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<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS	<b>PASS</b>
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

## 7.2 Field strength of emissions with 37.1 dBi antenna gain

### 7.2.1 General

This test was performed to measure field strength of fundamental and spurious emissions from the EUT. Specification test limits are given in Table 7.2.1, Table 7.2.2, Table 7.2.3, Table 7.2.4.

Table 7.2.1 Radiated fundamental emission limits

Fundamental frequency, MHz	Field strength at 3 m, dB(µV/m)		
	Peak	Average	Quasi-Peak
24000 – 24250	128.0	108.0	NA

Table 7.2.2 Harmonics limits

Fundamental frequency, MHz	Field strength at 3 m, dB(µV/m)	
	Peak	Average
24000 – 24250	88.0	68.0

Table 7.2.3 Radiated spurious emissions limits (other than harmonics)

Frequency, MHz	Field strength at 3 m, dB(µV/m)*				
	Peak	Quasi Peak	Average	Attenuation below carrier	
0.009 – 0.090	148.5 – 128.5	NA	128.5 – 108.5**	50 dBc (whichever is the less stringent)	
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**	NA		
1.705 – 30.0*		69.5			
30 – 88	NA	40.0			
88 – 216		43.5			
216 – 960		46.0			
960 - 1000		54.0			
Above 1000	74.0	NA	54.0		

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

$$\text{Lim}_{S2} = \text{Lim}_{S1} + 40 \log (S_1/S_2),$$

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

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

Note: The above 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 but not exceeding 40 GHz for intentional radiators operated below 10 GHz and up to the fifth harmonic of the highest fundamental frequency but not exceeding 100 GHz for intentional radiators operated above 10 GHz.



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<b>Test specification:</b>	<b>Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b>	ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b>	Compliance		
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa	<b>Power:</b> -48 VDC
<b>Remarks:</b> EUT with 37.1 dBi antenna gain			

**Table 7.2.4 Radiated spurious emissions limits (other than harmonics)**

<b>Frequency, GHz</b>	<b>Distance, m</b>	<b>Field strength dB(µV/m)*, peak</b>	<b>Field strength dB(µV/m)*, average</b>
40 - 60	0.50	89.56*	69.56*
60 - 75	0.10	103.54*	83.54*
75 - 100	0.05	109.60*	89.60*

\*- The limit for other test distance was calculated using the inverse distance extrapolation factor as follows:  
$$\text{LimS2} = \text{LimS1} + 20 \log (\text{S1}/\text{S2}),$$
 where S1 and S2 – standard defined and test distance respectively in meters.



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<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

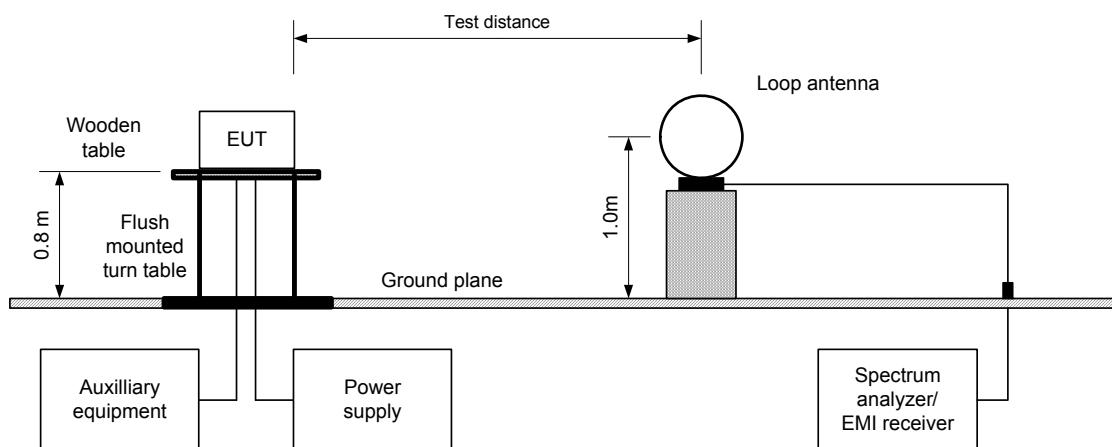
### 7.2.2 Test procedure for spurious emission field strength measurements in 9 kHz to 30 MHz band

- 7.2.2.1 The EUT was set up as shown in Figure 7.2.1, energized and the performance check was conducted.
- 7.2.2.2 The measurements were performed in the typical position.
- 7.2.2.3 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 3600 and the measuring antenna was rotated around its vertical axis.
- 7.2.2.4 The worst test results (the lowest margins) were found in the EUT vertical (X, Y, Z-axis) position, recorded in the associated tables and shown in the associated plots.

### 7.2.3 Test procedure for spurious emission field strength measurements above 30 MHz

- 7.2.3.1 The EUT was set up as shown in Figure 7.2.2, Figure 7.2.3, energized and the performance check was conducted.
- 7.2.3.2 The measurements were performed in the typical position.
- 7.2.3.3 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 3600, the measuring antenna height was changed from 1 to 4 m, its polarization was switched from vertical to horizontal.
- 7.2.3.4 The worst test results (the lowest margins) were found in the typical position, recorded in the associated tables and shown in the associated plots

Figure 7.2.1 Setup for spurious emission field strength measurements below 30 MHz





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<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

Figure 7.2.2 Setup for spurious emission field strength measurements in 30 -1000 MHz

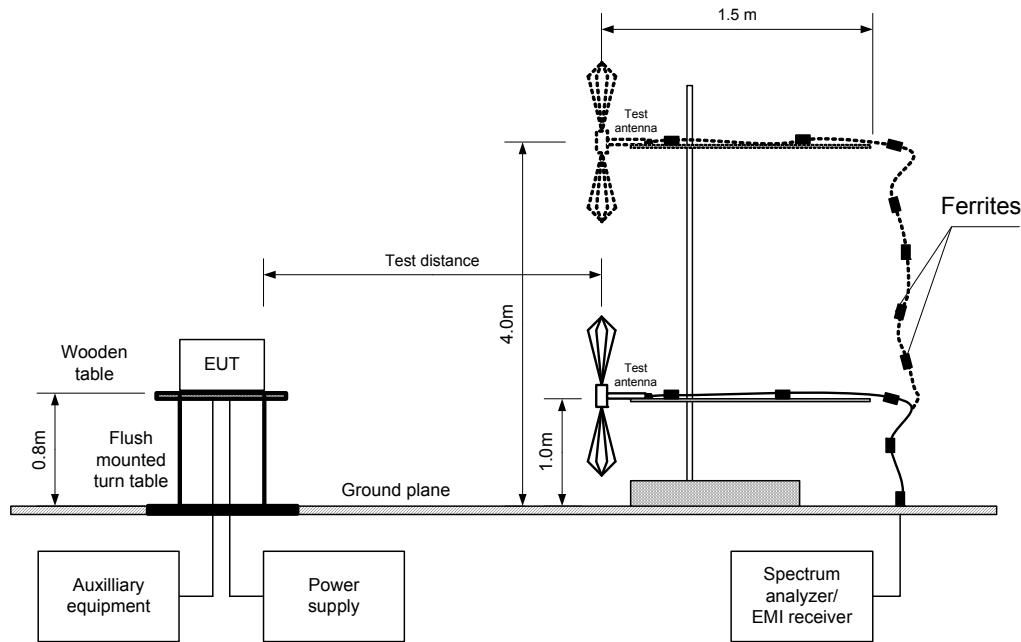
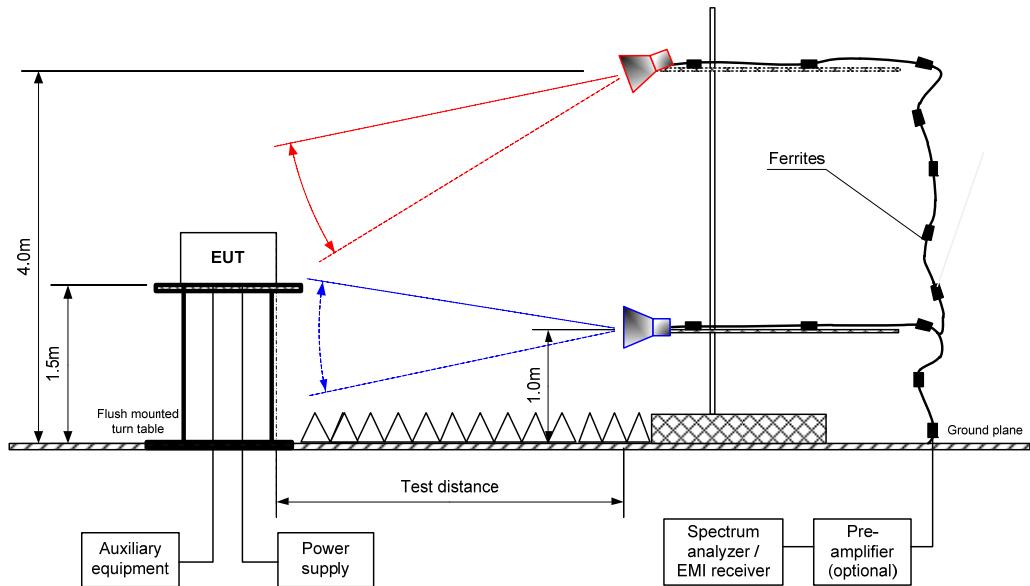


Figure 7.2.3 Setup for spurious emission field strength measurements above 1000 MHz





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Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions			
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance		
Date(s):	25-Aug-17 - 21-Feb-18		
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.5 Field strength of fundamental emission

TEST DISTANCE:	3 m
EUT POSITION:	Typical
MODULATING SIGNAL:	PRBS
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
INVESTIGATED FREQUENCY RANGE:	0.009 – 100 000 MHz
DETECTOR USED:	Peak
RESOLUTION BANDWIDTH:	1.0 kHz (9 kHz – 150 kHz) 9.0 kHz (150 kHz – 30 MHz) 120 kHz (30 MHz – 1000 MHz) 1.0 MHz (above 1000 MHz)
VIDEO BANDWIDTH:	≥ Resolution bandwidth
TEST ANTENNA TYPE:	Double ridged guide (above 1000 MHz)

**Fundamental emission**

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength			Avr factor, dB	Average field strength			Verdict			
	Pol.	Height, m		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**				
<b>Channel bandwidth 20 MHz</b>														
<b>Modulation QPSK</b>														
24010.0	Vert	1.5	0	120.54	128.0	-7.46	0	107.62	108.0	-0.38	Pass			
24070.0	Vert	1.5	0	119.91	128.0	-8.09	0	107.09	108.0	-0.91				
24180.0	Vert	1.5	0	120.69	128.0	-7.31	0	107.62	108.0	-0.38				
24240.0	Vert	1.5	0	120.96	128.0	-7.04	0	107.84	108.0	-0.16				
<b>Modulation 2048 QAM</b>														
24010.0	Vert	1.5	0	120.44	128.0	-7.56	0	107.44	108.0	-0.56	Pass			
24070.0	Vert	1.5	0	118.53	128.0	-9.47	0	107.29	108.0	-0.71				
24180.0	Vert	1.5	0	118.56	128.0	-9.44	0	107.56	108.0	-0.44				
24240.0	Vert	1.5	0	120.02	128.0	-7.98	0	107.22	108.0	-0.78				
<b>Modulation QPSK</b>														
24010.0	Hor	1.5	0	119.76	128.0	-8.24	0	107.42	108.0	-0.58	Pass			
24070.0	Hor	1.5	0	120.43	128.0	-7.57	0	107.38	108.0	-0.62				
24180.0	Hor	1.5	0	120.20	128.0	-7.80	0	107.29	108.0	-0.71				
24240.0	Hor	1.5	0	120.85	128.0	-7.15	0	107.71	108.0	-0.29				
<b>Modulation 2048 QAM</b>														
24010.0	Hor	1.5	0	119.24	128.0	-8.76	0	107.31	108.0	-0.69	Pass			
24070.0	Hor	1.5	0	118.59	128.0	-9.41	0	107.56	108.0	-0.44				
24180.0	Hor	1.5	0	118.52	128.0	-9.48	0	107.60	108.0	-0.40				
24240.0	Hor	1.5	0	119.11	128.0	-8.89	0	107.58	108.0	-0.42				



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Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions			
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance		
Date(s):	25-Aug-17 - 21-Feb-18		
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.6 Field strength of fundamental emission

TEST DISTANCE:	3 m
EUT POSITION:	Typical
MODULATING SIGNAL:	PRBS
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
INVESTIGATED FREQUENCY RANGE:	0.009 – 100 000 MHz
DETECTOR USED:	Peak
RESOLUTION BANDWIDTH:	1.0 kHz (9 kHz – 150 kHz) 9.0 kHz (150 kHz – 30 MHz) 120 kHz (30 MHz – 1000 MHz) 1.0 MHz (above 1000 MHz)
VIDEO BANDWIDTH:	≥ Resolution bandwidth
TEST ANTENNA TYPE:	Double ridged guide (above 1000 MHz)

**Fundamental emission**

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength			Avr factor, dB	Average field strength			Verdict			
	Pol.	Height, m		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**				
<b>Channel bandwidth 30 MHz</b>														
<b>Modulation QPSK</b>														
24015.0	Vert	1.5	0	119.54	128.0	-8.46	0	106.57	108.0	-1.43	Pass			
24065.0	Vert	1.5	0	118.95	128.0	-9.05	0	106.38	108.0	-1.62				
24185.0	Vert	1.5	0	119.53	128.0	-8.47	0	106.10	108.0	-1.90				
24235.0	Vert	1.5	0	119.51	128.0	-8.49	0	106.67	108.0	-1.33				
<b>Modulation 2048 QAM</b>														
24015.0	Vert	1.5	0	117.66	128.0	-10.34	0	106.66	108.0	-1.34	Pass			
24065.0	Vert	1.5	0	117.38	128.0	-10.62	0	106.15	108.0	-1.85				
24185.0	Vert	1.5	0	117.52	128.0	-10.48	0	106.22	108.0	-1.78				
24235.0	Vert	1.5	0	117.73	128.0	-10.27	0	106.67	108.0	-1.33				
<b>Modulation QPSK</b>														
24015.0	Hor	1.5	0	119.00	128.0	-9.00	0	105.84	108.0	-2.16	Pass			
24065.0	Hor	1.5	0	118.77	128.0	-9.23	0	105.66	108.0	-2.34				
24185.0	Hor	1.5	0	119.07	128.0	-8.93	0	105.71	108.0	-2.29				
24235.0	Hor	1.5	0	118.83	128.0	-9.17	0	105.94	108.0	-2.06				
<b>Modulation 2048 QAM</b>														
24015.0	Hor	1.5	0	117.42	128.0	-10.58	0	105.95	108.0	-2.05	Pass			
24065.0	Hor	1.5	0	116.39	128.0	-11.61	0	105.68	108.0	-2.32				
24185.0	Hor	1.5	0	117.03	128.0	-10.97	0	104.87	108.0	-3.13				
24235.0	Hor	1.5	0	116.00	128.0	-12.00	0	105.33	108.0	-2.67				



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Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions			
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance		
Date(s):	25-Aug-17 - 21-Feb-18		
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.7 Field strength of fundamental emission

TEST DISTANCE:	3 m
EUT POSITION:	Typical
MODULATING SIGNAL:	PRBS
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
INVESTIGATED FREQUENCY RANGE:	0.009 – 100 000 MHz
DETECTOR USED:	Peak
RESOLUTION BANDWIDTH:	1.0 kHz (9 kHz – 150 kHz) 9.0 kHz (150 kHz – 30 MHz) 120 kHz (30 MHz – 1000 MHz) 1.0 MHz (above 1000 MHz)
VIDEO BANDWIDTH:	≥ Resolution bandwidth
TEST ANTENNA TYPE:	Double ridged guide (above 1000 MHz)

**Fundamental emission**

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength			Avr factor, dB	Average field strength			Verdict			
	Pol.	Height, m		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**				
<b>Channel bandwidth 40 MHz</b>														
<b>Modulation QPSK</b>														
24020.0	Vert	1.5	0	119.60	128.0	-8.40	0	105.65	108.0	-2.35	Pass			
24060.0	Vert	1.5	0	119.43	128.0	-8.57	0	105.51	108.0	-2.49				
24190.0	Vert	1.5	0	118.26	128.0	-9.74	0	104.41	108.0	-3.59				
24230.0	Vert	1.5	0	119.50	128.0	-8.50	0	104.46	108.0	-3.54				
<b>Modulation 2048 QAM</b>														
24020.0	Vert	1.5	0	116.02	128.0	-11.98	0	105.02	108.0	-2.98	Pass			
24060.0	Vert	1.5	0	116.67	128.0	-11.33	0	105.15	108.0	-2.85				
24190.0	Vert	1.5	0	115.19	128.0	-12.81	0	104.39	108.0	-3.61				
24230.0	Vert	1.5	0	115.32	128.0	-12.68	0	104.6	108.0	-3.40				
<b>Modulation QPSK</b>														
24020.0	Hor	1.5	0	119.24	128.0	-8.76	0	105.47	108.0	-2.53	Pass			
24060.0	Hor	1.5	0	119.29	128.0	-8.71	0	105.66	108.0	-2.34				
24190.0	Hor	1.5	0	118.44	128.0	-9.56	0	104.56	108.0	-3.44				
24230.0	Hor	1.5	0	119.25	128.0	-8.75	0	104.68	108.0	-3.32				
<b>Modulation 2048 QAM</b>														
24020.0	Hor	1.5	0	116.17	128.0	-11.83	0	105.25	108.0	-2.75	Pass			
24060.0	Hor	1.5	0	116.51	128.0	-11.49	0	105.25	108.0	-2.75				
24190.0	Hor	1.5	0	115.24	128.0	-12.76	0	104.46	108.0	-3.54				
24230.0	Hor	1.5	0	115.54	128.0	-12.46	0	104.78	108.0	-3.22				



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Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions			
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance		
Date(s):	25-Aug-17 - 21-Feb-18		
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.8 Field strength of fundamental emission

TEST DISTANCE:	3 m
EUT POSITION:	Typical
MODULATING SIGNAL:	PRBS
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
INVESTIGATED FREQUENCY RANGE:	0.009 – 100 000 MHz
DETECTOR USED:	Peak
RESOLUTION BANDWIDTH:	1.0 kHz (9 kHz – 150 kHz) 9.0 kHz (150 kHz – 30 MHz) 120 kHz (30 MHz – 1000 MHz) 1.0 MHz (above 1000 MHz)
VIDEO BANDWIDTH:	≥ Resolution bandwidth
TEST ANTENNA TYPE:	Double ridged guide (above 1000 MHz)

**Fundamental emission**

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength			Avr factor, dB	Average field strength			Verdict			
	Pol.	Height, m		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**				
<b>Channel bandwidth 50 MHz</b>														
<b>Modulation QPSK</b>														
24025.0	Vert	1.5	0	118.81	128.0	-9.19	0	104.39	108.0	-3.61	Pass			
24055.0	Vert	1.5	0	119.14	128.0	-8.86	0	104.52	108.0	-3.48				
24195.0	Vert	1.5	0	117.91	128.0	-10.09	0	103.77	108.0	-4.23				
24225.0	Vert	1.5	0	117.88	128.0	-10.12	0	103.84	108.0	-4.16				
<b>Modulation 2048 QAM</b>														
24025.0	Vert	1.5	0	114.54	128.0	-13.46	0	104.3	108.0	-3.70	Pass			
24055.0	Vert	1.5	0	115.62	128.0	-12.38	0	104.3	108.0	-3.70				
24195.0	Vert	1.5	0	114.25	128.0	-13.75	0	103.73	108.0	-4.27				
24225.0	Vert	1.5	0	114.96	128.0	-13.04	0	103.48	108.0	-4.52				
<b>Modulation QPSK</b>														
24025.0	Hor	1.5	0	118.72	128.0	-9.28	0	104.47	108.0	-3.53	Pass			
24055.0	Hor	1.5	0	119.22	128.0	-8.78	0	104.59	108.0	-3.41				
24195.0	Hor	1.5	0	117.92	128.0	-10.08	0	103.86	108.0	-4.14				
24225.0	Hor	1.5	0	117.72	128.0	-10.28	0	103.74	108.0	-4.26				
<b>Modulation 2048 QAM</b>														
24025.0	Hor	1.5	0	114.65	128.0	-13.35	0	104.43	108.0	-3.57	Pass			
24055.0	Hor	1.5	0	115.25	128.0	-12.75	0	104.36	108.0	-3.64				
24195.0	Hor	1.5	0	114.26	128.0	-13.74	0	104.3	108.0	-3.70				
24225.0	Hor	1.5	0	115.08	128.0	-12.92	0	103.88	108.0	-4.12				



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Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions			
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance		
Date(s):	25-Aug-17 - 21-Feb-18		
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.9 Field strength of fundamental emission

TEST DISTANCE:	3 m
EUT POSITION:	Typical
MODULATING SIGNAL:	PRBS
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
INVESTIGATED FREQUENCY RANGE:	0.009 – 100 000 MHz
DETECTOR USED:	Peak
RESOLUTION BANDWIDTH:	1.0 kHz (9 kHz – 150 kHz) 9.0 kHz (150 kHz – 30 MHz) 120 kHz (30 MHz – 1000 MHz) 1.0 MHz (above 1000 MHz)
VIDEO BANDWIDTH:	≥ Resolution bandwidth
TEST ANTENNA TYPE:	Double ridged guide (above 1000 MHz)

**Fundamental emission**

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength			Avr factor, dB	Average field strength			Verdict
	Pol.	Height, m		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**	
<b>Channel bandwidth 60 MHz</b>											
24030.0	Vert	1.5	0	117.22	128.0	-10.78	0	103.45	108.0	-4.55	Pass
24050.0	Vert	1.5	0	117.46	128.0	-10.54	0	103.33	108.0	-4.67	
24200.0	Vert	1.5	0	116.87	128.0	-11.13	0	103.57	108.0	-4.43	
24220.0	Vert	1.5	0	117.00	128.0	-11.00	0	103.38	108.0	-4.62	
<b>Modulation 2048 QAM</b>											
24030.0	Vert	1.5	0	113.24	128.0	-14.76	0	103.28	108.0	-4.72	Pass
24050.0	Vert	1.5	0	113.18	128.0	-14.82	0	103.38	108.0	-4.62	
24200.0	Vert	1.5	0	113.99	128.0	-14.01	0	103.18	108.0	-4.82	
24220.0	Vert	1.5	0	113.84	128.0	-14.16	0	103.36	108.0	-4.64	
<b>Modulation QPSK</b>											
24030.0	Hor	1.5	0	115.62	128.0	-12.38	0	102.24	108.0	-5.76	Pass
24050.0	Hor	1.5	0	115.02	128.0	-12.98	0	101.82	108.0	-6.18	
24200.0	Hor	1.5	0	115.96	128.0	-12.04	0	102.46	108.0	-5.54	
24220.0	Hor	1.5	0	115.50	128.0	-12.5	0	101.88	108.0	-6.12	
<b>Modulation 2048 QAM</b>											
24030.0	Hor	1.5	0	113.36	128.0	-14.64	0	103.55	108.0	-4.45	Pass
24050.0	Hor	1.5	0	113.35	128.0	-14.65	0	103.44	108.0	-4.56	
24200.0	Hor	1.5	0	113.88	128.0	-14.12	0	103.58	108.0	-4.42	
24220.0	Hor	1.5	0	114.04	128.0	-13.96	0	103.65	108.0	-4.35	

Table 7.2.10 Average factor calculation

Transmission pulse		Transmission burst		Transmission train duration, ms	Average factor, dB
Duration, ms	Period, ms	Duration, ms	Period, ms		
NA	NA	NA	NA	NA	0

\*- Average factor was calculated as follows

for pulse train shorter than 100 ms:

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



HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>							
<b>Test procedure:</b>		ANSI C63.10 sections 6.5, 6.6					
<b>Test mode:</b>		Compliance				<b>Verdict:</b>	
<b>Date(s):</b>		25-Aug-17 - 21-Feb-18				<b>PASS</b>	
<b>Temperature:</b> 24.3 °C		<b>Relative Humidity:</b> 48 %		<b>Air Pressure:</b> 1011 hPa		<b>Power:</b> -48 VDC	
<b>Remarks:</b> EUT with 37.1 dBi antenna gain							

**Table 7.2.11 Field strength of spurious emissions**

TEST DISTANCE:	3 m
EUT POSITION:	Typical
MODULATING SIGNAL:	PRBS
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
INVESTIGATED FREQUENCY RANGE:	0.009 – 100 000 MHz
DETECTOR USED:	Peak
RESOLUTION BANDWIDTH:	1.0 kHz (9 kHz – 150 kHz) 9.0 kHz (150 kHz – 30 MHz) 120 kHz (30 MHz – 1000 MHz) 1.0 MHz (above 1000 MHz)
VIDEO BANDWIDTH:	≥ Resolution bandwidth
TEST ANTENNA TYPE:	Active loop (9 kHz – 30 MHz) Biconilog (30 MHz – 1000 MHz) Double ridged guide (above 1000 MHz)

**Spurious emission**

Frequency, MHz	Antenna		Azimuth, degrees*	Peak emission, dB(mV/m)	Quasi-peak			Verdict
	Pol.	Height, m			Measured emission, dB(mV/m)	Limit, dB(mV/m)	Margin, dB**	
32.0	V	1.0	0	33.1	28.2	40.0	-11.8	Pass
38.0	V	1.0	0	34.2	29.1	40.0	-10.9	
147.2	H	1.2	258	40.8	38.6	43.5	-4.9	
165.0	H	1.5	71	41.7	41.1	43.5	-2.4	
275.0	H	1.0	198	42.2	41.8	46.0	-4.2	
605.0	H	1.3	280	41.5	40.4	46.0	-5.6	
875.0	V	1.0	333	43.9	43.3	46.0	-2.7	

F, MHz	Antenna		Azimuth, degrees*	Peak field strength			Avr factor, dB	Average field strength			Verdict
	Pol.	Height, m		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**	
1125	V	1.3	340	49.7	74.0	-24.3	0	46.1	54.0	-7.9	Pass
1625	H	1.6	251	41.6	74.0	-32.4	0	36.8	54.0	-17.2	
2000	V	1.3	104	43.6	74.0	-30.4	0	38.6	54.0	-15.4	
2125	V	1.3	104	42.3	74.0	-31.7	0	38.6	54.0	-15.4	
2500	H	1.4	57	44.8	74.0	-29.2	0	41.3	54.0	-12.7	
3330	H	1.5	194	41.7	74.0	-32.3	0	37.2	54.0	-16.8	

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

\*\*- Margin, dB =Measured (calculated) value, dB(µV/m)-Limit, dB(µV/m).

**Reference numbers of test equipment used**

HL 0446	HL 0604	HL 0770	HL 0771	HL 0772	HL 1299	HL 1300	HL 2909
HL 3235	HL 3294	HL 3297	HL 3305	HL 3433	HL 3434	HL 3818	HL 4280
HL 4353	HL 4933	HL 4956	HL 5112				

Full description is given in Appendix A.



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.1 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EUT CONFIGURATION:

With splitter

EMISSION BANDWIDTH:

20 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

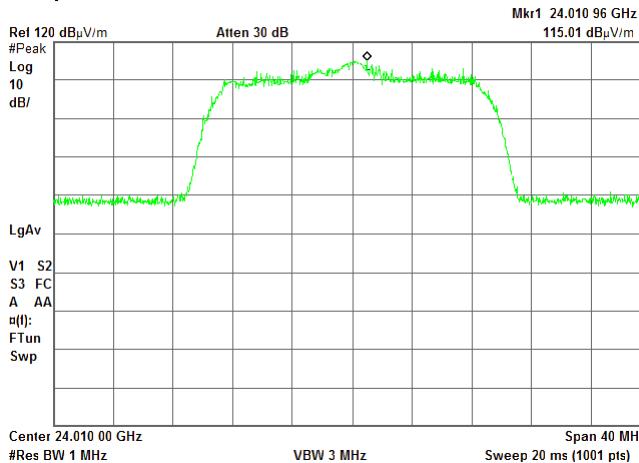
Low

DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent



CARRIER FREQUENCY:

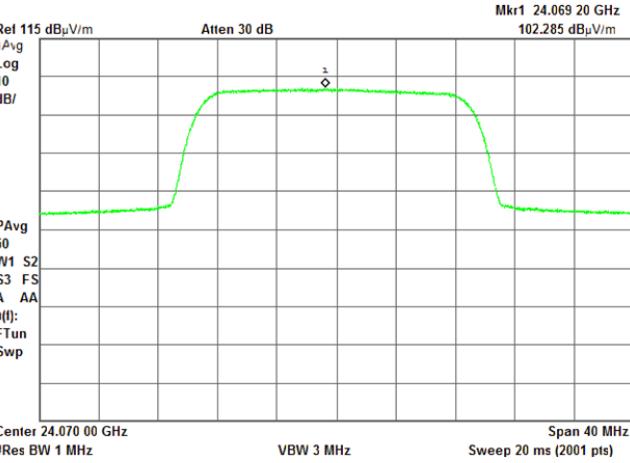
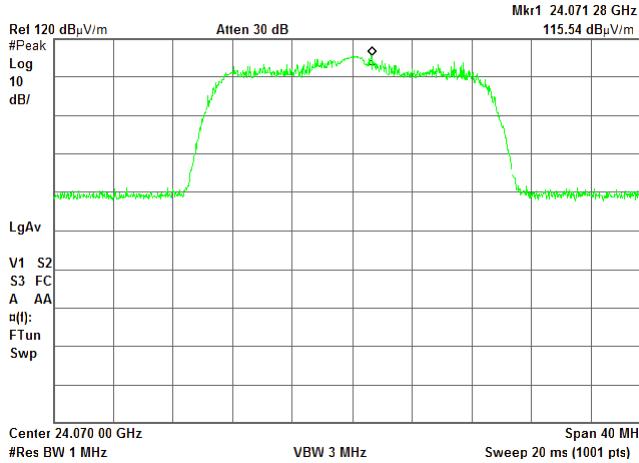
Mid

DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent





HERMON LABORATORIES

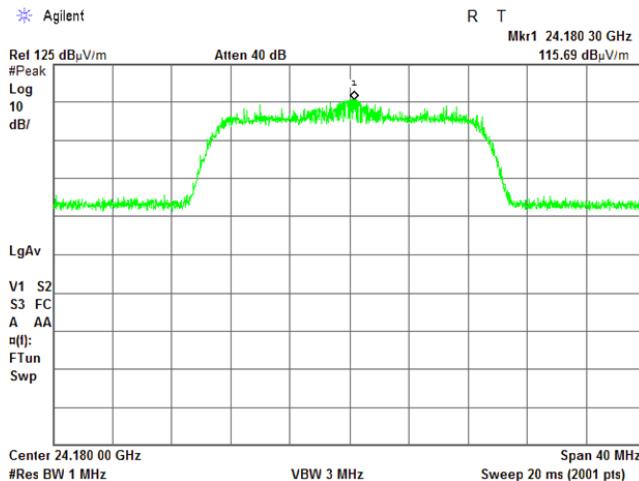
Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.2 Radiated emission measurements at the fundamental frequency

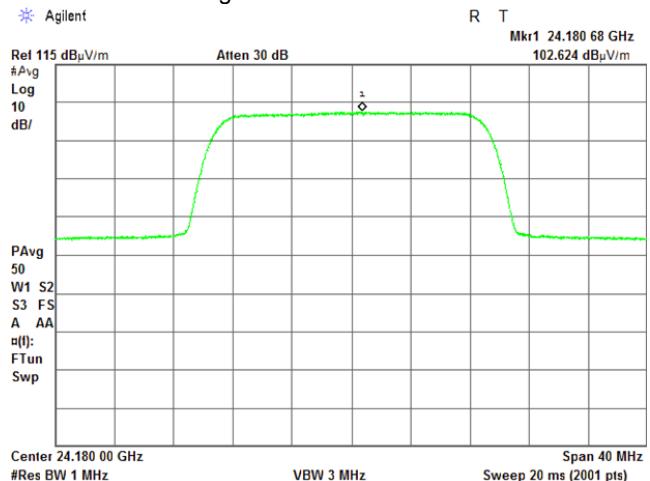
TEST SITE:  
TEST DISTANCE:  
ANTENNA POLARIZATION:  
EUT POSITION:  
EUT CONFIGURATION:  
EMISSION BANDWIDTH:  
MODULATION:

OATS  
3 m  
Vertical  
Typical (Vertical)  
With splitter  
20 MHz  
QPSK

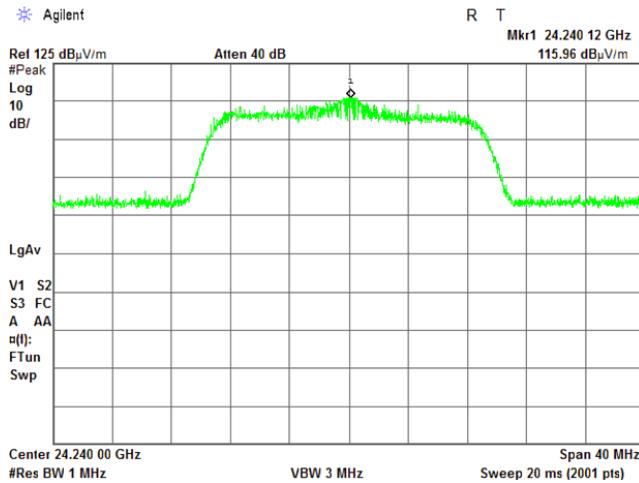
CARRIER FREQUENCY:  
DETECTOR: Peak



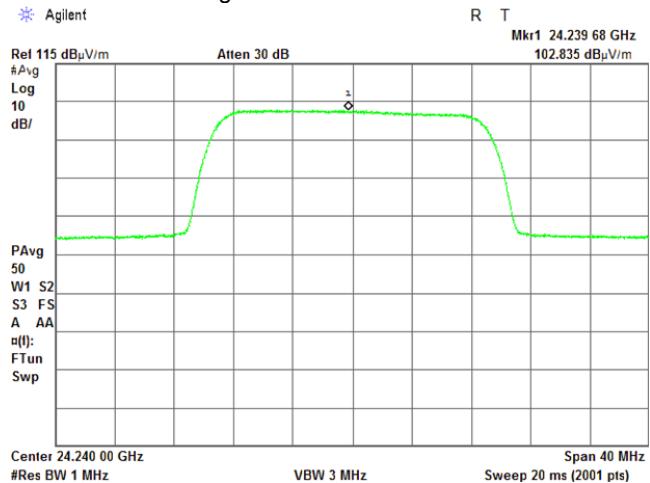
Mid  
DETECTOR: Average



CARRIER FREQUENCY:  
DETECTOR: Peak



High  
DETECTOR: Average





HERMON LABORATORIES

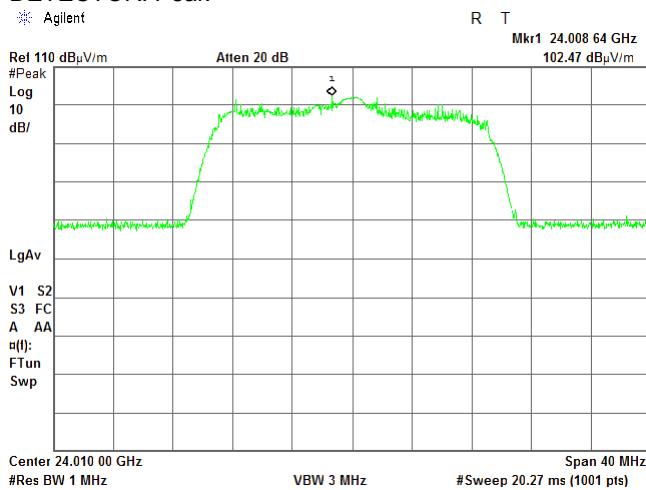
Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.3 Radiated emission measurements at the fundamental frequency

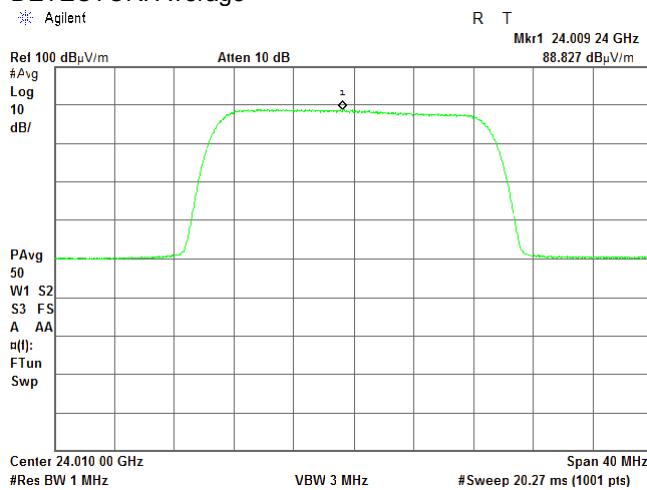
TEST SITE:  
TEST DISTANCE:  
ANTENNA POLARIZATION:  
EUT POSITION:  
EUT CONFIGURATION:  
EMISSION BANDWIDTH:  
MODULATION:

