

ANT795-4MX - 802.11n 40 MHz Bandwidth

Modulation: OFDM

Modulation Coding Scheme: MCS8

Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
2422	36.26	36.20
2437	36.21	36.18
2452	36.22	36.19

Table 47



Figure 94 - 2422 MHz

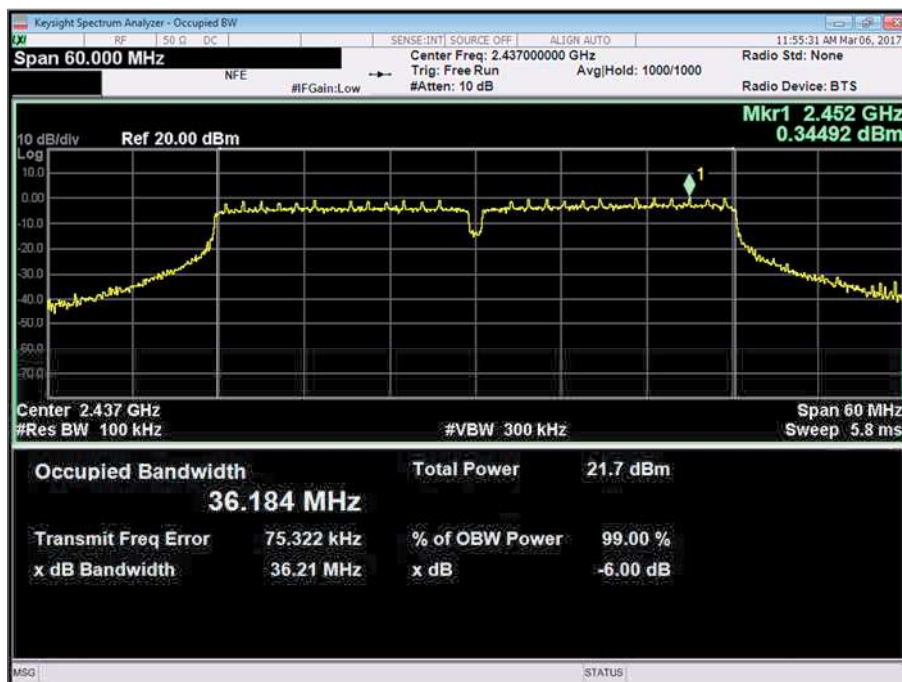


Figure 95 - 2437 MHz

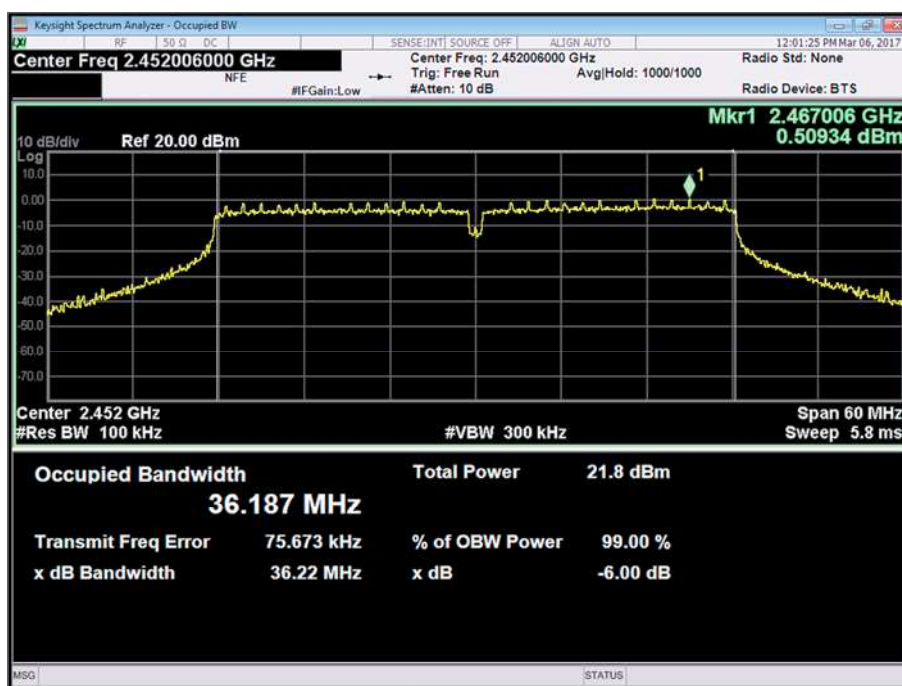


Figure 96 - 2452 MHz

FCC 47 CFR Part 15, Limit Clause 15.247(a)(2)

The minimum 6 dB Bandwidth shall be at least 500 kHz.

Industry Canada RSS-247, Clause 5.2(a)

The minimum 6 dB Bandwidth shall be at least 500 kHz.

2.2.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 3.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Multimeter	White Gold	WG022	190	12	24-Nov-2017
20dB/2W Attenuator	Narda	4772-20	462	-	O/P Mon
Power Supply Unit	Farnell	TSV-70	2043	-	O/P Mon
Hygrometer	Rotronic	I-1000	2891	12	23-Aug-2017
1 metre SMA Cable	Florida Labs	SMS-235SP-39.4-SMS	4513	12	16-Apr-2017
PXA Signal Analyser	Keysight Technologies	N9030A	4653	12	12-Jan-2018

Table 48

O/P Mon – Output Monitored using calibrated equipment

2.3 Maximum Conducted Output Power

2.3.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (b)(3)
Industry Canada RSS-247, Clause 5.4
Industry Canada RSS-GEN, Clause 6.12

2.3.2 Equipment Under Test and Modification State

MSN65-W1-M12-E2, S/N: Not Serialised (75938097-TSR0001) - Modification State 0

2.3.3 Date of Test

06-March-2017 to 07-March-2017

2.3.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 11.9.2.2.3.

The output power for transmitter modes of operation supporting MiMo were summed and added as described in KDB 662911 D01, clause E.2(a).

Duty Cycle was considered to be non-constant and was therefore calculated using the method described in ANSI C63.10, clause 11.6. The measurement time used was 100 ms and the total on time period determined and the offset calculated included in the reference level offset of the spectrum analyser.

2.3.5 Environmental Conditions

Ambient Temperature	23.2 °C
Relative Humidity	41.1 %

2.3.6 Test Results

ANT795-4MX - 802.11b

Testing was performed on the Data Rate with the highest conducted output power. This Data Rate was 1 Mbps.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	14.63	14.42	13.96
2	14.91	14.88	15.22

Table 49

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT795-4MX - 802.11g

Testing was performed on the Data Rate with the highest conducted output power. This Data Rate was 6 Mbps.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	13.71	13.09	13.38
2	14.66	14.13	14.32

Table 50

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSS employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT795-4MX - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme with the highest conducted output power. This Modulation Coding Scheme was MCS0.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	13.82	13.01	13.39
2	14.08	14.07	14.22
Total Power	16.96	16.58	16.84

Table 51

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT795-4MX - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme with the highest conducted output power. This Modulation Coding Scheme was MCS8.

Port	Output Power (dBm)		
	2422 MHz	2437 MHz	2452 MHz
1	13.73	14.19	14.17
2	12.26	14.06	13.74
Total Power	16.07	17.14	16.97

Table 52

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT792-6MN - 802.11b

Testing was performed on the Data Rate with the highest conducted output power. This Data Rate was 1 Mbps.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	11.90	11.38	12.18
2	12.09	11.97	11.94

Table 53

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSS employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT792-6MN - 802.11g

Testing was performed on the Data Rate with the highest conducted output power. This Data Rate was 6 Mbps.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	10.11	10.10	10.77
2	11.35	10.99	11.52

Table 54

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSS employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT792-6MN - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme with the highest conducted output power. This Modulation Coding Scheme was MCS0.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	10.43	10.22	10.55
2	11.44	11.07	11.29
Total Power	13.97	13.68	13.95

Table 55

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT792-6MN - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme with the highest conducted output power. This Modulation Coding Scheme was MCS8.

Port	Output Power (dBm)		
	2422 MHz	2437 MHz	2452 MHz
1	10.51	10.78	11.33
2	10.31	10.63	10.60
Total Power	13.42	13.72	13.99

Table 56

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT795-6DC - 802.11b

Testing was performed on the Data Rate with the highest conducted output power. This Data Rate was 1 Mbps.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	8.09	8.19	8.18
2	8.73	8.76	9.14

Table 57

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT795-6DC - 802.11g

Testing was performed on the Data Rate with the highest conducted output power. This Data Rate was 6 Mbps.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	7.54	7.20	7.55
2	8.17	8.06	8.13

Table 58

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT795-6DC - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme with the highest conducted output power. This Modulation Coding Scheme was MCS0.

Port	Output Power (dBm)		
	2412 MHz	2437 MHz	2462 MHz
1	7.79	7.41	7.72
2	8.22	7.97	8.22
Total Power	11.02	10.71	10.99

Table 59

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

ANT795-6DC - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme with the highest conducted output power. This Modulation Coding Scheme was MCS8.

Port	Output Power (dBm)		
	2422 MHz	2437 MHz	2452 MHz
1	7.60	7.96	8.32
2	7.38	7.80	7.79
Total Power	10.50	10.89	11.07

Table 60

FCC 47 CFR Part 15, Limit Clause 15.247 (b)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

Industry Canada RSS-247, Limit Clause 5.4 (d)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

2.3.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 3.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Multimeter	White Gold	WG022	190	12	24-Nov-2017
Attenuator 10dB/10W)	Trilithic	HFP-50N	454	12	26-Aug-2017
Termination (50ohm, 50W)	Bird	8085	472	12	08-Sep-2017
Attenuator: 10dB/20W	Narda	766-10	480	12	14-Dec-2017
Power Supply Unit	Farnell	TSV-70	2043	-	O/P Mon
Hygrometer	Rotronic	I-1000	2891	12	23-Aug-2017
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	15-Sep-2017
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	08-Sep-2017
1 metre SMA Cable	Florida Labs	SMS-235SP-39.4-SMS	4513	12	16-Apr-2017
PXA Signal Analyser	Keysight Technologies	N9030A	4653	12	12-Jan-2018

Table 61

O/P Mon – Output Monitored using calibrated equipment

2.4 Authorised Band Edges

2.4.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d)
Industry Canada RSS-247 Clause 5.5

2.4.2 Equipment Under Test and Modification State

MSN65-W1-M12-E2, S/N: Not Serialised (75938097-TSR0001) - Modification State 0

2.4.3 Date of Test

22-March-2017 to 28-March-2017

2.4.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 11.13.1.

For 802.11n, the EUT was configured so that it was operating in MiMo.

2.4.5 Environmental Conditions

Ambient Temperature 18.2 - 19.2 °C
Relative Humidity 26.0 - 43.0 %

2.4.6 Test Results

ANT795-4MX - 802.11b

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBµV/m)
Data Rate with Highest Power and Widest Bandwidth	1 Mbps	2412	2400.0	52.38
Data Rate with Highest Power and Widest Bandwidth	1 Mbps	2462	2483.5	49.95

Table 62

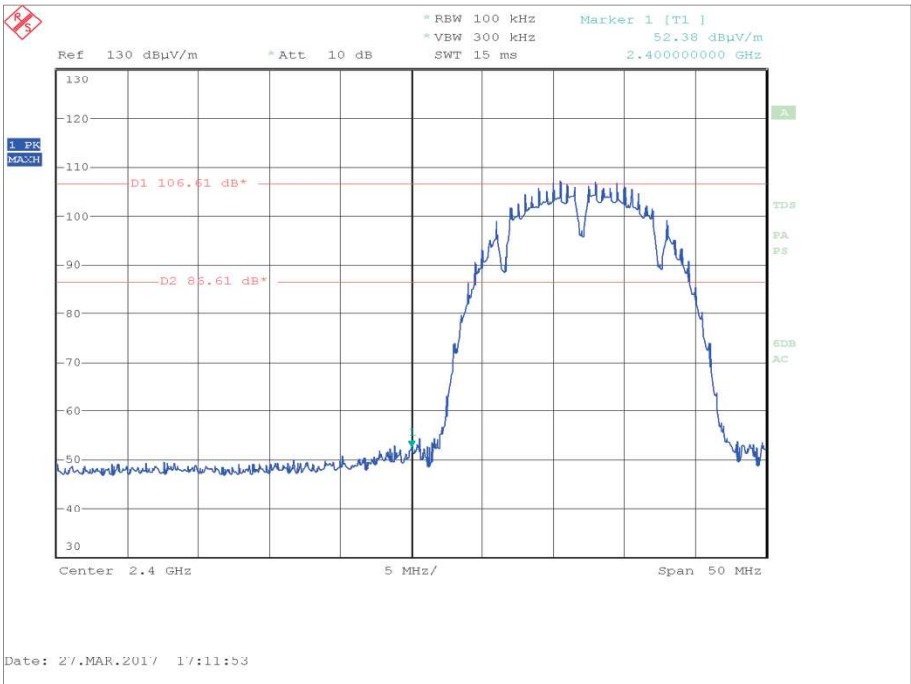


Figure 97 - Data Rate with Highest Power and Widest Bandwidth 1 Mbps, 2412 MHz, Measured Frequency 2400.0 MHz

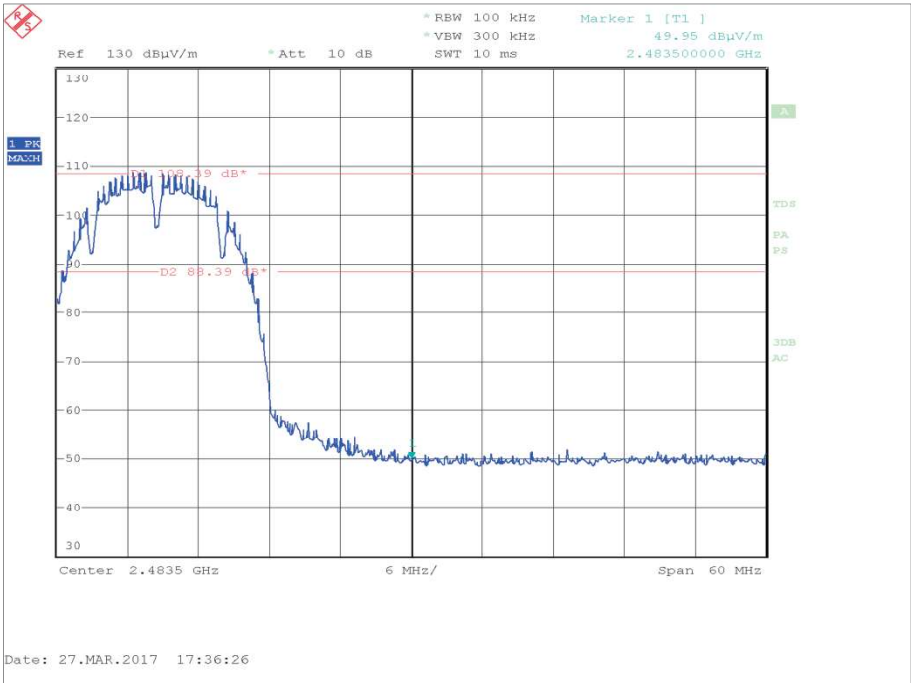


Figure 98 - Data Rate with Highest Power and Widest Bandwidth, 1 Mbps, 2462 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

ANT795-4MX - 802.11g

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
Data Rate with Highest Power	6 Mbps	2412	2400.0	70.60
Data Rate with Highest Power	6 Mbps	2462	2483.5	55.24
Data Rate with Widest Bandwidth	48 Mbps	2412	2400.0	69.22
Data Rate with Widest Bandwidth	48 Mbps	2462	2483.5	53.04

Table 63

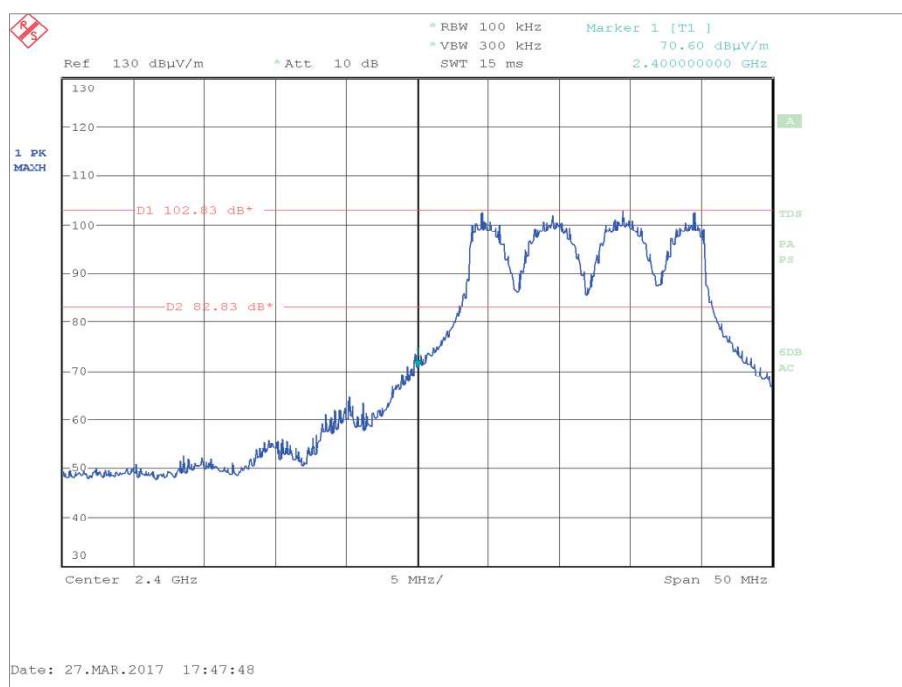
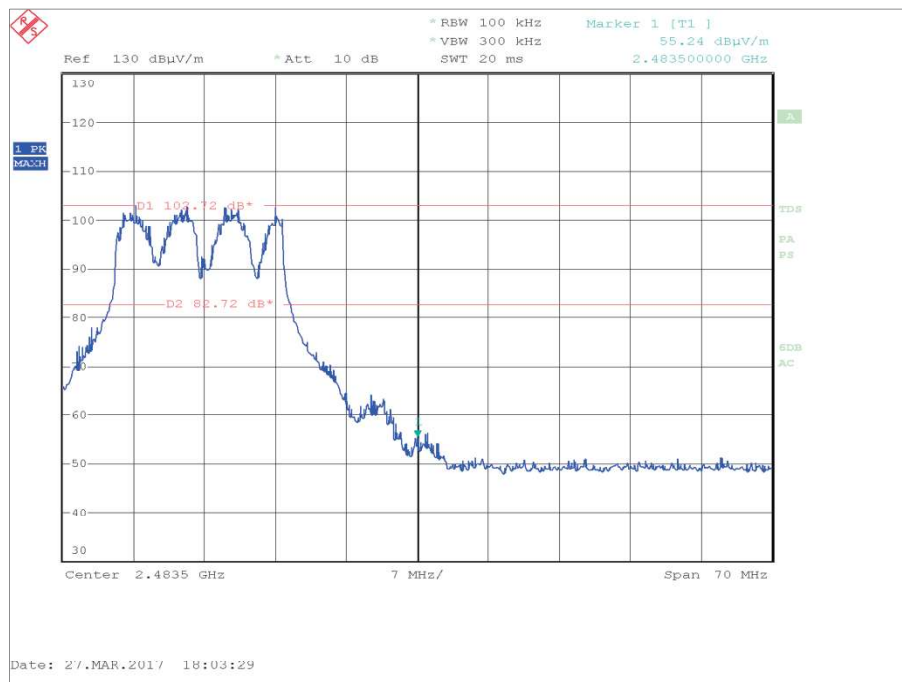


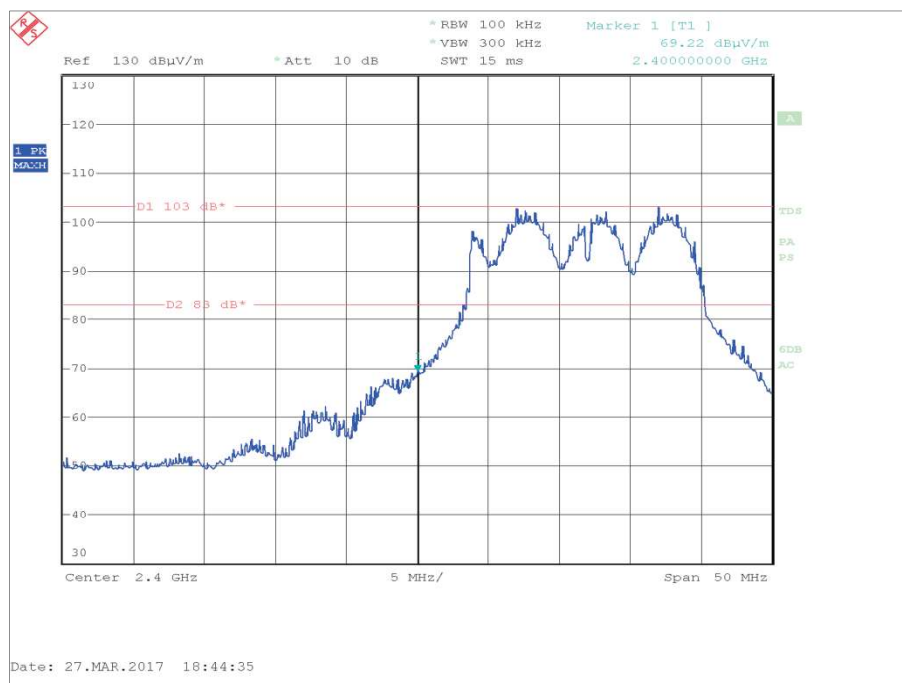
Figure 99 - Data Rate with Highest Power, 6 Mbps, 2412 MHz, Measured Frequency 2400.0 MHz



Product Service



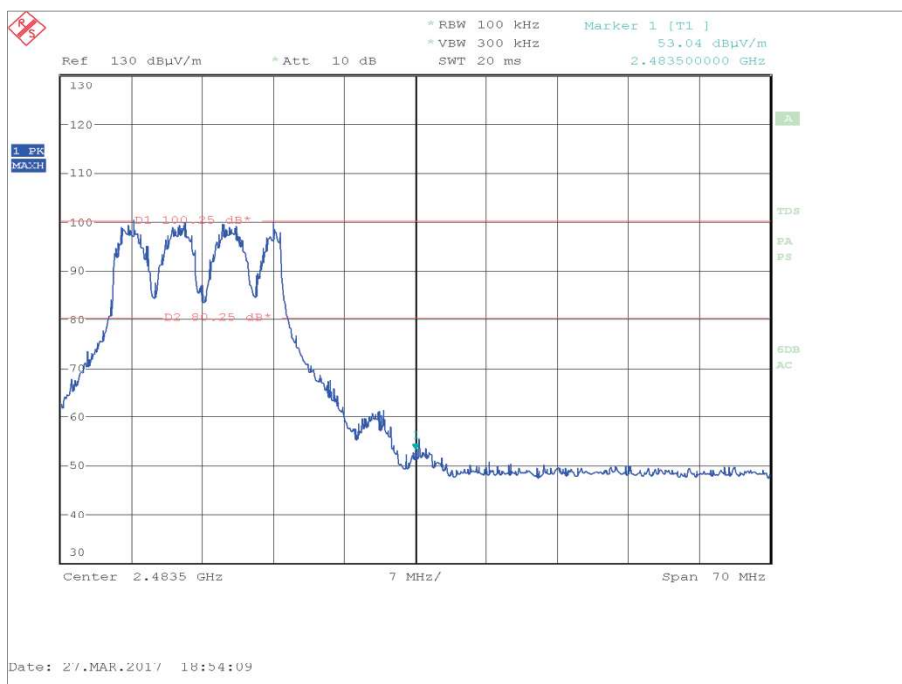
**Figure 100 - Data Rate with Highest Power, 6 Mbps,
2462 MHz, Measured Frequency 2483.5 MHz**



**Figure 101 - Data Rate with Widest Bandwidth, 48 Mbps,
2412 MHz, Measured Frequency 2400.0 MHz**



Product Service



**Figure 102 - Data Rate with Widest Bandwidth, 48 Mbps,
2462 MHz, Measured Frequency 2483.5 MHz**

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT795-4MX - 802.11n 20 MHz Bandwidth

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
MCS with Highest Power	MCS0	2412	2400.0	68.48
MCS with Highest Power	MCS0	2462	2483.5	55.73
MCS with Widest Bandwidth	MCS2	2412	2400.0	67.94
MCS with Widest Bandwidth	MCS2	2462	2483.5	53.51

Table 64

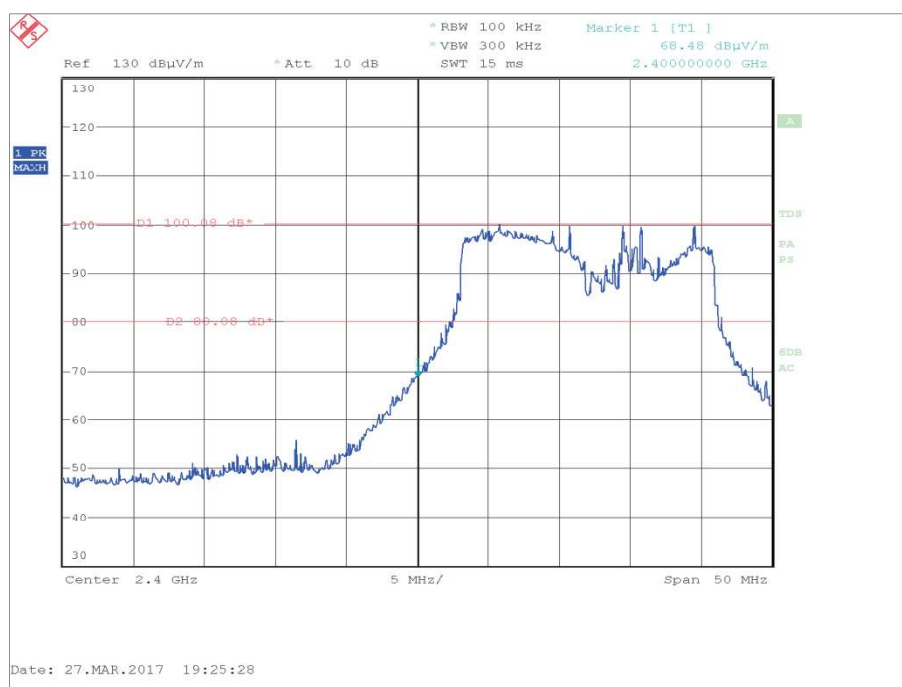


Figure 103 - MCS with Highest Power, MCS0, 2412 MHz, Measured Frequency 2400.0 MHz

