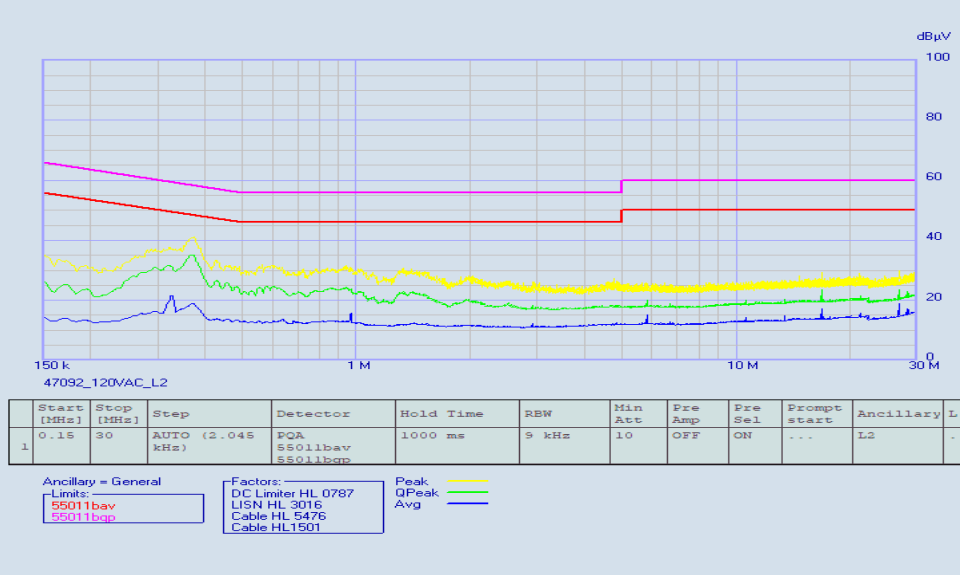
Test specification:	**FCC 47 CFR, Section 15.207 / RSS-Gen sec.8.8, Conducted emissions**		
Test procedure:	ANSI C63.4, Section 7.3		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	**Relative Humidity:** 54 %	**Air Pressure:** 1012 hPa	**Power:** 120 VAC, 50 Hz
Remarks:			

Plot 7.8.2 Conducted emission measurements

LINE:	L2
EUT OPERATING MODE:	Transmit
LIMIT:	QUASI-PEAK, AVERAGE
DETECTOR:	PEAK



Test specification:	**FCC section 15.203, RSS-Gen section 6.8, Antenna requirement**		
Test procedure:	Visual inspection		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	**Relative Humidity:** 54 %	**Air Pressure:** 1012 hPa	**Power:** 3.7 VDC
Remarks:			

7.9 Antenna requirements

The EUT was verified for compliance with antenna requirements. A transmitter shall be designed to ensure that no antenna other than that furnished by the responsible party will be used with the device. It may be either permanently attached or employs a unique antenna connector for every antenna proposed for use with the EUT. This requirement does not apply to professionally installed transmitters.
The rationale for compliance with the above requirements was either visual inspection results or supplier declaration. The summary of results is provided in Table 7.9.1.

Table 7.9.1 Antenna requirements

Requirement	Rationale	Verdict
The transmitter antenna is permanently attached	Visual inspection	Comply
The transmitter employs a unique antenna connector	NA	
The transmitter requires professional installation	NA	

Test specification:	Section 15.107, Conducted emission at AC power port		
Test procedure:	ANSI C63.4, Sections 11.5 and 12.1.3		
Test mode:	Compliance	Verdict:	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	Relative Humidity: 54 %	Air Pressure: 1012 hPa	Power: 120 VAC, 50 Hz
Remarks:			

8 Emissions tests according to FCC 47CFR part 15 subpart B and ICES-003 requirements

8.1 Conducted emissions

8.1.1 General

This test was performed to measure common mode conducted emissions at the mains power port.
Specification test limits are given in Table 8.1.1. The worst test results (the lowest margins) were recorded in Table 8.1.1 and shown in the associated plots.

Table 8.1.1 Limits for conducted emissions

Frequency, MHz	Class B limit, dB(μV)		Class A limit, dB(μV)	
	QP	AVRG	QP	AVRG
0.15 - 0.5	66 - 56*	56 - 46*	79	66
0.5 - 5.0	56	46	73	60
5.0 - 30	60	50	73	60

* The limit decreases linearly with the logarithm of frequency.

8.1.2 Test procedure

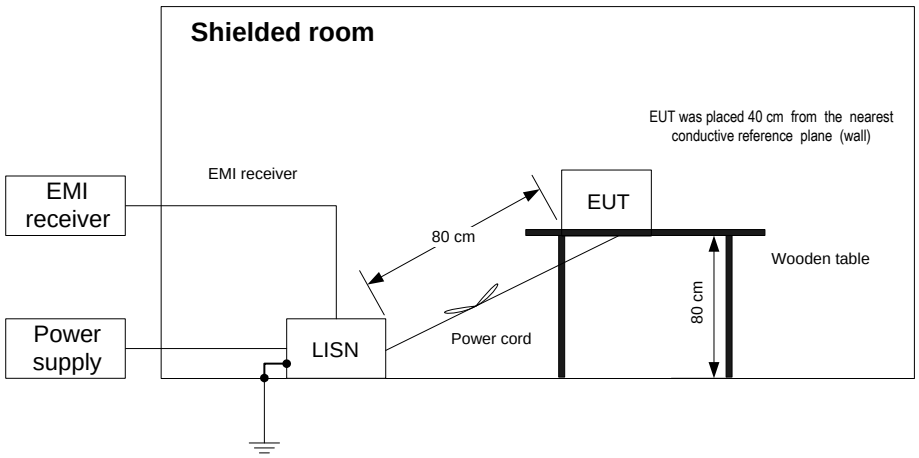
8.1.2.1 The EUT was set up as shown in Figure 8.1.1 and associated photographs, energized and the performance check was conducted.

