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):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: 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	NA	73.8 – 63.0**	NA	
1.705 – 30.0*		69.5		
30 – 88		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:

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

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.

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):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	**Relative Humidity:** 48 %	**Air Pressure:** 1021 hPa	**Power:** -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.4 Radiated spurious emissions limits (other than harmonics)

Frequency, GHz	Distance, m	Field strength dB(μV/m)*, peak	Field strength dB(μV/m)*, average
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:

LimS2 = LimS1 + 20 log (S1/S2),

where S1 and S2 – standard defined and test distance respectively in meters.

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):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

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 360^0 and the measuring antenna was rotated around its vertical axis.

7.2.2.4 The worst test results (the lowest margins) were 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

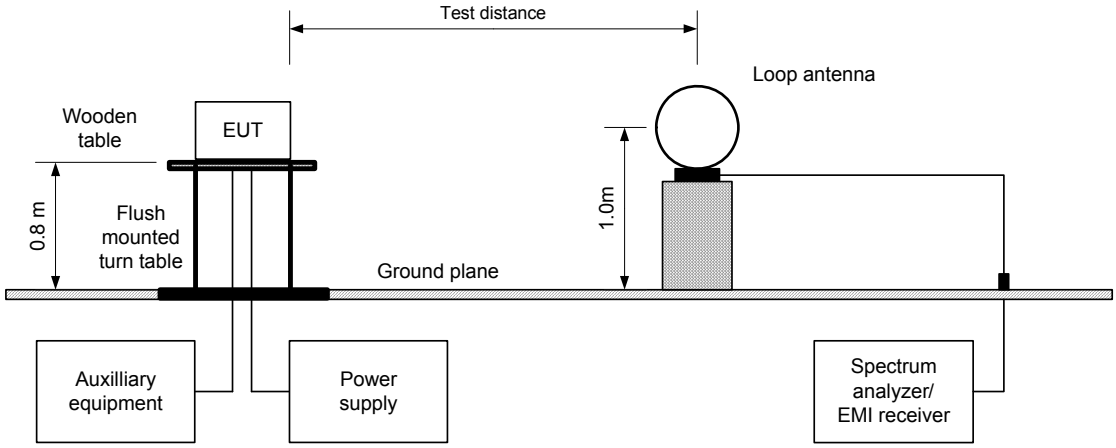
7.2.3.1 The EUT was set up as shown in Figure 7.2.2, Figure 7.2.3, energized and the performance check was conducted.

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 360^0, 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 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



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):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

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

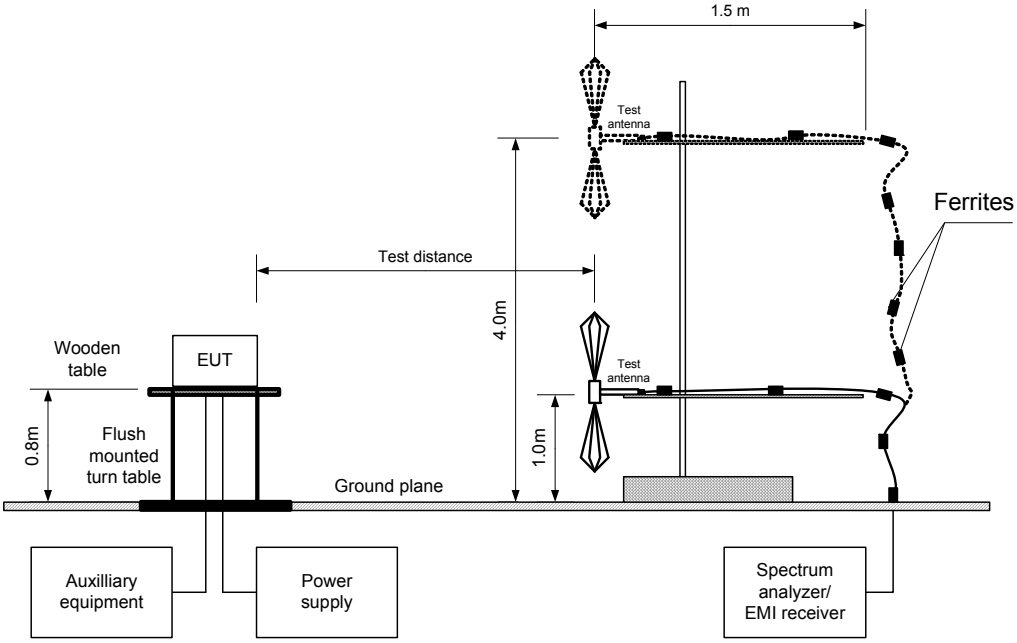
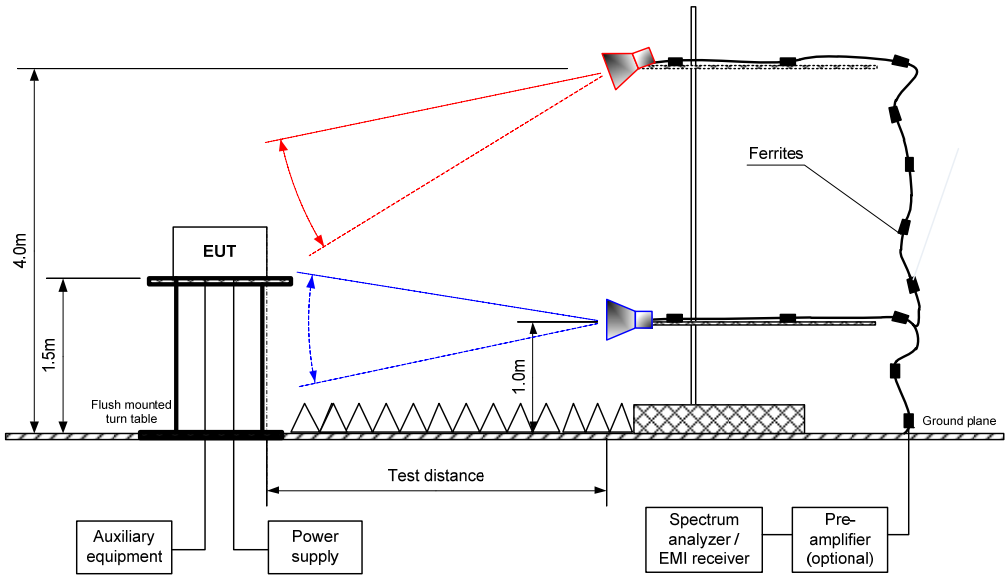


Figure 7.2.3 Setup for spurious emission field strength measurements above1000 MHz



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):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.5 Field strength of fundamental emission and 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)

Fundamental emission

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength			Avr factor, dB	Average field strength			Verdict
	Pol.	Height, m		Measured, B(μV/m)	Limit, dB(μV/m)	Margin, dB**		Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	
Channel bandwidth 20 MHz											
Modulation QPSK											
24010.0	Vert	1.5	0	119.91	128.0	-8.09	0	106.44	108.0	-1.56	Pass
24070.0	Vert	1.5	0	119.67	128.0	-8.33	0	106.63	108.0	-1.37	
24180.0	Vert	1.5	0	119.77	128.0	-8.23	0	106.60	108.0	-1.40	
24240.0	Vert	1.5	0	120.29	128.0	-7.71	0	107.10	108.0	-0.90	
Modulation 2048 QAM											
24010.0	Vert	1.5	0	117.75	128.0	-10.25	0	106.57	108.0	-1.43	Pass
24070.0	Vert	1.5	0	117.34	128.0	-10.66	0	106.46	108.0	-1.54	
24180.0	Vert	1.5	0	117.24	128.0	-10.76	0	106.84	108.0	-1.16	
24240.0	Vert	1.5	0	117.59	128.0	-10.41	0	106.88	108.0	-1.12	
Channel bandwidth 30 MHz											
Modulation QPSK											
24015.0	Vert	1.5	0	119.81	128.0	-8.19	0	104.87	108.0	-3.13	Pass
24065.0	Vert	1.5	0	118.94	128.0	-9.06	0	105.79	108.0	-2.21	
24185.0	Vert	1.5	0	119.63	128.0	-8.37	0	105.34	108.0	-2.66	
24235.0	Vert	1.5	0	119.10	128.0	-8.9	0	105.37	108.0	-2.63	
Modulation 2048 QAM											
24015.0	Vert	1.5	0	117.29	128.0	-10.71	0	106.42	108.0	-1.58	Pass
24065.0	Vert	1.5	0	118.59	128.0	-9.41	0	106.48	108.0	-1.52	
24185.0	Vert	1.5	0	116.74	128.0	-11.26	0	105.50	108.0	-2.50	
24235.0	Vert	1.5	0	117.11	128.0	-10.89	0	105.64	108.0	-2.36	
Channel bandwidth 40 MHz											
Modulation QPSK											
24020.0	Vert	1.5	0	119.60	128.0	-8.4	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	-8.5	0	104.46	108.0	-3.54	
Modulation 2048 QAM											
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	

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):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.4 Field strength of fundamental emission and spurious emissions (continued)

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)

Fundamental emission

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength			Avr factor, dB	Average field strength			Verdict
	Pol.	Height, m		Measured, B(μV/m)	Limit, dB(μV/m)	Margin, dB**		Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	
Channel bandwidth 50 MHz											
Modulation QPSK											
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	
Modulation 2048 QAM											
24025.0	Vert	1.5	0	114.54	128.0	-13.46	0	104.30	108.0	-3.70	Pass
24055.0	Vert	1.5	0	115.62	128.0	-12.38	0	104.30	108.0	-3.70	
24195.0	Vert	1.5	0	114.52	128.0	-13.48	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	
Channel bandwidth 60 MHz											
Modulation QPSK											
24030.0	Vert	1.5	0	117.11	128.0	-10.89	0	103.42	108.0	-4.58	Pass
24050.0	Vert	1.5	0	117.46	128.0	-10.54	0	103.07	108.0	-4.93	
24200.0	Vert	1.5	0	116.44	128.0	-11.56	0	103.02	108.0	-4.98	
24220.0	Vert	1.5	0	116.68	128.0	-11.32	0	103.7	108.0	-4.30	
Modulation 2048 QAM											
24030.0	Vert	1.5	0	114.04	128.0	-13.96	0	103.13	108.0	-4.87	Pass
24050.0	Vert	1.5	0	113.96	128.0	-14.04	0	102.73	108.0	-5.27	
24200.0	Vert	1.5	0	113.91	128.0	-14.09	0	102.90	108.0	-5.10	
24220.0	Vert	1.5	0	113.56	128.0	-14.44	0	102.64	108.0	-5.36	

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):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Table 7.2.4 Field strength of fundamental emission and spurious emissions (continued)

Spurious emission

Frequency, MHz	Antenna		Azimuth, degrees*	Peak emission, dB(μV/m)	Quasi-peak			Verdict
	Pol.	Height, m			Measured emission, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	
32.0	V	1.0	30	42.2	36.7	40.0	-3.3	Pass
147.2	H	1.2	258	40.8	38.6	43.5	-4.9	
220.0	H	1.5	71	41.7	41.1	43.5	-2.4	
375.0	H	1.0	56	34.1	33.8	46.0	-12.2	
660.0	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**	
Spurious emissions											
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).

Table 7.2.6 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: $$Average\ factor = 20 \times \log_{10}\left(\frac{Pulse\ duration}{Pulse\ period} \times \frac{Burst\ duration}{Train\ duration} \times Number\ of\ bursts\ within\ pulse\ train\right)$$

Reference numbers of test equipment used

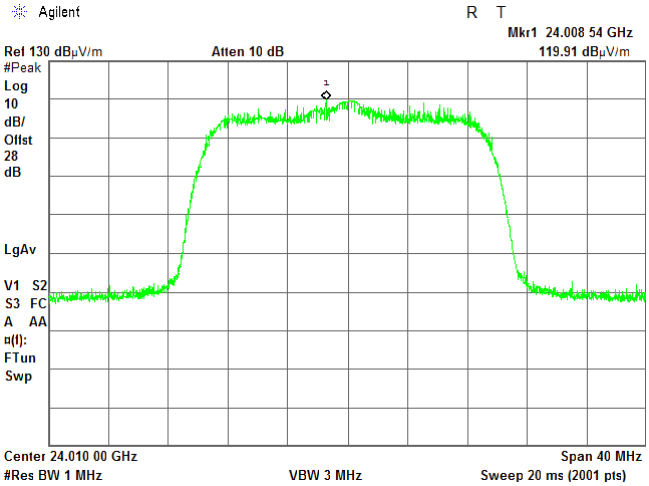
HL 0446	HL 0604	HL 0770	HL 0771	HL 0772	HL 1299	HL 1300	HL 2909
HL 3235	HL 3294	HL 3297	HL 3305	HL 3433	HL 3434	HL 3818	HL 4280
HL 4353	HL 4933	HL 4956	HL 5112				

Full description is given in Appendix A.

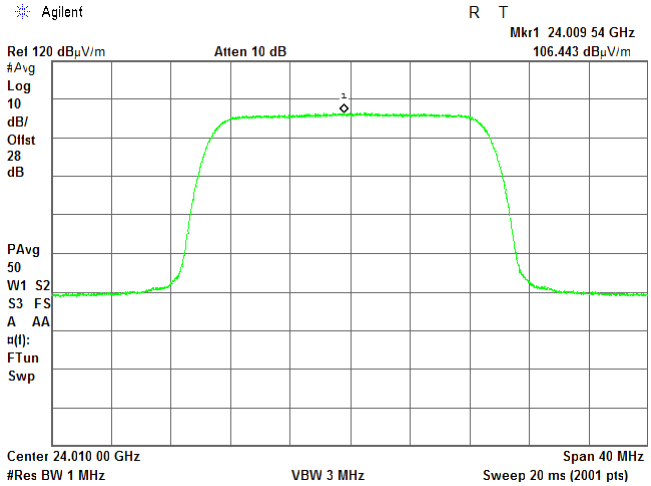
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.1 Radiated emission measurements at the fundamental frequency

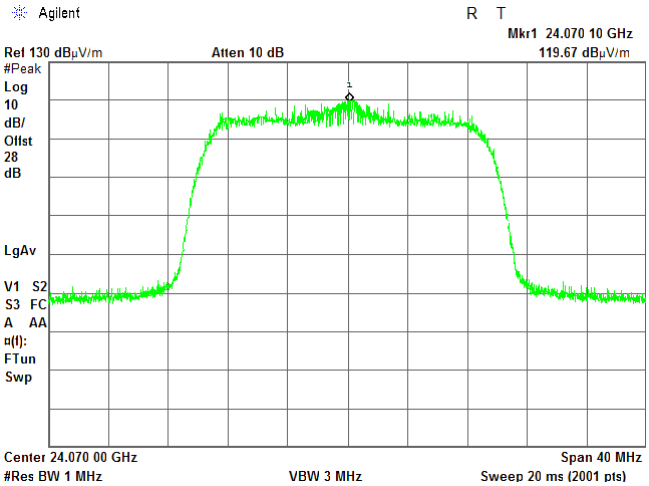
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz QPSK
CARRIER FREQUENCY: Low
DETECTOR: Peak



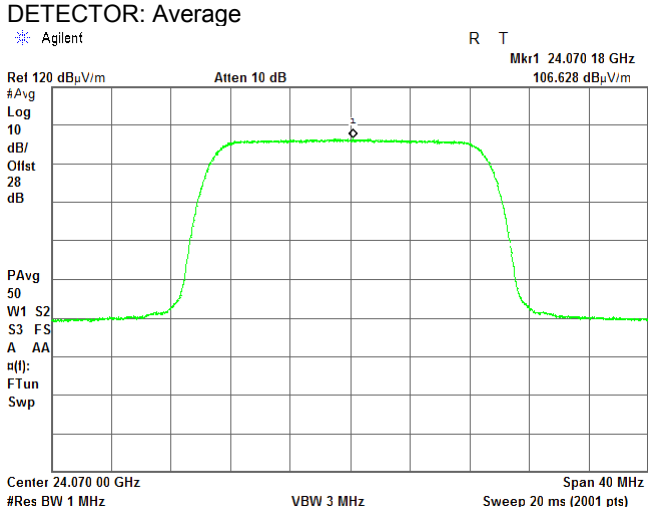
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

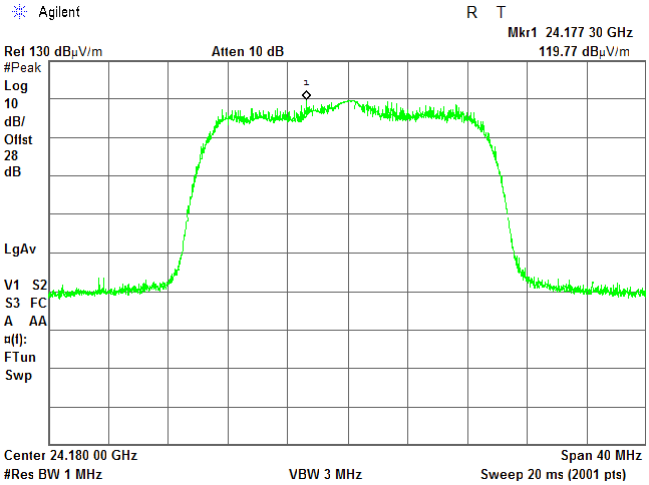


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

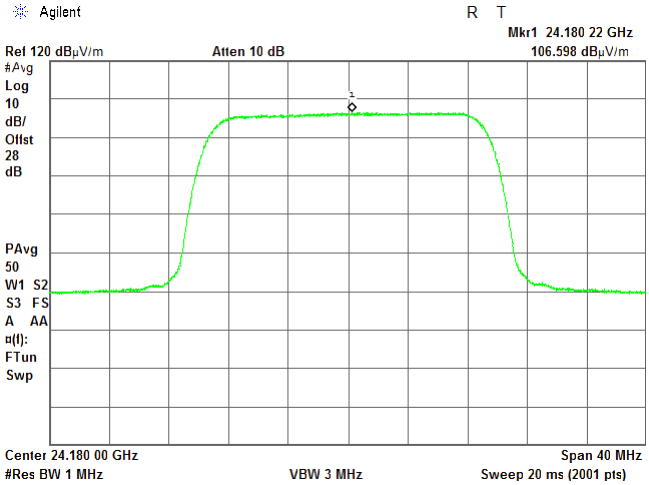
Plot 7.2.2 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz QPSK

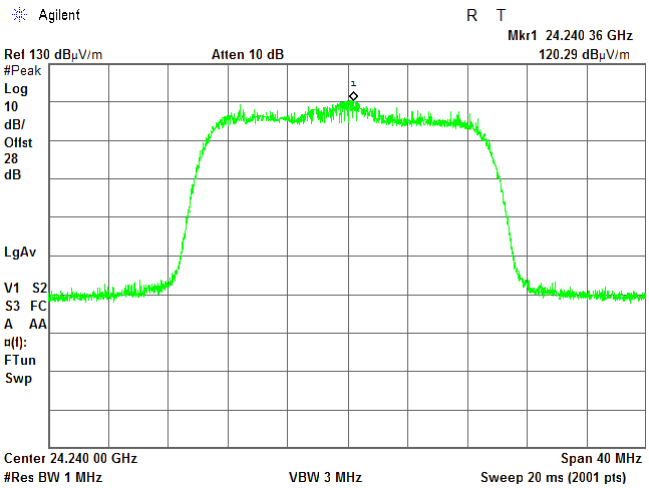
CARRIER FREQUENCY: Mid
DETECTOR: Peak



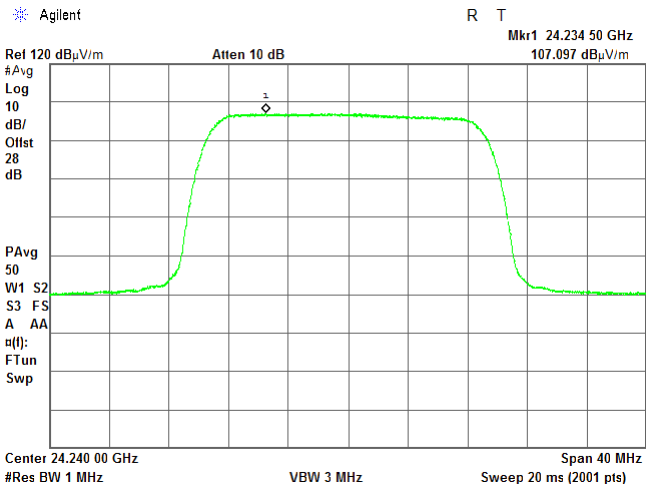
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



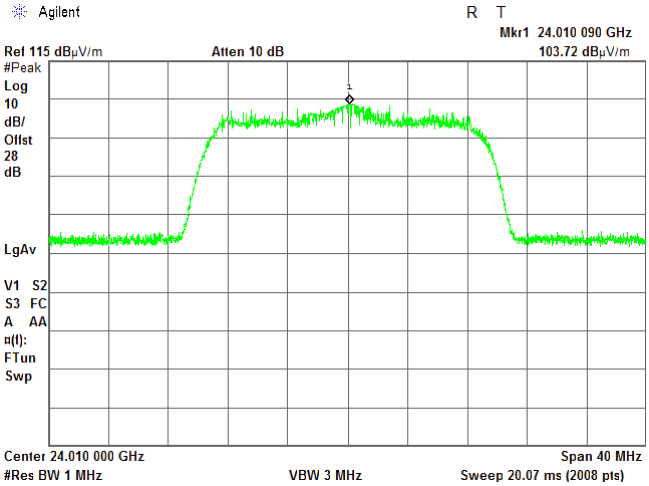
DETECTOR: Average



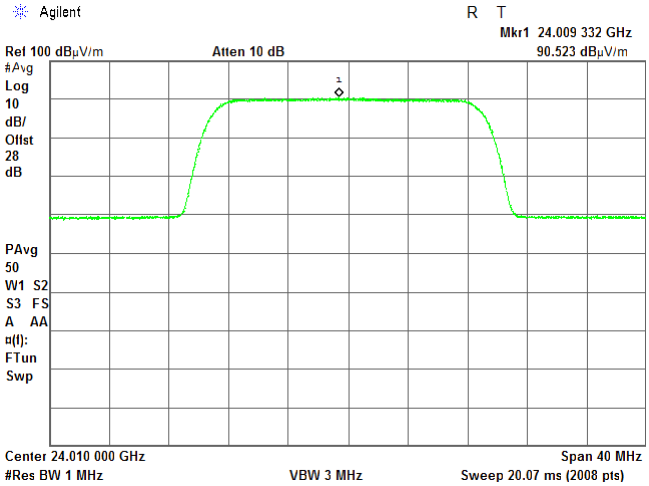
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.3 Radiated emission measurements at the fundamental frequency

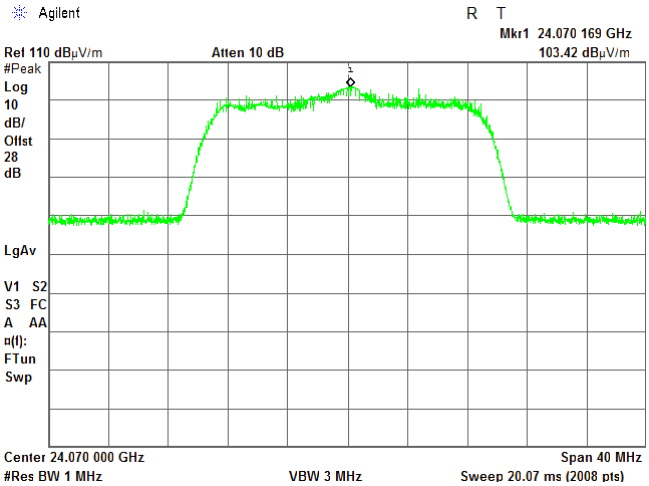
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz QPSK
CARRIER FREQUENCY: Low
DETECTOR: Peak



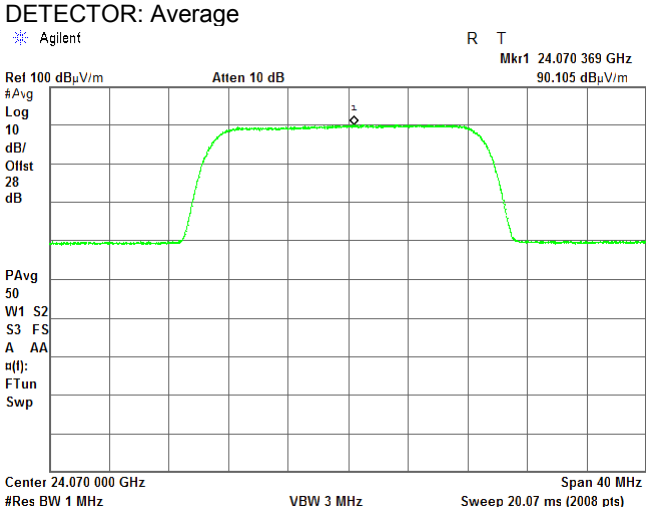
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

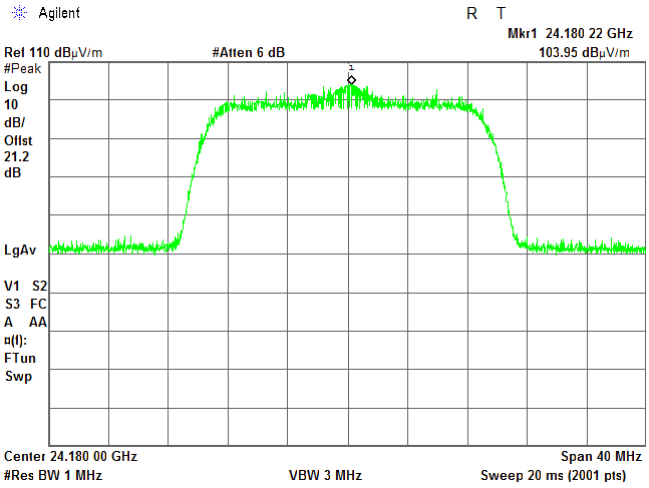


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

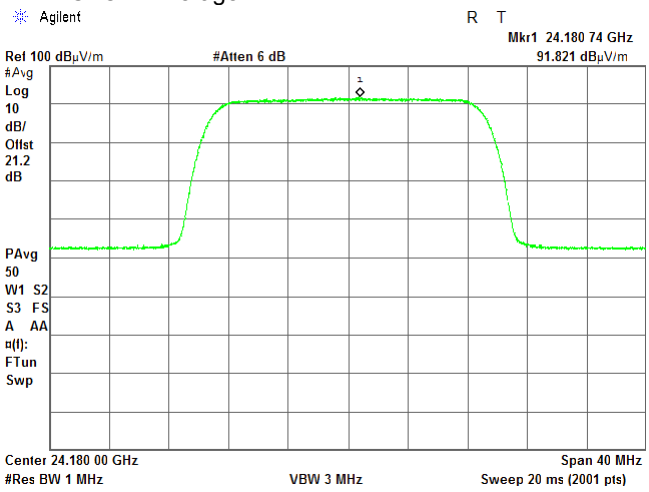
Plot 7.2.4 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz QPSK

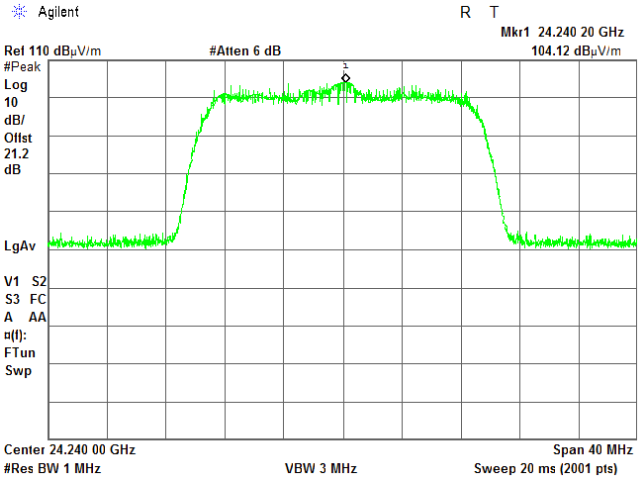
CARRIER FREQUENCY: Mid
DETECTOR: Peak



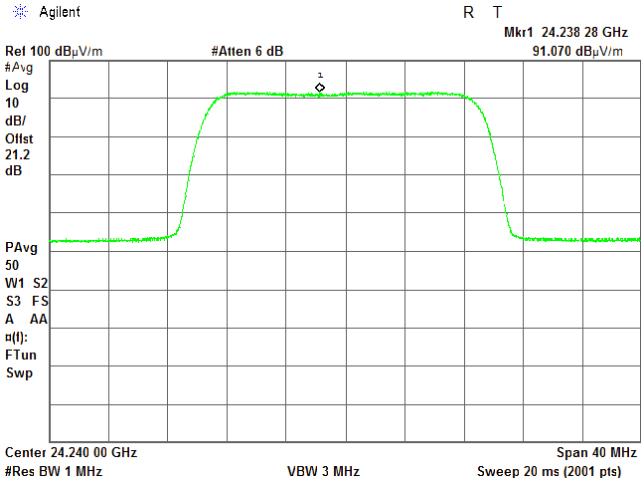
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



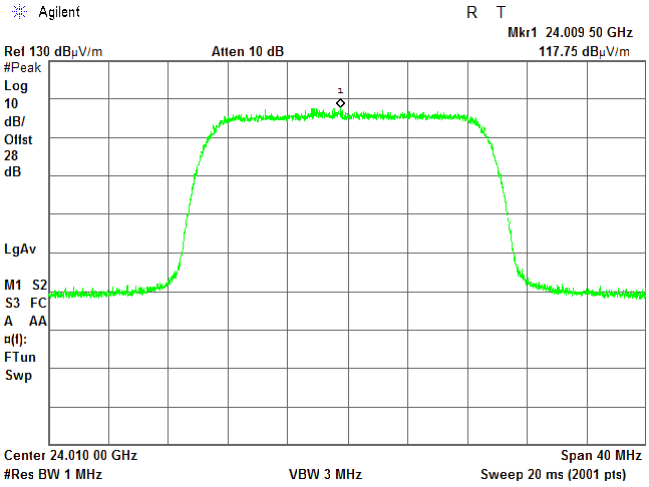
DETECTOR: Average



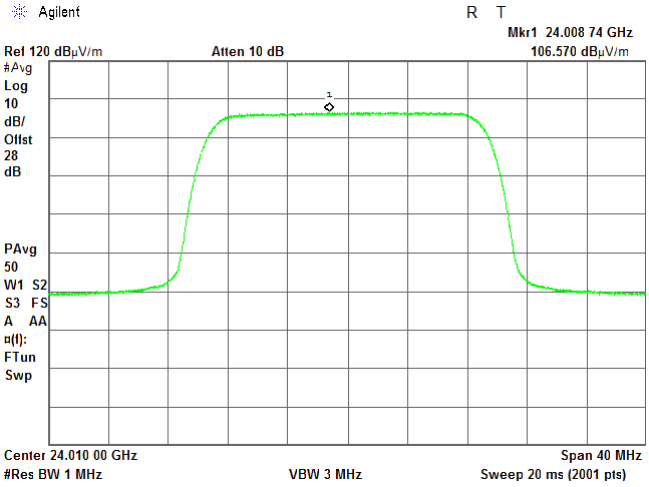
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.5 Radiated emission measurements at the fundamental frequency

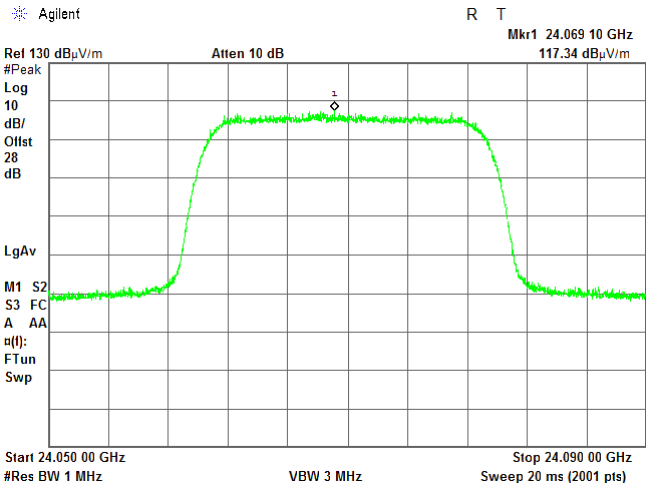
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
CARRIER FREQUENCY: Low
DETECTOR: Peak



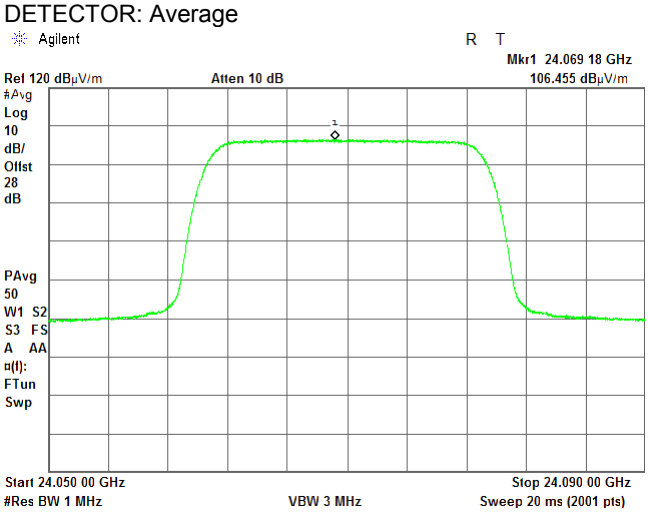
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average



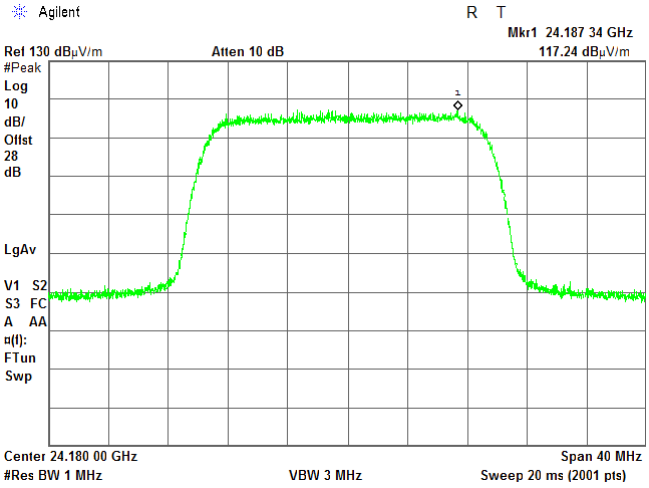
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.6 Radiated emission measurements at the fundamental frequency

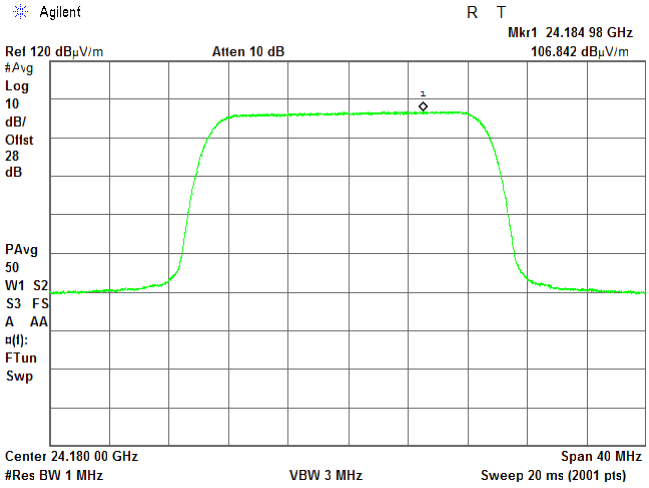
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)

CARRIER FREQUENCY: Mid

DETECTOR: Peak

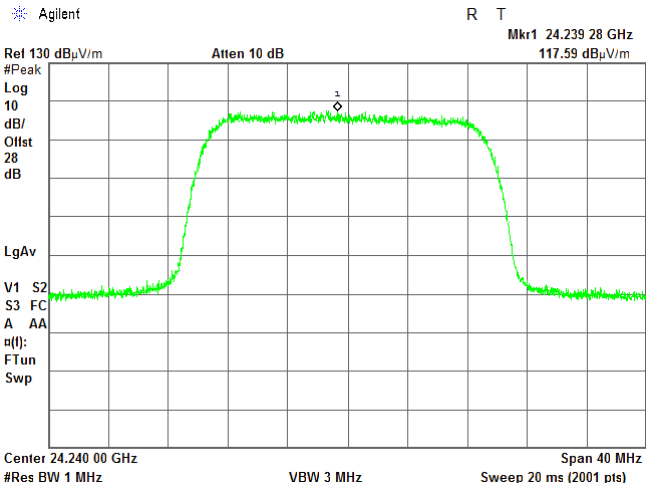


DETECTOR: Average

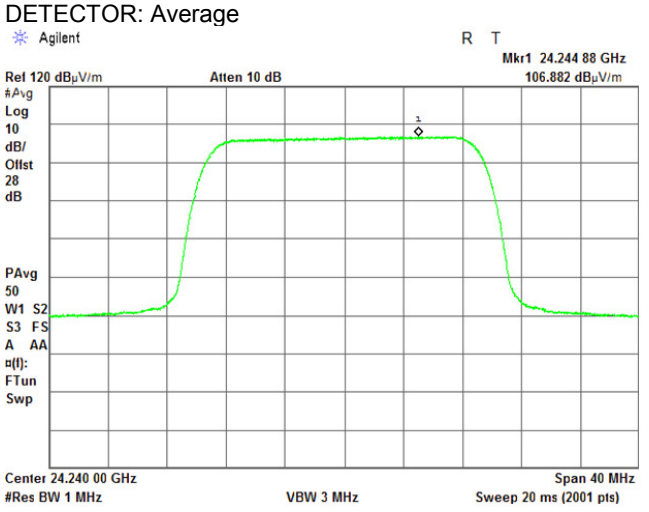


CARRIER FREQUENCY: High

DETECTOR: Peak



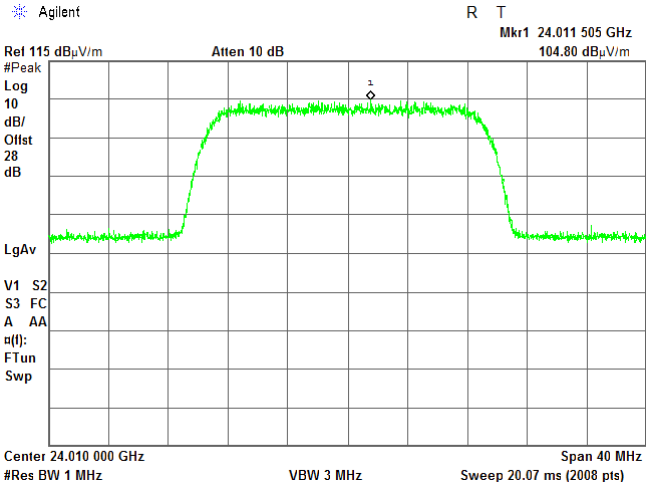
DETECTOR: Average



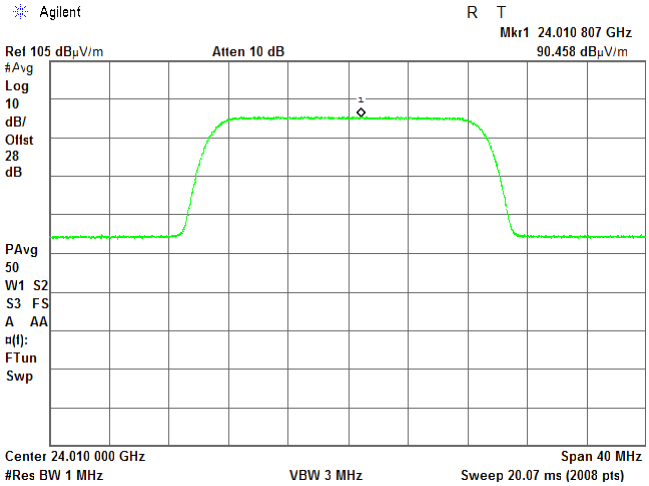
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.7 Radiated emission measurements at the fundamental frequency

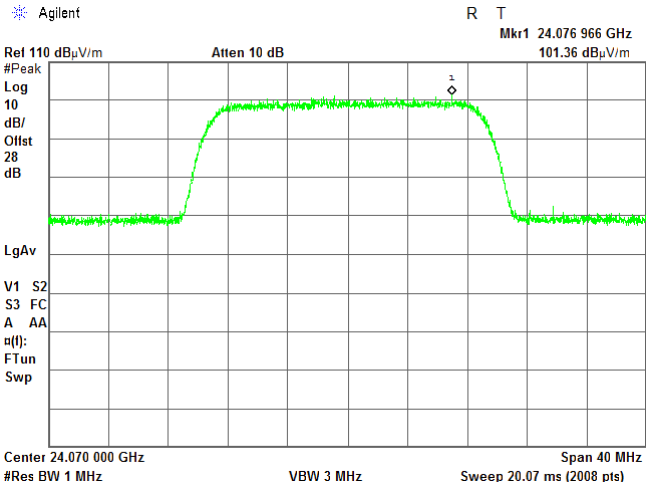
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz 2048QAM
CARRIER FREQUENCY: Low
DETECTOR: Peak



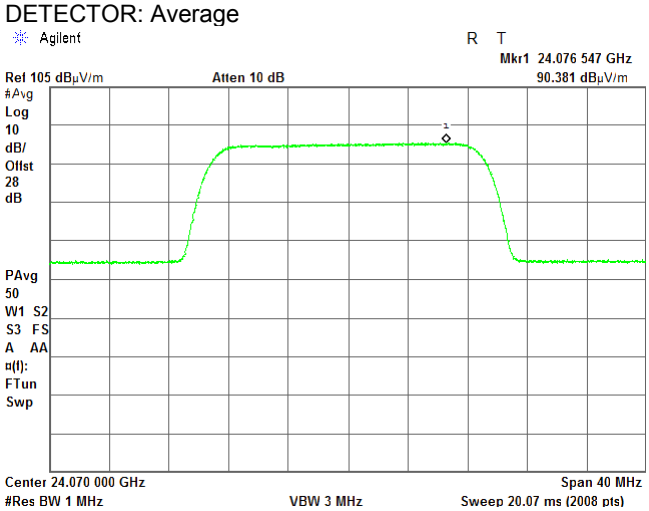
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

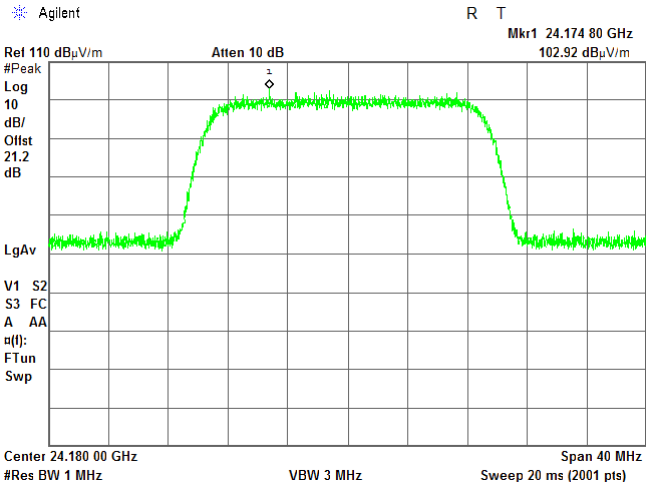


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

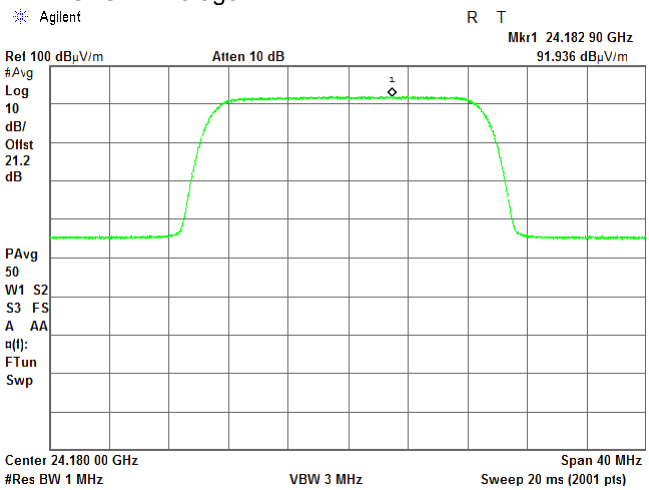
Plot 7.2.8 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz 2048QAM

