Testing Laboratory
3785

FCC TEST REPORT

FCC ID	:	**HV4DTH172**
Equipment	:	**Creative Pen Display**
Brand Name	:	**Wacom**
Model Name	:	**DTH172, DTH172K0A**
Applicant	:	**Wacom Co., Ltd.** **2-510-1 Toyonodai Kazo-shi, Saitama 349-1148 Japan**
Manufacturer	:	**Wacom Co., Ltd.** **2-510-1 Toyonodai Kazo-shi, Saitama 349-1148 Japan**
Standard	:	**47 CFR FCC Part 15.209**

The product was received on Jan. 10, 2023, and testing was started from Feb. 06, 2023 and completed on Feb. 07, 2023. 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.

Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR2D2924AP	01	Initial issue of report	May 04, 2023

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: Barry Hsiao

Report Producer: Debby Hung

1 General Description

1.1 Information

1.1.1 RF General Information

RF General Information			
Modulation	**Ch. Frequency(kHz)**	**Channel Number**	**Field Strength (dBuV)**
ASK	667	1	60.66
Note 1: Field strength performed peak level at 3m.			

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	-	-	Array Coil Pointing	N/A

1.1.3 Type of EUT

Operational Condition	
EUT Power Type	From AC Adapter / Battery
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 normal mode for worst duty cycle
☐	Operated test mode for worst duty cycle
Test Signal Duty Cycle (x)	
☒	100.00%

1.1.5 Table for Multiple Listing

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

Model Name	Description
DTH172	All the models are identical, the difference model for difference brand served as marketing strategy.
DTH172K0A	

1.2 Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013

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

- KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab.：Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua	**ADD:** No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
(TAF: 3785**)**	**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	Ivan Chung	20.1~20.5°C / 51~53%	07/Feb/2023
RF Conducted	TH07-HY	Xie Xun	23.5~24.6°C / 52~60%	07/Feb/2023
Radiated	03CH03-HY	Simon Cheng	19.5~26.7°C / 47~59%	06/Feb/2023
☐ Wen 33rd.St.	**ADD:** No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
(TAF: 3785**)**	**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%
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	Test Channel Frequencies(kHz)	Field Strength (dBuV/m@3m)
Touch Pen	667	60.66

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	Adapter mode

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emission Bandwidth, Field Strength of Fundamental Emissions Transmitter Radiated Unwanted Emissions		
Test Condition	Radiated measurement		
User Position	☐ EUT will be placed in fixed position.		
	☐ EUT will be placed in mobile position and operating multiple positions. EUT shall be performed three orthogonal planes.		
	☒ EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions.		
Operating Mode	CTX		
1	Adapter mode		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT		V	

2.3 Accessory

Accessories Information				
AC Adapter	**Brand Name**	ITE	**Model Name**	NU65-P200325-I3
	Power Rating	I/P: 100 - 240Vac, 1.5A, O/P: 5 Vdc, 3A , 15.0W 9 Vdc, 3A , 27.0W 15 Vdc, 3A , 45.0W 20.0 Vdc, 3.25A , 65.0W		
	Power Cord	1.8 meter, shielded cable, w/o ferrite core		
USB-C to USB-A Cable	**Brand Name**	Hotron	**Model Name**	5K.5NM09.501
	Signal Line	1.8 meter, shielded cable, w/o ferrite core		
USB-C to USB-C Cable	**Brand Name**	Luxshare	**Model Name**	5K.5NM01.501
	Signal Line	1.8 meter, shielded cable, w/o ferrite core		
DP to DP mini Cable	**Brand Name**	Luxshare	**Model Name**	5K.5NM11.501
	Signal Line	1.8 meter, shielded cable, w/o ferrite core		
HDMI Cable	**Brand Name**	Luxshare	**Model Name**	5K.5NM10.501
	Signal Line	1.8 meter, shielded cable, w/o ferrite core		
Bracket (Big)	**Brand Name**	Wacom	**Model Name**	5J.5NM01.001
Bracket (Small)	**Brand Name**	Wacom	**Model Name**	3K.5NM06.001
Bracket (Small)	**Brand Name**	Wacom	**Model Name**	3K.5NM07.001
Digital pen	**Brand Name**	Wacom	**Model Name**	ACP-500-00
Pen tray	**Brand Name**	Wacom	**Model Name**	SSB-A003

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

2.4 Support Equipment

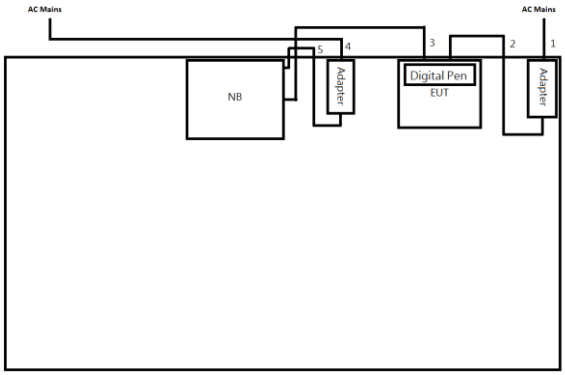
Support Equipment – AC Conduction					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	AC Adapter for NB	HP	HSTNN-LA40	-	-
2	Notebook	HP	S9RBVQB	-	-
3	AC Power cable	Power Sync	PW-GPC180-3	-	-