8.1.2.2 The measurements were performed at power terminals with the LISN, connected to a spectrum analyzer in the frequency range referred to in Table 8.1.2. and Table 8.1.3. Unused coaxial connector of the LISN was terminated with 50 Ohm. Quasi-peak and average detectors were used throughout the testing.

8.1.2.3 The position of the device cables was varied to determine maximum emission level.

Test specification:	Section 15.107, Conducted emission at AC power port		
Test procedure:	ANSI C63.4, Sections 11.5 and 12.1.3		
Test mode:	Compliance	Verdict:	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	Relative Humidity: 54 %	Air Pressure: 1012 hPa	Power: 120 VAC, 50 Hz
Remarks:			

Figure 8.1.1 Setup for conducted emission measurements, table-top equipment



Test specification:	**Section 15.107, Conducted emission at AC power port**		
Test procedure:	ANSI C63.4, Sections 11.5 and 12.1.3		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	**Relative Humidity:** 54 %	**Air Pressure:** 1012 hPa	**Power:** 120 VAC, 50 Hz
Remarks:			

Table 8.1.2 Conducted emission test results

LINE: AC mains
LIMIT: Class B
EUT OPERATING MODE: Receive
EUT SET UP: TABLE-TOP
TEST SITE: SHIELDED ROOM
DETECTORS USED: PEAK / QUASI-PEAK / AVERAGE
FREQUENCY RANGE: 150 kHz - 30 MHz
RESOLUTION BANDWIDTH: 9 kHz

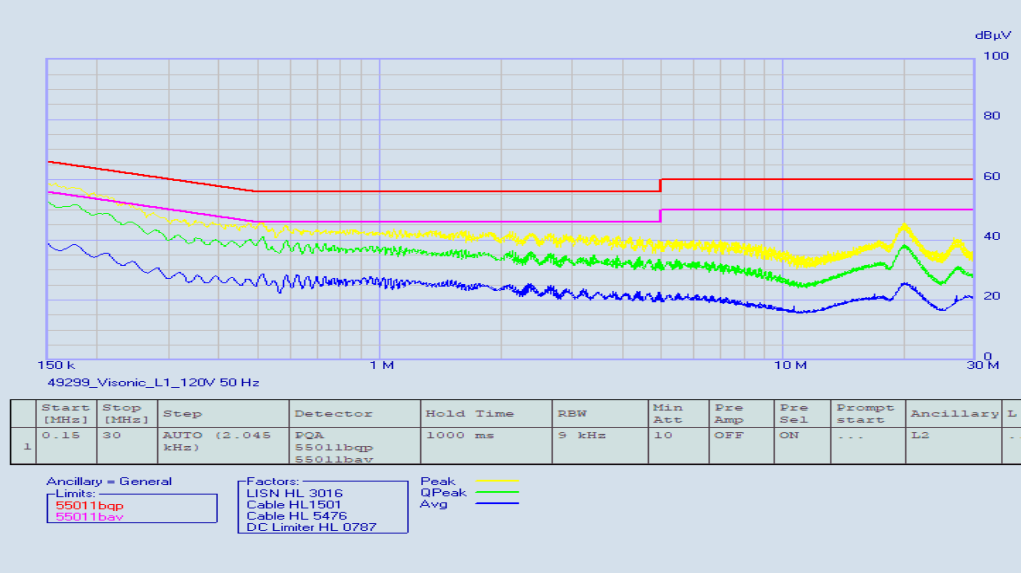
Frequency, MHz	Peak emission, dB(µV)	Quasi-peak			Average			Line ID	Verdict
		Measured emission, dB(µV)	Limit, dB(µV)	Margin, dB*	Measured emission, dB(µV)	Limit, dB(µV)	Margin, dB*		
0.1500	NA	52.72	66.0	-13.28	39.06	56.0	-16.94	L1	Pass
0.1725	NA	51.48	64.84	-13.36	38.11	54.84	-16.73		
0.1745	NA	51.62	64.74	-13.12	38.29	54.74	-16.45		
0.1766	NA	51.77	64.64	-12.87	38.36	54.64	-16.28		
0.1786	NA	51.58	64.55	-12.97	38.16	54.55	-16.39		
0.1807	NA	51.21	64.45	-13.24	37.67	54.45	-16.78		
0.5385	NA	39.67	56.0	-16.33	30.61	46.0	-15.39	L2	Pass
0.5406	NA	39.83	56.0	-16.17	31.79	46.0	-14.21		
0.5426	NA	39.96	56.0	-16.04	32.36	46.0	-13.64		
0.5446	NA	40.43	56.0	-15.57	32.40	46.0	-13.6		
0.5467	NA	40.61	56.0	-15.39	31.98	46.0	-14.02		
0.5487	NA	40.04	56.0	-15.96	31.25	46.0	-14.75		

*****- Margin = Measured emission - specification limit.

Test specification:	**Section 15.107, Conducted emission at AC power port**		
Test procedure:	ANSI C63.4, Sections 11.5 and 12.1.3		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	**Relative Humidity:** 54 %	**Air Pressure:** 1012 hPa	**Power:** 120 VAC, 50 Hz
Remarks:			