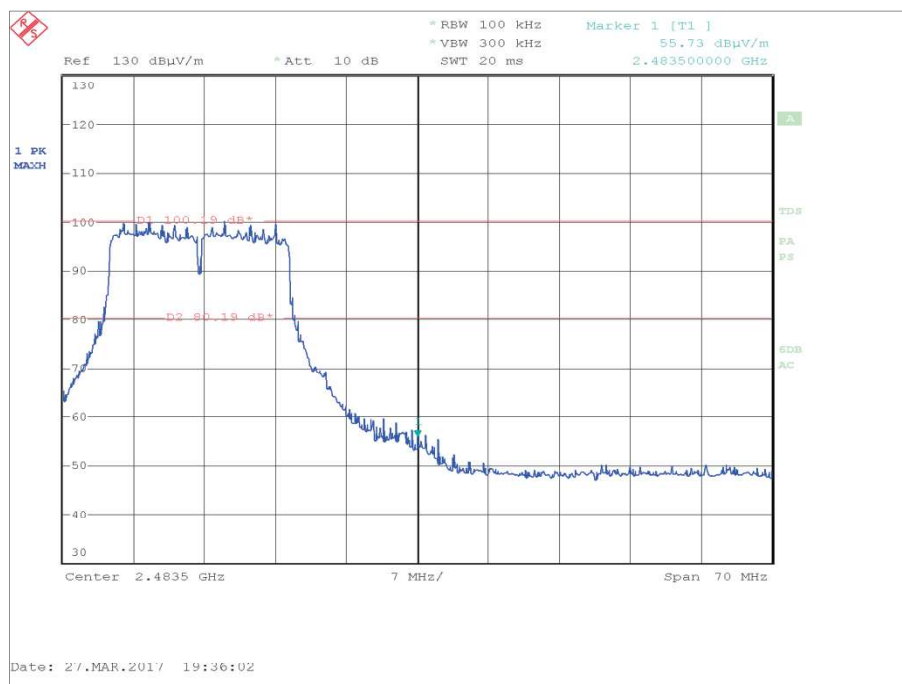


Figure 104 - MCS with Highest Power, MCS0, 2462 MHz, Measured Frequency 2483.5 MHz

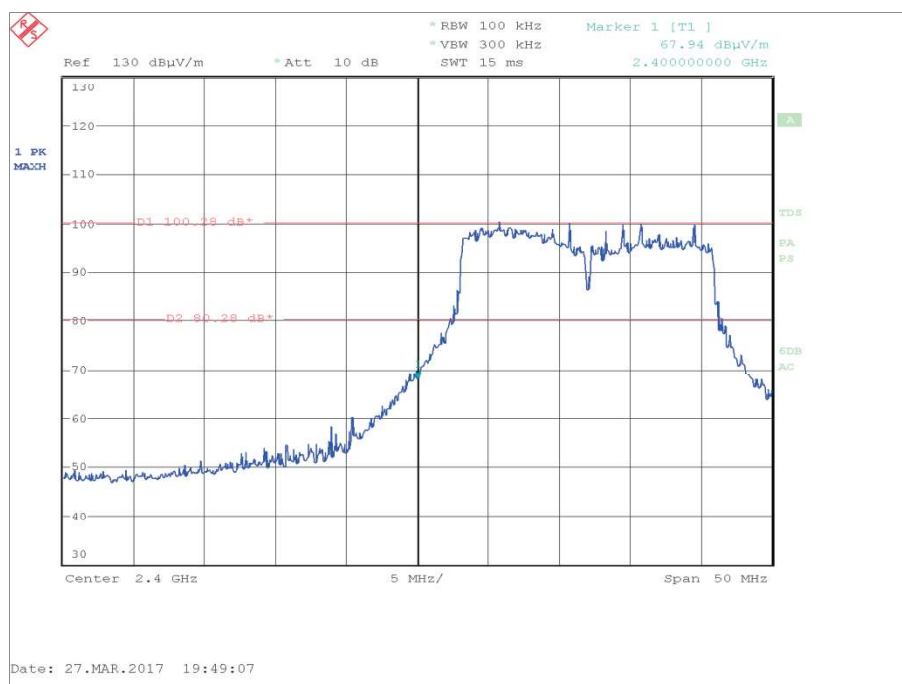


Figure 105 - MCS with Widest Bandwidth, MCS2, 2412 MHz, Measured Frequency 2400.0 MHz

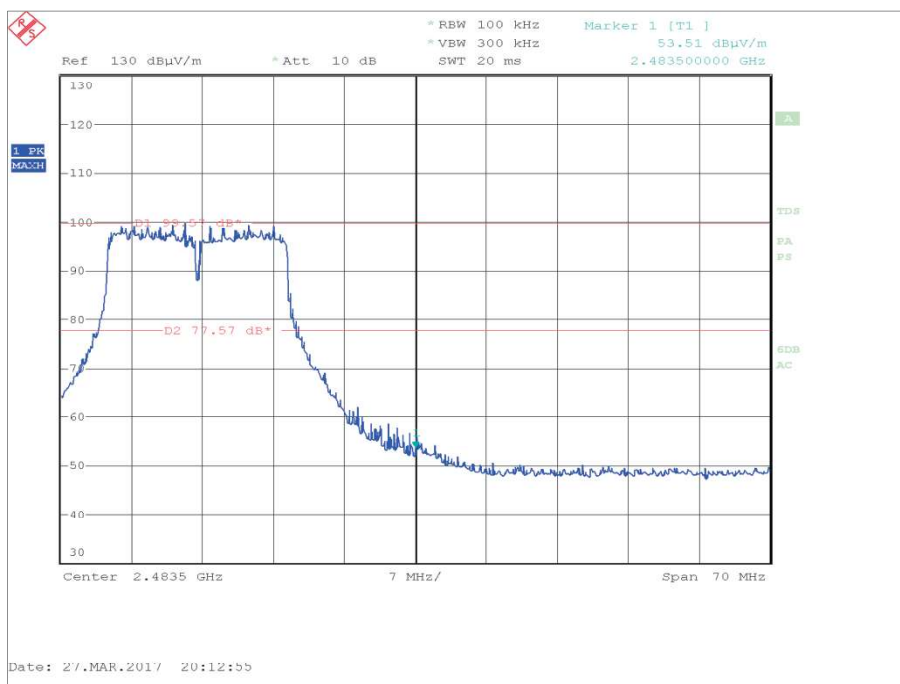


Figure 106 - MCS with Widest Bandwidth, MCS2, 2462 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT795-4MX - 802.11n 40 MHz Bandwidth

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
MCS with Highest Power	MCS8	2422	2400.0	65.68
MCS with Highest Power	MCS8	2452	2483.5	55.01
MCS with Widest Bandwidth	MCS3	2422	2400.0	65.36
MCS with Widest Bandwidth	MCS3	2452	2483.5	56.72

Table 65

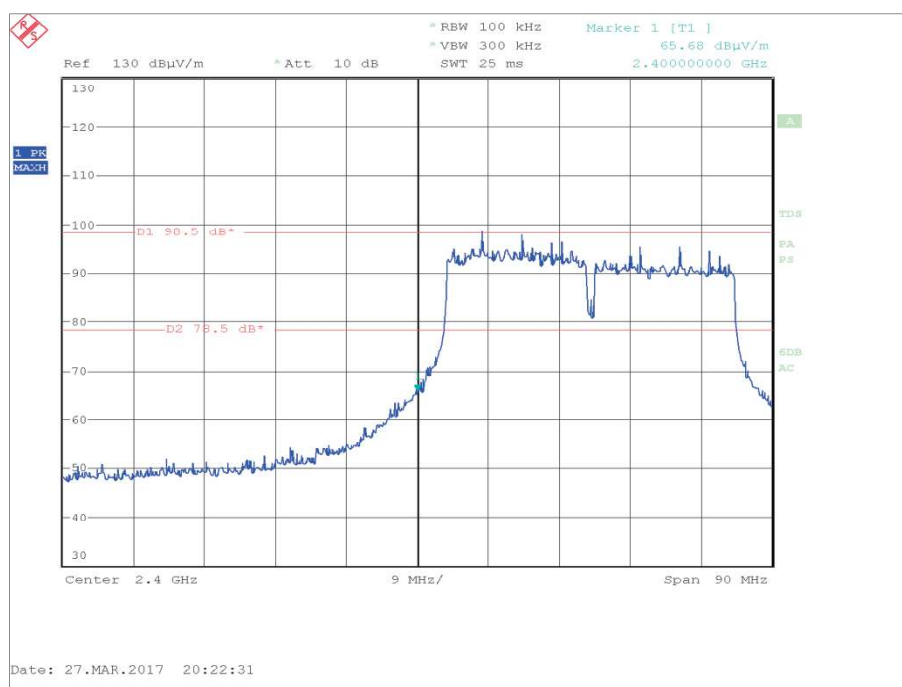


Figure 107 - MCS with Highest Power, MCS8, 2422 MHz, Measured Frequency 2400.0 MHz

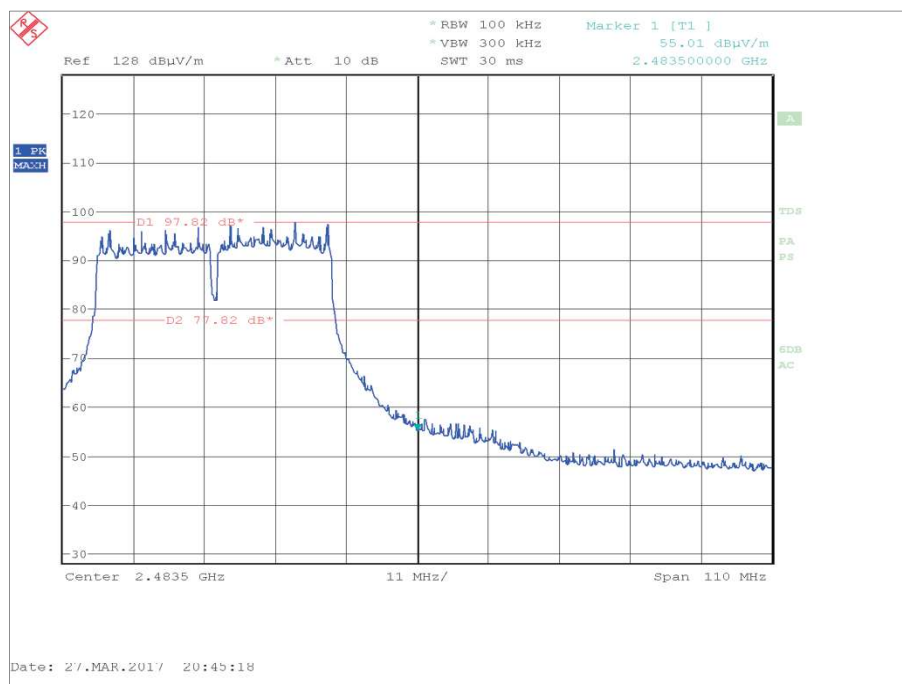


Figure 108 - MCS with Highest Power, MCS8, 2452 MHz, Measured Frequency 2483.5 MHz

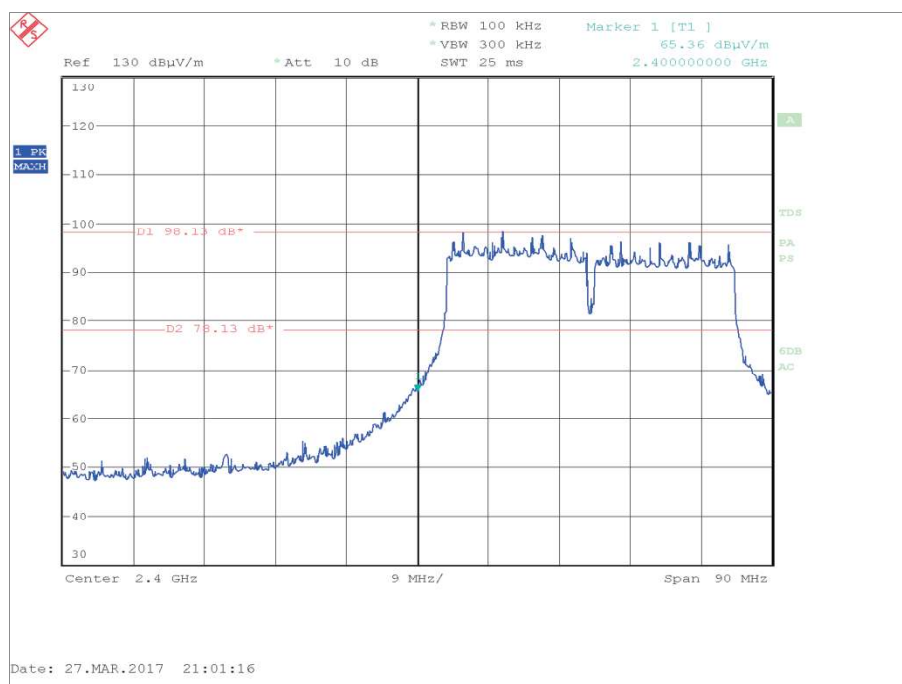


Figure 109 - MCS with Widest Bandwidth, MCS3, 2422 MHz, Measured Frequency 2400.0 MHz

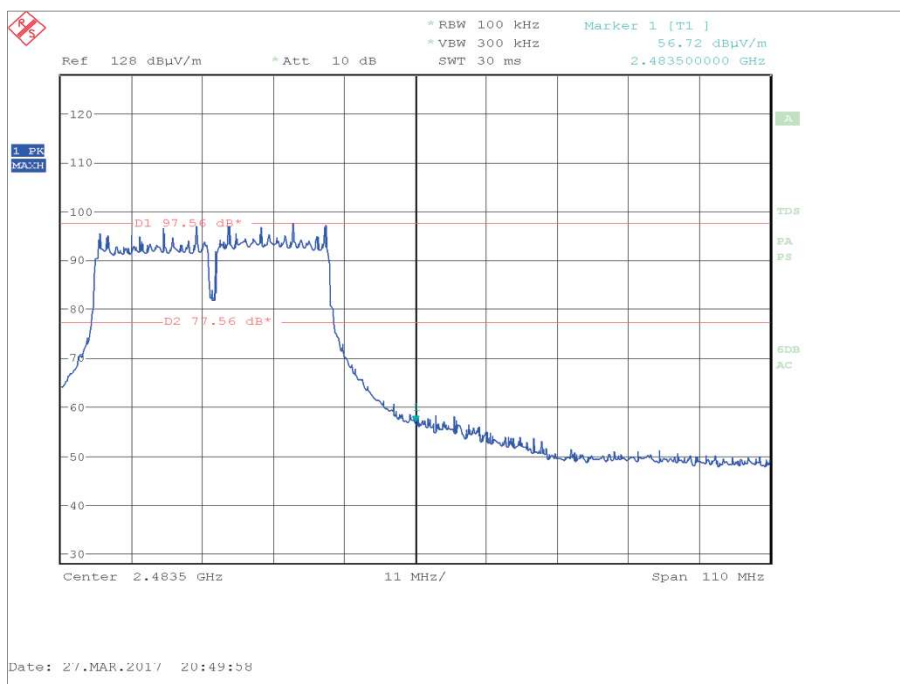


Figure 110 - MCS with Widest Bandwidth, MCS3, 2452 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT792-6MN - 802.11b

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
Data Rate with Highest Power and Widest Bandwidth	1 Mbps	2412	2400.0	51.26
Data Rate with Highest Power and Widest Bandwidth	1 Mbps	2462	2483.5	48.10

Table 66

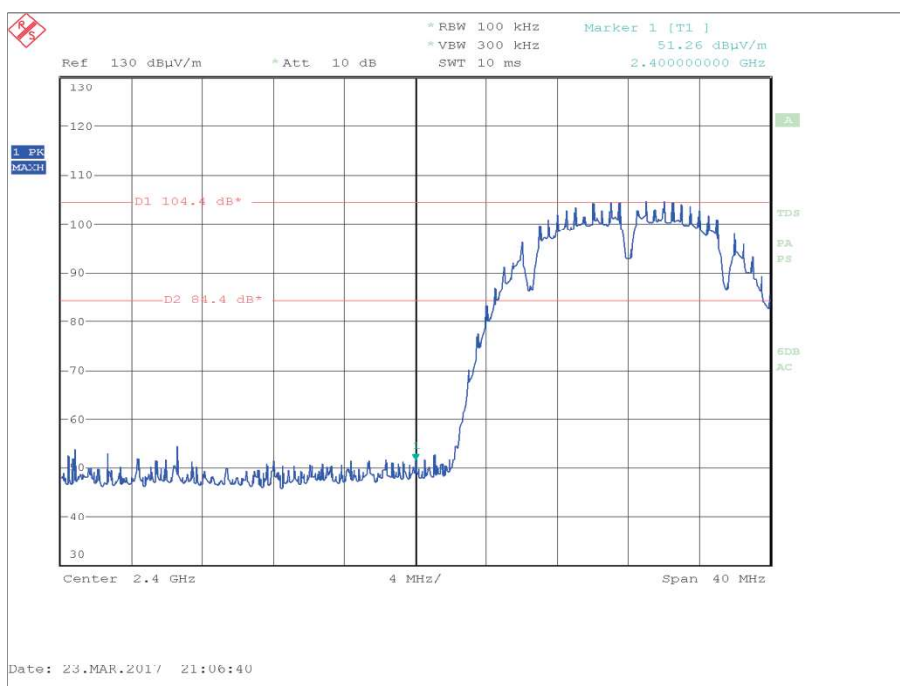


Figure 111 - Data Rate with Highest Power and Widest Bandwidth, 1 Mbps, 2412 MHz, Measured Frequency 2400.0 MHz

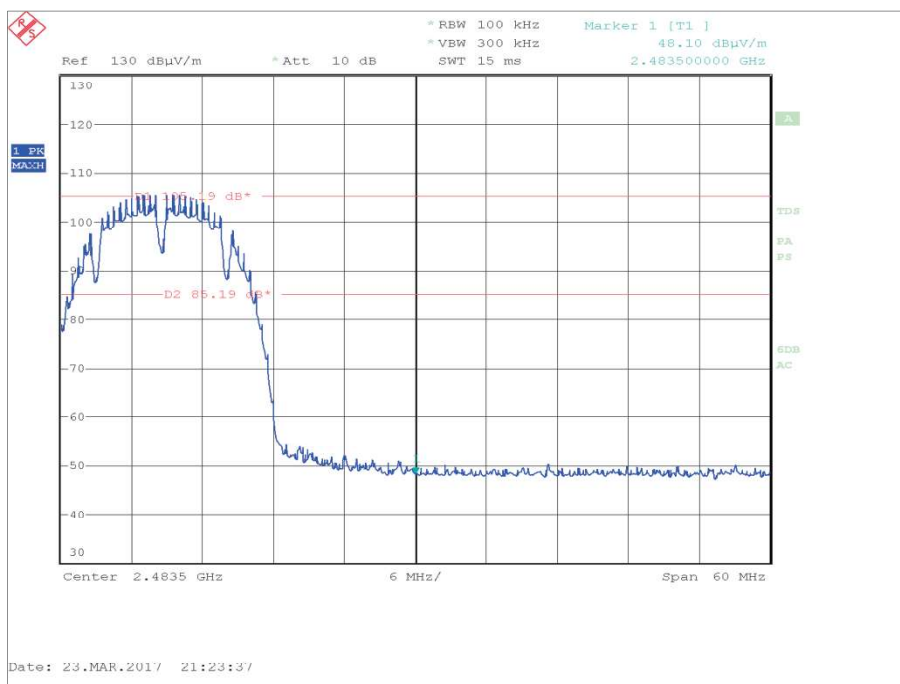


Figure 112 - Data Rate with Highest Power and Widest Bandwidth, 1 Mbps, 2462 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT792-6MN - 802.11g

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
Data Rate with Highest Power	6 Mbps	2412	2400.0	66.44
Data Rate with Highest Power	6 Mbps	2462	2483.5	49.39
Data Rate with Widest Bandwidth	48 Mbps	2412	2400.0	62.74
Data Rate with Widest Bandwidth	48 Mbps	2462	2483.5	49.04

Table 67

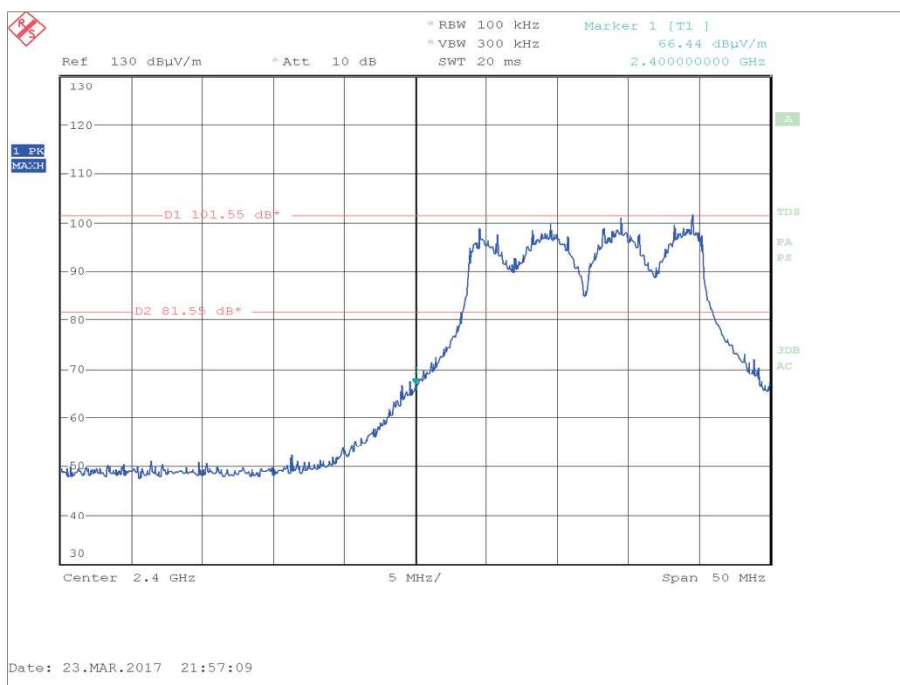
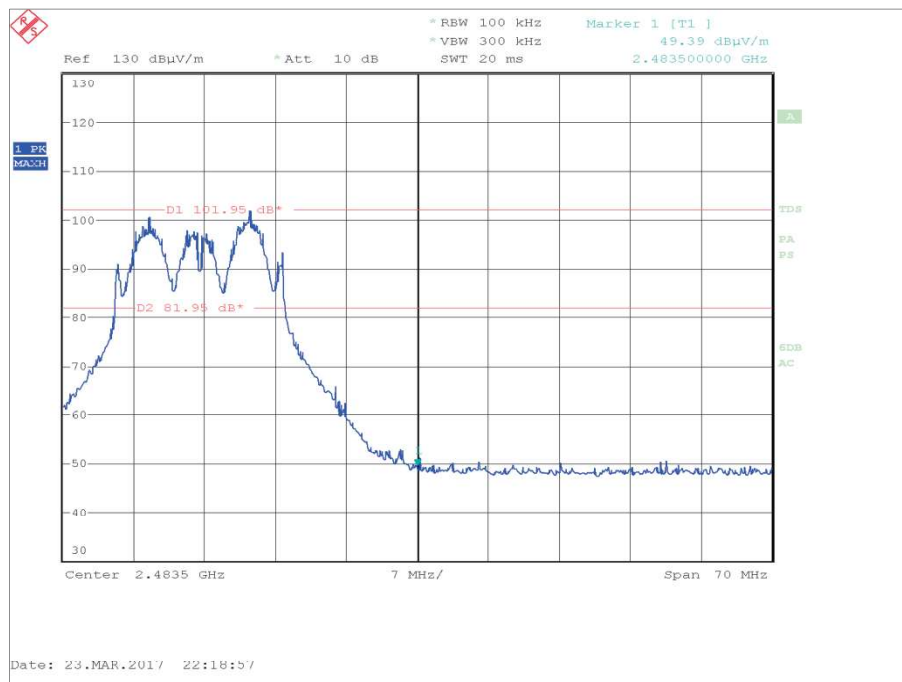


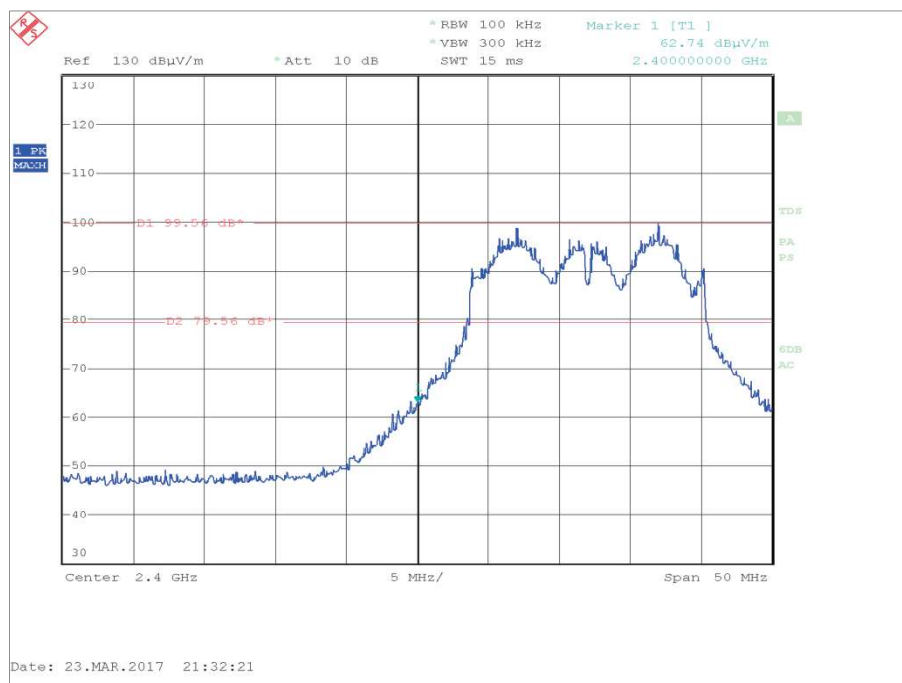
Figure 113 Data Rate with Highest Power, 6 Mbps, 2412 MHz, Measured Frequency 2400.0 MHz