OATS  
3 m  
Horizontal  
Typical (Vertical)  
With splitter  
20 MHz  
QPSK

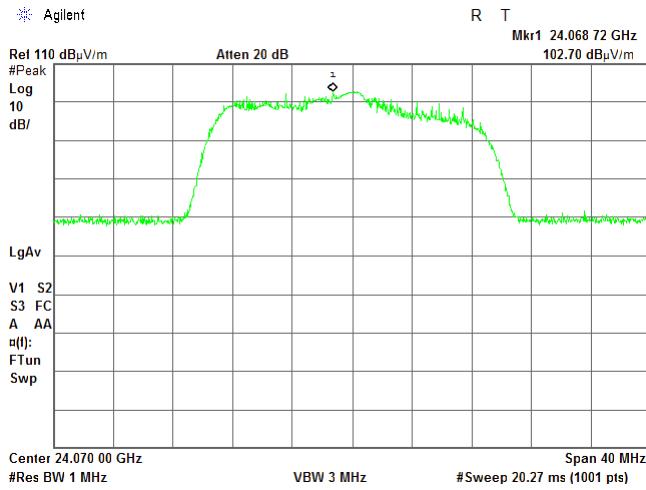
CARRIER FREQUENCY:  
DETECTOR: Peak



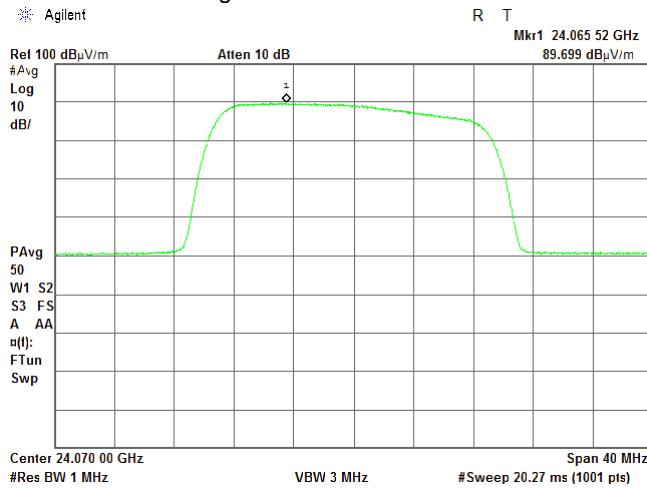
Low  
DETECTOR: Average



CARRIER FREQUENCY:  
DETECTOR: Peak



Mid  
DETECTOR: Average





HERMON LABORATORIES

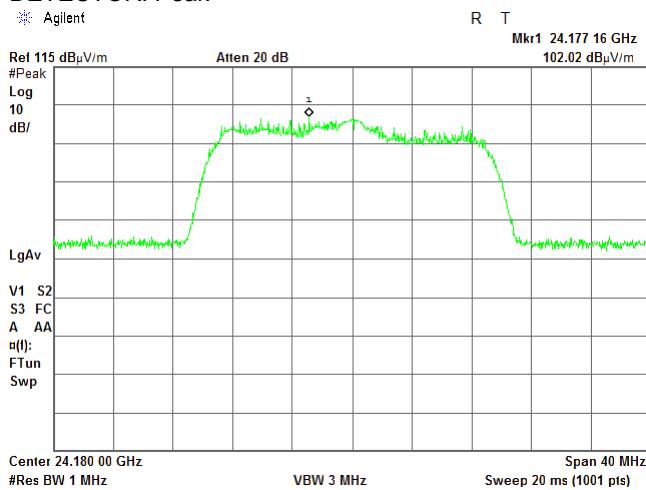
Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.4 Radiated emission measurements at the fundamental frequency

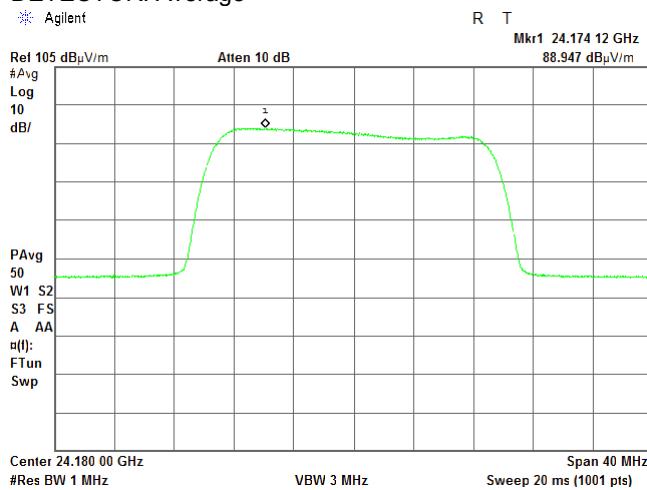
TEST SITE:  
TEST DISTANCE:  
ANTENNA POLARIZATION:  
EUT POSITION:  
EUT CONFIGURATION:  
EMISSION BANDWIDTH:  
MODULATION:

OATS  
3 m  
Horizontal  
Typical (Vertical)  
With splitter  
20 MHz  
QPSK

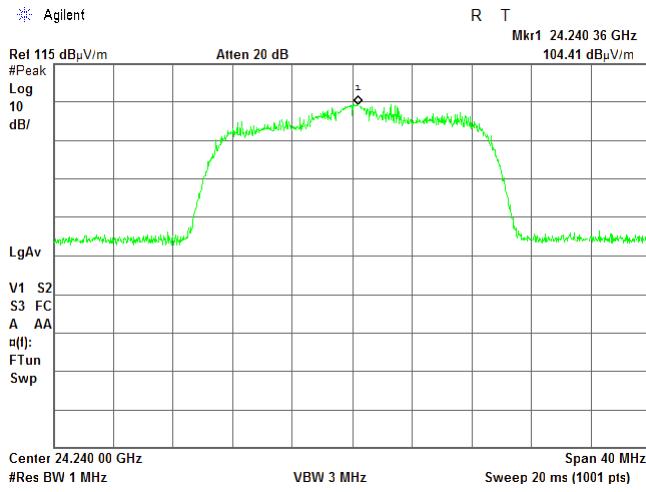
CARRIER FREQUENCY:  
DETECTOR: Peak



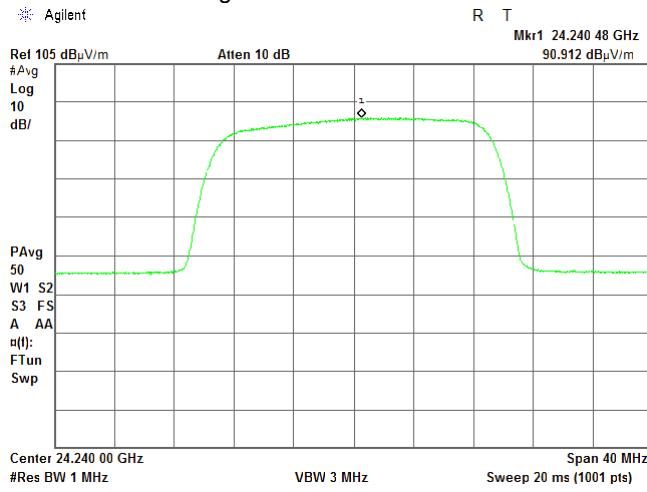
Mid  
DETECTOR: Average



CARRIER FREQUENCY:  
DETECTOR: Peak



High  
DETECTOR: Average





HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> <b>PASS</b>
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.5 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

20 MHz

MODULATION:

QPSK

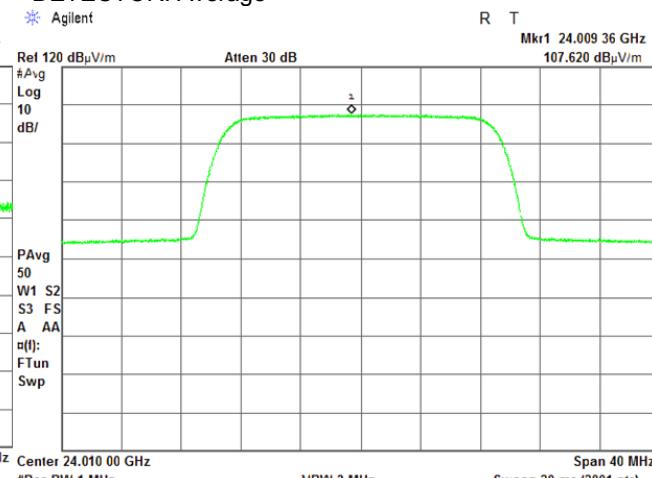
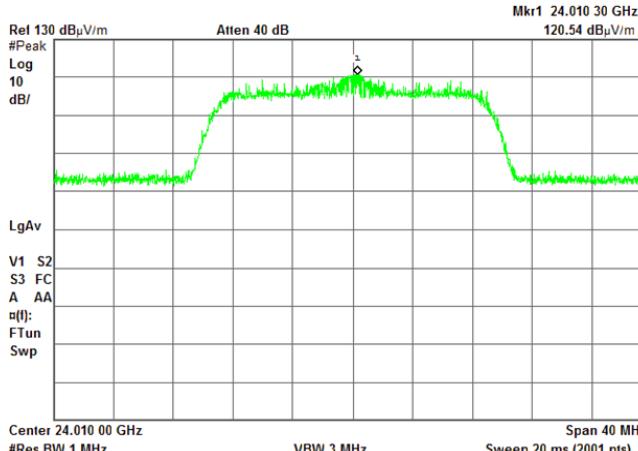
CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

Agilent



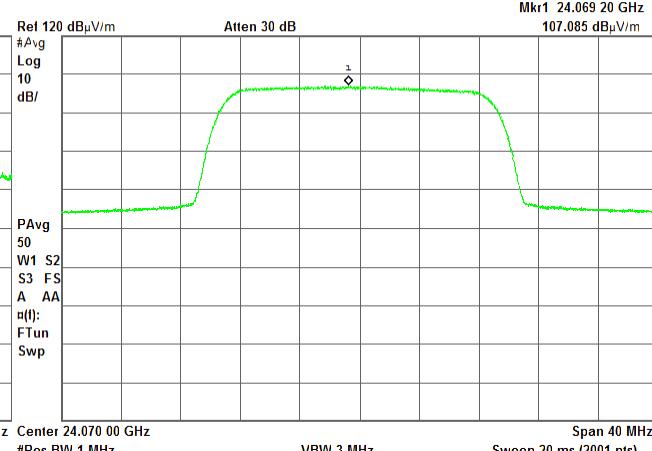
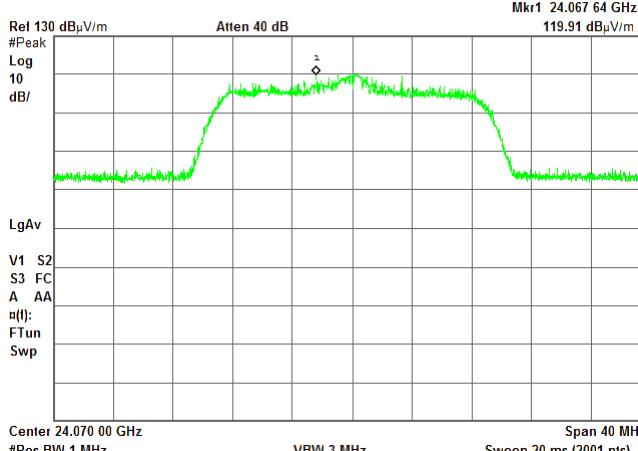
Mid

DETECTOR: Average

CARRIER FREQUENCY:

DETECTOR: Peak

Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.6 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

20 MHz

MODULATION:

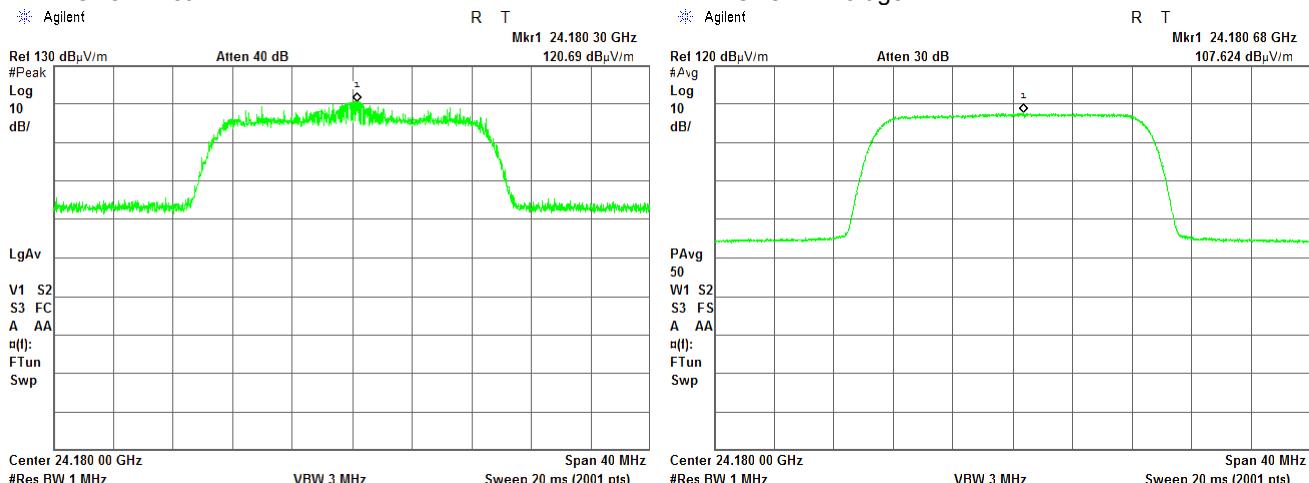
QPSK

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

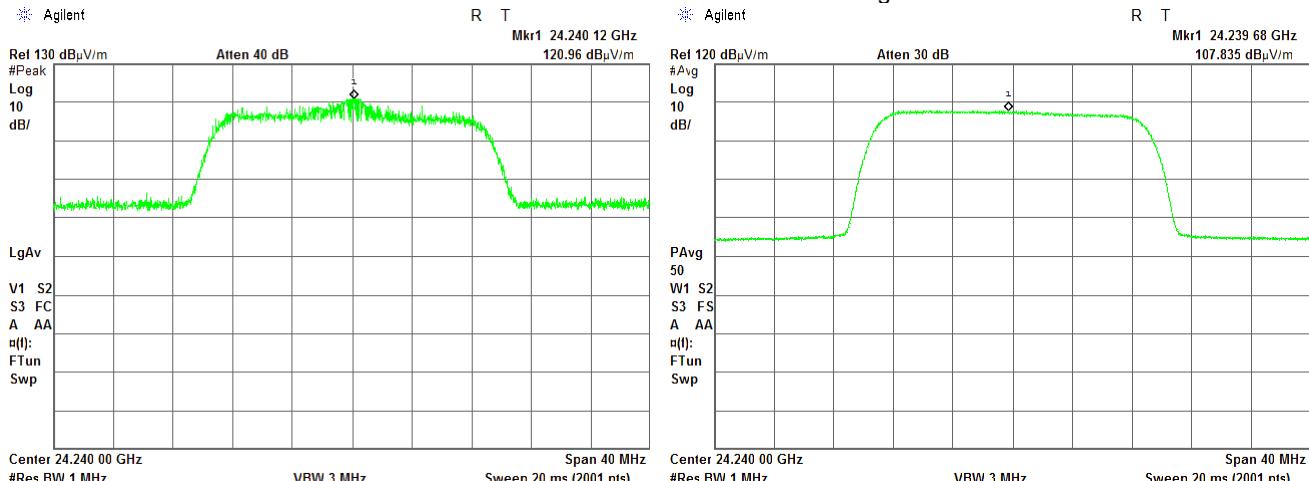


CARRIER FREQUENCY:

High

DETECTOR: Peak

DETECTOR: Average





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.7 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

20 MHz

MODULATION:

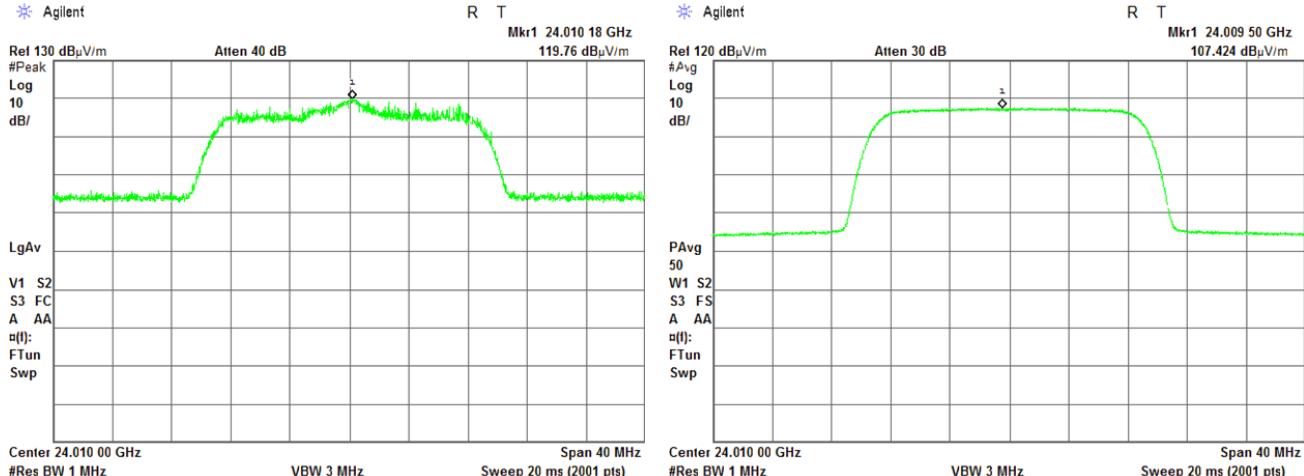
QPSK

CARRIER FREQUENCY:

Low

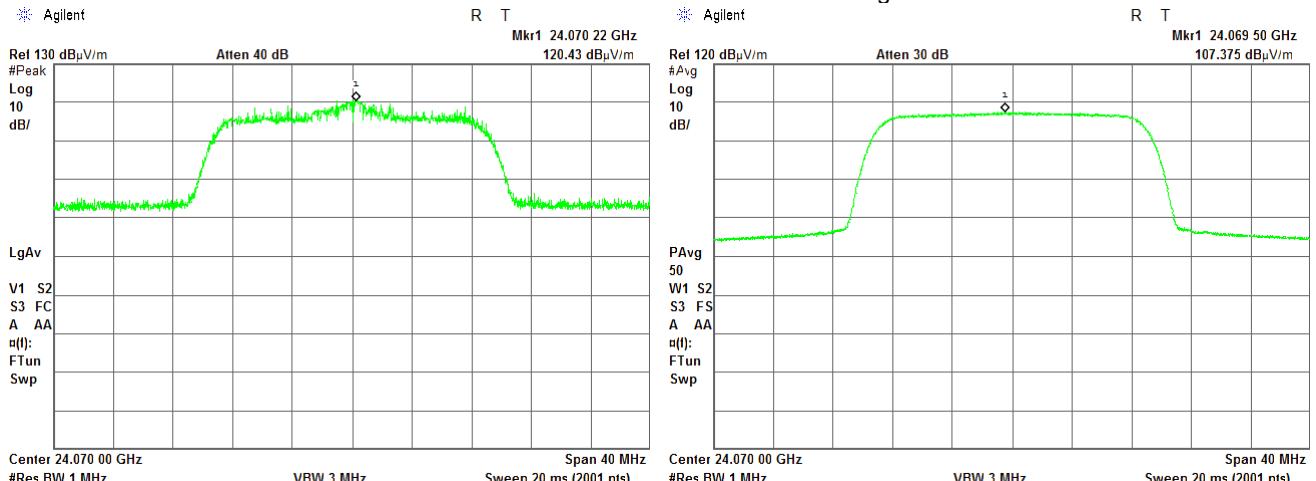
DETECTOR: Peak

DETECTOR: Average



CARRIER FREQUENCY:

DETECTOR: Peak





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.8 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

20 MHz

MODULATION:

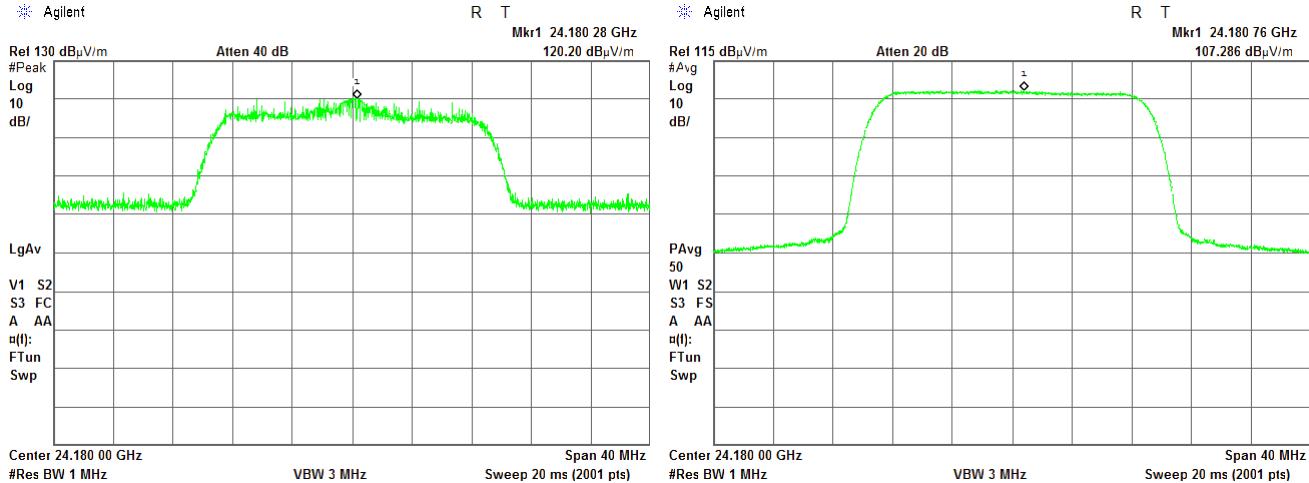
QPSK

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

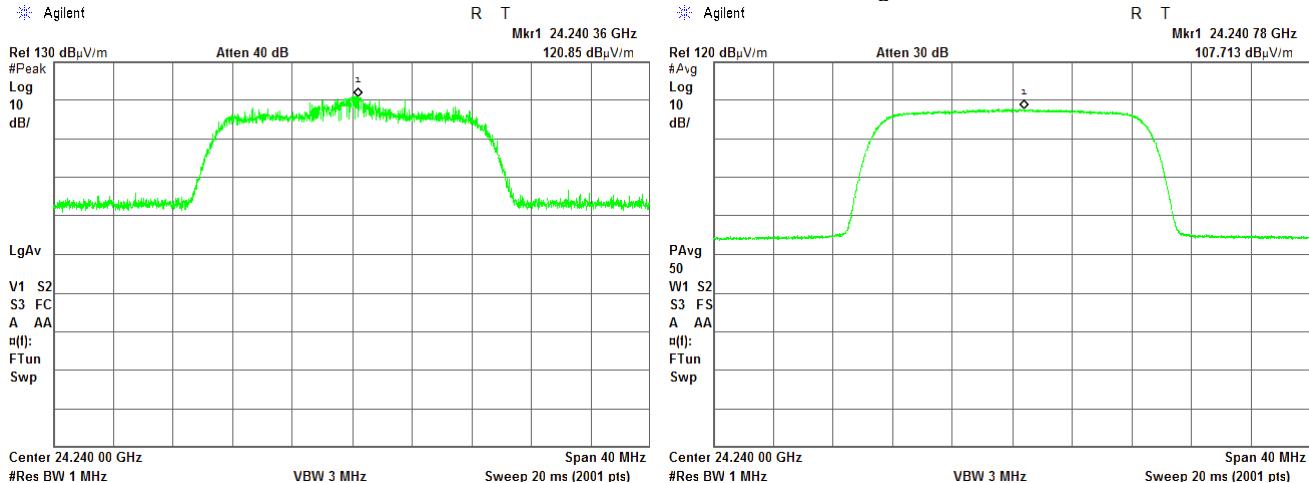


CARRIER FREQUENCY:

High

DETECTOR: Peak

DETECTOR: Average





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.9 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

20 MHz

MODULATION:

2048QAM

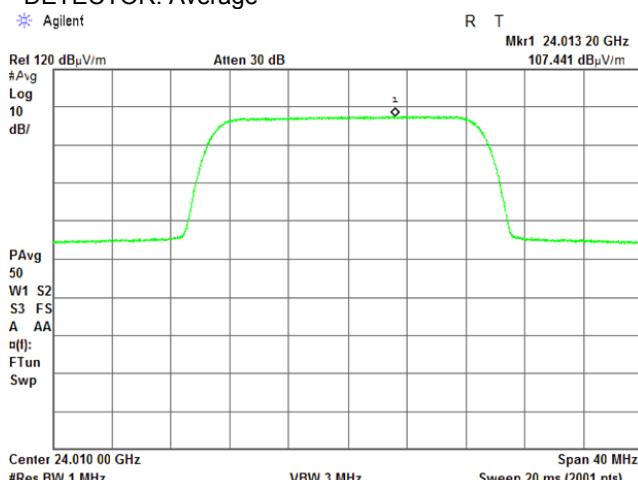
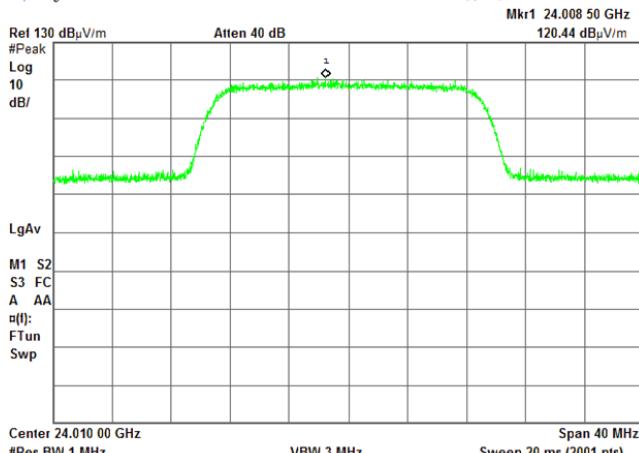
CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

\* Agilent



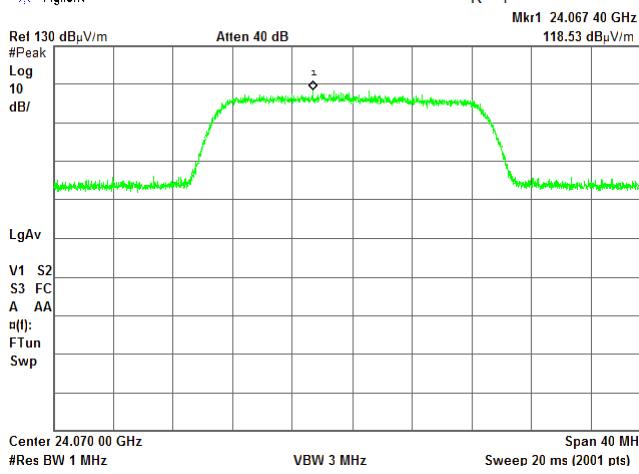
CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

\* Agilent





HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.10 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

20 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

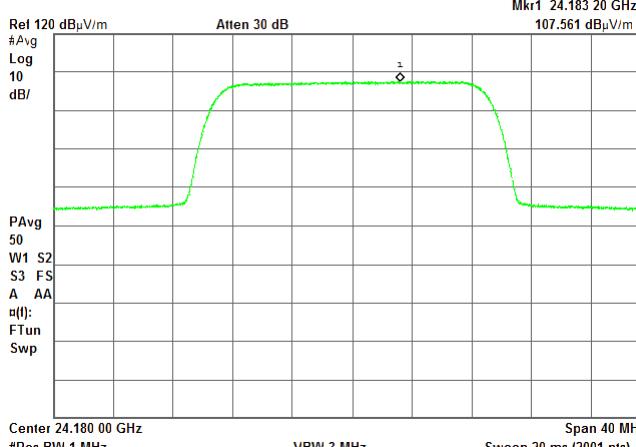
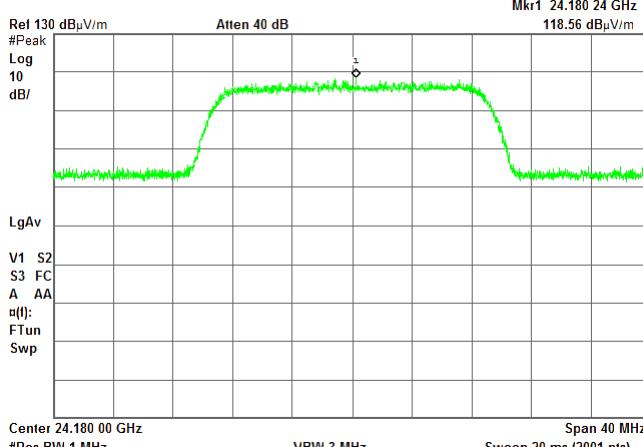
Agilent

Agilent

R T

Mkr1 24.180 24 GHz

118.56 dB $\mu$ V/m



CARRIER FREQUENCY:

High

DETECTOR: Peak

DETECTOR: Average

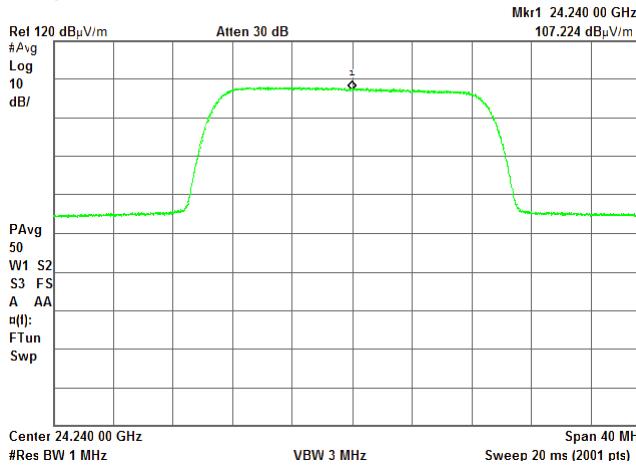
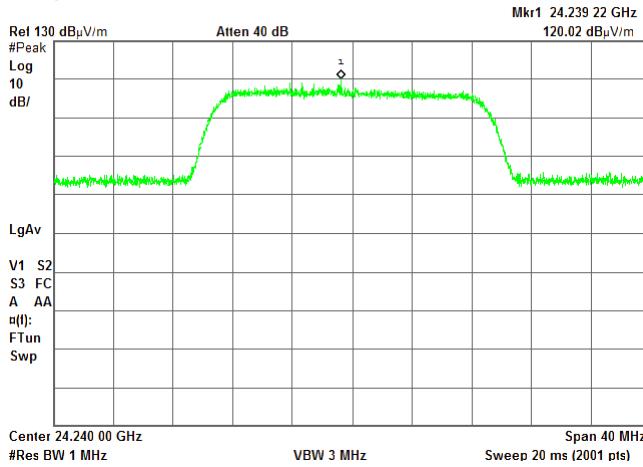
Agilent

Agilent

R T

Mkr1 24.239 22 GHz

120.02 dB $\mu$ V/m





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.11 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

20 MHz

MODULATION:

2048QAM

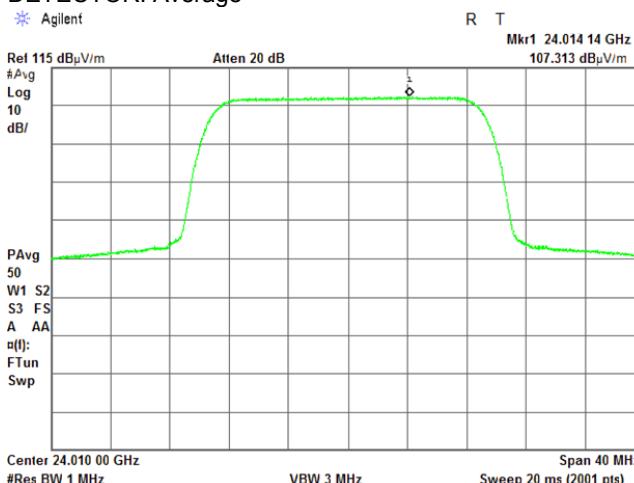
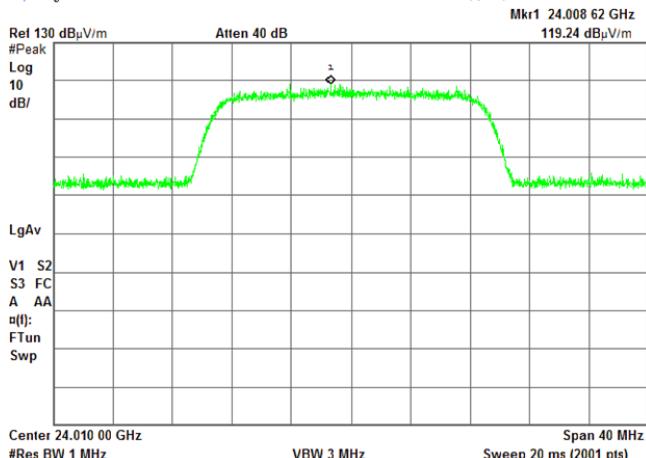
CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

\* Agilent



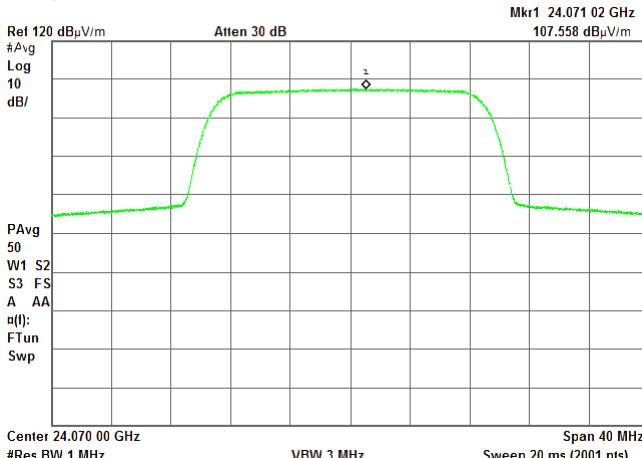
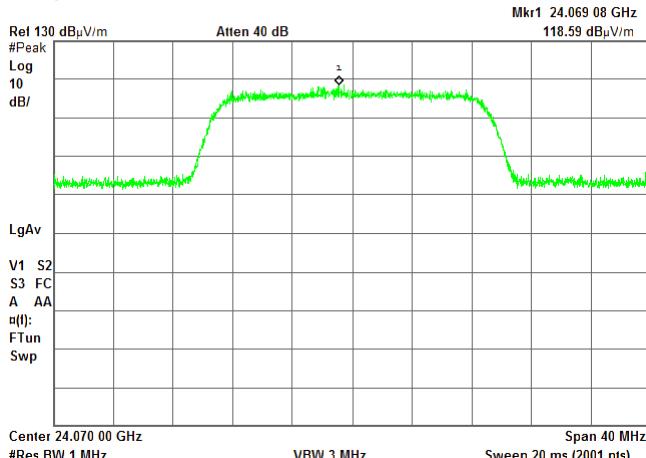
CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

\* Agilent





HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> <b>PASS</b>
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.12 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

20 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

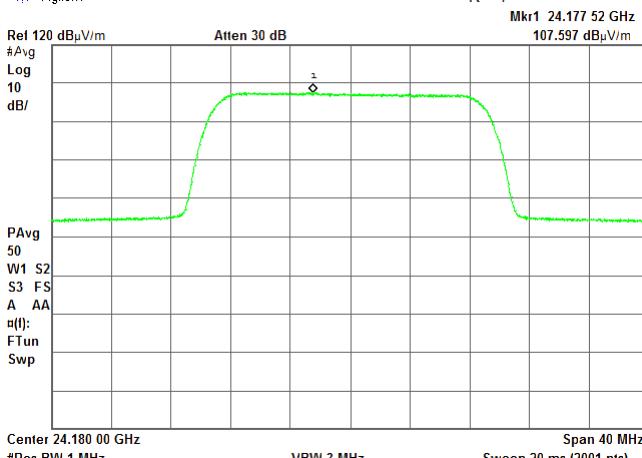
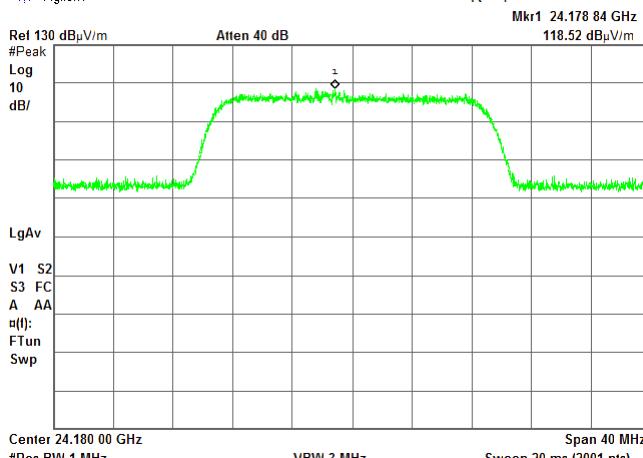
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

