



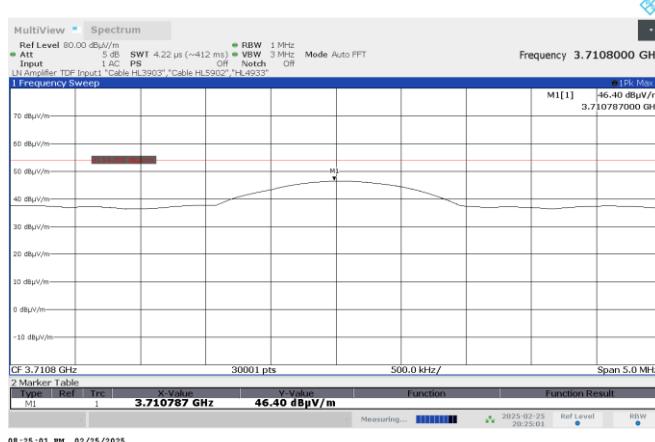
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Test specification: Section 15.247(d) / RSS-247 section 5.5, Radiated spurious emissions			
Test procedure:	ANSI C63.10 section 11.12.1		
Test mode:	Compliance		
Date(s):	25-Feb-25		
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC
Remarks:			

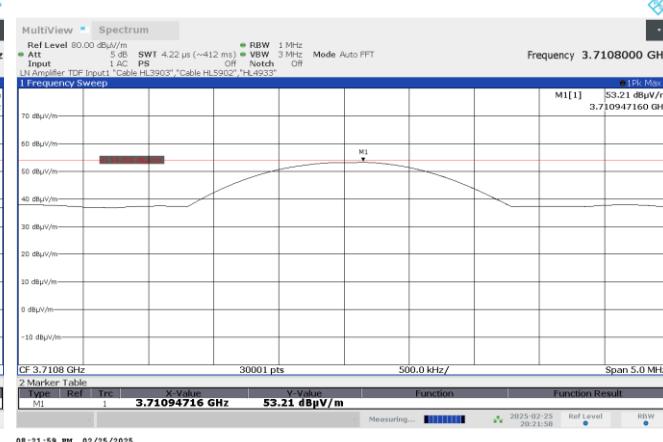
## Plot 7.16.22 Radiated emission measurements at the fourth harmonic of high carrier frequency

TEST SITE:  
TEST DISTANCE:Semi anechoic chamber  
3 m

Vertical



Horizontal



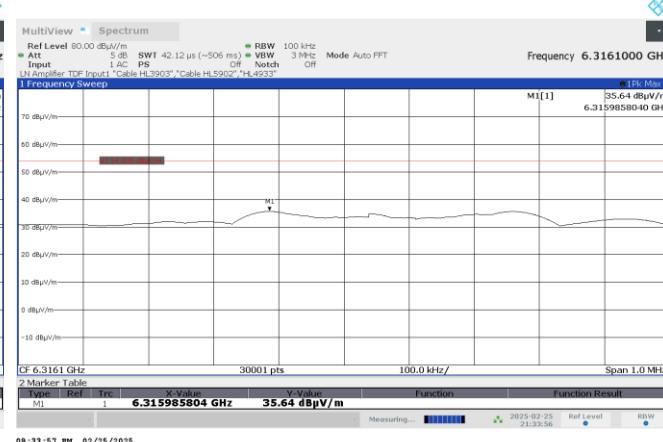
## Plot 7.16.23 Radiated emission measurements at the seventh harmonic of low carrier frequency