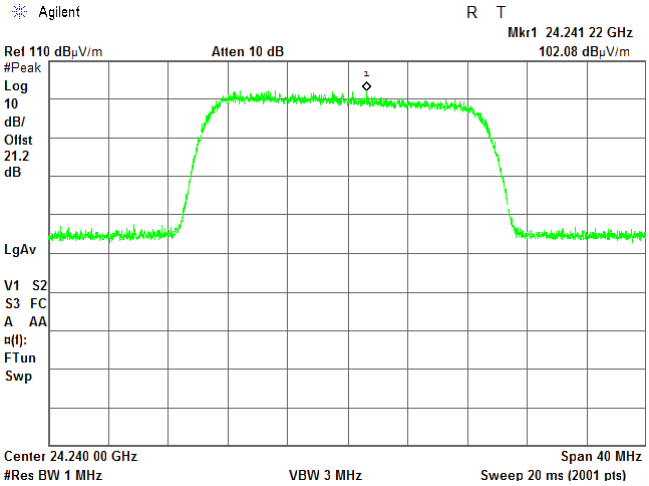
CARRIER FREQUENCY: Mid
DETECTOR: Peak



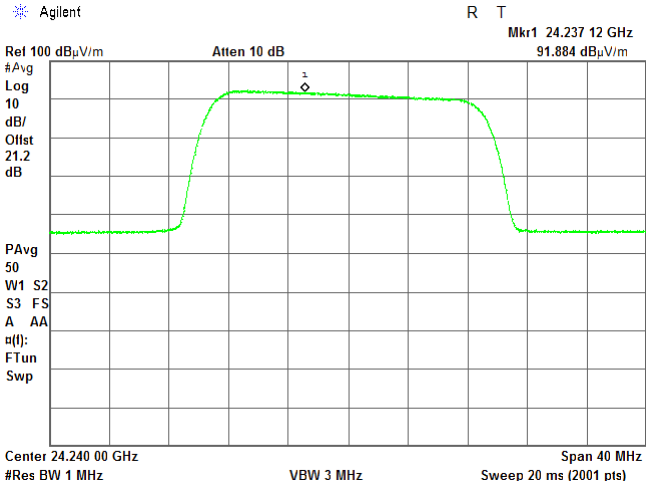
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



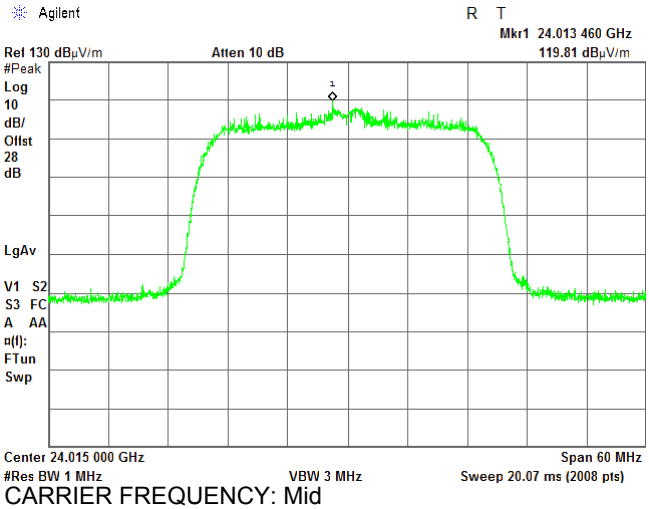
DETECTOR: Average



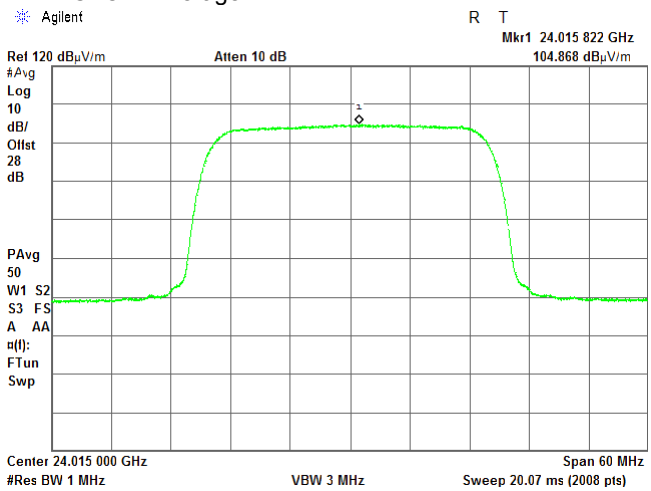
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.9 Radiated emission measurements at the fundamental frequency

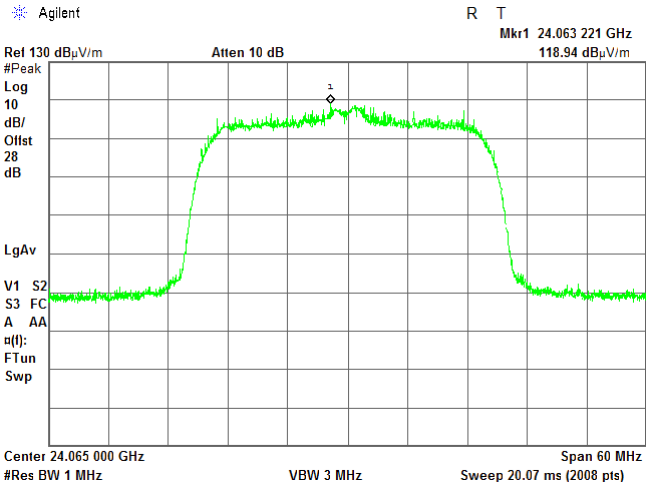
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz QPSK
CARRIER FREQUENCY: Low
DETECTOR: Peak



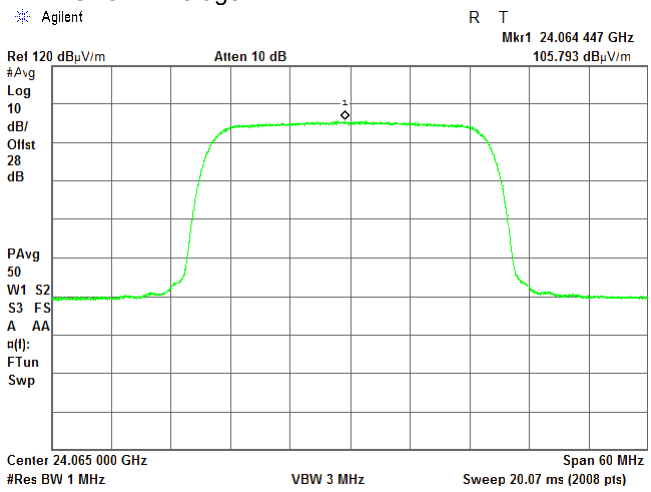
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



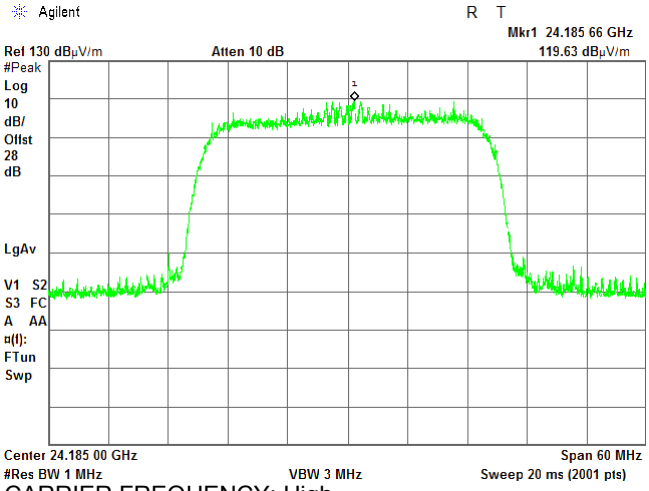
DETECTOR: Average



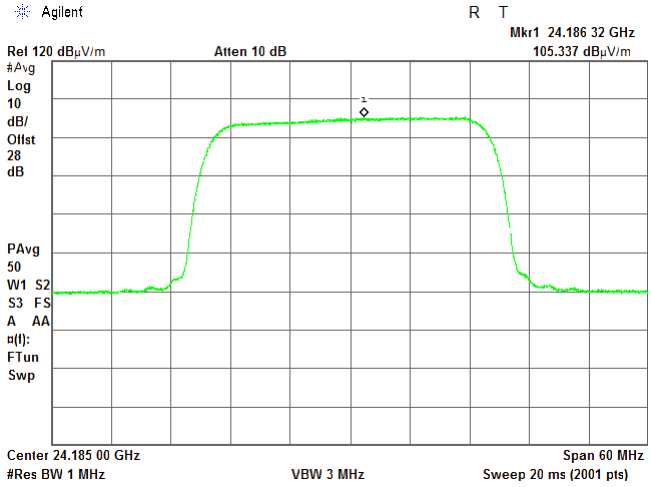
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.10 Radiated emission measurements at the fundamental frequency

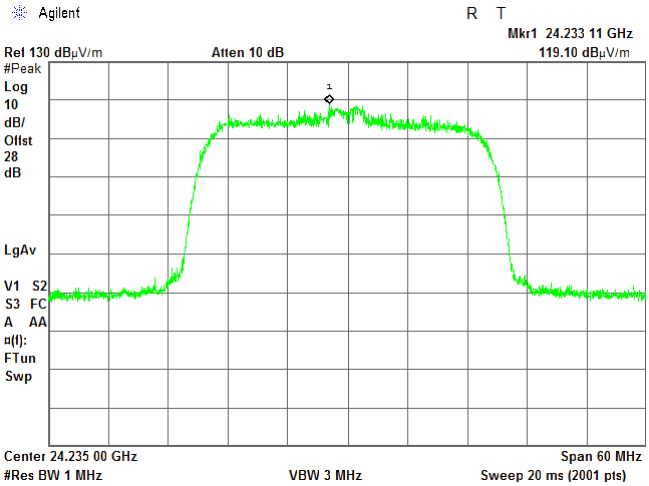
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz QPSK
DETECTOR: Peak



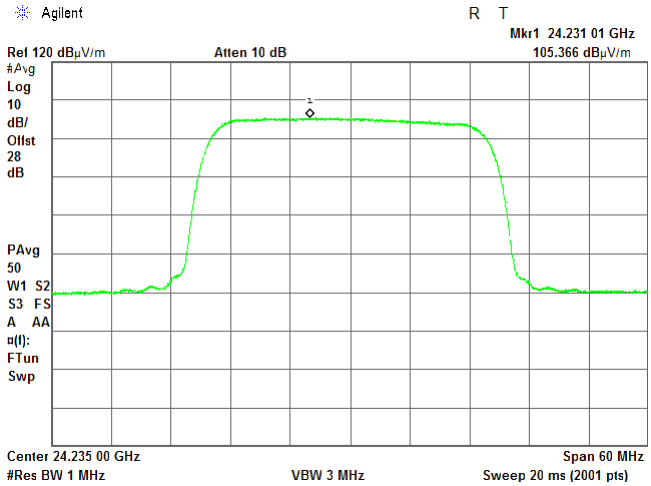
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



DETECTOR: Average
CARRIER FREQUENCY: Mid

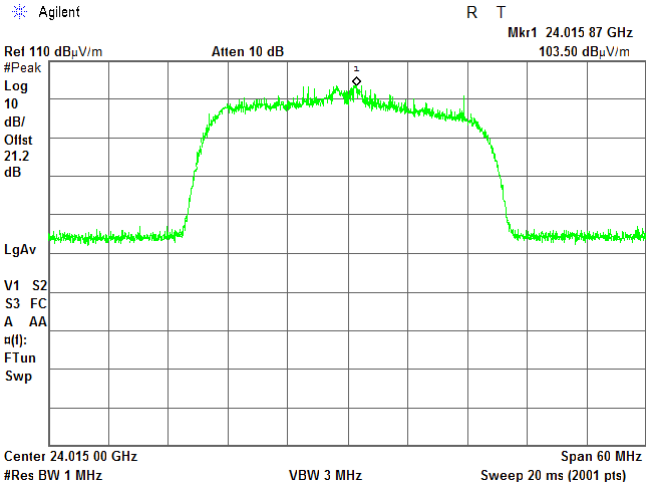


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

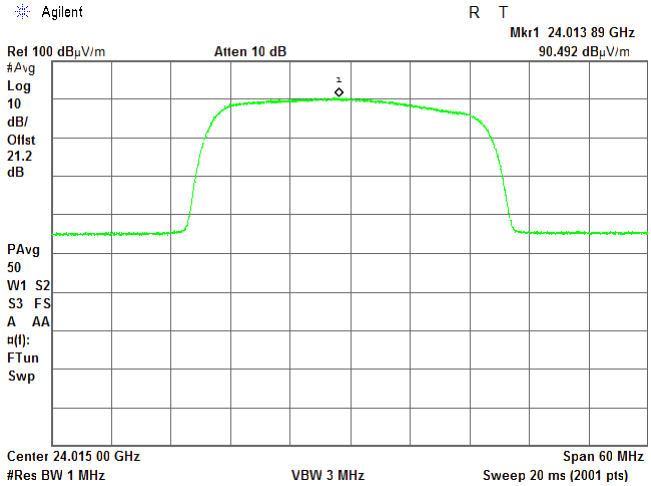
Plot 7.2.11 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz QPSK
CARRIER FREQUENCY: Low

DETECTOR: Peak



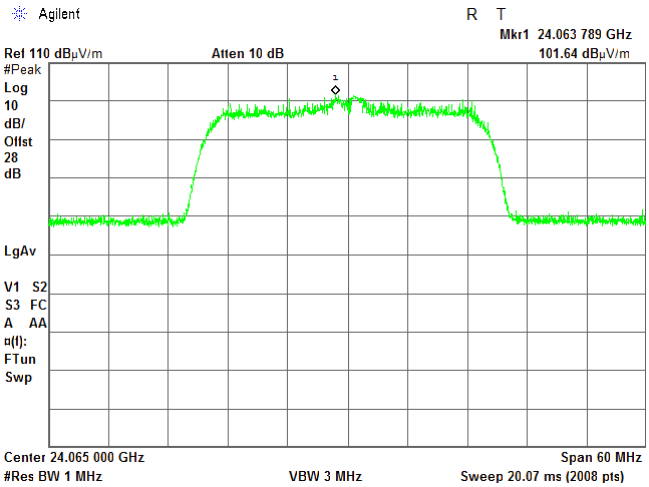
DETECTOR: Average



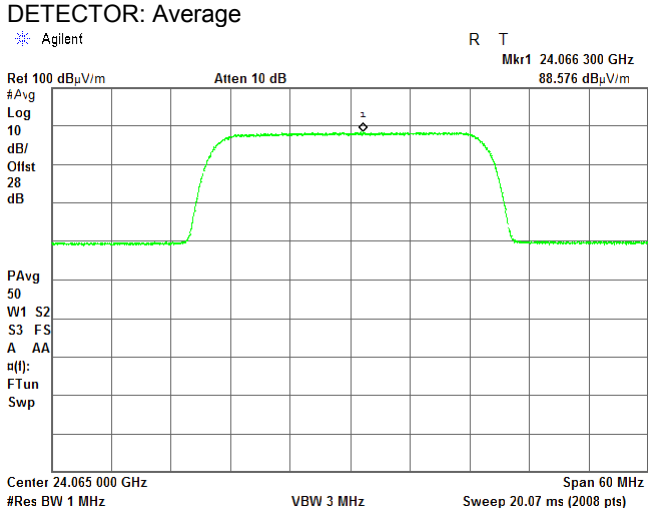
Plot 7.2.12 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz QPSK
CARRIER FREQUENCY: Mid

DETECTOR: Peak



DETECTOR: Average

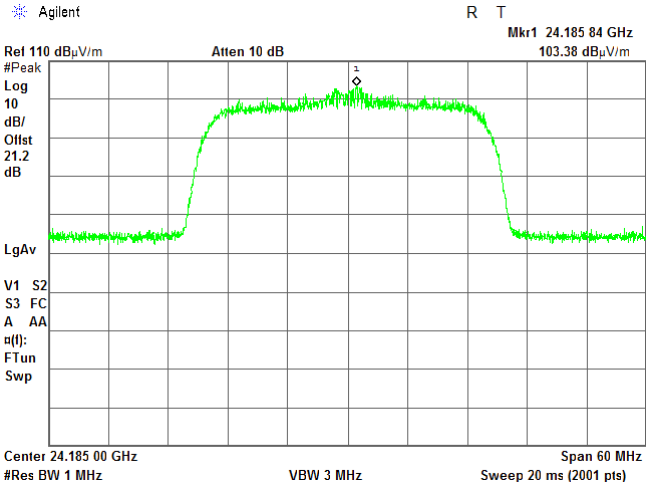


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

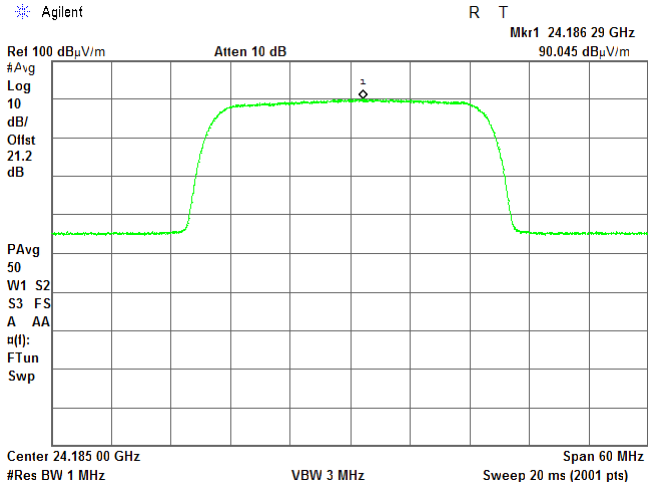
Plot 7.2.13 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz QPSK
CARRIER FREQUENCY: Mid

DETECTOR: Peak



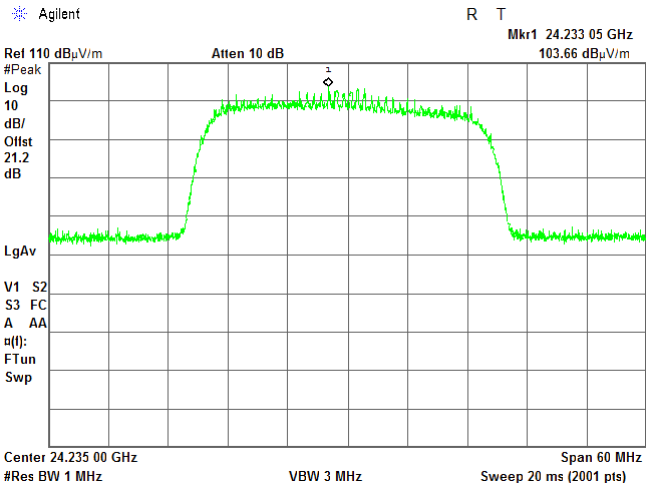
DETECTOR: Average



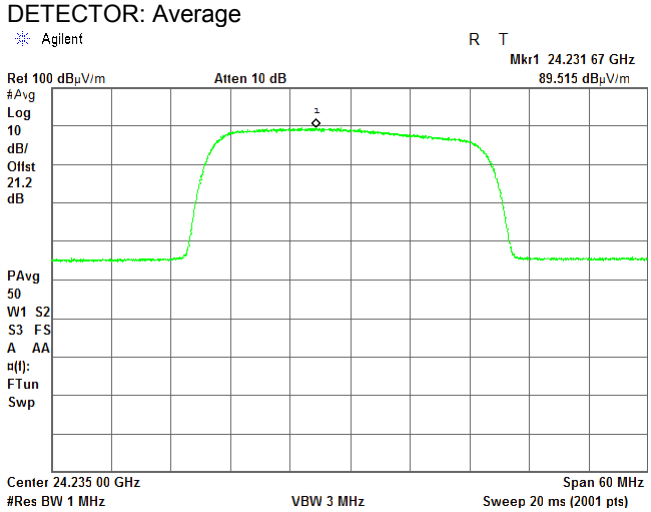
Plot 7.2.14 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz QPSK
CARRIER FREQUENCY: High

DETECTOR: Peak



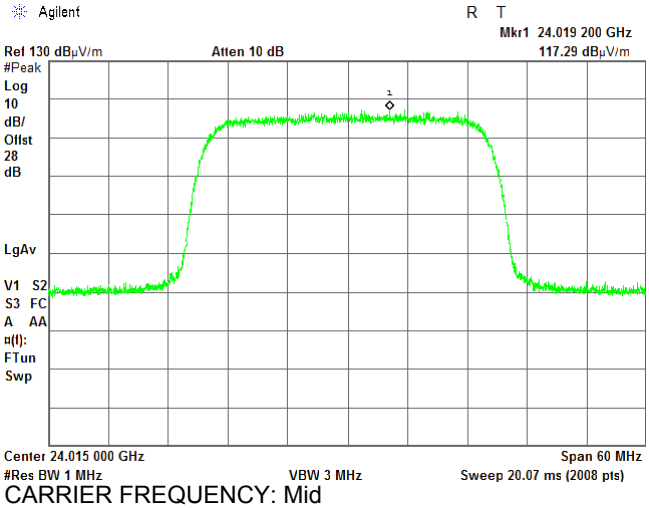
DETECTOR: Average



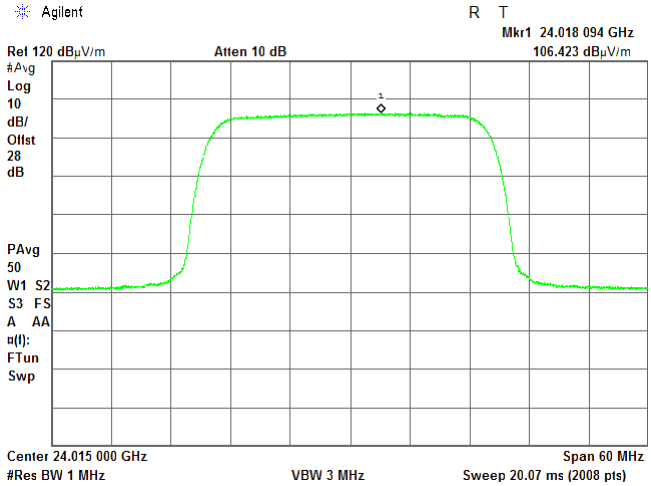
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.15 Radiated emission measurements at the fundamental frequency

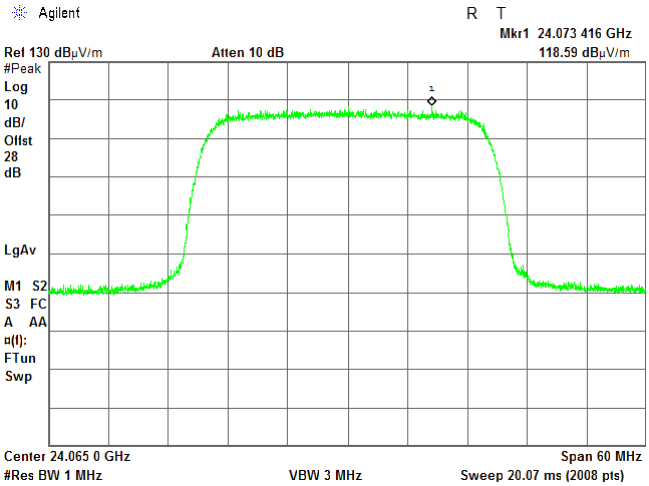
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz 2048QAM
CARRIER FREQUENCY: Low
DETECTOR: Peak



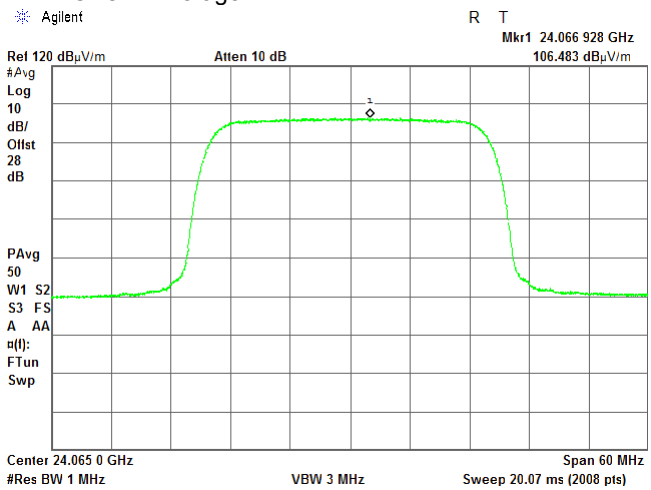
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

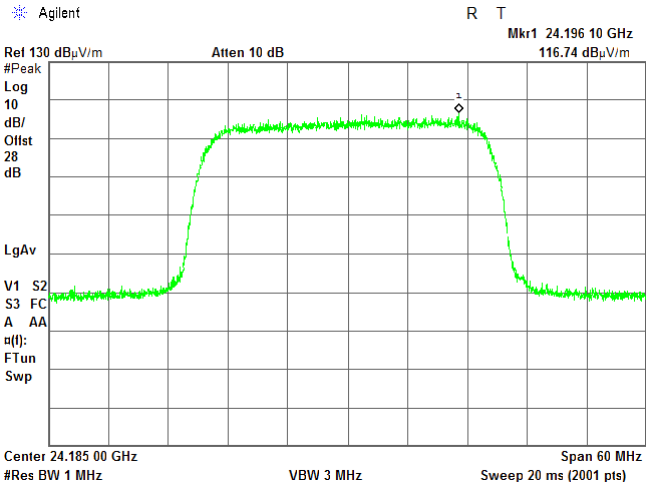


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

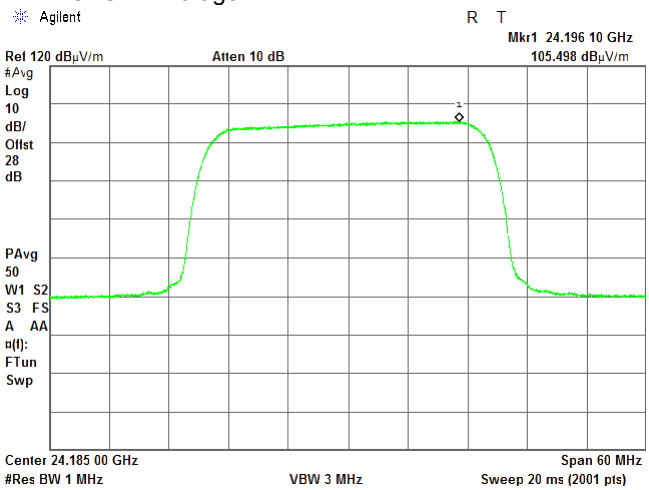
Plot 7.2.16 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz 2048QAM

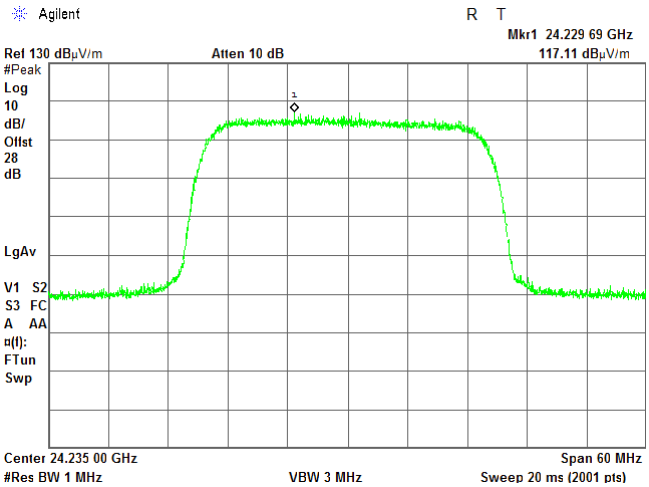
CARRIER FREQUENCY: Mid
DETECTOR: Peak



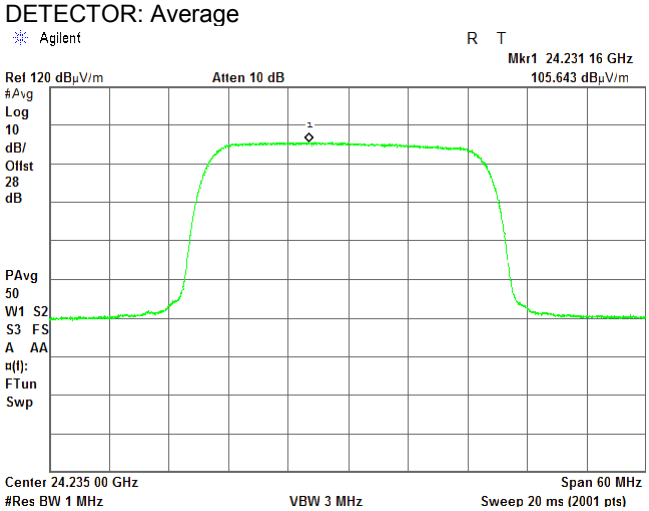
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



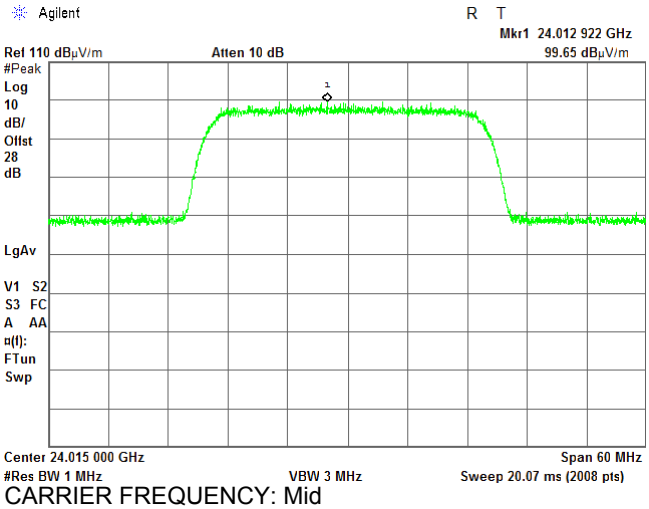
DETECTOR: Average



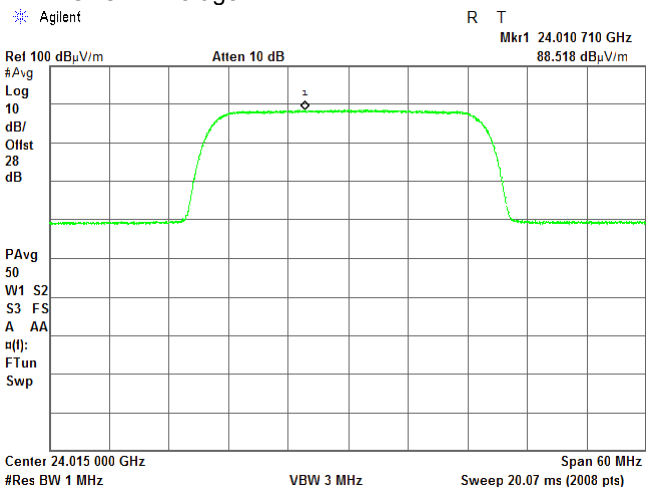
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.17 Radiated emission measurements at the fundamental frequency

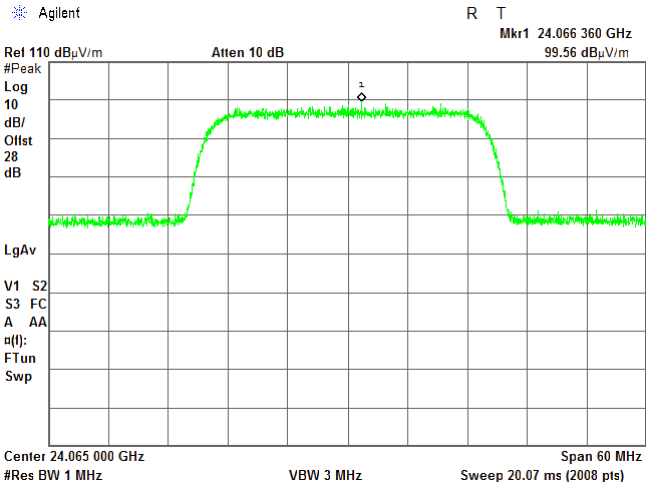
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz 2048QAM
CARRIER FREQUENCY: Low
DETECTOR: Peak



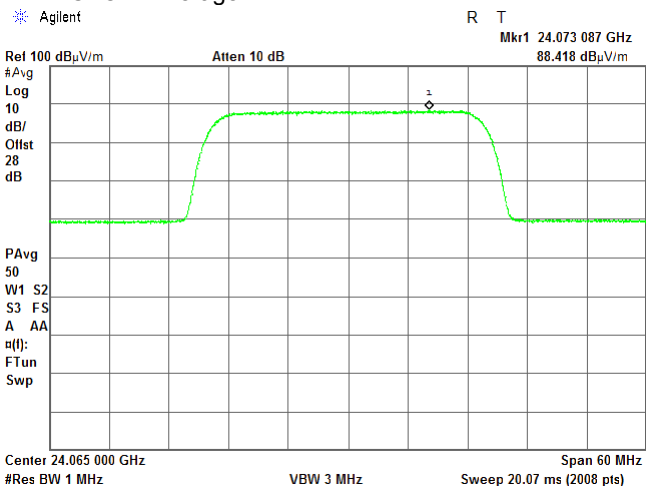
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



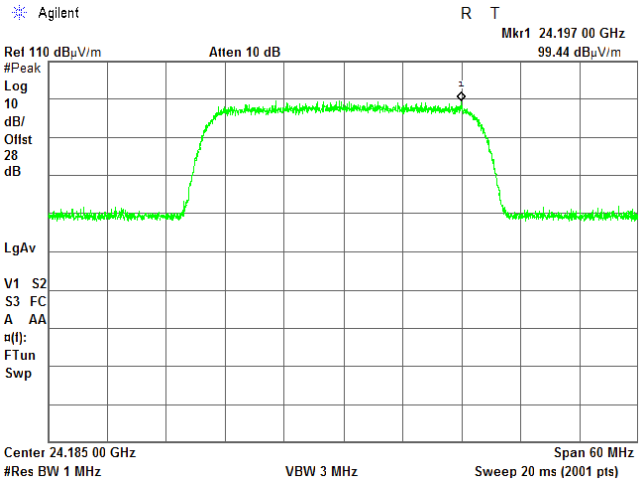
DETECTOR: Average



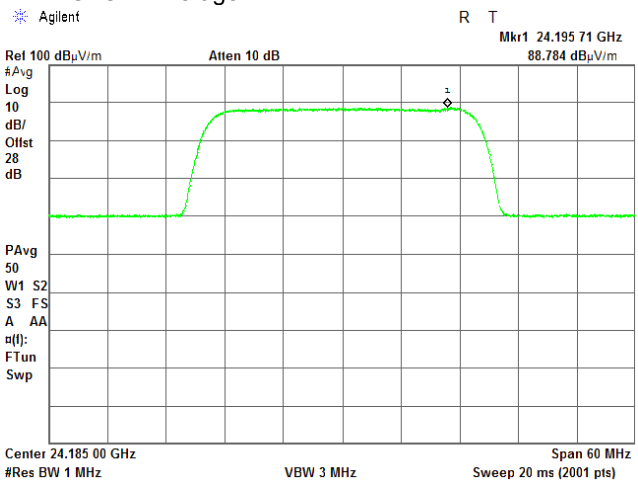
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.18 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz 2048QAM
CARRIER FREQUENCY: Mid
DETECTOR: Peak

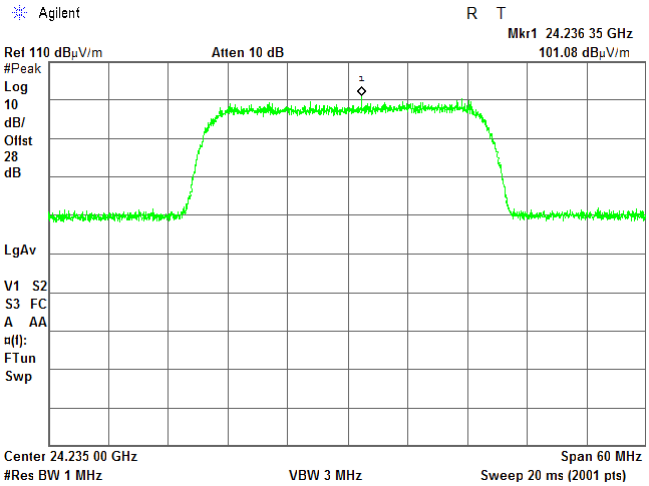


DETECTOR: Average

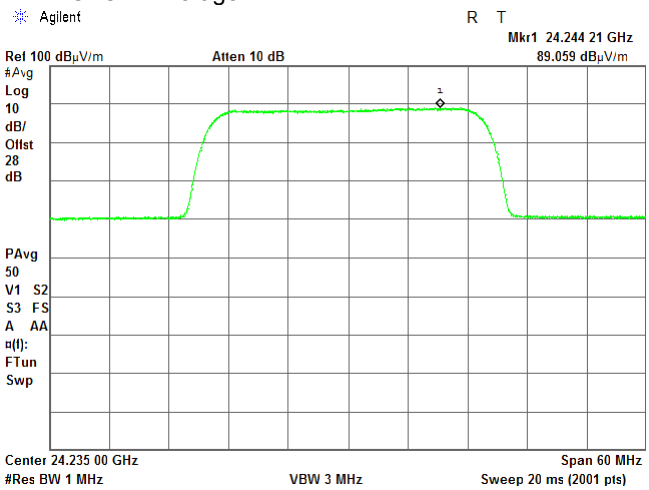


Plot 7.2.19 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz 2048QAM
CARRIER FREQUENCY: High
DETECTOR: Peak



DETECTOR: Average

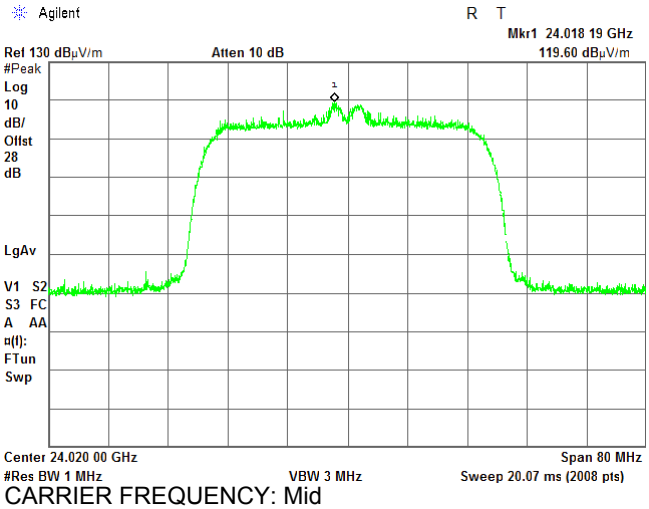


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

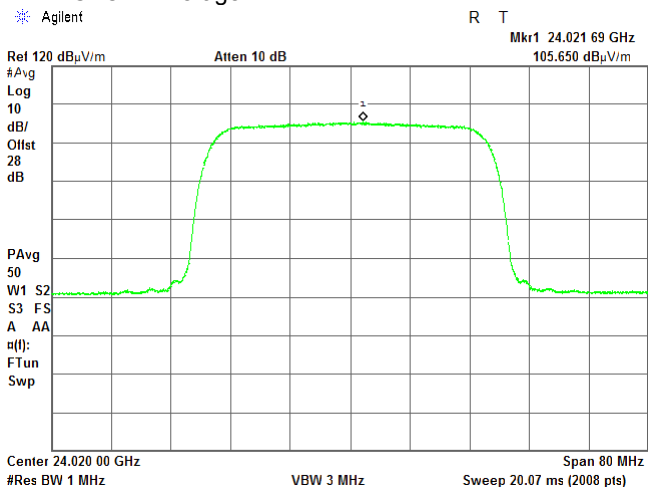
Plot 7.2.20 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz QPSK
CARRIER FREQUENCY: Low

DETECTOR: Peak

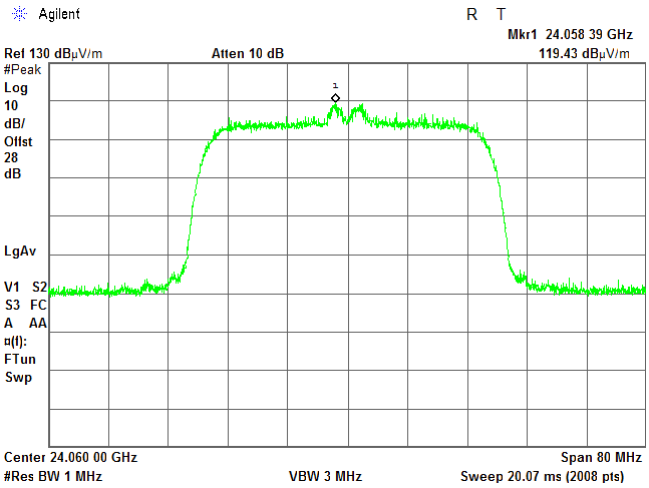


DETECTOR: Average

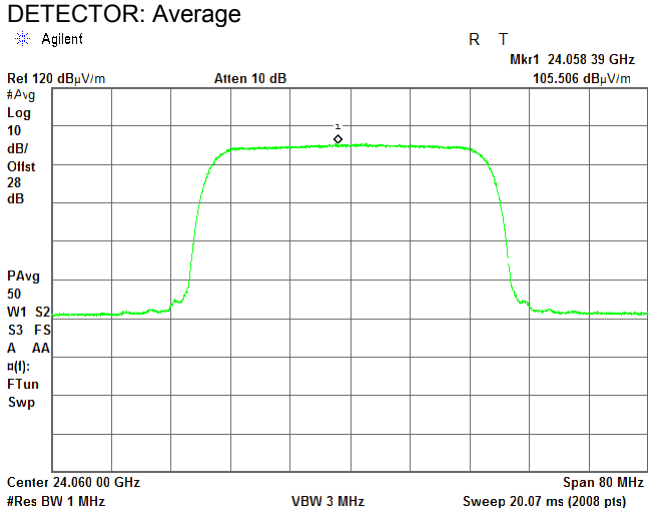


CARRIER FREQUENCY: Mid

DETECTOR: Peak



DETECTOR: Average

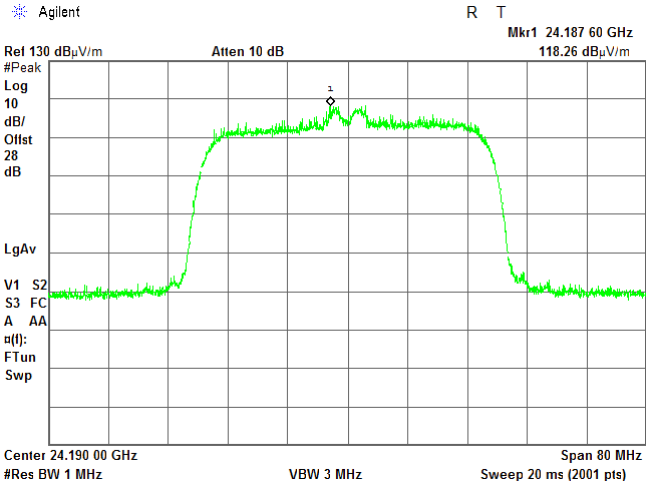


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

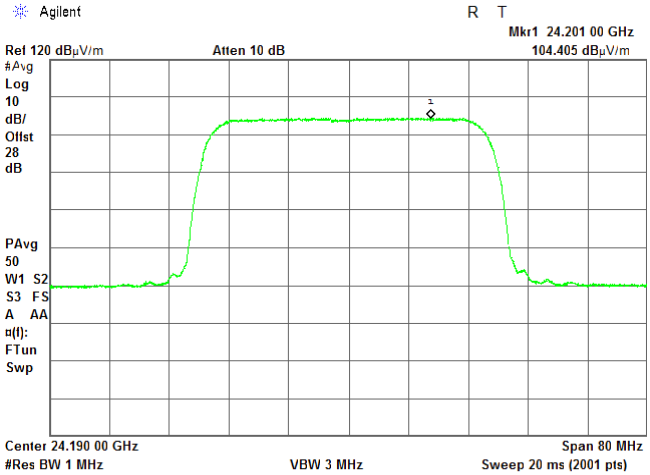
Plot 7.2.21 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz QPSK

