



HERMON LABORATORIES

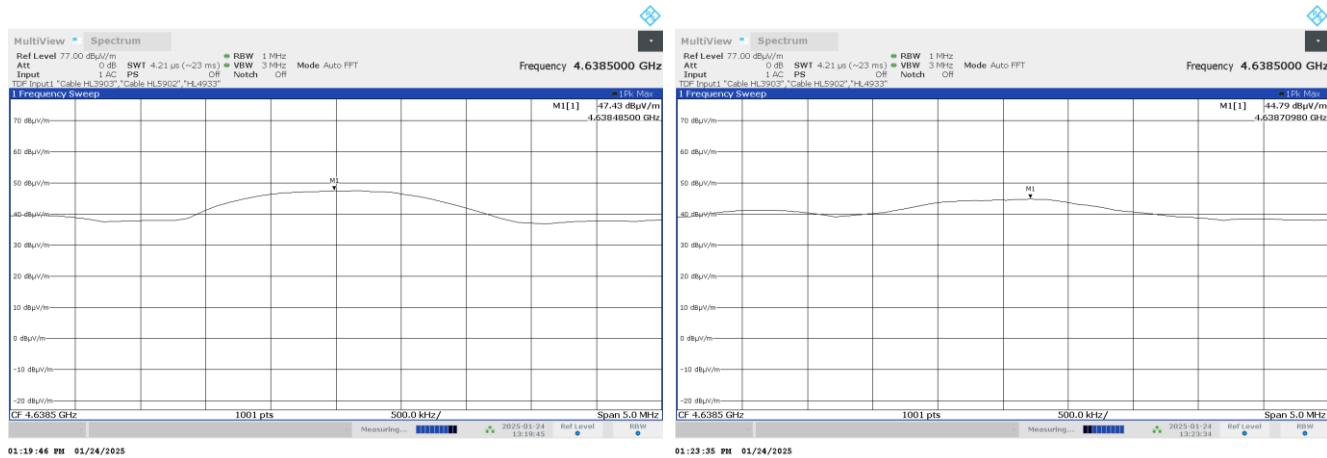
Test specification: Section 15.247(d) / RSS-247 section 5.5, Radiated spurious emissions			
Test procedure:	ANSI C63.10 section 11.12.1		
Test mode:	Compliance		
Date(s):	25-Dec-24		
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1019 hPa	Power: 3.6 VDC
Remarks:			

Plot 7.15.24 Radiated emission measurements at the fifth harmonic of high carrier frequency

TEST SITE:
TEST DISTANCE:
Vertical

Semi anechoic chamber
3 m

Horizontal





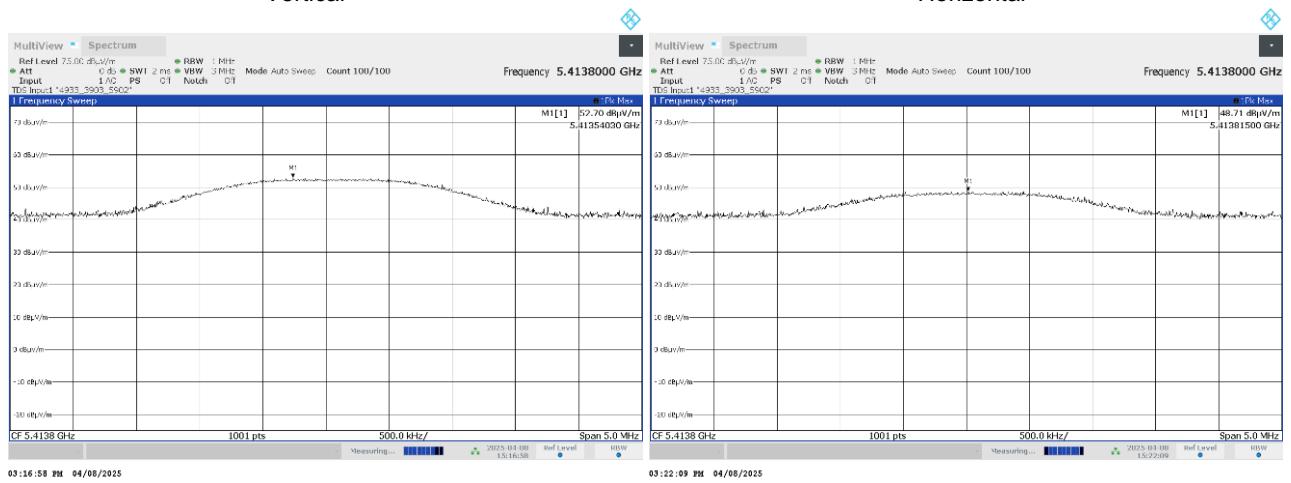
HERMON LABORATORIES

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-Dec-24		
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1019 hPa	Power: 3.6 VDC
Remarks:			

Plot 7.15.25 Radiated emission measurements at the sixth harmonic of low carrier frequency

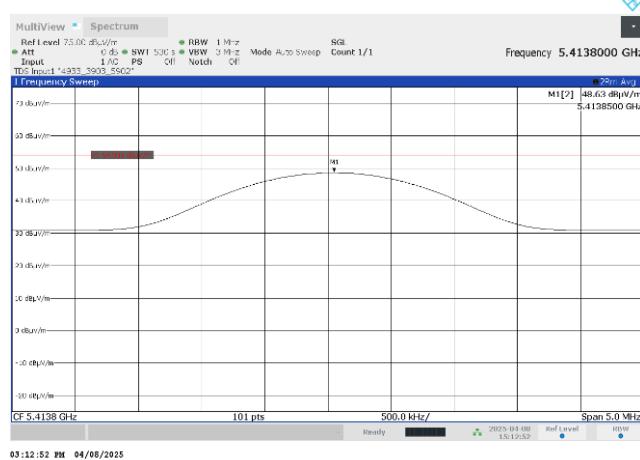
TEST SITE:
TEST DISTANCE:
VerticalSemi anechoic chamber
3 m

Horizontal



03:16:58 PM 04/08/2025

03:22:09 PM 04/08/2025



03:12:52 PM 04/08/2025



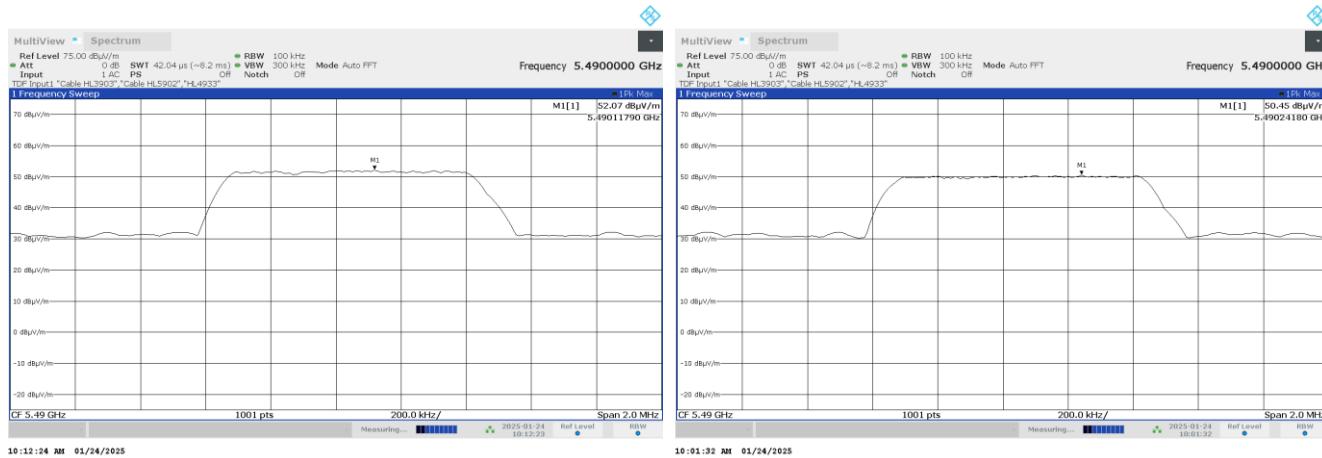
HERMON LABORATORIES

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-Dec-24		
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1019 hPa	Power: 3.6 VDC
Remarks:			

Plot 7.15.26 Radiated emission measurements at the sixth harmonic of mid carrier frequency

TEST SITE:
TEST DISTANCE:
VerticalSemi anechoic chamber
3 m

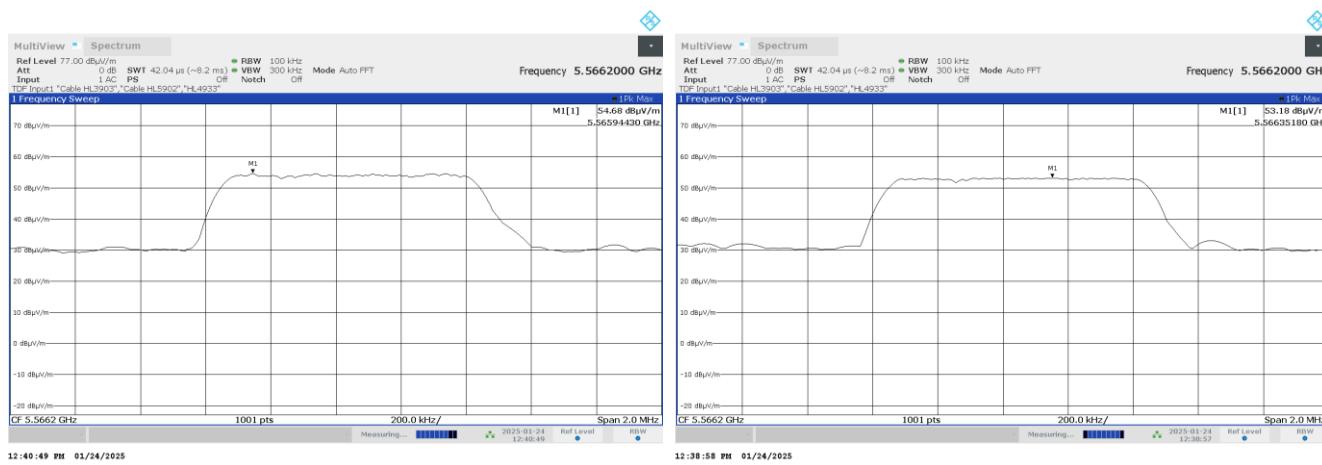
Horizontal



Plot 7.15.27 Radiated emission measurements at the sixth harmonic of high carrier frequency

