20	3196.000M	42.3	-34.0	+29.5	+3.1	+0.8	+0.0	43.2	54.0	-10.8	Horiz
			+0.5	+0.0	+1.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
21	2356.000M	45.6	-34.3	+27.7	+2.5	+0.6	+0.0	43.2	54.0	-10.8	Horiz
			+0.2	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.6	+0.3	+0.0						
22	725.500M	30.8	+0.0	+0.0	+0.0	+0.3	+0.0	35.1	46.0	-10.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+1.3					
			-27.9	+1.8	+5.8	+23.0					
			+0.0	+0.0	+0.0						
23	4924.085M	37.5	-33.6	+32.6	+4.2	+0.9	+0.0	42.5	54.0	-11.4	Horiz
	Ave		+0.5	+0.0	+0.5	+0.0			1Mbps High		
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
^	4924.020M	42.0	-33.6	+32.6	+4.2	+0.9	+0.0	47.1	54.0	-6.9	Horiz
			+0.5	+0.0	+0.5	+0.0			1Mbps High		
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
25	4862.520M	37.2	-33.6	+32.5	+4.1	+0.9	+0.0	42.2	54.0	-11.8	Horiz
			+0.5	+0.0	+0.6	+0.0			n40MHz (MCS7)		
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
26	1126.000M	49.9	-36.6	+24.8	+1.8	+0.4	+0.0	42.1	54.0	-11.9	Horiz
			+0.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+1.6	+0.1	+0.0						
27	1962.000M	45.4	-34.6	+27.6	+2.4	+0.6	+0.0	42.1	54.0	-11.9	Horiz
			+0.2	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.4	+0.1	+0.0						
28	138.600M	43.5	+0.0	+0.0	+0.0	+0.1	+0.0	31.5	43.5	-12.0	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.5					
			-27.5	+0.7	+5.8	+8.4					
			+0.0	+0.0	+0.0						
29	2134.000M	44.9	-34.4	+27.8	+2.4	+0.6	+0.0	42.0	54.0	-12.0	Horiz
			+0.2	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.4	+0.1	+0.0						

30	1220.000M	48.2	-36.1	+25.1	+1.8	+0.4	+0.0	40.6	54.0	-13.4	Vert
			+0.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+1.0	+0.1	+0.0						
31	180.400M	39.9	+0.0	+0.0	+0.0	+0.2	+0.0	30.0	43.5	-13.5	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+0.8	+5.8	+10.0					
			+0.0	+0.0	+0.0						
32	291.775M	38.4	+0.0	+0.0	+0.0	+0.2	+0.0	32.3	46.0	-13.7	Vert
	QP		+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.8					
			-27.0	+1.1	+5.8	+13.0					
			+0.0	+0.0	+0.0						
33	165.875M	38.2	+0.0	+0.0	+0.0	+0.2	+0.0	28.2	43.5	-15.3	Vert
	QP		+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.6					
			-27.4	+0.8	+5.8	+10.0					
			+0.0	+0.0	+0.0						
^	165.800M	47.1	+0.0	+0.0	+0.0	+0.2	+0.0	37.1	43.5	-6.4	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.6					
			-27.4	+0.8	+5.8	+10.0					
			+0.0	+0.0	+0.0						
35	19496.230	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	54.0	-15.3	Horiz
	M		+0.0	+0.0	+0.0	+0.0					
			+0.0	-12.9	+9.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
36	9648.001M	26.0	-33.9	+37.6	+6.2	+1.3	+0.0	38.6	54.0	-15.4	Horiz
	Ave		+0.5	+0.0	+0.9	+0.0			1Mbps Low		
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
^	9647.960M	37.0	-33.9	+37.6	+6.2	+1.3	+0.0	49.6	54.0	-4.4	Horiz
			+0.5	+0.0	+0.9	+0.0			1Mbps Low		
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
38	24370.083	40.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.7	54.0	-16.3	Horiz
	M		+0.0	+0.0	+0.0	+0.0					
			+0.0	-12.8	+9.9	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
39	9748.333M	25.3	-33.9	+37.5	+6.3	+1.3	+0.0	37.6	54.0	-16.4	Horiz
	Ave		+0.4	+0.0	+0.7	+0.0			1Mbps Mid		
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						

40	9848.020M Ave	25.1	-33.9 +0.4 +0.0 +0.0 +0.0	+37.5 +0.0 +0.0 +0.0 +0.0	+6.3 +0.7 +0.0 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+0.0	37.4	54.0 1Mbps High	-16.6	Horiz
^	9848.020M	36.1	-33.9 +0.4 +0.0 +0.0 +0.0	+37.5 +0.0 +0.0 +0.0 +0.0	+6.3 +0.7 +0.0 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+0.0	48.4	54.0 1Mbps High	-5.6	Horiz
42	194.900M	36.7	+0.0 +0.0 +0.0 -27.2 +0.0	+0.0 +0.0 +0.0 +0.8 +0.0	+0.0 +0.0 +0.0 +5.8 +0.0	+0.2 +0.0 +0.7 +9.8	+0.0	26.8	43.5	-16.7	Vert
43	9748.300M Ave	25.1	-33.9 +0.4 +0.0 +0.0 +0.5	+37.5 +0.0 +0.0 +0.0 +0.0	+6.3 +0.0 +0.0 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+0.0	37.2	54.0 5M Mid	-16.8	Horiz
^	9748.333M	36.6	-33.9 +0.4 +0.0 +0.0 +0.0	+37.5 +0.0 +0.0 +0.0 +0.0	+6.3 +0.7 +0.0 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+0.0	48.9	54.0 1Mbps Mid	-5.1	Horiz
^	9748.300M	36.3	-33.9 +0.4 +0.0 +0.0 +0.5	+37.5 +0.0 +0.0 +0.0 +0.0	+6.3 +0.0 +0.0 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+0.0	48.4	54.0 5M Mid	-5.6	Horiz
46	96.114M QP	39.2	+0.0 +0.0 +0.0 -27.7 +0.0	+0.0 +0.0 +0.0 +0.6 +0.0	+0.0 +0.0 +0.0 +5.8 +0.0	+0.1 +0.0 +0.5 +7.7	+0.0	26.2	43.5	-17.3	Vert
47	14622.100 M	37.7	+0.0 +0.0 +0.0 +0.0 +0.0	+0.0 +0.0 +0.0 +0.0 +0.0	+8.2 +0.0 +0.0 +0.0 +0.0	+1.4 -14.7 +0.0 +0.0	+0.0	32.6	54.0	-21.4	Horiz
48	4874.008M Ave	27.5	-33.6 +0.5 +0.0 +0.0 +0.0	+32.5 +0.0 +0.0 +0.0 +0.0	+4.2 +0.6 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	32.6	54.0 11Mbps Mid	-21.4	Horiz
^	4873.980M	41.3	-33.6 +0.5 +0.0 +0.0 +0.0	+32.5 +0.0 +0.0 +0.0 +0.0	+4.2 +0.6 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	46.4	54.0 11Mbps Mid	-7.6	Horiz

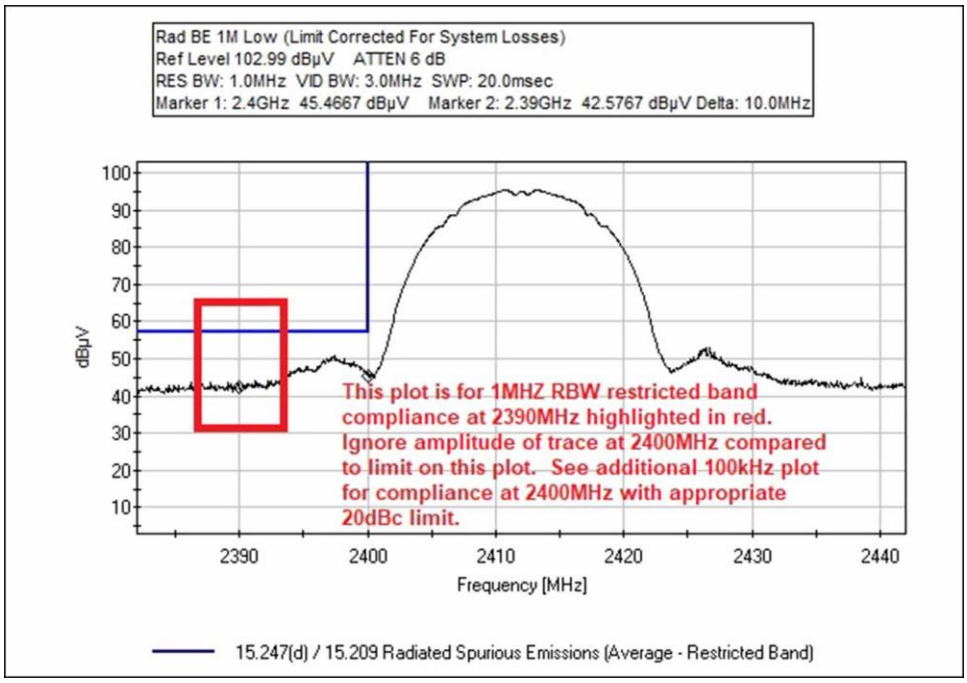
50	4874.080M Ave	24.7	-33.6 +0.5 +0.0 +0.0 +0.0	+32.5 +0.0 +0.0 +0.0 +0.0	+4.2 +0.6 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	29.8	54.0 65Mbps Mid	-24.2	Horiz
^	4874.070M	42.8	-33.6 +0.5 +0.0 +0.0 +0.0	+32.5 +0.0 +0.0 +0.0 +0.0	+4.2 +0.6 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	47.9	54.0 1Mbps Mid	-6.1	Horiz
^	4874.025M	41.9	-33.6 +0.5 +0.0 +0.0 +0.6	+32.5 +0.0 +0.0 +0.0 +0.0	+4.2 +0.0 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	47.0	54.0 5M Mid	-7.0	Horiz
^	4874.080M	37.5	-33.6 +0.5 +0.0 +0.0 +0.0	+32.5 +0.0 +0.0 +0.0 +0.0	+4.2 +0.6 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	42.6	54.0 65Mbps Mid	-11.4	Horiz
54	4873.840M Ave	24.6	-33.6 +0.5 +0.0 +0.0 +0.0	+32.5 +0.0 +0.0 +0.0 +0.0	+4.2 +0.6 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	29.7	54.0 54Mbps Mid	-24.3	Horiz
^	4873.840M	37.4	-33.6 +0.5 +0.0 +0.0 +0.0	+32.5 +0.0 +0.0 +0.0 +0.0	+4.2 +0.6 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	42.5	54.0 54Mbps Mid	-11.5	Horiz
56	4864.731M Ave	23.9	-33.6 +0.5 +0.0 +0.0 +0.0	+32.5 +0.0 +0.0 +0.0 +0.0	+4.1 +0.6 +0.0 +0.0 +0.0	+0.9 +0.0 +0.0 +0.0	+0.0	28.9	54.0 n40MHz (MCS7)	-25.1	Horiz
57	3193.964M Ave	26.6	-34.0 +0.5 +0.0 +0.0 +0.0	+29.5 +0.0 +0.0 +0.0 +0.0	+3.1 +1.0 +0.0 +0.0 +0.0	+0.8 +0.0 +0.0 +0.0	+0.0	27.5	54.0	-26.5	Horiz
58	14622.200 M Ave	28.9	+0.0 +0.0 +0.0 +0.0 +0.0	+0.0 +0.0 +0.0 +0.0 +0.0	+8.2 +0.0 +0.0 +0.0 +0.0	+1.4 -14.7 +0.0 +0.0	+0.0	23.8	54.0	-30.2	Horiz
59	910.000k	-64.5	+0.0 +0.0 +0.0 +0.0 +0.0	+0.0 +0.0 +0.0 +0.0 +0.0	+0.0 +0.0 +0.0 +0.0 +9.7	+0.0 +0.0 +0.0 +0.0	-40.0 376	-94.8	28.4	-123.2	Para, 152