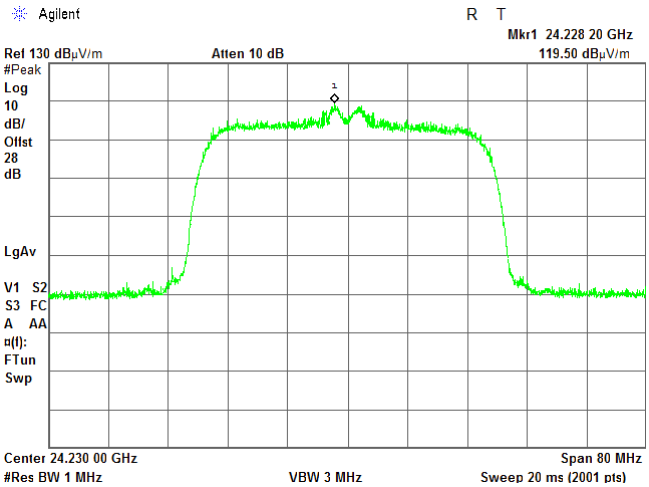
CARRIER FREQUENCY: Mid
DETECTOR: Peak



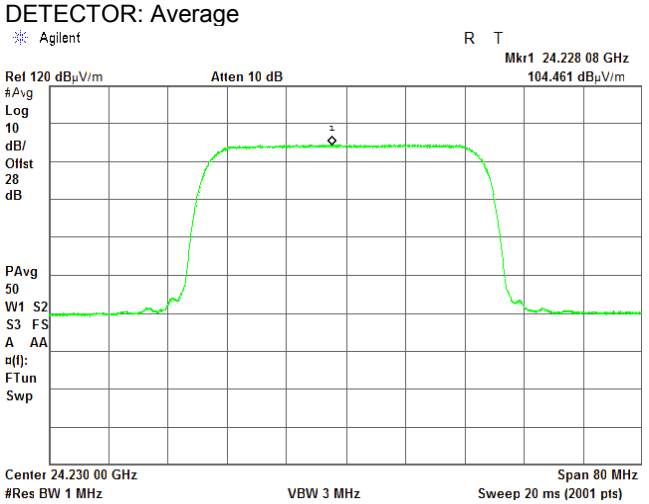
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



DETECTOR: Average

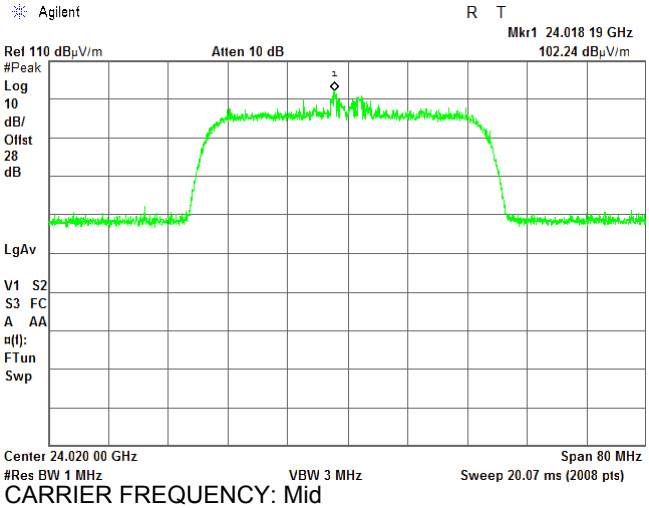


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

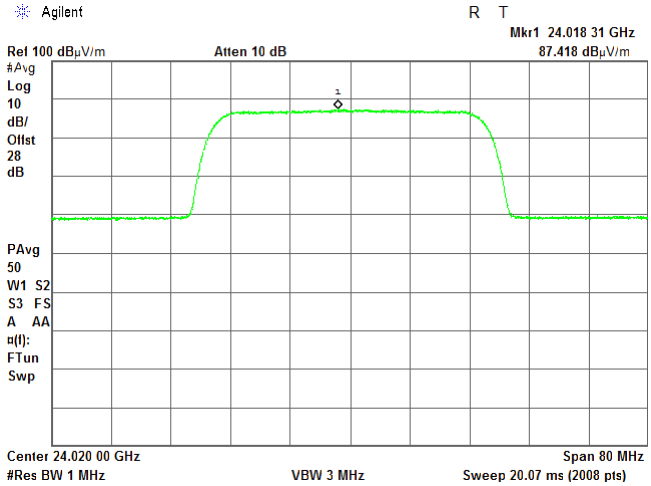
Plot 7.2.22 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz QPSK
CARRIER FREQUENCY: Low

DETECTOR: Peak

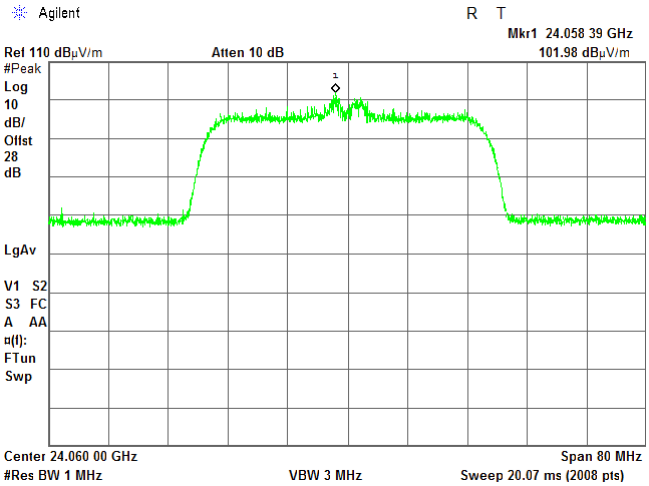


DETECTOR: Average

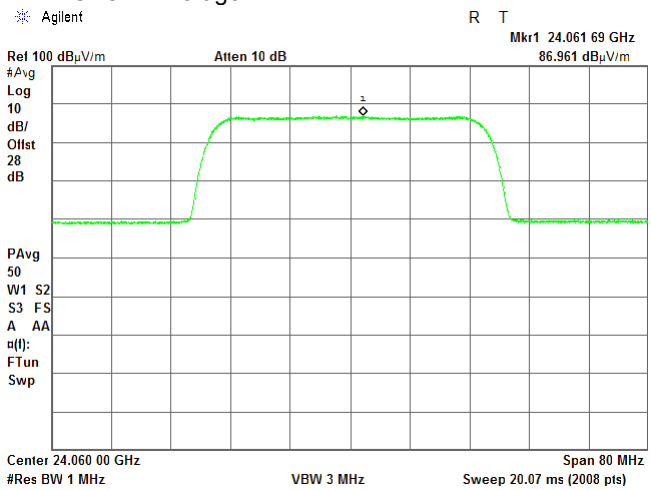


CARRIER FREQUENCY: Mid

DETECTOR: Peak



DETECTOR: Average

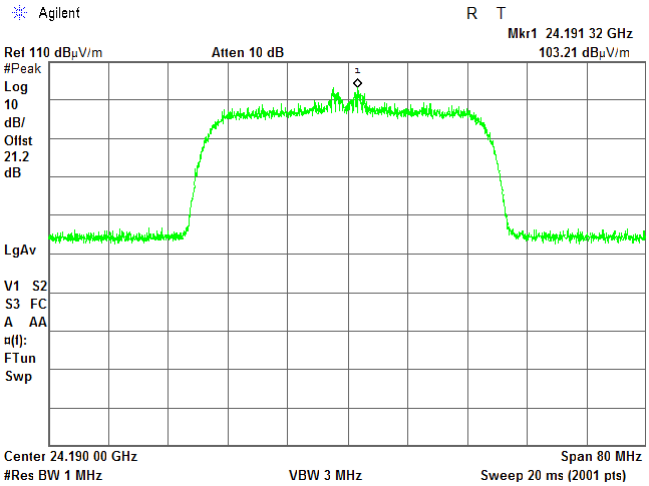


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

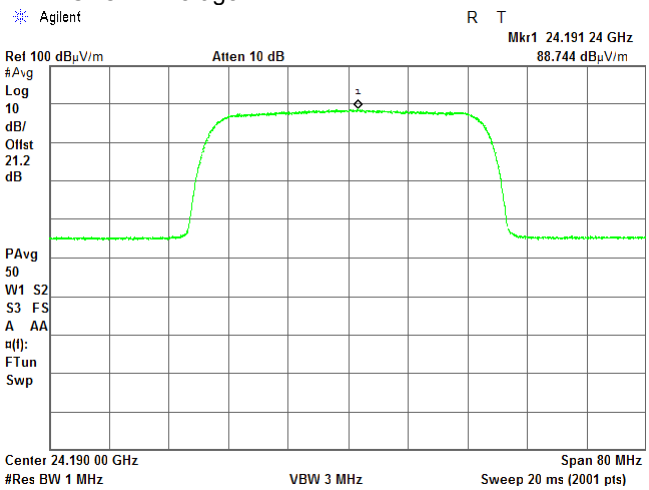
Plot 7.2.23 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz QPSK

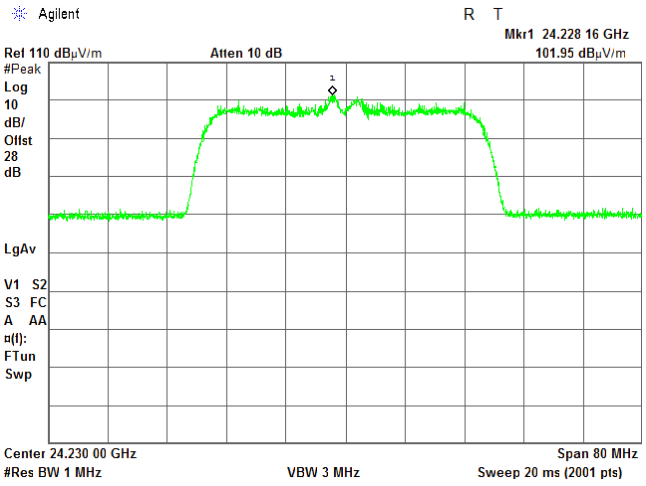
CARRIER FREQUENCY: Mid
DETECTOR: Peak



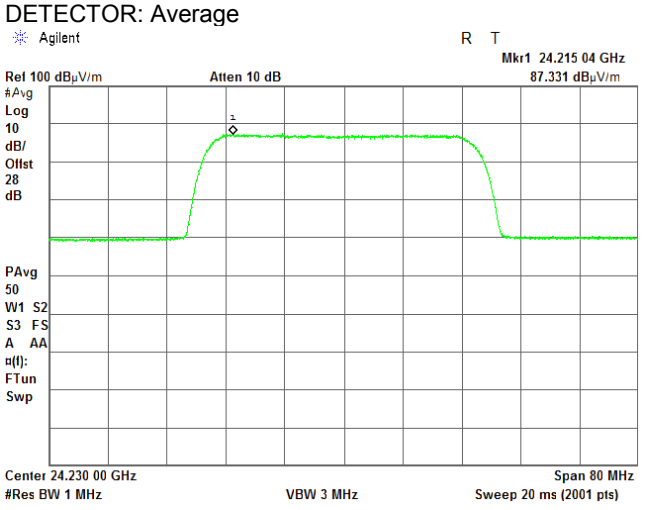
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



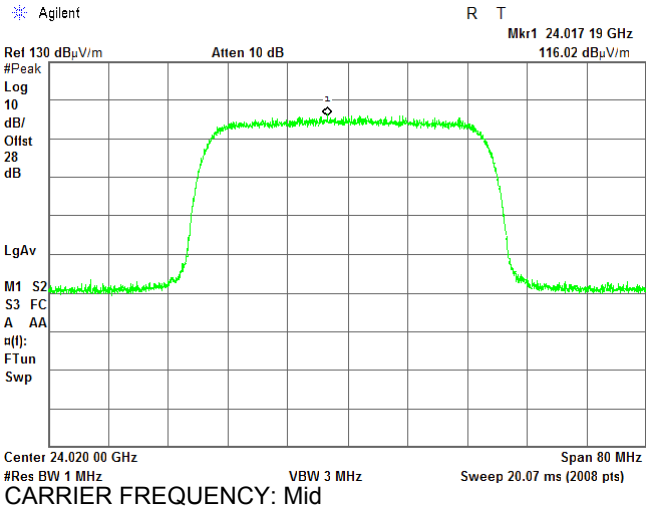
DETECTOR: Average



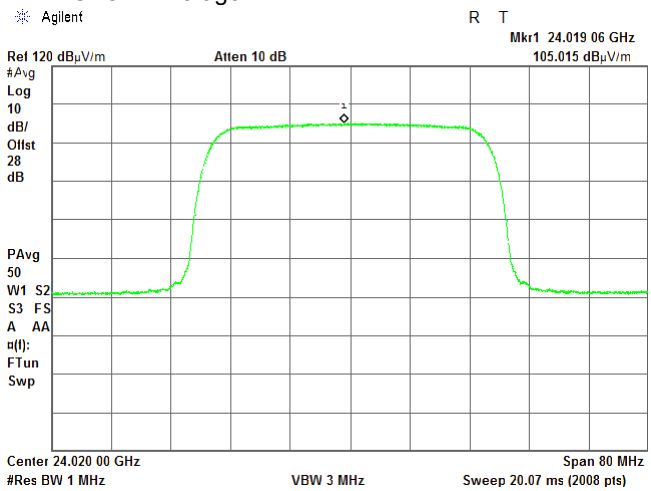
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.24 Radiated emission measurements at the fundamental frequency

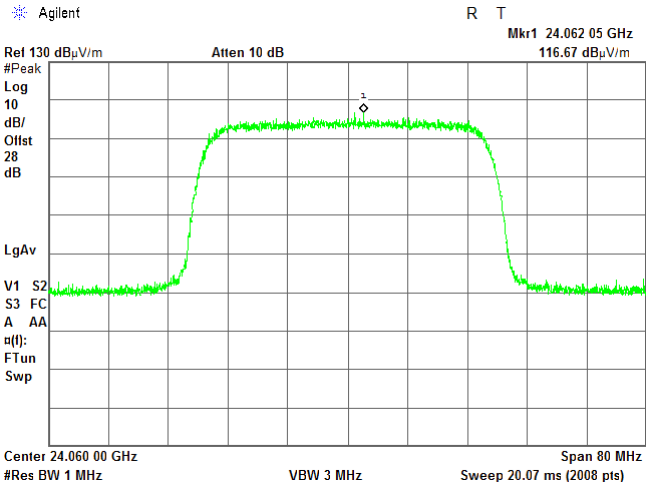
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz 2048QAM
CARRIER FREQUENCY: Low
DETECTOR: Peak



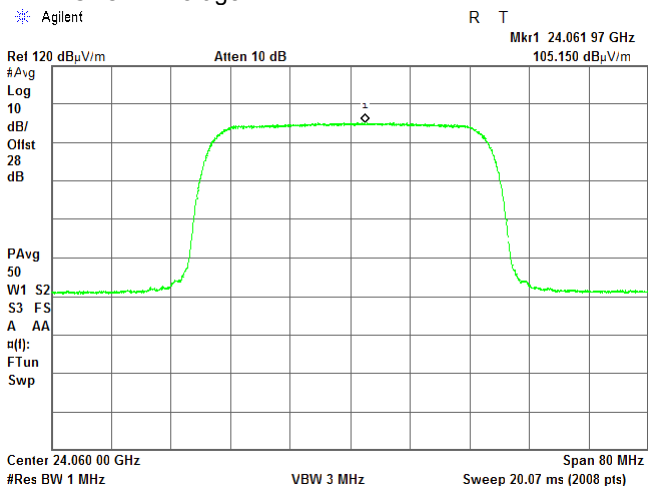
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

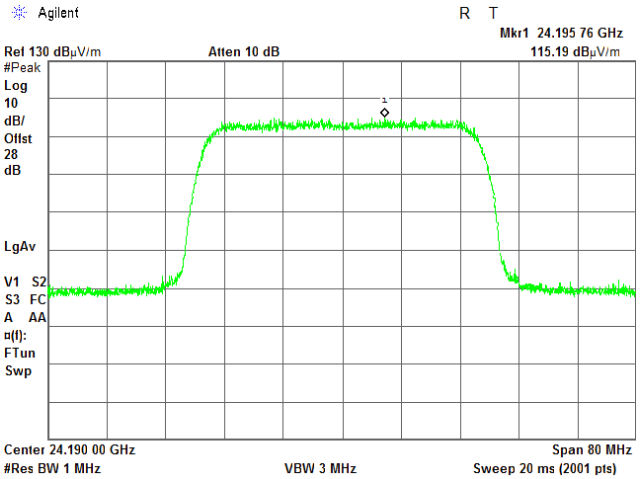


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

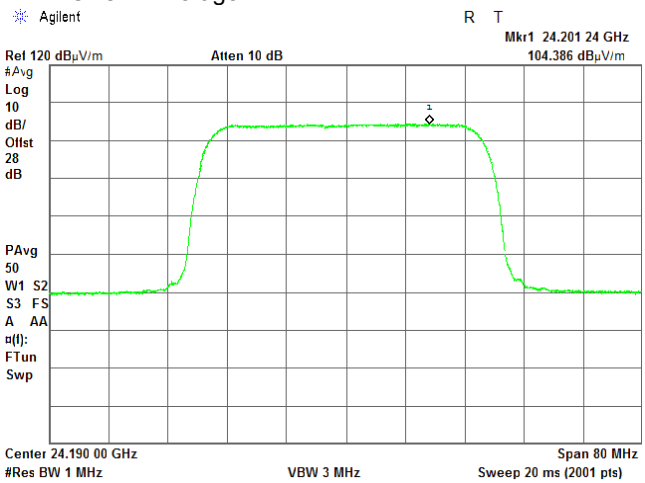
Plot 7.2.25 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz 2048QAM

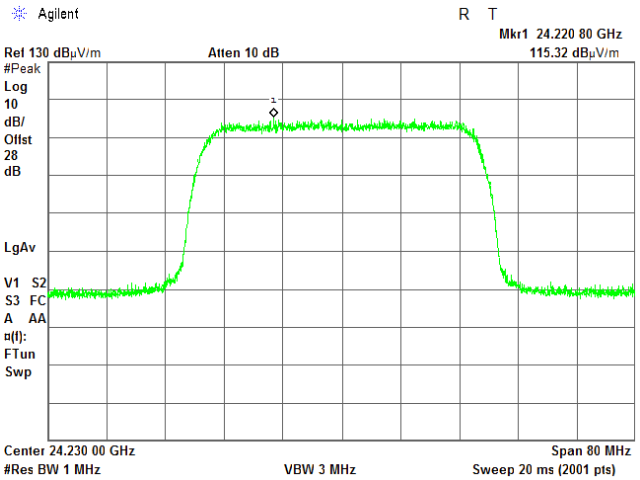
CARRIER FREQUENCY: Mid
DETECTOR: Peak



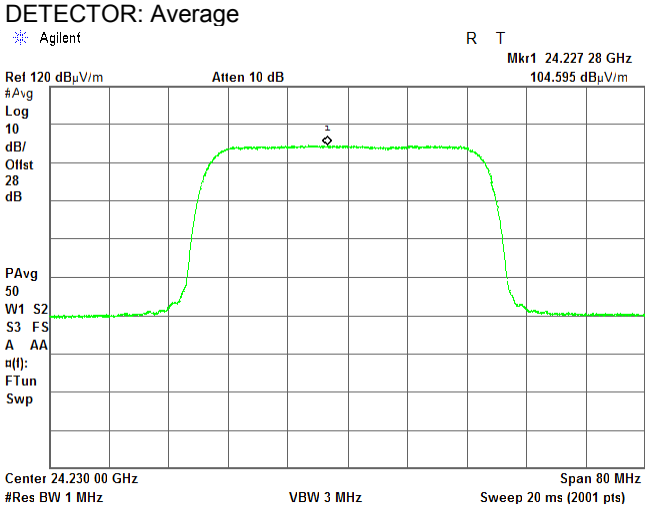
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



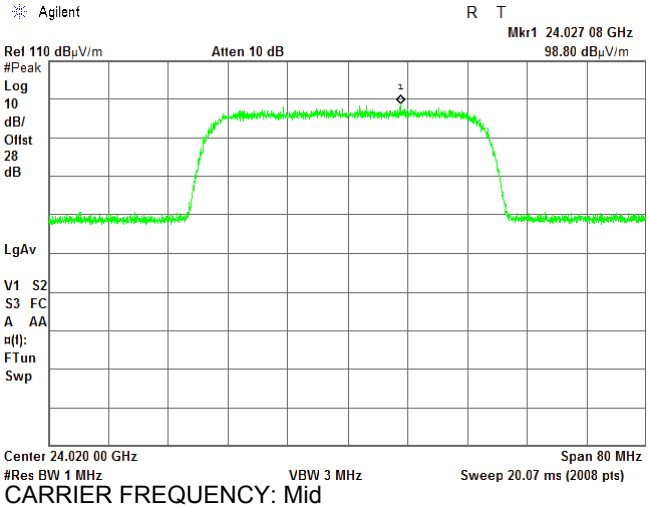
DETECTOR: Average



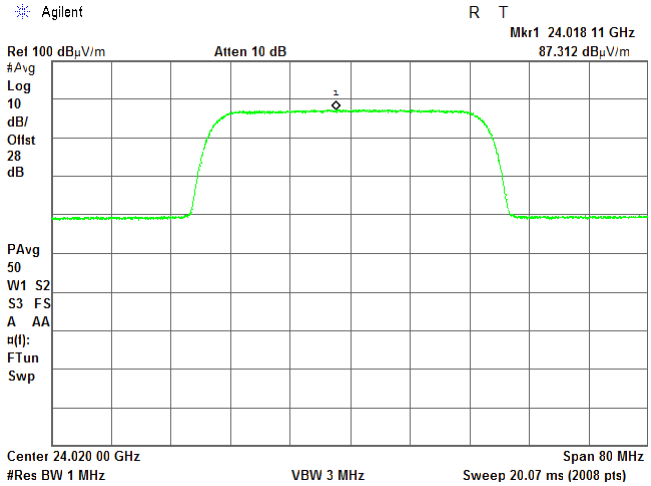
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.26 Radiated emission measurements at the fundamental frequency

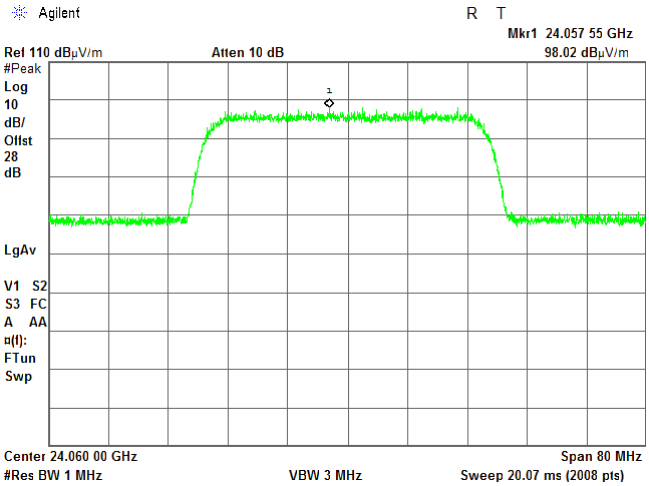
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz 2048QAM
CARRIER FREQUENCY: Low
DETECTOR: Peak



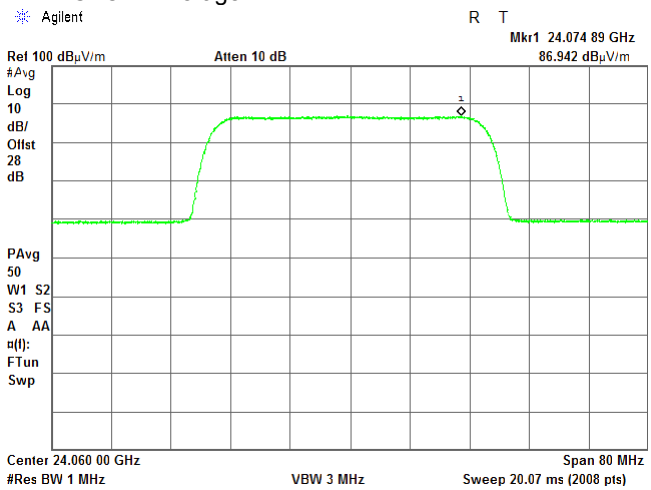
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

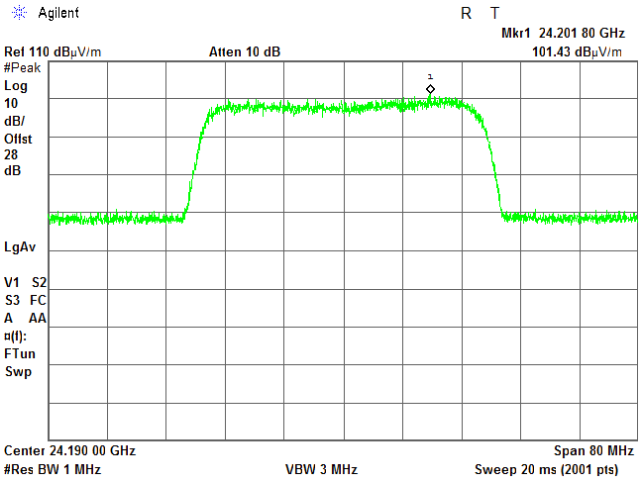


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

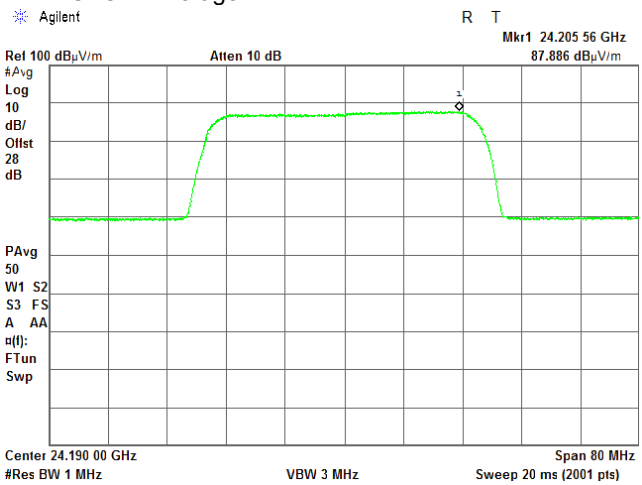
Plot 7.2.27 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz 2048QAM

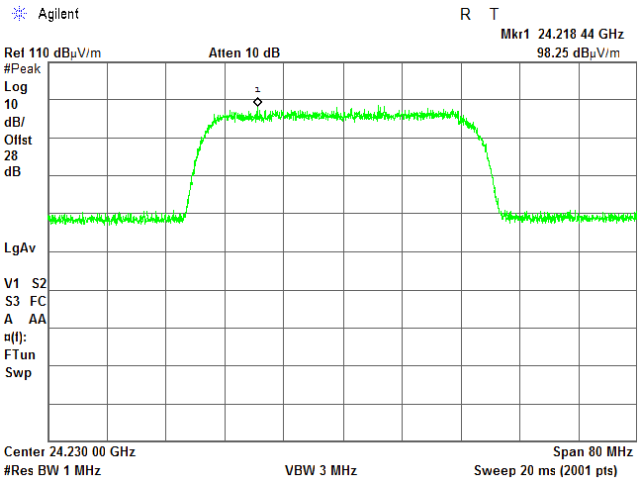
CARRIER FREQUENCY: Mid
DETECTOR: Peak



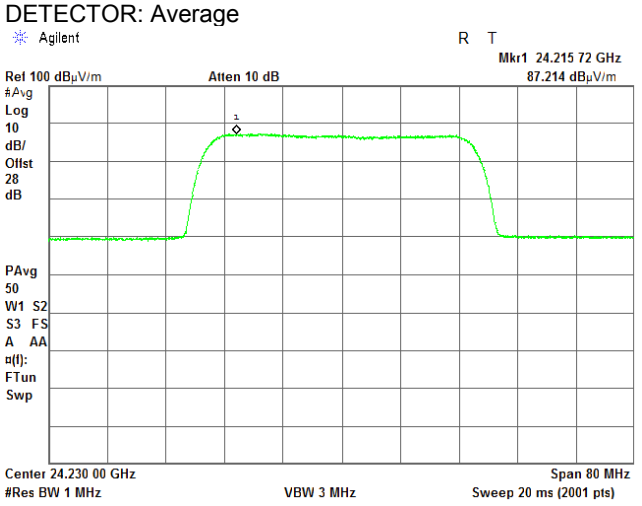
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



DETECTOR: Average

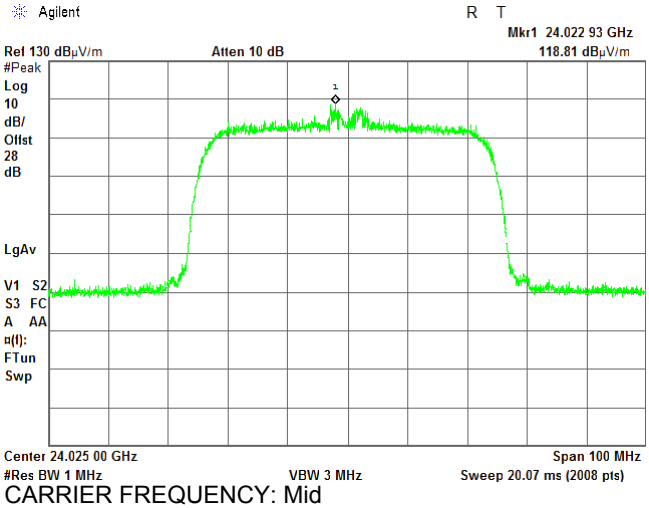


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

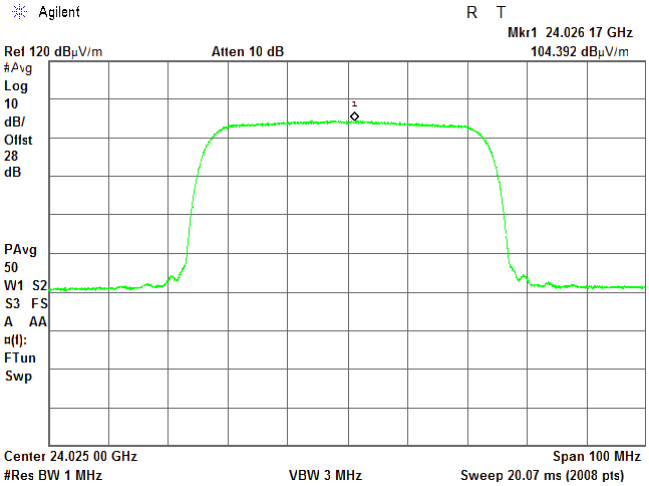
Plot 7.2.28 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz QPSK
CARRIER FREQUENCY: Low

DETECTOR: Peak

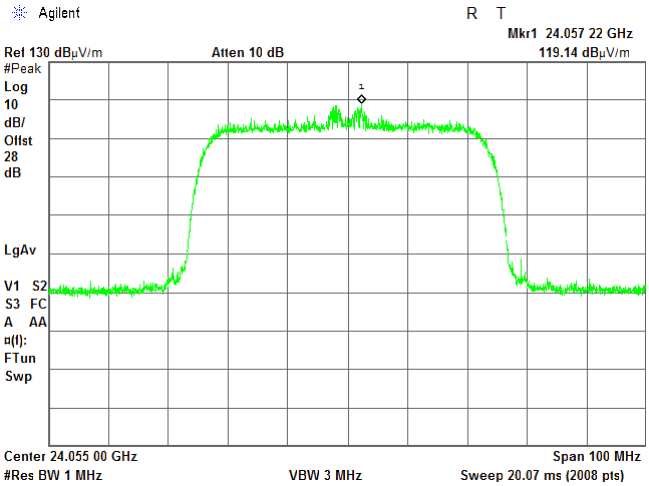


DETECTOR: Average

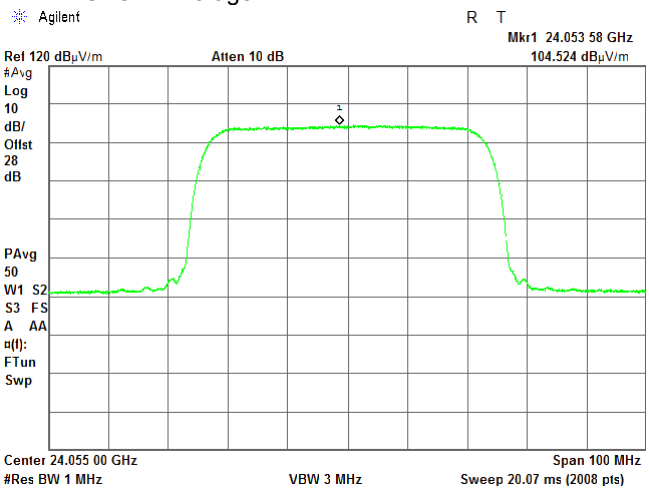


CARRIER FREQUENCY: Mid

DETECTOR: Peak



DETECTOR: Average

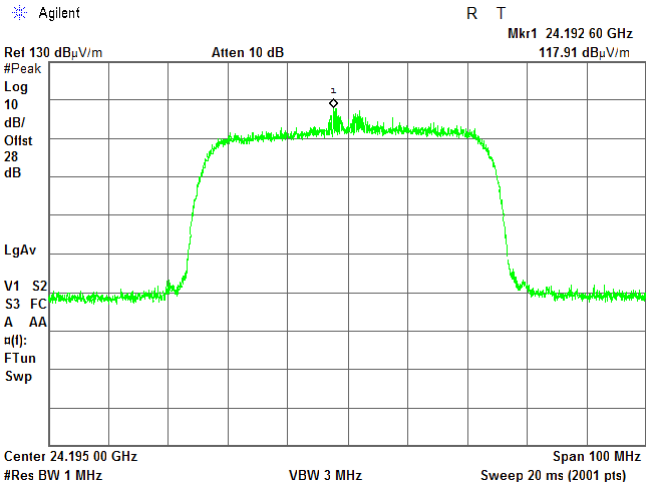


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

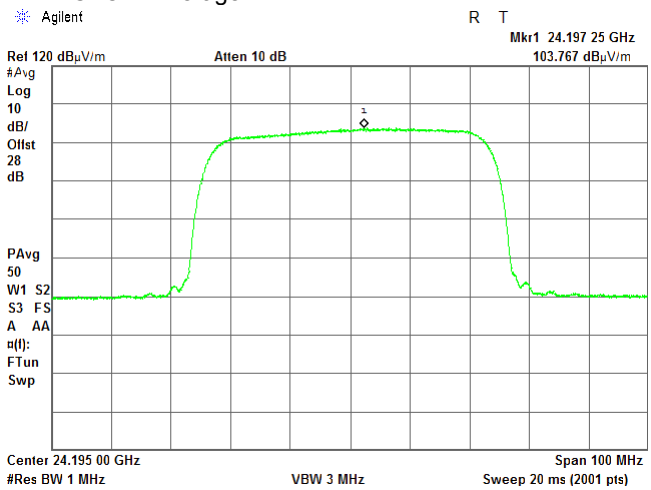
Plot 7.2.29 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz QPSK

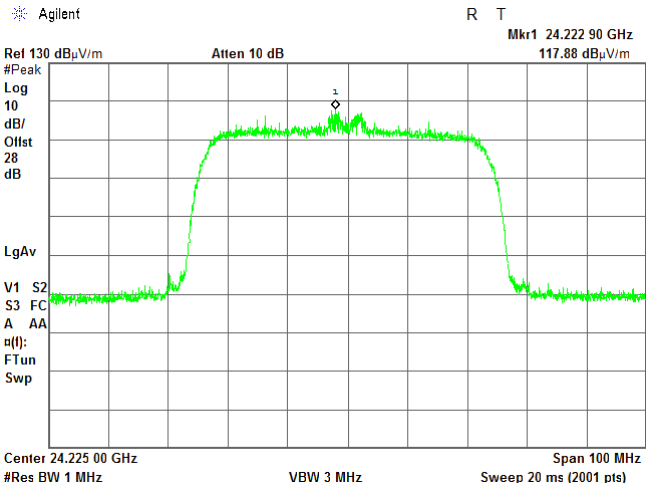
CARRIER FREQUENCY: Mid
DETECTOR: Peak



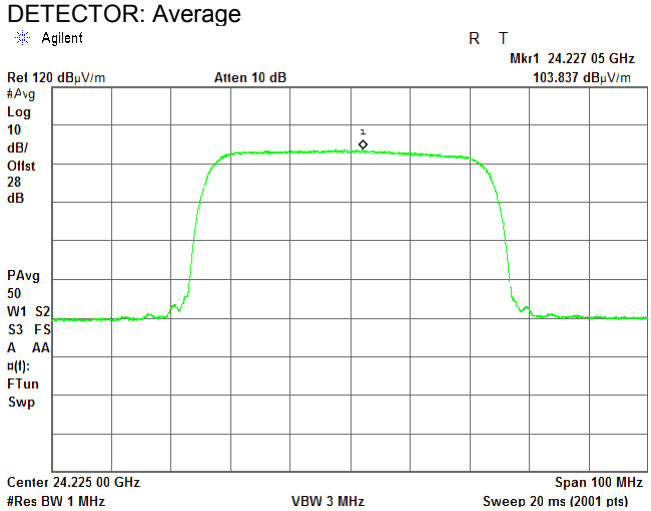
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



DETECTOR: Average

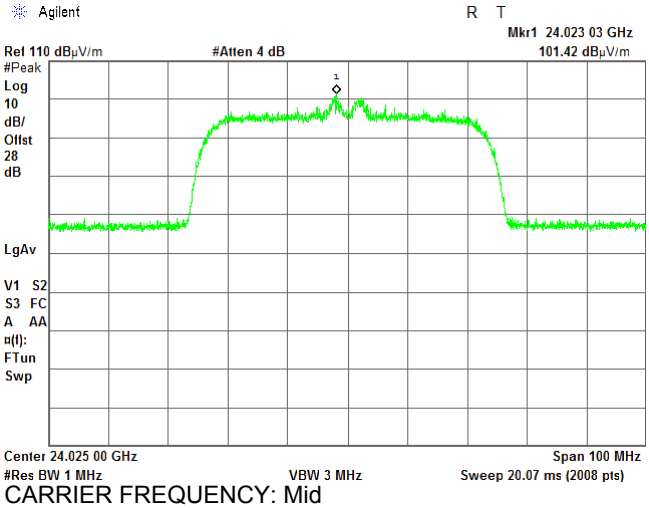


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

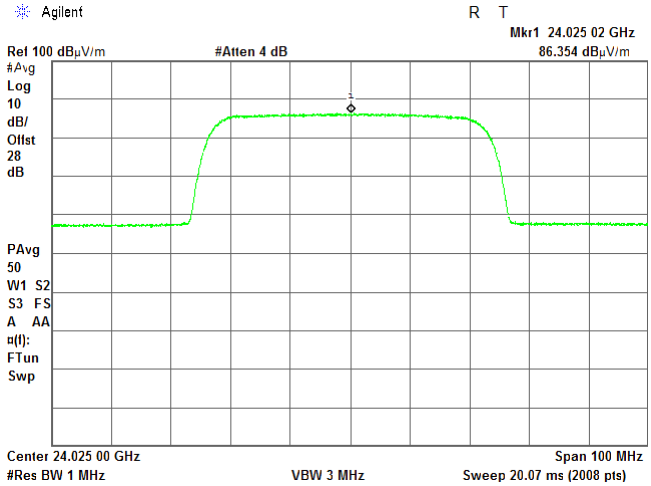
Plot 7.2.30 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz QPSK
CARRIER FREQUENCY: Low

DETECTOR: Peak

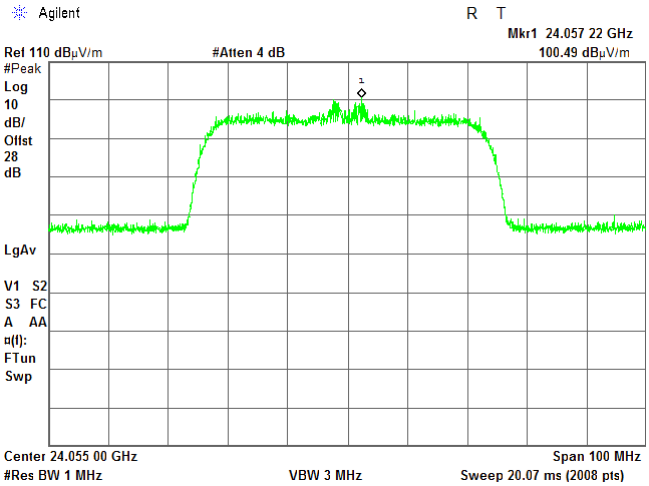


DETECTOR: Average

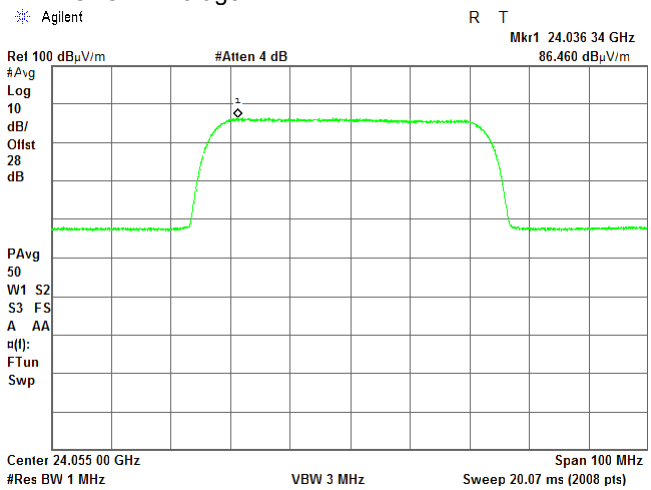


CARRIER FREQUENCY: Mid

DETECTOR: Peak



DETECTOR: Average

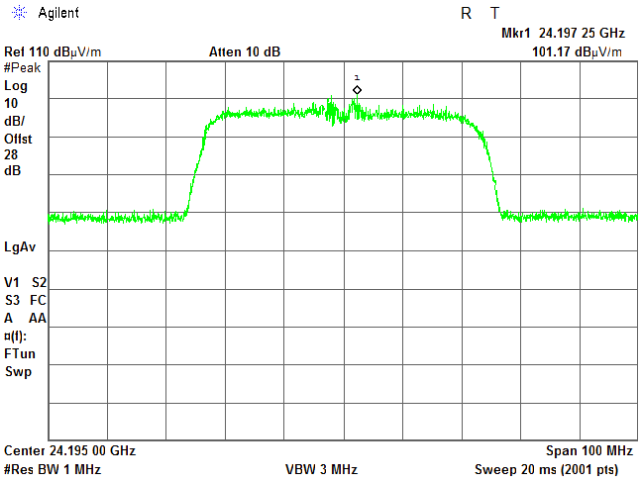


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

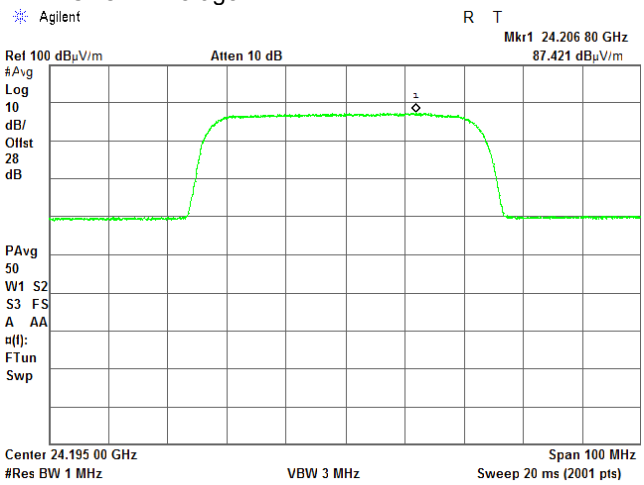
Plot 7.2.31 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz QPSK

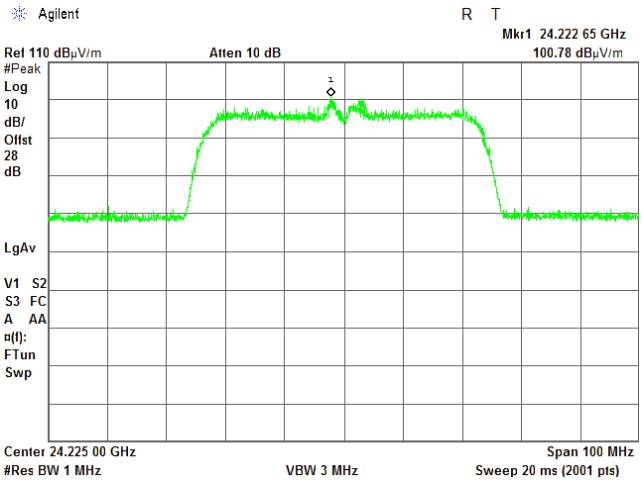
CARRIER FREQUENCY: Mid
DETECTOR: Peak



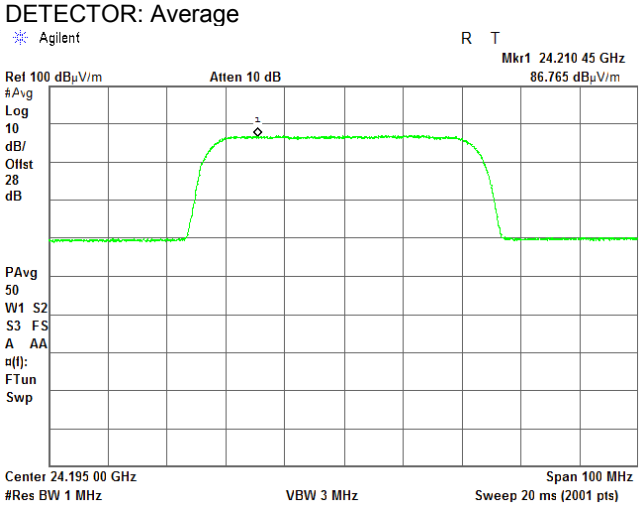
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