TEST SITE:
TEST DISTANCE:
VerticalSemi anechoic chamber
3 m

Horizontal





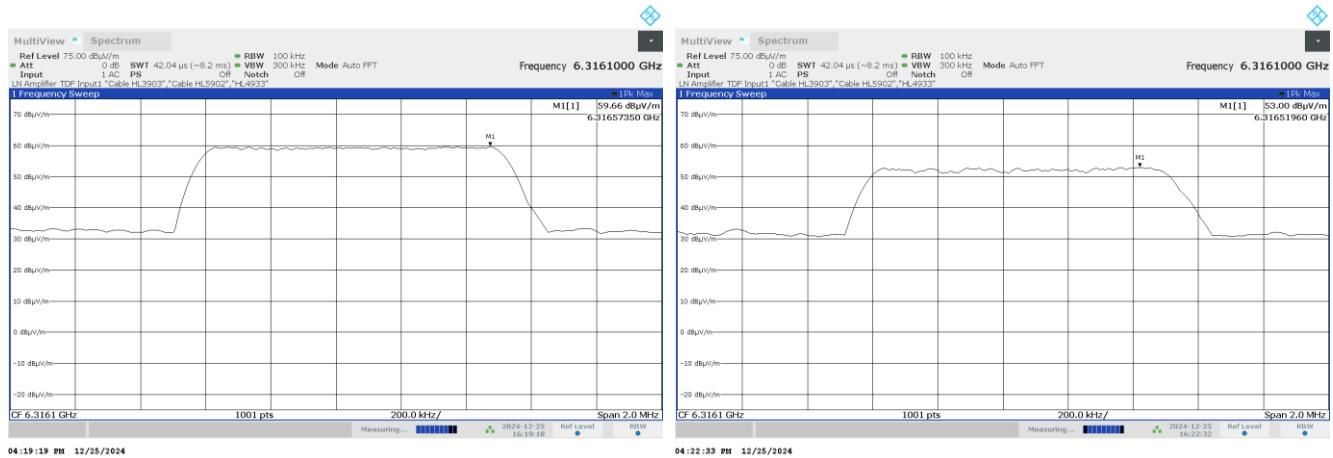
HERMON LABORATORIES

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-Dec-24		
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1019 hPa	Power: 3.6 VDC
Remarks:			

Plot 7.15.28 Radiated emission measurements at the seventh harmonic of low carrier frequency

TEST SITE:
TEST DISTANCE:
VerticalSemi anechoic chamber
3 m

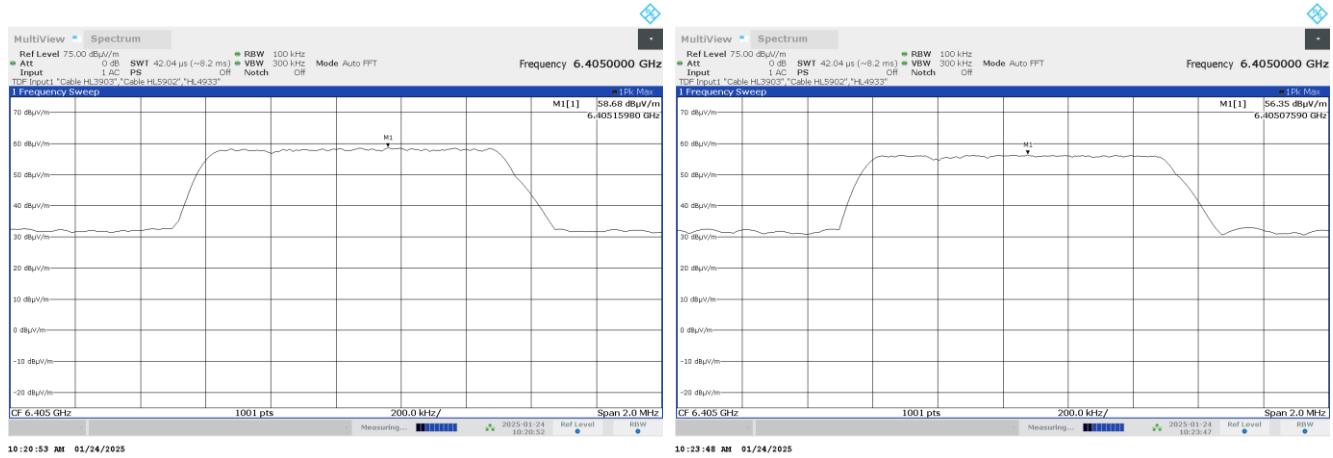
Horizontal



Plot 7.15.29 Radiated emission measurements at the seventh harmonic of mid carrier frequency

TEST SITE:
TEST DISTANCE:
VerticalSemi anechoic chamber
3 m

Horizontal





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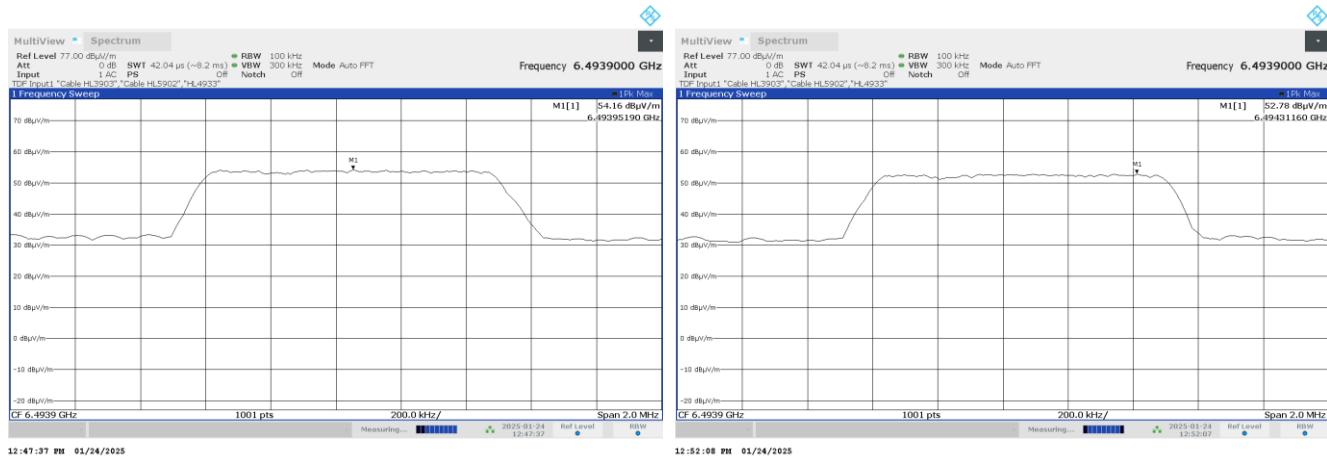
Test specification: Section 15.247(d) / RSS-247 section 5.5, Radiated spurious emissions			
Test procedure:	ANSI C63.10 section 11.12.1		
Test mode:	Compliance		
Date(s):	25-Dec-24		
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1019 hPa	Power: 3.6 VDC
Remarks:			

Plot 7.15.30 Radiated emission measurements at the seventh harmonic of high carrier frequency

TEST SITE:
TEST DISTANCE:
Vertical

Semi anechoic chamber
3 m

Horizontal

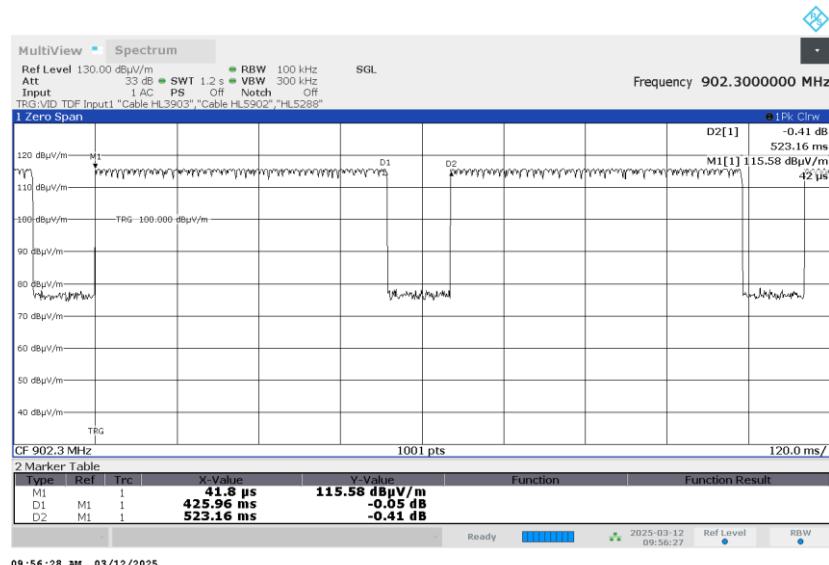




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Test specification: Section 15.247(d) / RSS-247 section 5.5, Radiated spurious emissions			
Test procedure:	ANSI C63.10 section 11.12.1		
Test mode:	Compliance		
Date(s):	25-Dec-24		
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1019 hPa	Power: 3.6 VDC
Remarks:			

Plot 7.15.31 Transmission pulse duration and period





HERMON LABORATORIES

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:			

7.16 Field strength of spurious emissions at 2GFSK modulation

7.16.1 General

This test was performed to measure field strength of spurious emissions from the EUT. Specification test limits are given in Table 7.16.1.