Agilent



CARRIER FREQUENCY:

High

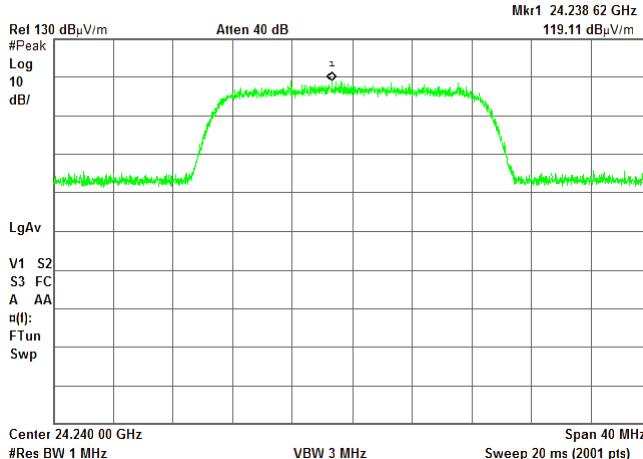
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.13 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

30 MHz

MODULATION:

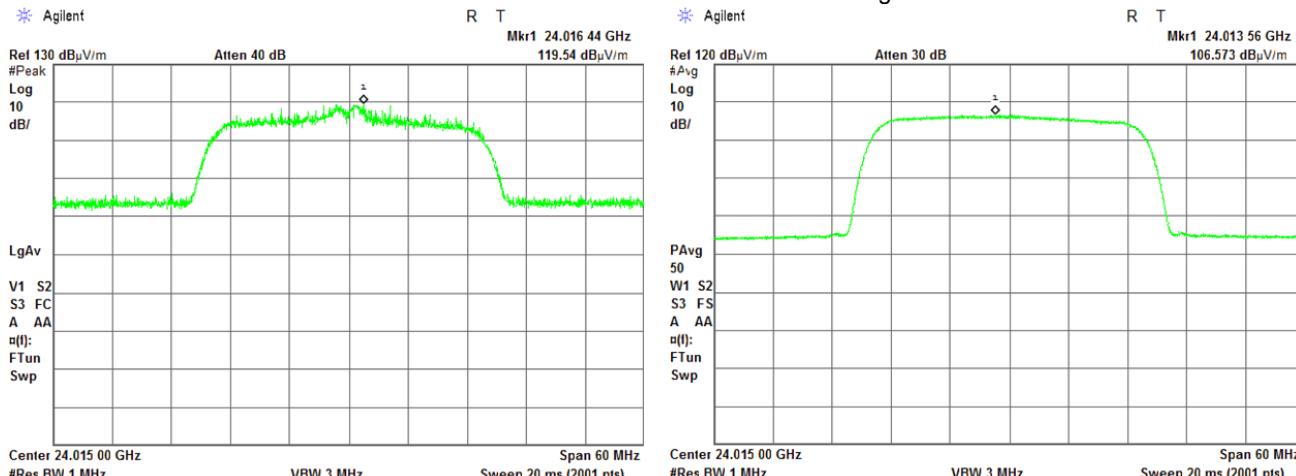
QPSK

CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

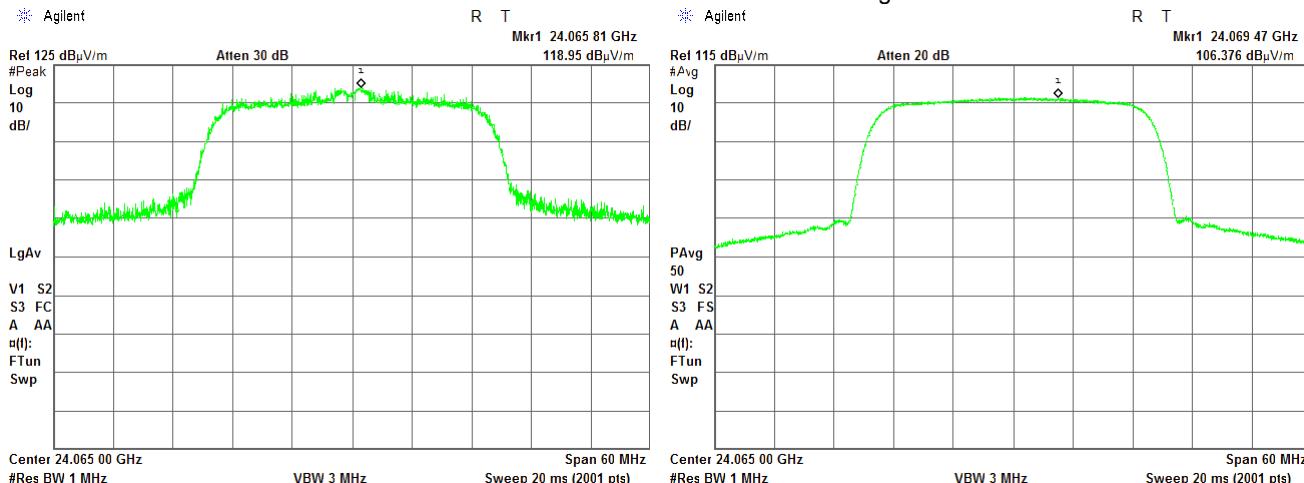


CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.14 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

30 MHz

MODULATION:

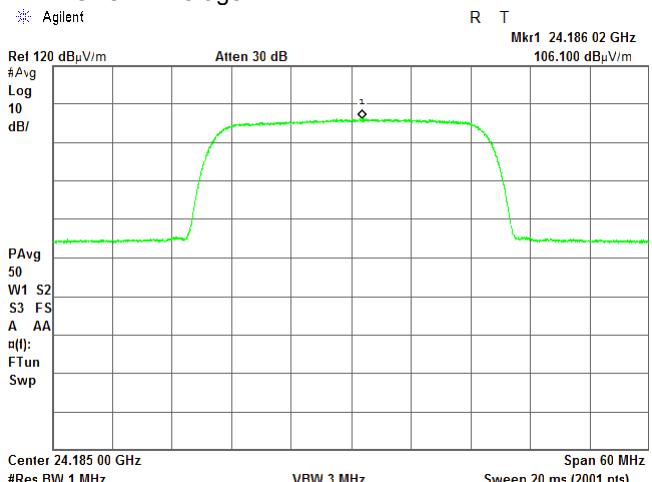
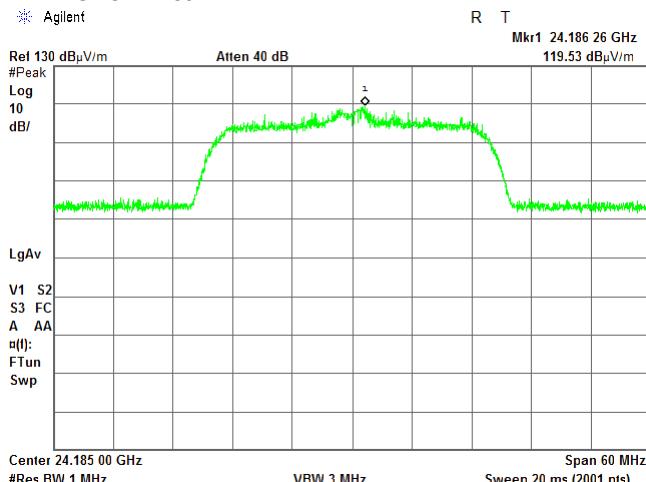
QPSK

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

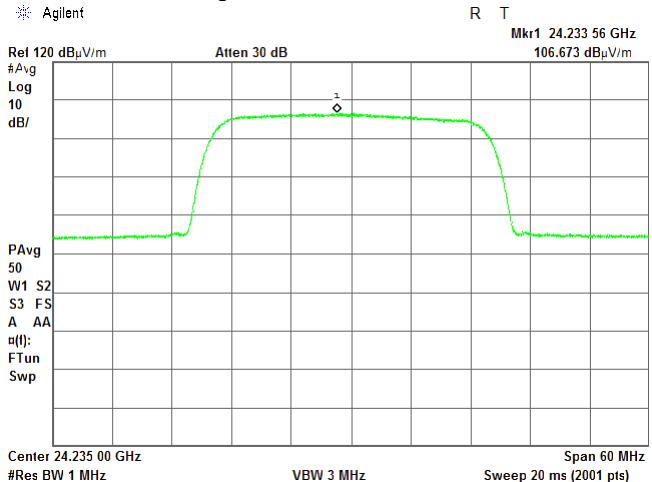
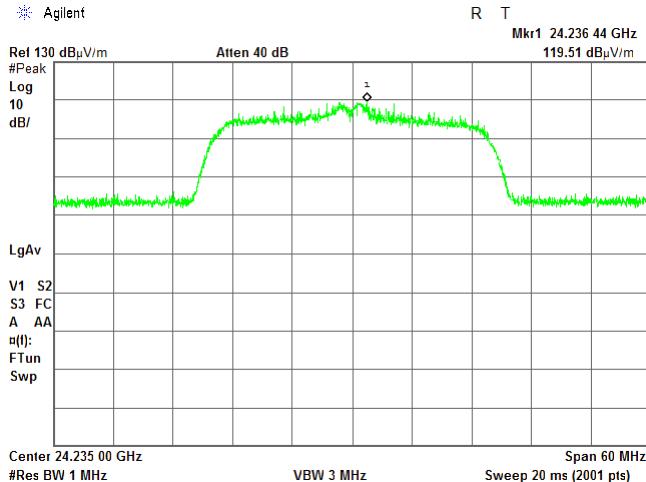


CARRIER FREQUENCY:

High

DETECTOR: Peak

DETECTOR: Average





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.15 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

30 MHz

MODULATION:

QPSK

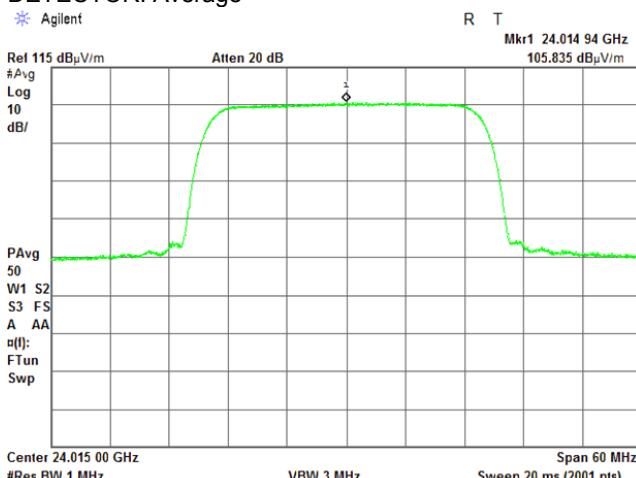
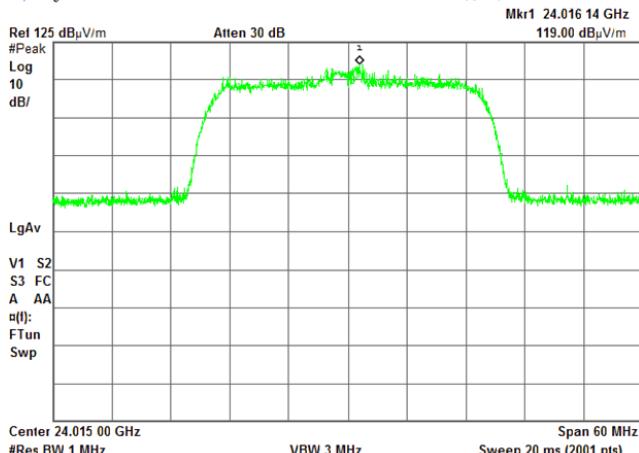
CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

\* Agilent



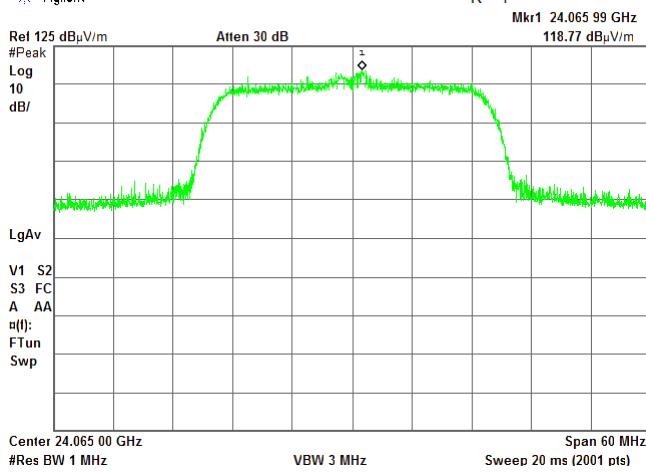
CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

\* Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.16 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

30 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

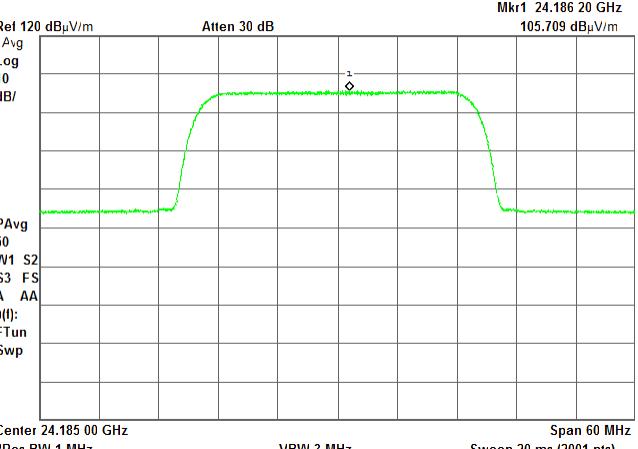
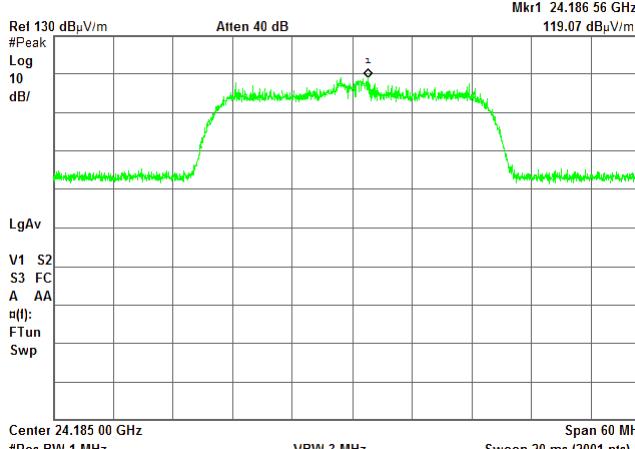
Mid

DETECTOR: Peak

DETECTOR: Average

Agilent

R T



CARRIER FREQUENCY:

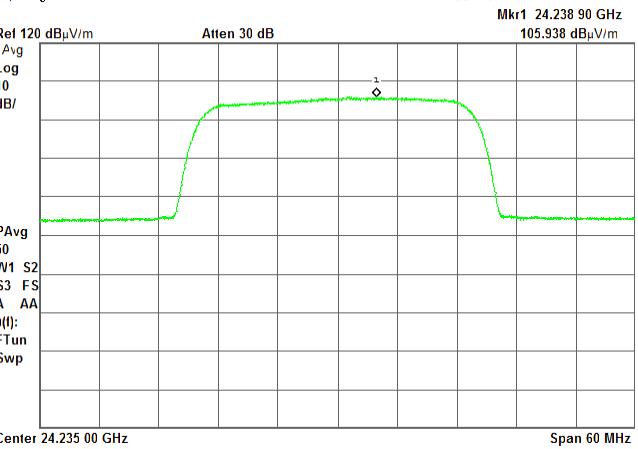
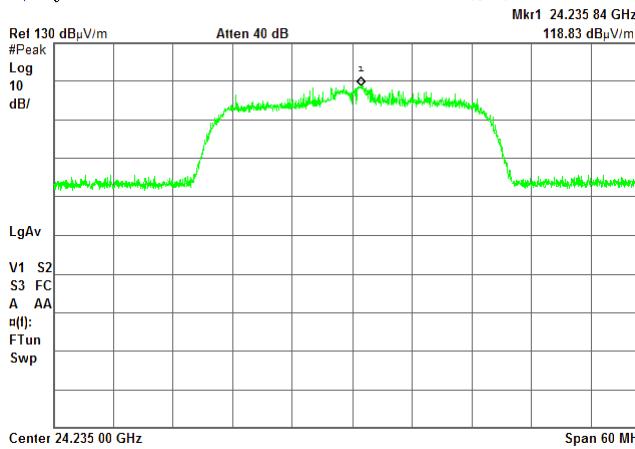
High

DETECTOR: Peak

DETECTOR: Average

Agilent

R T





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.17 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

30 MHz

MODULATION:

2048QAM

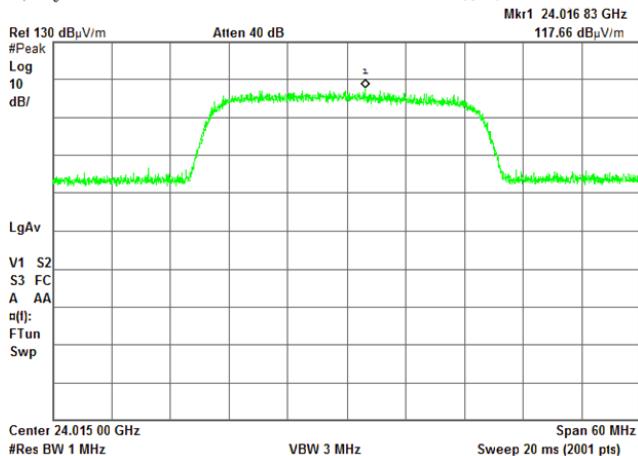
CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

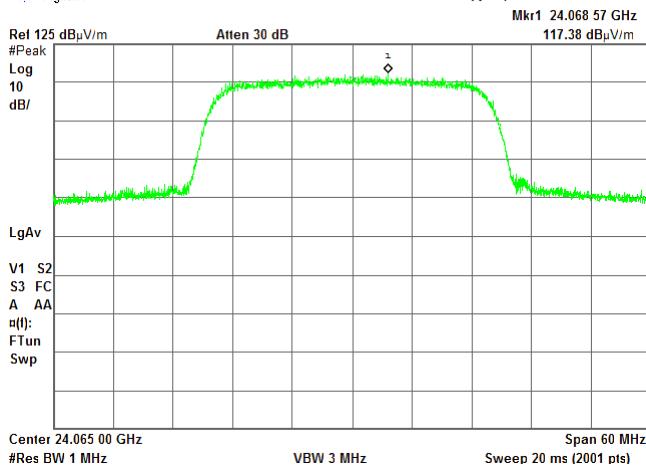
\* Agilent



CARRIER FREQUENCY:

DETECTOR: Peak

\* Agilent



R T

Mkr1 24.016 83 GHz

117.66 dBµV/m

R T

Mkr1 24.013 02 GHz

106.663 dBµV/m

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2

S3 FS

A AA

a(l):

FTun

Swp

10 dB/Log

PAvg

50

V1 S2



HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> <b>PASS</b>
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.18 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

30 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

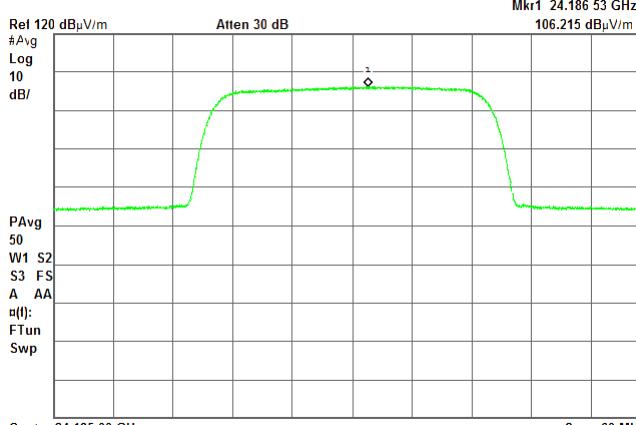
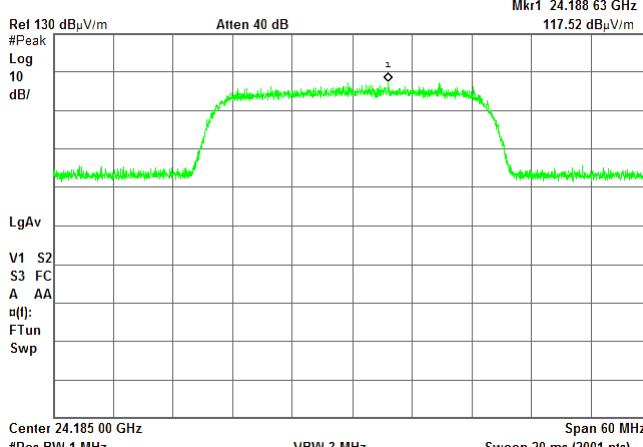
Agilent

Agilent

R T

Mkr1 24.188 63 GHz

117.52 dB $\mu$ V/m



CARRIER FREQUENCY:

High

DETECTOR: Peak

DETECTOR: Average

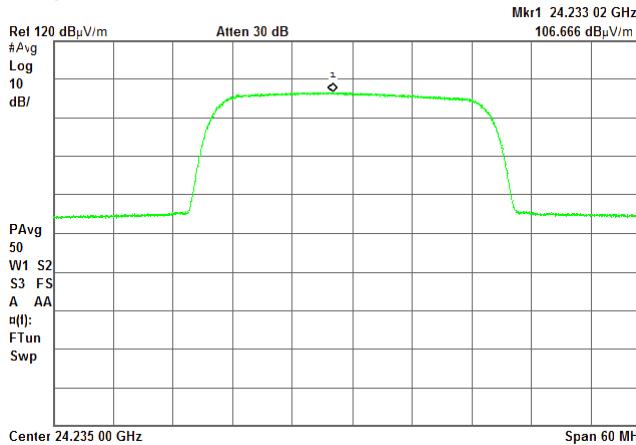
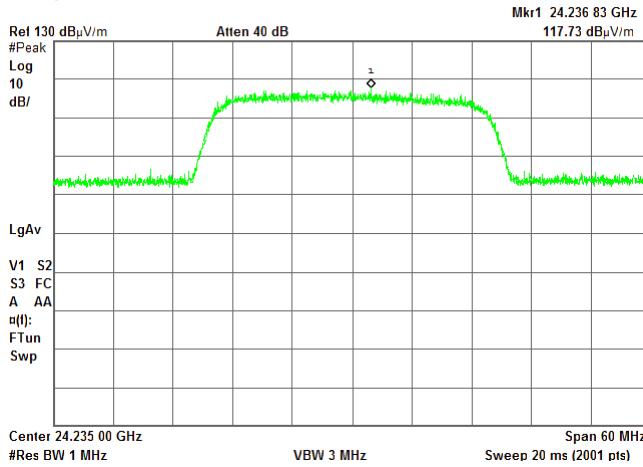
Agilent

Agilent

R T

Mkr1 24.236 83 GHz

117.73 dB $\mu$ V/m





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.19 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

30 MHz

MODULATION:

2048QAM

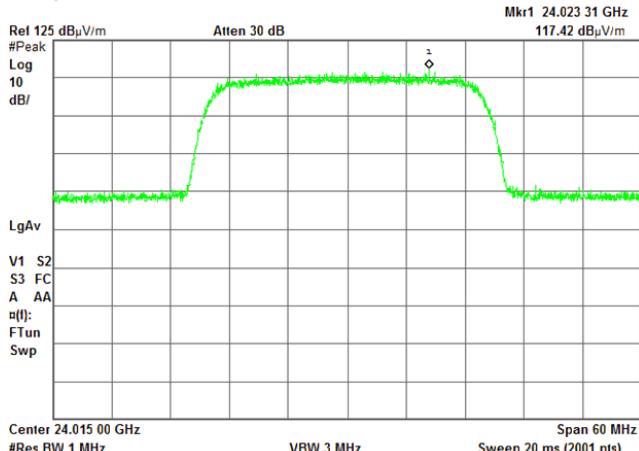
CARRIER FREQUENCY:

Low

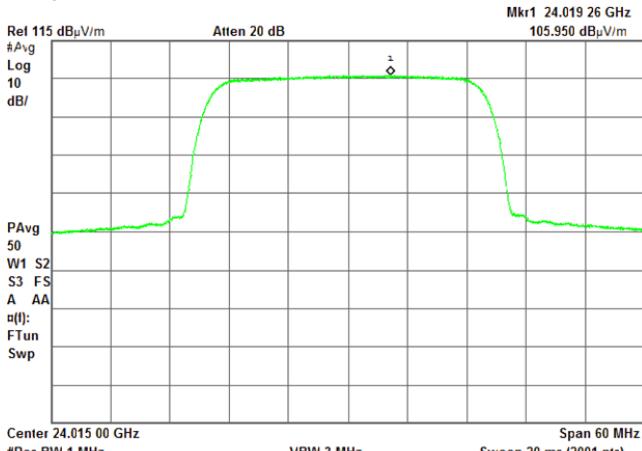
DETECTOR: Peak

DETECTOR: Average

\* Agilent



\* Agilent



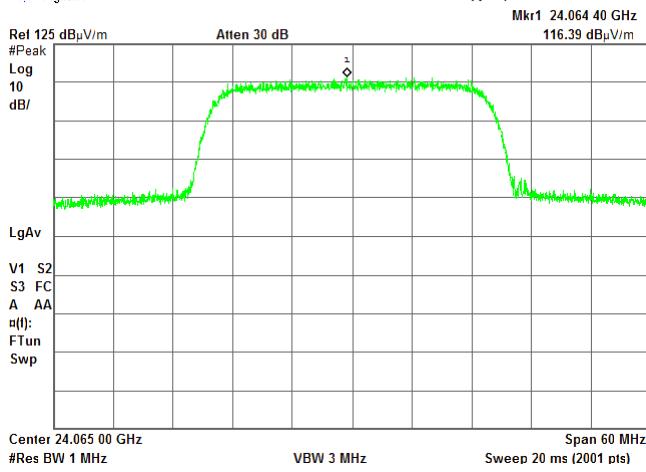
CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

\* Agilent



\* Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.20 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

30 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

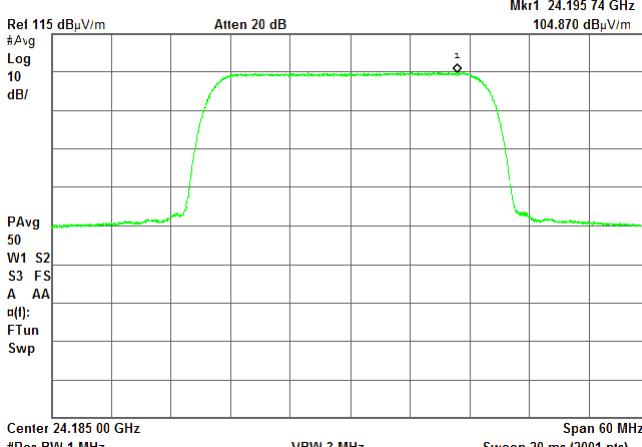
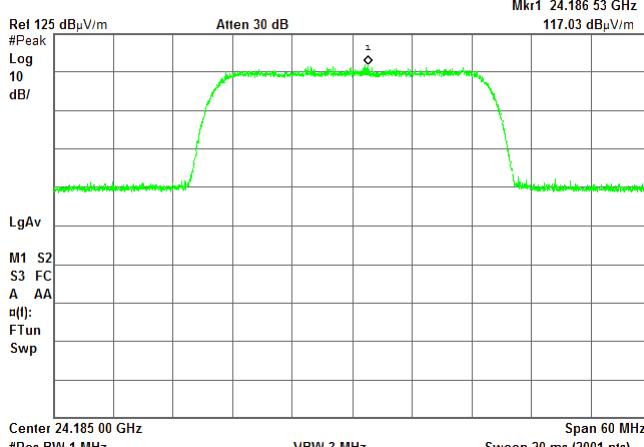
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

Agilent



CARRIER FREQUENCY:

High

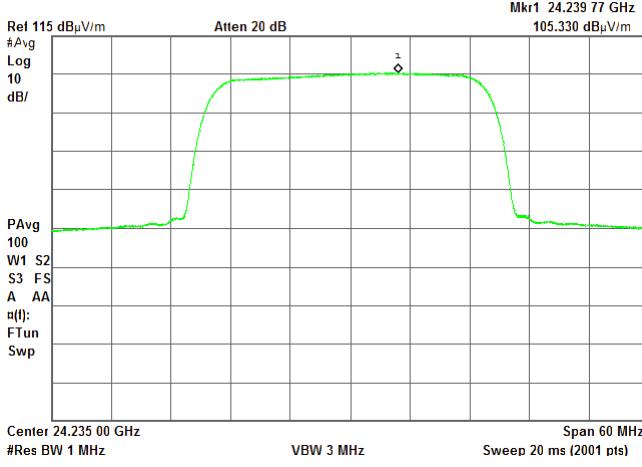
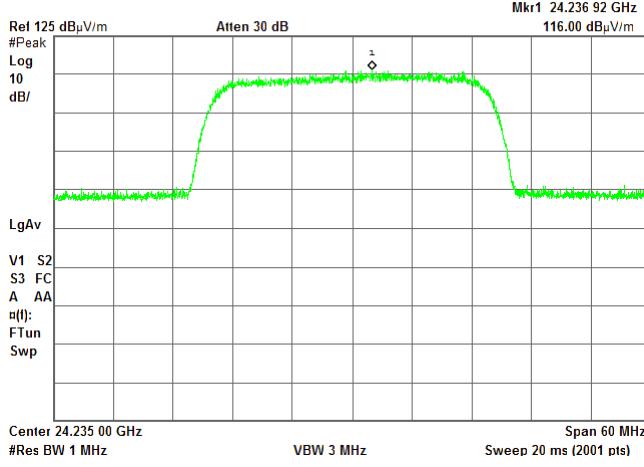
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

Agilent





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.21 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

40 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

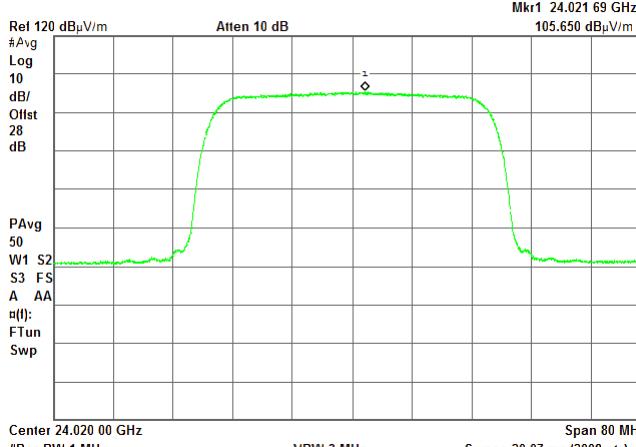
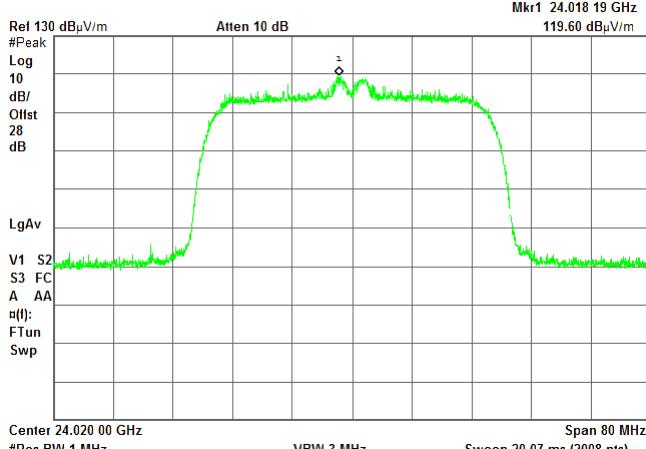
Agilent

Agilent

R T

Mkr1 24.018 19 GHz

119.60 dB $\mu$ V/m



CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

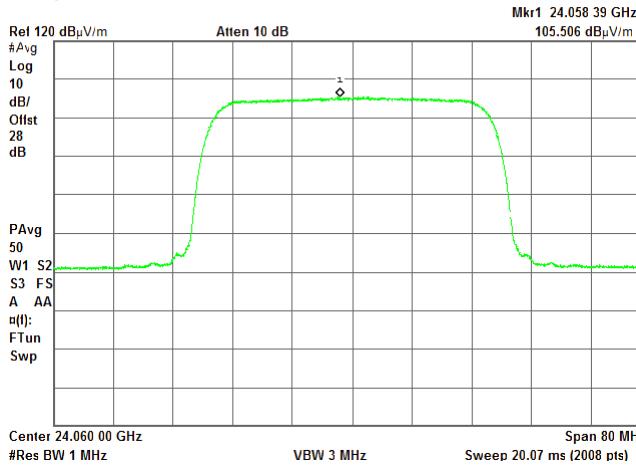
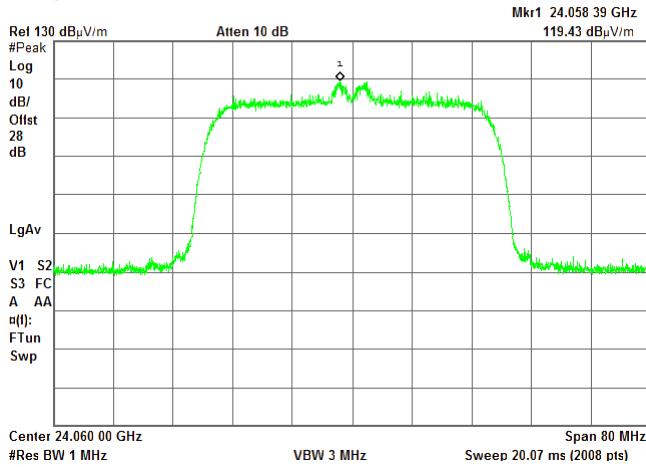
Agilent

Agilent

R T

Mkr1 24.058 39 GHz

105.506 dB $\mu$ V/m





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.22 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

40 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

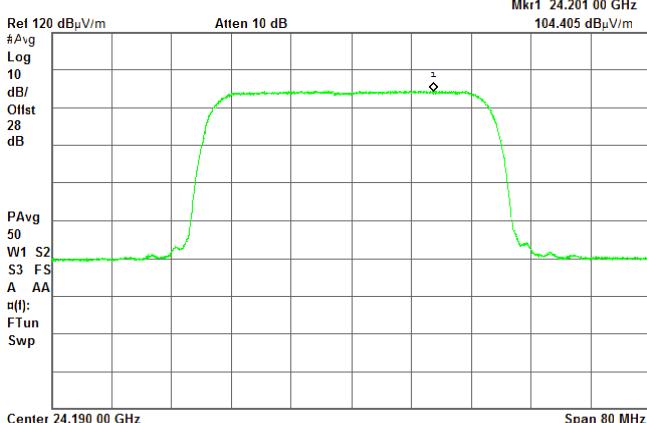
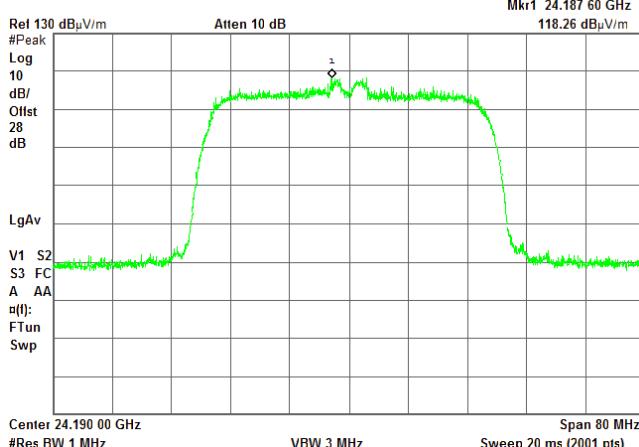
DETECTOR: Average

Agilent

Agilent

R T

Mkr1 24.187 60 GHz

118.26 dB<sub>μ</sub>V/m

CARRIER FREQUENCY:

High

DETECTOR: Peak

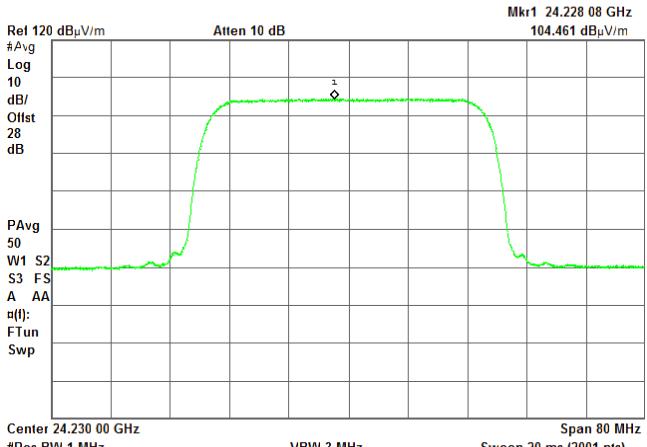
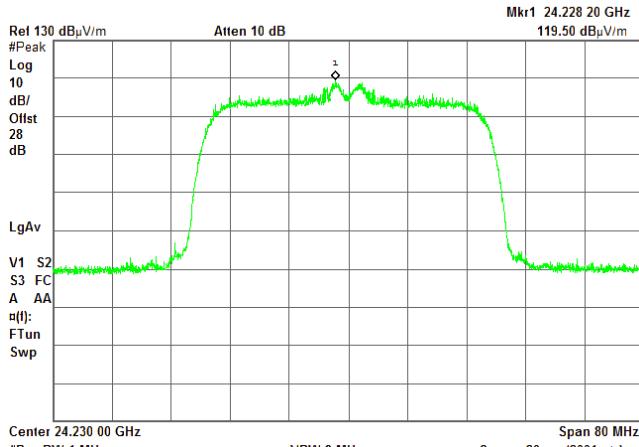
DETECTOR: Average