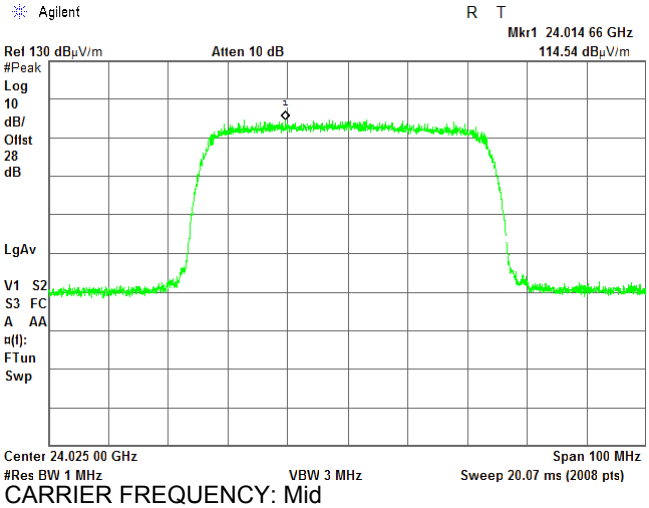
DETECTOR: Average



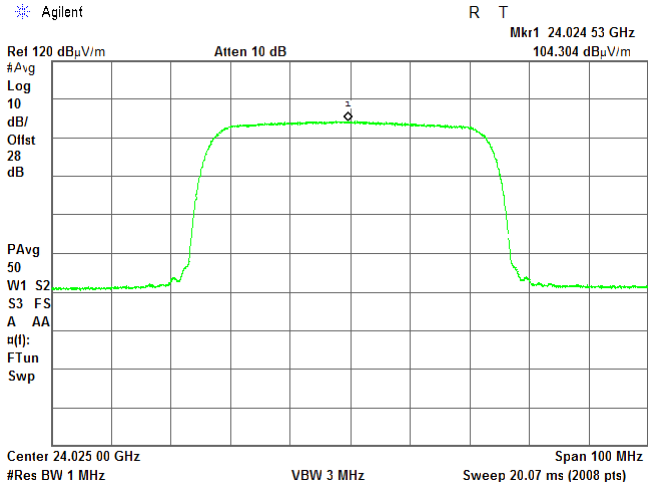
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.32 Radiated emission measurements at the fundamental frequency

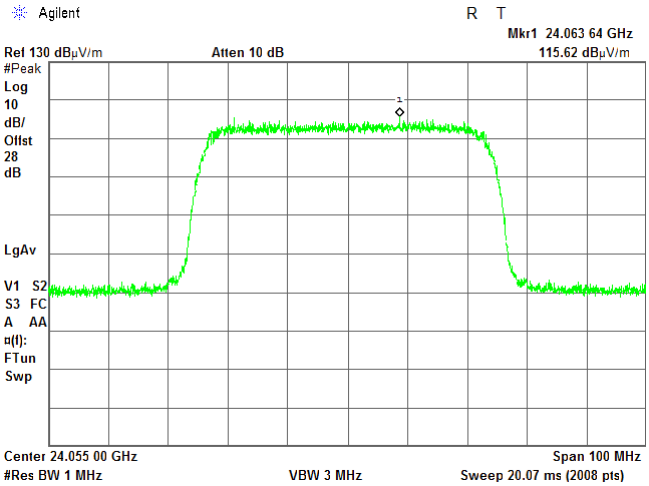
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz 2048QAM
CARRIER FREQUENCY: Low
DETECTOR: Peak



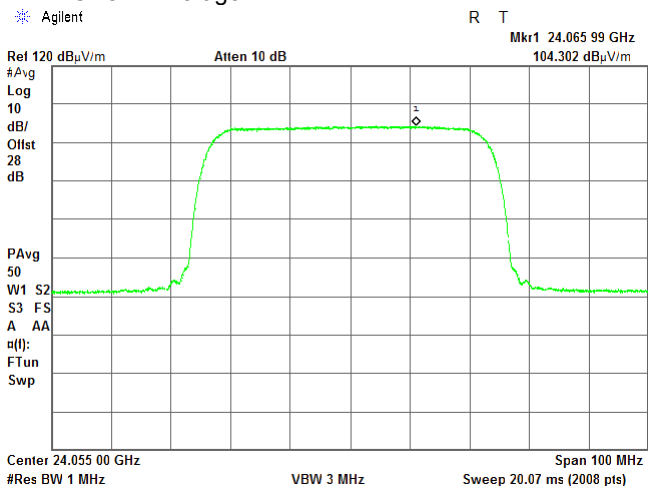
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

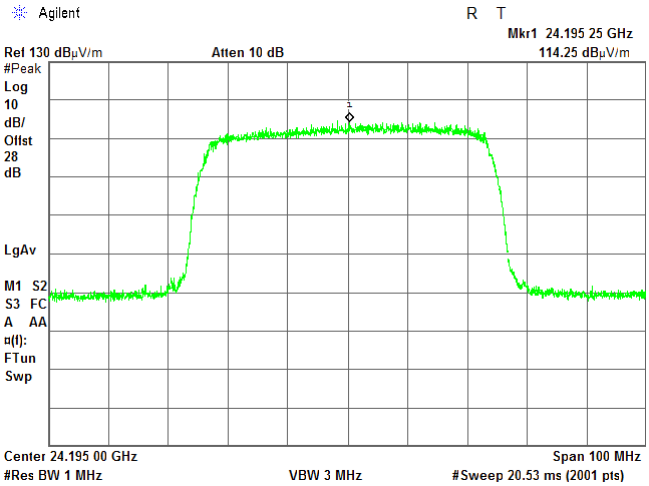


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

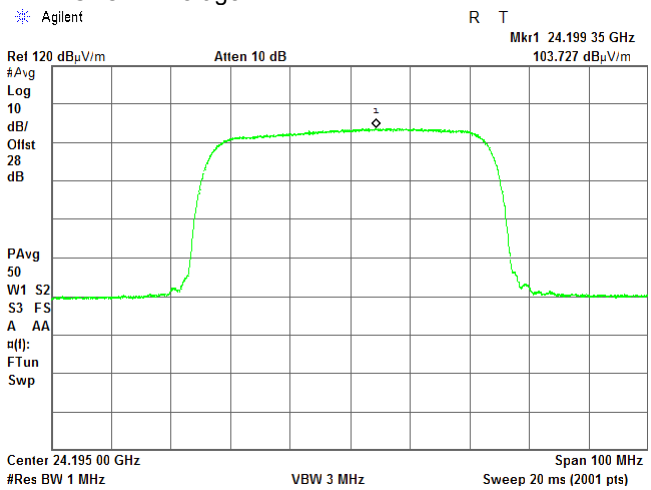
Plot 7.2.33 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz 2048QAM

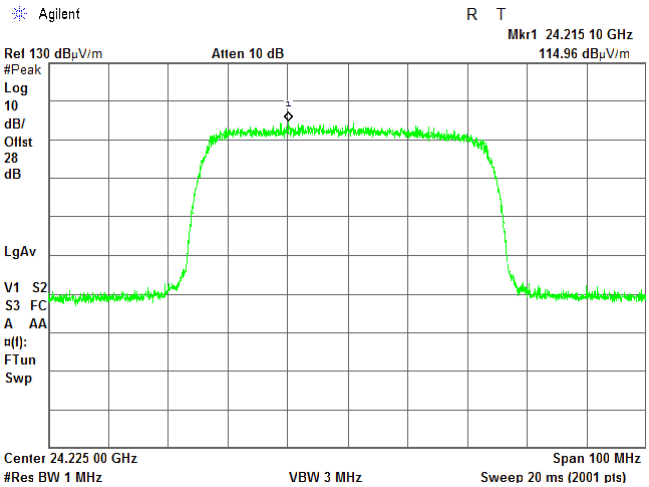
CARRIER FREQUENCY: Mid
DETECTOR: Peak



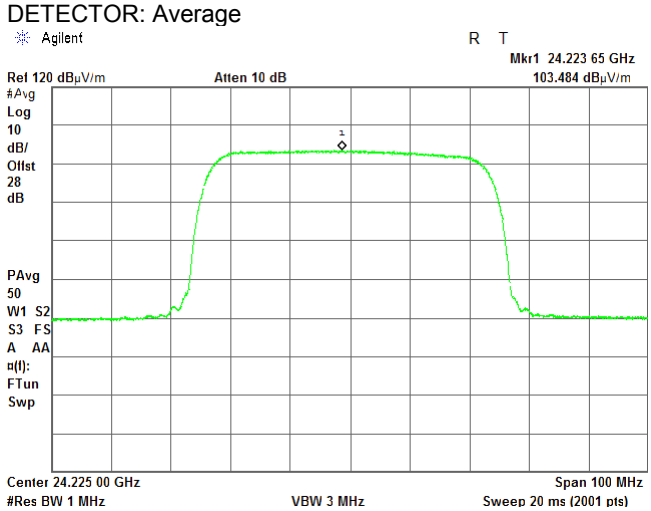
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



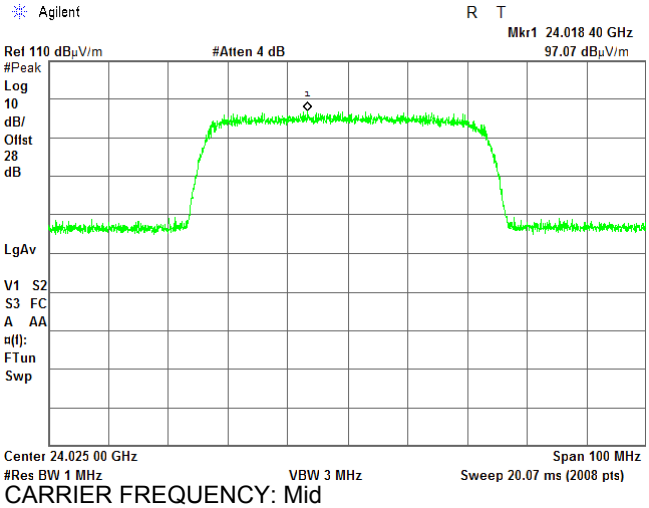
DETECTOR: Average



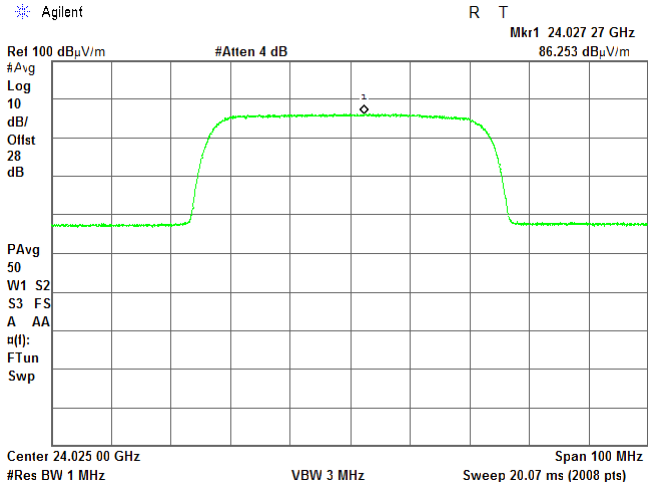
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.34 Radiated emission measurements at the fundamental frequency

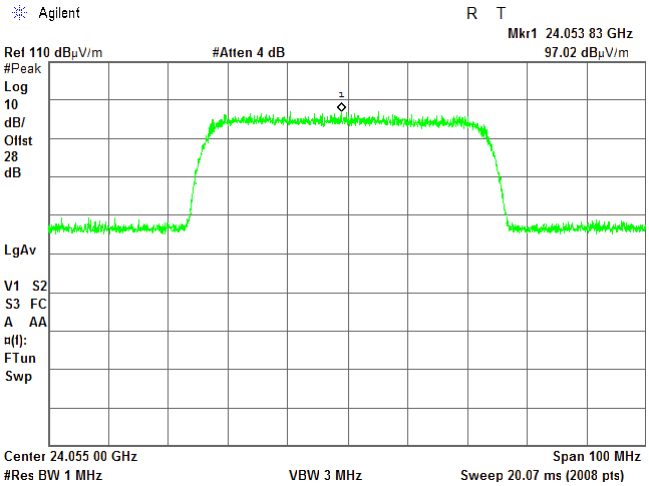
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz 2048QAM
CARRIER FREQUENCY: Low
DETECTOR: Peak



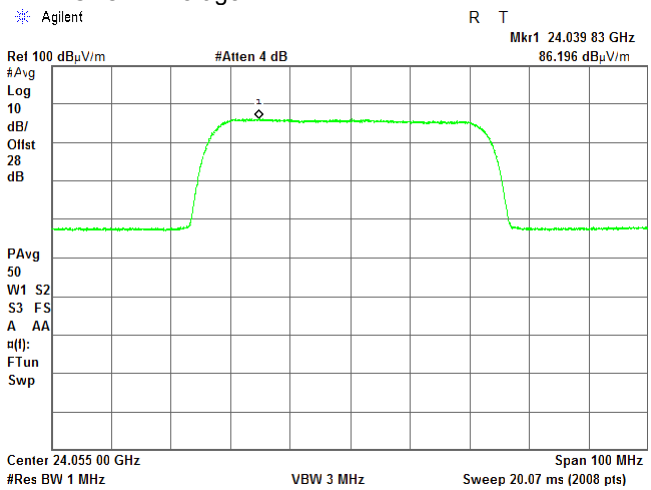
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

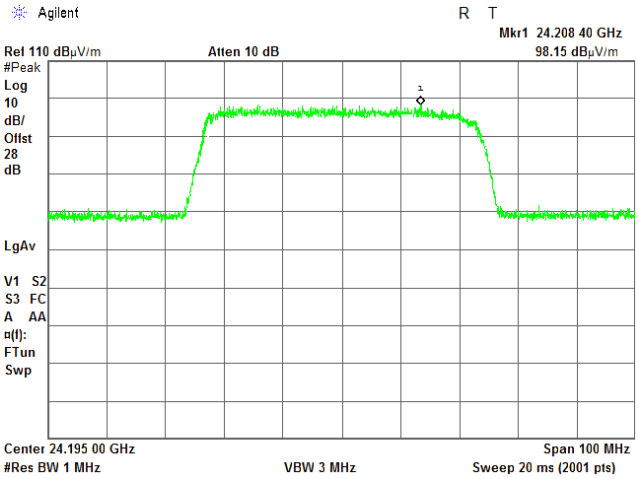


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

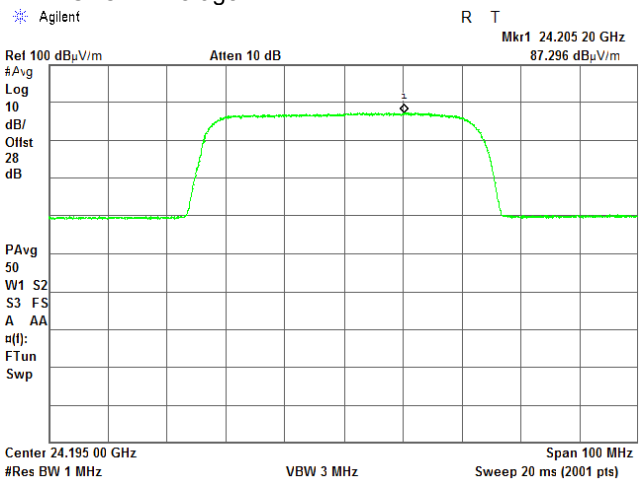
Plot 7.2.35 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz 2048QAM

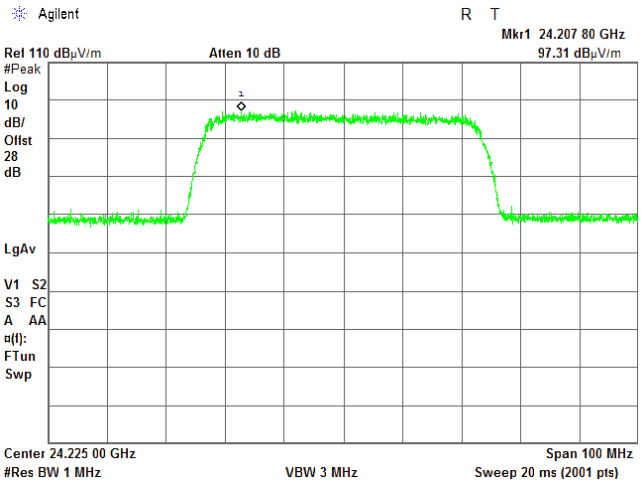
CARRIER FREQUENCY: Mid
DETECTOR: Peak



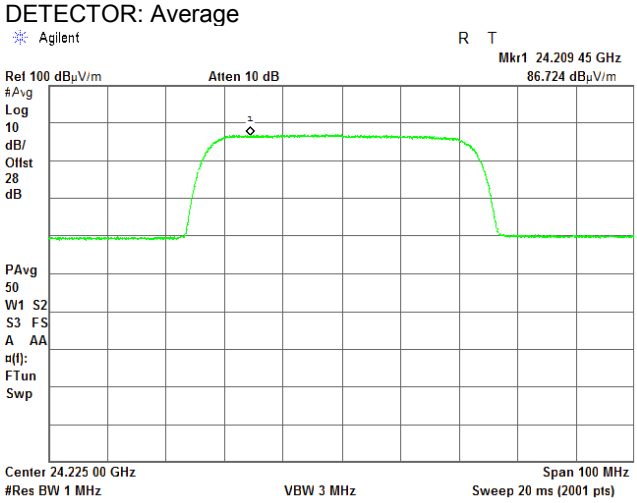
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



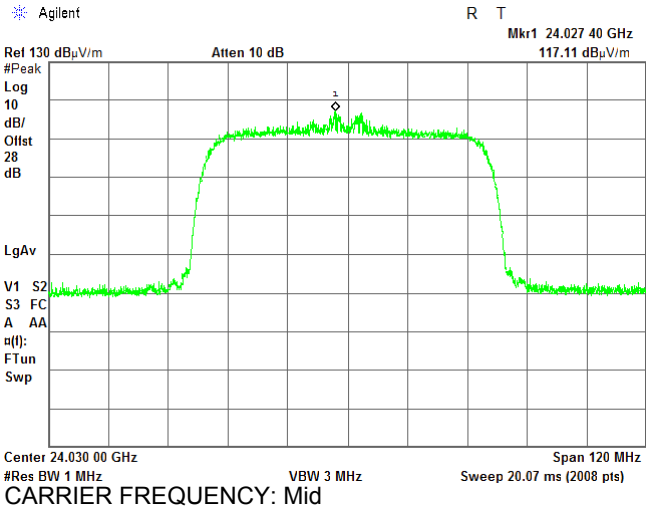
DETECTOR: Average



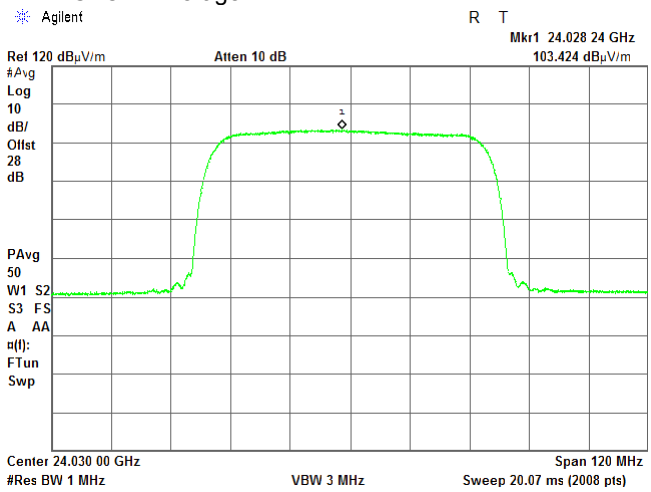
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.36 Radiated emission measurements at the fundamental frequency

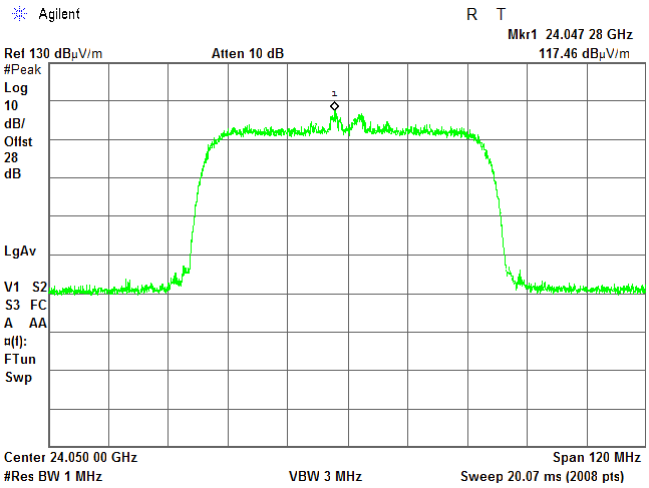
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz QPSK
CARRIER FREQUENCY: Low
DETECTOR: Peak



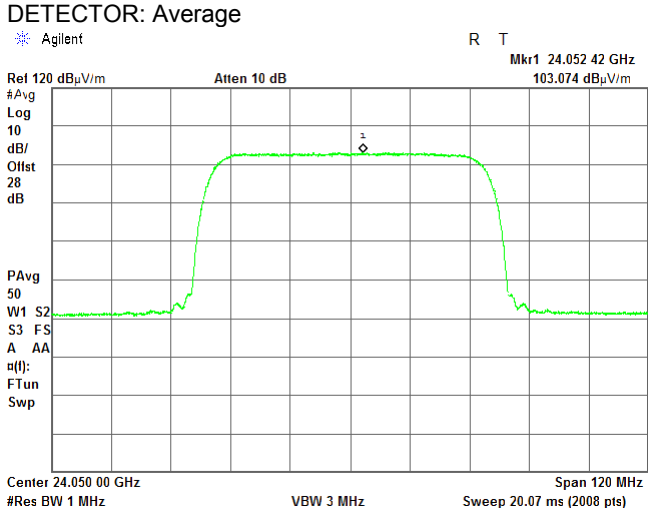
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

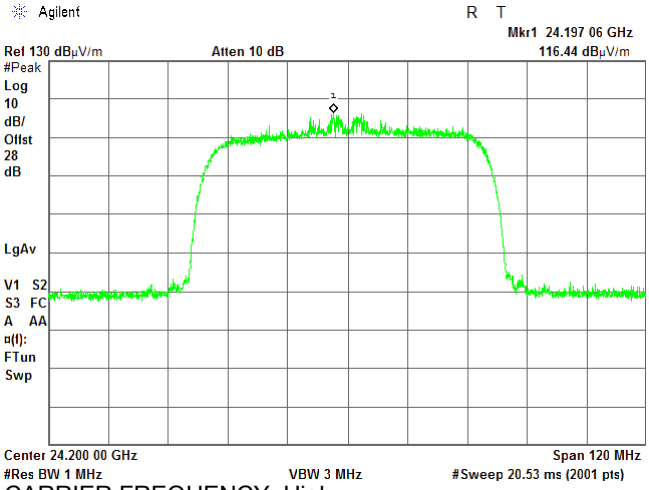


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

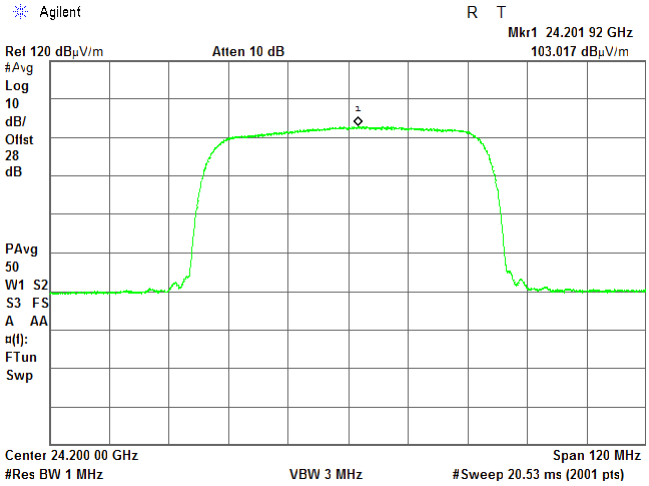
Plot 7.2.37 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz QPSK

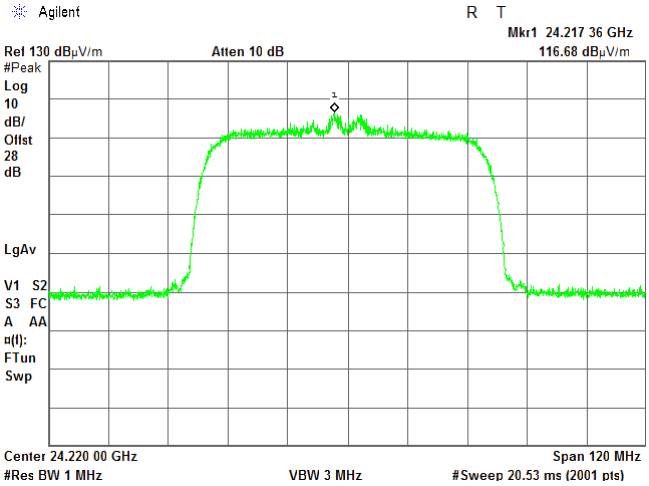
CARRIER FREQUENCY: Mid
DETECTOR: Peak



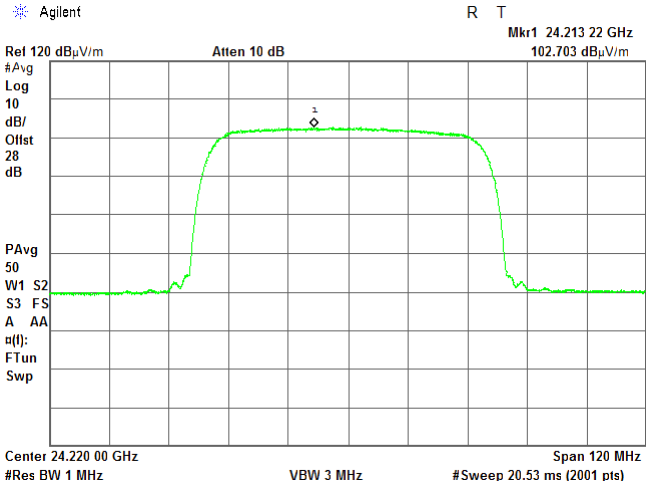
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



DETECTOR: Average

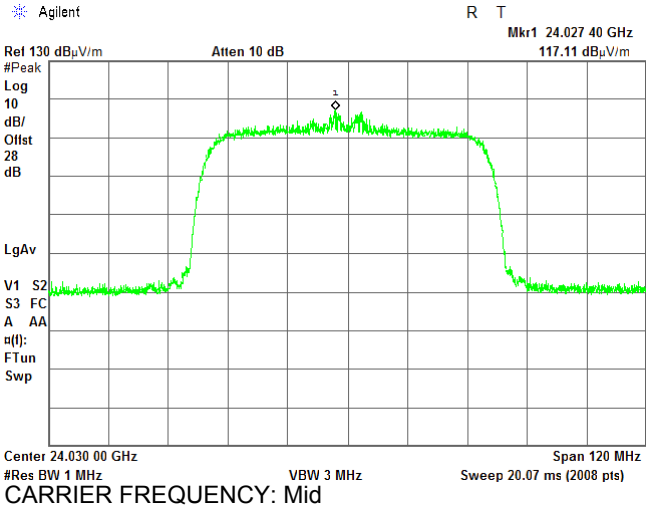


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

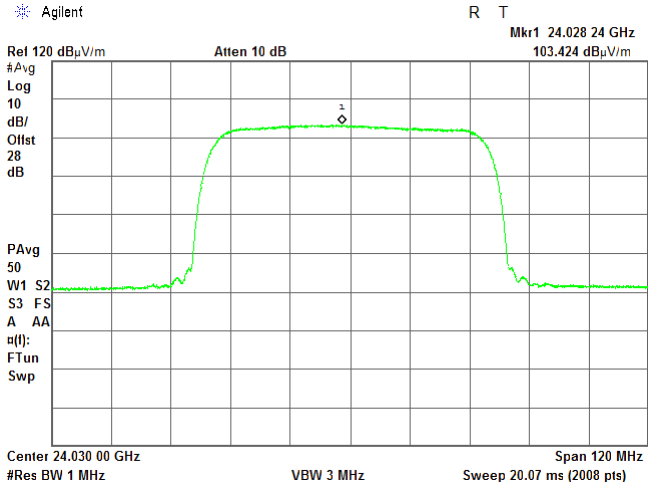
Plot 7.2.38 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz QPSK
CARRIER FREQUENCY: Low

DETECTOR: Peak

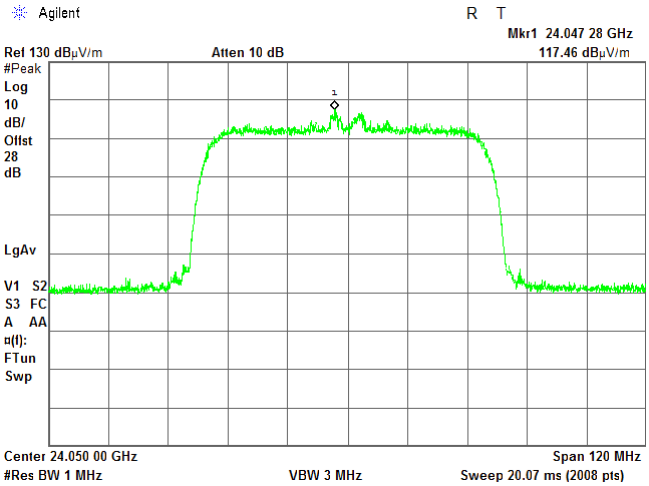


DETECTOR: Average

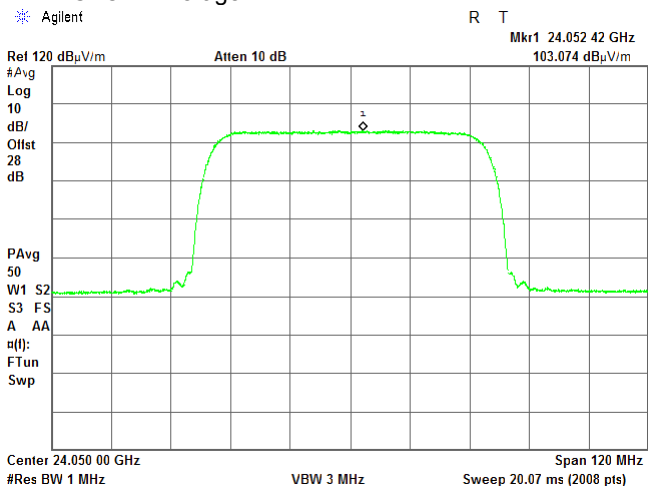


CARRIER FREQUENCY: Mid

DETECTOR: Peak



DETECTOR: Average

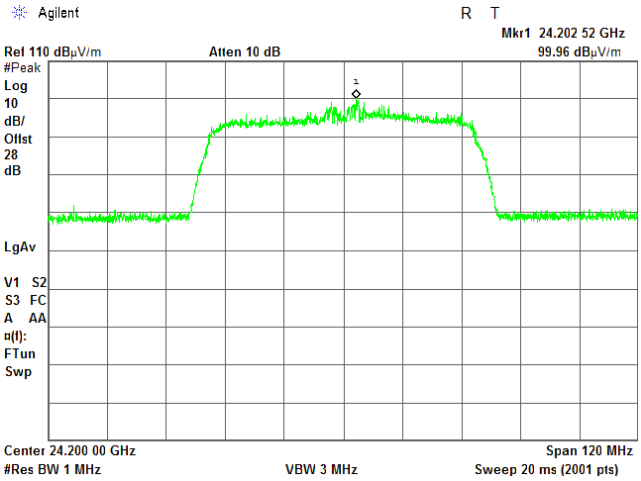


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

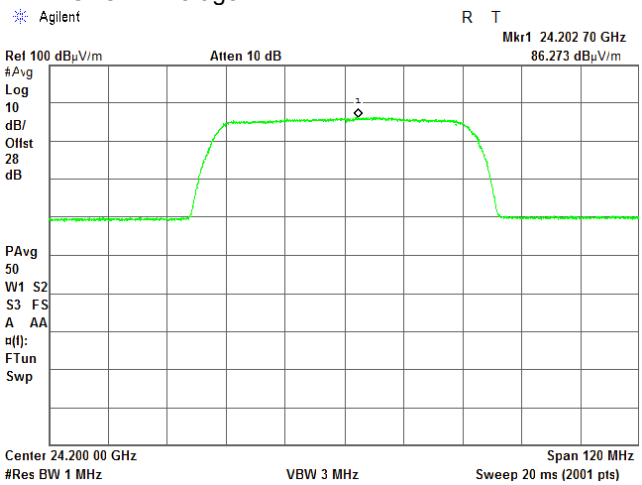
Plot 7.2.39 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz QPSK

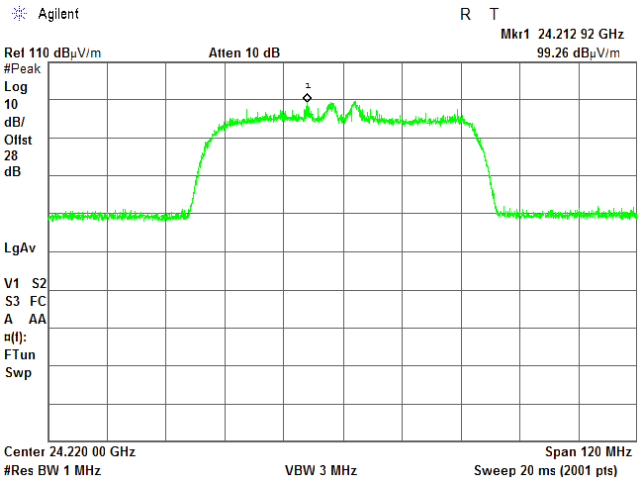
CARRIER FREQUENCY: Mid
DETECTOR: Peak



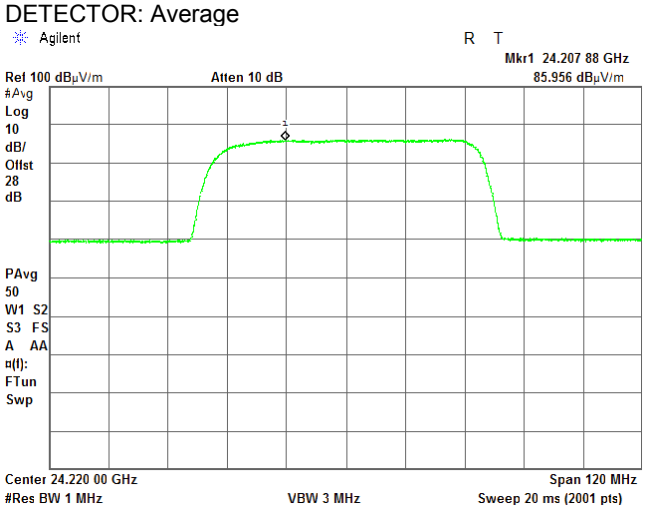
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



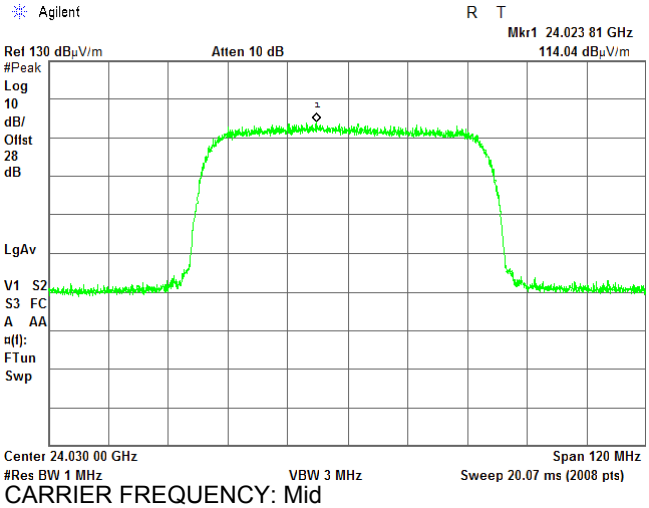
DETECTOR: Average



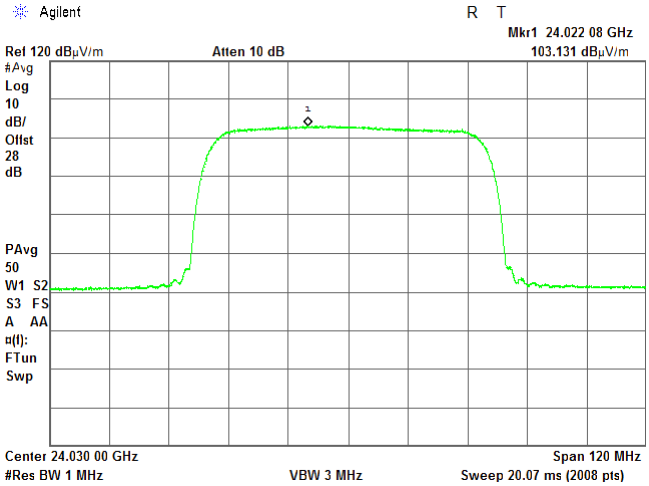
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.40 Radiated emission measurements at the fundamental frequency

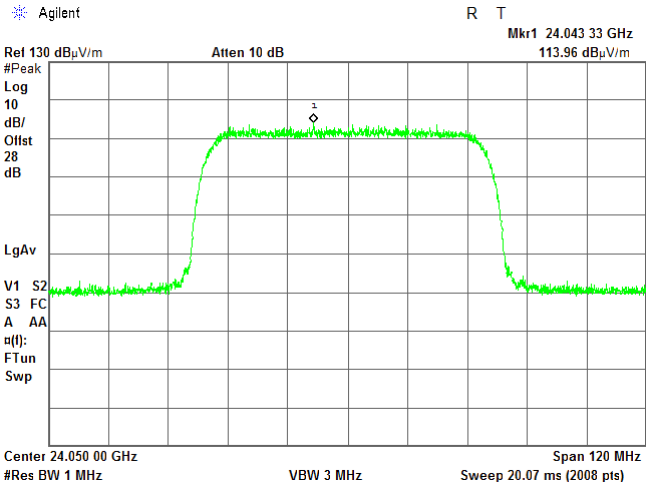
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz 2048QAM
CARRIER FREQUENCY: Low
DETECTOR: Peak



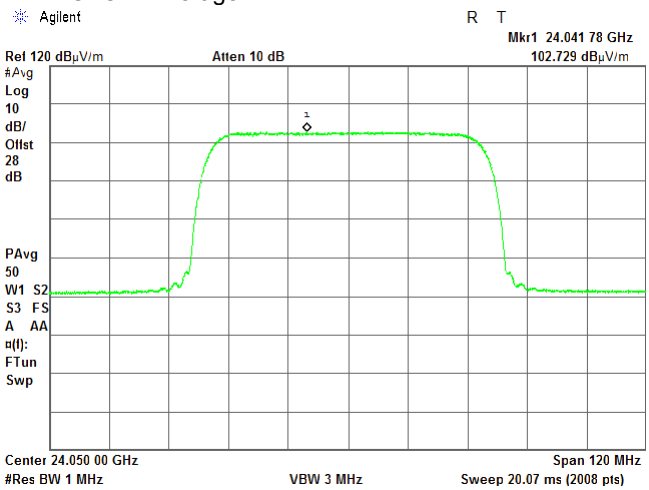
DETECTOR: Average



CARRIER FREQUENCY: Mid
DETECTOR: Peak



DETECTOR: Average

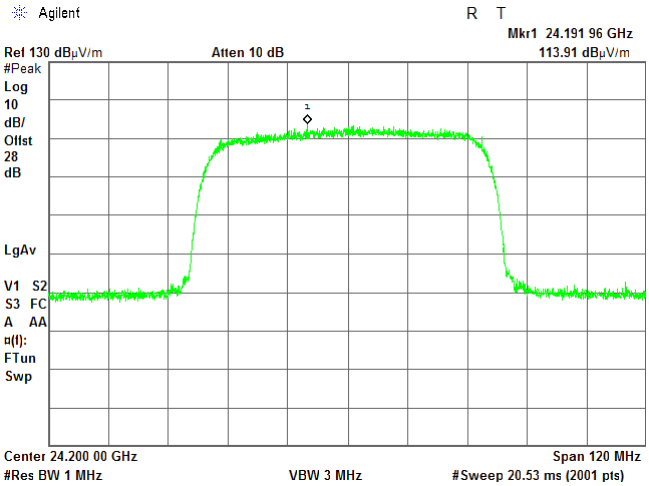


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

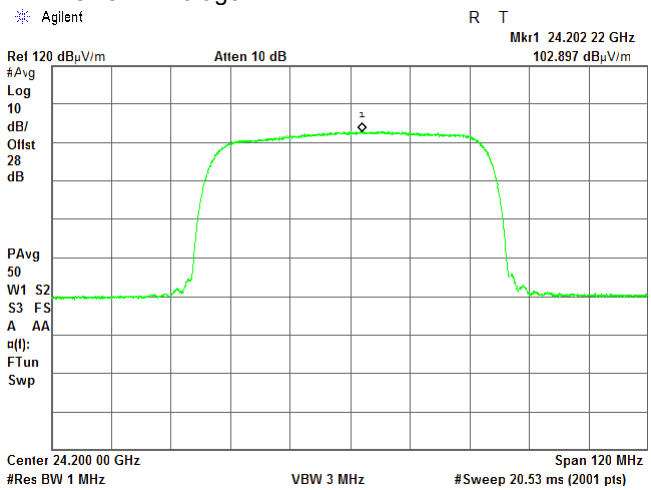
Plot 7.2.41 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz 2048QAM

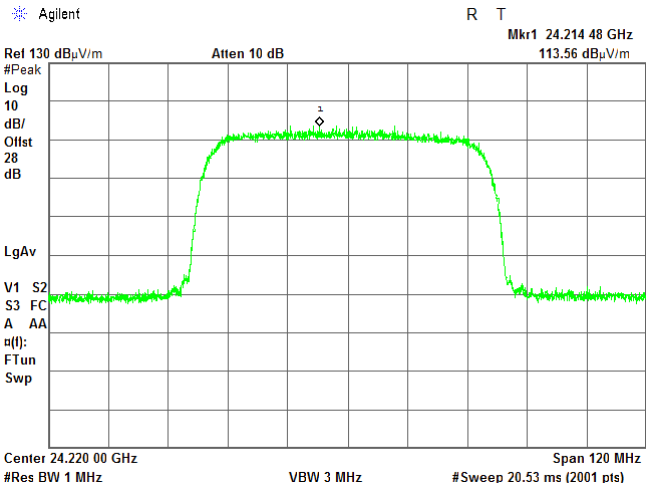
CARRIER FREQUENCY: Mid
DETECTOR: Peak



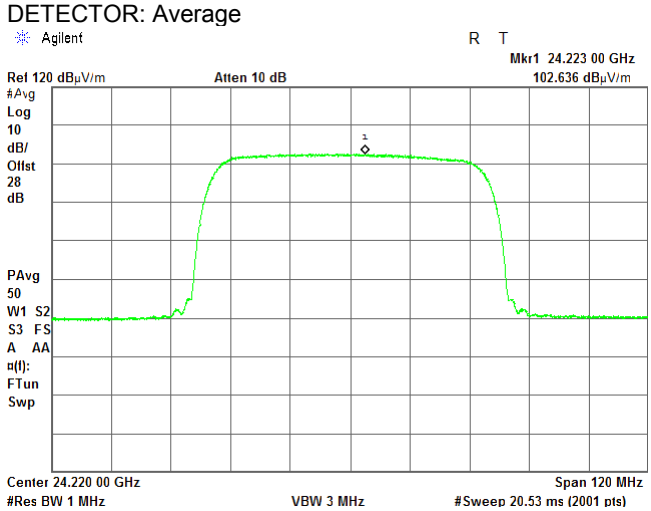
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