Plot 8.1.1 Conducted emission measurements

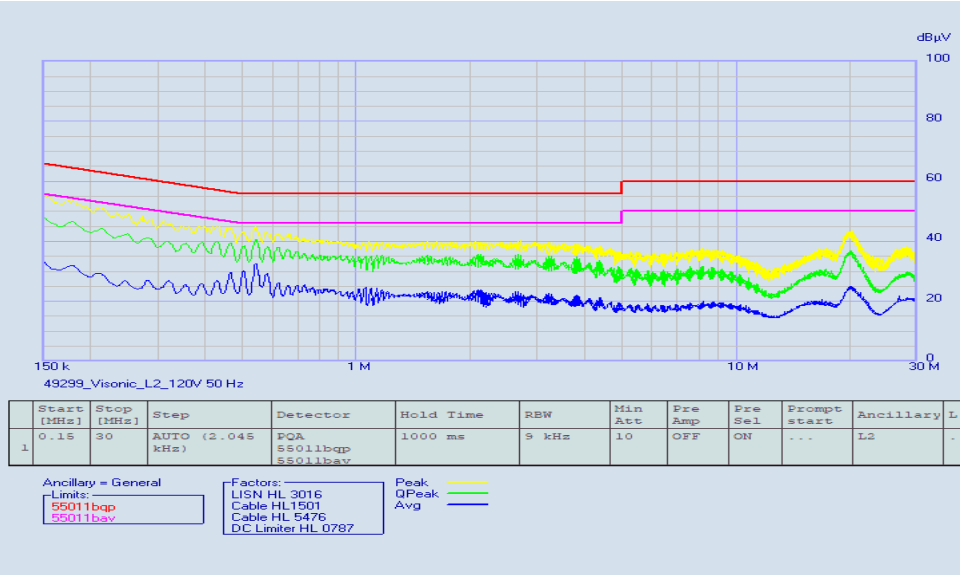
LINE:	L1
LIMIT:	Class B
EUT OPERATING MODE:	Receive
LIMIT:	QUASI-PEAK, AVERAGE
DETECTOR:	PEAK



Test specification:	**Section 15.107, Conducted emission at AC power port**		
Test procedure:	ANSI C63.4, Sections 11.5 and 12.1.3		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	**Relative Humidity:** 54 %	**Air Pressure:** 1012 hPa	**Power:** 120 VAC, 50 Hz
Remarks:			

Plot 8.1.2 Conducted emission measurements

LINE:	L2
LIMIT:	Class B
EUT OPERATING MODE:	Receive
LIMIT:	QUASI-PEAK, AVERAGE
DETECTOR:	PEAK



Test specification:	**Section 15.107, Conducted emission at AC power port**		
Test procedure:	ANSI C63.4, Sections 11.5 and 12.1.3		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	**Relative Humidity:** 54 %	**Air Pressure:** 1012 hPa	**Power:** 120 VAC, 50 Hz
Remarks:			

Table 8.1.3 Conducted emission test results

LINE: AC mains
LIMIT: Class B
EUT OPERATING MODE: Charging
EUT SET UP: TABLE-TOP
TEST SITE: SHIELDED ROOM
DETECTORS USED: PEAK / QUASI-PEAK / AVERAGE
FREQUENCY RANGE: 150 kHz - 30 MHz
RESOLUTION BANDWIDTH: 9 kHz

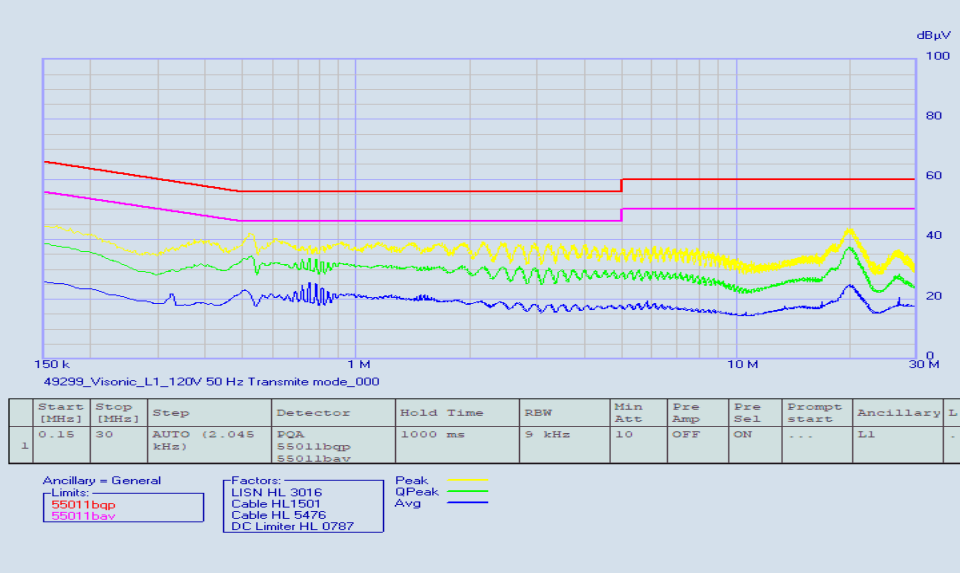
Frequency, MHz	Peak emission, dB(µV)	Quasi-peak			Average			Line ID	Verdict
		Measured emission, dB(µV)	Limit, dB(µV)	Margin, dB*	Measured emission, dB(µV)	Limit, dB(µV)	Margin, dB*		
0.721	NA	33.36	56.00	-22.64	24.63	46.00	-21.37	L1	Pass
0.749	NA	33.44	56.00	-22.56	24.91	46.00	-21.09		
0.751	NA	33.72	56.00	-22.28	25.57	46.00	-20.43		
0.753	NA	33.69	56.00	-22.31	25.39	46.00	-20.61		
0.780	NA	33.20	56.00	-22.80	24.65	46.00	-21.35		
0.782	NA	33.27	56.00	-22.73	25.15	46.00	-20.85		
0.532	NA	37.48	56.00	-18.52	29.12	46.00	-16.88	L2	Pass
0.534	NA	37.81	56.00	-18.19	29.88	46.00	-16.12		
0.537	NA	37.89	56.00	-18.11	30.28	46.00	-15.72		
0.539	NA	37.88	56.00	-18.12	30.35	46.00	-15.65		
0.541	NA	38.02	56.00	-17.98	30.06	46.00	-15.94		
0.543	NA	37.85	56.00	-18.15	29.59	46.00	-16.41		