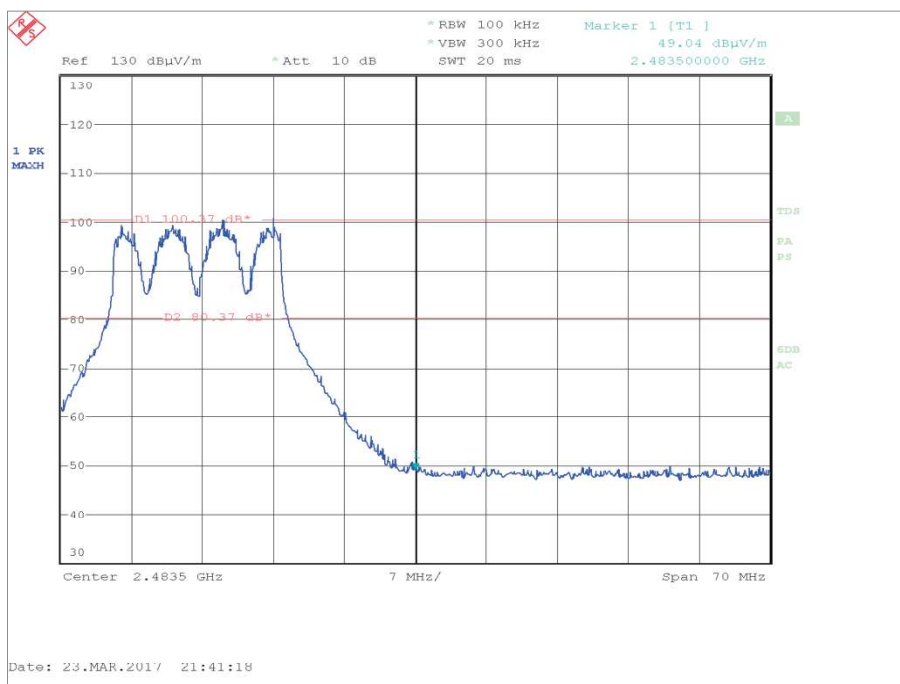
Product Service



**Figure 114 - Data Rate with Highest Power, 6 Mbps,
 2462 MHz, Measured Frequency 2483.5 MHz**



**Figure 115 - Data Rate with Widest Bandwidth, 48 Mbps,
 2412 MHz, Measured Frequency 2400.0 MHz**



**Figure 116 Data Rate with Widest Bandwidth, 48 Mbps,
2462 MHz, Measured Frequency 2483.5 MHz**

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT792-6MN - 802.11n 20 MHz Bandwidth

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
MCS with Highest Power	MCS0	2412	2400.0	67.55
MCS with Highest Power	MCS0	2462	2483.5	49.58
MCS with Widest Bandwidth	MCS2	2412	2400.0	64.46
MCS with Widest Bandwidth	MCS2	2462	2483.5	51.20

Table 68

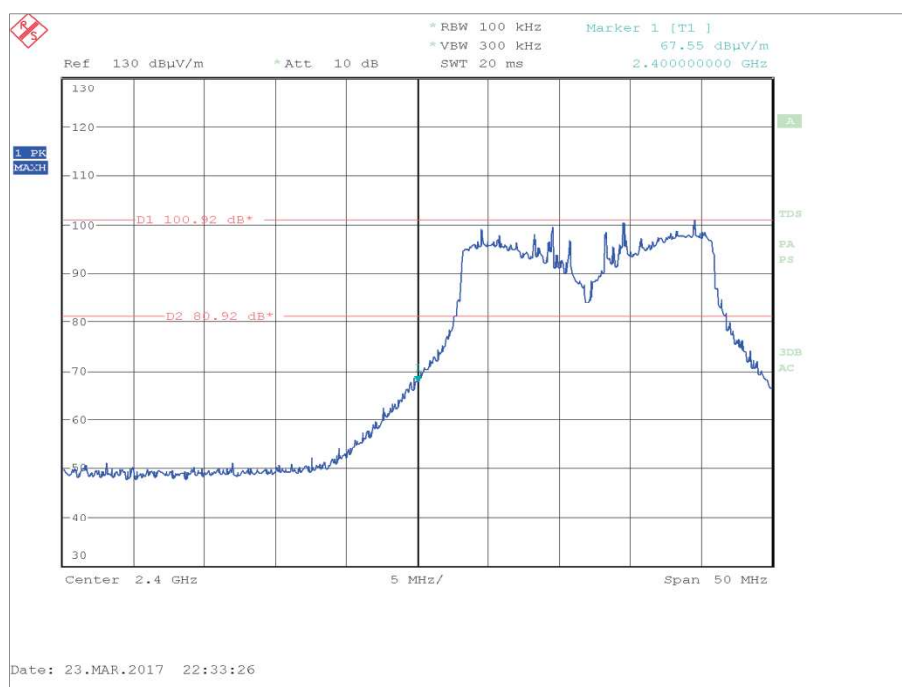


Figure 117 - MCS with Highest Power, MCS0, 2412 MHz, Measured Frequency 2400.0 MHz



Product Service

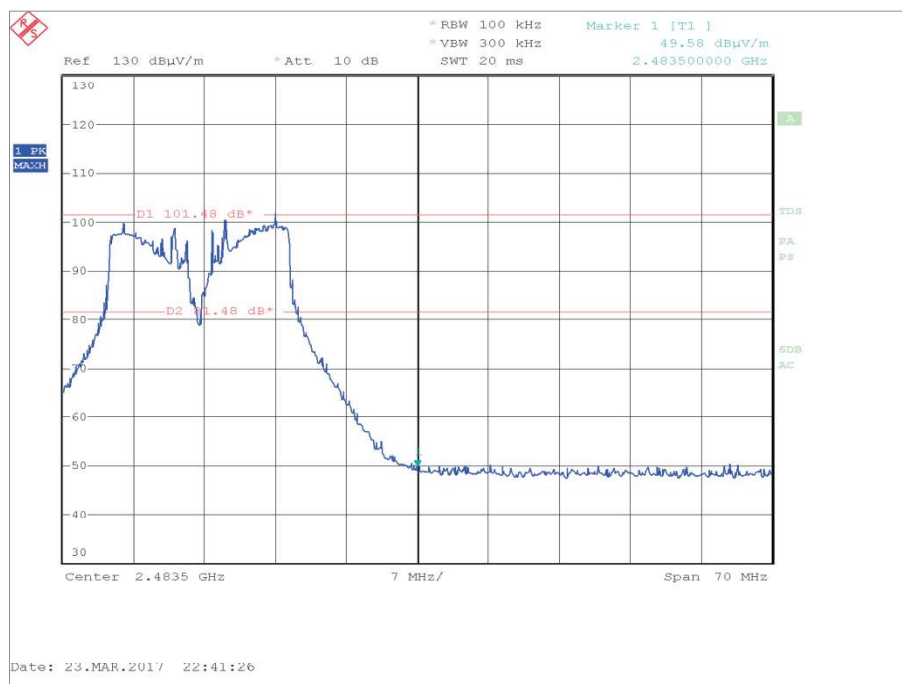


Figure 118 - MCS with Highest Power, MCS0, 2462 MHz, Measured Frequency 2483.5 MHz

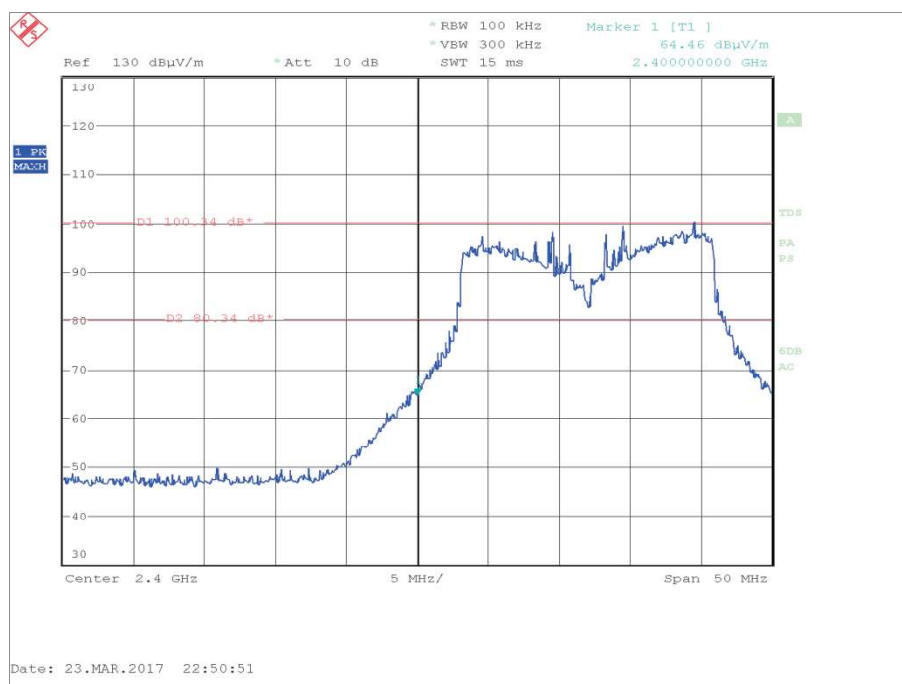


Figure 119 - MCS with Widest Bandwidth, MCS2, 2412 MHz, Measured Frequency 2400.0 MHz



Product Service

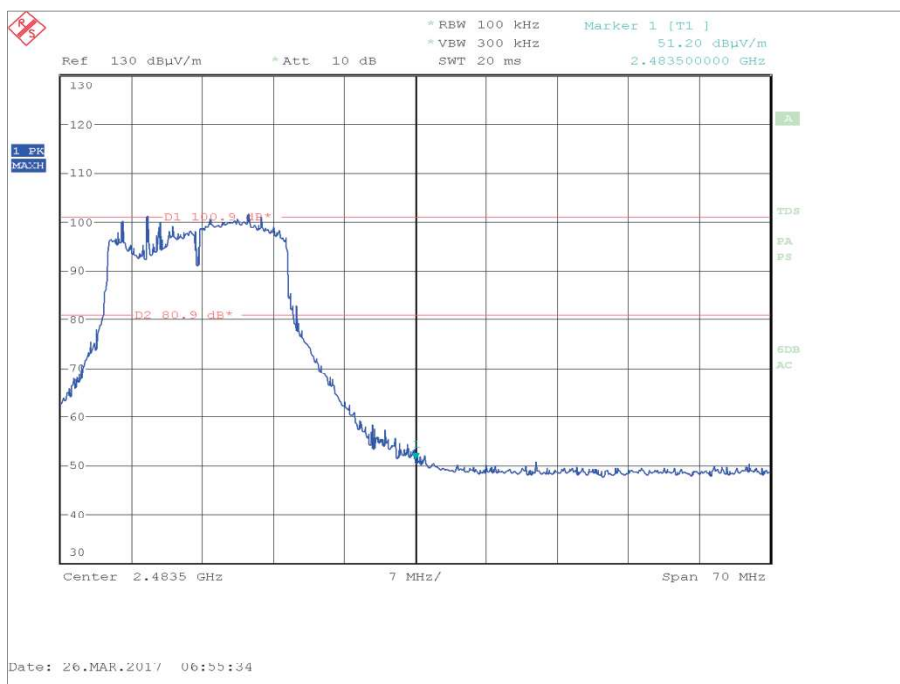


Figure 120 - MCS with Widest Bandwidth, MCS2, 2462 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT792-6MN - 802.11n 40 MHz Bandwidth

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
MCS with Highest Power	MCS8	2422	2400.0	65.25
MCS with Highest Power	MCS8	2452	2483.5	56.22
MCS with Widest Bandwidth	MCS3	2422	2400.0	67.83
MCS with Widest Bandwidth	MCS3	2452	2483.5	53.91

Table 69

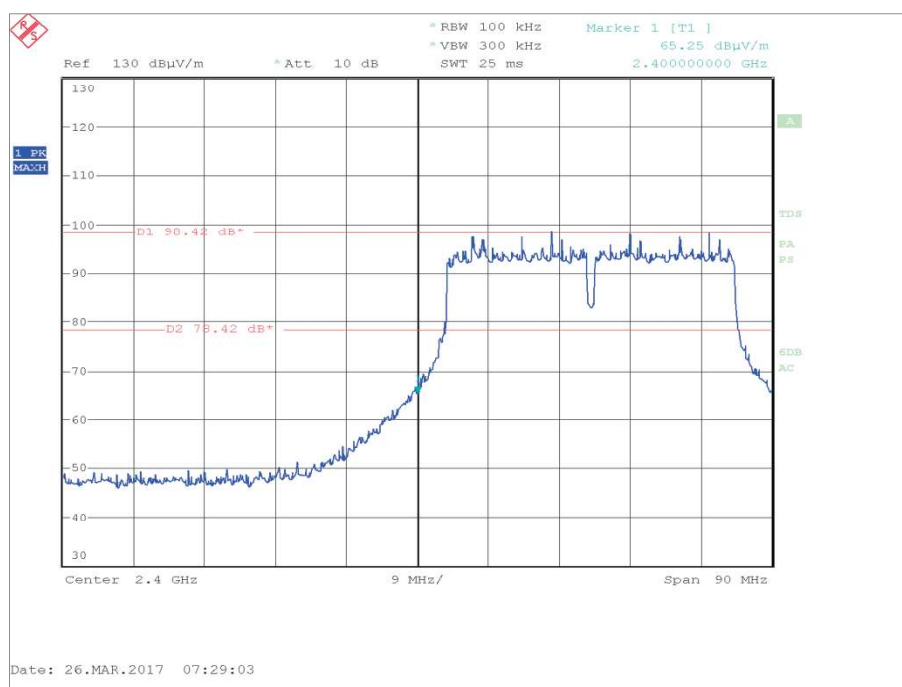


Figure 121 - MCS with Highest Power, MCS8, 2422 MHz, Measured Frequency 2400.0 MHz



Product Service

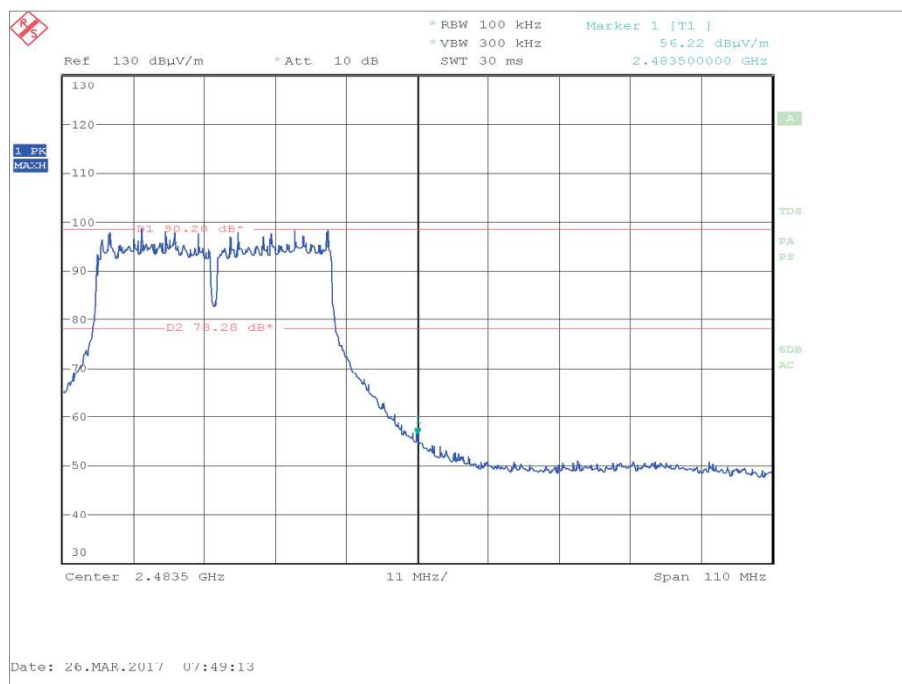


Figure 122 MCS with Highest Power, MCS8, 2452 MHz, Measured Frequency 2483.5 MHz

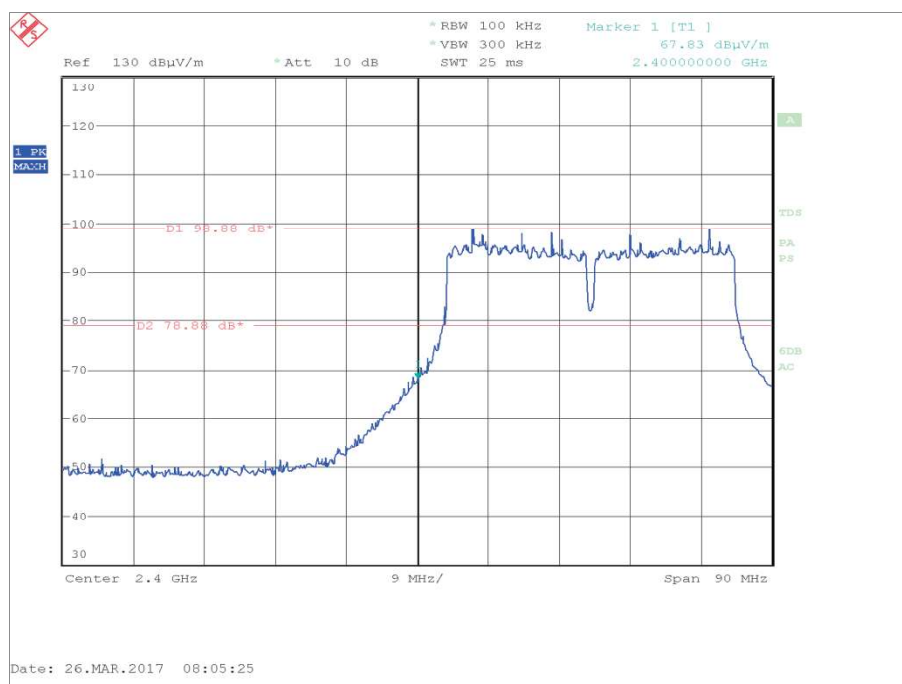


Figure 123 - MCS with Widest Bandwidth, MCS3, 2422 MHz, Measured Frequency 2400.0 MHz

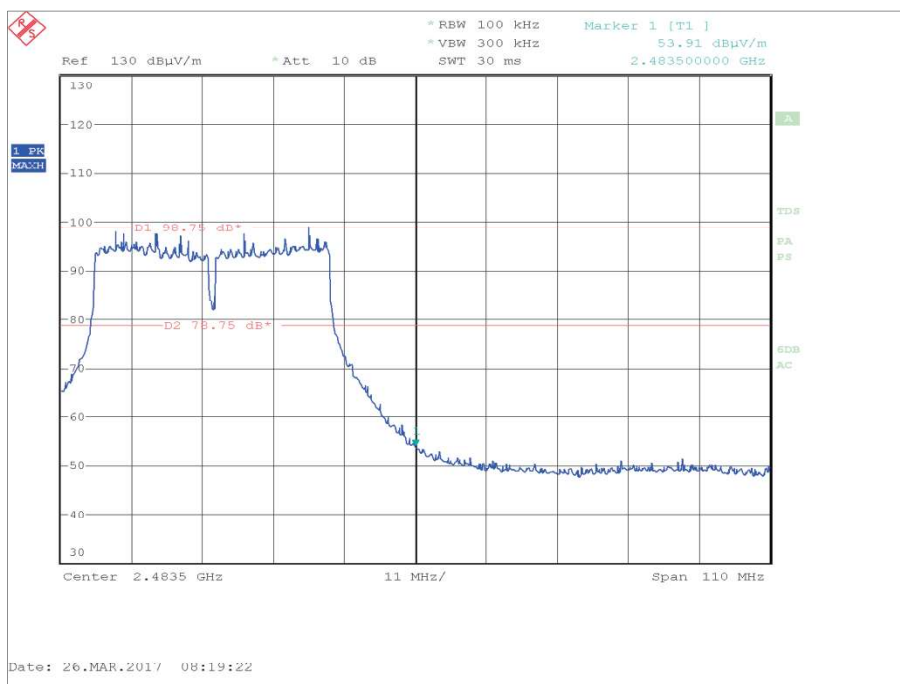


Figure 124 - MCS with Widest Bandwidth, MCS3, 2452 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT795-6DC - 802.11b

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
Data Rate with Highest Power and Widest Bandwidth	1 Mbps	2412	2400.0	56.02
Data Rate with Highest Power and Widest Bandwidth	1 Mbps	2462	2483.5	48.49

Table 70

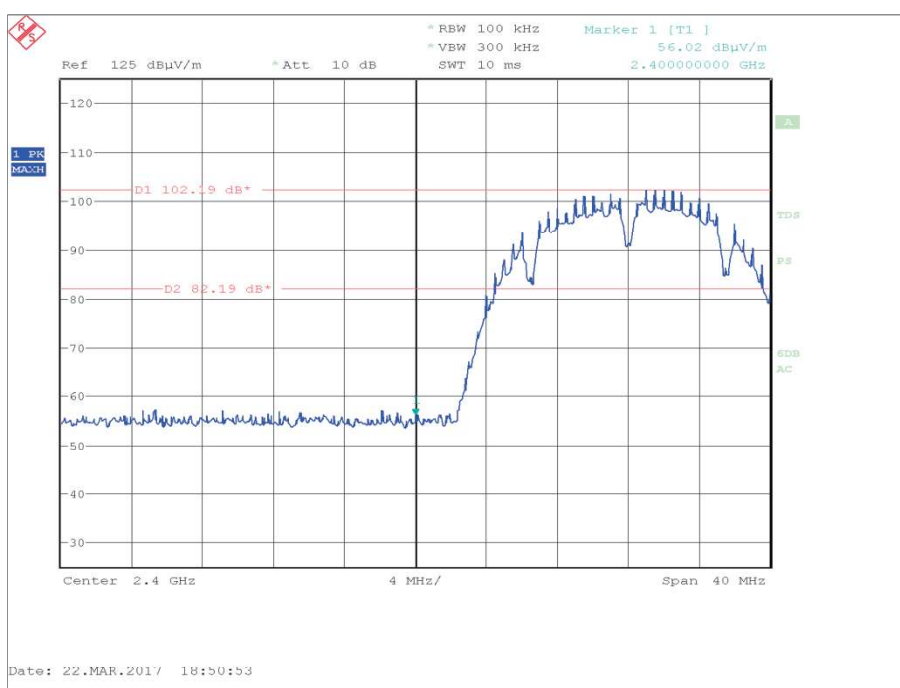


Figure 125 - Data Rate with Highest Power and Widest Bandwidth, 1 Mbps, 2412 MHz, Measured Frequency 2400.0 MHz

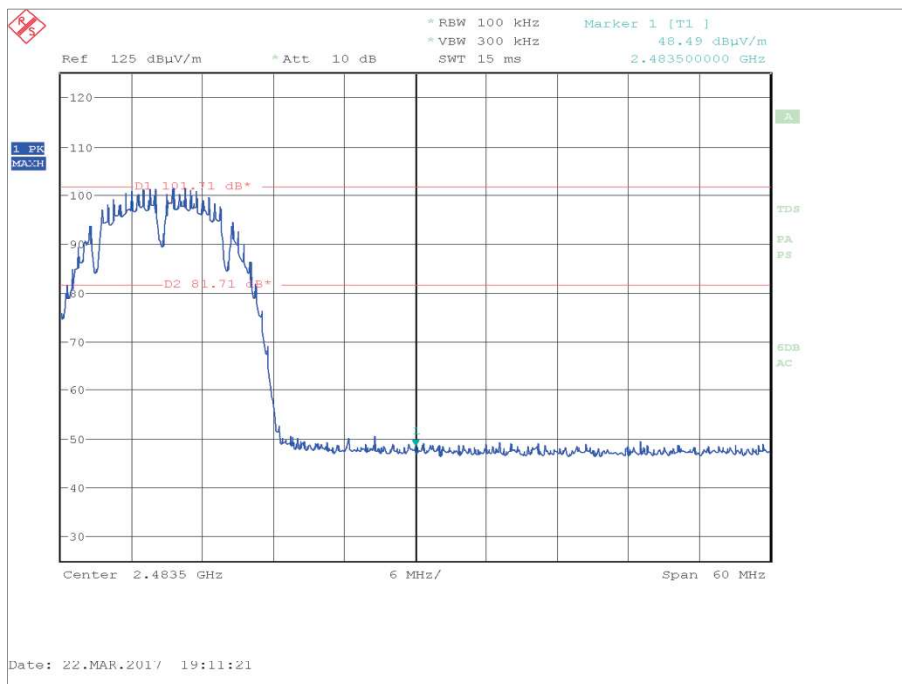


Figure 126 - Data Rate with Highest Power and Widest Bandwidth, 1 Mbps, 2462 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT795-6DC - 802.11g

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
Data Rate with Highest Power	6 Mbps	2412	2400.0	63.66
Data Rate with Highest Power	6 Mbps	2462	2483.5	49.34
Data Rate with Widest Bandwidth	48 Mbps	2412	2400.0	66.51
Data Rate with Widest Bandwidth	48 Mbps	2462	2483.5	47.95

