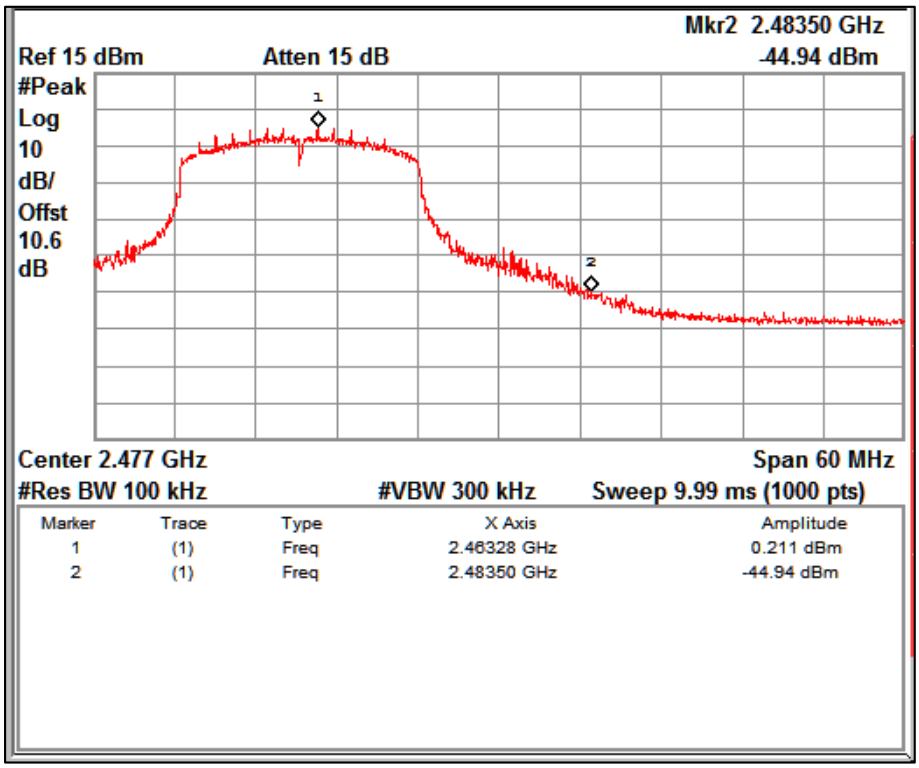
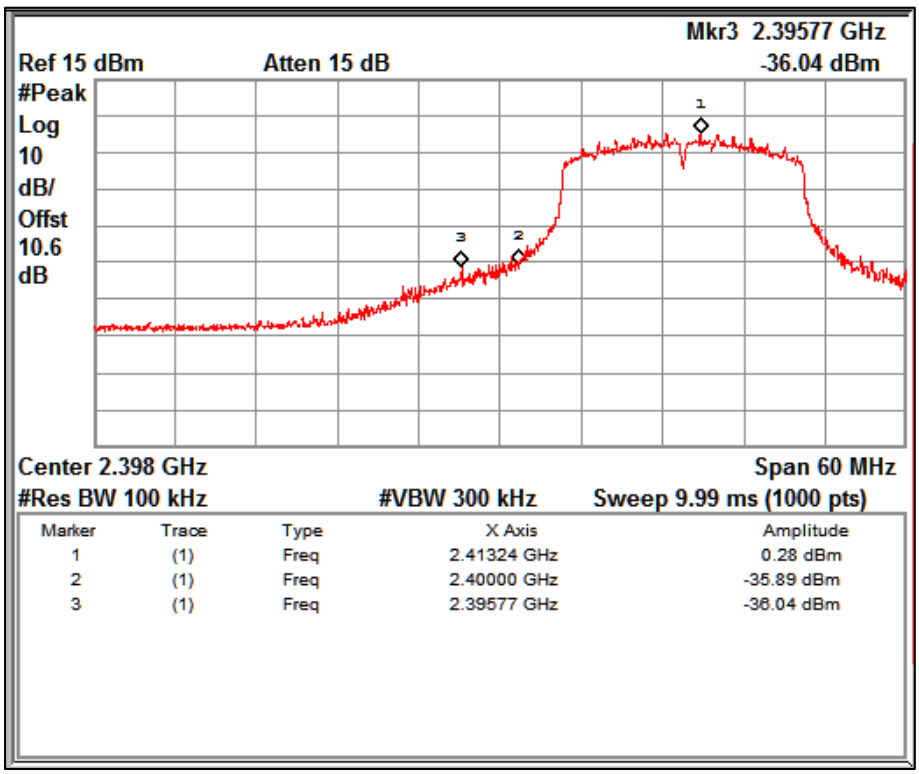
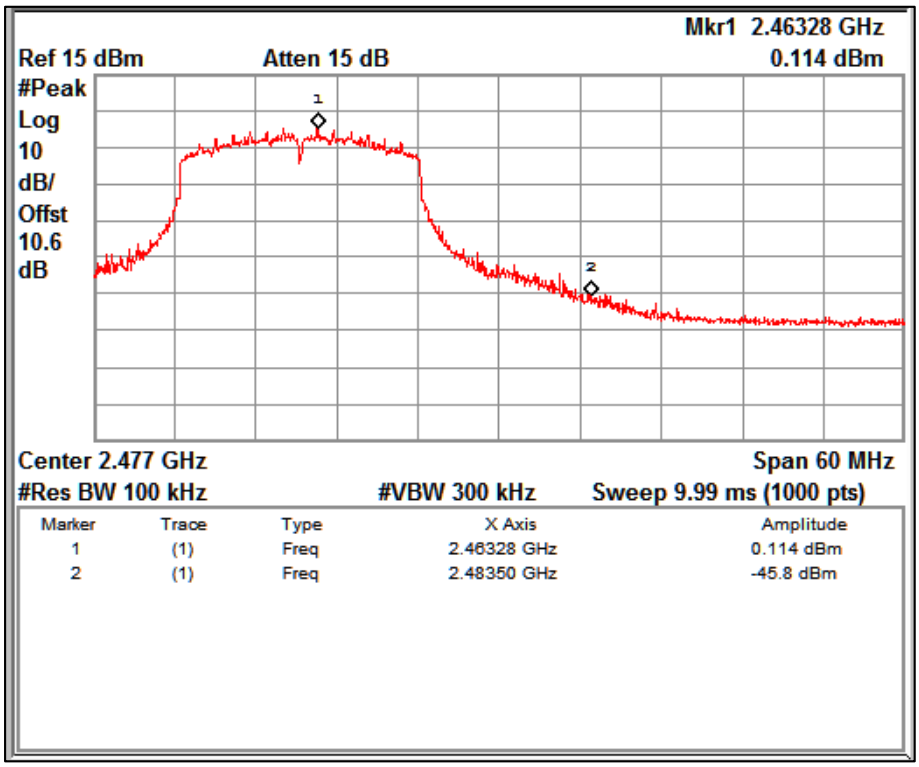


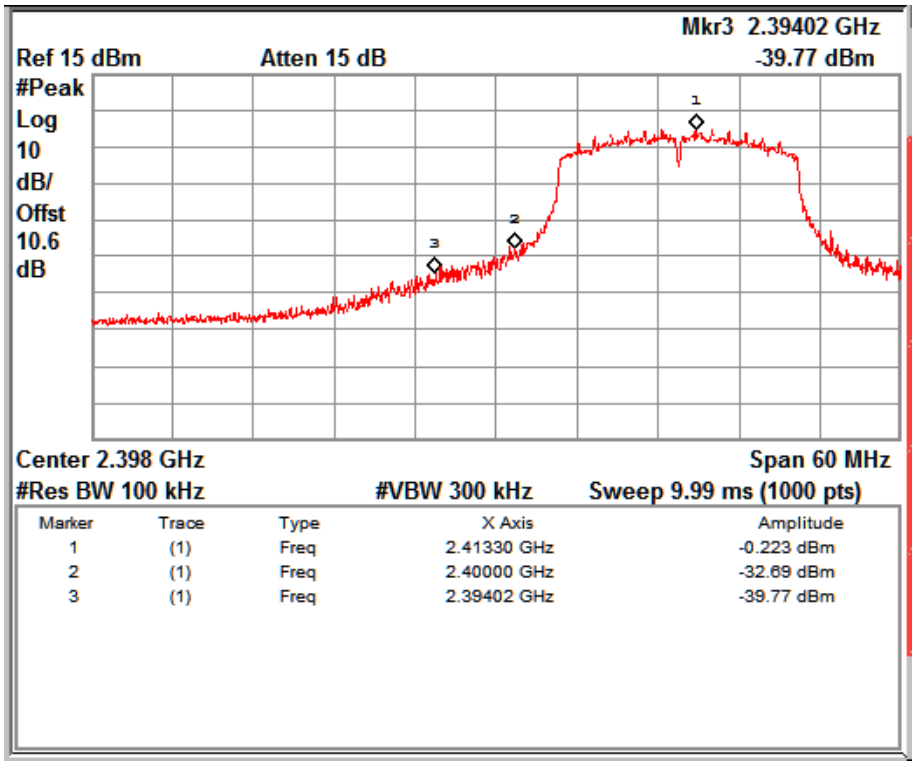
Data Rate: MCS0 Band edge Channel Frequency 2462MHz



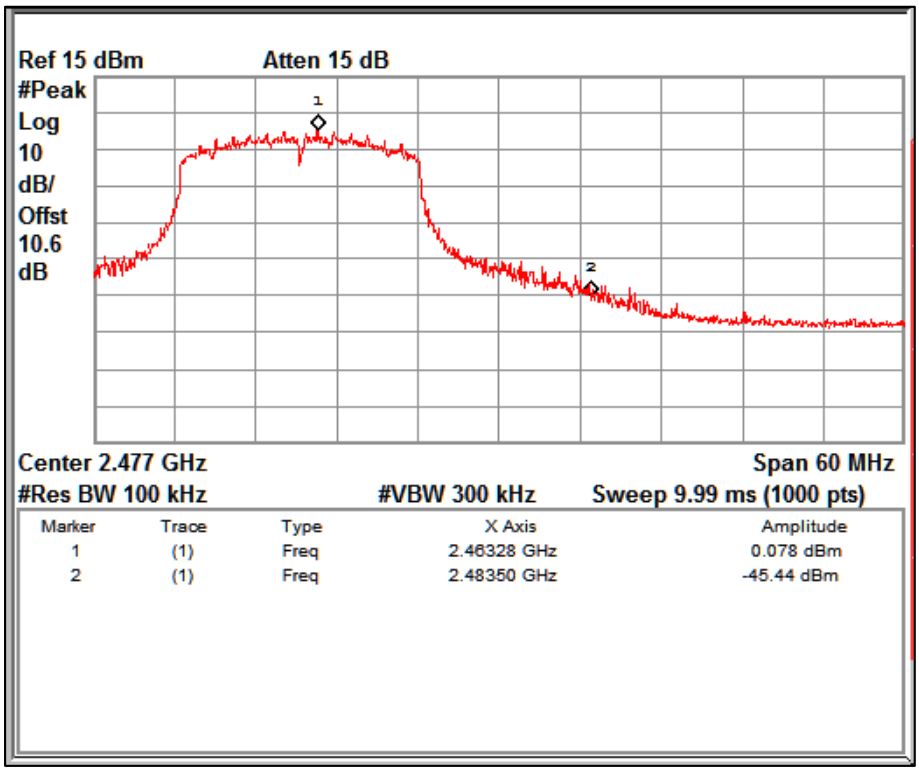
Data Rate: MCS4 Band edge Channel Frequency 2412MHz



Data Rate: MCS4 Band edge Channel Frequency 2462MHz



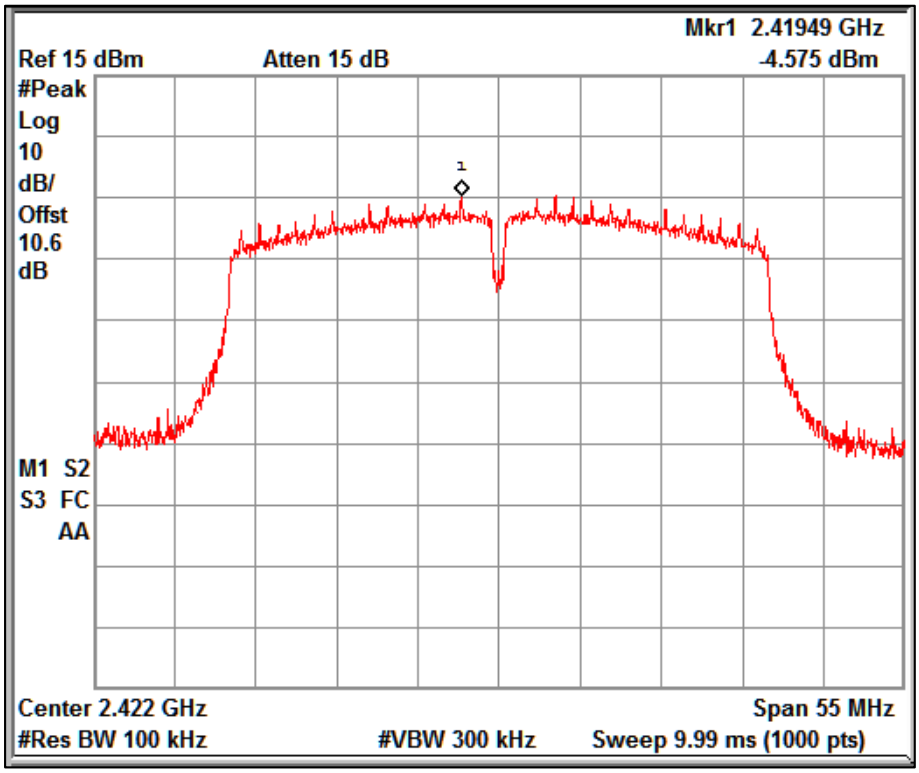
Data Rate: MCS7 Band edge Channel Frequency 2412MHz



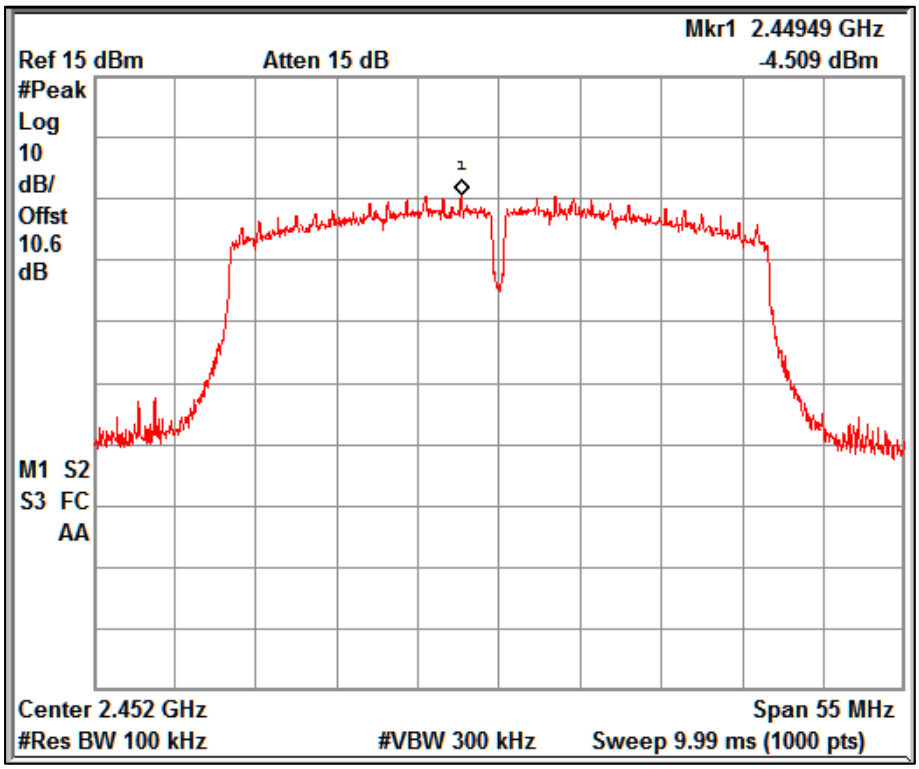
Data Rate: MCS7 Band edge Channel Frequency 2462MHz

Modulation: 802.11n_HT40

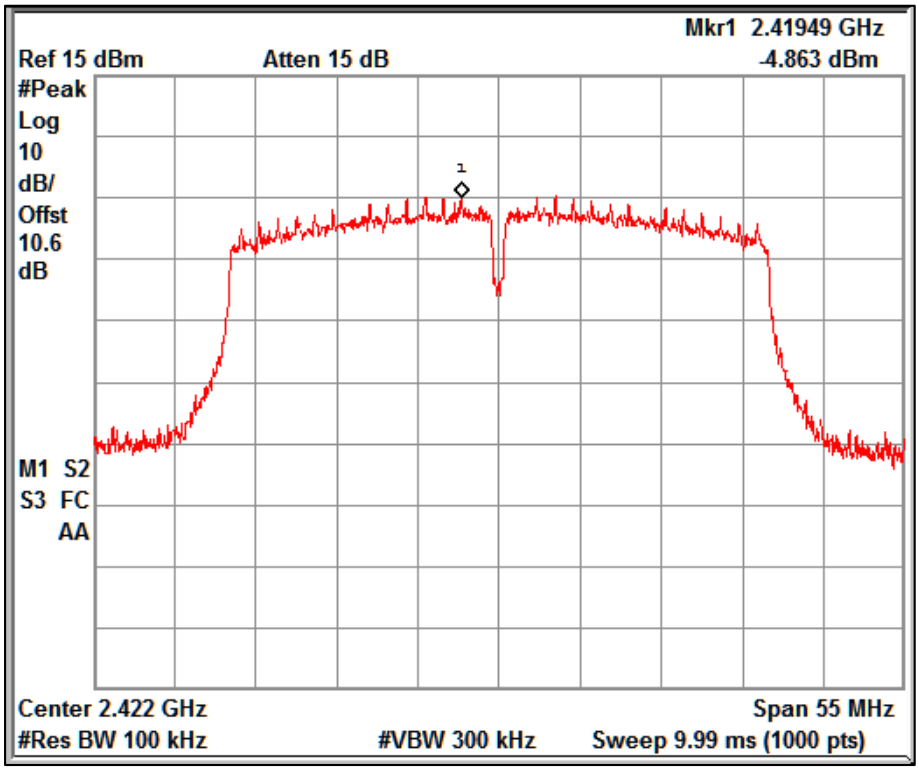
Data Rate (Mbps)	Channel Frequency (MHz)	Reference Value (B) (dBm)	Band edge Frequency (MHz)	Value at Band edge (A) (dBm)	A-B (dBc)	Minimum Limit (dBc)
MCS0	2422	-4.57	2394	-40.95	-36.38	-30
	2452	-4.50	2483.5	-47.34	-42.84	-30
MCS4	2422	-4.86	2393	-43.63	-38.77	-30
	2452	-4.50	2483.5	-47.82	-43.32	-30
MCS7	2422	-4.87	2398	-41.87	-37.00	-30
	2452	-4.60	2483.5	-47.44	-42.84	-30



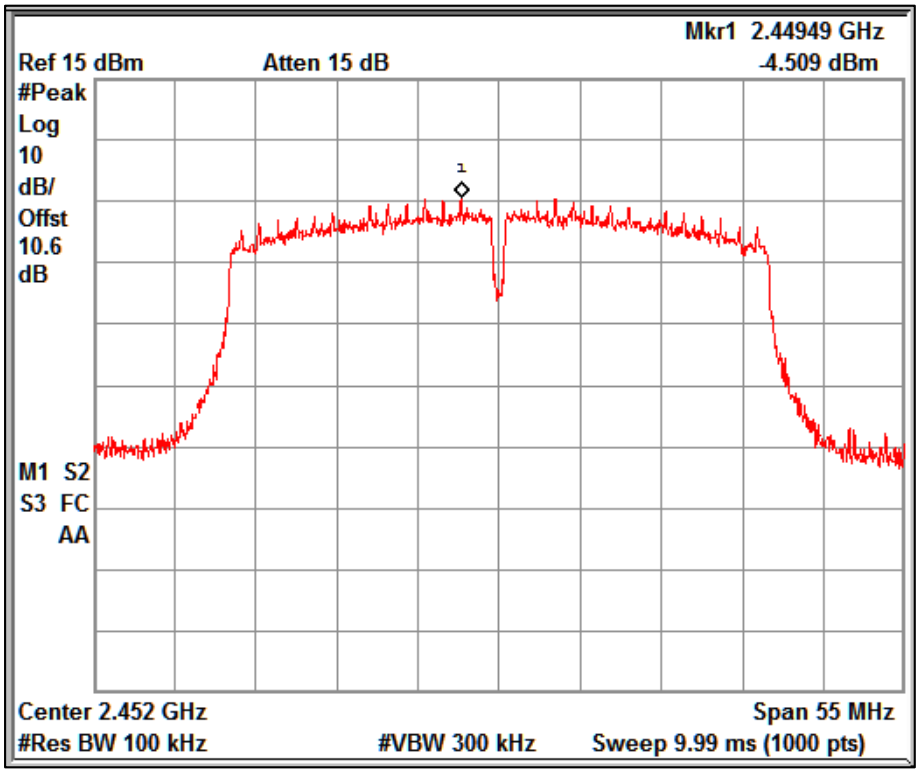
Data Rate: MCS0 Reference plot for 2412MHz



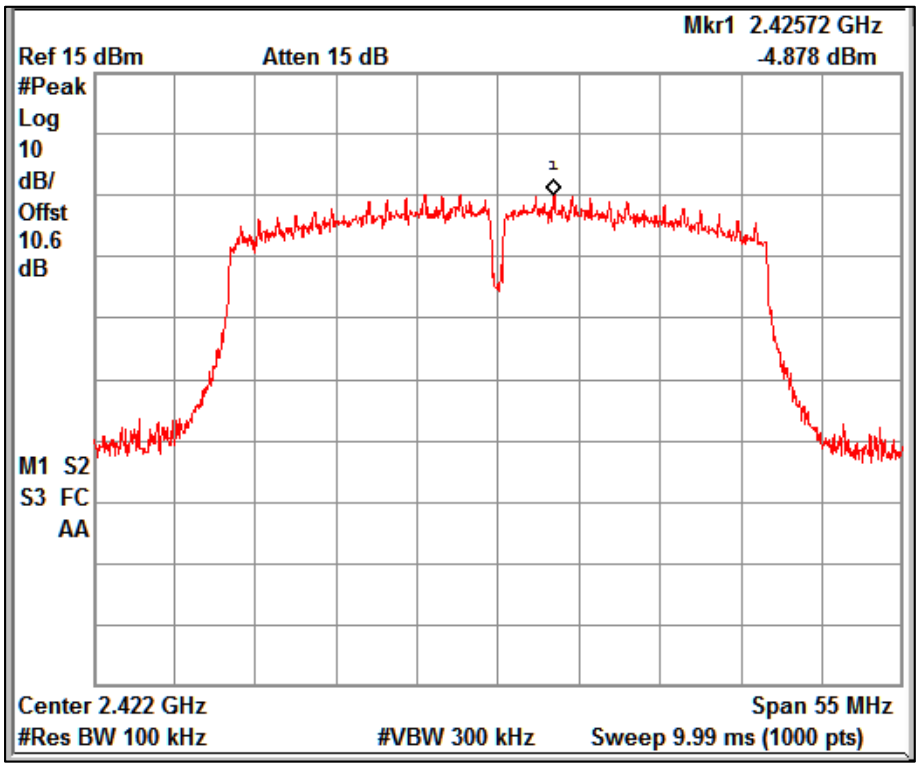
Data Rate: MCS0 Reference plot for 2462MHz



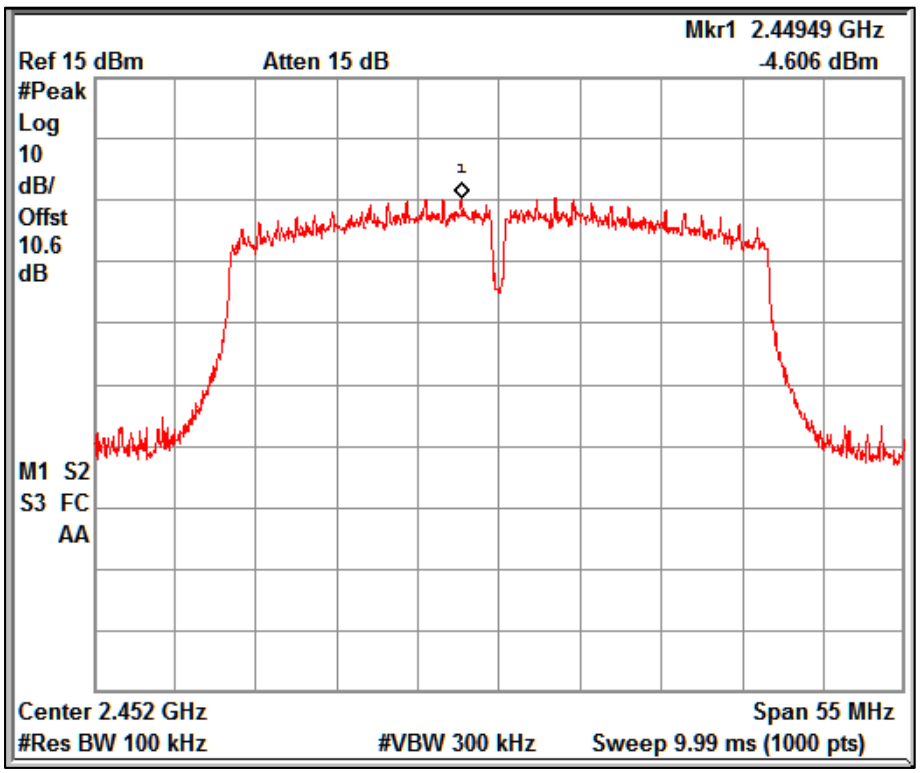
Data Rate: MCS4 Reference plot for 2412MHz



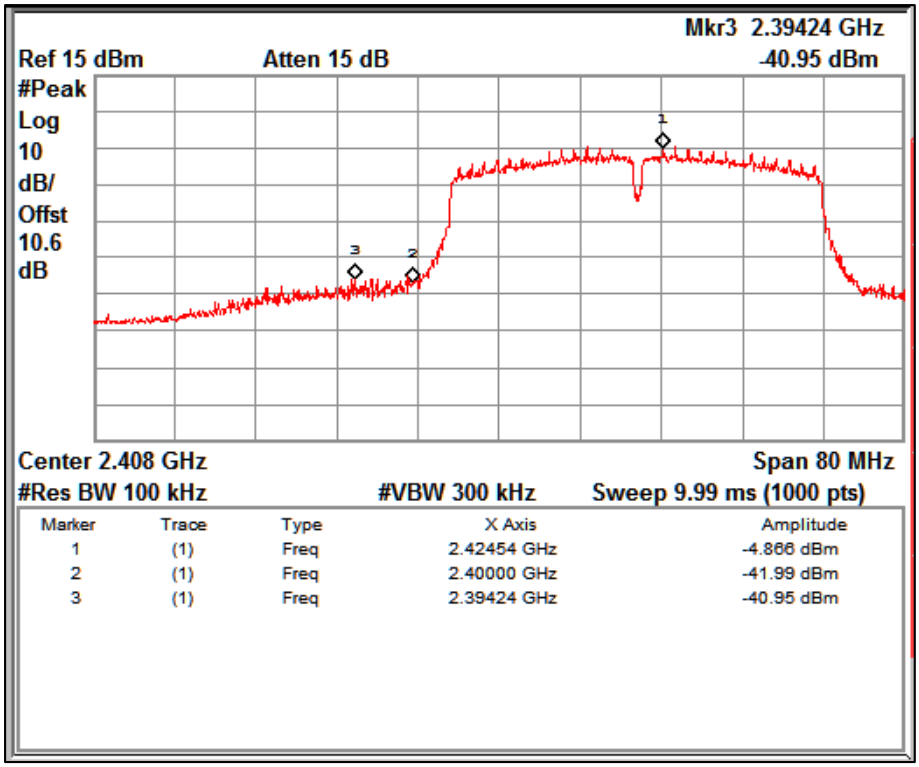
Data Rate: MCS4 Reference plot for 2462MHz



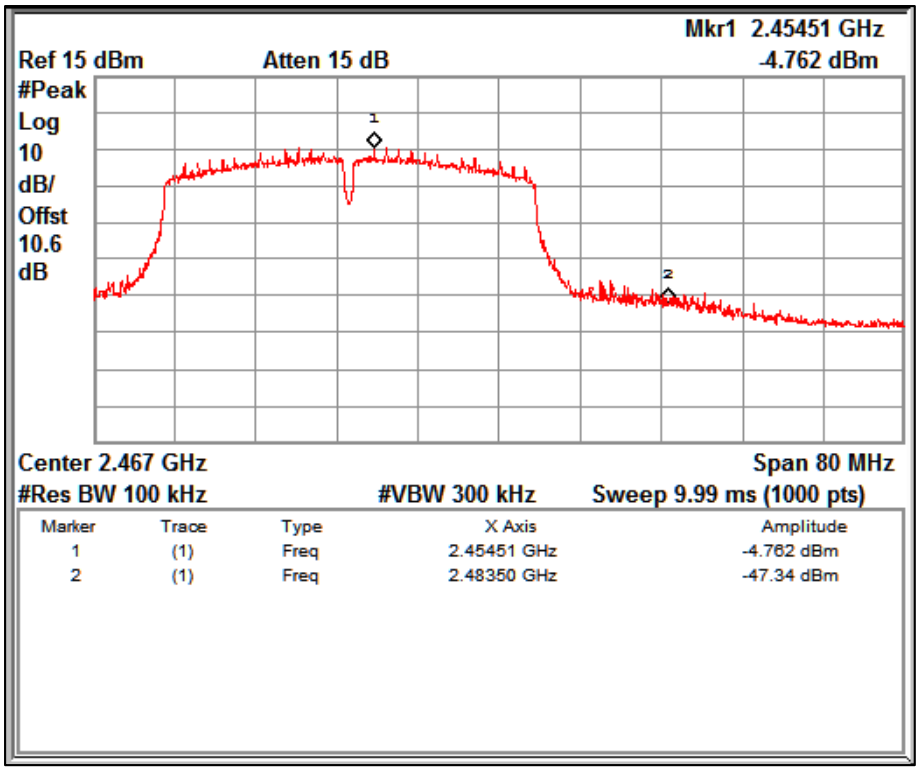
Data Rate: MCS7 Reference plot for 2412MHz



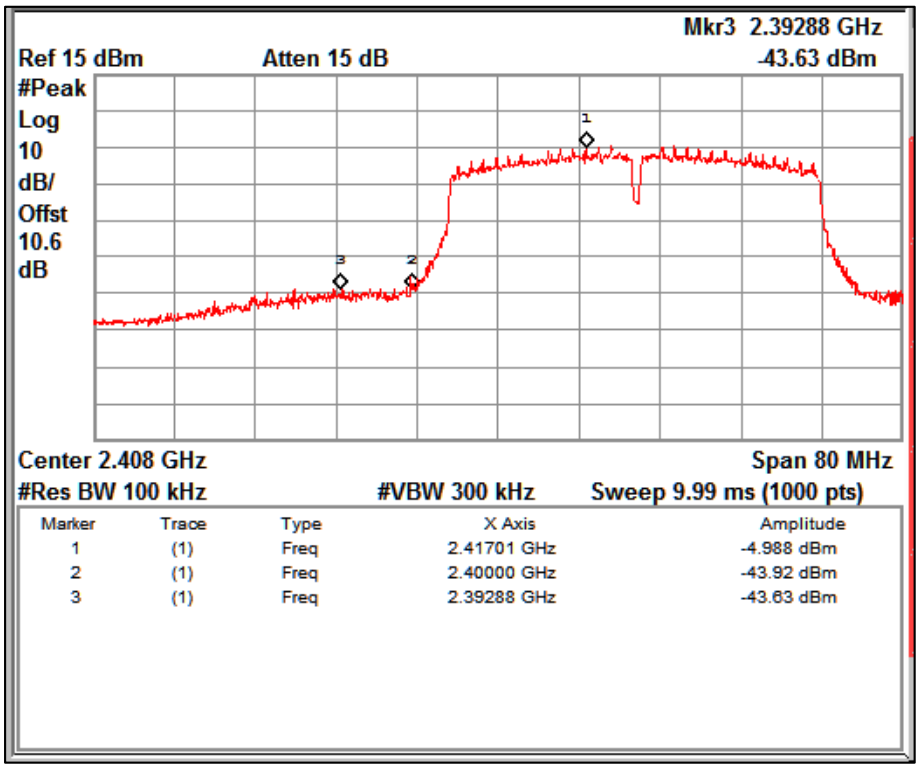
Data Rate: MCS7 Reference plot for 2462MHz



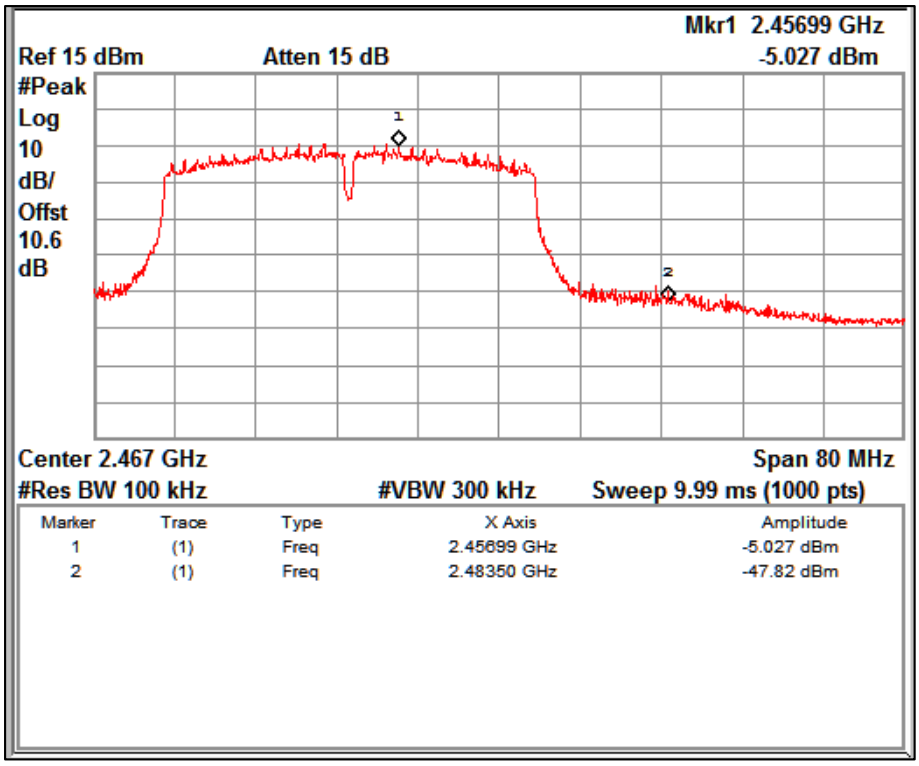
Data Rate: MCS0 Channel Frequency 2412MHz



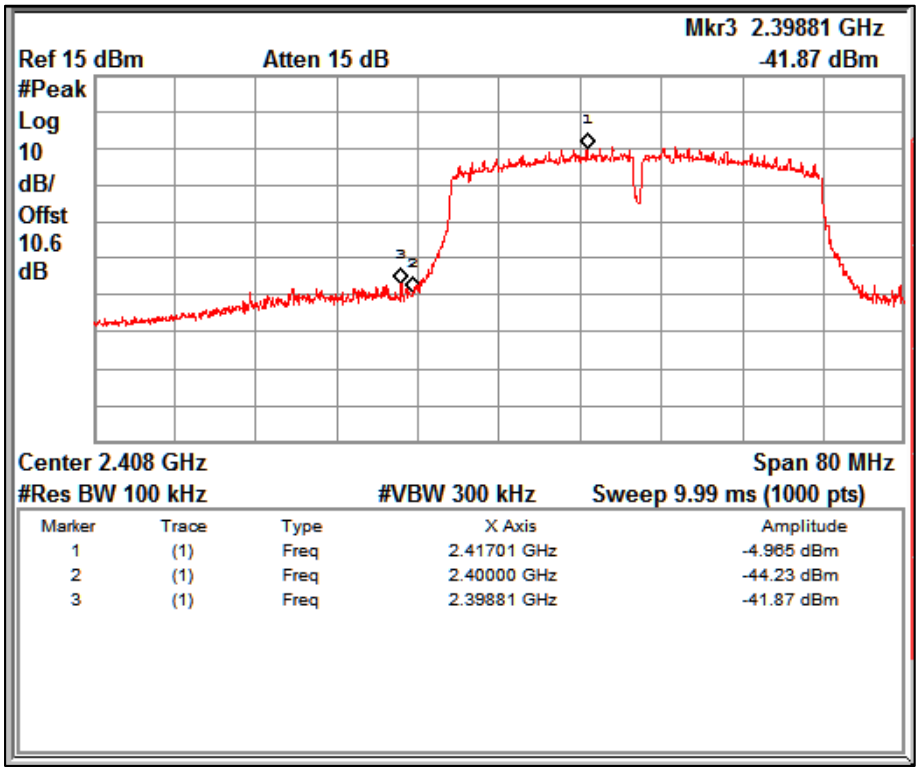
Data Rate: MCS0 Channel Frequency 2462MHz