*****- Margin = Measured emission - specification limit.

Test specification:	**Section 15.107, Conducted emission at AC power port**		
Test procedure:	ANSI C63.4, Sections 11.5 and 12.1.3		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	**Relative Humidity:** 54 %	**Air Pressure:** 1012 hPa	**Power:** 120 VAC, 50 Hz
Remarks:			

Plot 8.1.3 Conducted emission measurements

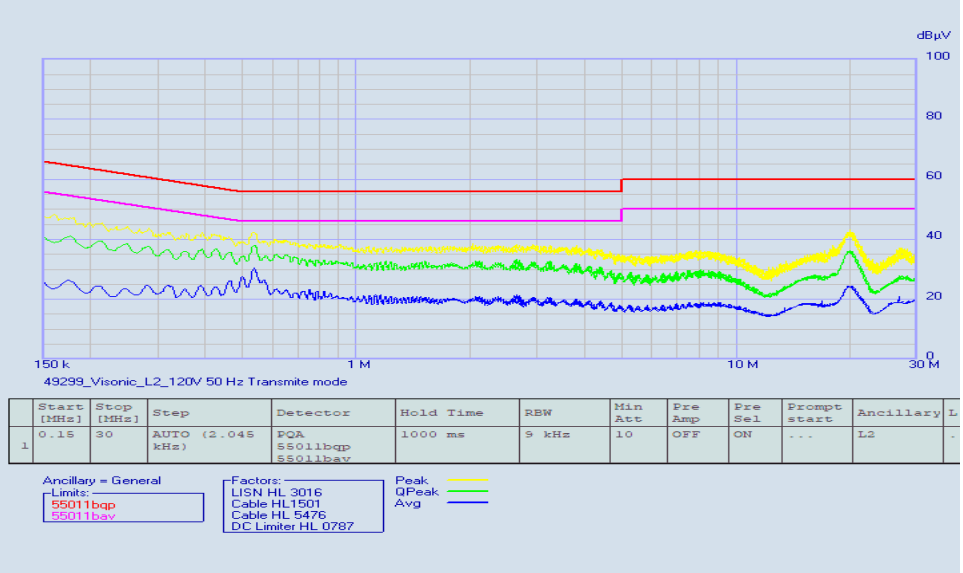
LINE:	L1
LIMIT:	Class B
EUT OPERATING MODE:	Charging
LIMIT:	QUASI-PEAK, AVERAGE
DETECTOR:	PEAK



Test specification:	**Section 15.107, Conducted emission at AC power port**		
Test procedure:	ANSI C63.4, Sections 11.5 and 12.1.3		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	09-Feb-23		
Temperature: 21 ºC	**Relative Humidity:** 54 %	**Air Pressure:** 1012 hPa	**Power:** 120 VAC, 50 Hz
Remarks:			

Plot 8.1.4 Conducted emission measurements

LINE:	L2
LIMIT:	Class B
EUT OPERATING MODE:	Charging
LIMIT:	QUASI-PEAK, AVERAGE
DETECTOR:	PEAK



Reference numbers of test equipment used

HL 0495	HL 0787	HL 5707	HL 3016	HL 5476			

Full description is given in Appendix A.

Test specification:	**Section 15.109, RSS-Gen, Section 7.1.2, ICES-003, Radiated emission**		
Test procedure:	ANSI C63.4, Section 12.2.5		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	05-Feb-23		
Temperature: 20 ºC	**Relative Humidity:** 49 %	**Air Pressure:** 1008 hPa	**Power:** 3.7 VDC
Remarks:			

8.2 Radiated emission measurements

8.2.1 General

This test was performed to measure radiated emissions from the EUT enclosure. Specification test limits are given in Table 8.2.1.

Table 8.2.1 Radiated emission test limits

Frequency, MHz	Class B limit, dB(μV/m)		Class A limit, dB(μV/m)	
	10 m distance	3 m distance	10 m distance	3 m distance
30 - 88	29.5*	40.0	39.0	49.5*
88 - 216	33.0*	43.5	43.5	54.0*
216 - 960	35.5*	46.0	46.4	56.9*
Above 960	43.5*	54.0	49.5	60.0*

* The limit for test distance other than specified was calculated using the inverse linear distance extrapolation factor as follows: $Lim_{S2} = Lim_{S1} + 20 \log (S_1/S_2)$,
where S_1 and S_2 – standard defined and test distance respectively in meters.