Table 71

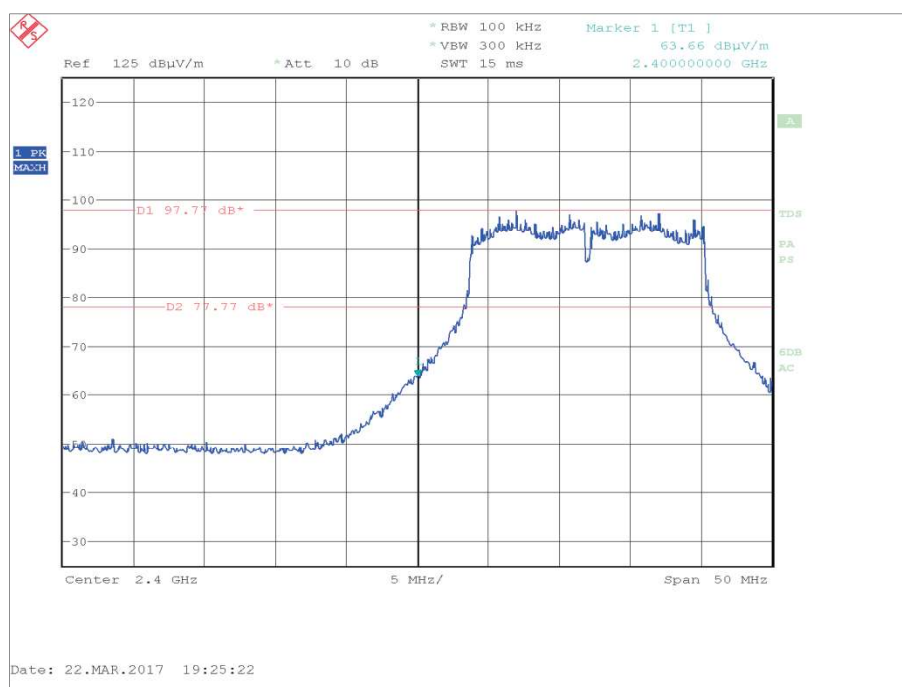
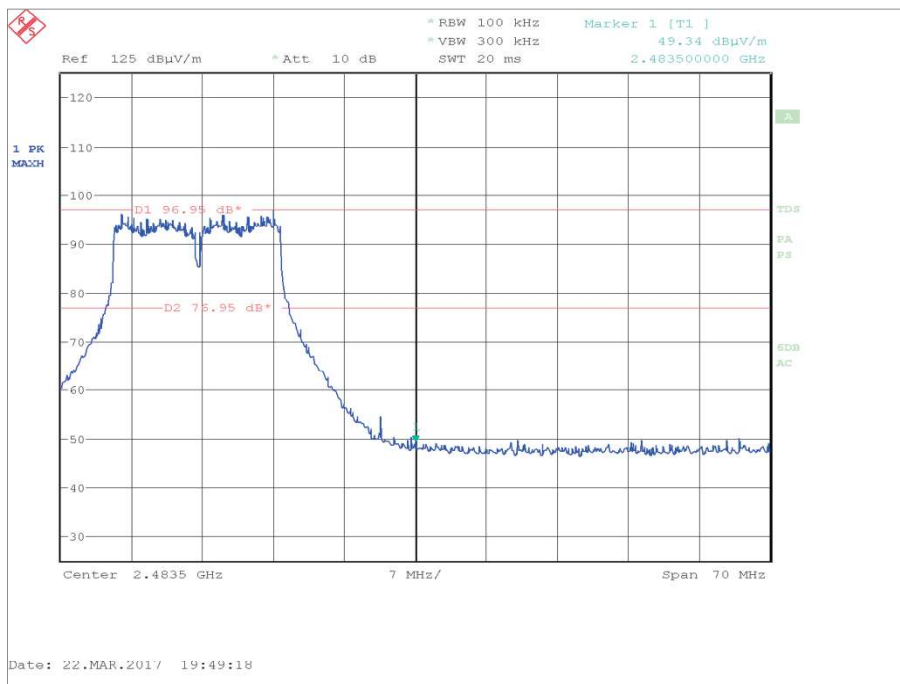


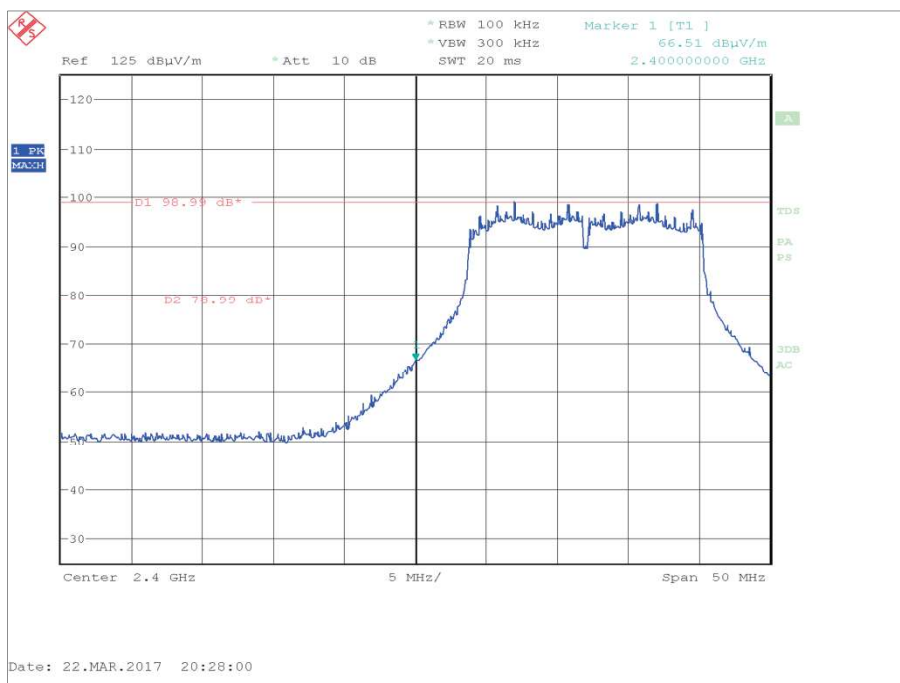
Figure 127 - Data Rate with Highest Power, 6 Mbps, 2412 MHz, Measured Frequency 2400.0 MHz



Product Service



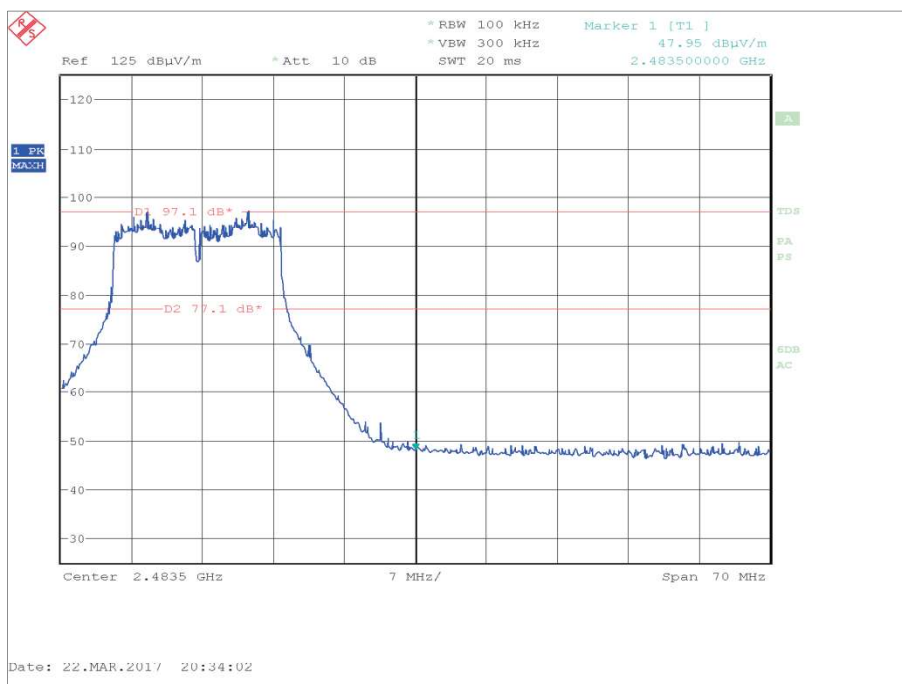
**Figure 128 - Data Rate with Highest Power, 6 Mbps,
2462 MHz, Measured Frequency 2483.5 MHz**



**Figure 129 - Data Rate with Widest Bandwidth, 48 Mbps,
2412 MHz, Measured Frequency 2400.0 MHz**



Product Service



**Figure 130 - Data Rate with Widest Bandwidth, 48 Mbps,
2462 MHz, Measured Frequency 2483.5 MHz**

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT795-6DC - 802.11n 20 MHz Bandwidth

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
MCS with Highest Power	MCS0	2412	2400.0	65.40
MCS with Highest Power	MCS0	2462	2483.5	48.09
MCS with Widest Bandwidth	MCS2	2412	2400.0	65.91
MCS with Widest Bandwidth	MCS2	2462	2483.5	48.09

Table 72

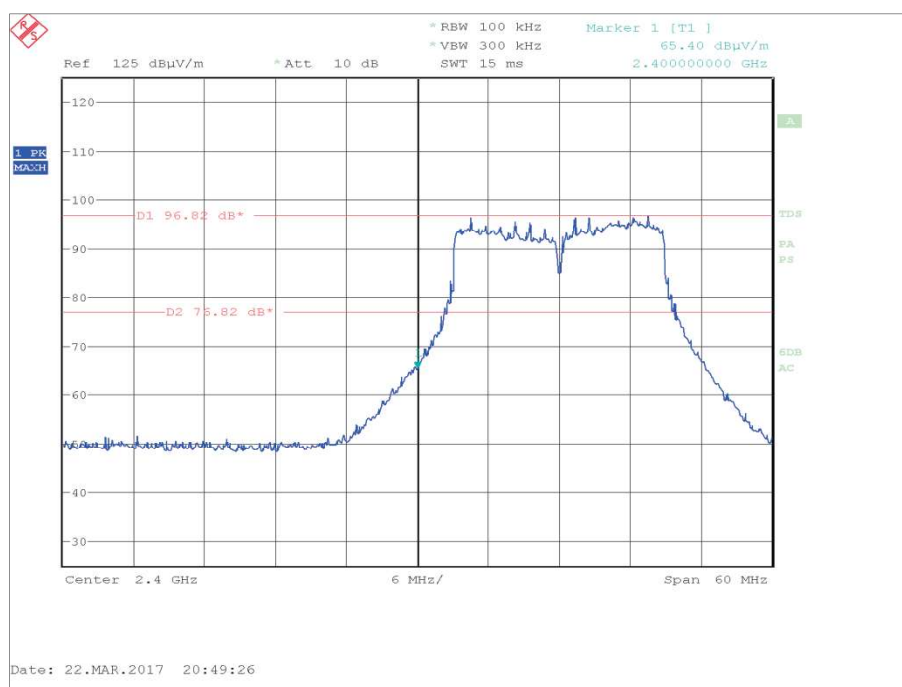


Figure 131 - MCS with Highest Power, MCS0, 2412 MHz, Measured Frequency 2400.0 MHz



Product Service

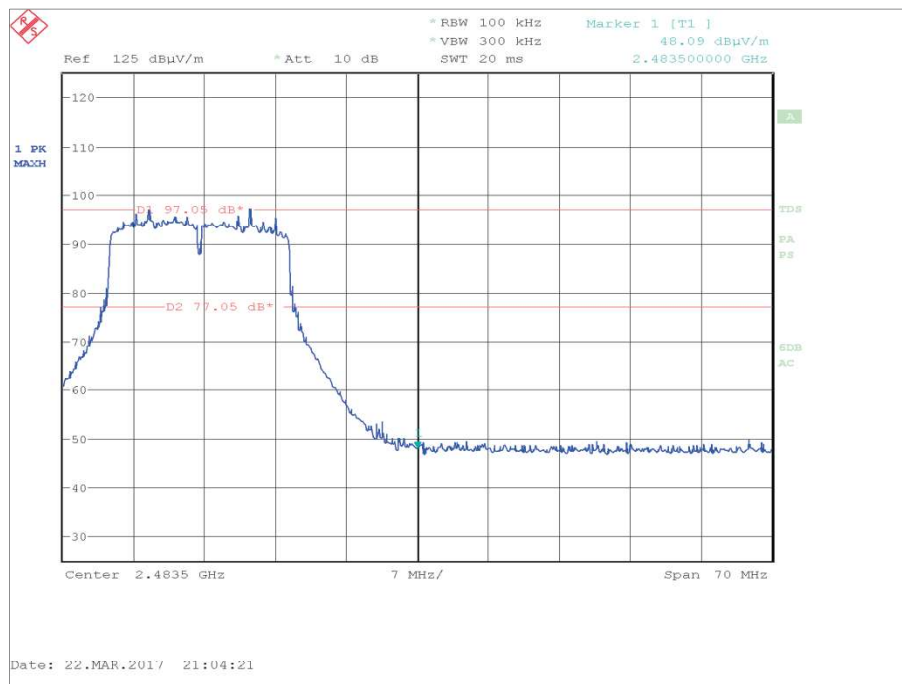


Figure 132 - MCS with Highest Power, MCS0, 2462 MHz, Measured Frequency 2483.5 MHz

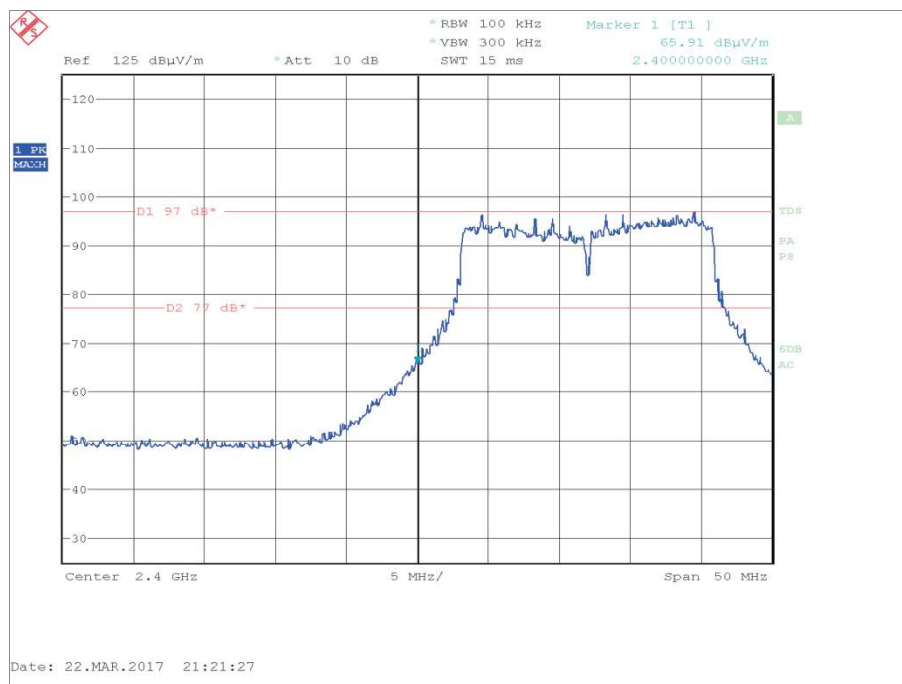


Figure 133 - MCS with Widest Bandwidth, MCS2, 2412 MHz, Measured Frequency 2400.0 MHz



Product Service

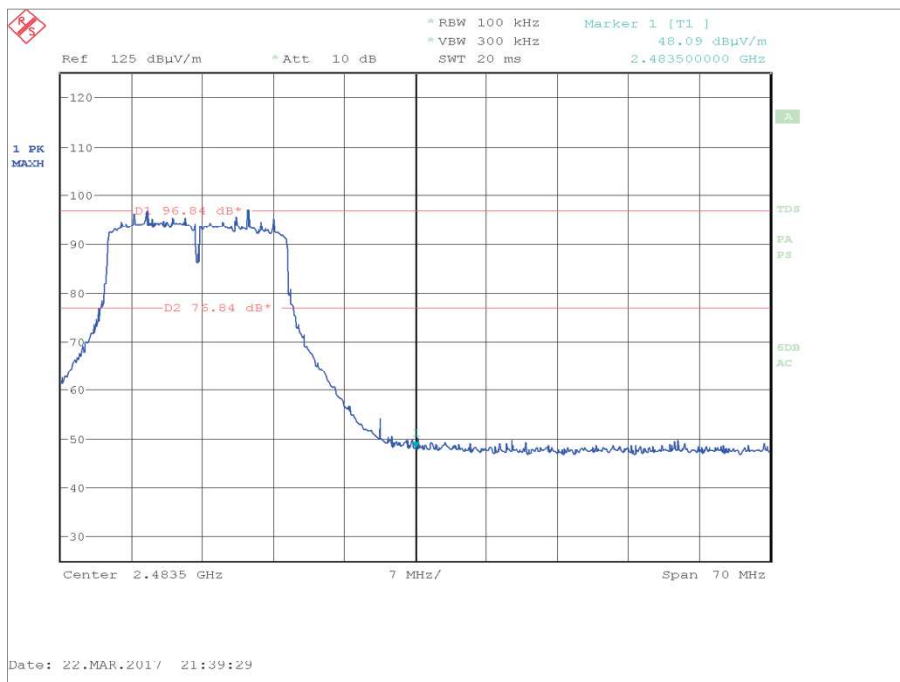


Figure 134 - MCS with Widest Bandwidth, MCS2, 2462 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



ANT795-6DC - 802.11n 40 MHz Bandwidth

Mode	Data Rate/MCS	Frequency (MHz)	Measured Frequency (MHz)	Peak Level (dBμV/m)
MCS with Highest Power	MCS8	2422	2400.0	65.36
MCS with Highest Power	MCS8	2452	2483.5	49.69
MCS with Widest Bandwidth	MCS3	2422	2400.0	65.65
MCS with Widest Bandwidth	MCS3	2452	2483.5	53.69

Table 73

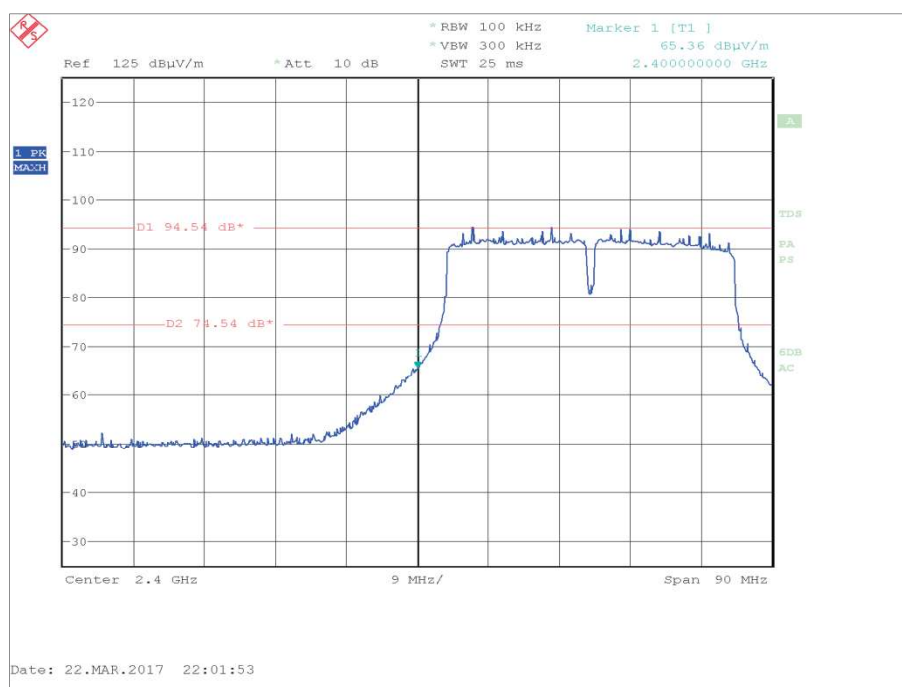


Figure 135 - MCS with Highest Power, MCS8, 2422 MHz, Measured Frequency 2400.0 MHz

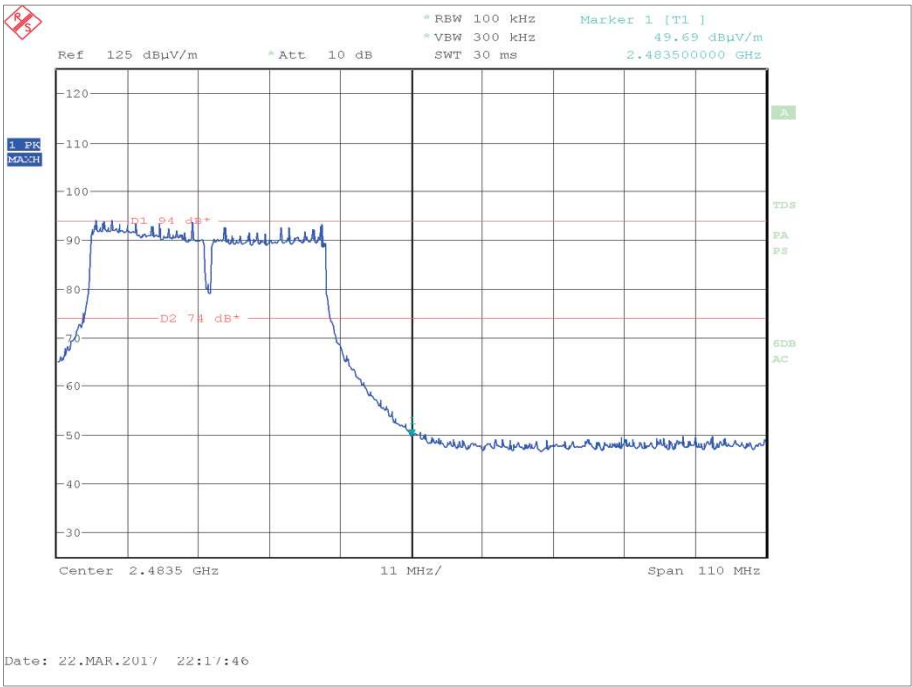


Figure 136 - MCS with Highest Power, MCS8, 2452 MHz, Measured Frequency 2483.5 MHz

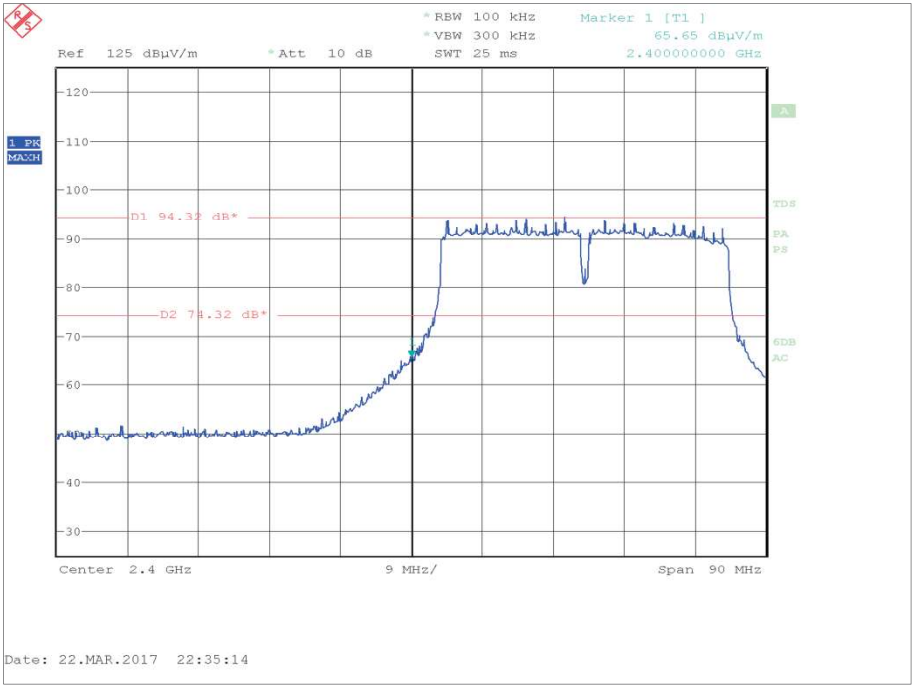


Figure 137 - MCS with Widest Bandwidth, MCS3, 2422 MHz, Measured Frequency 2400.0 MHz

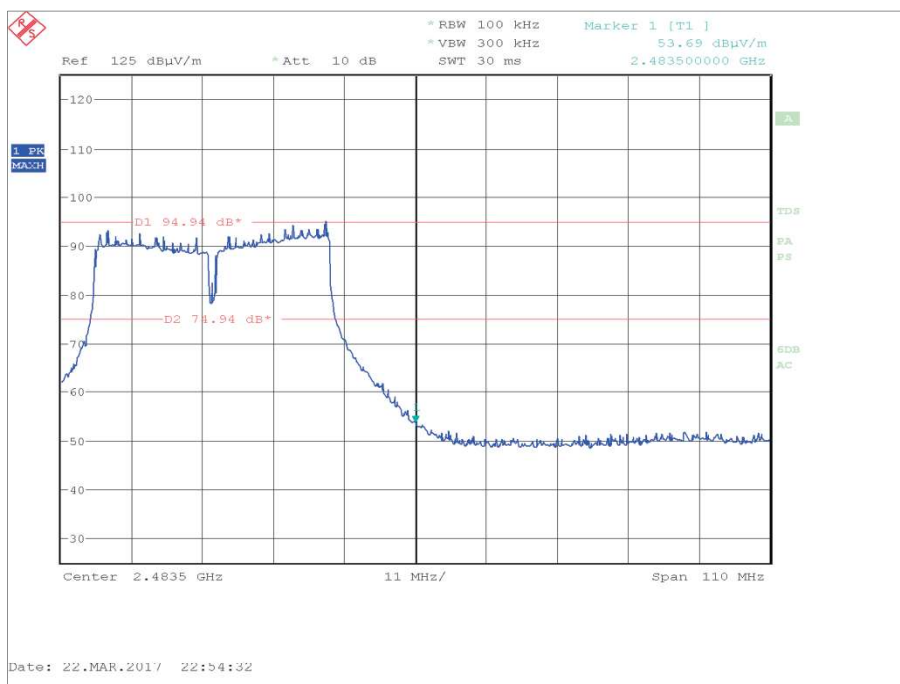


Figure 138 - MCS with Widest Bandwidth, MCS3, 2452 MHz, Measured Frequency 2483.5 MHz

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

2.4.7 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 5.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Hygrometer	Rotronic	A1	1388	12	13-Apr-2017
Screened Room (5)	Rainford	Rainford	1545	36	20-Dec-2017
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Cable (N-N, 8m)	Rhophase	NPS-2302-8000-NPS	3248	-	TU
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	12-Nov-2017
Multimeter	Fluke	177	3813	12	14-Sep-2017
Tilt Antenna Mast	maturo GmbH	TAM 4.0-P	3916	-	TU
Mast Controller	maturo GmbH	NCD	3917	-	TU
Cable (Yellow, Rx, Km-Km 2m)	Scott Cables	KPS-1501-2000-KPS	4527	6	29-Jul-2015
Double Ridge Broadband Horn Antenna	Schwarzbeck	BBHA 9120 B	4848	12	17-Feb-2018

Table 74

TU - Traceability Unscheduled

2.5 Spurious Radiated Emissions

2.5.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d) and 15.205
Industry Canada RSS-247, Clause 5.5
Industry Canada RSS-GEN, Clause 6.13

2.5.2 Equipment Under Test and Modification State

MSN65-W1-M12-E2, S/N: Not Serialised (75938097-TSR0001) - Modification State 0

2.5.3 Date of Test

27-March-2017 to 09-April-2017

2.5.4 Test Method

Testing was performed in accordance with ANSI C63.10, clause 11.11, 11.12.1 and 11.12.2.7

Plots for average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.3 to characterize the EUT. Where emissions were detected, final average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.2.