Table 7.16.1 Radiated spurious emissions limits

Frequency, MHz	Field strength at 3 m within restricted bands, dB(µV/m)***			Attenuation of field strength of spurious versus carrier outside restricted bands, dBc***
	Peak	Quasi Peak	Average	
0.009 – 0.090	148.5 – 128.5	NA	128.5 – 108.5**	30.0
0.090 – 0.110	NA	108.5 – 106.8**	NA	
0.110 – 0.490	126.8 – 113.8	NA	106.8 – 93.8**	
0.490 – 1.705		73.8 – 63.0**		
1.705 – 30.0*		69.5		
30 – 88	NA	40.0	NA	
88 – 216		43.5		
216 – 960		46.0		
960 - 1000		54.0		
1000 – 10 th harmonic	74.0	NA	54.0	

*- The limit for 3 m test distance was calculated using the inverse square distance extrapolation factor as follows:

$$L_{m2} = L_{m1} + 40 \log \left(\frac{S_1}{S_2} \right)$$

where S_1 and S_2 – standard defined and test distance respectively in meters.

**- The limit decreases linearly with the logarithm of frequency.

*** - The field strength limits applied from the lowest radio frequency generated in the device, without going below 9 kHz up to the tenth harmonic of the highest fundamental frequency.

7.16.2 Test procedure for spurious emission field strength measurements in 9 kHz to 30 MHz band

7.16.2.1 The EUT was set up as shown in Figure 7.16.1, energized and the performance check was conducted.

7.16.2.2 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360° and the measuring antenna was rotated around its vertical axis.

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

7.16.3 Test procedure for spurious emission field strength measurements above 30 MHz

7.16.3.1 The EUT was set up as shown in Figure 7.16.2, Figure 1.1.3, energized and the performance check was conducted.

7.16.3.2 The specified frequency range was investigated with antenna connected to spectrum analyzer/ 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.

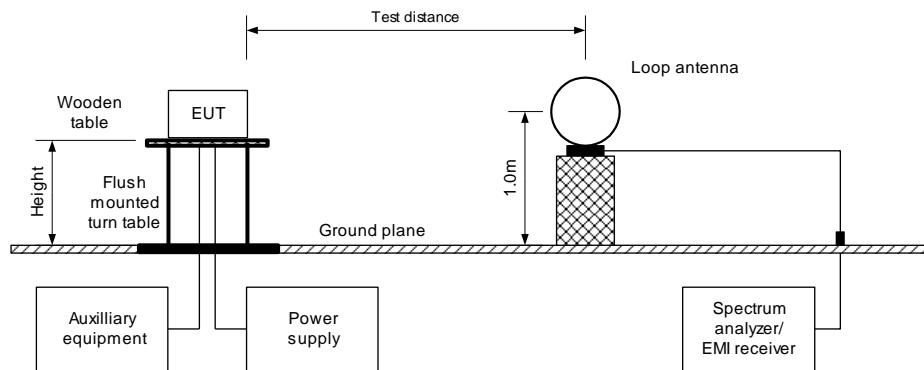
7.16.3.3 The worst test results (the lowest margins) were recorded and shown in the associated plots.



HERMON LABORATORIES

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			Verdict: PASS
Date(s): 25-Feb-25			
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC
Remarks:			

Figure 7.16.1 Setup for spurious emission field strength measurements below 30 MHz





HERMON LABORATORIES

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:			

Figure 7.16.2 Setup for spurious emission field strength measurements from 30 to 1000 MHz

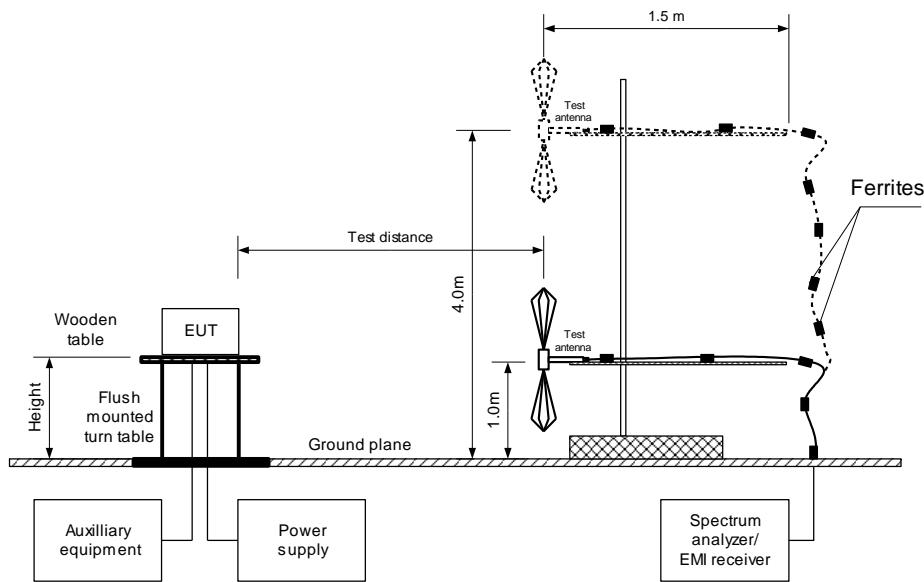
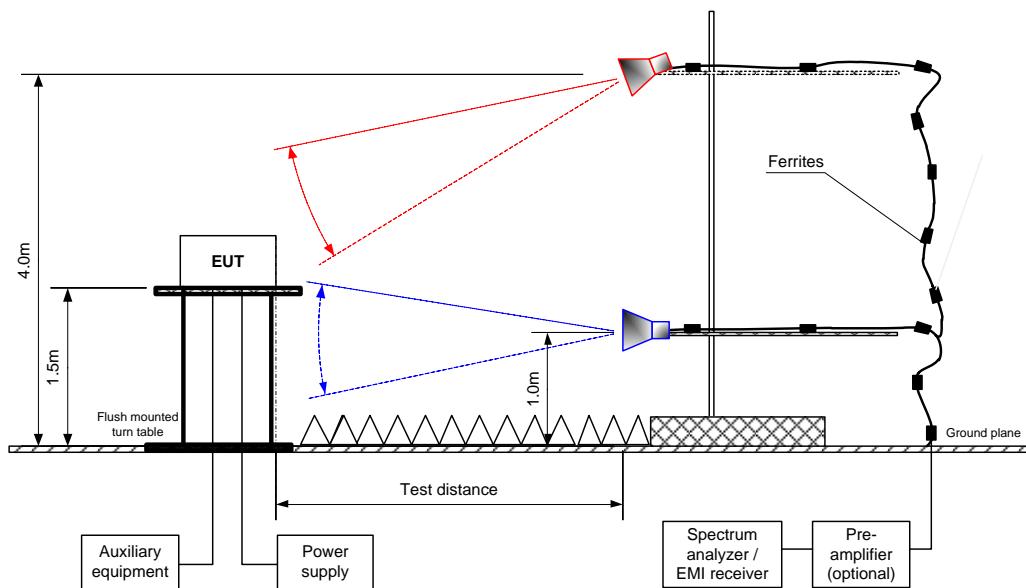


Figure 7.16.3 Setup for spurious emission field strength measurements above 1000 MHz





HERMON LABORATORIES

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:			

Table 7.16.2 Field strength of emissions outside restricted bands

ASSIGNED FREQUENCY:	902 – 928 MHz
INVESTIGATED FREQUENCY RANGE:	0.009 – 9500 MHz
TEST DISTANCE:	3 m
MODULATION:	2GFSK
MODULATING SIGNAL:	PRBS
BIT RATE:	50 kbps
DUTY CYCLE:	100 %
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
TRANSMITTER OUTPUT POWER:	7.31 dBm at low carrier frequency 9.55 dBm at mid carrier frequency 5.62 dBm at high carrier frequency
DETECTOR USED:	Peak
RESOLUTION BANDWIDTH:	100 kHz
VIDEO BANDWIDTH:	300 kHz
TEST ANTENNA TYPE:	Active loop (9 kHz – 30 MHz) Biconilog (30 MHz – 1000 MHz) Double ridged guide (above 1000 MHz)
FREQUENCY HOPPING:	Disabled

Low carrier frequency 902.3 MHz									
1804.658	42.00	Vertical	1.5	35	104.69	62.69	30.0	32.69	Pass
6315.997	43.86	Vertical	1.33	-37		60.83		30.83	
Mid carrier frequency 915.0 MHz									
1829.971	49.29	Vertical	1.27	-43	106.93	57.64	30.0	27.64	Pass
High carrier frequency 927.7 MHz									
1855.468	46.75	Vertical	1.30	0	103.00	56.25	30.0	26.25	Pass

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

**- Margin = Attenuation below carrier – specification limit.



HERMON LABORATORIES

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:			

Table 7.16.3 Field strength of spurious emissions above 1 GHz within restricted bands

ASSIGNED FREQUENCY: 902 - 928 MHz
 INVESTIGATED FREQUENCY RANGE: 1000 – 9500 MHz
 TEST DISTANCE: 3 m
 MODULATION: 2GFSK
 MODULATING SIGNAL: PRBS
 BIT RATE: 50 kbps
 DUTY CYCLE: 100 %
 TRANSMITTER OUTPUT POWER SETTINGS: Maximum
 TRANSMITTER OUTPUT POWER: 7.31 dBm at low carrier frequency
 9.55 dBm at mid carrier frequency
 5.62 dBm at high carrier frequency
 DETECTOR USED: Peak
 RESOLUTION BANDWIDTH: 1000 kHz
 TEST ANTENNA TYPE: Double ridged guide
 FREQUENCY HOPPING: Disabled