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

Support Equipment – Radiated					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	HP	HSTNN-142C	-	-
2	Adapter	HP	HSTNN-CA40	-	-
3	AC Power Cable	Power sync	PW-GPC180-3	-	-

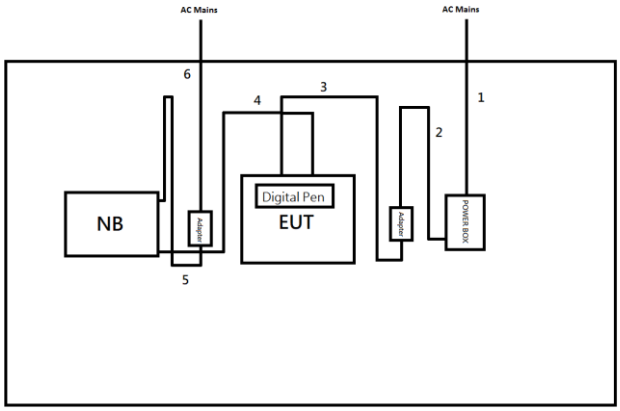
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.0	-
2	DC Power cable	Yes	1.8	-
3	USB-C to USB-C Cable	Yes	1.8	-
4	AC Power cable	No	1.8	-
5	DC Power cable	No	1.5	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC Power cable	No	1.0	-
3	DC Power cable	Yes	1.8	-
4	USB-C to USB-C Cable	Yes	1.8	-
5	DC Power cable	No	1.5	-
6	AC Power cable	No	1.8	-

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

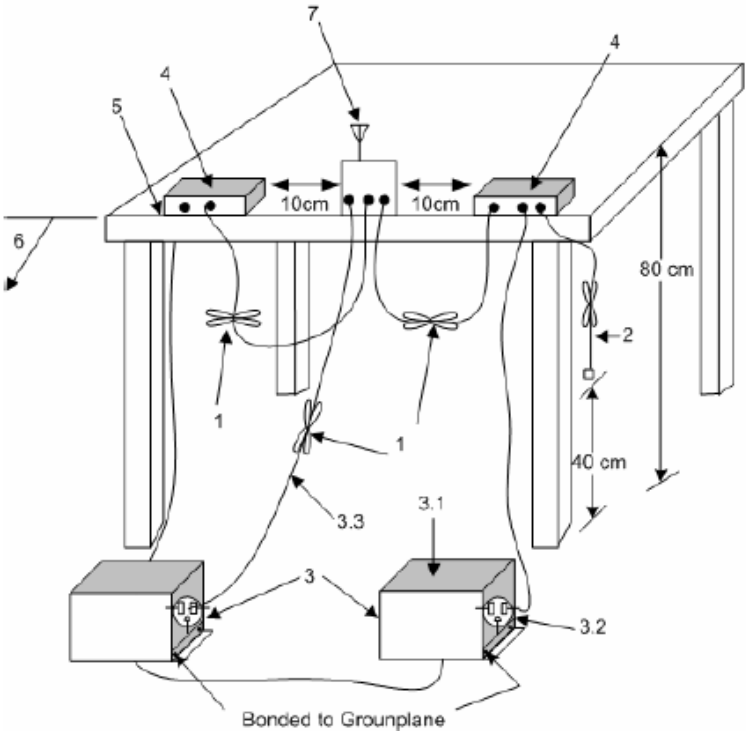
Test Method	
☒	Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.
☒	If AC conducted emissions fall in operating band, then following below test method confirm final result.
☐	Accept measurements done with a suitable dummy load replacing the antenna under the following conditions: (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

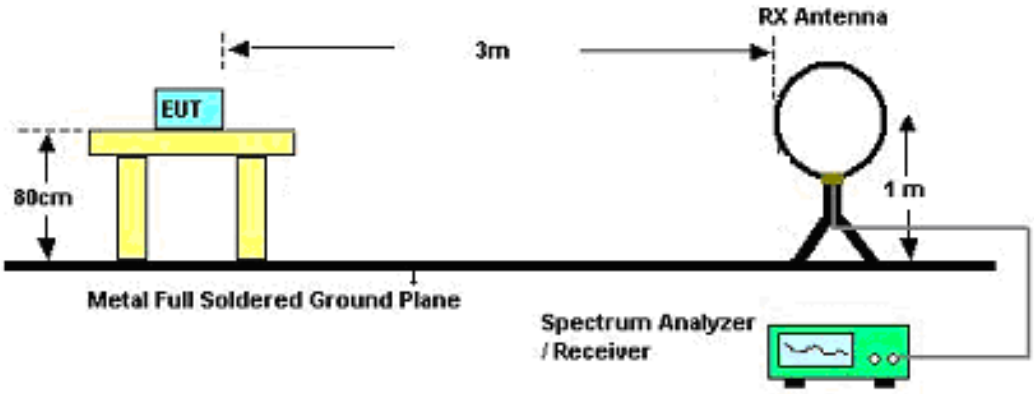
Test Method		
☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1 GHz and test distance is 3m.	
☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz. The frequency bands 9-90 kHz, 110-490 kHz measurements employing an average detector and other below 30MHz measurements employing a CISPR quasi-peak detector. Test distance is 3m.	
☒	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. Note: If fundamental emission level is smaller than noise at 3m , we will change distance to 1m.	
	☐	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