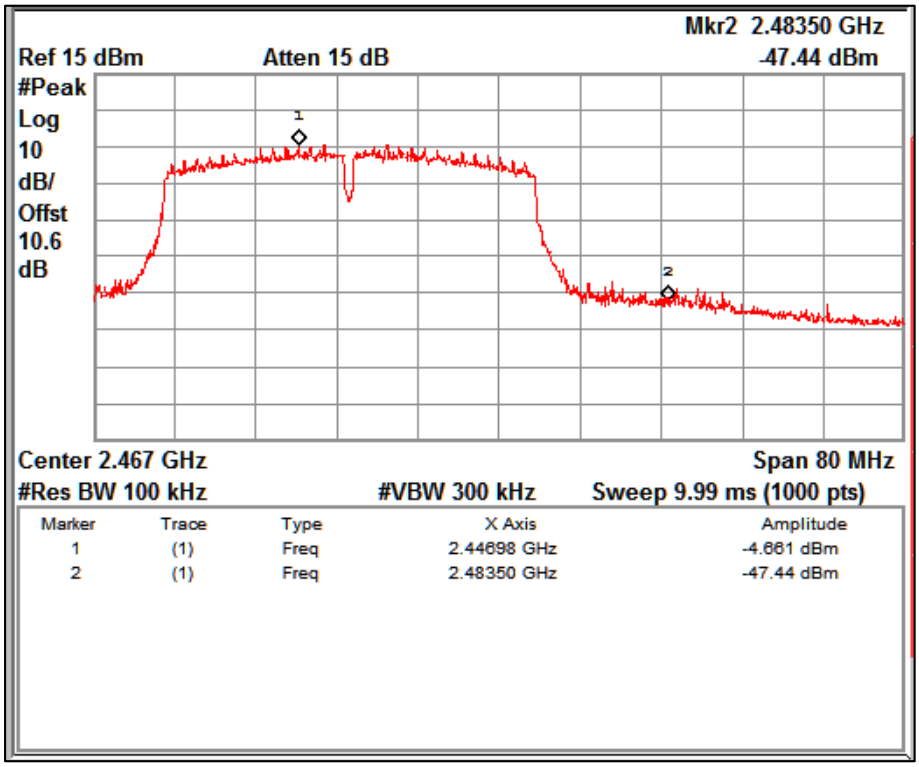
Data Rate: MCS4 Channel Frequency 2412MHz



Data Rate: MCS4 Channel Frequency 2462MHz



Data Rate: MCS7 Channel Frequency 2412MHz

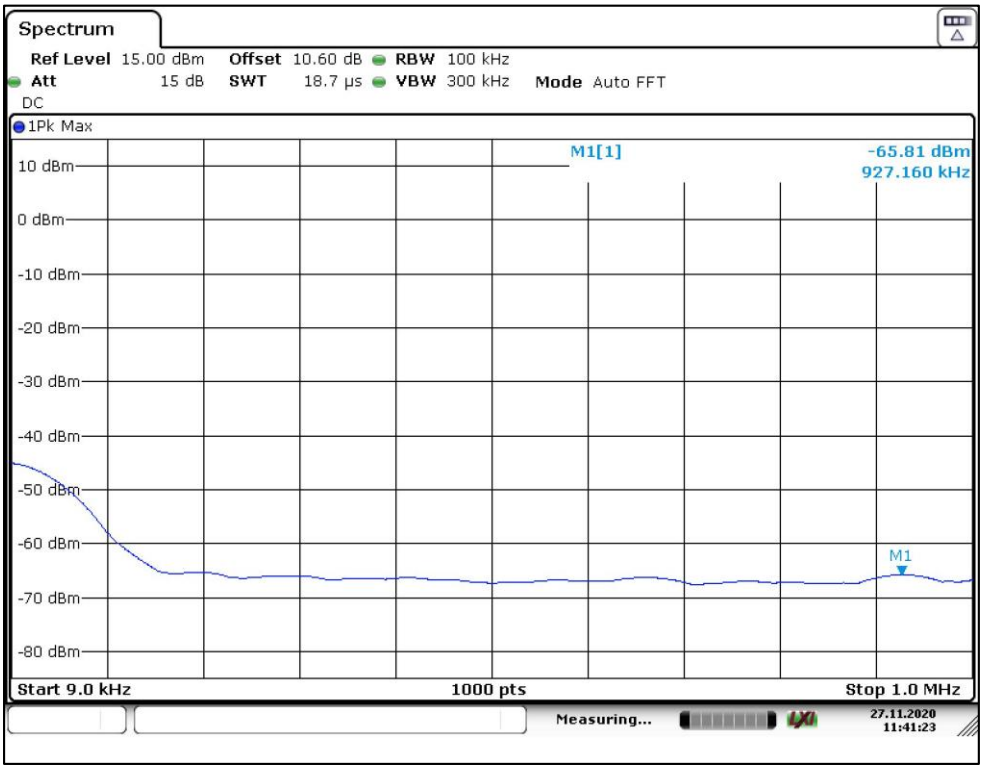


Data Rate: MCS7 Channel Frequency 2462MHz

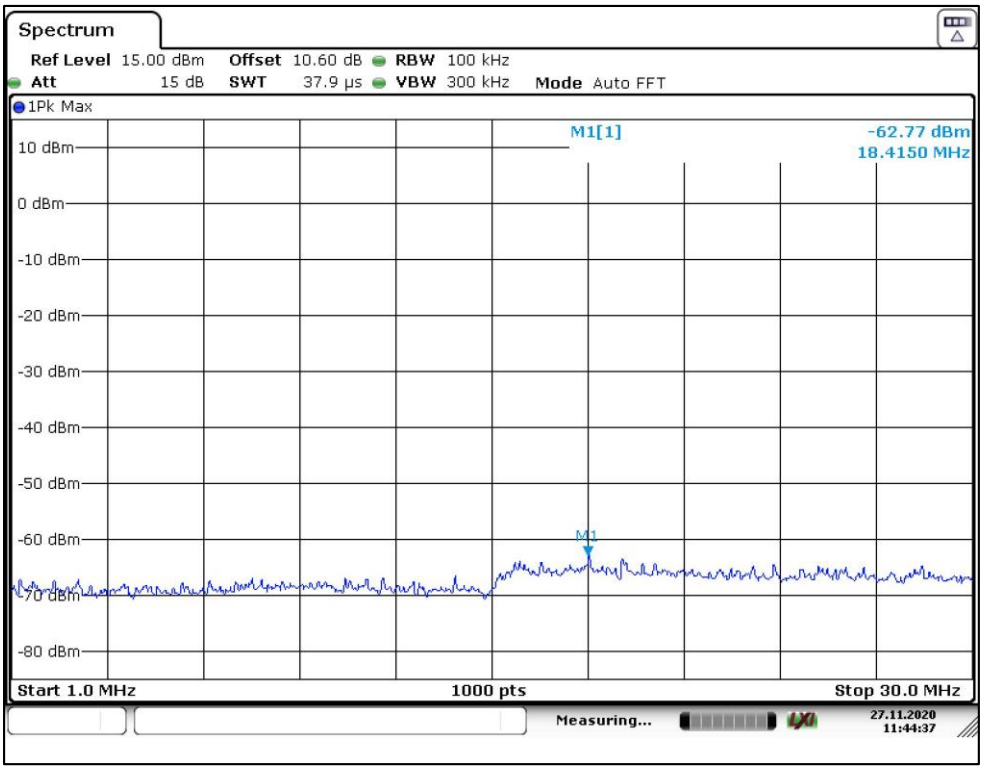
6.4.2 Out-Of-Band Emissions

Modulation: 802.11b

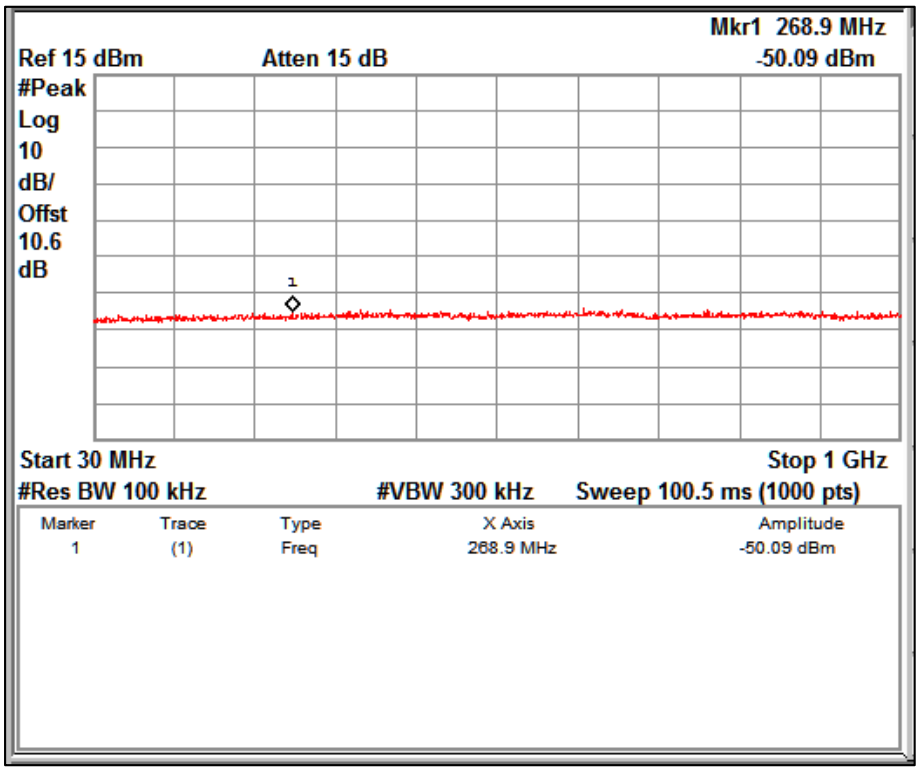
Data Rate 1Mbps



Frequency Range 9KHz – 1MHz



Frequency Range 1MHz – 30MHz

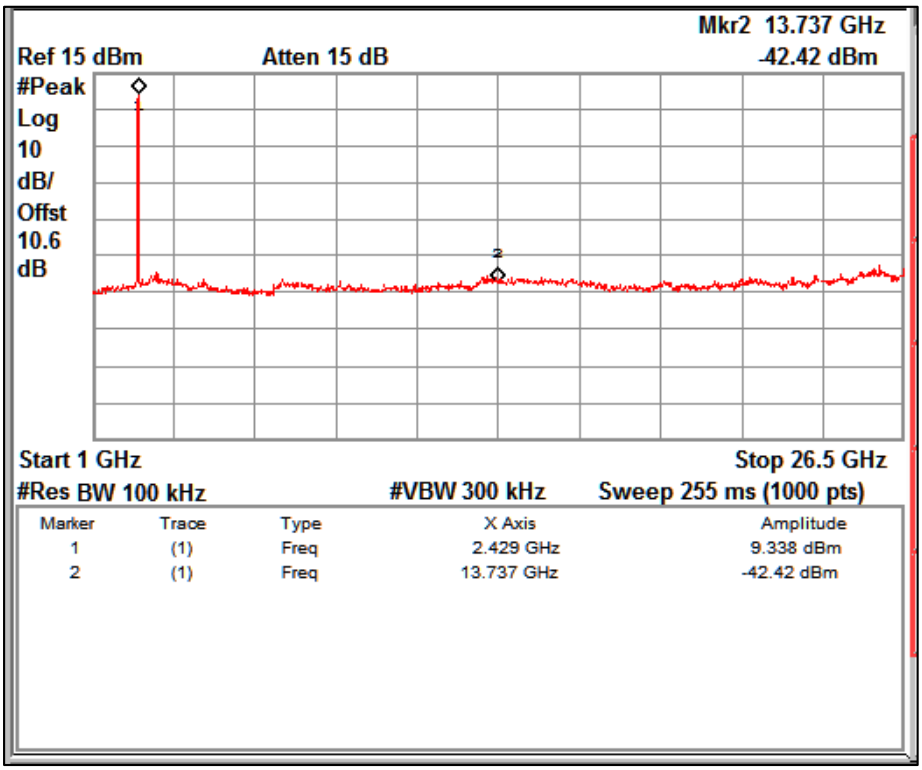


Channel Frequency 2412MHz **Frequency Range 30 MHz – 1GHz**

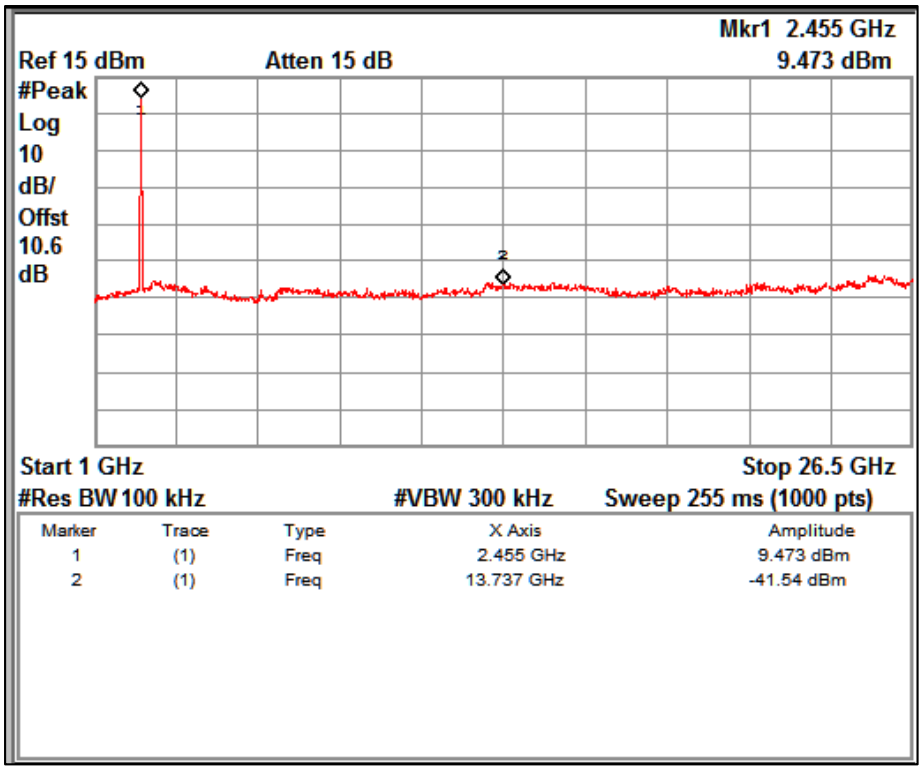
Modulation: 802.11b

Data Rate 1Mbps

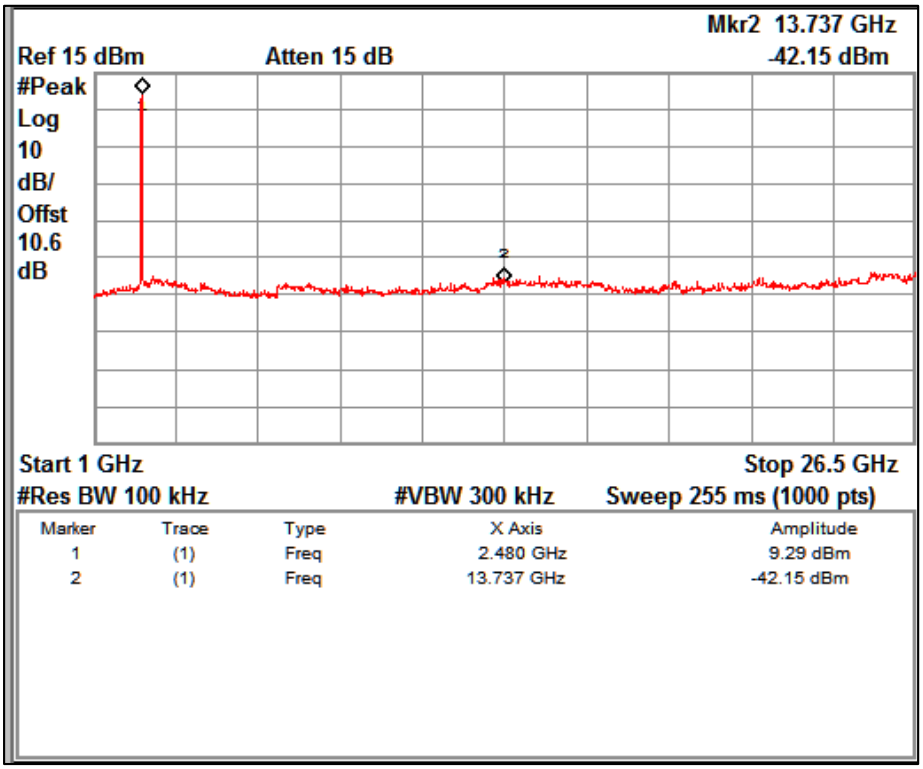
Data Rate (Mbps)	Channel Frequency (MHz)	Value at the Band Edge		Reference Value B (dBm)	Band Edge Value A~B (dBc)	Limit (dBc)
		Frequency (GHz)	Value A (dBm)			
1	2412	13.73	-42.42	5.22	-47.64	-30
	2462	13.73	-42.15	4.98	-47.13	-30
11	2412	13.73	-41.43	5.32	-46.75	-30
	2462	13.73	-41.76	4.99	-46.75	-30



Channel Frequency 2412MHz **Frequency Range 1GHz – 26.5GHz**



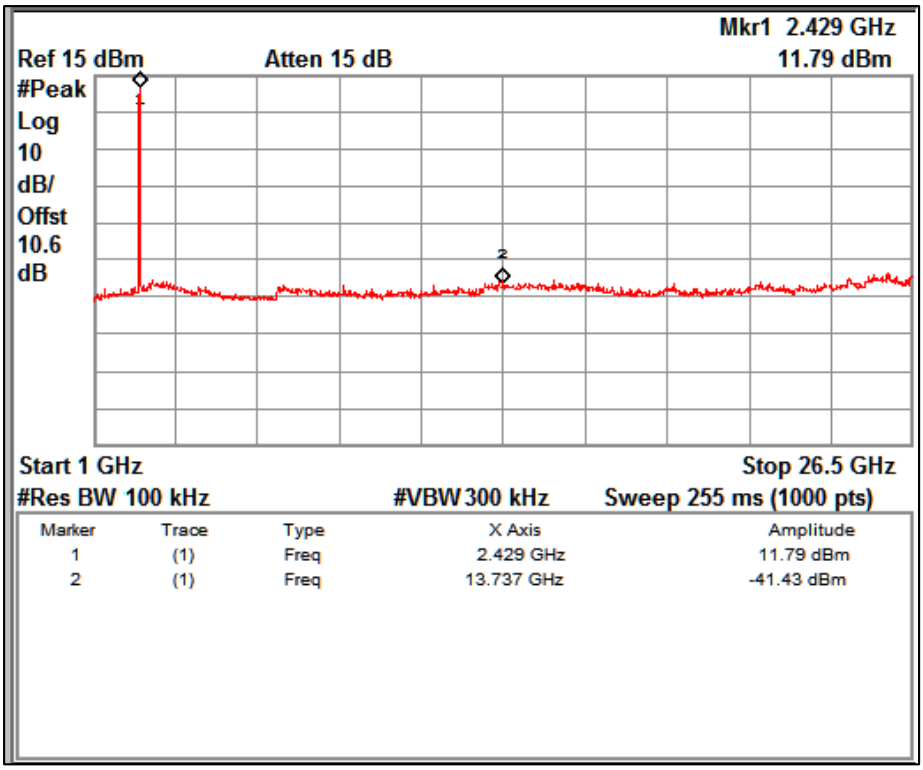
Channel Frequency 2437MHz **Frequency Range 1GHz – 26.5GHz**



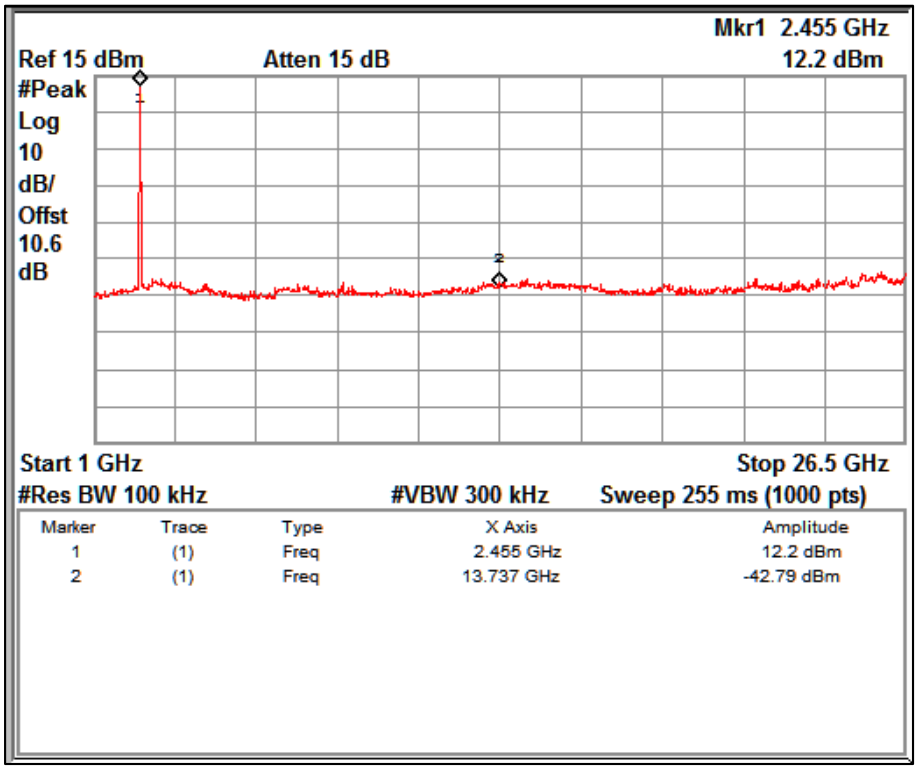
Channel Frequency 2462MHz **Frequency Range 1GHz – 26.5GHz**

Modulation: 802.11b

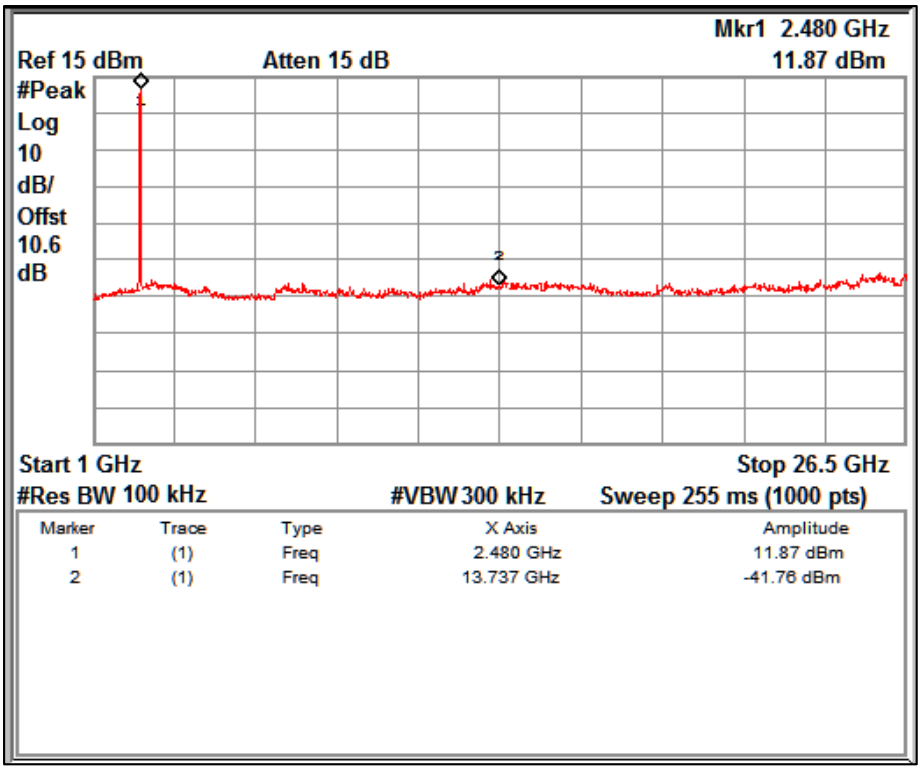
Data Rate 11Mbps



Channel Frequency 2412MHz **Frequency Range 1GHz – 26.5GHz**



Channel Frequency 2437MHz **Frequency Range 1GHz – 26.5GHz**

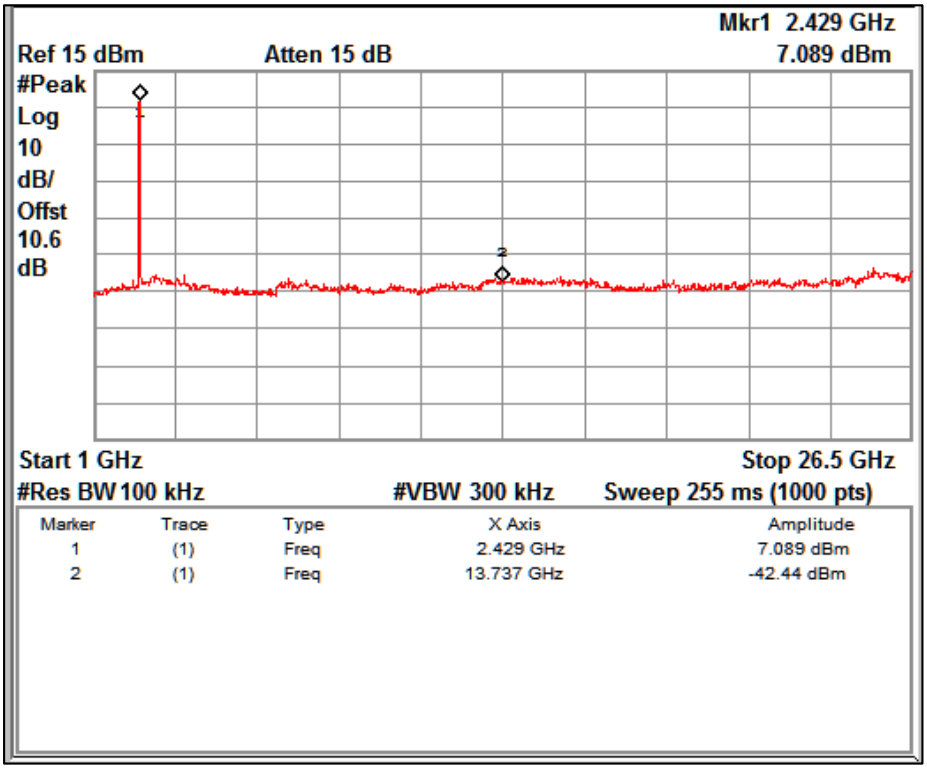


Channel Frequency 2462MHz **Frequency Range 1GHz – 26.5GHz**

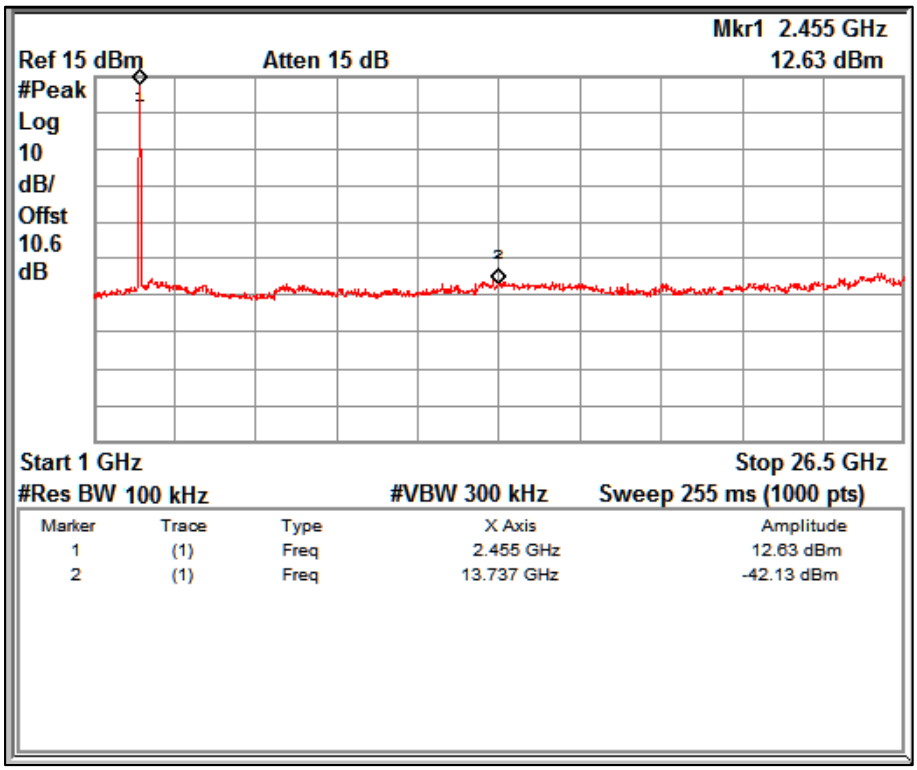
Modulation: 802.11g

Data Rate 6Mbps

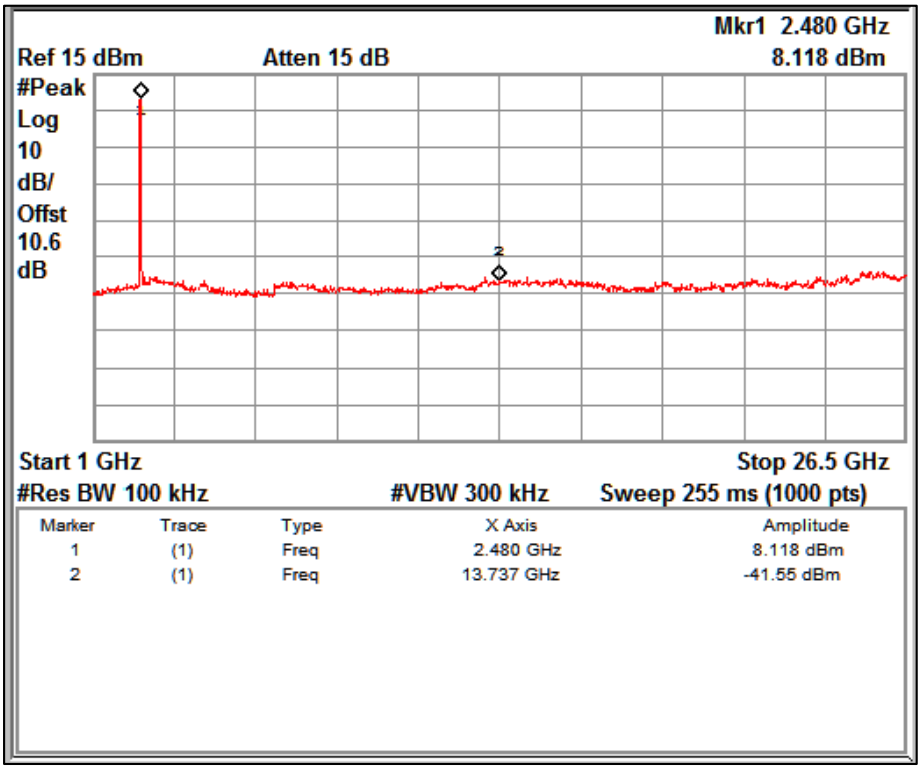
Data Rate (Mbps)	Channel Frequency (MHz)	Value at the Band Edge		Reference Value B (dBm)	Band Edge Value A~B (dBc)	Limit (dBc)
		Frequency (GHz)	Value A (dBm)			
6	2412	13.73	-42.44	-0.30	-42.14	-30
	2462	13.73	-41.55	-1.14	-40.41	-30
24	2412	13.73	-42.08	-0.61	-41.47	-30
	2462	13.73	-42.54	-0.63	-41.91	-30
54	2412	13.73	-41.71	-0.38	-41.33	-30
	2462	13.73	-41.89	-0.38	-41.51	-30



Channel Frequency 2412MHz **Frequency Range 1GHz – 26.5GHz**



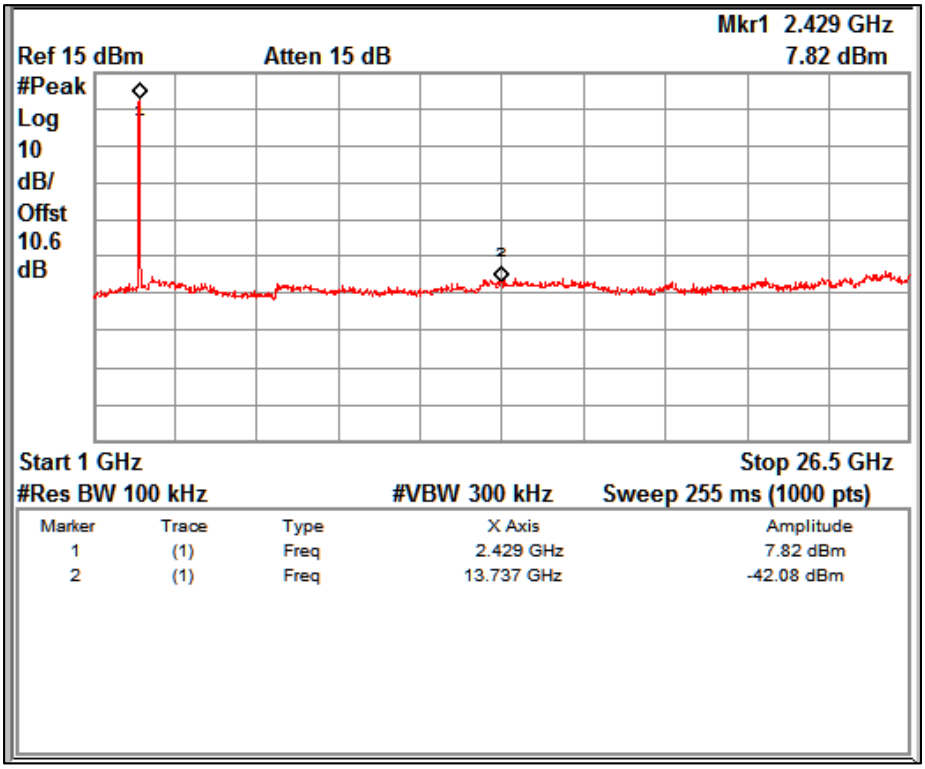
Channel Frequency 2437MHz **Frequency Range 1GHz – 26.5GHz**



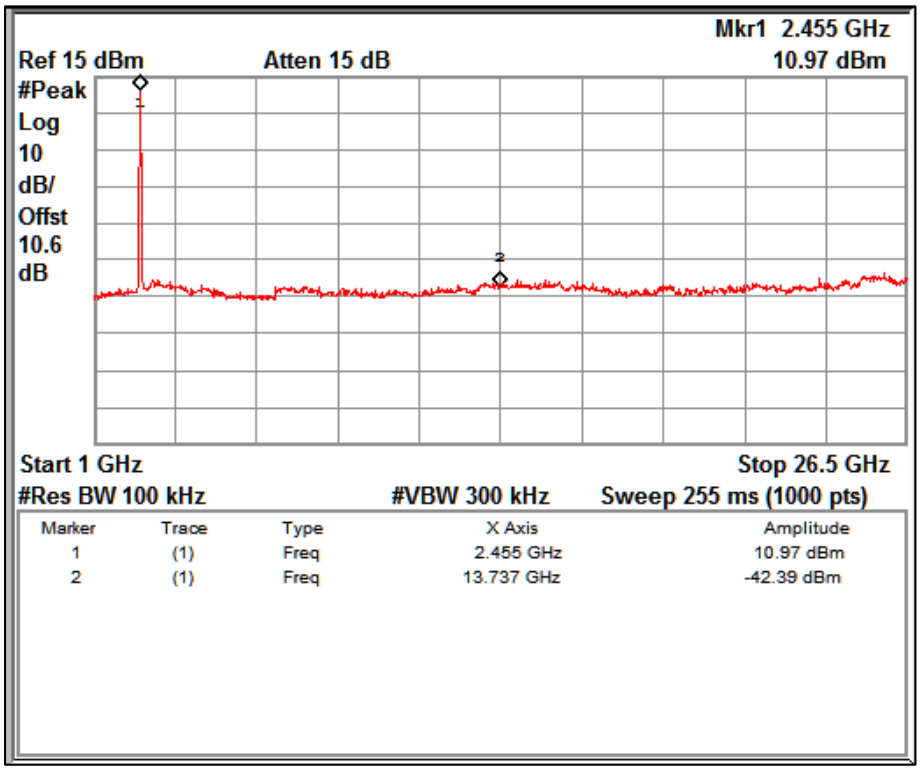
Channel Frequency 2462MHz **Frequency Range 1GHz – 26.5GHz**

Modulation: 802.11g

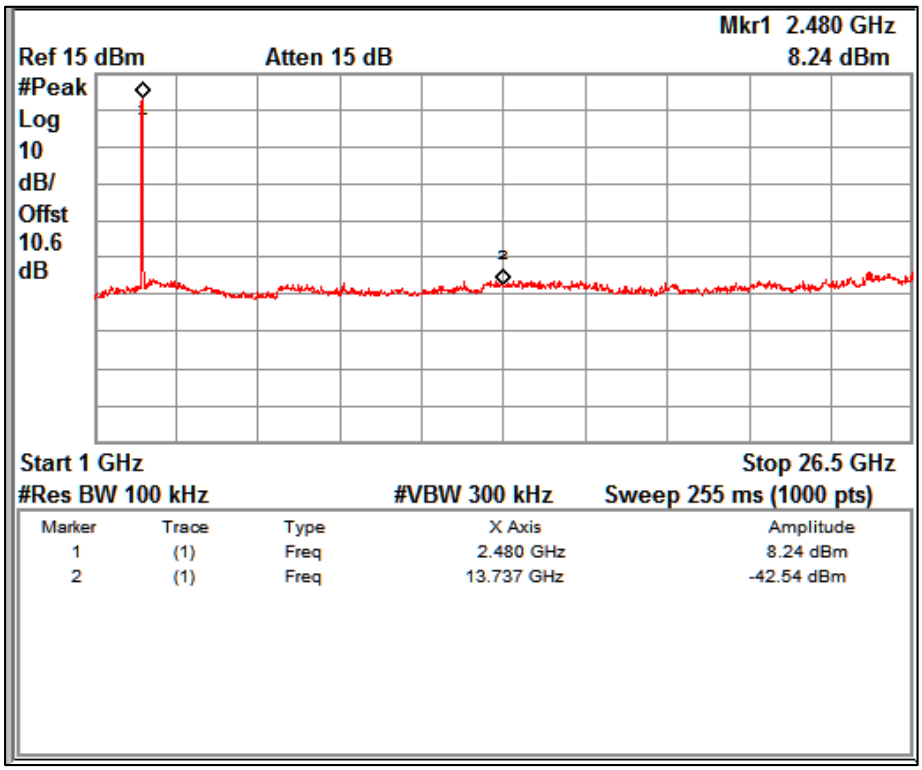
Data Rate 24Mbps



Channel Frequency 2412MHz **Frequency Range 1GHz – 26.5GHz**



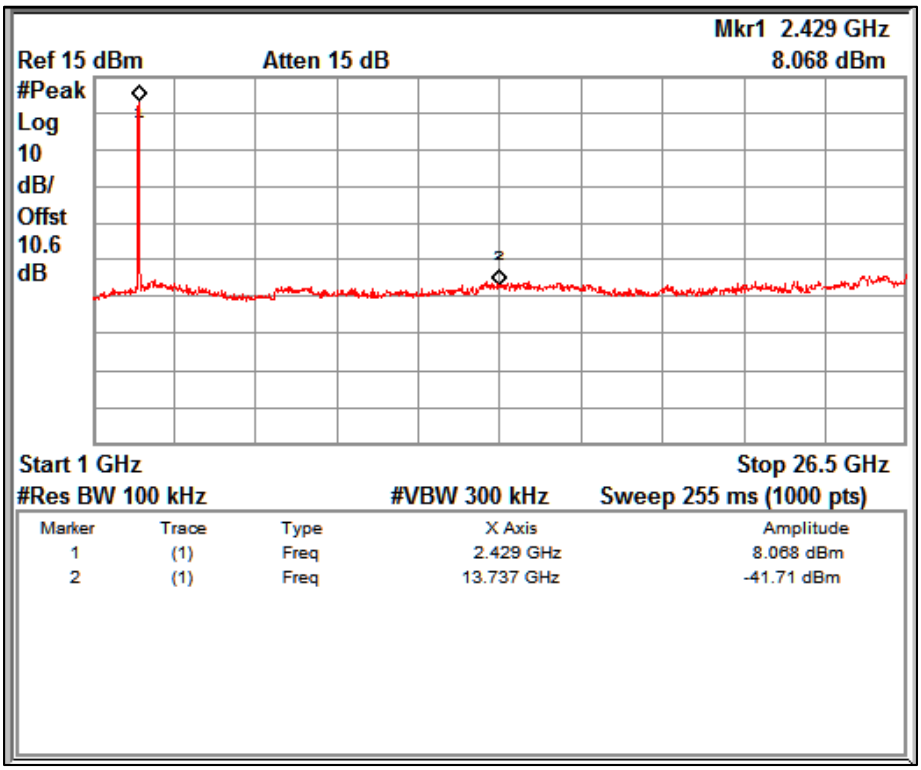
Channel Frequency 2437MHz **Frequency Range 1GHz – 26.5GHz**



