



Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

7.4 Out of band radiated emissions above 40 GHz up to 200 GHz

7.4.1 General

This test was performed to measure radiated spurious emissions from the EUT. Specification test limits are given in Table 7.4.1.

Table 7.4.1 Radiated spurious emission test limits

Frequency, GHz	Power density at 3 m distance pW/cm ²	Distance, m	Field strength dB(μV/m)*, peak	Field strength dB(μV/m)*, average
40 – 200	90.0	3.0	105.30	85.30
71 - 75	90.0	1.0	114.84	94.84
75 - 110	90.0	0.50	120.90**	100.90**
110 - 140	90.0	0.05	140.90**	120.90**
140 - 200	90.0	0.01	154.80**	134.80**

* - Field strength was calculated per equation (26) of ANSI C63.10-2013 section 9 as follows: $E = \sqrt{PD \times 377}$, where PD is the power density at the distance specified by the limit in W/m², E- field strength in V/m.

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

7.4.2 Test procedure for spurious emission field strength measurements

7.4.2.1 The EUT was set up as shown in Figure 7.4.1, energized and the performance check was conducted.

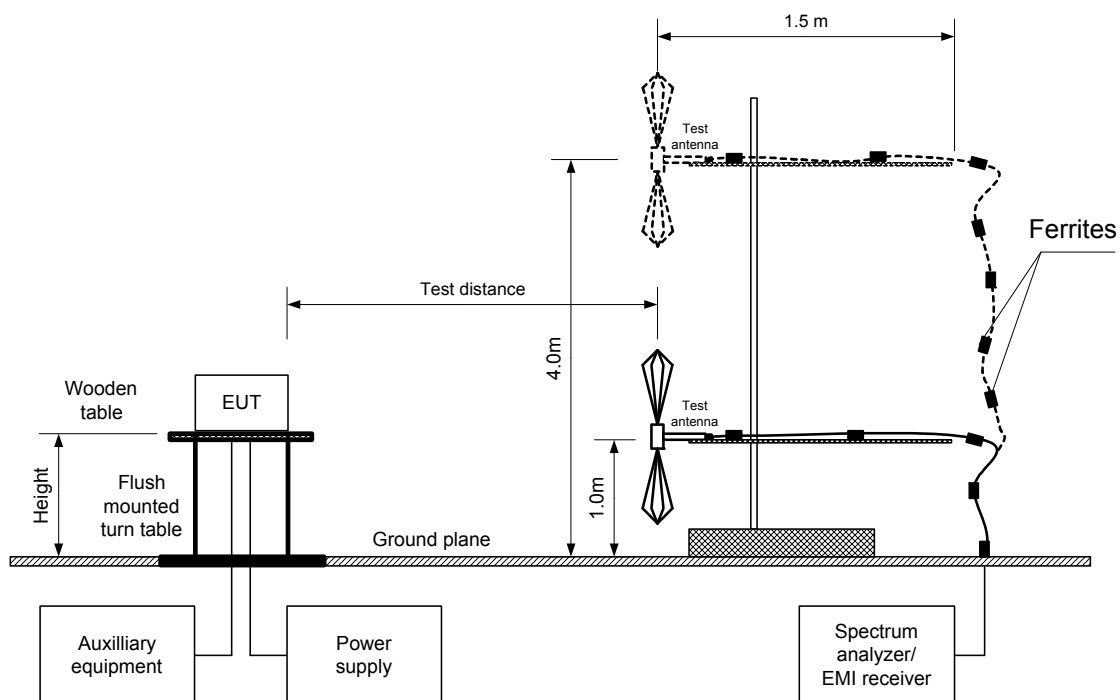
7.4.2.2 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360°, the measuring antenna height was changed from 1 to 4 m, its polarization was switched from vertical to horizontal.

7.4.2.3 The test results are given in Table 7.4.2 and shown in the associated plots.



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode:	Compliance	Verdict:	PASS
Date(s):	01-Jun-21 - 07-Jun-21		
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Figure 7.4.1 Radiated emissions above 40 GHz test set up





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Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Table 7.4.2 Out of band radiated emissions test results

TEST DISTANCE: 0.01 - 3 m
EUT POSITION: Typical (Vertical)
MODULATION: 16QAM
TRANSMITTER OUTPUT POWER: Maximum
INVESTIGATED FREQUENCY RANGE: 40 – 200 GHz
RESOLUTION BANDWIDTH: 1000 kHz
VIDEO BANDWIDTH: ≥ Resolution bandwidth
TEST ANTENNA TYPE: Standard Gain Horn 24dB (40-60 GHz)
Standard Gain Horn 24dB (50-75 GHz)
Standard Gain Horn 24dB (75-110 GHz)
Standard Gain Horn 24dB (90-140 GHz)
Standard Gain Horn 24dB (140-200 GHz)

Standard Gain Horn 24dB (140-200 GHz)										
Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength(VBW=3 MHz)			Average field strength(VBW=10 kHz)			Verdict
	Polariz.	Height, m		Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	
Low carrier frequency										
44969.0	Vertical	1.5	0	82.94	105.30	-22.36	75.03	85.30	-10.27	Pass
49986.0	Vertical	1.5	0	90.38	105.30	-14.92	83.69	85.30	-1.61	Pass
56932.8	Vertical	1.5	0	89.02	105.30	-16.28	81.34	85.30	-3.96	Pass
Mid carrier frequency										
44454.5	Vertical	1.5	0	84.14	105.30	-21.16	74.98	85.30	-10.32	Pass
53283.0	Vertical	1.5	0	88.73	105.30	-16.57	81.66	85.30	-3.64	Pass
56924.0	Vertical	1.5	0	87.54	105.30	-17.76	79.50	85.30	-5.8	Pass
High carrier frequency										
40411.0	Vertical	1.5	0	82.06	105.30	-23.24	74.53	85.30	-10.77	Pass
46535.0	Vertical	1.5	0	87.03	105.30	-18.27	79.27	85.30	-6.03	Pass
54991.0	Vertical	1.5	0	86.51	105.30	-18.79	79.14	85.30	-6.16	Pass
55277.0	Vertical	1.5	0	87.57	105.30	-17.73	82.15	85.30	-3.15	Pass

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

**- Margin = Measured emission - specification limit.

Reference numbers of test equipment used

HL 0747	HL 0770	HL 0771	HL 0772	HL 1312	HL 3235	HL 3290	HL 3291
HL 3306	HL 3329	HL 3536	HL 4023	HL 5372	HL 5376	HL 5380	

Full description is given in Appendix A.

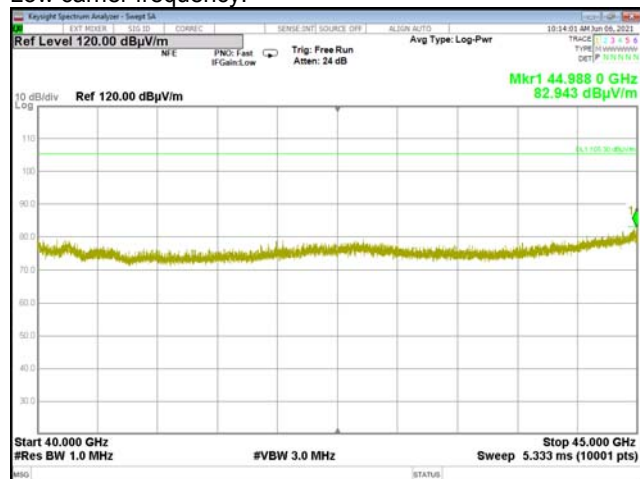
Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Plot 7.4.1 Spurious emission measurements in 40 – 45 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
3 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

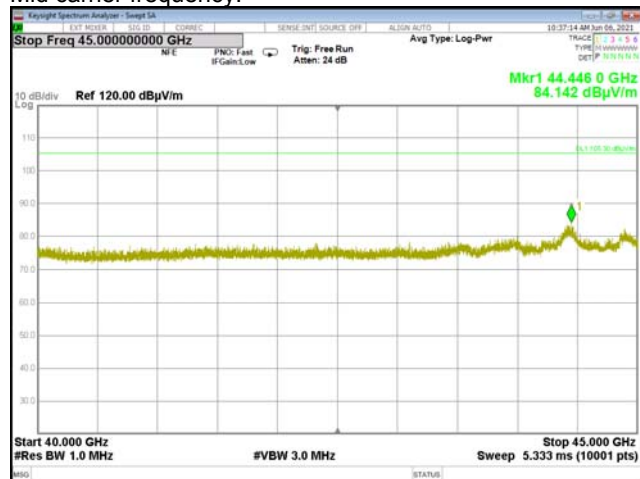
Low carrier frequency:



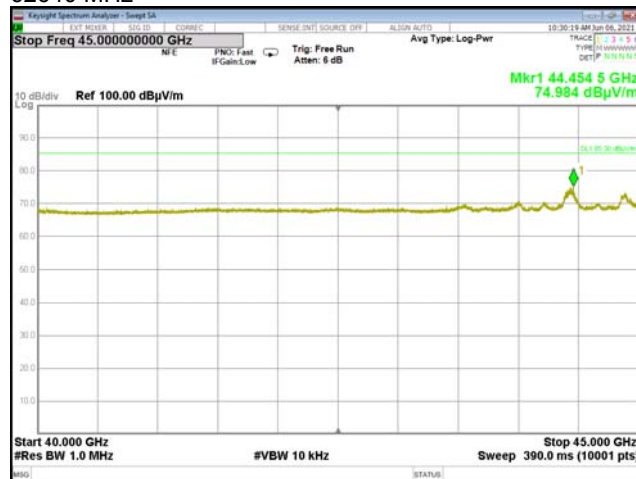
58320 MHz



Mid carrier frequency:



62640 MHz



Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

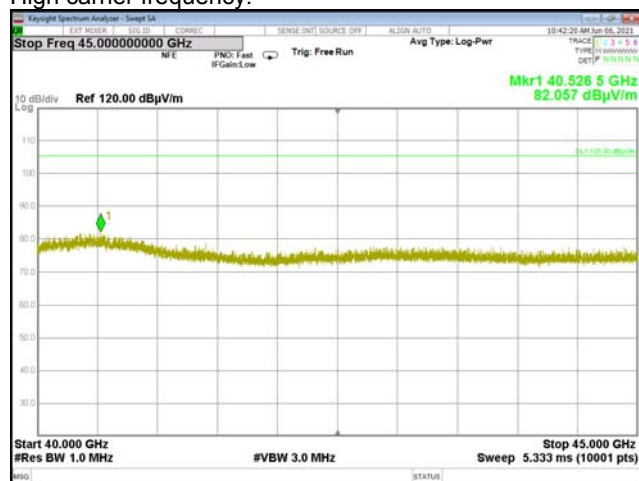
Plot 7.4.2 Spurious emission measurements in 40 – 45 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
3 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



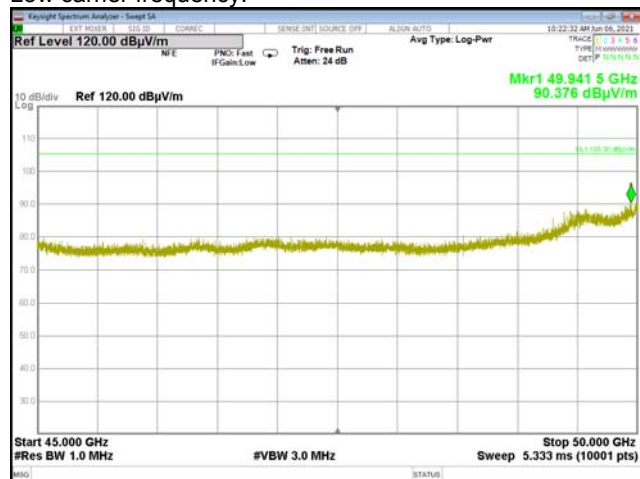
Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Plot 7.4.3 Spurious emission measurements in 45 – 50 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
3 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

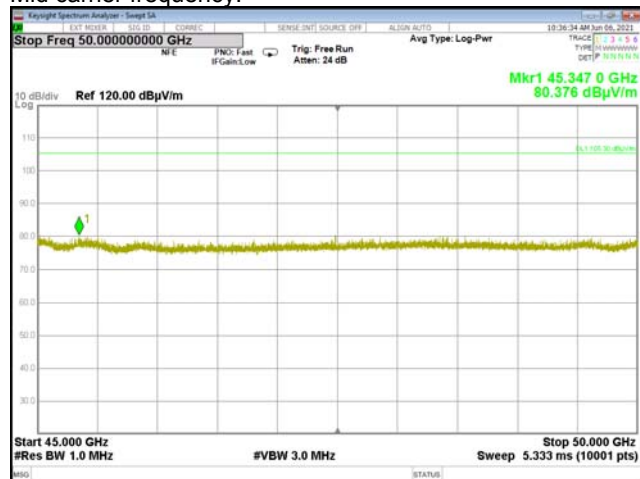
Low carrier frequency:



58320 MHz



Mid carrier frequency:



62640 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

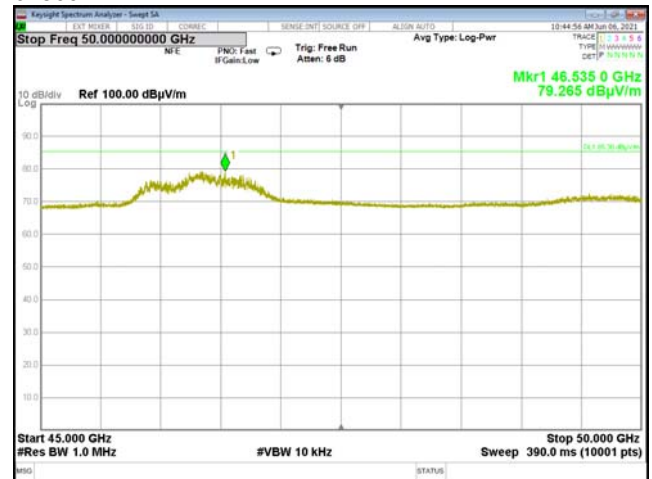
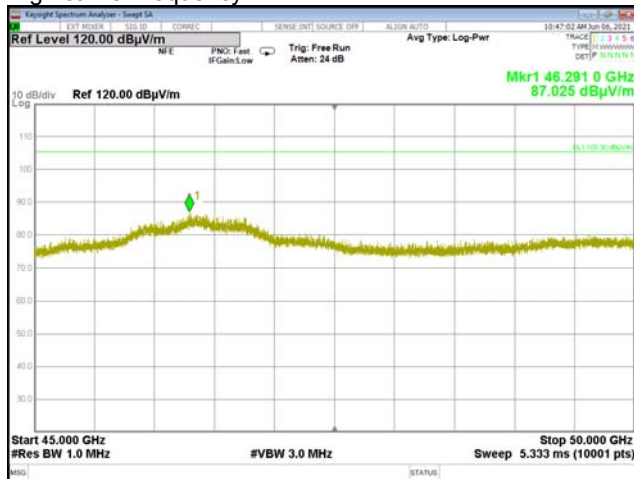
Plot 7.4.4 Spurious emission measurements in 45 – 50 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
3 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



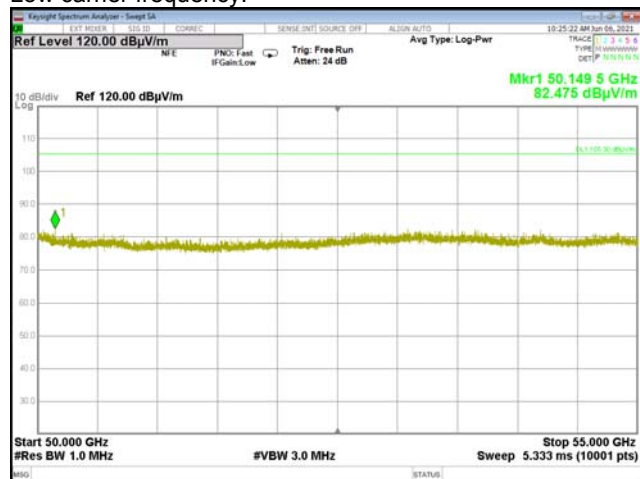
Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure: ANSI C63.10, Sections 9.9, 9.12	
Test mode: Compliance	Verdict: PASS
Date(s): 01-Jun-21 - 07-Jun-21	
Temperature: 28 °C	Relative Humidity: 42 %
Remarks:	
Air Pressure: 1007 hPa	
Power: 48 VDC	

Plot 7.4.5 Spurious emission measurements in 50 – 55 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
3 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

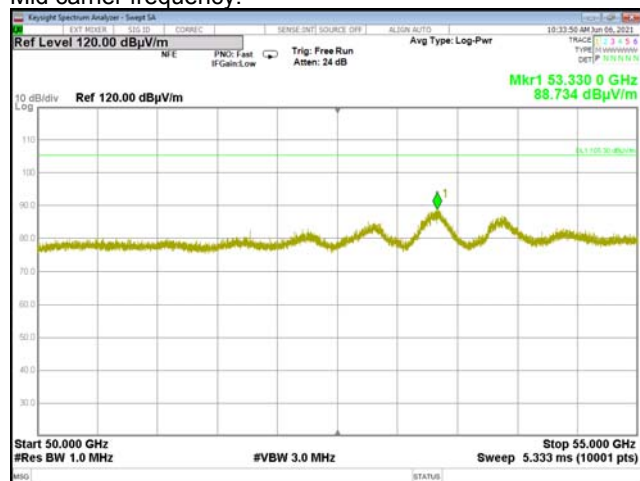
Low carrier frequency:



58320 MHz



Mid carrier frequency:



62640 MHz



Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

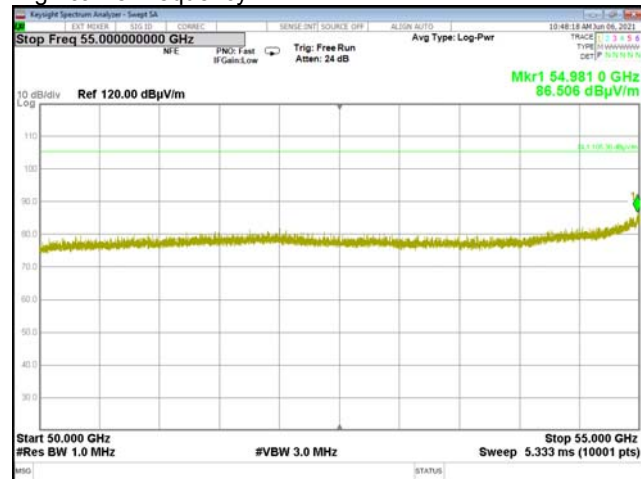
Plot 7.4.6 Spurious emission measurements in 50 – 55 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
3 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



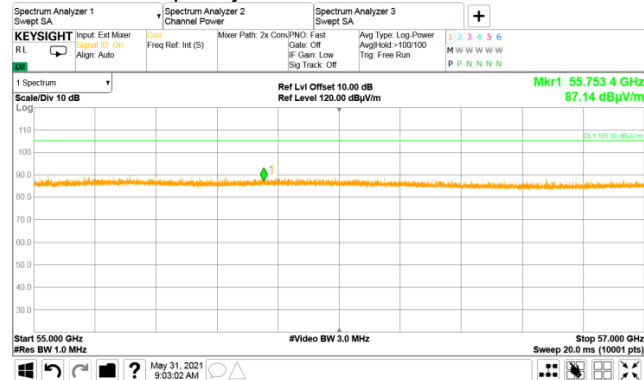
Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Compliance	Verdict: PASS
Date(s):		01-Jun-21 - 07-Jun-21	
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Plot 7.4.7 Spurious emission measurements in 55 – 57 GHz range

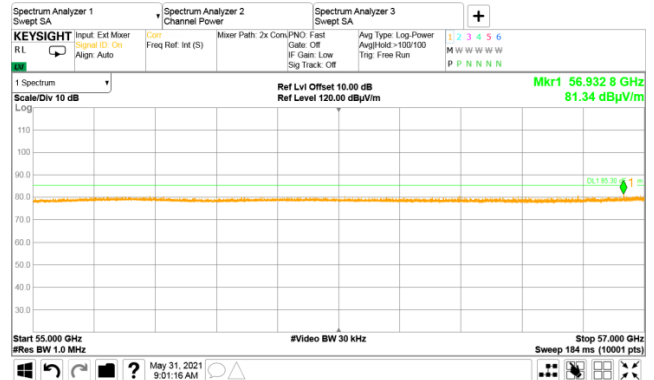
TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
3 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 30 kHz

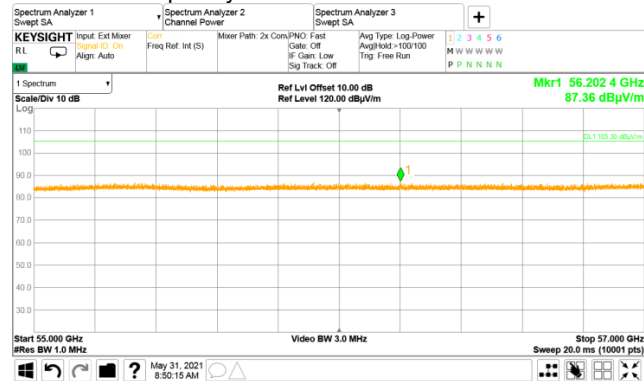
Low carrier frequency:



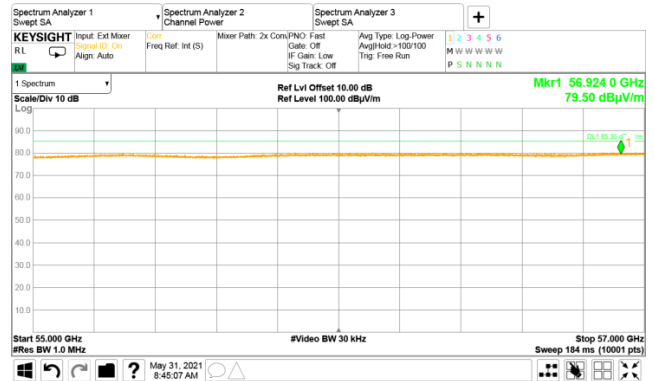
58320 MHz



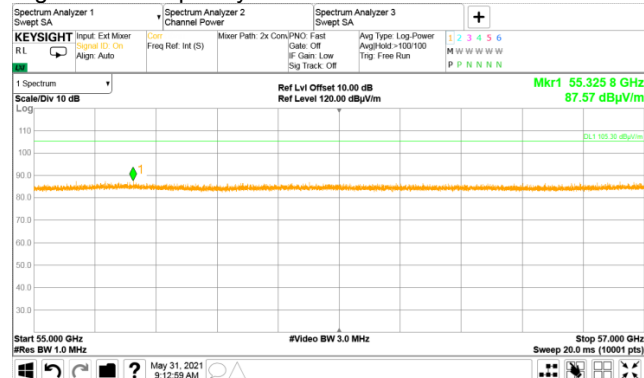
Mid carrier frequency:



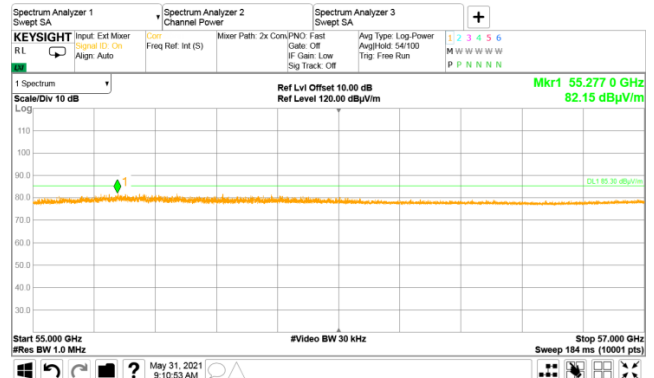
62640 MHz



High carrier frequency:



64800 MHz

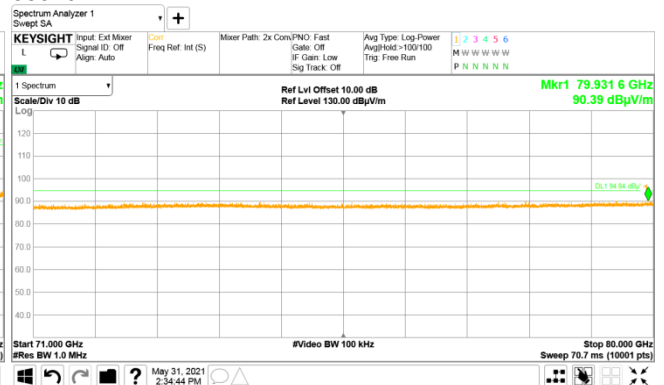
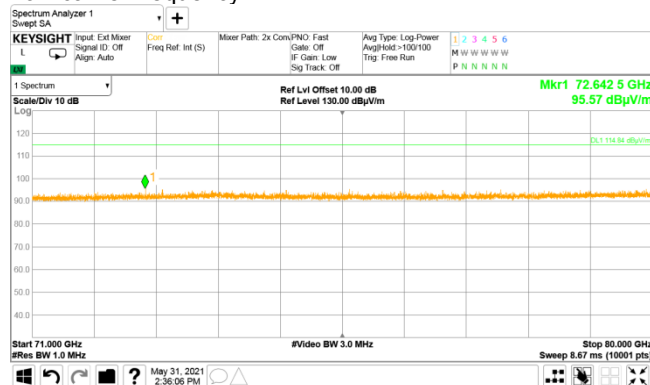


Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Plot 7.4.8 Spurious emission measurements in 71 – 80 GHz range

