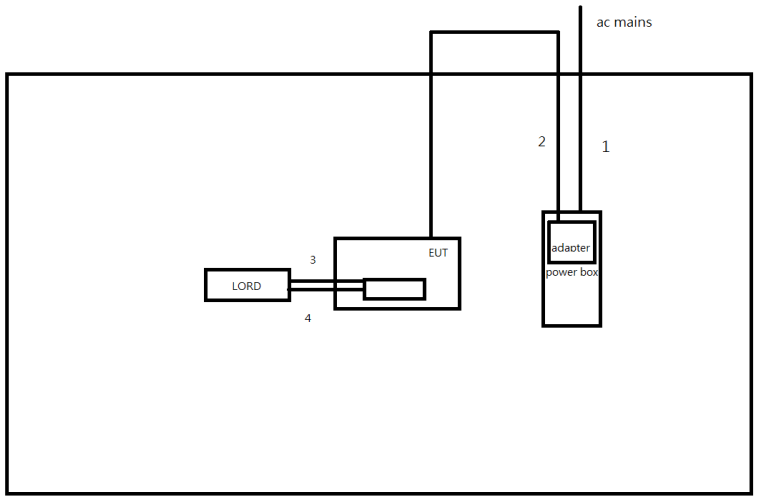
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1	-
2	Type-C cable	Yes	1.5	-
3	DC Power cable(+)	No	0.1	-
4	DC Power cable(-)	No	0.1	-

Test Setup Diagram – AC Line Conducted Emission Test (Mode 2)



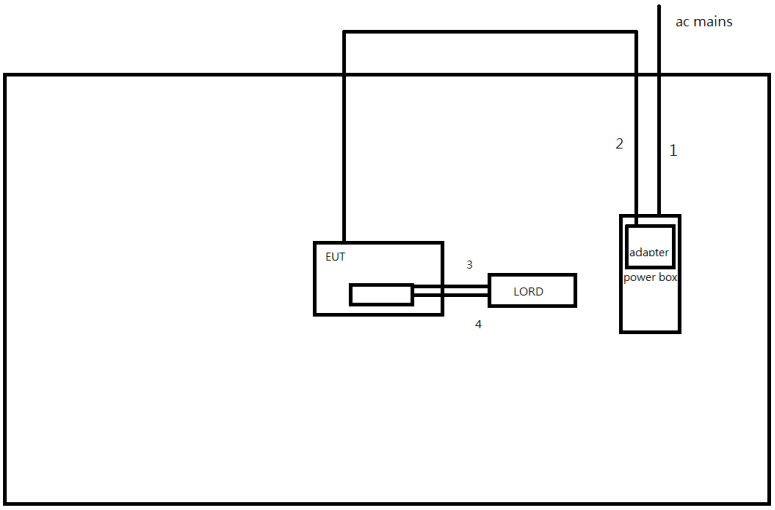
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1	-
2	Type-C cable	Yes	1.5	-
3	DC Power cable(+)	No	0.1	-
4	DC Power cable(-)	No	0.1	-

Test Setup Diagram - Radiated Test (Mode 1)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	Type-C cable	Yes	1.5	-
3	DC Power cable(+)	No	0.1	-
4	DC Power cable(-)	No	0.1	-

Test Setup Diagram - Radiated Test (Mode 2, 3)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	Type-C cable	Yes	1.5	-
3	DC Power cable(+)	No	0.1	-
4	DC Power cable(-)	No	0.1	-

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

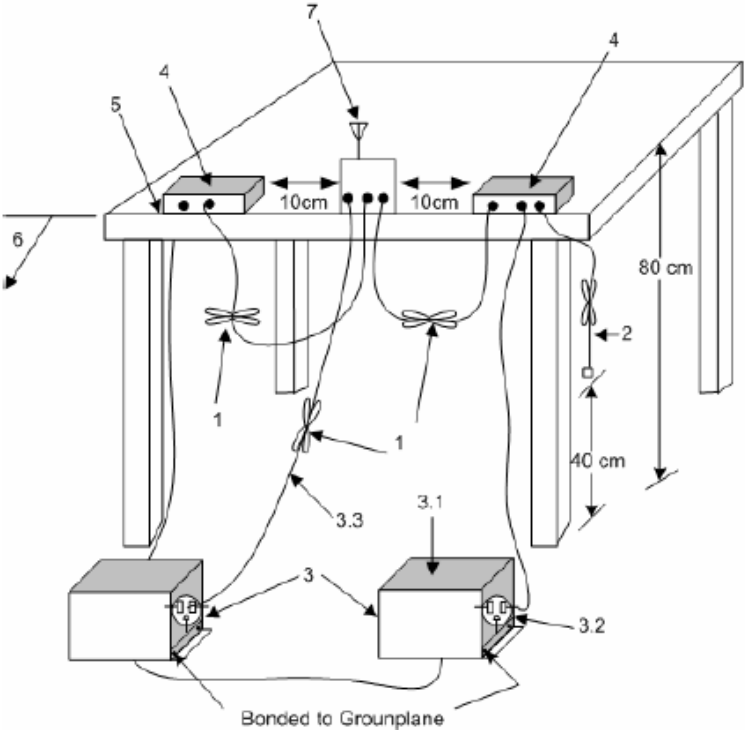
Test Method	
☒	Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.
☒	If AC conducted emissions fall in operating band, then following below test method confirm final result.
☐	Accept measurements done with a suitable dummy load replacing the antenna under the following conditions: (1) Perform the AC line conducted tests with the antenna connected to determine compliance with FCC 15.207 limits outside the transmitter's fundamental emission band; (2) Retest with a dummy load to determine compliance with FCC 15.207 limits within the transmitter's fundamental emission band.
☒	For a device with a permanent antenna operating at or below 30 MHz, accept measurements done with a suitable dummy load, in lieu of the permanent antenna under the following conditions: (1) Perform the AC line conducted tests with the permanent antenna to determine compliance with the FCC 15.207 limits outside the transmitter's fundamental emission band; (2) Retest with a dummy load in lieu of the permanent antenna to determine compliance with the FCC 15.207 limits within the transmitter's fundamental emission band.

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

Refer as Appendix A

3.2 Transmitter Radiated Emissions

3.2.1 Transmitter Radiated Emissions Limit

Transmitter Radiated 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: the frequency bands 9-90 kHz, 110-490 kHz measurements employing an average detector and other below 1GHz measurements employing a CISPR quasi-peak detector.

3.2.2 Measuring Instruments

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

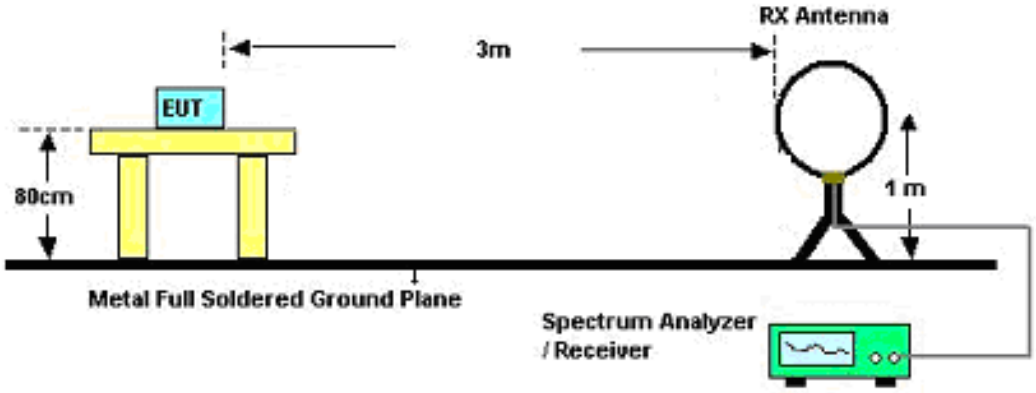
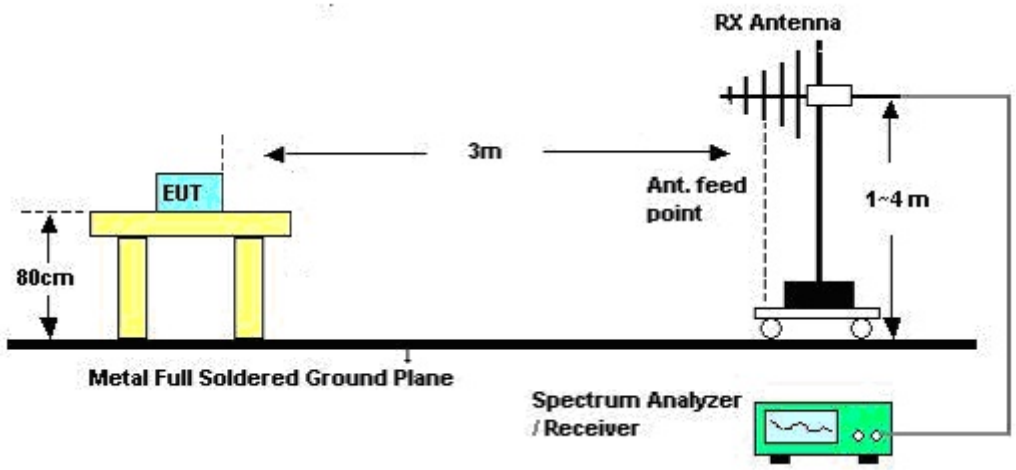
3.2.3 Test Procedures

Test Method	
☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1 GHz and test distance is 3m.
☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz the frequency bands 9-90 kHz, 110-490 kHz measurements employing an average detector and other below 30MHz measurements employing a CISPR quasi-peak detector. Test distance is 3 m.
☒	At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the requirements; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be following below methods.
☐	The results shall be extrapolated to the specified distance by making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor.
☒	The results shall be by using the square of an inverse linear distance extrapolation factor (40 dB/decade).
☒	For radiated measurement. Loop antenna was rotated about the horizontal and vertical axis and the equipment to be measured and the test antenna shall be oriented to obtain the maximum emitted field strength level.
☒	The any unwanted emissions level shall not exceed the fundamental emission level.
☒	All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
☒	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.