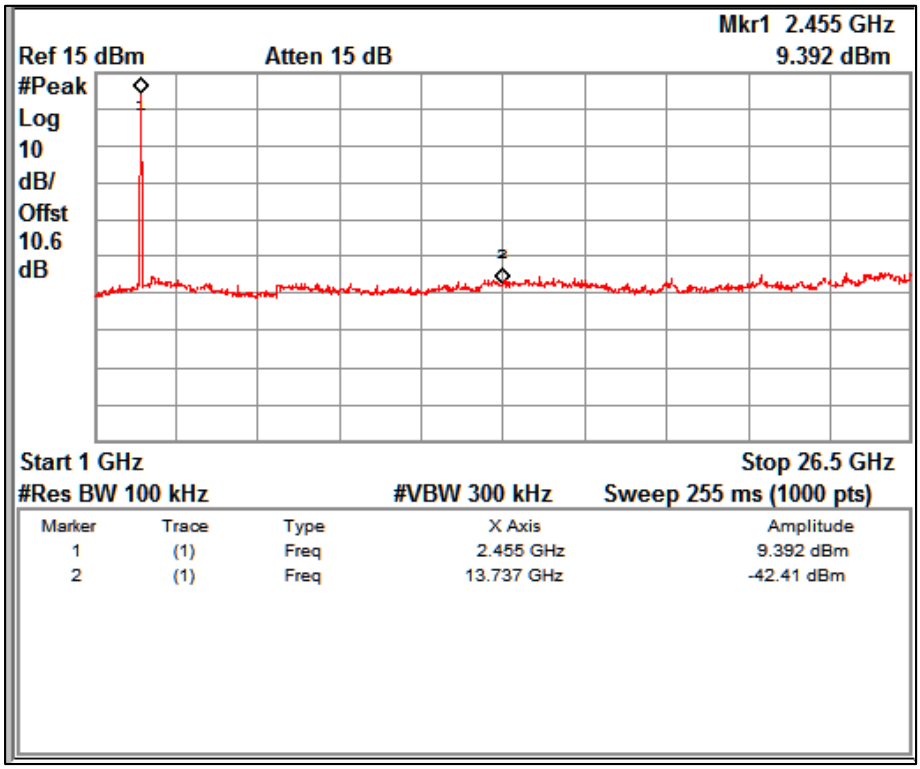
Channel Frequency 2462MHz **Frequency Range 1GHz – 26.5GHz**

Modulation: 802.11g

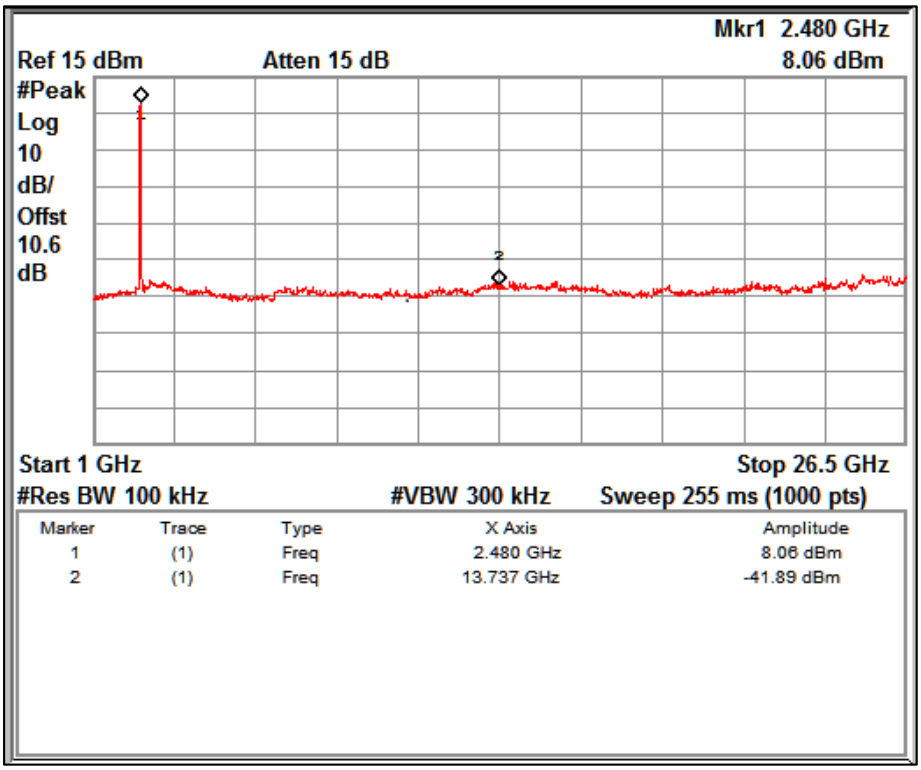
Data Rate 54Mbps



Channel Frequency 2412MHz **Frequency Range 1GHz – 26.5GHz**



Channel Frequency 2437MHz **Frequency Range 1GHz – 26.5GHz**

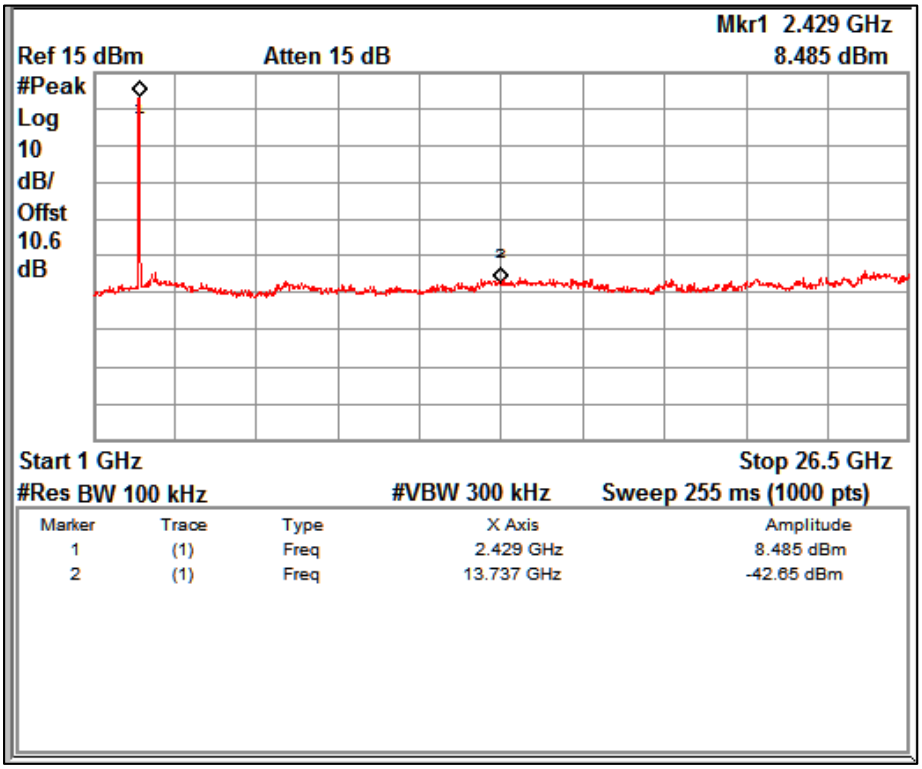


Channel Frequency 2462MHz **Frequency Range 1GHz – 26.5GHz**

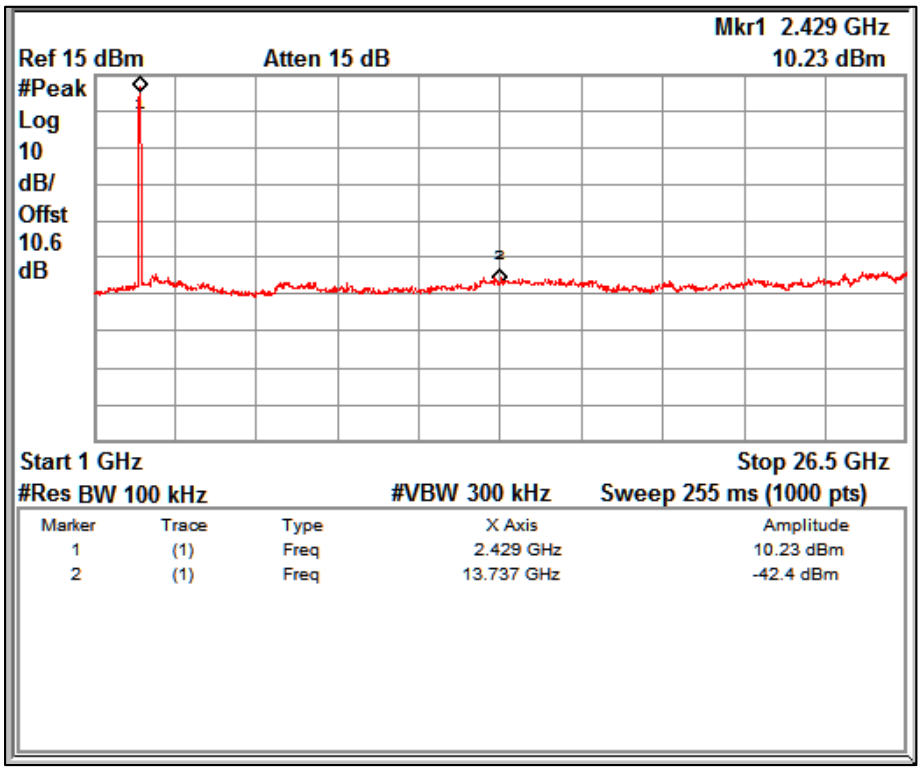
Modulation: 802.11n_20MHz

Data Rate MCS0

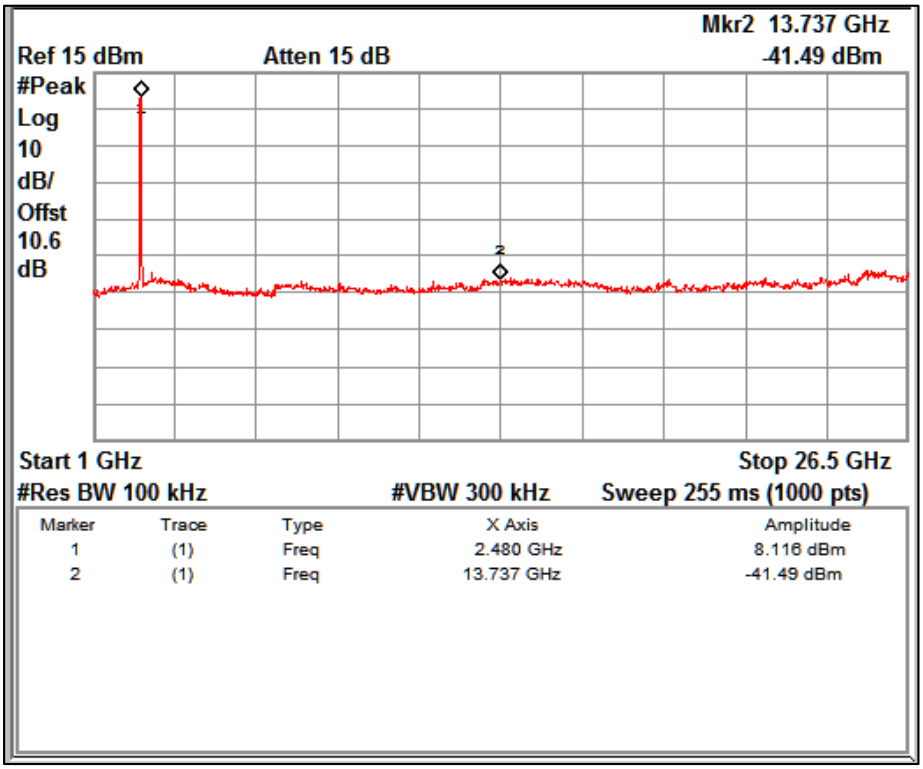
Data Rate (Mbps)	Channel Frequency (MHz)	Value at the Band Edge		Reference Value B (dBm)	Band Edge Value A~B (dBc)	Limit (dBc)
		Frequency (GHz)	Value A (dBm)			
MCS0	2412	13.73	-42.65	0.12	-42.77	-30
	2462	13.73	-41.49	-0.05	-41.44	-30
MCS4	2412	13.73	-41.49	-0.12	-41.37	-30
	2462	13.73	-41.40	-0.08	-41.32	-30
MCS7	2412	13.73	-41.40	0.09	-41.49	-30
	2462	13.73	-42.39	0.03	-42.42	-30



Channel Frequency 2412MHz **Frequency Range 1GHz – 26.5GHz**



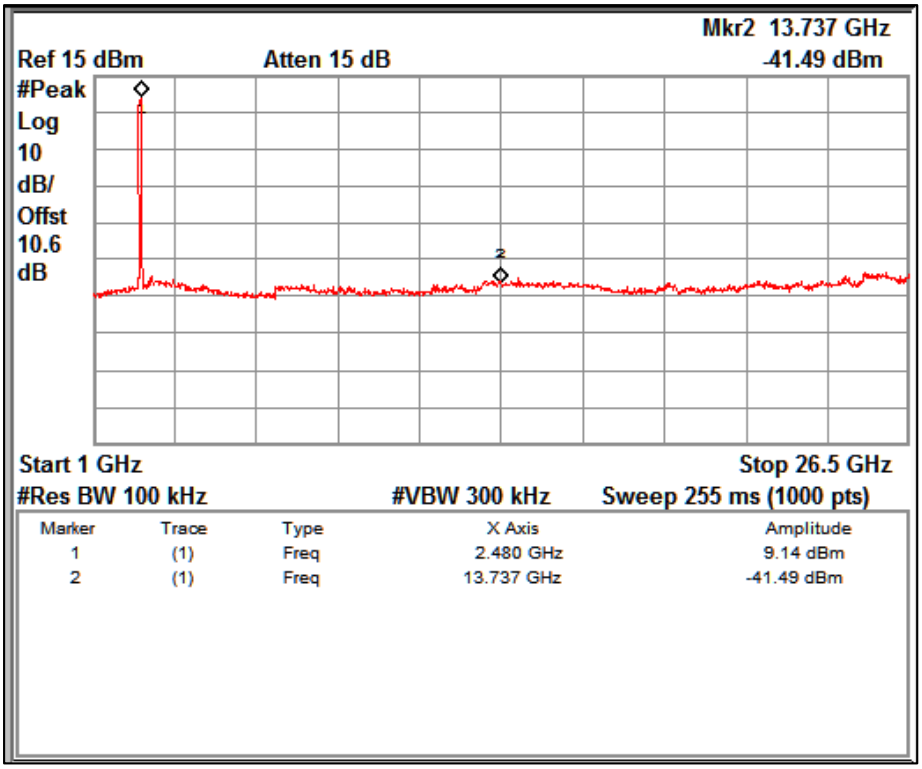
Channel Frequency 2437MHz **Frequency Range 1GHz – 26.5GHz**



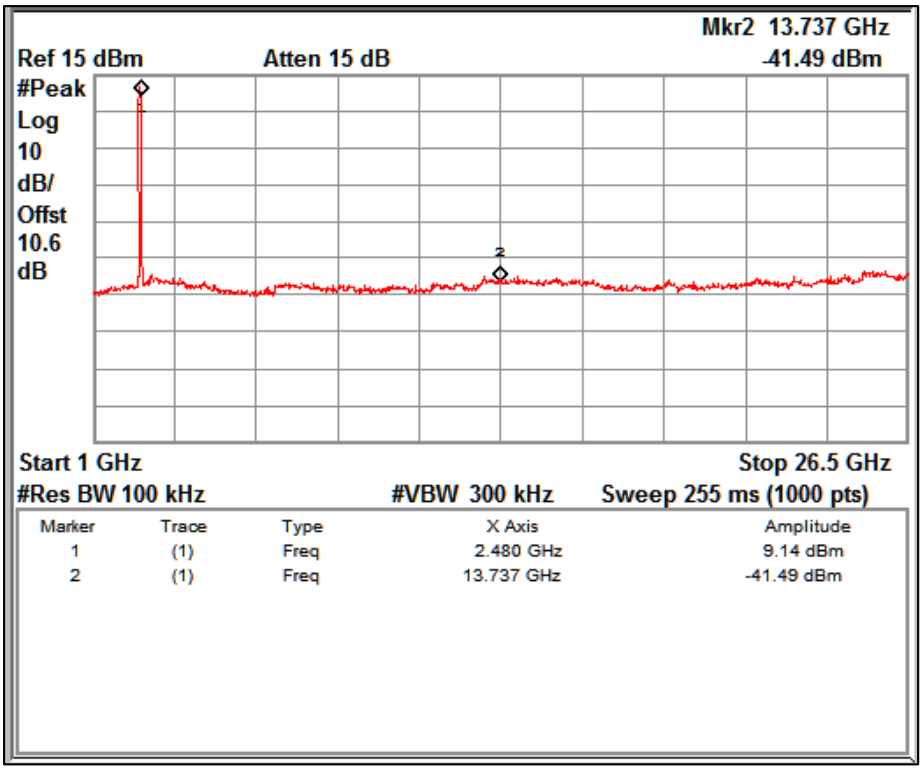
Channel Frequency 2462MHz **Frequency Range 1GHz – 26.5GHz**

Modulation: 802.11n_20MHz

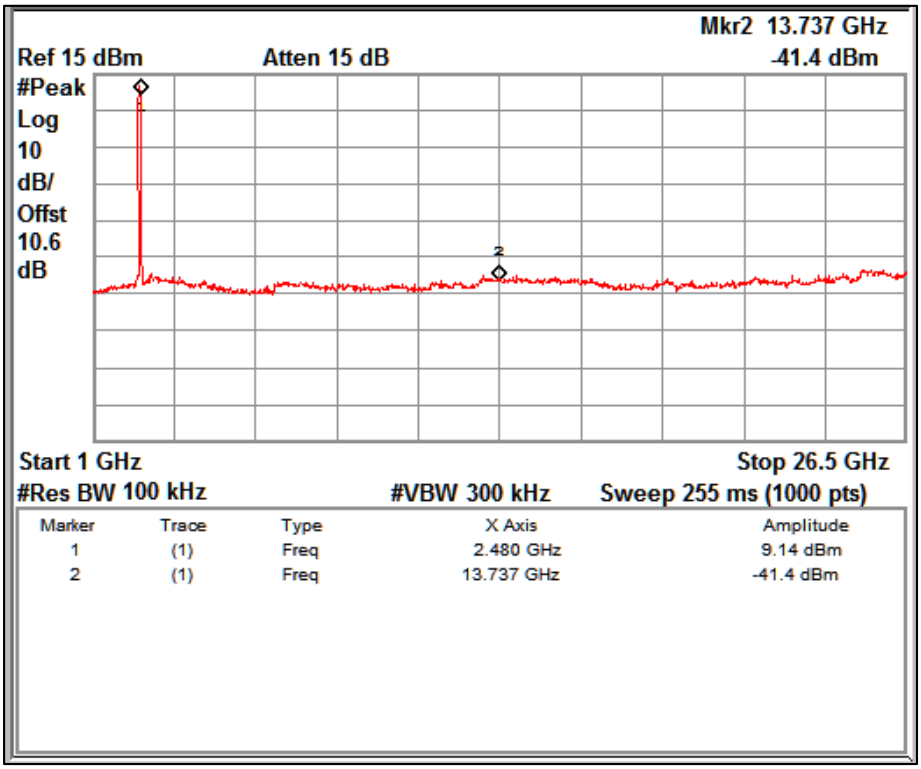
Data Rate MCS4



Channel Frequency 2412MHz **Frequency Range 1GHz – 26.5GHz**



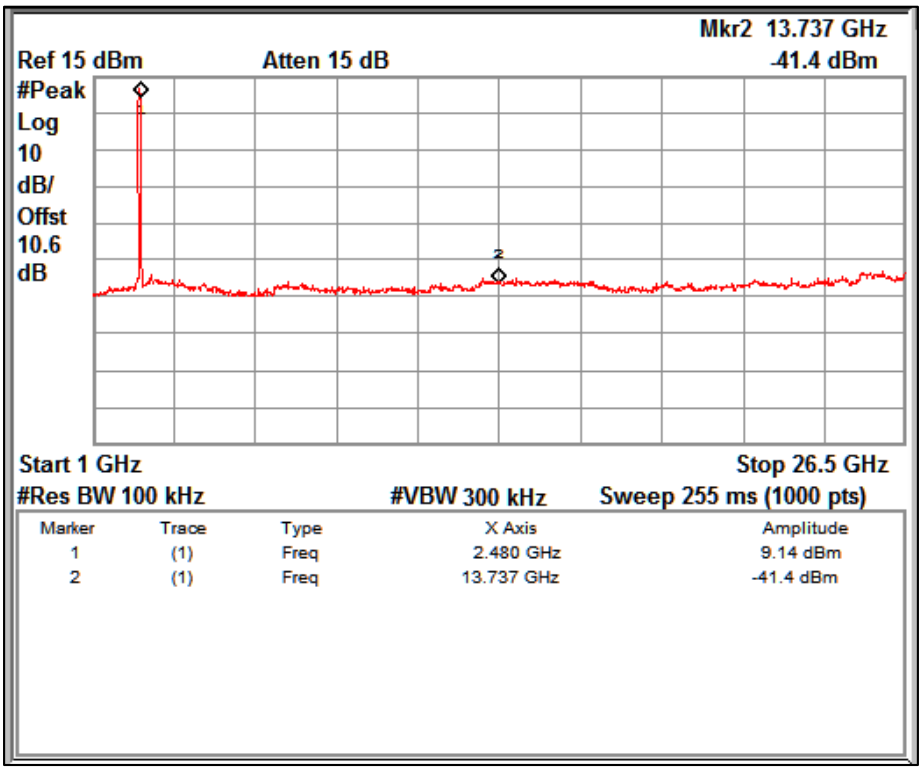
Channel Frequency 2437MHz **Frequency Range 1GHz – 26.5GHz**



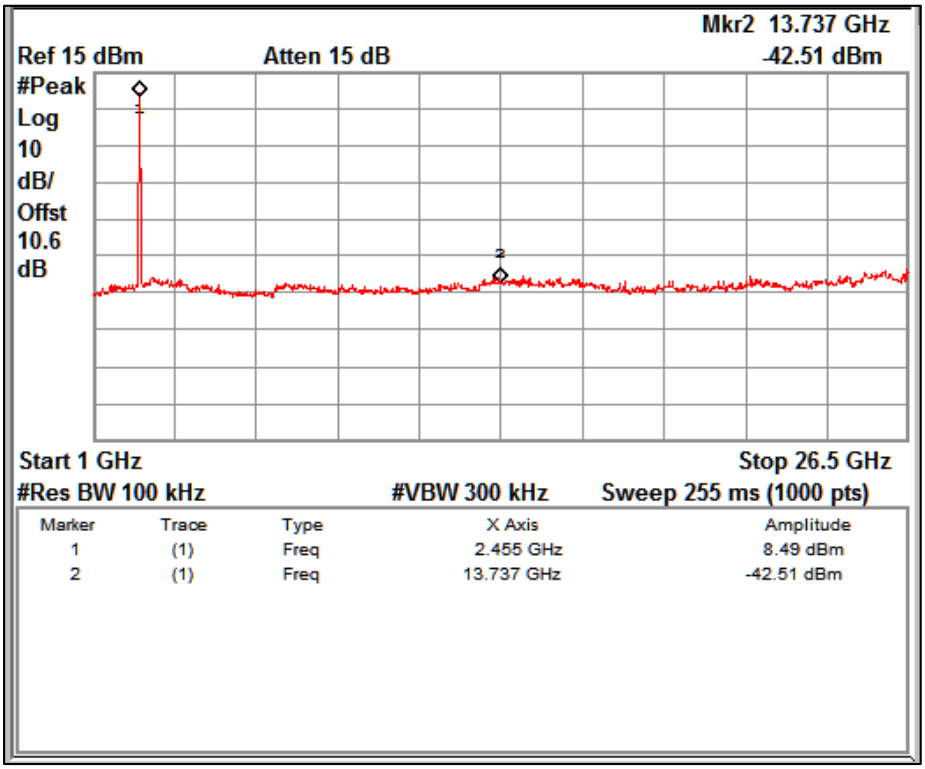
Channel Frequency 2462MHz **Frequency Range 1GHz – 26.5GHz**

Modulation: 802.11n_20MHz

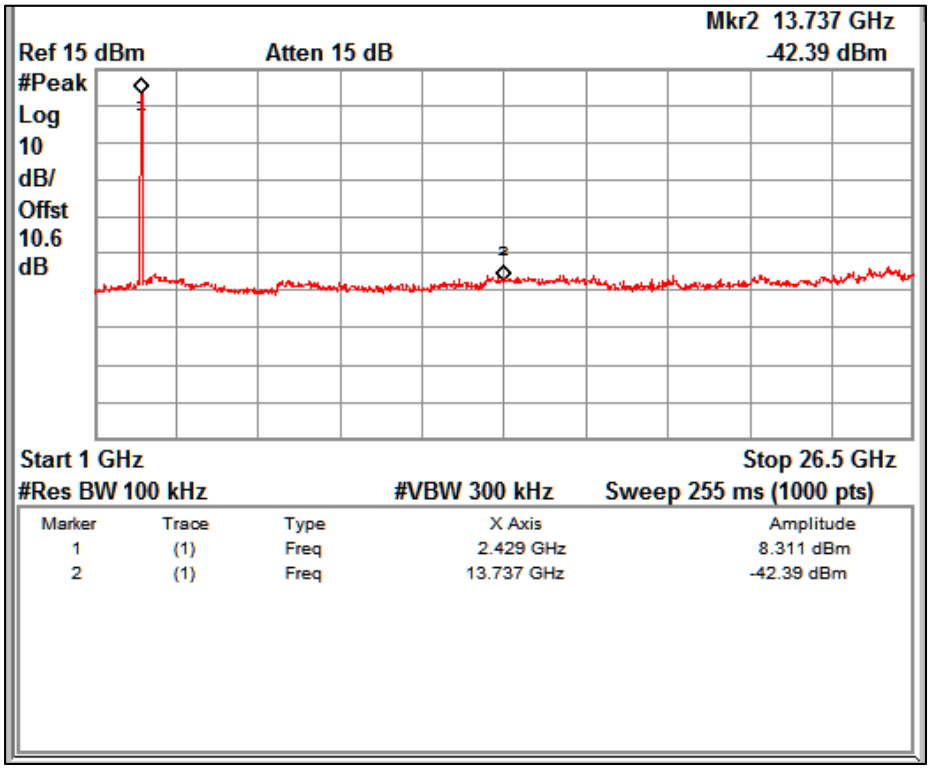
Data Rate MCS7



Channel Frequency 2412MHz **Frequency Range 1GHz – 26.5GHz**



Channel Frequency 2437MHz **Frequency Range 1GHz – 26.5GHz**

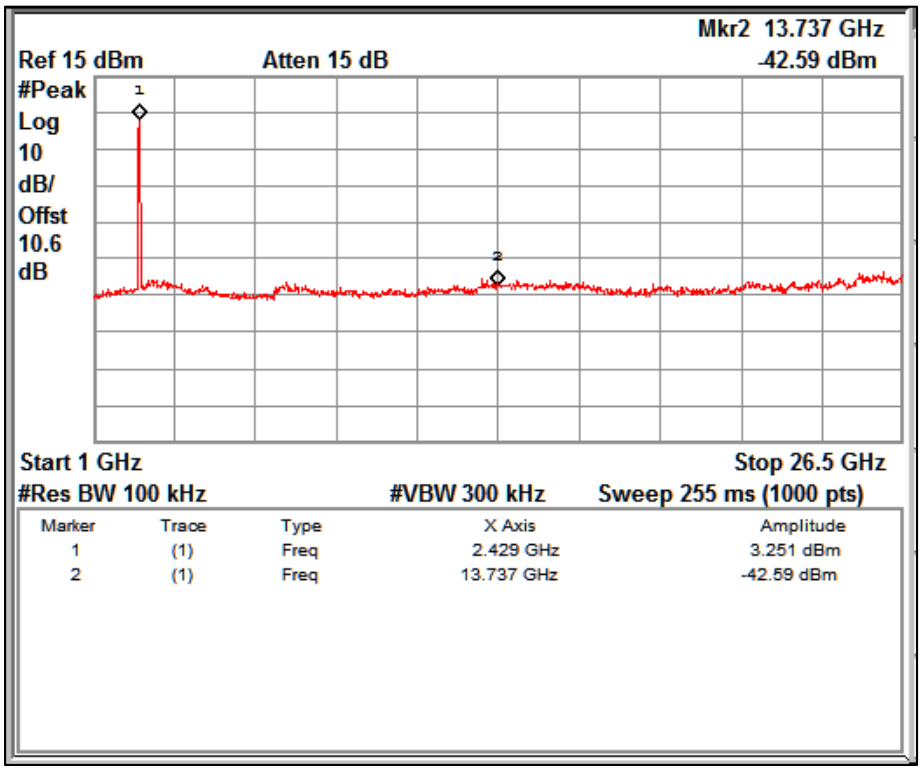


Channel Frequency 2462MHz **Frequency Range 1GHz – 26.5GHz**

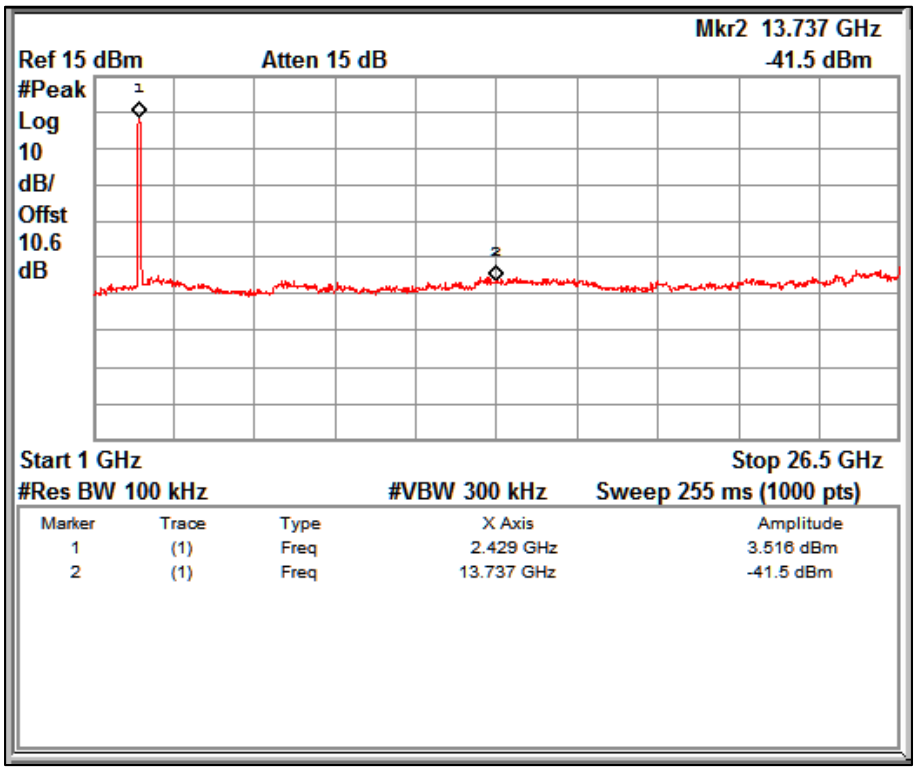
Modulation: 802.11n_40MHz

Data Rate MCS0

Data Rate (Mbps)	Channel Frequency (MHz)	Value at the Band Edge		Reference Value B (dBm)	Band Edge Value A~B (dBc)	Limit (dBc)
		Frequency (GHz)	Value A (dBm)			
MCS0	2422	13.73	-42.59	-4.57	-38.02	-30
	2452	13.73	-41.50	-4.50	-37.00	-30
MCS4	2422	13.73	-42.90	-4.86	-38.04	-30
	2452	13.73	-41.58	-4.50	-37.08	-30
MCS7	2422	13.73	-41.67	-4.87	-36.80	-30
	2452	13.73	-42.41	-4.60	-37.81	-30



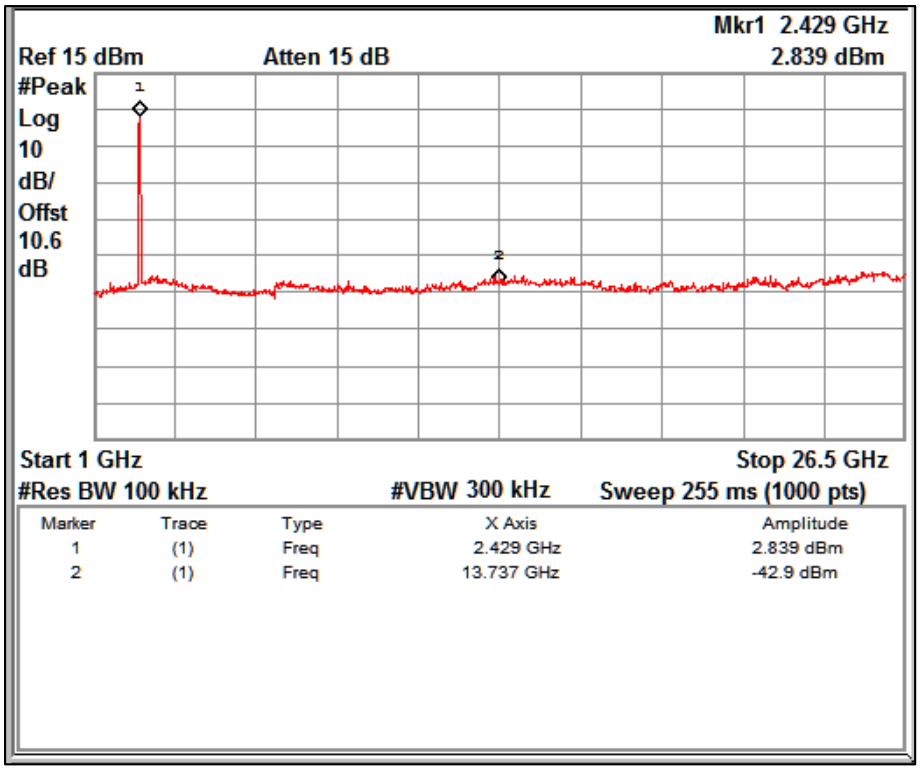
Channel Frequency 2422MHz **Frequency Range 1GHz – 26.5GHz**



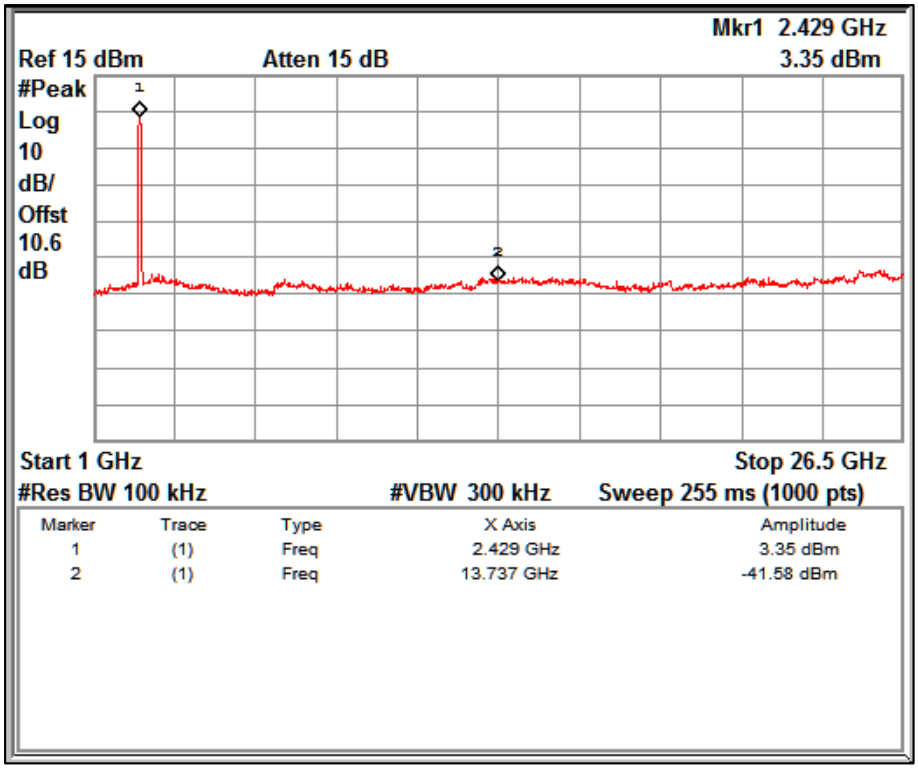
Channel Frequency 2452MHz **Frequency Range 1GHz – 26.5GHz**