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength(VBW=3 MHz)			Average field strength(VBW=10 Hz)			Verdict		
	Polarization	Height, m		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**	Measured, dB(µV/m)	Calculated, dB(µV/m)	Limit, dB(µV/m)			
Low carrier frequency 902.3 MHz												
No emissions were detected												
Mid carrier frequency 915.0 MHz												
2744.990	Vertical	1.5	-43	51.43	74.00	-22.57	N/A	30.06	54.00	-23.94		
3659.998	Vertical	1.5	-35	41.15	74.00	-32.85	N/A	19.78	54.00	-34.22		
High carrier frequency 927.7 MHz												
2783.103	Horizontal	1.33	-32	58.05	74.00	-15.95	N/A	36.68	54.00	-17.32		
3710.947	Horizontal	1.33	-47	53.21	74.00	-20.79	N/A	31.84	54.00	-22.16		

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

**- Margin = Measured field strength - specification limit.

***- Margin = Calculated field strength - specification limit,
where Calculated field strength = Measured field strength + average factor.**Table 7.16.4 Average factor calculation**

Transmission pulse		Transmission burst		Transmission train duration, ms	Average factor, dB
Duration, ms	Period, ms	Duration, ms	Period, ms		
8.54	387.00	N/A	N/A	N/A	-21.37

*- Average factor was calculated as follows

for pulse train shorter than 100 ms:

$$\text{Average factor} = 20 \times \log_{10} \left(\frac{\text{Pulse duration}}{\text{Pulse period}} \times \frac{\text{Burst duration}}{\text{Train duration}} \times \text{Number of bursts within pulse train} \right)$$

for pulse train longer than 100 ms:

$$\text{Average factor} = 20 \times \log_{10} \left(\frac{\text{Pulse duration}}{\text{Pulse period}} \times \frac{\text{Burst duration}}{100 \text{ ms}} \times \text{Number of bursts within 100 ms} \right)$$



HERMON LABORATORIES

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		Verdict: PASS	
Date(s): 25-Feb-25			
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC
Remarks:			

Table 7.16.5 Field strength of spurious emissions below 1 GHz within restricted bands

ASSIGNED FREQUENCY:	902 – 928 MHz
INVESTIGATED FREQUENCY RANGE:	0.009 – 1000 MHz
TEST DISTANCE:	3 m
MODULATION:	2GFSK
MODULATING SIGNAL:	PRBS
BIT RATE:	50 kbps
DUTY CYCLE:	100 %
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
TRANSMITTER OUTPUT POWER:	7.31 dBm at low carrier frequency 9.55 dBm at mid carrier frequency 5.62 dBm at high carrier frequency
RESOLUTION BANDWIDTH:	0.2 kHz (9 kHz – 150 kHz) 9.0 kHz (150 kHz – 30 MHz) 120 kHz (30 MHz – 1000 MHz)
VIDEO BANDWIDTH:	> Resolution bandwidth
TEST ANTENNA TYPE:	Active loop (9 kHz – 30 MHz) Biconilog (30 MHz – 1000 MHz)
FREQUENCY HOPPING:	Disabled

Frequency, MHz	Peak emission, dB(µV/m)	Quasi-peak			Antenna polarization	Antenna height, m	Turn-table position**, degrees	Verdict
Low carrier frequency 902.3 MHz		Measured emission, dB(µV/m)			Limit, dB(µV/m)	Margin, dB*		
		No emissions detected					Pass	
Mid carrier frequency 915.0 MHz		No emissions detected					Pass	
High carrier frequency 927.7 MHz		No emissions detected					Pass	

*- Margin = Measured emission - specification limit.

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



HERMON LABORATORIES

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			Verdict:	PASS
Date(s):	25-Feb-25				
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa		Power: 3.6 VDC	
Remarks:					

Table 7.16.6 Restricted bands according to FCC section 15.205

MHz	MHz	MHz	MHz	MHz	GHz
0.09 - 0.11	8.37625 - 8.38675	73 - 74.6	399.9 - 410	2690 - 2900	10.6 - 12.7
0.495 - 0.505	8.41425 - 8.41475	74.8 - 75.2	608 - 614	3260 - 3267	13.25 - 13.4
2.1735 - 2.1905	12.29 - 12.293	108 - 121.94	960 - 1240	3332 - 3339	14.47 - 14.5
4.125 - 4.128	12.51975 - 12.52025	123 - 138	1300 - 1427	3345.8 - 3358	15.35 - 16.2
4.17725 - 4.17775	12.57675 - 12.57725	149.9 - 150.05	1435 - 1626.5	3600 - 4400	17.7 - 21.4
4.20725 - 4.20775	13.36 - 13.41	156.52475 - 156.52525	1645.5 - 1646.5	4500 - 5150	22.01 - 23.12
6.215 - 6.218	16.42 - 16.423	156.7 - 156.9	1660 - 1710	5350 - 5460	23.6 - 24
6.26775 - 6.26825	16.69475 - 16.69525	162.0125 - 167.17	1718.8 - 1722.2	7250 - 7750	31.2 - 31.8
6.31175 - 6.31225	16.80425 - 16.80475	167.72 - 173.2	2200 - 2300	8025 - 8500	36.43 - 36.5
8.291 - 8.294	25.5 - 25.67	240 - 285	2310 - 2390	9000 - 9200	
8.362 - 8.366	37.5 - 38.25	322 - 335.4	2483.5 - 2500	9300 - 9500	Above 38.6

Table 7.16.7 Restricted bands according to RSS-Gen

MHz	MHz	MHz	MHz	MHz	GHz
0.09 - 0.11	8.291 - 8.294	16.80425 - 16.80475	399.9 - 410	3260 - 3267	10.6 - 12.7
2.1735 - 2.1905	8.362 - 8.366	25.5 - 25.67	608 - 614	3332 - 3339	13.25 - 13.4
3.020 - 3.026	8.37625 - 8.38675	37.5 - 38.25	960 - 1427	3345.8 - 3358	14.47 - 14.5
4.125 - 4.128	8.41425 - 8.41475	73 - 74.6	1435 - 1626.5	3500 - 4400	15.35 - 16.2
4.17725 - 4.17775	12.29 - 12.293	74.8 - 75.2	1645.5 - 1646.5	4500 - 5150	17.7 - 21.4
4.20725 - 4.20775	12.51975 - 12.52025	108 - 138	1660 - 1710	5350 - 5460	22.01 - 23.12
5.677 - 5.683	12.57675 - 12.57725	156.52475 - 156.52525	1718.8 - 1722.2	7250 - 7750	23.6 - 24
6.215 - 6.218	13.36 - 13.41	156.7 - 156.9	2200 - 2300	8025 - 8500	31.2 - 31.8
6.26775 - 6.26825	16.42 - 16.423	240 - 285	2310 - 2390	9000 - 9200	36.43 - 36.5
6.31175 - 6.31225	16.69475 - 16.69525	322 - 335.4	2655 - 2900	9300 - 9500	Above 38.6

Reference numbers of test equipment used

HL 0446	HL 3903	HL 4339	HL 4933	HL 5288	HL 5902	HL 7585	
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Full description is given in Appendix A.

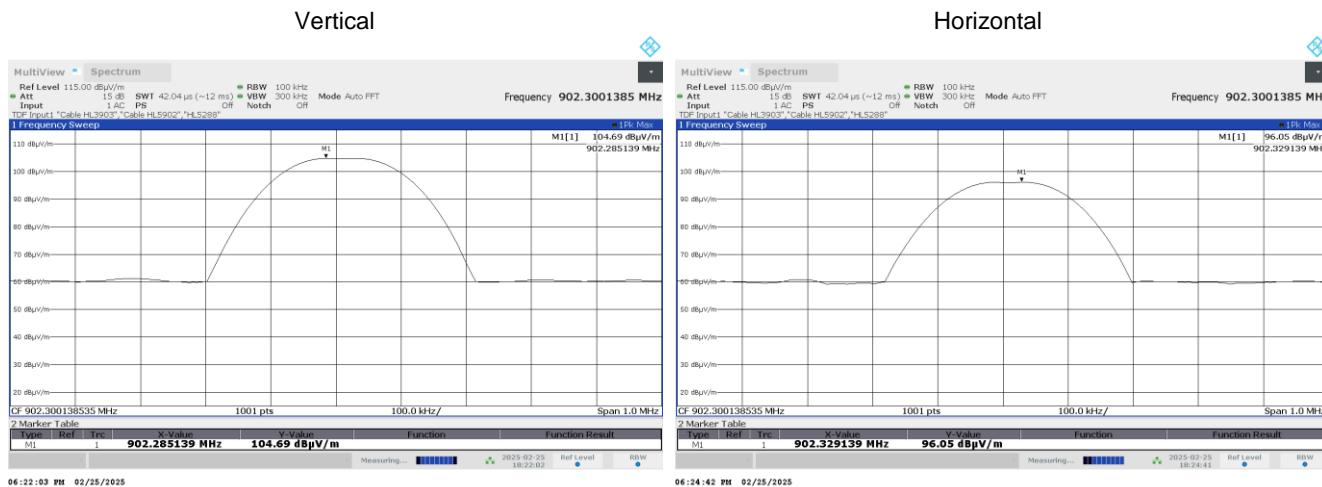


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Test specification: Section 15.247(d) / RSS-247 section 5.5, Radiated spurious emissions			
Test procedure:	ANSI C63.10 section 11.12.1		
Test mode:	Compliance		
Date(s):	25-Feb-25		
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa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