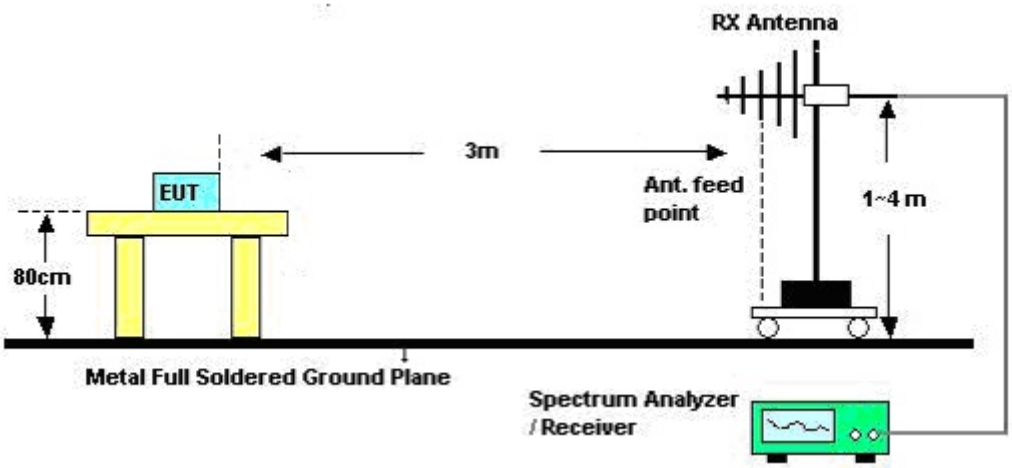
The measured Level is calculated using:
Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

3.2.5 Test Setup

Transmitter Radiated Emissions



Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna. The center of the loop shall be 1 m above the ground.



Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna. the antenna height shall be varied from 1 m to 4 m.

3.2.6 Test Result of Transmitter Radiated Emissions

Refer as Appendix B

3.3 Emission Bandwidth

3.3.1 Emission Bandwidth Limit

Emission Bandwidth Limit
N/A

3.3.2 Measuring Instruments

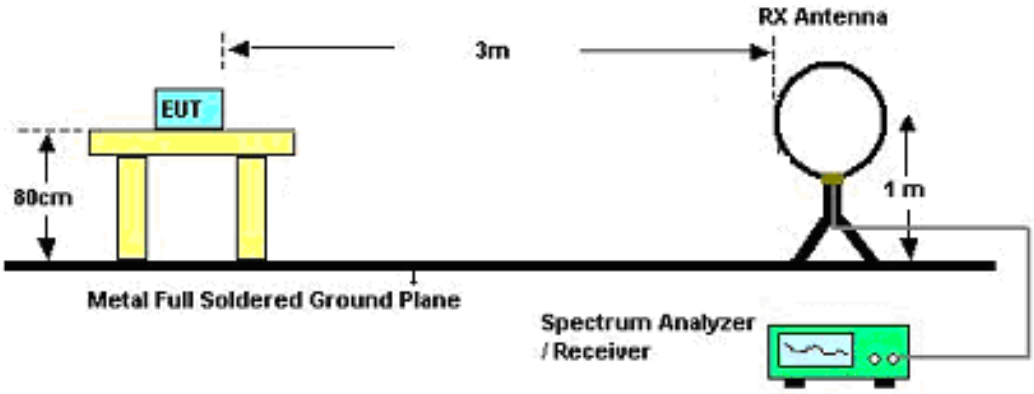
Refer a test equipment and calibration data table in this test report.

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.	Characteristics	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR	102051	9kHz ~ 3.6GHz	13/May/2022	12/May/2023
Two-Line V-Network	R&S	ENV 216	100003	9kHz ~ 30MHz	18/Feb/2022	17/Feb/2023
LISN(Artificial Mains Network)	SCHWARZBECK	NSLK 8127	8127477	9kHz – 30MHz	15/Mar/2022	14/Mar/2023
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	01/Mar/2022	28/Feb/2023
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	25/Oct/2022	24/Oct/2023

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer / Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101515	10Hz~40GHz	14/Feb/2022	13/Feb/2023
SENSE-NFC	Sporton	V5.11.0	N/A	N/A	N/A	N/A

Instrument for Radiated Test

Instrument	Manufacturer / Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	01/Aug/2022	31/Jul/2023
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	26/Oct/2022	25/Oct/2023
Amplifier	HP	8447D	2944A08033	10kHz~1.3GHz	08/Apr/2022	07/Apr/2023
Bilog Antenna & 6dB Attenuator	SCHAFFNER / EMCI	CBL6112B / N-6-05	22237 / AT-N-0603	30MHz~1GHz	16/Oct/2022	15/Oct/2023
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz~30MHz	13/Jun/2022	12/Jun/2023
RF Cable-R03m	Jye Bao	RG142	MY37335/4+CB021-1+CB021-2	30MHz~1GHz	22/Mar/2022	21/Mar/2023
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	18/Mar/2022	17/Mar/2023
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	30/May/2022	29/May/2023
SENSE-303417	Sporton	V5.10.4	N/A	N/A	N/A	N/A

