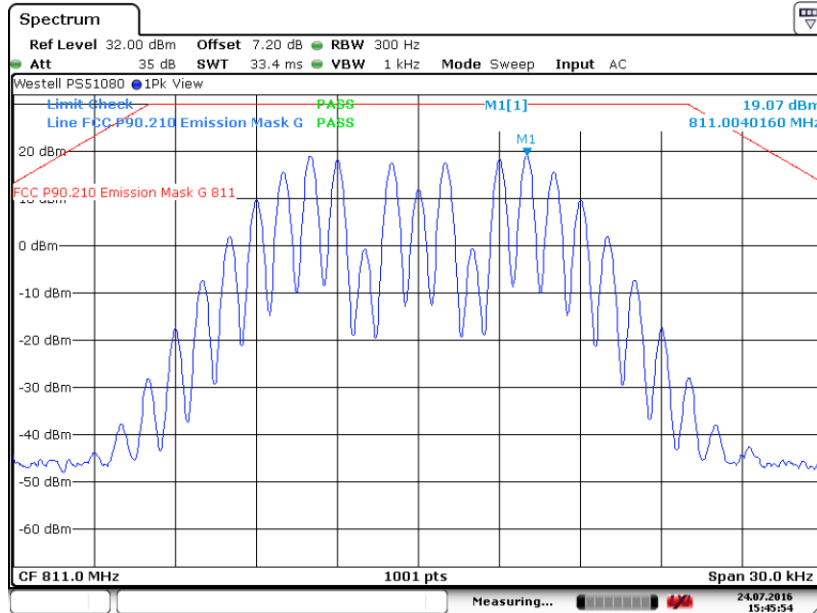


6. Measurement Data (continued)

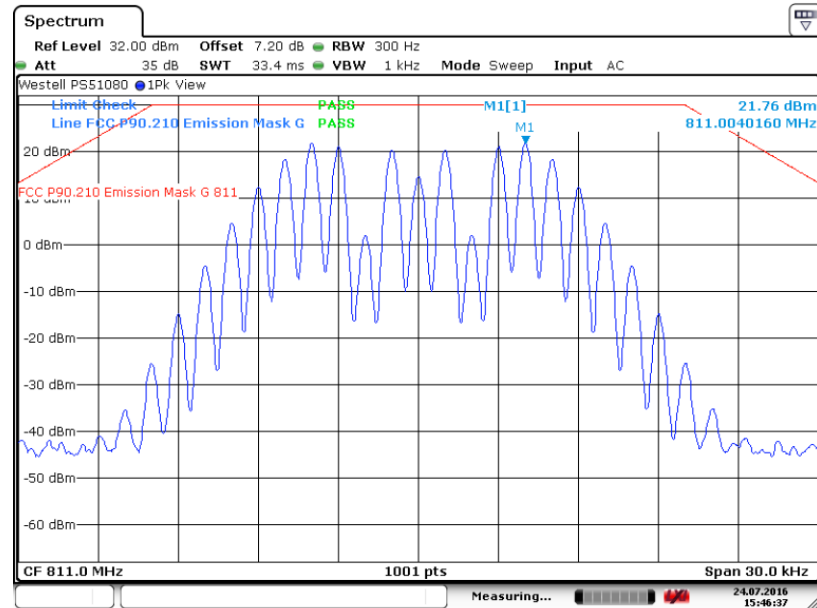
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.15. Occupied (99% Power) Emissions Mask G, 811 MHz, 16k FM