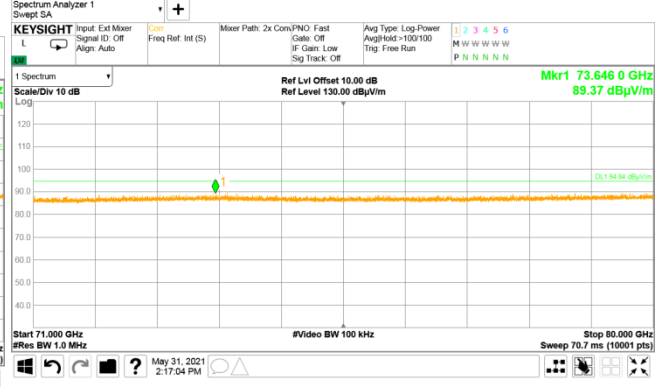
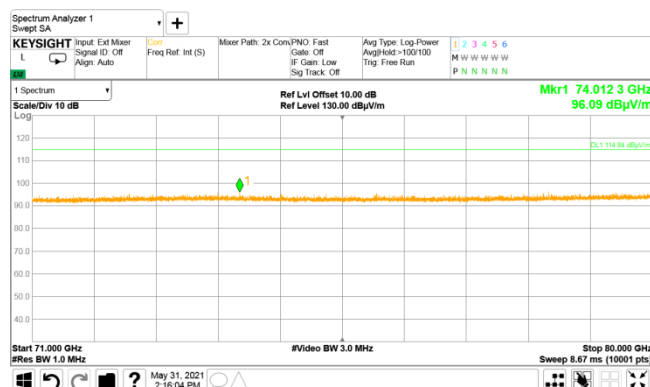
TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz
Low carrier frequency:

OATS
3 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 100 kHz
58320 MHz



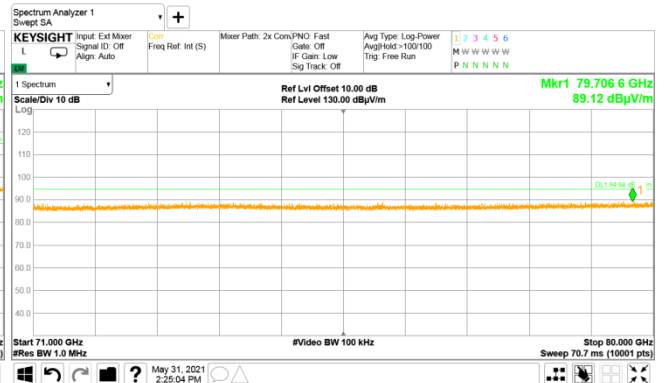
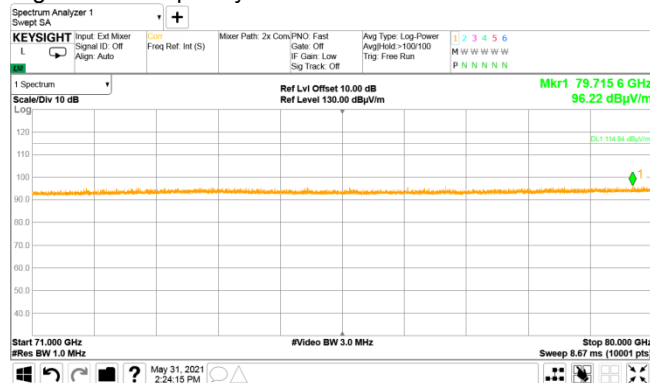
Mid carrier frequency:

62640 MHz



High carrier frequency:

64800 MHz

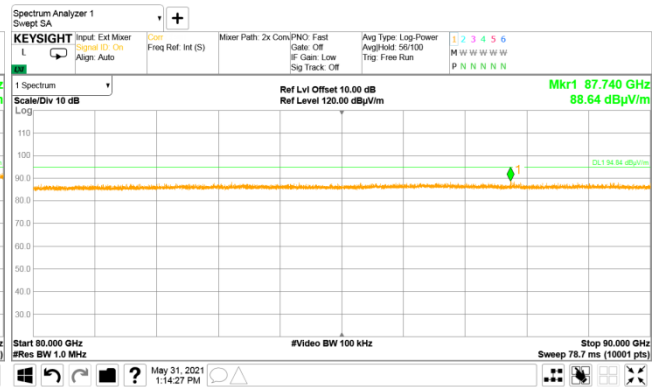
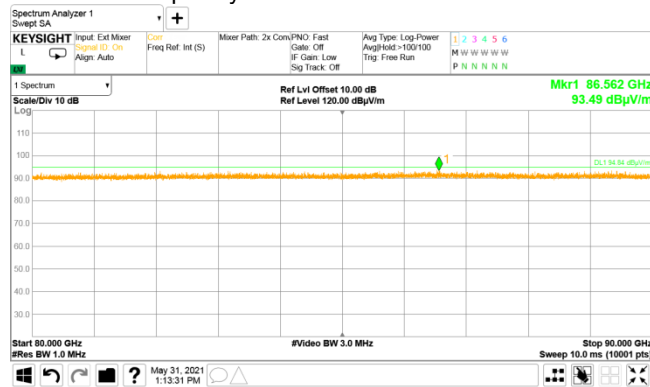


Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Plot 7.4.9 Spurious emission measurements in 80 – 90 GHz range

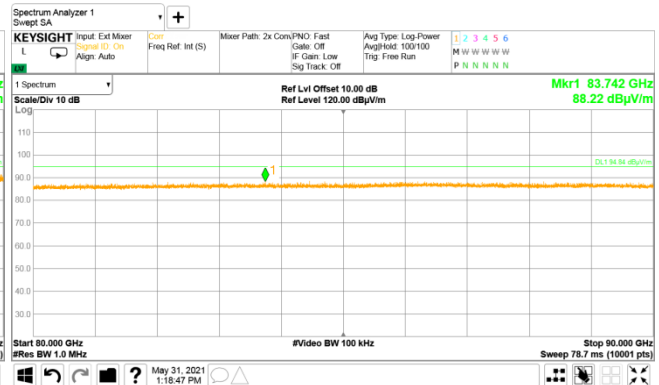
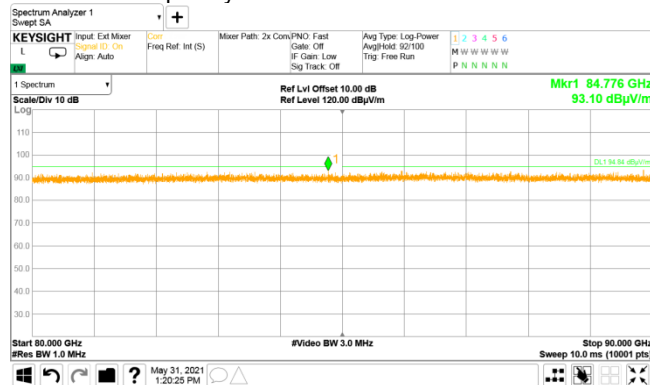
TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz
Low carrier frequency:

OATS
1 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 100 kHz
58320 MHz



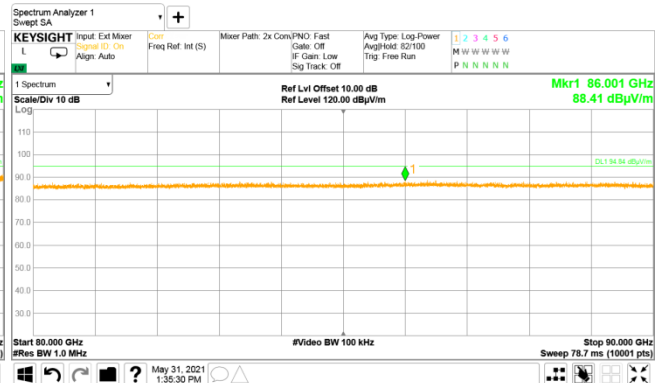
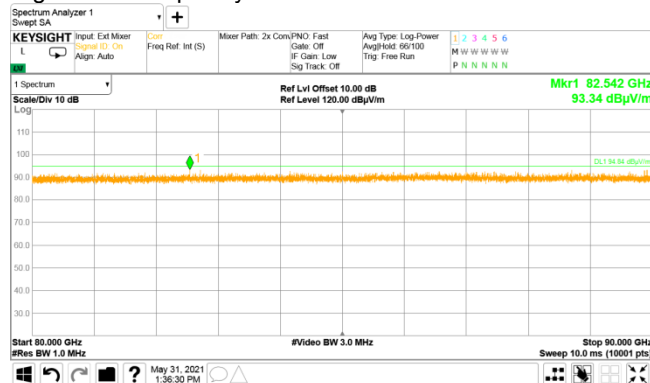
Mid carrier frequency:

62640 MHz



High carrier frequency:

64800 MHz



Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

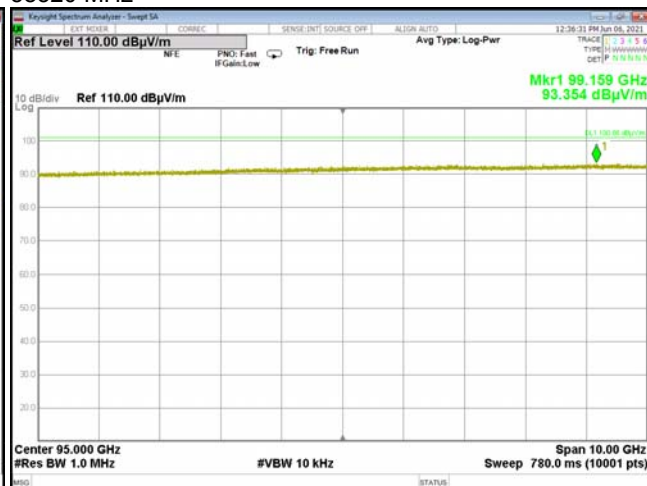
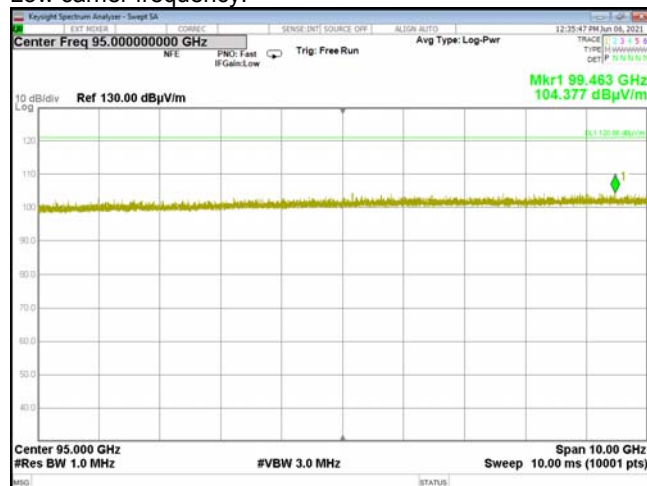
Plot 7.4.10 Spurious emission measurements in 90 - 100 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.5 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

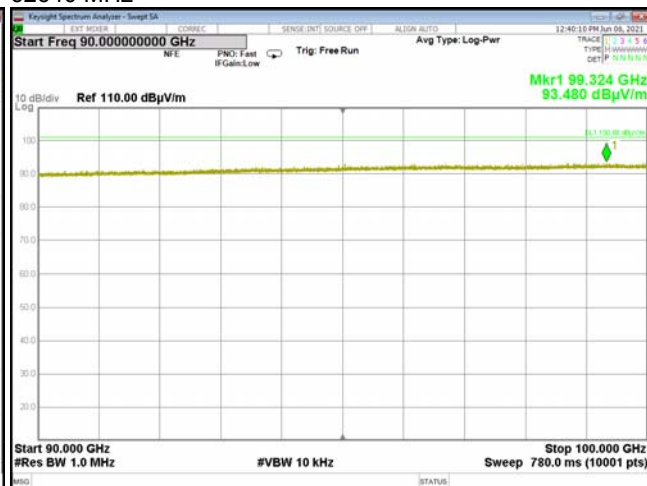
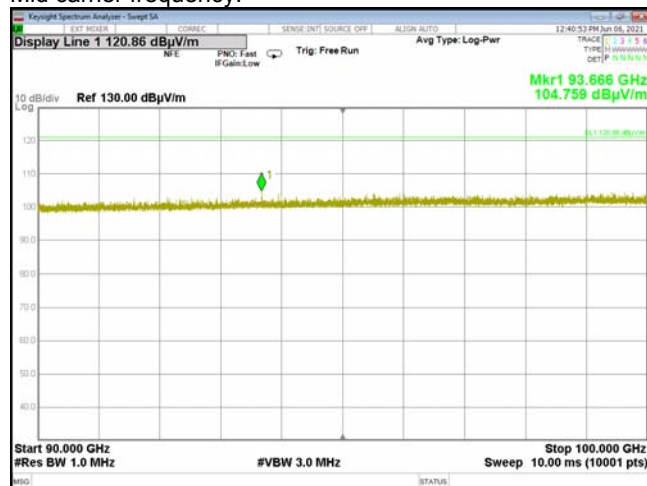
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz





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Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