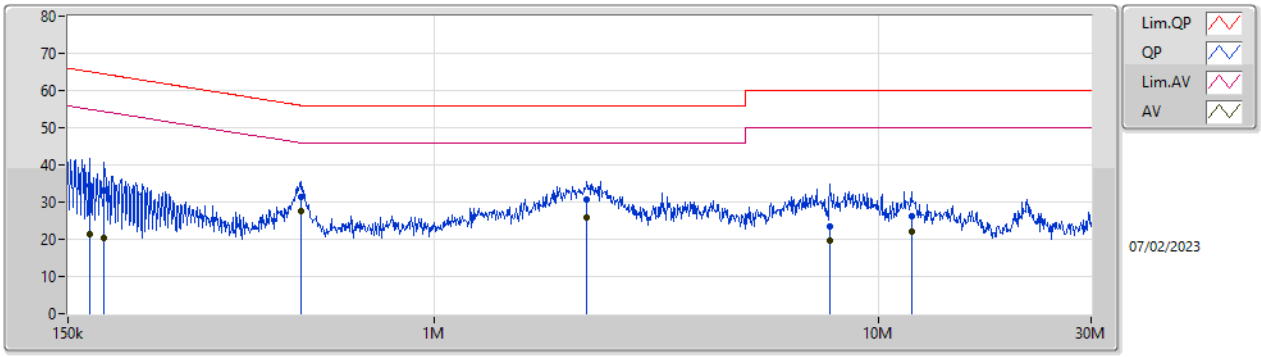
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	492.876k	28.65	46.11	-17.46	Neutral

Result

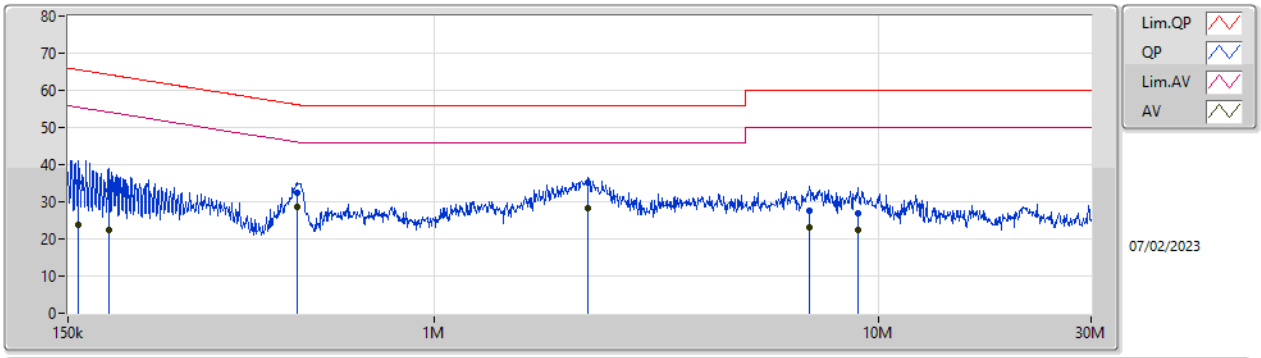
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	168.41k	34.60	65.04	-30.44	Line	-
Mode 1	Pass	AV	168.41k	21.27	55.04	-33.77	Line	-
Mode 1	Pass	QP	180.957k	33.22	64.43	-31.21	Line	-
Mode 1	Pass	AV	180.957k	20.41	54.43	-34.02	Line	-
Mode 1	Pass	QP	502.813k	31.49	56.00	-24.51	Line	-
Mode 1	Pass	AV	502.813k	27.55	46.00	-18.45	Line	-
Mode 1	Pass	QP	2.202M	30.66	56.00	-25.34	Line	-
Mode 1	Pass	AV	2.202M	26.03	46.00	-19.97	Line	-
Mode 1	Pass	QP	7.776M	23.33	60.00	-36.67	Line	-
Mode 1	Pass	AV	7.776M	19.50	50.00	-30.50	Line	-
Mode 1	Pass	QP	11.824M	26.23	60.00	-33.77	Line	-
Mode 1	Pass	AV	11.824M	21.93	50.00	-28.07	Line	-
Mode 1	Pass	QP	158.622k	35.34	65.54	-30.20	Neutral	-
Mode 1	Pass	AV	158.622k	23.87	55.54	-31.67	Neutral	-
Mode 1	Pass	QP	185.344k	32.95	64.24	-31.29	Neutral	-
Mode 1	Pass	AV	185.344k	22.40	54.24	-31.84	Neutral	-
Mode 1	Pass	QP	492.876k	32.49	56.11	-23.62	Neutral	-
Mode 1	Pass	AV	492.876k	28.65	46.11	-17.46	Neutral	-
Mode 1	Pass	QP	2.211M	35.34	56.00	-20.66	Neutral	-
Mode 1	Pass	AV	2.211M	28.28	46.00	-17.72	Neutral	-
Mode 1	Pass	QP	6.981M	27.65	60.00	-32.35	Neutral	-
Mode 1	Pass	AV	6.981M	23.16	50.00	-26.84	Neutral	-
Mode 1	Pass	QP	8.977M	26.83	60.00	-33.17	Neutral	-
Mode 1	Pass	AV	8.977M	22.50	50.00	-27.50	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	168.41k	34.60	65.04	-30.44	19.65	Line	-	14.95	9.69	0.03	9.93
AV	168.41k	21.27	55.04	-33.77	19.65	Line	-	1.62	9.69	0.03	9.93
QP	180.957k	33.22	64.43	-31.21	19.65	Line	-	13.57	9.69	0.03	9.93
AV	180.957k	20.41	54.43	-34.02	19.65	Line	-	0.76	9.69	0.03	9.93
QP	502.813k	31.49	56.00	-24.51	19.68	Line	-	11.81	9.68	0.04	9.96
AV	502.813k	27.55	46.00	-18.45	19.68	Line	-	7.87	9.68	0.04	9.96
QP	2.202M	30.66	56.00	-25.34	19.73	Line	-	10.93	9.70	0.09	9.94
AV	2.202M	26.03	46.00	-19.97	19.73	Line	-	6.30	9.70	0.09	9.94
QP	7.776M	23.33	60.00	-36.67	19.90	Line	-	3.43	9.78	0.17	9.95
AV	7.776M	19.50	50.00	-30.50	19.90	Line	-	-0.40	9.78	0.17	9.95
QP	11.824M	26.23	60.00	-33.77	19.97	Line	-	6.26	9.81	0.20	9.96
AV	11.824M	21.93	50.00	-28.07	19.97	Line	-	1.96	9.81	0.20	9.96