Date: 24.JUL.2016 15:45:53

6.2.1.16. Occupied (99% Power) Emissions Mask G plus 3 dB, 811 MHz, 16k FM

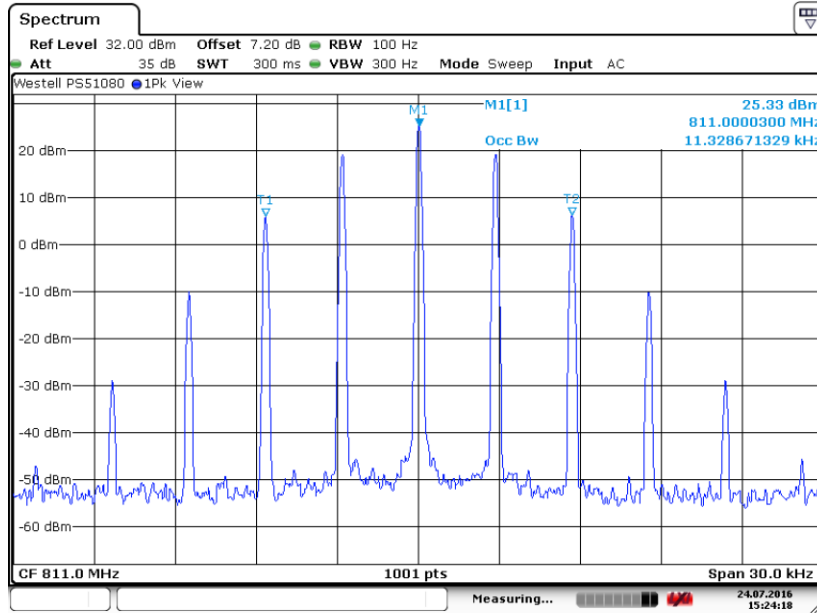


Date: 24.JUL.2016 15:46:36

6. Measurement Data (continued)

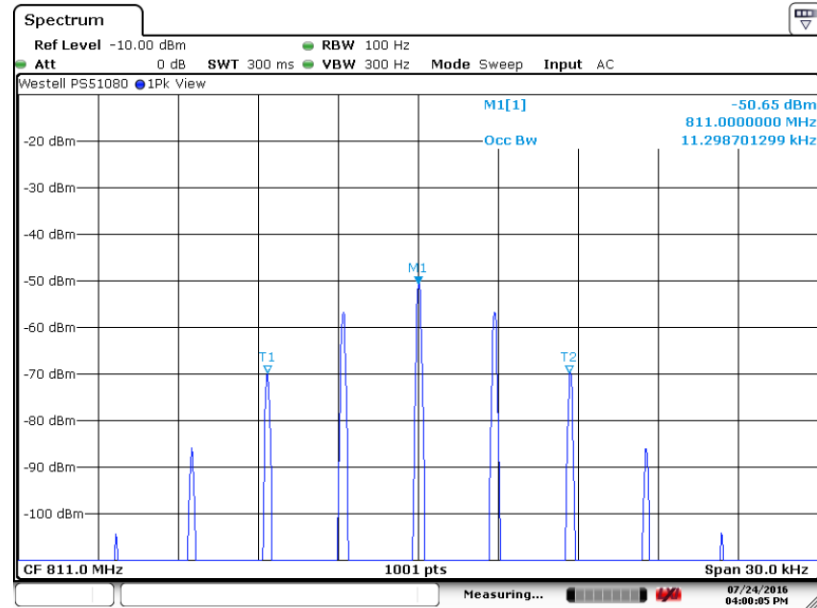
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.17. Occupied (99% Power) Bandwidth Measurement, 811 MHz, 11k FM



Date: 24.JUL.2016 15:24:17

6.2.1.18. Occupied (99% Power) Bandwidth Input, 811 MHz, 11k FM

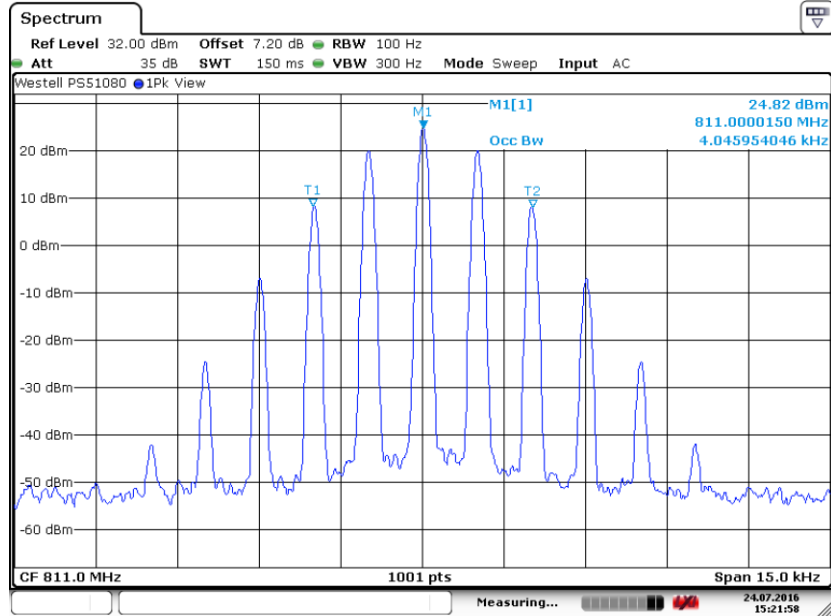


Date: 24.JUL.2016 16:00:04

6. Measurement Data (continued)

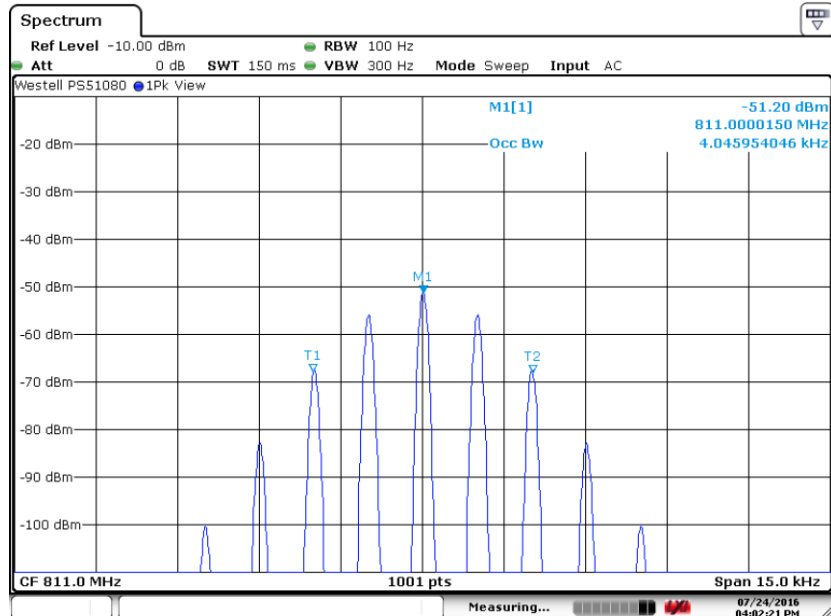
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.19. Occupied (99% Power) Bandwidth Measurement, 811 MHz, 4k FM