TEST SITE:  
TEST DISTANCE:Semi anechoic chamber  
3 m

Vertical



Horizontal

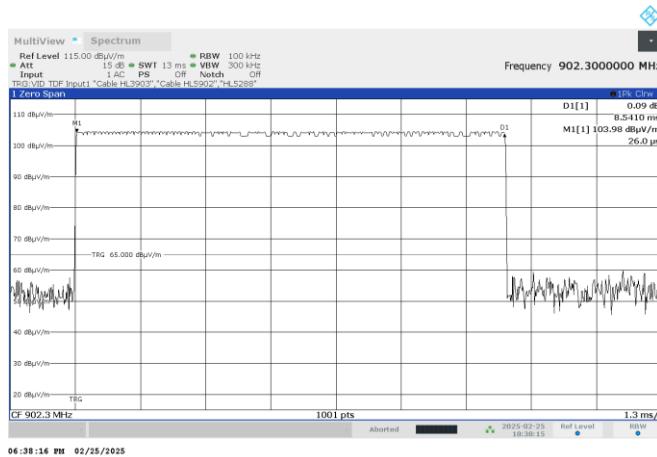




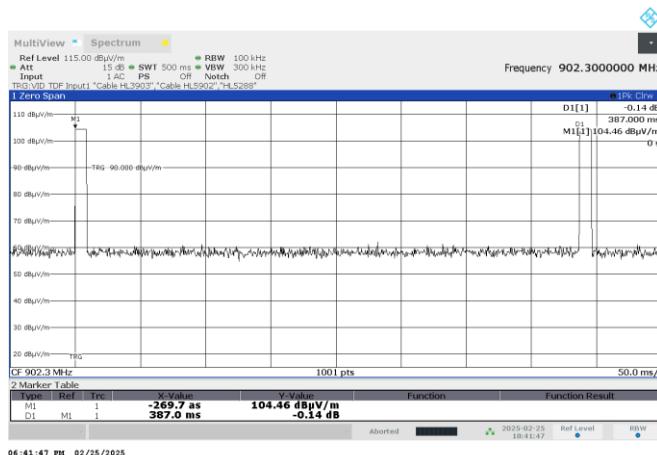
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<b>Test specification:</b> Section 15.247(d) / RSS-247 section 5.5, Radiated spurious emissions			
<b>Test procedure:</b>	ANSI C63.10 section 11.12.1		
<b>Test mode:</b>	Compliance		
<b>Date(s):</b>	25-Feb-25		
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 47 %	<b>Air Pressure:</b> 1022 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

**Plot 7.16.24 Transmission pulse duration**



**Plot 7.16.25 Transmission pulse period**





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<b>Test specification:</b>	<b>Section 15.203 / RSS-Gen section 6.8, Antenna requirement</b>		
<b>Test procedure:</b>	Visual inspection		
<b>Test mode:</b>	Compliance	<b>Verdict:</b>	PASS
<b>Date(s):</b>	09-Jan-25		
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 47 %	<b>Air Pressure:</b> 1014 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

## 7.17 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 7.17.1.

Table 7.17.1 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	



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<b>Test specification:</b> FCC 47 CFR, Section 15.109, ICES-003, Section 6.2, Class B, Radiated emissions			
<b>Test procedure:</b> ANSI C63.4, Sections 8.3 and 12.2.5			
<b>Test mode:</b> Compliance			<b>Verdict:</b> PASS
<b>Date(s):</b> 04-Feb-25			
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 45 %	<b>Air Pressure:</b> 1016 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

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

### 8.1 Radiated emission measurements

#### 8.1.1 General

This test was performed to measure radiated emissions from the EUT enclosure. Specification test limits are given in Table 8.1.1.

Table 8.1.1 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
<b>FCC 47 CFR, Section 15.109</b>				
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*
<b>ICES-003, Section 3.2.2</b>				
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
1000 - 40000	---	74 (Peak)   54 (AVR)	---	80 (Peak)   60 (AVR)

\* - The limit for a test distance other than specified was calculated using the inverse linear distance extrapolation factor as follows:  $L_{m2} = L_{m1} + 20 \log(S_1/S_2)$ , where  $S_1$  and  $S_2$  – the standard defined and the test distance respectively in meters.