Modulation: 802.11n_40MHz

Data Rate MCS4



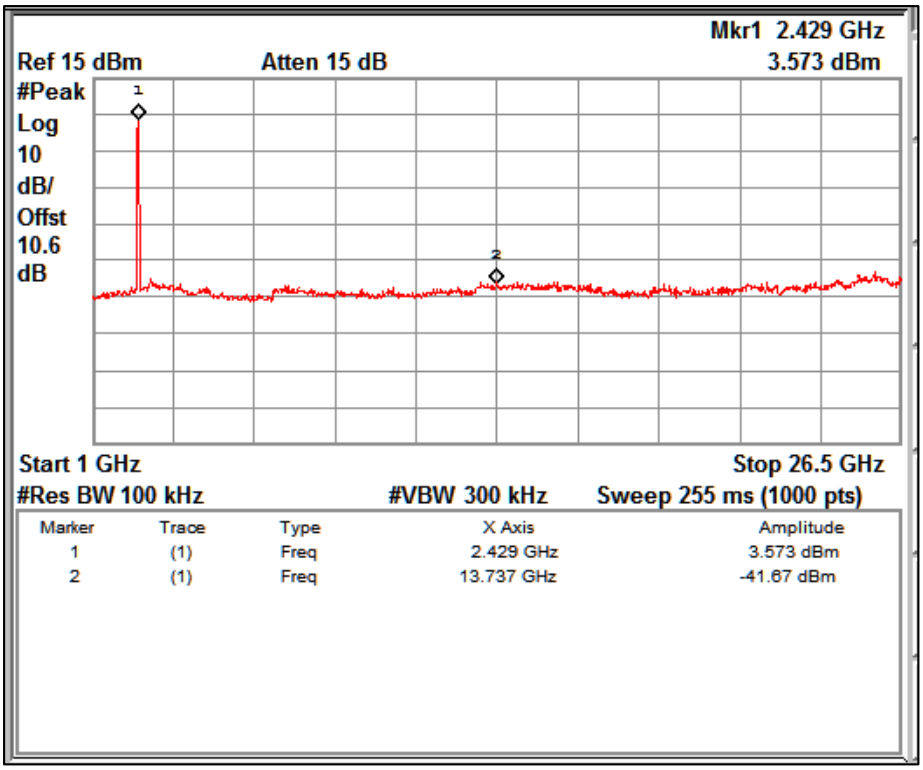
Channel Frequency 2422MHz **Frequency Range 1GHz – 26.5GHz**



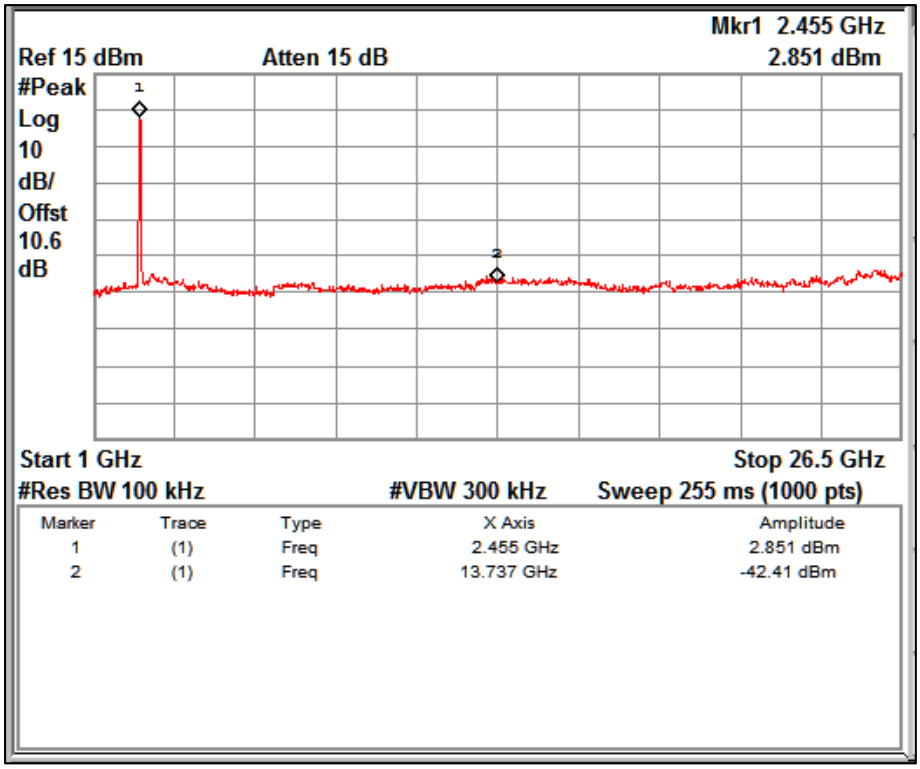
Channel Frequency 2452MHz **Frequency Range 1GHz – 26.5GHz**

Modulation: 802.11n_40MHz

Data Rate MCS7



Channel Frequency 2422MHz **Frequency Range 1GHz – 26.5GHz**



Channel Frequency 2452MHz **Frequency Range 1GHz – 26.5GHz**

6.5 Spurious Radiated Emissions & Restricted Bands of Operation

Result ***Pass***

Test Specification	FCC part 15 Subpart C 15.247 (d) / (15.209 & 15.205) / IC RSS-GEN, Section 8.9 and 8.10
Test Method	ANSI C63.10
Measurement Location	Semi Anechoic Chamber 30MHz - 1 GHz Fully Anechoic Chamber 1 GHz - 40GHz
Measurement Bandwidth	100 kHz for frequency range < 1GHz 1 MHz for Frequency range >1GHz
Detector	Refer remarks below
Measuring Distance	3 m
Requirement	As per the limits mentioned in the below table
Test setup	Refer Clause 7 TEST METHODOLOGY

Table 7: Transmitter limits for Radiated emission

Frequency (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 128.51 – 93.80, 73.80 – 62.96 and 69.54 dBµV/m at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Conditions:

Temperature (Norm) = + 25 °C Voltage = 3.6V DC Li-Ion battery Relative humidity = 62 %

Test results:

Note: All the losses are included during measurement and final values are mentioned in the test report. Refer Clause 7 TEST METHODOLOGY for more details

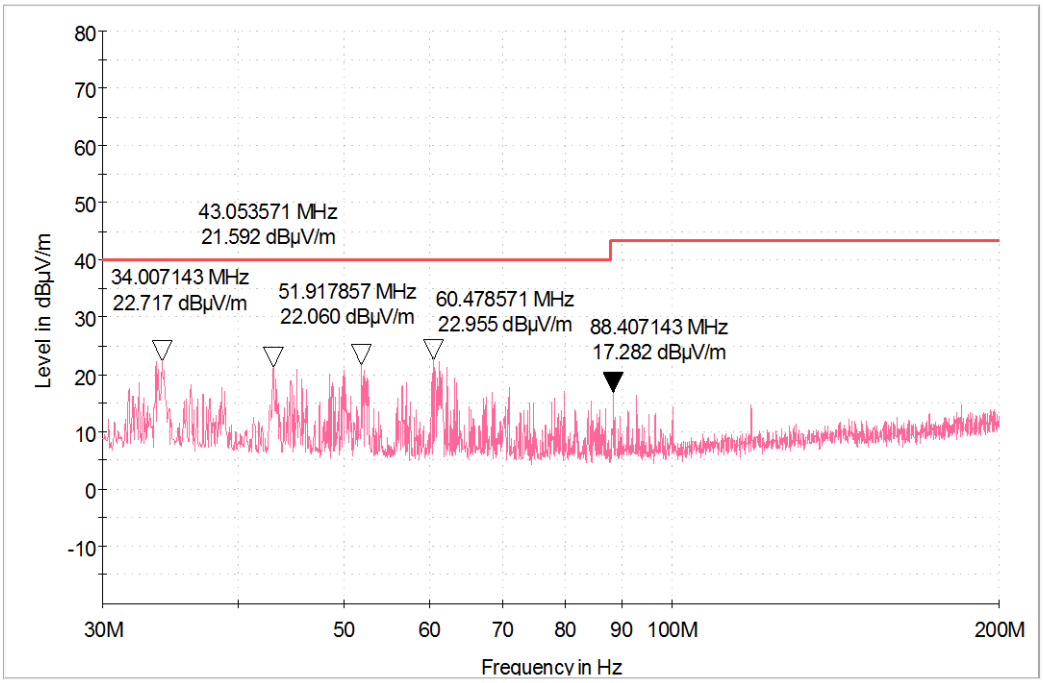
Test results for frequency range 9kHz – 30MHz

No emissions found in frequency range 9 kHz to 30 MHz, and measured levels are below 20dB from the limit line, henve not reported

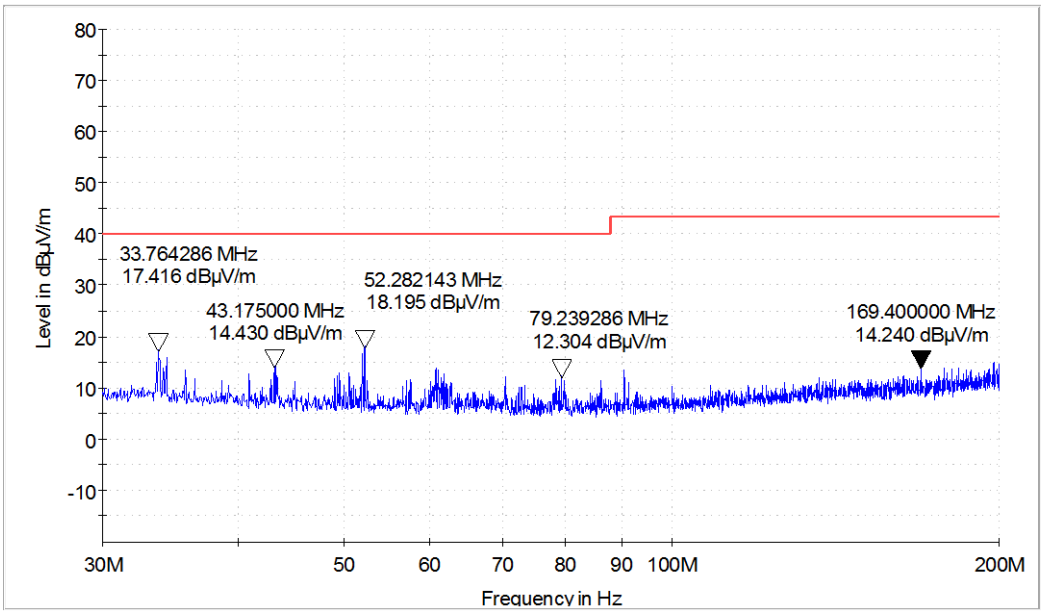
Test results for frequency range 30MHz – 1GHz

Mode of Operation: Curved Mode

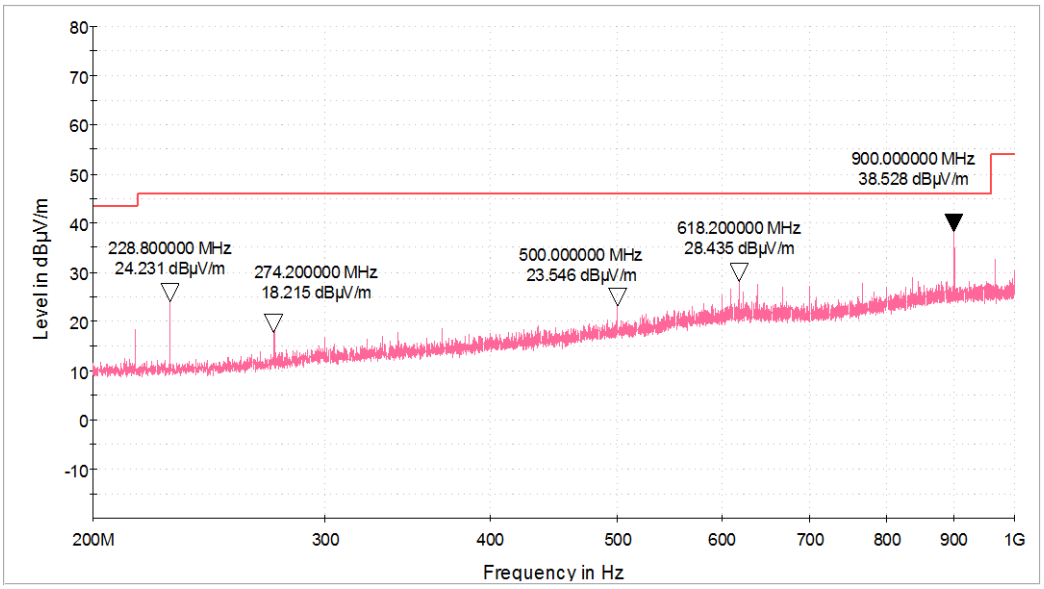
Polarization	Frequency (MHz)	Measured value (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	34.00	22.71	40	-17.29
	51.91	22.06	40	-17.94
	60.47	22.95	40	-17.05
	228.80	24.23	46	-21.77
	274.20	18.21	46	-27.79
	900.00	38.52	46	-7.48
Horizontal	33.76	17.41	40	-22.59
	52.28	18.19	40	-21.81
	169.40	14.24	43.5	-29.26
	299.93	20.33	46	-25.67
	500.00	25.90	46	-20.10
	900.06	34.38	46	-11.62



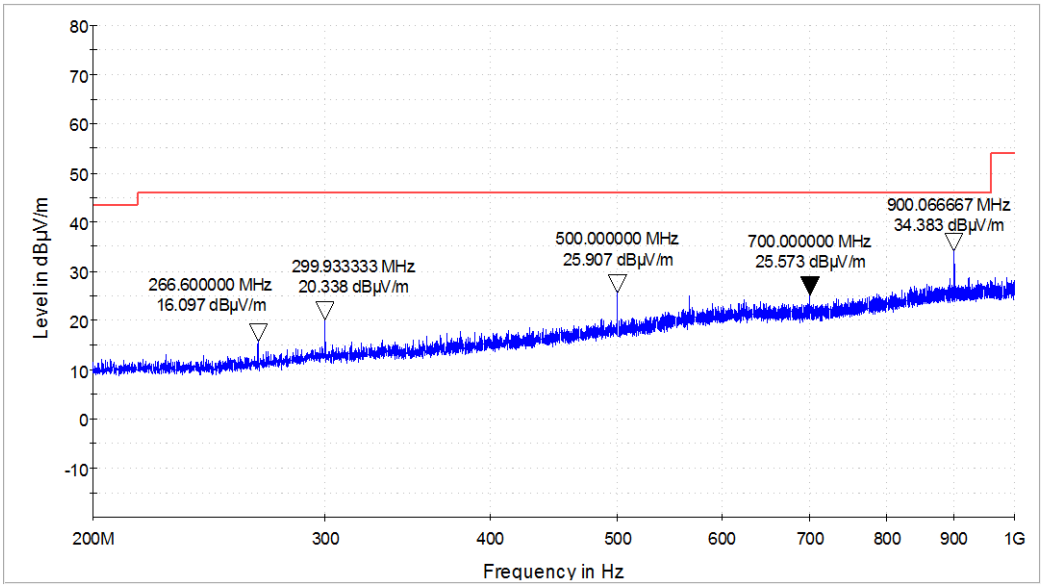
Channel Frequency 30MHz – 200MHz **Polarization Vertical**



Channel Frequency 30MHz – 200MHz **Polarization Horizontal**



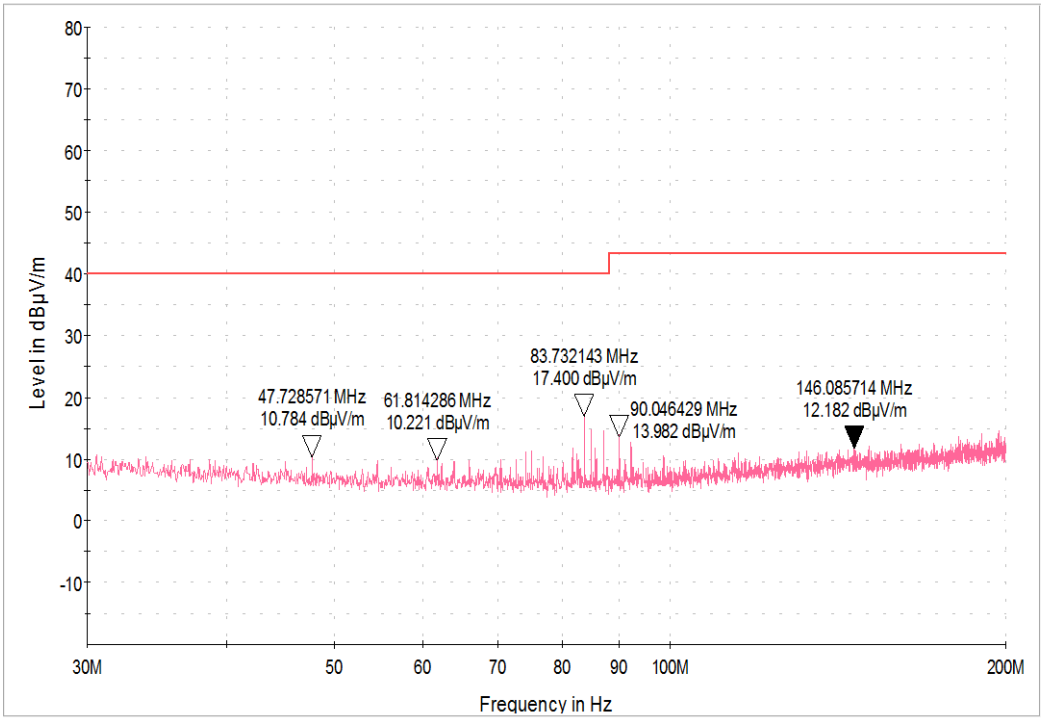
Channel Frequency 200MHz – 1GHz **Polarization Vertical**



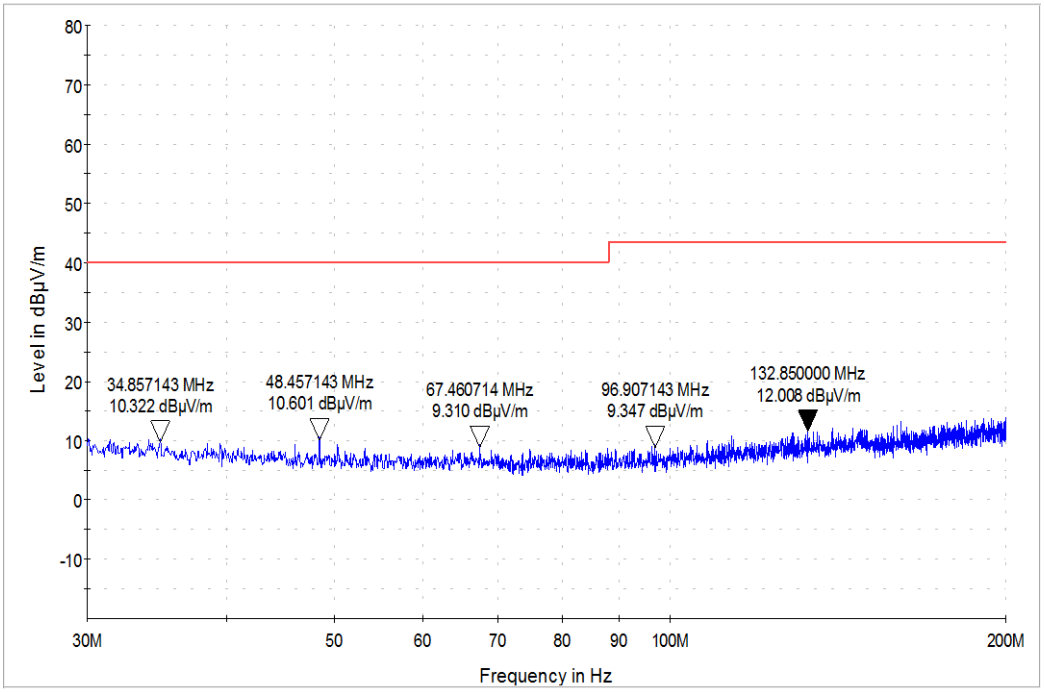
Channel Frequency 200MHz – 1GHz **Polarization Horizontal**

Mode of Operation: Linear Mode:

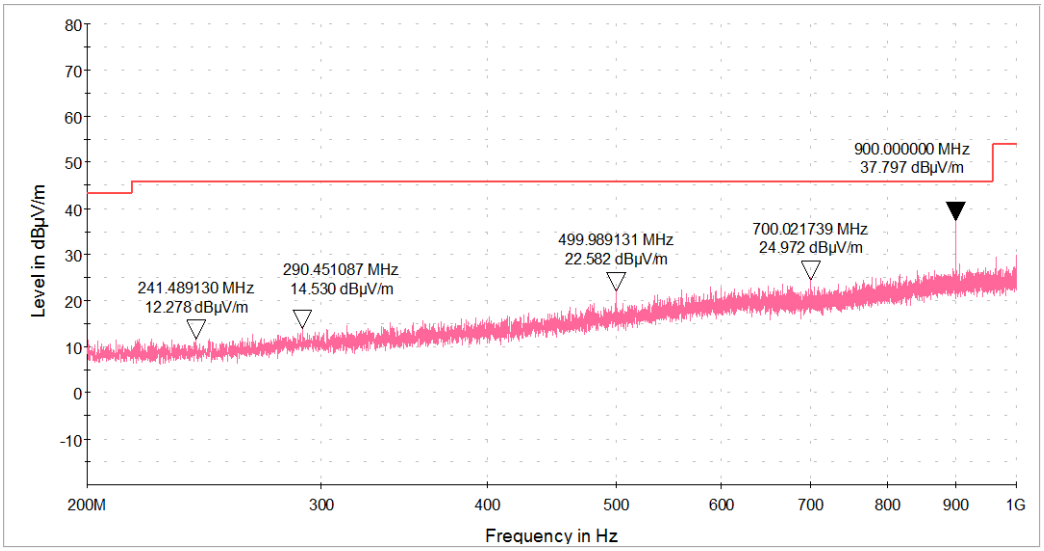
Polarization	Frequency (MHz)	Measured value (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	47.72	10.78	40	-29.22
	61.81	10.22	40	-29.78
	83.73	17.40	43.5	-26.10
	499.98	22.58	46	-23.42
	700.02	24.97	46	-21.03
	900.00	37.79	46	-8.21
Horizontal	34.85	10.32	40	-29.68
	48.45	10.60	40	-29.40
	67.46	9.31	40	-30.69
	300.01	18.42	46	-27.58
	499.98	26.15	46	-19.85
	900.00	30.23	46	-15.77



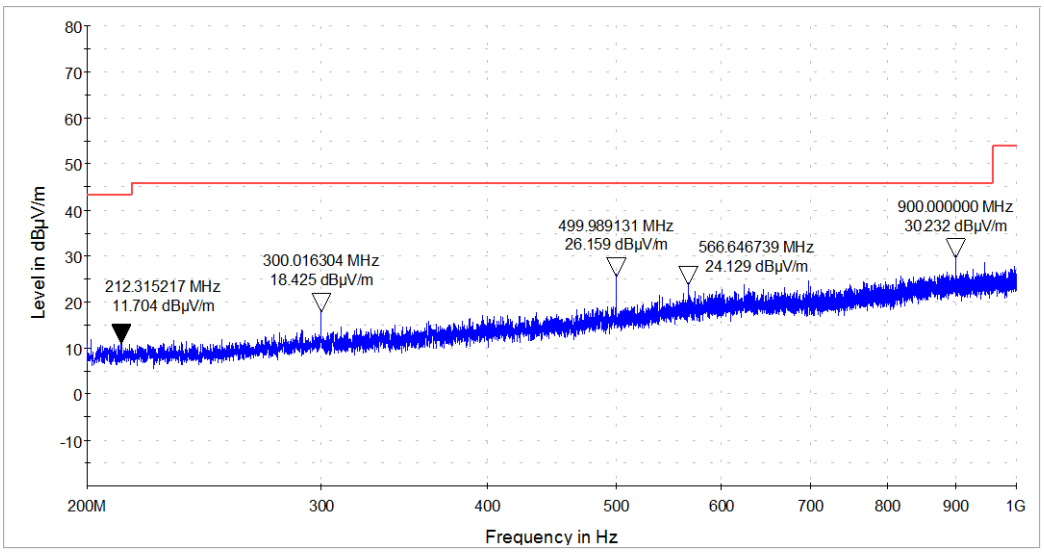
Channel Frequency 30MHz – 200MHz **Polarization Vertical**



Channel Frequency 30MHz – 200MHz **Polarization Horizontal**



Channel Frequency 200MHz – 1GHz **Polarization Vertical**



Channel Frequency 200MHz – 1GHz **Polarization Horizontal**

Test results for the frequencies in the range 1 GHz to 26.5 GHz

Modulation: 802.11b

Data Rate: 1Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2390(Pk)	45.35	74*	-28.65
		2390(Av)	31.02	54*	-22.98
		2412(Pk)	95.37	-	-
		2412(Av)	93.10	-	-
		4824(Pk)	42.64	74	-31.21
		4824(Av)	32.00	54	-21.16
		7236(Pk)	No Harmonics Found		
		7236(Av)			
	Horizontal	2390(Pk)	39.57	74*	-34.43
		2390(Av)	28.22	54*	-25.78
		2412(Pk)	92.03	-	-
		2412(Av)	89.76	-	-
		4824(Pk)	42.79	74	-31.21
		4824(Av)	32.84	54	-21.16
		7236(Pk)	No Harmonics Found		
		7236(Av)			
2437	Vertical	2437(Pk)	95.23	-	-
		2437(Av)	92.86	-	-
		4874(Pk)	46.42	74	-27.58
		4874(Av)	39.62	54	-14.38
		7311(Pk)	No Harmonics Found		
		7311(Av)			
	Horizontal	2437(Pk)	90.43	-	-
		2437(Av)	87.73	-	-
		4874(Pk)	44.11	74	-29.89
		4874(Av)	35.74	54	-18.26
		7311(Pk)	No Harmonics Found		
		7311(Av)			
2462	Vertical	2462(Pk)	92.77	-	-
		2462(Av)	90.32	-	-
		2483.5(Pk)	43.31	74*	-30.69
		2483.5(Av)	35.41	54*	-18.59
		4924(Pk)	47.02	74	-26.98
		4924(Av)	41.29	54	-12.71
		7386(Pk)	No Harmonics Found		
		7386(Av)			
		2462(Pk)	88.36	-	-
		2462(Av)	85.95	-	-
		2483.5(Pk)	40.67	74*	-33.33
		2483.5(Av)	31.92	54*	-22.08
		4924(Pk)	48.03	74	-25.97
		4924(Av)	41.28	54	-12.72
		7386(Pk)	No Harmonics Found		
		7386(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av: Average Detector

Modulation: 802.11b
Data Rate: 11Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2390(Pk)	50.51	74*	-23.49
		2390(Av)	38.94	54*	-15.06
		2412(Pk)	100.48	-	-
		2412(Av)	92.04	-	-
		4824(Pk)	46.55	74	-30.20
		4824(Av)	38.41	54	-18.30
		7236(Pk)	No Harmonics Found		
		7236(Av)			
	Horizontal	2390(Pk)	45.81	74*	-28.19
		2390(Av)	35.25	54*	-18.75
		2412(Pk)	96.88	-	-
		2412(Av)	88.27	-	-
		4824(Pk)	43.80	74	-30.20
		4824(Av)	35.70	54	-18.30
		7236(Pk)	No Harmonics Found		
		7236(Av)			
2437	Vertical	2437(Pk)	99.10	-	-
		2437(Av)	90.93	-	-
		4874(Pk)	46.06	74	-27.94
		4874(Av)	40.87	54	-13.13
		7311(Pk)	No Harmonics Found		
		7311(Av)			
	Horizontal	2437(Pk)	94.84	-	-
		2437(Av)	86.40	-	-
		4874(Pk)	44.48	74	-29.52
		4874(Av)	36.31	54	-17.69
		7311(Pk)	No Harmonics Found		
		7311(Av)			
2462	Vertical	2462(Pk)	98.14	-	-
		2462(Av)	89.41	-	-
		2483.5(Pk)	45.29	74*	-28.71
		2483.5(Av)	33.95	54*	-20.05
		4924(Pk)	47.89	74	-26.11
		4924(Av)	41.29	54	-12.71
		7386(Pk)	No Harmonics Found		
		7386(Av)			
	Horizontal	2462(Pk)	91.18	-	-
		2462(Av)	83.49	-	-
		2483.5(Pk)	40.38	74*	-33.62
		2483.5(Av)	29.33	54*	-24.67
		4924(Pk)	47.02	74	-26.98
		4924(Av)	38.96	54	-15.04
		7386(Pk)	No Harmonics Found		
		7386(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av: Average Detector

Modulation: 802.11g
Data Rate: 6Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2390(Pk)	57.43	74*	-16.57
		2390(Av)	35.98	54*	-18.02
		2412(Pk)	96.74	-	-
		2412(Av)	86.42	-	-
		4824(Pk)	47.02	74	-29.47
		4824(Av)	39.56	54	-19.56
		7236(Pk)	No Harmonics Found		
		7236(Av)			
	Horizontal	2390(Pk)	53.31	74*	-20.69
		2390(Av)	32.95	54*	-21.05
		2412(Pk)	93.08	-	-
		2412(Av)	82.84	-	-
		4824(Pk)	44.53	74	-29.47
		4824(Av)	34.44	54	-19.56
		7236(Pk)	No Harmonics Found		
		7236(Av)			
2437	Vertical	2437(Pk)	99.94	-	-
		2437(Av)	89.84	-	-
		4874(Pk)	48.82	74	-25.18
		4874(Av)	41.28	54	-12.72
		7311(Pk)	No Harmonics Found		
		7311(Av)			
	Horizontal	2437(Pk)	94.48	-	-
		2437(Av)	85.38	-	-
		4874(Pk)	46.93	74	-27.07
		4874(Av)	37.91	54	-16.09
		7311(Pk)	No Harmonics Found		
		7311(Av)			
2462	Vertical	2462(Pk)	93.30	-	-
		2462(Av)	83.72	-	-
		2483.5(Pk)	54.86	74*	-19.14
		2483.5(Av)	33.56	54*	-20.44
		4924(Pk)	48.26	74	-25.74
		4924(Av)	41.40	54	-12.60
		7386(Pk)	No Harmonics Found		
		7386(Av)			
	Horizontal	2462(Pk)	89.15	-	-
		2462(Av)	78.75	-	-
		2483.5(Pk)	49.08	74*	-24.92
		2483.5(Av)	29.58	54*	-24.42
		4924(Pk)	47.28	74	-26.72
		4924(Av)	40.09	54	-13.91
		7386(Pk)	No Harmonics Found		
		7386(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av: Average Detector

Modulation: 802.11g
Data Rate: 24Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2390(Pk)	61.43	74*	-12.57
		2390(Av)	36.46	54*	-17.54
		2412(Pk)	98.13	-	-
		2412(Av)	85.95	-	-
		4824(Pk)	47.67	74	-27.53
		4824(Av)	40.21	54	-15.27
		7236(Pk)	No Harmonics Found		
		7236(Av)			
	Horizontal	2390(Pk)	57.98	74*	-16.02
		2390(Av)	32.87	54*	-21.13
		2412(Pk)	94.31	-	-
		2412(Av)	82.30	-	-
		4824(Pk)	46.47	74	-27.53
		4824(Av)	38.73	54	-15.27
		7236(Pk)	No Harmonics Found		
		7236(Av)			
2437	Vertical	2437(Pk)	100.80	-	-
		2437(Av)	88.59	-	-
		4874(Pk)	49.16	74	-24.84
		4874(Av)	41.72	54	-12.28
		7311(Pk)	No Harmonics Found		
		7311(Av)			
	Horizontal	2437(Pk)	95.62	-	-
		2437(Av)	82.93	-	-
		4874(Pk)	47.46	74	-26.54
		4874(Av)	39.65	54	-14.35
		7311(Pk)	No Harmonics Found		
		7311(Av)			
2462	Vertical	2462(Pk)	94.71	-	-
		2462(Av)	82.94	-	-
		2483.5(Pk)	57.75	74*	-16.25
		2483.5(Av)	32.36	54*	-21.64
		4924(Pk)	49.07	74	-24.93
		4924(Av)	42.63	54	-11.37
		7386(Pk)	No Harmonics Found		
		7386(Av)			
	Horizontal	2462(Pk)	89.09	-	-
		2462(Av)	76.99	-	-
		2483.5(Pk)	52.05	74*	-21.95
		2483.5(Av)	27.82	54*	-26.18
		4924(Pk)	47.67	74	-26.33
		4924(Av)	40.76	54	-13.24
		7386(Pk)	No Harmonics Found		
		7386(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av: Average Detector

Modulation: 802.11g
Data Rate: 54Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2390(Pk)	61.96	74*	-12.04
		2390(Av)	35.34	54*	-18.66
		2412(Pk)	97.44	-	-
		2412(Av)	84.60	-	-
		4824(Pk)	47.86	74	-27.27
		4824(Av)	40.57	54	-14.77
		7236(Pk)	No Harmonics Found		
		7236(Av)			
	Horizontal	2390(Pk)	55.18	74*	-18.82
		2390(Av)	30.24	54*	-23.76
		2412(Pk)	91.62	-	-
		2412(Av)	78.51	-	-
		4824(Pk)	46.73	74	-27.27
		4824(Av)	39.23	54	-14.77
		7236(Pk)	No Harmonics Found		
		7236(Av)			
2437	Vertical	2437(Pk)	98.42	-	-
		2437(Av)	84.93	-	-
		4874(Pk)	49.02	74	-24.98
		4874(Av)	42.72	54	-11.28
		7311(Pk)	No Harmonics Found		
		7311(Av)			
	Horizontal	2437(Pk)	92.49	-	-
		2437(Av)	79.43	-	-
		4874(Pk)	47.05	74	-26.95
		4874(Av)	40.37	54	-13.63
		7311(Pk)	No Harmonics Found		
		7311(Av)			
2462	Vertical	2462(Pk)	95.30	-	-
		2462(Av)	81.58	-	-
		2483.5(Pk)	56.02	74*	-17.98
		2483.5(Av)	32.26	54*	-21.74
		4924(Pk)	48.88	74	-25.12
		4924(Av)	42.59	54	-11.41
		7386(Pk)	No Harmonics Found		
		7386(Av)			
	Horizontal	2462(Pk)	90.66	-	-
		2462(Av)	77.46	-	-
		2483.5(Pk)	51.62	74*	-22.38
		2483.5(Av)	28.23	54*	-25.77
		4924(Pk)	48.44	74	-25.56
		4924(Av)	41.32	54	-12.68
		7386(Pk)	No Harmonics Found		
		7386(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av: Average Detector

Modulation: 802.11n_HT20
Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2390(Pk)	61.09	74*	-12.91
		2390(Av)	39.81	54*	-14.19
		2412(Pk)	98.54	-	-
		2412(Av)	86.80	-	-
		4824(Pk)	46.74	74	-27.37
		4824(Av)	39.49	54	-15.54
		7236(Pk)	No Harmonics Found		
		7236(Av)			
	Horizontal	2390(Pk)	55.34	74*	-18.66
		2390(Av)	34.14	54*	-19.86
		2412(Pk)	92.81	-	-
		2412(Av)	81.66	-	-
		4824(Pk)	46.63	74	-27.37
		4824(Av)	38.46	54	-15.54
		7236(Pk)	No Harmonics Found		
		7236(Av)			
2437	**Vertical**	**2437(Pk)**	**100.35**	-	**-**
		2437(Av)	**89.57**	-	**-**
		4874(Pk)	**48.05**	**74**	**-25.95**
		4874(Av)	**40.58**	**54**	**-13.42**
		7311(Pk)	**No Harmonics Found**		
		7311(Av)			
	Horizontal	**2437(Pk)**	**95.37**	-	**-**
		2437(Av)	**84.47**	-	**-**
		4874(Pk)	**46.53**	**74**	**-27.47**
		4874(Av)	**39.04**	**54**	**-14.96**
		7311(Pk)	**No Harmonics Found**		
		7311(Av)			
2462	Vertical	2462(Pk)	95.84	-	-
		2462(Av)	84.18	-	-
		2483.5(Pk)	57.93	74*	-16.07
		2483.5(Av)	36.21	54*	-17.79
		4924(Pk)	48.02	74	-25.98
		4924(Av)	41.05	54	-12.95
		7386(Pk)	No Harmonics Found		
		7386(Av)			
	Horizontal	2462(Pk)	91.41	-	-
		2462(Av)	79.93	-	-
		2483.5(Pk)	54.94	74*	-19.06
		2483.5(Av)	31.39	54*	-22.61
		4924(Pk)	46.32	74	-27.68
		4924(Av)	38.72	54	-15.28
		7386(Pk)	No Harmonics Found		
		7386(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av: Average Detector