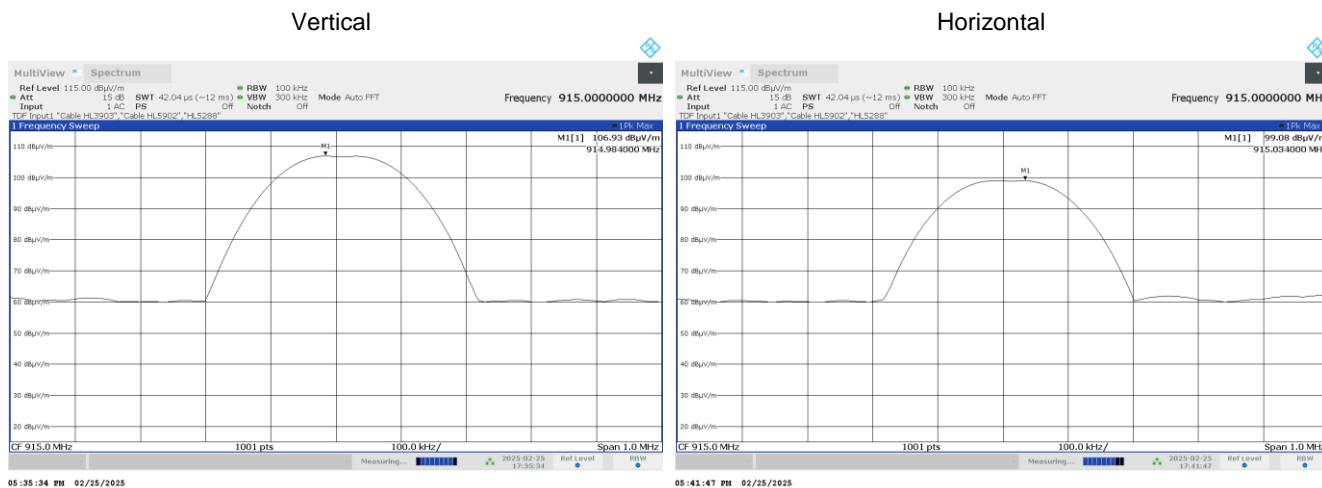
Plot 7.16.1 Radiated emission measurements at the low carrier frequency

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and horizontal



Plot 7.16.2 Radiated emission measurements at the mid carrier frequency

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and horizontal





HERMON LABORATORIES

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:			

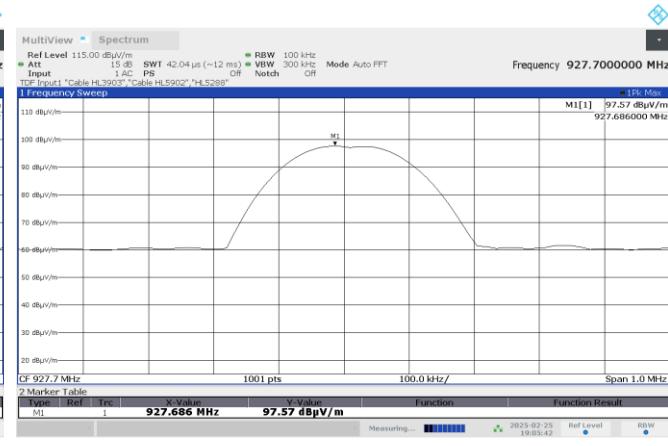
Plot 7.16.3 Radiated emission measurements at the high carrier frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and horizontal

Vertical



Horizontal



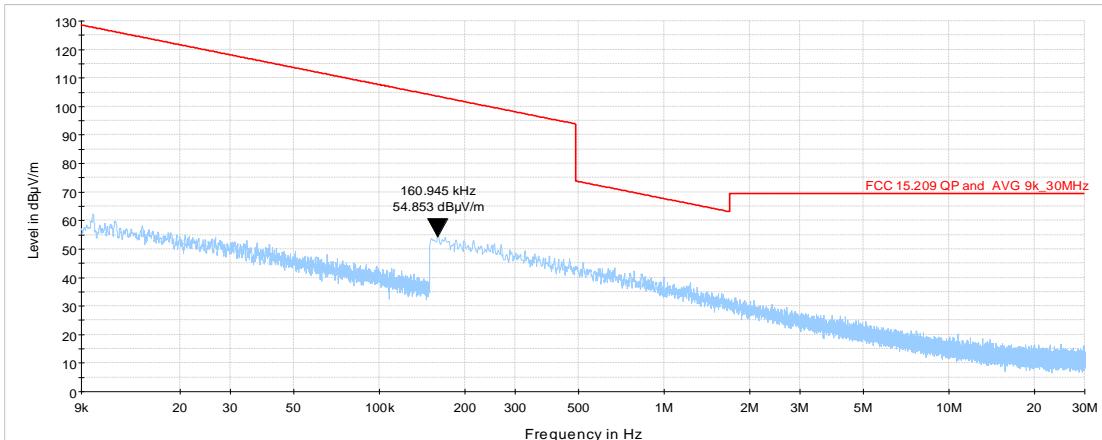


HERMON LABORATORIES

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:			

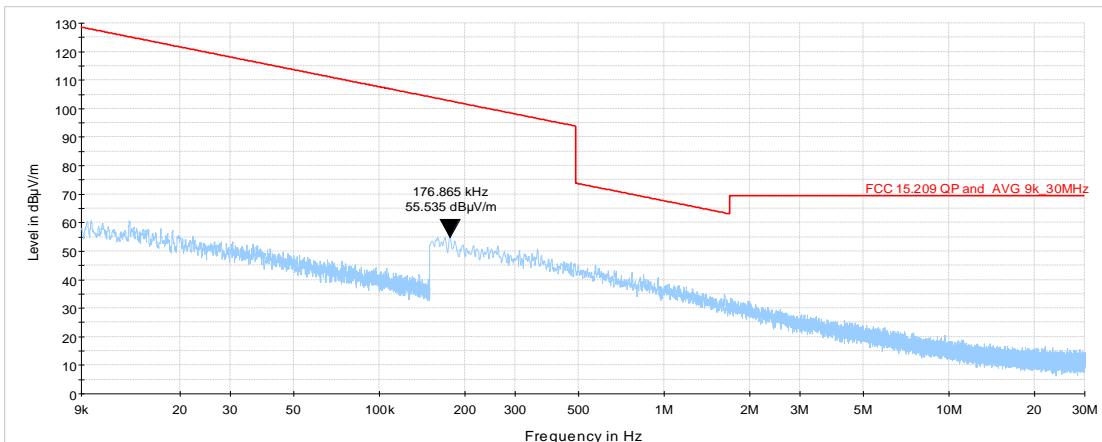
Plot 7.16.4 Radiated emission measurements from 9 to 30000 kHz at the low carrier frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical



Plot 7.16.5 Radiated emission measurements from 9 to 30000 kHz at the mid carrier frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical



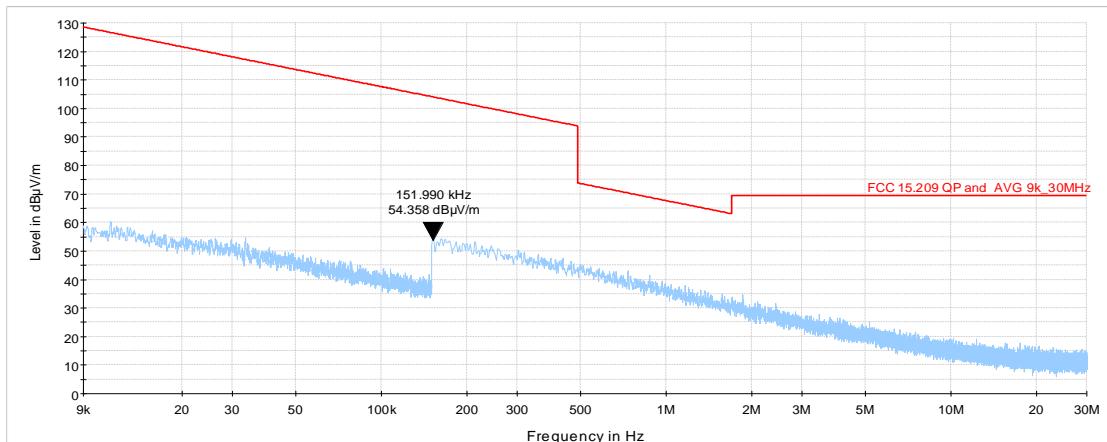


HERMON LABORATORIES

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 7.16.6 Radiated emission measurements from 9 to 30000 kHz at the high carrier frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical





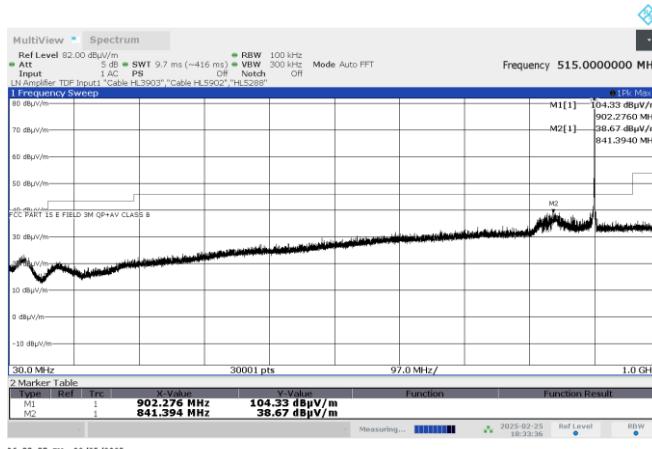
HERMON LABORATORIES

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			Verdict: PASS
Date(s): 25-Feb-25			
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC
Remarks:			