ICES-003

Frequency, MHz	Class B limit, dB(μV/m)		Class A limit, dB(μV/m)	
	10 m distance	3 m distance	10 m distance	3 m distance
30 - 88	30.0	40.0	40.0	50.0
88 - 216	33.1	43.5	43.5	54.0
216 - 230	35.6	46.0	46.4	56.9
230 - 960	37.0	47.0	47.0	57.0
960 - 1000	43.5	54.0	49.5	60.0
Above 1000	Class B limit, dB(μV/m)		Class A limit, dB(μV/m)	
	Peak	Average	Peak	Average
	74.0	54.0	80.0	60.0

*The more stringent limit applies at transition frequencies

8.2.2 Test procedure for measurements in semi-anechoic chamber

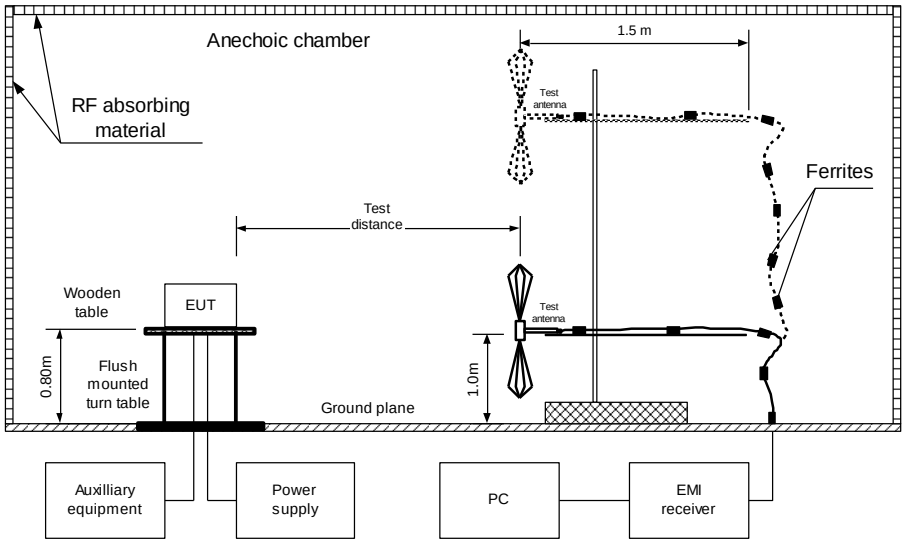
8.2.2.1 The EUT was set up as shown in Figure 8.2.1 and associated photograph/s, energized and the performance check was conducted.

8.2.2.2 The specified frequency range was investigated with biconilog antenna connected to EMI receiver. To find maximum radiation the turntable was rotated 360^0, the measuring antenna height was changed from 1 to 4 m, its polarization was switched from vertical to horizontal and the EUT cables position was varied.

8.2.2.3 The worst test results (the lowest margins) were recorded in Table 8.2.2 and shown in the associated plots.

Test specification:	Section 15.109, RSS-Gen, Section 7.1.2, ICES-003, Radiated emission		
Test procedure:	ANSI C63.4, Section 12.2.5		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-23		
Temperature: 20 ºC	Relative Humidity: 49 %	Air Pressure: 1008 hPa	Power: 3.7 VDC
Remarks:			

Figure 8.2.1 Setup for radiated emission measurements in anechoic chamber, table-top equipment



Test specification:	Section 15.109, RSS-Gen, Section 7.1.2, ICES-003, Radiated emission		
Test procedure:	ANSI C63.4, Section 12.2.5		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-23		
Temperature: 20 ºC	Relative Humidity: 49 %	Air Pressure: 1008 hPa	Power: 3.7 VDC
Remarks:			

Table 8.2.2 Radiated emission test results

EUT SET UP: TABLE-TOP
LIMIT: Class B
EUT OPERATING MODE: Receive / Charging
TEST SITE: SEMI ANECHOIC CHAMBER
TEST DISTANCE: 3 m
DETECTORS USED: PEAK / QUASI-PEAK
FREQUENCY RANGE: 30 MHz – 1000 MHz
RESOLUTION BANDWIDTH: 120 kHz

Frequency, MHz	Peak emission, dB(μV/m)	Quasi-peak			Antenna polarization	Antenna height, m	Turn-table position**, degrees	Verdict
		Measured emission, dB(μV/m)	Limit, dB(μV/m)	Margin, dB*				
30.39	33.83	26.22	40	13.78	V	1.0	140	Pass
53.20	37.45	33.04	40	6.96	V	1.4	-180	
65.49	31.39	25.29	40	14.71	V	1.0	123	

TEST SITE: SEMI ANECHOIC CHAMBER
TEST DISTANCE: 3 m
DETECTORS USED: PEAK / AVERAGE
FREQUENCY RANGE: 1000 MHz – 5000 MHz
RESOLUTION BANDWIDTH: 1000 kHz

Frequency, MHz	Peak			Average			Antenna polarization	Antenna height, m	Turn-table position**, degrees	Verdict
	Measured emission, dB(μV/m)	Limit, dB(μV/m)	Margin, dB*	Measured emission, dB(μV/m)	Limit, dB(μV/m)	Margin, dB*				
No emissions were found										Pass

*- Margin = Measured emission - specification limit.
**- EUT front panel refer to 0 degrees position of turntable.

Reference numbers of test equipment used

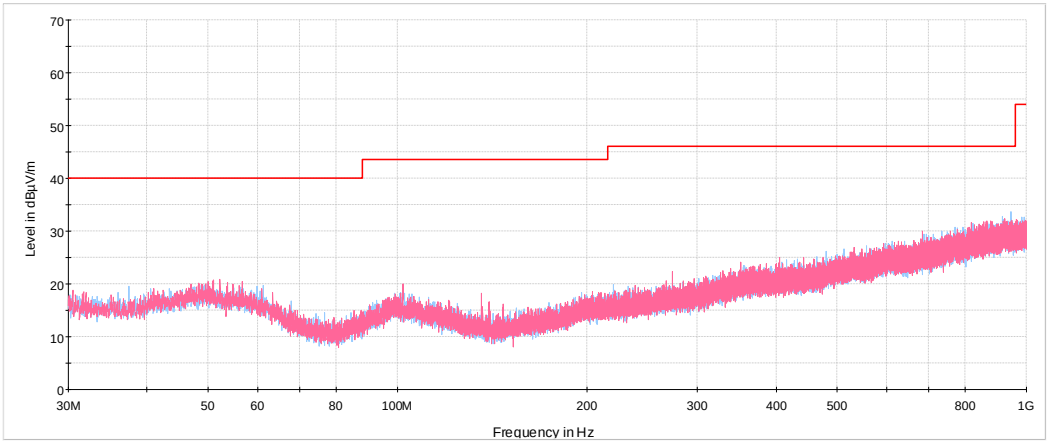
HL 446	HL 5288	HL 4933	HL 7585	HL 3901	HL 5902		

Full description is given in Appendix A.