The plots shown are the characterization of the EUT. The limits on the plots represent the most stringent case for restricted bands, (54/74 dBuV/m) when compared to 20 dBc outside restricted bands. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 10 dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

2.5.5 Environmental Conditions

Ambient Temperature 17.6 - 19.1 °C
Relative Humidity 31.0 - 55.0 %

2.5.6 Test Results

ANT795-4MX - 802.11b

Testing was performed on the Data Rate which resulted in the highest conducted output power. The Data Rate used during testing was 1 Mbps.

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.213	30.3	40.0	-9.7	275	1.00	Horizontal
37.500	26.9	40.0	-13.1	102	1.00	Horizontal
608.000	40.4	46.0	-5.6	84	1.00	Vertical
612.788	43.7	46.0	-2.3	86	1.00	Vertical
614.000	42.2	46.0	-3.8	80	1.00	Vertical
960.000	33.8	46.0	-12.2	196	2.12	Vertical

Table 75 - 2412 MHz - 30 MHz to 1 GHz

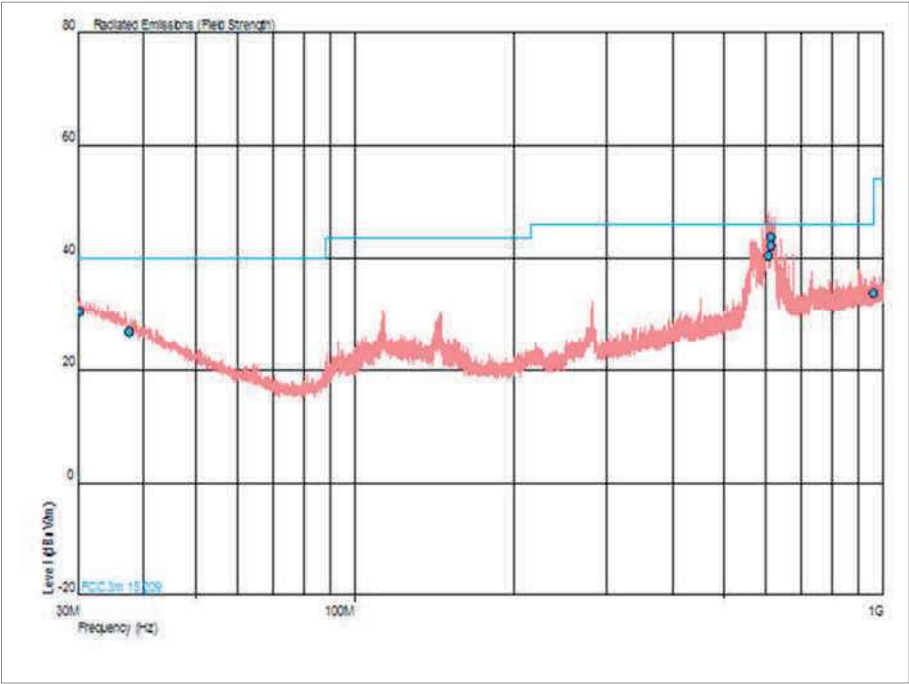


Figure 139 - 2412 MHz - 30 MHz to 1 GHz - Horizontal and Vertical

Frequency (GHz)	Result (µV/m)		Limit (µV/m)		Margin (µV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.200000	726.11	346.34	5000.00	500.00	4273.89	153.66
2.250000	996.55	349.14	5000.00	500.00	4003.45	150.86

Table 76 - 2412 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.



Product Service

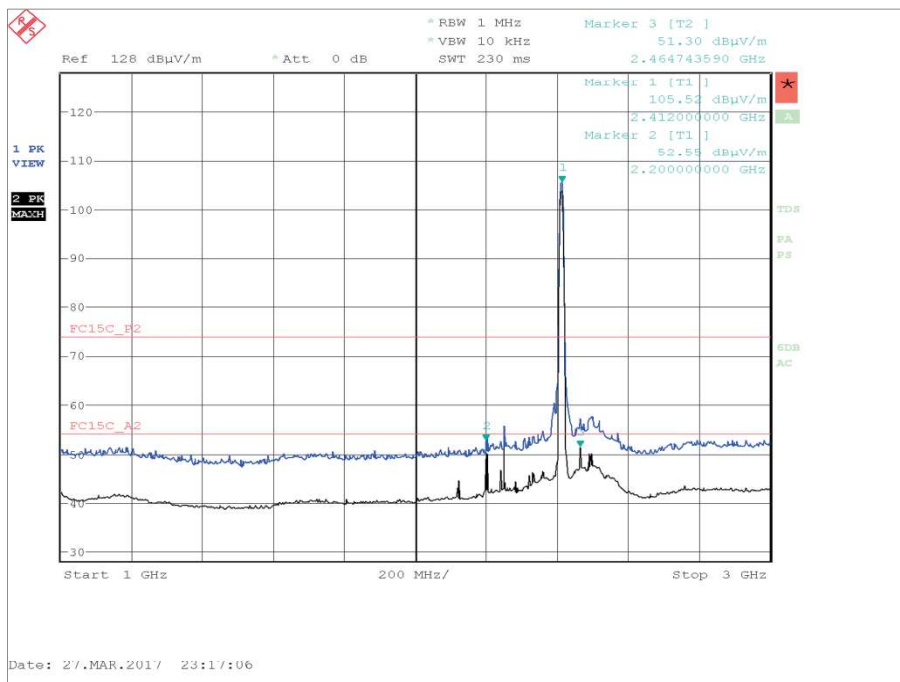


Figure 140 - 2412 MHz - 1 GHz to 3 GHz - Horizontal and Vertical

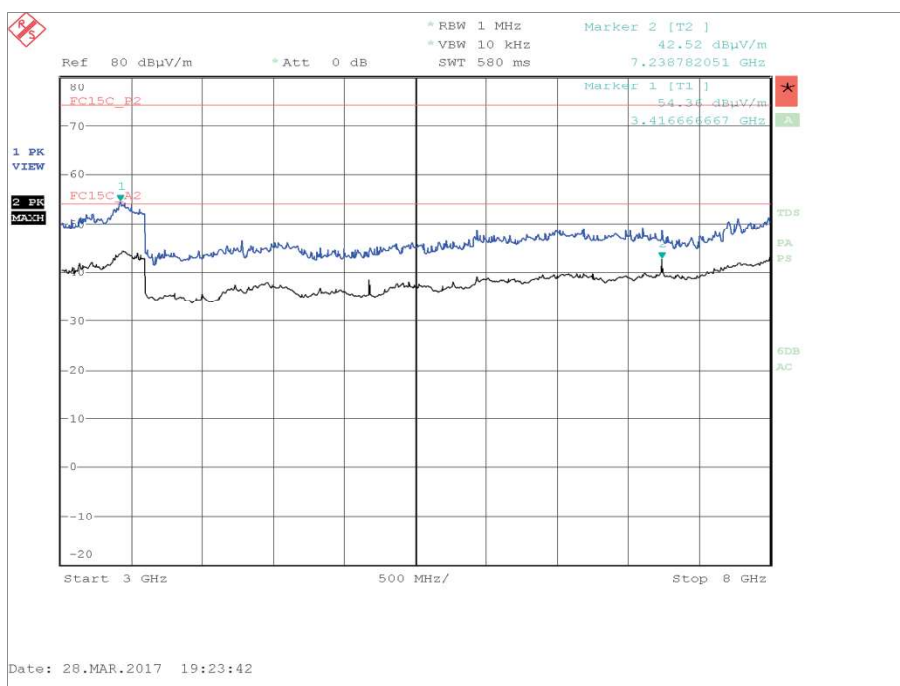


Figure 141 - 2412 MHz - 3 GHz to 8 GHz - Horizontal and Vertical

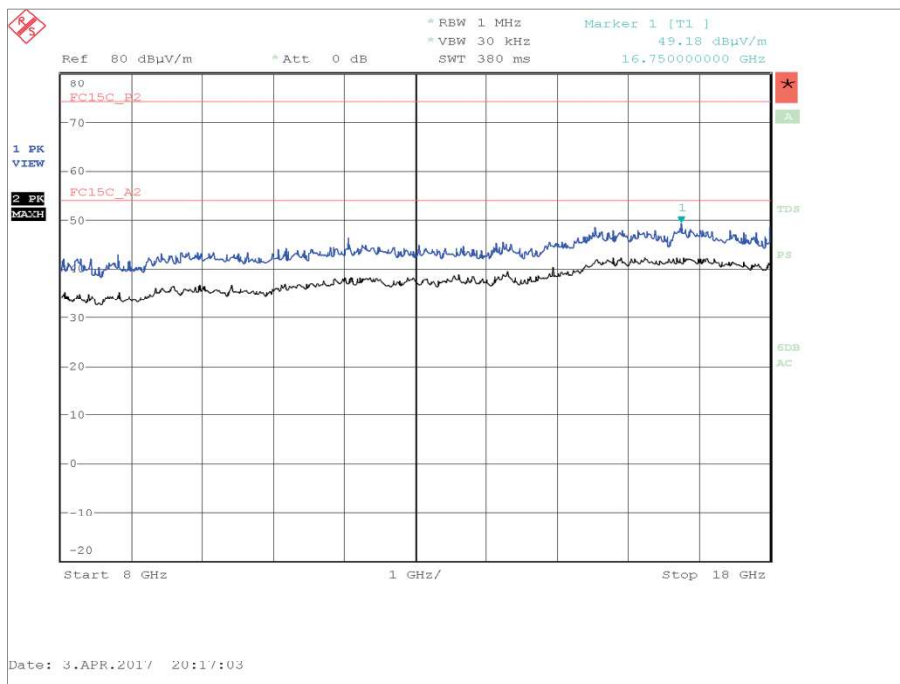


Figure 142 - 2412 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

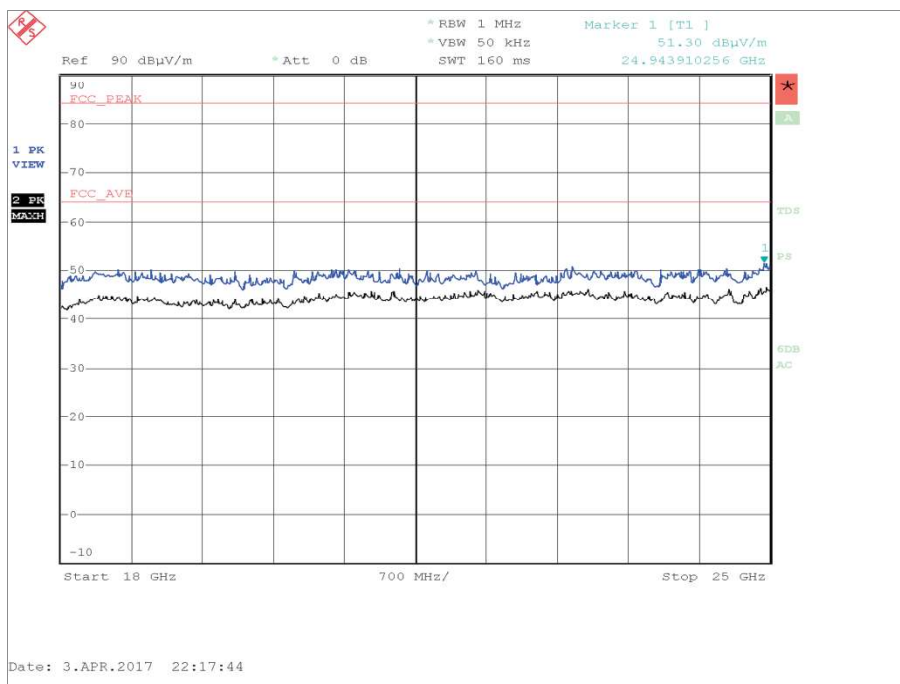


Figure 143 - 2412 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.174	30.5	40.0	-9.5	102	1.00	Vertical
37.500	26.9	40.0	-13.1	20	1.00	Vertical
608.000	39.9	46.0	-6.1	84	1.00	Vertical
612.654	43.2	46.0	-2.8	78	1.00	Vertical
614.000	40.5	46.0	-5.5	111	1.00	Vertical
960.000	33.8	46.0	-12.2	266	1.00	Vertical

Table 77 - 2437 MHz - 30 MHz to 1 GHz

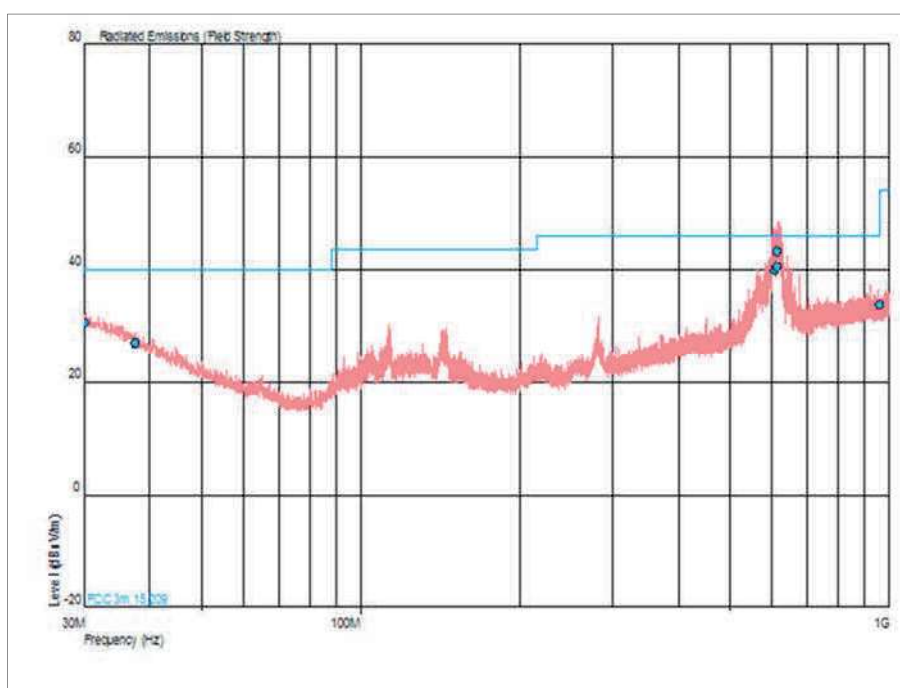


Figure 144 - 2437 MHz - 30 MHz to 1 GHz - Horizontal and Vertical

Frequency (GHz)	Result (μV/m)		Limit (μV/m)		Margin (μV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.200000	906.78	480.29	5000.00	500.00	4093.22	19.71
2.250000	907.82	435.51	5000.00	500.00	4092.18	64.49
2.359800	1012.74	250.29	5000.00	500.00	3987.26	249.10
2.561600	776.25	197.70	5000.00	500.00	4223.75	302.30

Table 78 - 2437 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.

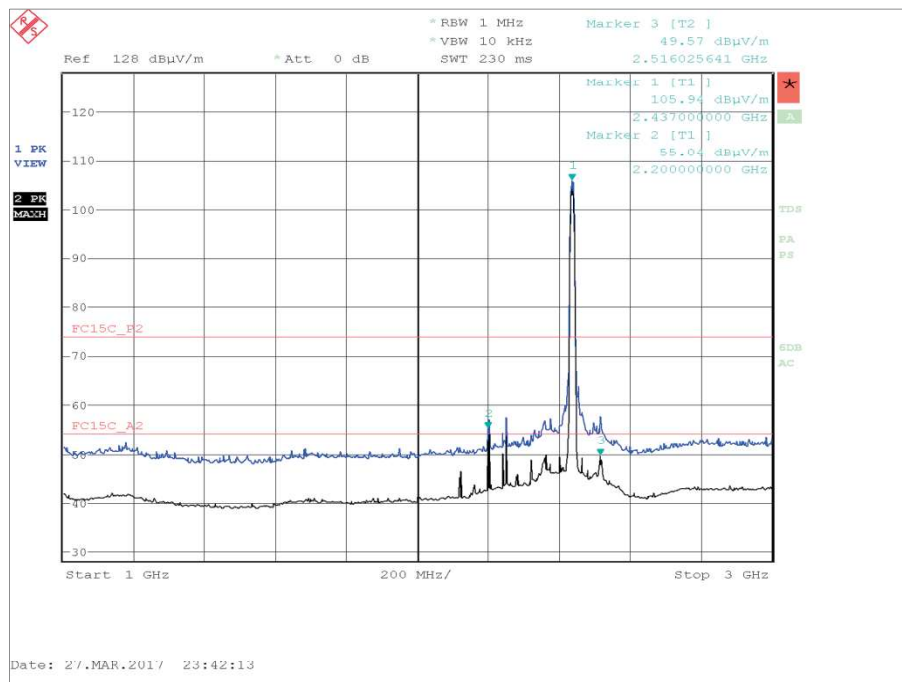


Figure 145 - 2437 MHz - 1 GHz to 3 GHz - Horizontal and Vertical

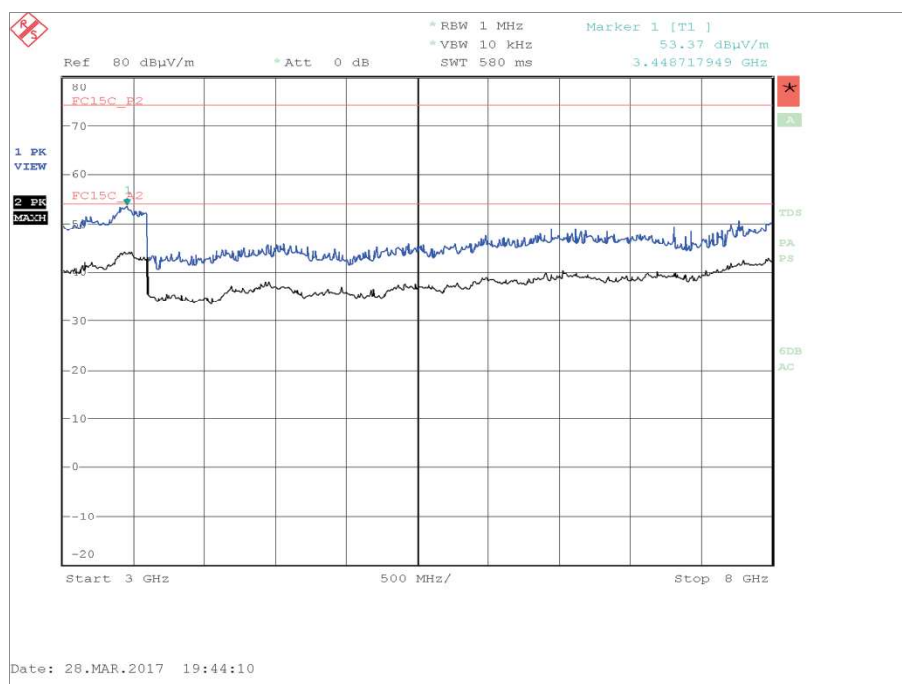


Figure 146 - 2437 MHz - 3 GHz to 8 GHz - Horizontal and Vertical



Product Service

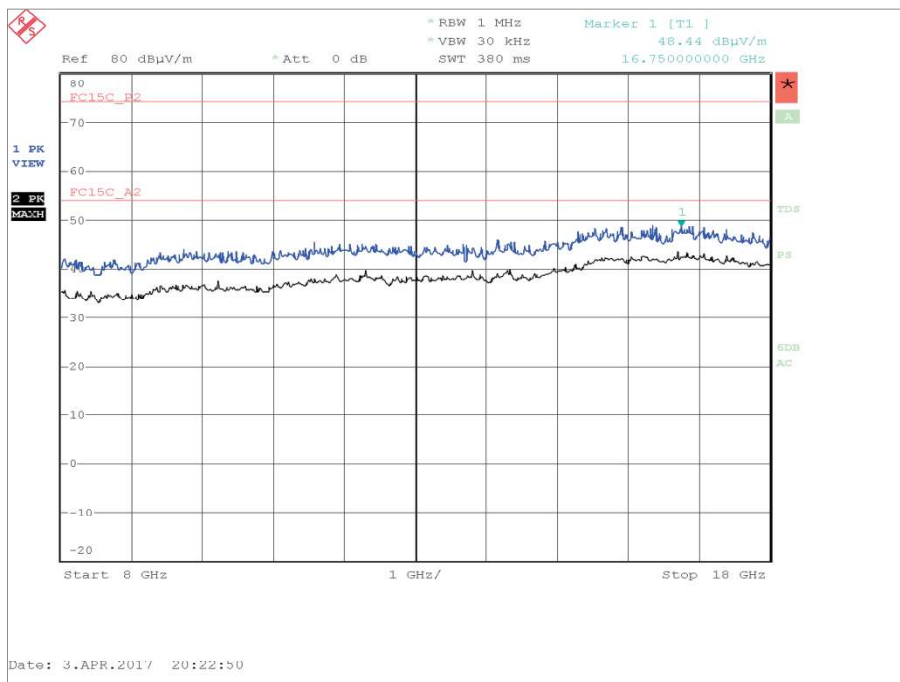


Figure 147 - 2437 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

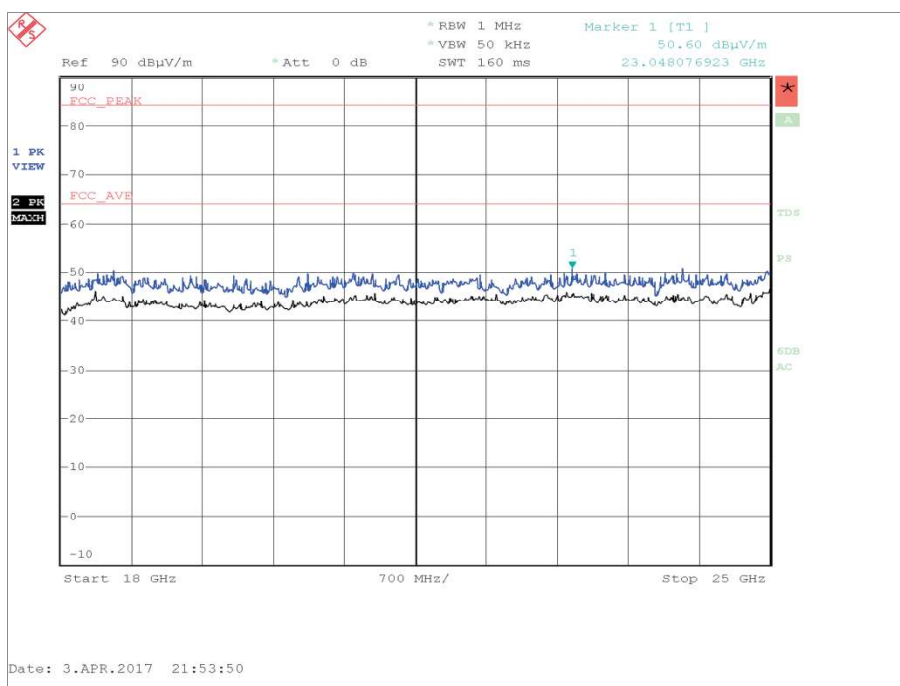


Figure 148 - 2437 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.239	30.4	40.0	-9.6	360	1.00	Vertical
37.500	26.8	40.0	-13.2	111	1.00	Vertical
608.000	39.6	46.0	-6.4	86	1.00	Vertical
612.856	42.7	46.0	-3.3	91	1.00	Vertical
614.000	41.7	46.0	-4.3	84	1.00	Vertical
960.000	33.9	46.0	-12.1	322	1.00	Vertical

Table 79 - 2462 MHz - 30 MHz to 1 GHz

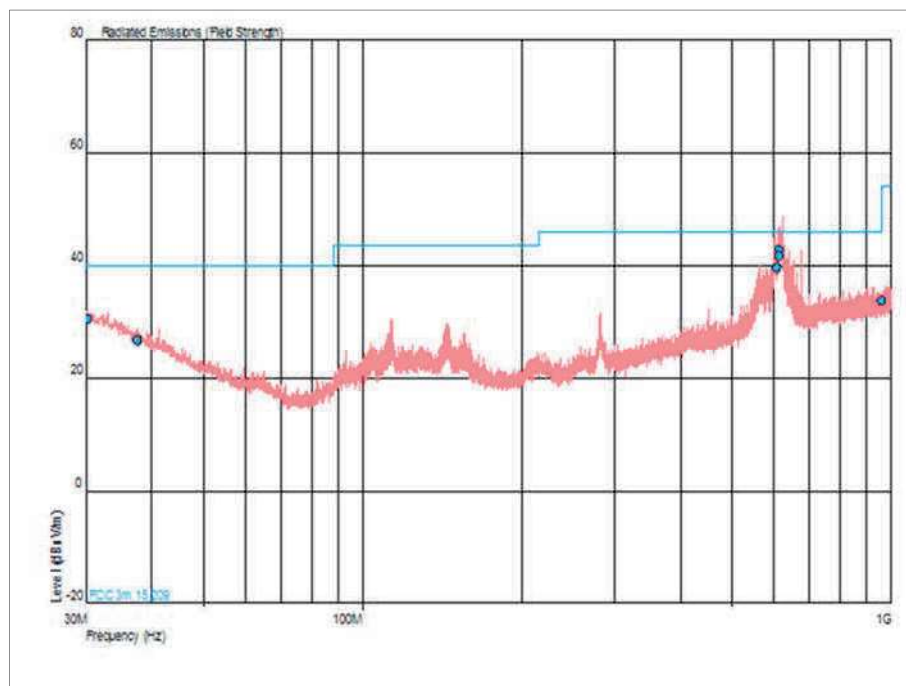


Figure 149 - 2462 MHz - 30 MHz to 1 GHz - Horizontal and Vertical

Frequency (GHz)	Result (μV/m)		Limit (μV/m)		Margin (μV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.200000	877.00	447.71	5000.00	500.00	4123.00	52.59
2.250000	897.43	400.87	5000.00	500.00	4102.57	99.13

Table 80 - 2462 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.