#### 8.1.2 Test procedure for measurements in semi-anechoic chamber

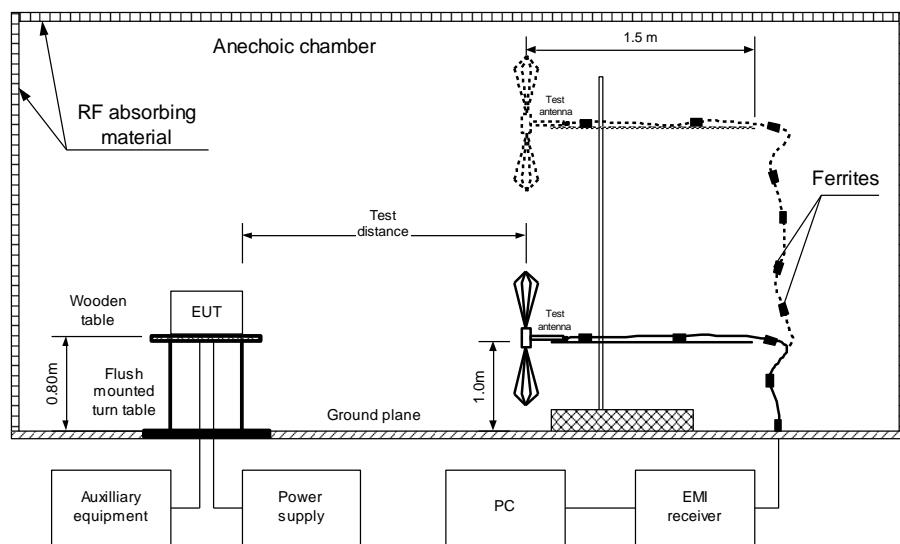
- 8.1.2.1 The EUT was set up as shown in Figure 8.1.1 and associated photograph/s, energized and the performance check was conducted.
- 8.1.2.2 The specified frequency range was investigated with biconilog antenna connected to EMI receiver. To find maximum radiation the turntable was rotated 360°, the 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.
- 8.1.2.3 The worst test results (the lowest margins) were recorded in Table 8.1.2 and shown in the associated plots.



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<b>Test specification:</b>	<b>FCC 47 CFR, Section 15.109, ICES-003, Section 6.2, Class B, Radiated emissions</b>		
<b>Test procedure:</b>	<b>ANSI C63.4, Sections 8.3 and 12.2.5</b>		
<b>Test mode:</b>	<b>Compliance</b>		
<b>Date(s):</b>	04-Feb-25	<b>Verdict:</b>	<b>PASS</b>
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 45 %	<b>Air Pressure:</b> 1016 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

**Figure 8.1.1 Setup for radiated emission measurements in anechoic chamber, table-top equipment**





HERMON LABORATORIES

<b>Test specification:</b> FCC 47 CFR, Section 15.109, ICES-003, Section 6.2, Class B, Radiated emissions	
<b>Test procedure:</b> ANSI C63.4, Sections 8.3 and 12.2.5	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 04-Feb-25	
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 45 %
<b>Air Pressure:</b> 1016 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>	

**Table 8.1.2 Radiated emission test results**

EUT SET UP: TABLE-TOP  
 LIMIT: Class B  
 EUT OPERATING MODE: Receive  
 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*				
No emissions were found								

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										

\*- Margin = Measured emission - specification limit.

\*\*- EUT front panel refer to 0 degrees position of turntable.

**Reference numbers of test equipment used**

HL 3903	HL 4933	HL 5288	HL 5902	HL 7585		
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Full description is given in Appendix A.