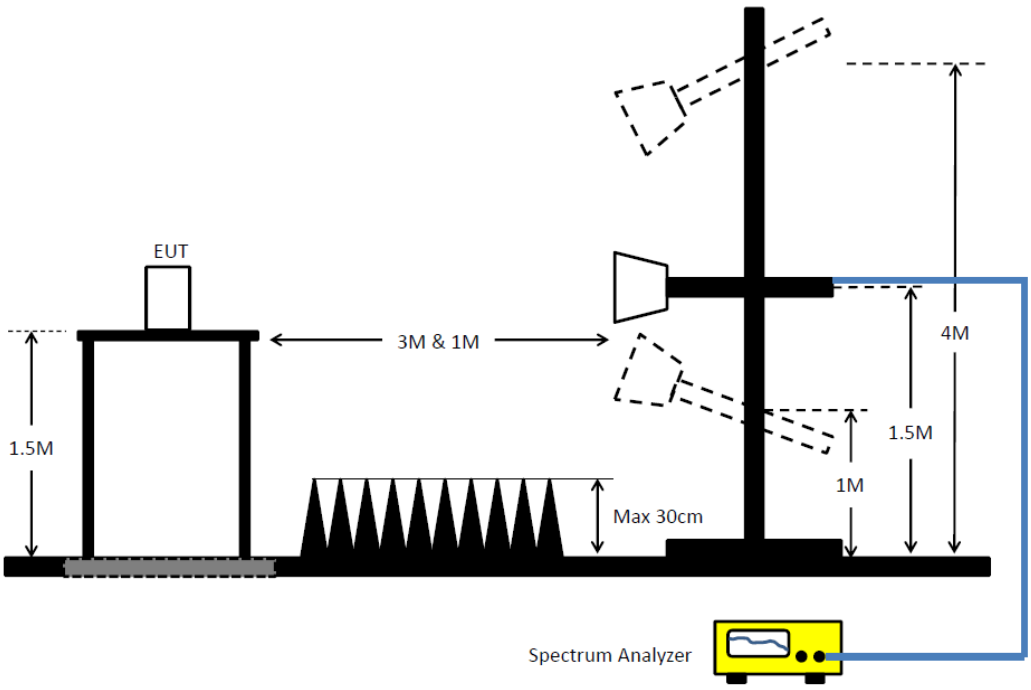
3.2.4 Measurement Results Calculation

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

3.2.5 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.2.6 Transmitter Radiated Emissions (Below 30MHz)

Refer as Appendix B

3.2.7 Transmitter Radiated Emissions (Above 30MHz)

Refer as Appendix B

3.3 Emission Bandwidth

3.3.1 Emission Bandwidth Limit

Emission Bandwidth Limit
N/A

3.3.2 Measuring Instruments

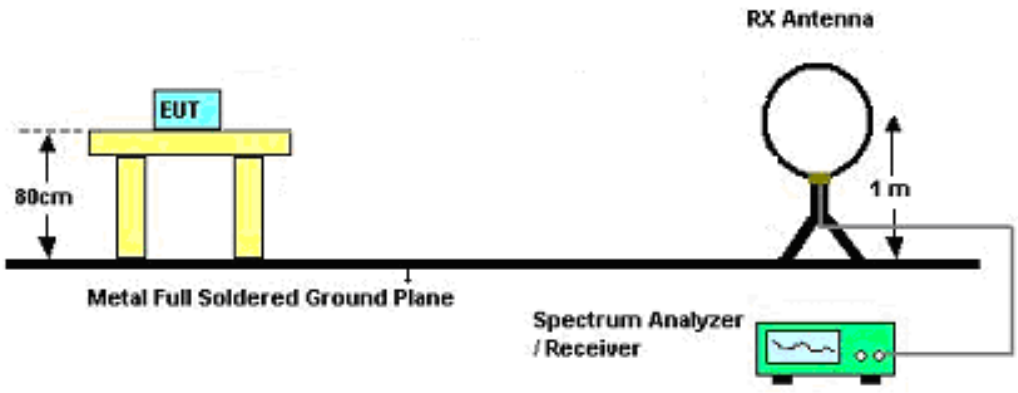
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
☒	Because the measured signal is CW or CW-like adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.
☒	For radiated measurement. Loop antenna was rotated about the horizontal and vertical axis and the equipment to be measured and the test antenna shall be oriented to obtain the maximum emitted field strength level.

3.3.4 Test Setup

Emission Bandwidth



3.3.5 Test Result of Emission Bandwidth

Refer as Appendix C

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer / Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	11/Nov/2020	10/Nov/2021
RF Cable 5m	TITAN	RG142	CO04-cable-01	9kHz~200MHz	03/Mar/2021	02/Mar/2022
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	21/Sep/2020	20/Sep/2021

Instrument for Conducted Test

Instrument	Manufacturer / Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10Hz~40GHz	19/Oct/2020	18/Oct/2021

Instrument for Radiated Test

Instrument	Manufacturer / Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	04/Aug/2020	03/Aug/2021
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	30/Jun/2020	29/Jun/2021
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	06/Sep/2020	05/Sep/2021
RF Cable	MVE	400LL	MVE-1-0802	9kHz~30MHz	05/May/2021	04/May/2022
RF Cable	MVE	400LL	MVE-1-0802	30MHz~1GHz	05/May/2021	04/May/2022
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2021	15/Mar/2022
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	19/Aug/2020	18/Aug/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021

Summary

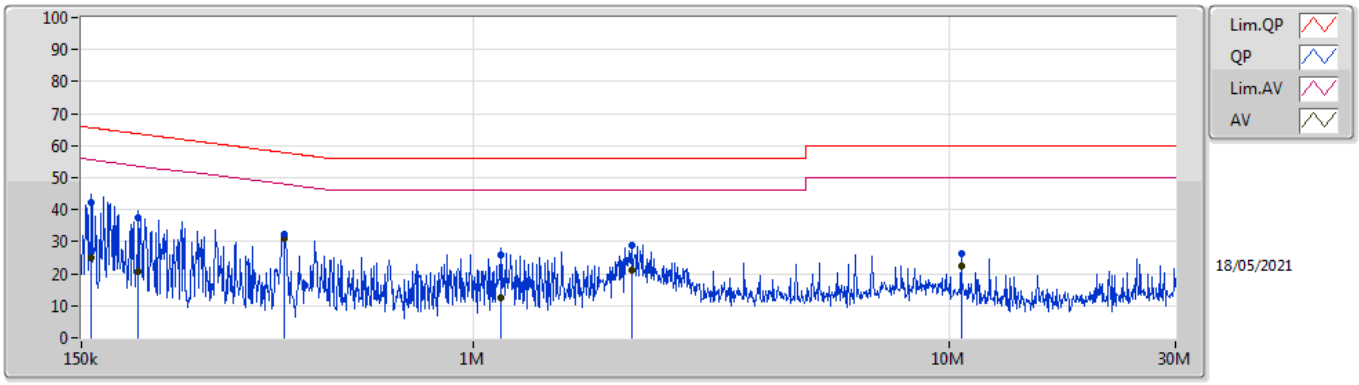
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	397.299k	32.74	47.91	-15.17	Neutral
Mode 2	Pass	AV	506.843k	34.45	46.00	-11.55	Neutral
Mode 3	Pass	AV	1.747M	27.14	46.00	-18.86	Neutral

Mode Configure

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	157.361k	42.30	65.60	-23.30	Line	-
Mode 1	Pass	AV	157.361k	24.85	55.60	-30.75	Line	-
Mode 1	Pass	QP	197.568k	37.39	63.71	-26.32	Line	-
Mode 1	Pass	AV	197.568k	20.75	53.71	-32.96	Line	-
Mode 1	Pass	QP	400.483k	32.48	57.84	-25.36	Line	-
Mode 1	Pass	AV	400.483k	31.24	47.84	-16.60	Line	-
Mode 1	Pass	QP	1.14M	25.93	56.00	-30.07	Line	-
Mode 1	Pass	AV	1.14M	12.56	46.00	-33.44	Line	-
Mode 1	Pass	QP	2.15M	29.06	56.00	-26.94	Line	-
Mode 1	Pass	AV	2.15M	21.00	46.00	-25.00	Line	-
Mode 1	Pass	QP	10.616M	26.39	60.00	-33.61	Line	-
Mode 1	Pass	AV	10.616M	22.35	50.00	-27.65	Line	-
Mode 1	Pass	QP	151.807k	42.81	65.90	-23.09	Neutral	-
Mode 1	Pass	AV	151.807k	26.39	55.90	-29.51	Neutral	-
Mode 1	Pass	QP	184.605k	39.09	64.28	-25.19	Neutral	-
Mode 1	Pass	AV	184.605k	22.05	54.28	-32.23	Neutral	-
Mode 1	Pass	QP	397.299k	34.70	57.91	-23.21	Neutral	-
Mode 1	Pass	AV	397.299k	32.74	47.91	-15.17	Neutral	-
Mode 1	Pass	QP	670.245k	27.73	56.00	-28.27	Neutral	-
Mode 1	Pass	AV	670.245k	20.93	46.00	-25.07	Neutral	-
Mode 1	Pass	QP	1.186M	28.08	56.00	-27.92	Neutral	-
Mode 1	Pass	AV	1.186M	14.35	46.00	-31.65	Neutral	-
Mode 1	Pass	QP	14.095M	15.29	60.00	-44.71	Neutral	-
Mode 1	Pass	AV	14.095M	9.89	50.00	-40.11	Neutral	-
Mode 2	Pass	QP	150.6k	40.88	65.96	-25.08	Line	-
Mode 2	Pass	AV	150.6k	28.18	55.96	-27.78	Line	-
Mode 2	Pass	QP	196.781k	34.70	63.74	-29.04	Line	-
Mode 2	Pass	AV	196.781k	20.24	53.74	-33.50	Line	-
Mode 2	Pass	QP	467.95k	36.76	56.55	-19.79	Line	-
Mode 2	Pass	AV	467.95k	22.72	46.55	-23.83	Line	-
Mode 2	Pass	QP	506.843k	35.01	56.00	-20.99	Line	-
Mode 2	Pass	AV	506.843k	30.22	46.00	-15.78	Line	-
Mode 2	Pass	QP	4.238M	27.25	56.00	-28.75	Line	-
Mode 2	Pass	AV	4.238M	22.27	46.00	-23.73	Line	-
Mode 2	Pass	QP	12.404M	22.87	60.00	-37.13	Line	-
Mode 2	Pass	AV	12.404M	17.91	50.00	-32.09	Line	-
Mode 2	Pass	QP	150.6k	40.59	65.96	-25.37	Neutral	-
Mode 2	Pass	AV	150.6k	28.48	55.96	-27.48	Neutral	-
Mode 2	Pass	QP	366.811k	31.95	58.58	-26.63	Neutral	-
Mode 2	Pass	AV	366.811k	26.22	48.58	-22.36	Neutral	-
Mode 2	Pass	QP	460.537k	36.64	56.69	-20.05	Neutral	-
Mode 2	Pass	AV	460.537k	31.46	46.69	-15.23	Neutral	-