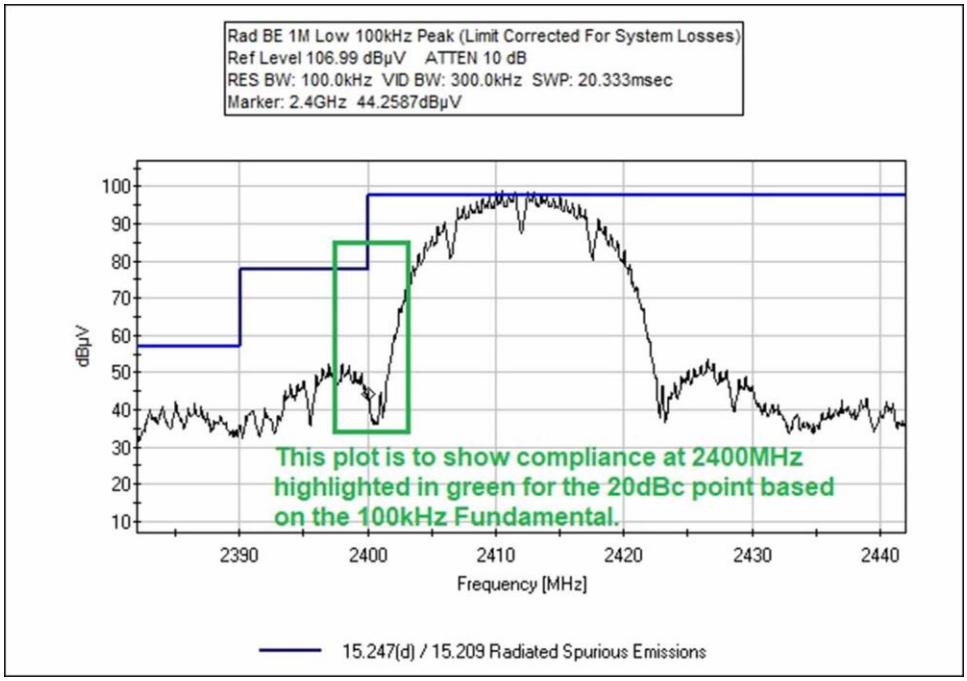
60	18.020M	-84.2	+0.0 +0.0 +0.0 +0.0 +0.0	+0.0 +0.0 +0.0 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0 +8.0	+0.1 +0.0 +0.0	-40.0 376	-115.9	29.5	-145.4	Para, 152
61	29.800M	-89.3	+0.0 +0.0 +0.0 +0.0 +0.0	+0.0 +0.0 +0.0 +0.0 +0.0	+0.3 +0.0 +0.0 +0.0 +4.3	+0.1 +0.0 +0.0	-40.0 376	-124.6	29.5	-154.1	Para, 152

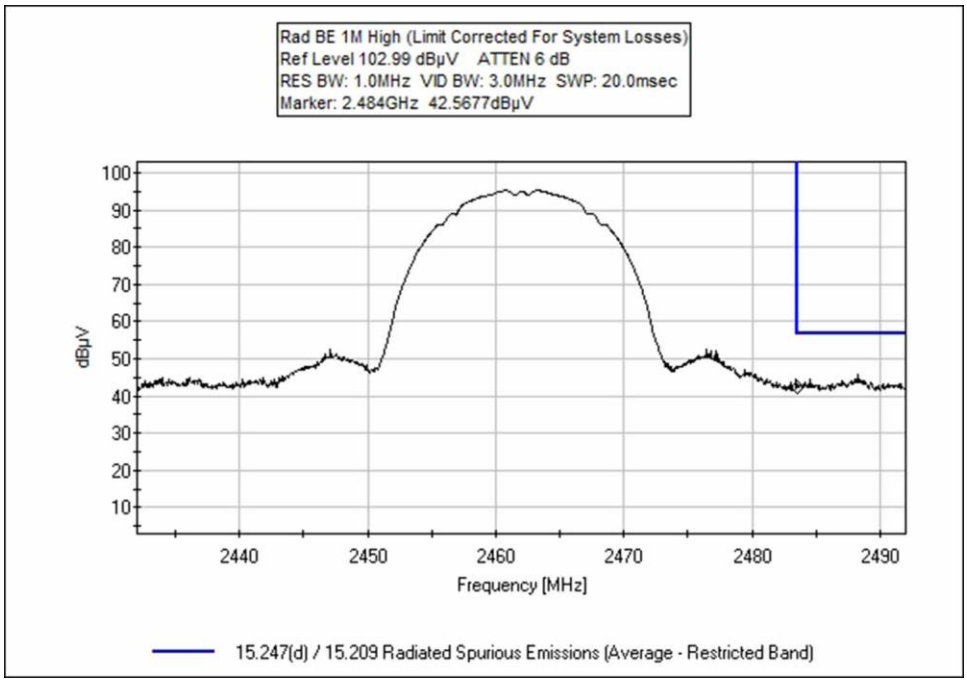
20Band Edge

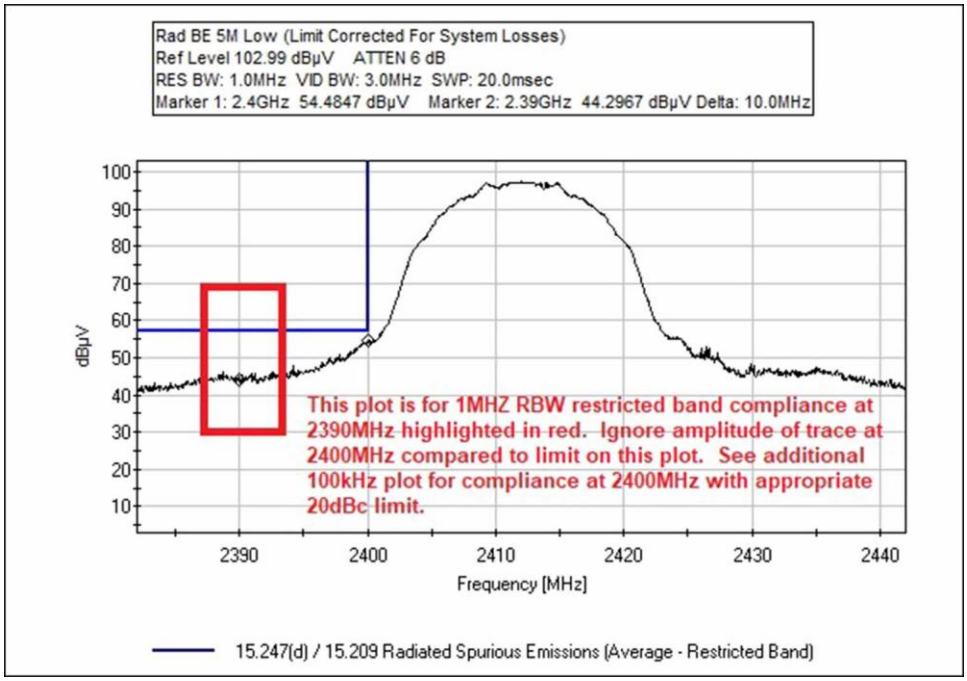
Band Edge Summary					
Frequency (MHz)	**Modulation**	**Ant. Type**	**Field Strength (dBuV/m @3m)**	**Limit (dBuV/m @3m)**	**Results**
2390	802.11b 1Mbps	Trace, -5dBi	39.5	74	Pass
2483.5	802.11b 1Mbps	Trace, -5dBi	39.6	74	Pass
2390	802.11b 5Mbps	Trace, -5dBi	41.2	74	Pass
2483.5	802.11b 5Mbps	Trace, -5dBi	40.6	74	Pass
2390	802.11b 11Mbps	Trace, -5dBi	40.4	74	Pass
2483.5	802.11b 11Mbps	Trace, -5dBi	40.6	74	Pass
2390 (PEAK)	802.11g 54Mbps	Trace, -5dBi	53.5	74	Pass
2390 (AVE)	802.11g 54Mbps	Trace, -5dBi	31.3	54	Pass
2483.5 (PEAK)	802.11g 54Mbps	Trace, -5dBi	60.2	74	Pass
2483.5 (AVE)	802.11g 54Mbps	Trace, -5dBi	30.9	54	Pass
2390 (PEAK)	802.11n20 (MCS7)	Trace, -5dBi	59.6	74	Pass
2390 (AVE)	802.11n20 (MCS7)	Trace, -5dBi	31	54	Pass
2483.5 (PEAK)	802.11n20 (MCS7)	Trace, -5dBi	57.6	74	Pass
2483.5 (AVE)	802.11n20 (MCS7)	Trace, -5dBi	32.2	54	Pass
2390 (PEAK)	802.11n40 (MCS11)	Trace, -5dBi	62.2	74	Pass
2390 (AVE)	802.11n40 (MCS11)	Trace, -5dBi	32.5	54	Pass
2483.5 (PEAK)	802.11n40 (MCS11)	Trace, -5dBi	61.9	74	Pass
2483.5 (AVE)	802.11n40 (MCS11)	Trace, -5dBi	32.6	54	Pass
2400 (100kHz)	802.11b 1Mbps	Trace, -5dBi	41.2	74.5	Pass
2400 (100kHz)	802.11b 5Mbps	Trace, -5dBi	51.6	74.5	Pass
2400 (100kHz)	802.11b 11Mbps	Trace, -5dBi	49.1	74.5	Pass
2400 (100kHz)	802.11g 54Mbps	Trace, -5dBi	62.5	74.5	Pass
2400 (100kHz)	802.11n20 (MCS7)	Trace, -5dBi	63.1	74.5	Pass
2400 (100kHz)	802.11n40 (MCS11)	Trace, -5dBi	60.6	74.5	Pass