DETECTOR: Average

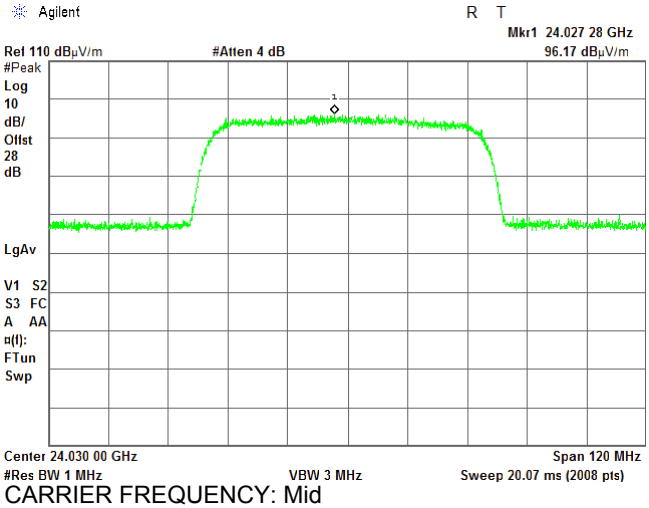


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

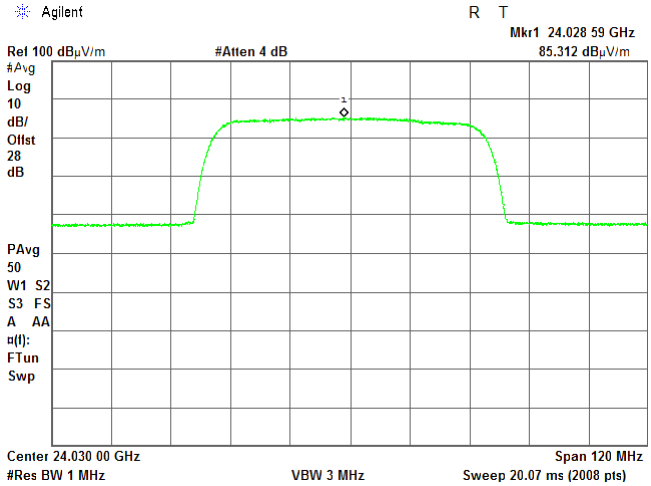
Plot 7.2.42 Radiated emission measurements at the fundamental frequency

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz 2048QAM
CARRIER FREQUENCY: Low

DETECTOR: Peak

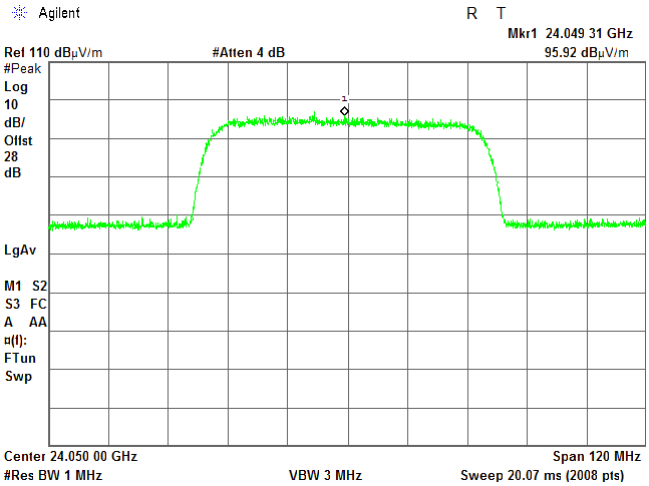


DETECTOR: Average

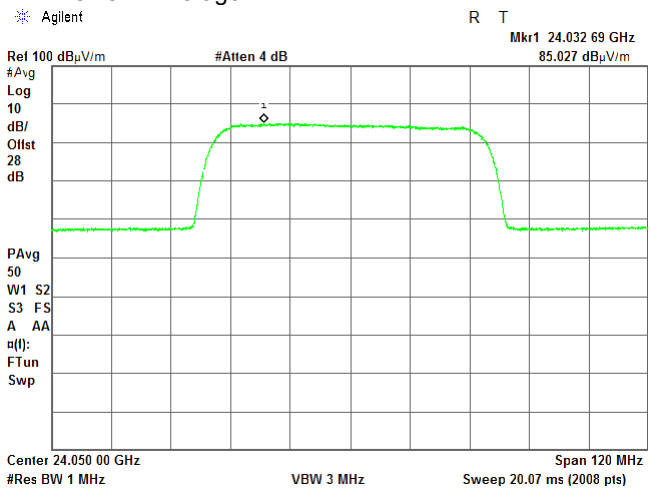


CARRIER FREQUENCY: Mid

DETECTOR: Peak



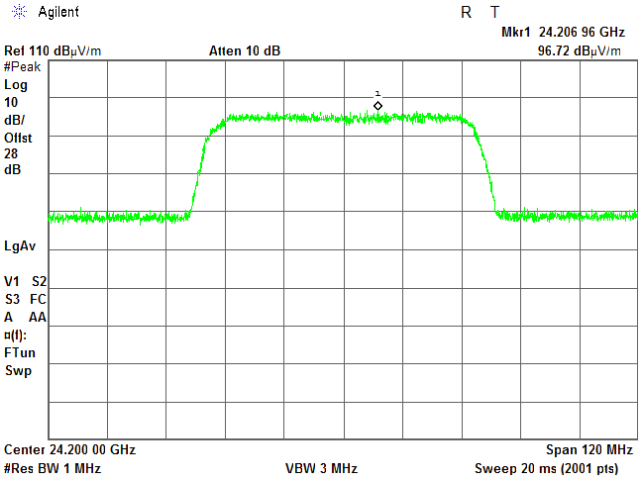
DETECTOR: Average



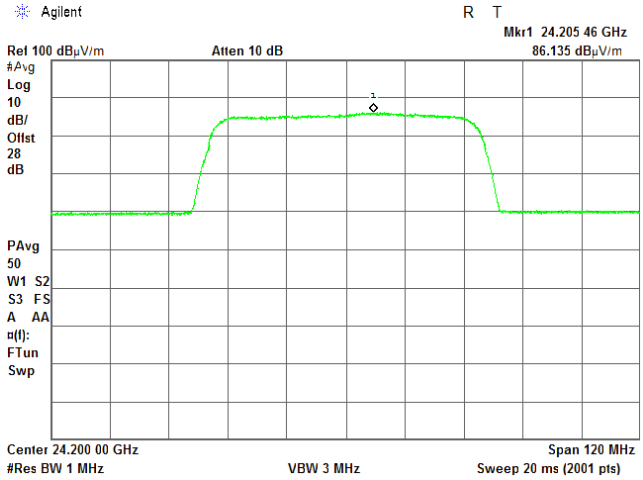
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.43 Radiated emission measurements at the fundamental frequency

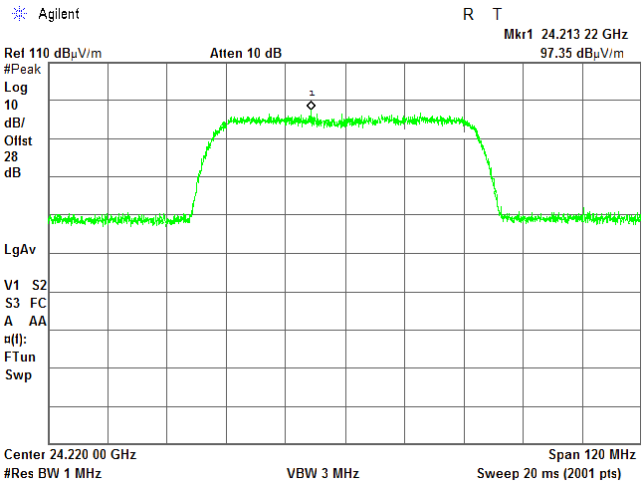
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz 2048QAM
DETECTOR: Peak



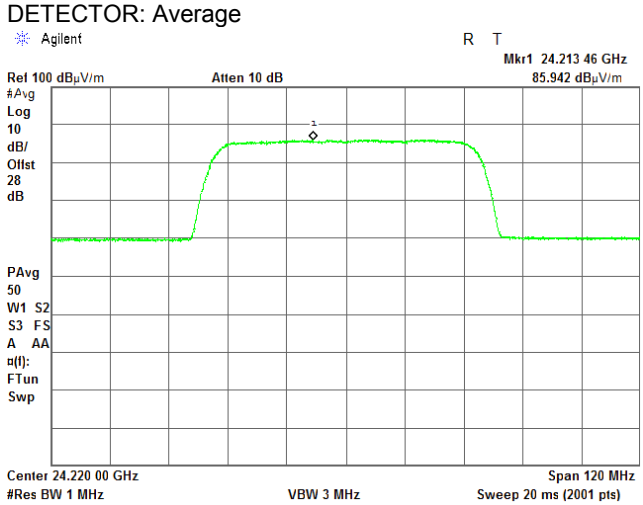
DETECTOR: Average



CARRIER FREQUENCY: High
DETECTOR: Peak



DETECTOR: Average

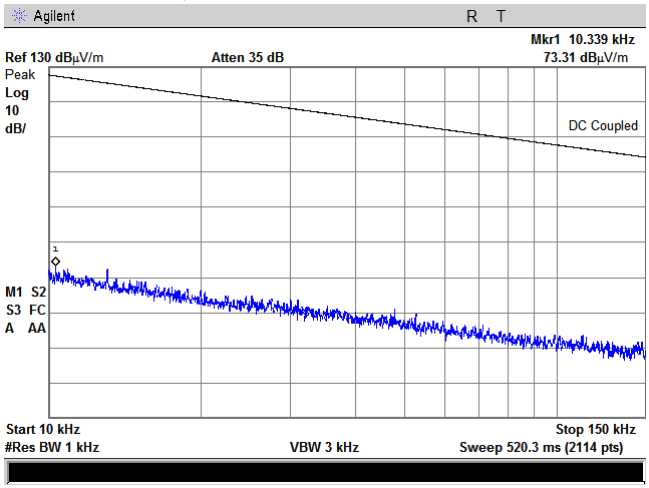


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

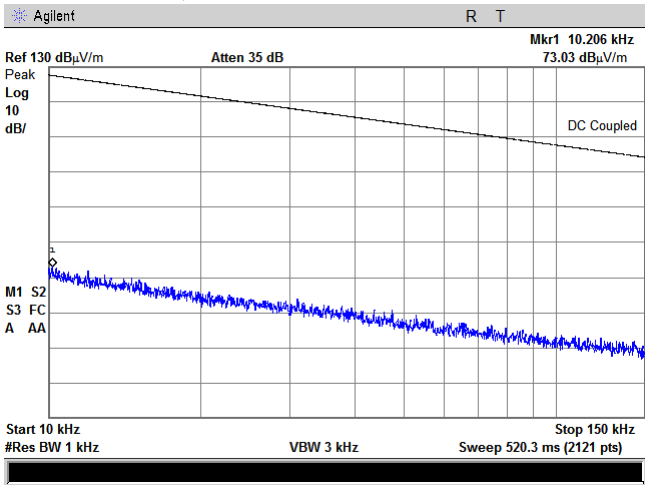
Plot 7.2.44 Radiated emission measurements from 9 to 150 kHz

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz

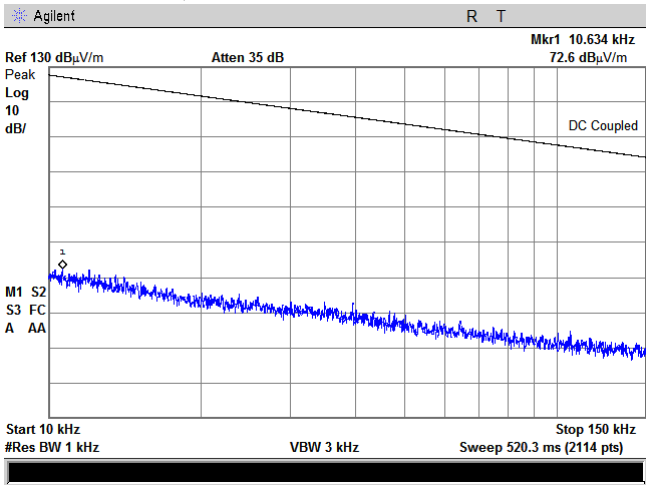
CARRIER FREQUENCY: Low



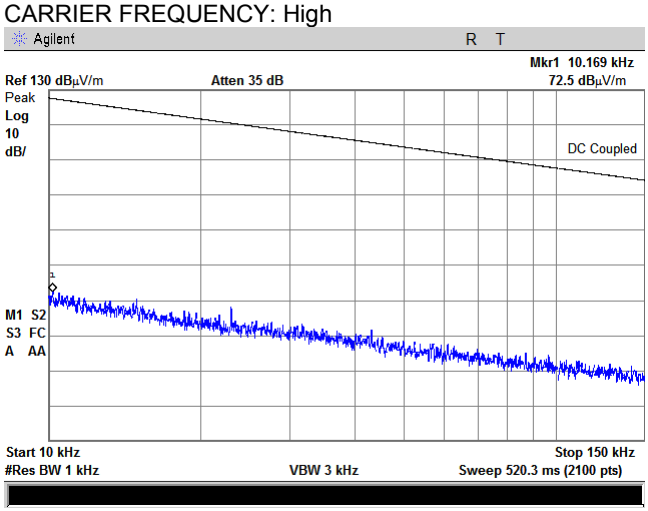
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



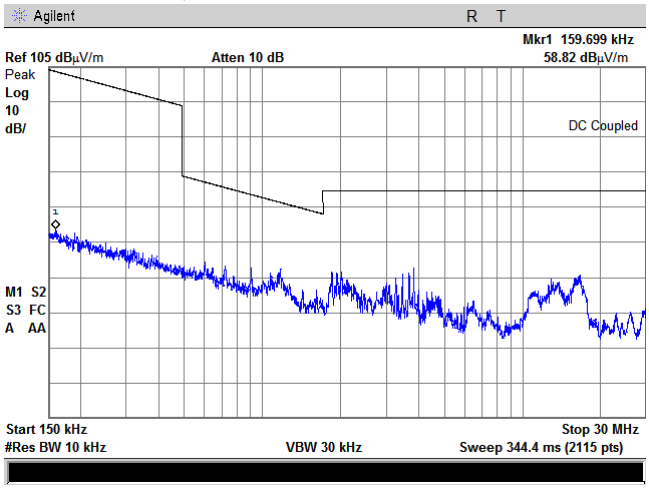
CARRIER FREQUENCY: High



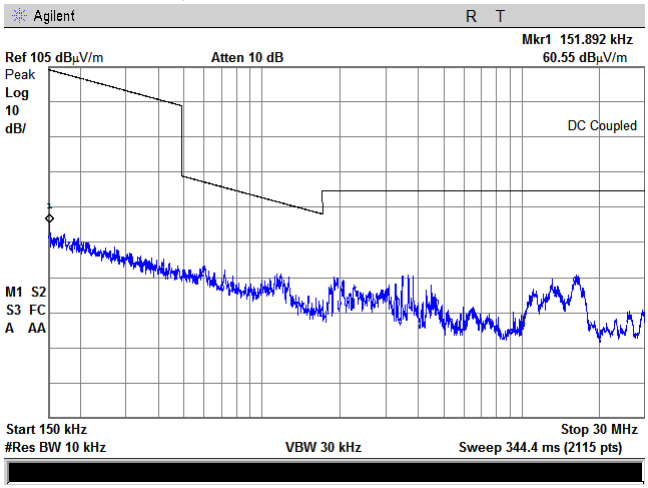
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.45 Radiated emission measurements from 0.15 to 30 MHz

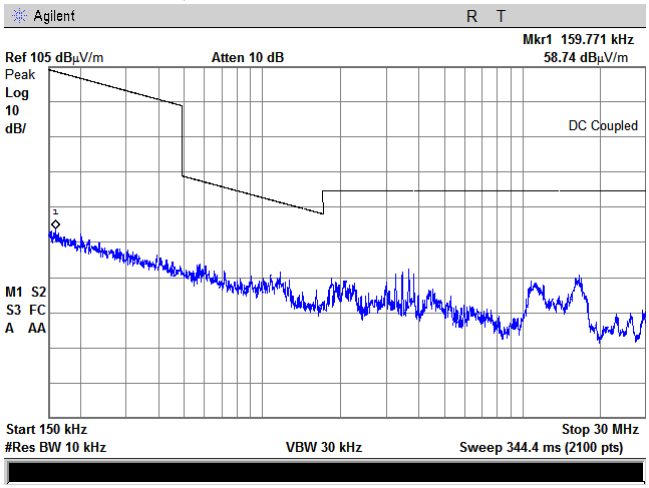
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz
CARRIER FREQUENCY: Low



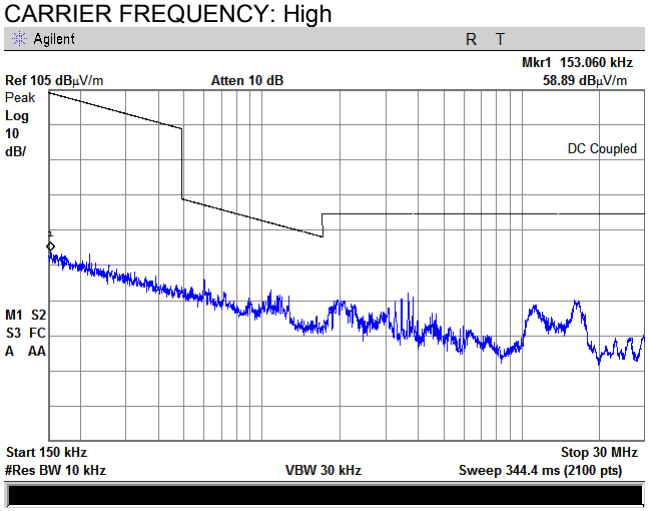
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

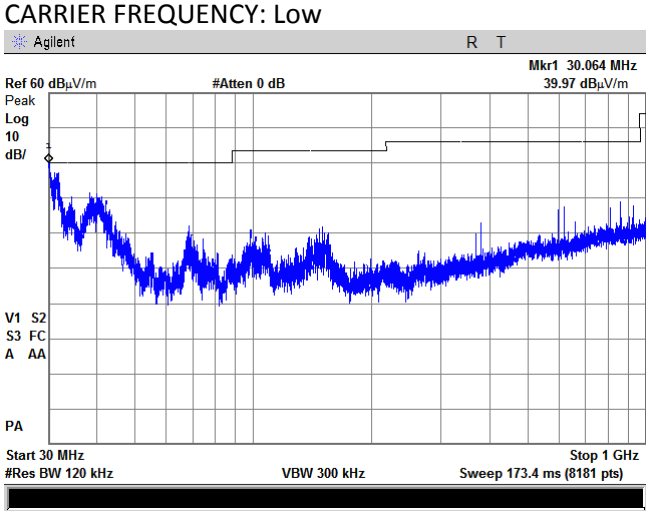


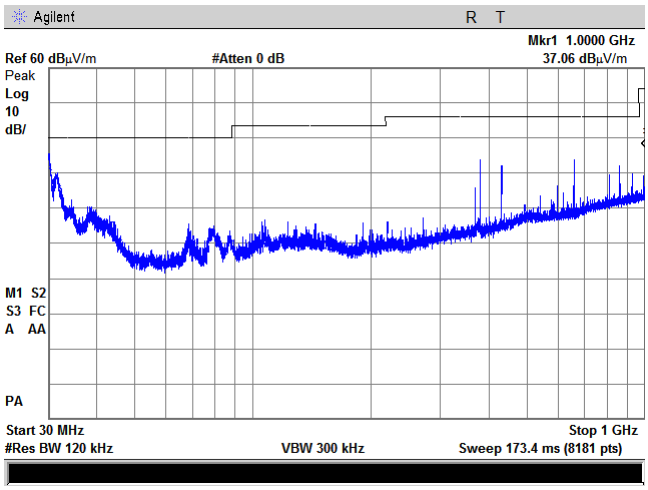
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.46 Radiated emission measurements from 30 to 1000 MHz

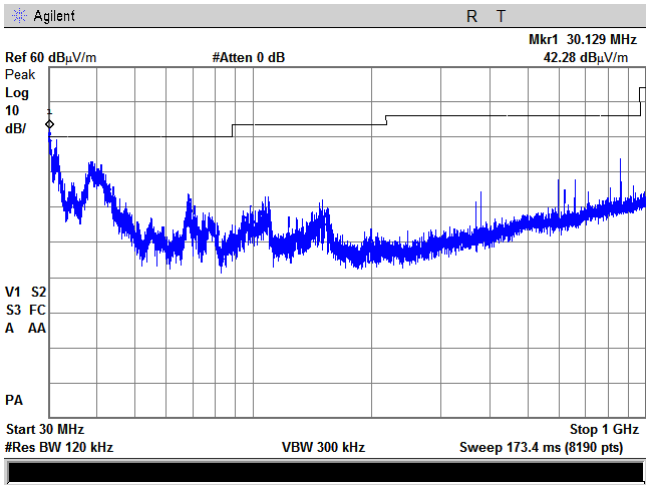
TEST SITE:	Semi anechoic chamber
TEST DISTANCE:	3 m
ANTENNA POLARIZATION:	Vertical and Horizontal
EUT POSITION:	Typical (Vertical)

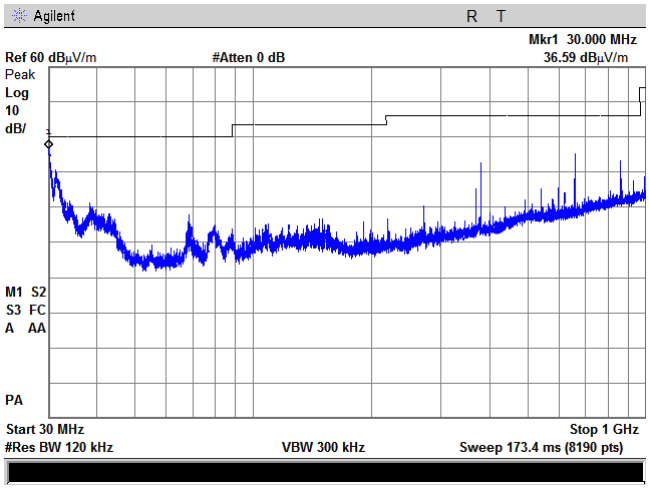
CARRIER FREQUENCY: Low





CARRIER FREQUENCY: Mid



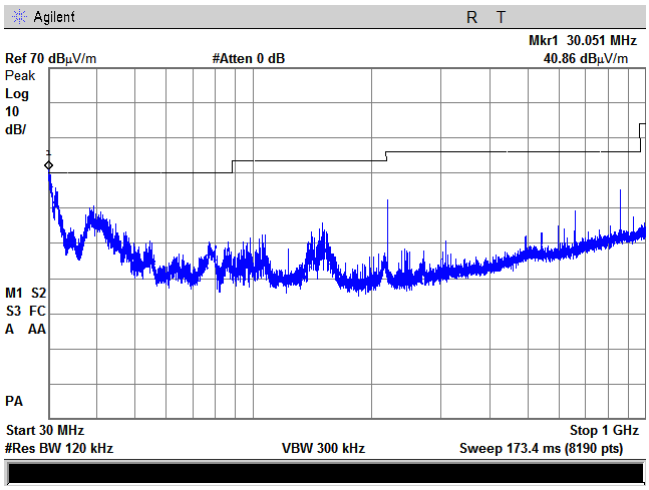


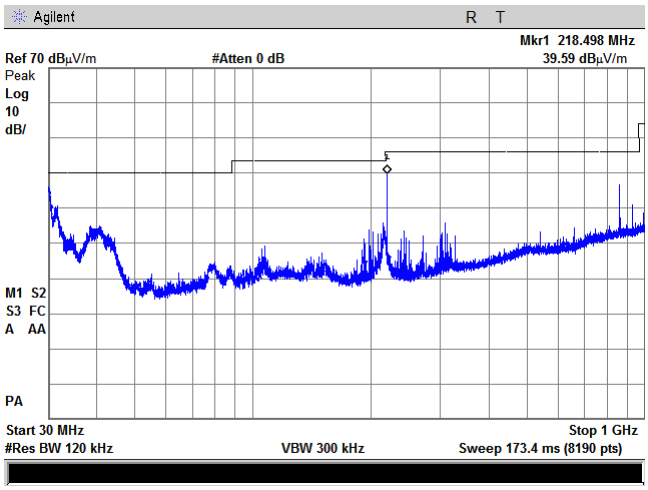
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.47 Radiated emission measurements from 30 to 1000 MHz

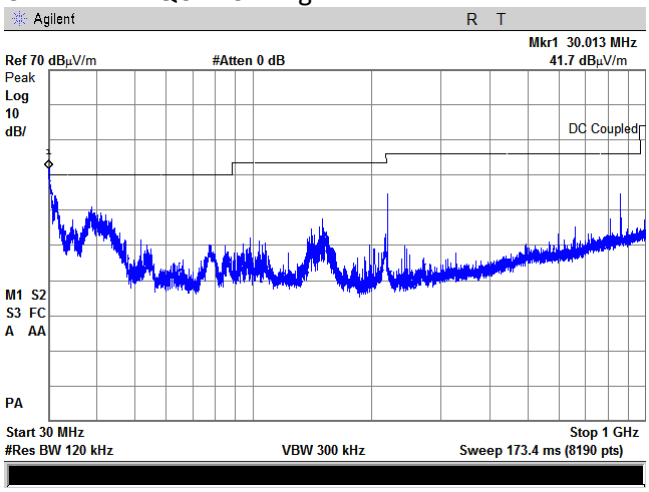
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)

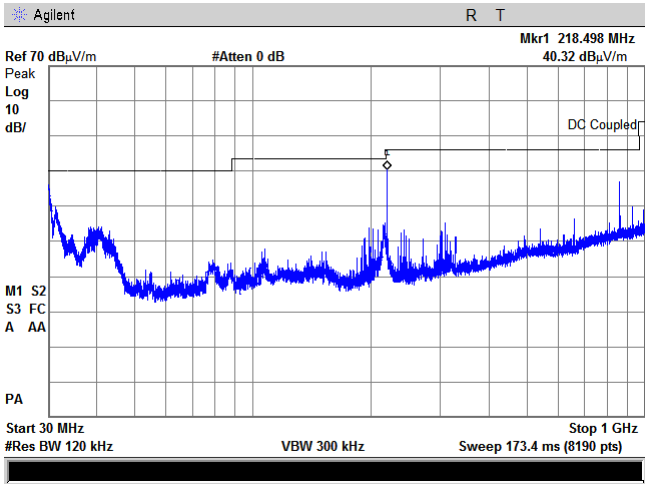
CARRIER FREQUENCY: Mid





CARRIER FREQUENCY: High

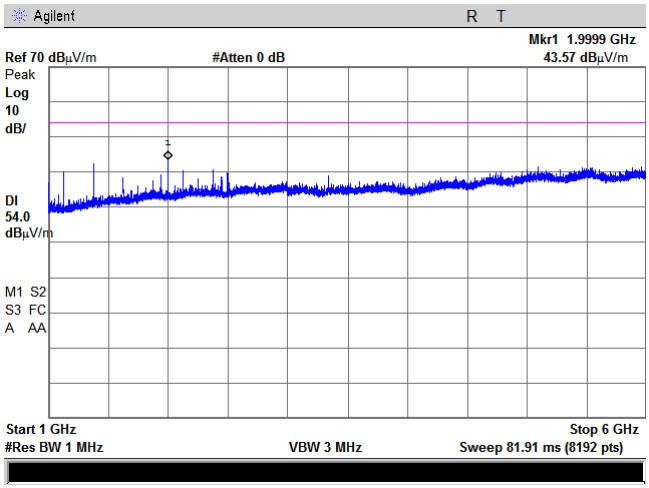


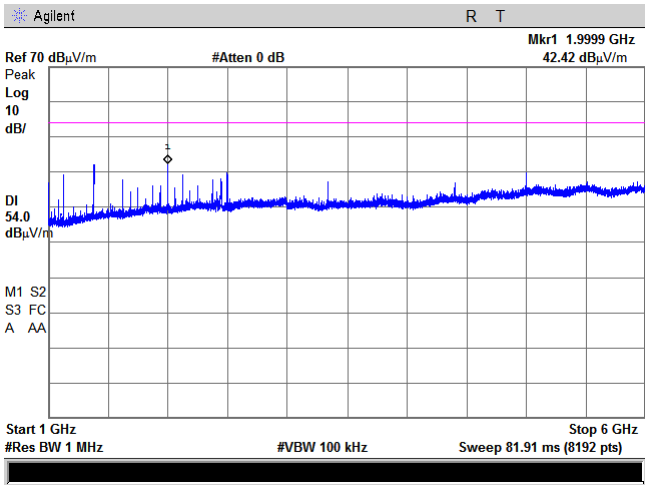


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.48 Radiated emission measurements from 1.0 to 6.0MHz

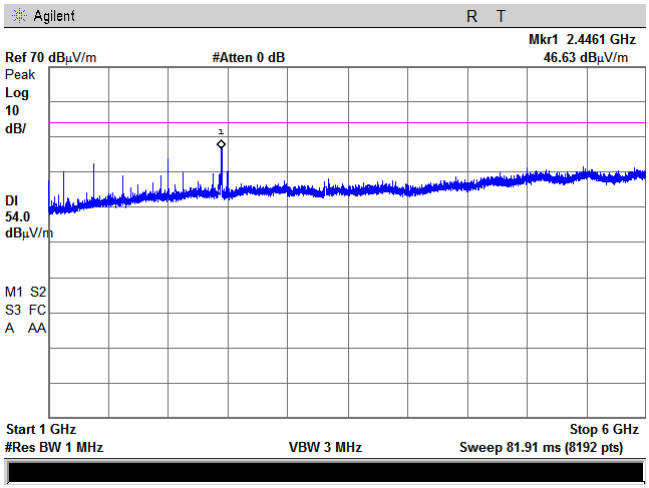
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Low

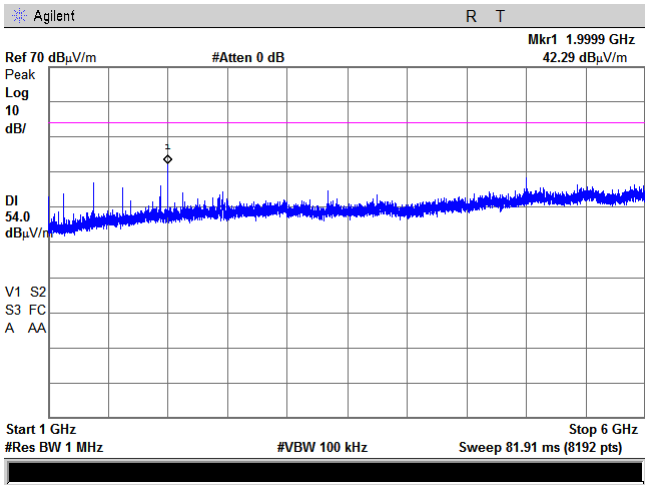




Plot 7.2.49 Radiated emission measurements from 1.0 to 6.0MHz

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

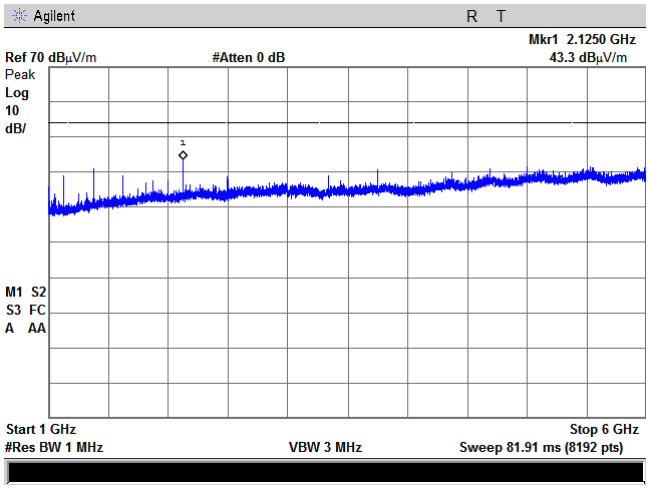


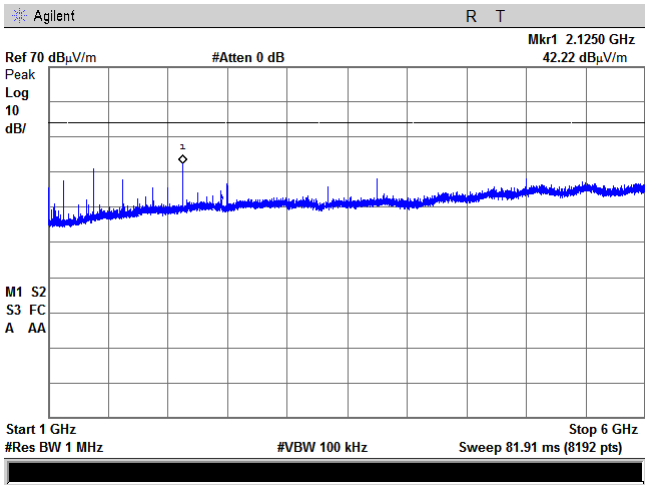


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.50 Radiated emission measurements from 1.0 to 6.0MHz

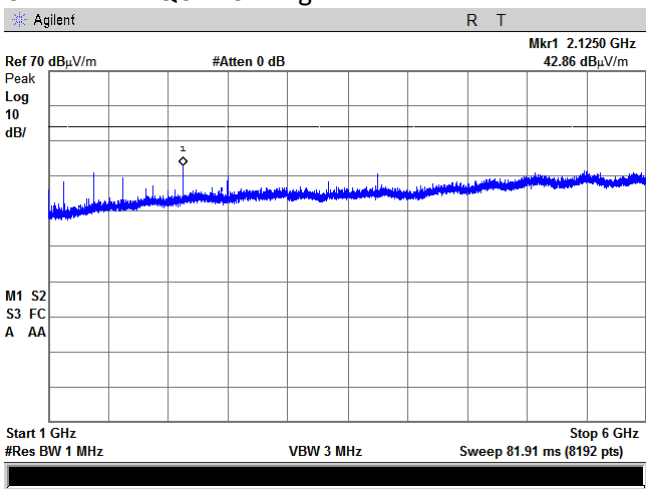
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Mid

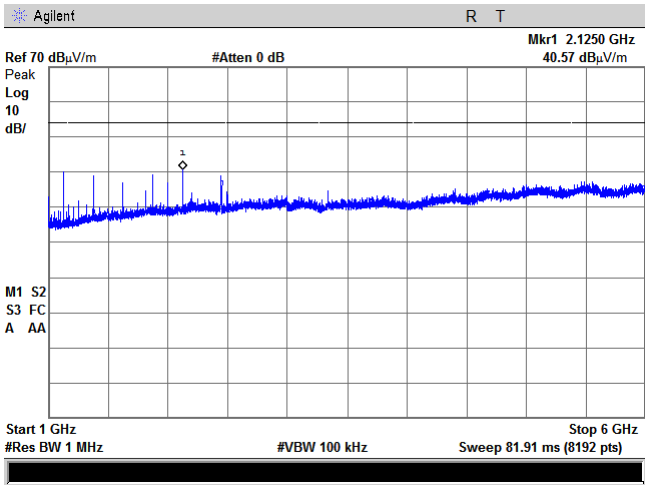




Plot 7.2.51 Radiated emission measurements from 1.0 to 6.0MHz

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



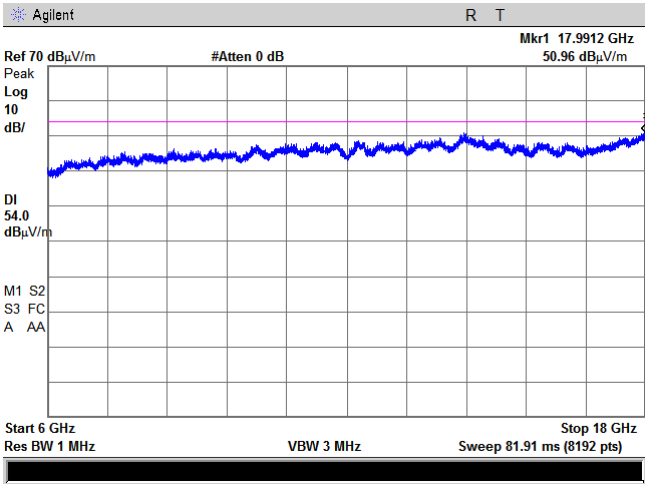


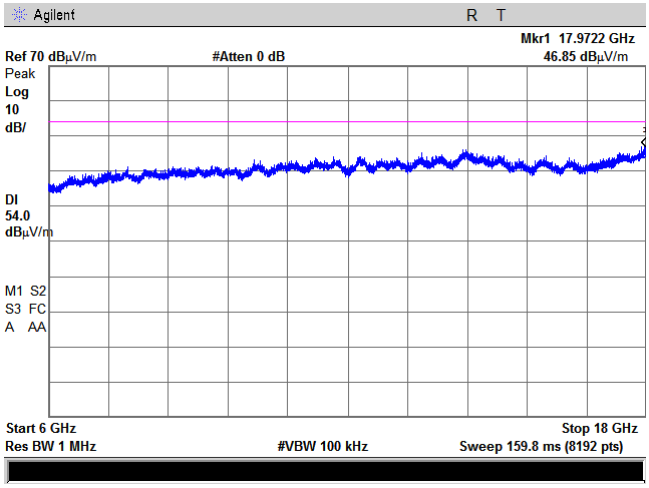
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.52 Radiated emission measurements from 6.0 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

CARRIER FREQUENCY: Low

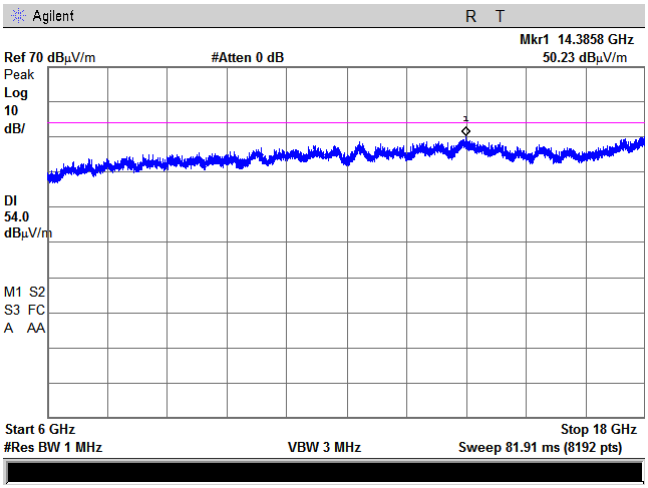


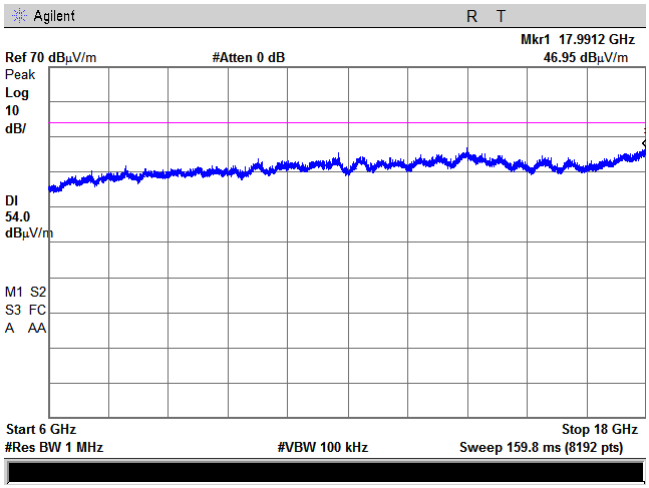


Plot 7.2.53 Radiated emission measurements from 6.0 to 18.0 GHz

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

CARRIER FREQUENCY: Mid



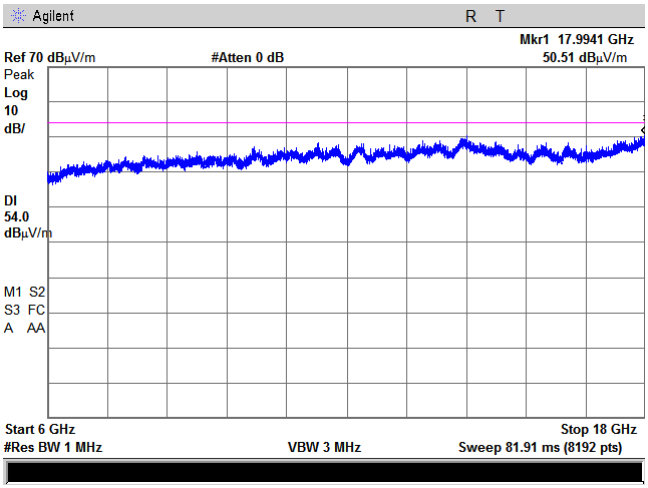


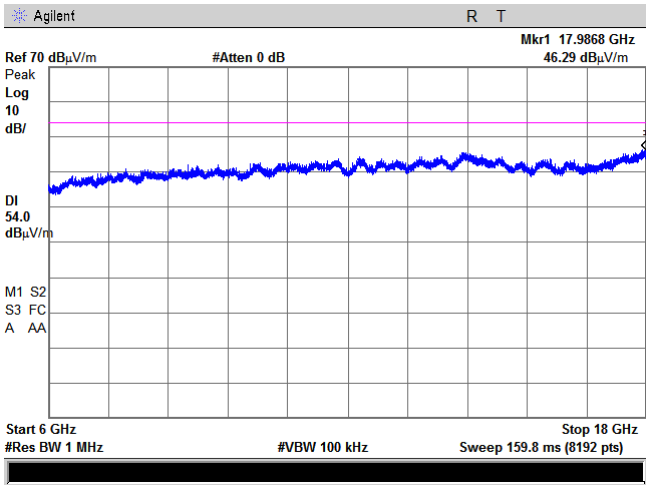
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.54 Radiated emission measurements from 6.0 to 18.0 GHz

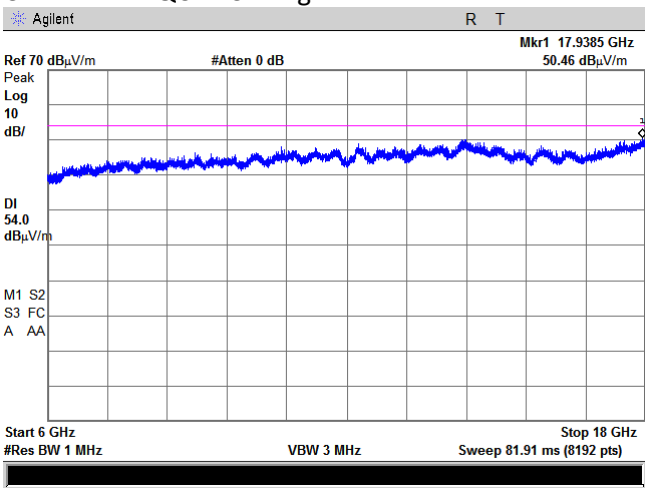
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz
CARRIER FREQUENCY: Low/Mid /High
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

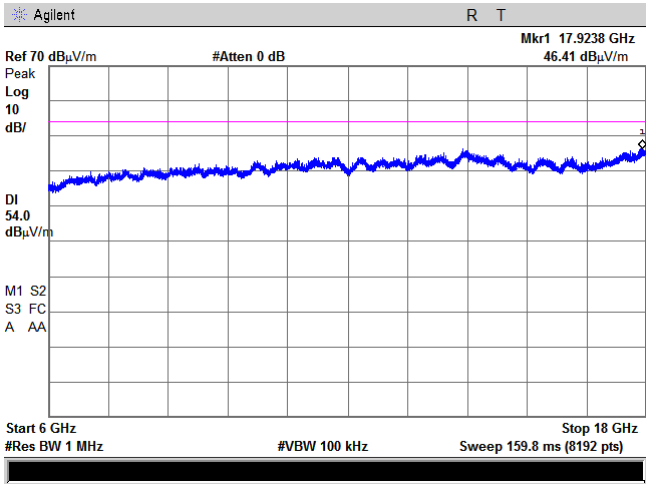
CARRIER FREQUENCY: Mid





CARRIER FREQUENCY: High

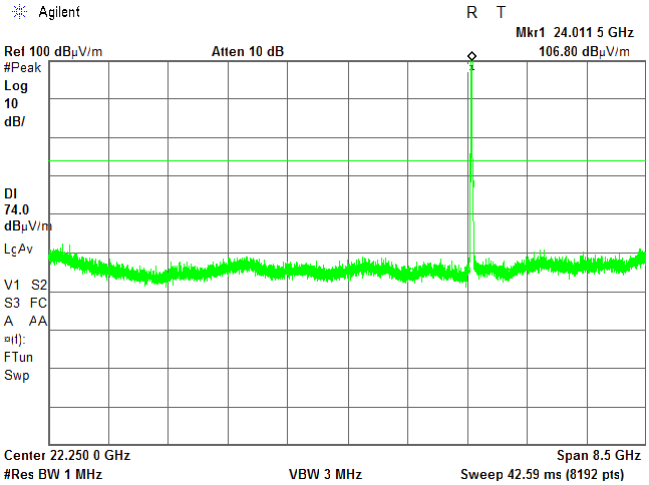


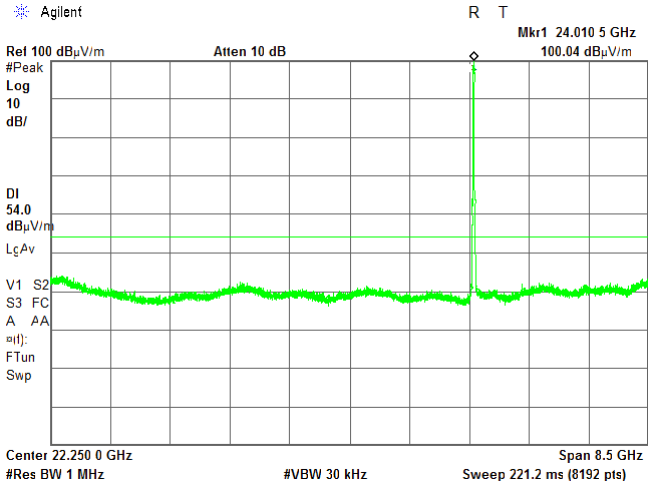


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 °C	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