Product Service

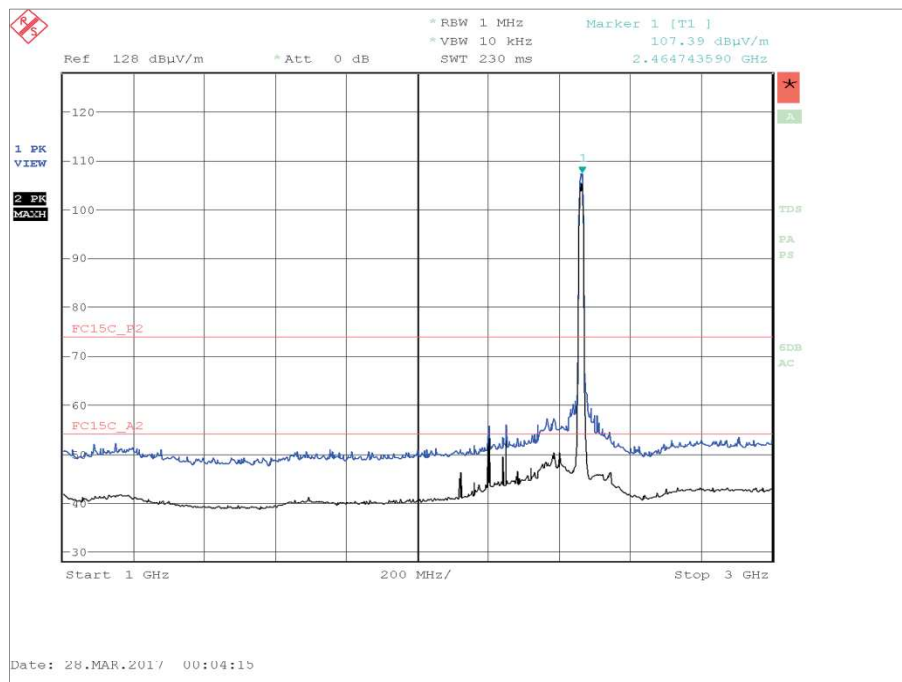


Figure 150 - 2462 MHz - 1 GHz to 3 GHz - Horizontal and Vertical

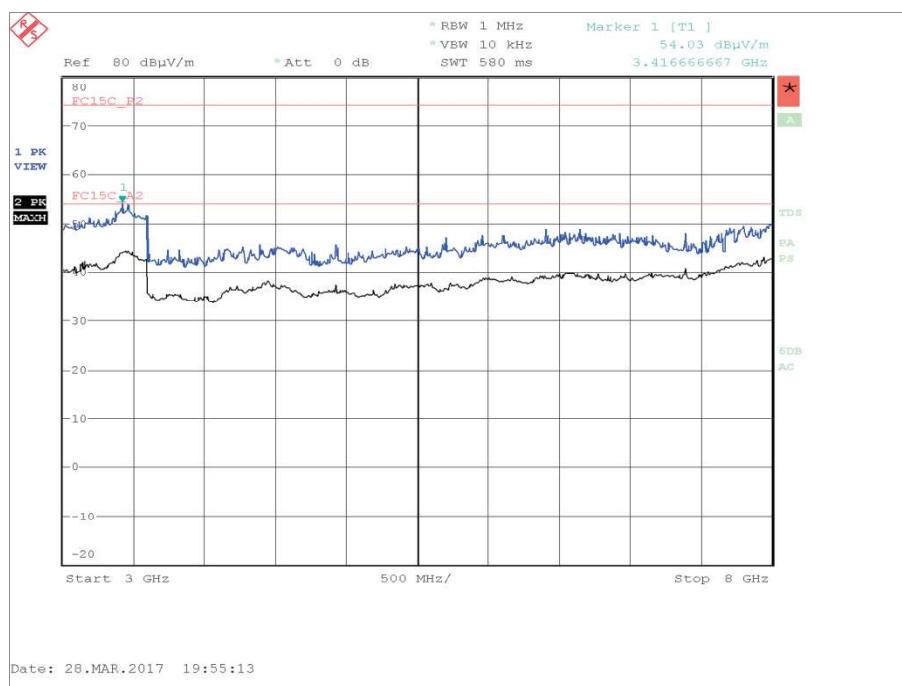


Figure 151 - 2462 MHz - 3 GHz to 8 GHz - Horizontal and Vertical



Product Service

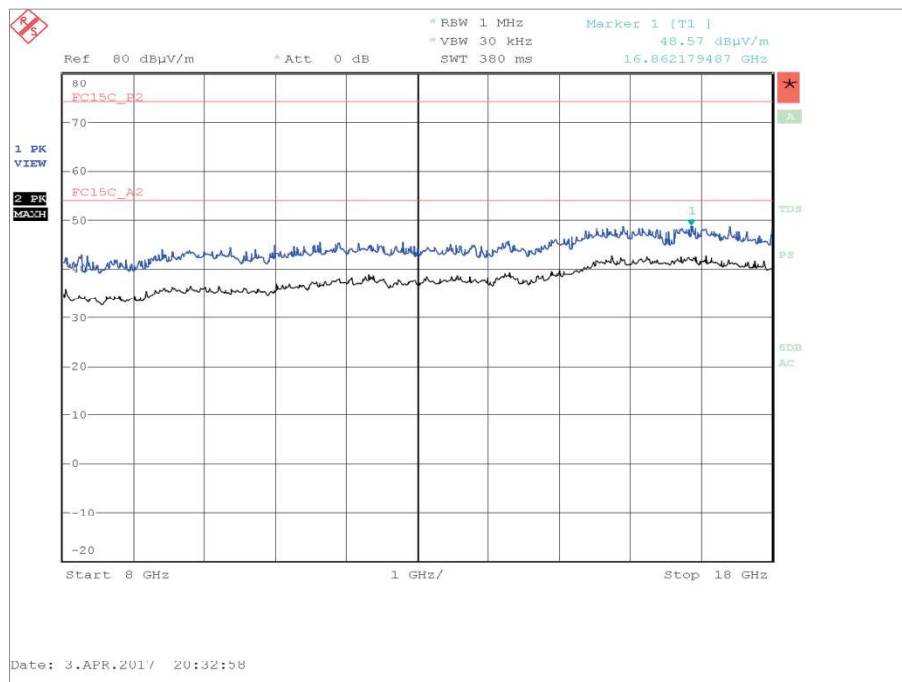


Figure 152 - 2462 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

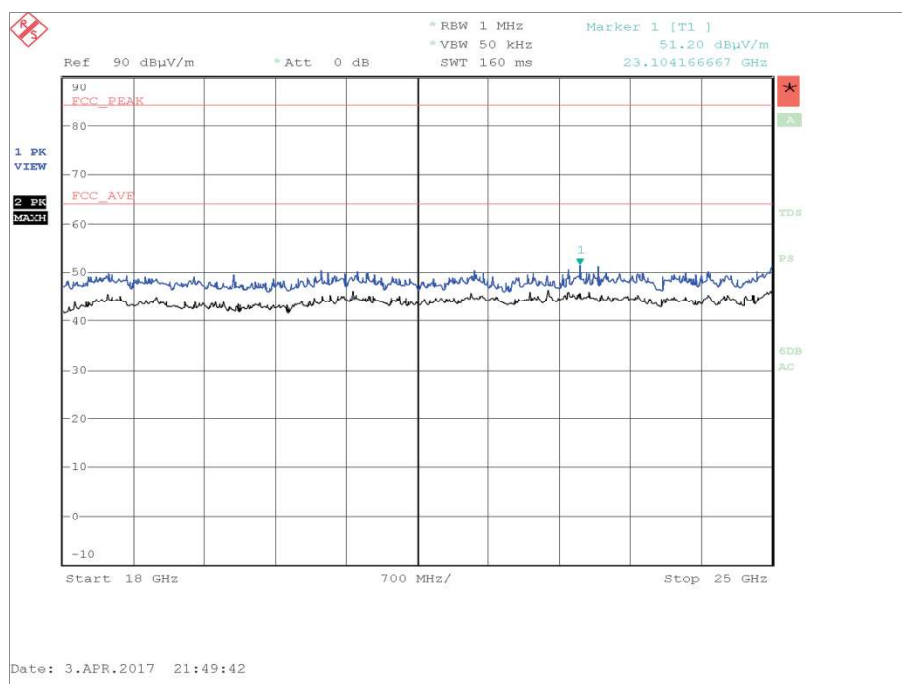


Figure 153 - 2462 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

ANT795-4MX - 802.11g

Testing was performed on the Data Rate which resulted in the highest conducted output power.
 The Data Rate used during testing was 6 Mbps.

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.094	30.4	40.0	-9.6	31	1.00	Vertical
37.500	27.0	40.0	-13.0	360	1.00	Vertical
608.000	38.1	46.0	-7.9	328	1.00	Vertical
612.538	43.4	46.0	-2.6	0	1.00	Vertical
614.000	41.8	46.0	-4.2	351	1.00	Vertical
960.000	33.9	46.0	-12.1	347	1.00	Vertical

Table 81 - 2412 MHz - 30 MHz to 1 GHz

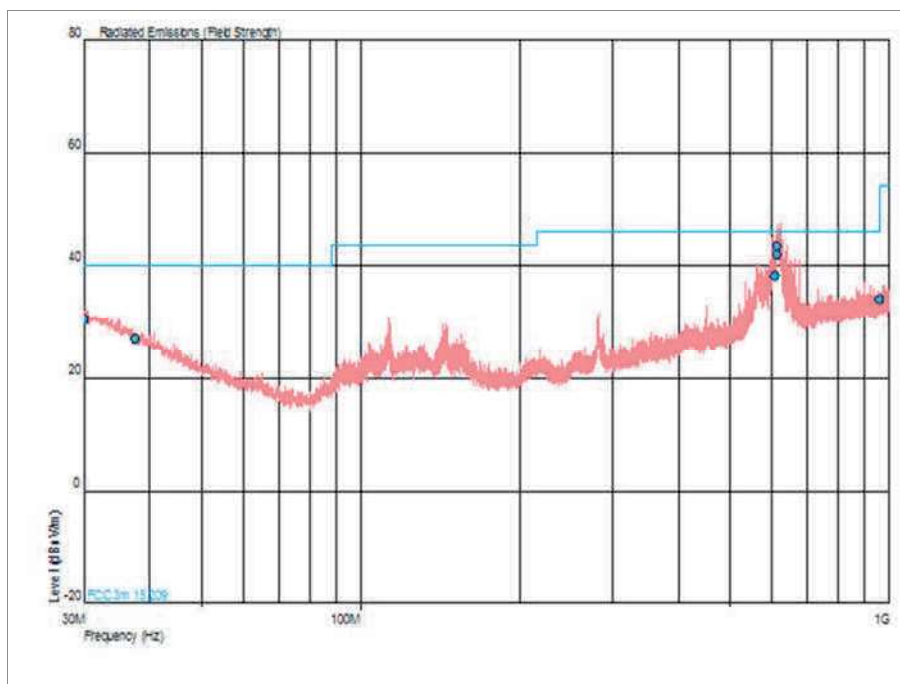


Figure 154 - 2412 MHz - 30 MHz to 1 GHz - Horizontal and Vertical



Frequency (GHz)	Result (μV/m)		Limit (μV/m)		Margin (μV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.000000	625.17	224.65	5000.00	500.00	4374.83	275.35
2.240000	823.19	400.41	5000.00	500.00	4176.81	99.59
2.250000	846.25	394.00	5000.00	500.00	4153.75	106.00
2.280000	614.47	228.30	5000.00	500.00	4385.53	271.70
2.358000	739.61	199.76	5000.00	500.00	4260.39	300.24
2.495849	1009.25	220.04	5000.00	500.00	3990.75	279.96

Table 82 - 2412 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.

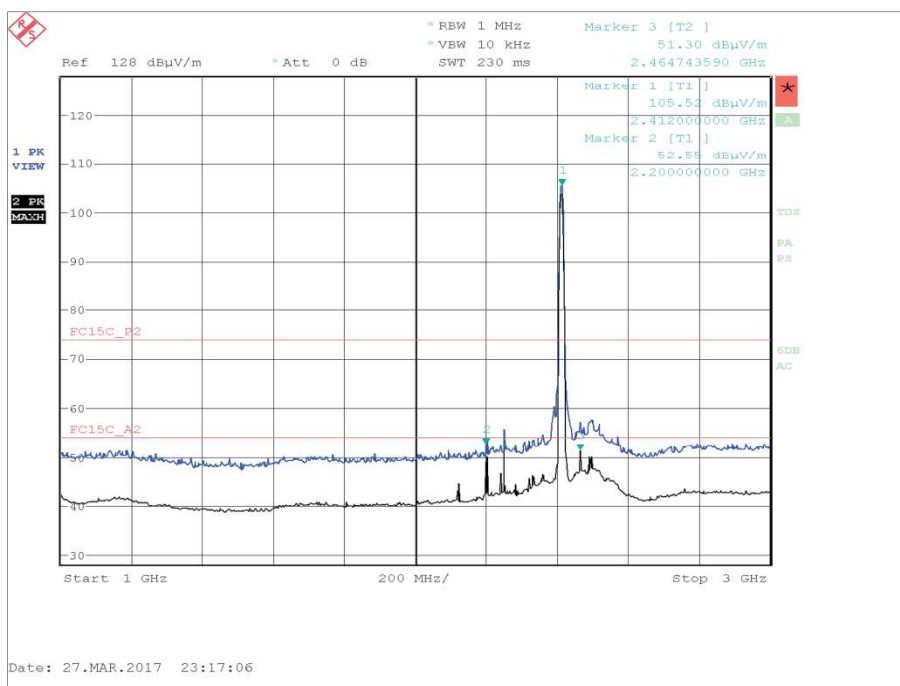


Figure 155 - 2412 MHz - 1 GHz to 3 GHz - Horizontal and Vertical



Product Service

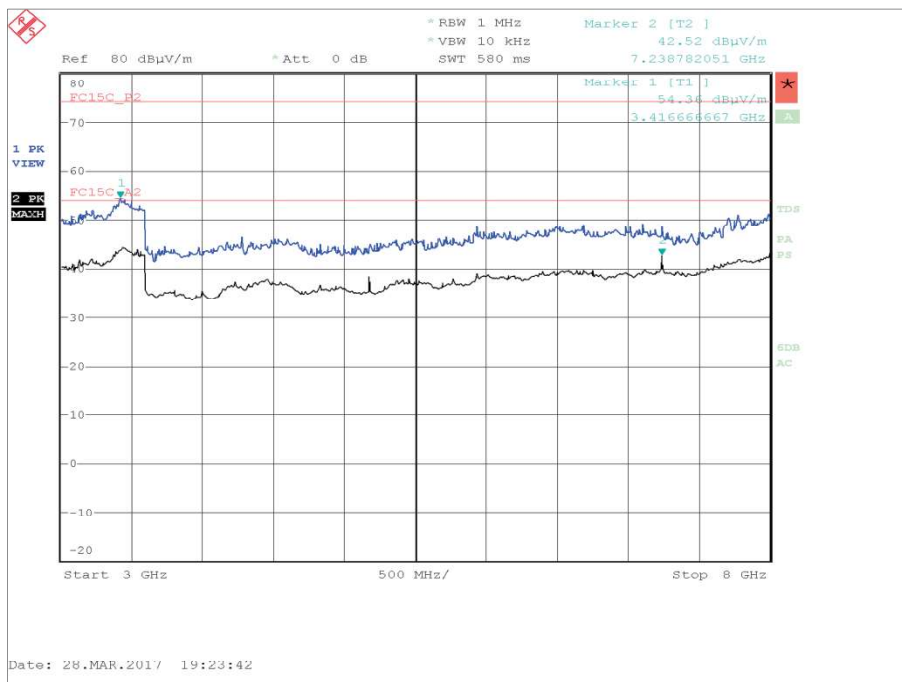


Figure 156 - 2412 MHz - 3 GHz to 8 GHz - Horizontal and Vertical

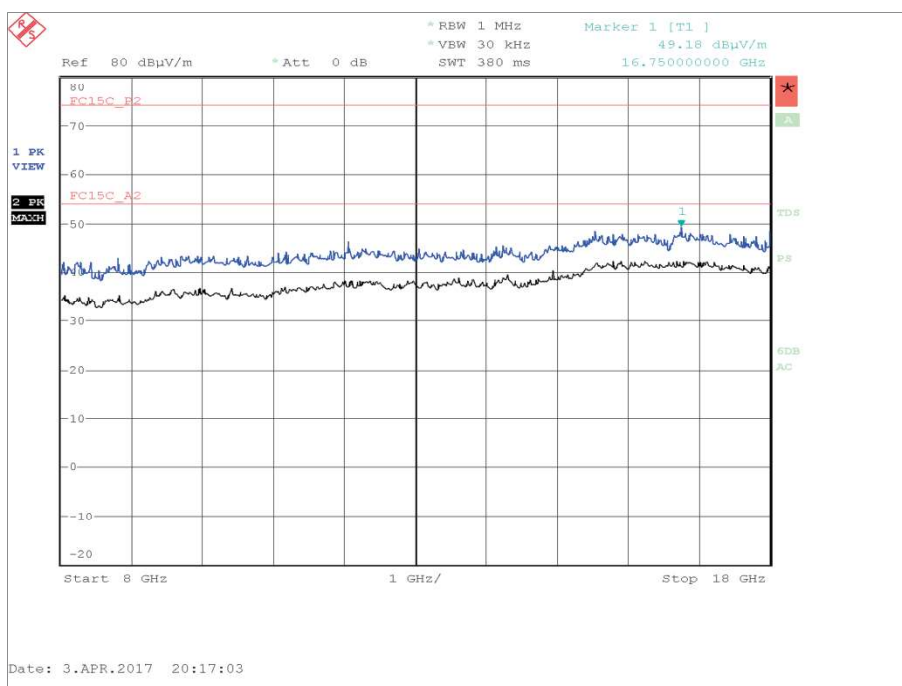


Figure 157 - 2412 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

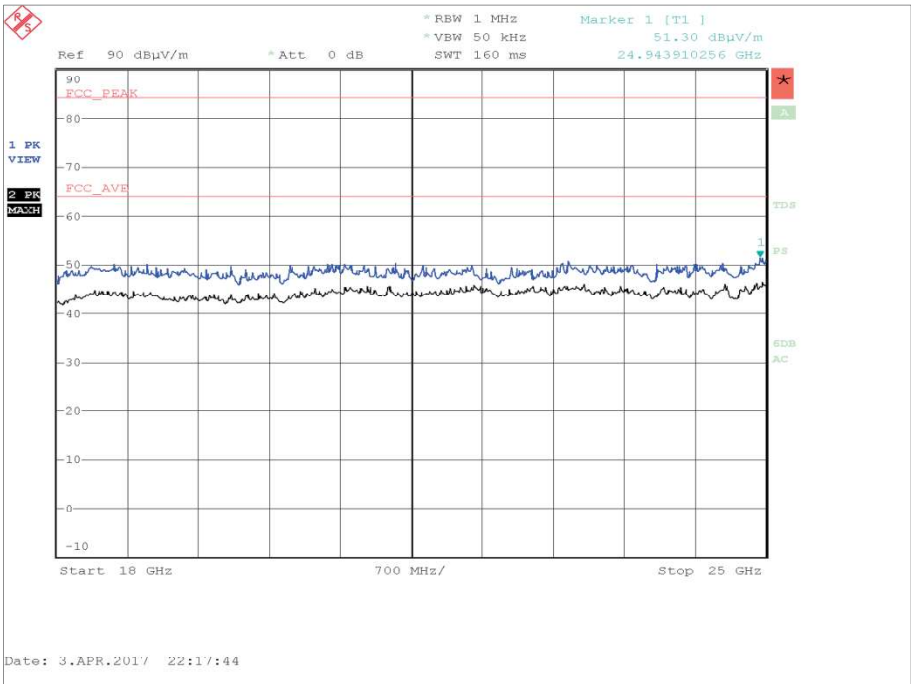


Figure 158 - 2412 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.322	30.2	40.0	-9.8	360	1.00	Vertical
37.000	26.8	40.0	-13.2	177	1.00	Vertical
608.000	38.0	46.0	-8.0	324	1.00	Vertical
612.944	43.5	46.0	-2.5	0	1.00	Vertical
614.000	40.8	46.0	-5.2	360	1.00	Vertical
960.000	33.9	46.0	-12.1	288	1.00	Vertical

Table 83 - 2437 MHz - 30 MHz to 1 GHz

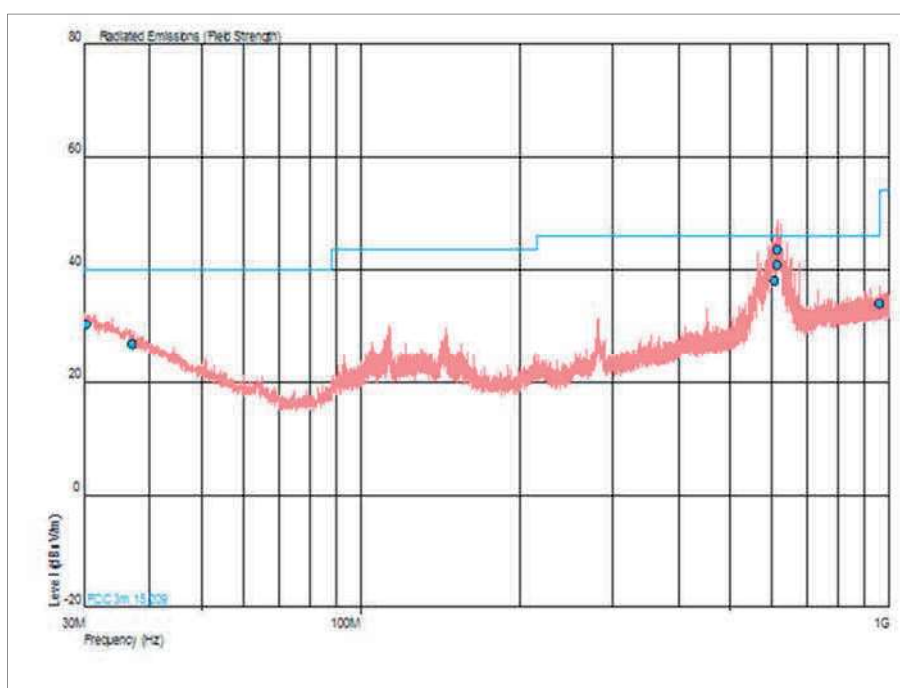


Figure 159 - 2437 MHz - 30 MHz to 1 GHz - Horizontal and Vertical

Frequency (GHz)	Result (μV/m)		Limit (μV/m)		Margin (μV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.200000	615.18	219.28	5000.00	500.00	4384.82	280.72
2.240000	940.81	436.01	5000.00	500.00	4059.19	63.99
2.250000	886.14	376.27	5000.00	500.00	4113.86	123.79
2.280000	644.91	177.21	5000.00	500.00	4355.09	322.79
2.358000	1124.60	222.08	5000.00	500.00	3875.40	277.92

Table 84 - 2437 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.