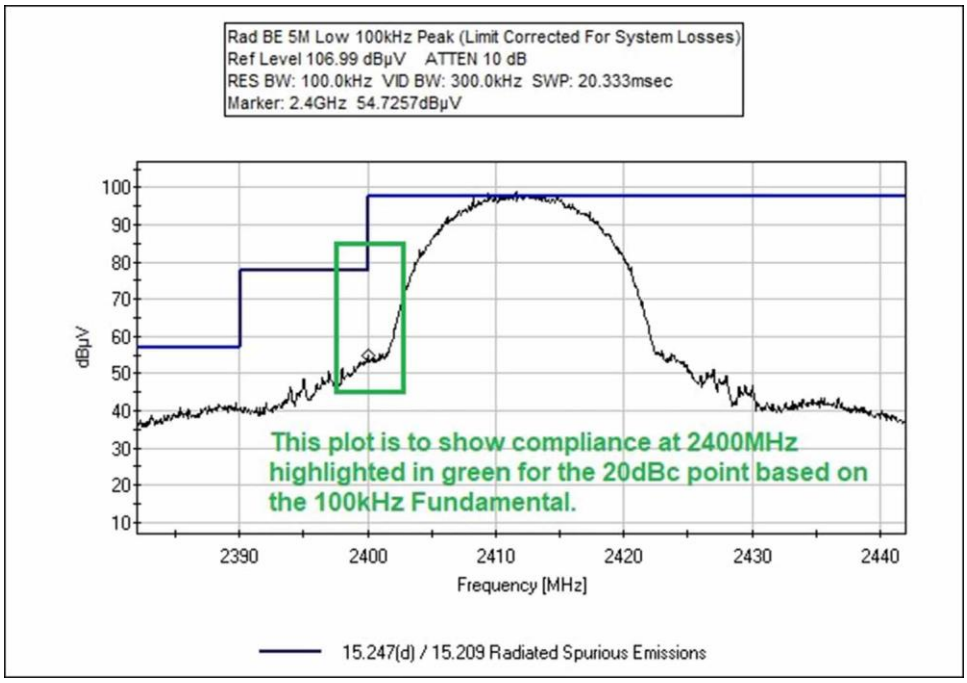
Band Edge Plots

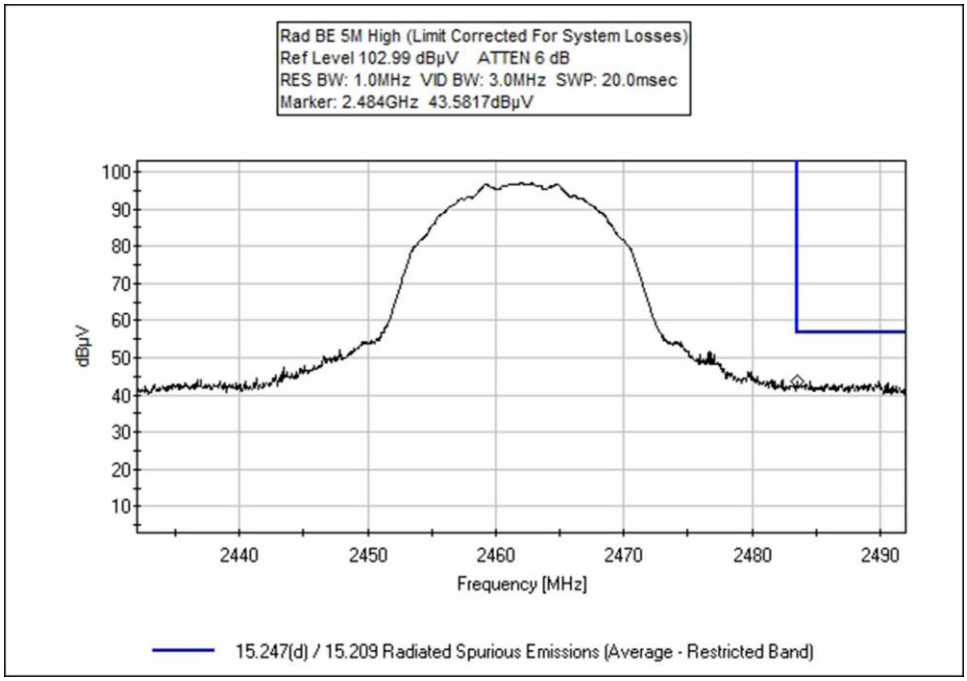


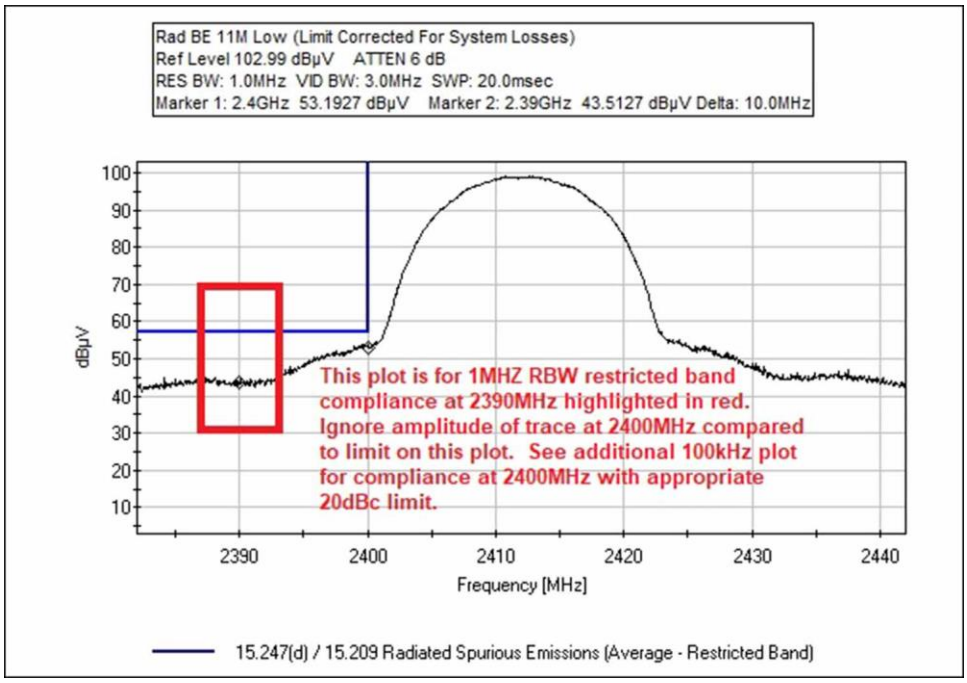


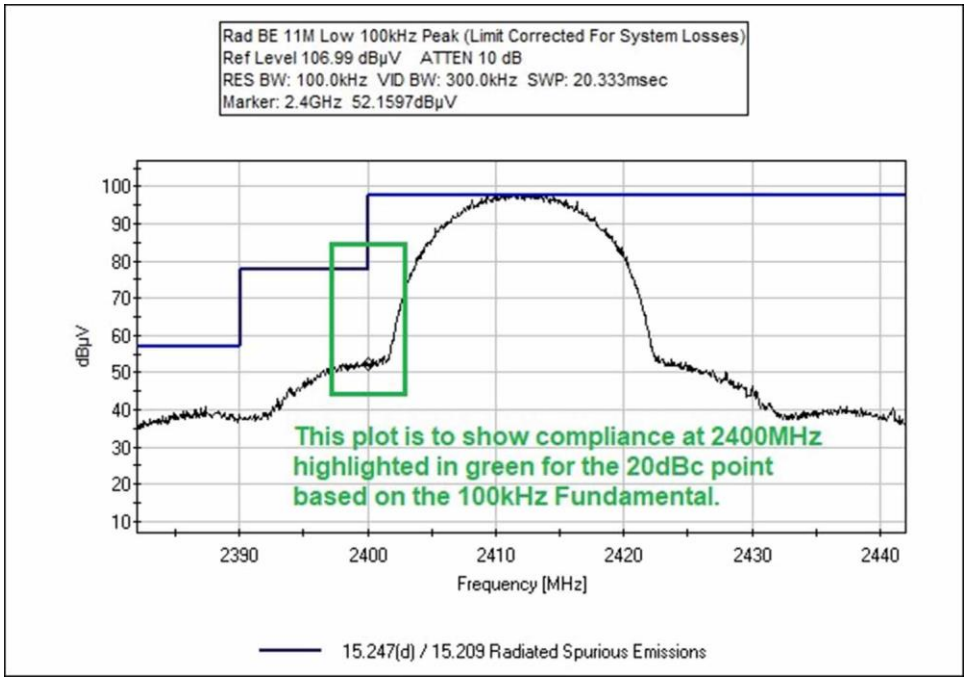

Rad BE 1M High (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker: 2.484GHz 42.5677dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

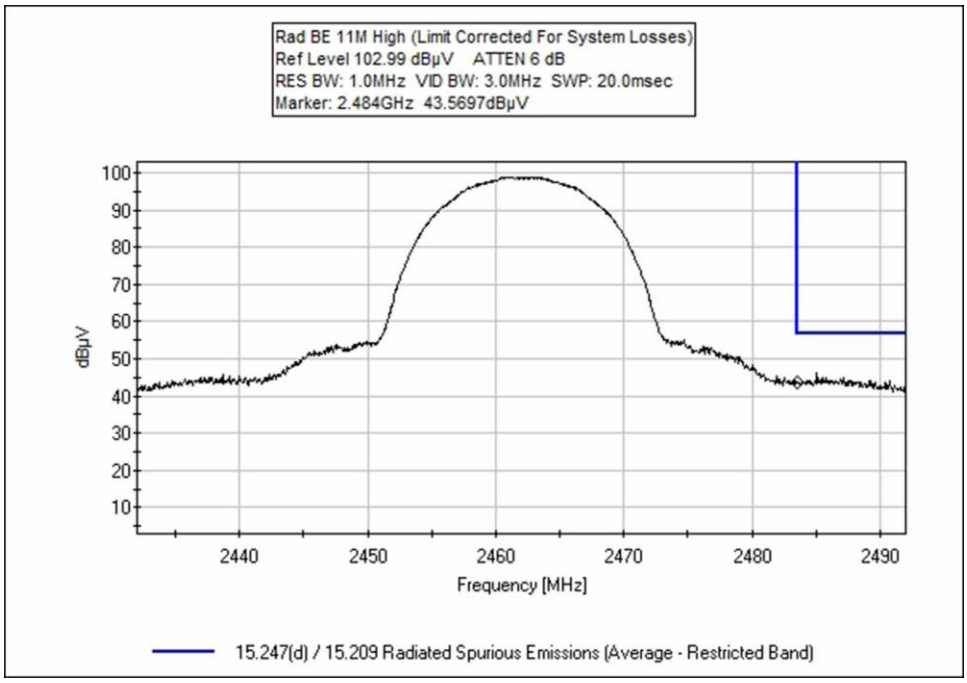

Rad BE 5M Low (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker 1: 2.4GHz 54.4847 dBµV Marker 2: 2.39GHz 44.2967 dBµV Delta: 10.0MHz
dBµV
This plot is for 1MHZ RBW restricted band compliance at 2390MHz highlighted in red. Ignore amplitude of trace at 2400MHz compared to limit on this plot. See additional 100kHz plot for compliance at 2400MHz with appropriate 20dBc limit.
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

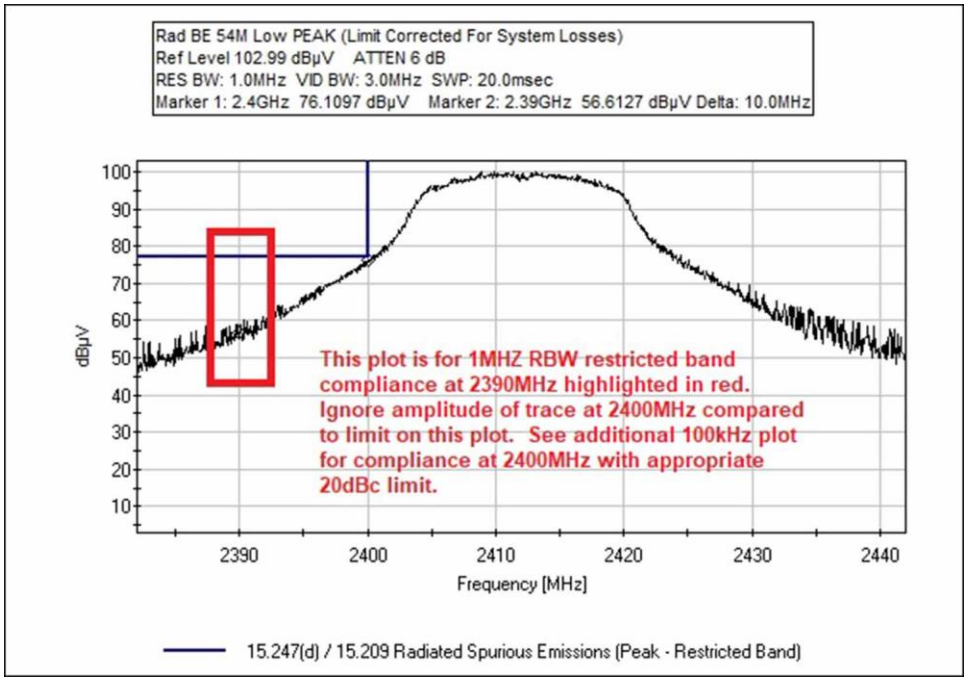

Rad BE 5M Low 100kHz Peak (Limit Corrected For System Losses)
Ref Level 106.99 dBµV ATTEN 10 dB
RES BW: 100.0kHz VID BW: 300.0kHz SWP: 20.333msec
Marker: 2.4GHz 54.7257dBµV
dBµV
Frequency [MHz]
This plot is to show compliance at 2400MHz highlighted in green for the 20dBc point based on the 100kHz Fundamental.
15.247(d) / 15.209 Radiated Spurious Emissions