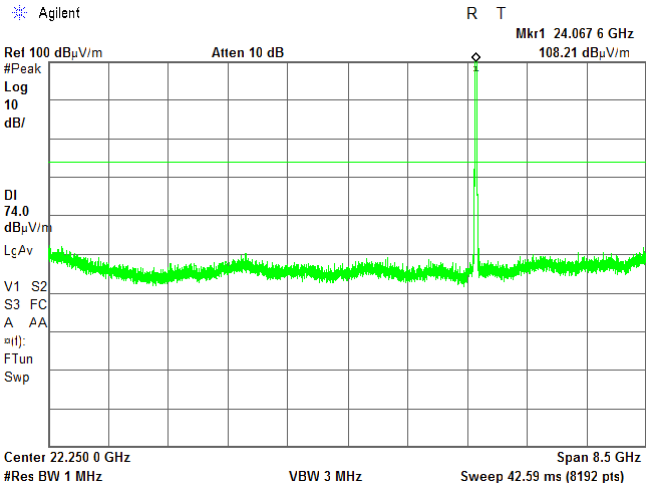
Plot 7.2.55 Radiated emission measurements from 18.0 to 26.5 GHz

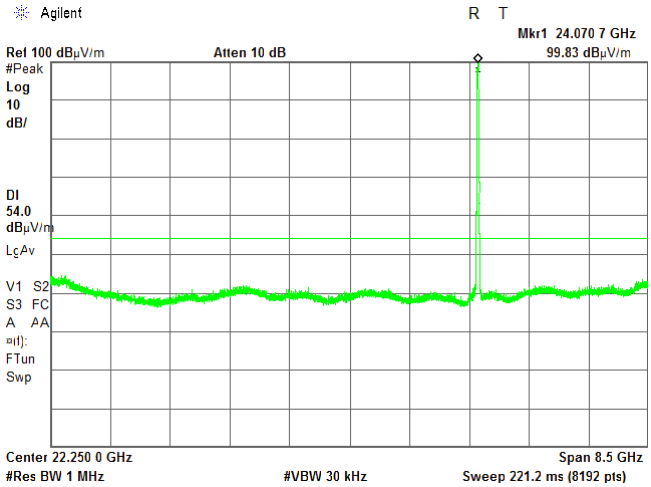
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Low





CARRIER FREQUENCY: Mid



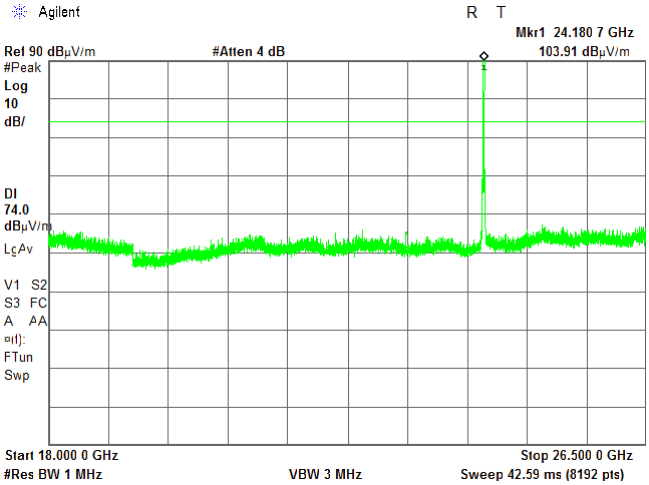


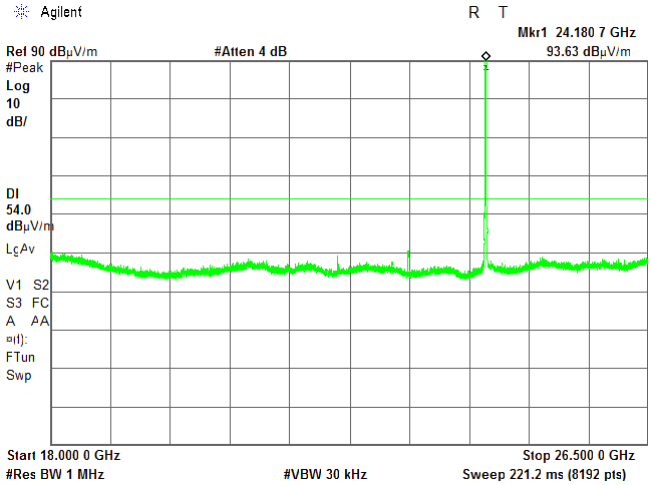
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.56 Radiated emission measurements from 18.0 to 26.5 GHz

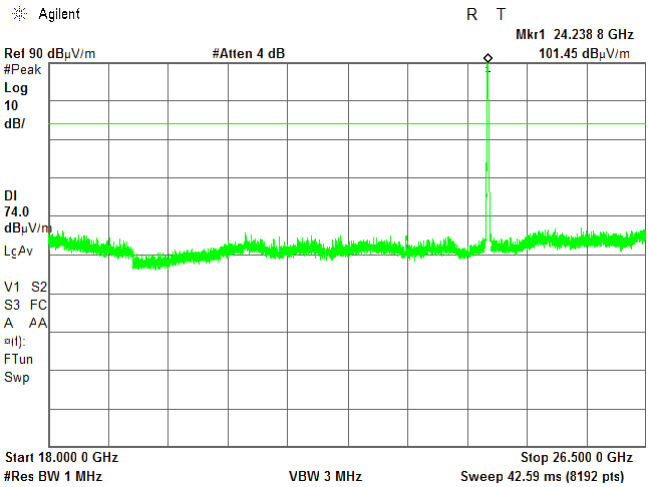
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

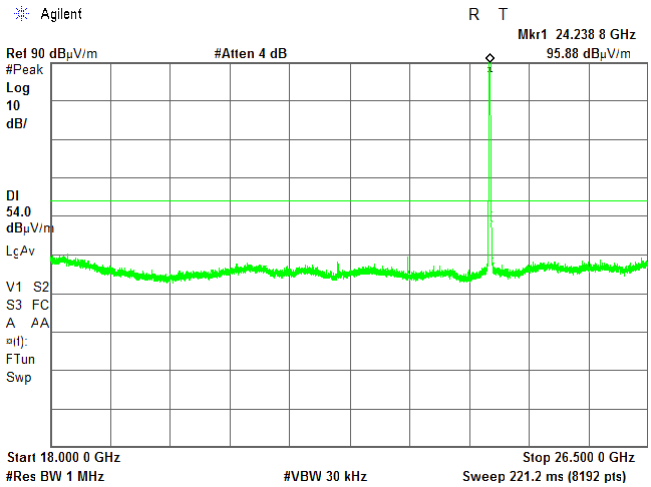
CARRIER FREQUENCY: Mid





CARRIER FREQUENCY: High



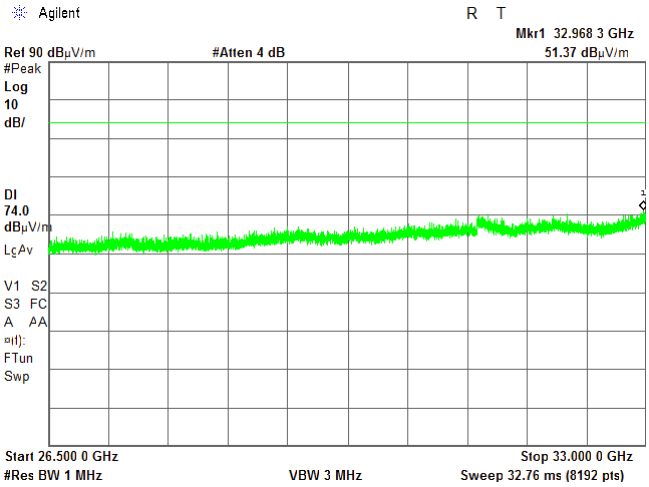


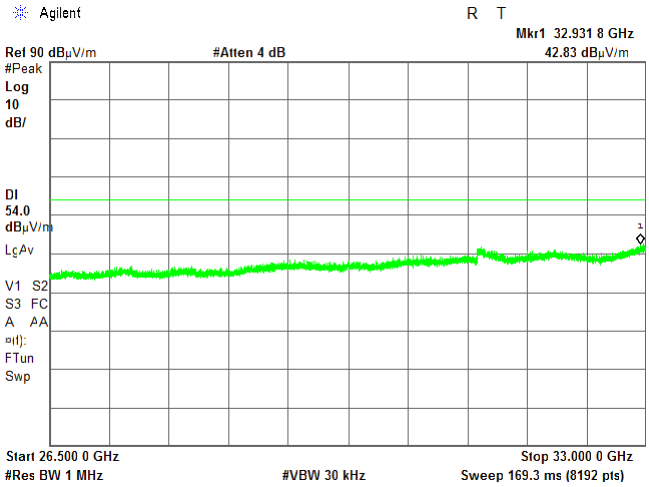
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.57 Radiated emission measurements from 26.5 to 33.0 GHz

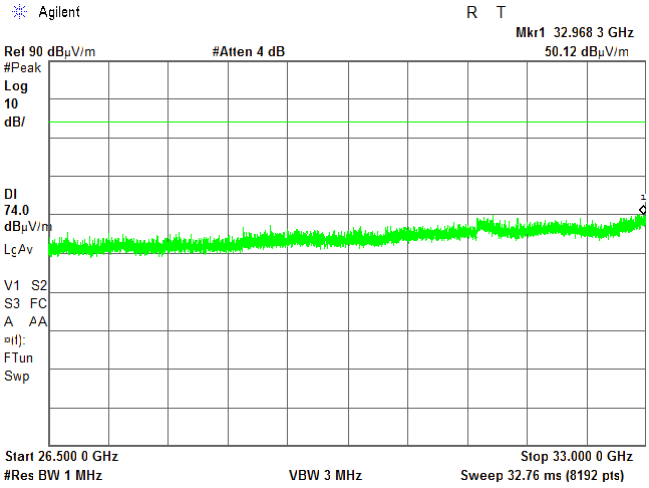
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 0.5 m
ANTENNA POLARIZATION: Vertical and Horizontal
EMISSION BANDWIDTH: 20 MHz
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

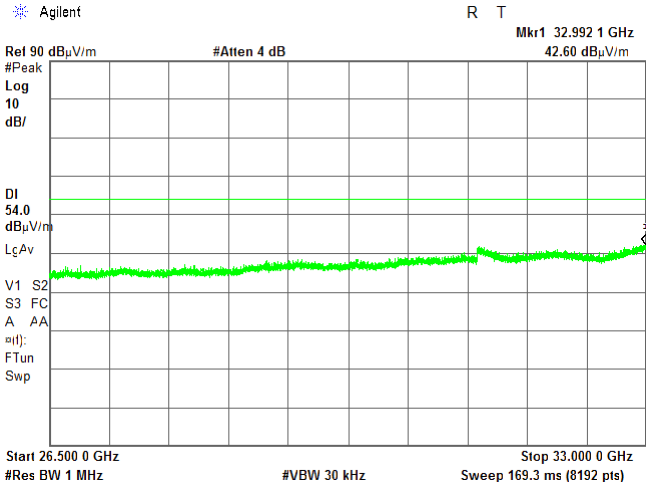
CARRIER FREQUENCY: Low





CARRIER FREQUENCY: Mid

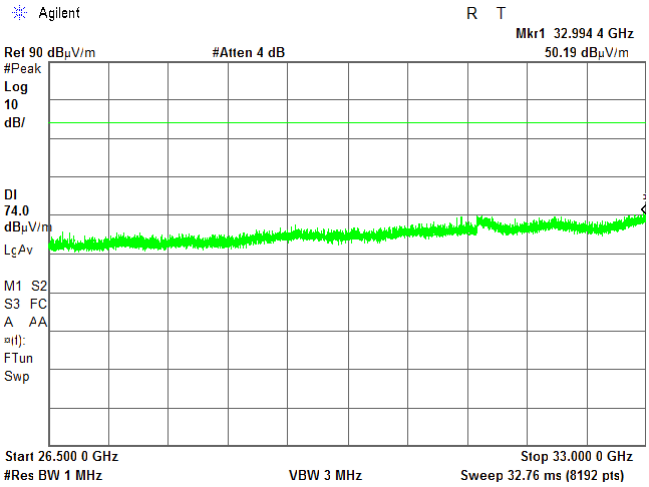


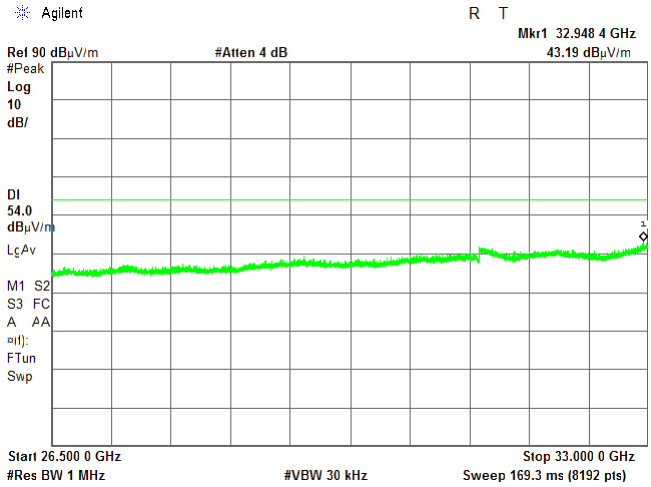


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

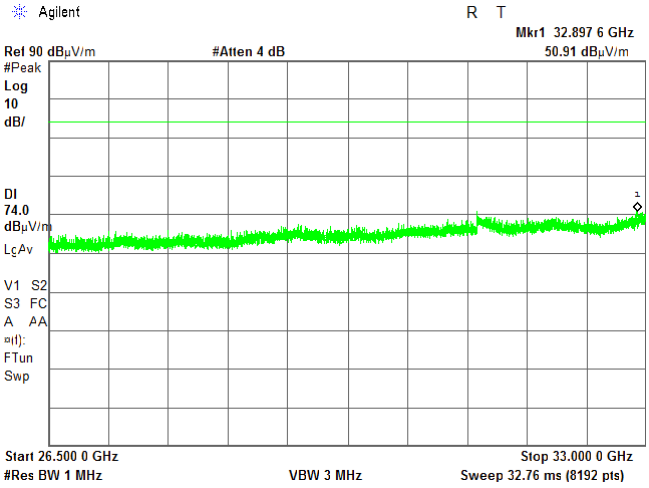
Plot 7.2.58 Radiated emission measurements from 26.5 to 33.0 GHz

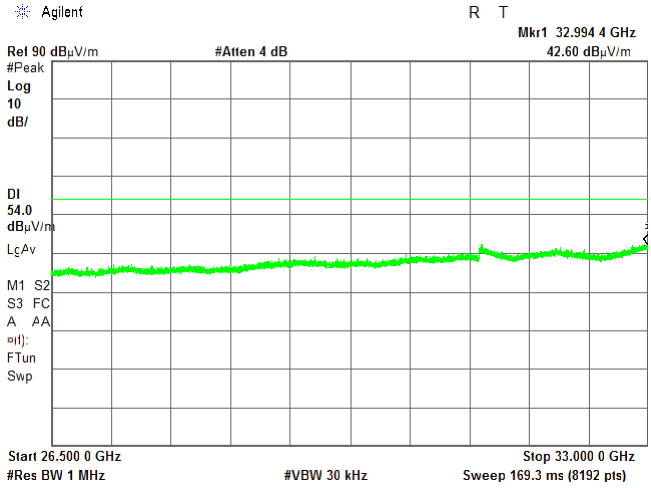
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 0.5 m
ANTENNA POLARIZATION: Vertical and Horizontal
EMISSION BANDWIDTH: 20 MHz
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Mid





CARRIER FREQUENCY: High



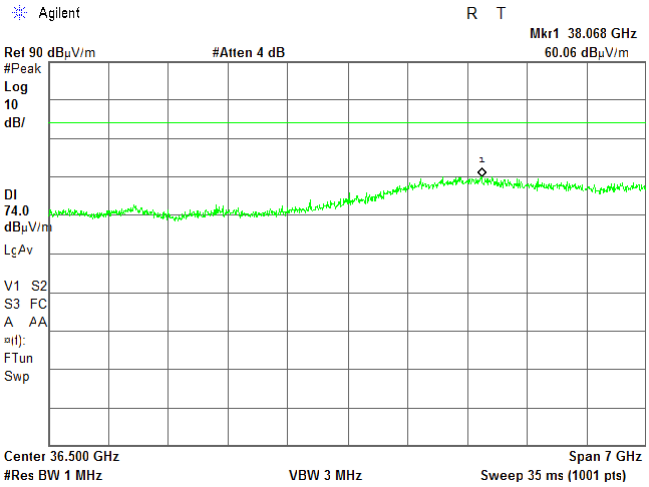


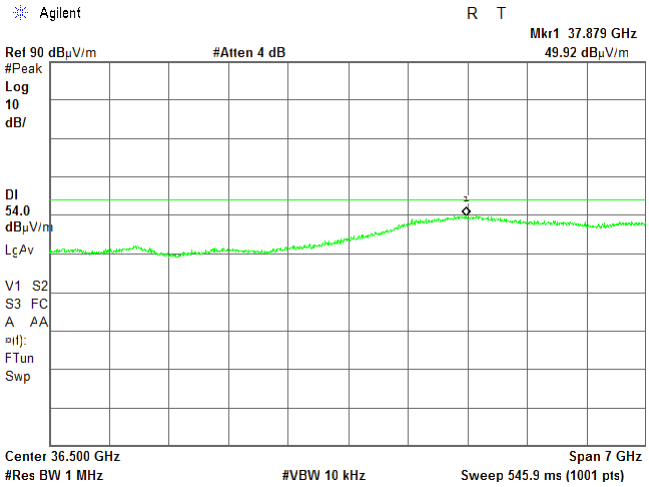
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.59 Radiated emission measurements from 33.0 to 40.0 GHz

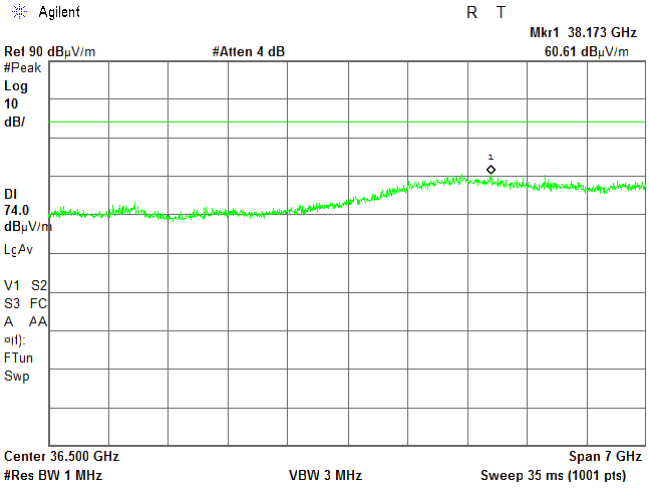
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 0.5 m
ANTENNA POLARIZATION: Vertical and Horizontal
EMISSION BANDWIDTH: 20 MHz
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

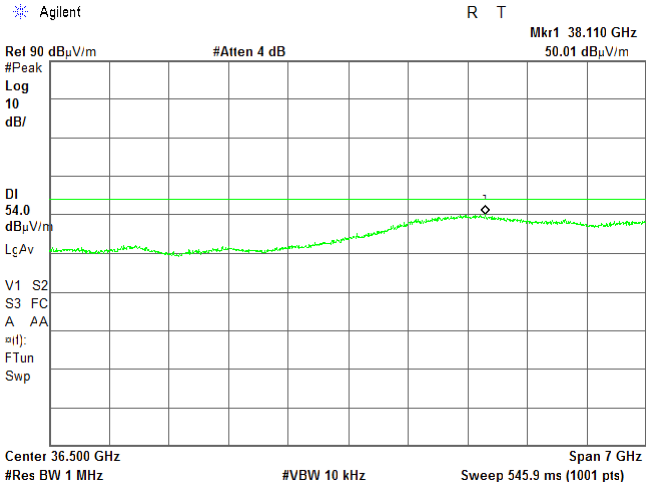
CARRIER FREQUENCY: Low





CARRIER FREQUENCY: Mid

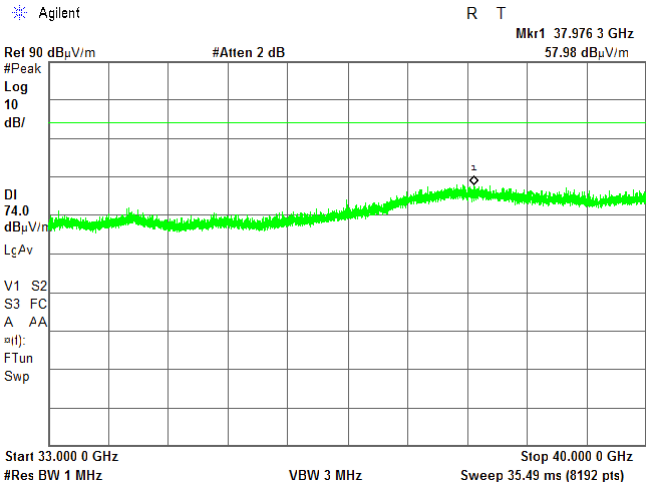


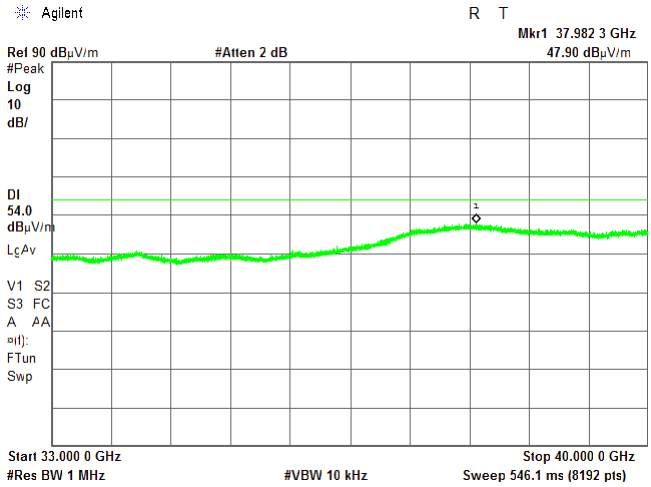


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

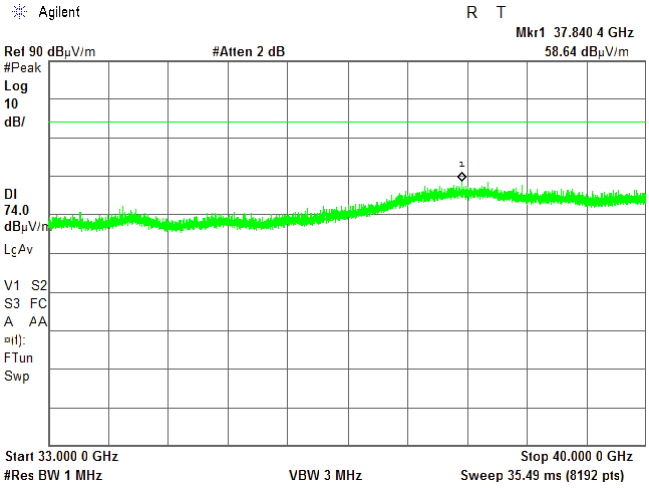
Plot 7.2.60 Radiated emission measurements from 33.0 to 40.0 GHz

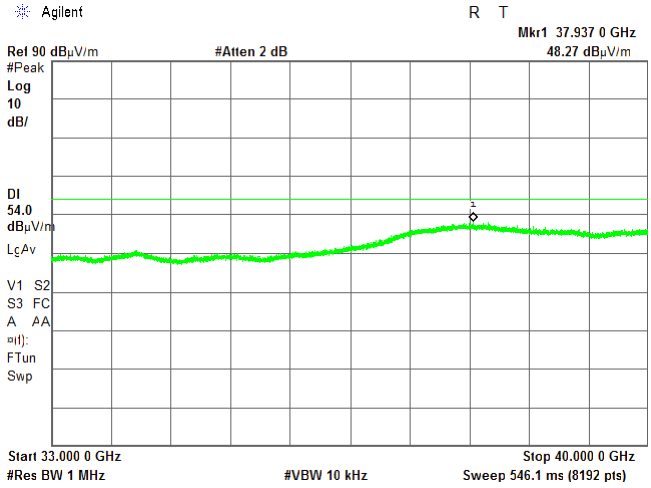
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 0.5 m
ANTENNA POLARIZATION: Vertical and Horizontal
EMISSION BANDWIDTH: 20 MHz
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Mid





CARRIER FREQUENCY: High

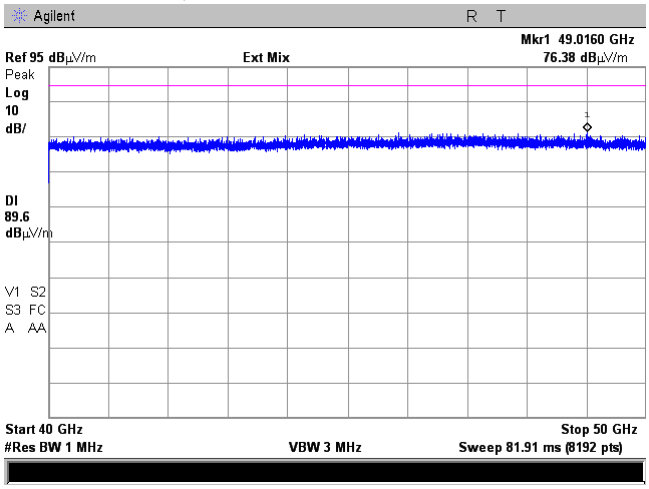


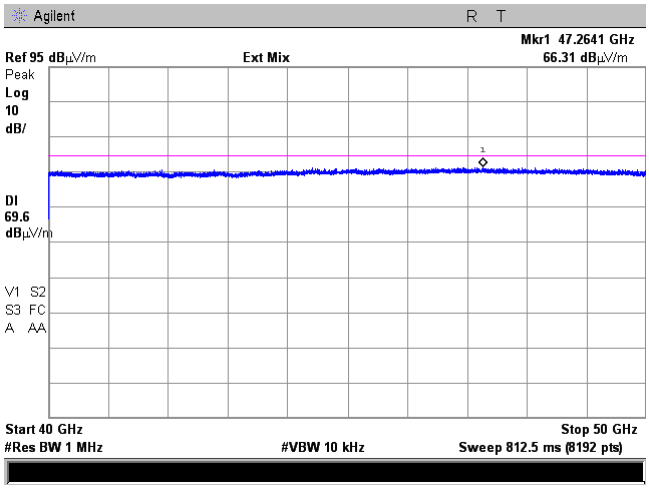


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

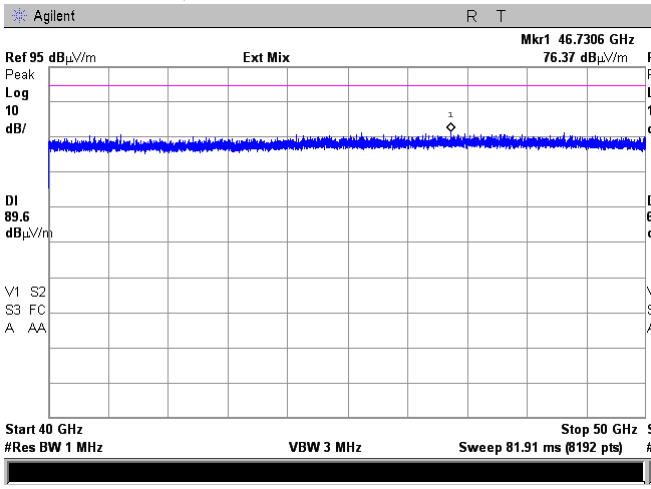
Plot 7.2.61 Radiated emission measurements from 40.0 to 50.0 GHz

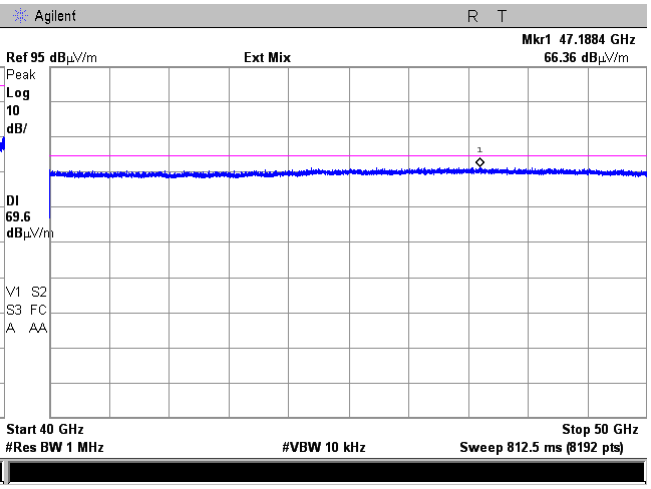
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 0.5 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Low





CARRIER FREQUENCY: Mid

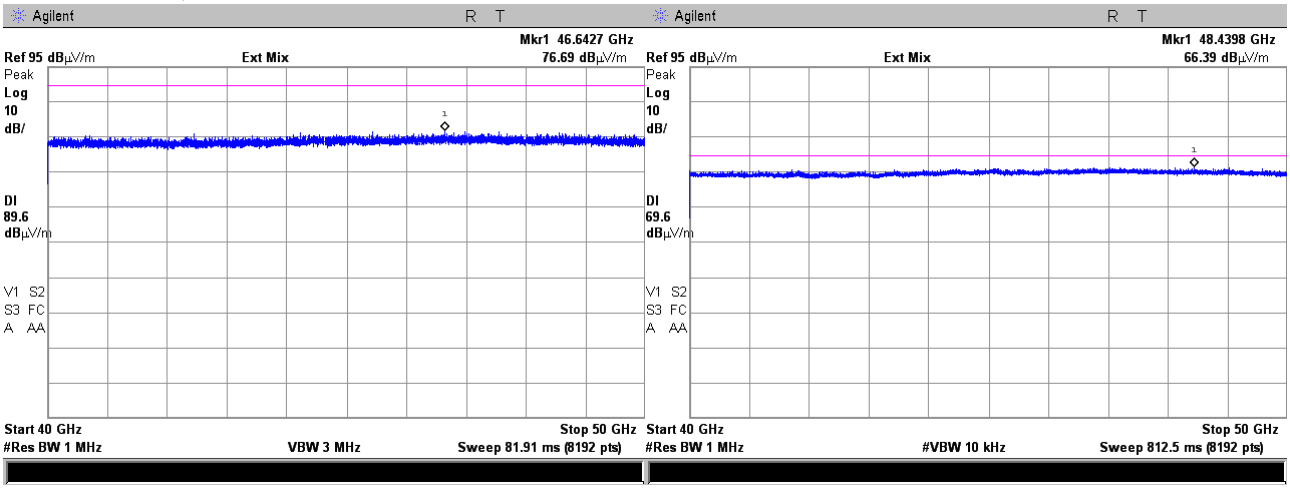




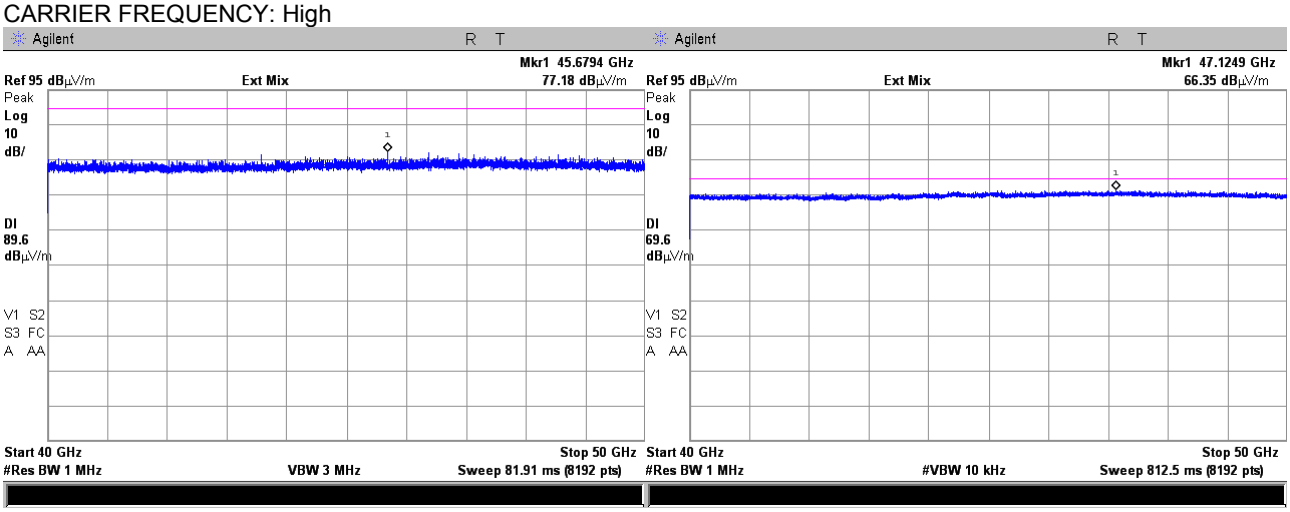
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.62 Radiated emission measurements from 40.0 to 50.0 GHz

TEST SITE: Semi anechoic chamber
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



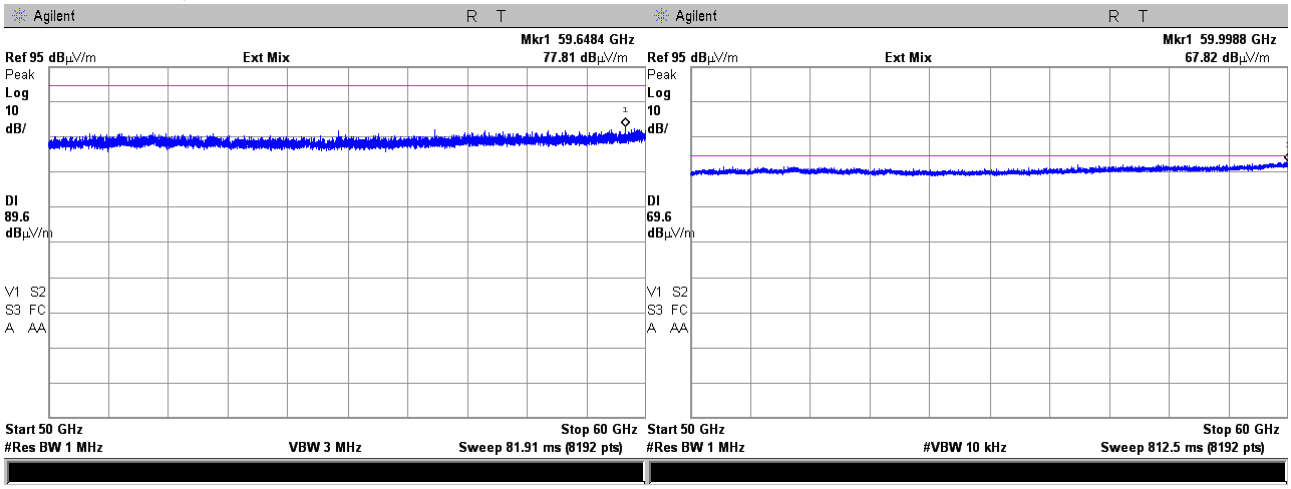
CARRIER FREQUENCY: High



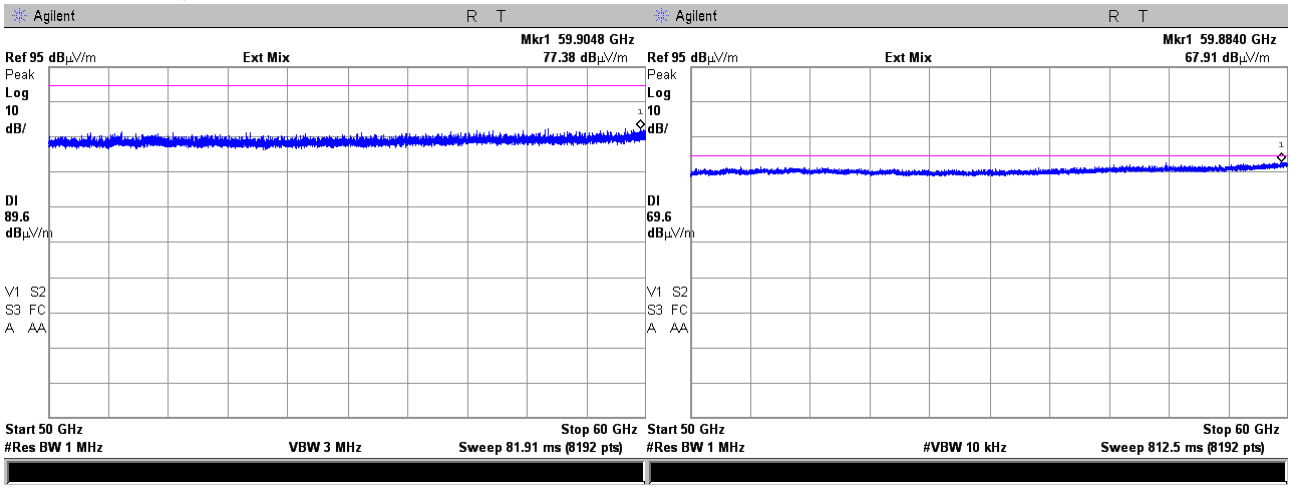
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.63 Radiated emission measurements from 50.0 to 60.0 GHz

TEST SITE: Semi anechoic chamber
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: Low



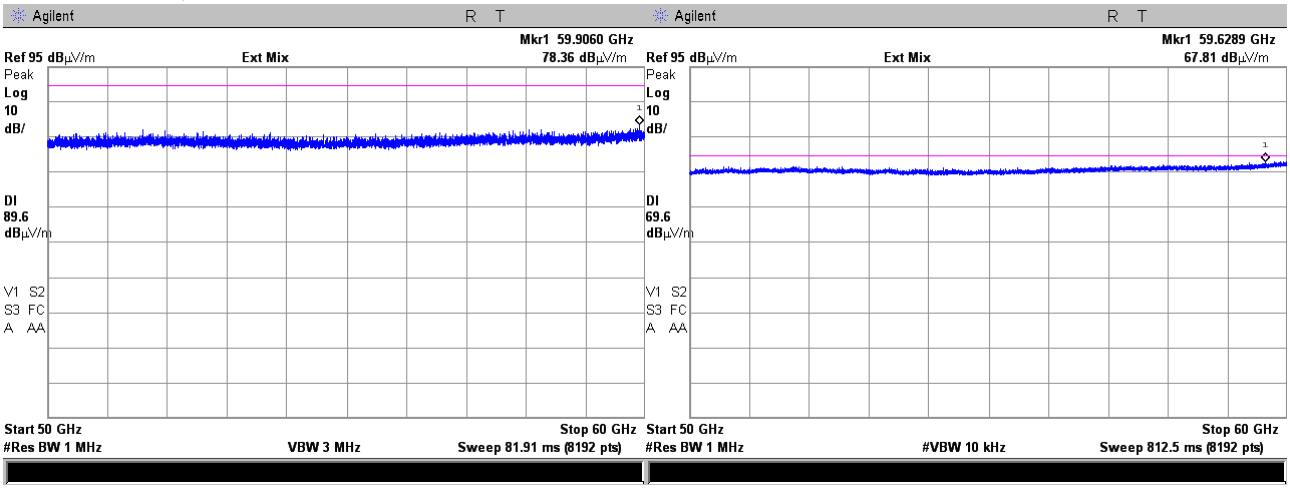
CARRIER FREQUENCY: Mid



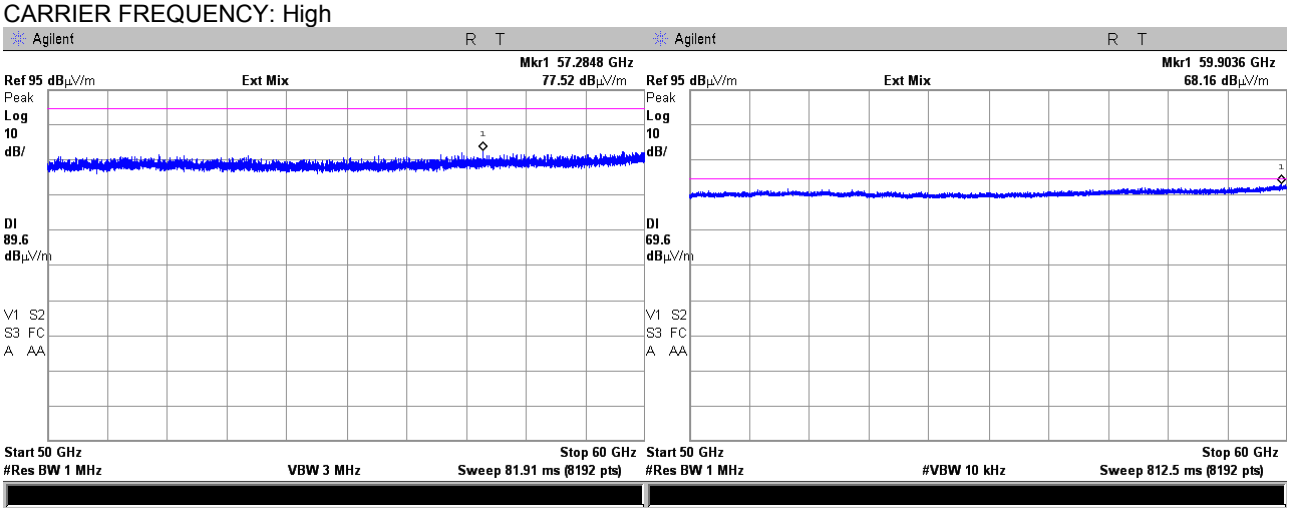
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.64 Radiated emission measurements from 50.0 to 60.0 GHz

TEST SITE: Semi anechoic chamber
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



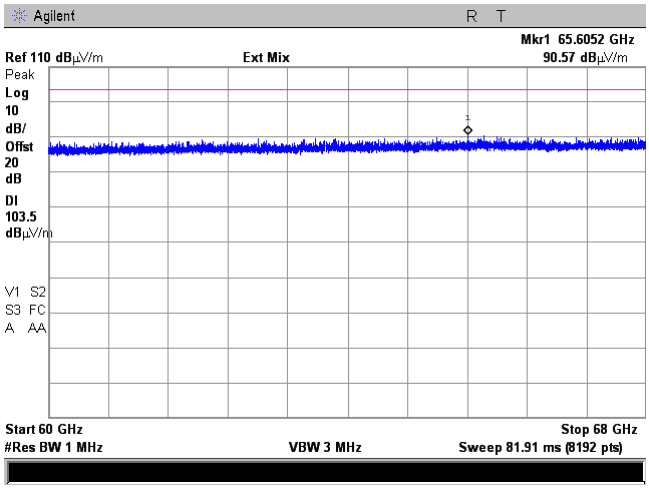
CARRIER FREQUENCY: High

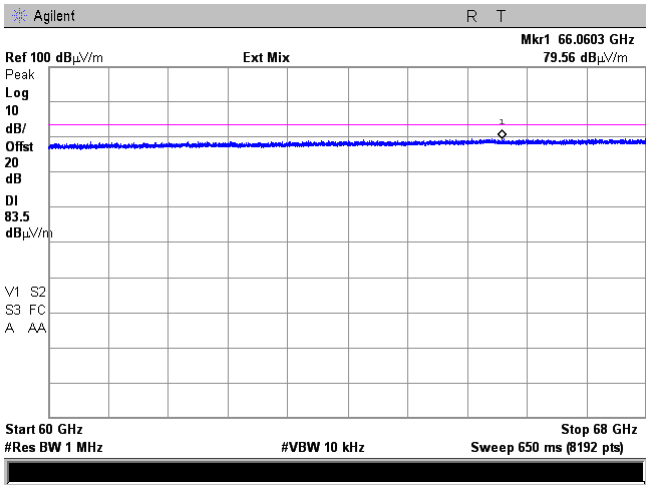


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

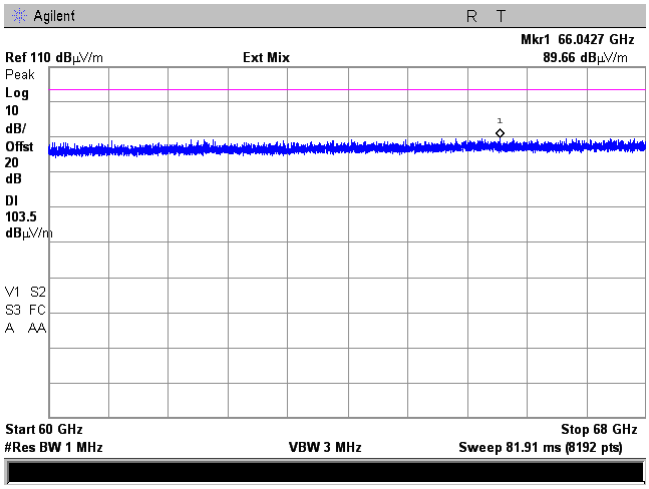
Plot 7.2.65 Radiated emission measurements from 60.0 to 68.0 GHz