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	158.622k	35.34	65.54	-30.20	19.69	Neutral	-	15.65	9.73	0.03	9.93
AV	158.622k	23.87	55.54	-31.67	19.69	Neutral	-	4.18	9.73	0.03	9.93
QP	185.344k	32.95	64.24	-31.29	19.68	Neutral	-	13.27	9.72	0.03	9.93
AV	185.344k	22.40	54.24	-31.84	19.68	Neutral	-	2.72	9.72	0.03	9.93
QP	492.876k	32.49	56.11	-23.62	19.72	Neutral	-	12.77	9.72	0.04	9.96
AV	492.876k	28.65	46.11	-17.46	19.72	Neutral	-	8.93	9.72	0.04	9.96
QP	2.211M	35.34	56.00	-20.66	19.77	Neutral	-	15.57	9.74	0.09	9.94
AV	2.211M	28.28	46.00	-17.72	19.77	Neutral	-	8.51	9.74	0.09	9.94
QP	6.981M	27.65	60.00	-32.35	19.95	Neutral	-	7.70	9.84	0.16	9.95
AV	6.981M	23.16	50.00	-26.84	19.95	Neutral	-	3.21	9.84	0.16	9.95
QP	8.977M	26.83	60.00	-33.17	20.00	Neutral	-	6.83	9.87	0.17	9.96
AV	8.977M	22.50	50.00	-27.50	20.00	Neutral	-	2.50	9.87	0.17	9.96

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
SRD	-	-	-	-	-	-	-	-	-	-	-	-
0.667MHz	Pass	PK	666.4k	60.66	71.13	-10.47	20.34	3	Horizontal	0	1.00	-

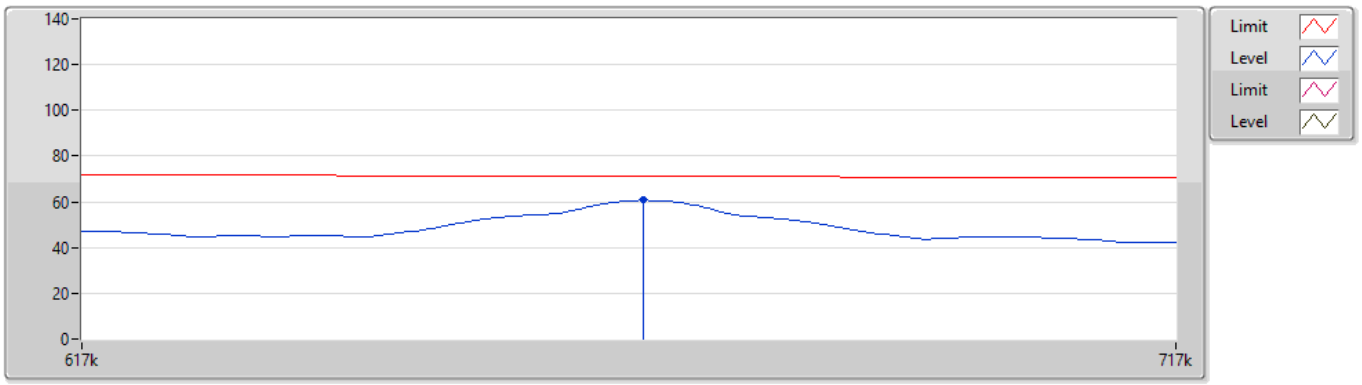
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
SRD	-	-	-	-	-	-	-	-	-	-	-	-
0.667MHz_TX	Pass	PK	666.4k	60.66	71.13	-10.47	20.34	3	Horizontal	0	1.00	-
0.667MHz_TX	Pass	PK	24.228k	64.78	119.90	-55.12	21.10	3	Horizontal	360	1.00	-
0.667MHz_TX	Pass	PK	41.43k	59.17	115.25	-56.08	21.14	3	Horizontal	360	1.00	-
0.667MHz_TX	Pass	PK	91.626k	53.12	108.35	-55.23	19.88	3	Horizontal	360	1.00	-
0.667MHz_TX	Pass	PK	627.6k	53.01	71.65	-18.64	20.32	3	Horizontal	0	1.00	-
0.667MHz_TX	Pass	PK	985.8k	43.85	67.74	-23.89	20.42	3	Horizontal	0	1.00	-
0.667MHz_TX	Pass	PK	2.12M	42.95	69.50	-26.55	19.99	3	Horizontal	0	1.00	-