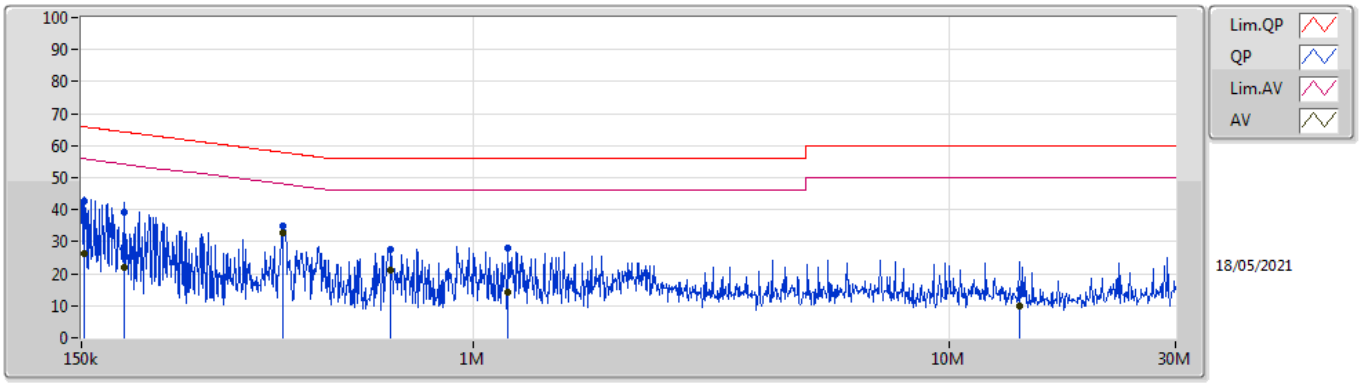
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 2	Pass	QP	506.843k	39.36	56.00	-16.64	Neutral	-
Mode 2	Pass	AV	506.843k	34.45	46.00	-11.55	Neutral	-
Mode 2	Pass	QP	1.699M	27.97	56.00	-28.03	Neutral	-
Mode 2	Pass	AV	1.699M	21.50	46.00	-24.50	Neutral	-
Mode 2	Pass	QP	13.816M	15.91	60.00	-44.09	Neutral	-
Mode 2	Pass	AV	13.816M	10.48	50.00	-39.52	Neutral	-
Mode 3	Pass	QP	151.202k	25.87	65.92	-40.05	Line	-
Mode 3	Pass	AV	151.202k	15.20	55.92	-40.72	Line	-
Mode 3	Pass	QP	292.16k	15.43	60.46	-45.03	Line	-
Mode 3	Pass	AV	292.16k	9.91	50.46	-40.55	Line	-
Mode 3	Pass	QP	432.041k	14.81	57.20	-42.39	Line	-
Mode 3	Pass	AV	432.041k	9.40	47.20	-37.80	Line	-
Mode 3	Pass	QP	587.518k	12.42	56.00	-43.58	Line	-
Mode 3	Pass	AV	587.518k	7.22	46.00	-38.78	Line	-
Mode 3	Pass	QP	2.041M	28.71	56.00	-27.29	Line	-
Mode 3	Pass	AV	2.041M	26.19	46.00	-19.81	Line	-
Mode 3	Pass	QP	10.201M	20.67	60.00	-39.33	Line	-
Mode 3	Pass	AV	10.201M	15.26	50.00	-34.74	Line	-
Mode 3	Pass	QP	163.769k	27.68	65.27	-37.59	Neutral	-
Mode 3	Pass	AV	163.769k	15.98	55.27	-39.29	Neutral	-
Mode 3	Pass	QP	292.16k	30.42	60.46	-30.04	Neutral	-
Mode 3	Pass	AV	292.16k	28.25	50.46	-22.21	Neutral	-
Mode 3	Pass	QP	432.041k	17.76	57.20	-39.44	Neutral	-
Mode 3	Pass	AV	432.041k	11.78	47.20	-35.42	Neutral	-
Mode 3	Pass	QP	875.775k	13.73	56.00	-42.27	Neutral	-
Mode 3	Pass	AV	875.775k	8.02	46.00	-37.98	Neutral	-
Mode 3	Pass	QP	1.747M	28.84	56.00	-27.16	Neutral	-
Mode 3	Pass	AV	1.747M	27.14	46.00	-18.86	Neutral	-
Mode 3	Pass	QP	10.201M	21.98	60.00	-38.02	Neutral	-
Mode 3	Pass	AV	10.201M	16.77	50.00	-33.23	Neutral	-

Conducted Emissions at Powerline_Mode 1



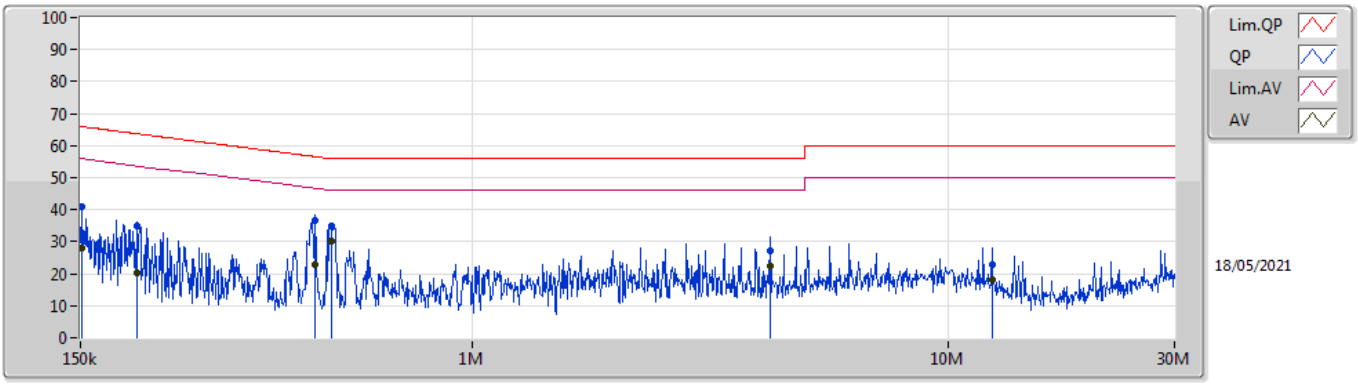
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	157.361k	42.30	65.60	-23.30	19.63	Line	-	22.67	9.69	0.04	9.90
AV	157.361k	24.85	55.60	-30.75	19.63	Line	-	5.22	9.69	0.04	9.90
QP	197.568k	37.39	63.71	-26.32	19.62	Line	-	17.77	9.68	0.04	9.90
AV	197.568k	20.75	53.71	-32.96	19.62	Line	-	1.13	9.68	0.04	9.90
QP	400.483k	32.48	57.84	-25.36	19.63	Line	-	12.85	9.67	0.06	9.90
AV	400.483k	31.24	47.84	-16.60	19.63	Line	-	11.61	9.67	0.06	9.90
QP	1.14M	25.93	56.00	-30.07	19.55	Line	-	6.38	9.67	0.08	9.80
AV	1.14M	12.56	46.00	-33.44	19.55	Line	-	-6.99	9.67	0.08	9.80
QP	2.15M	29.06	56.00	-26.94	19.59	Line	-	9.47	9.68	0.10	9.81
AV	2.15M	21.00	46.00	-25.00	19.59	Line	-	1.41	9.68	0.10	9.81
QP	10.616M	26.39	60.00	-33.61	19.83	Line	-	6.56	9.72	0.21	9.90
AV	10.616M	22.35	50.00	-27.65	19.83	Line	-	2.52	9.72	0.21	9.90

Conducted Emissions at Powerline_Mode 1



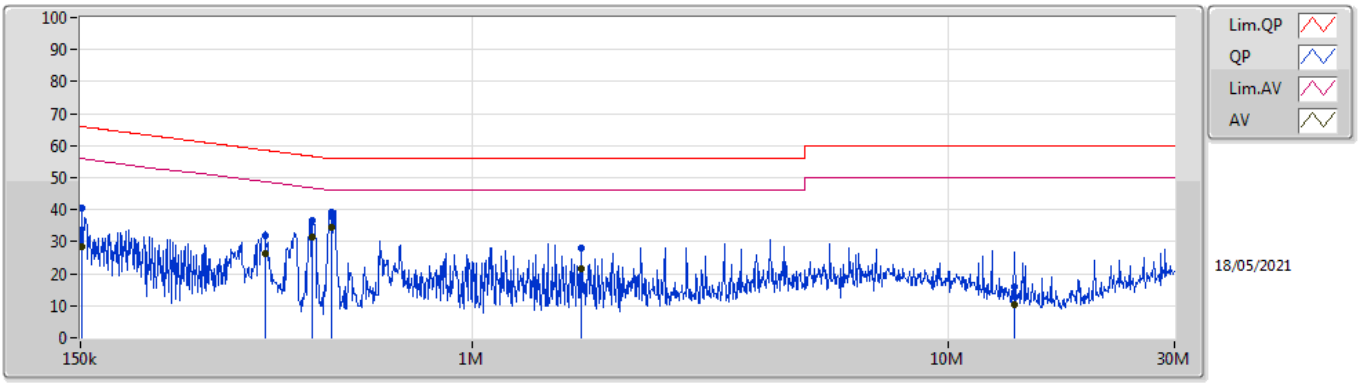
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	151.807k	42.81	65.90	-23.09	19.63	Neutral	-	23.18	9.69	0.04	9.90
AV	151.807k	26.39	55.90	-29.51	19.63	Neutral	-	6.76	9.69	0.04	9.90
QP	184.605k	39.09	64.28	-25.19	19.62	Neutral	-	19.47	9.68	0.04	9.90
AV	184.605k	22.05	54.28	-32.23	19.62	Neutral	-	2.43	9.68	0.04	9.90
QP	397.299k	34.70	57.91	-23.21	19.63	Neutral	-	15.07	9.67	0.06	9.90
AV	397.299k	32.74	47.91	-15.17	19.63	Neutral	-	13.11	9.67	0.06	9.90
QP	670.245k	27.73	56.00	-28.27	19.58	Neutral	-	8.15	9.67	0.07	9.84
AV	670.245k	20.93	46.00	-25.07	19.58	Neutral	-	1.35	9.67	0.07	9.84
QP	1.186M	28.08	56.00	-27.92	19.55	Neutral	-	8.53	9.67	0.08	9.80
AV	1.186M	14.35	46.00	-31.65	19.55	Neutral	-	-5.20	9.67	0.08	9.80
QP	14.095M	15.29	60.00	-44.71	19.88	Neutral	-	-4.59	9.74	0.24	9.90
AV	14.095M	9.89	50.00	-40.11	19.88	Neutral	-	-9.99	9.74	0.24	9.90

Conducted Emissions at Powerline_Mode 2



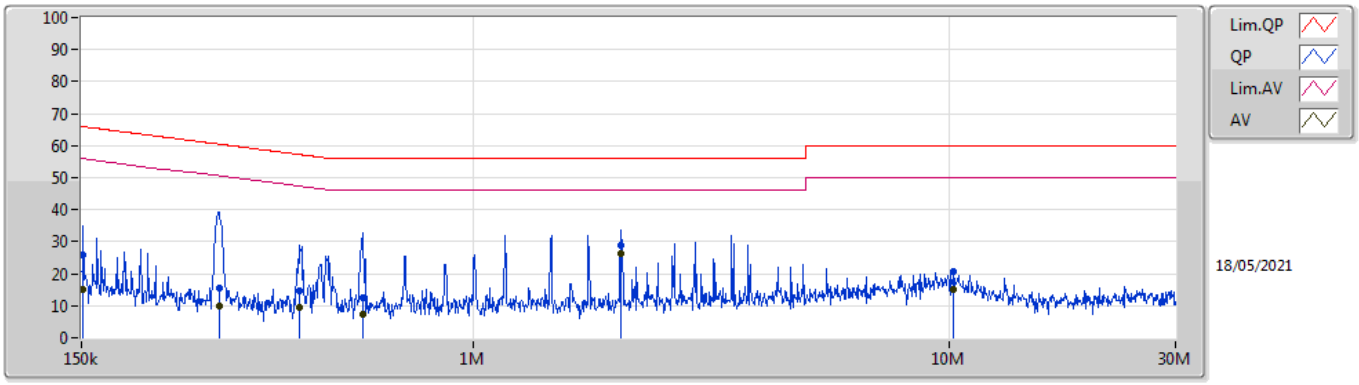
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150.6k	40.88	65.96	-25.08	19.63	Line	-	21.25	9.69	0.04	9.90
AV	150.6k	28.18	55.96	-27.78	19.63	Line	-	8.55	9.69	0.04	9.90
QP	196.781k	34.70	63.74	-29.04	19.62	Line	-	15.08	9.68	0.04	9.90
AV	196.781k	20.24	53.74	-33.50	19.62	Line	-	0.62	9.68	0.04	9.90
QP	467.95k	36.76	56.55	-19.79	19.61	Line	-	17.15	9.67	0.06	9.88
AV	467.95k	22.72	46.55	-23.83	19.61	Line	-	3.11	9.67	0.06	9.88
QP	506.843k	35.01	56.00	-20.99	19.61	Line	-	15.40	9.67	0.07	9.87
AV	506.843k	30.22	46.00	-15.78	19.61	Line	-	10.61	9.67	0.07	9.87
QP	4.238M	27.25	56.00	-28.75	19.73	Line	-	7.52	9.69	0.14	9.90
AV	4.238M	22.27	46.00	-23.73	19.73	Line	-	2.54	9.69	0.14	9.90
QP	12.404M	22.87	60.00	-37.13	19.83	Line	-	3.04	9.70	0.23	9.90
AV	12.404M	17.91	50.00	-32.09	19.83	Line	-	-1.92	9.70	0.23	9.90