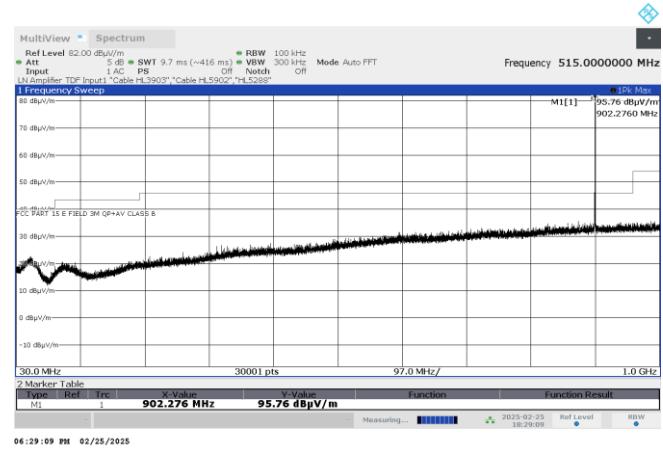
Plot 7.16.7 Radiated emission measurements from 30 to 1000 MHz at the low carrier frequency

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and Horizontal

Vertical



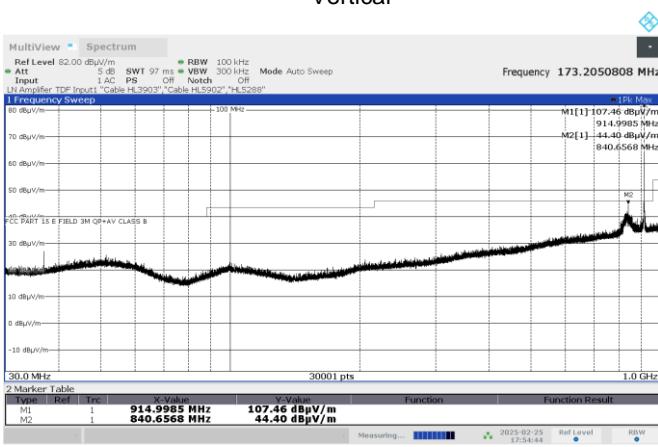
Horizontal



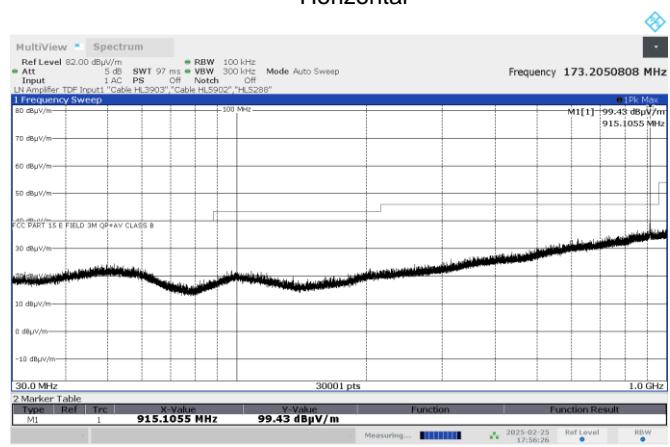
Plot 7.16.8 Radiated emission measurements from 30 to 1000 MHz at the mid carrier frequency

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and Horizontal

Vertical



Horizontal





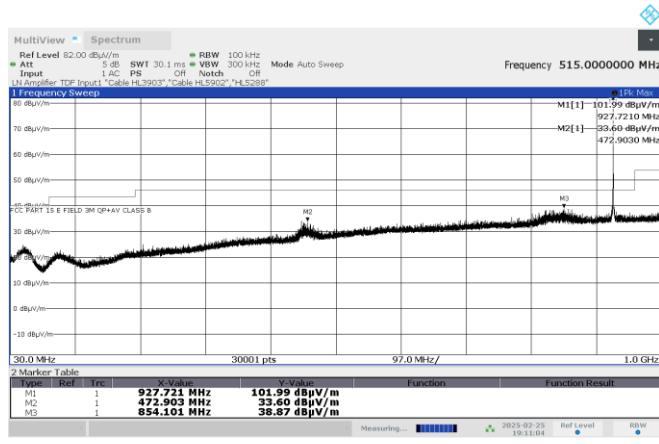
HERMON LABORATORIES

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:			

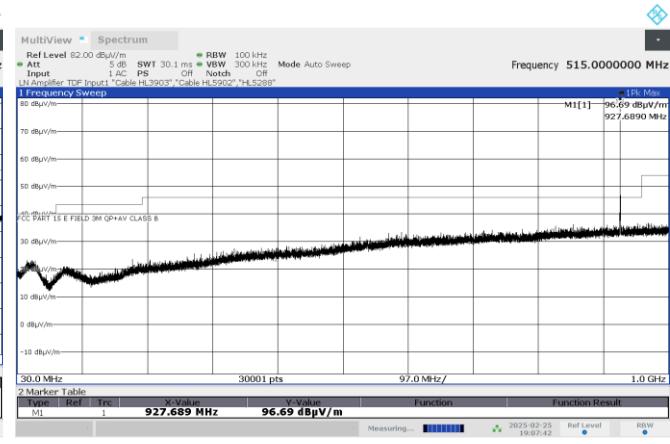
Plot 7.16.9 Radiated emission measurements from 30 to 1000 MHz at the high carrier frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal

Vertical



Horizontal



07:11:04 PM 02/25/2025

07:07:43 PM 02/25/2025

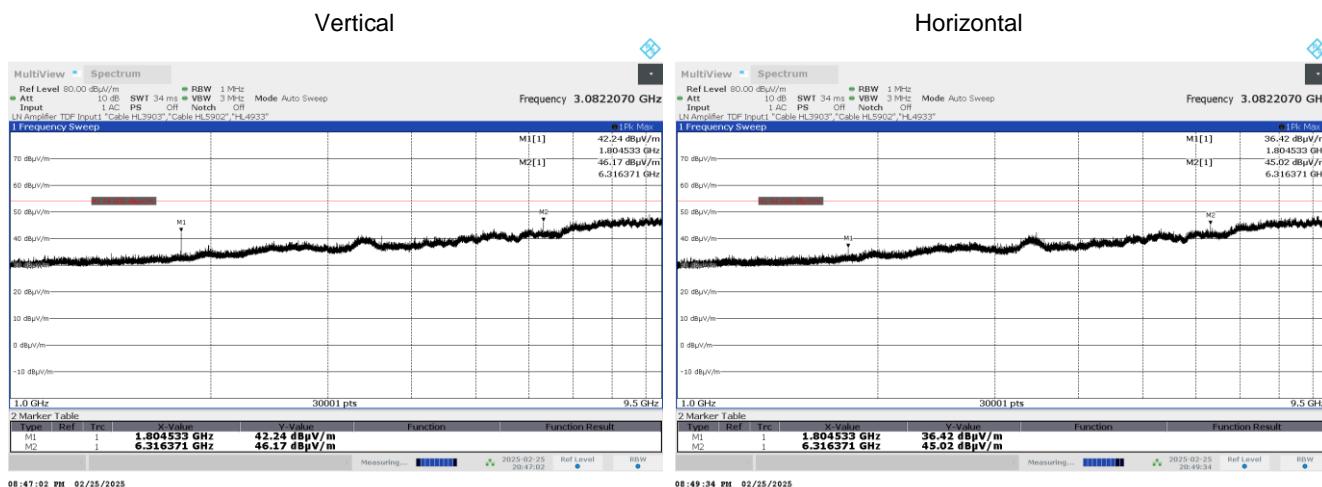


HERMON LABORATORIES

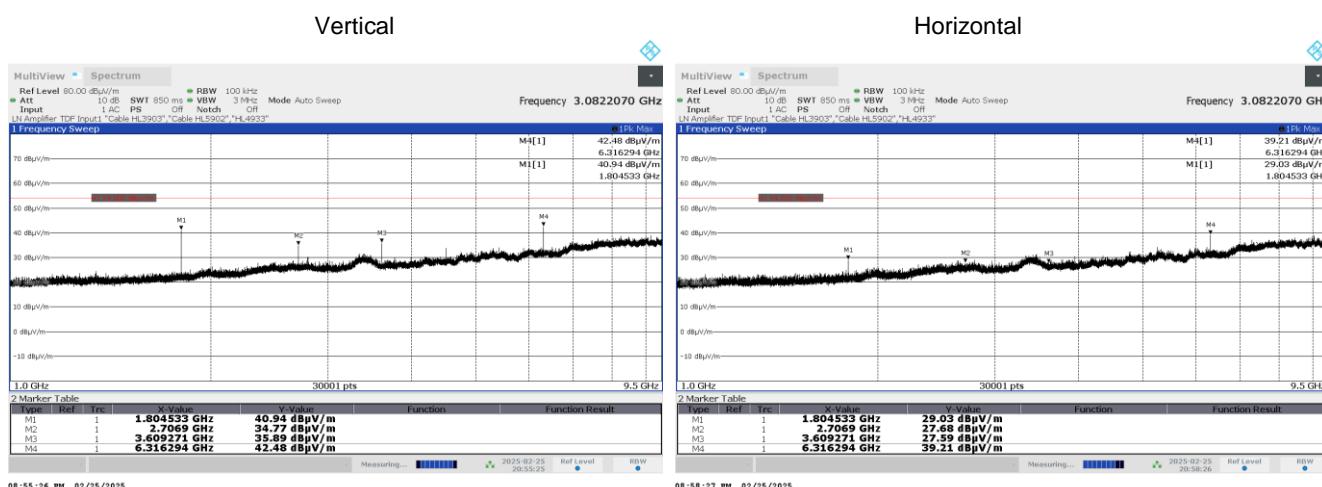
Test specification: Section 15.247(d) / RSS-247 section 5.5, Radiated spurious emissions				
Test procedure: ANSI C63.10 section 11.12.1				
Test mode: Compliance			Verdict: PASS	
Date(s): 25-Feb-25				
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC	
Remarks:				