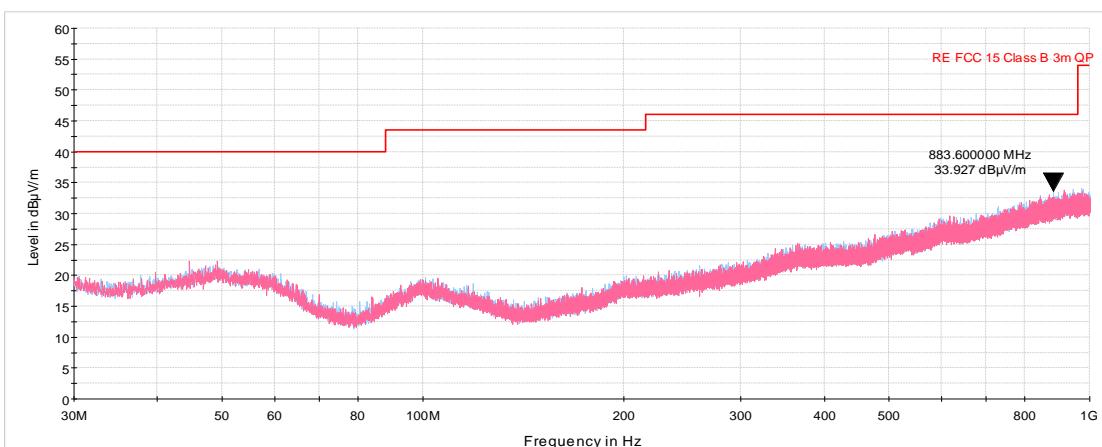


HERMON LABORATORIES

<b>Test specification:</b> FCC 47 CFR, Section 15.109, ICES-003, Section 6.2, Class B, Radiated emissions			
<b>Test procedure:</b> ANSI C63.4, Sections 8.3 and 12.2.5			
<b>Test mode:</b> Compliance			
<b>Date(s):</b> 04-Feb-25			
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 45 %	<b>Air Pressure:</b> 1016 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

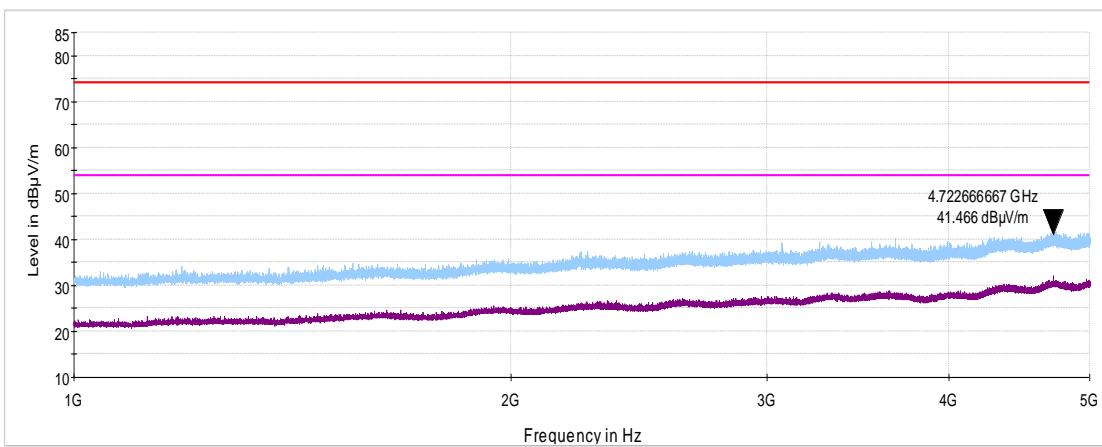
**Plot 8.1.1 Radiated emission measurements in 30 - 1000 MHz range, vertical and horizontal antenna polarization**

TEST SITE: Semi anechoic chamber  
LIMIT: Class B  
TEST DISTANCE: 3 m  
EUT OPERATING MODE: Receive



**Plot 8.1.2 Radiated emission measurements above 1000 MHz, vertical and horizontal antenna polarization**

TEST SITE: Semi anechoic chamber  
LIMIT: Class B  
TEST DISTANCE: 3 m  
EUT OPERATING MODE: Receive





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<b>Test specification:</b> FCC 47 CFR, Section 15.109, ICES-003, Section 6.2, Class B, Radiated emissions			
<b>Test procedure:</b> ANSI C63.4, Sections 8.3 and 12.2.5			
<b>Test mode:</b> Compliance			<b>Verdict:</b> PASS
<b>Date(s):</b> 04-Feb-25			
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 45 %	<b>Air Pressure:</b> 1016 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

## 8.2 Radiated emission measurements at NB-iOT module in receive mode

### 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
<b>FCC 47 CFR, Section 15.109</b>				
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*
<b>ICES-003, Section 3.2.2</b>				
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
1000 - 40000	---	74 (Peak) 54 (AVR)	---	80 (Peak) 60 (AVR)

\* - The limit for a 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  $S_2$  – the standard defined and the test distance respectively in meters.