Test specification:	Section 15.109, RSS-Gen, Section 7.1.2, ICES-003, Radiated emission		
Test procedure:	ANSI C63.4, Section 12.2.5		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-23		
Temperature: 20 ºC	Relative Humidity: 49 %	Air Pressure: 1008 hPa	Power: 3.7 VDC
Remarks:			

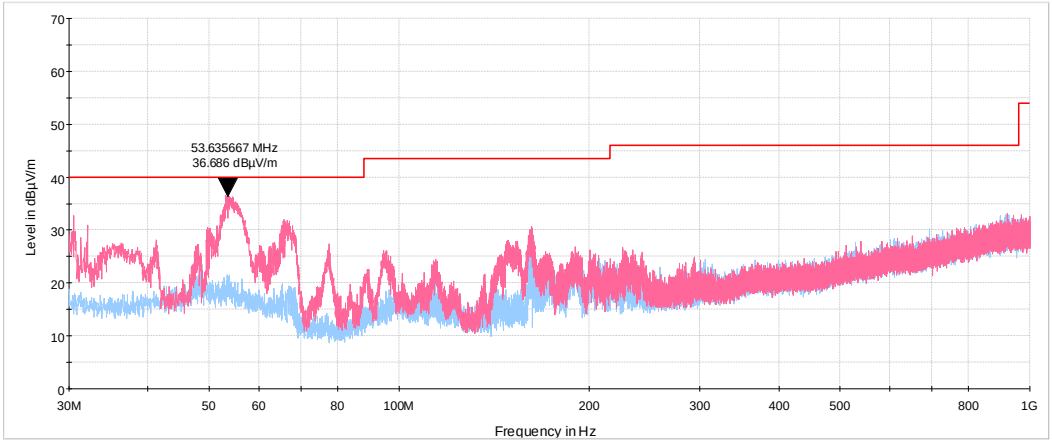
Plot 8.2.1 Radiated emission measurements in 30 - 1000 MHz range

TEST SITE:	Semi anechoic chamber
LIMIT:	Class B
TEST DISTANCE:	3 m
EUT OPERATING MODE:	Receive
ANTENNA POLARIZATION:	Vertical & Horizontal



Plot 8.2.2 Radiated emission measurements in 30 - 1000 MHz range

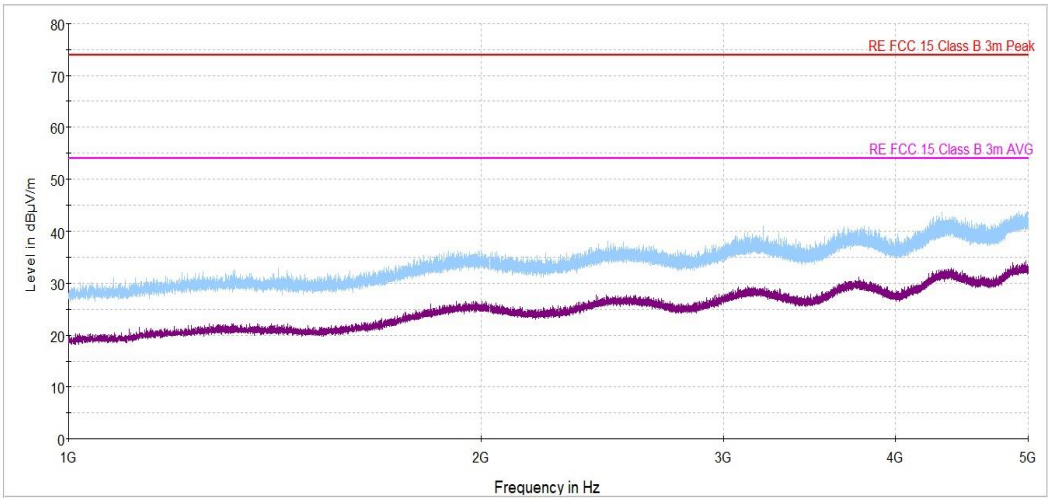
TEST SITE:	Semi anechoic chamber
LIMIT:	Class B
TEST DISTANCE:	3 m
EUT OPERATING MODE:	Charging
ANTENNA POLARIZATION:	Vertical & Horizontal



Test specification:	**Section 15.109, RSS-Gen, Section 7.1.2, ICES-003, Radiated emission**		
Test procedure:	ANSI C63.4, Section 12.2.5		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	05-Feb-23		
Temperature: 20 ºC	**Relative Humidity:** 49 %	**Air Pressure:** 1008 hPa	**Power:** 3.7 VDC
Remarks:			

Plot 8.2.3 Radiated emission measurements above 1000 MHz

TEST SITE:	Semi anechoic chamber
LIMIT:	Class B
TEST DISTANCE:	3 m
EUT OPERATING MODE:	Receive
ANTENNA POLARIZATION:	Vertical & Horizontal