Conducted Emissions at Powerline_Mode 2



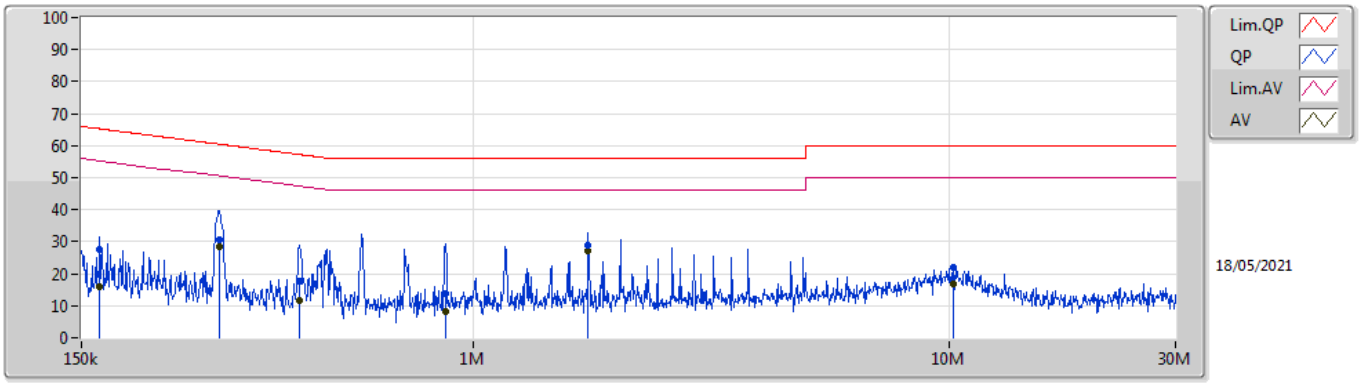
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150.6k	40.59	65.96	-25.37	19.63	Neutral	-	20.96	9.69	0.04	9.90
AV	150.6k	28.48	55.96	-27.48	19.63	Neutral	-	8.85	9.69	0.04	9.90
QP	366.811k	31.95	58.58	-26.63	19.63	Neutral	-	12.32	9.67	0.06	9.90
AV	366.811k	26.22	48.58	-22.36	19.63	Neutral	-	6.59	9.67	0.06	9.90
QP	460.537k	36.64	56.69	-20.05	19.61	Neutral	-	17.03	9.67	0.06	9.88
AV	460.537k	31.46	46.69	-15.23	19.61	Neutral	-	11.85	9.67	0.06	9.88
QP	506.843k	39.36	56.00	-16.64	19.61	Neutral	-	19.75	9.67	0.07	9.87
AV	506.843k	34.45	46.00	-11.55	19.61	Neutral	-	14.84	9.67	0.07	9.87
QP	1.699M	27.97	56.00	-28.03	19.58	Neutral	-	8.39	9.68	0.10	9.80
AV	1.699M	21.50	46.00	-24.50	19.58	Neutral	-	1.92	9.68	0.10	9.80
QP	13.816M	15.91	60.00	-44.09	19.88	Neutral	-	-3.97	9.74	0.24	9.90
AV	13.816M	10.48	50.00	-39.52	19.88	Neutral	-	-9.40	9.74	0.24	9.90

Conducted Emissions at Powerline_Mode 3



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	151.202k	25.87	65.92	-40.05	19.63	Line	-	6.24	9.69	0.04	9.90
AV	151.202k	15.20	55.92	-40.72	19.63	Line	-	-4.43	9.69	0.04	9.90
QP	292.16k	15.43	60.46	-45.03	19.62	Line	-	-4.19	9.67	0.05	9.90
AV	292.16k	9.91	50.46	-40.55	19.62	Line	-	-9.71	9.67	0.05	9.90
QP	432.041k	14.81	57.20	-42.39	19.62	Line	-	-4.81	9.67	0.06	9.89
AV	432.041k	9.40	47.20	-37.80	19.62	Line	-	-10.22	9.67	0.06	9.89
QP	587.518k	12.42	56.00	-43.58	19.60	Line	-	-7.18	9.67	0.07	9.86
AV	587.518k	7.22	46.00	-38.78	19.60	Line	-	-12.38	9.67	0.07	9.86
QP	2.041M	28.71	56.00	-27.29	19.58	Line	-	9.13	9.68	0.10	9.80
AV	2.041M	26.19	46.00	-19.81	19.58	Line	-	6.61	9.68	0.10	9.80
QP	10.201M	20.67	60.00	-39.33	19.82	Line	-	0.85	9.72	0.20	9.90
AV	10.201M	15.26	50.00	-34.74	19.82	Line	-	-4.56	9.72	0.20	9.90

Conducted Emissions at Powerline_Mode 3



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	163.769k	27.68	65.27	-37.59	19.63	Neutral	-	8.05	9.69	0.04	9.90
AV	163.769k	15.98	55.27	-39.29	19.63	Neutral	-	-3.65	9.69	0.04	9.90
QP	292.16k	30.42	60.46	-30.04	19.62	Neutral	-	10.80	9.67	0.05	9.90
AV	292.16k	28.25	50.46	-22.21	19.62	Neutral	-	8.63	9.67	0.05	9.90
QP	432.041k	17.76	57.20	-39.44	19.62	Neutral	-	-1.86	9.67	0.06	9.89
AV	432.041k	11.78	47.20	-35.42	19.62	Neutral	-	-7.84	9.67	0.06	9.89
QP	875.775k	13.73	56.00	-42.27	19.56	Neutral	-	-5.83	9.67	0.08	9.81
AV	875.775k	8.02	46.00	-37.98	19.56	Neutral	-	-11.54	9.67	0.08	9.81
QP	1.747M	28.84	56.00	-27.16	19.58	Neutral	-	9.26	9.68	0.10	9.80
AV	1.747M	27.14	46.00	-18.86	19.58	Neutral	-	7.56	9.68	0.10	9.80
QP	10.201M	21.98	60.00	-38.02	19.83	Neutral	-	2.15	9.73	0.20	9.90
AV	10.201M	16.77	50.00	-33.23	19.83	Neutral	-	-3.06	9.73	0.20	9.90

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
WPT	-	-	-	-	-	-	-	-	-	-	-	-
100-300kHz	Pass	PK	627.6k	50.68	71.65	-20.97	20.69	3	Horizontal	0	1.00	-

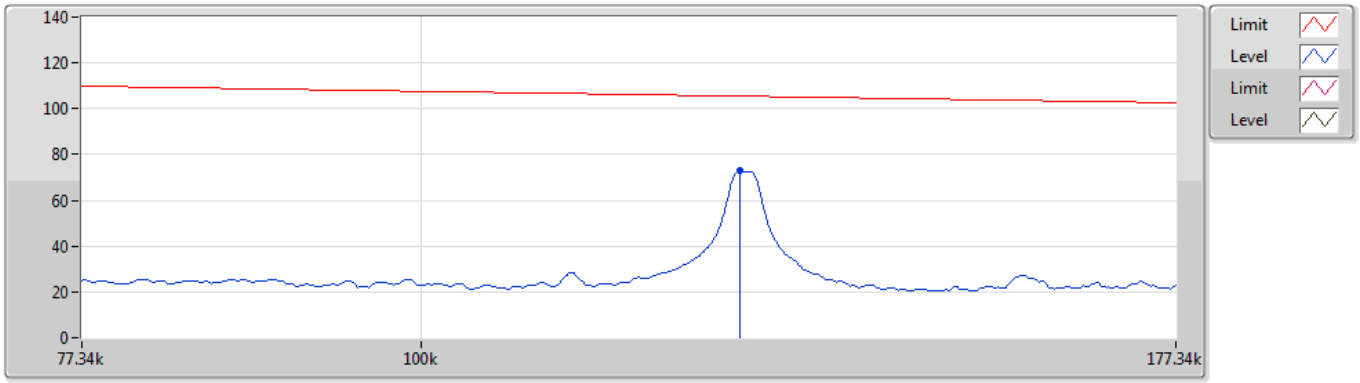
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
100-300kHz	-	-	-	-	-	-	-	-	-	-	-	-
0.135MHz_TX	Pass	PK	127.34k	72.81	105.49	-32.68	20.27	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	20.844k	26.40	121.20	-94.80	20.78	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	33.252k	30.05	117.15	-87.10	21.46	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	43.968k	32.90	114.73	-81.83	21.30	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	329.1k	57.85	97.26	-39.41	20.74	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	627.6k	50.68	71.65	-20.97	20.69	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	2.896M	44.36	69.50	-25.14	20.53	3	Horizontal	0	1.00	-

100-300kHz

20/05/2021

0.135MHz_TX

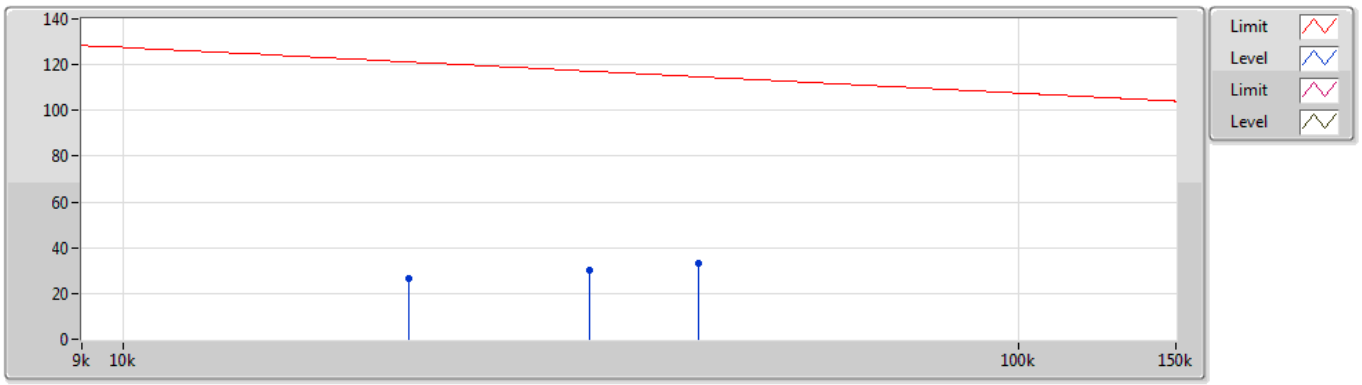


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	127.34k	72.81	105.49	-32.68	20.27	3	Horizontal	0	1.00	-	52.54	20.03	0.24	-