### 8.2.2 Test procedure for measurements in semi-anechoic chamber

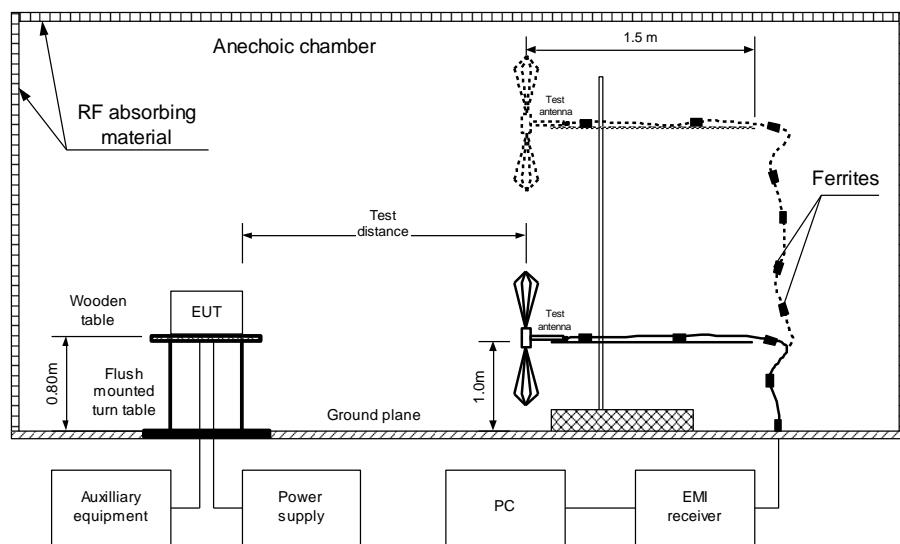
- 8.2.2.1 The EUT was set up as shown in Figure 8.1.1 and associated photograph/s, energized and the performance check was conducted.
- 8.2.2.2 The specified frequency range was investigated with biconilog antenna connected to EMI receiver. To find maximum radiation the turntable was rotated 360°, the 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.



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<b>Test specification:</b>	<b>FCC 47 CFR, Section 15.109, ICES-003, Section 6.2, Class B, Radiated emissions</b>		
<b>Test procedure:</b>	<b>ANSI C63.4, Sections 8.3 and 12.2.5</b>		
<b>Test mode:</b>	<b>Compliance</b>		
<b>Date(s):</b>	04-Feb-25	<b>Verdict:</b>	<b>PASS</b>
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 45 %	<b>Air Pressure:</b> 1016 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

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





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<b>Test specification:</b> FCC 47 CFR, Section 15.109, ICES-003, Section 6.2, Class B, Radiated emissions			
<b>Test procedure:</b> ANSI C63.4, Sections 8.3 and 12.2.5			
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS		
<b>Date(s):</b> 04-Feb-25			
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 45 %	<b>Air Pressure:</b> 1016 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

**Table 8.2.2 Radiated emission test results**

EUT SET UP:	TABLE-TOP
LIMIT:	Class B
EUT OPERATING MODE:	Receive
TEST SITE:	SEMI ANECHOIC CHAMBER
TEST DISTANCE:	3 m
DETECTORS USED:	PEAK / QUASI-PEAK
FREQUENCY RANGE:	<b>30 MHz – 1000 MHz</b>
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*				
No emissions were found								

TEST SITE:	SEMI ANECHOIC CHAMBER
TEST DISTANCE:	3 m
DETECTORS USED:	PEAK / AVERAGE
FREQUENCY RANGE:	<b>1000 – 5000 MHz</b>
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										

\*- Margin = Measured emission - specification limit.

\*\*- EUT front panel refer to 0 degrees position of turntable.