9 APPENDIX A Test equipment and ancillaries used for tests

HL No	Description	Manufacturer	Model	Ser. No.	Last Cal./ Check	Due Cal./ Check
0446	Antenna, Loop, Active, 10 (9) kHz - 30 MHz	EMCO	6502	2857	28-Feb-22	28-Mar-23
0495	Autotransformer 0-255V, 10A	Variac	EMPL01	495	10-May-22	10-May-23
0787	Transient Limiter 9 kHz-200 MHz	Hewlett Packard	11947A	3107A01877	11-Sep-22	11-Sep-23
3016	LISN, Two-line V-network, 9 kHz to 30 MHz, (50 uH+5 Ohm), CISPR16-1, MIL-461E	Rohde & Schwarz	ESH 3-Z5	892239/002	08-Feb-22	08-Feb-23
3901	Microwave Cable Assembly, 40.0 GHz, 3.5 m, SMA/SMA	Huber-Suhner	SUCOFLEX 102A	1225/2A	07-Apr-22	07-Apr-23
3903	Microwave Cable Assembly, 40.0 GHz, 1.5 m, SMA/SMA	Huber-Suhner	SUCOFLEX 102A	1226/2A	07-Apr-22	07-Apr-23
4135	Shield Box	TESCOM CO., LTD	TC-5916A	5916A000136	28-Apr-22	28-Apr-23
4136	Shield Box	TESCOM CO., LTD	TC-5916A	5916A000137	28-Apr-22	28-Apr-23
4933	Active Horn Antenna, 1 GHz to 18 GHz	COM-POWER CORPORATION	AHA-118	701046	19-Jan-23	19-Jan-24
5288	Trilog Antenna, 25 MHz - 8 GHz, 100W	Frankonia	ALX-8000E	00809	24-Mar-22	24-Mar-25
5376	EXA Signal Analyzer, 10 Hz - 32 GHz	Keysight Technologies	N9010B	MY57470404	27-Dec-22	27-Dec-23
5409	RF cable, 40 GHz, SMA-SMA, 2 m	Huber-Suhner	SF102EA/11SK/11SK/2000MM	503973/2EA	25-Jul-22	25-Jul-23
5476	Cable, BNC/BNC, 10.5 m	Western wire	MIL-C-17G	NA	22-May-22	22-May-23
5707	EMI receiver	PMM / Narda	PMM 9010F	060WW91101	02-Feb-22	02-Mar-23
5902	RF cable, 18 GHz, 6.0m, N-type	Huber-Suhner	SF126EA/11N/11N/6000	NA	08-Dec-22	08-Dec-23
7585	EMI Test Receiver, 1 Hz to 44 GHz	Rohde & Schwarz	ESW44	103130	19-May-22	19-Jun-23

10 APPENDIX B Test equipment correction factors

HL 5288: Trilog Antenna
Frankonia, model: ALX-8000E, s/n: 00809
30-1000 MHz

Frequency, MHz	Antenna factor, dB/m	Frequency, MHz	Antenna factor, dB/m
30	14.96	160	12.67
35	15.33	180	13.34
40	16.37	200	15.40
45	17.56	250	16.42
50	17.95	300	17.28
60	16.87	400	19.98
70	13.22	500	21.11
80	10.56	600	22.90
90	13.61	700	24.13
100	15.46	800	25.25
120	14.03	900	26.35
140	12.23	1000	27.18

The antenna factor shall be added to receiver reading in dBμV to obtain field strength in dBμV/m.

above 1000 MHz

Frequency, MHz	Antenna factor, dB/m	Frequency, MHz	Antenna factor, dB/m
1000	26.9	3600	38.9
1100	28.1	3700	39.4
1200	28.4	3800	39.4
1300	29.6	3900	39.6
1400	29.1	4000	39.7
1500	30.4	4100	39.8
1600	30.7	4200	40.5
1700	31.5	4300	40.9
1800	32.3	4400	41.1
1900	32.6	4500	41.4
2000	32.5	4600	41.3
2100	32.9	4700	41.6
2200	33.5	4800	41.9
2300	33.2	4900	42.3
2400	33.7	5000	42.7
2500	34.6	5100	43.0
2600	34.7	5200	42.9
2700	34.6	5300	43.5
2800	35.0	5400	43.6
2900	35.5	5500	44.3
3000	36.2	5600	44.7
3100	36.8	5700	45.0
3200	36.8	5800	45.0
3300	37.0	5900	45.3
3400	37.5	6000	45.9
3500	38.2		

The antenna factor shall be added to receiver reading in dBμV to obtain field strength in dBμV/m.

HL 0446: Active Loop Antenna
EMCO, model: 6502, s/n 2857

Frequency,	Measured antenna factor, dBS/m	Measurement uncertainty, dB
10	-33.4	±1.0
20	-37.8	±1.0
50	-40.5	±1.0
75	-41.0	±1.0
100	-41.2	±1.0
150	-41.2	±1.0
250	-41.1	±1.0
500	-41.2	±1.0
750	-41.3	±1.0
1000	-41.3	±1.0

Frequency,	Measured antenna factor, dBS/m	Measurement uncertainty, dB
2000	-41.4	±1.0
3000	-41.4	±1.0
4000	-41.5	±1.0
5000	-41.5	±1.0
10000	-41.7	±1.0
15000	-42.1	±1.0
20000	-42.7	±1.0
25000	-44.2	±1.0
30000	-45.8	±1.0

The antenna factor shall be added to receiver reading in dBμV to obtain field strength in dBμA/m.