SRD

06/02/2023

0.667MHz_TX

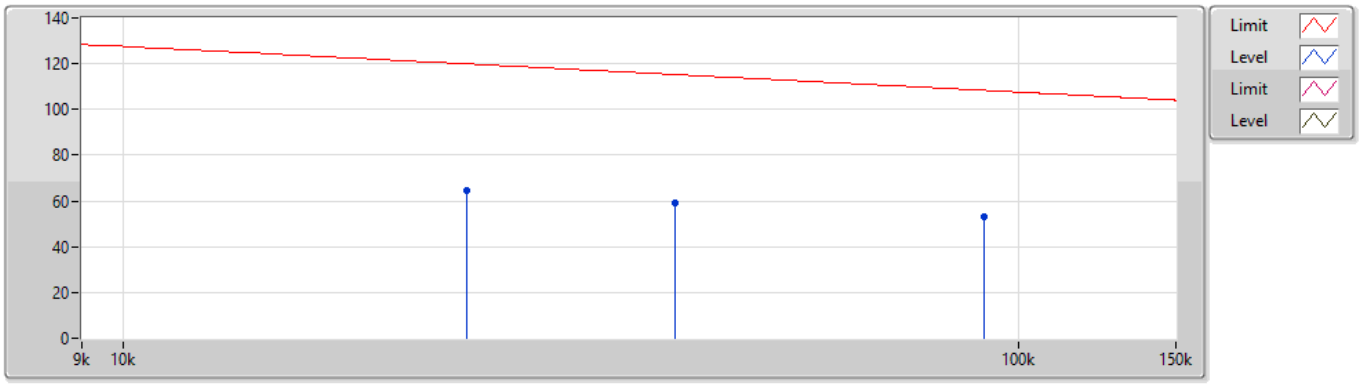


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	666.4k	60.66	71.13	-10.47	20.34	3	Horizontal	0	1.00	40.32	20.24	0.10	-

SRD

06/02/2023

0.667MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	24.228k	64.78	119.90	-55.12	21.10	3	Horizontal	360	1.00	43.68	21.07	0.03	-
PK	41.43k	59.17	115.25	-56.08	21.14	3	Horizontal	360	1.00	38.03	21.10	0.04	-
PK	91.626k	53.12	108.35	-55.23	19.88	3	Horizontal	360	1.00	33.24	19.84	0.04	-

SRD

0.667MHz_TX

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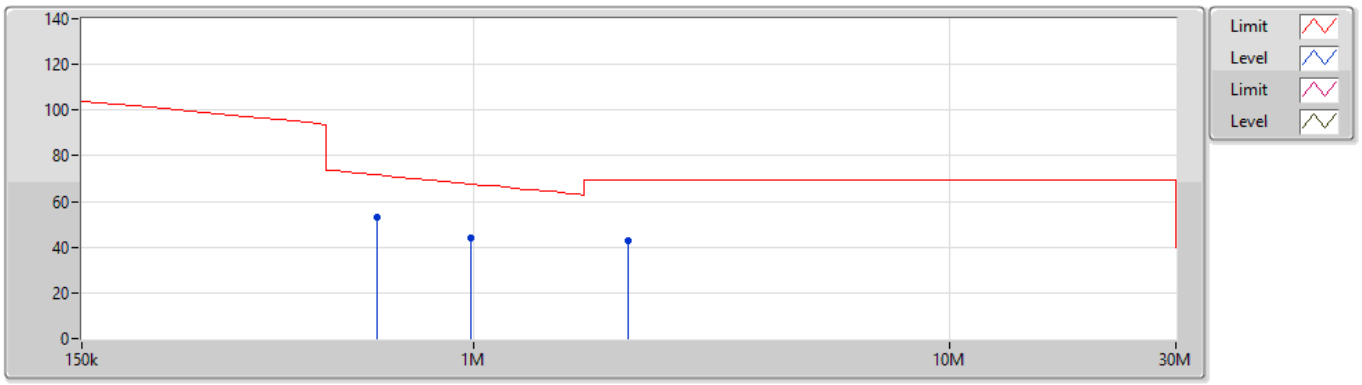


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	627.6k	53.01	71.65	-18.64	20.32	3	Horizontal	0	1.00	32.69	20.23	0.09	-
PK	985.8k	43.85	67.74	-23.89	20.42	3	Horizontal	0	1.00	23.43	20.30	0.12	-
PK	2.12M	42.95	69.50	-26.55	19.99	3	Horizontal	0	1.00	22.96	19.82	0.17	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
SRD	-	-	-	-	-	-	-	-	-	-	-	-
0.667MHz	Pass	PK	33.88M	32.05	40.00	-7.95	-5.34	3	Vertical	360	1.00	-