**Reference numbers of test equipment used**

HL 3903	HL 4933	HL 5288	HL 5902	HL 7585			
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Full description is given in Appendix A.

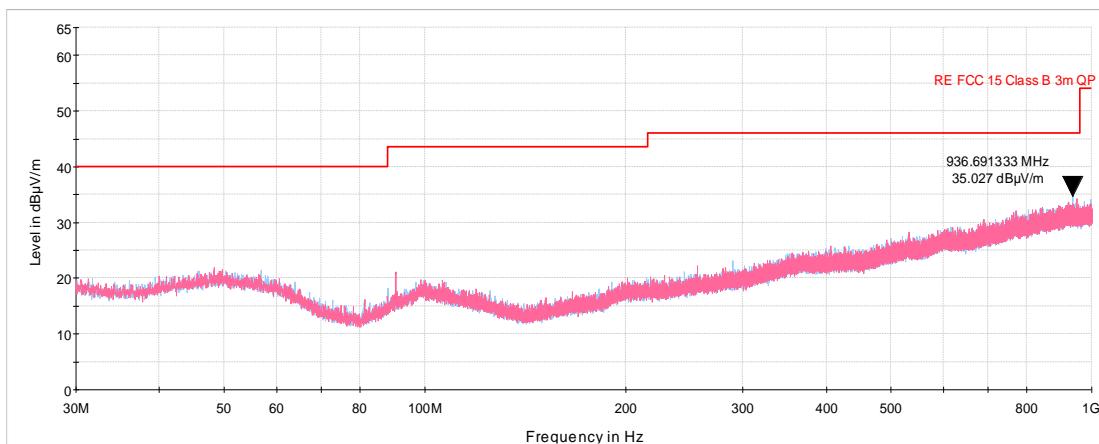


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<b>Test specification:</b> FCC 47 CFR, Section 15.109, ICES-003, Section 6.2, Class B, Radiated emissions			
<b>Test procedure:</b> ANSI C63.4, Sections 8.3 and 12.2.5			
<b>Test mode:</b> Compliance			
<b>Date(s):</b> 04-Feb-25			
<b>Temperature:</b> 23 °C	<b>Relative Humidity:</b> 45 %	<b>Air Pressure:</b> 1016 hPa	<b>Power:</b> 3.6 VDC
<b>Remarks:</b>			

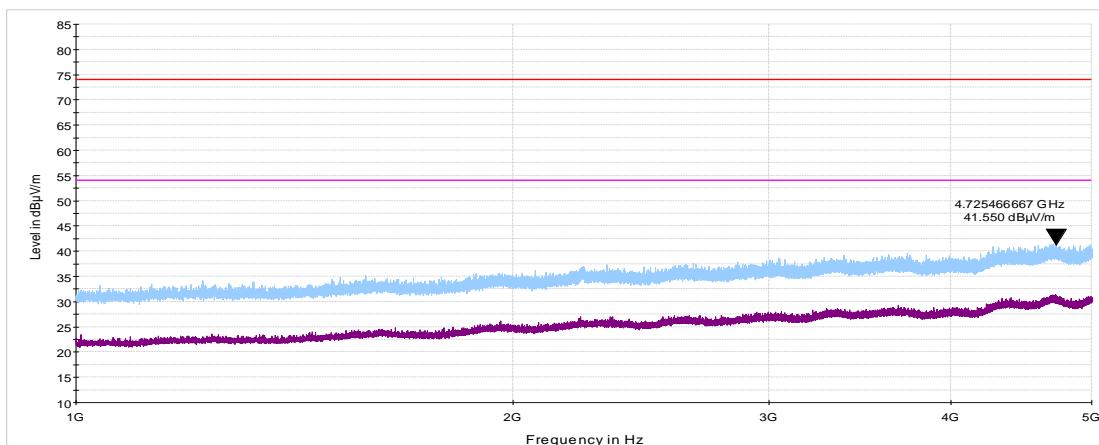
**Plot 8.2.1 Radiated emission measurements in 30 - 1000 MHz range, vertical and horizontal antenna polarization**