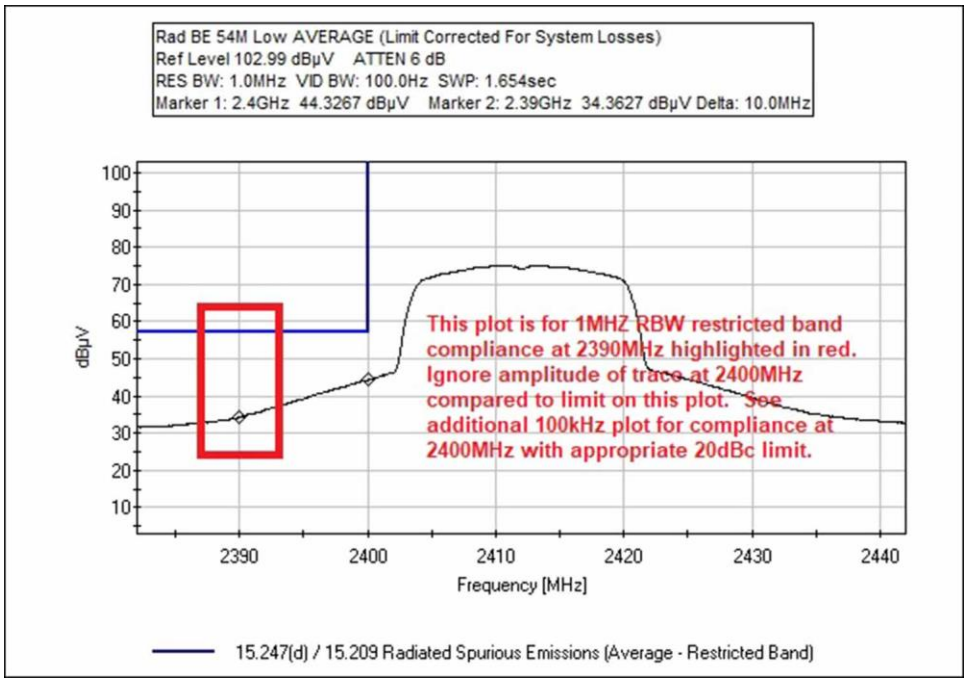

Rad BE 5M High (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker: 2.484GHz 43.5817dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

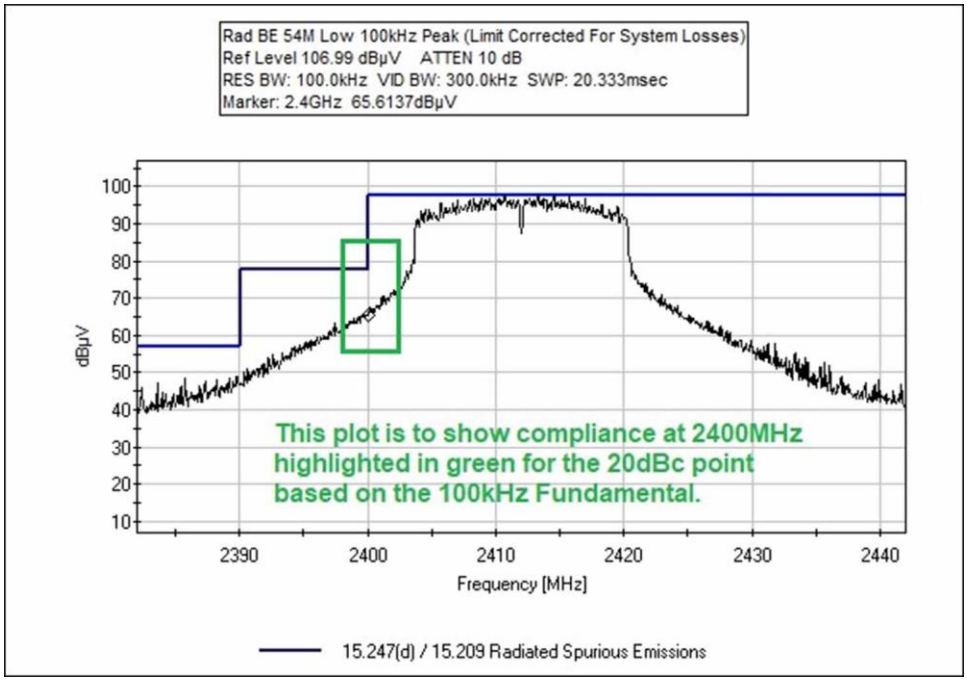

Rad BE 11M Low (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker 1: 2.4GHz 53.1927 dBµV Marker 2: 2.39GHz 43.5127 dBµV Delta: 10.0MHz
dBµV
Frequency [MHz]
This plot is for 1MHZ RBW restricted band compliance at 2390MHz highlighted in red. Ignore amplitude of trace at 2400MHz compared to limit on this plot. See additional 100kHz plot for compliance at 2400MHz with appropriate 20dBc limit.
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

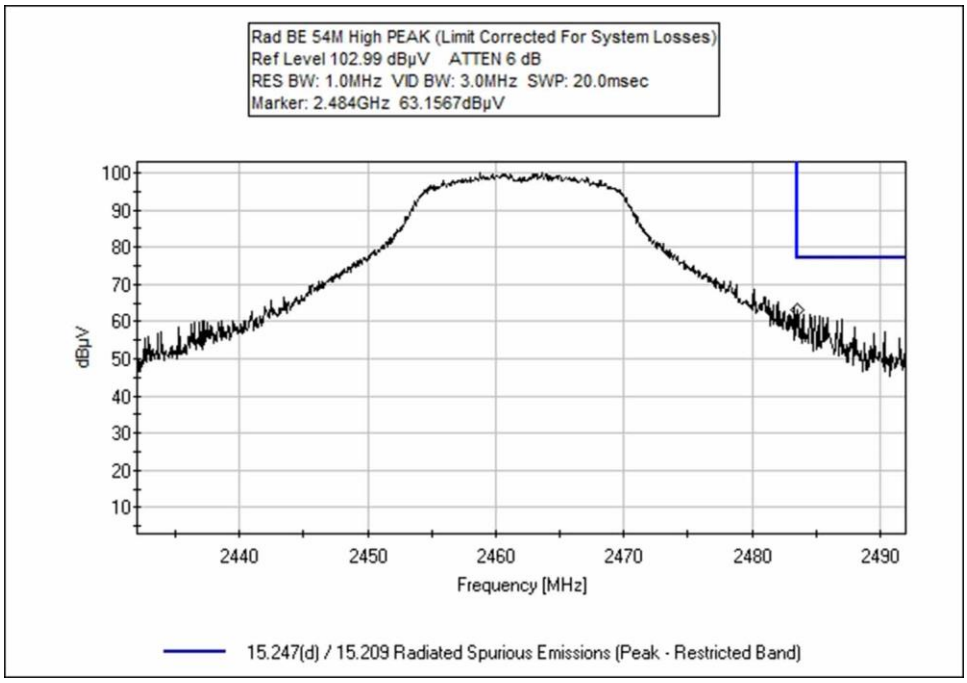

Rad BE 11M Low 100kHz Peak (Limit Corrected For System Losses)
Ref Level 106.99 dBµV ATTEN 10 dB
RES BW: 100.0kHz VID BW: 300.0kHz SWP: 20.333msec
Marker: 2.4GHz 52.1597dBµV
dBµV
Frequency [MHz]
This plot is to show compliance at 2400MHz highlighted in green for the 20dBc point based on the 100kHz Fundamental.
15.247(d) / 15.209 Radiated Spurious Emissions

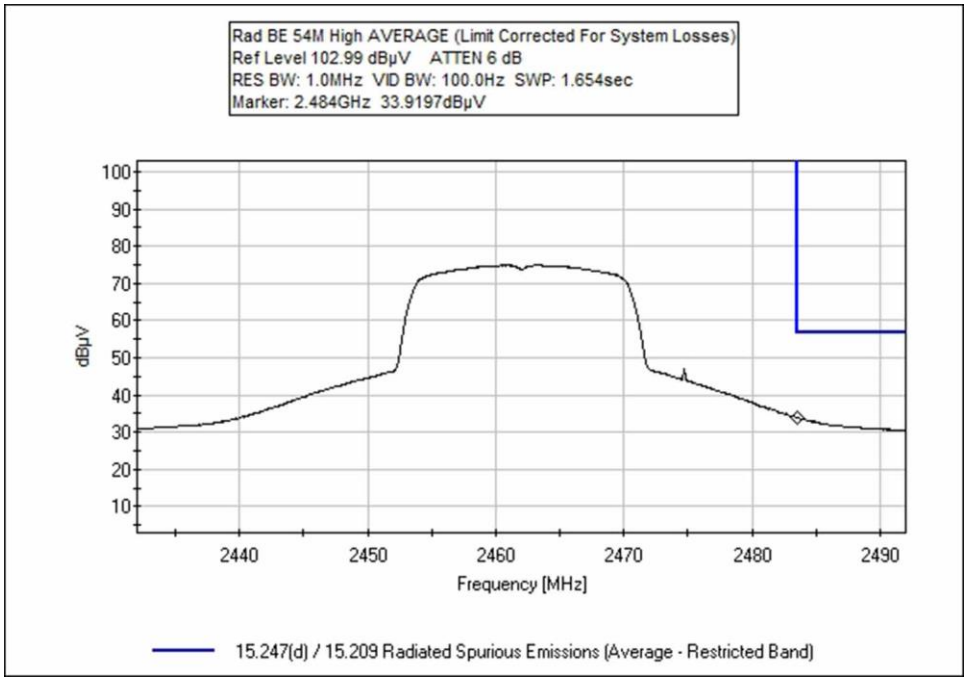

Rad BE 11M High (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker: 2.484GHz 43.5697dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