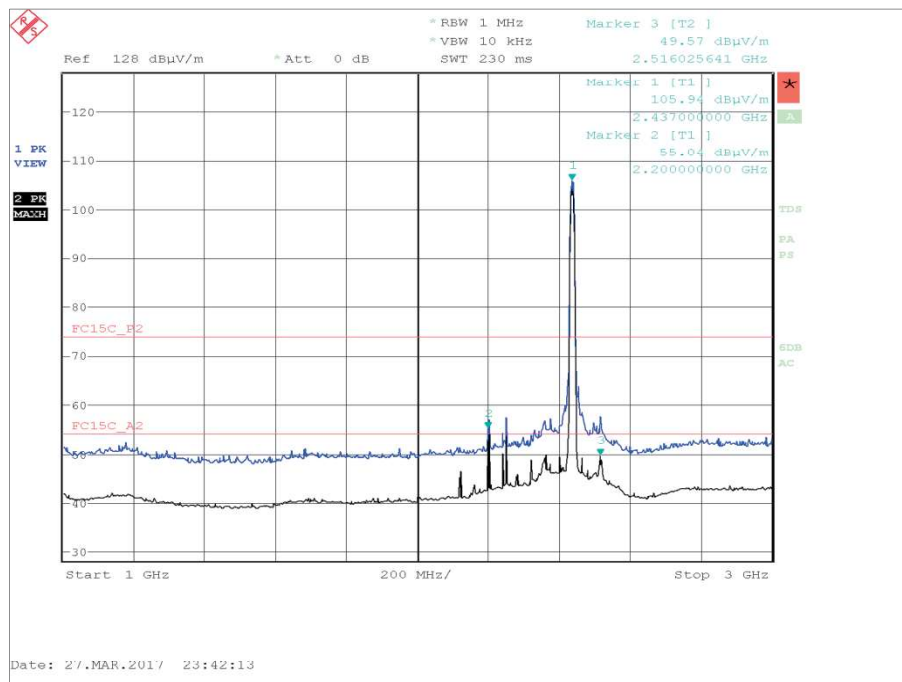


Figure 160 - 2437 MHz - 1 GHz to 3 GHz - Horizontal and Vertical

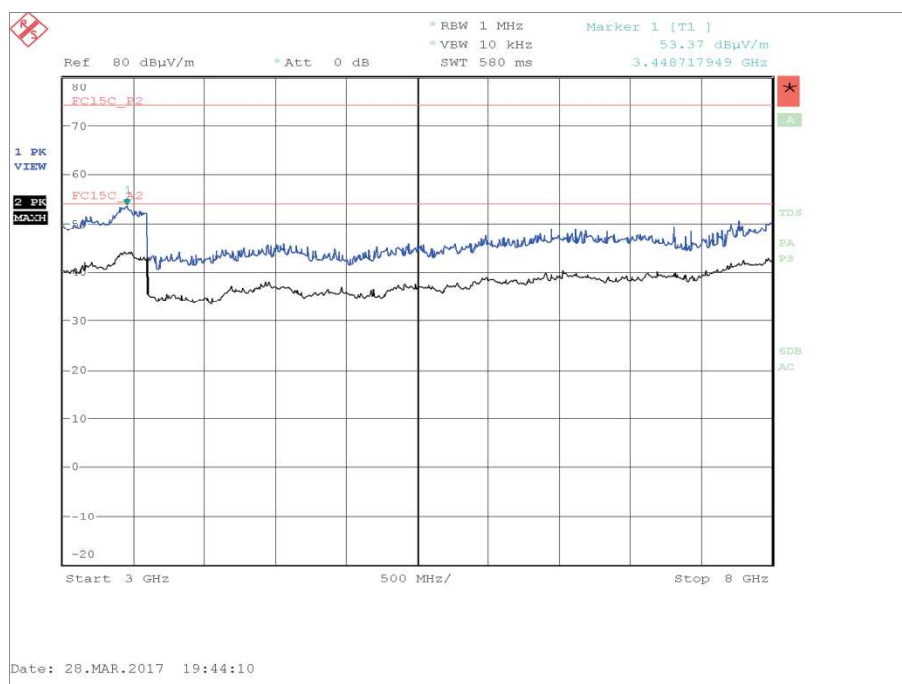


Figure 161 - 2437 MHz - 3 GHz to 8 GHz - Horizontal and Vertical



Product Service

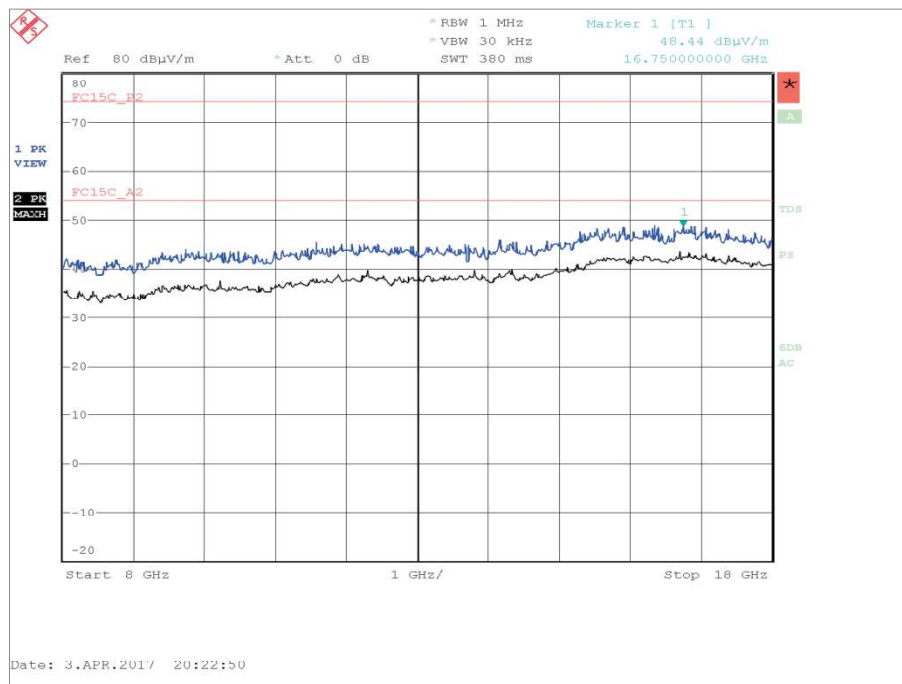


Figure 162 - 2437 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

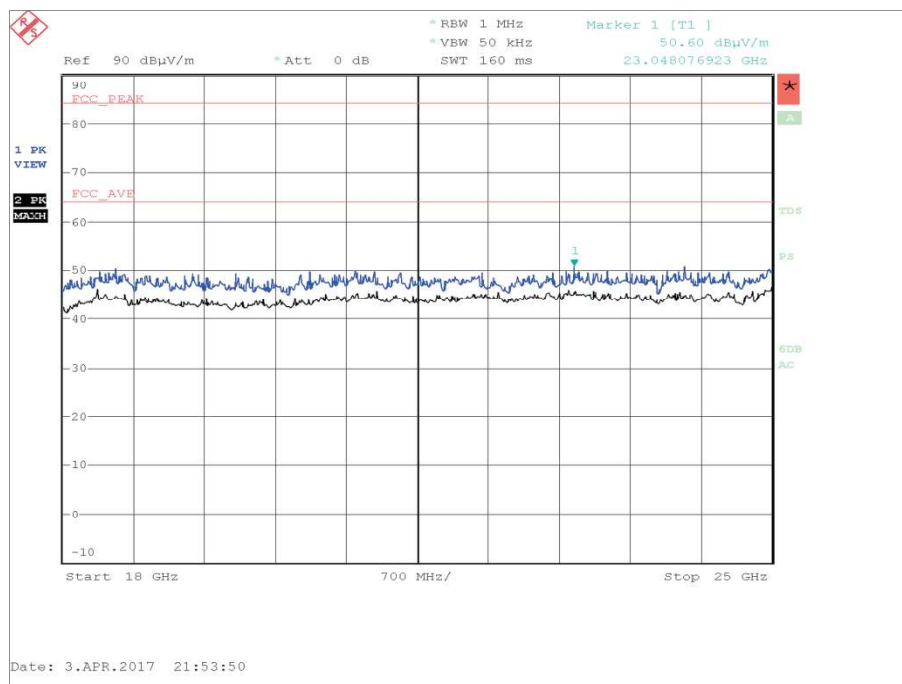


Figure 163 - 2437 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.047	30.4	40.0	-9.6	90	1.00	Vertical
37.500	26.8	40.0	-13.2	191	1.00	Vertical
608.000	38.2	46.0	-7.8	324	1.00	Vertical
612.654	40.8	46.0	-5.2	141	1.00	Vertical
614.000	40.6	46.0	-5.4	354	1.00	Vertical
960.000	33.9	46.0	-12.1	122	1.00	Vertical

Table 85 - 2462 MHz - 30 MHz to 1 GHz

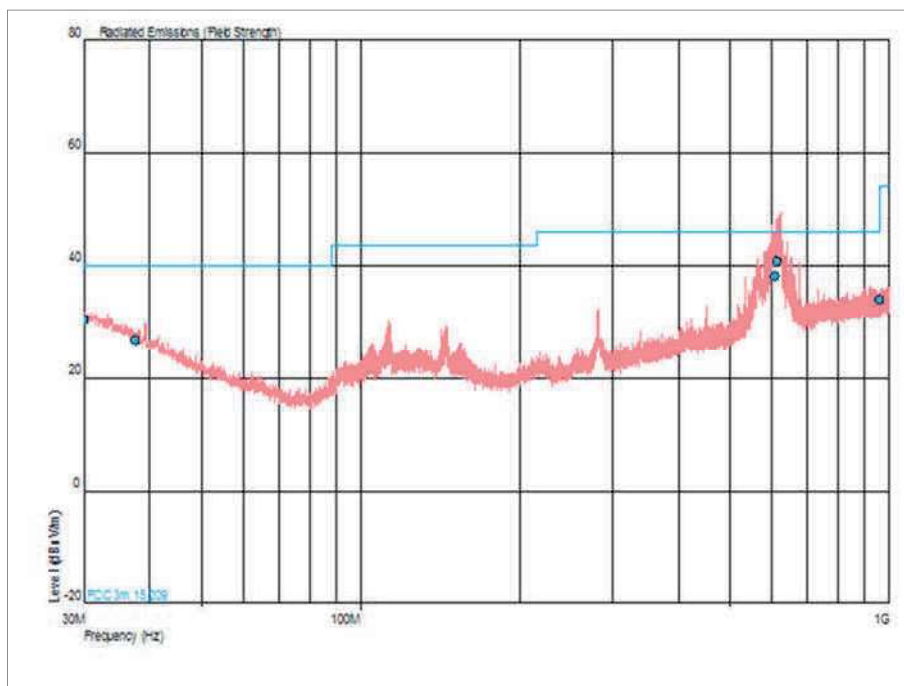


Figure 164 - 2462 MHz - 30 MHz to 1 GHz - Horizontal and Vertical

Frequency (GHz)	Result (μV/m)		Limit (μV/m)		Margin (μV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.200000	628.06	184.50	5000.00	500.00	4371.94	315.50
2.240000	989.69	453.42	5000.00	500.00	4010.31	46.58
2.250000	917.28	375.84	5000.00	500.00	4082.72	124.16

Table 86 - 2462 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.



Product Service

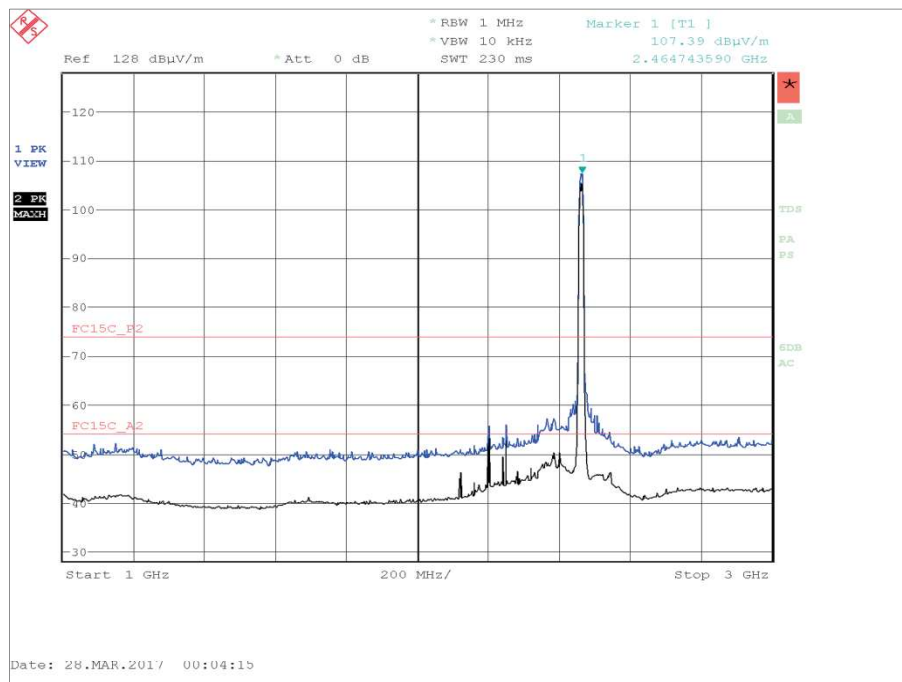


Figure 165 - 2462 MHz - 1 GHz to 3 GHz - Horizontal and Vertical

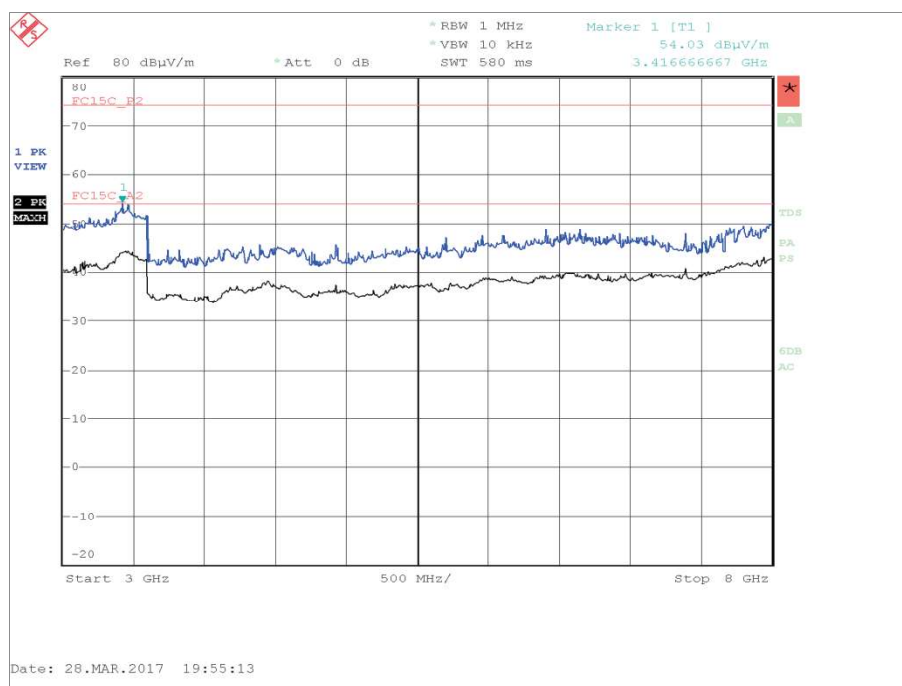


Figure 166 - 2462 MHz - 3 GHz to 8 GHz - Horizontal and Vertical



Product Service

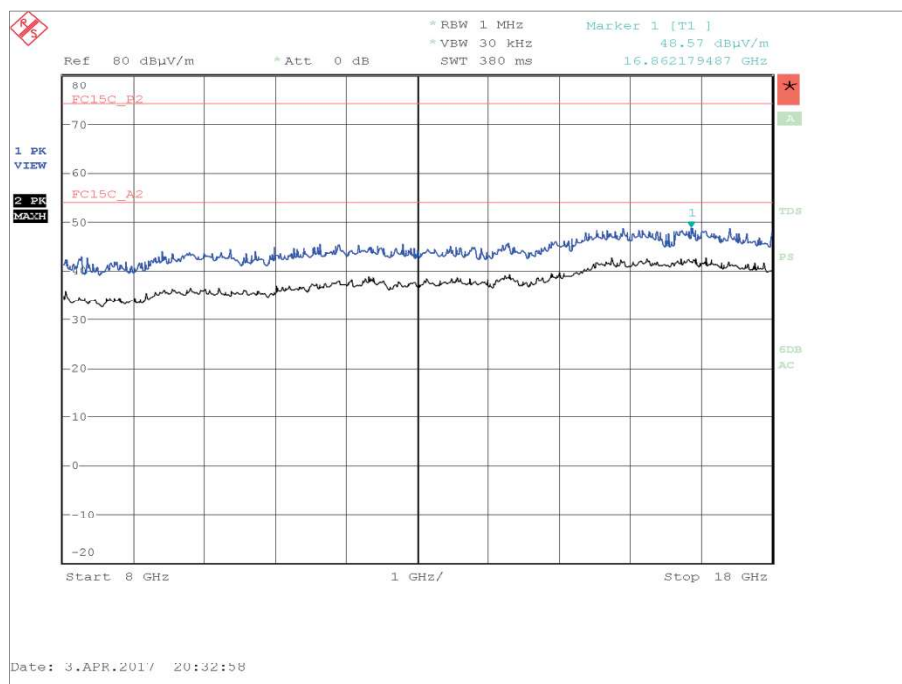


Figure 167 - 2462 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

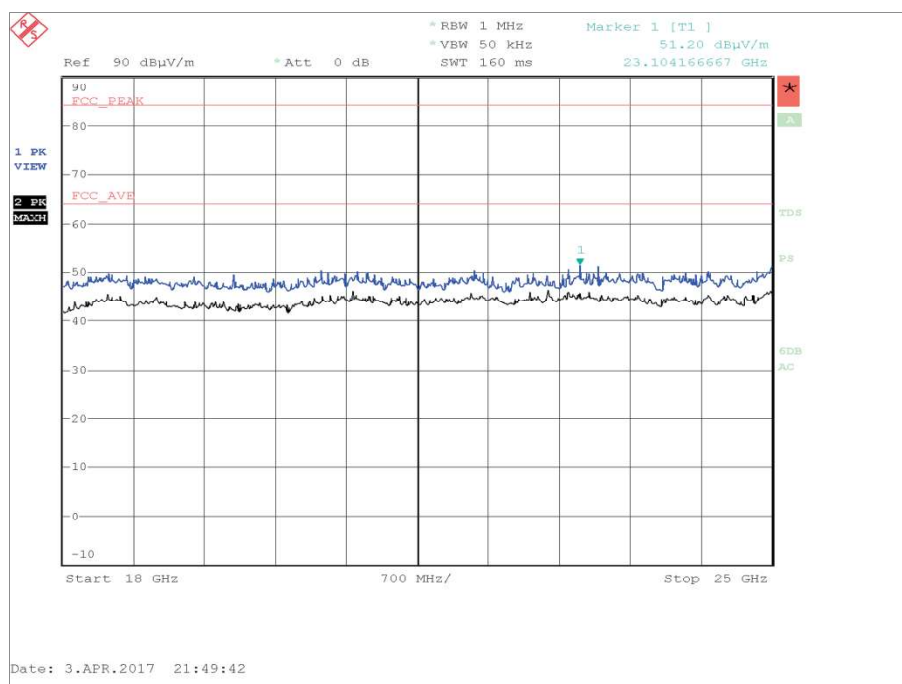


Figure 168 - 2462 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

ANT795-4MX - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS8.

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.039	30.3	40.0	-9.7	313	1.00	Vertical
37.500	26.9	40.0	-13.1	89	1.00	Vertical
608.000	38.8	46.0	-7.2	86	1.00	Vertical
612.798	42.4	46.0	-3.6	348	1.00	Vertical
614.000	40.8	46.0	-5.2	324	1.00	Vertical
960.000	33.9	46.0	-12.1	119	1.00	Vertical

Table 87 - 2422 MHz - 30 MHz to 1 GHz

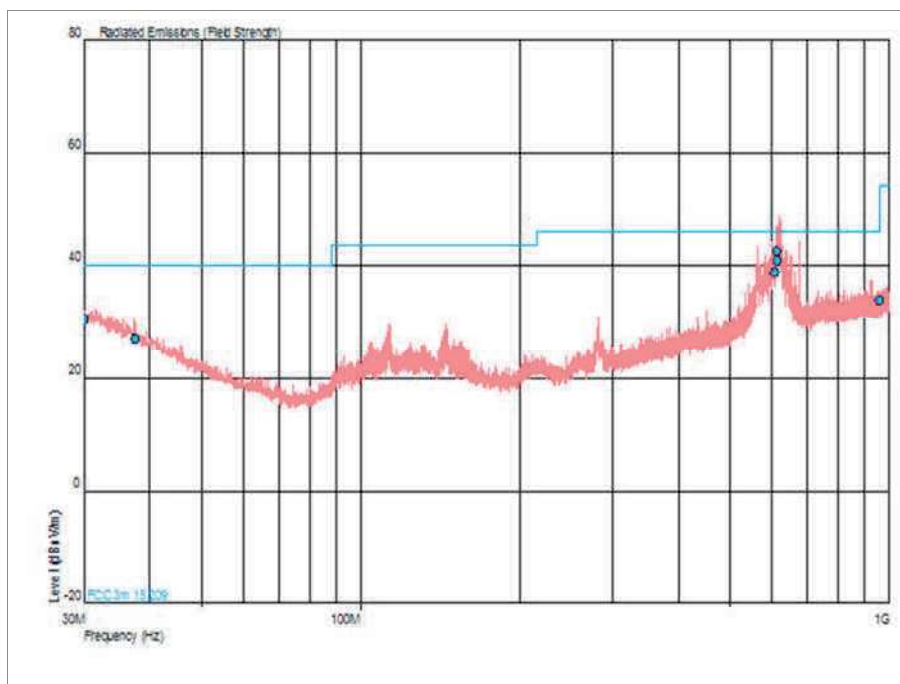


Figure 169 - 2422 MHz - 30 MHz to 1 GHz - Horizontal and Vertical

Frequency (GHz)	Result (μV/m)		Limit (μV/m)		Margin (μV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.200000	925.76	398.11	5000.00	500.00	4074.24	101.89
2.250000	860.00	327.34	5000.00	500.00	4140.00	172.66

Table 88 - 2422 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.



Product Service

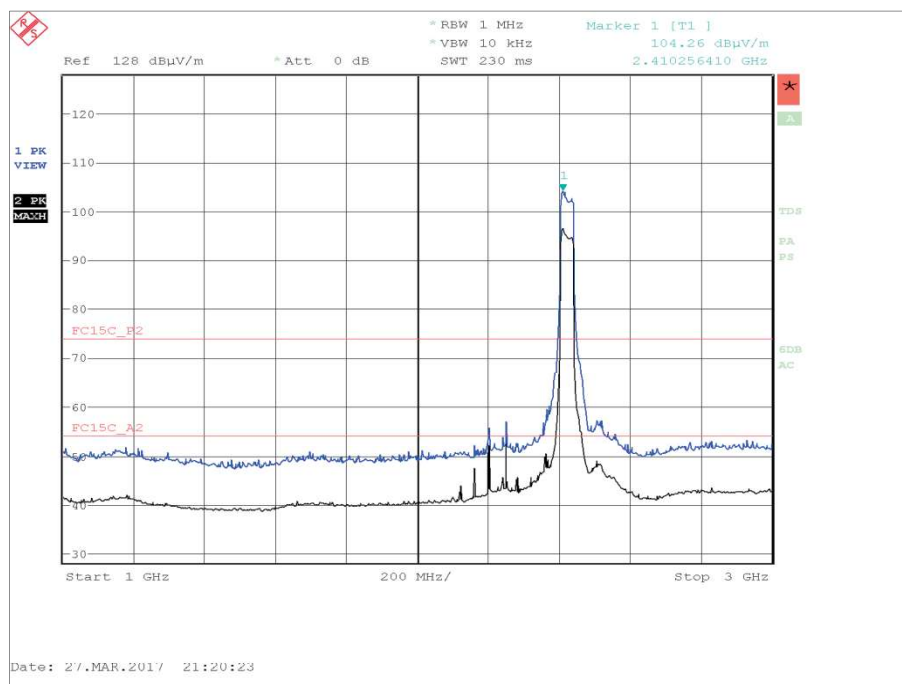


Figure 170 - 2422 MHz - 1 GHz to 3 GHz - Horizontal and Vertical

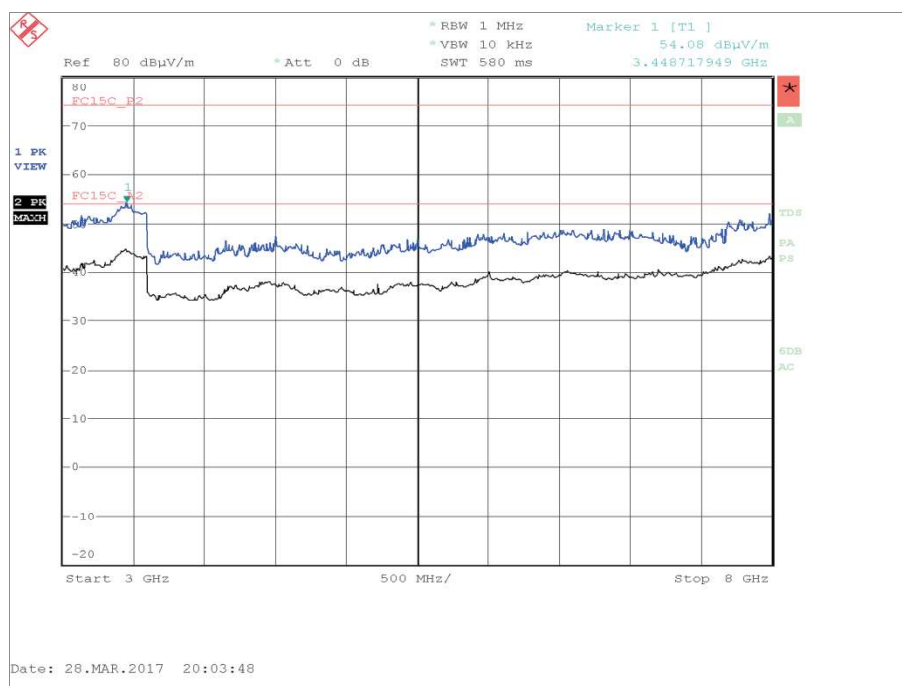


Figure 171 - 2422 MHz - 3 GHz to 8 GHz - Horizontal and Vertical



Product Service

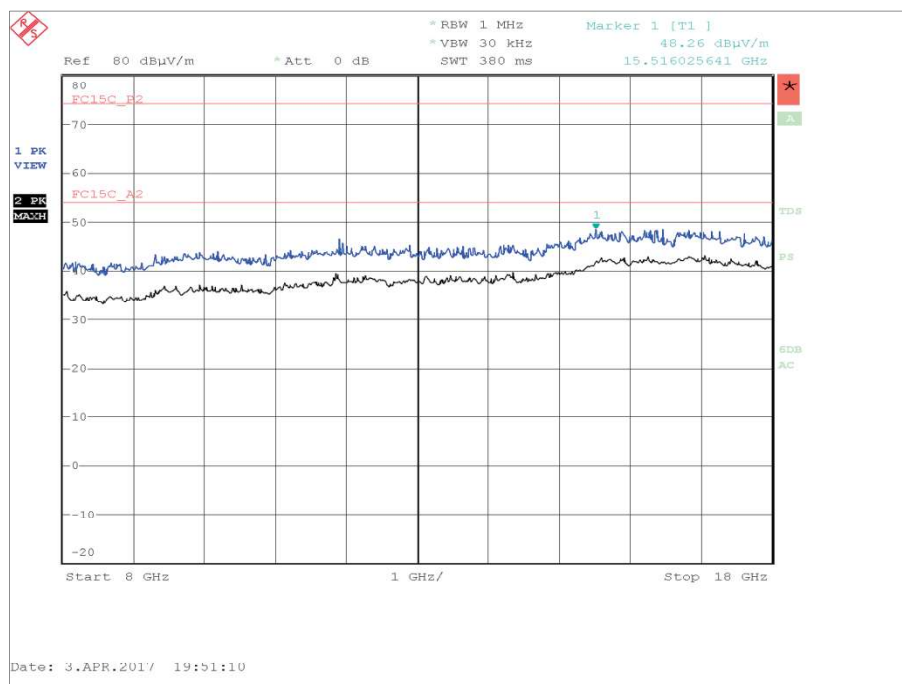


Figure 172 - 2422 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

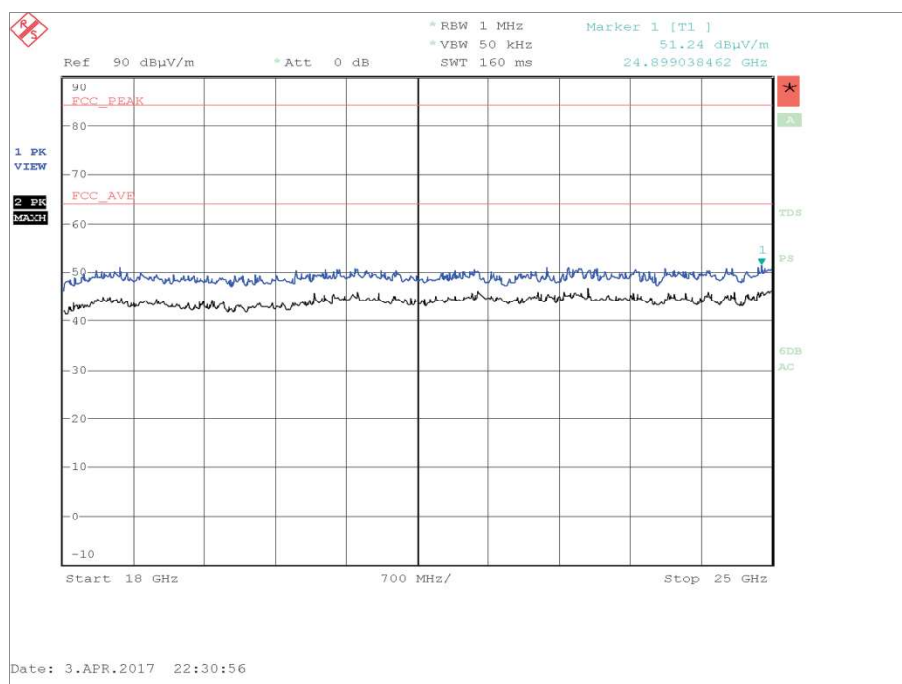


Figure 173 - 2422 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.007	30.4	40.0	-9.6	271	1.00	Horizontal
37.500	27.3	40.0	-12.7	0	1.00	Vertical
608.000	37.7	46.0	-8.3	354	1.00	Vertical
612.529	41.5	46.0	-4.5	100	1.00	Vertical
614.000	40.5	46.0	-5.5	304	1.00	Vertical
960.000	33.9	46.0	-12.1	40	1.00	Vertical