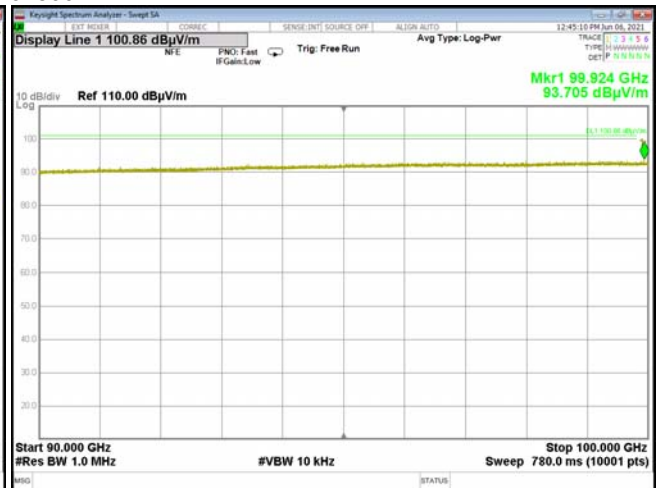
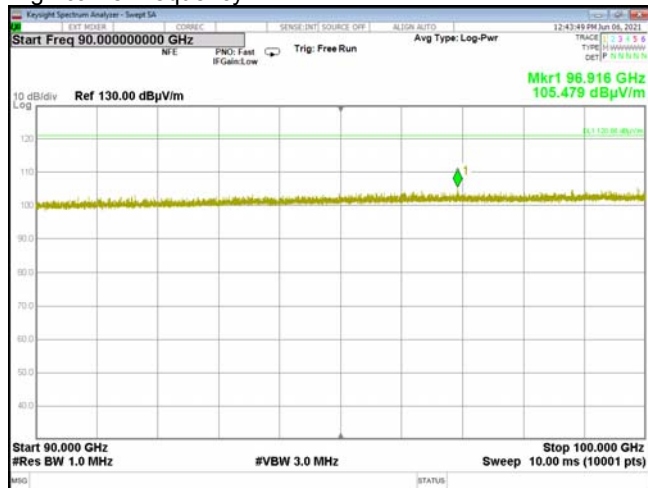
Plot 7.4.11 Spurious emission measurements in 90 - 100 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.5 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

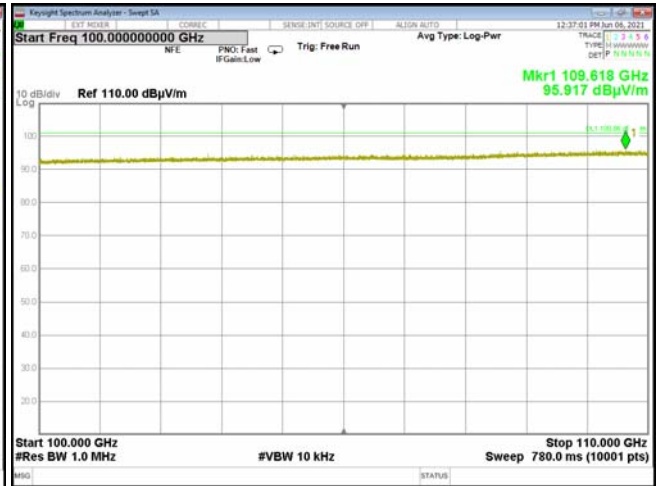
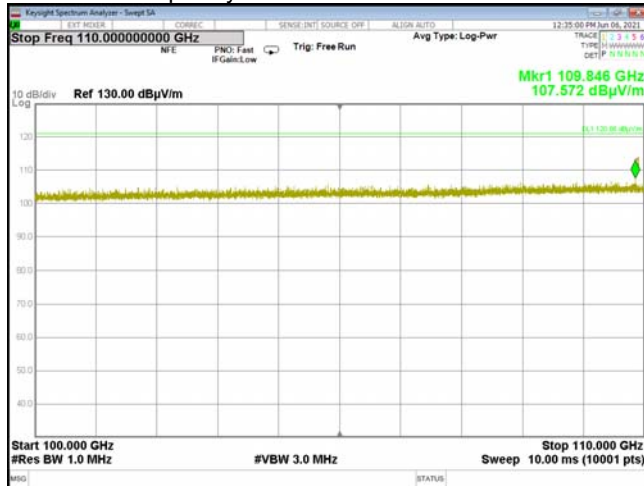
Plot 7.4.12 Spurious emission measurements in 100 - 110 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.5 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

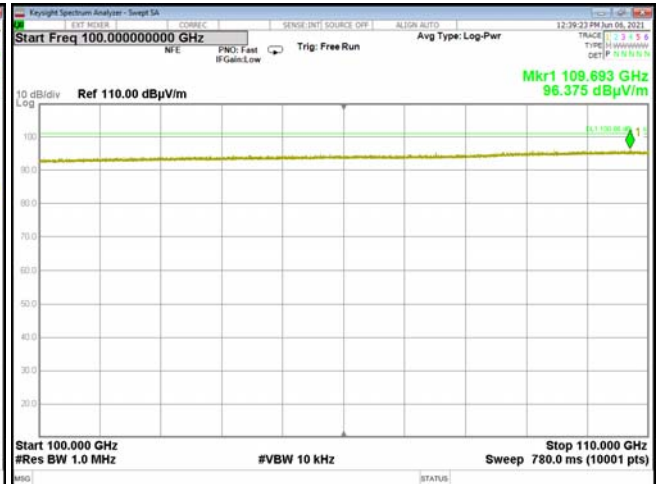
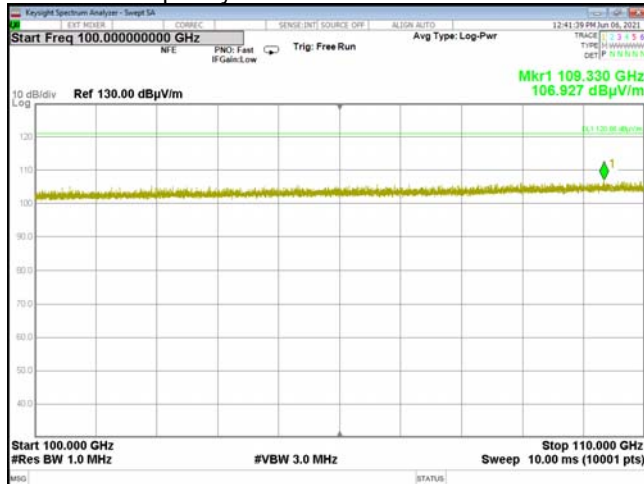
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz





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Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

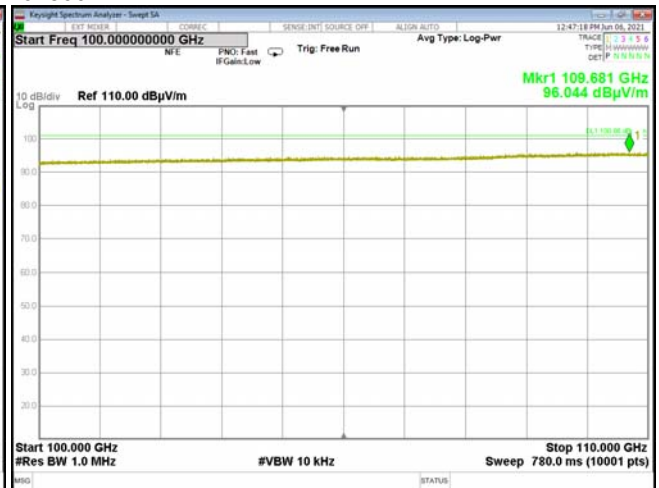
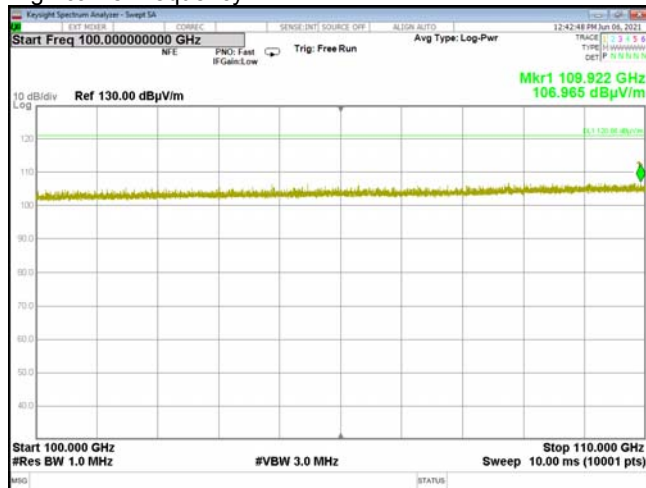
Plot 7.4.13 Spurious emission measurements in 100 - 110 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.5 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure: ANSI C63.10, Sections 9.9, 9.12	
Test mode: Compliance	Verdict: PASS
Date(s): 01-Jun-21 - 07-Jun-21	
Temperature: 28 °C	Relative Humidity: 42 %
Remarks:	
Air Pressure: 1007 hPa	
Power: 48 VDC	

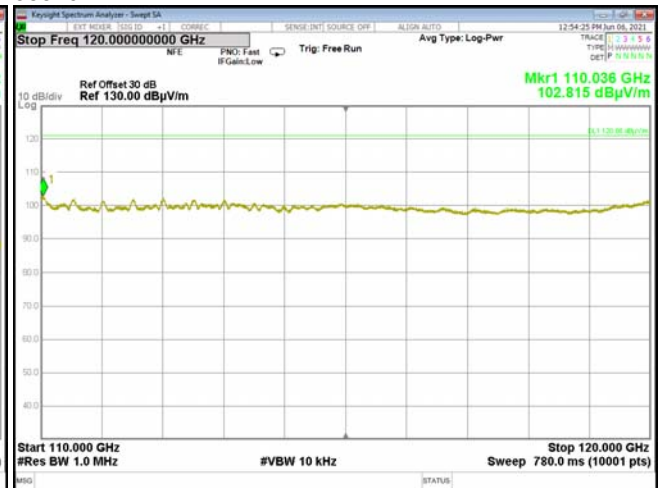
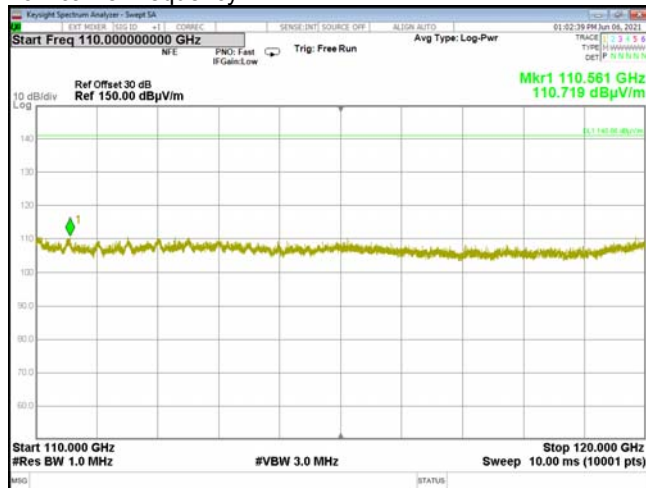
Plot 7.4.14 Spurious emission measurements in 110 - 120 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.05 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

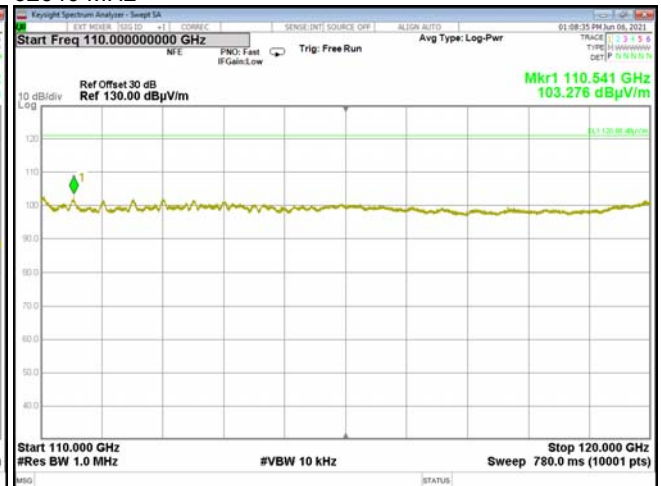
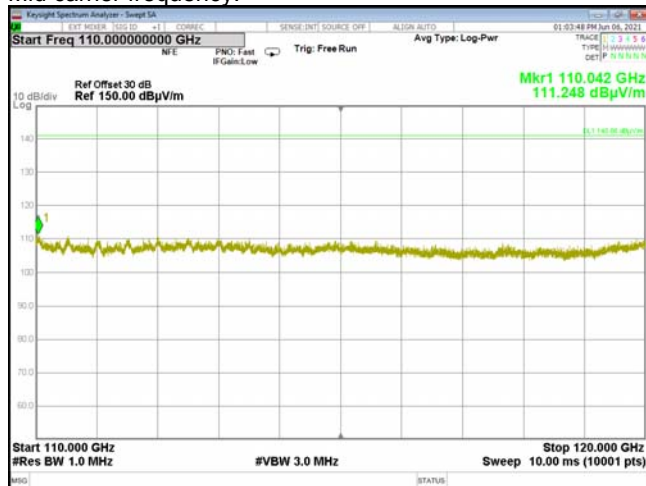
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz





HERMON LABORATORIES

Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

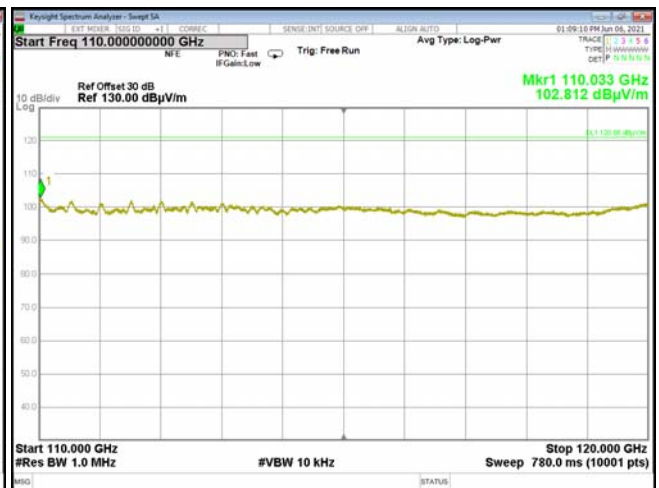
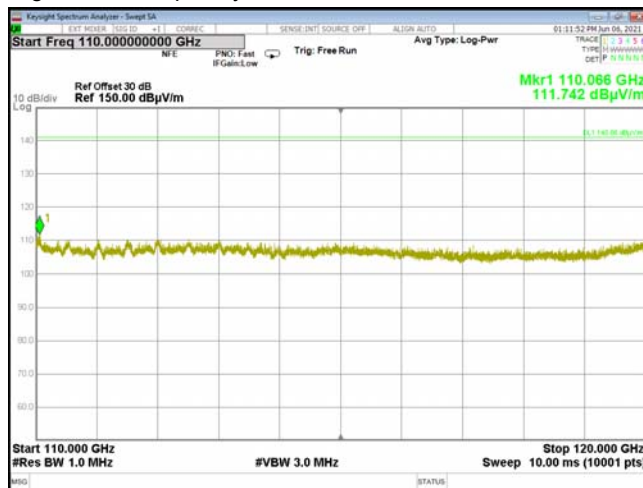
Plot 7.4.15 Spurious emission measurements in 110 - 120 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.05 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

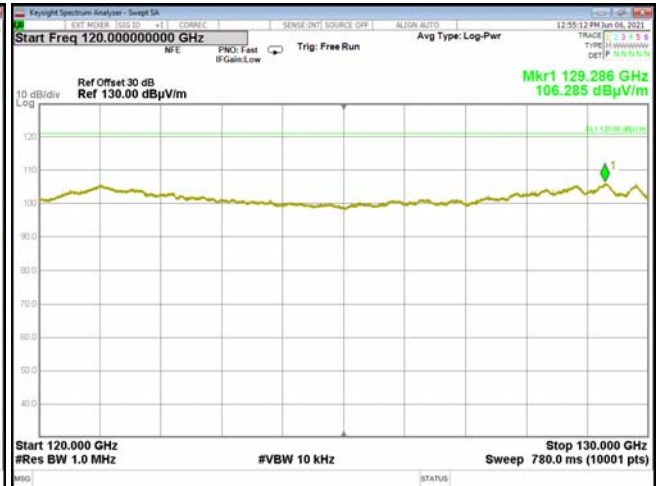
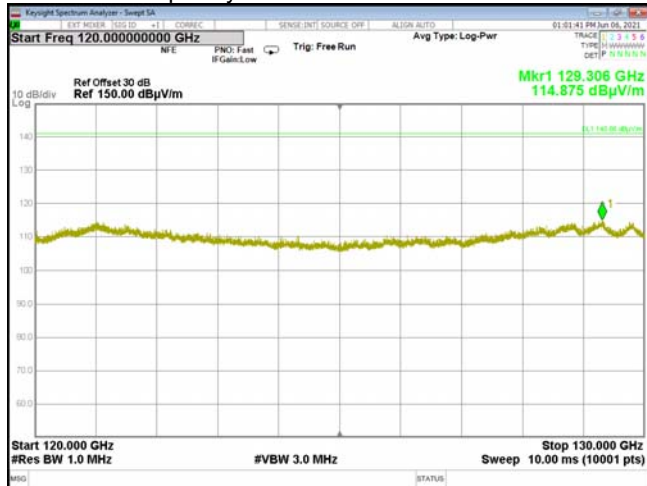
Plot 7.4.16 Spurious emission measurements in 120 - 130 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.05 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

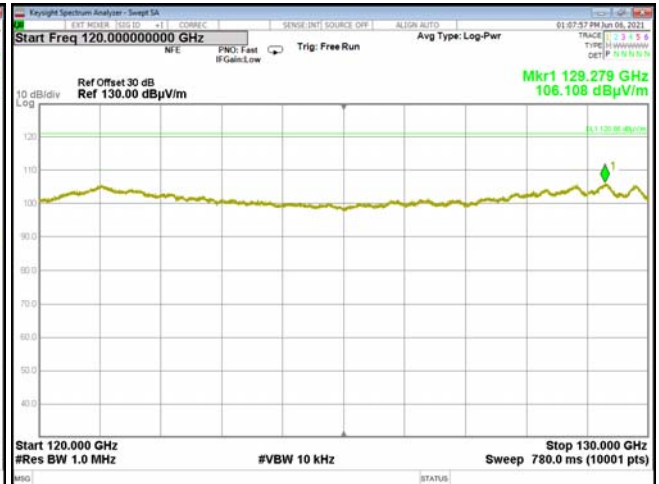
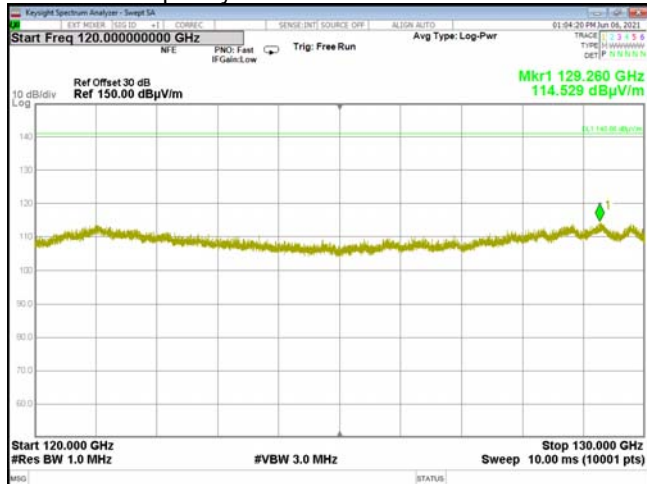
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz



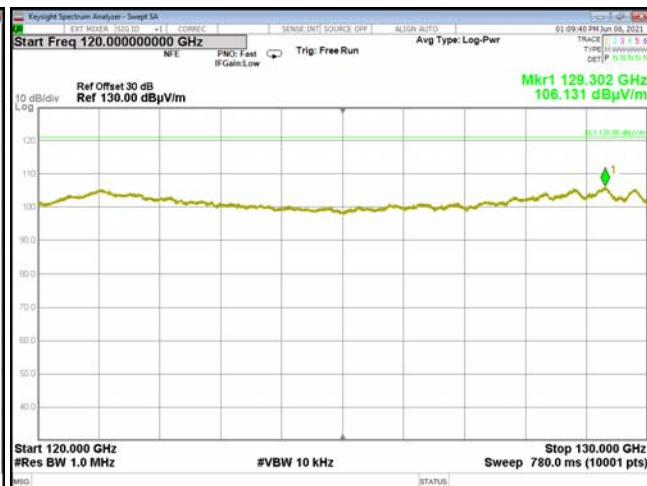
Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Plot 7.4.17 Spurious emission measurements in 120 - 130 GHz range

TEST SITE: OATS
TEST DISTANCE: 0.05 m
MODULATION: 16QAM
ANTENNA POLARIZATION: Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

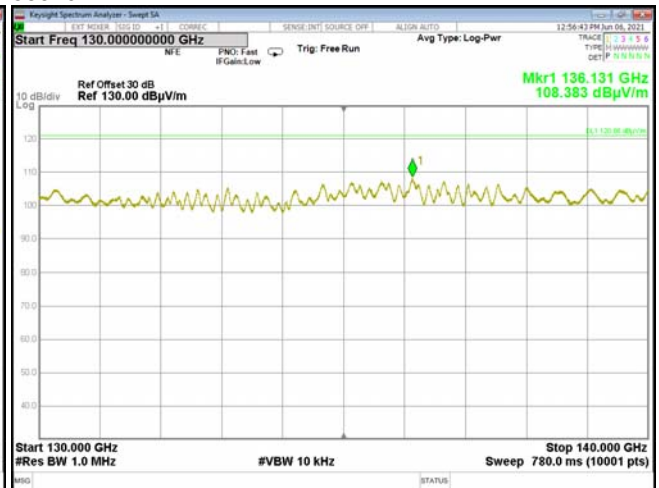
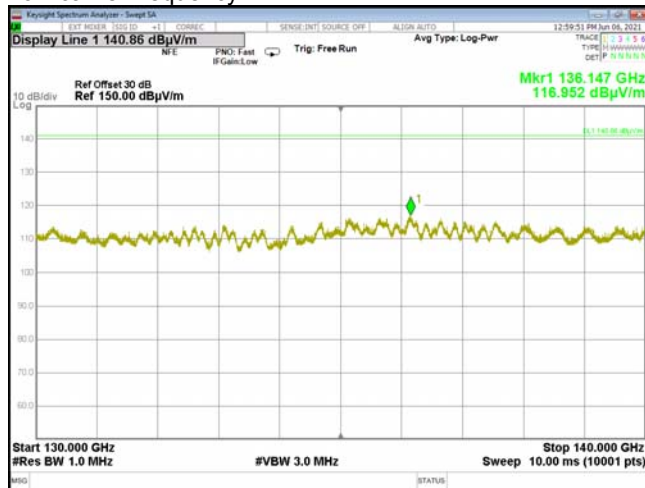
Plot 7.4.18 Spurious emission measurements in 130 - 140 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.05 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

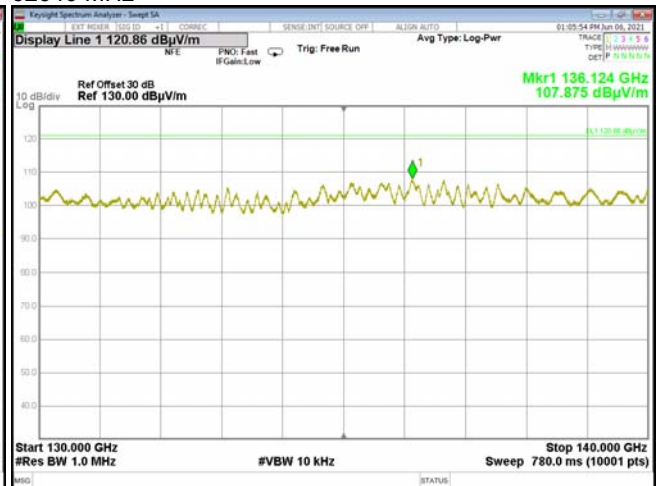
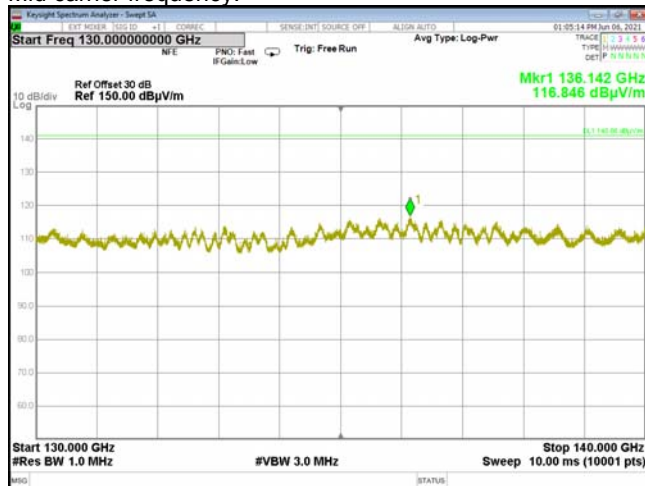
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