Date: 24.JUL.2016 15:21:57

6.2.1.20. Occupied (99% Power) Bandwidth Input, 811 MHz, 4k FM

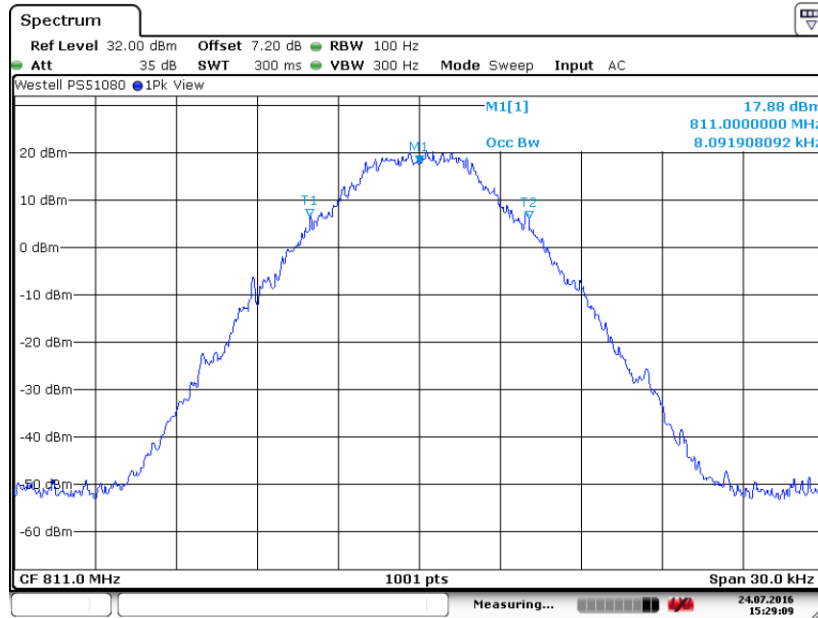


Date: 24.JUL.2016 16:02:20

6. Measurement Data (continued)

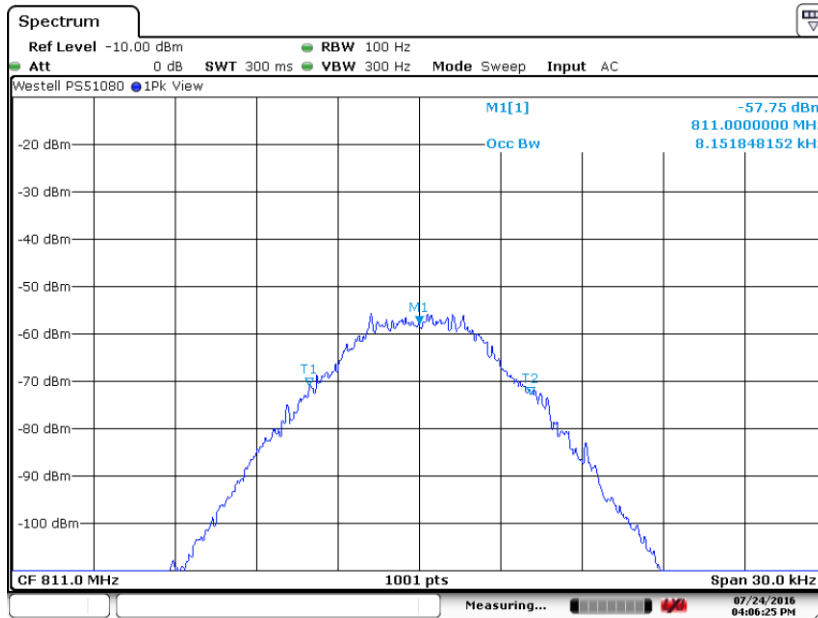
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.21. Occupied (99% Power) Bandwidth Measurement, 811 MHz, C4FM