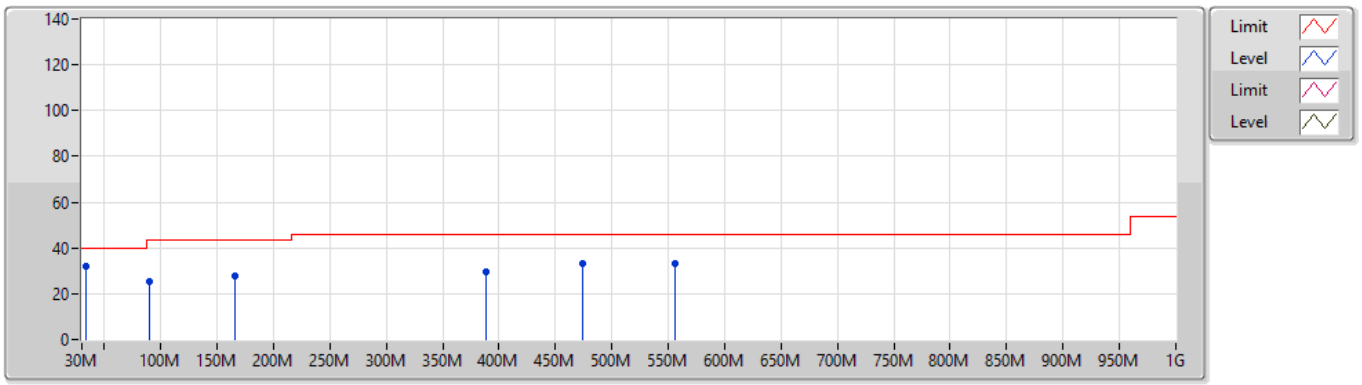
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
SRD	-	-	-	-	-	-	-	-	-	-	-	-
0.667MHz_TX	Pass	PK	33.88M	32.05	40.00	-7.95	-5.34	3	Vertical	360	1.00	-
0.667MHz_TX	Pass	PK	90.14M	25.61	43.50	-17.89	-11.52	3	Vertical	360	1.00	-
0.667MHz_TX	Pass	PK	165.8M	27.57	43.50	-15.93	-10.03	3	Vertical	360	1.00	-
0.667MHz_TX	Pass	PK	388.9M	29.50	46.00	-16.50	-3.37	3	Vertical	360	1.00	-
0.667MHz_TX	Pass	PK	474.26M	33.34	46.00	-12.66	-1.27	3	Vertical	360	1.00	-
0.667MHz_TX	Pass	PK	555.74M	33.44	46.00	-12.56	0.32	3	Vertical	360	1.00	-
0.667MHz_TX	Pass	PK	115.36M	29.99	43.50	-13.51	-8.14	3	Horizontal	0	1.00	-
0.667MHz_TX	Pass	PK	183.26M	34.01	43.50	-9.49	-10.37	3	Horizontal	0	1.00	-
0.667MHz_TX	Pass	PK	317.12M	31.79	46.00	-14.21	-5.06	3	Horizontal	0	1.00	-
0.667MHz_TX	Pass	PK	476.2M	33.23	46.00	-12.77	-1.26	3	Horizontal	0	1.00	-
0.667MHz_TX	Pass	PK	553.8M	31.84	46.00	-14.16	0.36	3	Horizontal	0	1.00	-
0.667MHz_TX	Pass	PK	664.38M	31.23	46.00	-14.77	0.77	3	Horizontal	0	1.00	-

SRD

06/02/2023

0.667MHz_TX

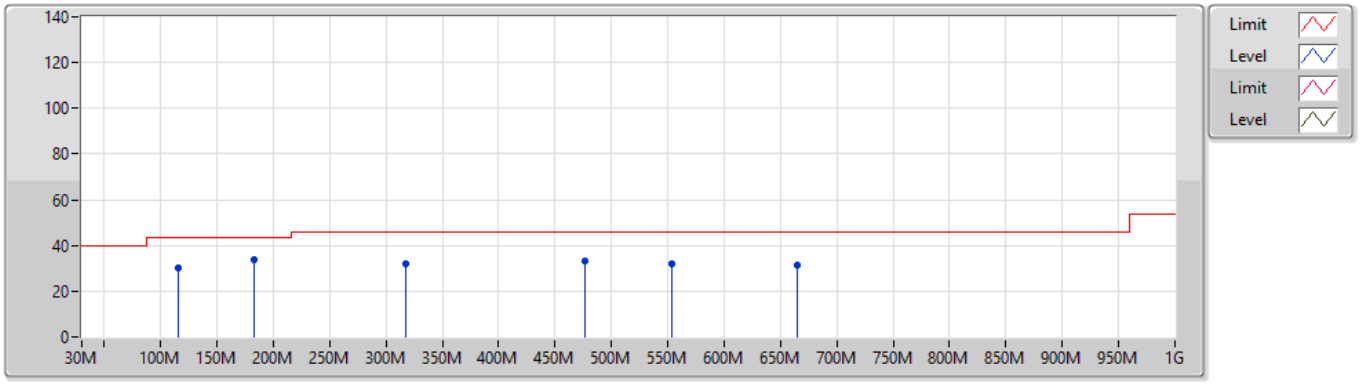


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	33.88M	32.05	40.00	-7.95	-5.34	3	Vertical	360	1.00	37.39	21.26	0.93	27.53
PK	90.14M	25.61	43.50	-17.89	-11.52	3	Vertical	360	1.00	37.13	14.34	1.54	27.40
PK	165.8M	27.57	43.50	-15.93	-10.03	3	Vertical	360	1.00	37.60	14.93	2.12	27.08
PK	388.9M	29.50	46.00	-16.50	-3.37	3	Vertical	360	1.00	32.87	20.42	3.33	27.12
PK	474.26M	33.34	46.00	-12.66	-1.27	3	Vertical	360	1.00	34.61	22.69	3.70	27.66
PK	555.74M	33.44	46.00	-12.56	0.32	3	Vertical	360	1.00	33.12	24.31	4.00	27.99