Plot 7.16.10 Radiated emission measurements from 1000 to 9500 MHz at the low carrier frequency

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and Horizontal

**Plot 7.16.11 Radiated emission measurements from 1000 to 9500 MHz at the low carrier frequency with 100 kHz RBW**

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and Horizontal





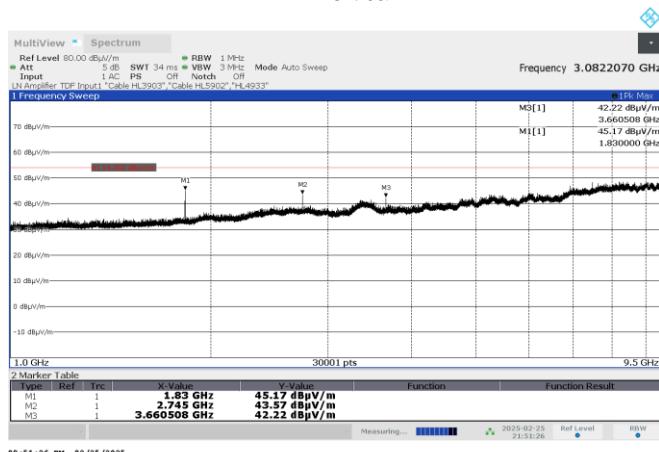
HERMON LABORATORIES

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:			

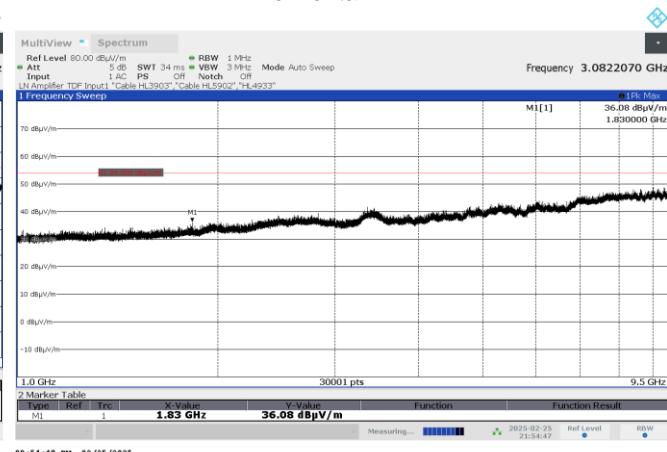
Plot 7.16.12 Radiated emission measurements from 1000 to 9500 MHz at the mid carrier frequency

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and Horizontal

Vertical



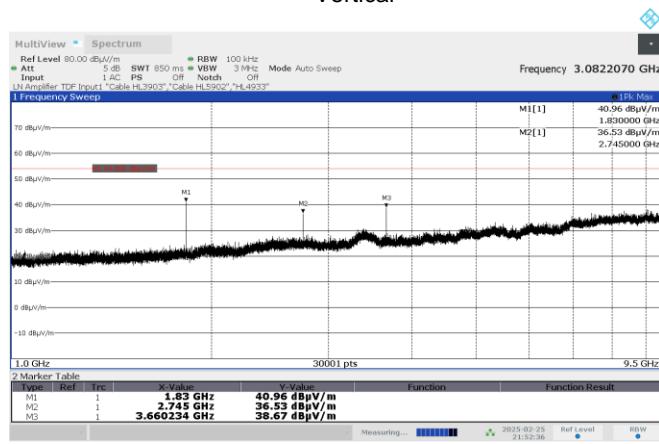
Horizontal



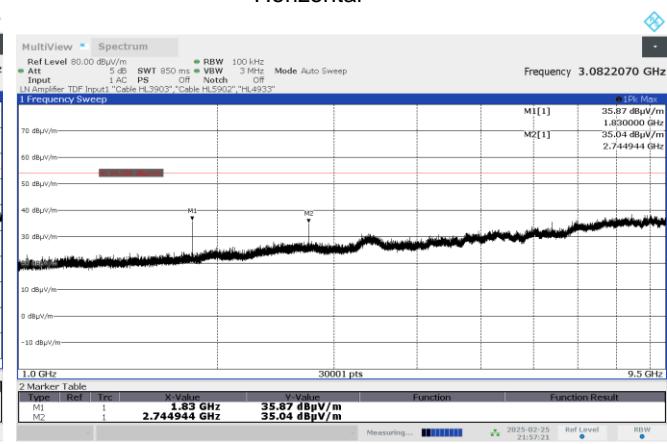
Plot 7.16.13 Radiated emission measurements from 1000 to 9500 MHz at the mid carrier frequency with 100 kHz RBW

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and Horizontal

Vertical



Horizontal





HERMON LABORATORIES

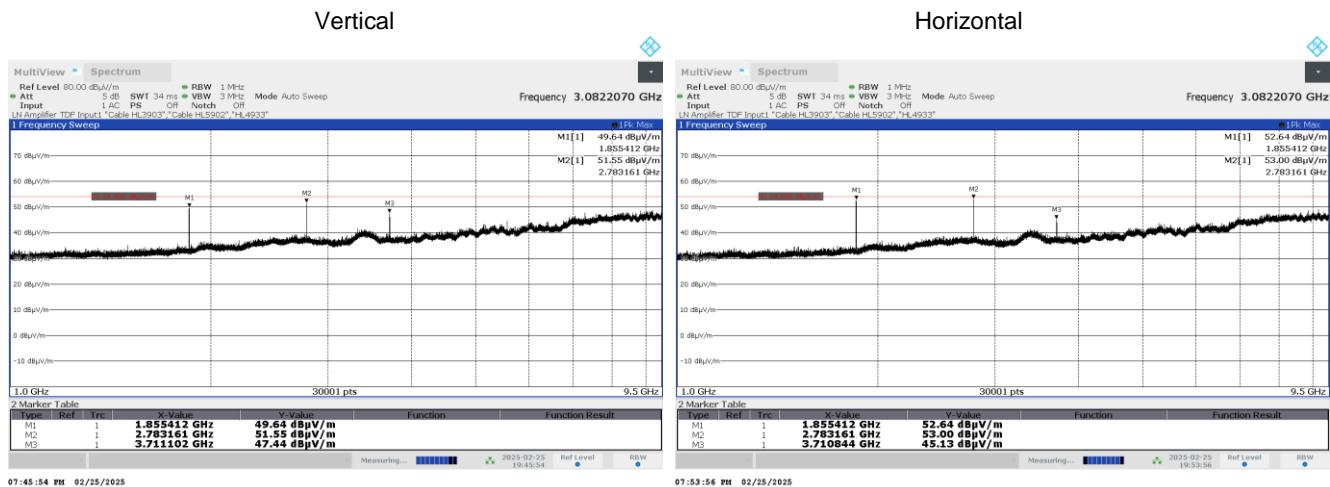
Report ID: TELRAD_FCC.55429_Hybrid_LoRa_2GFSK.docx

Date of Issue: 8-May-25

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			Verdict: PASS
Date(s): 25-Feb-25			
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC
Remarks:			

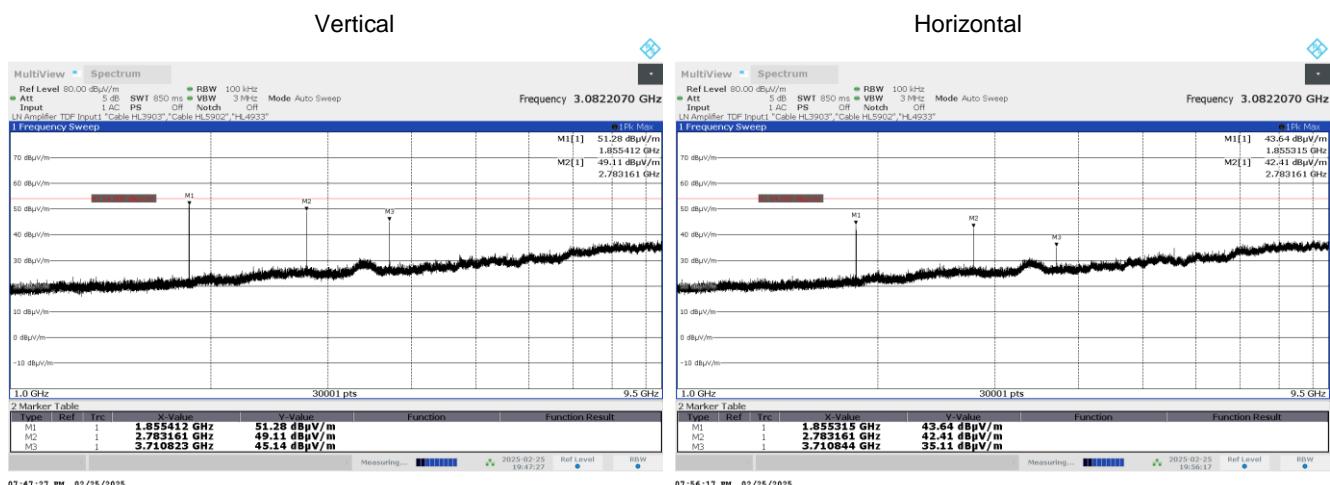
Plot 7.16.14 Radiated emission measurements from 1000 to 9500 MHz at the high carrier frequency