TEST SITE: Semi anechoic chamber  
LIMIT: Class B  
TEST DISTANCE: 3 m  
EUT OPERATING MODE: Receive



**Plot 8.2.2 Radiated emission measurements above 1000 MHz, vertical and horizontal antenna polarization**

TEST SITE: Semi anechoic chamber  
LIMIT: Class B  
TEST DISTANCE: 3 m  
EUT OPERATING MODE: Receive





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## 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	29-Feb-24	28-Feb-25
3230	Multimeter	Fluke	115C	94173028	14-Aug-24	14-Aug-25
3434	Test Cable , DC-18 GHz, 1.5 m, SMA - SMA	Mini-Circuits	CBL-5FT-SMSM+	25683	06-May-24	06-May-25
3440	Precision Fixed Attenuator, 50 Ohm, 5 W, 20 dB, DC to 18 GHz	Mini-Circuits	BW-S20W5+	NA	05-Aug-24	05-Aug-25
3818	PSA Series Spectrum Analyzer, 3 Hz- 44 GHz	Agilent Technologies	E4446A	MY482502 88	18-Sep-24	18-Sep-25
3901	Microwave Cable Assembly, 40.0 GHz, 3.5 m, SMA/SMA	Huber-Suhner	SUCOFL EX 102A	1225/2A	05-May-24	05-May-25
3903	Microwave Cable Assembly, 40.0 GHz, 1.5 m, SMA/SMA	Huber-Suhner	SUCOFL EX 102A	1226/2A	06-May-24	06-May-25
4135	Shield Box	TESCOM CO., LTD	TC-5916A	5916A000 136	20-May-24	20-May-25
4136	Shield Box	TESCOM CO., LTD	TC-5916A	5916A000 137	20-May-24	20-May-25
4339	High pass Filter, 50 Ohm, 1000 to 18000 MHz, SMA-FM / SMA-M	Micro-Tronics	HPM5011 5-02	001	21-Jun-23	21-Jun-25
4355	Signal and Spectrum Analyzer, 9 kHz to 7 GHz	Rohde & Schwarz	FSV 7	101630	19-Jun-24	19-Jun-25
4360	EMI Test Receiver, 20 Hz to 40 GHz	Rohde & Schwarz	ESU40	100322	24-Jan-24	24-Jan-25
4933	Active Horn Antenna, 1 GHz to 18 GHz	COM-POWER CORPORATION	AHA-118	701046	20-Feb-24	20-Feb-25
5209	Load Termination 50 Ohm, 0.5 W, DC-1GHz	RELM	LT-50	NA	15-May-24	15-May-25
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	MY574704 04	06-Jan-25	06-Jan-26
5601	Precision Fixed Attenuator, 50 Ohm, 5 W, 10 dB, DC to 18000 MHz	Mini Circuits	BW-N10W5+	NA	14-Aug-24	14-Aug-25
5637	Cable, 50 Ohm, DC to 18 GHz, 1.8 m, SMA/SMA	Mini Circuits	CBL-6FT-SMSM+	NA	29-Jul-24	29-Jul-25
5638	Cable, 50 Ohm, DC to 18 GHz, 1.8 m, SMA/SMA	Mini Circuits	CBL-6FT-SMSM+	NA	17-Nov-24	17-Nov-25
5642	Cable, 50 Ohm, DC to 18 GHz, 1.8 m, SMA/SMA	Mini Circuits	CBL-6FT-SMSM+	NA	29-Jul-24	29-Jul-25
5746	High Impedance Voltage Probe, 9 kHz up to 30 MHz	Schwarzbeck mess-elektronik	TK 9420	00994	20-Mar-24	20-Mar-25