100-300kHz

20/05/2021

0.135MHz_TX

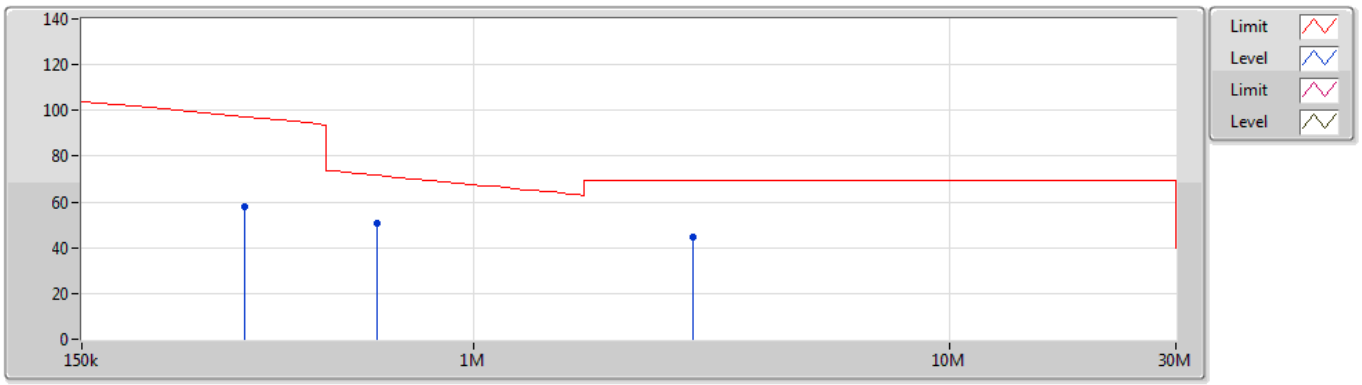


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	20.844k	26.40	121.20	-94.80	20.78	3	Horizontal	360	1.00	-	5.62	20.57	0.21	-
PK	33.252k	30.05	117.15	-87.10	21.46	3	Horizontal	360	1.00	-	8.59	21.24	0.22	-
PK	43.968k	32.90	114.73	-81.83	21.30	3	Horizontal	360	1.00	-	11.60	21.08	0.22	-

100-300kHz

20/05/2021

0.135MHz_TX



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	329.1k	57.85	97.26	-39.41	20.74	3	Horizontal	0	1.00	-	37.11	20.48	0.26	-
PK	627.6k	50.68	71.65	-20.97	20.69	3	Horizontal	0	1.00	-	29.99	20.40	0.29	-
PK	2.896M	44.36	69.50	-25.14	20.53	3	Horizontal	0	1.00	-	23.83	20.11	0.42	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
WPT	-	-	-	-	-	-	-	-	-	-	-	-
100-300kHz	Pass	PK	30M	35.42	40.00	-4.58	-3.03	3	Vertical	0	1.00	-

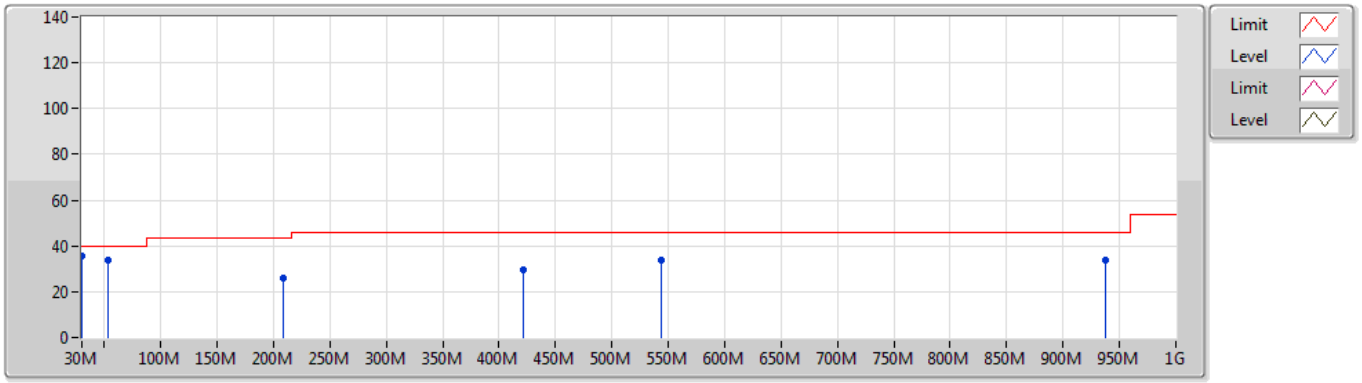
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
100-300kHz	-	-	-	-	-	-	-	-	-	-	-	-
0.135MHz_TX	Pass	PK	30M	35.42	40.00	-4.58	-3.03	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	53.28M	33.61	40.00	-6.39	-14.51	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	208.48M	26.15	43.50	-17.35	-10.93	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	421.88M	29.83	46.00	-16.17	-3.12	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	544.1M	33.97	46.00	-12.03	-1.58	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	937.92M	33.62	46.00	-12.38	2.72	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	30M	33.15	40.00	-6.85	-3.03	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	146.4M	26.96	43.50	-16.54	-10.14	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	243.4M	33.31	46.00	-12.69	-8.13	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	480.08M	30.28	46.00	-15.72	-2.39	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	604.24M	28.51	46.00	-17.49	-0.94	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	959.26M	33.08	46.00	-12.92	3.12	3	Horizontal	360	1.00	-

100-300kHz

20/05/2021

0.135MHz_TX

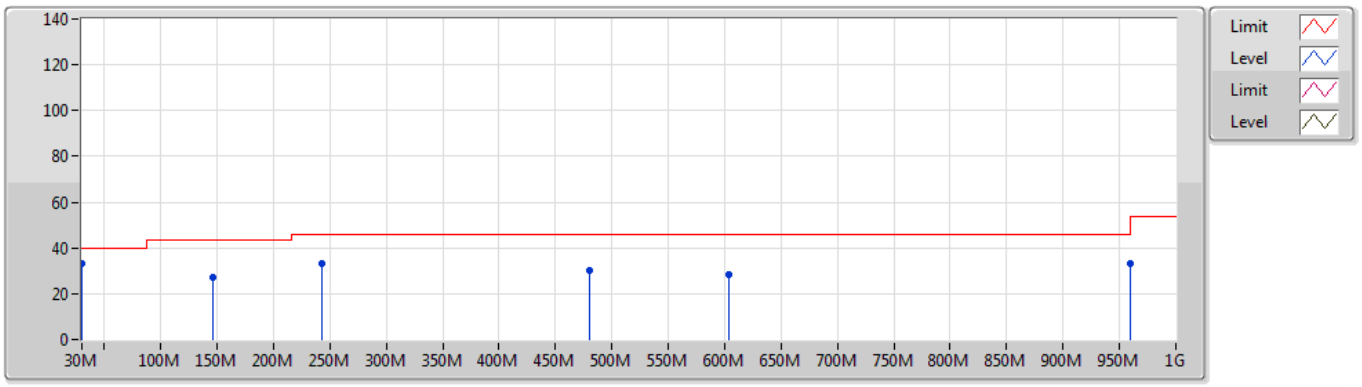


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	30M	35.42	40.00	-4.58	-3.03	3	Vertical	0	1.00	-	38.45	23.32	0.86	27.21
PK	53.28M	33.61	40.00	-6.39	-14.51	3	Vertical	0	1.00	-	48.12	12.16	1.09	27.76
PK	208.48M	26.15	43.50	-17.35	-10.93	3	Vertical	0	1.00	-	37.08	14.33	1.99	27.25
PK	421.88M	29.83	46.00	-16.17	-3.12	3	Vertical	0	1.00	-	32.95	21.95	2.81	27.88
PK	544.1M	33.97	46.00	-12.03	-1.58	3	Vertical	0	1.00	-	35.55	23.59	3.18	28.35
PK	937.92M	33.62	46.00	-12.38	2.72	3	Vertical	0	1.00	-	30.90	25.85	4.16	27.29

100-300kHz

20/05/2021

0.135MHz_TX



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	33.15	40.00	-6.85	-3.03	3	Horizontal	360	1.00	-	36.18	23.32	0.86	27.21
PK	146.4M	26.96	43.50	-16.54	-10.14	3	Horizontal	360	1.00	-	37.10	15.77	1.68	27.59
PK	243.4M	33.31	46.00	-12.69	-8.13	3	Horizontal	360	1.00	-	41.44	16.83	2.12	27.08
PK	480.08M	30.28	46.00	-15.72	-2.39	3	Horizontal	360	1.00	-	32.67	22.80	3.01	28.20
PK	604.24M	28.51	46.00	-17.49	-0.94	3	Horizontal	360	1.00	-	29.45	24.00	3.38	28.32
PK	959.26M	33.08	46.00	-12.92	3.12	3	Horizontal	360	1.00	-	29.96	26.12	4.21	27.21

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
WPT	-	-	-	-	-	-	-	-	-	-	-	-
100-300kHz	Pass	PK	687.3k	63.62	70.87	-7.25	20.69	3	Horizontal	0	1.00	-

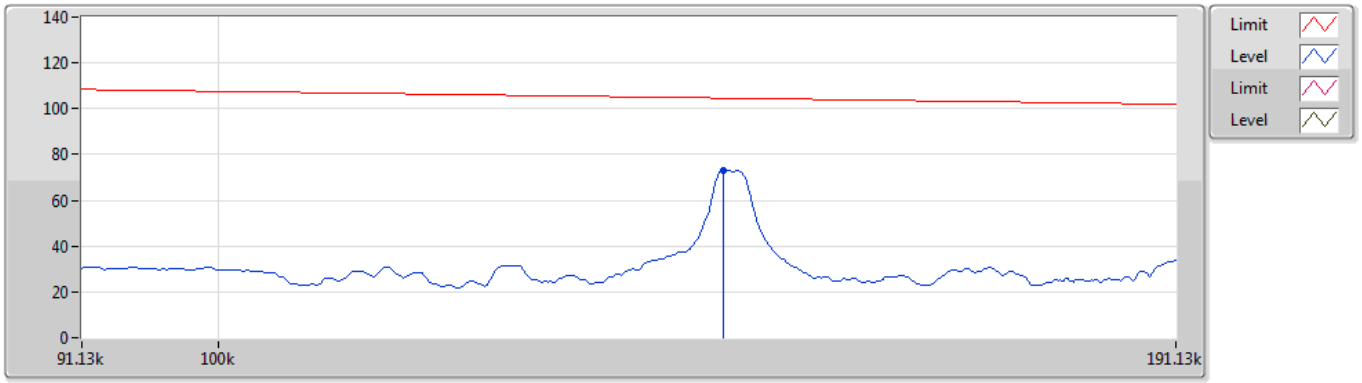
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
100-300kHz	-	-	-	-	-	-	-	-	-	-	-	-
0.135MHz_TX	Pass	PK	140.73k	73.21	104.63	-31.42	20.33	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	43.968k	35.03	114.73	-79.70	21.30	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	52.428k	33.53	113.19	-79.66	21.14	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	89.934k	31.74	108.51	-76.77	20.30	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	388.8k	68.68	95.80	-27.12	20.72	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	687.3k	63.62	70.87	-7.25	20.69	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	985.8k	58.68	67.74	-9.06	20.71	3	Horizontal	0	1.00	-