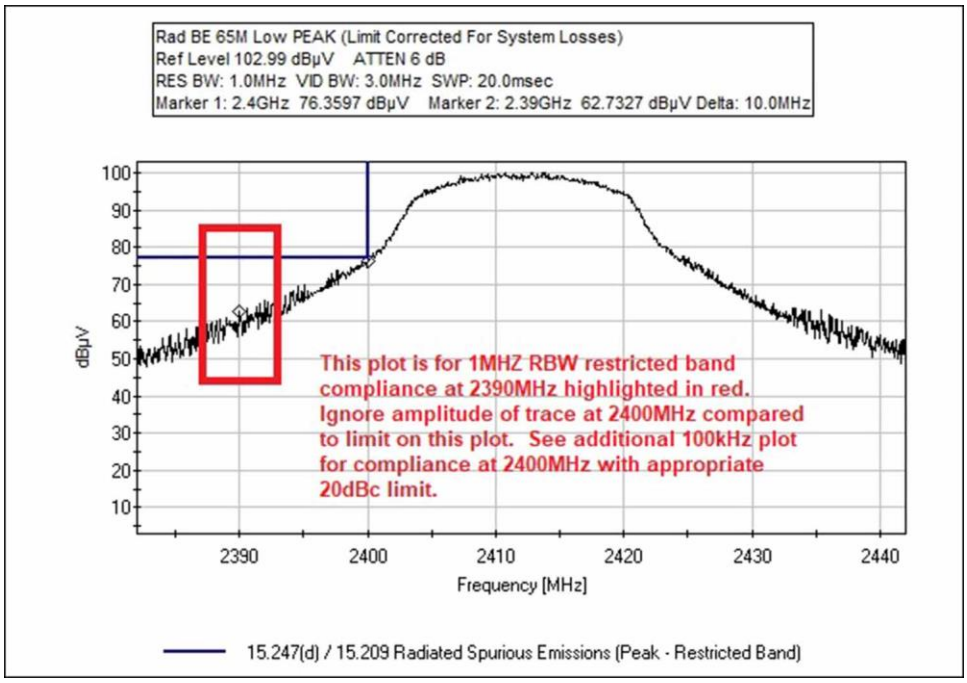

Rad BE 54M Low PEAK (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker 1: 2.4GHz 76.1097 dBµV Marker 2: 2.39GHz 56.6127 dBµV Delta: 10.0MHz
This plot is for 1MHZ RBW restricted band compliance at 2390MHz highlighted in red. Ignore amplitude of trace at 2400MHz compared to limit on this plot. See additional 100kHz plot for compliance at 2400MHz with appropriate 20dBc limit.
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Peak - Restricted Band)

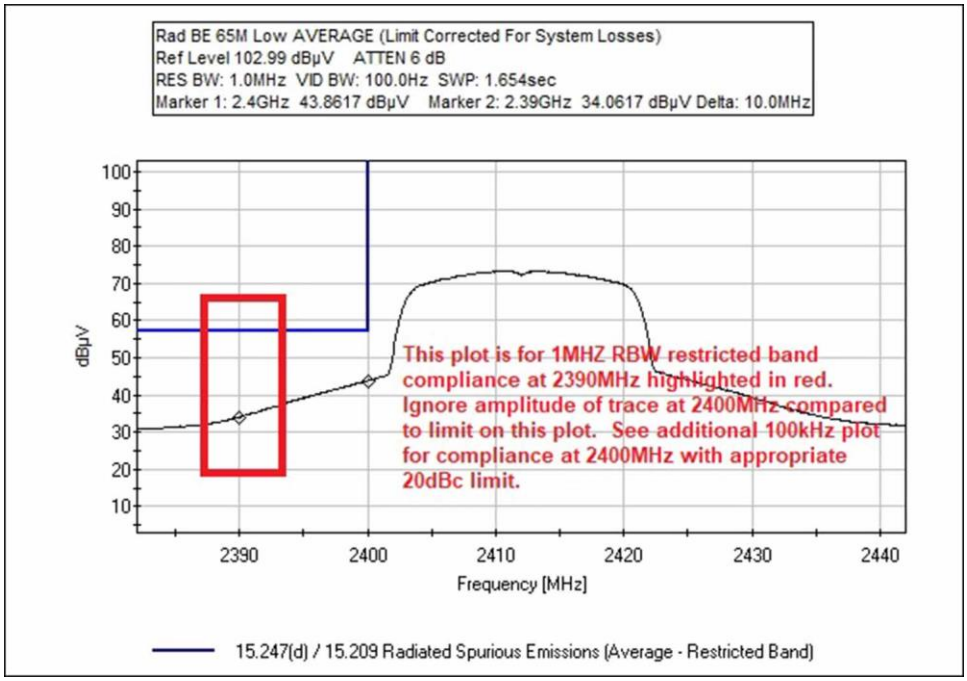

Rad BE 54M Low AVERAGE (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 100.0Hz SWP: 1.654sec
Marker 1: 2.4GHz 44.3267 dBµV Marker 2: 2.39GHz 34.3627 dBµV Delta: 10.0MHz
dBµV
100
90
80
70
60
50
40
30
20
10
2390
2400
2410
2420
2430
2440
Frequency [MHz]
This plot is for 1MHZ RBW restricted band compliance at 2390MHz highlighted in red. Ignore amplitude of trace at 2400MHz compared to limit on this plot. See additional 100kHz plot for compliance at 2400MHz with appropriate 20dBc limit.
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

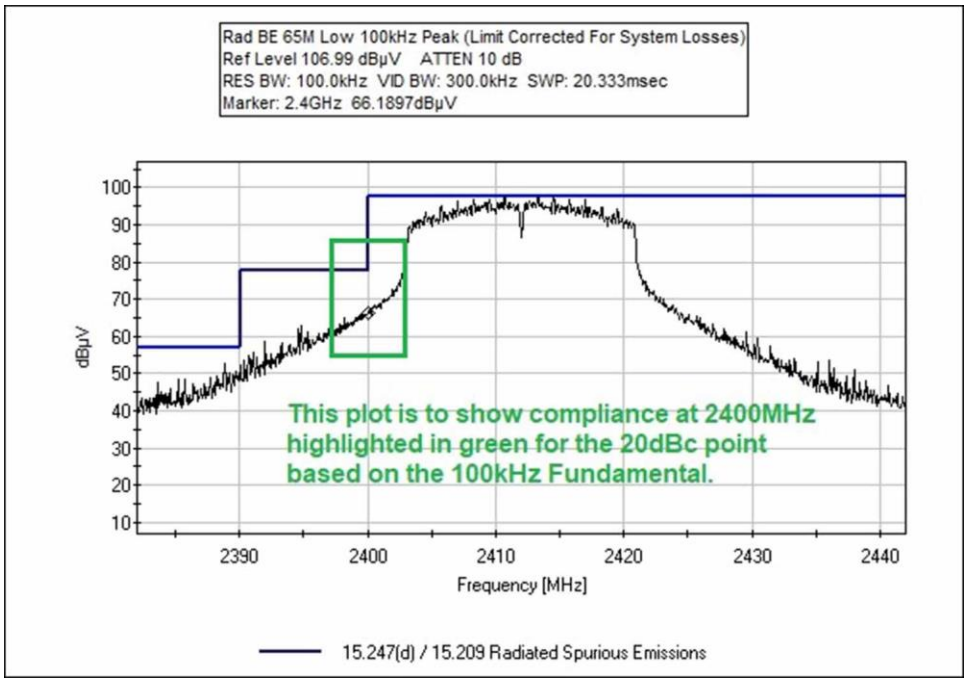

Rad BE 54M Low 100kHz Peak (Limit Corrected For System Losses)
Ref Level 106.99 dBµV ATTEN 10 dB
RES BW: 100.0kHz VID BW: 300.0kHz SWP: 20.333msec
Marker: 2.4GHz 65.6137dBµV
dBµV
100
90
80
70
60
50
40
30
20
10
2390
2400
2410
2420
2430
2440
Frequency [MHz]
This plot is to show compliance at 2400MHz highlighted in green for the 20dBc point based on the 100kHz Fundamental.
15.247(d) / 15.209 Radiated Spurious Emissions

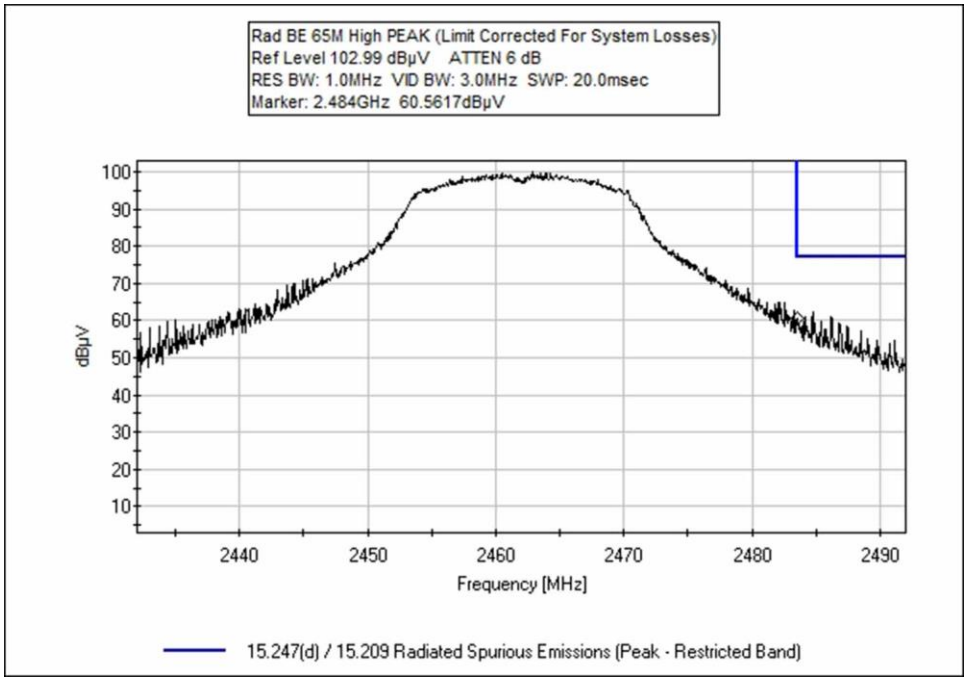

Rad BE 54M High PEAK (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker: 2.484GHz 63.1567dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Peak - Restricted Band)

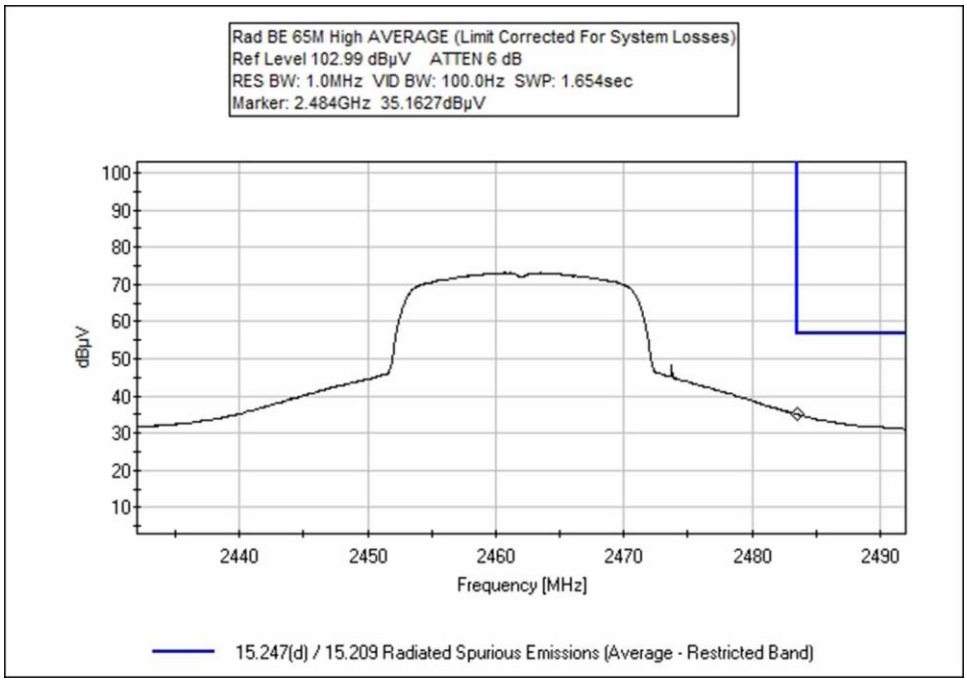

Rad BE 54M High AVERAGE (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 100.0Hz SWP: 1.654sec
Marker: 2.484GHz 33.9197dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