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HL No	Description	Manufacturer	Model	Ser. No.	Last Cal./Check	Due Cal./Check
5902	RF cable, 18 GHz, 6.0m, N-type	Huber-Suhner	SF126EA/11N/11N/6000	NA	17-Nov-24	17-Nov-25
5933	Thermometer Hygrometer, (0 to +50) deg., (20-95) % RH	Kkmoon	Dyimore	NA	15-May-24	15-May-25
7523	Programmable DC Power Supplies, 48VDC/38A	TDK-Lambda Ltd	GEN40-38	LOC-823A277-0004	13-Mar-24	13-Mar-25
7546	Power supply 60VDC/12.5A	Agilent Technologies	N5747A	US25F6762C	29-May-24	29-May-25
7585	EMI Test Receiver, 1 Hz to 44 GHz	Rohde & Schwarz	ESW44	103130	24-Sep-24	24-Sep-25

## 10 APPENDIX B Test equipment correction factors

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

Frequency, MHz	Measured antenna factor (with preamplifier), dB/m	Frequency, MHz	Measured antenna factor (with preamplifier), dB/m
1000	-16.1	10000	1.8
1500	-15.1	10500	1.0
2000	-10.9	11000	0.3
2500	-11.9	11500	-0.5
3000	-11.1	12000	3.1
3500	-10.6	12500	1.4
4000	-8.6	13000	-0.3
4500	-8.3	13500	-0.4
5000	-5.9	14000	2.5
5500	-5.7	14500	2.2
6000	-3.3	15000	1.9
6500	-4.0	15500	0.5
7000	-2.2	16000	2.1
7500	-1.7	16500	1.2
8000	1.1	17000	0.6
8500	-0.8	17500	3.1
9000	-1.5	18000	4.2
9500	-0.2		

The antenna factor shall be added to receiver reading in dB $\mu$ V to obtain field strength in dB $\mu$ V/m.



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

Frequency, MHz	Antenna factor, dB/m
30	14.96
35	15.33
40	16.37
45	17.56
50	17.95
60	16.87
70	13.22
80	10.56
90	13.61
100	15.46
120	14.03
140	12.23

Frequency, MHz	Antenna factor, dB/m
160	12.67
180	13.34
200	15.40
250	16.42
300	17.28
400	19.98
500	21.11
600	22.90
700	24.13
800	25.25
900	26.35
1000	27.18

The antenna factor shall be added to receiver reading in dB $\mu$ V to obtain field strength in dB $\mu$ V/m.

**above 1000 MHz**

Frequency, MHz	Antenna factor, dB/m
1000	26.9
1100	28.1
1200	28.4
1300	29.6
1400	29.1
1500	30.4
1600	30.7
1700	31.5
1800	32.3
1900	32.6
2000	32.5
2100	32.9
2200	33.5
2300	33.2
2400	33.7
2500	34.6
2600	34.7
2700	34.6
2800	35.0
2900	35.5
3000	36.2
3100	36.8
3200	36.8
3300	37.0
3400	37.5
3500	38.2

Frequency, MHz	Antenna factor, dB/m
3600	38.9
3700	39.4
3800	39.4
3900	39.6
4000	39.7
4100	39.8
4200	40.5
4300	40.9
4400	41.1
4500	41.4
4600	41.3
4700	41.6
4800	41.9
4900	42.3
5000	42.7
5100	43.0
5200	42.9
5300	43.5
5400	43.6
5500	44.3
5600	44.7
5700	45.0
5800	45.0
5900	45.3
6000	45.9

The antenna factor shall be added to receiver reading in dB $\mu$ V to obtain field strength in dB $\mu$ V/m.



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

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.



HERMON LABORATORIES

## 12 APPENDIX C 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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HERMON LABORATORIES

## 13 APPENDIX D

### Specification references

FCC 47CFR part 15: 2023	Radio Frequency Devices
ANSI C63.10: 2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
RSS-247 Issue 3: 2023	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
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.
ICES-003: 2020, Issue 7	Information Technology Equipment (Including Digital Apparatus)



HERMON LABORATORIES

## 14 APPENDIX E Abbreviations and acronyms

A	ampere
AC	alternating current
AM	amplitude modulation
AVRG	average (detector)
BB	broad band
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
QP	quasi-peak
RE	radiated emission
RF	radio frequency
rms	root mean square
Rx	receive
s	second
T	temperature
Tx	transmit
V	volt

END OF DOCUMENT