Modulation: 802.11n_HT20
Data Rate: MCS4

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2390(Pk)	60.91	74*	-13.09
		2390(Av)	37.63	54*	-16.37
		2412(Pk)	97.03	-	-
		2412(Av)	85.23	-	-
		4824(Pk)	47.69	74	-27.45
		4824(Av)	40.40	54	-14.60
		7236(Pk)	No Harmonics Found		
		7236(Av)			
	Horizontal	2390(Pk)	52.27	74*	-21.73
		2390(Av)	31.64	54*	-22.36
		2412(Pk)	90.97	-	-
		2412(Av)	78.53	-	-
		4824(Pk)	46.55	74	-27.45
		4824(Av)	39.40	54	-14.60
		7236(Pk)	No Harmonics Found		
		7236(Av)			
2437	Vertical	2437(Pk)	100.18	-	-
		2437(Av)	87.20	-	-
		4874(Pk)	48.13	74	-25.87
		4874(Av)	41.48	54	-12.52
		7311(Pk)	No Harmonics Found		
		7311(Av)			
	Horizontal	2437(Pk)	92.82	-	-
		2437(Av)	80.97	-	-
		4874(Pk)	47.28	74	-26.72
		4874(Av)	39.84	54	-14.16
		7311(Pk)	No Harmonics Found		
		7311(Av)			
2462	Vertical	2462(Pk)	94.64	-	-
		2462(Av)	82.41	-	-
		2483.5(Pk)	54.58	74*	-19.42
		2483.5(Av)	33.57	54*	-20.43
		4924(Pk)	48.96	74	-25.04
		4924(Av)	42.18	54	-11.82
		7386(Pk)	No Harmonics Found		
		7386(Av)			
	Horizontal	2462(Pk)	90.82	-	-
		2462(Av)	78.08	-	-
		2483.5(Pk)	49.44	74*	-24.56
		2483.5(Av)	29.88	54*	-24.12
		4924(Pk)	46.62	74	-27.38
		4924(Av)	39.62	54	-14.38
		7386(Pk)	No Harmonics Found		
		7386(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av : Average Detector

Modulation: 802.11n_HT20
Data Rate: MCS7

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2390(Pk)	98.80	74*	24.80
		2390(Av)	84.50	54*	30.50
		2412(Pk)	63.95	-	-
		2412(Av)	36.83	-	-
		4824(Pk)	47.90	74	-26.10
		4824(Av)	40.13	54	-13.87
		7236(Pk)	No Harmonics Found		
		7236(Av)			
	Horizontal	2390(Pk)	57.02	74*	-16.98
		2390(Av)	32.19	54*	-21.81
		2412(Pk)	93.04	-	-
		2412(Av)	78.91	-	-
		4824(Pk)	46.95	74	-27.05
		4824(Av)	39.41	54	-14.59
		7236(Pk)	No Harmonics Found		
		7236(Av)			
2437	Vertical	2437(Pk)	97.14	-	-
		2437(Av)	82.63	-	-
		4874(Pk)	48.18	74	-25.82
		4874(Av)	42.01	54	-11.99
		7311(Pk)	No Harmonics Found		
		7311(Av)			
	Horizontal	2437(Pk)	92.70	-	-
		2437(Av)	78.78	-	-
		4874(Pk)	47.27	74	-26.73
		4874(Av)	40.10	54	-13.90
		7311(Pk)	No Harmonics Found		
		7311(Av)			
2462	Vertical	2462(Pk)	95.94	-	-
		2462(Av)	81.52	-	-
		2483.5(Pk)	59.56	74*	-14.44
		2483.5(Av)	33.09	54*	-20.91
		4924(Pk)	48.34	74	-25.66
		4924(Av)	42.38	54	-11.62
		7386(Pk)	No Harmonics Found		
		7386(Av)			
	Horizontal	2462(Pk)	91.05	-	-
		2462(Av)	77.28	-	-
		2483.5(Pk)	53.91	74*	-20.09
		2483.5(Av)	29.61	54*	-24.39
		4924(Pk)	47.01	74	-26.99
		4924(Av)	40.02	54	-13.98
		7386(Pk)	No Harmonics Found		
		7386(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av: Average Detector

Modulation: 802.11n_HT40
Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2422	Vertical	2390(Pk)	61.25	74*	-12.75
		2390(Av)	39.74	54*	-14.26
		2422(Pk)	93.31	-	-
		2422(Av)	80.81	-	-
		4844(Pk)	46.93	74	-27.07
		4844(Av)	39.22	54	-14.78
		7266(Pk)	No Harmonics Found		
		7266(Av)			
	Horizontal	2390(Pk)	54.91	74*	-19.09
		2390(Av)	34.84	54*	-19.16
		2422(Pk)	88.45	-	-
		2422(Av)	76.36	-	-
		4844(Pk)	46.76	74	-27.24
		4844(Av)	39.40	54	-14.60
		7266(Pk)	No Harmonics Found		
		7266(Av)			
2452	Vertical	2452(Pk)	92.55	-	-
		2452(Av)	79.85	-	-
		2483.5(Pk)	56.41	74*	-17.59
		2483.5(Av)	35.69	54*	-18.31
		4904(Pk)	48.37	74	-25.63
		4904(Av)	41.68	54	-12.32
		7356(Pk)	No Harmonics Found		
		7356(Av)			
	Horizontal	2452(Pk)	86.88	-	-
		2452(Av)	74.65	-	-
		2483.5(Pk)	51.45	74*	-22.55
		2483.5(Av)	31.07	54*	-22.93
		4904(Pk)	44.71	74	-29.29
		4904(Av)	36.08	54	-17.92
		7356(Pk)	No Harmonics Found		
		7356(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av : Average Detector

Modulation: 802.11n_HT40
Data Rate: MCS4

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2422	Vertical	2390(Pk)	59.06	74*	-14.94
		2390(Av)	38.72	54*	-15.28
		2422(Pk)	92.33	-	-
		2422(Av)	78.48	-	-
		4844(Pk)	47.80	74	-26.20
		4844(Av)	41.04	54	-12.96
		7266(Pk)	No Harmonics Found		
		7266(Av)			
	Horizontal	2390(Pk)	54.20	74*	-19.80
		2390(Av)	34.57	54*	-19.43
		2422(Pk)	88.02	-	-
		2422(Av)	73.39	-	-
		4844(Pk)	47.42	74	-26.58
		4844(Av)	39.59	54	-14.41
		7266(Pk)	No Harmonics Found		
		7266(Av)			
2452	Vertical	2452(Pk)	91.49	-	-
		2452(Av)	76.79	-	-
		2483.5(Pk)	53.83	74*	-20.17
		2483.5(Av)	33.33	54*	-20.67
		4904(Pk)	48.65	74	-25.35
		4904(Av)	42.23	54	-11.77
		7356(Pk)	No Harmonics Found		
		7356(Av)			
	Horizontal	2452(Pk)	87.39	-	-
		2452(Av)	72.59	-	-
		2483.5(Pk)	47.52	74*	-26.48
		2483.5(Av)	29.88	54*	-24.12
		4904(Pk)	47.18	74	-26.82
		4904(Av)	39.82	54	-14.18
		7356(Pk)	No Harmonics Found		
		7356(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av: Average Detector

Modulation: 802.11n_HT40

Data Rate: MCS7

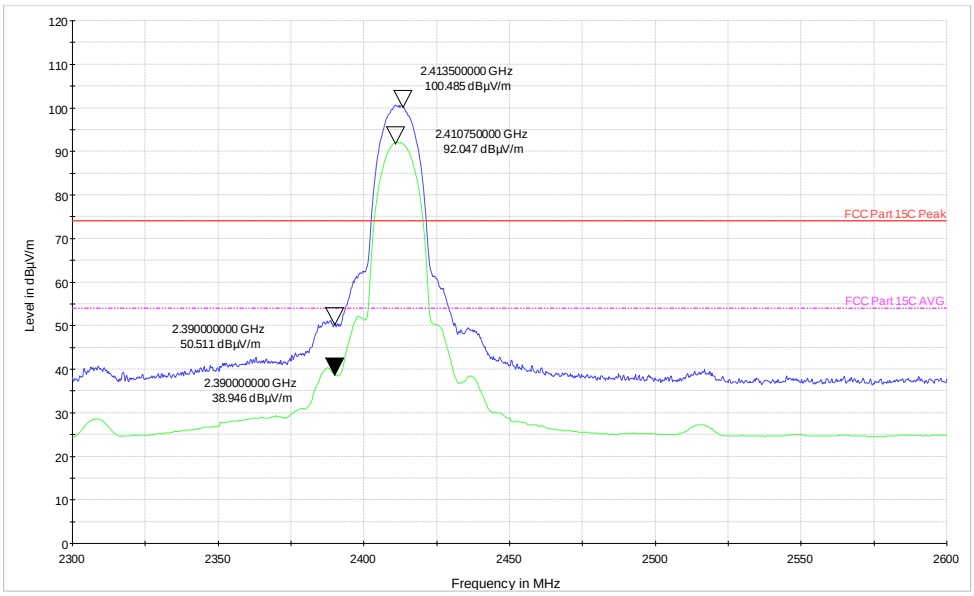
Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2422	Vertical	2390(Pk)	61.44	74*	-12.56
		2390(Av)	38.25	54*	-15.75
		2422(Pk)	92.95	-	-
		2422(Av)	76.94	-	-
		4844(Pk)	48.28	74	-25.72
		4844(Av)	40.97	54	-13.03
		7266(Pk)	No Harmonics Found		
		7266(Av)			
	Horizontal	2390(Pk)	88.03	74*	14.03
		2390(Av)	71.92	54*	17.92
		2422(Pk)	55.07	-	-
		2422(Av)	34.08	-	-
		4844(Pk)	47.09	74	-26.91
		4844(Av)	39.53	54	-14.47
		7266(Pk)	No Harmonics Found		
		7266(Av)			
2452	Vertical	2452(Pk)	89.83	-	-
		2452(Av)	74.05	-	-
		2483.5(Pk)	57.74	74*	-16.26
		2483.5(Av)	33.22	54*	-20.78
		4904(Pk)	48.98	74	-25.02
		4904(Av)	42.03	54	-11.97
		7356(Pk)	No Harmonics Found		
		7356(Av)			
	Horizontal	2452(Pk)	86.46	-	-
		2452(Av)	71.01	-	-
		2483.5(Pk)	52.40	74*	-21.60
		2483.5(Av)	29.31	54*	-24.69
		4904(Pk)	47.11	74	-26.89
		4904(Av)	39.99	54	-14.01
		7356(Pk)	No Harmonics Found		
		7356(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av : Average Detector

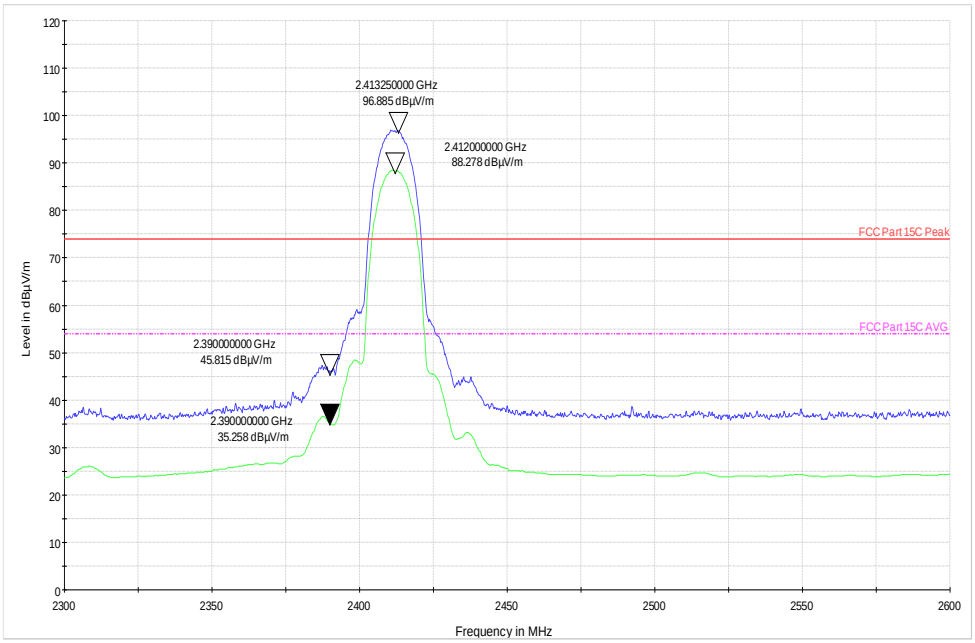
Worst case Plots

Data Rate: 11Mbps

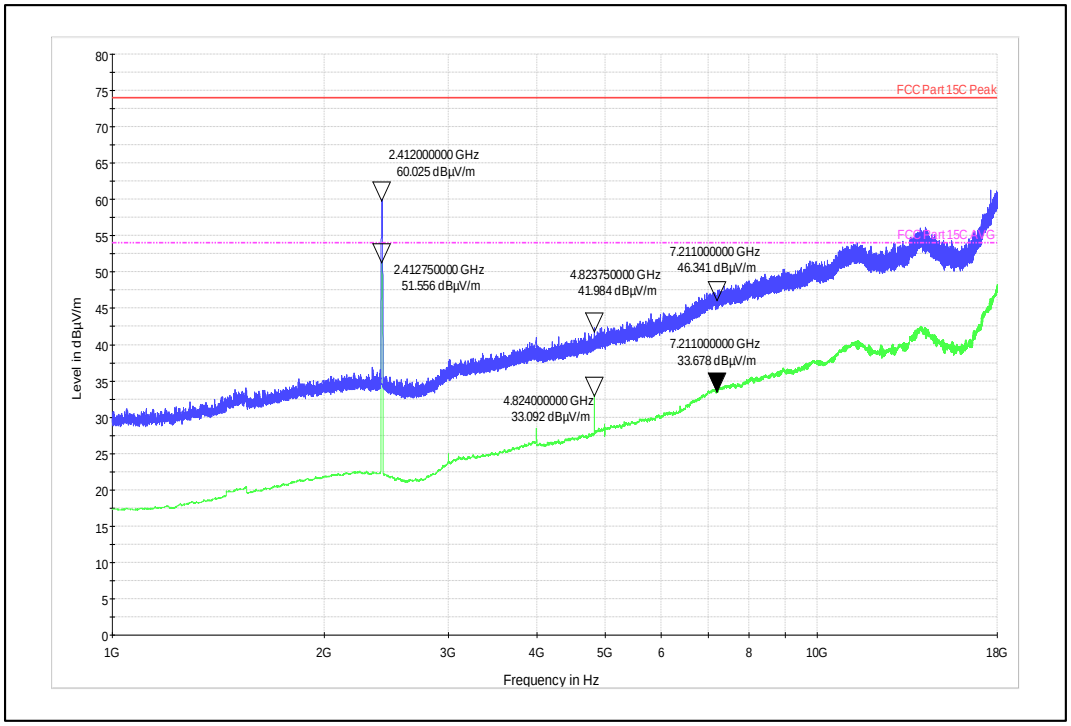
Channel Frequency 2412MHz



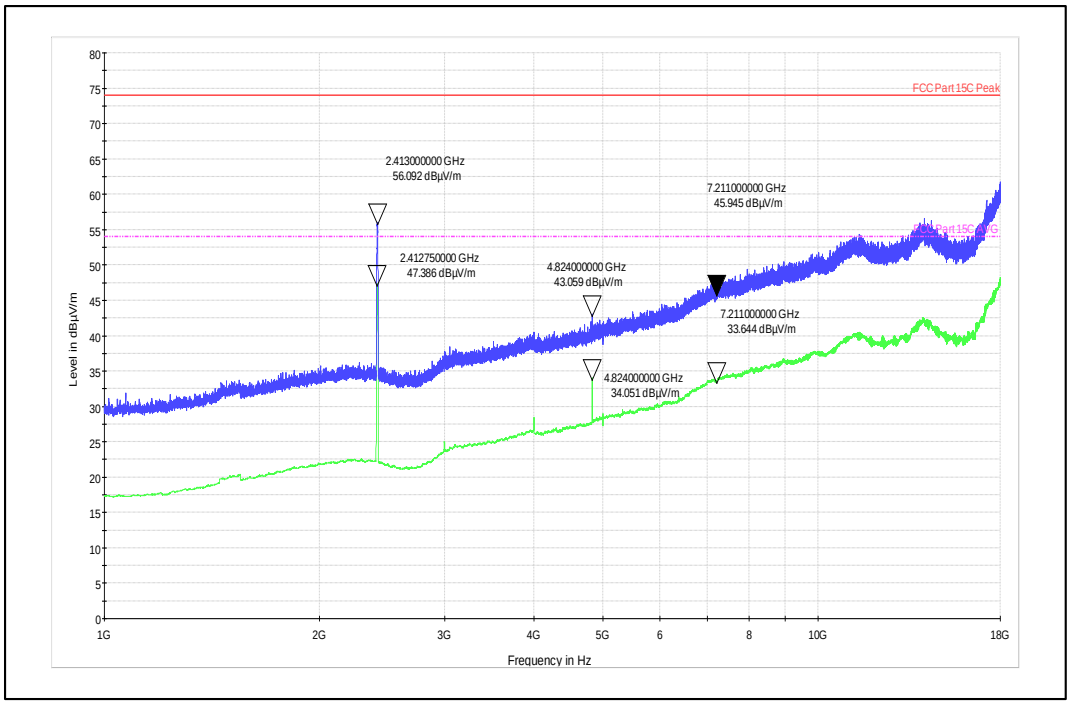
Channel Frequency: 2412MHz Polarization: Vertical



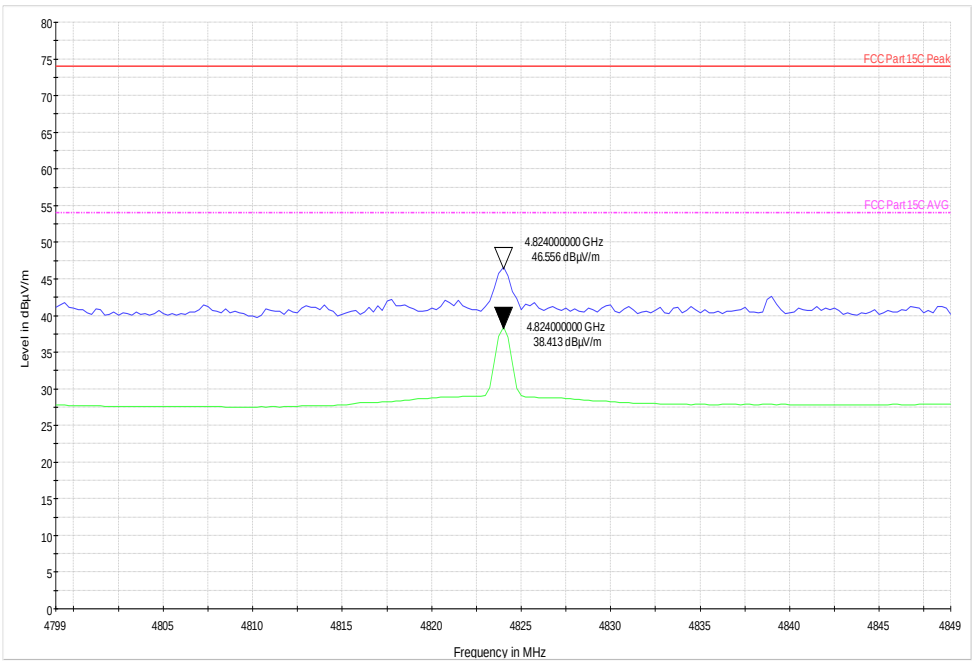
Channel Frequency: 2412MHz Polarization: Horizontal



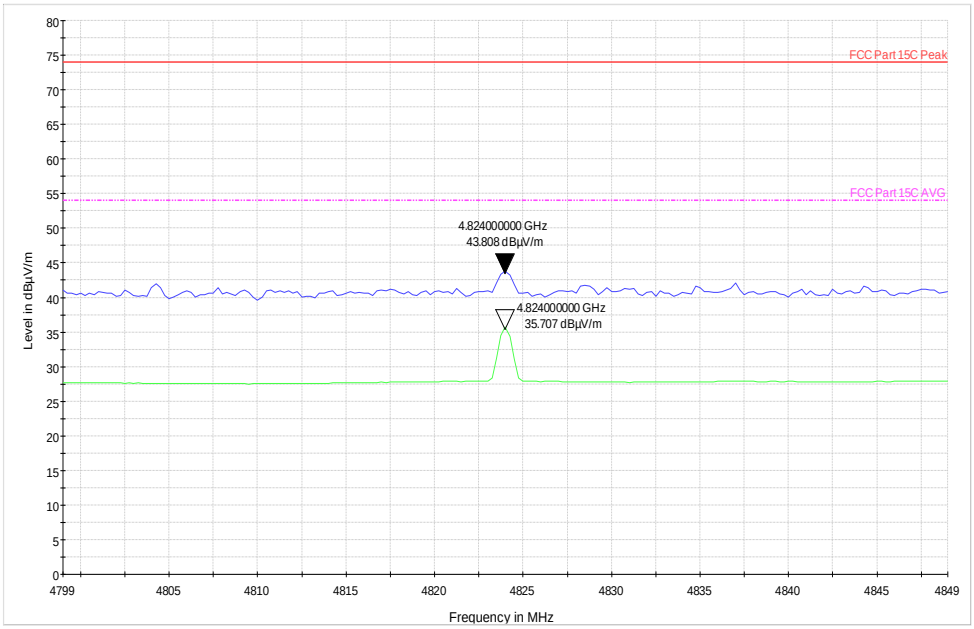
Channel Frequency: 1 - 18 GHz Polarization: Vertical



Channel Frequency: 1 - 18 GHz Polarization: Horizontal



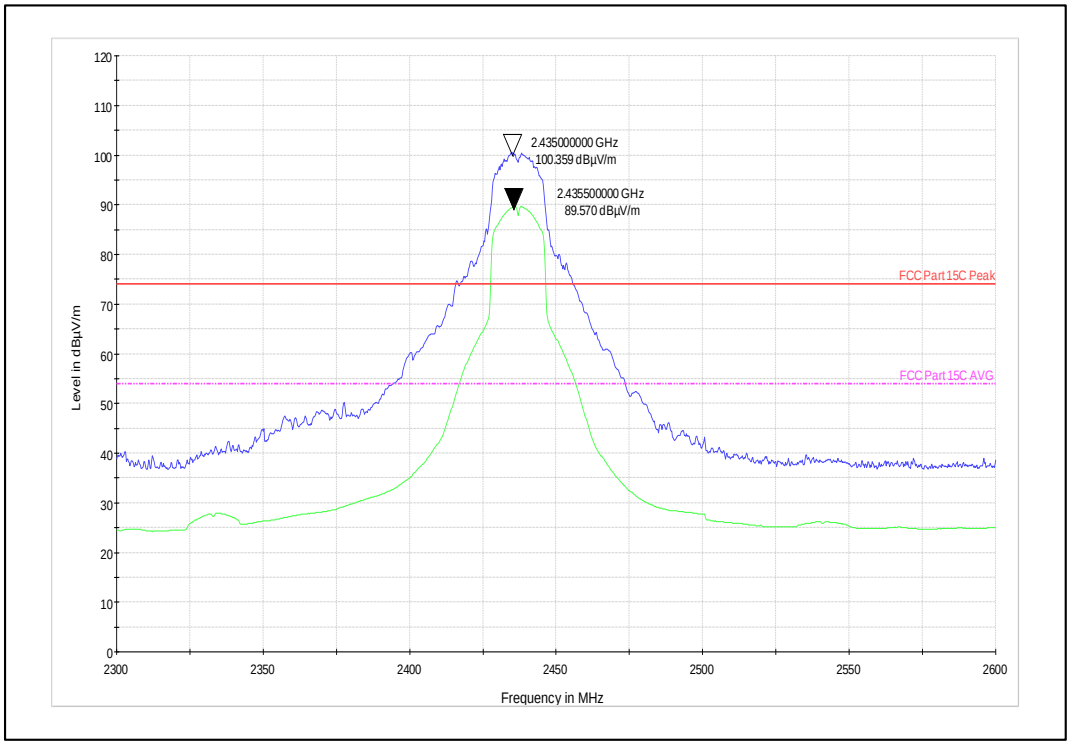
Channel Frequency: 2nd Harmonics Polarization: Vertical



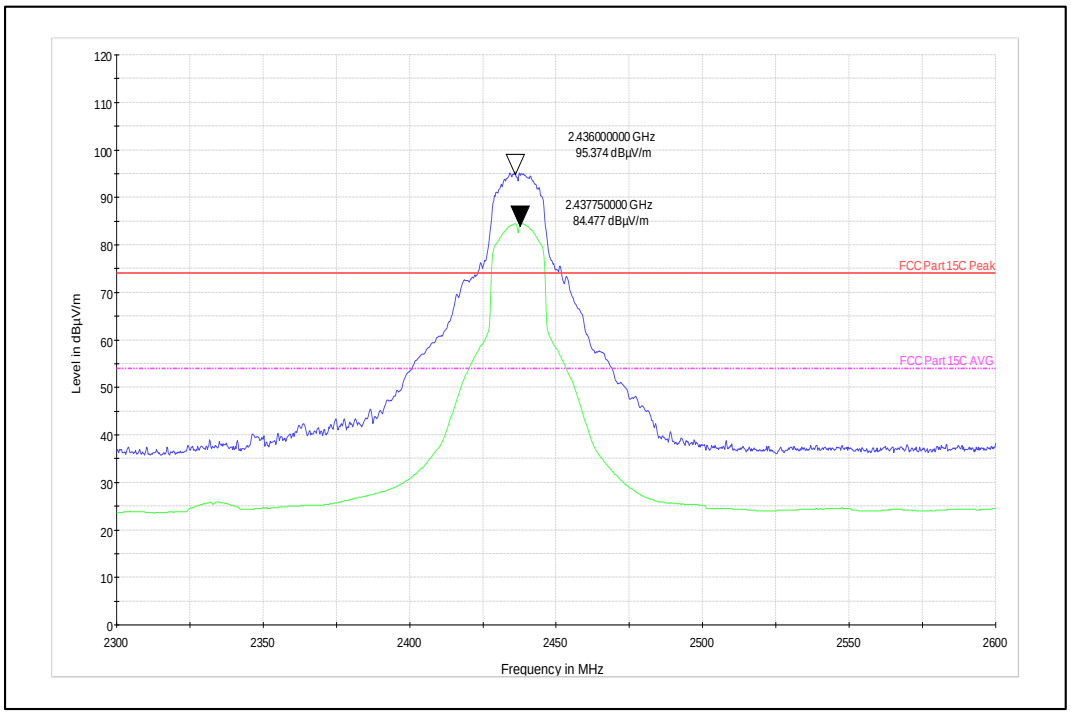
Channel Frequency: 2nd Harmonics Polarization: Horizontal

Data Rate: MCS0_n Mode 20MHz

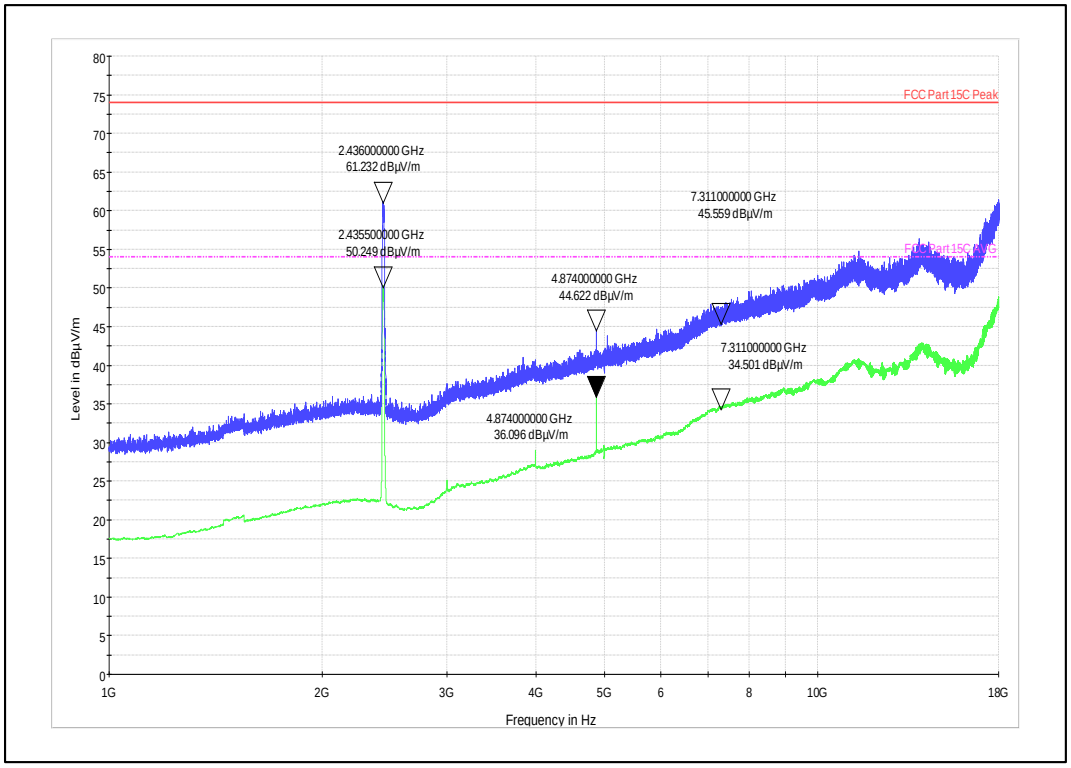
Channel Frequency 2437MHz



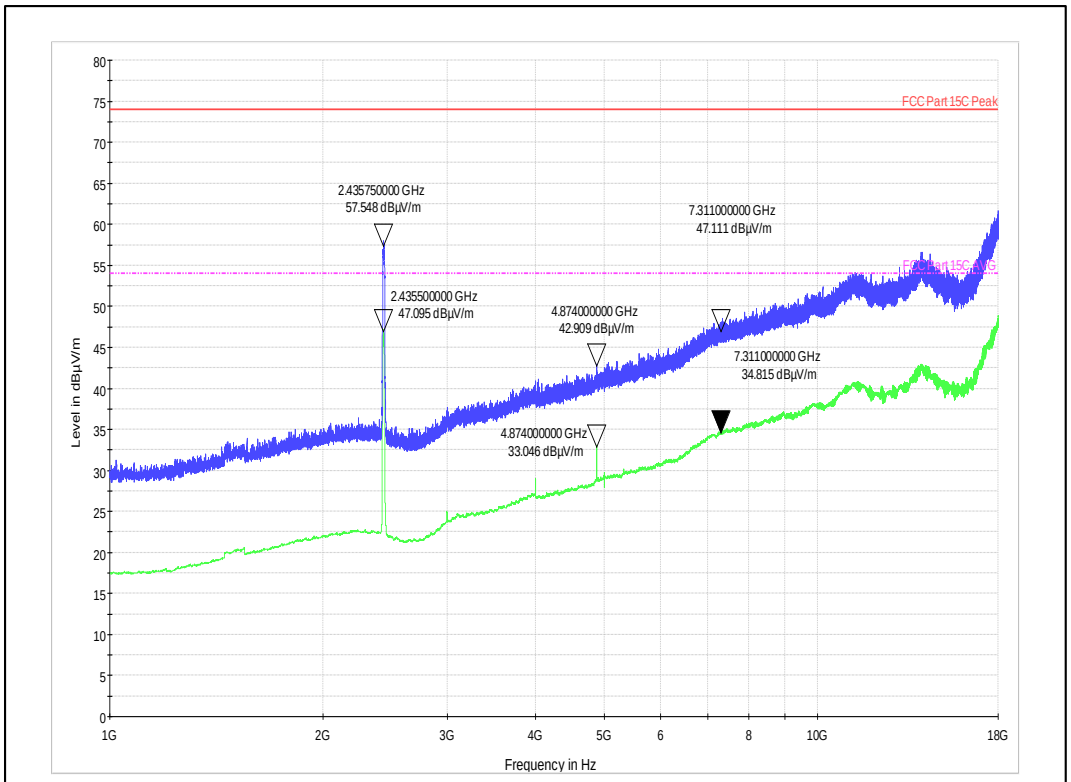
Channel Frequency: 2437MHz Polarization: Vertical



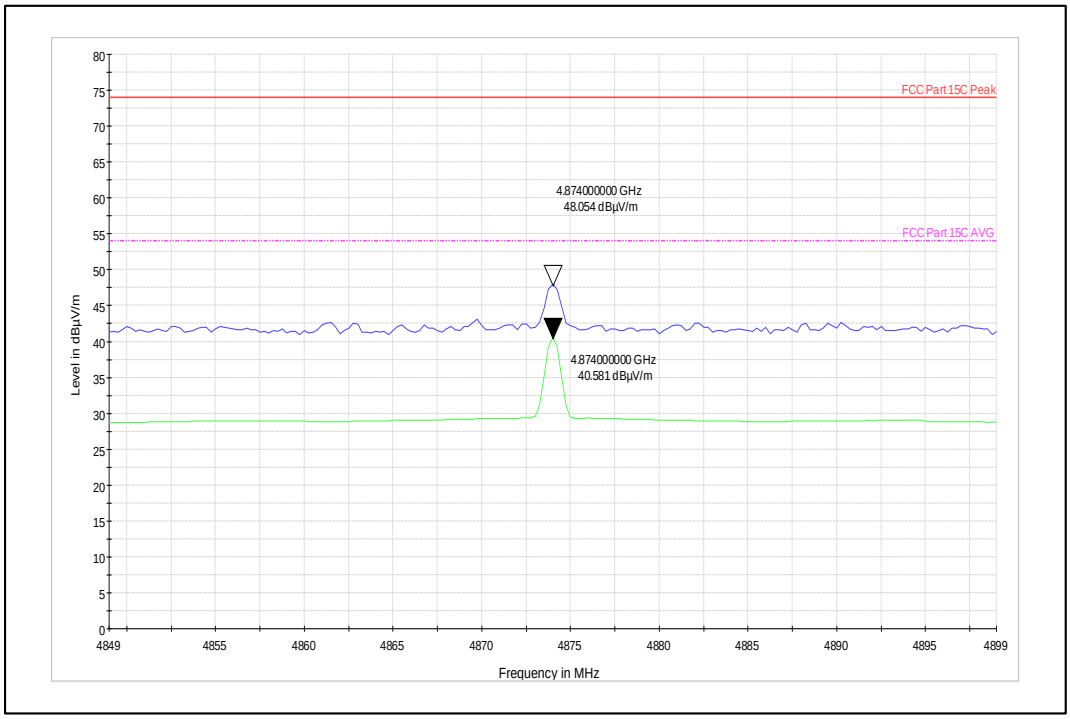
Channel Frequency: 2437MHz Polarization: Horizontal



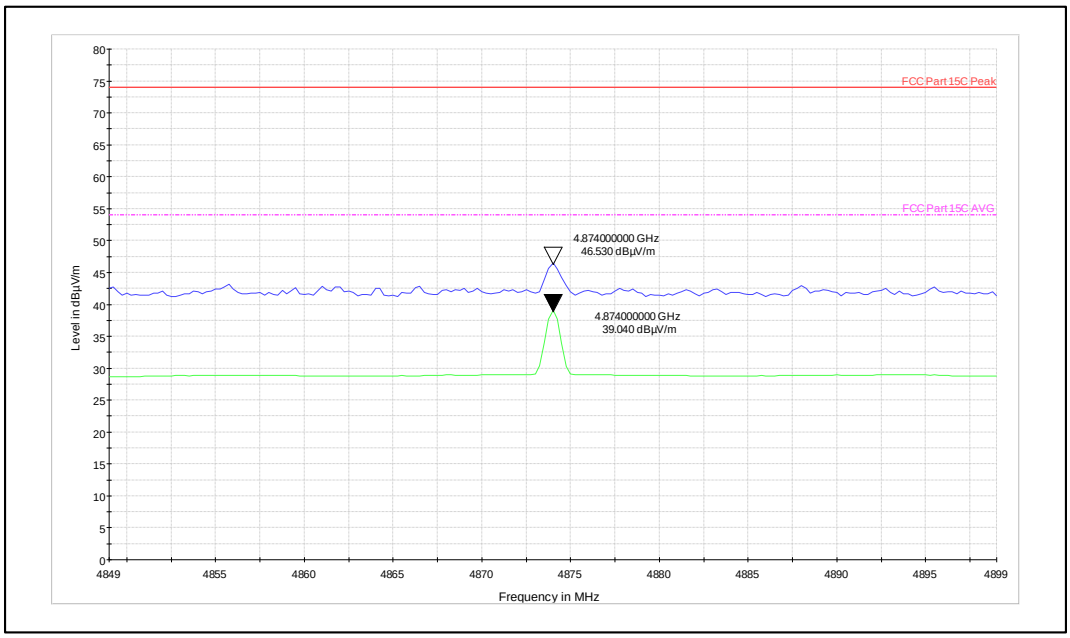
Channel Frequency: 1 - 18 GHz Polarization: Vertical



Channel Frequency: 1 - 18 GHz Polarization: Horizontal



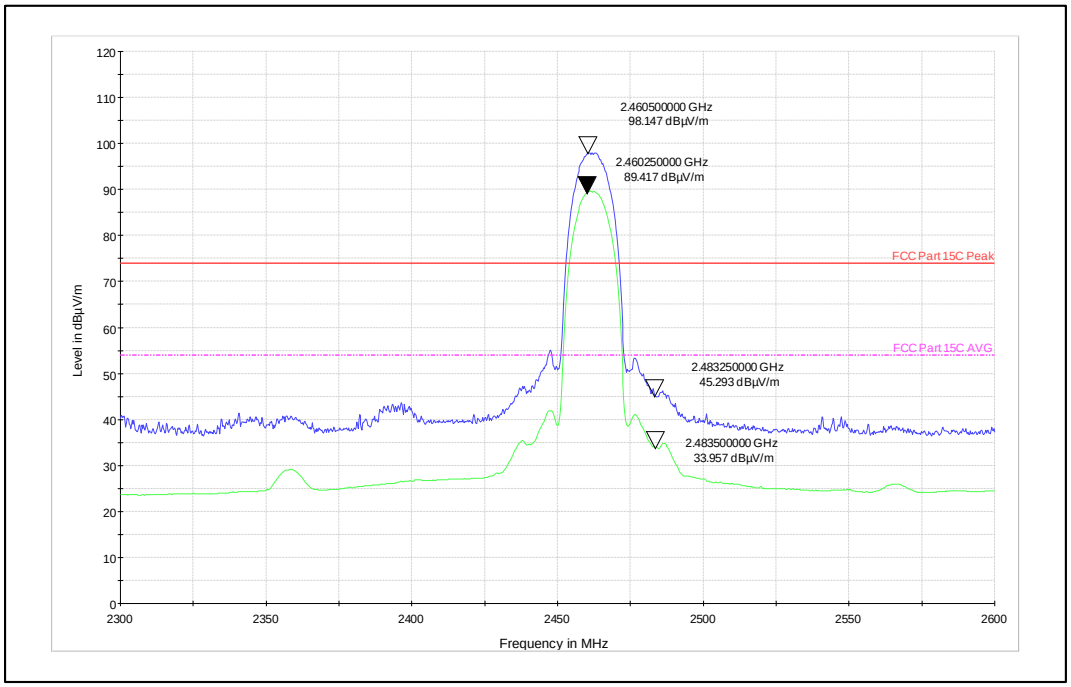
Channel Frequency: 2nd Harmonics Polarization: Vertical