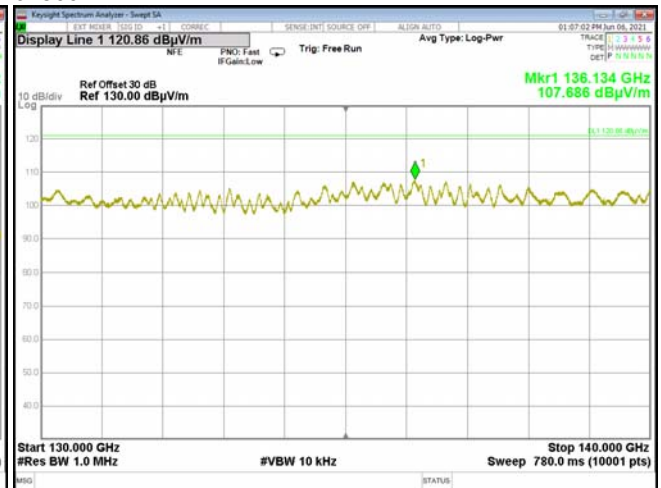
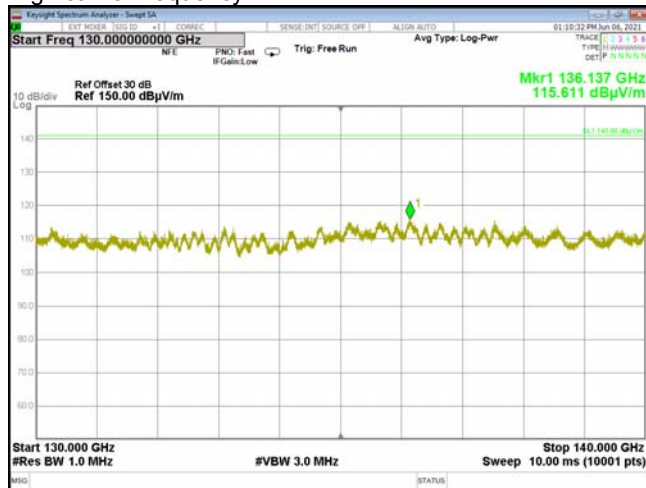
Plot 7.4.19 Spurious emission measurements in 130 - 140 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.05 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

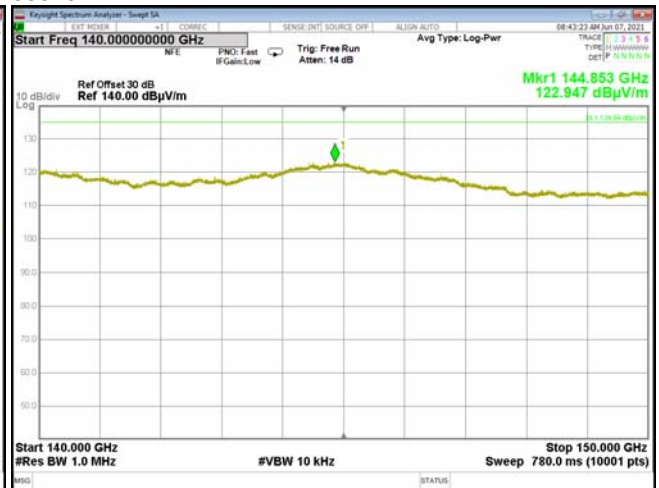
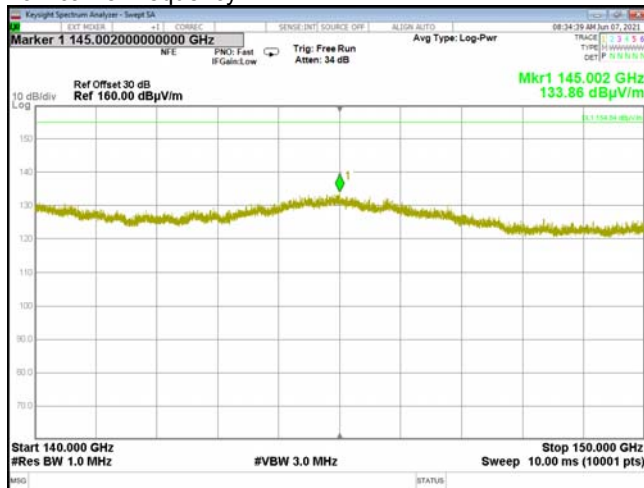
Plot 7.4.20 Spurious emission measurements in 140 - 150 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

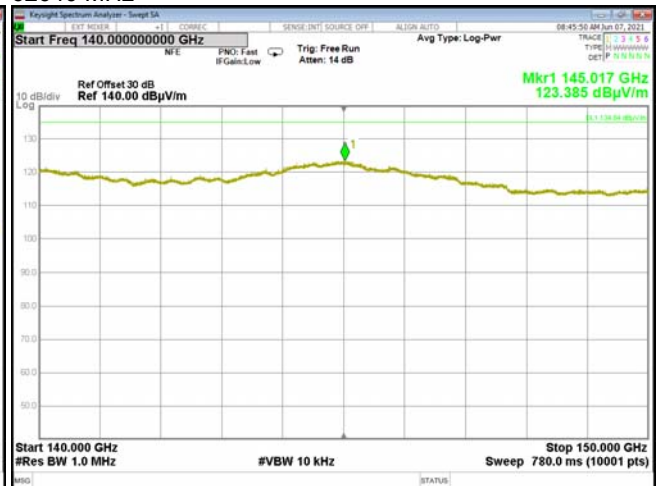
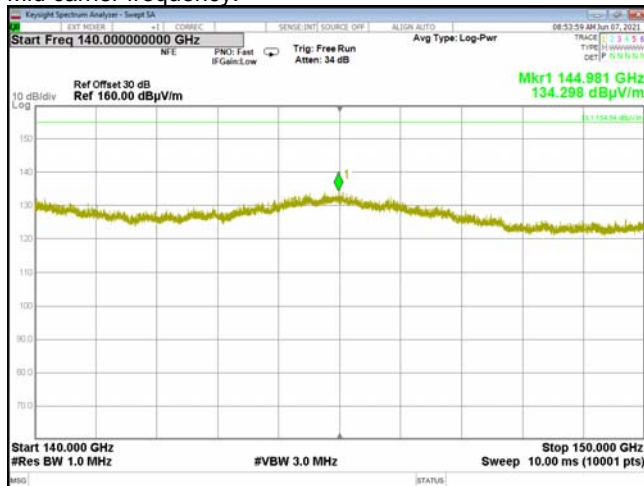
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

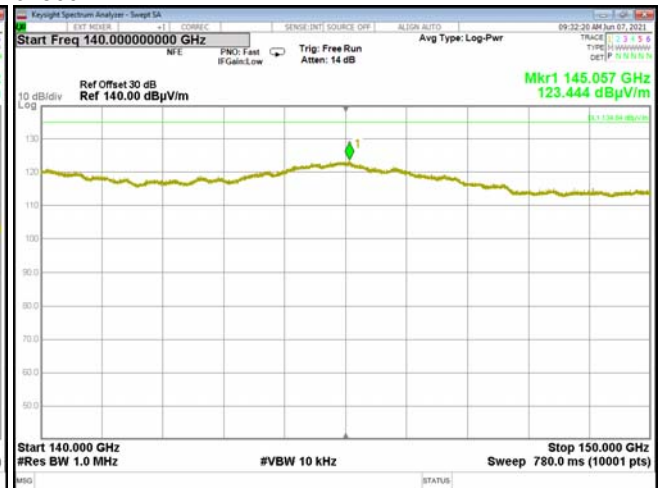
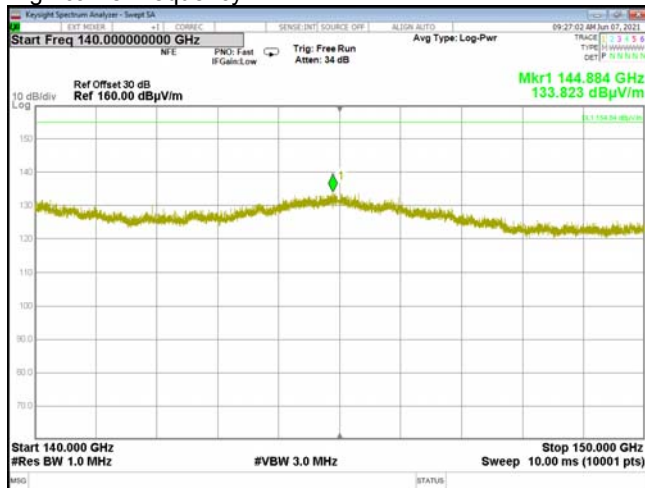
Plot 7.4.21 Spurious emission measurements in 140 - 150 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure: ANSI C63.10, Sections 9.9, 9.12	
Test mode: Compliance	Verdict: PASS
Date(s): 01-Jun-21 - 07-Jun-21	
Temperature: 28 °C	Relative Humidity: 42 %
Remarks:	
Air Pressure: 1007 hPa	
Power: 48 VDC	

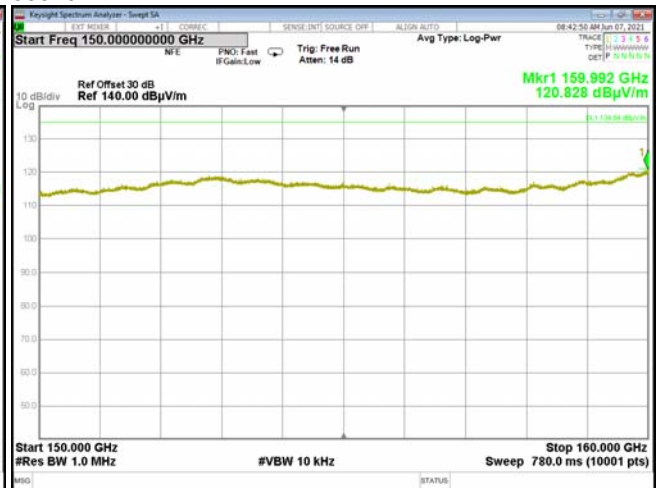
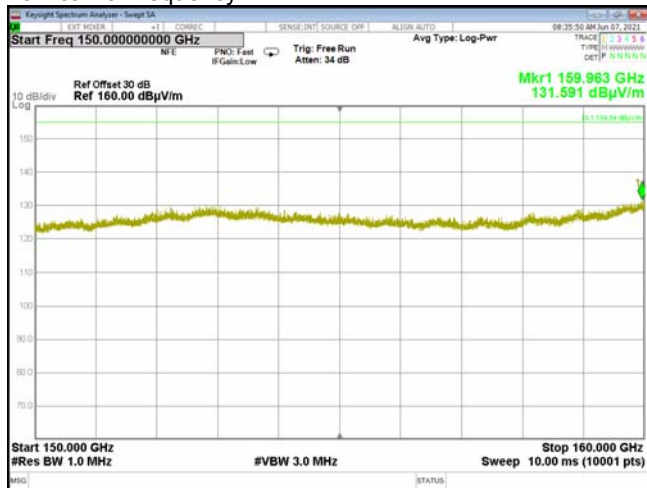
Plot 7.4.22 Spurious emission measurements in 150 - 160 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

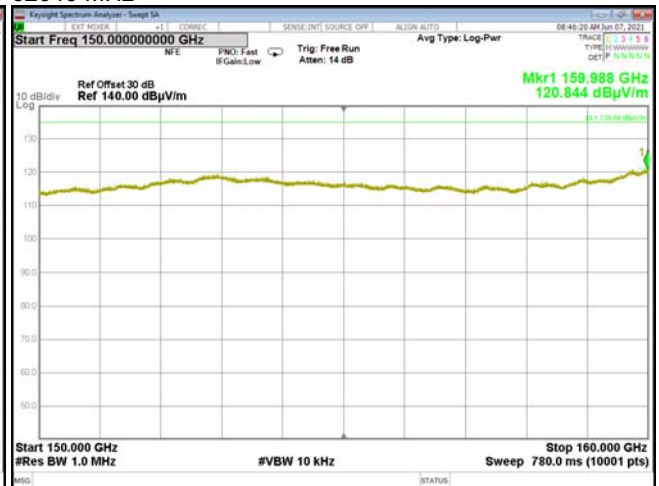
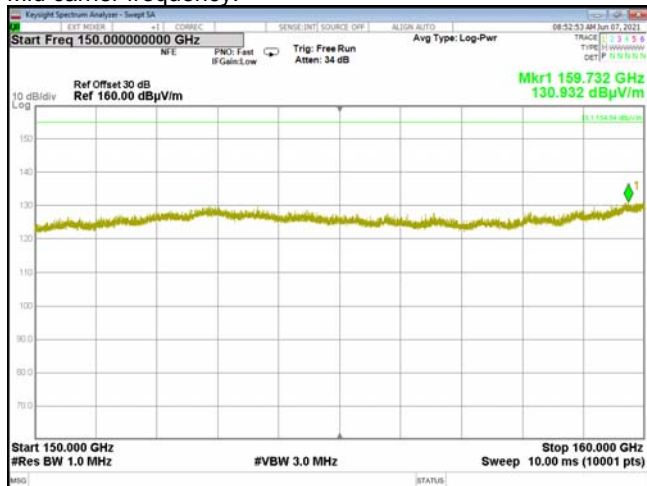
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz



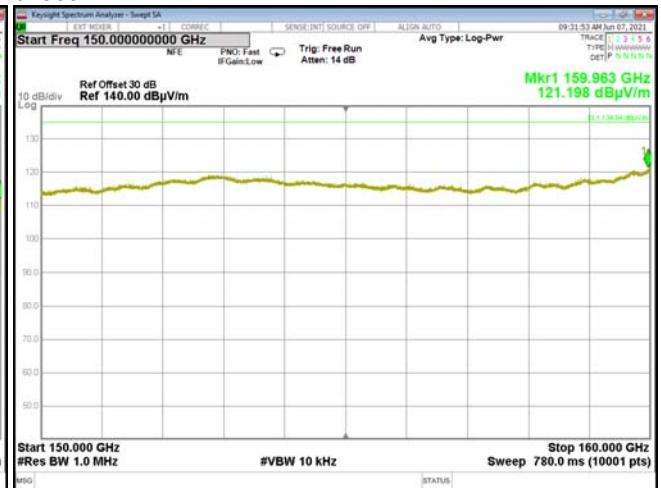
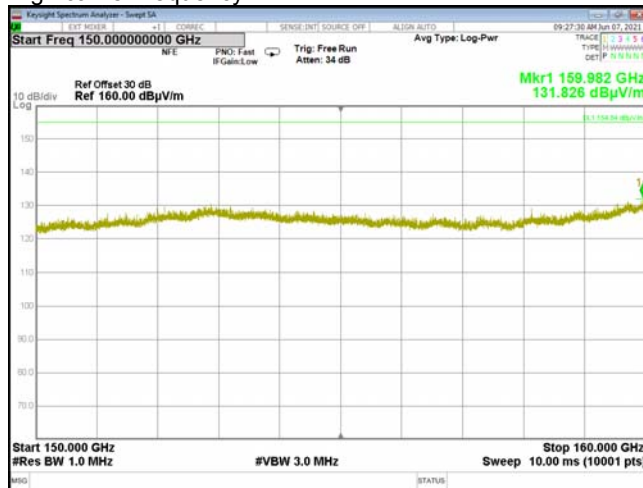
Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Plot 7.4.23 Spurious emission measurements in 150 - 160 GHz range

TEST SITE:	OATS
TEST DISTANCE:	0.01 m
MODULATION:	16QAM
ANTENNA POLARIZATION:	Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz	DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure: ANSI C63.10, Sections 9.9, 9.12	
Test mode: Compliance	Verdict: PASS
Date(s): 01-Jun-21 - 07-Jun-21	
Temperature: 28 °C	Relative Humidity: 42 %
Remarks:	
Air Pressure: 1007 hPa	
Power: 48 VDC	

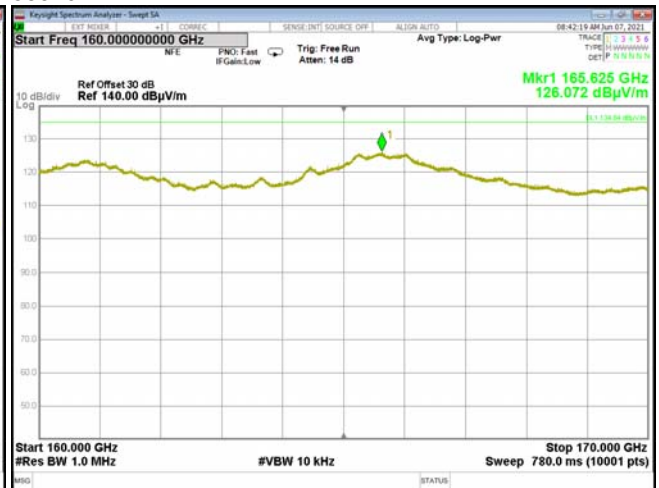
Plot 7.4.24 Spurious emission measurements in 160 - 170 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

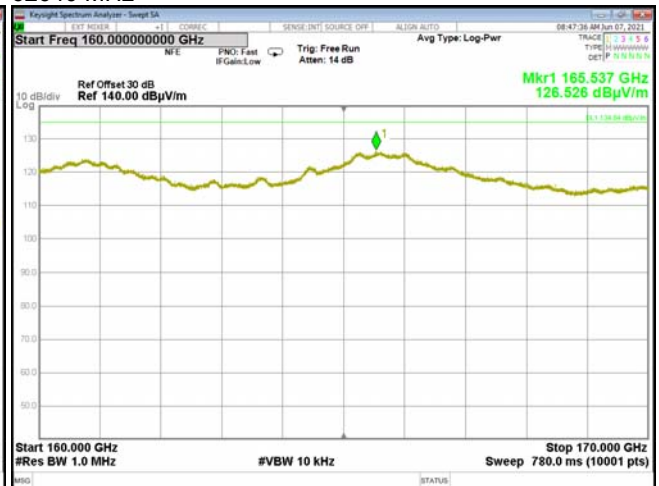
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz





HERMON LABORATORIES

Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

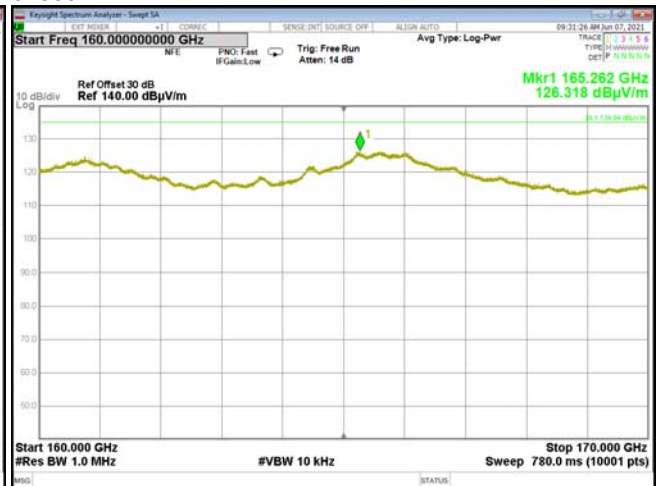
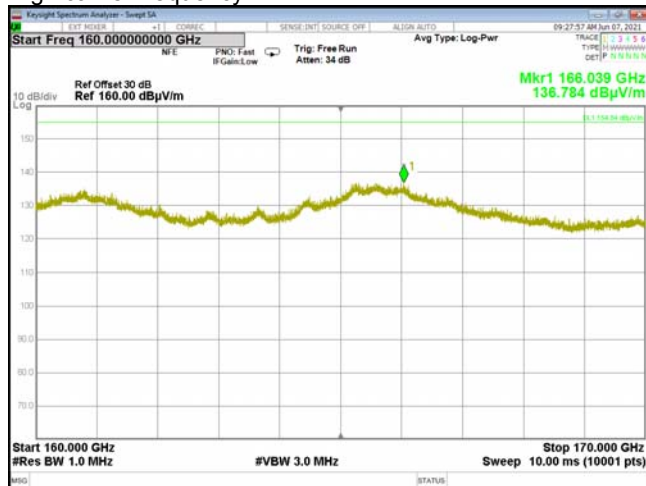
Plot 7.4.25 Spurious emission measurements in 160 - 170 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure: ANSI C63.10, Sections 9.9, 9.12	
Test mode: Compliance	Verdict: PASS
Date(s): 01-Jun-21 - 07-Jun-21	
Temperature: 28 °C	Relative Humidity: 42 %
Remarks:	
Air Pressure: 1007 hPa	
Power: 48 VDC	

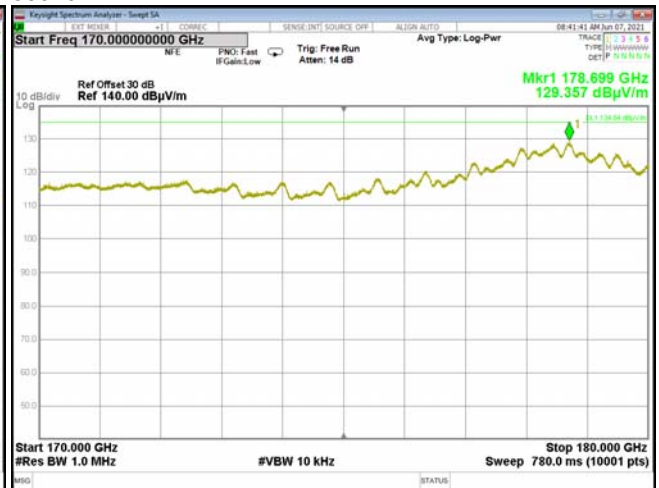
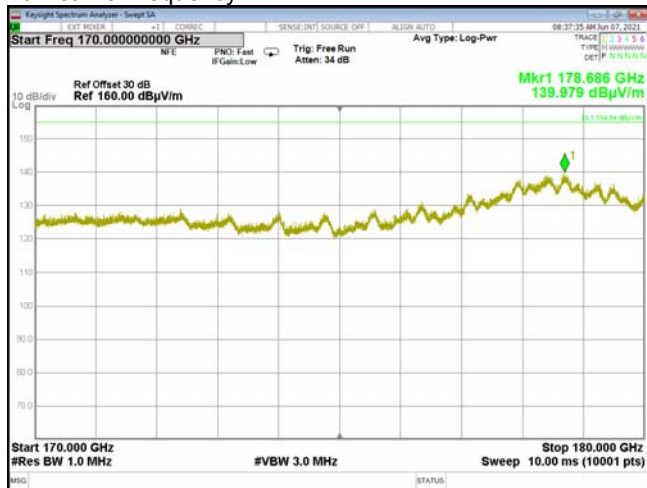
Plot 7.4.26 Spurious emission measurements in 170 - 180 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

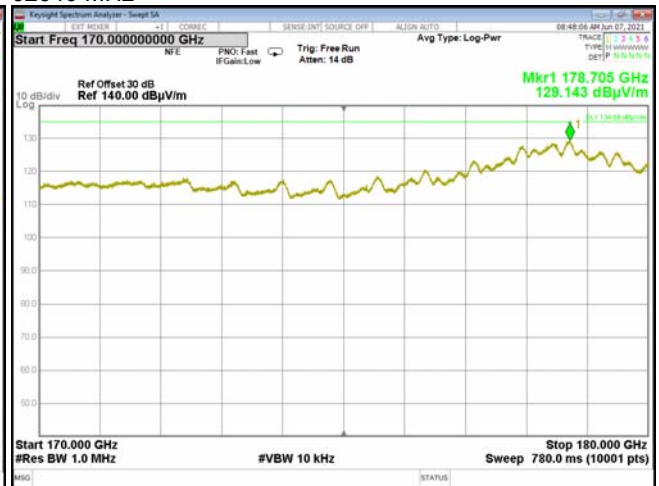
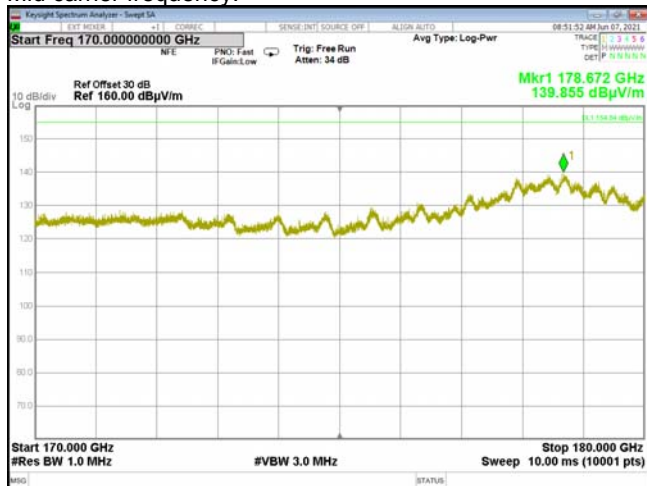
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz





HERMON LABORATORIES

Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

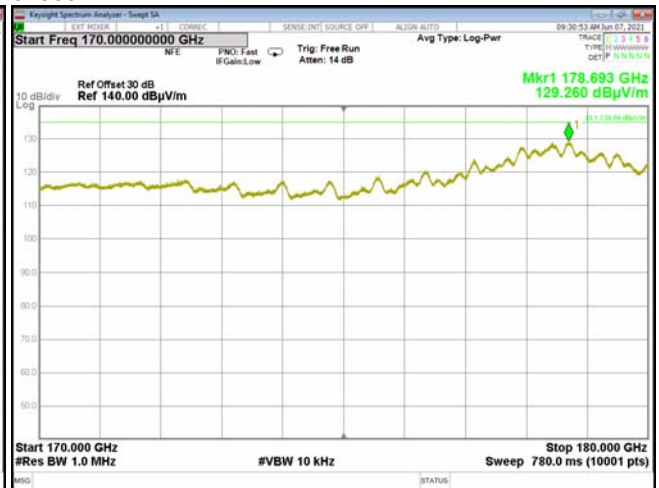
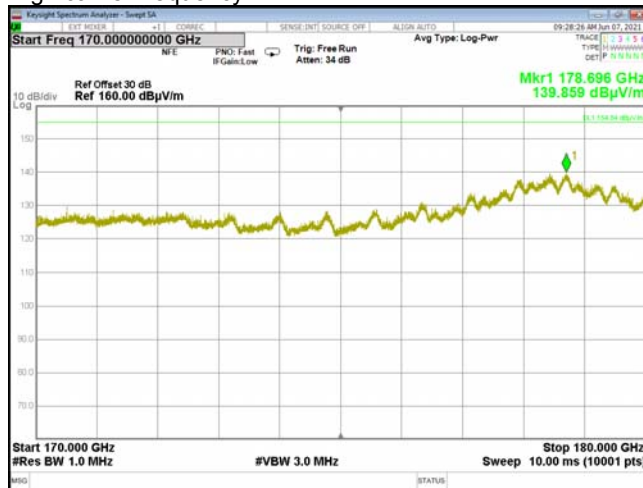
Plot 7.4.27 Spurious emission measurements in 170 - 180 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure: ANSI C63.10, Sections 9.9, 9.12	
Test mode: Compliance	Verdict: PASS
Date(s): 01-Jun-21 - 07-Jun-21	
Temperature: 28 °C	Relative Humidity: 42 %
Remarks:	
Air Pressure: 1007 hPa	
Power: 48 VDC	