HL 4933: Active Horn Antenna
COM-POWER CORPORATION, model: AHA-118, s/n 701046

Frequency, MHz	Measured antenna factor (with preamplifier), dB/m
1000	-16.1
1500	-15.1
2000	-10.9
2500	-11.9
3000	-11.1
3500	-10.6
4000	-8.6
4500	-8.3
5000	-5.9
5500	-5.7
6000	-3.3
6500	-4.0
7000	-2.2
7500	-1.7
8000	1.1
8500	-0.8
9000	-1.5
9500	-0.2

Frequency, MHz	Measured antenna factor (with preamplifier), dB/m
10000	1.8
10500	1.0
11000	0.3
11500	-0.5
12000	3.1
12500	1.4
13000	-0.3
13500	-0.4
14000	2.5
14500	2.2
15000	1.9
15500	0.5
16000	2.1
16500	1.2
17000	0.6
17500	3.1
18000	4.2

The antenna factor shall be added to receiver reading in dBμV to obtain field strength in dBμV/m.

11 APPENDIX C Measurement uncertainties

Expanded uncertainty at 95% confidence in Hermon Labs EMC measurements

Test description	Expanded uncertainty
Conducted carrier power at RF antenna connector	Below 12.4 GHz: ± 1.7 dB 12.4 GHz to 40 GHz: ± 2.3 dB
Conducted emissions at RF antenna connector	9 kHz to 2.9 GHz: ± 2.6 dB 2.9 GHz to 6.46 GHz: ± 3.5 dB 6.46 GHz to 13.2 GHz: ± 4.3 dB 13.2 GHz to 22.0 GHz: ± 5.0 dB 22.0 GHz to 26.8 GHz: ± 5.5 dB 26.8 GHz to 40.0 GHz: ± 4.8 dB
Occupied bandwidth	± 8.0 %
Duty cycle, timing (Tx ON / OFF) and average factor measurements	± 1.0 %
Conducted emissions with LISN	9 kHz to 150 kHz: ± 3.9 dB 150 kHz to 30 MHz: ± 3.8 dB
Radiated emissions at 3 m measuring distance Horizontal polarization Vertical polarization	 Biconilog antenna: ± 5.3 dB Biconical antenna: ± 5.0 dB Log periodic antenna: ± 5.3 dB Double ridged horn antenna: ± 5.3 dB Biconilog antenna: ± 6.0 dB Biconical antenna: ± 5.7 dB Log periodic antenna: ± 6.0 dB Double ridged horn antenna: ± 6.0 dB

Hermon Laboratories is accredited by A2LA for calibration according to present requirements of ISO/IEC 17025 and NCSL Z540-1. The accreditation is granted to perform calibration of parameters that are listed in the Scope of Hermon Laboratories Accreditation.

Hermon Laboratories calibrates its reference and transfer standards by calibration laboratories accredited to ISO/IEC 17025 by a mutually recognized Accreditation Body or by a recognized national metrology institute. All reference and transfer standards used in the calibration system are traceable to national or international standards.

In-house calibration of all test and measurement equipment is performed on a regular basis according to Hermon Laboratories calibration procedures, manufacturer calibration/verification procedures or procedures defined in the relevant standards. The Hermon Laboratories test and measurement equipment is calibrated within the tolerances specified by the manufacturers and/or by the relevant standards.

1 APPENDIX D Test laboratory description

Tests were performed at Hermon Laboratories Ltd., which is a fully independent, private, EMC, Radio, Safety, Environmental and Telecommunication testing facility.
Hermon Laboratories is recognized and accredited by the Federal Communications Commission (USA) for relevant parts of Code of Federal Regulations 47 (CFR 47), Test Firm Registration Number is 927748, Designation Number is IL1001; Recognized by Innovation, Science and Economic Development Canada for wireless and terminal testing (ISED), ISED #2186A, CAB identifier is IL1001; Certified by VCCI, Japan (the registration numbers are R-10808 for OATS, R-1082 for anechoic chamber, G-10869 for RE measurements above 1 GHz, C-10845 for conducted emissions site and T-11606 for conducted emissions at telecommunication ports).
The laboratory is accredited by American Association for Laboratory Accreditation (USA) according to ISO/IEC 17025 for electromagnetic compatibility, product safety, telecommunications testing, environmental simulation and calibration (for exact scope please refer to Certificate No. 839.01, 839.03 and 839.04).

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2 APPENDIX E Specification references

FCC 47CFR part 15: 2020	Radio Frequency Devices
ANSI C63.10: 2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
ANSI C63.4: 2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.
RSS-247 Issue 2: 2017	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence- Exempt Local Area Network (LE-LAN) Devices
RSS-Gen Issue 5 with_amendment_1_2: 2021	General Requirements and Information for the Certification of Radiocommunication Equipment
ICES-003: 2020, Issue 7	Information Technology Equipment (Including Digital Apparatus) – Limits and methods of measurement

3 APPENDIX F Abbreviations and acronyms

A	ampere
AC	alternating current
A/m	ampere per meter
AM	amplitude modulation
AVRG	average (detector)
cm	centimeter
dB	decibel
dBm	decibel referred to one milliwatt
dB(μV)	decibel referred to one microvolt
dB(μV/m)	decibel referred to one microvolt per meter
dB(μA)	decibel referred to one microampere
DC	direct current
EIRP	equivalent isotropically radiated power
ERP	effective radiated power
EUT	equipment under test
F	frequency
GHz	gigahertz
GND	ground
H	height
HL	Hermon laboratories
Hz	hertz
k	kilo
kHz	kilohertz
LO	local oscillator
m	meter
MHz	megahertz
min	minute
mm	millimeter
ms	millisecond
μs	microsecond
NA	not applicable
NB	narrow band
OATS	open area test site
Ω	Ohm
PM	pulse modulation
PS	power supply
ppm	part per million (10^{-6})
QP	quasi-peak
RE	radiated emission
RF	radio frequency
rms	root mean square
Rx	receive
s	second
T	temperature
Tx	transmit
V	volt
WB	wideband

END OF DOCUMENT