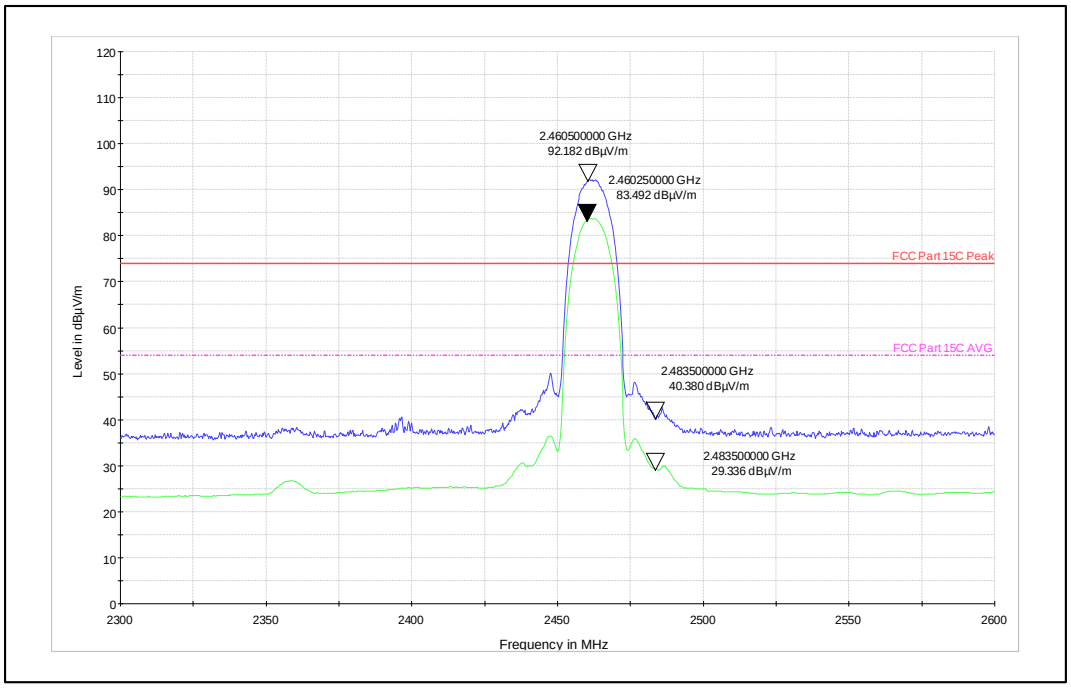
Channel Frequency: 2nd Harmonics Polarization: Horizontal

Data Rate: 11 Mbps

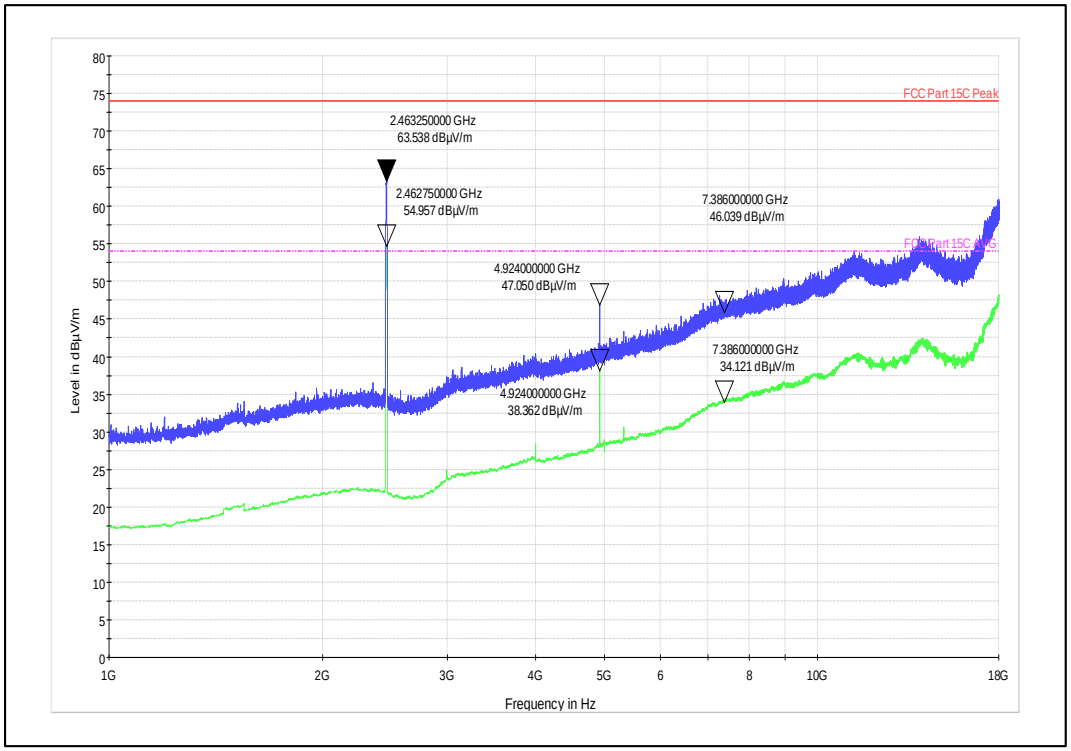
Channel Frequency 2462MHz



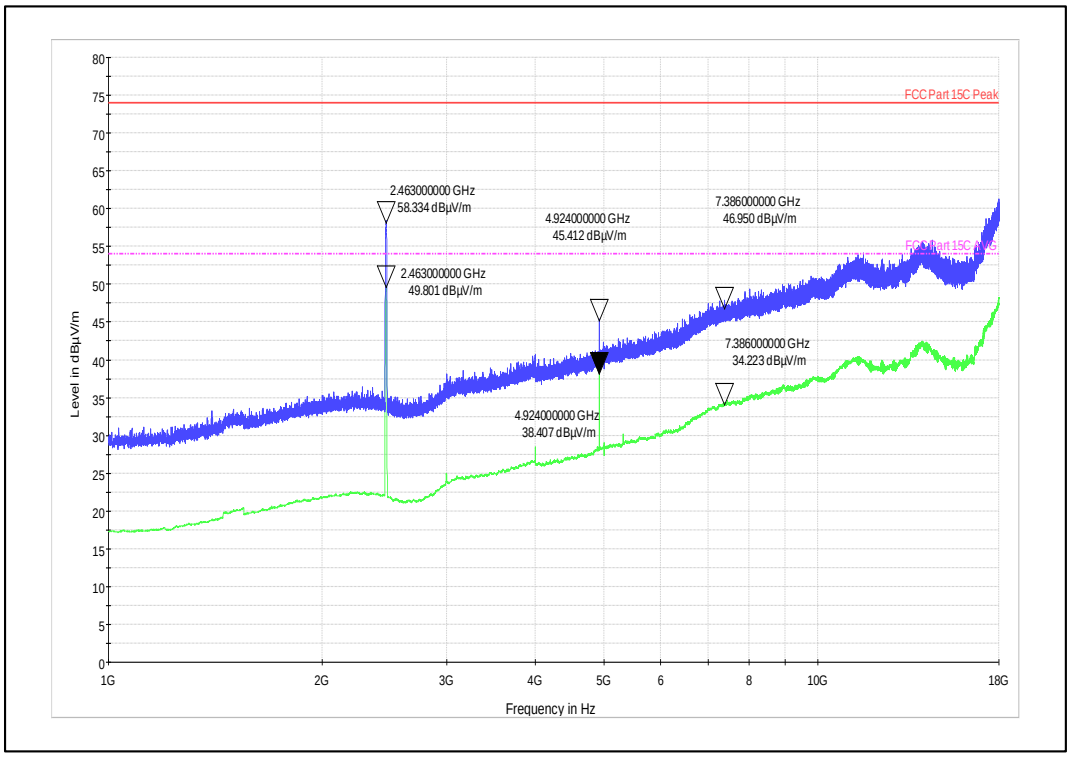
Channel Frequency: 2462MHz Polarization: Vertical



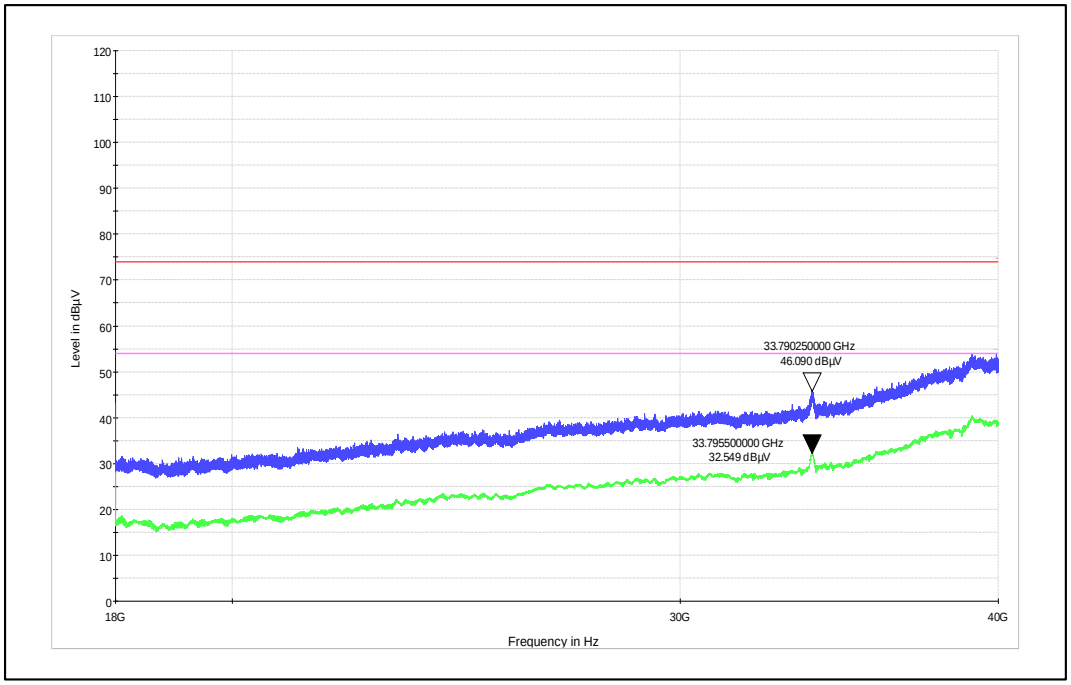
Channel Frequency: 2462MHz Polarization: Horizontal



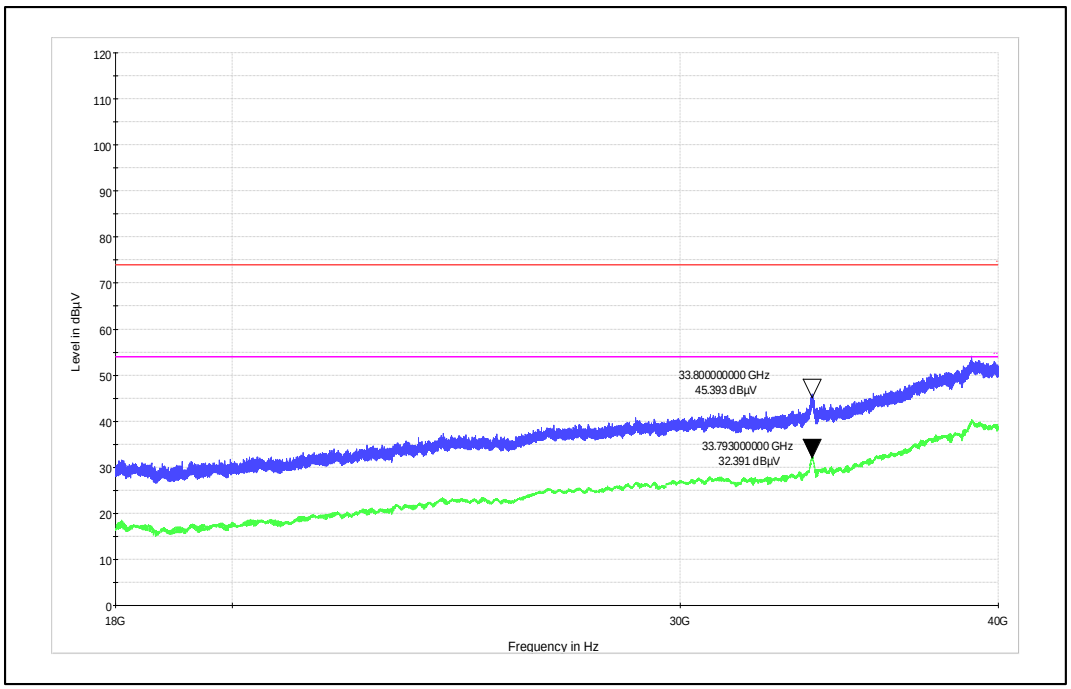
Channel Frequency: 1 - 18 GHz Polarization: Vertical



Channel Frequency: 1 - 18 GHz Polarization: Horizontal



Channel Frequency: 18 - 40 GHz Polarization: Vertical



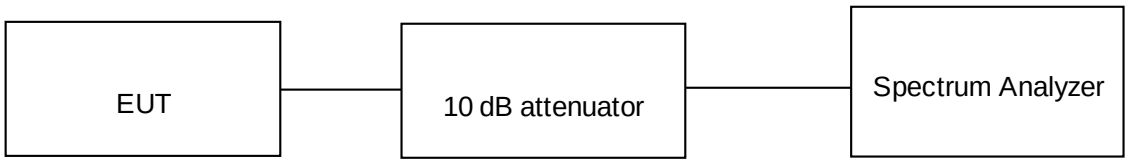
Channel Frequency: 18 - 40 GHz Polarization: Horizontal

7 TEST RESULTS FOR BLUETOOTH LOW ENERGY

7.1 Maximum Peak Conducted Output Power

Result ***Pass***

Test Specification	FCC part 15 Subpart C 15.247 (b)(3) / RSS 247 Issue 2, Section 5.4 (d)
Test Method	Subclause 11.9.1.1 of ANSI C63.10
Measurement Bandwidth	300 kHz
Detector	Peak
Port of testing	Antenna port
Requirement	Power ≤ 1 W (30 dBm) & e.i.r.p ≤ 4 W (36 dBm)



Test Condition

Normal Test Condition:

Temperature (Norm) = + 25 °C Voltage = 3.6V DC Li-Ion battery Relative humidity: 62%

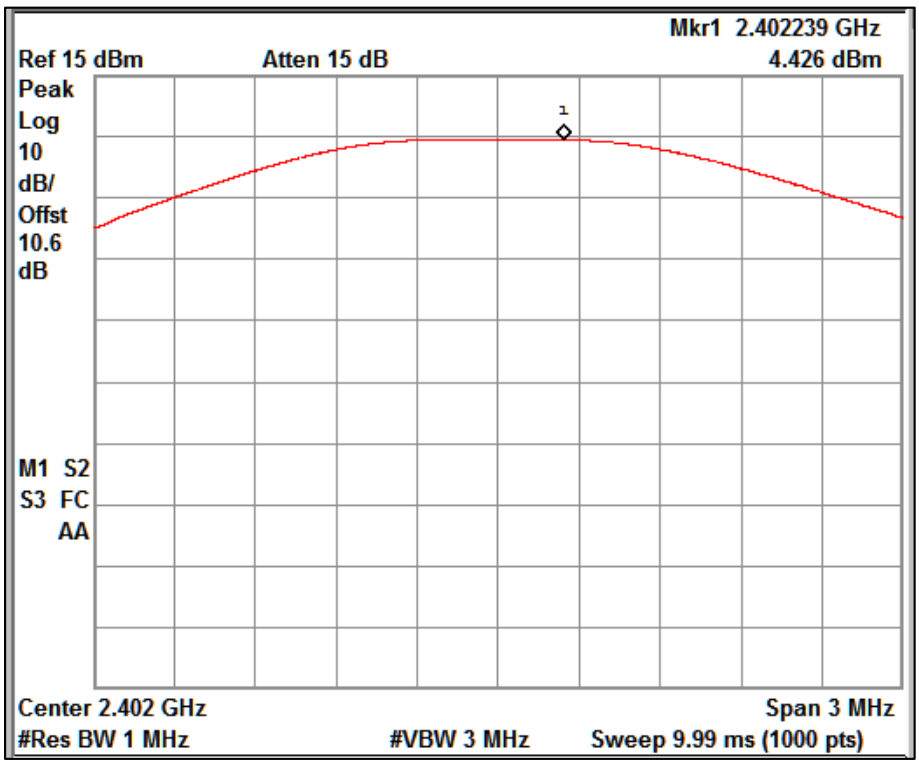
KDB Guidelines applied:

Measurements were made as per section 8.3.1 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

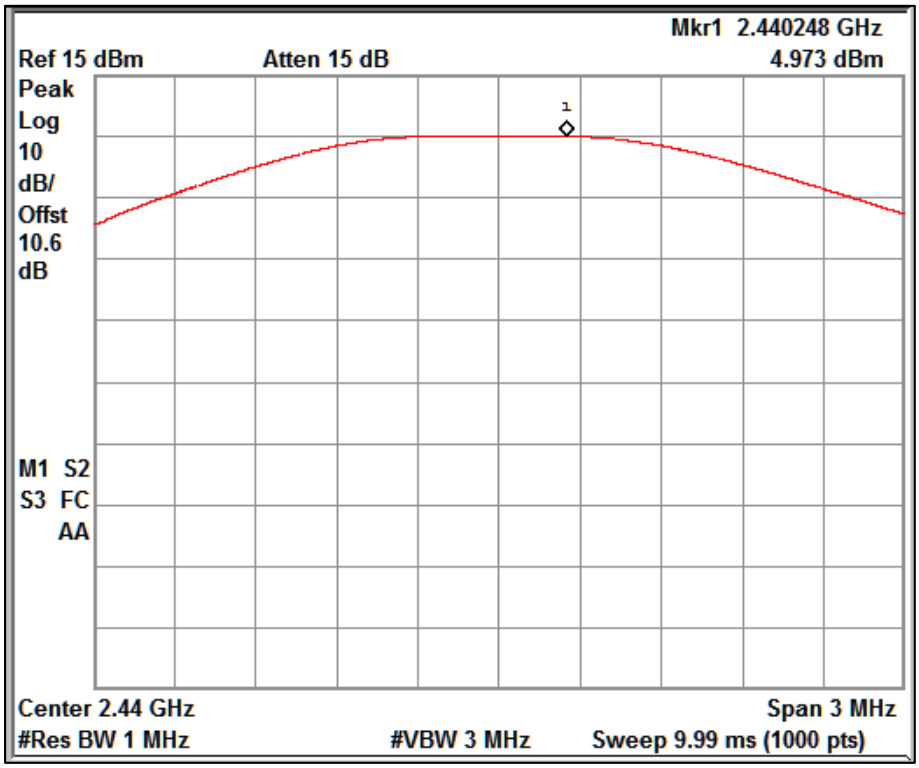
Test results:

Note:
1. All the losses are included during measurement and final values are mentioned in the test report.
2. Total Peak Output power (dBm) = Measured Peak power (dBm) + Attenuator factor (10dB) + Cable loss (0.6dB)
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is 2.53 dBi
4. Maximum (e.i.r.p) = Maximum Peak output power (dBm) + antenna gain (2.53 dBi)

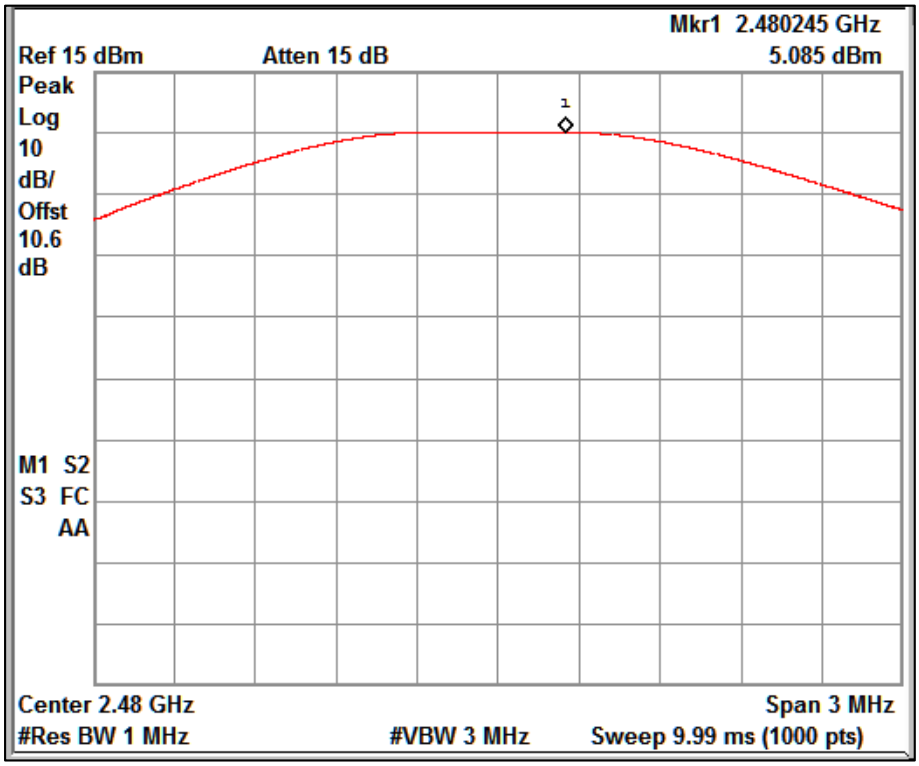
Data Rate (Mbps)	Channel Frequency (MHz)	Power Limit (dBm)	Maximum Peak Conducted Output Power (dBm)	Maximum (e.i.r.p)	Limit (e.i.r.p)
1	2402	30	4.42	6.95	36
	2440	30	4.97	7.50	36
	2480	30	5.08	7.61	36



Channel Frequency: 2402MHz



Channel Frequency: 2440MHz



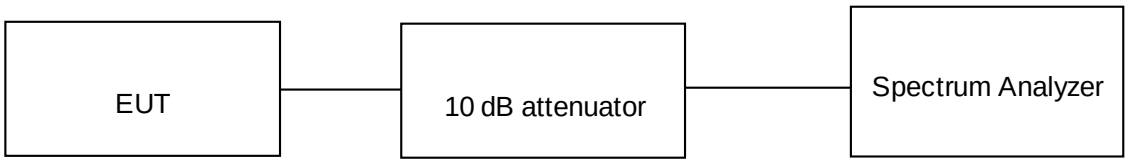
Channel Frequency: 2480MHz

7.2 Maximum Power Spectral Density

Result ***Pass***

Test Specification	FCC part 15 Subpart C 15.247 (e) / RSS 247 Issue 2, Section 5.2 (b)
Test Method	Subclause 11.10.2 of ANSI C63.10
Measurement Bandwidth	3 kHz
Detector	Peak detector
Port of testing	Antenna port
Requirement	For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm

Test Method:



Test Condition

Normal Test Condition:

Temperature (Norm) = + 25°C Voltage = 3.6V DC Li-Ion battery Relative humidity: 62 %

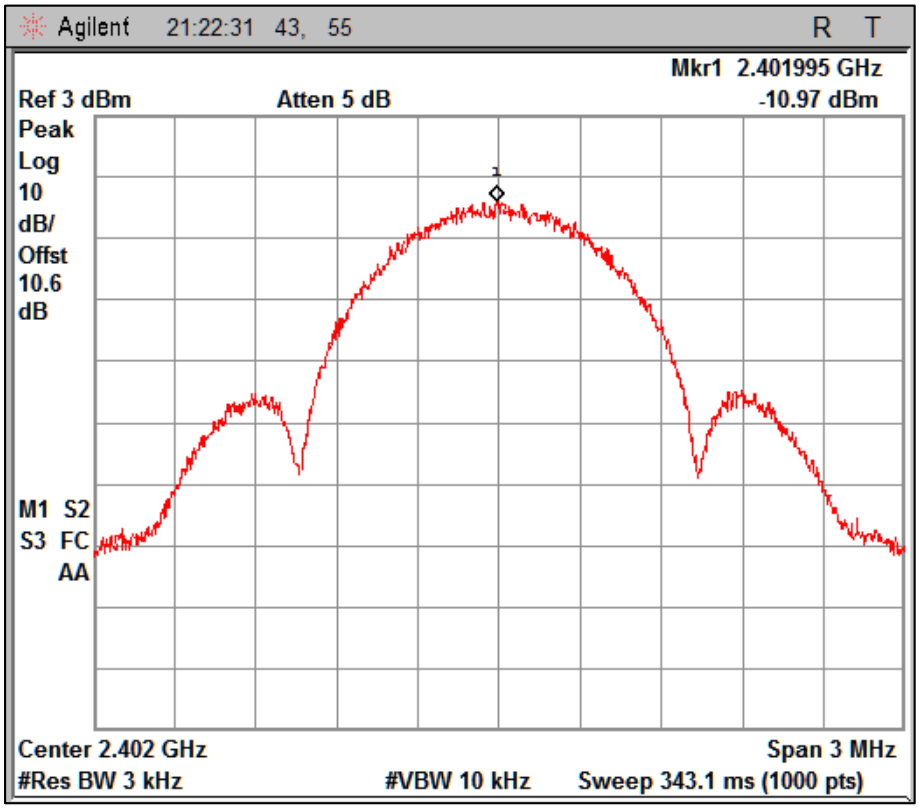
KDB Guidelines applied:

Measurements were made as per section 8.4 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

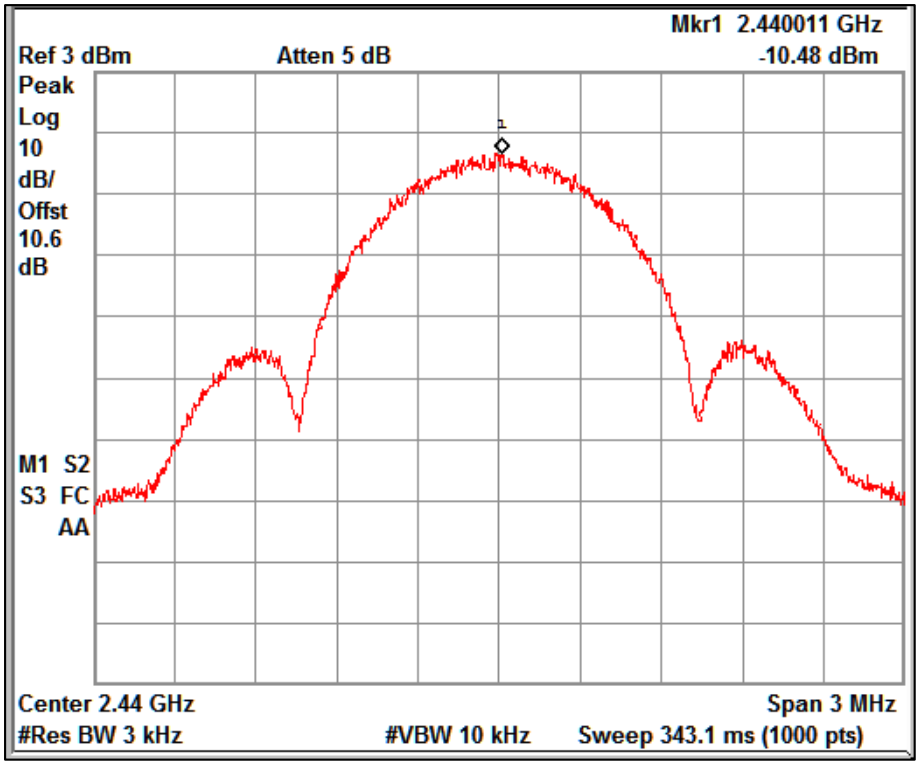
Test results:

Note:
1. All the losses are included during measurement and final values are mentioned in the test report.
2. Total Peak PSD (dBm) = Measured Peak PSD (dBm) + Attenuator factor (10dB) + Cable loss (0.6dB)
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is 2.53 dBi

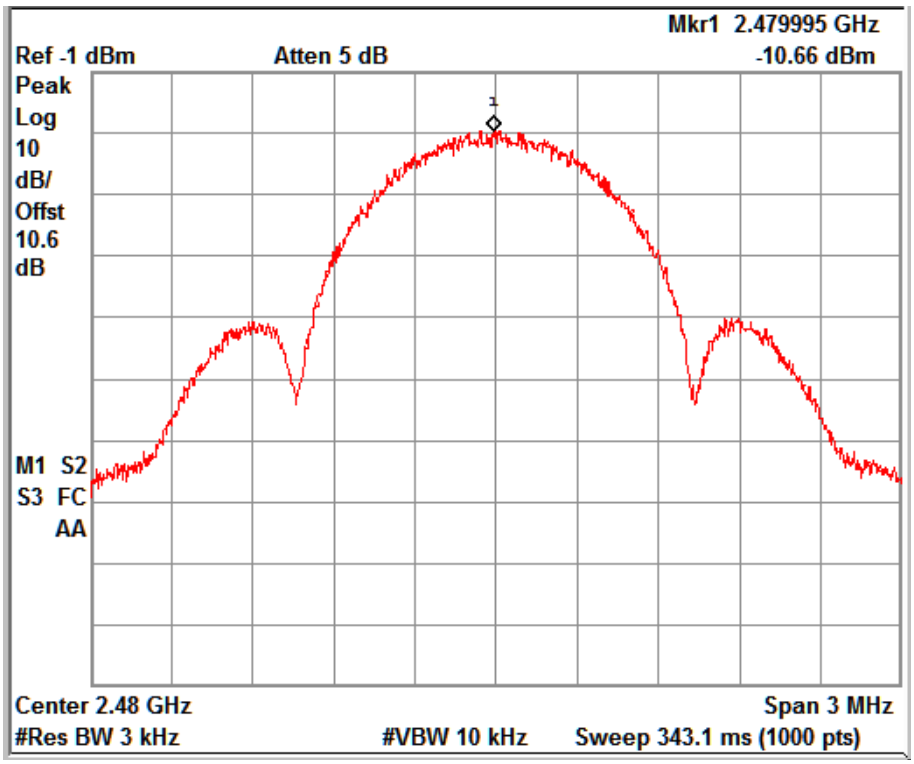
Data Rate (Mbps)	Channel Frequency (MHz)	Maximum Peak PSD (dBm/3kHz)	Limit (dBm/3kHz)
1	2402	-10.97	8
	2440	-10.48	8
	2480	-10.66	8



Channel Frequency: 2402MHz



Channel Frequency: 2440MHz



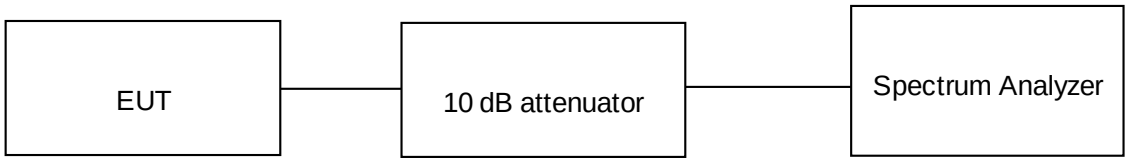
Channel Frequency: 2480MHz

7.3 DTS Bandwidth

Result ***Pass***

Test Specification	FCC part 15 Subpart C 15.247 (a) (2) / RSS 247 Issue 2, Section 5.2 (a)
Test Method	Subclause 11.8 of ANSI C63.10
Measurement Bandwidth	100 kHz
Detector	Peak
Port of testing	Antenna port
Requirement	The minimum 6 dB bandwidth shall be at least 500 kHz

Test Method:



Test Condition

Normal Test Condition:

Temperature (Norm) = + 25 °C Voltage = 3.6V DC Li-Ion battery Relative humidity: 62 %

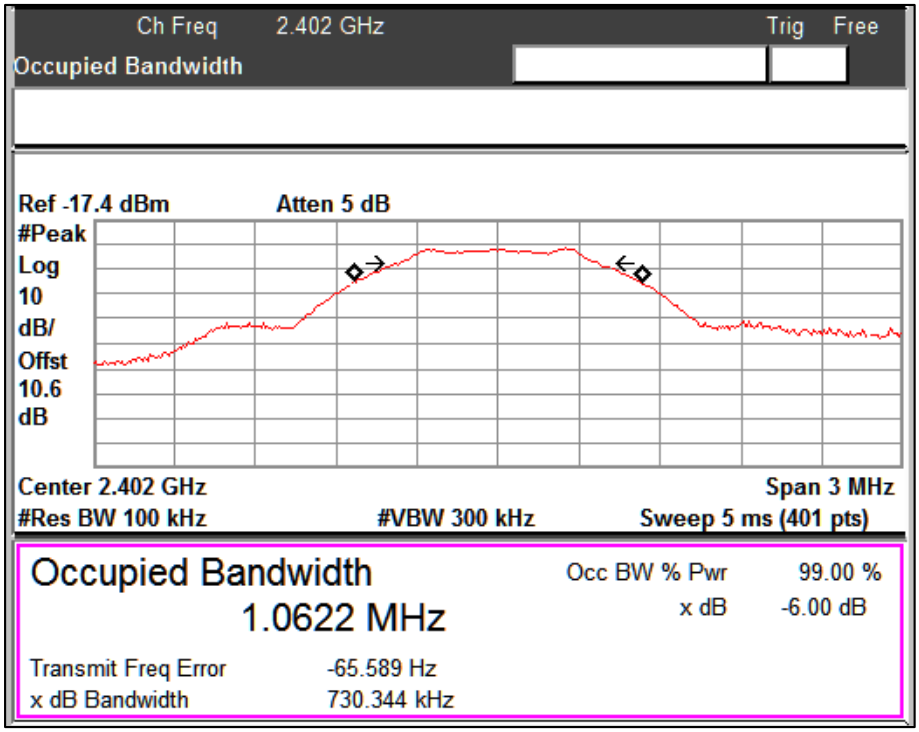
KDB Guidelines applied:

Measurements were made as per section 8.2 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

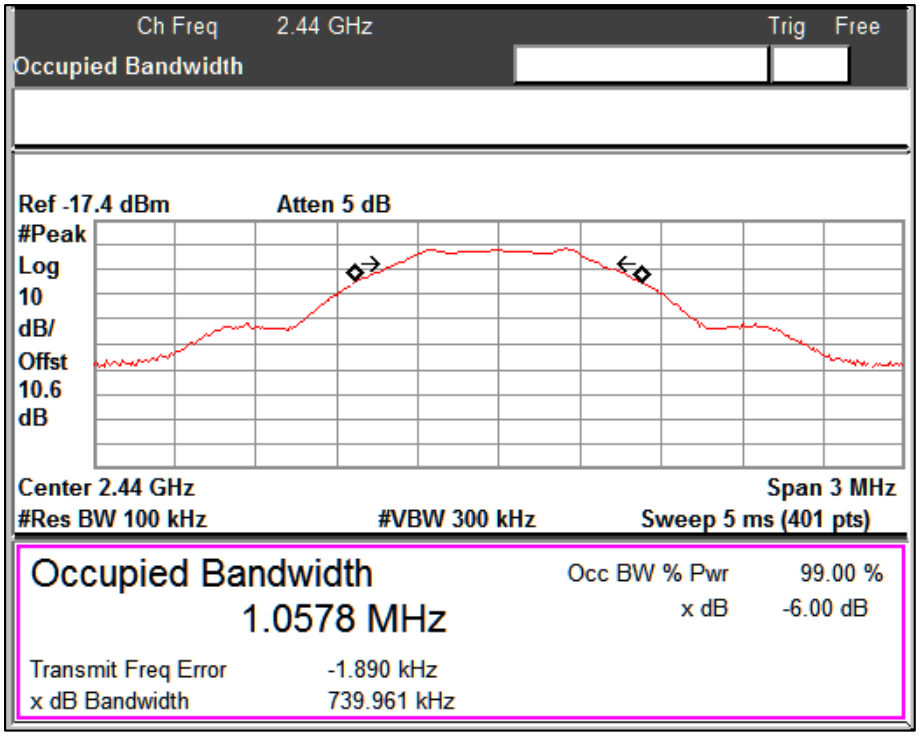
Test results:

Note:
1. All the losses are included during measurement and final values are mentioned in the test report.