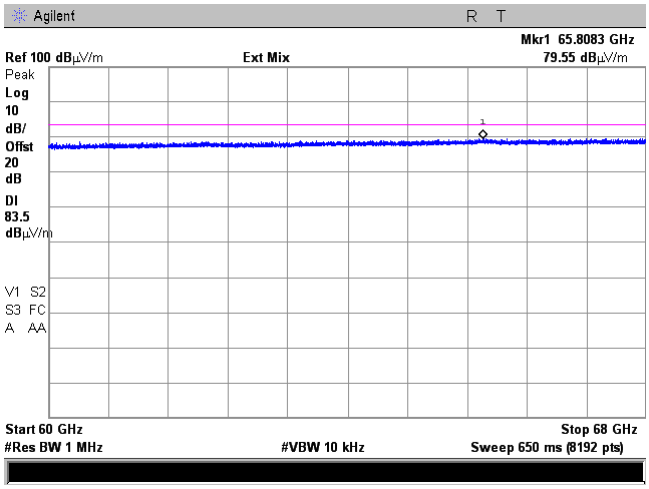
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 0.1 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Low





CARRIER FREQUENCY: Mid



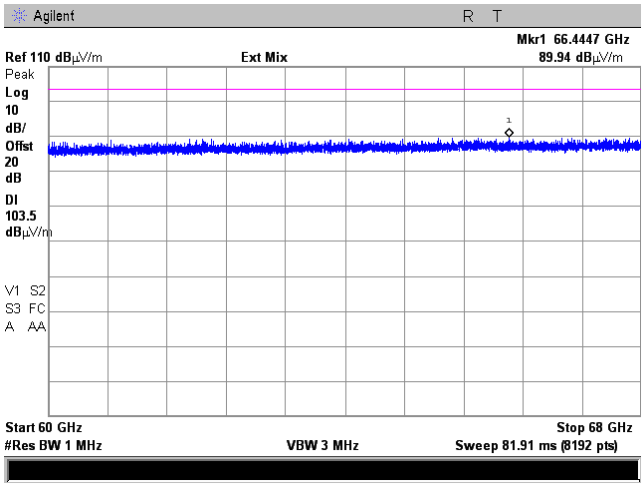


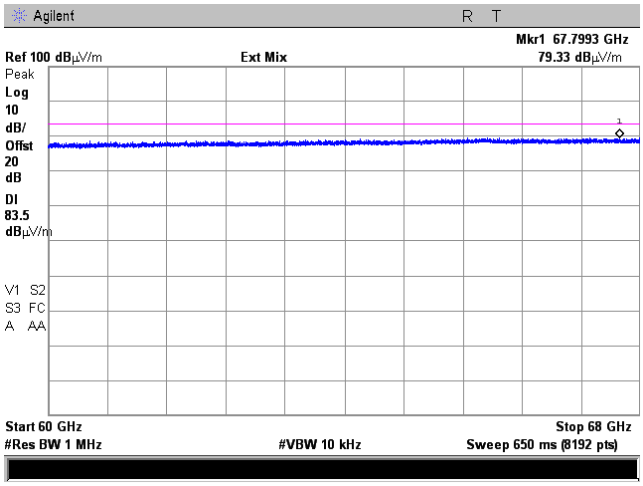
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.66 Radiated emission measurements from 60.0 to 68.0 GHz

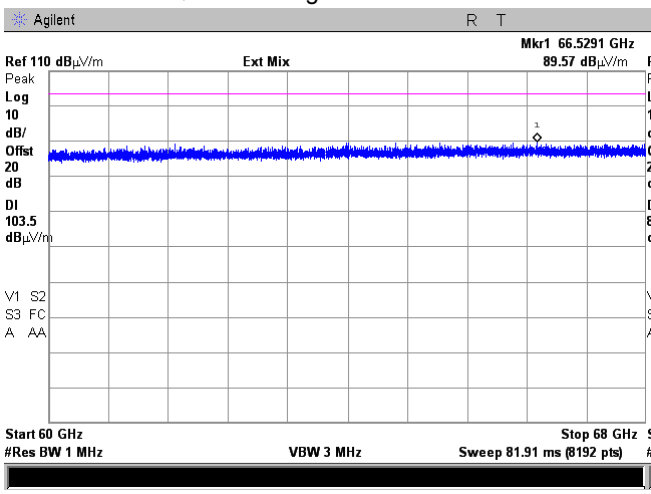
TEST SITE:	Semi anechoic chamber
TEST DISTANCE:	0.1 m
ANTENNA POLARIZATION:	Vertical and Horizontal
EUT POSITION:	Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz	DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz

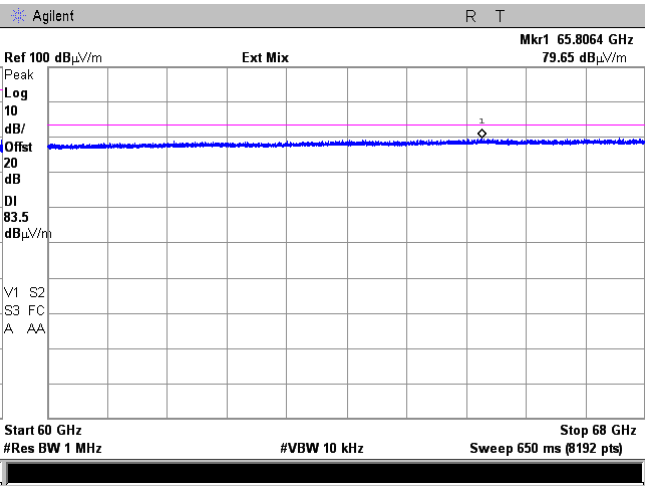
CARRIER FREQUENCY: Mid





CARRIER FREQUENCY: High

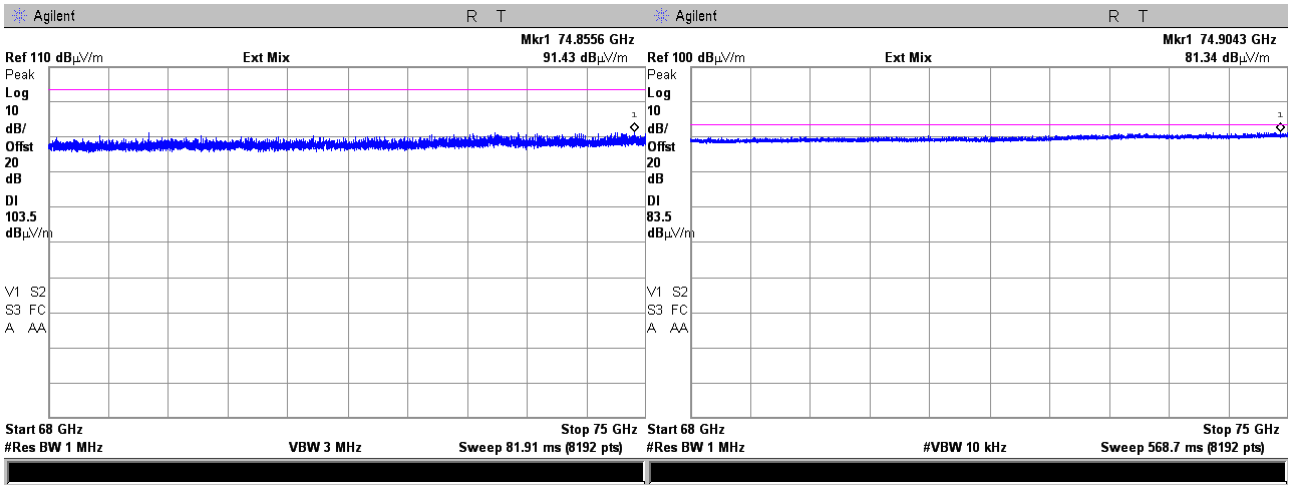




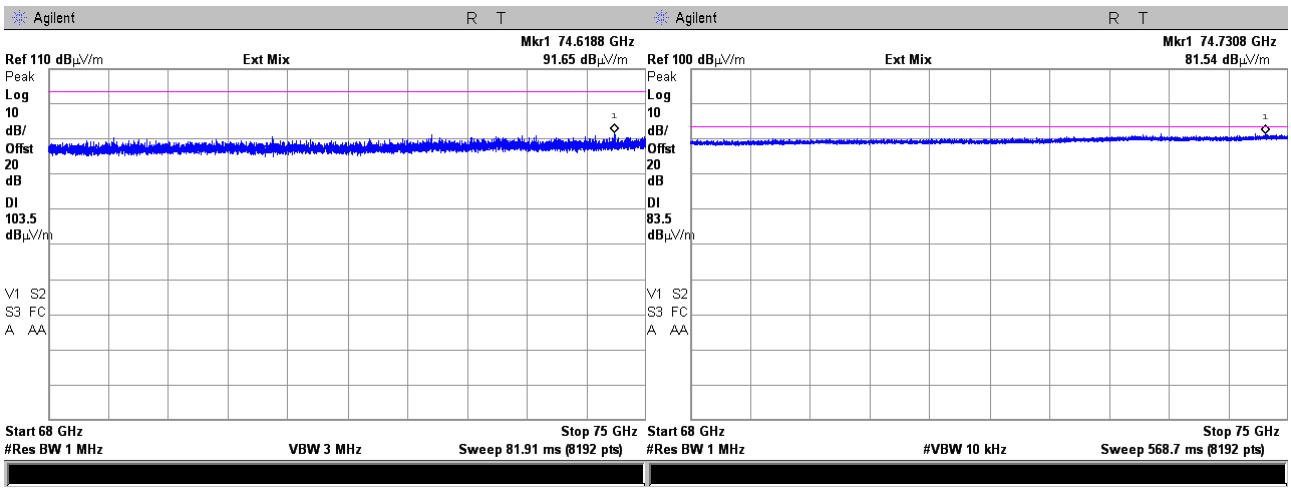
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.67 Radiated emission measurements from 68.0 to 75.0 GHz

TEST SITE: Semi anechoic chamber
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



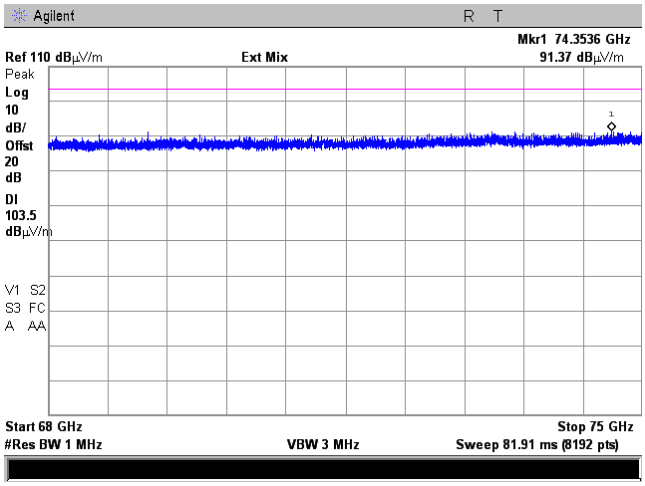
CARRIER FREQUENCY: Mid

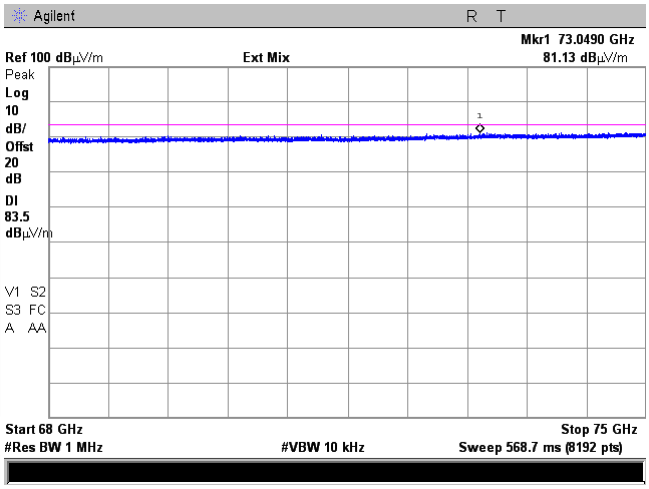


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

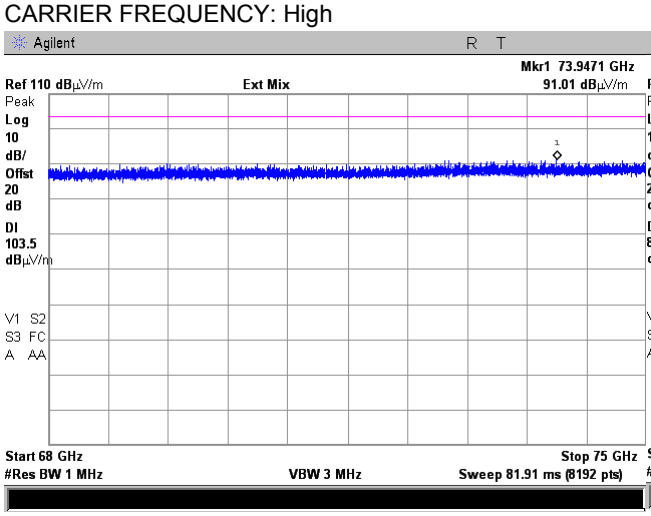
Plot 7.2.68 Radiated emission measurements from 68.0 to 75.0 GHz

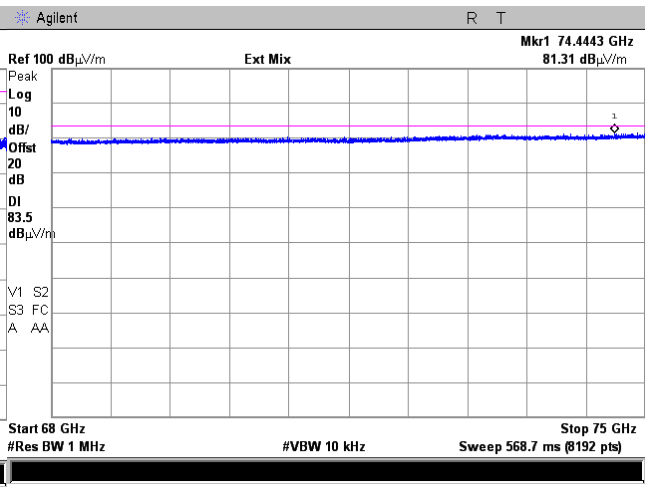
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 0.1 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)
DETECTOR PEAK: RBW = 1 MHz; VBW = 3 MHz
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Mid





CARRIER FREQUENCY: High

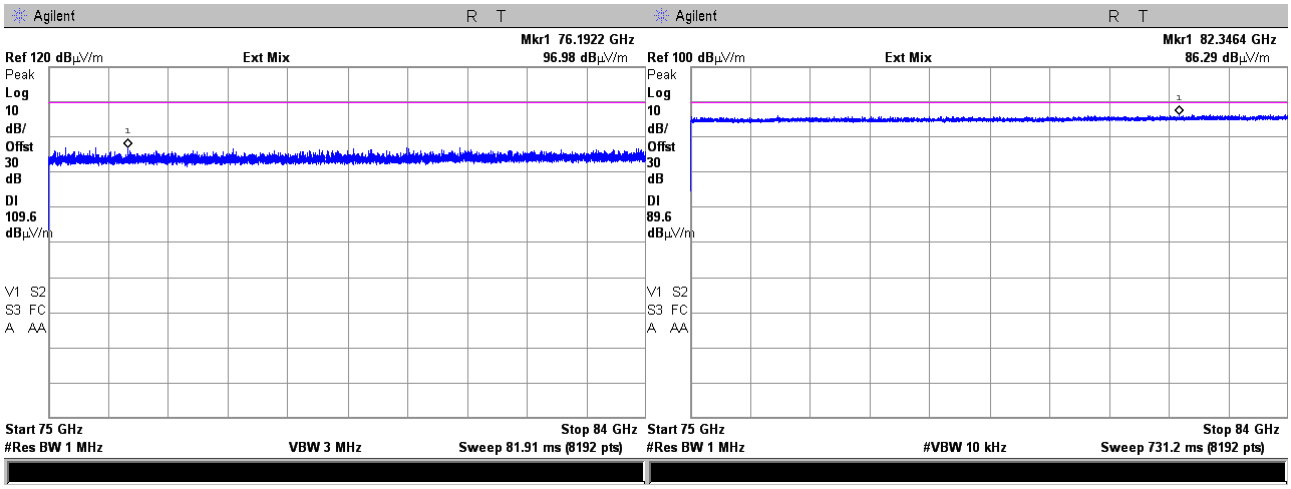




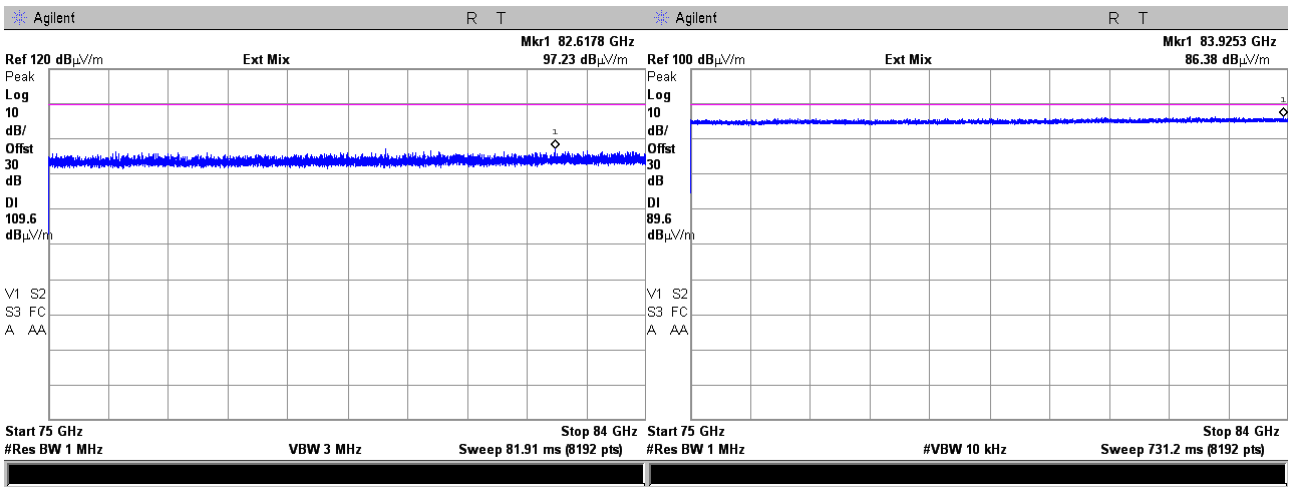
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.69 Radiated emission measurements from75.0 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



CARRIER FREQUENCY: Mid

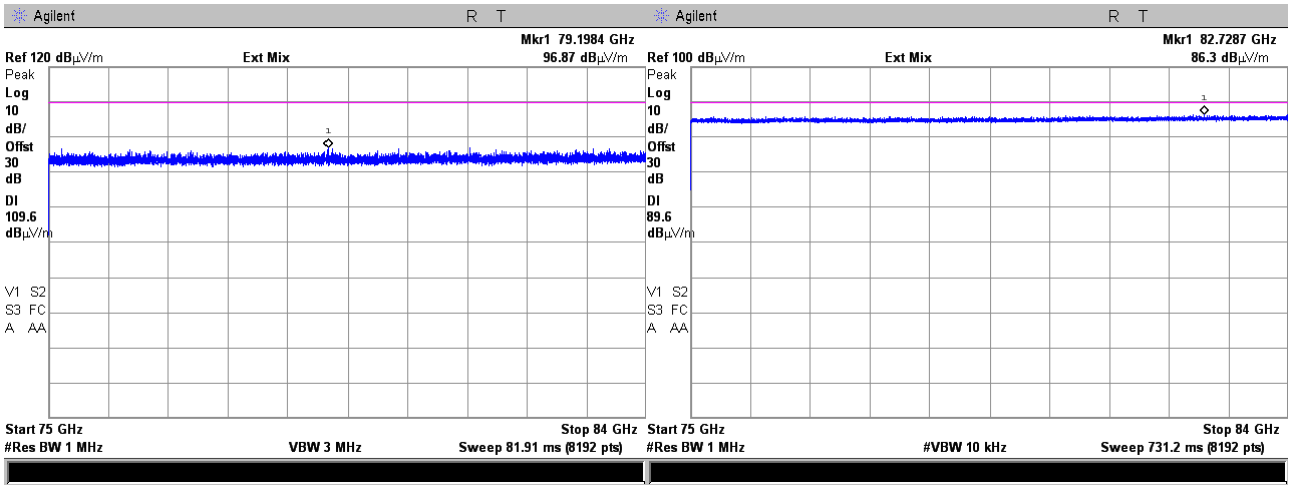


Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

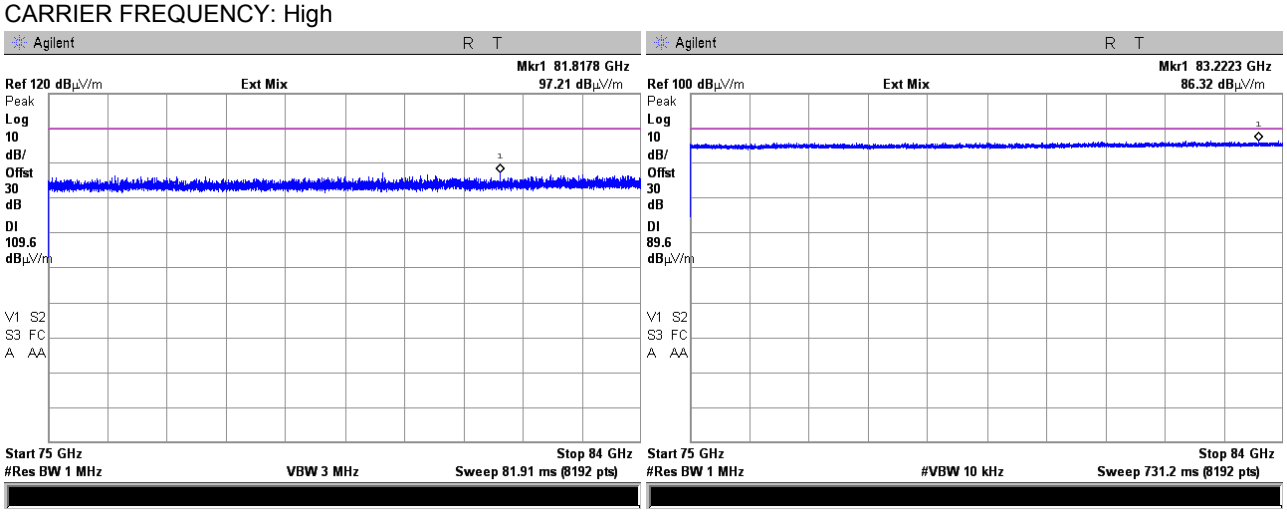
Plot 7.2.70 Radiated emission measurements from75.0 to 84.0 GHz

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



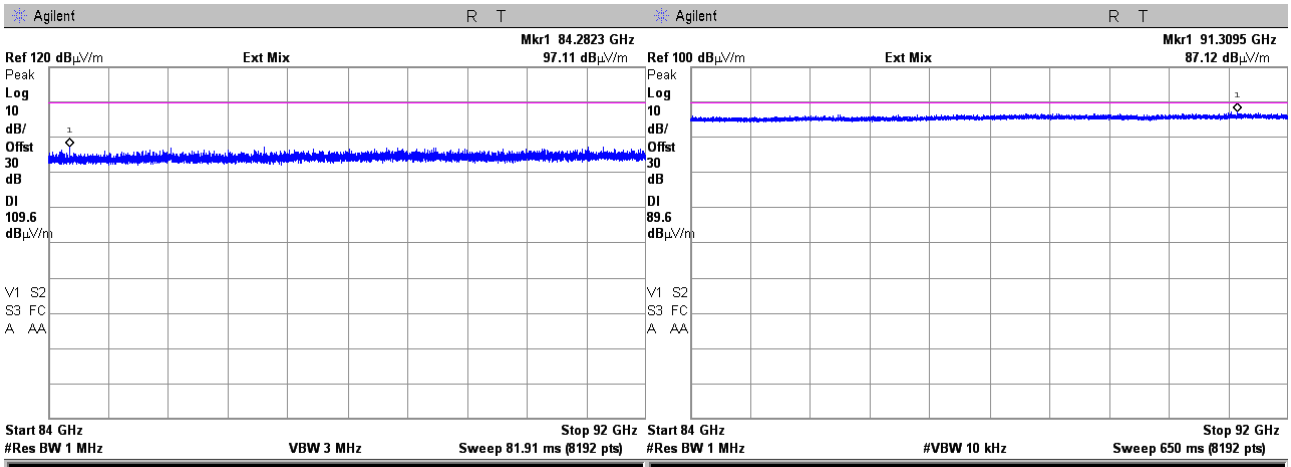
CARRIER FREQUENCY: High



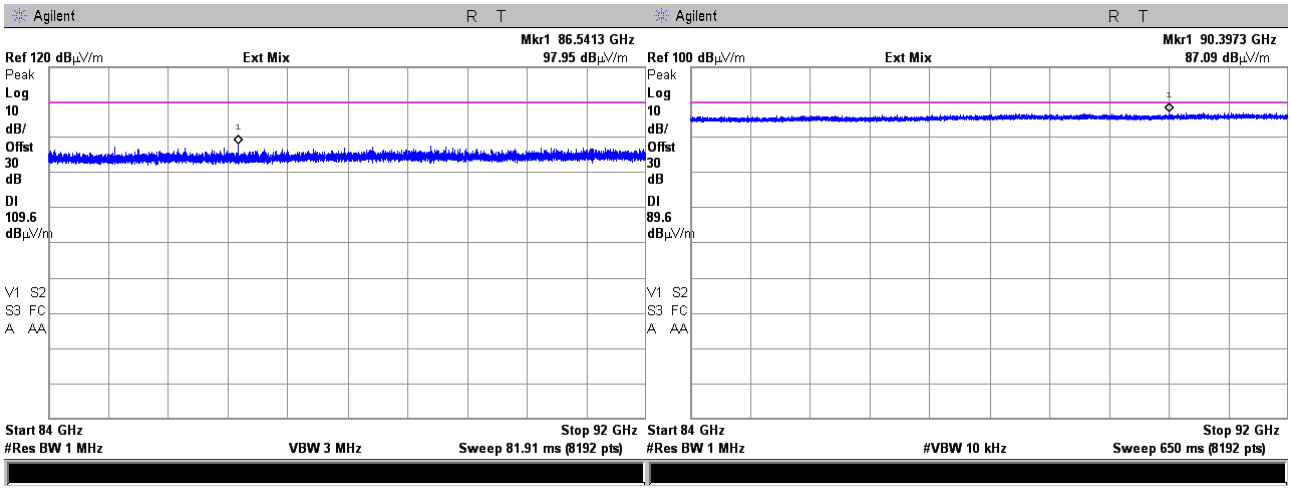
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.71 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
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Low



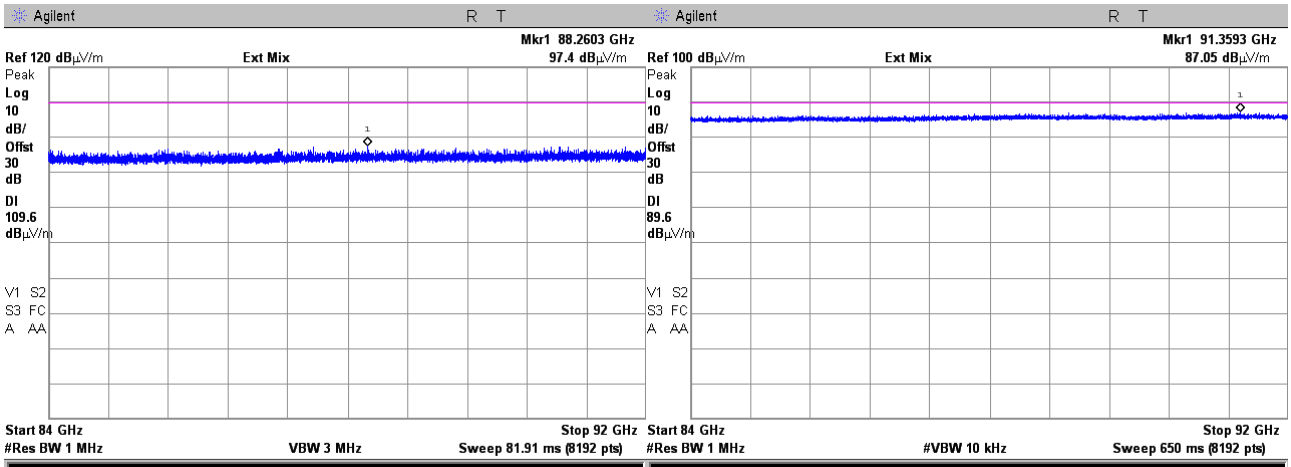
CARRIER FREQUENCY: Mid



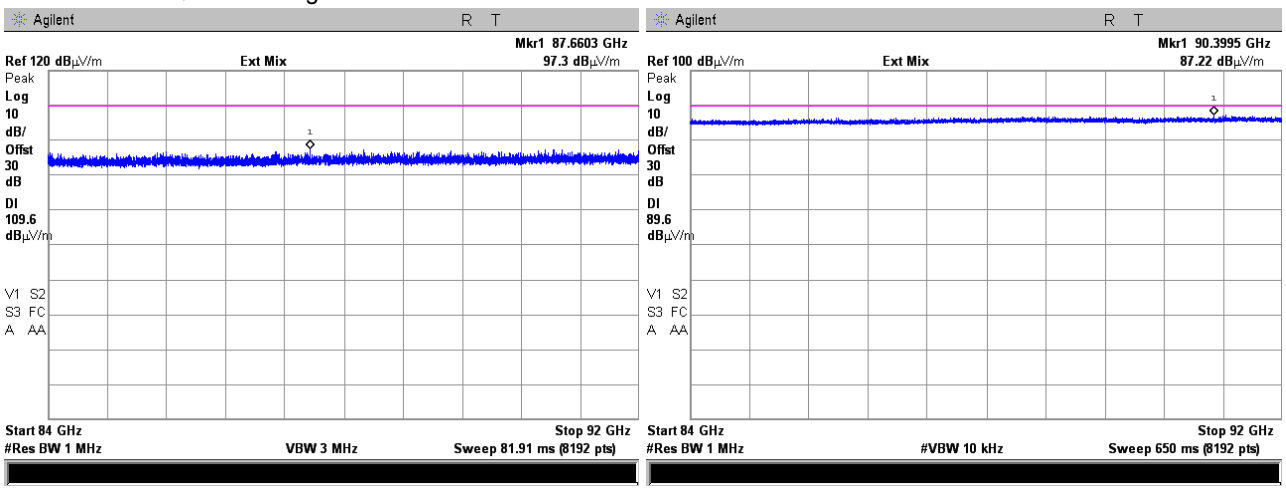
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.72 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
DETECTOR AVERAGE: RBW = 1 MHz; VBW = 10 kHz
CARRIER FREQUENCY: Mid



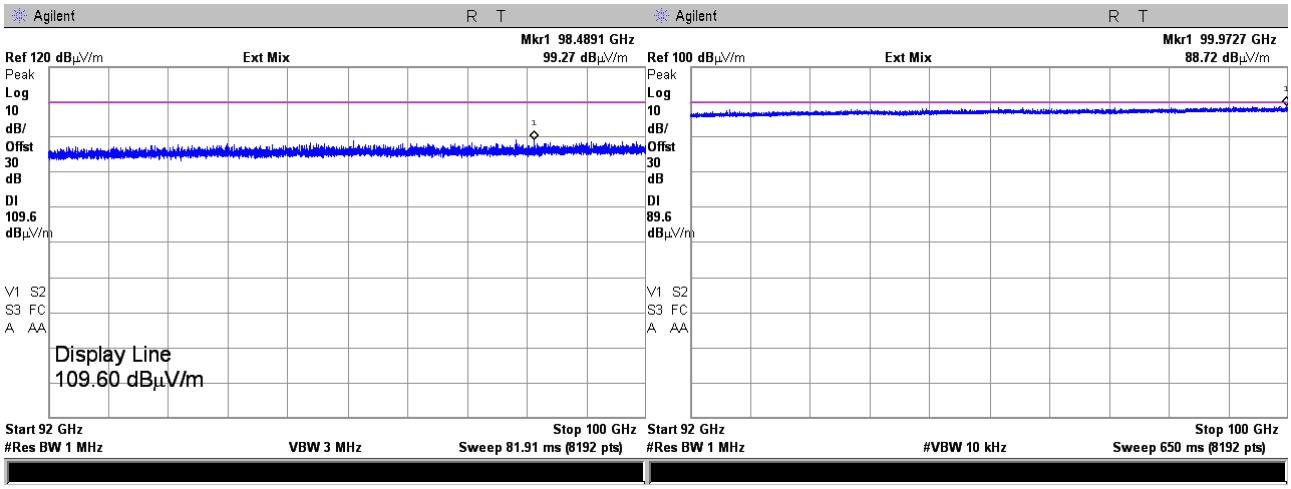
CARRIER FREQUENCY: High



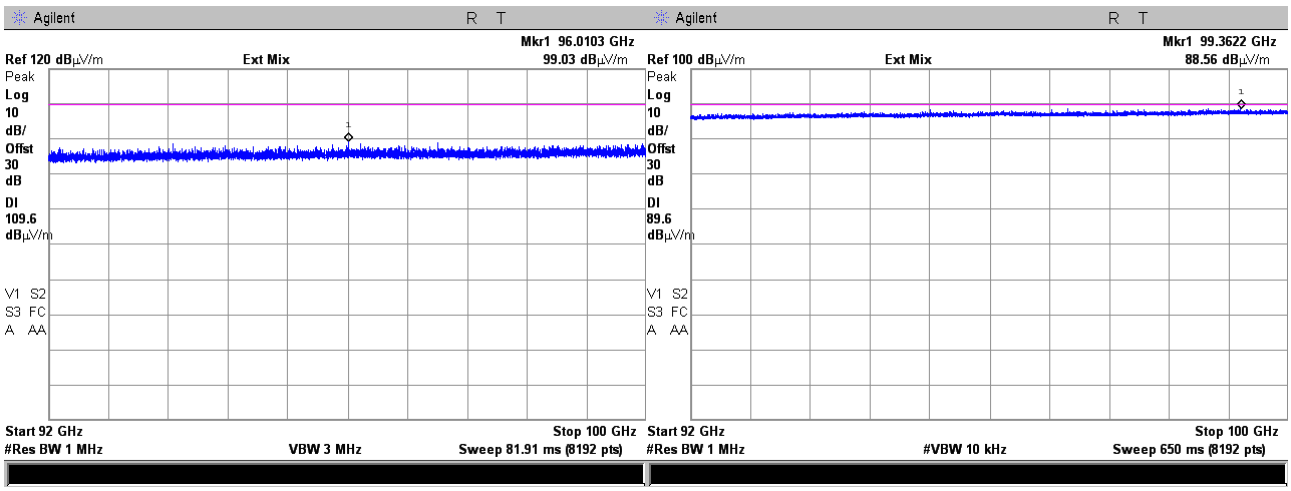
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.73 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



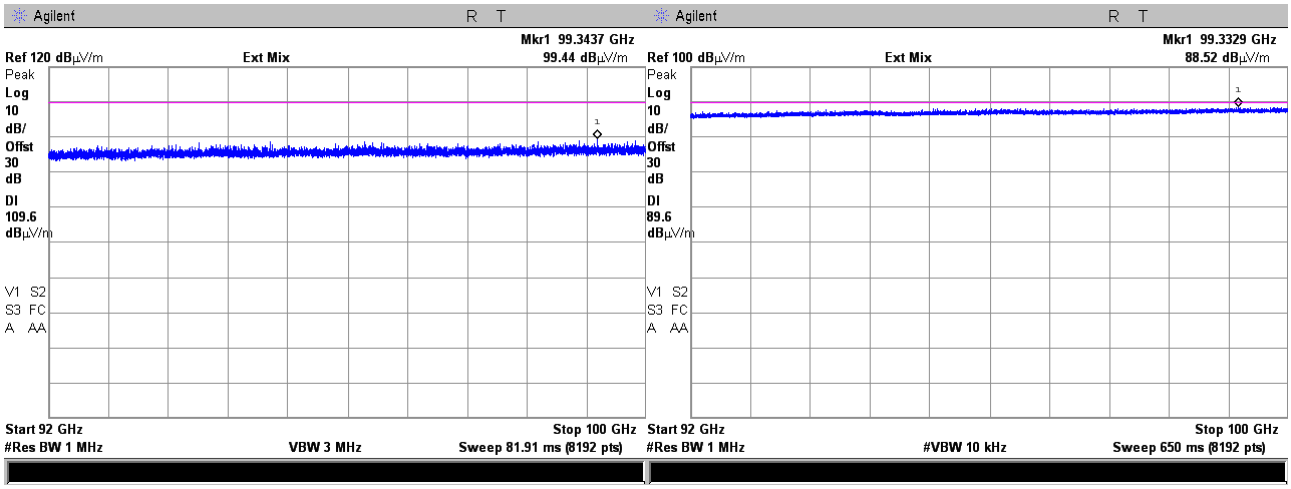
CARRIER FREQUENCY: Mid



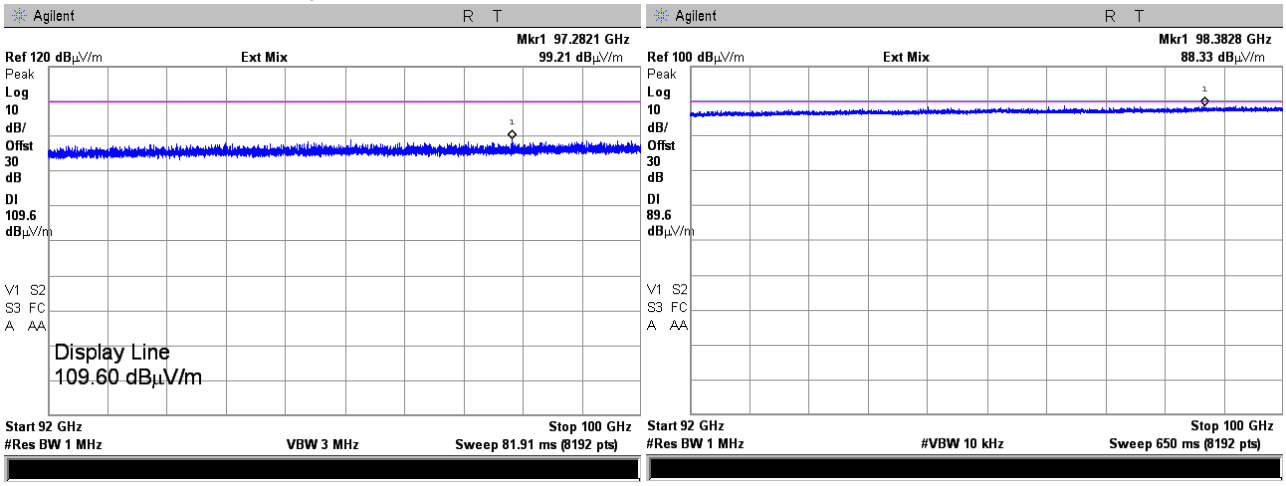
Test specification:	Section 15.249(a)(d)/RSS-310, section 3.10, Field strength of emissions		
Test procedure:	ANSI C63.10 sections 6.5, 6.6		
Test mode:	Compliance	Verdict:	PASS
Date(s):	05-Feb-18 - 07-Feb-18		
Temperature: 23.7 ºC	Relative Humidity: 48 %	Air Pressure: 1021 hPa	Power: -48 VDC
Remarks: EUT with 37.1 dBi antenna gain			

Plot 7.2.74 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



Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

7.3 Occupied bandwidth test

7.3.1 General

This test was performed to verify that the 20 dB bandwidth of the emissions was contained within the standard specified frequency band according to FCC §15.215 requirements. Specification test limits are given in Table 7.3.1.

Table 7.3.1 Occupied bandwidth limits

Assigned frequency, MHz	Modulation envelope reference points*, dBc
902 - 928	20.0
2400 – 2483.5	
5725 – 5875	
24000 – 24250	

*- Modulation envelope reference points provided in terms of attenuation below modulated carrier.

7.3.2 Test procedure

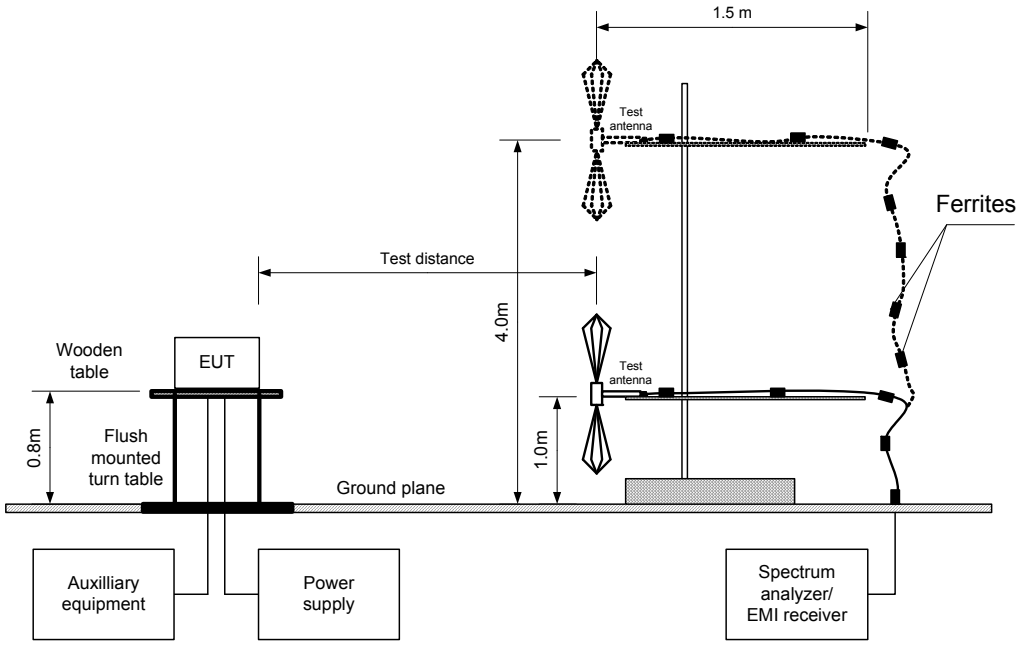
7.3.2.1 The EUT was set up as shown in Fifure 7.3.1, energized and its proper operation was checked.

7.3.2.2 The spectrum analyzer sweep time and bandwidth were set to capture all major modulation sidebands of emission and sweep time was set sufficiently slow to ensure peak measurements. Spectrum analyzer was set in peak hold mode and time sufficient for trace stabilization was allowed.

7.3.2.3 The peak of emission was measured. The transmitter occupied bandwidth was measured with spectrum analyzer as frequency delta between reference points on modulation envelope and provided in Table 7.3.2 and associated plots.

Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

Figure 7.3.1 Occupied bandwidth test setup



Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

Table 7.3.2 Occupied bandwidth test results

ASSIGNED FREQUENCY BAND 24000.0 – 24250.0 MHz
DETECTOR USED: Peak hold
MODULATION ENVELOPE REFERENCE POINTS: 20 dBc
VIDEO BANDWIDTH: 8 x RBW

Modulation	Frequency, MHz	RBW, kHz	Occupied banwidth, MHz	Limit, MHz	Verdict
Channel bandwidth 20 MHz					
QPSK	24010.0	300	19.737	NA	Pass
	24070.0	300	19.652	NA	Pass
	24240.0	300	19.656	NA	Pass
2048 QAM	24010.0	300	19.940	NA	Pass
	24070.0	300	19.784	NA	Pass
	24240.0	300	19.943	NA	Pass
Channel bandwidth 30 MHz					
QPSK	24015.0	390	29.971	NA	Pass
	24065.0	390	29.916	NA	Pass
	24235.0	390	29.930	NA	Pass
2048 QAM	24015.0	390	29.976	NA	Pass
	24065.0	390	29.989	NA	Pass
	24235.0	390	29.943	NA	Pass
Channel bandwidth 40 MHz					
QPSK	24020.0	1000	39.993	NA	Pass
	24060.0	1000	39.938	NA	Pass
	24230.0	430	39.975	NA	Pass
2048 QAM	24020.0	1000	39.966	NA	Pass
	24060.0	1000	39.978	NA	Pass
	24230.0	430	39.943	NA	Pass
Channel bandwidth 50 MHz					
QPSK	24025.0	1000	49.916	NA	Pass
	24055.0	1000	49.885	NA	Pass
	24225.0	510	49.970	NA	Pass
2048 QAM	24025.0	1000	49.906	NA	Pass
	24055.0	1000	49.995	NA	Pass
	24225.0	510	49.960	NA	Pass
Channel bandwidth 60 MHz					
QPSK	24030.0	1000	59.678	NA	Pass
	24050.0	1000	59.683	NA	Pass
	24220.0	1000	59.487	NA	Pass
2048 QAM	24030.0	1000	59.607	NA	Pass
	24050.0	1000	59.344	NA	Pass
	24220.0	1000	59.404	NA	Pass

Reference numbers of test equipment used

HL 2909	HL 3818	HL 5112	HL 5174	HL 5175				

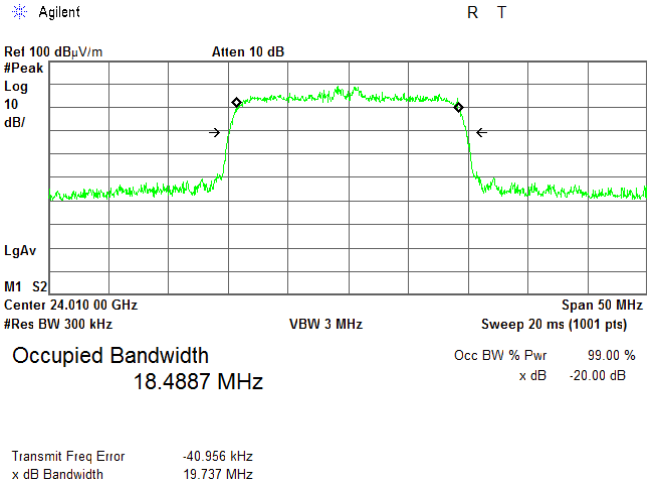
Full description is given in Appendix A.

Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

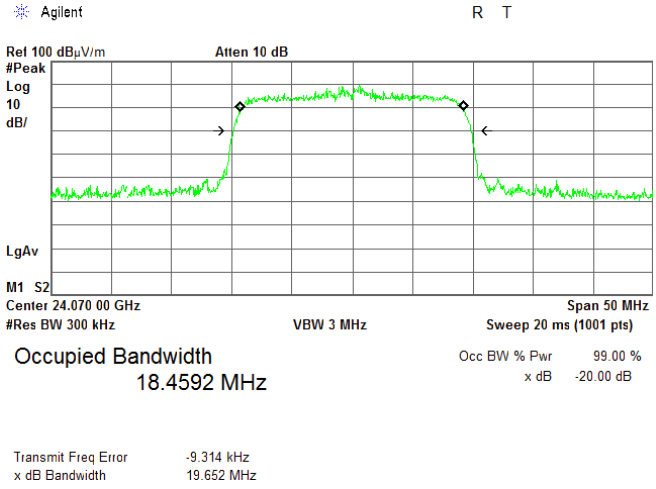
Plot 7.3.1 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz
MODULATION: QPSK

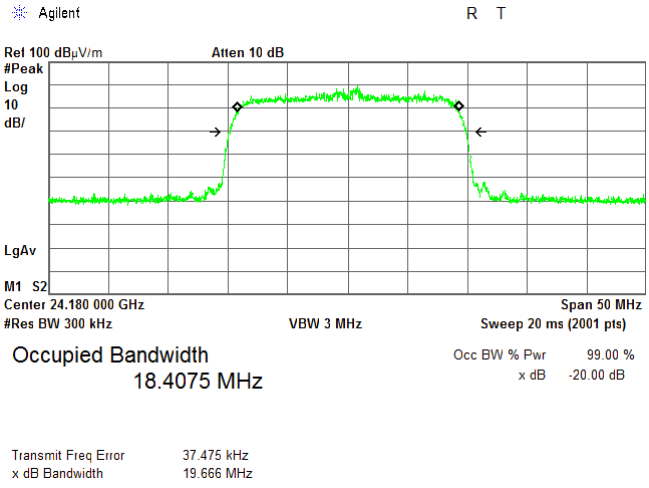
CARRIER FREQUENCY: Low



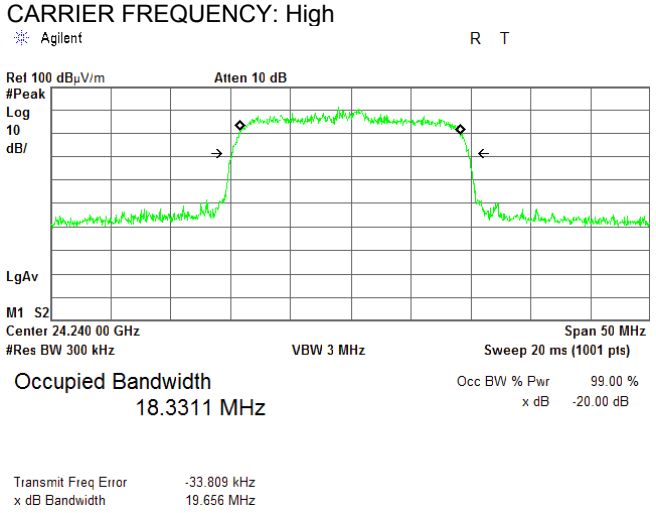
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

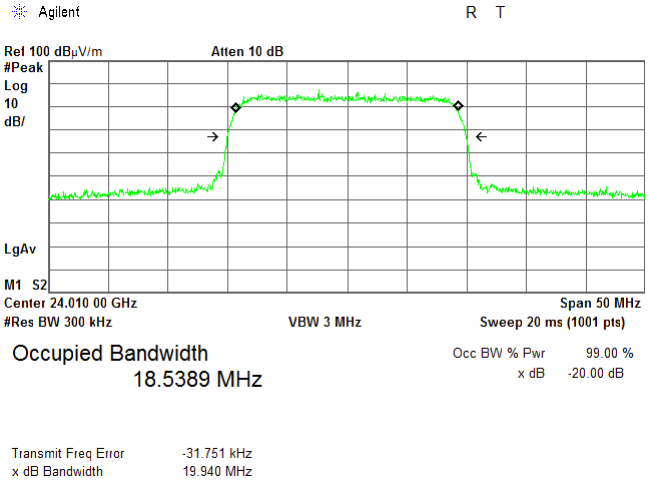


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

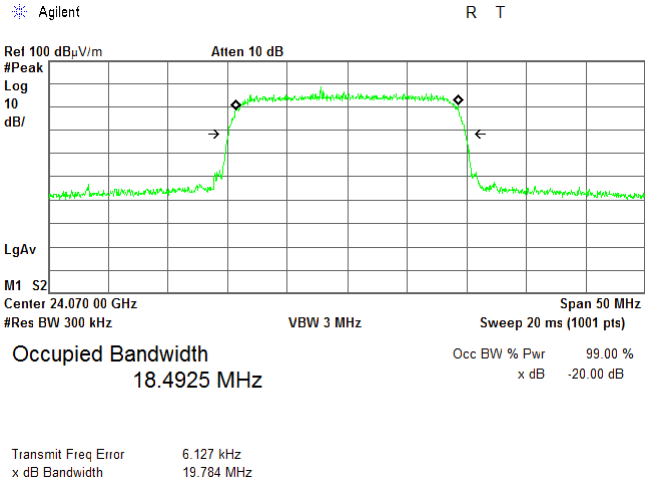
Plot 7.3.2 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 20 MHz
MODULATION: 2048QAM

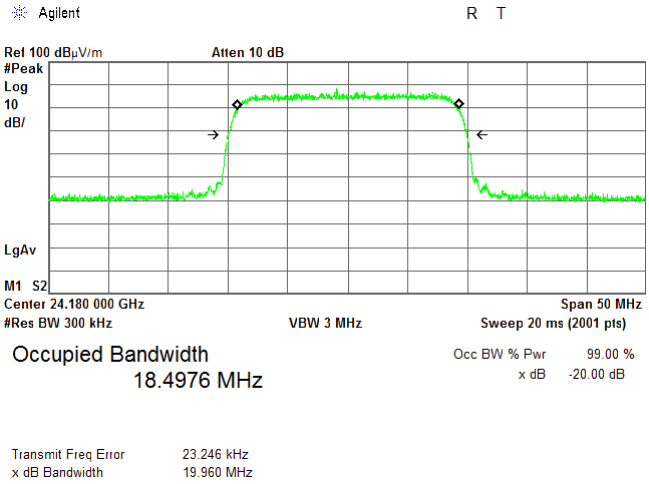
CARRIER FREQUENCY: Low



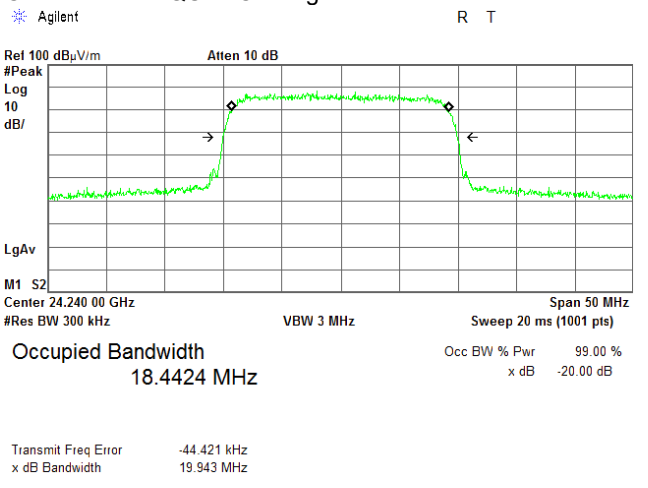
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

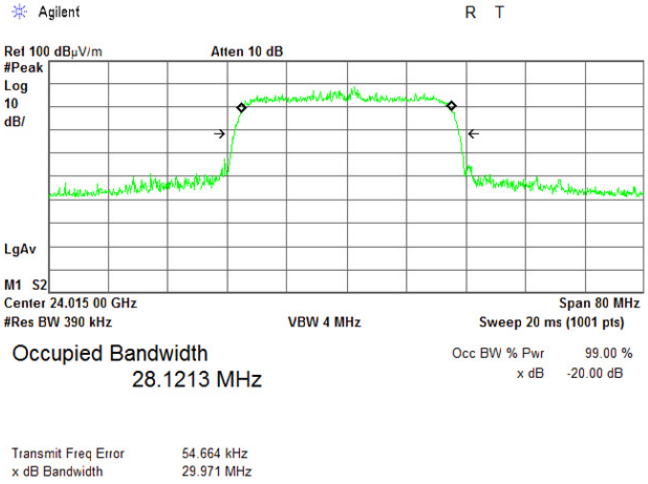


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

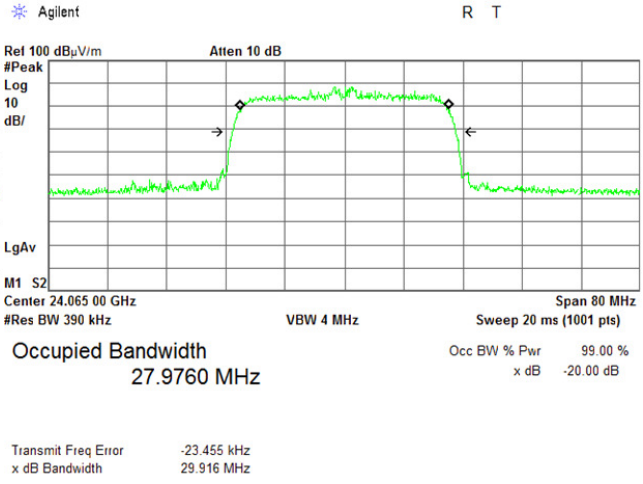
Plot 7.3.3 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz
MODULATION: QPSK

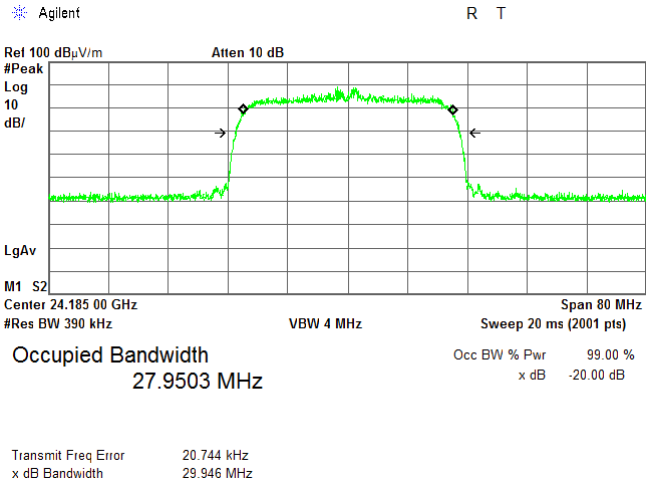
CARRIER FREQUENCY: Low



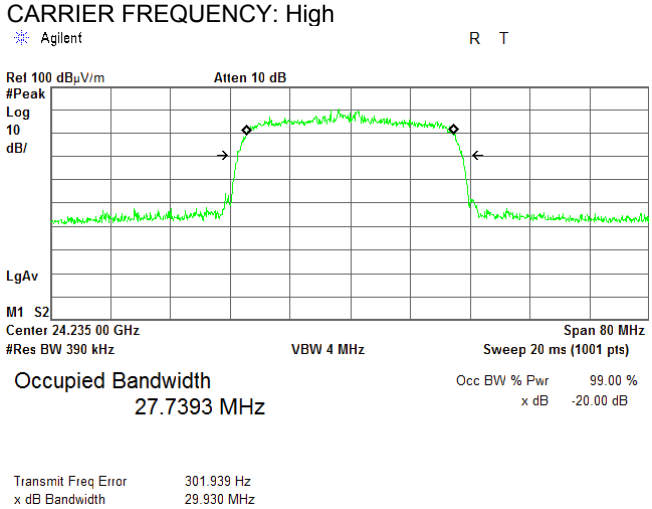
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

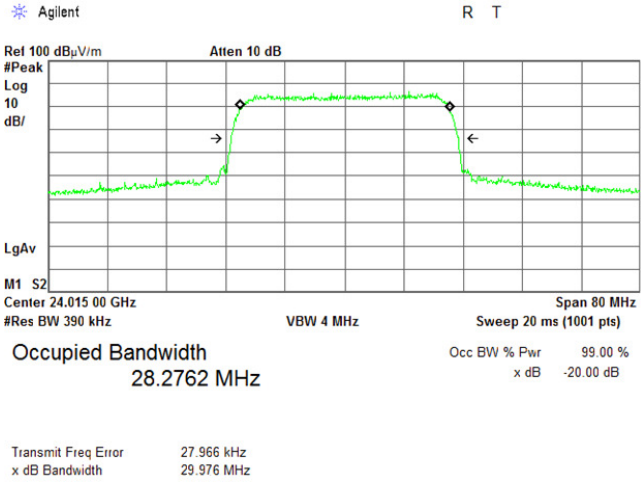


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

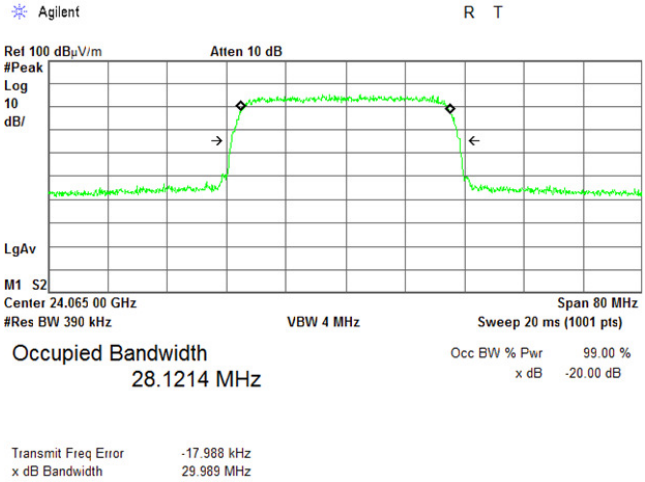
Plot 7.3.4 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 30 MHz
MODULATION: 2048QAM

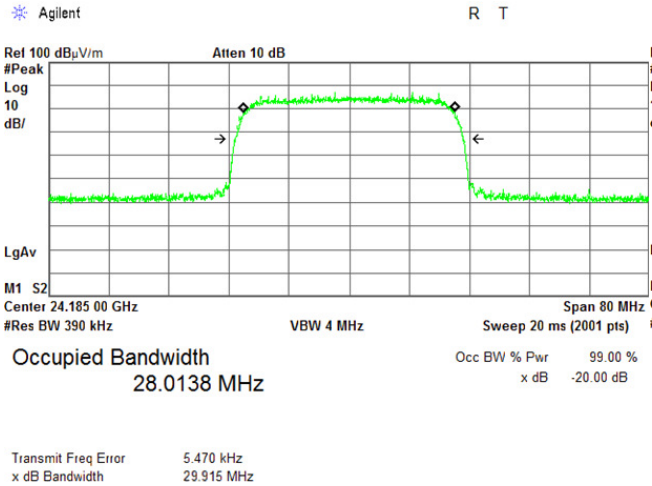
CARRIER FREQUENCY: Low



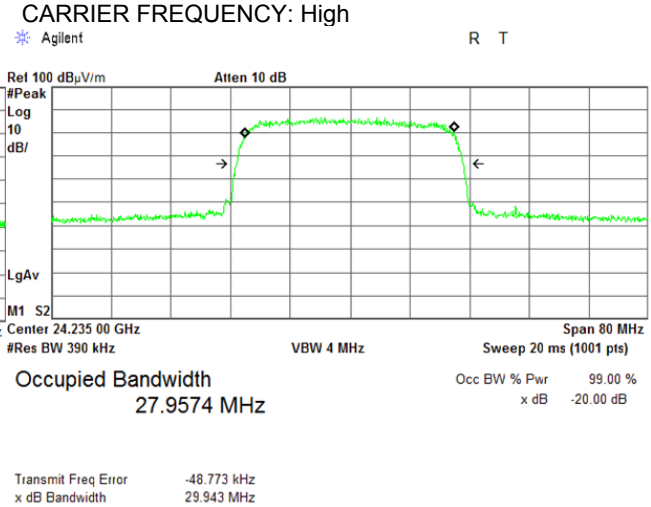
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

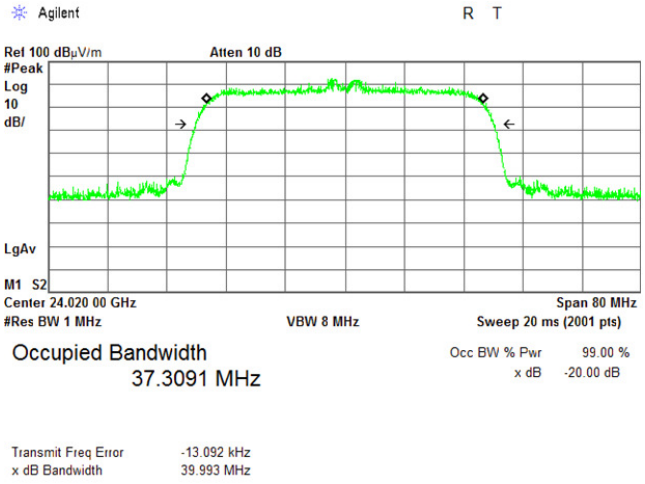


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 °C	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

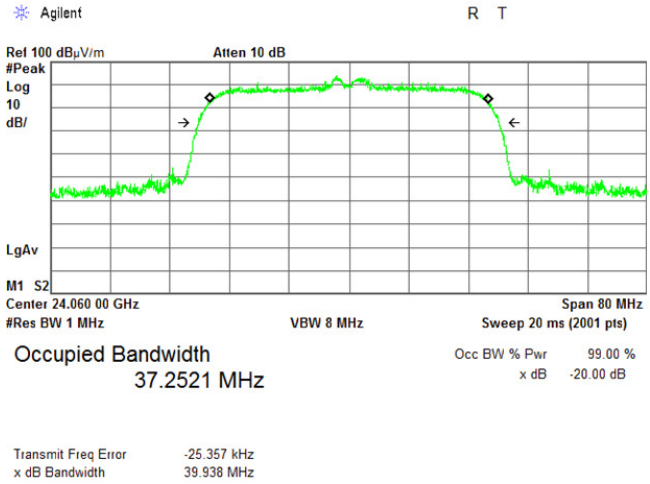
Plot 7.3.5 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz
MODULATION: QPSK

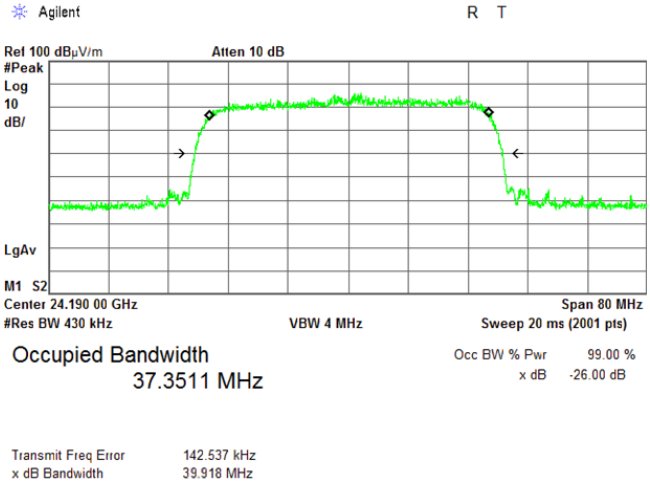
CARRIER FREQUENCY: Low



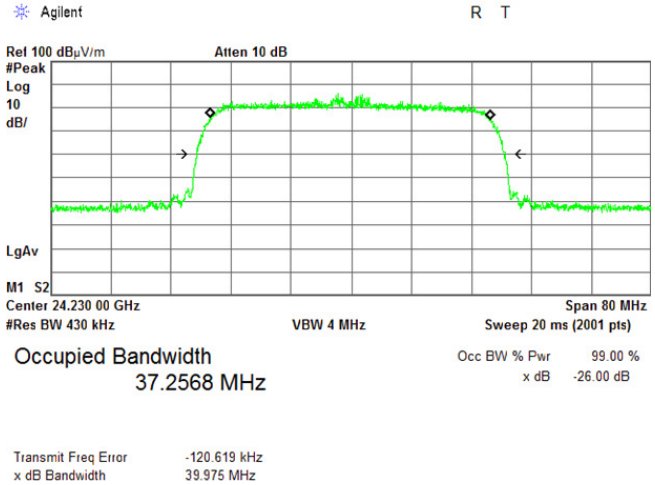
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

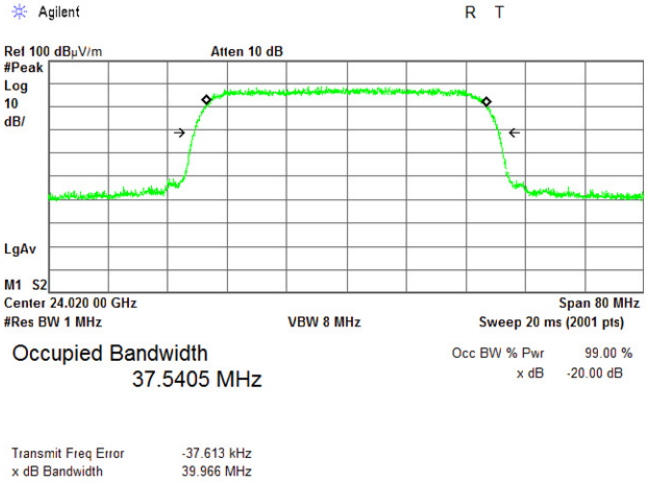


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

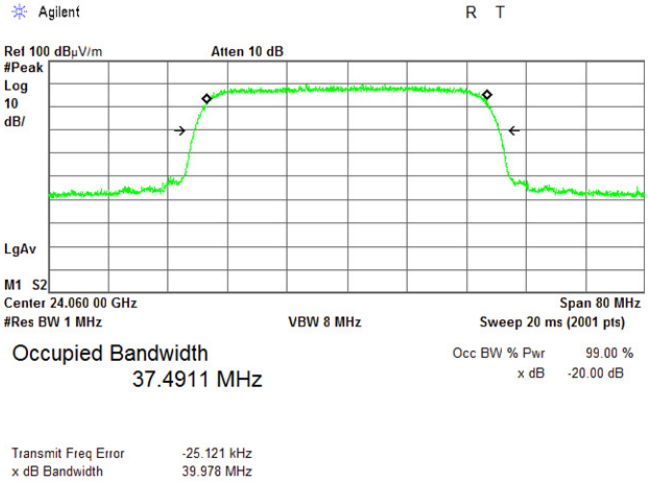
Plot 7.3.6 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 40 MHz
MODULATION: 2048QAM

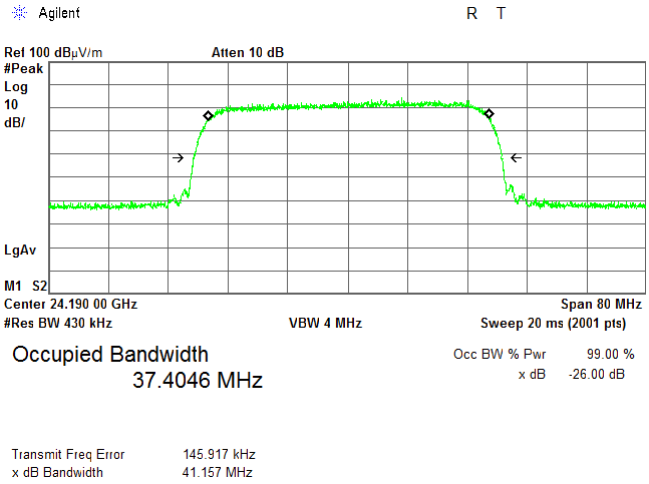
CARRIER FREQUENCY: Low



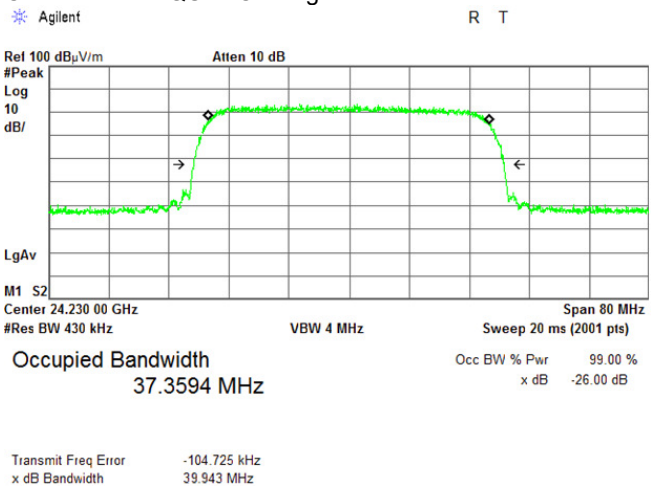
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

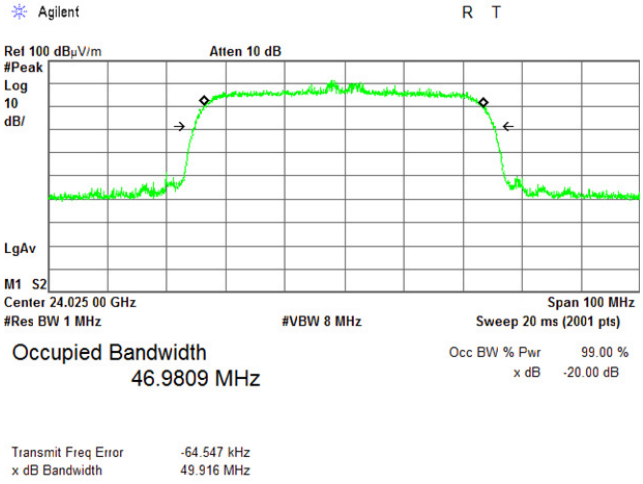


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

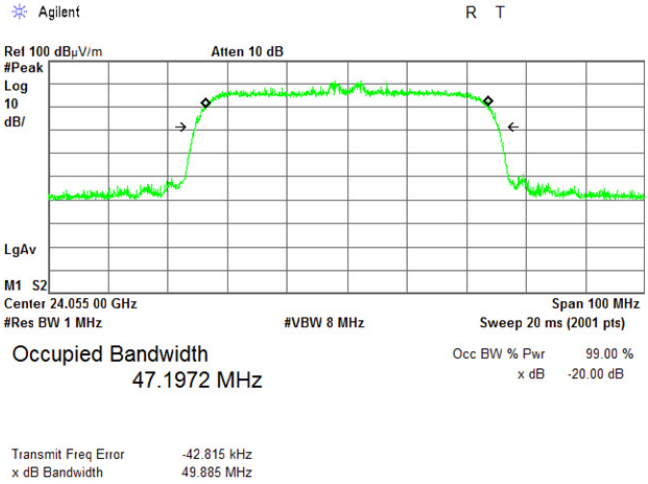
Plot 7.3.7 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz
MODULATION: QPSK

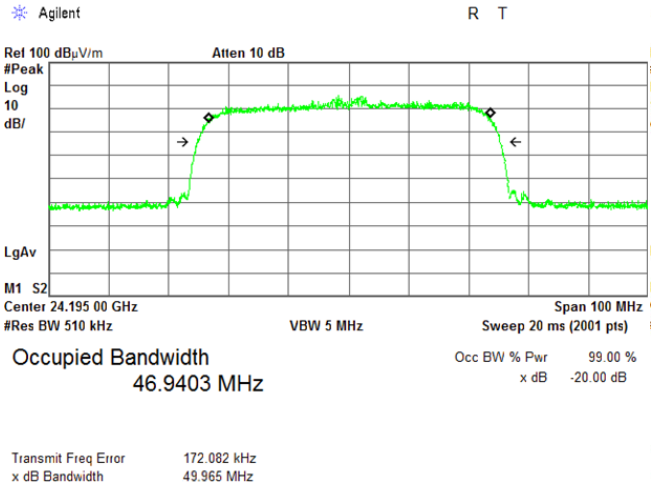
CARRIER FREQUENCY: Low



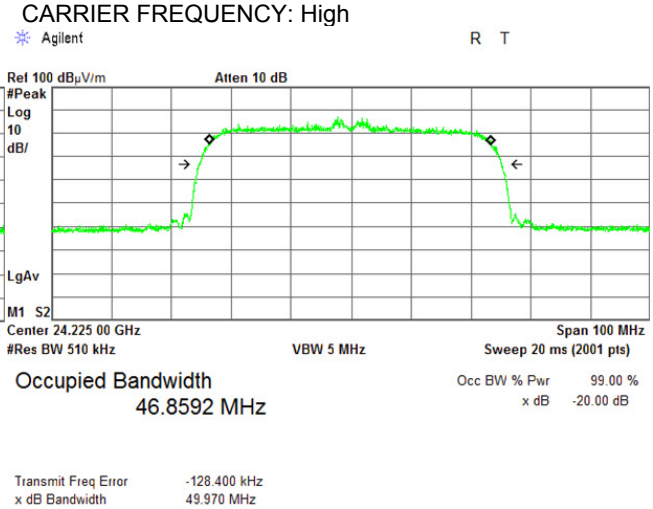
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

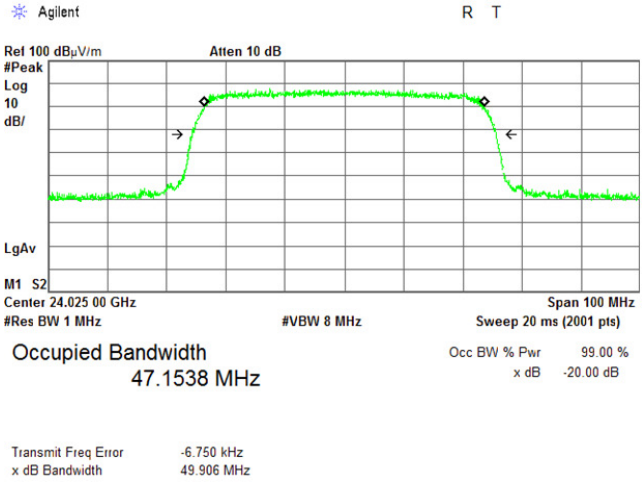


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

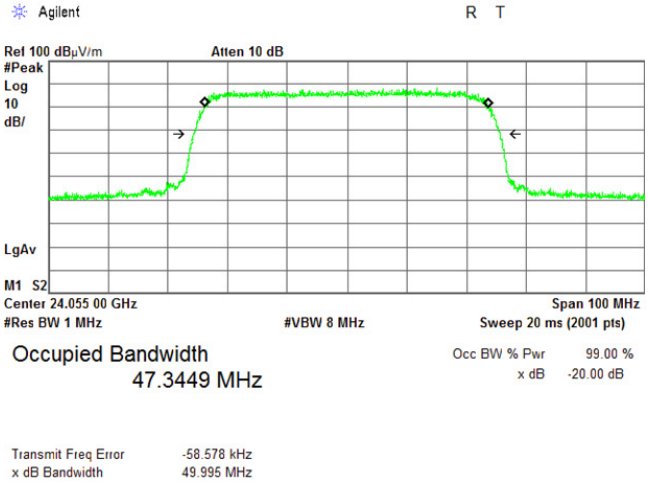
Plot 7.3.8 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 50 MHz
MODULATION: 2048QAM

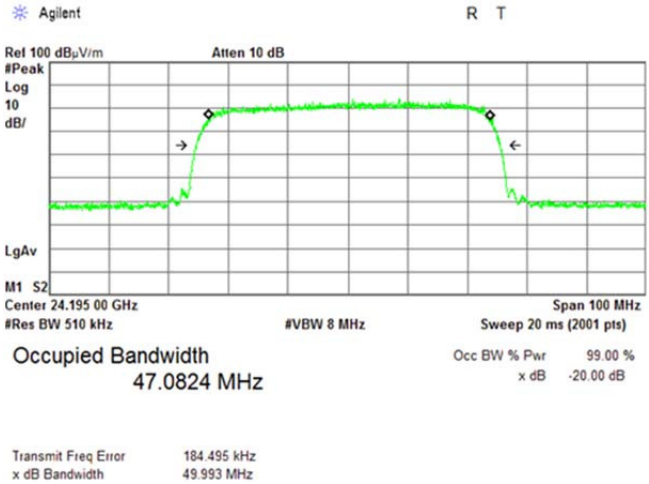
CARRIER FREQUENCY: Low



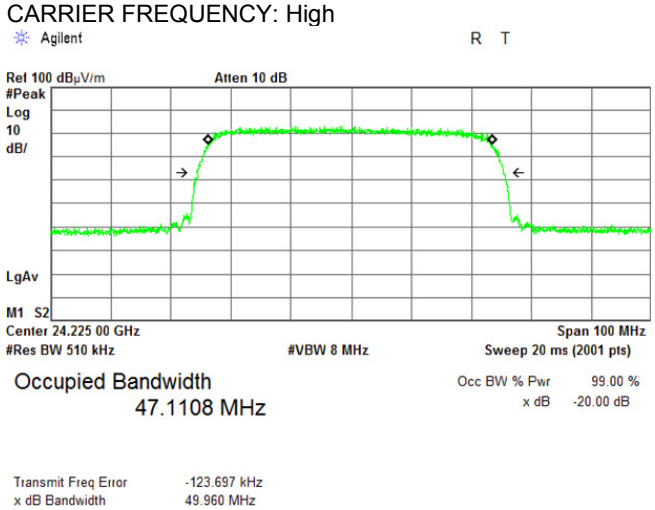
CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High

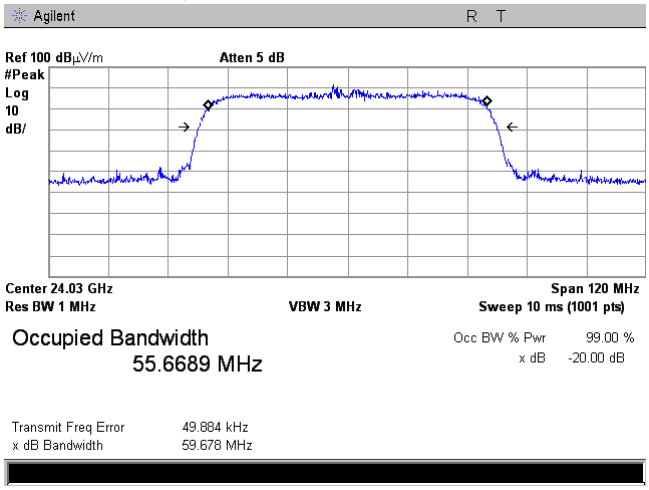


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

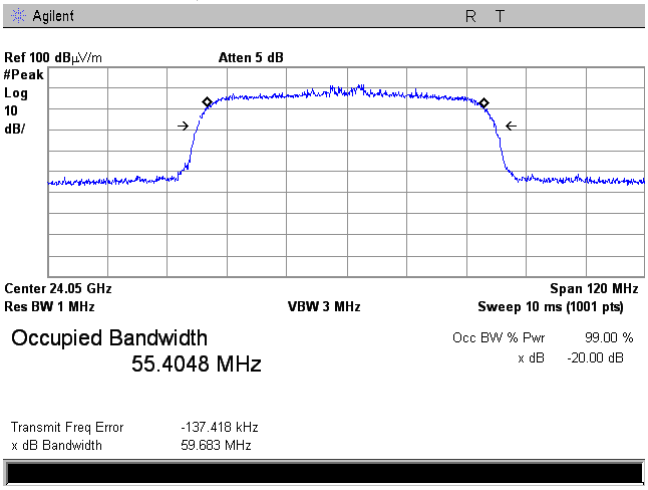
Plot 7.3.9 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz
MODULATION: QPSK

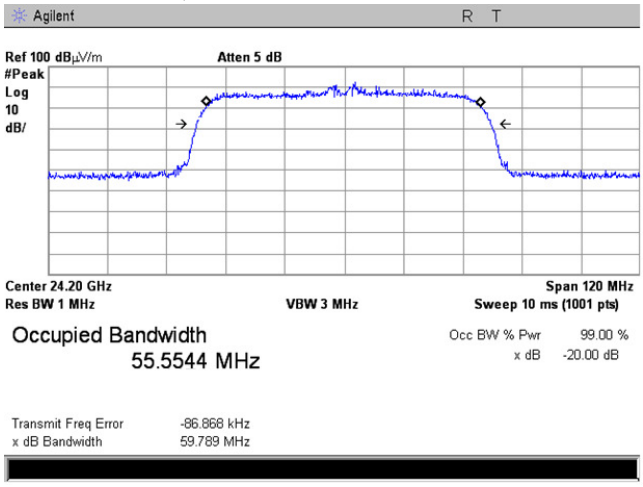
CARRIER FREQUENCY: Low



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



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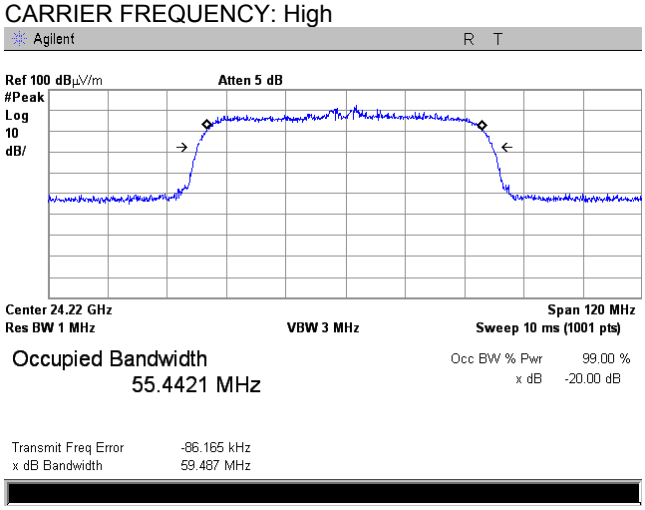
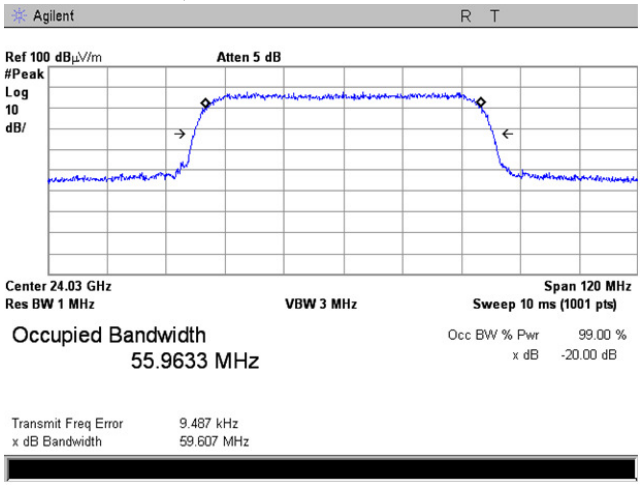


Test specification:	Section 15.215(c), Occupied bandwidth		
Test procedure:	ANSI C63.10 section 6.9.2		
Test mode:	Compliance	Verdict:	PASS
Date(s):	02-Oct-17		
Temperature: 24.3 ºC	Relative Humidity: 47 %	Air Pressure: 1009 hPa	Power: 48 VDC
Remarks:			

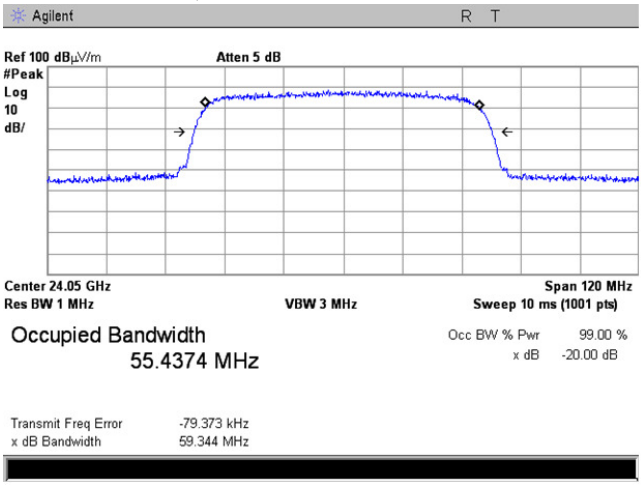
Plot 7.3.10 Occupied bandwidth test result

TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)
EMISSION BANDWIDTH: 60 MHz
MODULATION: 2048QAM

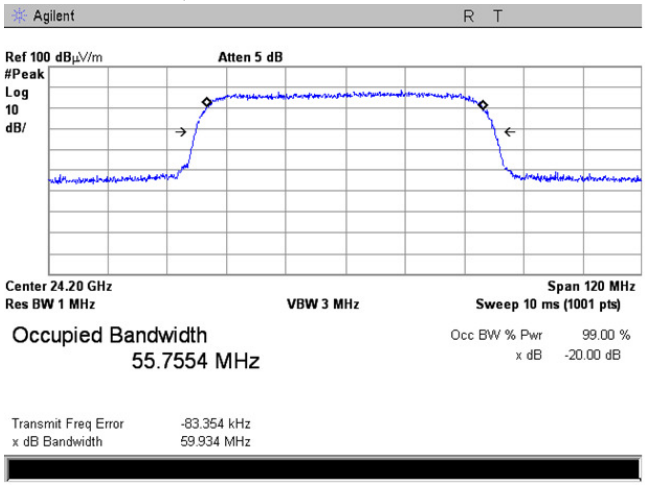
CARRIER FREQUENCY: Low



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: Mid



CARRIER FREQUENCY: High