Date: 24.JUL.2016 15:29:08

6.2.1.22. Occupied (99% Power) Bandwidth Input, 811 MHz, C4FM

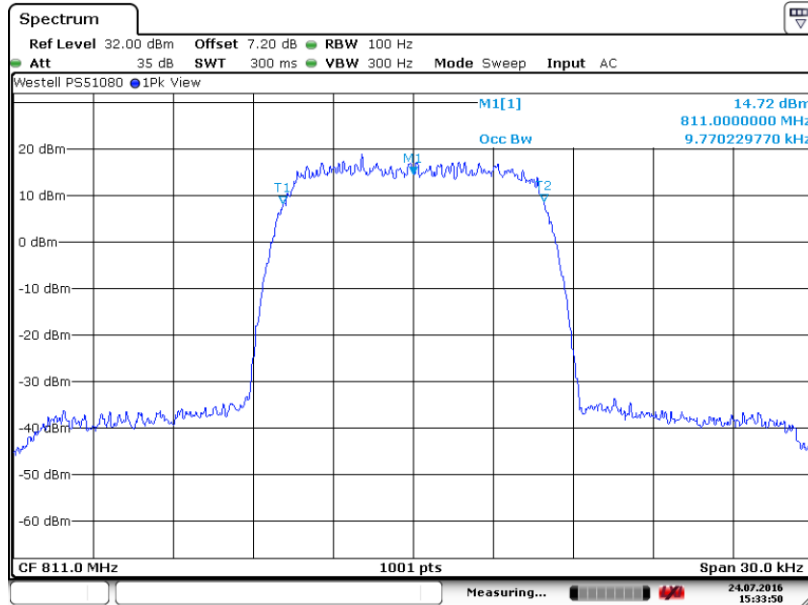


Date: 24.JUL.2016 16:06:24

6. Measurement Data (continued)

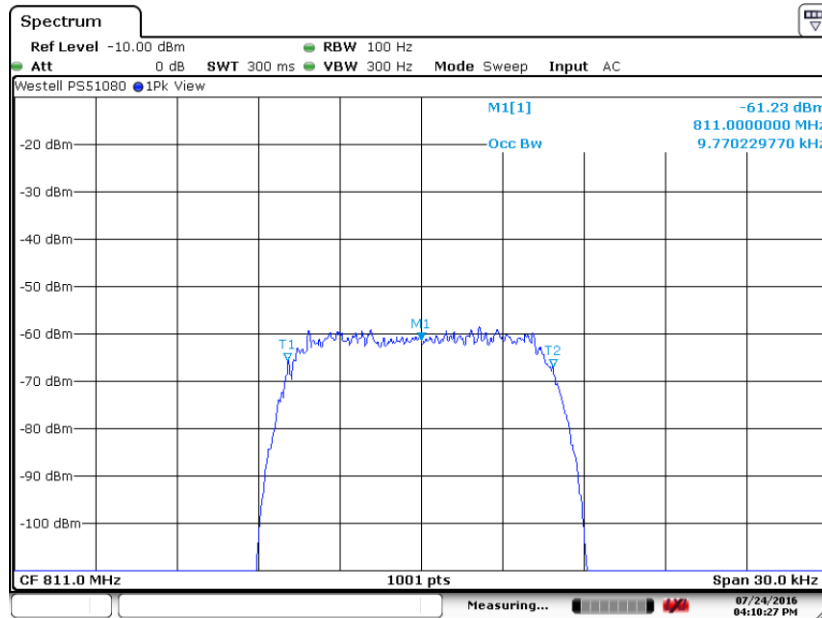
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.23. Occupied (99% Power) Bandwidth Measurement, 811 MHz,  $\pi/4$ -DQPSK