Agilent

Agilent

R T

Mkr1 24.228 08 GHz

104.461 dB<sub>μ</sub>V/m



HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.23 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

40 MHz

MODULATION:

QPSK

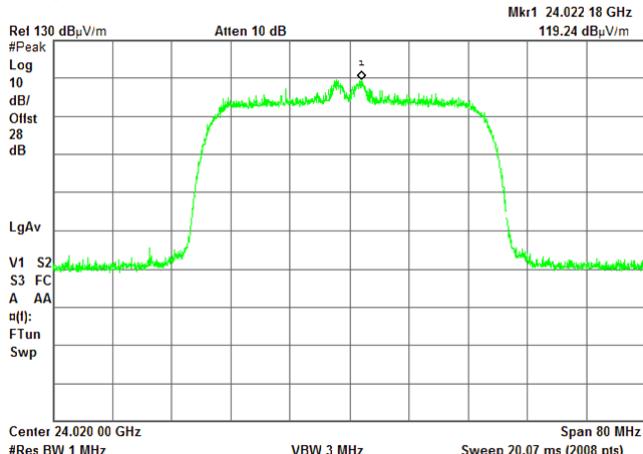
CARRIER FREQUENCY:

Low

DETECTOR: Peak

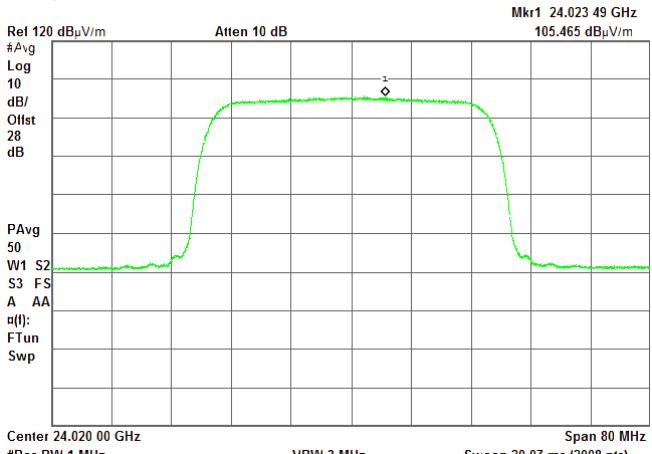
DETECTOR: Average

\* Agilent



R T

\* Agilent



R T

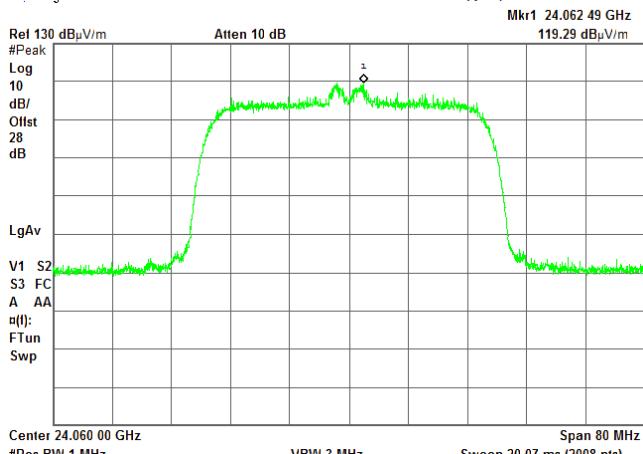
CARRIER FREQUENCY:

Mid

DETECTOR: Peak

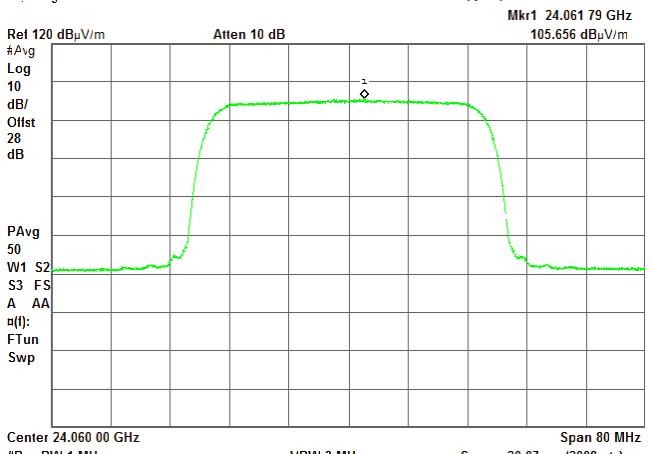
DETECTOR: Average

\* Agilent



R T

\* Agilent



R T



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

**Plot 7.2.24 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

40 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

Mid

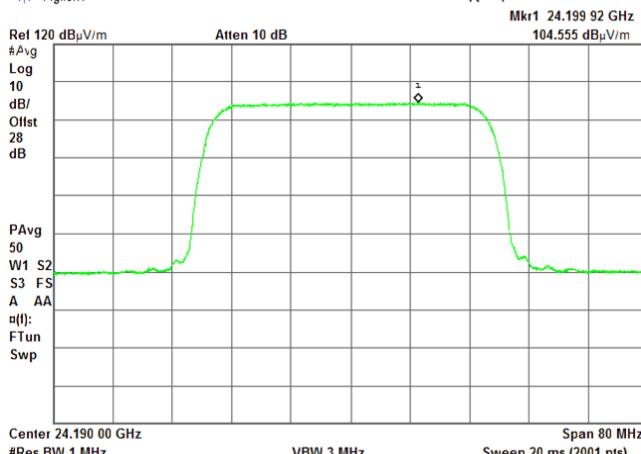
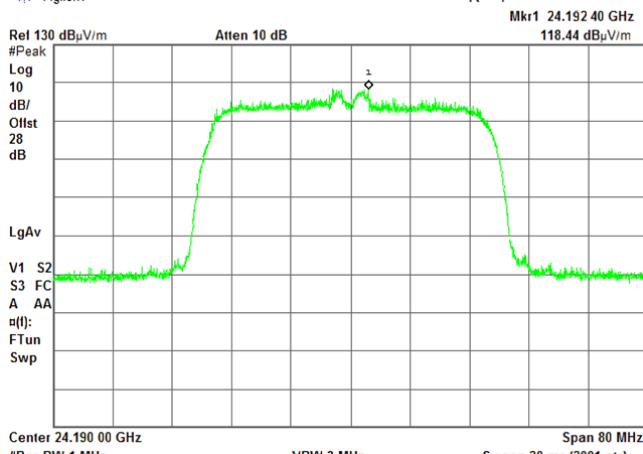
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

R T



CARRIER FREQUENCY:

High

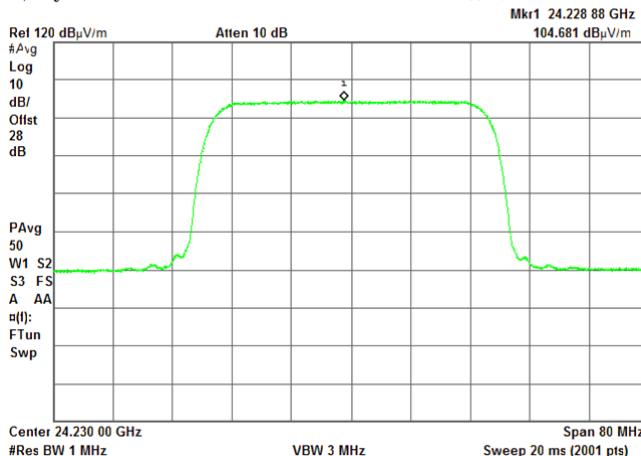
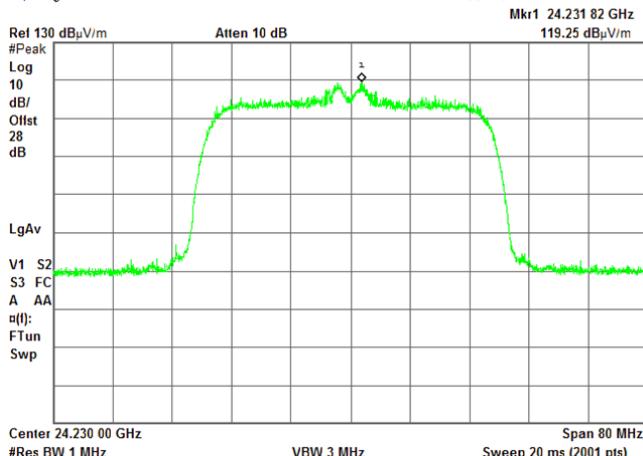
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

R T





HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b>	ANSI C63.10 sections 6.5, 6.6	
<b>Test mode:</b>	Compliance	
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18	
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Power:</b> -48 VDC		
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

### Plot 7.2.25 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

40 MHz 2048QAM

CARRIER FREQUENCY:

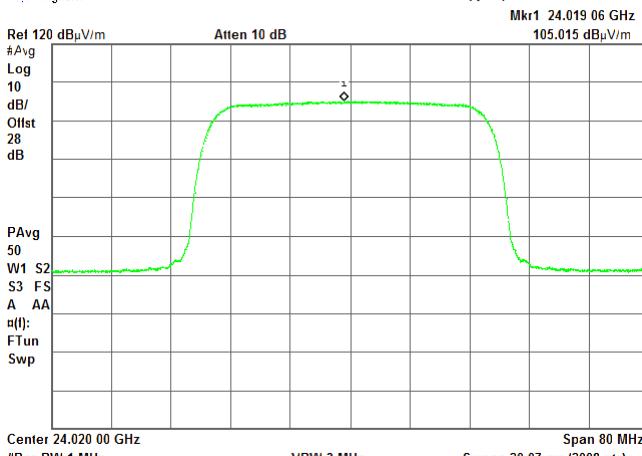
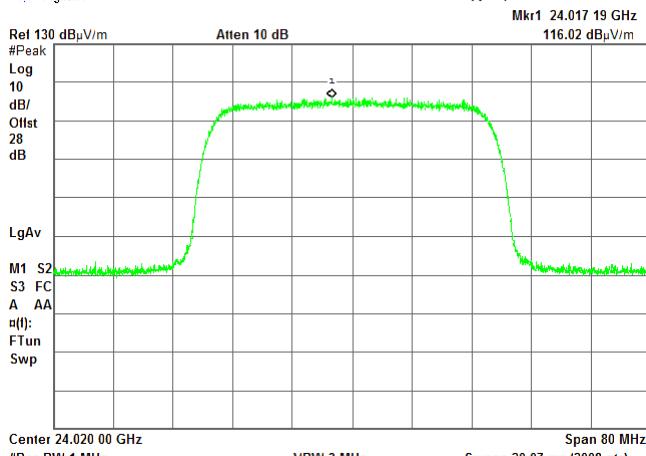
Low

DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent



CARRIER FREQUENCY:

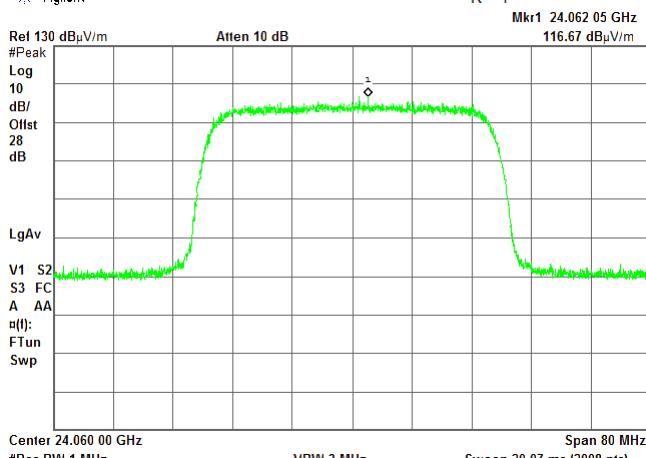
Mid

DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.26 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

40 MHz 2048QAM

CARRIER FREQUENCY:

Mid

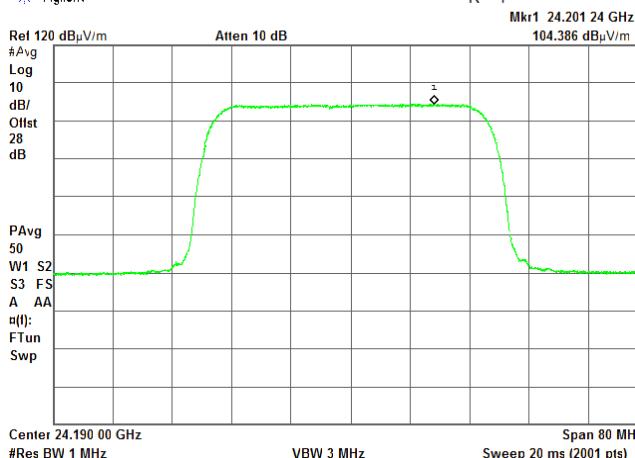
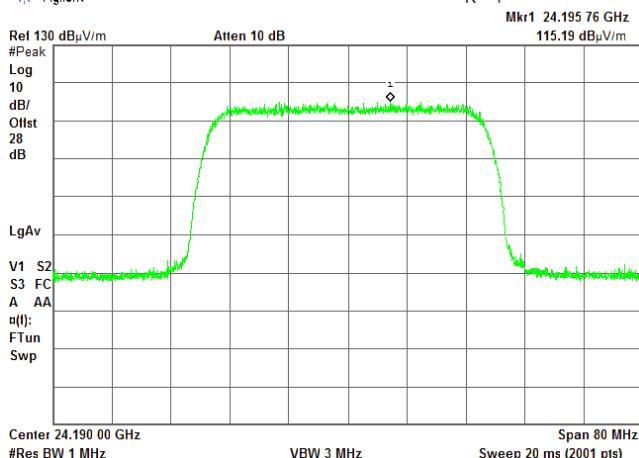
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

Agilent



CARRIER FREQUENCY:

High

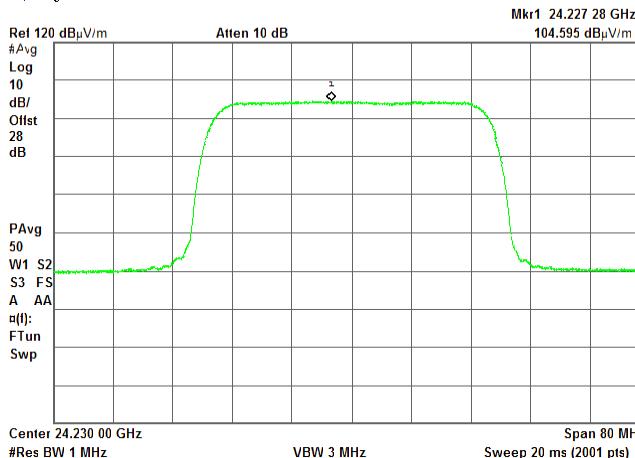
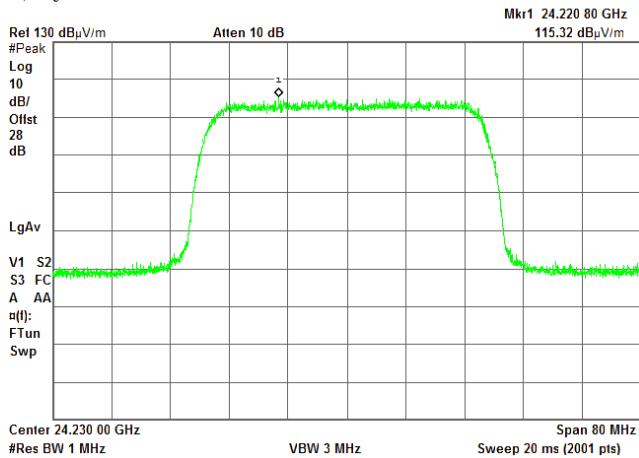
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.27 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

40 MHz

MODULATION:

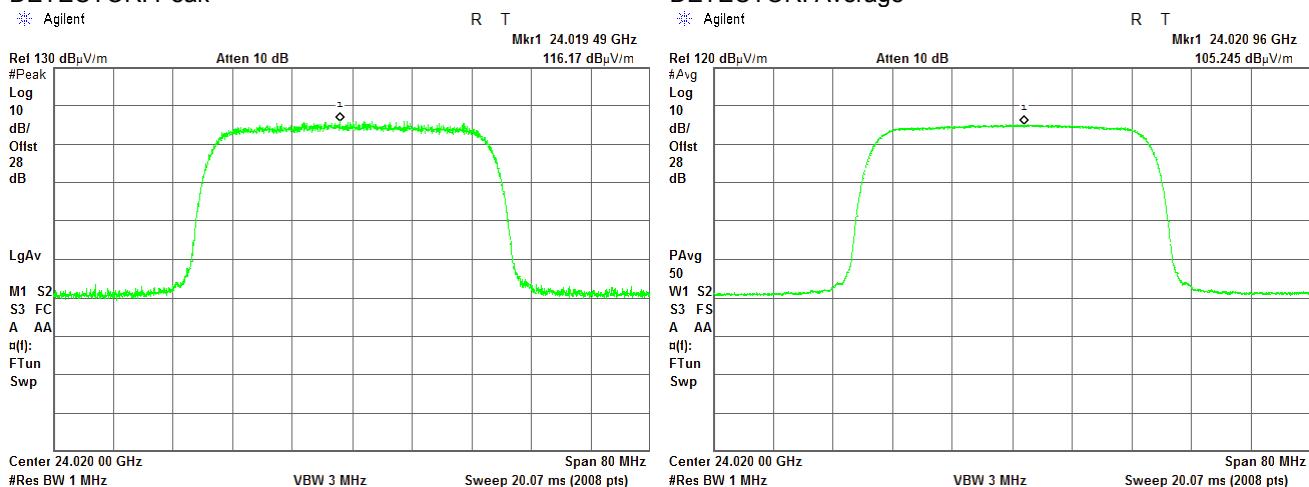
2048QAM

CARRIER FREQUENCY:

Low

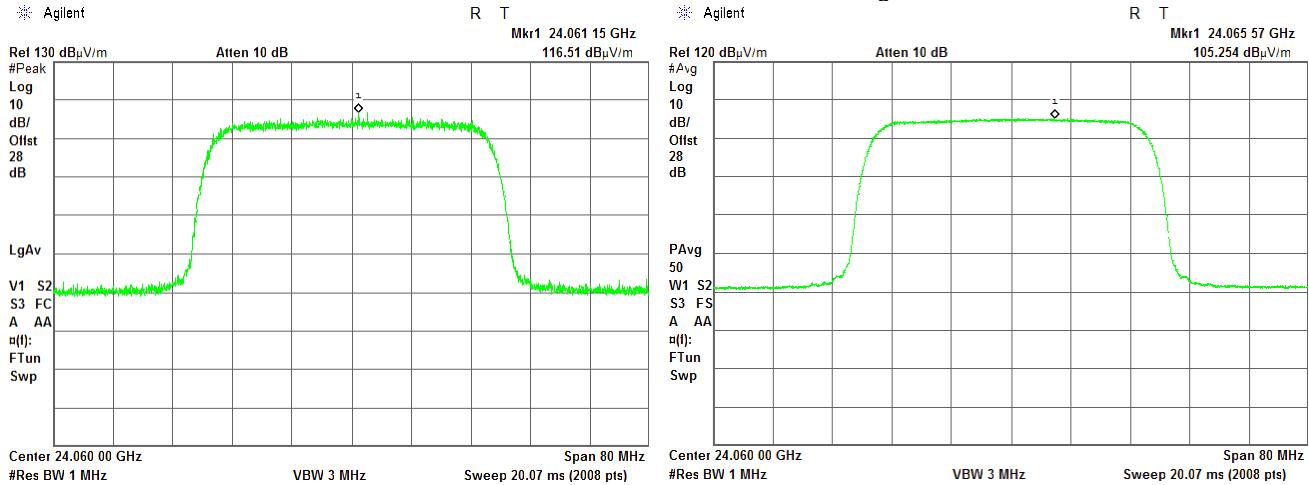
DETECTOR: Peak

DETECTOR: Average



CARRIER FREQUENCY:

DETECTOR: Peak





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

Plot 7.2.28 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

40 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

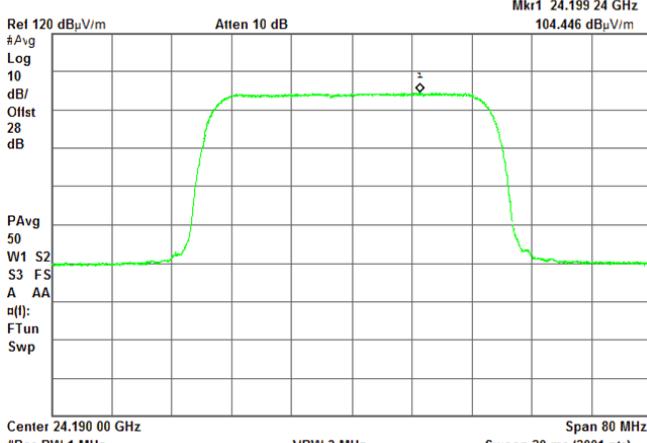
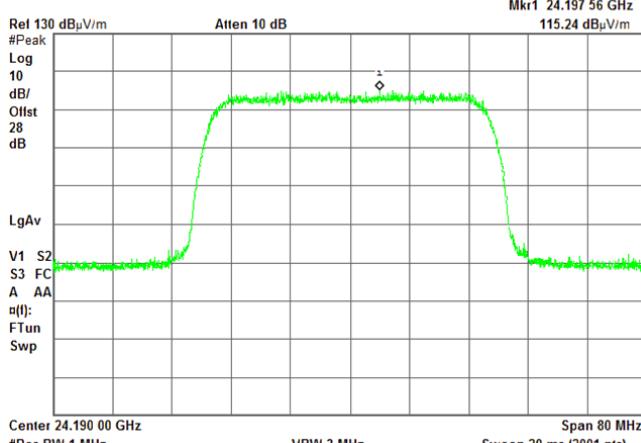
Agilent

Agilent

R T

Mkr1 24.197 56 GHz

115.24 dB $\mu$ V/m



CARRIER FREQUENCY:

High

DETECTOR: Peak

DETECTOR: Average

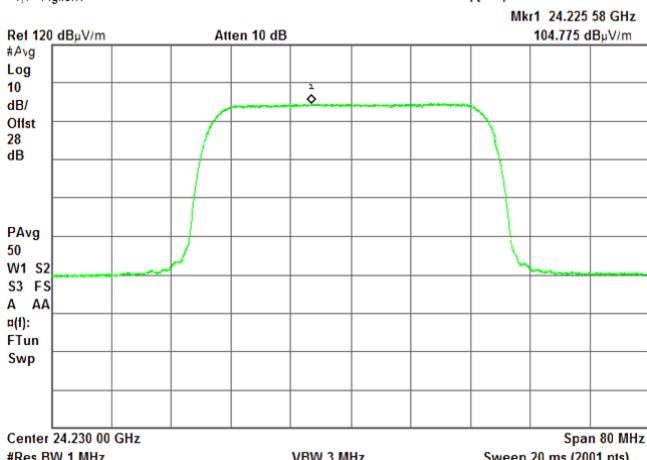
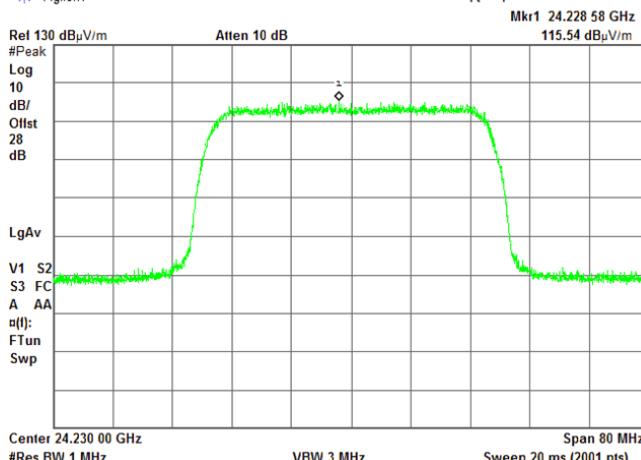
Agilent

Agilent

R T

Mkr1 24.228 58 GHz

104.775 dB $\mu$ V/m





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.29 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

50 MHz

MODULATION:

QPSK

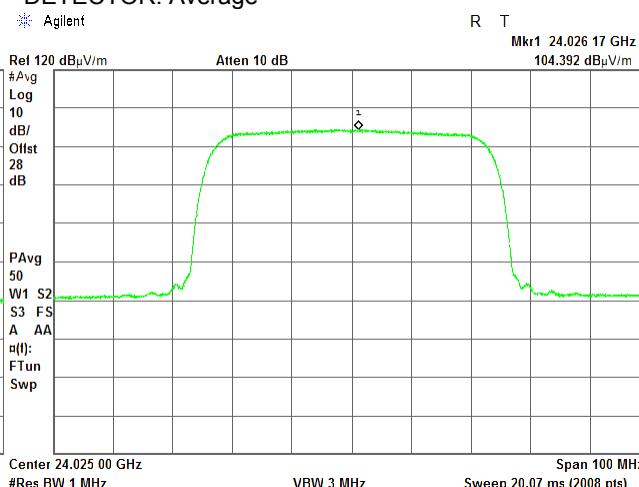
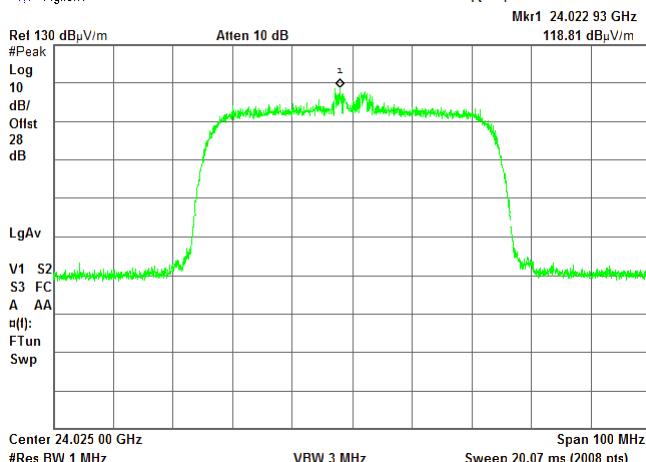
CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

\* Agilent



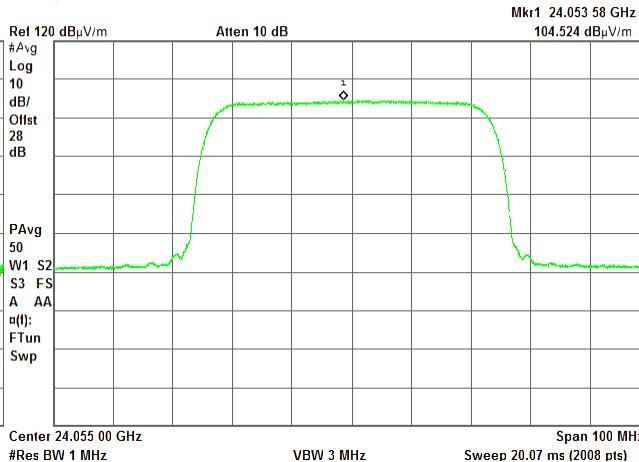
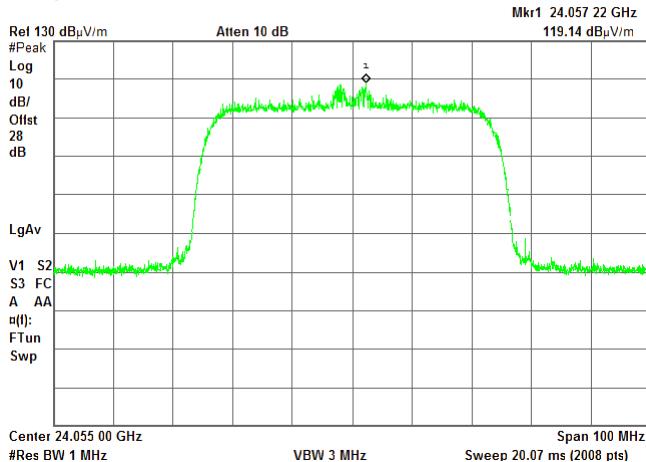
CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

\* Agilent





HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.30 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

50 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

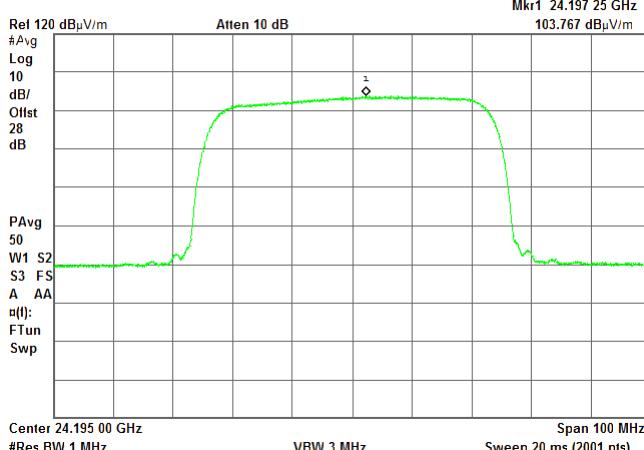
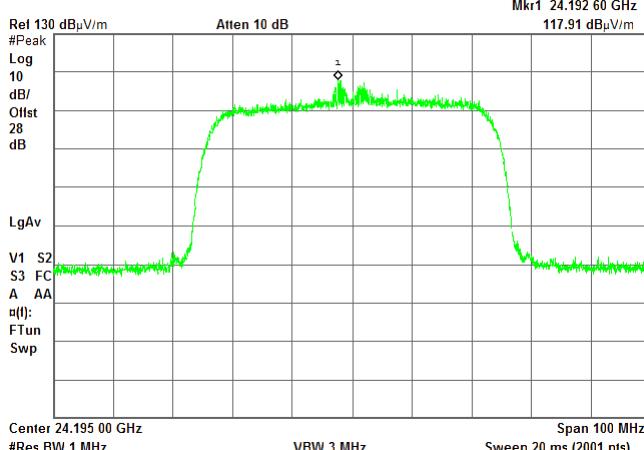
Mid

DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent



CARRIER FREQUENCY:

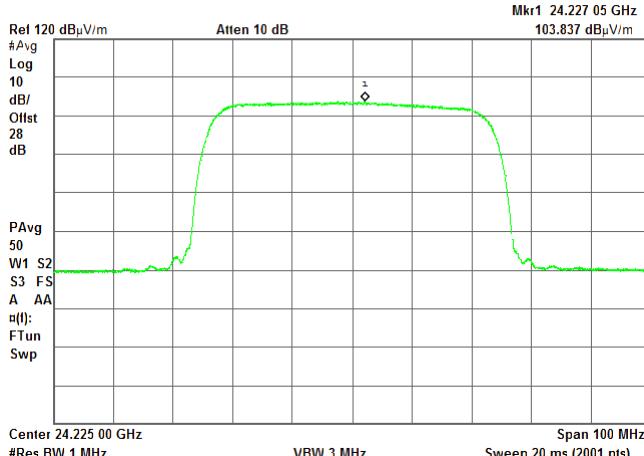
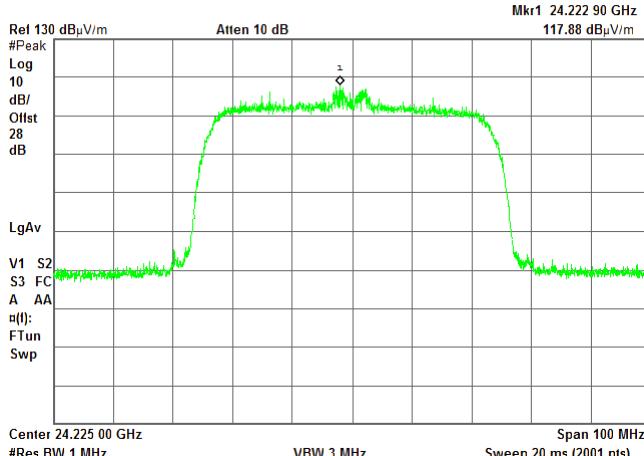
High

DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.31 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

50 MHz

MODULATION:

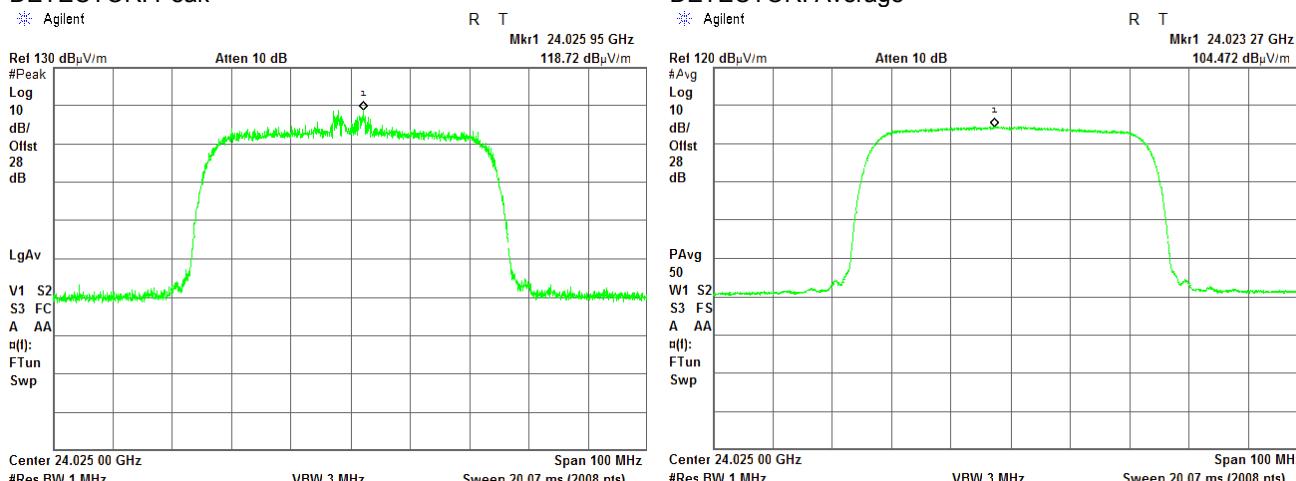
QPSK

CARRIER FREQUENCY:

Low

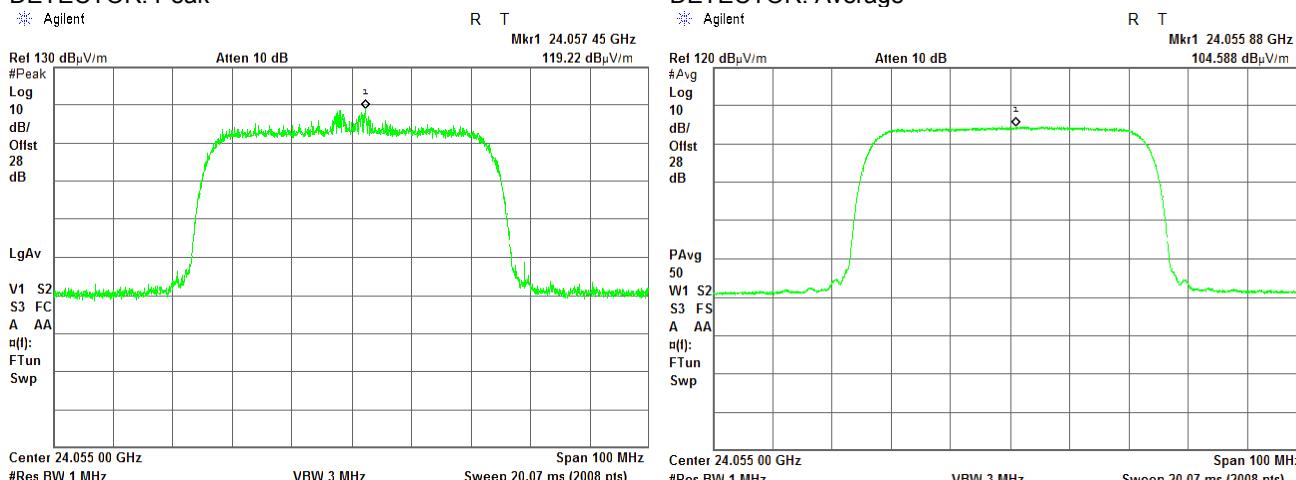
DETECTOR: Peak

DETECTOR: Average



CARRIER FREQUENCY:

DETECTOR: Peak





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.32 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