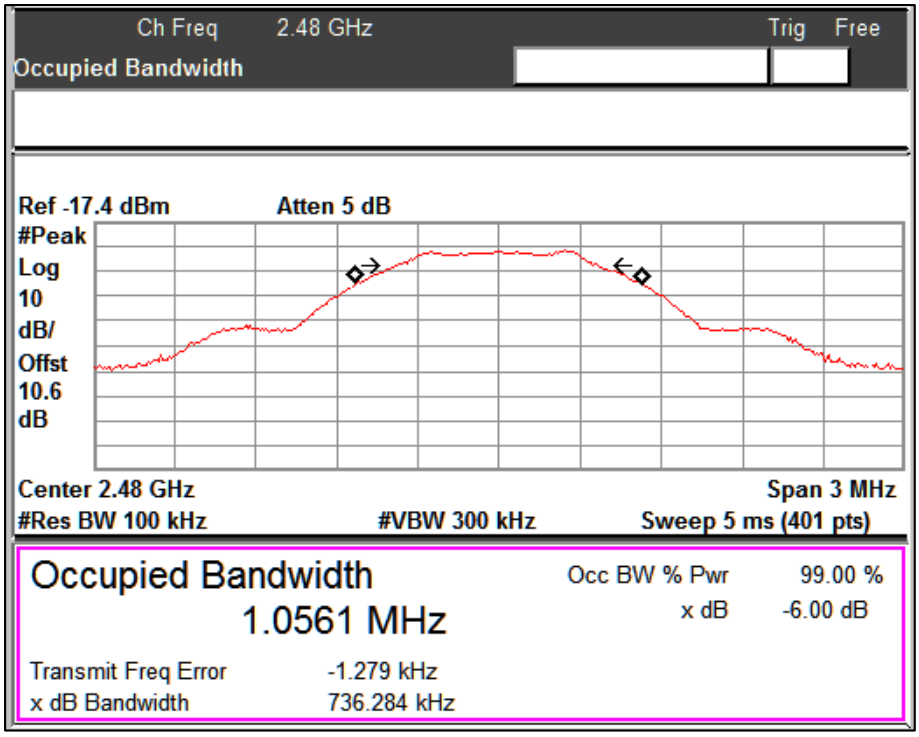
Data Rate (Mbps)	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	Minimum Limit (MHz)
1	2402	730.34	1.062	0.5
	2440	739.96	1.057	0.5
	2480	736.28	1.056	0.5



Channel Frequency: 2402MHz



Channel Frequency: 2440MHz



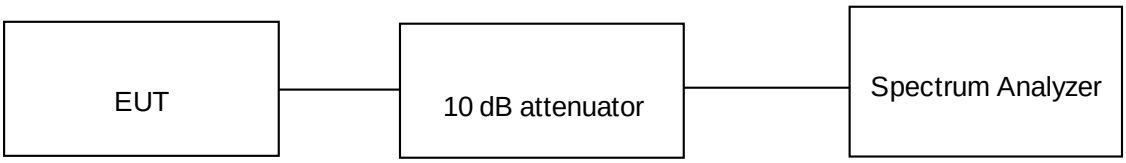
Channel Frequency: 2480MHz

7.4 Emissions in non-restricted frequency bands and Conducted Spurious Emission

Result ***Pass***

Test Specification	FCC part 15 Subpart C 15.247 (d) / RSS 247 Issue 2, Section 5.5
Test Method	Subclause 11.11 of ANSI C63.10
Measurement Bandwidth	100 kHz
Detector	Peak
Port of testing	Antenna port
Requirement	In any 100kHz 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 30dB below that in the 100kHz 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

Test Method:



Test Condition

Normal Test Condition:

Temperature (Norm) = +25 °C Voltage = 3.6V DC Li-Ion battery Relative humidity: 62 %

KDB Guidelines applied:

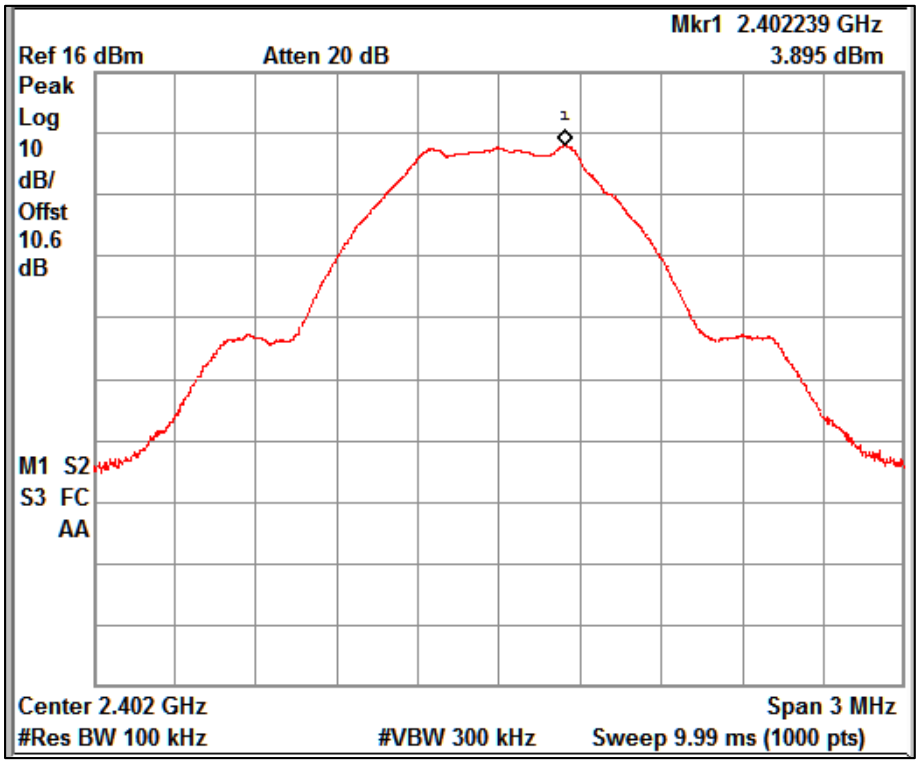
Measurements were made as per section 8.5 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

Test results:

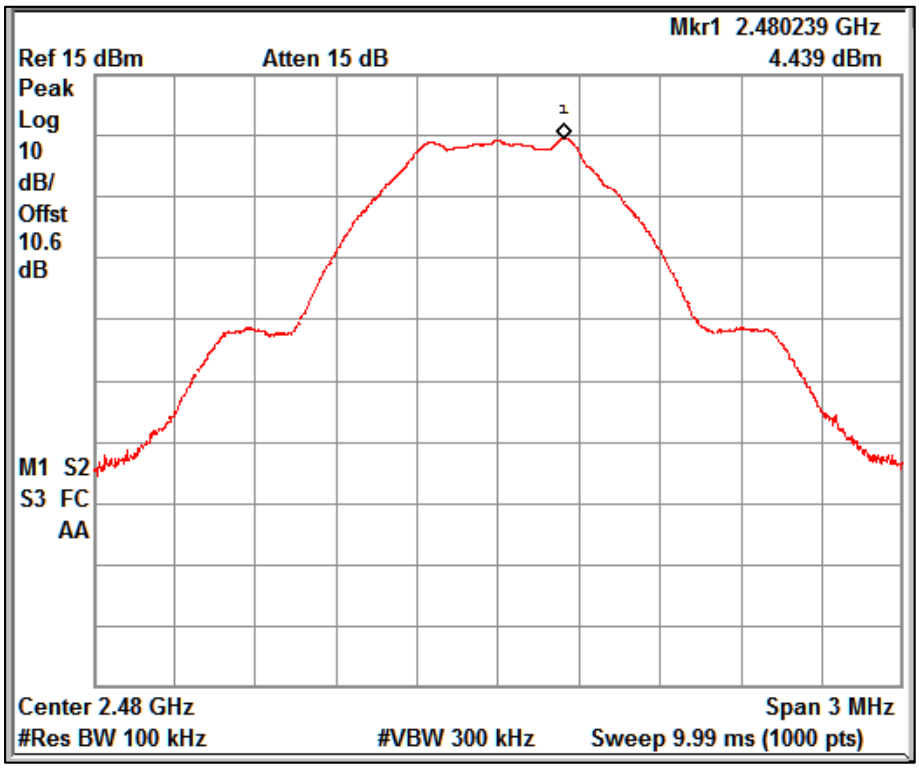
Note:
1. All the losses are included during measurement and final values are mentioned in the test report.
2. Final Value (dBm) = Measured Value (dBm) + Attenuator factor (10dB) + Cable loss (0.6dB)
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is 2.53 dBi

7.4.1 Band edge and reference plots

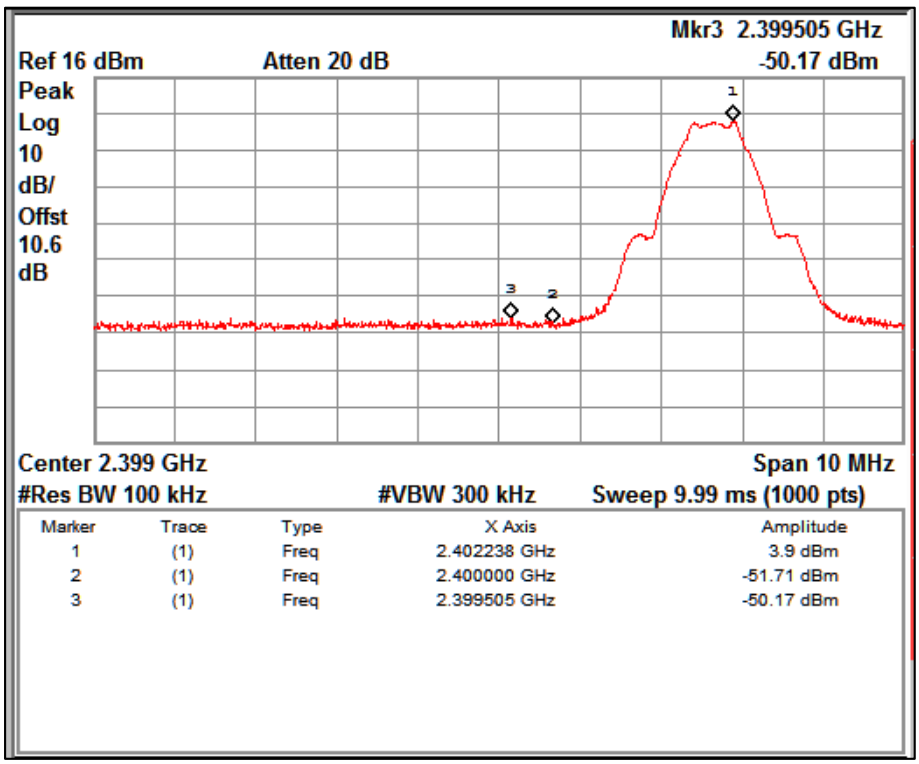
Data Rate (Mbps)	Channel Frequency (MHz)	Reference Value (B) (dBm)	Band edge Frequency (MHz)	Value at Band edge (A) (dBm)	A-B (dBc)	Minimum Limit (dBm)
1	2402	3.89	2399	-50.17	-54.06	-20
	2480	4.43	2483.5	-51.5	-55.93	-20



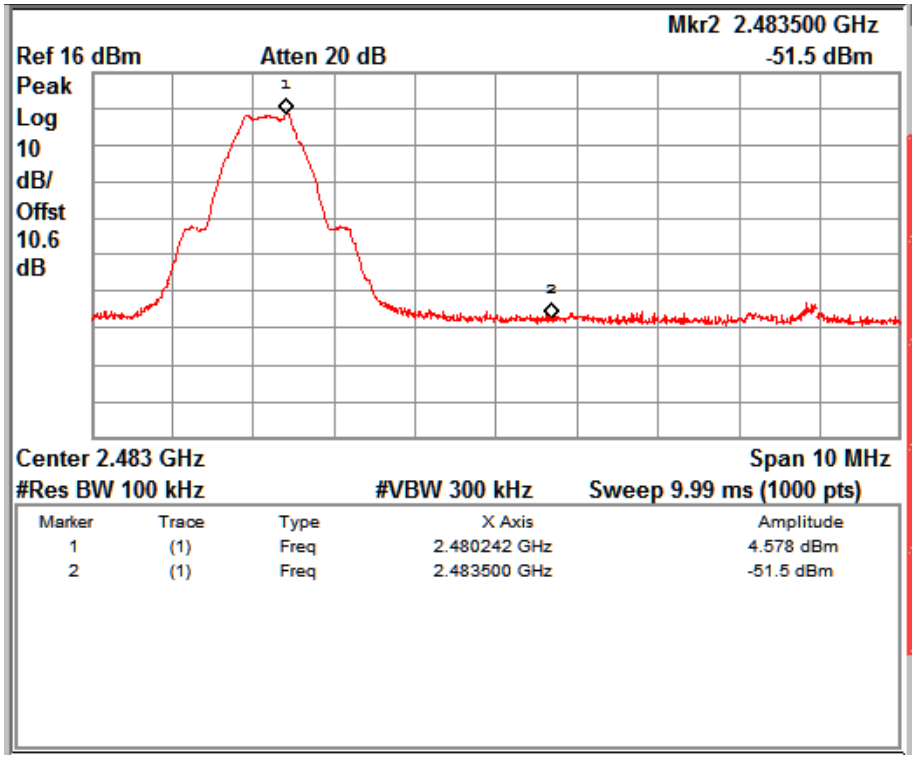
Reference Plot for Channel Frequency 2402MHz



Reference Plot for Channel Frequency 2480MHz

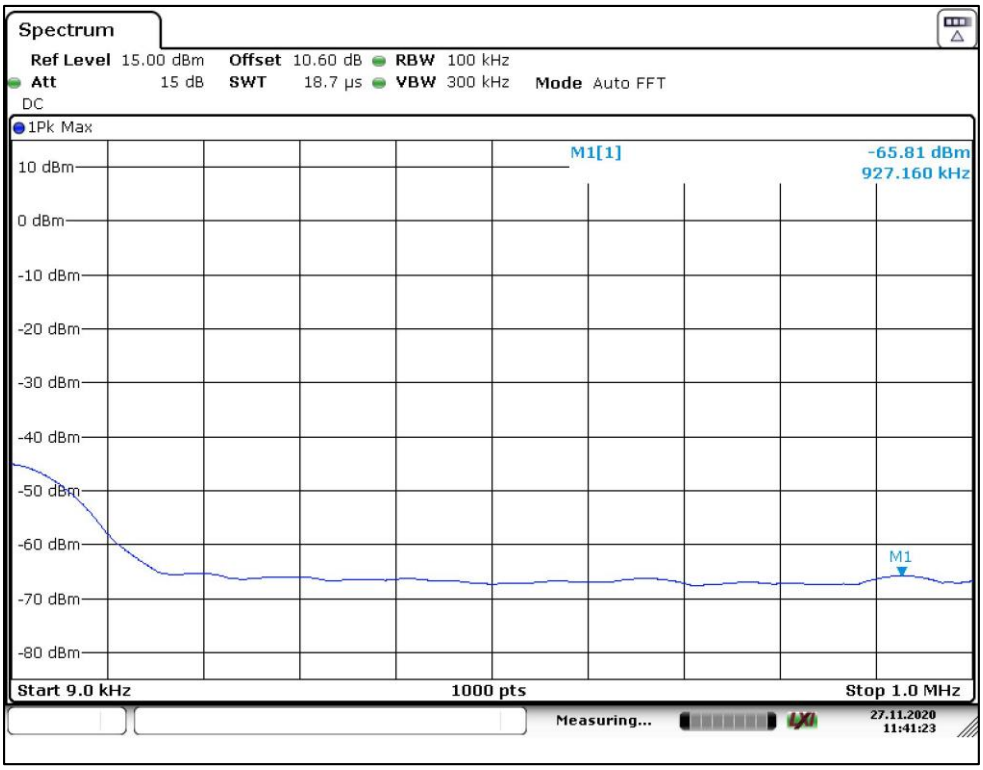


Channel Frequency: 2402MHz

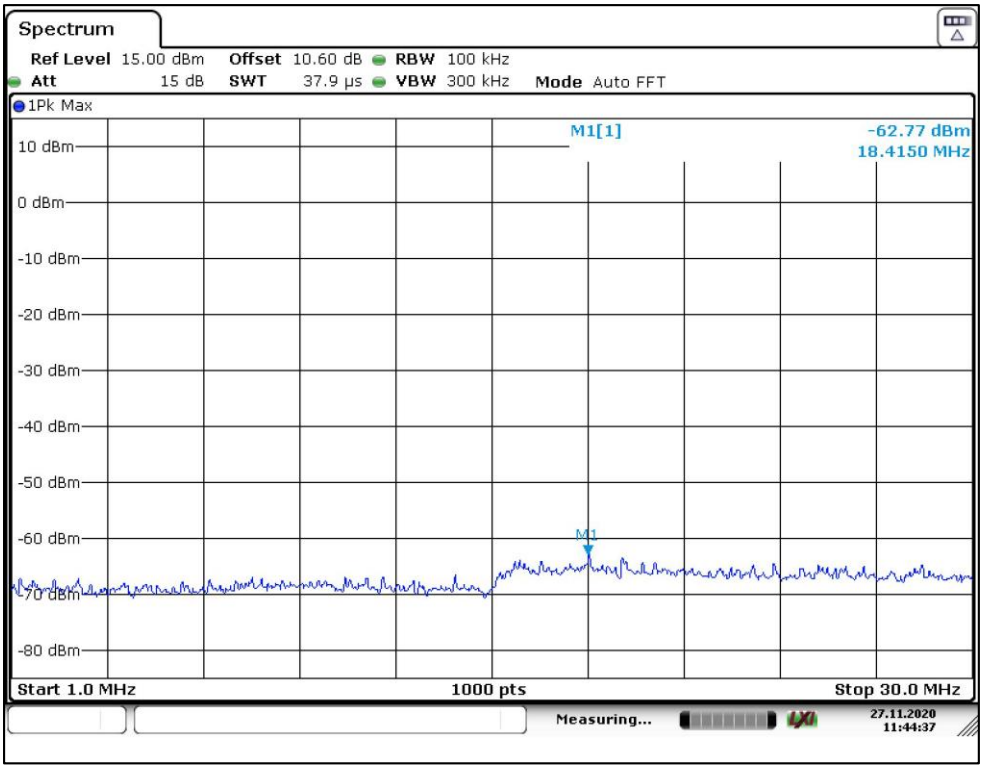


Channel Frequency: 2480MHz

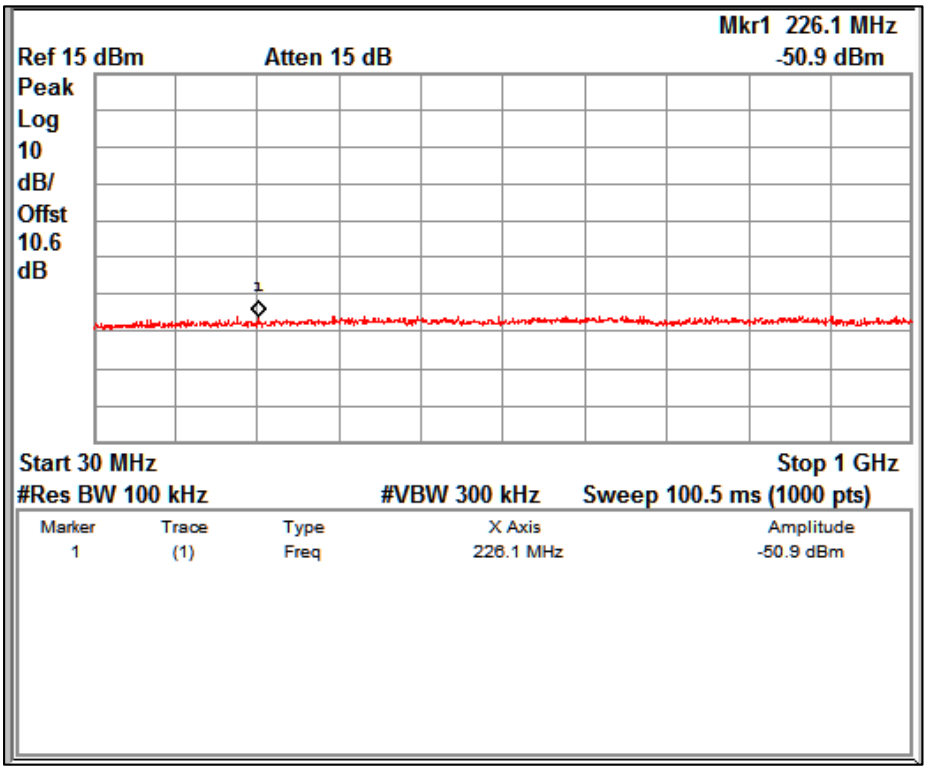
7.4.2 Out-Of-Band Emissions



Frequency Range 9KHz – 1MHz

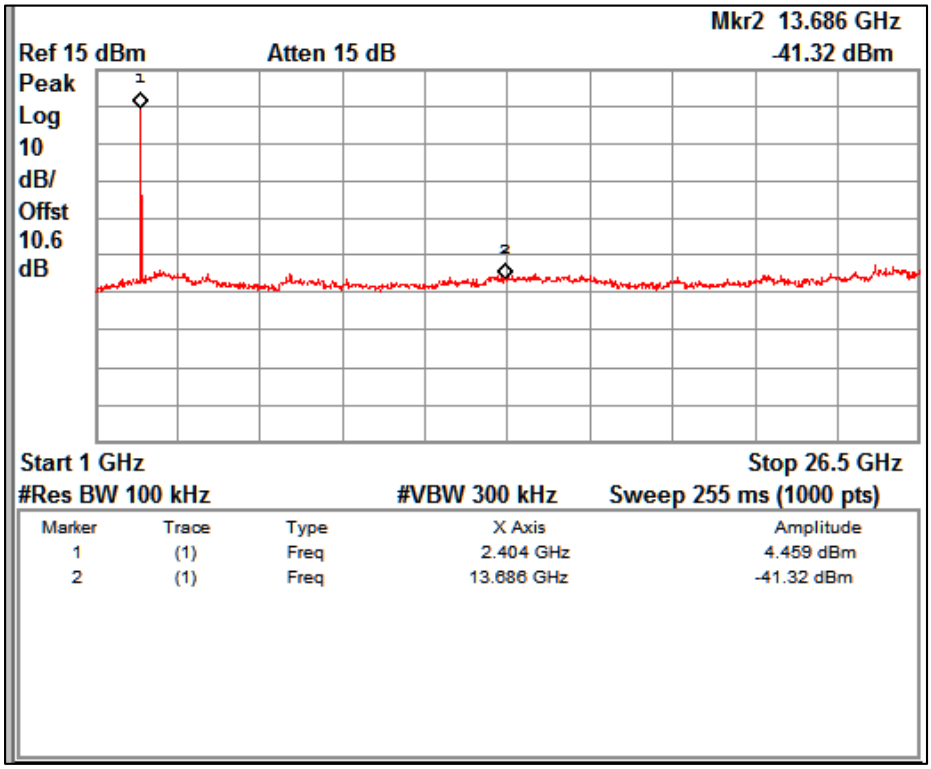


Frequency Range 1MHz – 30MHz

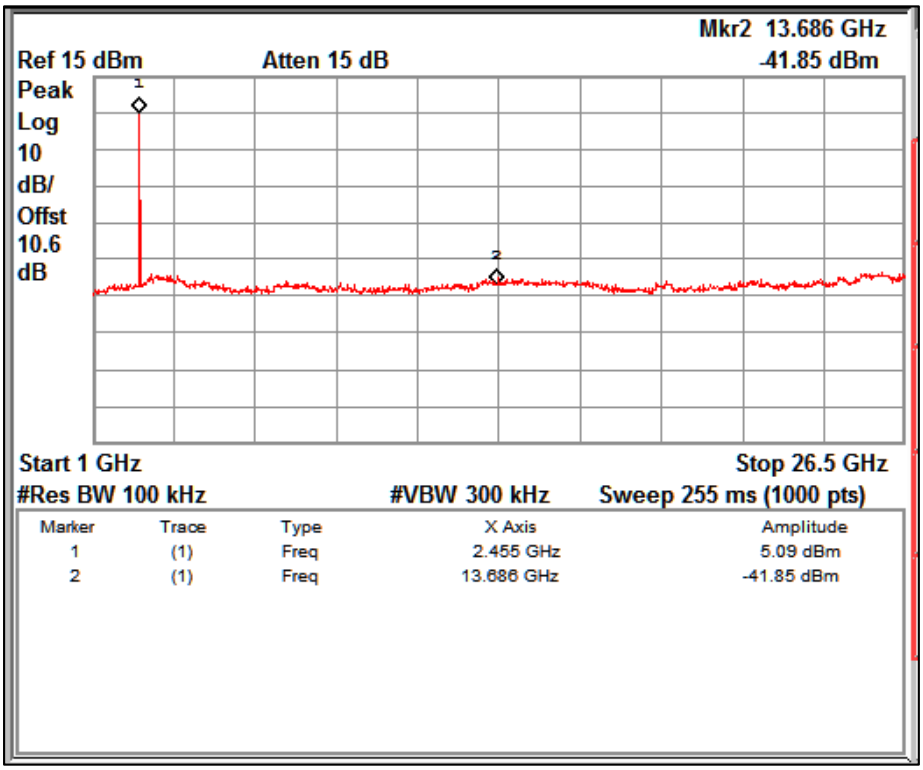


Channel Frequency 2402MHz **Frequency Range 30MHz – 1GHz**

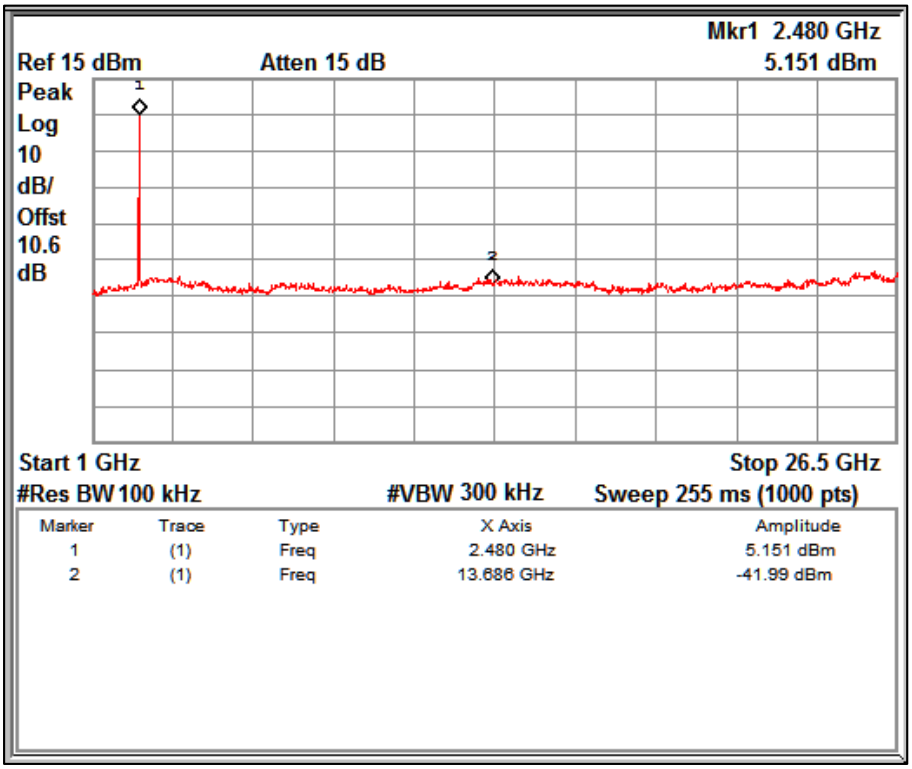
Data Rate (Mbps)	Channel Frequency (MHz)	Value at the Band Edge		Reference Value B (dBm)	Band Edge Value A~B (dBc)	Limit (dBm)
		Frequency (GHz)	Value A (dBm)			
1	2402	13.68	-41.32	3.89	-45.21	-20
	2480	13.68	-41.85	4.43	-46.28	-20



Channel Frequency 2402MHz **Frequency Range 1GHz – 26.5GHz**



Channel Frequency 2440MHz **Frequency Range 1GHz – 26.5GHz**



Channel Frequency 2480MHz **Frequency Range 1GHz – 26.5GHz**

7.5 Spurious Radiated Emissions & Restricted Bands of Operation

Result ***Pass***

Test Specification	FCC part 15 Subpart C 15.247 (d) / (15.209 & 15.205) / IC RSS-GEN, Section 8.9 and 8.10
Test Method	ANSI C63.10
Measurement Location	Semi Anechoic Chamber 30MHz - 1 GHz Fully Anechoic Chamber 1 GHz - 40GHz
Measurement Bandwidth	100 kHz for frequency range < 1GHz 1 MHz for Frequency range >1GHz
Detector	Refer remarks below
Measuring Distance	3 m
Requirement	As per the limits mentioned in the below table
Test setup	Refer TEST METHODOLOGY

Table 8: Transmitter limits for Radiated emission

Frequency (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 128.51 – 93.80, 73.80 – 62.96 and 69.54 dBµV/m at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Conditions:

Temperature (Norm) = + 25 °C Voltage = 3.6V DC Li-Ion battery Relative humidity = 62 %

Test results:

Note: All the losses are included during measurement and final values are mentioned in the test report. Refer TEST METHODOLOGY for more details

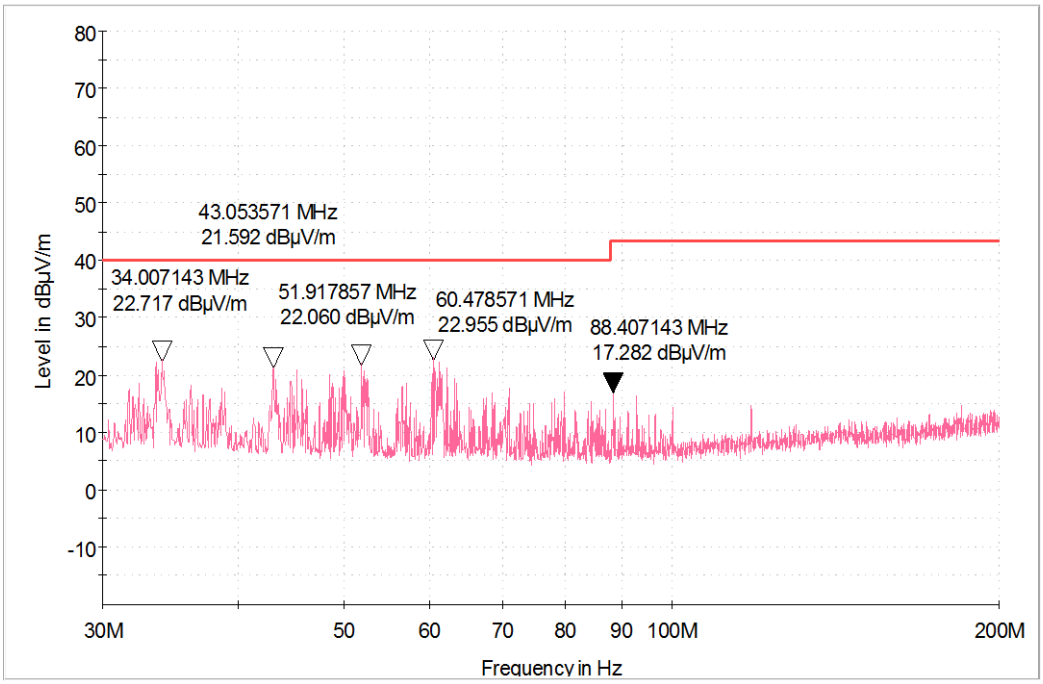
Test results for frequency range 9kHz – 30MHz

No emissions found in frequency range 9 kHz to 30 MHz, and measured levels are below 20dB from the limit line, henve not reported

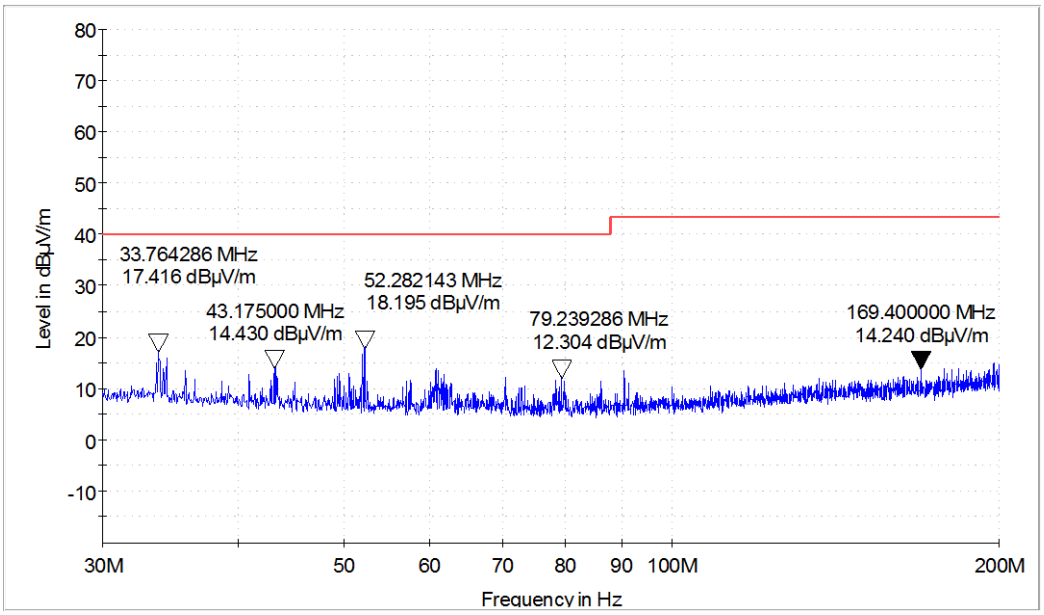
Test results for frequency range 30MHz – 1GHz

Mode of Operation: Curved Mode

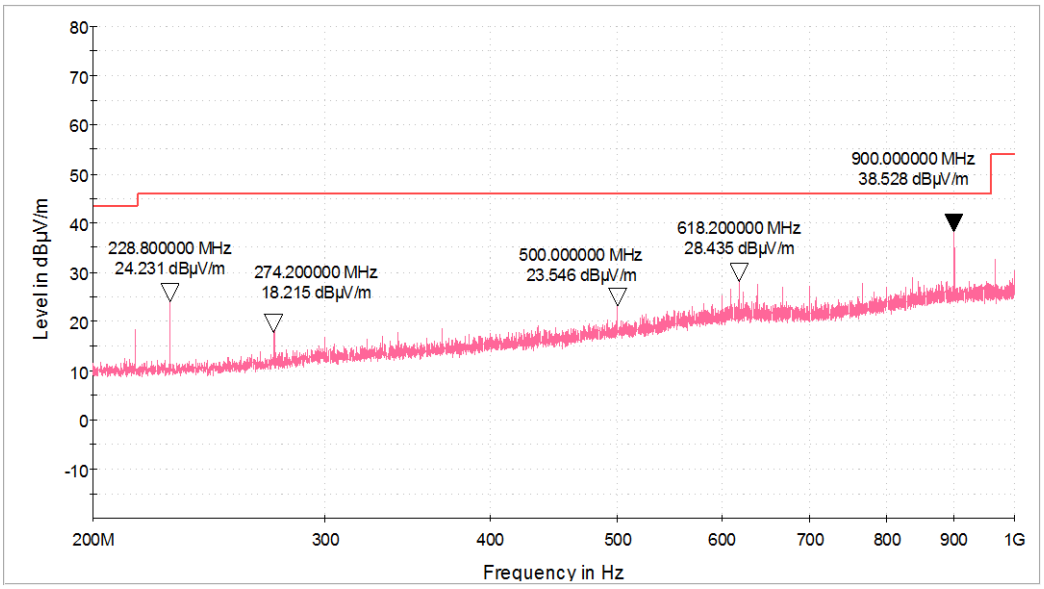
Polarization	Frequency (MHz)	Measured value (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	34.00	22.71	40	-17.29
	51.91	22.06	40	-17.94
	60.47	22.95	40	-17.05
	228.80	24.23	46	-21.77
	274.20	18.21	46	-27.79
	900.00	38.52	46	-7.48
Horizontal	33.76	17.41	40	-22.59
	52.28	18.19	40	-21.81
	169.40	14.24	43.5	-29.26
	299.93	20.33	46	-25.67
	500.00	25.90	46	-20.10
	900.06	34.38	46	-11.62



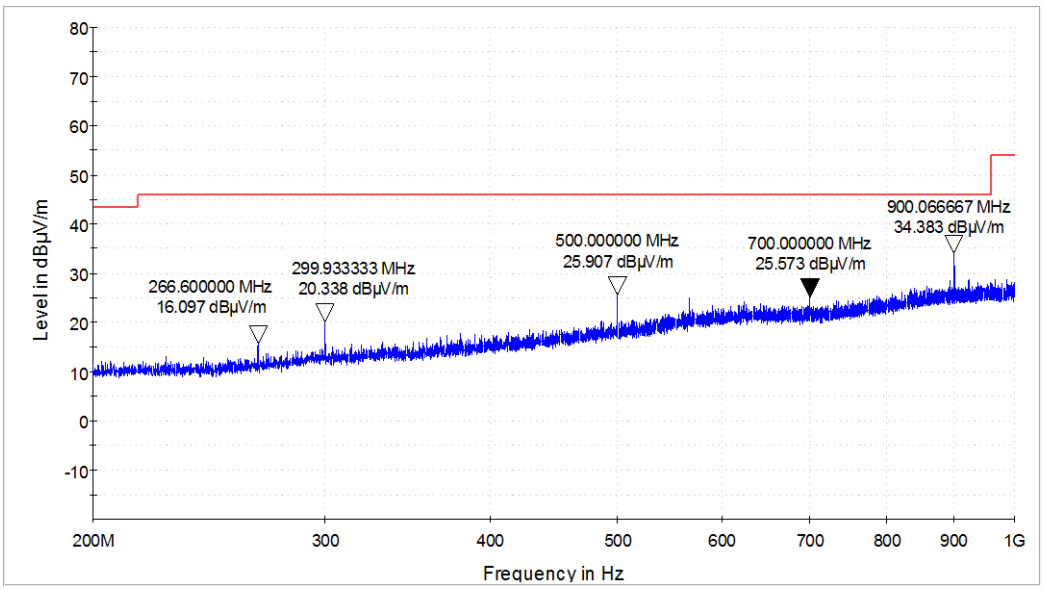
Channel Frequency 30MHz – 200MHz **Polarization Vertical**



Channel Frequency 30MHz – 200MHz **Polarization Horizontal**



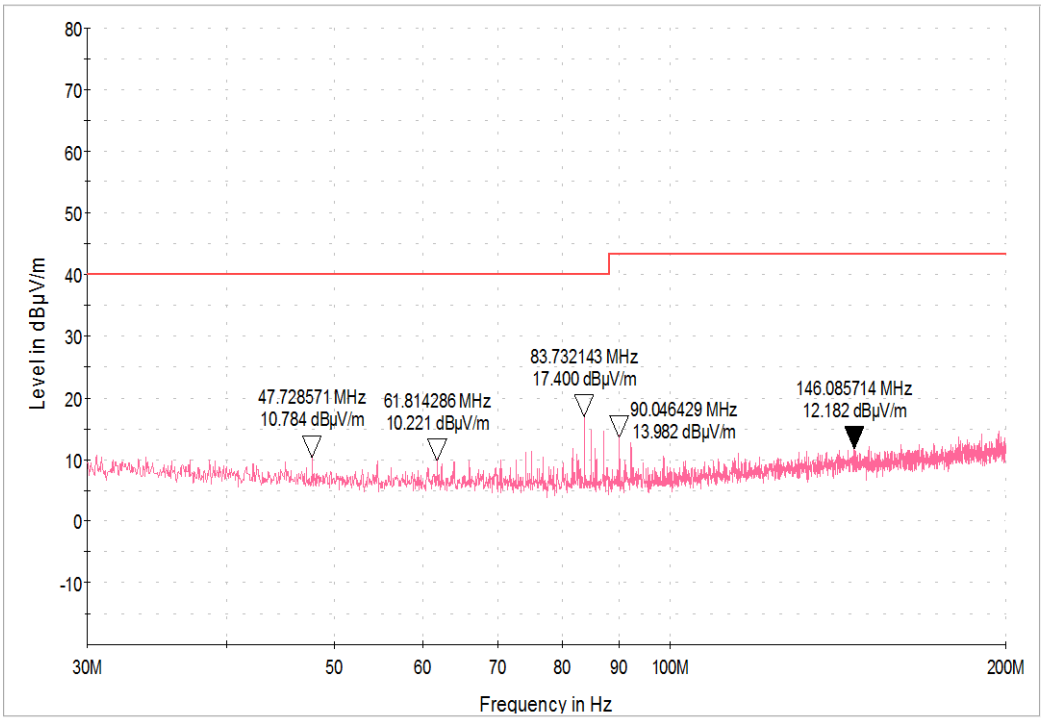
Channel Frequency 200MHz – 1GHz **Polarization Vertical**