100-300kHz

20/05/2021

0.135MHz_TX

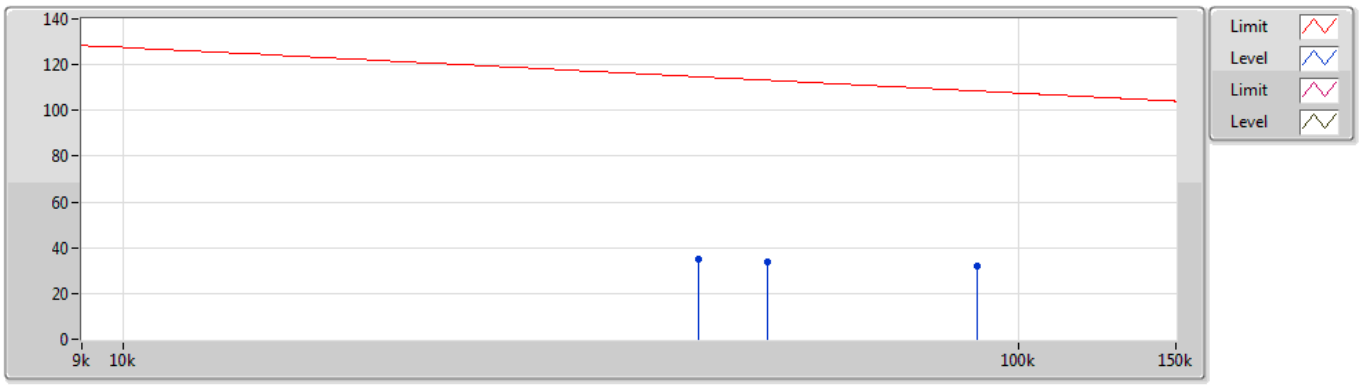


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	140.73k	73.21	104.63	-31.42	20.33	3	Horizontal	0	1.00	-	52.88	20.09	0.24	-

100-300kHz

20/05/2021

0.135MHz_TX

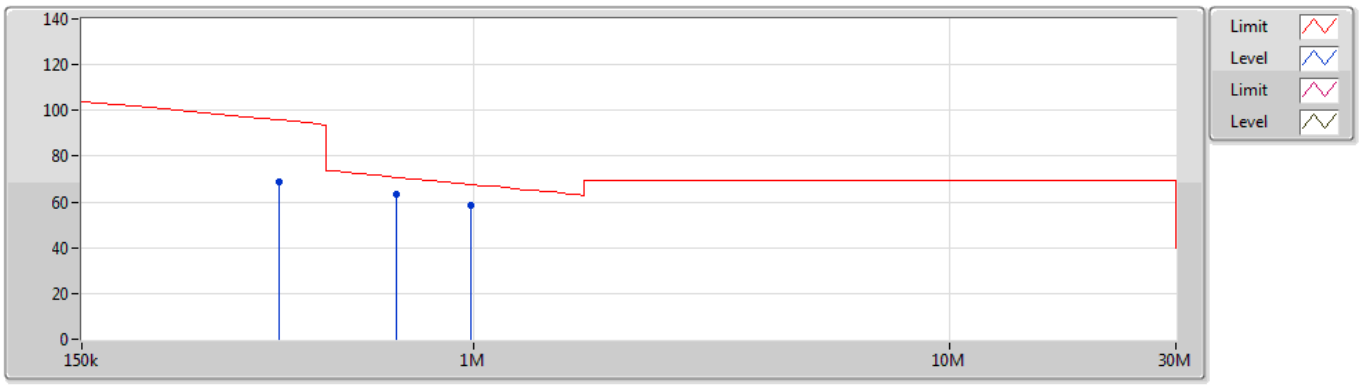


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	43.968k	35.03	114.73	-79.70	21.30	3	Horizontal	360	1.00	-	13.73	21.08	0.22	-
PK	52.428k	33.53	113.19	-79.66	21.14	3	Horizontal	360	1.00	-	12.39	20.92	0.22	-
PK	89.934k	31.74	108.51	-76.77	20.30	3	Horizontal	360	1.00	-	11.44	20.07	0.23	-

100-300kHz

20/05/2021

0.135MHz_TX



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	388.8k	68.68	95.80	-27.12	20.72	3	Horizontal	0	1.00	-	47.96	20.45	0.27	-
PK	687.3k	63.62	70.87	-7.25	20.69	3	Horizontal	0	1.00	-	42.93	20.40	0.29	-
PK	985.8k	58.68	67.74	-9.06	20.71	3	Horizontal	0	1.00	-	37.97	20.40	0.31	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
WPT	-	-	-	-	-	-	-	-	-	-	-	-
100-300kHz	Pass	QP	30M	35.91	40.00	-4.09	-3.03	3	Horizontal	0	1.00	-

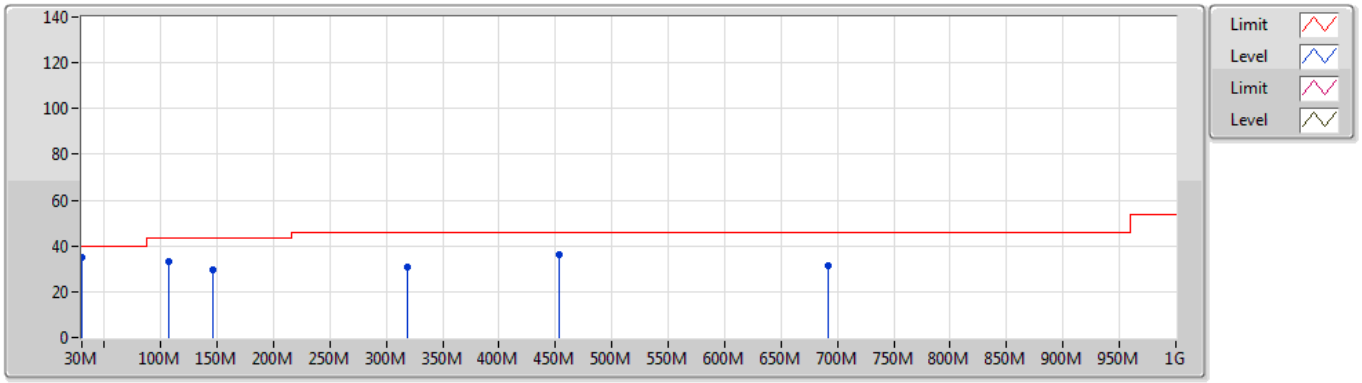
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
100-300kHz	-	-	-	-	-	-	-	-	-	-	-	-
0.135MHz_TX	Pass	PK	107.6M	33.37	43.50	-10.13	-9.46	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	146.4M	29.82	43.50	-13.68	-10.14	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	319.06M	31.03	46.00	-14.97	-5.91	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	452.92M	36.46	46.00	-9.54	-3.03	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	PK	691.54M	31.30	46.00	-14.70	-0.41	3	Vertical	0	1.00	-
0.135MHz_TX	Pass	QP	30M	34.74	40.00	-5.26	-3.03	3	Vertical	360	1.00	-
0.135MHz_TX	Pass	PK	146.4M	31.53	43.50	-11.97	-10.14	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	258.92M	35.32	46.00	-10.68	-6.22	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	386.96M	38.64	46.00	-7.36	-4.51	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	454.86M	39.27	46.00	-6.73	-2.96	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	769.14M	31.17	46.00	-14.83	0.88	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	QP	30M	35.91	40.00	-4.09	-3.03	3	Horizontal	0	1.00	-

100-300kHz

20/05/2021

0.135MHz_TX

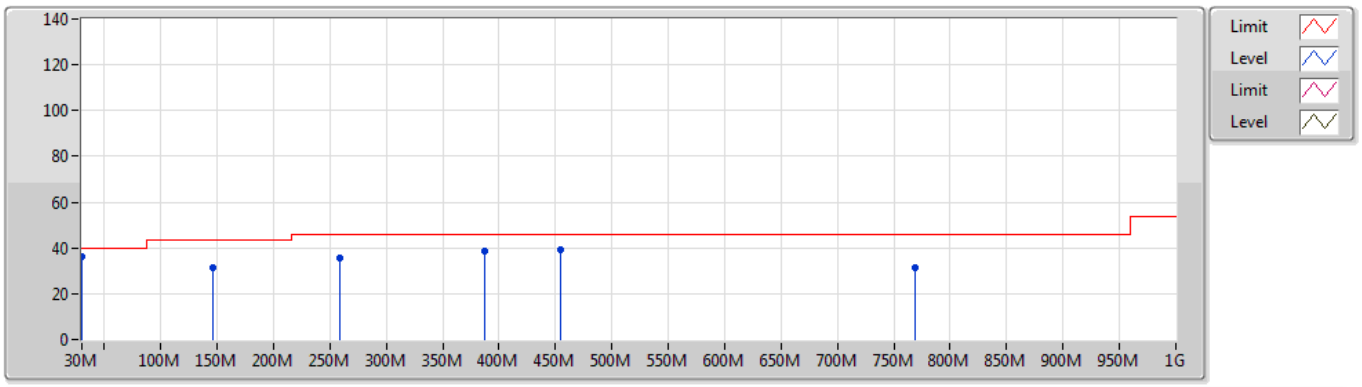


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	107.6M	33.37	43.50	-10.13	-9.46	3	Vertical	0	1.00	-	42.83	16.82	1.47	27.75
PK	146.4M	29.82	43.50	-13.68	-10.14	3	Vertical	0	1.00	-	39.96	15.77	1.68	27.59
PK	319.06M	31.03	46.00	-14.97	-5.91	3	Vertical	0	1.00	-	36.94	18.81	2.43	27.15
PK	452.92M	36.46	46.00	-9.54	-3.03	3	Vertical	0	1.00	-	39.49	22.14	2.91	28.08
PK	691.54M	31.30	46.00	-14.70	-0.41	3	Vertical	0	1.00	-	31.71	24.16	3.57	28.14
QP	30M	34.74	40.00	-5.26	-3.03	3	Vertical	0	1.00	-	37.77	23.32	0.86	27.21

100-300kHz

20/05/2021

0.135MHz_TX



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	146.4M	31.53	43.50	-11.97	-10.14	3	Horizontal	360	1.00	-	41.67	15.77	1.68	27.59
PK	258.92M	35.32	46.00	-10.68	-6.22	3	Horizontal	360	1.00	-	41.54	18.64	2.19	27.05
PK	386.96M	38.64	46.00	-7.36	-4.51	3	Horizontal	360	1.00	-	43.15	20.42	2.69	27.62
PK	454.86M	39.27	46.00	-6.73	-2.96	3	Horizontal	360	1.00	-	42.23	22.21	2.92	28.09
PK	769.14M	31.17	46.00	-14.83	0.88	3	Horizontal	360	1.00	-	30.29	25.03	3.77	27.92
QP	30M	35.91	40.00	-4.09	-3.03	3	Horizontal	0	1.00	-	38.94	23.32	0.86	27.21

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
WPT	-	-	-	-	-	-	-	-	-	-	-	-
100-300kHz	Pass	PK	627.6k	65.10	71.65	-6.55	20.69	3	Horizontal	360	1.00	-