50 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

Mid

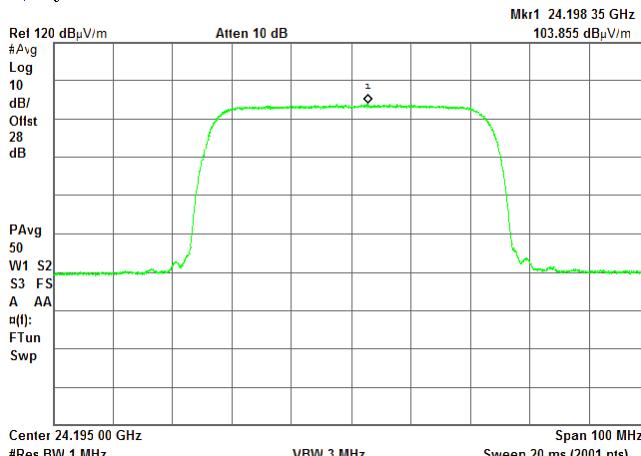
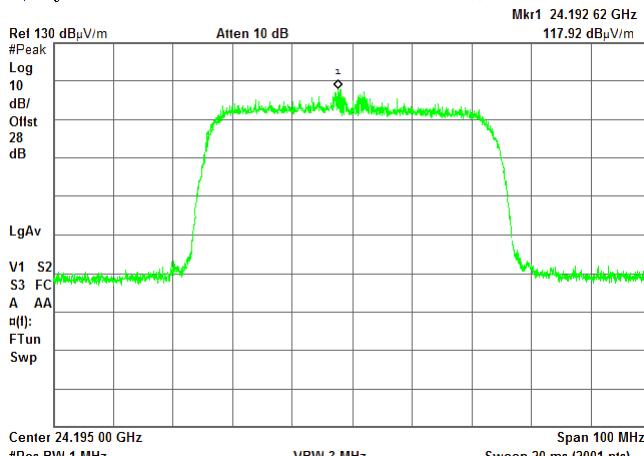
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

R T



CARRIER FREQUENCY:

High

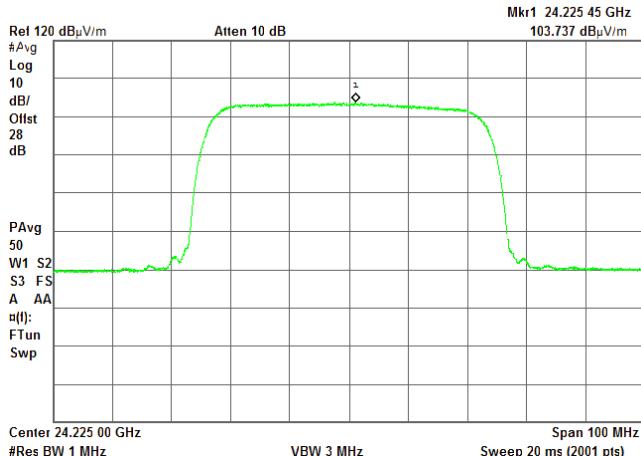
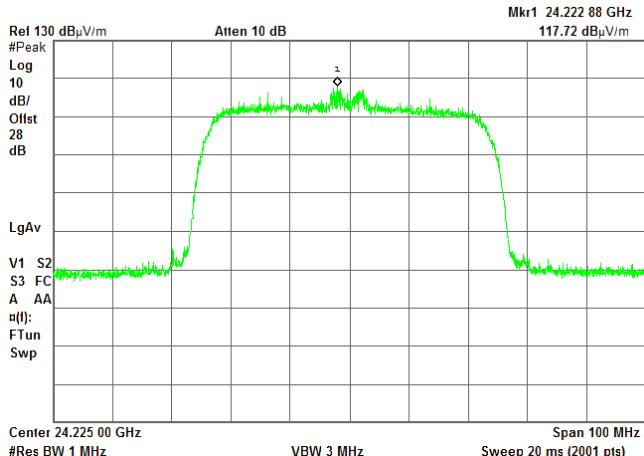
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

R T





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

### Plot 7.2.33 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

50 MHz

MODULATION:

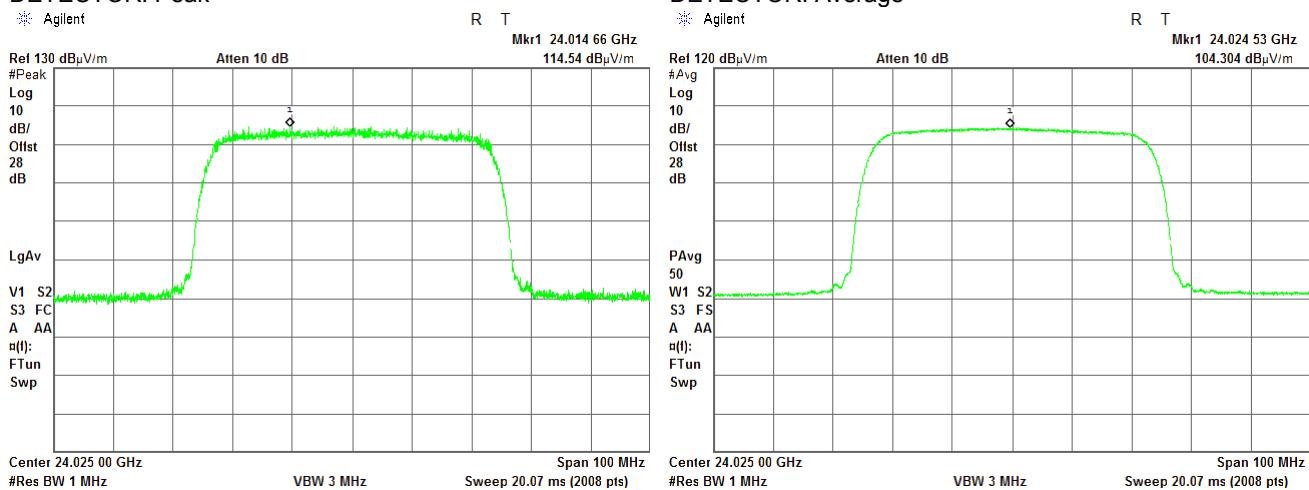
2048QAM

CARRIER FREQUENCY:

Low

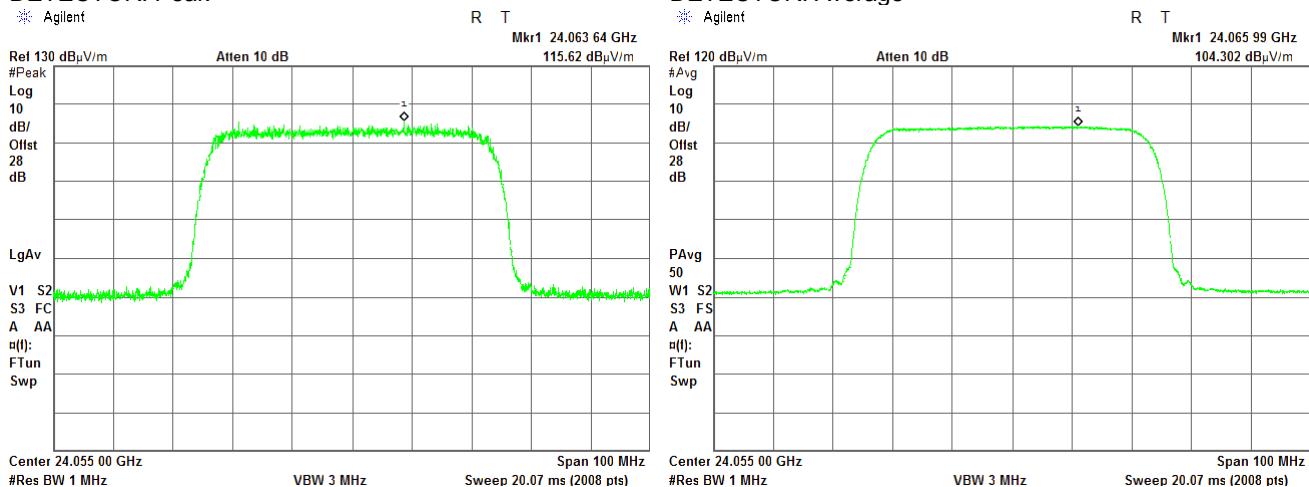
DETECTOR: Peak

DETECTOR: Average



CARRIER FREQUENCY:

DETECTOR: Peak





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.34 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

50 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

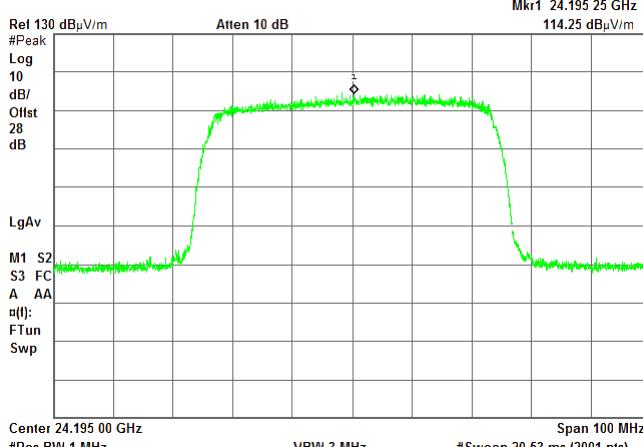
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

Agilent



CARRIER FREQUENCY:

High

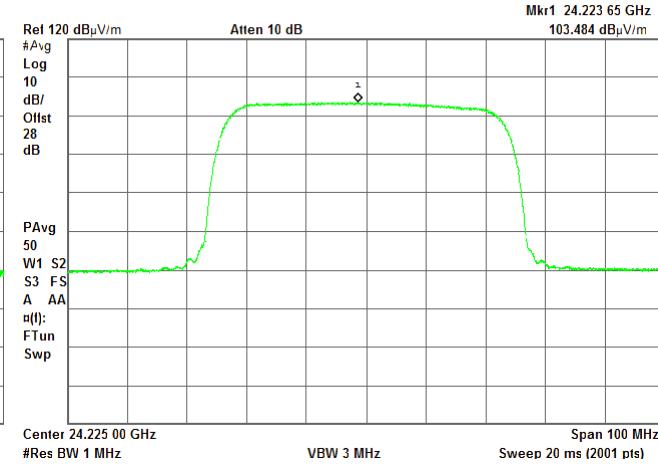
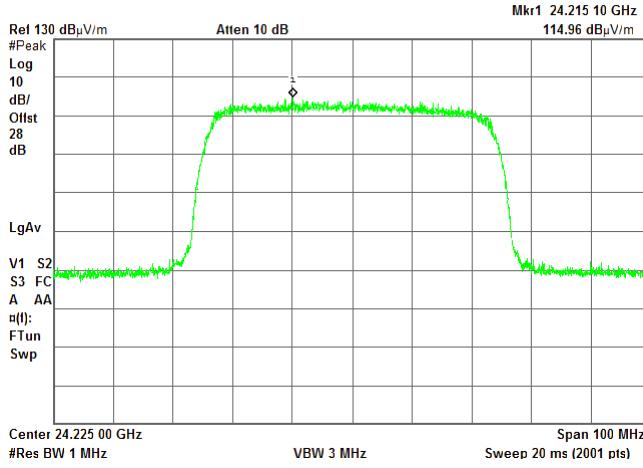
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

### Plot 7.2.35 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

50 MHz

MODULATION:

2048QAM

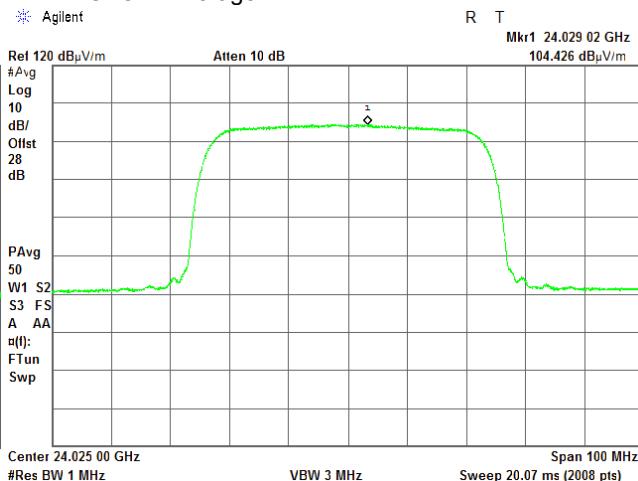
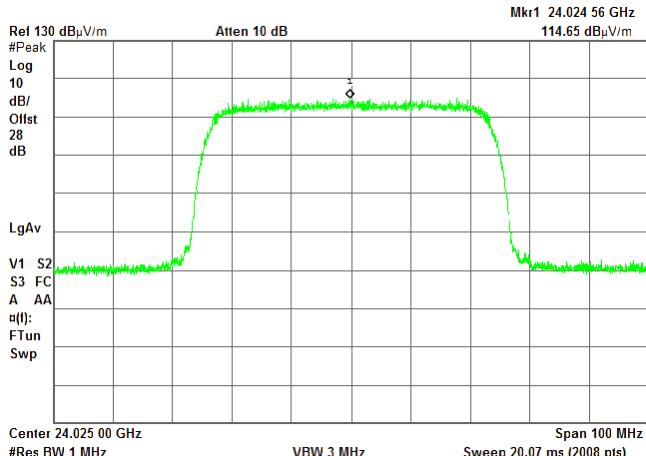
CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

\* Agilent



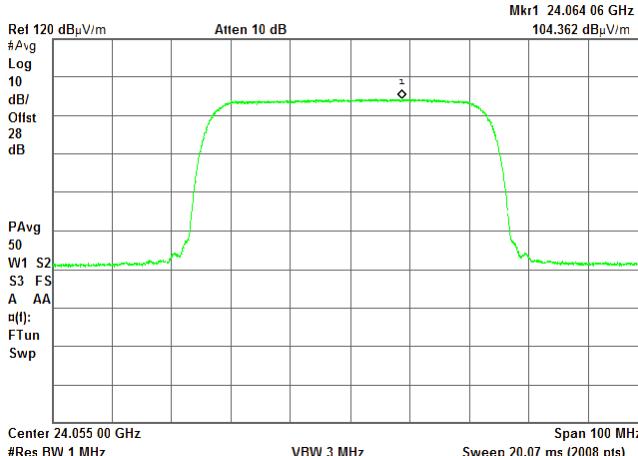
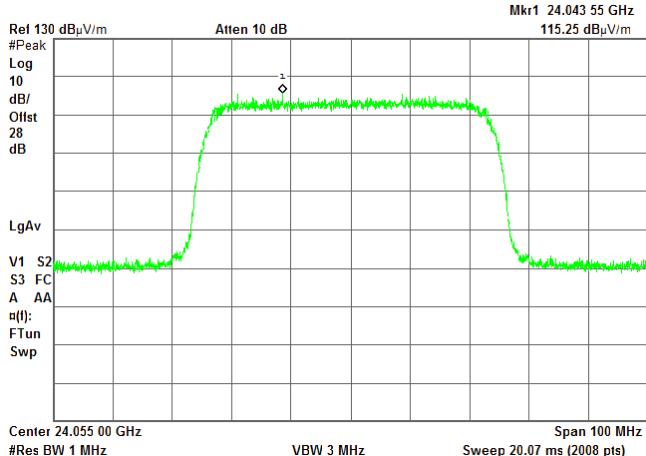
Mid

DETECTOR: Average

CARRIER FREQUENCY:

DETECTOR: Peak

\* Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.36 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

50 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

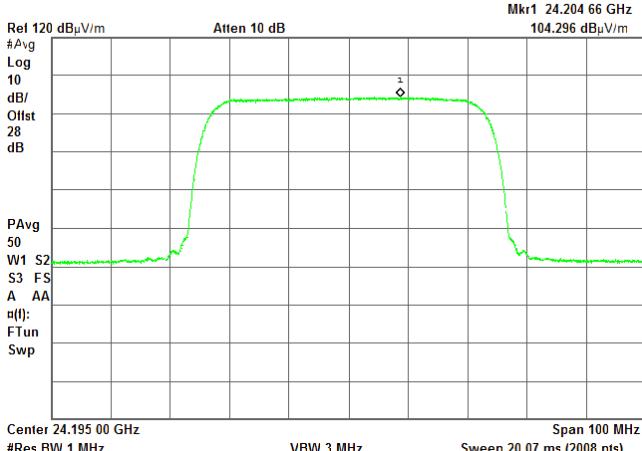
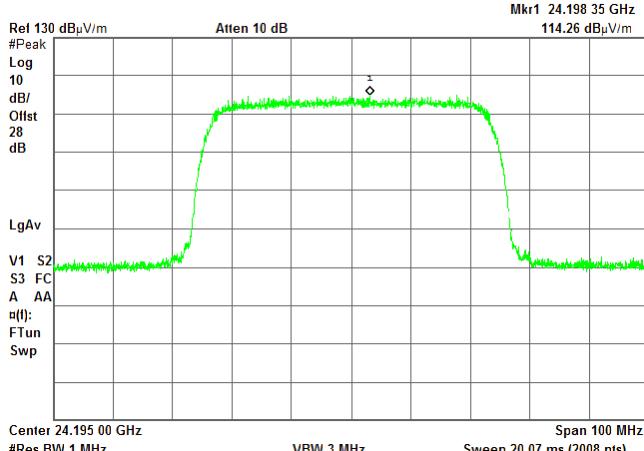
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

R T

Mkr1 24.198 35 GHz  
114.26 dB<sub>μ</sub>V/m

CARRIER FREQUENCY:

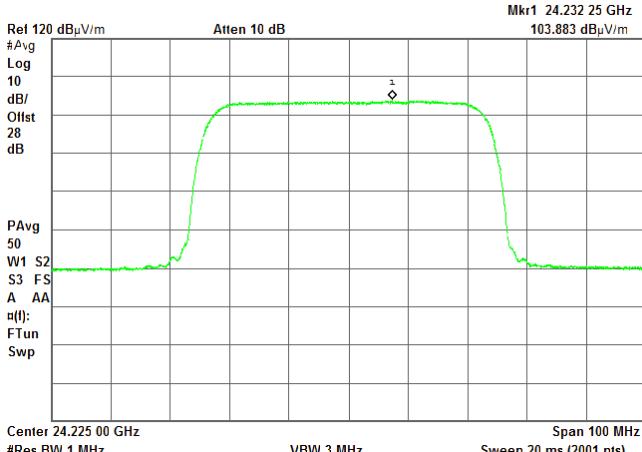
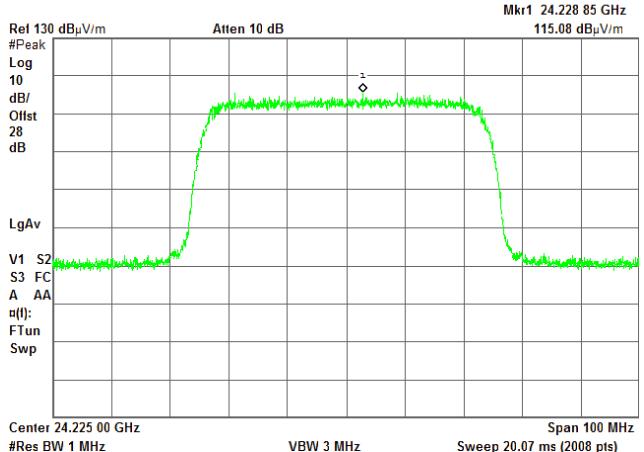
High

DETECTOR: Peak

DETECTOR: Average

Agilent

R T

Mkr1 24.228 85 GHz  
115.08 dB<sub>μ</sub>V/m



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.37 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

60 MHz

MODULATION:

QPSK

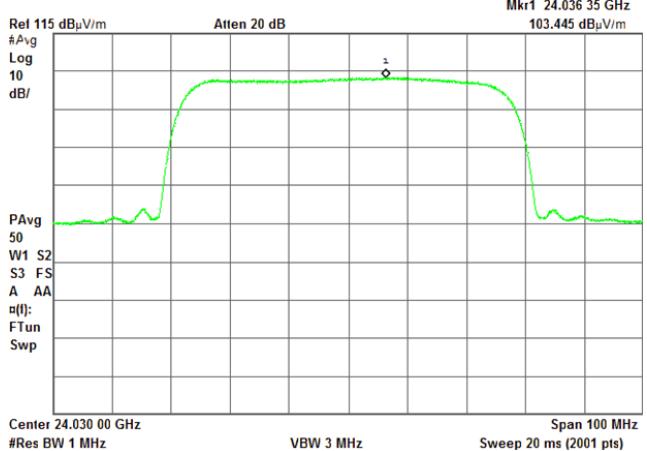
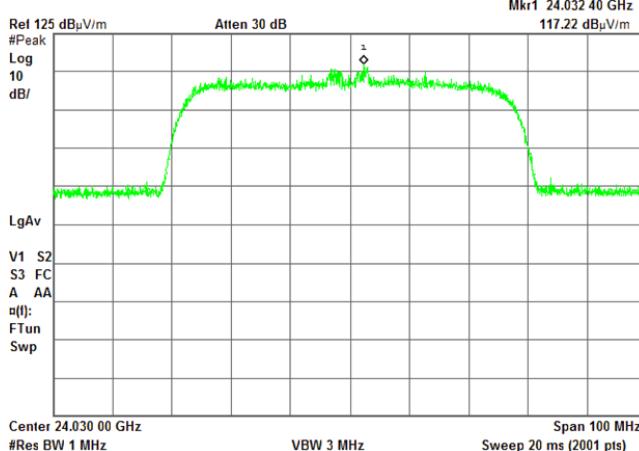
CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

\* Agilent



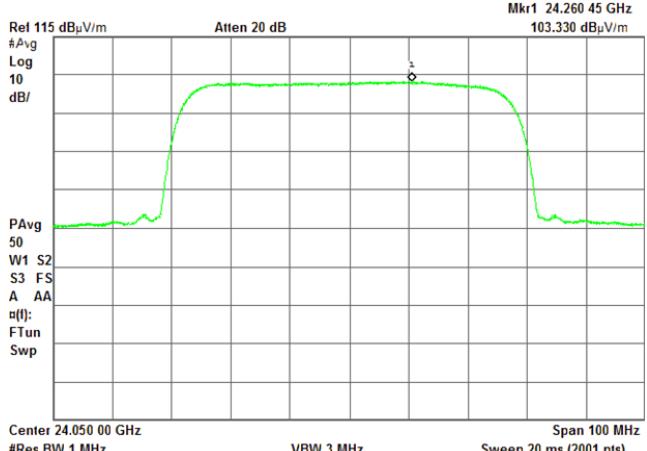
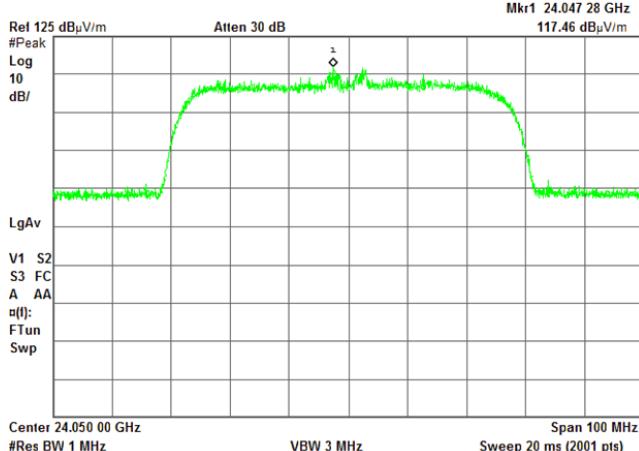
CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

\* Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.38 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

60 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

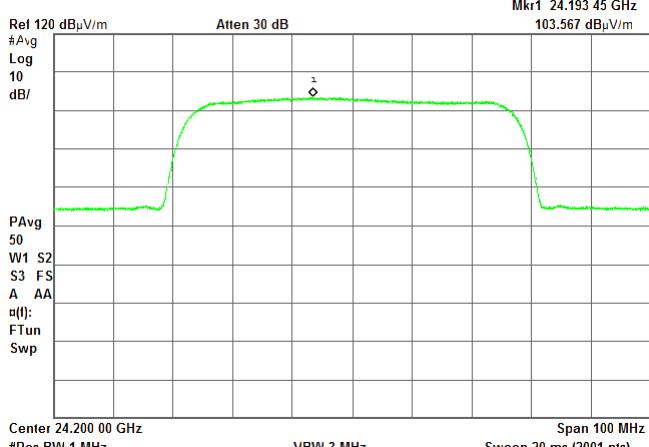
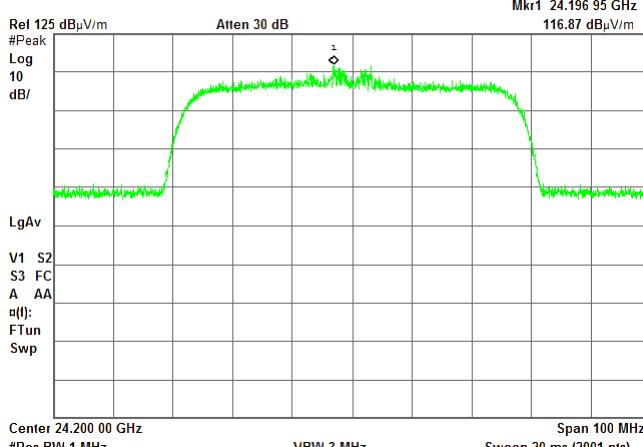
DETECTOR: Average

Agilent

Agilent

R T

Mkr1 24.196 95 GHz

103.567 dB $\mu$ V/m

CARRIER FREQUENCY:

High

DETECTOR: Peak

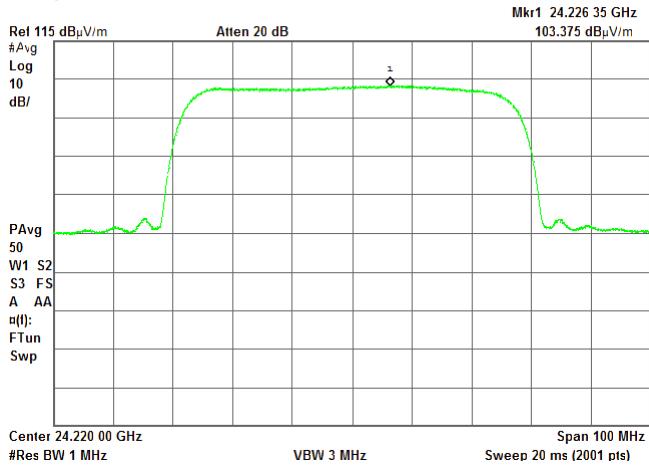
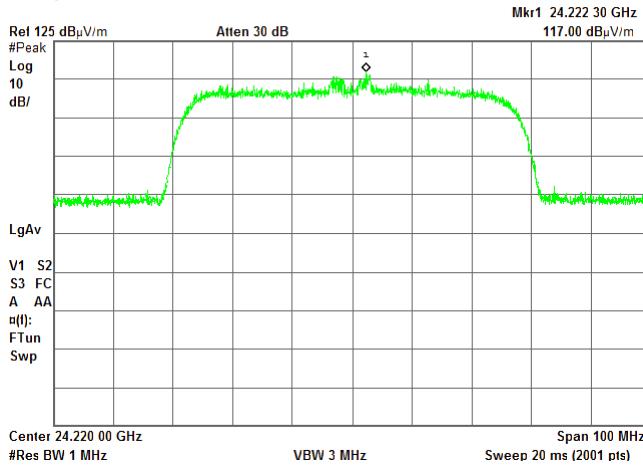
DETECTOR: Average

Agilent

Agilent

R T

Mkr1 24.222 30 GHz

103.375 dB $\mu$ V/m



HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.39 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

60 MHz

MODULATION:

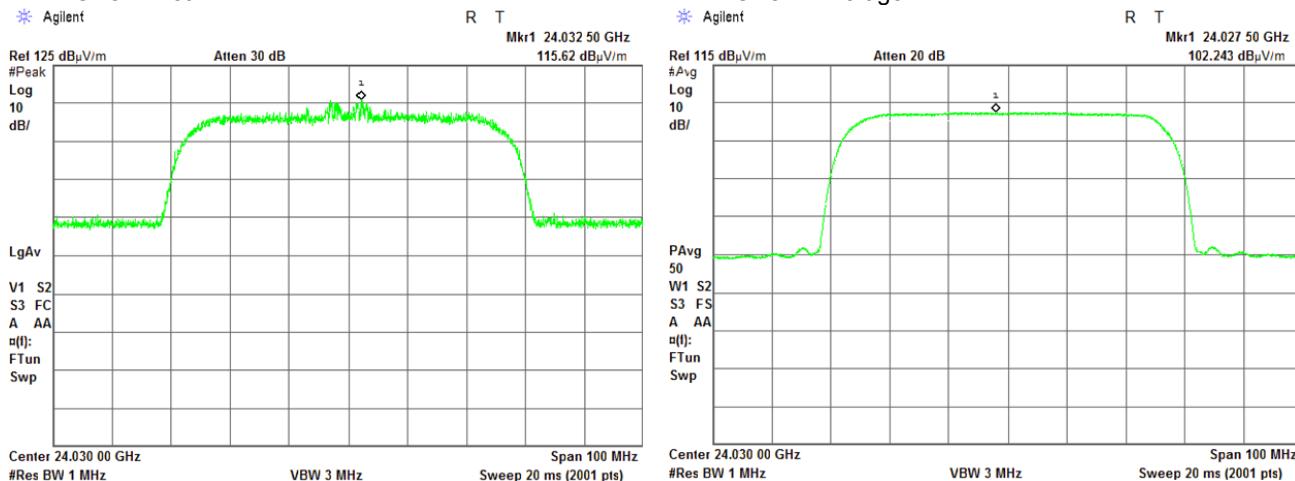
QPSK

CARRIER FREQUENCY:

Low

DETECTOR: Peak

DETECTOR: Average

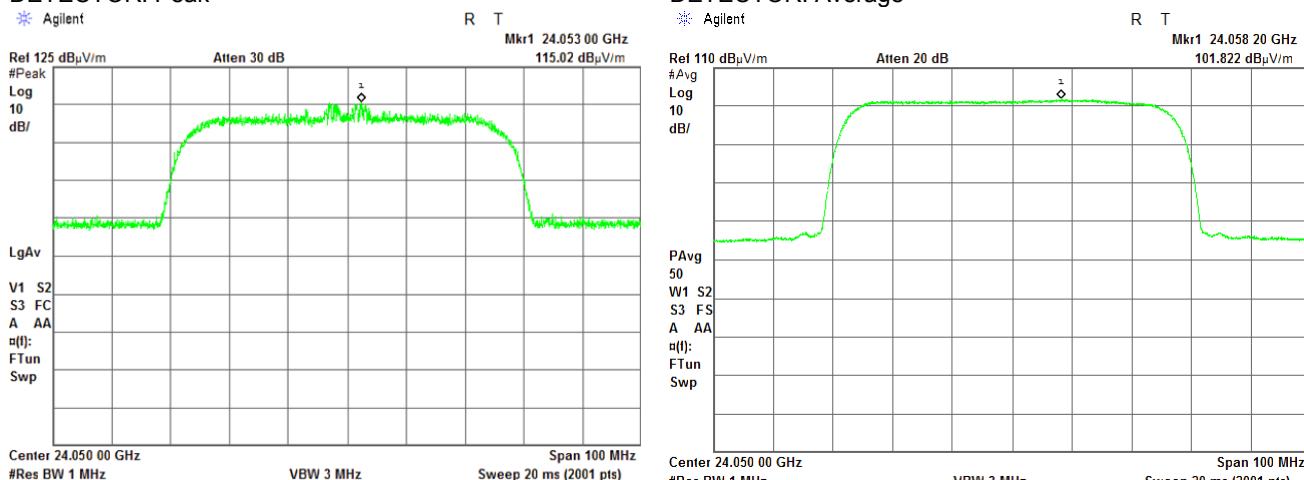


CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b>	ANSI C63.10 sections 6.5, 6.6	
<b>Test mode:</b>	Compliance	
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18	
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.40 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

60 MHz

MODULATION:

QPSK

CARRIER FREQUENCY:

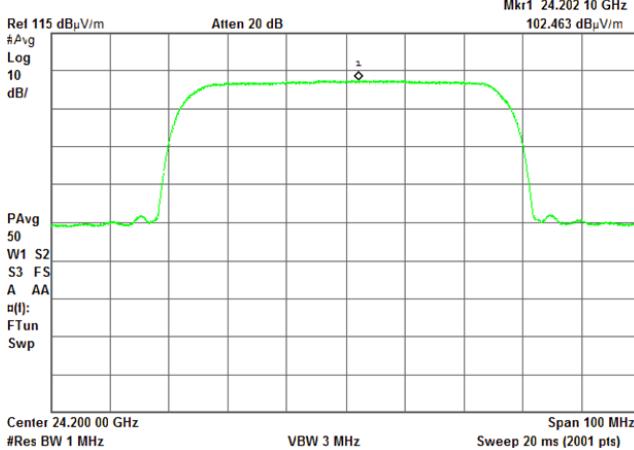
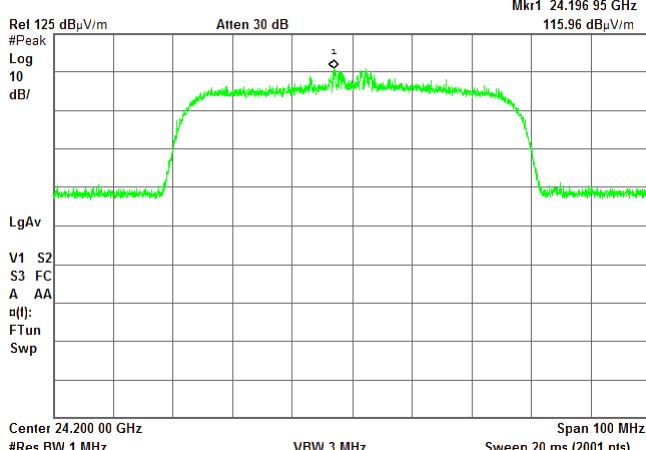
Mid

DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent



CARRIER FREQUENCY:

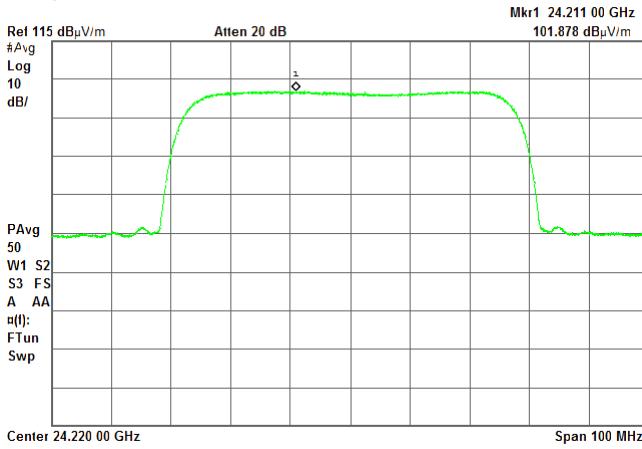
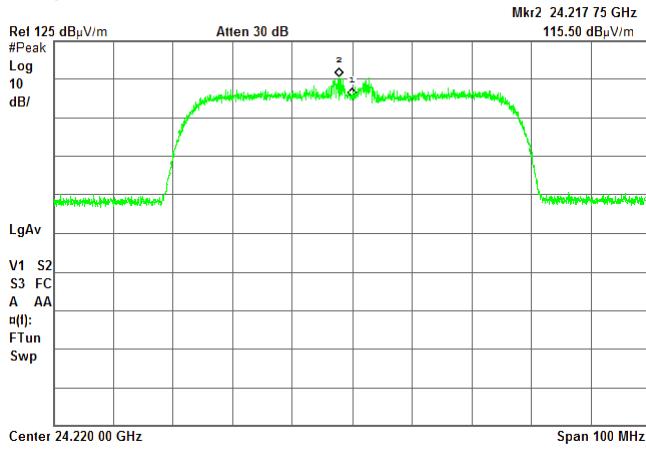
High

DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.41 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

60 MHz

MODULATION:

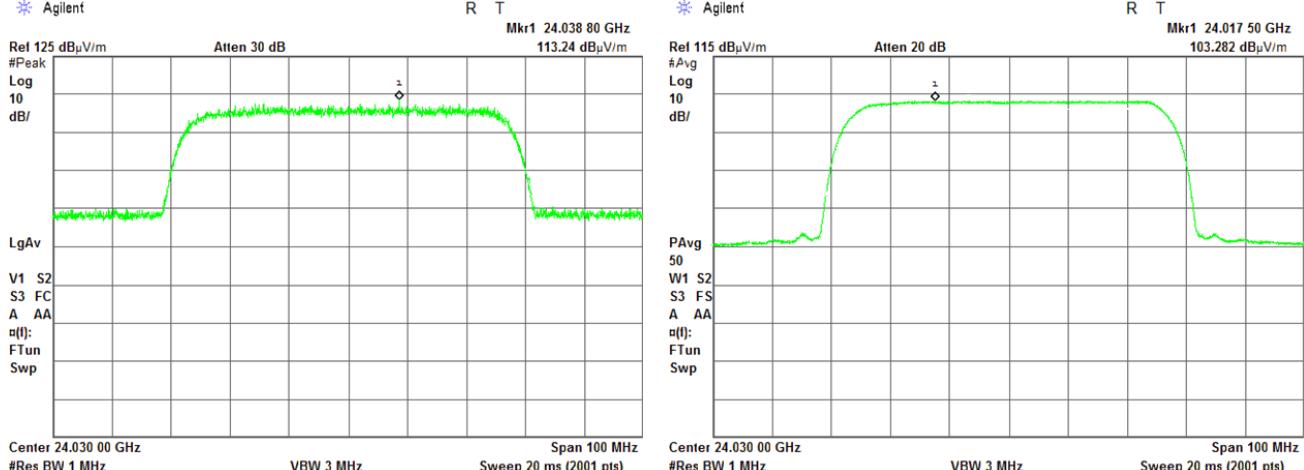
2048QAM

CARRIER FREQUENCY:

Low

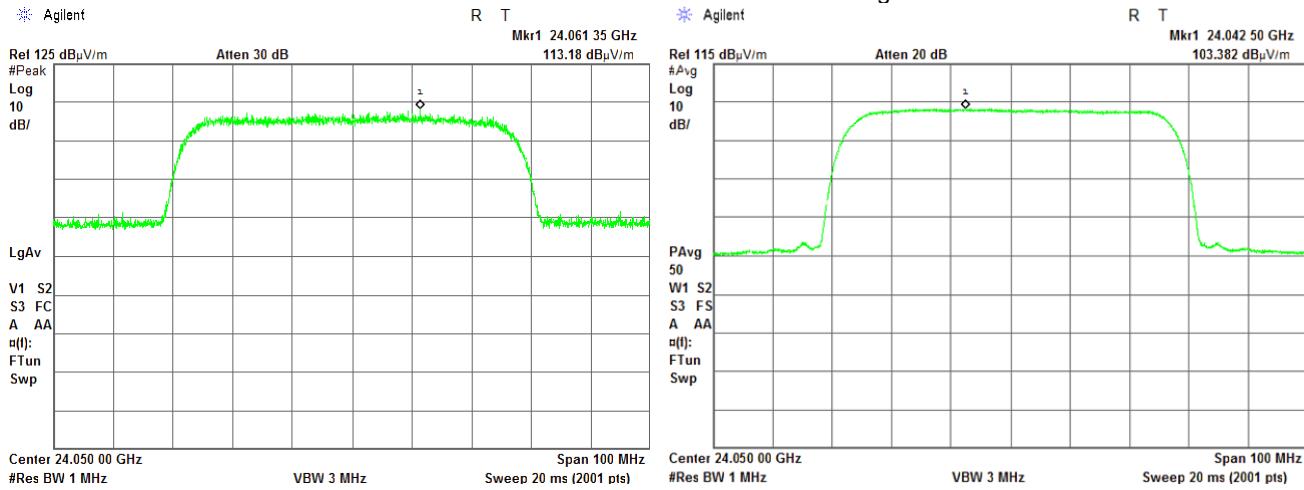
DETECTOR: Peak

DETECTOR: Average



CARRIER FREQUENCY:

DETECTOR: Peak





HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.42 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

60 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

DETECTOR: Peak

DETECTOR: Average

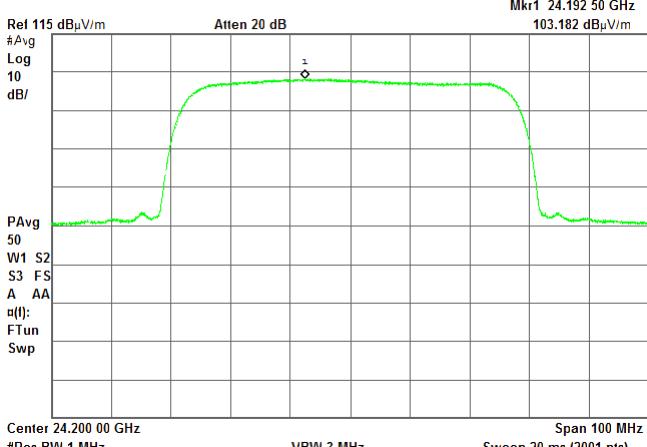
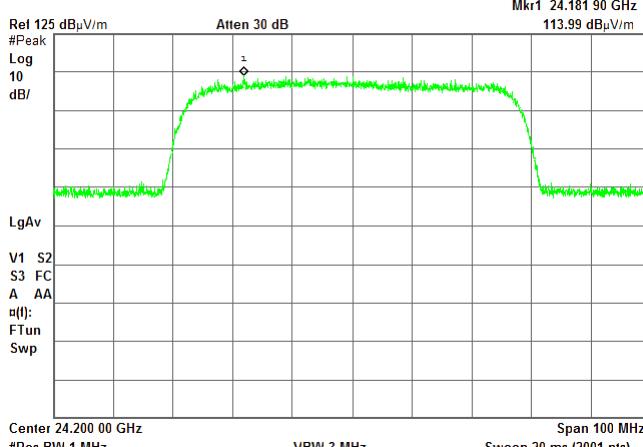
Agilent

Agilent

R T

Mkr1 24.181 90 GHz

113.99 dB $\mu$ V/m



Center 24.200 00 GHz

Span 100 MHz

#Res BW 1 MHz

VBW 3 MHz

Sweep 20 ms (2001 pts)

Center 24.200 00 GHz

Span 100 MHz

VBW 3 MHz

Sweep 20 ms (2001 pts)

CARRIER FREQUENCY:

High

DETECTOR: Peak

DETECTOR: Average

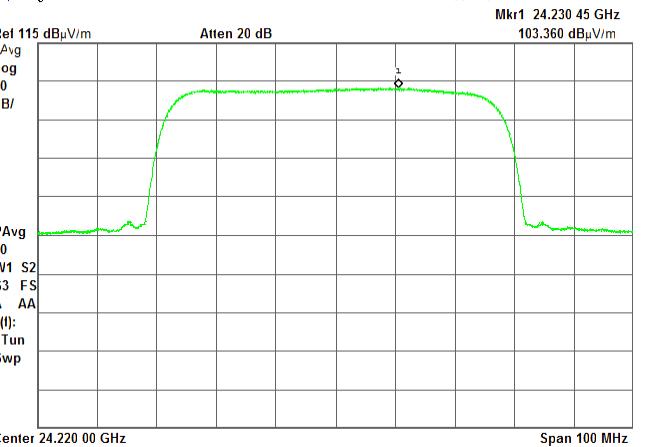
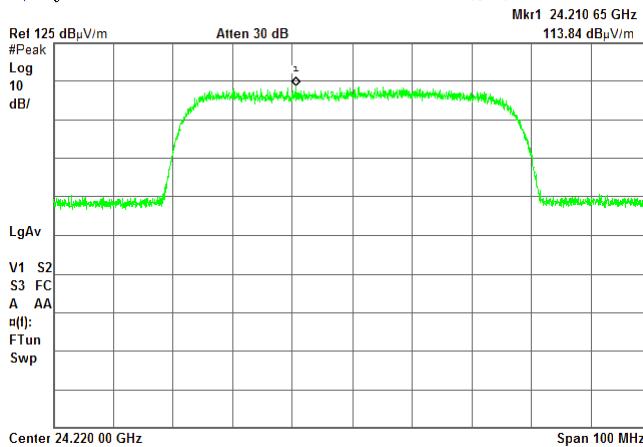
Agilent

Agilent

R T

Mkr1 24.210 65 GHz

113.84 dB $\mu$ V/m



Center 24.220 00 GHz

Span 100 MHz

#Res BW 1 MHz

VBW 3 MHz

Sweep 20 ms (2001 pts)

Center 24.220 00 GHz

Span 100 MHz

VBW 3 MHz

Sweep 20 ms (2001 pts)

#Res BW 1 MHz

Center 24.220 00 GHz

Span 100 MHz

#Res BW 1 MHz



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.43 Radiated emission measurements at the fundamental frequency

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

60 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Low

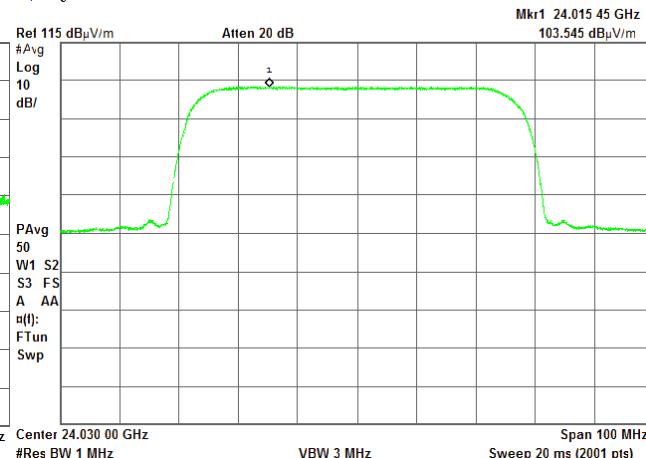
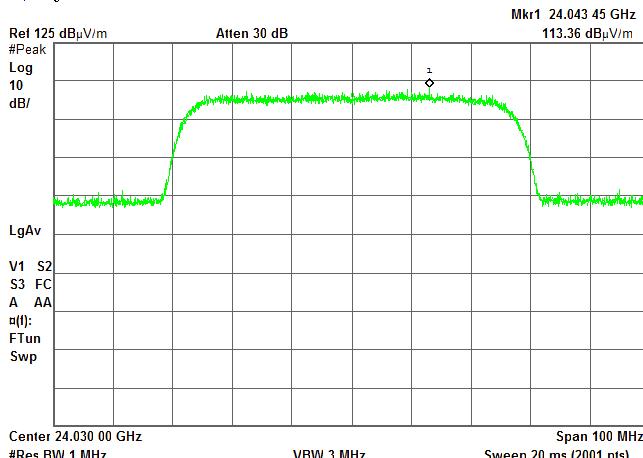
DETECTOR: Peak

DETECTOR: Average

\* Agilent

\* Agilent

\* Agilent



CARRIER FREQUENCY:

Mid

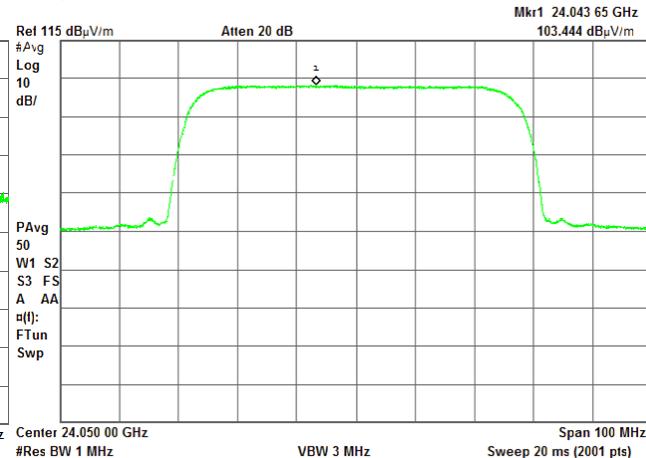
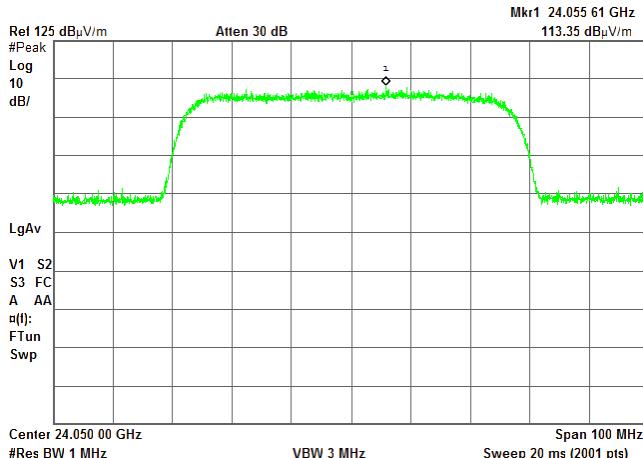
DETECTOR: Peak

DETECTOR: Average

\* Agilent

\* Agilent

\* Agilent





HERMON LABORATORIES

<b>Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b>	ANSI C63.10 sections 6.5, 6.6	
<b>Test mode:</b>	Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18	
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		<b>Power:</b> -48 VDC

**Plot 7.2.44 Radiated emission measurements at the fundamental frequency**

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Horizontal

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

60 MHz

MODULATION:

2048QAM

CARRIER FREQUENCY:

Mid

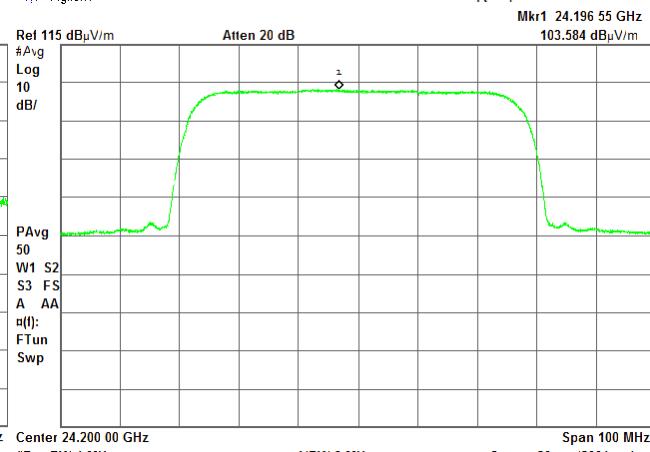
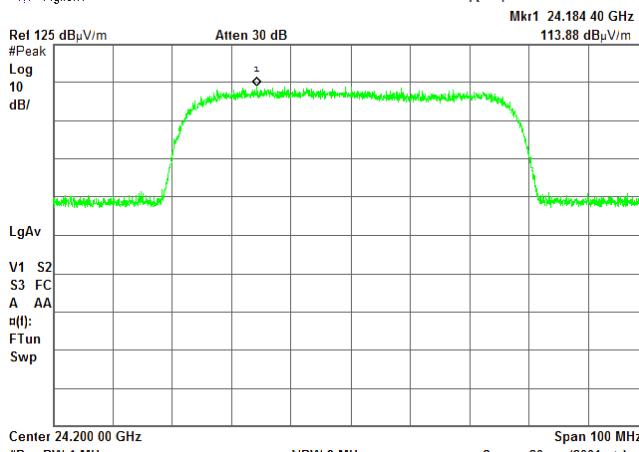
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

R T



CARRIER FREQUENCY:

High

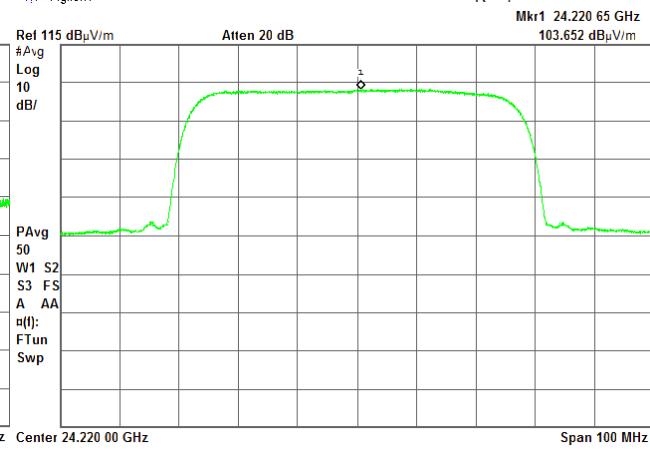
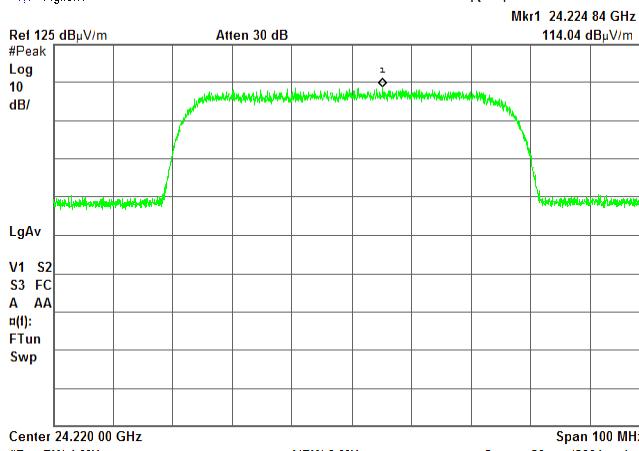
DETECTOR: Peak

DETECTOR: Average

Agilent

Agilent

R T



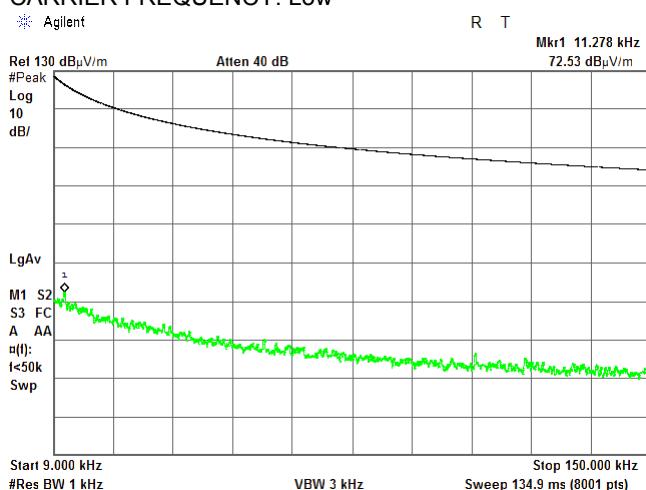


HERMON LABORATORIES

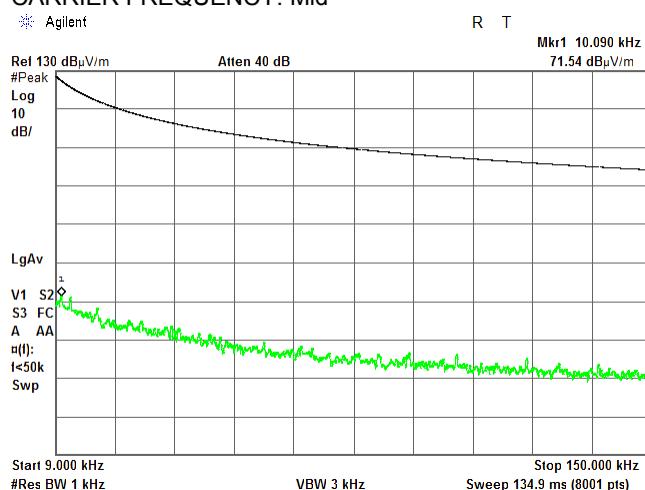
Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.45 Radiated emission measurements from 9 to 150 kHz

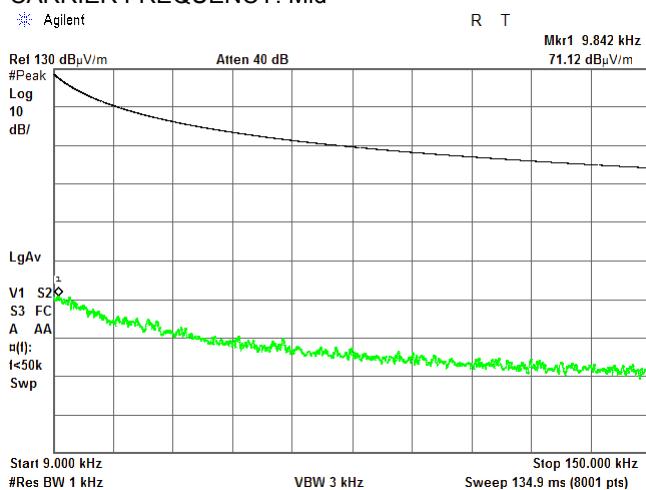
TEST SITE:  
TEST DISTANCE:  
ANTENNA POLARIZATION:  
EUT POSITION:  
EMISSION BANDWIDTH:  
CARRIER FREQUENCY: Low



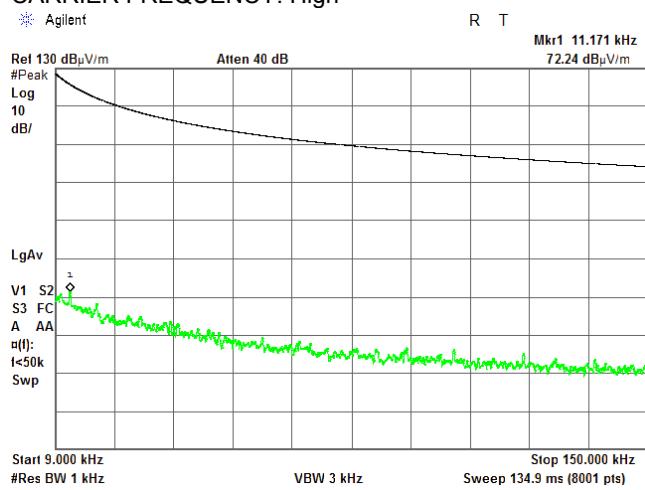
OATS  
3 m  
Vertical  
Typical (Vertical)  
20 MHz  
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

### Plot 7.2.46 Radiated emission measurements from 0.15 to 30 MHz

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical

EUT POSITION:

Typical (Vertical)

EMISSION BANDWIDTH:

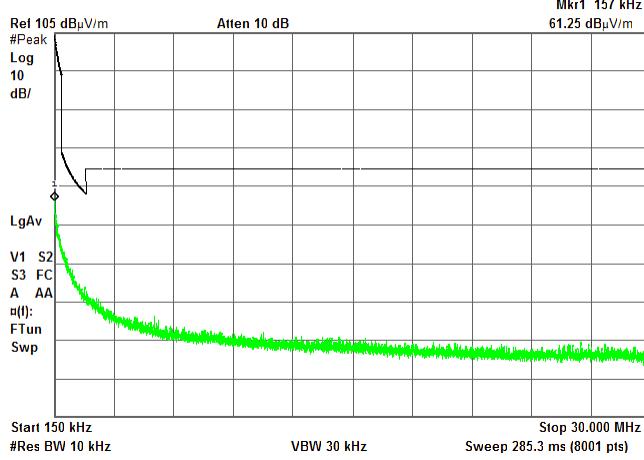
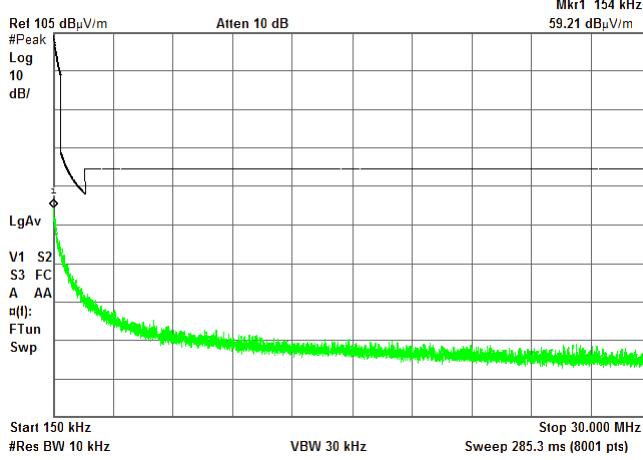
20 MHz

CARRIER FREQUENCY: Low

CARRIER FREQUENCY: Mid

\* Agilent

\* Agilent

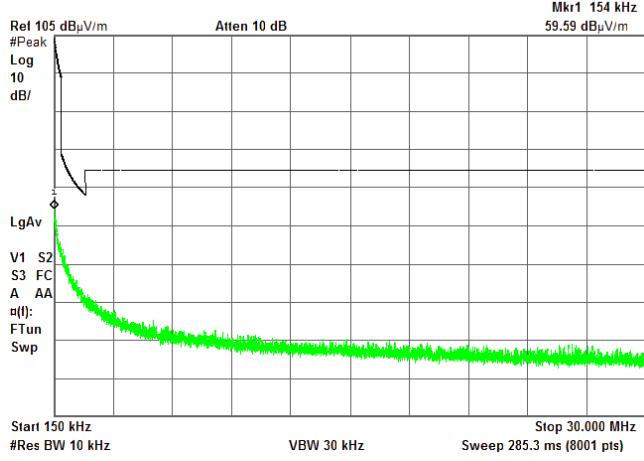
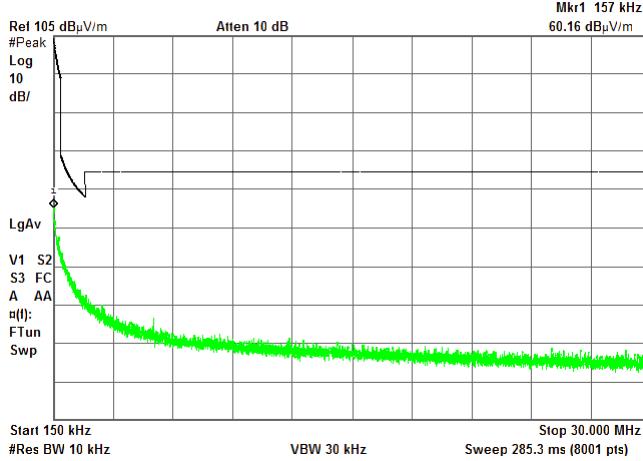


CARRIER FREQUENCY: Mid

CARRIER FREQUENCY: High

\* Agilent

\* Agilent



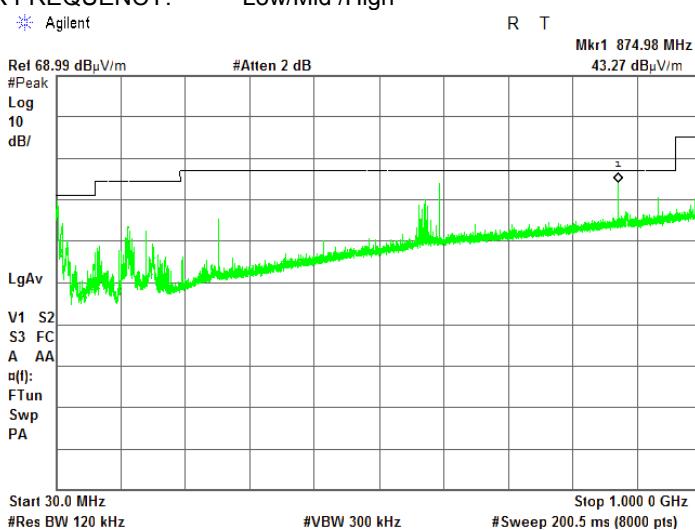


HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b>	ANSI C63.10 sections 6.5, 6.6	
<b>Test mode:</b>	Compliance	
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18	
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Power:</b> -48 VDC		
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

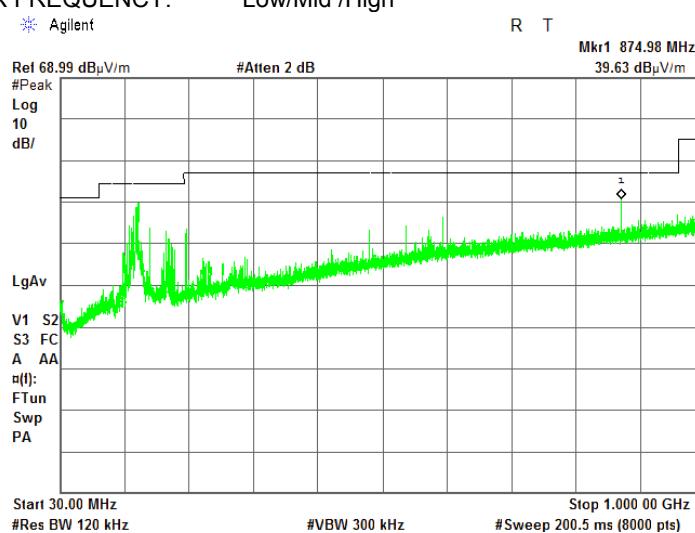
#### Plot 7.2.47 Radiated emission measurements from 30 to 1000 MHz

TEST SITE: Semi anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Vertical  
EUT POSITION: Typical (Vertical)  
EMISSION BANDWIDTH: 20 MHz  
CARRIER FREQUENCY: Low/Mid /High



#### Plot 7.2.48 Radiated emission measurements from 30 to 1000 MHz

TEST SITE: Semi anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Horizontal  
EUT POSITION: Typical (Vertical)  
EMISSION BANDWIDTH: 20 MHz  
CARRIER FREQUENCY: Low/Mid /High

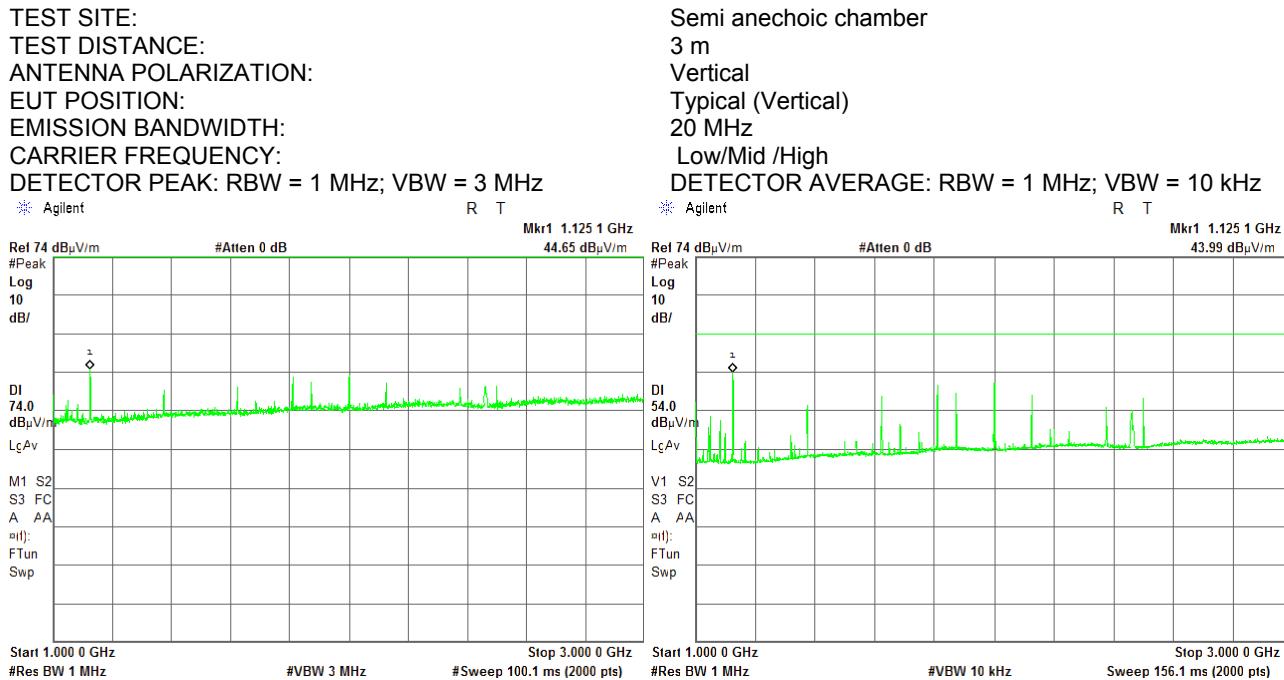




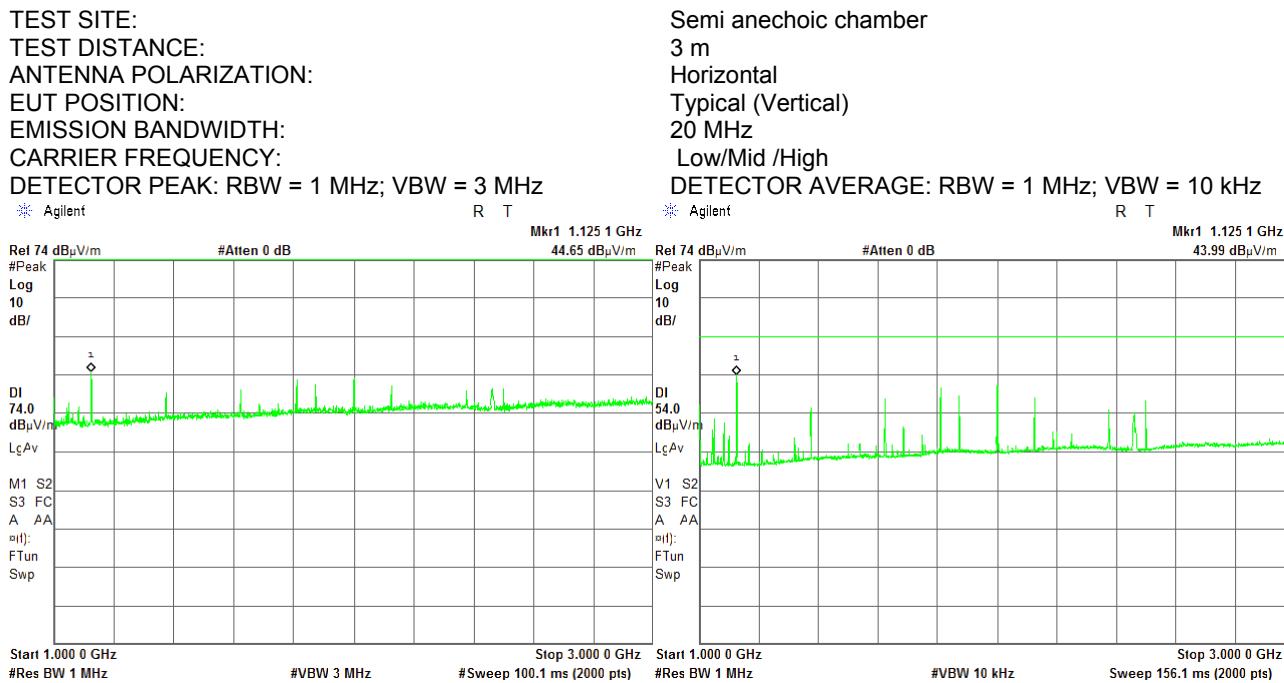
HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.49 Radiated emission measurements from 1.0 to 3.0MHz



## Plot 7.2.50 Radiated emission measurements from 1.0 to 3.0MHz

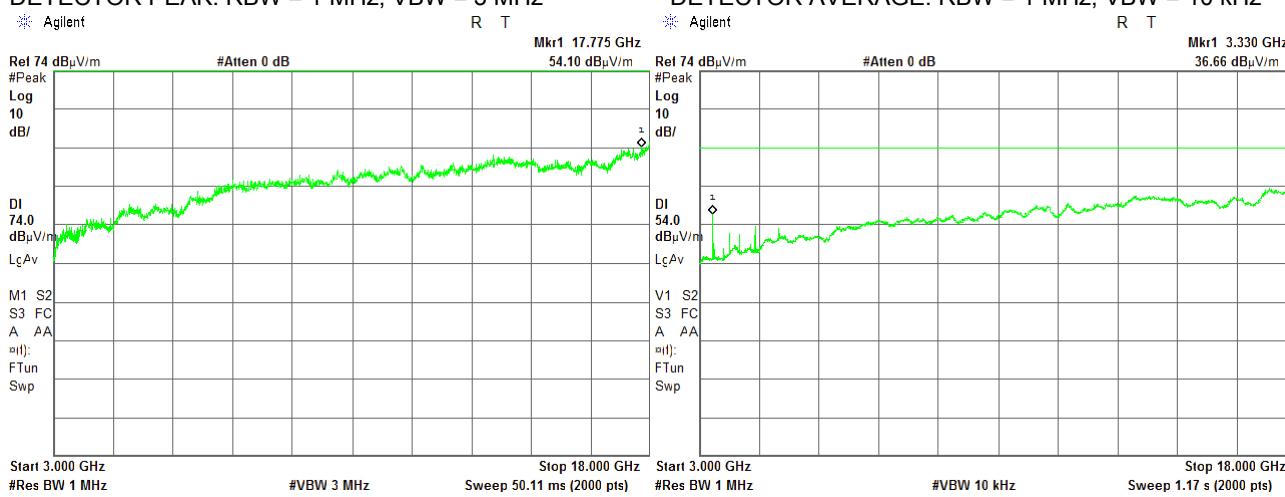




<b>Test specification:</b>	<b>Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions</b>		
<b>Test procedure:</b>	ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b>	Compliance	<b>Verdict:</b>	PASS
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa	<b>Power:</b> -48 VDC
<b>Remarks:</b> EUT with 37.1 dBi antenna gain			

#### Plot 7.2.51 Radiated emission measurements from 3.0 to 18.0 GHz

TEST SITE:	Semi anechoic chamber
TEST DISTANCE:	3 m
ANTENNA POLARIZATION:	Vertical and Horizontal
EUT POSITION:	Typical (Vertical)
EMISSION BANDWIDTH:	20 MHz
CARRIER FREQUENCY:	Low/Mid /High
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz	DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.52 Radiated emission measurements from 18.0 to 26.5 GHz

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

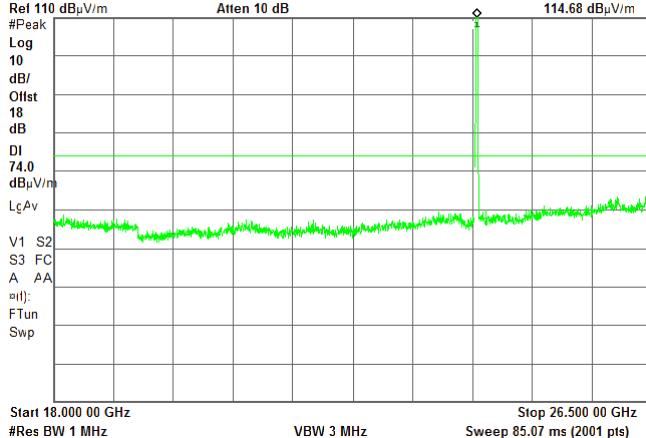
CARRIER FREQUENCY:

Low

Agilent

R

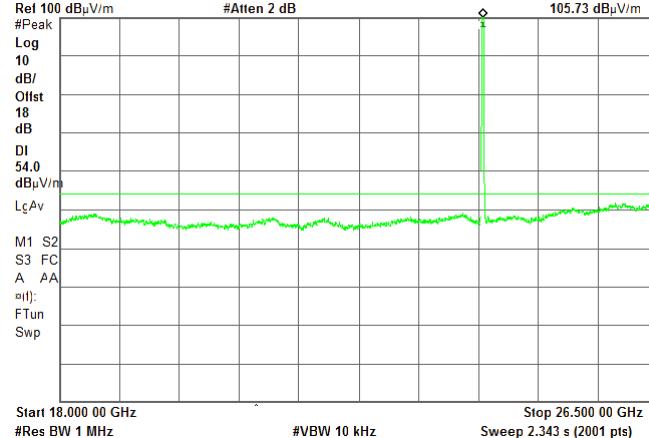
T

Mkr1 24.009 50 GHz  
114.68 dB<sub>µ</sub>V/m

Agilent

R

T

Mkr1 24.013 75 GHz  
105.73 dB<sub>µ</sub>V/m

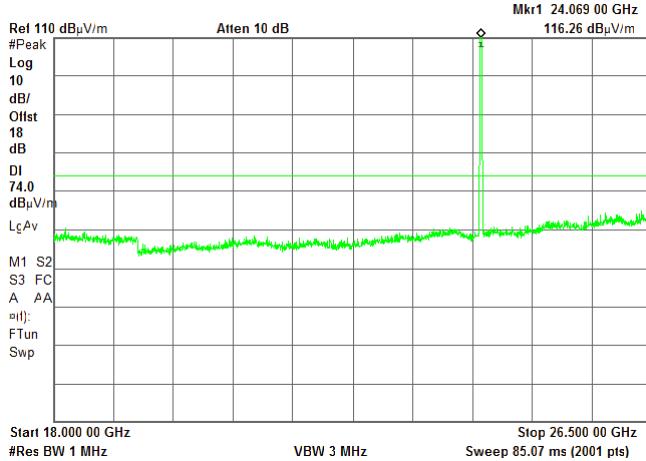
CARRIER FREQUENCY:

Mid

Agilent

R

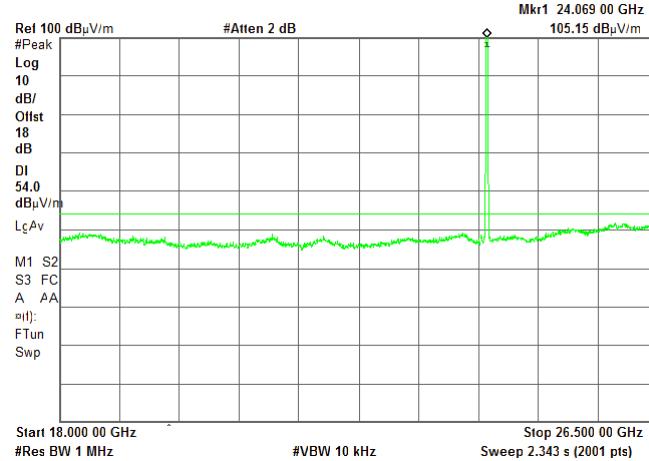
T

Mkr1 24.069 00 GHz  
116.26 dB<sub>µ</sub>V/m

Agilent

R

T

Mkr1 24.069 00 GHz  
105.15 dB<sub>µ</sub>V/m



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

Plot 7.2.53 Radiated emission measurements from 18.0 to 26.5 GHz

TEST SITE:

OATS

TEST DISTANCE:

3 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

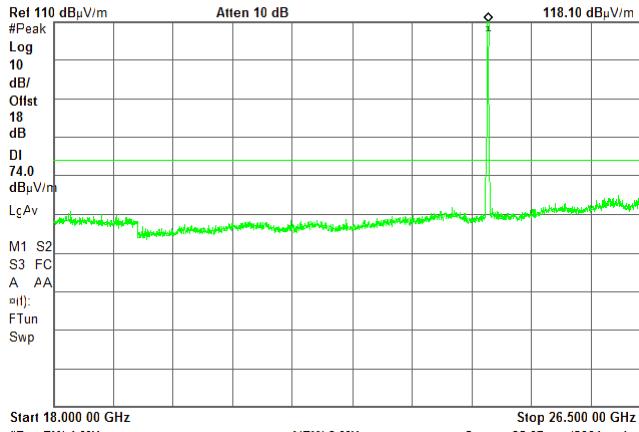
CARRIER FREQUENCY:

Mid

Agilent

R T

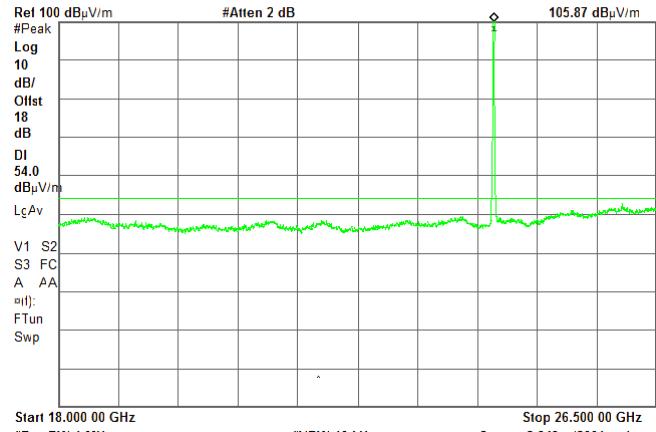
Mkr1 24.179 50 GHz

118.10 dB $\mu$ V/m

Agilent

R T

Mkr1 24.183 75 GHz

105.87 dB $\mu$ V/m

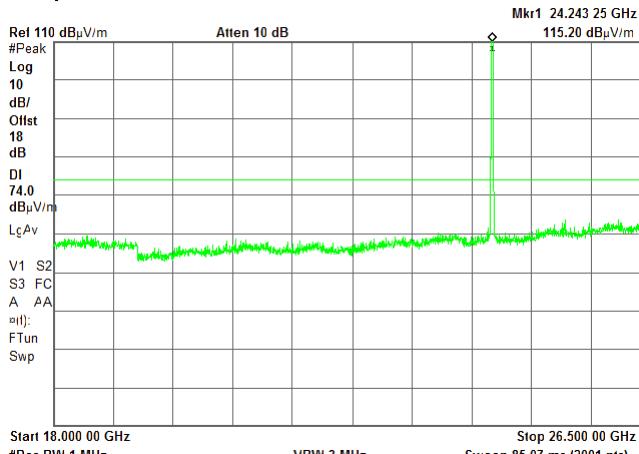
CARRIER FREQUENCY:

High

Agilent

R T

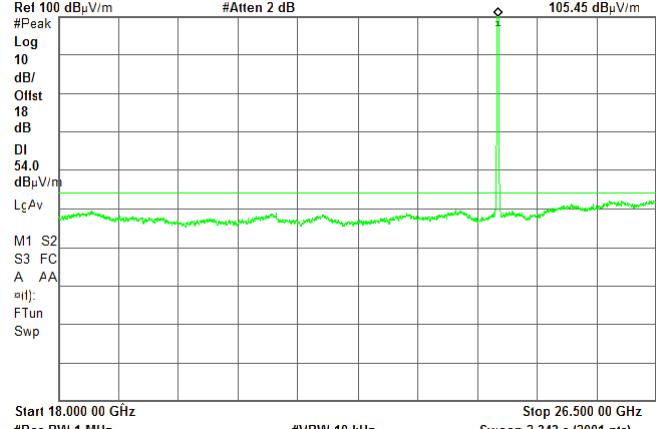
Mkr1 24.243 25 GHz

105.45 dB $\mu$ V/m

Agilent

R T

Mkr1 24.243 25 GHz

105.45 dB $\mu$ V/m



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Power: -48 VDC		
Remarks: EUT with 37.1 dBi antenna gain		

## Plot 7.2.54 Radiated emission measurements from 26.5 to 33.0 GHz

TEST SITE:

OATS

TEST DISTANCE:

0.5 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EMISSION BANDWIDTH:

5 MHz

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

CARRIER FREQUENCY:

LOW

Agilent

R T

Mkr1 32.922 0 GHz

61.08 dB $\mu$ V/mRef 90 dB $\mu$ V/m

#Peak

Log

10

dB/

DI

74.0

dB $\mu$ V/mL $\zeta$ Av

V1 S2

S3 FC

A AA

a(l):

FTun

Swp

Start 26.500 0 GHz

#Res BW 1 MHz

#Atten 4 dB

VBW 3 MHz

Stop 33.000 0 GHz

Sweep 65 ms (1001 pts)

R T

Mkr1 32.922 0 GHz

61.08 dB $\mu$ V/mRef 80 dB $\mu$ V/m

#Peak

Log

10

dB/

DI

54.0

dB $\mu$ V/mL $\zeta$ Av

V1 S2

S3 FC

A AA

a(l):

FTun

Swp

R T

Mkr1 32.948 0 GHz

48.41 dB $\mu$ V/m

CARRIER FREQUENCY:

Mid

Agilent

R T

Mkr1 32.928 5 GHz

60.08 dB $\mu$ V/mRef 90 dB $\mu$ V/m

#Peak

Log

10

dB/

DI

74.0

dB $\mu$ V/mL $\zeta$ Av

V1 S2

S3 FC

A AA

a(l):

FTun

Swp

Start 26.500 0 GHz

#Res BW 1 MHz

#Atten 4 dB

VBW 3 MHz

Stop 33.000 0 GHz

Sweep 65 ms (1001 pts)

Ref 80 dB $\mu$ V/m

#Peak

Log

10

dB/

DI

54.0

dB $\mu$ V/mL $\zeta$ Av

V1 S2

S3 FC

A AA

a(l):

FTun

Swp

R T

Mkr1 32.948 0 GHz

48.37 dB $\mu$ V/m

Start 26.500 0 GHz

#Res BW 1 MHz

#Atten 2 dB

#VBW 10 kHz

Stop 33.000 0 GHz

Sweep 1.792 s (1001 pts)

Ref 90 dB $\mu$ V/m

#Peak

Log

10

dB/

DI

54.0

dB $\mu$ V/mL $\zeta$ Av

V1 S2

S3 FC

A AA

a(l):

FTun

Swp

Start 26.500 0 GHz

#Res BW 1 MHz

#Atten 2 dB

#VBW 10 kHz

Stop 33.000 0 GHz

Sweep 1.792 s (1001 pts)



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions			
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance		
Date(s):	25-Aug-17 - 21-Feb-18		
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

## Plot 7.2.55 Radiated emission measurements from 26.5 to 33.0 GHz

TEST SITE:

OATS

TEST DISTANCE:

0.5 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EMISSION BANDWIDTH:

5 MHz

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

CARRIER FREQUENCY:

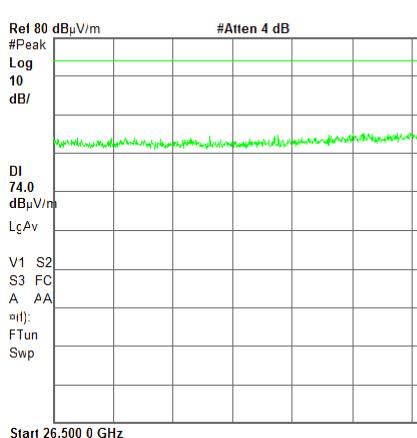
Mid

Agilent

R

T

Mkr1 32.928 5 GHz

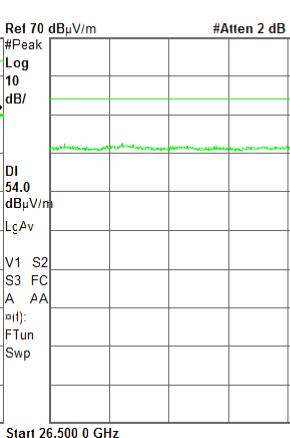
60.57 dB $\mu$ V/m

Agilent

R

T

Mkr1 32.954 5 GHz

48.52 dB $\mu$ V/m

CARRIER FREQUENCY:

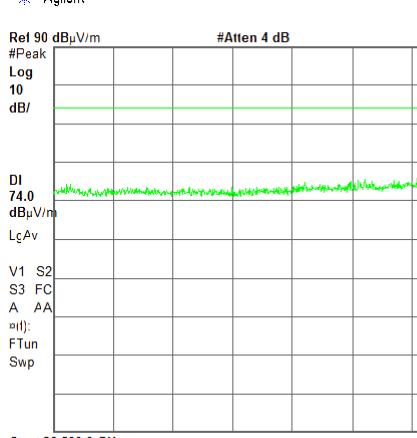
High

Agilent

R

T

Mkr1 32.980 5 GHz

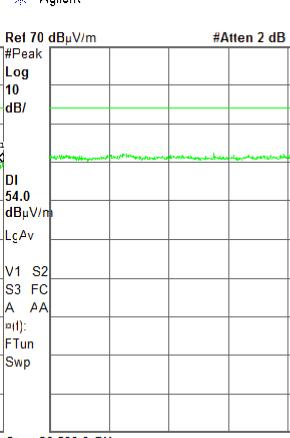
59.88 dB $\mu$ V/m

Agilent

R

T

Mkr1 32.967 5 GHz

48.42 dB $\mu$ V/m



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions			
Test procedure: ANSI C63.10 sections 6.5, 6.6			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Aug-17 - 21-Feb-18			
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

## Plot 7.2.56 Radiated emission measurements from 33.0 to 40.0 GHz

TEST SITE:

OATS

TEST DISTANCE:

0.5 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EMISSION BANDWIDTH:

5 MHz

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

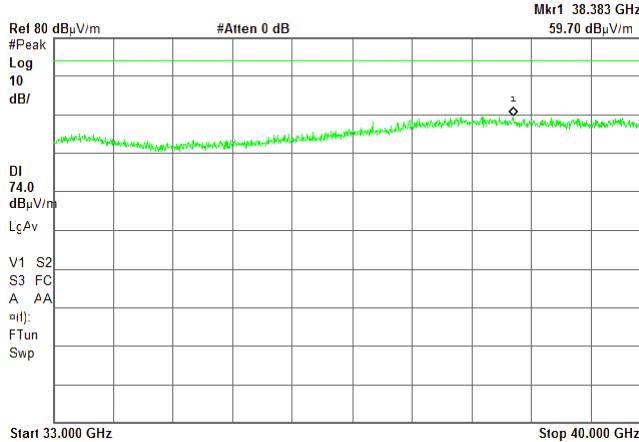
CARRIER FREQUENCY:

LOW

Agilent

R T

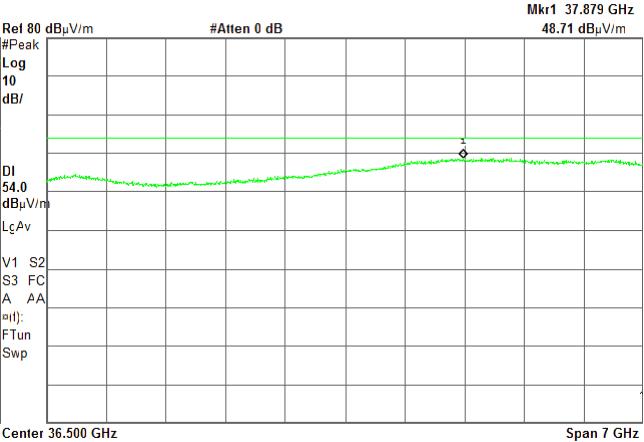
Mkr1 38.383 GHz

59.70 dB<sub>µ</sub>V/m

Agilent

R T

Mkr1 37.879 GHz

48.71 dB<sub>µ</sub>V/m

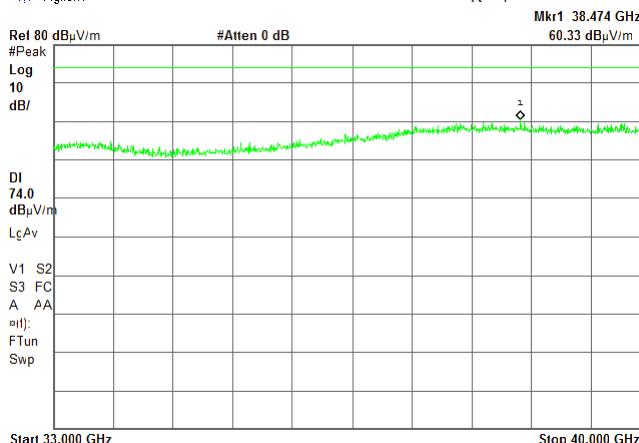
CARRIER FREQUENCY:

Mid

Agilent

R T

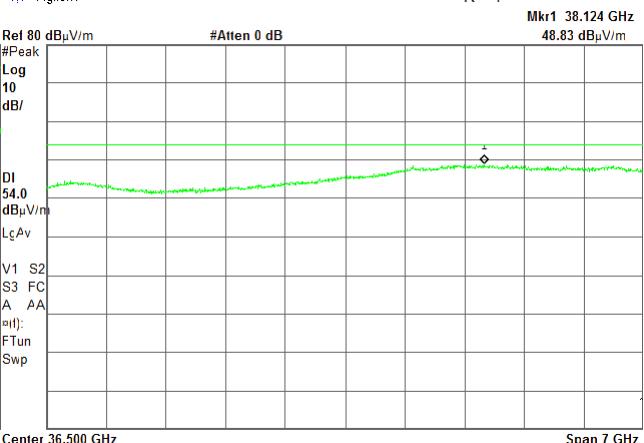
Mkr1 38.474 GHz

60.33 dB<sub>µ</sub>V/m

Agilent

R T

Mkr1 38.124 GHz

48.83 dB<sub>µ</sub>V/m



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions			
Test procedure: ANSI C63.10 sections 6.5, 6.6			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Aug-17 - 21-Feb-18			
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

## Plot 7.2.57 Radiated emission measurements from 33.0 to 40.0 GHz

TEST SITE:

OATS

TEST DISTANCE:

0.5 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EMISSION BANDWIDTH:

5 MHz

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

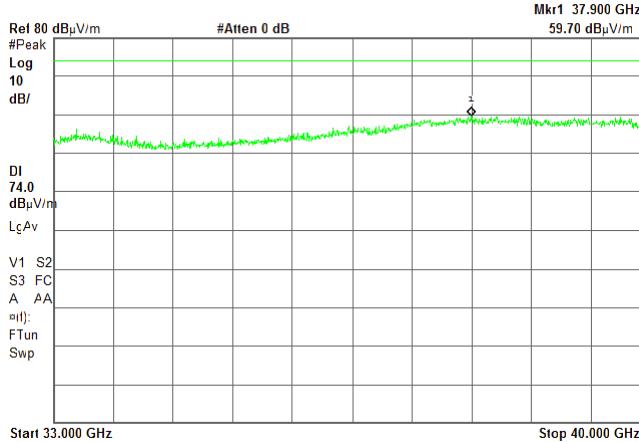
CARRIER FREQUENCY:

Mid

Agilent

R T

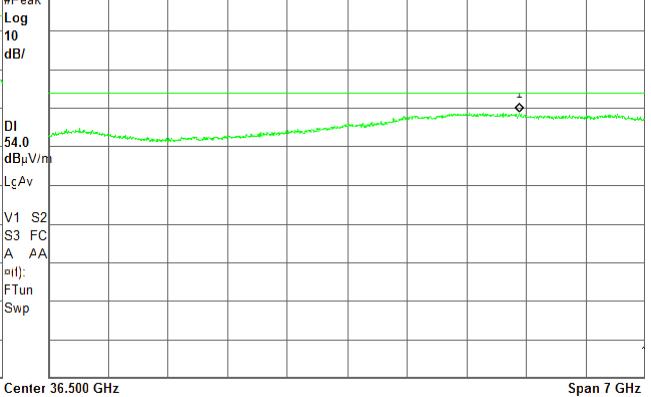
Mkr1 37.900 GHz

59.70 dB $\mu$ V/m

Agilent

R T

Mkr1 38.523 GHz

48.94 dB $\mu$ V/m

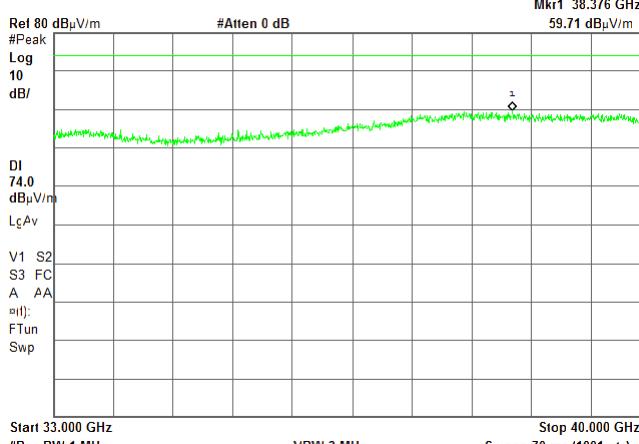
CARRIER FREQUENCY:

High

Agilent

R T

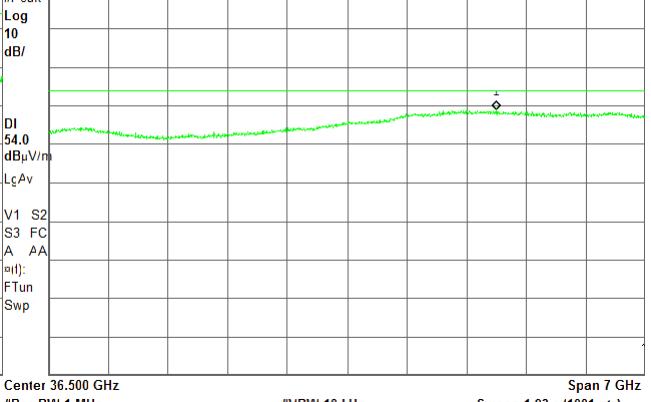
Mkr1 38.376 GHz

59.71 dB $\mu$ V/m

Agilent

R T

Mkr1 38.243 GHz

48.99 dB $\mu$ V/m

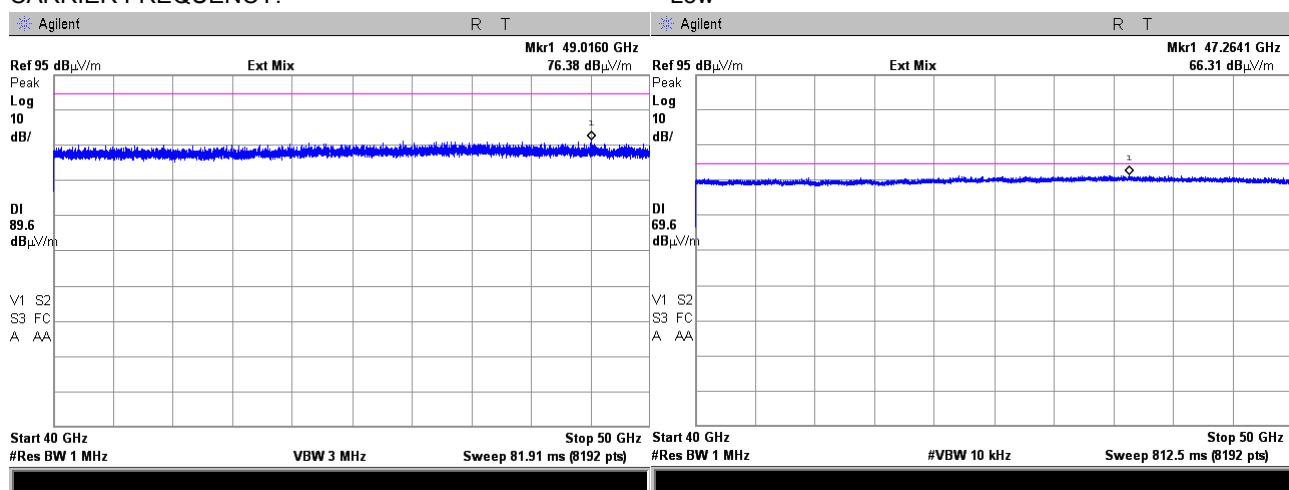


HERMON LABORATORIES

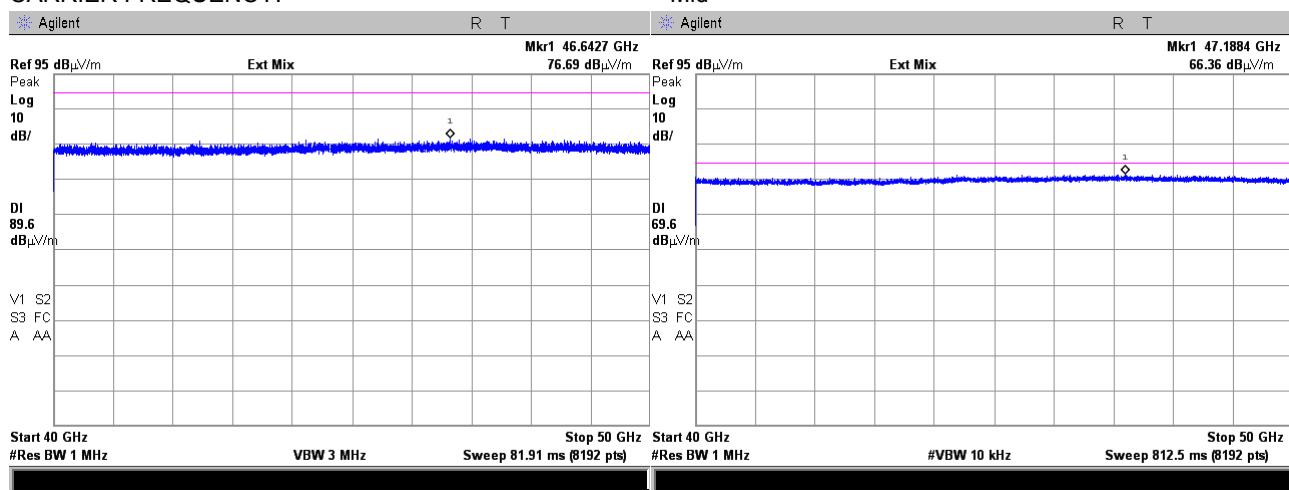
Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.58 Radiated emission measurements from 40.0 to 50.0 GHz

TEST SITE: OATS  
 TEST DISTANCE: 0.5 m  
 ANTENNA POLARIZATION: Vertical and Horizontal  
 EUT POSITION: Typical (Vertical)  
 DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz  
 CARRIER FREQUENCY: Low



## CARRIER FREQUENCY:



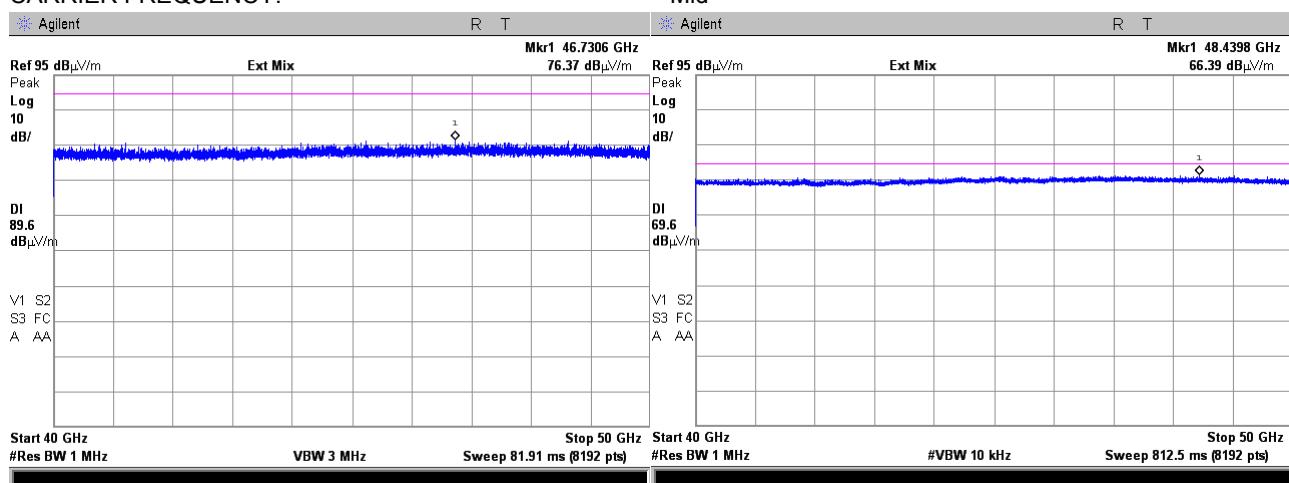


HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.59 Radiated emission measurements from 40.0 to 50.0 GHz

TEST SITE: OATS  
 TEST DISTANCE: 0.5 m  
 ANTENNA POLARIZATION: Vertical and Horizontal  
 EUT POSITION: Typical (Vertical)  
 DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz  
 CARRIER FREQUENCY: Mid



## CARRIER FREQUENCY:



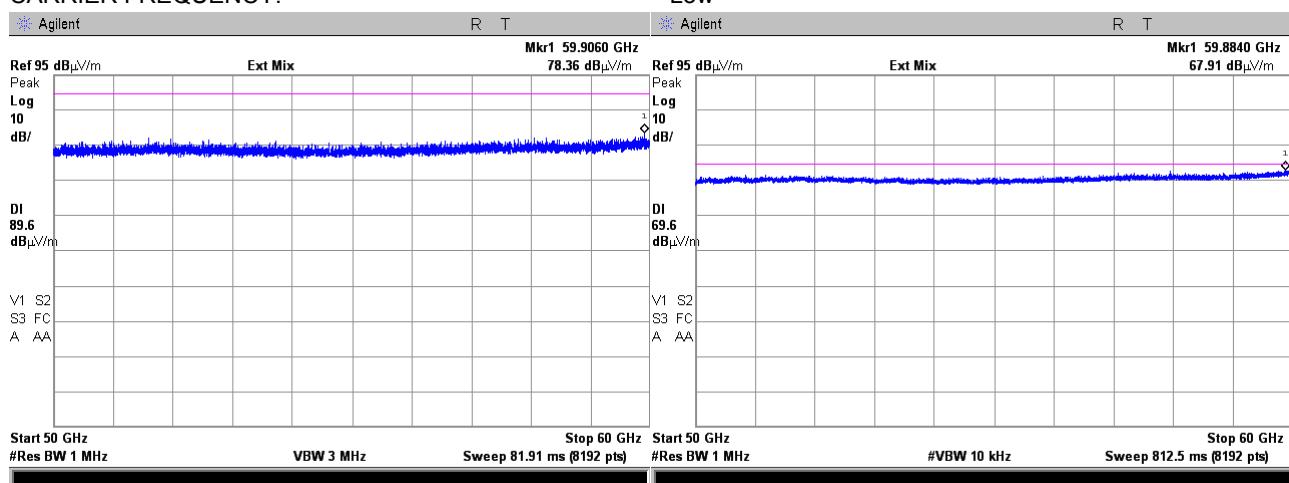


HERMON LABORATORIES

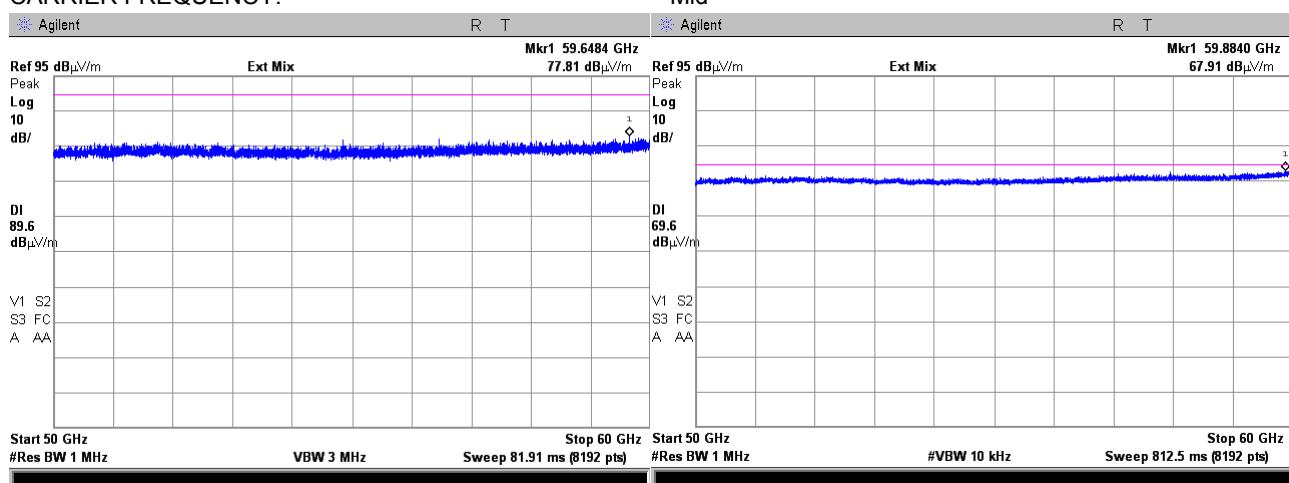
Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.60 Radiated emission measurements from 50.0 to 60.0 GHz

TEST SITE: OATS  
 TEST DISTANCE: 0.5 m  
 ANTENNA POLARIZATION: Vertical and Horizontal  
 EUT POSITION: Typical (Vertical)  
 DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz  
 CARRIER FREQUENCY: DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz  
 Low



## CARRIER FREQUENCY:





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.61 Radiated emission measurements from 50.0 to 60.0 GHz

TEST SITE:

OATS

TEST DISTANCE:

0.5 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

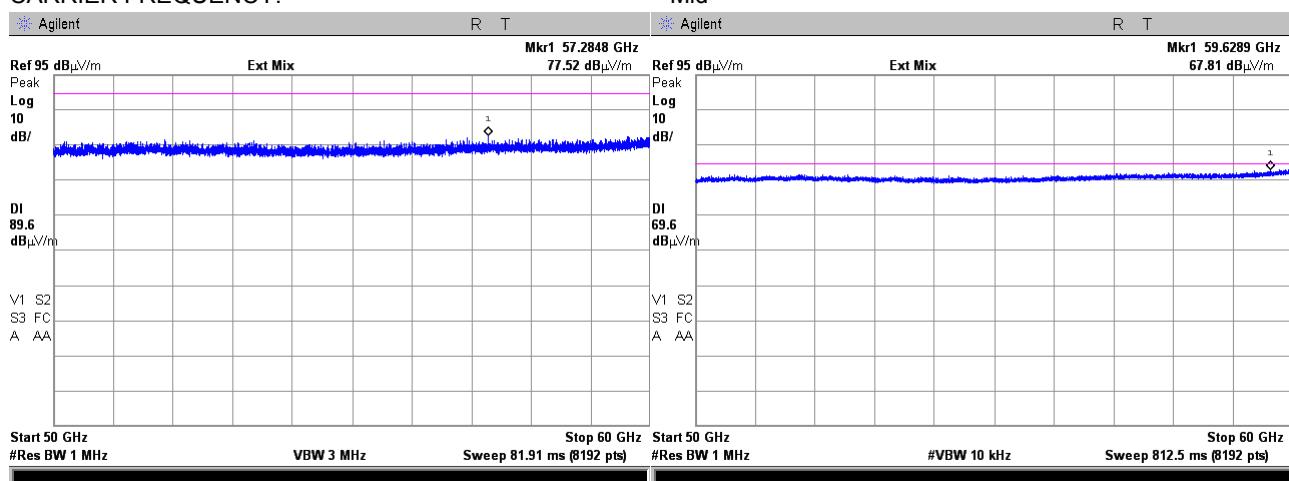
Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

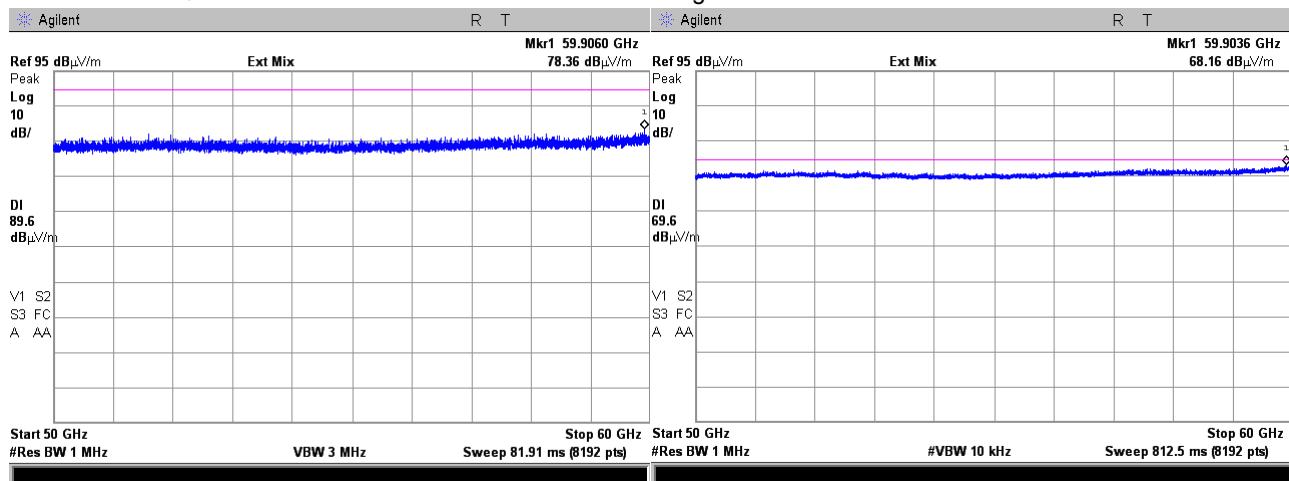
CARRIER FREQUENCY:

Mid



CARRIER FREQUENCY:

High





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18	
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.62 Radiated emission measurements from 60.0 to 68.0 GHz**

TEST SITE:

OATS

TEST DISTANCE:

0.1 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

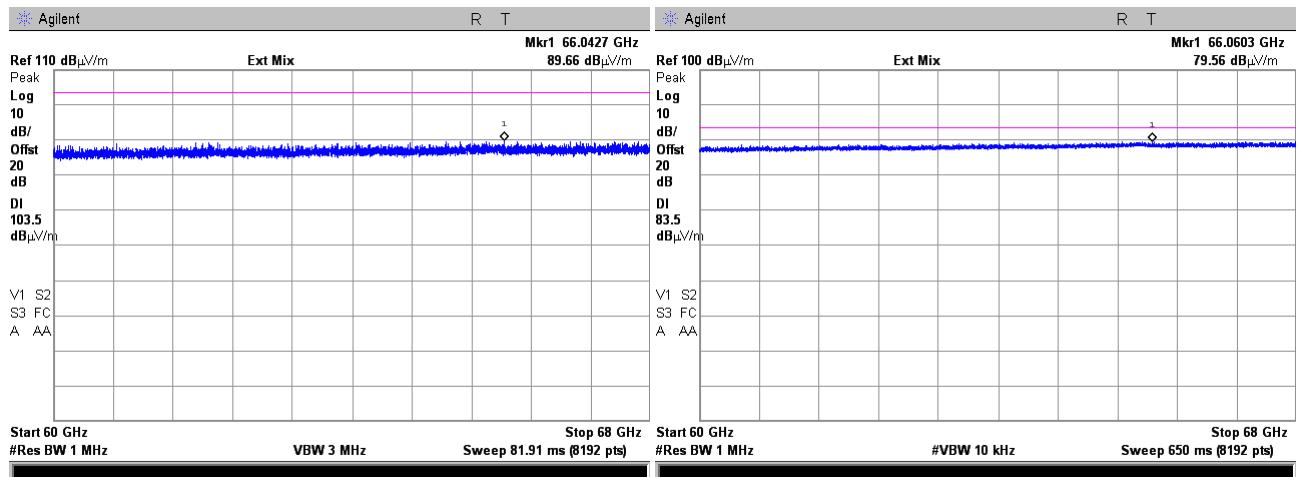
Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

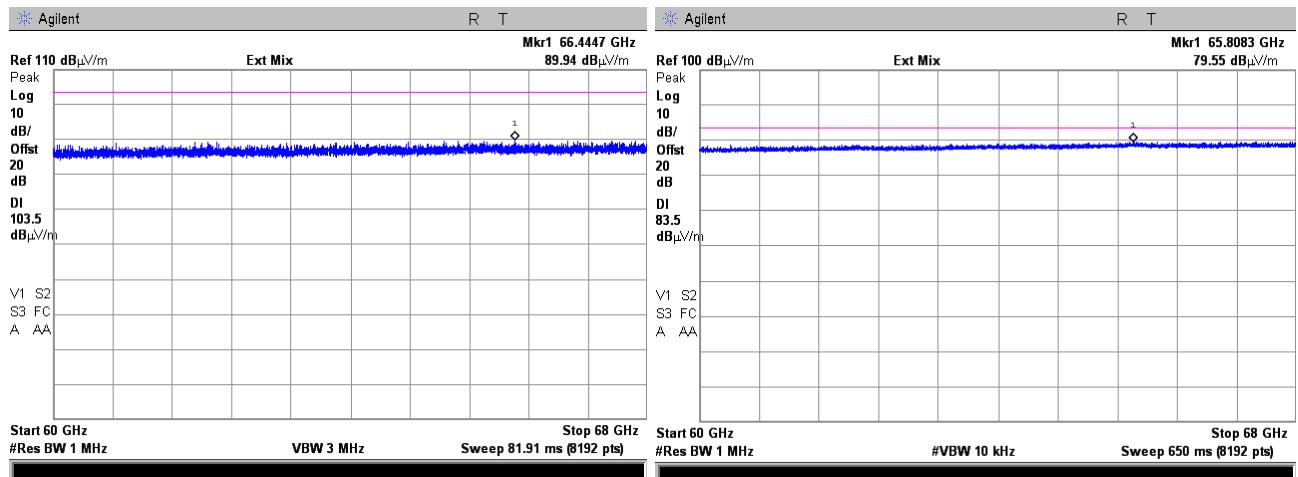
CARRIER FREQUENCY:

Low



CARRIER FREQUENCY:

Mid





HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18	
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.63 Radiated emission measurements from 60.0 to 68.0 GHz**

TEST SITE:

OATS

TEST DISTANCE:

0.1 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

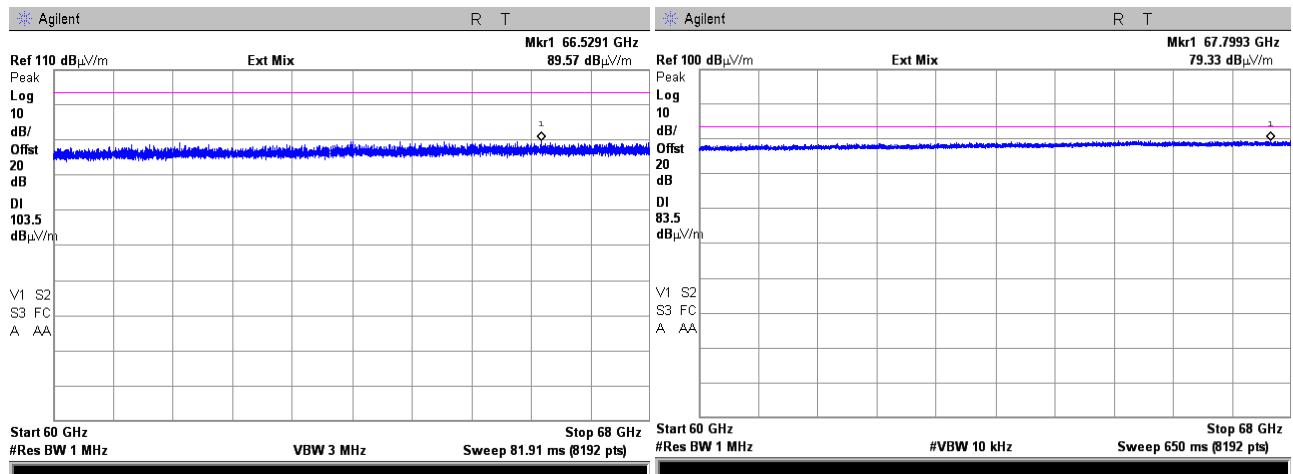
Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

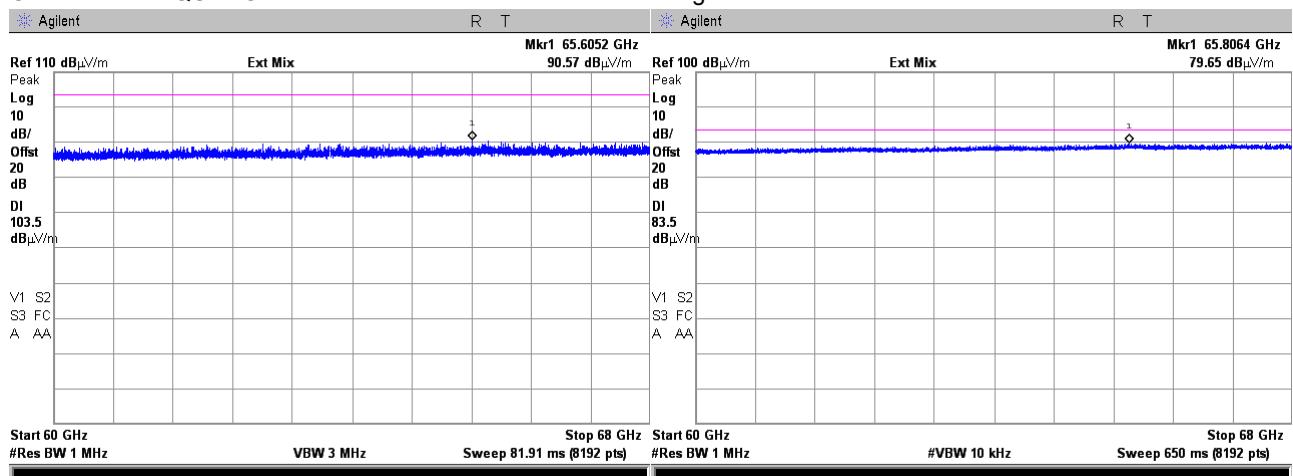
CARRIER FREQUENCY:

Mid



CARRIER FREQUENCY:

High



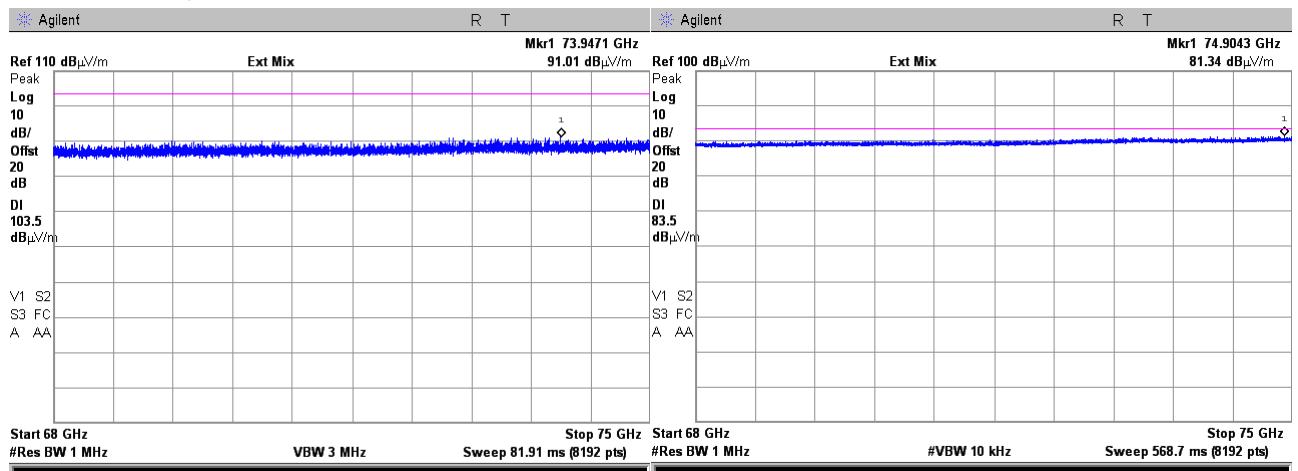
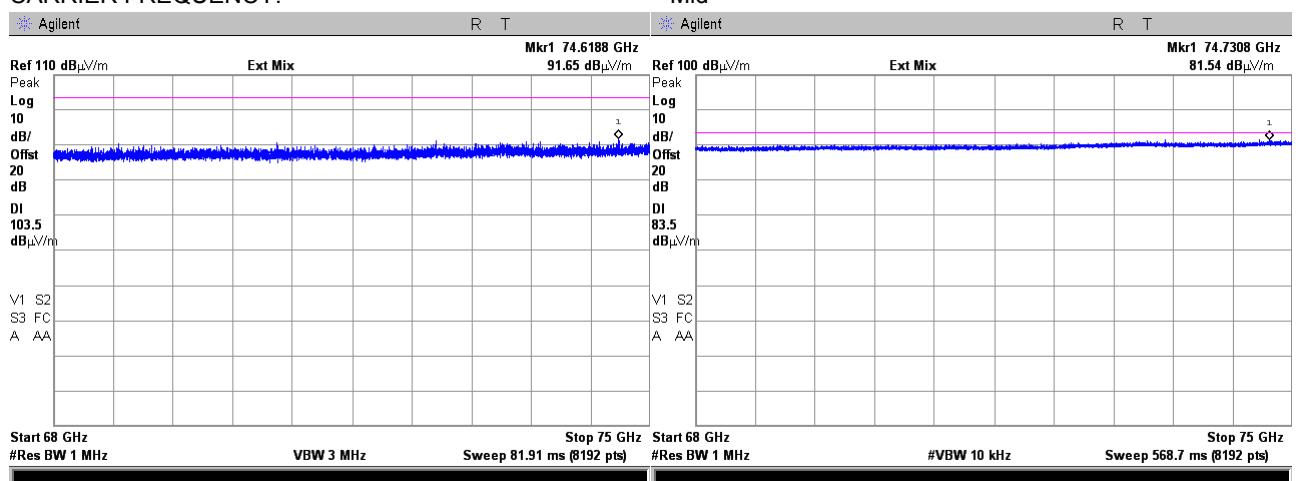


HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
Temperature: 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.64 Radiated emission measurements from 68.0 to 75.0 GHz**

TEST SITE: OATS  
 TEST DISTANCE: 0.1 m  
 ANTENNA POLARIZATION: Vertical and Horizontal  
 EUT POSITION: Typical (Vertical)  
 DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz  
 CARRIER FREQUENCY: Low

**CARRIER FREQUENCY:**



HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b> ANSI C63.10 sections 6.5, 6.6		
<b>Test mode:</b> Compliance	<b>Verdict:</b> <b>PASS</b>	
<b>Date(s):</b> 25-Aug-17 - 21-Feb-18		
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.65 Radiated emission measurements from 68.0 to 75.0 GHz**

TEST SITE:

OATS

TEST DISTANCE:

0.1 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

CARRIER FREQUENCY:

Mid

R T

Mkr1 74.3536 GHz

91.37 dB $\mu$ V/mRef 110 dB $\mu$ V/m

Peak

Log

10

dB/

Offset

20

dB

DI

103.5

dB $\mu$ V/m

V1 S2

S3 FC

A AA

Start 68 GHz

#Res BW 1 MHz

Ext Mix

VBW 3 MHz

R T

Sweep 81.91 ms (8192 pts)

Stop 75 GHz

R T

Mkr1 73.0490 GHz

81.13 dB $\mu$ V/mRef 100 dB $\mu$ V/m

Peak

Log

10

dB/

Offset

20

dB

DI

83.5

dB $\mu$ V/m

V1 S2

S3 FC

A AA

Start 68 GHz

#Res BW 1 MHz

Ext Mix

VBW 10 kHz

Sweep 568.7 ms (8192 pts)

R T

Stop 75 GHz

CARRIER FREQUENCY:

High

R T

Mkr1 74.8556 GHz

91.43 dB $\mu$ V/mRef 110 dB $\mu$ V/m

Peak

Log

10

dB/

Offset

20

dB

DI

103.5

dB $\mu$ V/m

V1 S2

S3 FC

A AA

Start 68 GHz

#Res BW 1 MHz

Ext Mix

VBW 3 MHz

R T

Sweep 81.91 ms (8192 pts)

Stop 75 GHz

R T

Mkr1 74.4443 GHz

81.31 dB $\mu$ V/mRef 100 dB $\mu$ V/m

Peak

Log

10

dB/

Offset

20

dB

DI

83.5

dB $\mu$ V/m

V1 S2

S3 FC

A AA

Start 68 GHz

#Res BW 1 MHz

Ext Mix

VBW 10 kHz

Sweep 568.7 ms (8192 pts)

R T

Stop 75 GHz



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.66 Radiated emission measurements from 75.0 to 84.0 GHz

TEST SITE:

OATS

TEST DISTANCE:

0.05 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

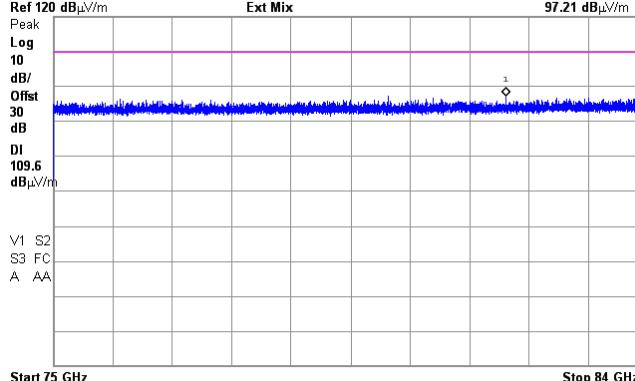
CARRIER FREQUENCY:

Low

Agilent

R T

Mkr1 81.8178 GHz

97.21 dB $\mu$ V/m

Agilent

R T

Mkr1 82.3464 GHz

86.29 dB $\mu$ V/mRef 100 dB $\mu$ V/mPeak Log 10 dB/Offset 30 dB DI 89.6 dB $\mu$ V/m

V1 S2

S3 FC

A AA

V1 S2

S3 FC



HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.67 Radiated emission measurements from 75.0 to 84.0 GHz

TEST SITE:

OATS

TEST DISTANCE:

0.05 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

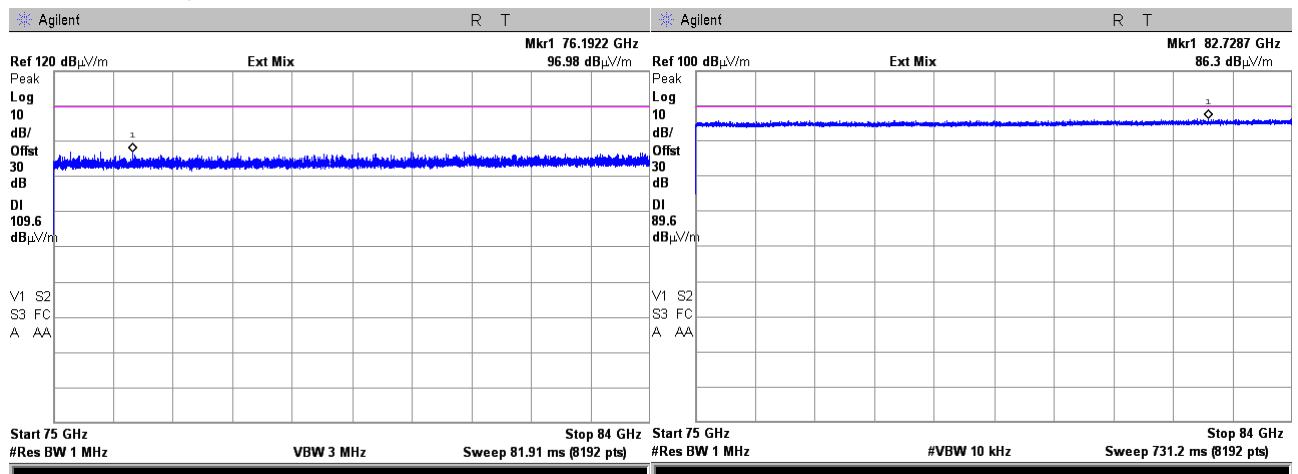
Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

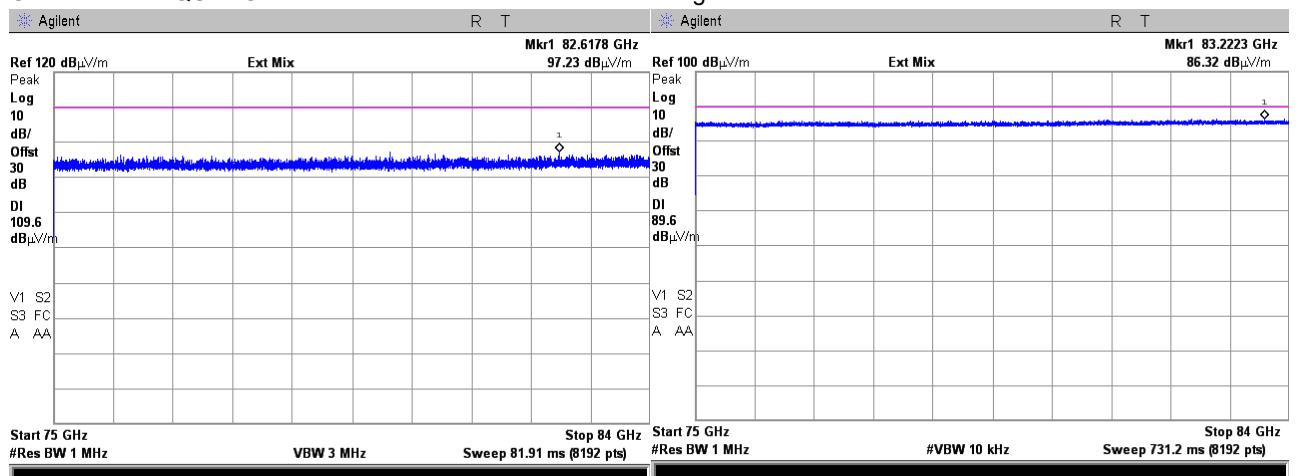
CARRIER FREQUENCY:

Mid



CARRIER FREQUENCY:

High



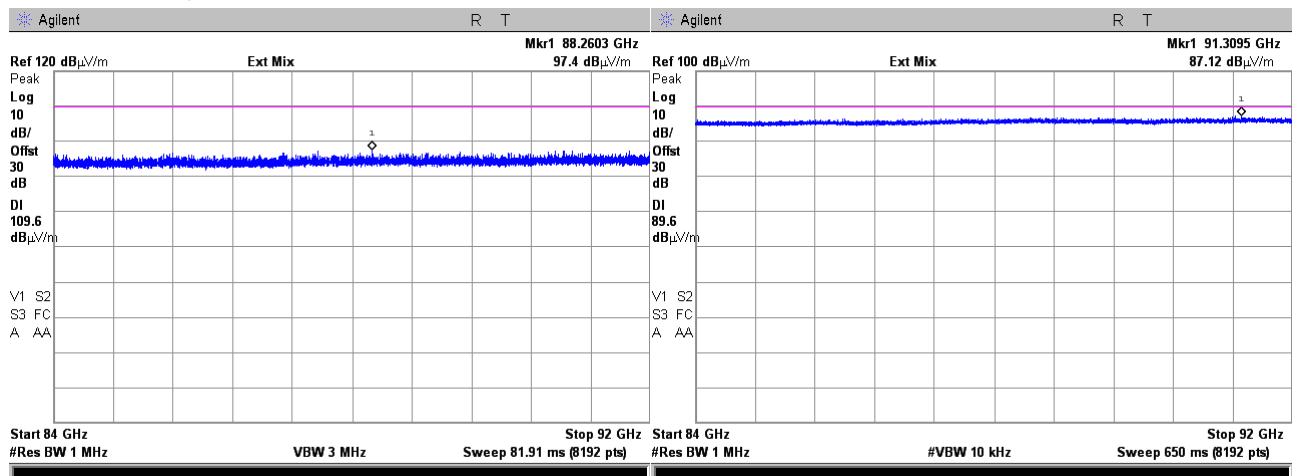


HERMON LABORATORIES

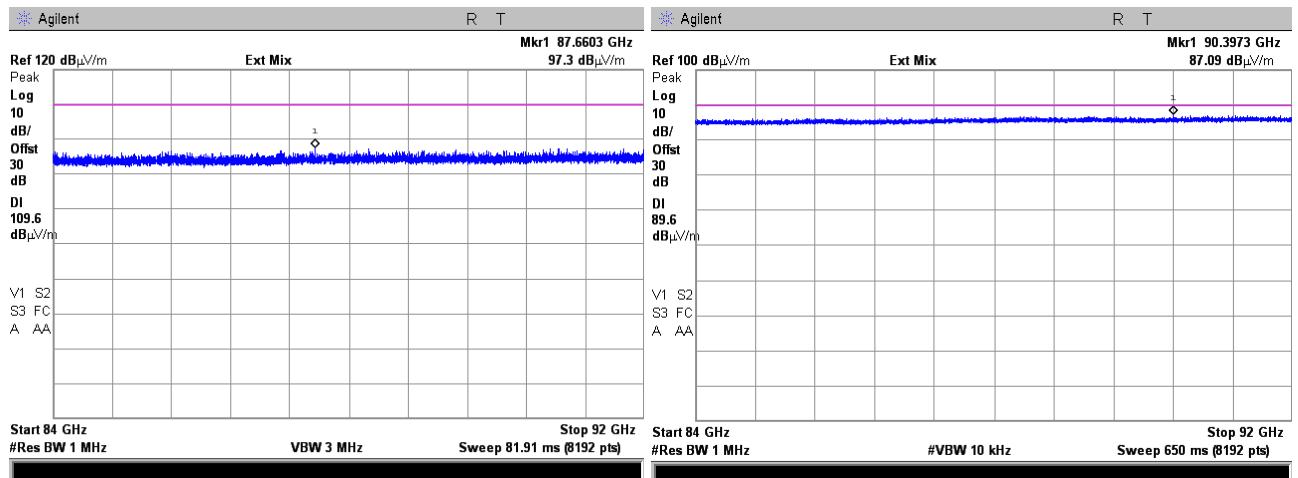
Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

Plot 7.2.68 Radiated emission measurements from 84.0 to 92.0 GHz

TEST SITE: OATS  
 TEST DISTANCE: 0.05 m  
 ANTENNA POLARIZATION: Vertical and Horizontal  
 EUT POSITION: Typical (Vertical)  
 DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz  
 CARRIER FREQUENCY: LOW



CARRIER FREQUENCY:



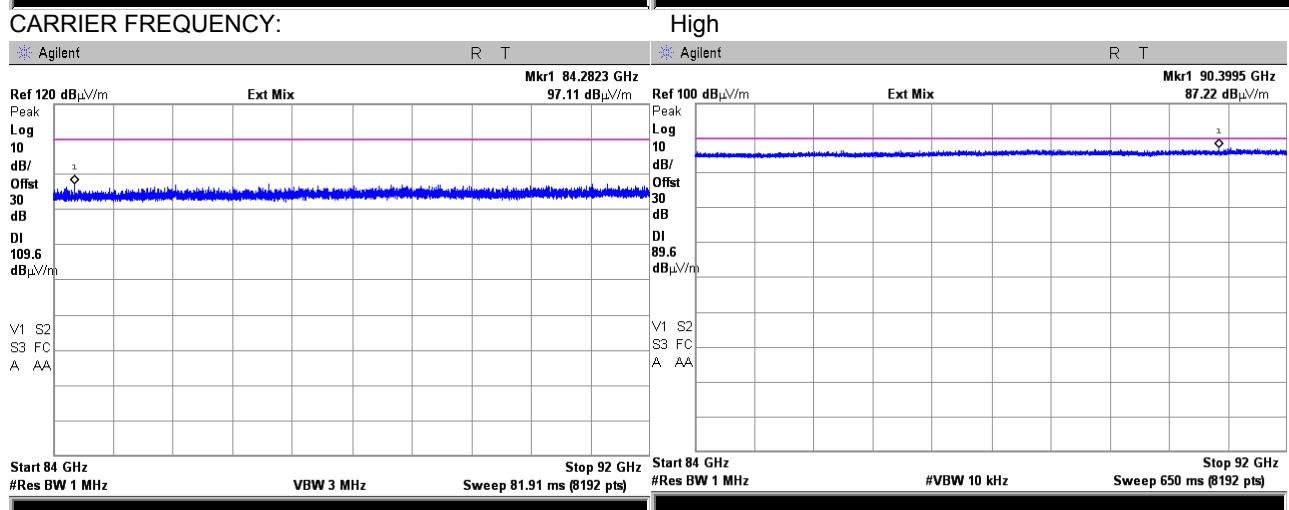
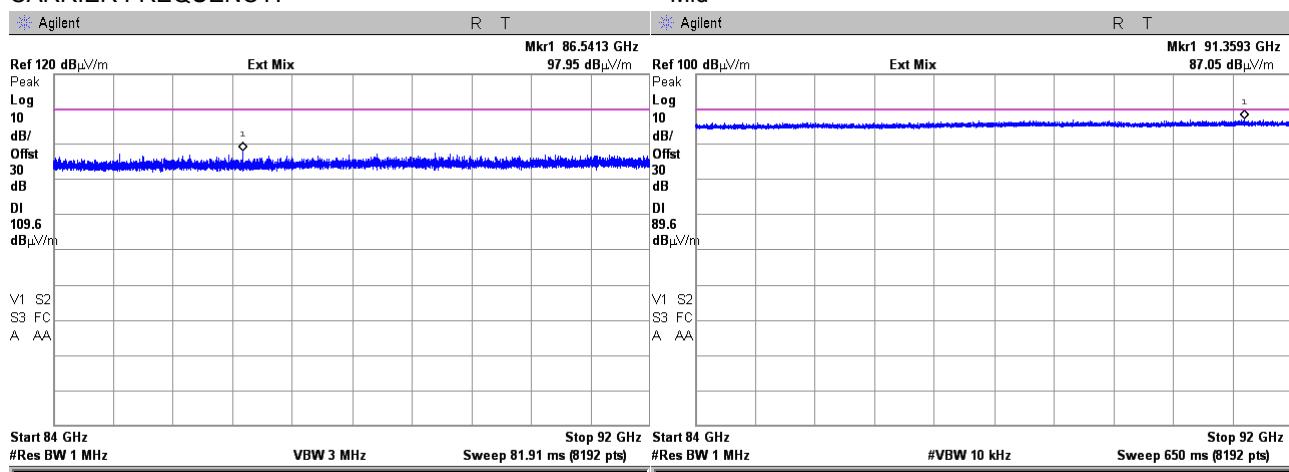


HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

Plot 7.2.69 Radiated emission measurements from 84.0 to 92.0 GHz

TEST SITE: OATS  
 TEST DISTANCE: 0.05 m  
 ANTENNA POLARIZATION: Vertical and Horizontal  
 EUT POSITION: Typical (Vertical)  
 DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz  
 CARRIER FREQUENCY: Mid





HERMON LABORATORIES

Test specification: Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6	
Test mode:	Compliance	Verdict: PASS
Date(s):	25-Aug-17 - 21-Feb-18	
Temperature: 24.3 °C	Relative Humidity: 48 %	Air Pressure: 1011 hPa
Remarks: EUT with 37.1 dBi antenna gain		Power: -48 VDC

## Plot 7.2.70 Radiated emission measurements from 92.0 to 100.0 GHz

TEST SITE:

OATS

TEST DISTANCE:

0.05 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

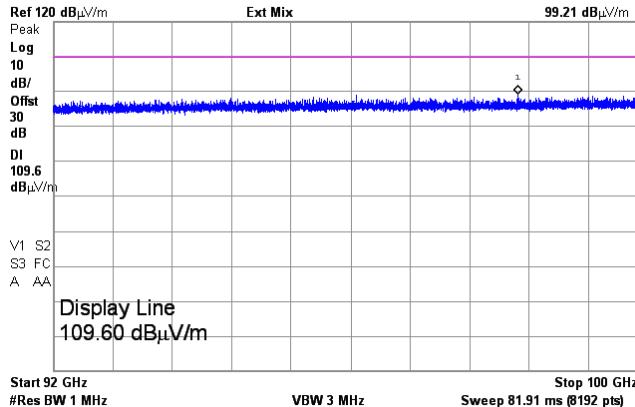
CARRIER FREQUENCY:

Low

Agilent

R T

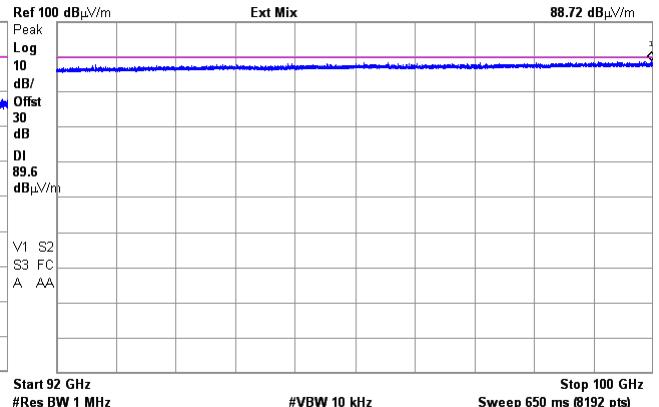
Mkr1 97.2821 GHz

99.21 dB $\mu$ V/m

Agilent

R T

Mkr1 99.9727 GHz

88.72 dB $\mu$ V/m

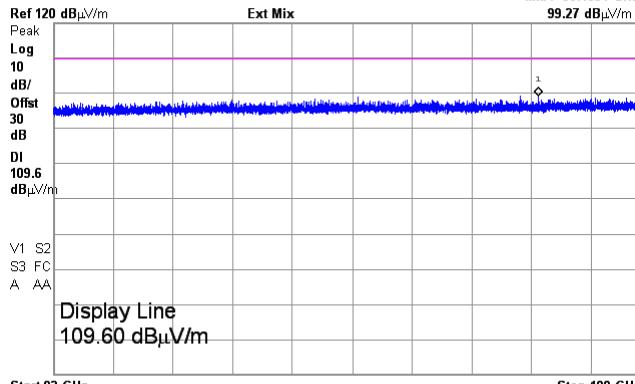
CARRIER FREQUENCY:

Mid

Agilent

R T

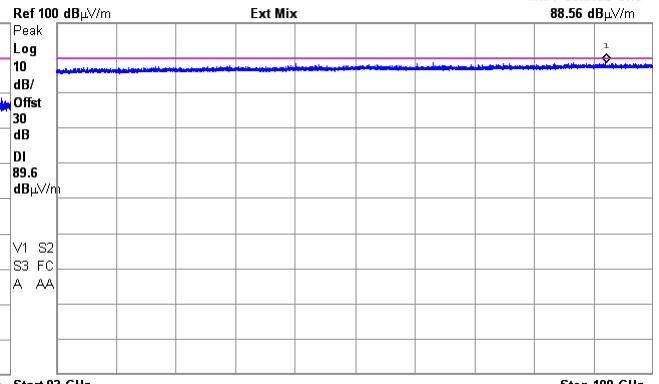
Mkr1 98.4891 GHz

99.27 dB $\mu$ V/m

Agilent

R T

Mkr1 99.3622 GHz

88.56 dB $\mu$ V/m



HERMON LABORATORIES

<b>Test specification:</b> Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
<b>Test procedure:</b>	ANSI C63.10 sections 6.5, 6.6	
<b>Test mode:</b>	Compliance	
<b>Date(s):</b>	25-Aug-17 - 21-Feb-18	
<b>Temperature:</b> 24.3 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1011 hPa
<b>Power:</b> -48 VDC		
<b>Remarks:</b> EUT with 37.1 dBi antenna gain		

**Plot 7.2.71 Radiated emission measurements from 92.0 to 100.0 GHz**

TEST SITE:

OATS

TEST DISTANCE:

0.05 m

ANTENNA POLARIZATION:

Vertical and Horizontal

EUT POSITION:

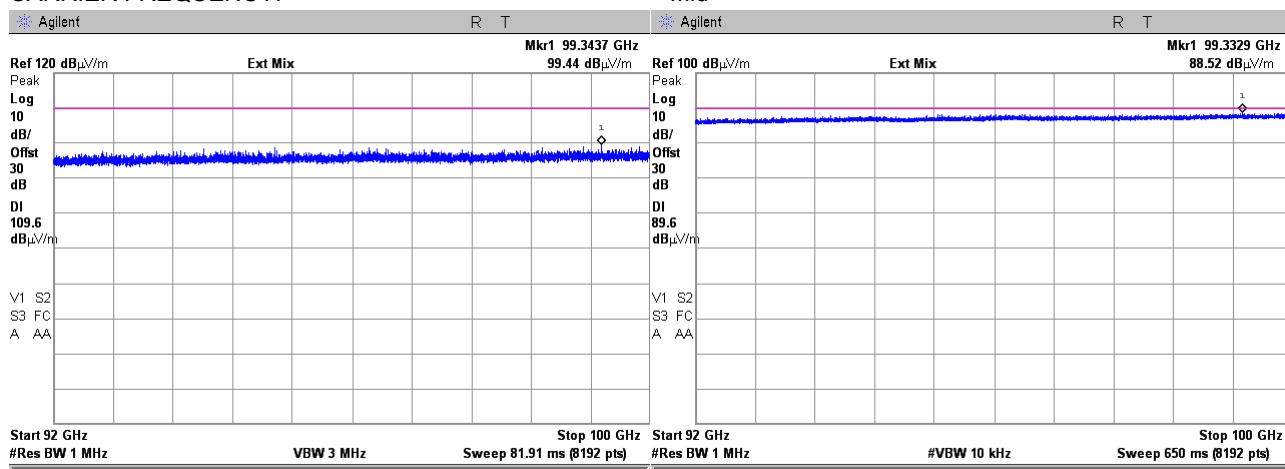
Typical (Vertical)

DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz

DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

CARRIER FREQUENCY:

Mid



CARRIER FREQUENCY:

High