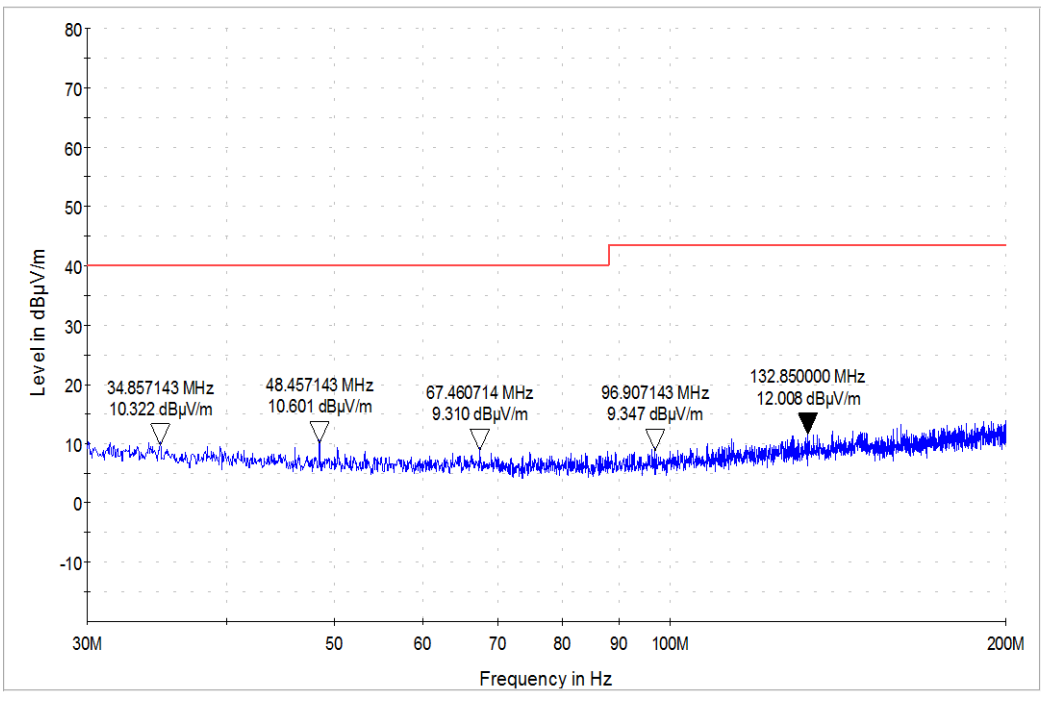
Channel Frequency 200MHz – 1GHz **Polarization Horizontal**

Mode of Operation: Linear Mode:

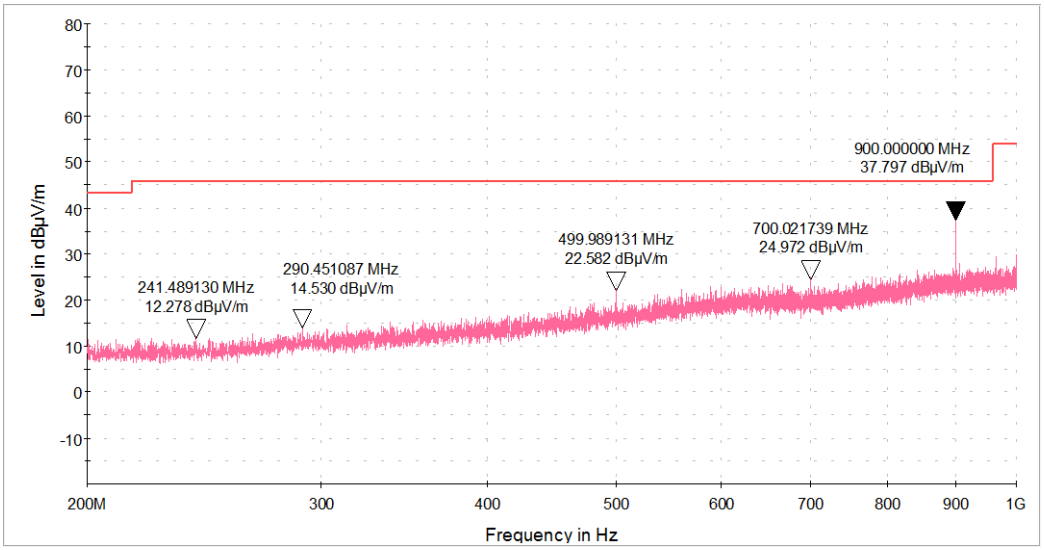
Polarization	Frequency (MHz)	Measured value (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	47.72	10.78	40	-29.22
	61.81	10.22	40	-29.78
	83.73	17.40	43.5	-26.10
	499.98	22.58	46	-23.42
	700.02	24.97	46	-21.03
	900.00	37.79	46	-8.21
Horizontal	34.85	10.32	40	-29.68
	48.45	10.60	40	-29.40
	67.46	9.31	40	-30.69
	300.01	18.42	46	-27.58
	499.98	26.15	46	-19.85
	900.00	30.23	46	-15.77



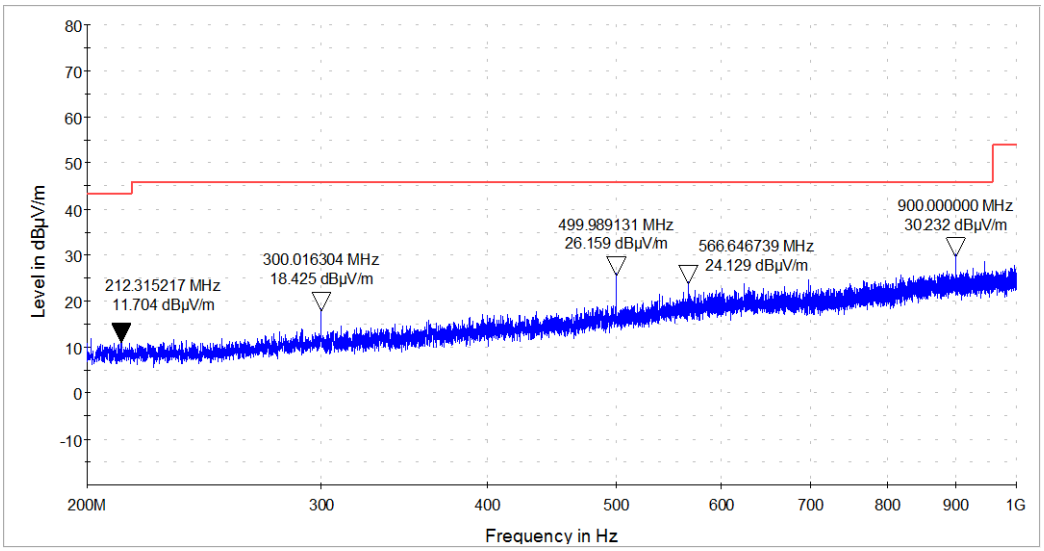
Channel Frequency 30MHz – 200MHz **Polarization Vertical**



Channel Frequency 30MHz – 200MHz **Polarization Horizontal**



Channel Frequency 200MHz – 1GHz **Polarization Vertical**



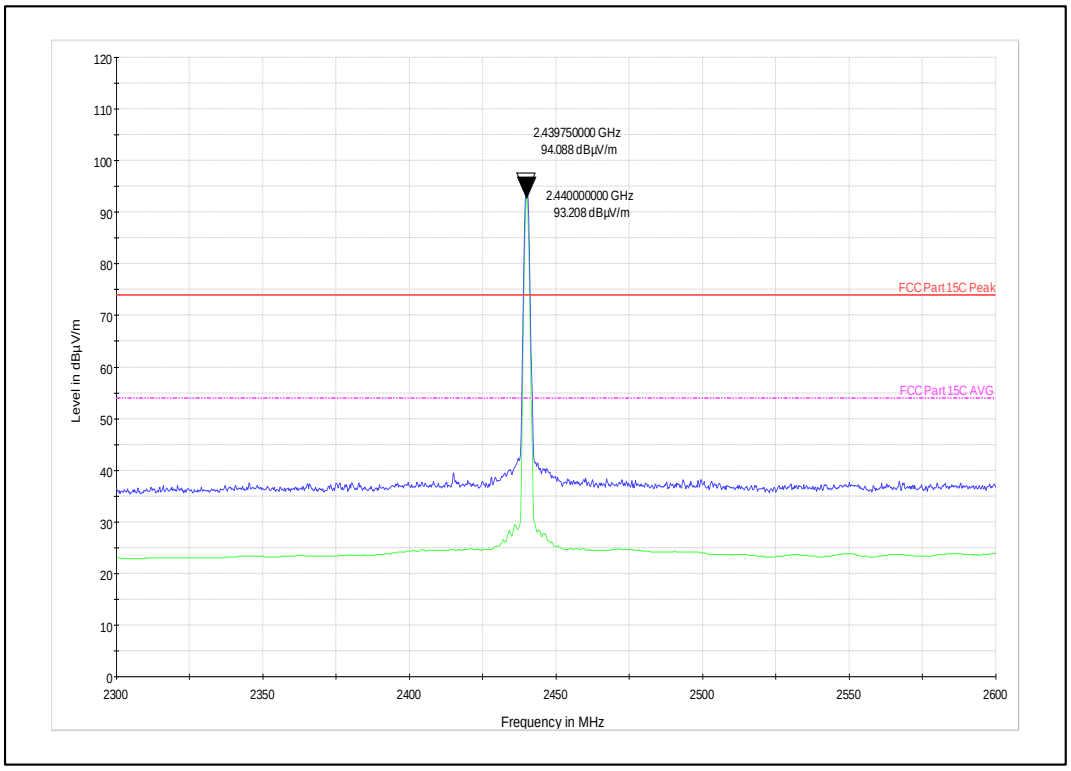
Channel Frequency 200MHz – 1GHz **Polarization Horizontal**

Test results for the frequencies above 1GHz

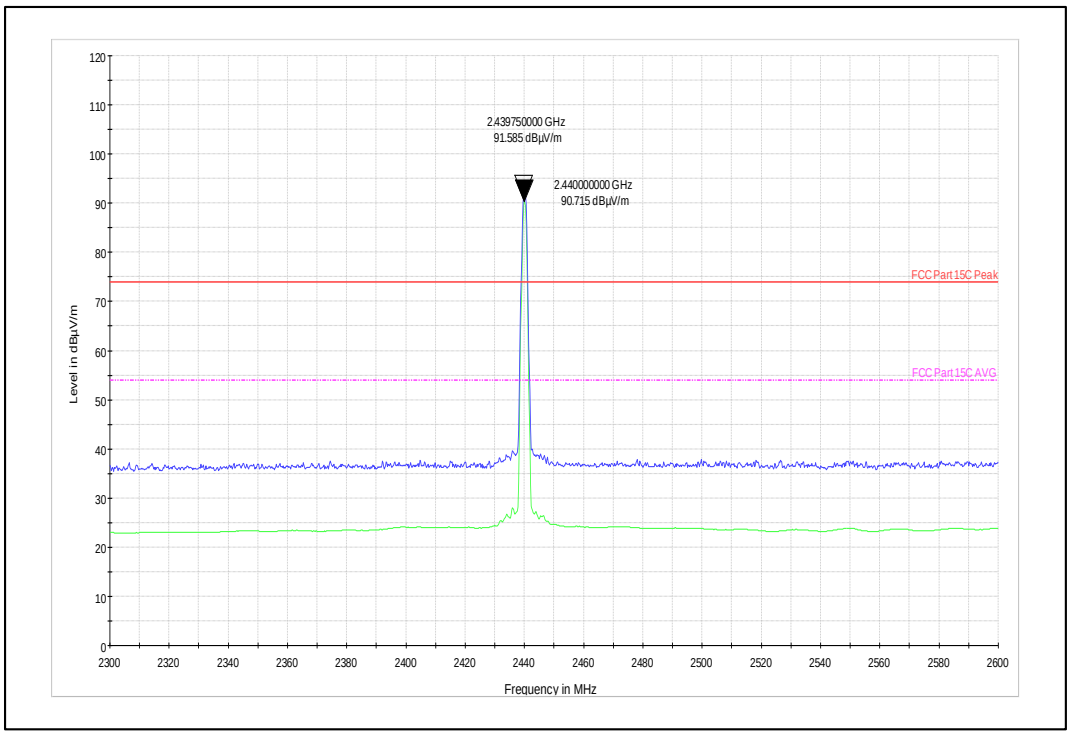
Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2402	V	2390(Pk)	41.74	74*	-32.26
		2390(Av)	25.67	54*	-28.33
		2402(Pk)	92.79	-	-
		2402(Av)	91.88	-	-
		4804(Pk)	46.12	74	-27.94
		4804(Av)	38.44	54	-16.12
		7206(Pk)	No Harmonics Found		
		7206(Av)			
	H	2390(Pk)	36.41	74*	-37.59
		2390(Av)	24.76	54*	-29.24
		2402(Pk)	90.78	-	-
		2402(Av)	89.86	-	-
		4804(Pk)	46.06	74	-27.94
		4804(Av)	37.88	54	-16.12
		7206(Pk)	No Harmonics Found		
		7206(Av)			
2440	V	**2440(Pk)**	**94.08**	-	**-**
		2440(Av)	**93.20**	-	**-**
		4880(Pk)	**53.50**	**74**	**-20.5**
		4880(Av)	**48.58**	**54**	**-5.42**
		7320(Pk)	**No Harmonics Found**		
		7320(Av)			
	H	**2440(Pk)**	**91.58**	-	**-**
		2440(Av)	**90.71**	-	**-**
		4880(Pk)	**52.54**	**74**	**-21.46**
		4880(Av)	**47.47**	**54**	**-6.53**
		7320(Pk)	**No Harmonics Found**		
		7320(Av)			
2480	V	2480(Pk)	92.63	-	-
		2480(Av)	91.71	-	-
		2483.5(Pk)	39.12	74*	-34.88
		2483.5(Av)	27.43	54*	-26.57
		4960(Pk)	54.74	74	-19.26
		4960(Av)	49.57	54	-4.43
		7440(Pk)	No Harmonics Found		
		7440(Av)			
	H	2480(Pk)	90.24	-	-
		2480(Av)	89.31	-	-
		2483.5(Pk)	38.19	74*	-35.81
		2483.5(Av)	25.84	54*	-28.16
		4960(Pk)	54.14	74	-19.86
		4960(Av)	49.03	54	-4.97
		7440(Pk)	No Harmonics Found		
		7440(Av)			

***- : Indicate restricted band of operation §15.205**
Pk: Peak Detector; Av : Average Detector

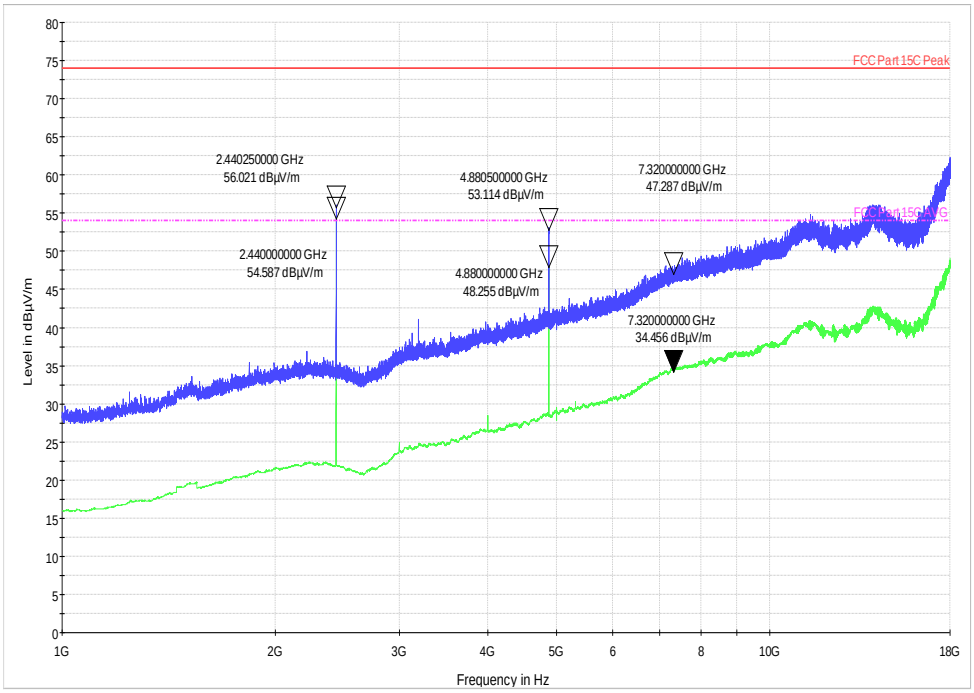
Worst case Plots
Channel Frequency 2440MHz



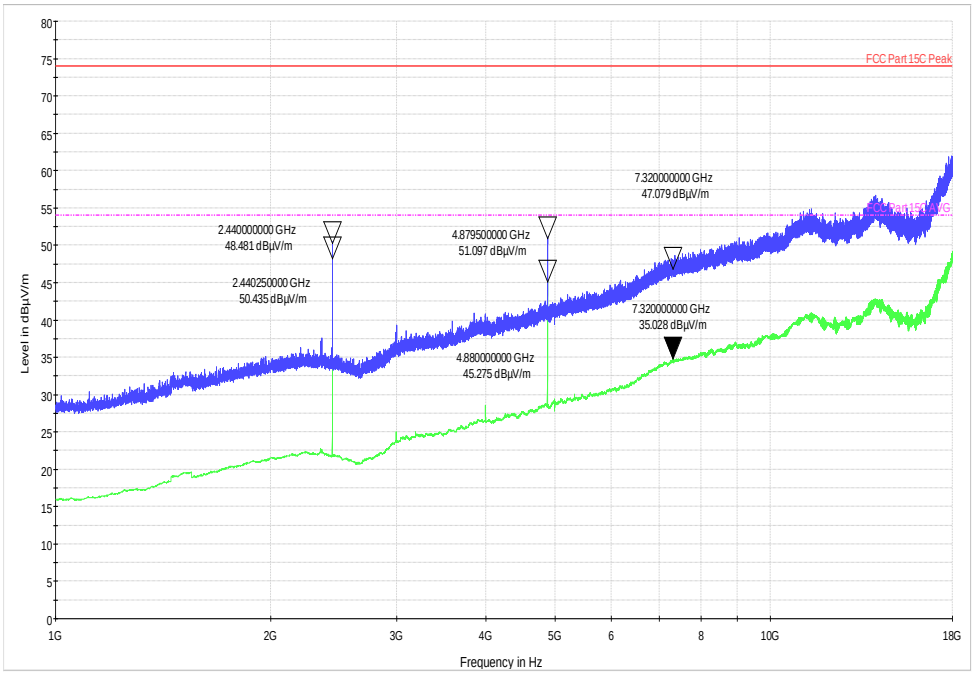
Channel Frequency: 2462MHz Polarization: Vertical



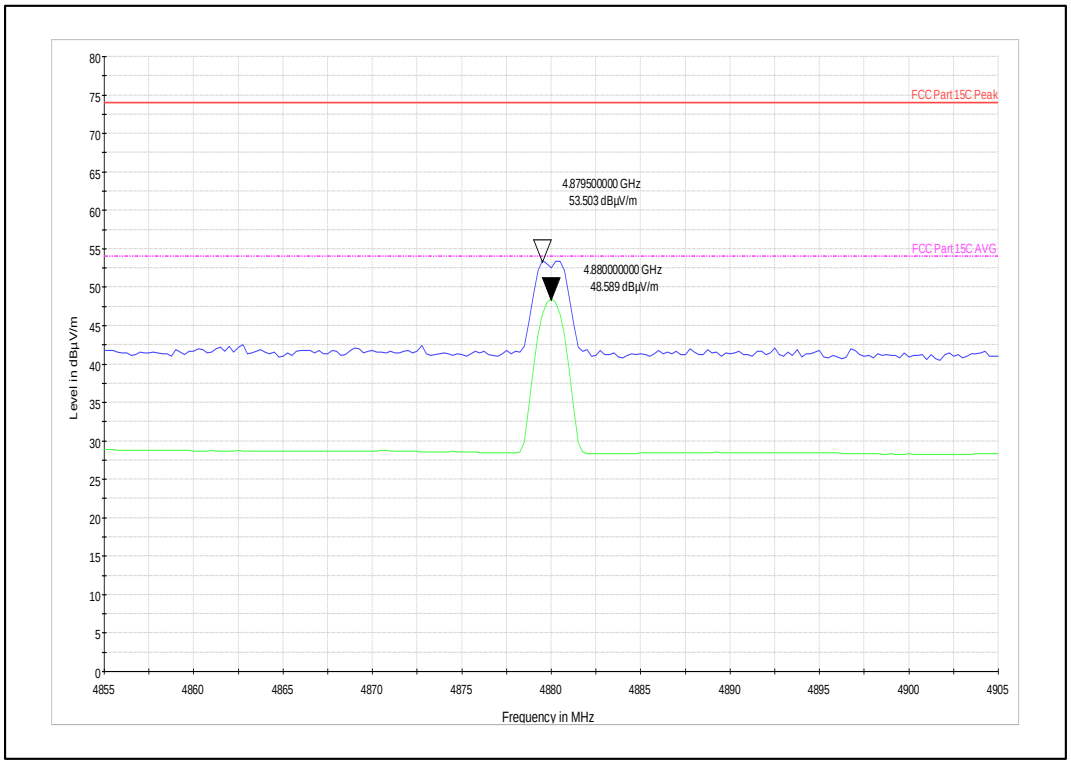
Channel Frequency: 2462MHz Polarization: Horizontal



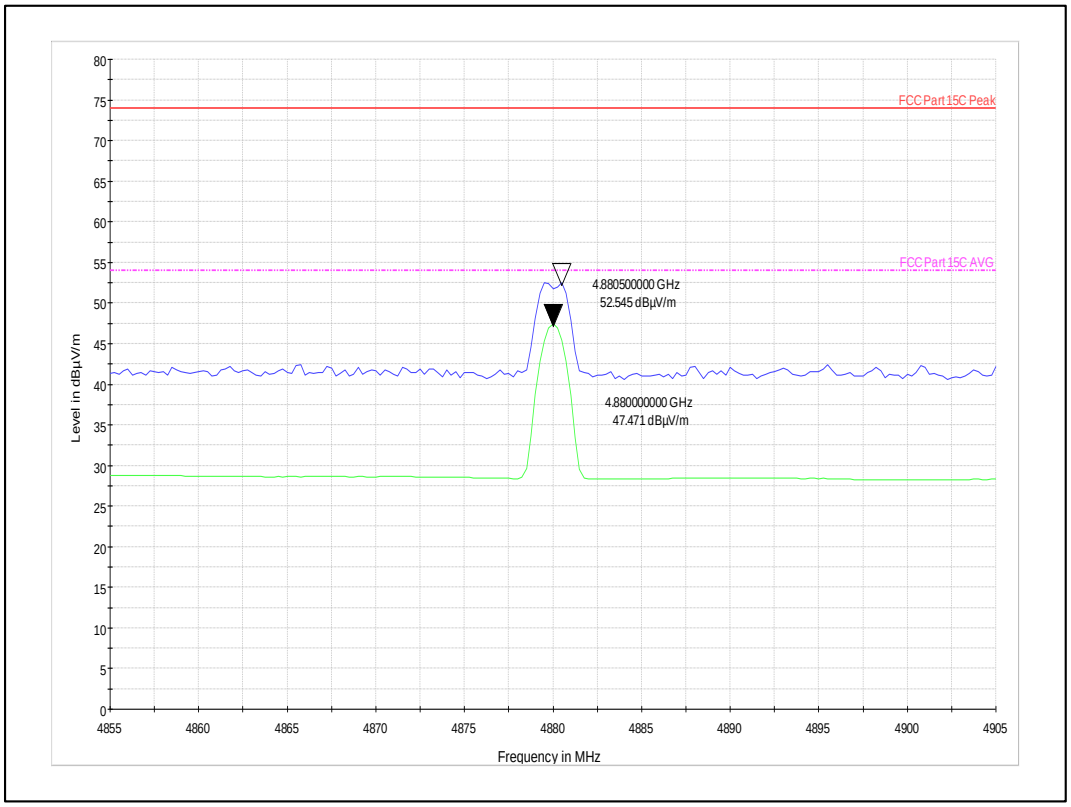
Channel Frequency: 1-18GHz Polarization: Vertical



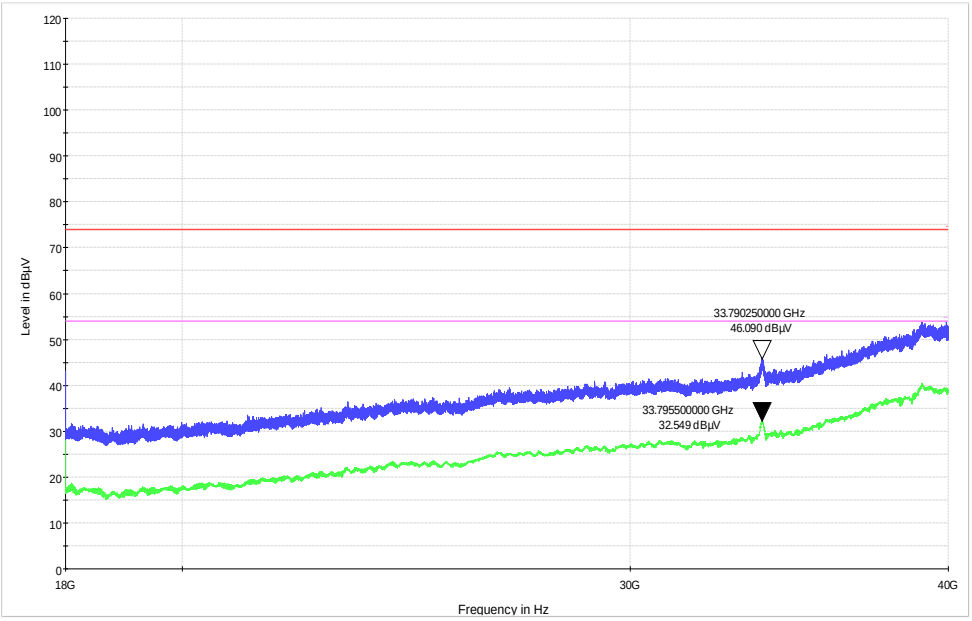
Channel Frequency: 1-18GHz Polarization: Horizontal



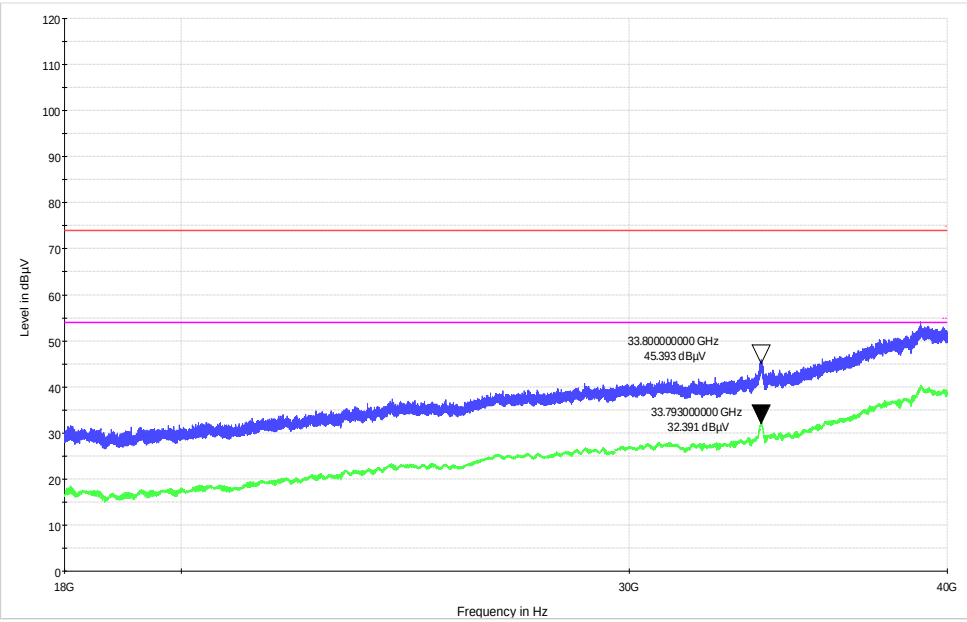
Channel Frequency: 2nd Harmonics Polarization: Vertical



Channel Frequency: 2nd Harmonics Polarization: Horizontal



Channel Frequency: 18 - 40 GHz Polarization: Vertical



Channel Frequency: 18 - 40 GHz Polarization: Horizontal

8 Conducted Spurious Emission Test on AC Power Line

Result ***Pass***

Test Specification	:	FCC Part 15 Section 15.207 / RSS Gen Issue 5 Section 8.8
Test Method	:	ANSI C 63.10-2013
Testing Location	:	Screened room
Measurement Bandwidth	:	9kHz
Frequency Range	:	150kHz – 30MHz
Supply Voltage	:	110VAC,60Hz
Test Method	:	Refer TEST METHODOLOGY

***Note: The product has tested with AC to DC adapter and Wireless Qi charger**

Limits of section 15.207

Frequency of emission (MHz)	QP Limit (dBµV)	AV Limit (dBµV/m)
0.15 – 0.5	66 – 56*	56 – 46*
0.5 – 5	56	46
5 – 30	60	50

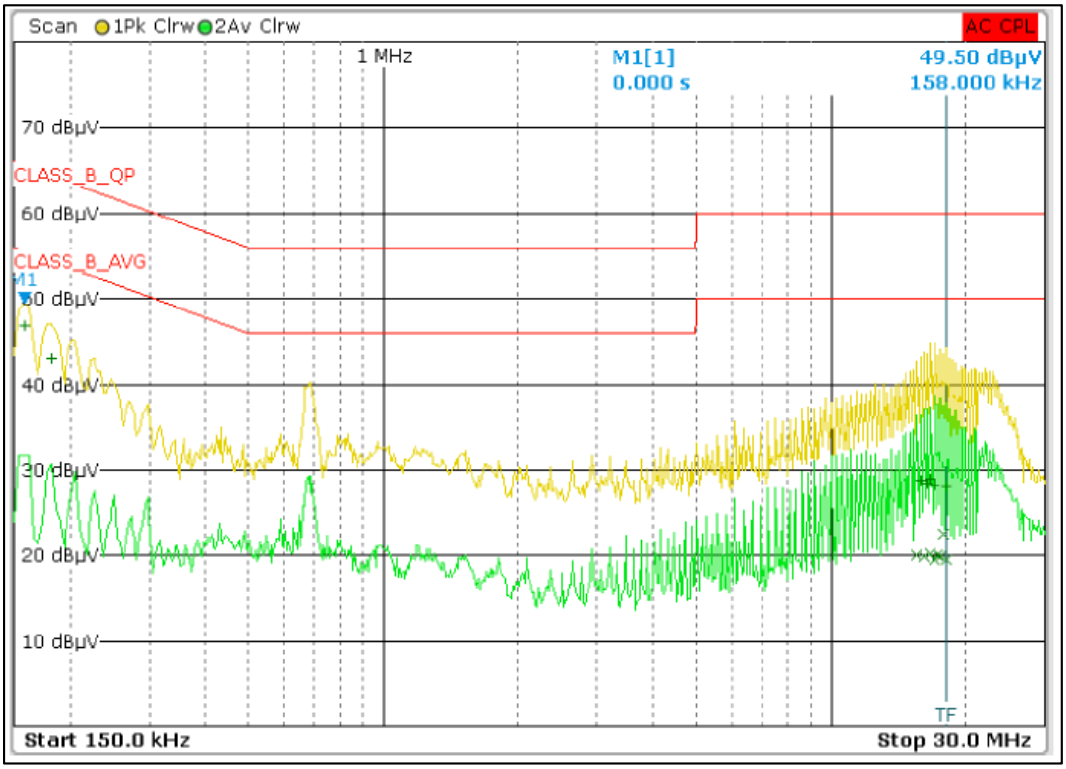
* Decreases with the logarithm of the frequency

Test Conditions:

Normal Temperature = +24°C Voltage (V norm) = 110V AC (Through AC to DC Adapter and Qi Charger)
RH = 64 %

Test result:

Power: 110V 60HZ_LINE

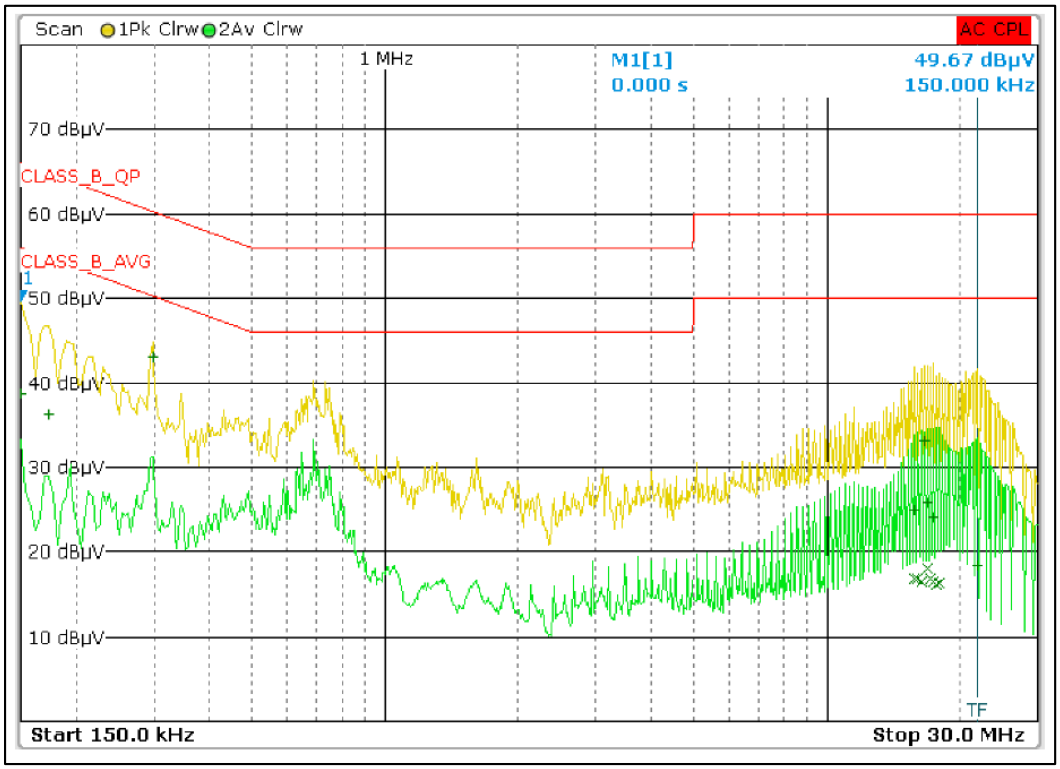


Line Graph

Trace	Frequency	Level (dBµV)	Phase	Detector	Delta Limit/dB
1	158.000000000 kHz	46.94		Quasi Peak	-18.63
1	182.000000000 kHz	43.09		Quasi Peak	-21.30
2	17.810000000 MHz	22.47		Average	-27.53
2	16.694000000 MHz	20.24		Average	-29.76
2	15.582000000 MHz	20.08		Average	-29.92
2	17.250000000 MHz	20.05		Average	-29.95
2	17.530000000 MHz	19.90		Average	-30.10
2	16.138000000 MHz	19.81		Average	-30.19
2	16.974000000 MHz	19.57		Average	-30.43
2	18.086000000 MHz	19.45		Average	-30.55
1	16.694000000 MHz	28.89		Quasi Peak	-31.11
1	15.862000000 MHz	28.82		Quasi Peak	-31.18
1	16.418000000 MHz	28.44		Quasi Peak	-31.56
1	16.974000000 MHz	28.30		Quasi Peak	-31.70
1	18.086000000 MHz	28.04		Quasi Peak	-31.96

Line Table

Power: 110V60HZ_NEUTRAL



Line Graph

Trace	Frequency	Level (dBµV)	Phase	Detector	Delta Limit/dB
1	298.000000000 kHz	43.13		Quasi Peak	-17.17
1	16.602000000 MHz	33.17		Quasi Peak	-26.83
1	150.000000000 kHz	38.64		Quasi Peak	-27.36
1	174.000000000 kHz	36.20		Quasi Peak	-28.57
2	16.870000000 MHz	18.16		Average	-31.84
2	15.798000000 MHz	16.87		Average	-33.13
2	16.066000000 MHz	16.86		Average	-33.14
2	17.138000000 MHz	16.82		Average	-33.18
2	16.334000000 MHz	16.64		Average	-33.36
2	17.406000000 MHz	16.53		Average	-33.47
2	17.942000000 MHz	16.45		Average	-33.55
2	17.674000000 MHz	16.29		Average	-33.71
1	16.870000000 MHz	25.85		Quasi Peak	-34.15
1	15.798000000 MHz	24.99		Quasi Peak	-35.01
1	17.406000000 MHz	24.06		Quasi Peak	-35.94
1	21.958000000 MHz	18.52		Quasi Peak	-41.48

Line Table

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*****END OF TEST REPORT*****