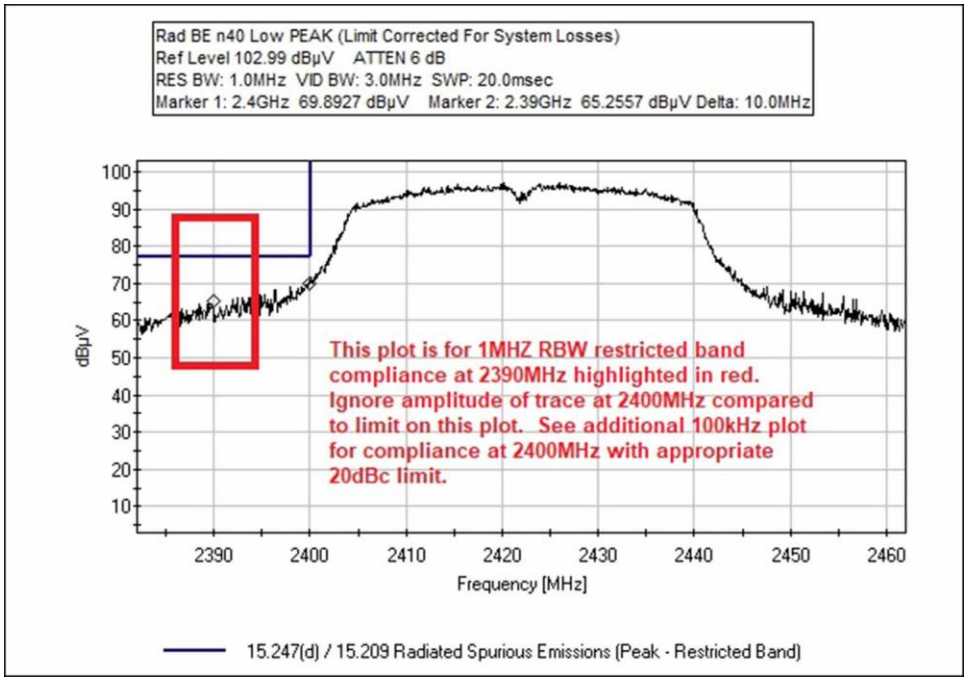

Rad BE 65M Low PEAK (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker 1: 2.4GHz 76.3597 dBµV Marker 2: 2.39GHz 62.7327 dBµV Delta: 10.0MHz
dBµV
Frequency [MHz]
This plot is for 1MHZ RBW restricted band compliance at 2390MHz highlighted in red. Ignore amplitude of trace at 2400MHz compared to limit on this plot. See additional 100kHz plot for compliance at 2400MHz with appropriate 20dBc limit.
15.247(d) / 15.209 Radiated Spurious Emissions (Peak - Restricted Band)

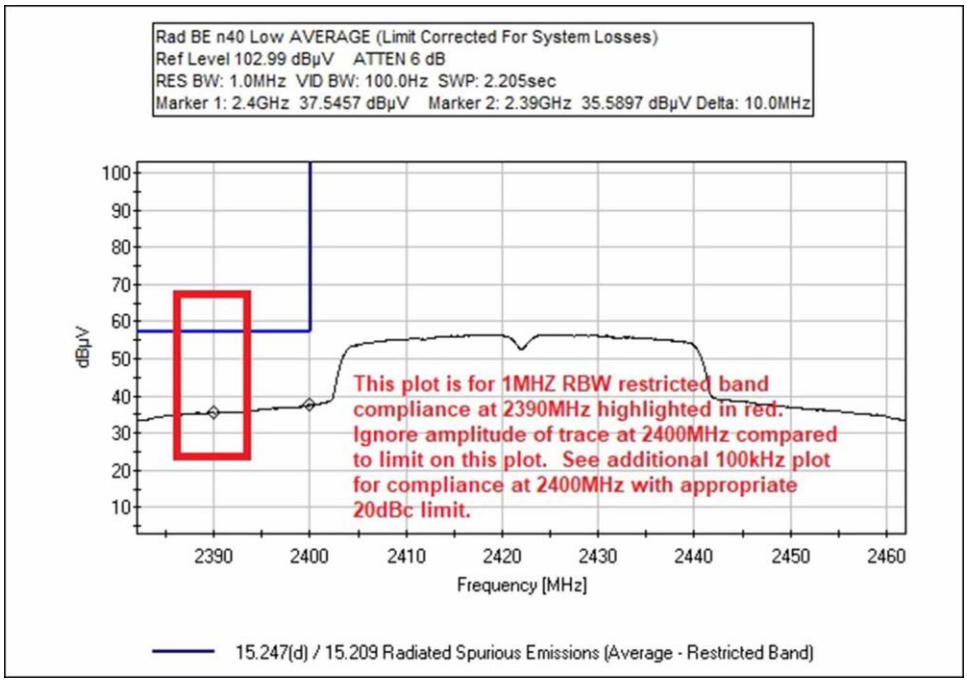

Rad BE 65M Low AVERAGE (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 100.0Hz SWP: 1.654sec
Marker 1: 2.4GHz 43.8617 dBµV Marker 2: 2.39GHz 34.0617 dBµV Delta: 10.0MHz
dBµV
Frequency [MHz]
This plot is for 1MHZ RBW restricted band compliance at 2390MHz highlighted in red. Ignore amplitude of trace at 2400MHz compared to limit on this plot. See additional 100kHz plot for compliance at 2400MHz with appropriate 20dBc limit.
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

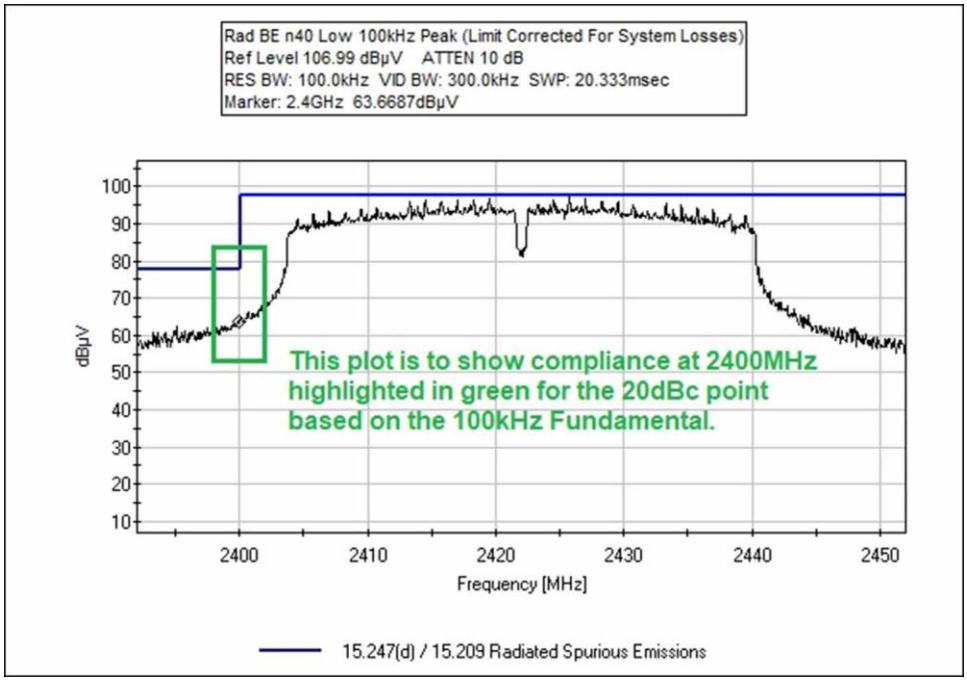

Rad BE 65M Low 100kHz Peak (Limit Corrected For System Losses)
Ref Level 106.99 dBµV ATTEN 10 dB
RES BW: 100.0kHz VID BW: 300.0kHz SWP: 20.333msec
Marker: 2.4GHz 66.1897dBµV
dBµV
Frequency [MHz]
This plot is to show compliance at 2400MHz highlighted in green for the 20dBc point based on the 100kHz Fundamental.
15.247(d) / 15.209 Radiated Spurious Emissions

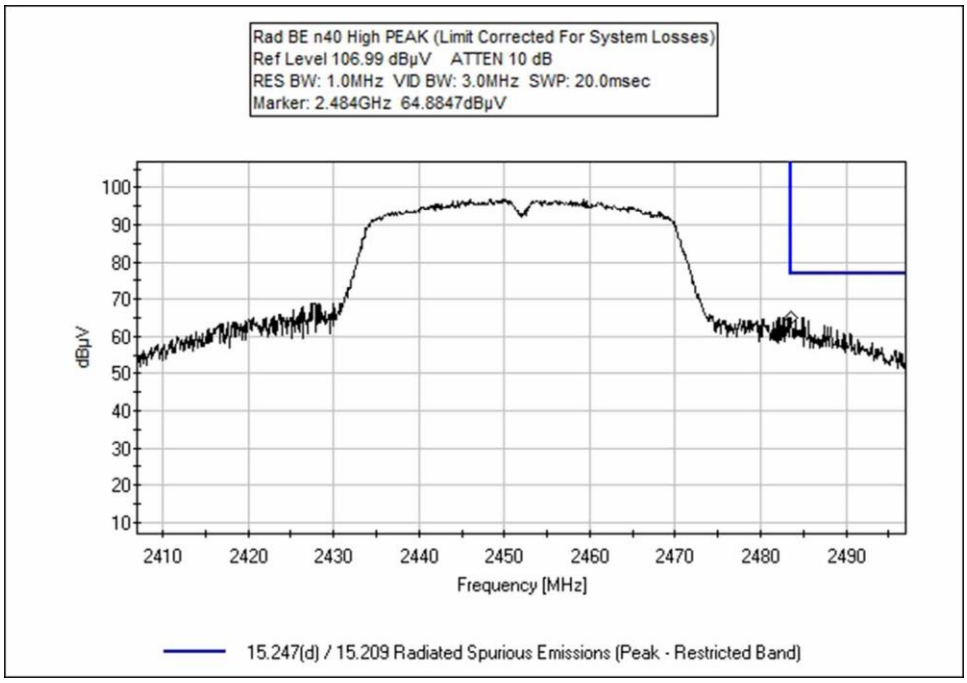

Rad BE 65M High PEAK (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker: 2.484GHz 60.5617dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Peak - Restricted Band)