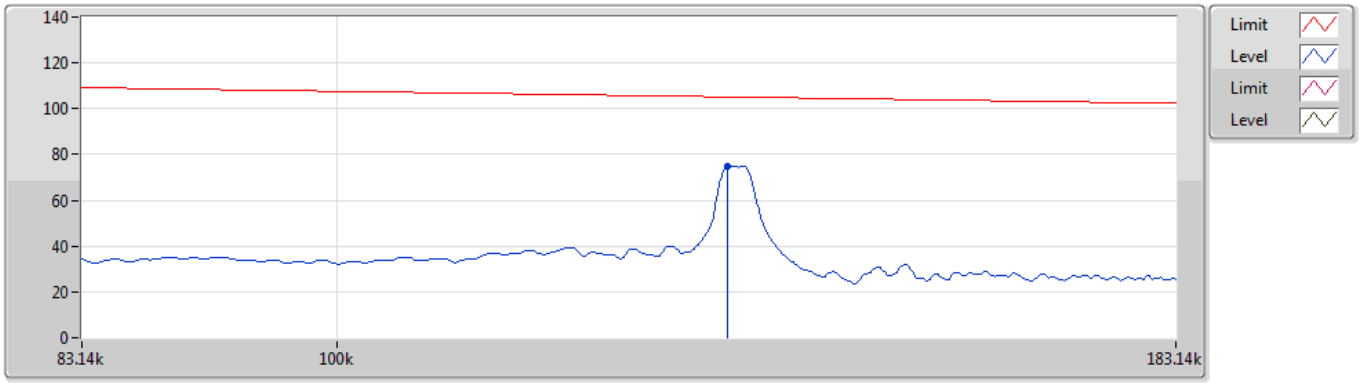
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
100-300kHz	-	-	-	-	-	-	-	-	-	-	-	-
0.135MHz_TX	Pass	PK	132.54k	75.08	105.15	-30.07	20.29	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	33.252k	30.38	117.15	-86.77	21.46	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	49.608k	31.88	113.67	-81.79	21.22	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	55.248k	34.10	112.75	-78.65	21.06	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	388.8k	70.66	95.80	-25.14	20.72	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	627.6k	65.10	71.65	-6.55	20.69	3	Horizontal	360	1.00	-
0.135MHz_TX	Pass	PK	926.1k	60.41	68.28	-7.87	20.71	3	Horizontal	360	1.00	-

100-300kHz

20/05/2021

0.135MHz_TX

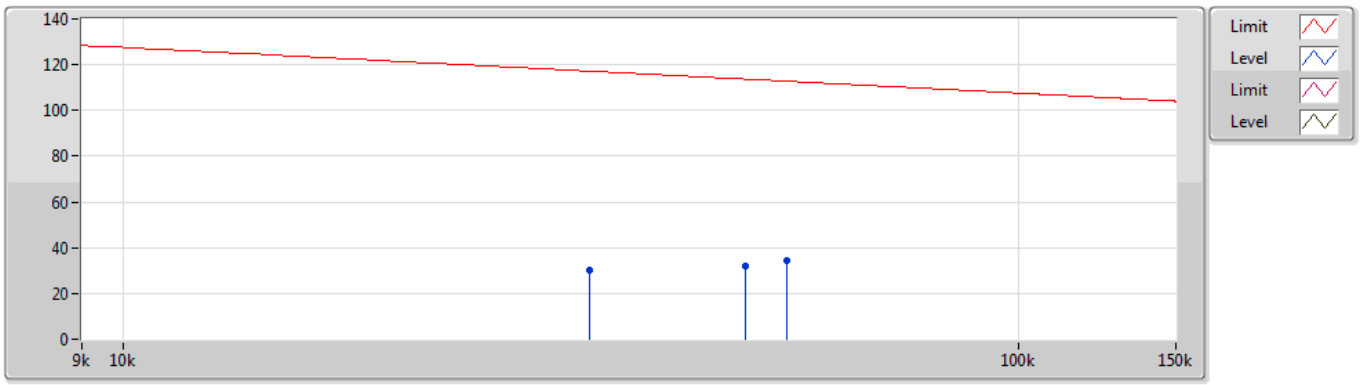


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	132.54k	75.08	105.15	-30.07	20.29	3	Horizontal	360	1.00	-	54.79	20.05	0.24	-

100-300kHz

20/05/2021

0.135MHz_TX

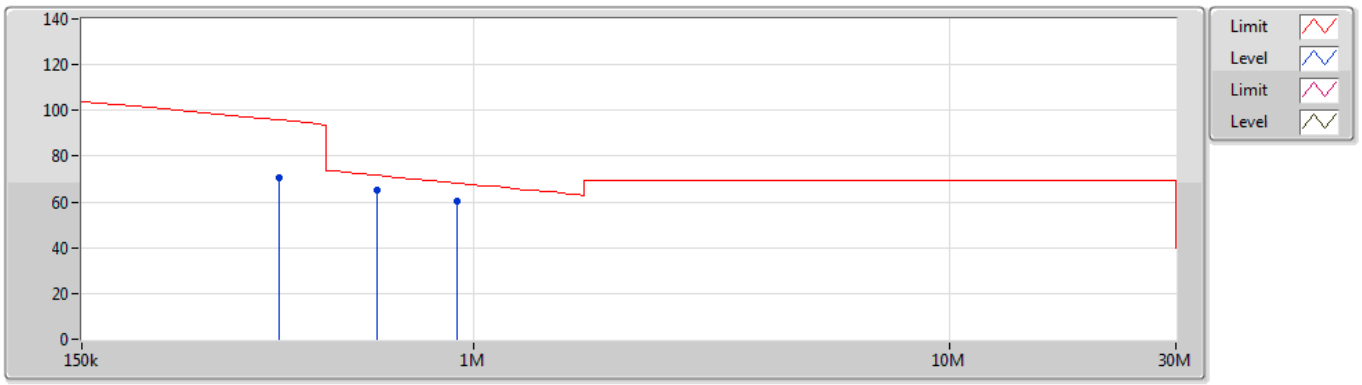


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	33.252k	30.38	117.15	-86.77	21.46	3	Horizontal	0	1.00	-	8.92	21.24	0.22	-
PK	49.608k	31.88	113.67	-81.79	21.22	3	Horizontal	0	1.00	-	10.66	21.00	0.22	-
PK	55.248k	34.10	112.75	-78.65	21.06	3	Horizontal	0	1.00	-	13.04	20.84	0.22	-

100-300kHz

20/05/2021

0.135MHz_TX



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	388.8k	70.66	95.80	-25.14	20.72	3	Horizontal	360	1.00	-	49.94	20.45	0.27	-
PK	627.6k	65.10	71.65	-6.55	20.69	3	Horizontal	360	1.00	-	44.41	20.40	0.29	-
PK	926.1k	60.41	68.28	-7.87	20.71	3	Horizontal	360	1.00	-	39.70	20.40	0.31	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
WPT	-	-	-	-	-	-	-	-	-	-	-	-
100-300kHz	Pass	QP	37.76M	35.90	40.00	-4.10	-7.13	3	Vertical	360	1.00	-

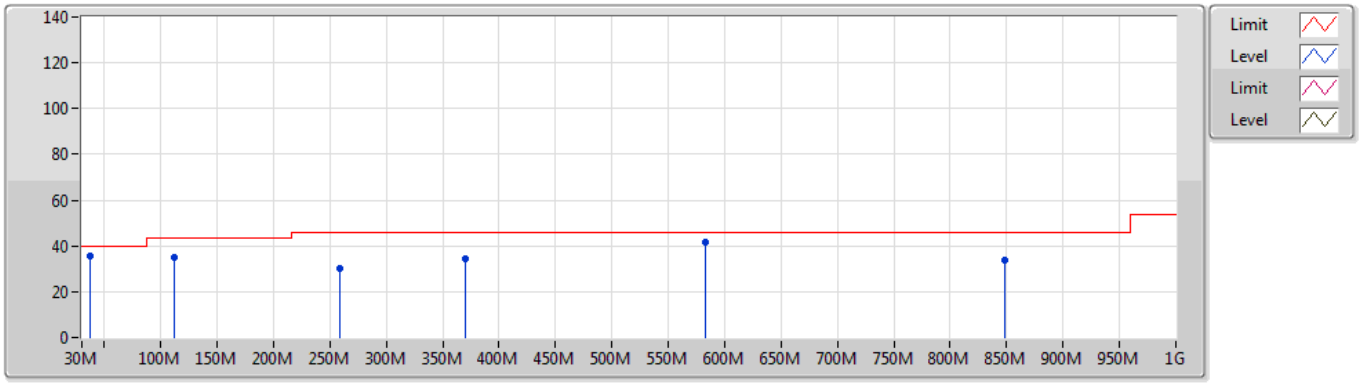
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
100-300kHz	-	-	-	-	-	-	-	-	-	-	-	-
0.135MHz_TX	Pass	PK	111.48M	34.70	43.50	-8.80	-9.06	3	Vertical	360	1.00	-
0.135MHz_TX	Pass	PK	258.92M	30.10	46.00	-15.90	-6.22	3	Vertical	360	1.00	-
0.135MHz_TX	Pass	PK	369.5M	34.59	46.00	-11.41	-4.87	3	Vertical	360	1.00	-
0.135MHz_TX	Pass	PK	582.9M	41.36	46.00	-4.64	-0.92	3	Vertical	360	1.00	-
0.135MHz_TX	Pass	PK	848.68M	33.88	46.00	-12.12	1.88	3	Vertical	360	1.00	-
0.135MHz_TX	Pass	QP	37.76M	35.90	40.00	-4.10	-7.13	3	Vertical	360	1.00	-
0.135MHz_TX	Pass	PK	39.7M	32.68	40.00	-7.32	-8.48	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	173.56M	35.84	43.50	-7.66	-10.91	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	260.86M	38.26	46.00	-7.74	-6.10	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	311.3M	41.34	46.00	-4.66	-5.94	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	PK	840.92M	36.28	46.00	-9.72	1.82	3	Horizontal	0	1.00	-
0.135MHz_TX	Pass	QP	429.64M	41.78	46.00	-4.22	-3.25	3	Horizontal	0	1.00	-

100-300kHz

20/05/2021

0.135MHz_TX

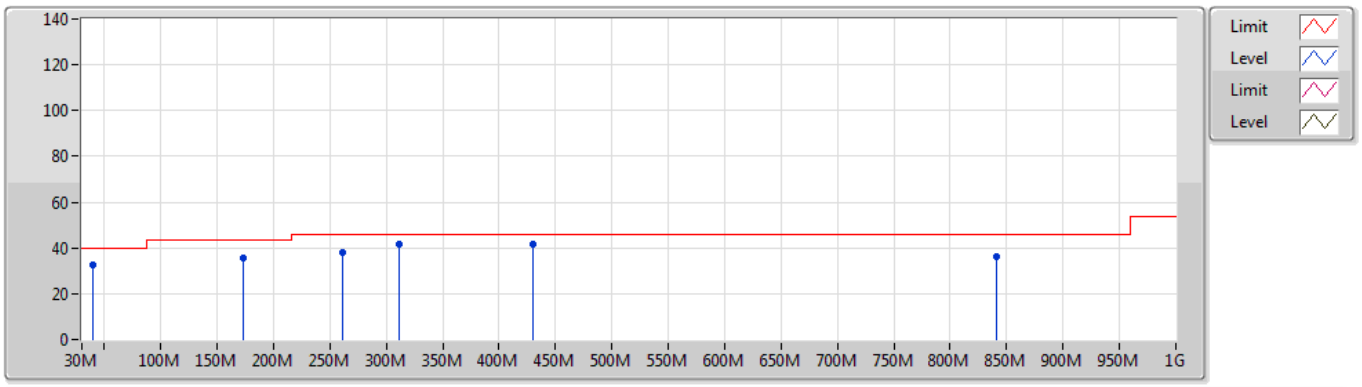


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	111.48M	34.70	43.50	-8.80	-9.06	3	Vertical	360	1.00	-	43.76	17.19	1.49	27.74
PK	258.92M	30.10	46.00	-15.90	-6.22	3	Vertical	360	1.00	-	36.32	18.64	2.19	27.05
PK	369.5M	34.59	46.00	-11.41	-4.87	3	Vertical	360	1.00	-	39.46	19.99	2.62	27.48
PK	582.9M	41.36	46.00	-4.64	-0.92	3	Vertical	360	1.00	-	42.28	24.10	3.31	28.33
PK	848.68M	33.88	46.00	-12.12	1.88	3	Vertical	360	1.00	-	32.00	25.50	3.99	27.61
QP	37.76M	35.90	40.00	-4.10	-7.13	3	Vertical	360	1.00	-	43.03	19.08	0.94	27.15