Date: 24.JUL.2016 15:33:49

6.2.1.24. Occupied (99% Power) Bandwidth Input, 811 MHz,  $\pi/4$ -DQPSK

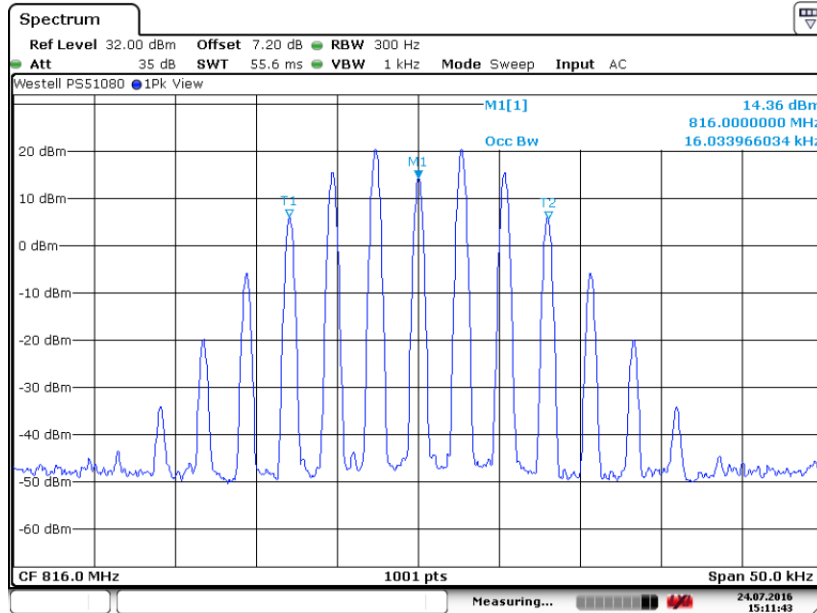


Date: 24.JUL.2016 16:10:26

6. Measurement Data (continued)

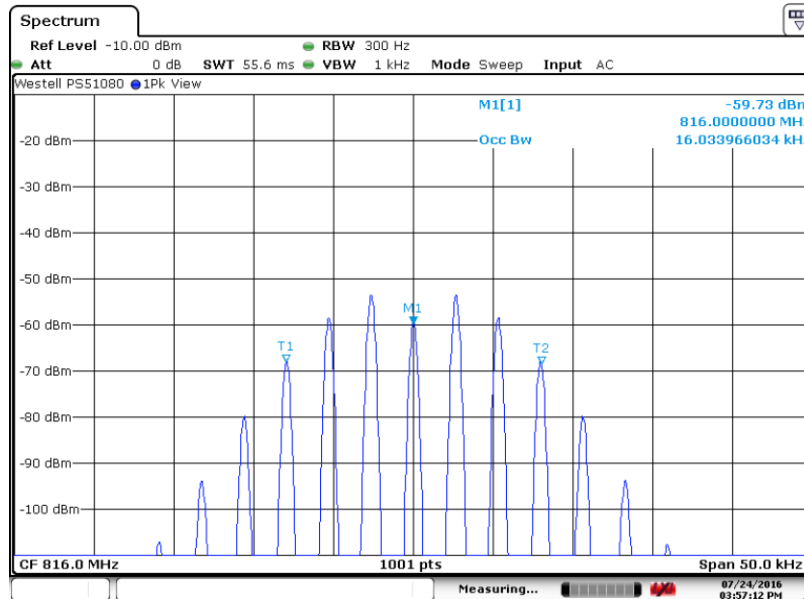
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.25. Occupied (99% Power) Bandwidth Measurement, 816 MHz, 16k FM



Date: 24.JUL.2016 15:11:42

6.2.1.26. Occupied (99% Power) Bandwidth Input, 816 MHz, 16k FM

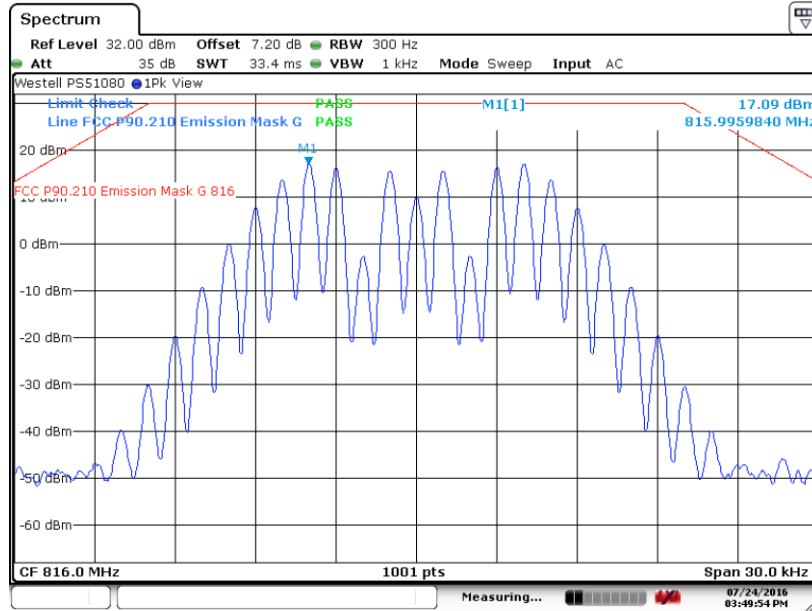


Date: 24.JUL.2016 15:57:11

6. Measurement Data (continued)

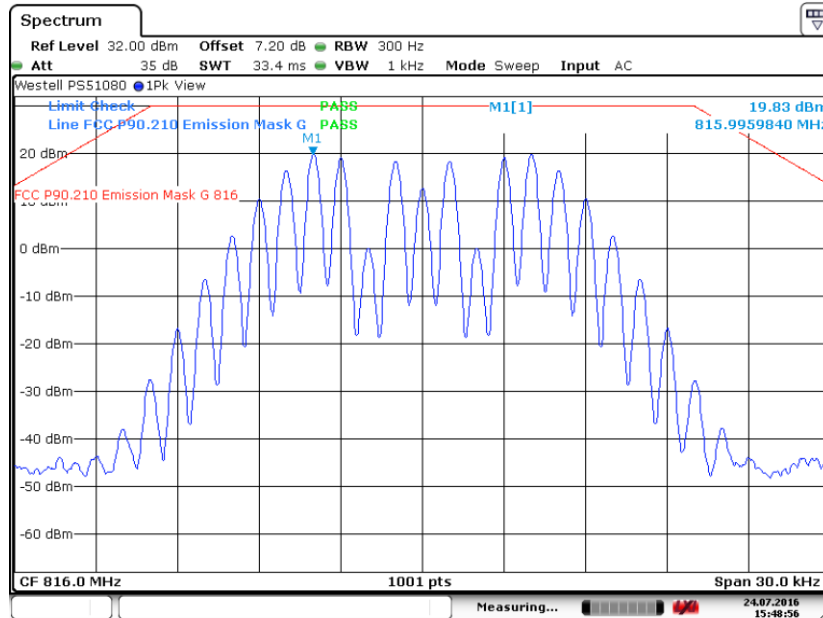
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.27. Occupied (99% Power) Emissions Mask G, 816 MHz, 16k FM