SRD

06/02/2023

0.667MHz_TX



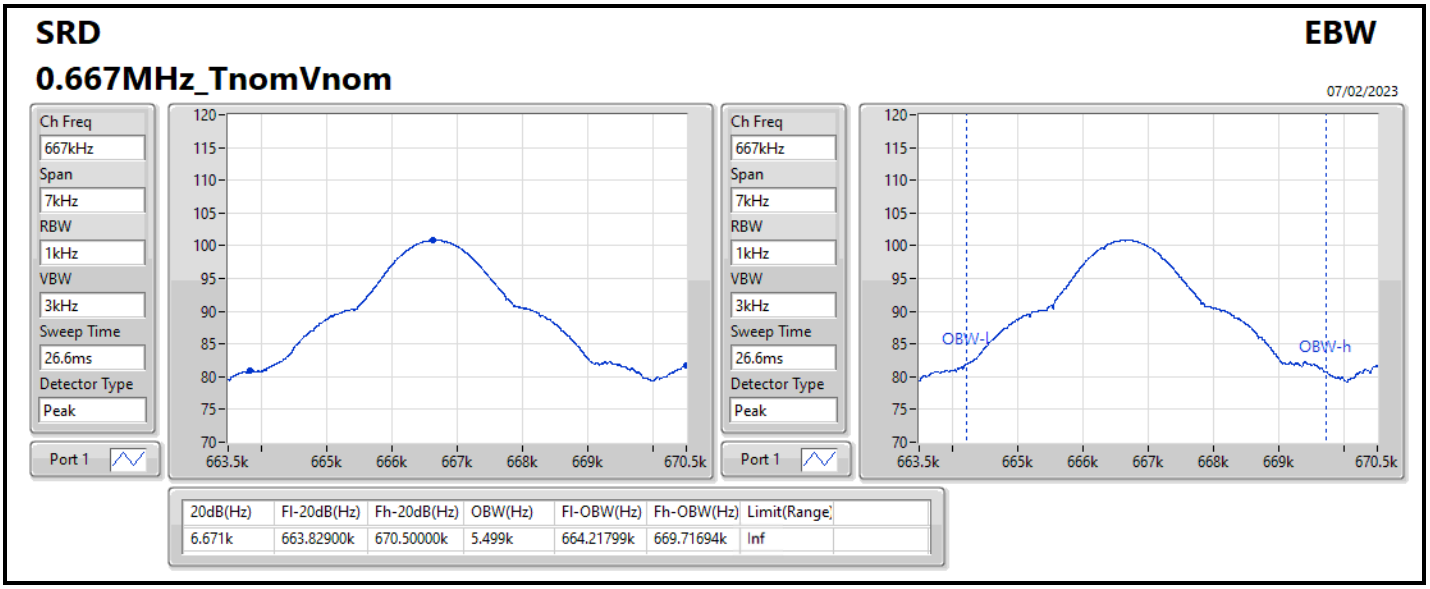
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	115.36M	29.99	43.50	-13.51	-8.14	3	Horizontal	0	1.00	38.13	17.40	1.76	27.30
PK	183.26M	34.01	43.50	-9.49	-10.37	3	Horizontal	0	1.00	44.38	14.36	2.24	26.97
PK	317.12M	31.79	46.00	-14.21	-5.06	3	Horizontal	0	1.00	36.85	18.64	3.00	26.70
PK	476.2M	33.23	46.00	-12.77	-1.26	3	Horizontal	0	1.00	34.49	22.70	3.71	27.67
PK	553.8M	31.84	46.00	-14.16	0.36	3	Horizontal	0	1.00	31.48	24.36	3.99	27.99
PK	664.38M	31.23	46.00	-14.77	0.77	3	Horizontal	0	1.00	30.46	24.32	4.44	27.99

Summary

Mode	20dB (Hz)	Fl-20dB (Hz)	Fh-20dB (Hz)	OBW (Hz)	Limit (Range)
SRD	-	-	-	-	-
0.667MHz	6.671k	663.82900k	670.50000k	5.499k	Inf

Result

Mode	Result	20dB (Hz)	Fl-20dB (Hz)	Fh-20dB (Hz)	OBW (Hz)	Fl-OBW (Hz)	Fh-OBW (Hz)	Limit (Range)
SRD	-	-	-	-	-	-	-	-
0.667MHz_TnomVnom	Pass	6.671k	663.82900k	670.50000k	5.499k	664.21799k	669.71694k	Inf


SRD
EBW
0.667MHz_TnomVnom
07/02/2023
Ch Freq
667kHz
Span
7kHz
RBW
1kHz
VBW
3kHz
Sweep Time
26.6ms
Detector Type
Peak
Port 1
120
115
110
105
100
95
90
85
80
75
70
663.5k
665k
666k
667k
668k
669k
670.5k
OBW-l
OBW-h
20dB(Hz)
Fl-20dB(Hz)
Fh-20dB(Hz)
OBW(Hz)
Fl-OBW(Hz)
Fh-OBW(Hz)
Limit(Range)
6.671k
663.82900k
670.50000k
5.499k
664.21799k
669.71694k
Inf