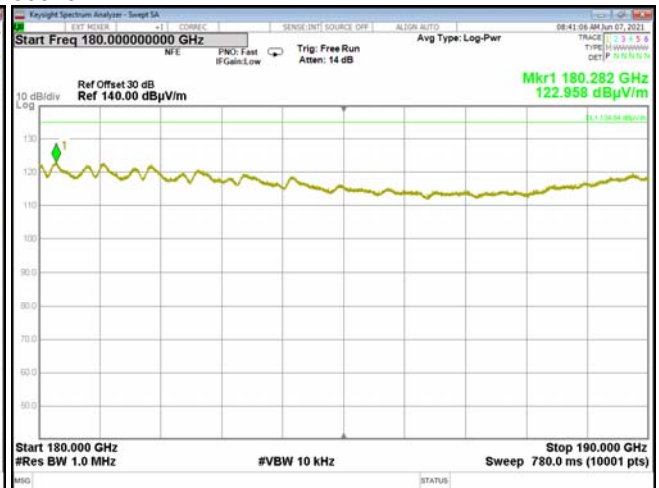
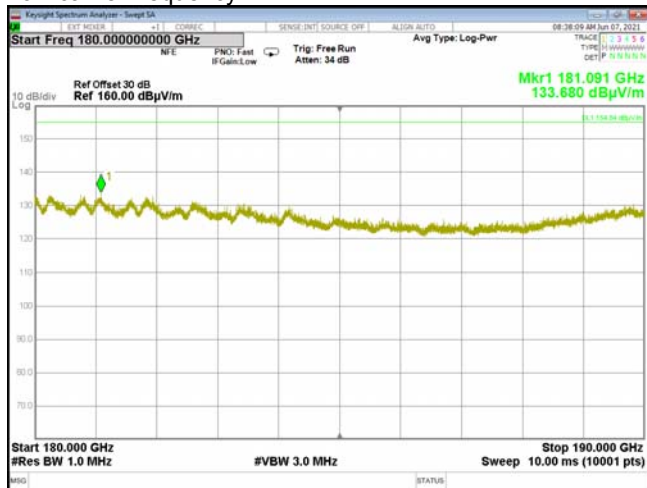
Plot 7.4.28 Spurious emission measurements in 180 - 190 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

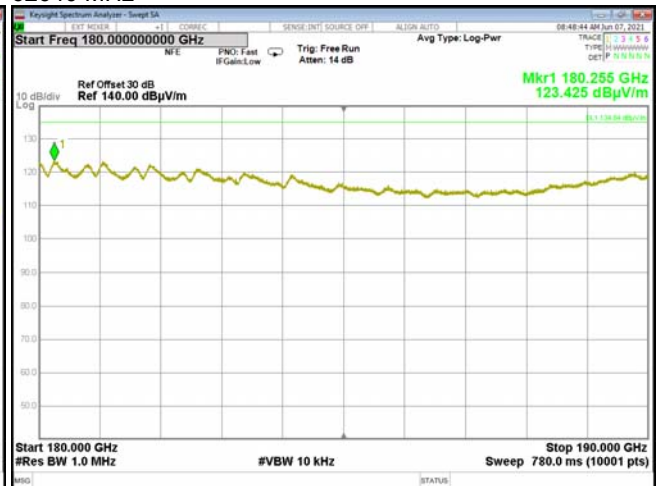
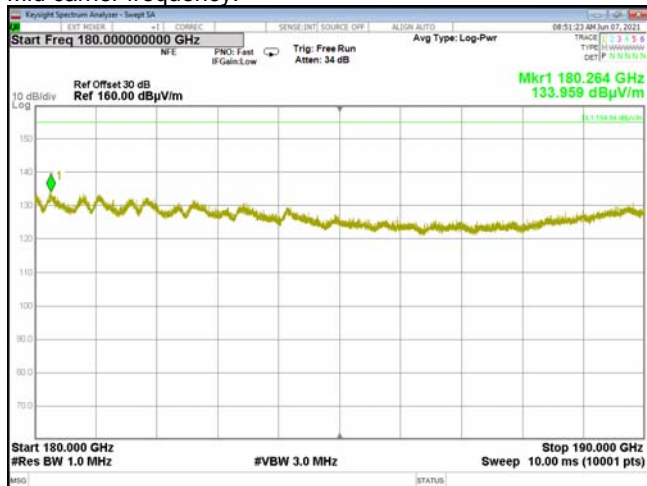
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz			
Test procedure: ANSI C63.10, Sections 9.9, 9.12			
Test mode: Compliance		Verdict: PASS	
Date(s): 01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

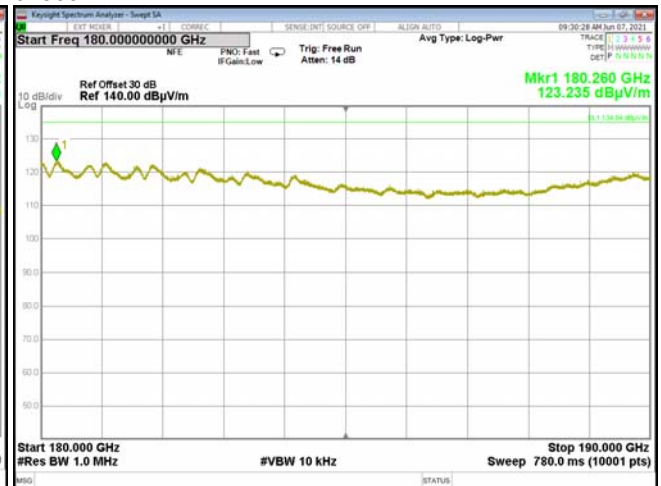
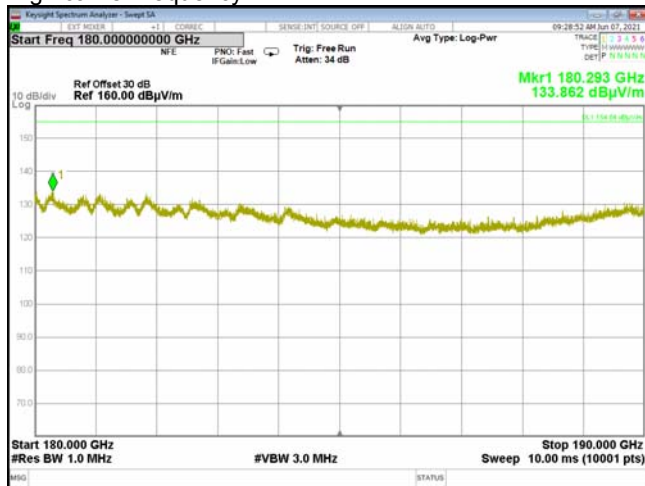
Plot 7.4.29 Spurious emission measurements in 180 - 190 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz



Test specification: FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure: ANSI C63.10, Sections 9.9, 9.12	
Test mode: Compliance	Verdict: PASS
Date(s): 01-Jun-21 - 07-Jun-21	
Temperature: 28 °C	Relative Humidity: 42 %
Remarks:	
Air Pressure: 1007 hPa	
Power: 48 VDC	

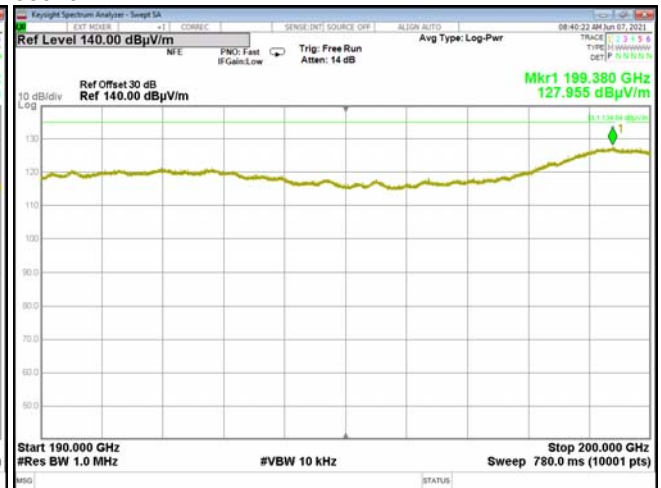
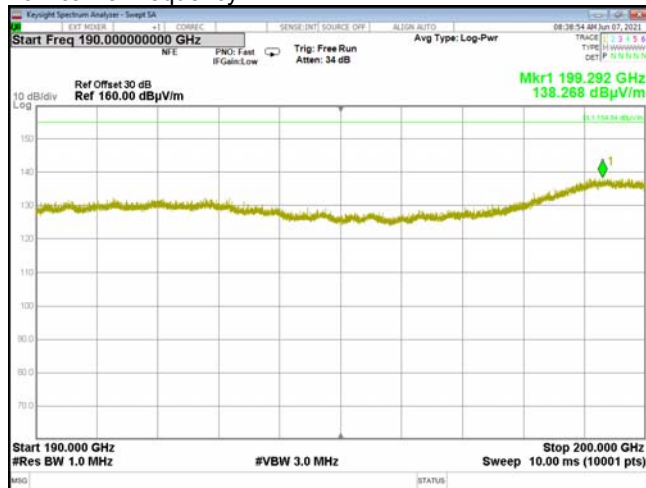
Plot 7.4.30 Spurious emission measurements in 190 - 200 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

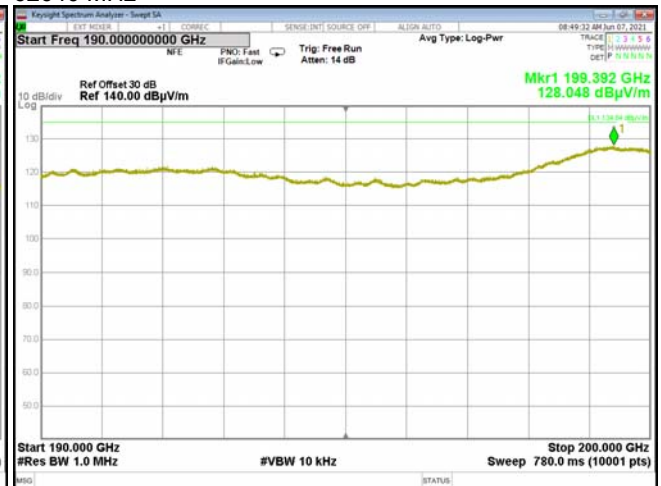
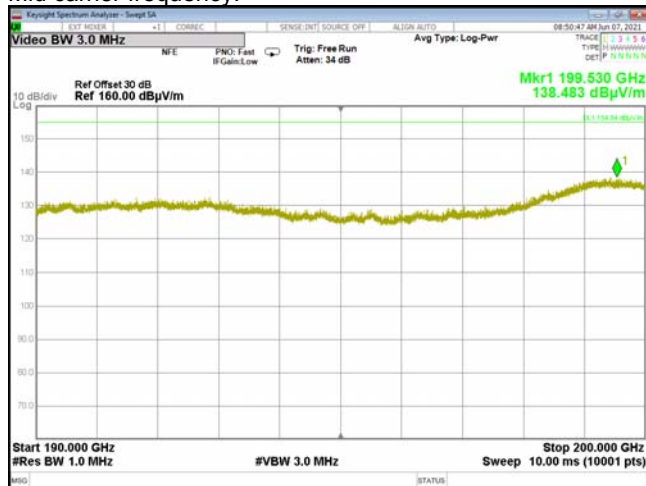
Low carrier frequency:

58320 MHz



Mid carrier frequency:

62640 MHz





HERMON LABORATORIES

Test specification:		FCC Section 15.255(d)(3), RSS-210 section J.3, Out of band radiated emissions above 40 GHz	
Test procedure:		ANSI C63.10, Sections 9.9, 9.12	
Test mode:		Verdict: PASS	
Date(s):			
01-Jun-21 - 07-Jun-21			
Temperature: 28 °C	Relative Humidity: 42 %	Air Pressure: 1007 hPa	Power: 48 VDC
Remarks:			

Plot 7.4.31 Spurious emission measurements in 190 - 200 GHz range

TEST SITE:
TEST DISTANCE:
MODULATION:
ANTENNA POLARIZATION:
DETECTOR: Peak RBW = 1 MHz; VBW = 3 MHz

OATS
0.01 m
16QAM
Vertical and Horizontal
DETECTOR: Peak RBW = 1 MHz; VBW = 10 kHz

High carrier frequency:

64800 MHz