Table 89 - 2437 MHz - 30 MHz to 1 GHz

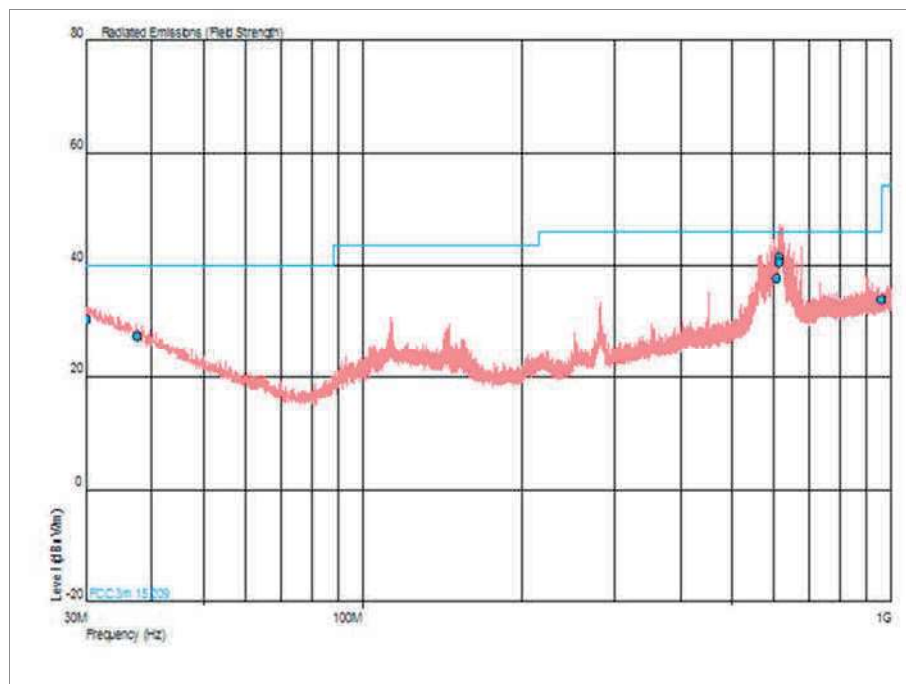


Figure 174 - 2437 MHz - 30 MHz to 1 GHz - Horizontal and Vertical

Frequency (GHz)	Result (μV/m)		Limit (μV/m)		Margin (μV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.200000	652.38	240.16	5000.00	500.00	4347.62	259.84
2.250000	664.51	237.68	5000.00	500.00	4335.49	262.32

Table 90 - 2437 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.



Product Service

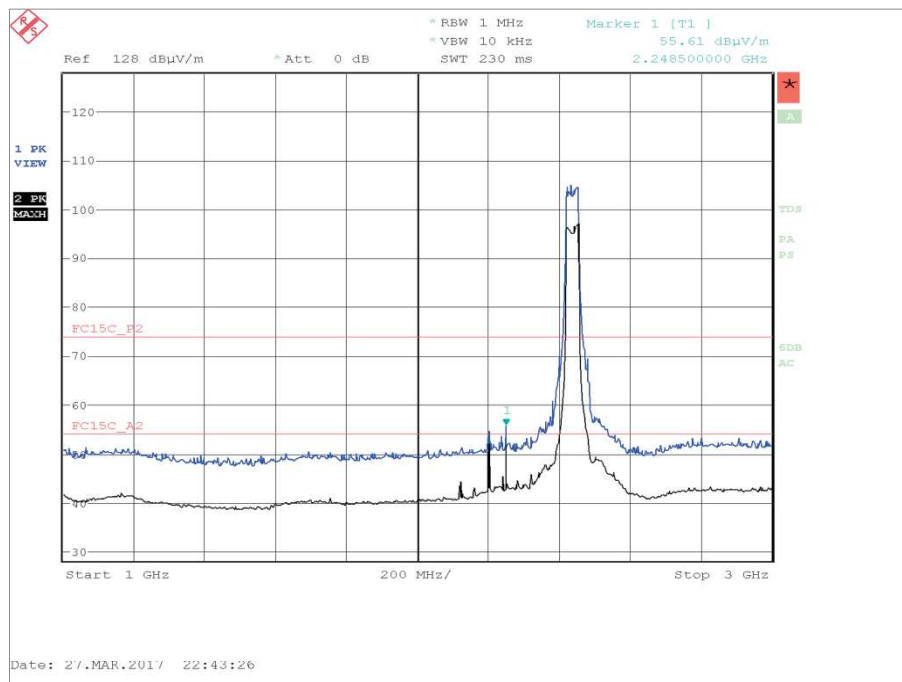


Figure 175 - 2437 MHz - 1 GHz to 3 GHz - Horizontal and Vertical

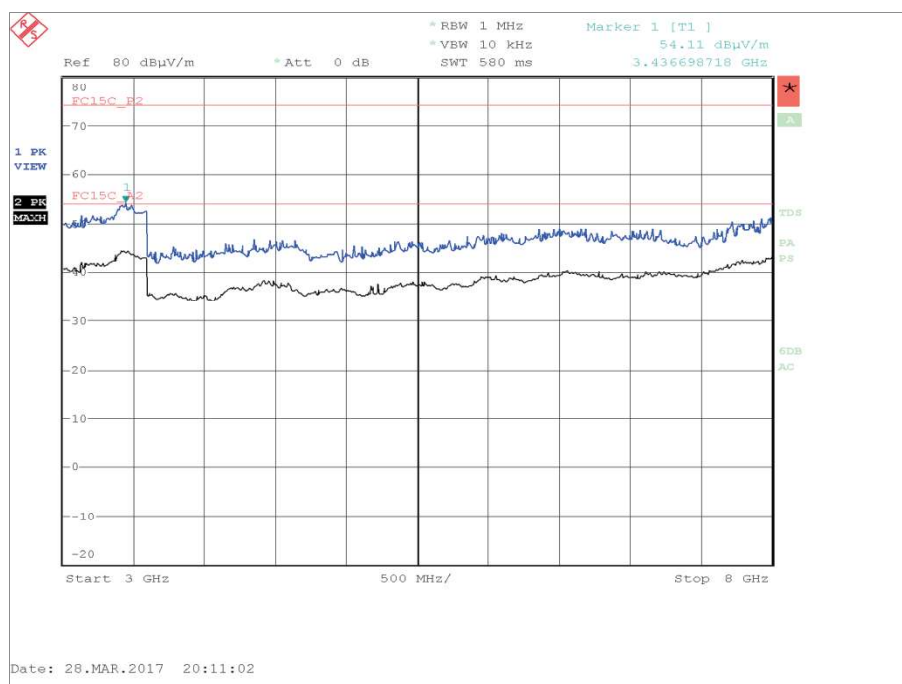


Figure 176 - 2437 MHz - 3 GHz to 8 GHz - Horizontal and Vertical

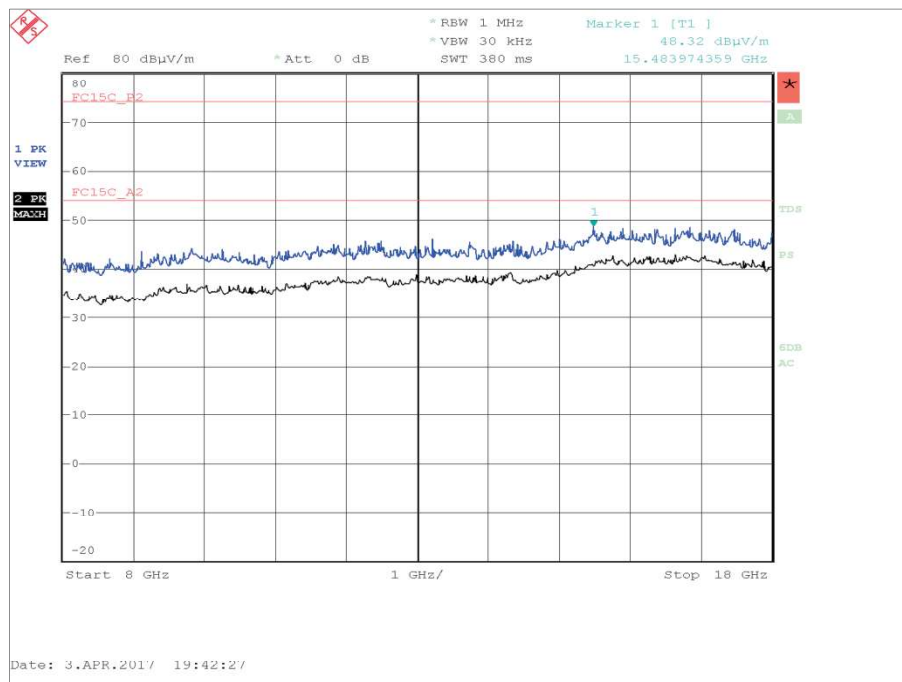


Figure 177 - 2437 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

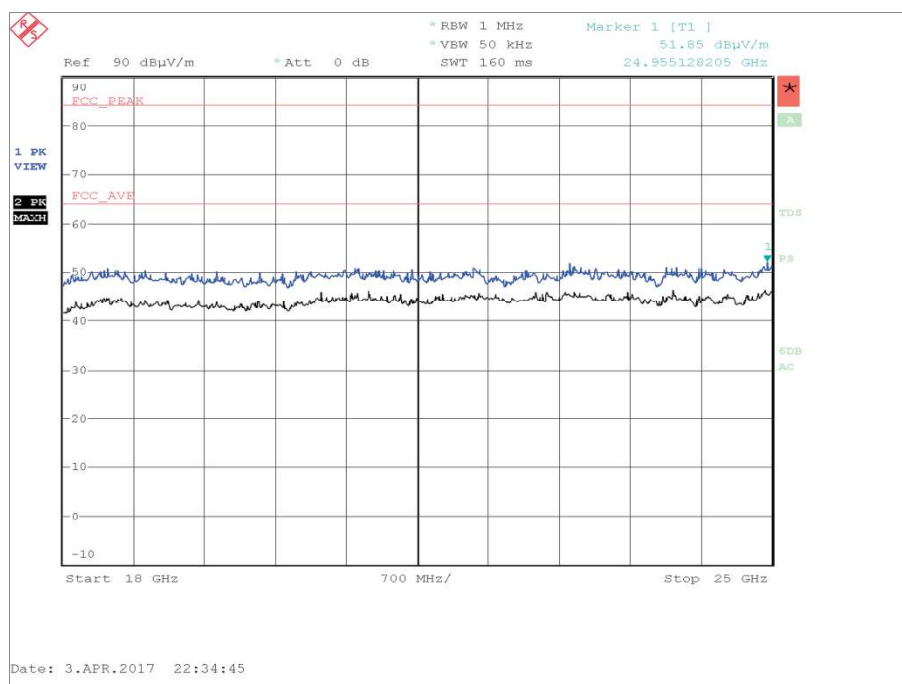


Figure 178 - 2437 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

Frequency (MHz)	QP Level (dBuV/m)	QP Limit (dBuV/m)	QP Margin (dBuV/m)	Angle(Deg)	Height(m)	Polarity
30.471	30.1	40.0	-9.9	147	1.00	Horizontal
37.500	26.8	40.0	-13.2	147	1.00	Horizontal
608.000	33.9	46.0	-12.1	70	1.00	Horizontal
612.500	41.2	46.0	-4.8	358	1.00	Vertical
614.000	39.7	46.0	-6.3	286	1.00	Vertical
960.000	33.9	46.0	-12.1	269	1.00	Vertical

Table 91 - 2452 MHz - 30 MHz to 1 GHz

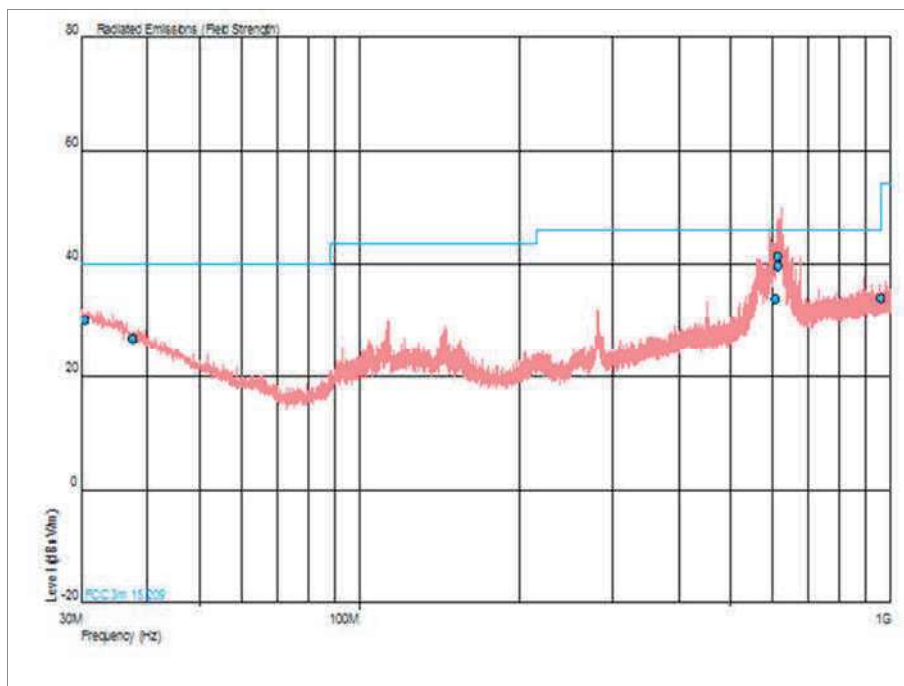


Figure 179 - 2452 MHz - 30 MHz to 1 GHz - Horizontal and Vertical

Frequency (GHz)	Result (μV/m)		Limit (μV/m)		Margin (μV/m)	
	Peak	Average	Peak	Average	Peak	Average
2.200000	830.81	323.22	5000.00	500.00	4169.19	176.78
2.250000	819.41	287.41	5000.00	500.00	4180.59	212.59

Table 92 - 2452 MHz - 1 GHz to 25 GHz

No other emissions were detected within 10 dB of the limit.



Product Service

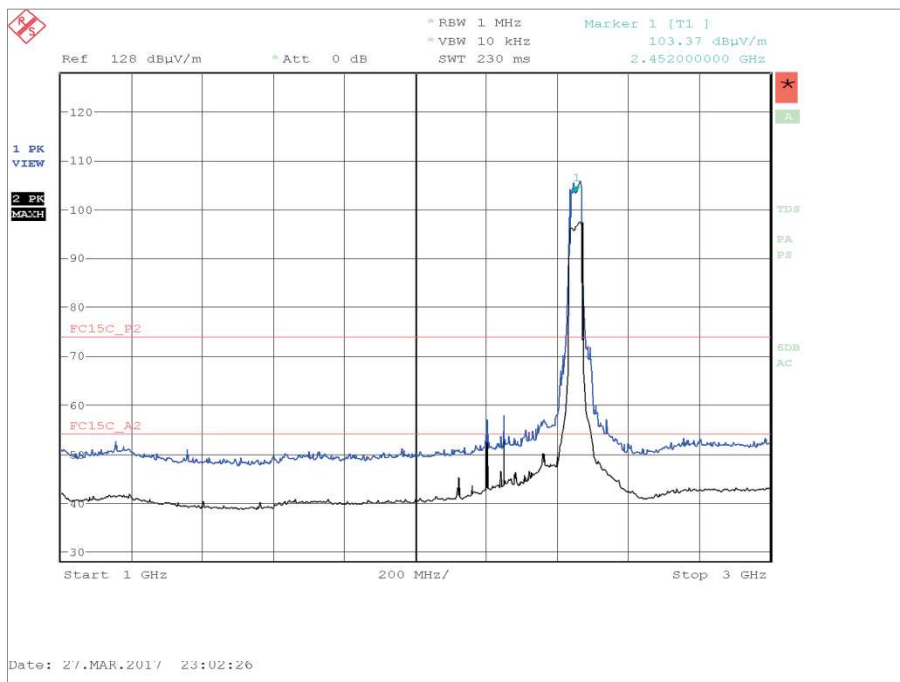


Figure 180 - 2452 MHz - 1 GHz to 3 GHz - Horizontal and Vertical

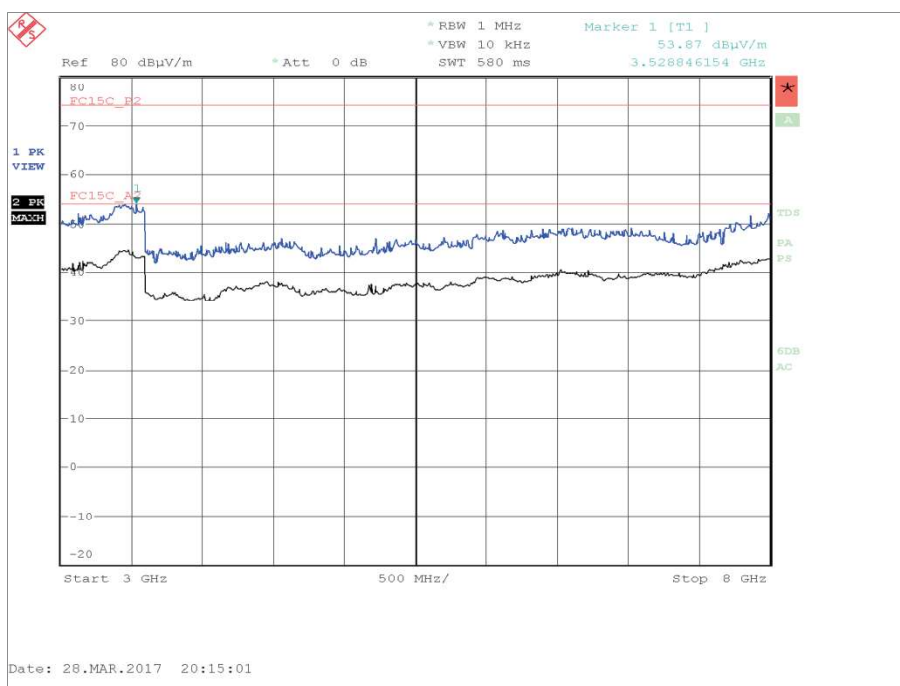


Figure 181 - 2452 MHz - 3 GHz to 8 GHz - Horizontal and Vertical



Product Service

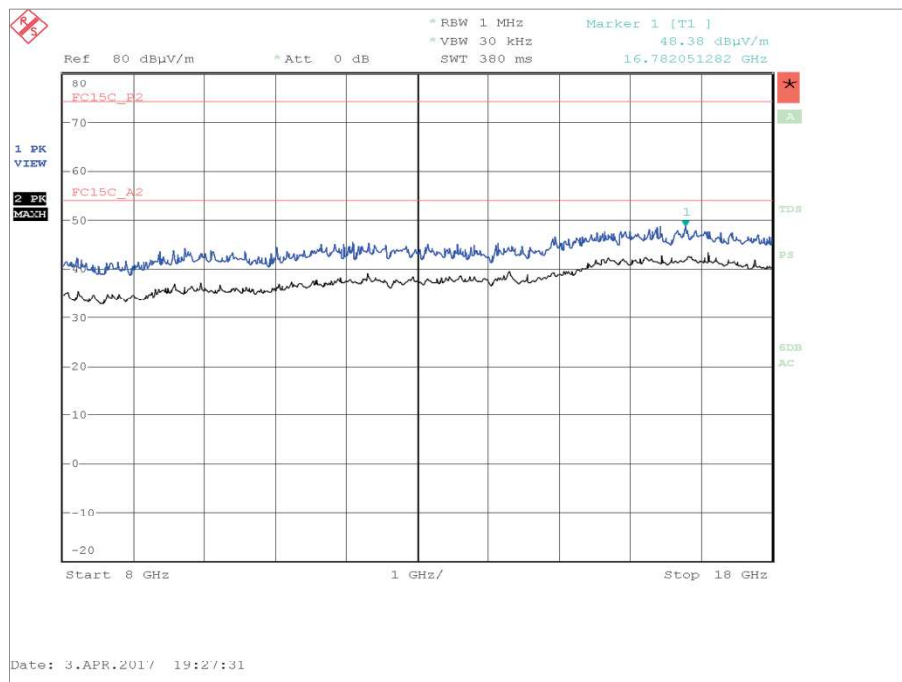


Figure 182 - 2452 MHz - 8 GHz to 18 GHz - Horizontal and Vertical

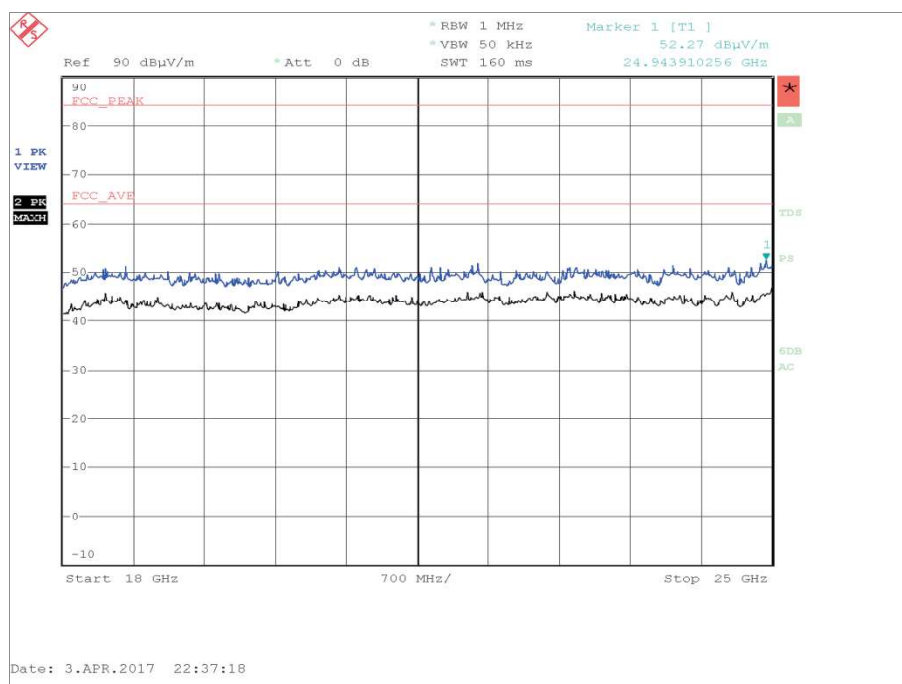


Figure 183 - 2452 MHz - 18 GHz to 25 GHz - Horizontal and Vertical

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)

Industry Canada RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.