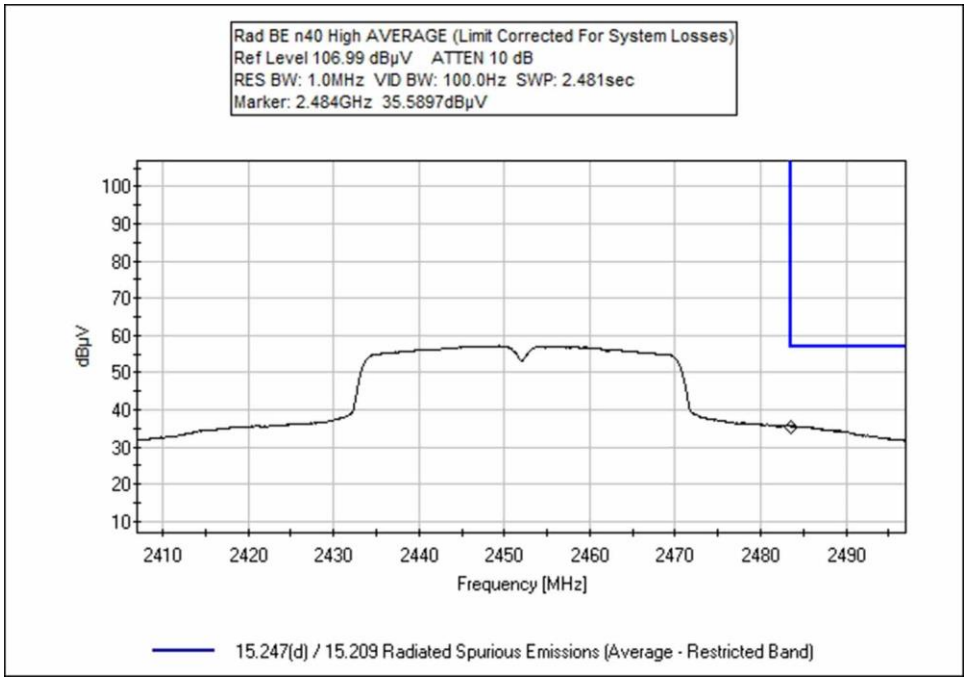

Rad BE 65M High AVERAGE (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 100.0Hz SWP: 1.654sec
Marker: 2.484GHz 35.1627dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)


Rad BE n40 Low PEAK (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker 1: 2.4GHz 69.8927 dBµV Marker 2: 2.39GHz 65.2557 dBµV Delta: 10.0MHz
This plot is for 1MHZ RBW restricted band compliance at 2390MHz highlighted in red. Ignore amplitude of trace at 2400MHz compared to limit on this plot. See additional 100kHz plot for compliance at 2400MHz with appropriate 20dBc limit.
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Peak - Restricted Band)


Rad BE n40 Low AVERAGE (Limit Corrected For System Losses)
Ref Level 102.99 dBµV ATTEN 6 dB
RES BW: 1.0MHz VID BW: 100.0Hz SWP: 2.205sec
Marker 1: 2.4GHz 37.5457 dBµV Marker 2: 2.39GHz 35.5897 dBµV Delta: 10.0MHz
dBµV
Frequency [MHz]
This plot is for 1MHZ RBW restricted band compliance at 2390MHz highlighted in red. Ignore amplitude of trace at 2400MHz compared to limit on this plot. See additional 100kHz plot for compliance at 2400MHz with appropriate 20dBc limit.
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)


Rad BE n40 Low 100kHz Peak (Limit Corrected For System Losses)
Ref Level 106.99 dBµV ATTEN 10 dB
RES BW: 100.0kHz VID BW: 300.0kHz SWP: 20.333msec
Marker: 2.4GHz 63.6687dBµV
dBµV
Frequency [MHz]
This plot is to show compliance at 2400MHz highlighted in green for the 20dBc point based on the 100kHz Fundamental.
15.247(d) / 15.209 Radiated Spurious Emissions


Rad BE n40 High PEAK (Limit Corrected For System Losses)
Ref Level 106.99 dBµV ATTEN 10 dB
RES BW: 1.0MHz VID BW: 3.0MHz SWP: 20.0msec
Marker: 2.484GHz 64.8847dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Peak - Restricted Band)


Rad BE n40 High AVERAGE (Limit Corrected For System Losses)
Ref Level 106.99 dBµV ATTEN 10 dB
RES BW: 1.0MHz VID BW: 100.0Hz SWP: 2.481sec
Marker: 2.484GHz 35.5897dBµV
dBµV
Frequency [MHz]
15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)

Test Setup / Conditions / Data

Test Location:	CKC Laboratories • 22116 23rd Drive SE, Suite A • Bothell, WA 98021 • 1-800-500-4EMC (4362)		
Customer:	**Itron, Inc.**		
Specification:	**15.247(d) / 15.209 Radiated Spurious Emissions (Average - Restricted Band)**		
Work Order #:	**103786**	Date:	7/7/2020
Test Type:	**Radiated Scan**	Time:	11:42:29
Tested By:	Michael Atkinson	Sequence#:	1
Software:	EMITest 5.03.19		

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

Frequency: Band Edge
EUT is continuously transmitting, multiple modulations investigated.

Horizontal and Vertical antenna polarities investigated, worst case reported.

No limit display for fundamental region (2400-2483.5MHz) as does not apply. 1MHz RBW peak used as worst case against limit created using 100kHz fundamental. For 3 modulations, the 1MHz peak data was close to the100kHz-20dBm down peak 2400MHz limit, so additional plots were created measured with 100kHz to show compliance at 2400MHz. Additionally, in restricted bands, peak and average measurements collected with the appropriate limit displayed if the 1MHz peak exceeded with restricted band average limit.

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02673	Spectrum Analyzer	E4446A	2/22/2019	2/22/2021
T2	ANP06540	Cable	Heliax	8/23/2019	8/23/2021
T3	ANP06515	Cable	Heliax	6/29/2018	6/29/2020
T4	AN03540	Preamp	83017A	5/13/2019	5/13/2021
T5	ANP07504	Cable	CLU40-KMKM-02.00F	1/17/2019	1/17/2021
T6	AN01467	Horn Antenna-ANSI C63.5 Calibration	3115	7/5/2019	7/5/2021

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	2400.000M	66.2	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	63.1	74.5 100kHz 65M	-11.4	Horiz
2	2400.000M	65.6	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	62.5	74.5 100kHz 54M	-12.0	Horiz
3	2400.000M	63.7	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	60.6	74.5 100kHz n40	-13.9	Horiz
4	2483.500M Ave	35.6	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	32.6	54.0 n40	-21.4	Horiz
5	2390.000M Ave	35.6	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	32.5	54.0 n40	-21.5	Horiz
6	2483.500M Ave	35.2	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	32.2	54.0 65M	-21.8	Horiz
7	2390.000M Ave	34.4	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	31.3	54.0 54M	-22.7	Horiz
8	2400.000M	54.7	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	51.6	74.5 100kHz 5M	-22.9	Horiz
9	2390.000M Ave	34.1	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	31.0	54.0 65M	-23.0	Horiz
^	2390.000M	65.3	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	62.2	74.0 n40	-11.8	Horiz
^	2390.000M	62.7	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	59.6	74.0 65M	-14.4	Horiz
^	2390.000M	56.6	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	53.5	74.0 54M	-20.5	Horiz
^	2390.000M	44.3	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	41.2	74.0 5M	-32.8	Horiz
^	2390.000M	43.5	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	40.4	74.0 11M	-33.6	Horiz
^	2390.000M	42.6	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	39.5	74.0 1M	-34.5	Horiz
16	2483.500M Ave	33.9	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	30.9	54.0 54M	-23.1	Horiz
^	2483.500M	64.9	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	61.9	74.0 n40	-12.1	Horiz
^	2483.500M	63.2	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	60.2	74.0 54M	-13.8	Horiz
^	2483.500M	60.6	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	57.6	74.0 65M	-16.4	Horiz
^	2483.500M	43.6	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	40.6	74.0 11M	-33.4	Horiz
^	2483.500M	43.6	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	40.6	74.0 5M	-33.4	Horiz
^	2483.500M	42.6	+0.0 +0.3	+0.6 +27.6	+2.7	-34.2	+0.0	39.6	74.0 1M	-34.4	Horiz
23	2400.000M	52.2	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	49.1	74.5 100kHz 11M	-25.4	Horiz
24	2400.000M	44.3	+0.0 +0.3	+0.6 +27.7	+2.6	-34.3	+0.0	41.2	74.5 100kHz 1M	-33.3	Horiz

Test Setup Photo(s)

Below 1GHz

Below 1GHz

Above 1GHz

Above 1GHz

15.207 AC Conducted Emissions

Test Setup / Conditions / Data

Test Location:	CKC Laboratories, Inc. • 22116 23rd Drive SE • Bothell, WA 98201 • 435-402-1717		
Customer:	**Itron, Inc.**		
Specification:	**15.207 AC Mains - Average**		
Work Order #:	**103786**	Date:	5/7/2020
Test Type:	**Conducted Emissions**	Time:	7:00:10 AM
Tested By:	Steven Pittsford	Sequence#:	7
Software:	EMITest 5.03.12		115V 60Hz

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

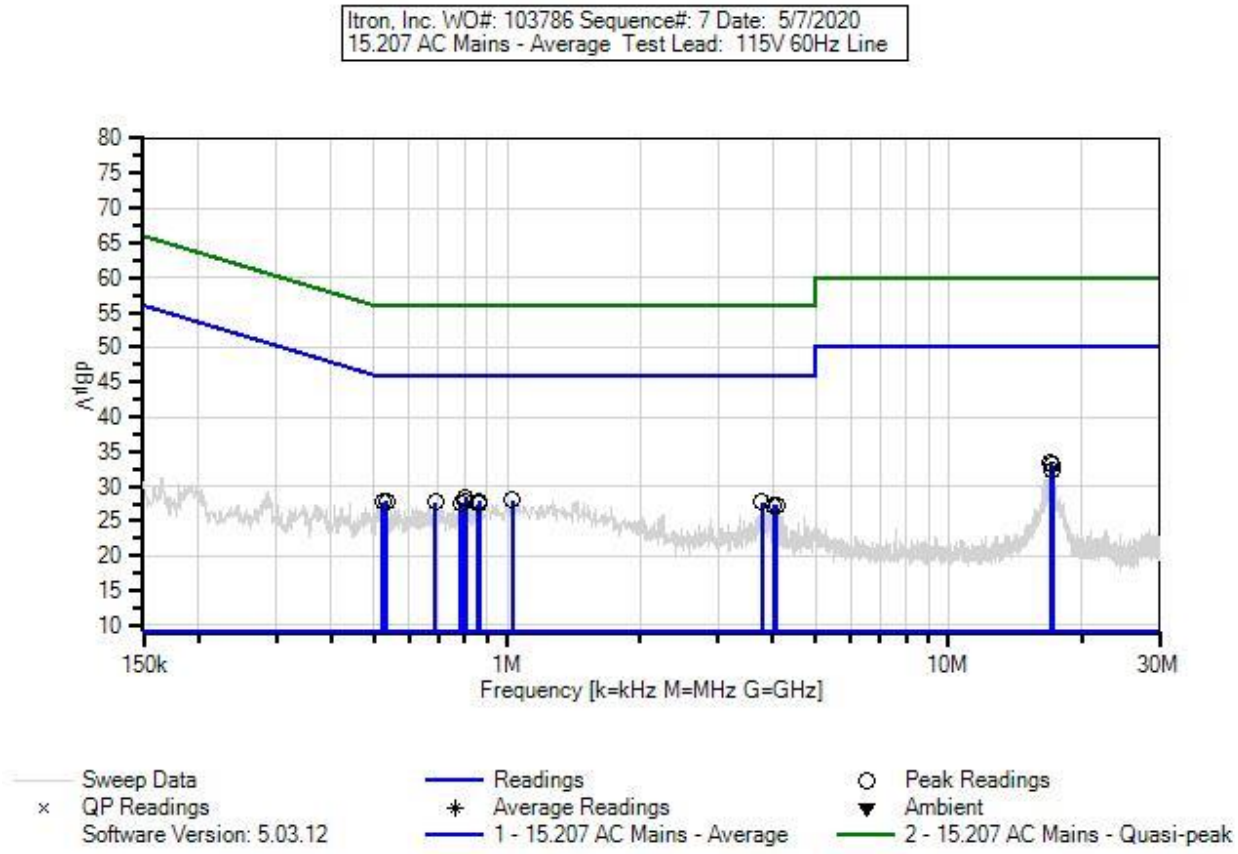
Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