100-300kHz

20/05/2021

0.135MHz_TX



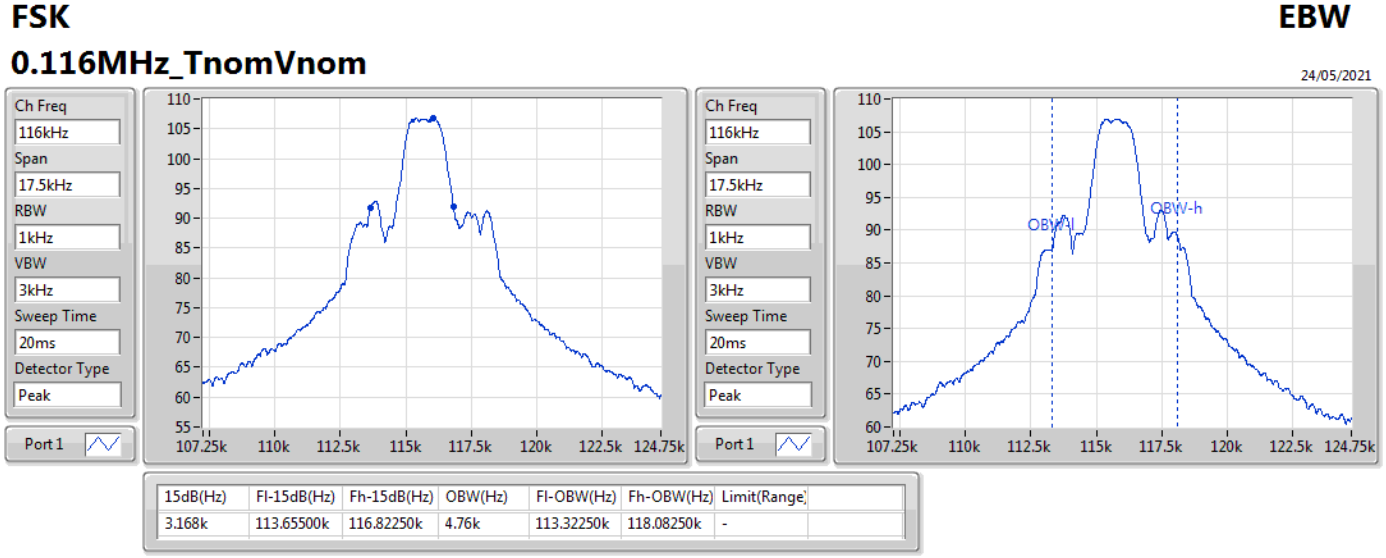
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	39.7M	32.68	40.00	-7.32	-8.48	3	Horizontal	0	1.00	-	41.16	17.89	0.96	27.33
PK	173.56M	35.84	43.50	-7.66	-10.91	3	Horizontal	0	1.00	-	46.75	14.73	1.83	27.47
PK	260.86M	38.26	46.00	-7.74	-6.10	3	Horizontal	0	1.00	-	44.36	18.75	2.20	27.05
PK	311.3M	41.34	46.00	-4.66	-5.94	3	Horizontal	0	1.00	-	47.28	18.76	2.40	27.10
PK	840.92M	36.28	46.00	-9.72	1.82	3	Horizontal	0	1.00	-	34.46	25.49	3.97	27.64
QP	429.64M	41.78	46.00	-4.22	-3.25	3	Horizontal	0	1.00	-	45.03	21.85	2.83	27.93

Summary

Mode	15dB (Hz)	OBW (Hz)
FSK	3.168k	4.76k

Result

Mode	Result	15dB (Hz)	Fl-15dB (Hz)	Fh-15dB (Hz)	OBW (Hz)	Fl-OBW (Hz)	Fh-OBW (Hz)	Limit (Range)
FSK	-	-	-	-	-	-	-	-
0.116MHz_TnomVnom	Pass	3.168k	113.65500k	116.82250k	4.76k	113.32250k	118.08250k	-

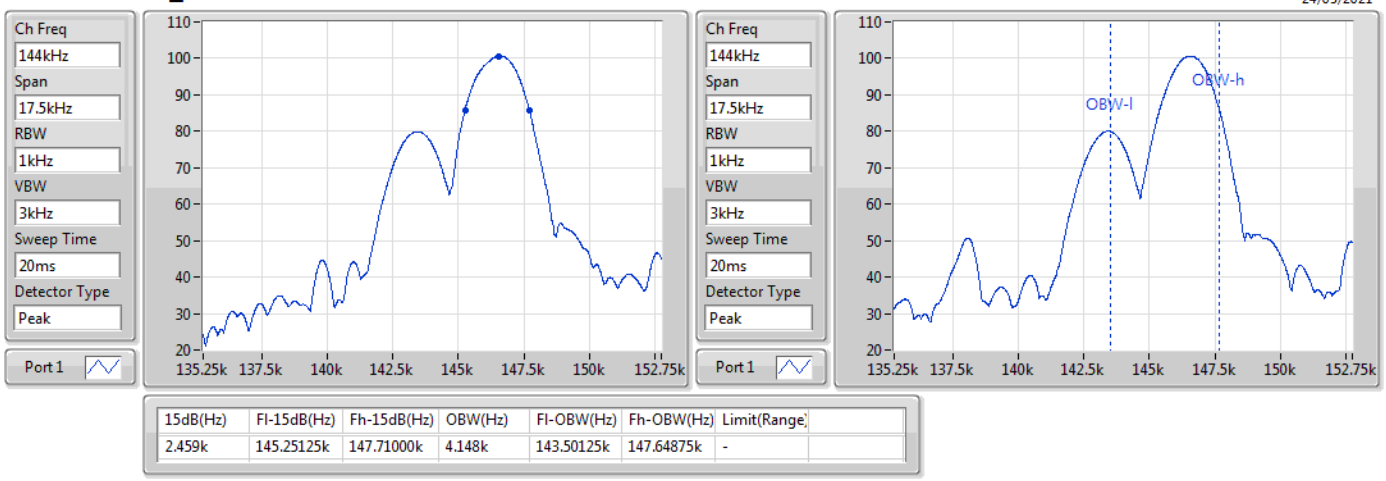

FSK
EBW
0.116MHz_TnomVnom
24/05/2021
Ch Freq
116kHz
Span
17.5kHz
RBW
1kHz
VBW
3kHz
Sweep Time
20ms
Detector Type
Peak
Port 1
110
105
100
95
90
85
80
75
70
65
60
55
107.25k
110k
112.5k
115k
117.5k
120k
122.5k
124.75k
OBW-l
OBW-h
15dB(Hz) Fl-15dB(Hz) Fh-15dB(Hz) OBW(Hz) Fl-OBW(Hz) Fh-OBW(Hz) Limit(Range)
3.168k 113.65500k 116.82250k 4.76k 113.32250k 118.08250k -

Summary

Mode	15dB (Hz)	OBW (Hz)
FSK	2.459k	4.148k

Result

Mode	Result	15dB (Hz)	Fl-15dB (Hz)	Fh-15dB (Hz)	OBW (Hz)	Fl-OBW (Hz)	Fh-OBW (Hz)	Limit (Range)
FSK	-	-	-	-	-	-	-	-
0.144MHz_TnomVnom	Pass	2.459k	145.25125k	147.71000k	4.148k	143.50125k	147.64875k	-

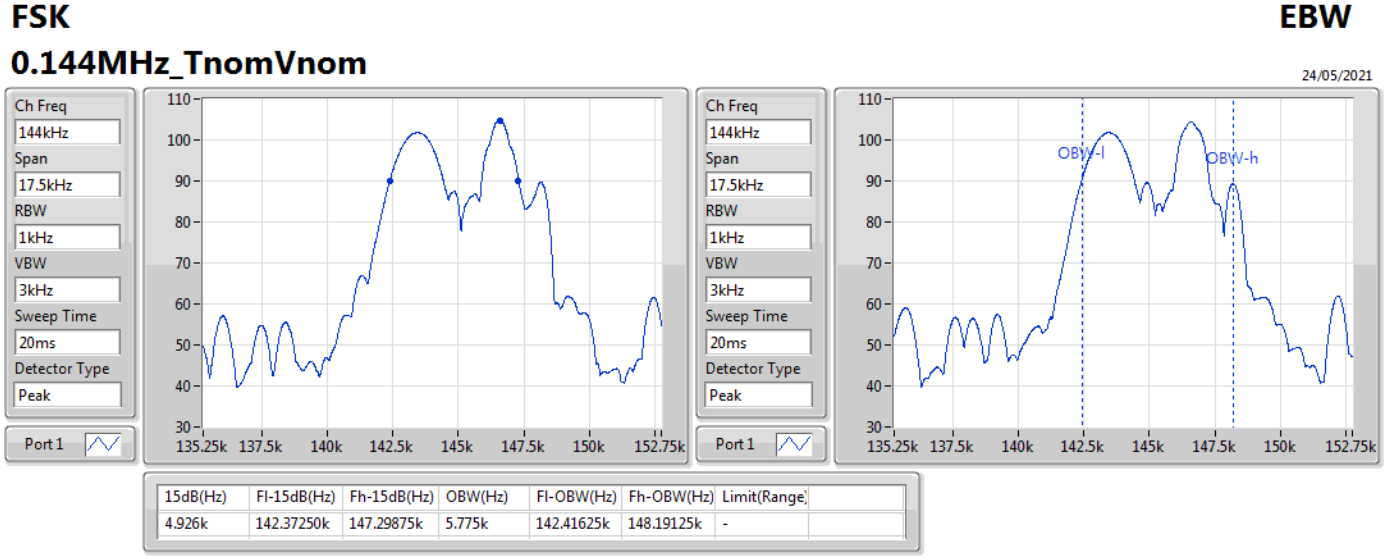

FSK
EBW
0.144MHz_TnomVnom
24/05/2021
Ch Freq
144kHz
Span
17.5kHz
RBW
1kHz
VBW
3kHz
Sweep Time
20ms
Detector Type
Peak
Port 1
110
100
90
80
70
60
50
40
30
20
135.25k 137.5k 140k 142.5k 145k 147.5k 150k 152.75k
OBW-l
OBW-h
15dB(Hz) Fl-15dB(Hz) Fh-15dB(Hz) OBW(Hz) Fl-OBW(Hz) Fh-OBW(Hz) Limit(Range)
2.459k 145.25125k 147.71000k 4.148k 143.50125k 147.64875k -

Summary

Mode	15dB (Hz)	OBW (Hz)
FSK	4.926k	5.775k

Result

Mode	Result	15dB (Hz)	Fl-15dB (Hz)	Fh-15dB (Hz)	OBW (Hz)	Fl-OBW (Hz)	Fh-OBW (Hz)	Limit (Range)
FSK	-	-	-	-	-	-	-	-
0.144MHz_TnomVnom	Pass	4.926k	142.37250k	147.29875k	5.775k	142.41625k	148.19125k	-



15dB(Hz)	Fl-15dB(Hz)	Fh-15dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Range)
4.926k	142.37250k	147.29875k	5.775k	142.41625k	148.19125k	-

THE END