Date: 24.JUL.2016 15:49:53

6.2.1.28. Occupied (99% Power) Emissions Mask G Plus 3 dB, 775 MHz, 16k FM

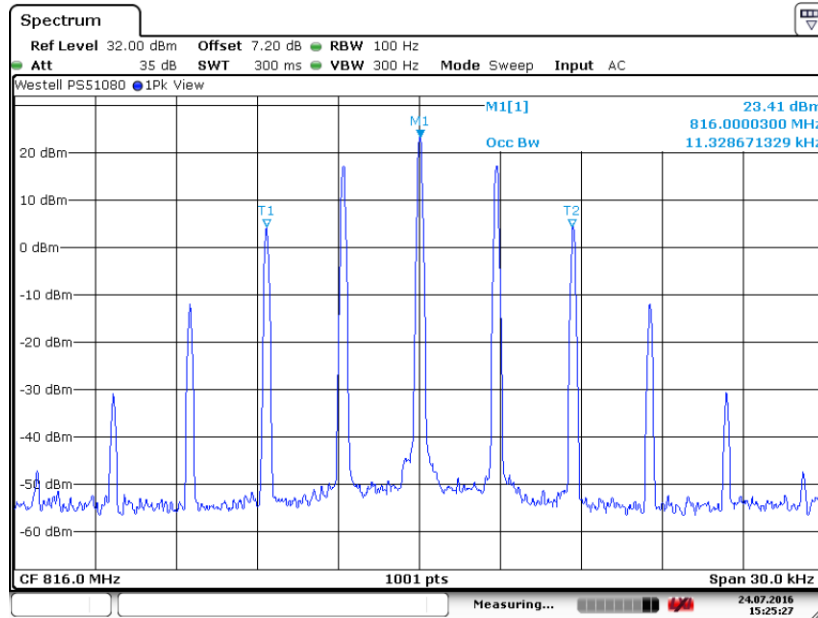


Date: 24.JUL.2016 15:48:55

6. Measurement Data (continued)

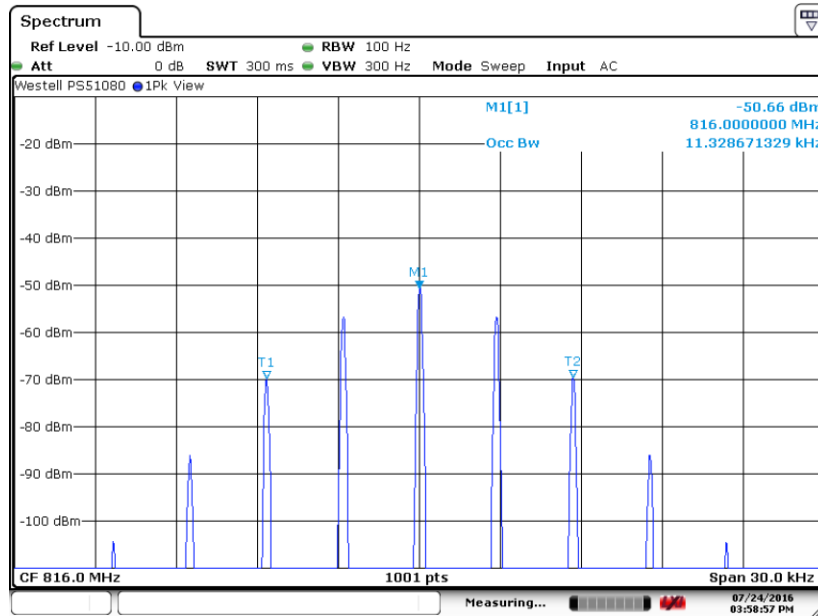
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.29. Occupied (99% Power) Bandwidth Measurement, 816 MHz, 11k FM