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and Horizontal



Plot 7.16.15 Radiated emission measurements from 1000 to 9500 MHz at the high carrier frequency with 100 kHz RBW

TEST SITE: Semi anechoic chamber
 TEST DISTANCE: 3 m
 ANTENNA POLARIZATION: Vertical and Horizontal





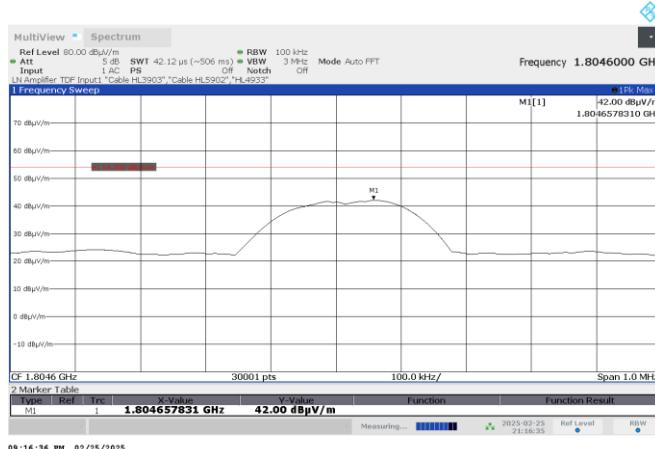
HERMON LABORATORIES

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			Verdict: PASS
Date(s): 25-Feb-25			
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC
Remarks:			

Plot 7.16.16 Radiated emission measurements at the second harmonic of low carrier frequency

TEST SITE:
TEST DISTANCE:Semi anechoic chamber
3 m

Vertical



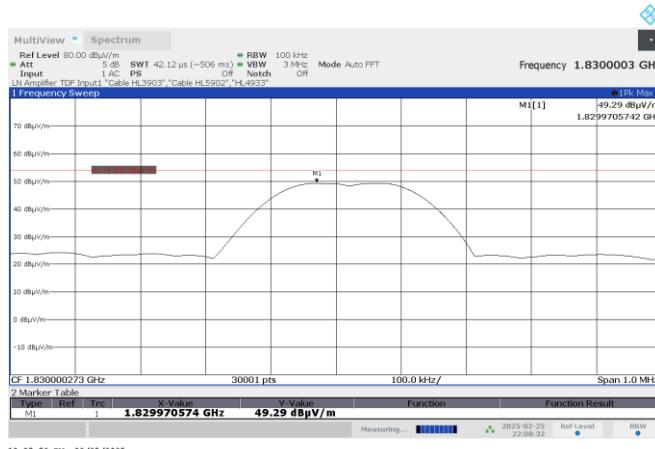
Horizontal



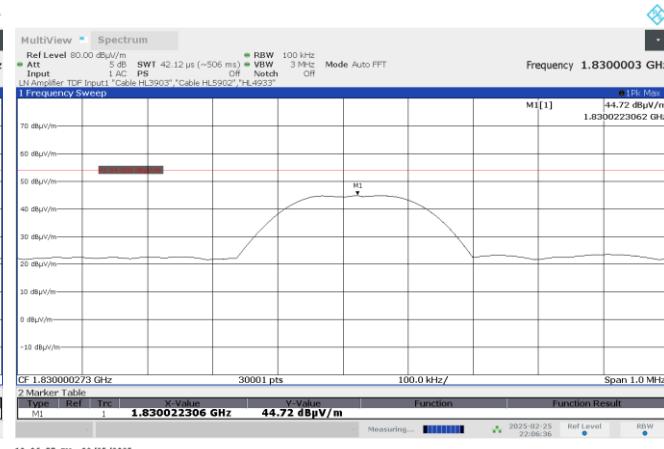
Plot 7.16.17 Radiated emission measurements at the second harmonic of mid carrier frequency

TEST SITE:
TEST DISTANCE:Semi anechoic chamber
3 m

Vertical



Horizontal





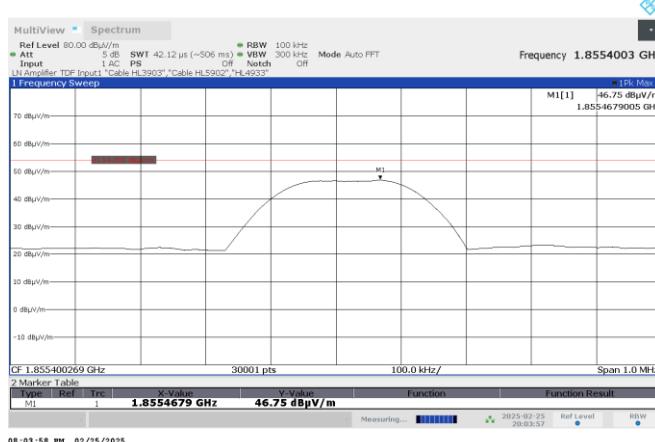
HERMON LABORATORIES

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		Verdict: PASS	
Date(s): 25-Feb-25			
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC
Remarks:			

Plot 7.16.18 Radiated emission measurements at the second harmonic of high carrier frequency

TEST SITE:
TEST DISTANCE:Semi anechoic chamber
3 m

Vertical



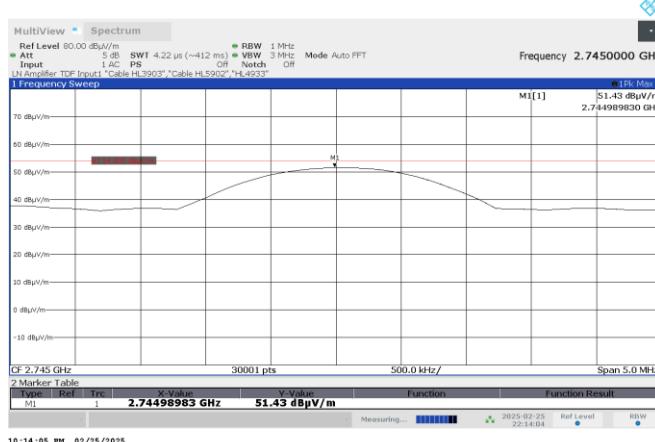
Horizontal



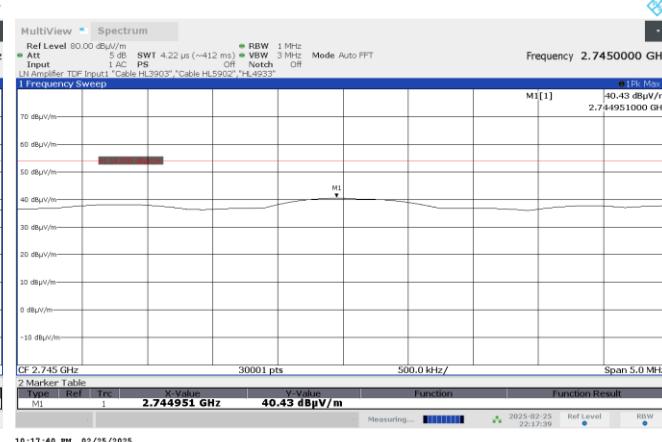
Plot 7.16.19 Radiated emission measurements at the third harmonic of mid carrier frequency

TEST SITE:
TEST DISTANCE:Semi anechoic chamber
3 m

Vertical



Horizontal





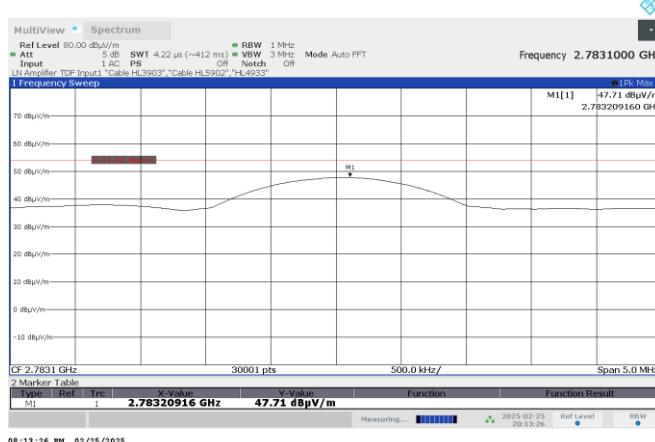
HERMON LABORATORIES

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		Verdict: PASS	
Date(s): 25-Feb-25			
Temperature: 23 °C	Relative Humidity: 47 %	Air Pressure: 1022 hPa	Power: 3.6 VDC
Remarks:			

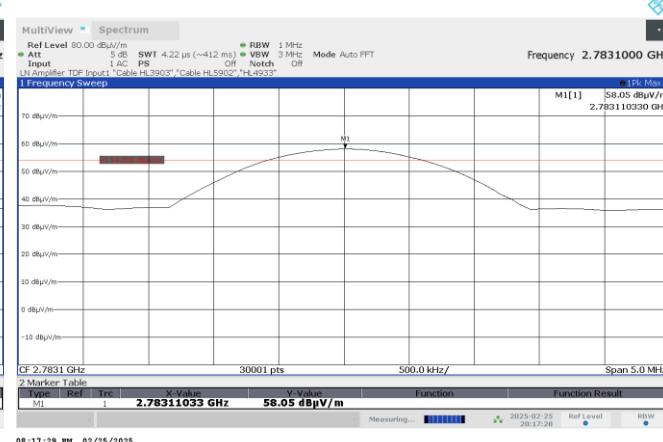
Plot 7.16.20 Radiated emission measurements at the third harmonic of high carrier frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m

Vertical



Horizontal



Plot 7.16.21 Radiated emission measurements at the fourth harmonic of mid carrier frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m

4.66 GHz

3.66 GHz

2.66 GHz

1.66 GHz

0.66 GHz

0.00 GHz