Temperature: 21°C
Pressure: 102.7kPa
Humidity: 33%
Frequency: 0.15-30MHz

Test Method: ANSI 63.10 (2013)

Set up:
EUT is on the test bench mounted on a pole stand.
Transmitting continuously at 915MHz & 2437MHz



Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06219	Attenuator	768-10	4/7/2020	4/7/2022
T2	ANP06515	Cable	Heliax	6/29/2018	6/29/2020
T3	ANP06540	Cable	Heliax	8/23/2019	8/23/2021
	AN02872	Spectrum Analyzer	E4440A	11/18/2019	11/18/2021
T4	AN02611	High Pass Filter	HE9615-150K-50-720B	1/10/2020	1/10/2022
T5	AN01492	50uH LISN-Line (L1)	3816/2NM	10/14/2019	10/14/2021
	AN01492	50uH LISN-Neutral (L2)	3816/2NM	10/14/2019	10/14/2021

Measurement Data: Reading listed by margin. Test Lead: Line

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant
1	17.040M	23.2	+9.1 +0.5	+0.2	+0.1	+0.2	+0.0	33.3	50.0	-16.7	Line
2	17.202M	22.9	+9.1 +0.6	+0.2	+0.1	+0.2	+0.0	33.1	50.0	-16.9	Line
3	805.212k	18.5	+9.1 +0.5	+0.0	+0.0	+0.2	+0.0	28.3	46.0	-17.7	Line
4	17.076M	22.1	+9.1 +0.5	+0.2	+0.1	+0.2	+0.0	32.2	50.0	-17.8	Line
5	1.026M	18.3	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	28.0	46.0	-18.0	Line
6	533.237k	18.0	+9.1 +0.5	+0.0	+0.0	+0.3	+0.0	27.9	46.0	-18.1	Line
7	862.661k	18.2	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	27.9	46.0	-18.1	Line
8	523.783k	17.9	+9.1 +0.6	+0.0	+0.0	+0.2	+0.0	27.8	46.0	-18.2	Line
9	688.132k	17.8	+9.1 +0.5	+0.0	+0.0	+0.3	+0.0	27.7	46.0	-18.3	Line
10	803.030k	17.9	+9.1 +0.5	+0.0	+0.0	+0.2	+0.0	27.7	46.0	-18.3	Line
11	3.782M	18.0	+9.1 +0.4	+0.1	+0.0	+0.1	+0.0	27.7	46.0	-18.3	Line
12	787.032k	17.8	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	27.5	46.0	-18.5	Line
13	858.298k	17.7	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	27.4	46.0	-18.6	Line
14	4.020M	17.6	+9.1 +0.4	+0.1	+0.0	+0.1	+0.0	27.3	46.0	-18.7	Line
15	4.084M	17.5	+9.1 +0.5	+0.1	+0.0	+0.1	+0.0	27.3	46.0	-18.7	Line

Test Location:	CKC Laboratories, Inc. • 22116 23rd Drive SE • Bothell, WA 98201 • 435-402-1717		
Customer:	**Itron, Inc.**		
Specification:	**15.207 AC Mains - Average**		
Work Order #:	**103786**	Date:	5/7/2020
Test Type:	**Conducted Emissions**	Time:	7:09:29 AM
Tested By:	Steven Pittsford	Sequence#:	6
Software:	EMITest 5.03.12		115V 60Hz

Equipment Tested:

Device	Manufacturer	Model #	S/N
Configuration 1			

Support Equipment:

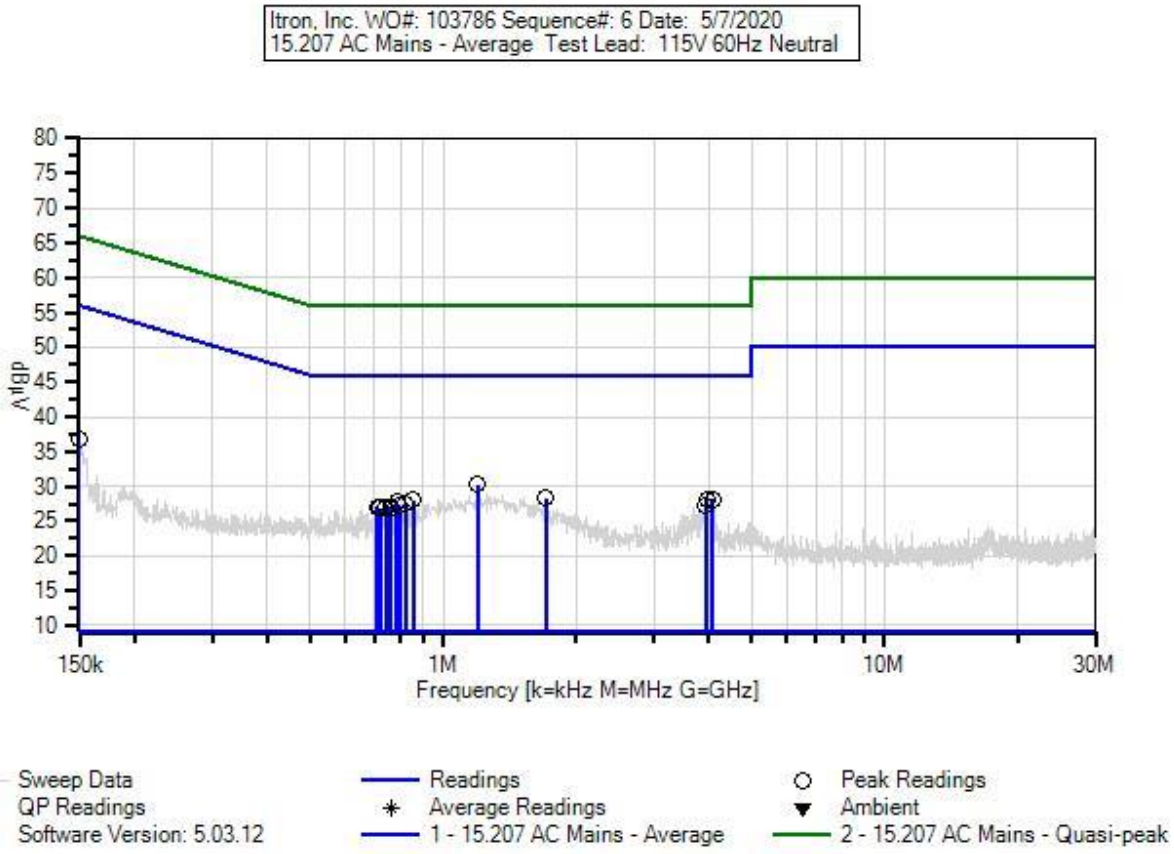
Device	Manufacturer	Model #	S/N
Configuration 1			

Test Conditions / Notes:

Temperature: 21°C
Pressure: 102.7kPa
Humidity: 33%
Frequency: 0.15-30MHz

Test Method: ANSI 63.10 (2013)

Set up:
EUT is on the test bench mounted on a pole stand.
Transmitting continuously at 915MHz & 2437MHz



Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06219	Attenuator	768-10	4/7/2020	4/7/2022
T2	ANP06515	Cable	Heliax	6/29/2018	6/29/2020
T3	ANP06540	Cable	Heliax	8/23/2019	8/23/2021
	AN02872	Spectrum Analyzer	E4440A	11/18/2019	11/18/2021
T4	AN02611	High Pass Filter	HE9615-150K-50-720B	1/10/2020	1/10/2022
	AN01492	50uH LISN-Line (L1)	3816/2NM	10/14/2019	10/14/2021
T5	AN01492	50uH LISN-Neutral (L2)	3816/2NM	10/14/2019	10/14/2021

Measurement Data: Reading listed by margin. Test Lead: Neutral

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant
1	1.196M	20.5	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	30.2	46.0	-15.8	Neutr
2	1.706M	18.5	+9.1 +0.4	+0.1	+0.0	+0.2	+0.0	28.3	46.0	-17.7	Neutr
3	3.948M	18.3	+9.1 +0.5	+0.1	+0.0	+0.1	+0.0	28.1	46.0	-17.9	Neutr
4	4.071M	18.3	+9.1 +0.5	+0.1	+0.0	+0.1	+0.0	28.1	46.0	-17.9	Neutr
5	854.662k	18.3	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	28.0	46.0	-18.0	Neutr
6	787.032k	18.0	+9.1 +0.5	+0.0	+0.0	+0.2	+0.0	27.8	46.0	-18.2	Neutr
7	820.483k	17.7	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	27.4	46.0	-18.6	Neutr
8	3.939M	17.5	+9.1 +0.5	+0.1	+0.0	+0.1	+0.0	27.3	46.0	-18.7	Neutr
9	792.850k	17.5	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	27.2	46.0	-18.8	Neutr
10	797.940k	17.5	+9.1 +0.4	+0.0	+0.0	+0.2	+0.0	27.2	46.0	-18.8	Neutr
11	707.767k	17.1	+9.1 +0.5	+0.0	+0.0	+0.3	+0.0	27.0	46.0	-19.0	Neutr
12	761.580k	17.2	+9.1 +0.5	+0.0	+0.0	+0.2	+0.0	27.0	46.0	-19.0	Neutr
13	150.000k	23.3	+9.1 +2.0	+0.0	+0.0	+2.5	+0.0	36.9	56.0	-19.1	Neutr
14	721.583k	17.0	+9.1 +0.5	+0.0	+0.0	+0.3	+0.0	26.9	46.0	-19.1	Neutr
15	741.218k	17.1	+9.1 +0.5	+0.0	+0.0	+0.2	+0.0	26.9	46.0	-19.1	Neutr

Test Setup Photo(s)

SUPPLEMENTAL INFORMATION

Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

Uncertainties reported are worst case for all CKC Laboratories' sites and represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k=2. Compliance is deemed to occur provided measurements are below the specified limits.

Emissions Test Details

TESTING PARAMETERS

Unless otherwise indicated, the following configuration parameters are used for equipment setup: The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula. This reading was then compared to the applicable specification limit. Individual measurements were compared with the displayed limit value in the margin column. The margin was calculated based on subtracting the limit value from the corrected measurement value; a positive margin represents a measurement exceeding the limit, while a negative margin represents a measurement less than the limit.

SAMPLE CALCULATIONS		
	Meter reading	(dBµV)
+	Antenna Factor	(dB/m)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBµV/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. Unless otherwise specified, the following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "positive peak" detector mode. Whenever a "quasi-peak" or "average" reading was recorded, the measurement was annotated with a "QP" or an "Ave" on the appropriate rows of the data sheets. In cases where quasi-peak or average limits were employed and data exists for multiple measurement types for the same frequency then the peak measurement was retained in the report for reference, however the numbering for the affected row was removed and an arrow or caret (“^”) was placed in the far left-hand column indicating that the row above takes precedence for comparison to the limit. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the spectrum analyzer or receiver recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature called "peak hold," the measurement device had the ability to measure intermittent or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

Quasi-peak measurements were taken using the quasi-peak detector when the true peak values exceeded or were within 2 dB of a quasi-peak specification limit. Additional QP measurements may have been taken at the discretion of the operator.

Average

Average measurements were taken using the average detector when the true peak values exceeded or were within 2 dB of an average specification limit. Additional average measurements may have been taken at the discretion of the operator. If the specification or test procedure requires trace averaging, then the averaging was performed using 100 samples or as required by the specification. All other average measurements are performed using video bandwidth averaging. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point, the measuring device is set into the linear mode and the scan time is reduced.