Date: 24.JUL.2016 15:25:26

6.2.1.30. Occupied (99% Power) Bandwidth Input, 816 MHz, 11k FM



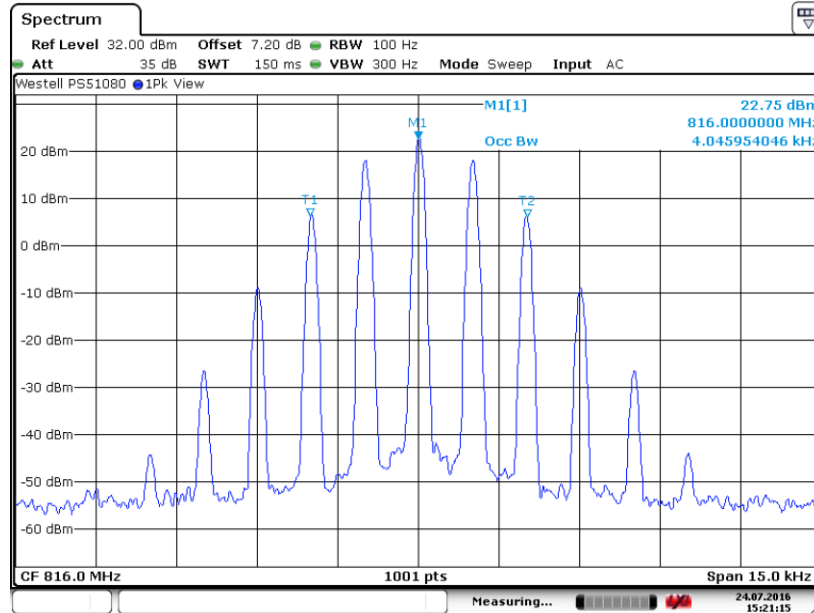
Date: 24.JUL.2016 15:58:56



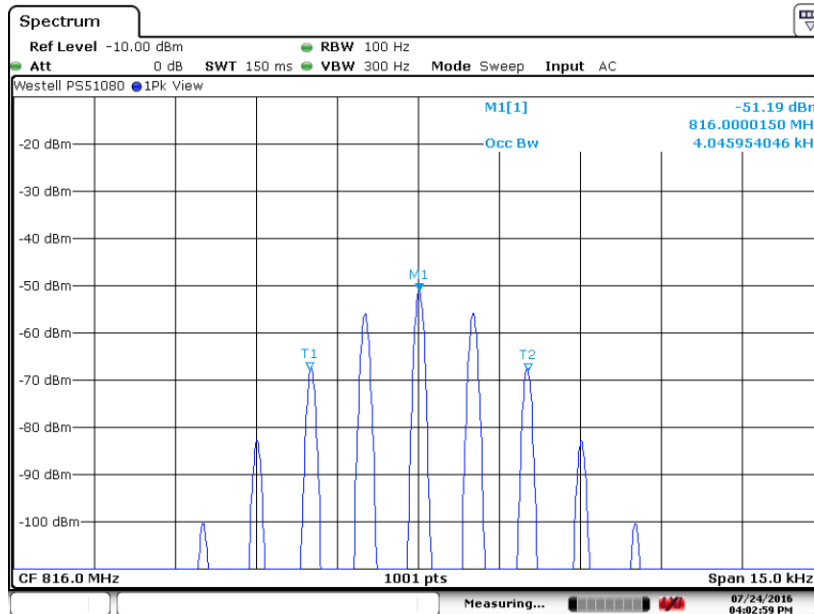
6. Measurement Data (continued)

6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.31. Occupied (99% Power) Bandwidth Measurement, 816 MHz, 4k FM



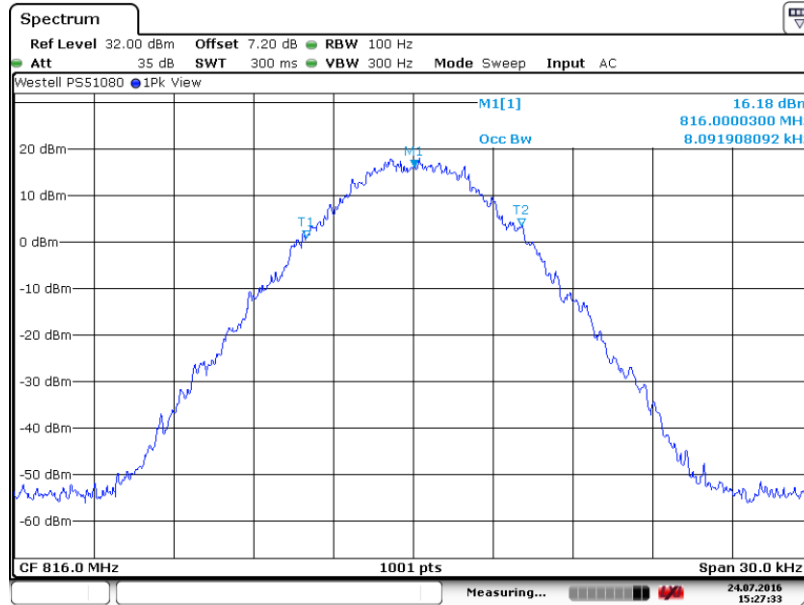
6.2.1.32. Occupied (99% Power) Bandwidth Input, 816 MHz, 4k FM



6. Measurement Data (continued)

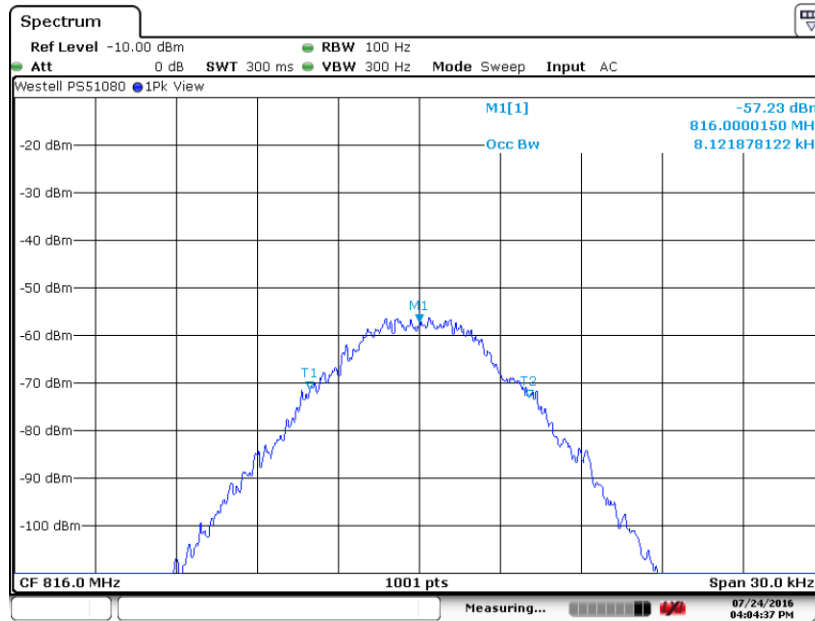
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.33. Occupied (99% Power) Bandwidth Measurement, 816 MHz, C4FM



Date: 24.JUL.2016 15:27:32

6.2.1.34. Occupied (99% Power) Bandwidth Input, 816 MHz, C4FM

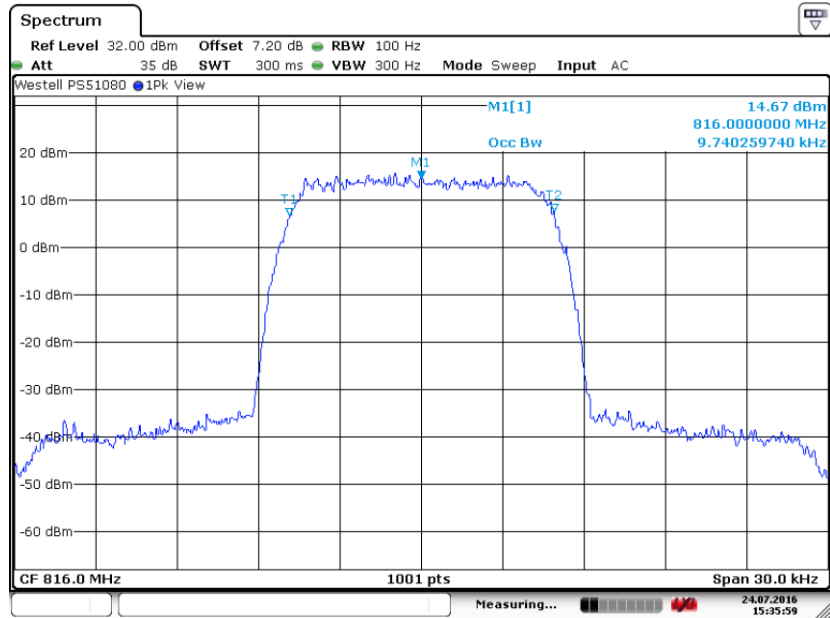


Date: 24.JUL.2016 16:04:36

6. Measurement Data (continued)

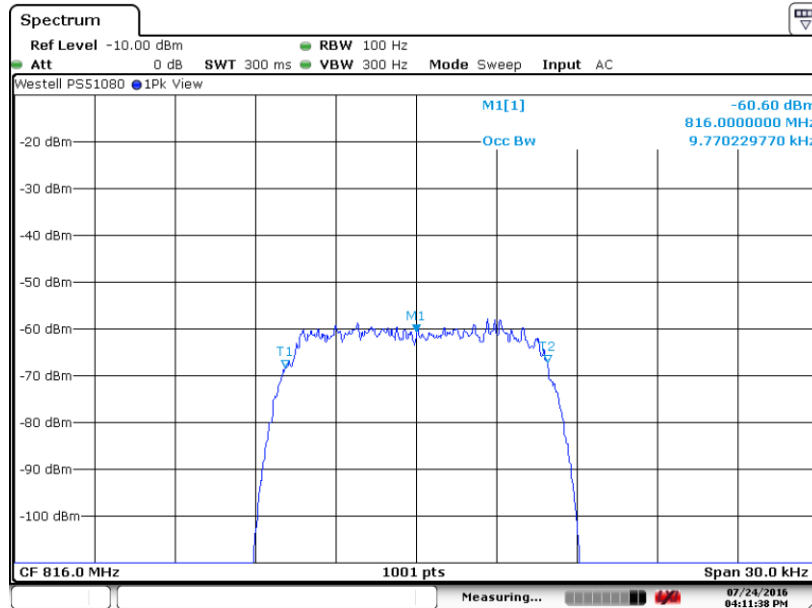
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.35. Occupied (99% Power) Bandwidth Measurement, 816 MHz,  $\pi/4$ -DQPSK



Date: 24.JUL.2016 15:35:58

6.2.1.36. Occupied (99% Power) Bandwidth Input, 816 MHz,  $\pi/4$ -DQPSK

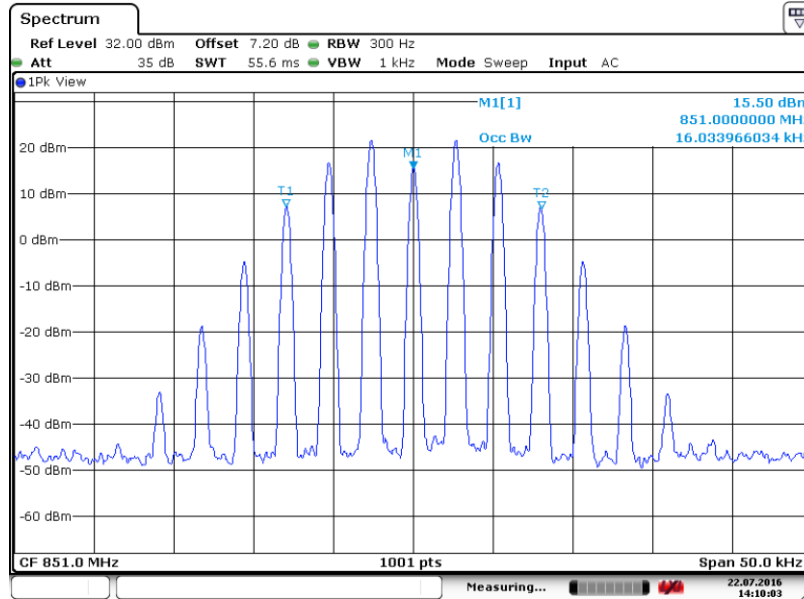


Date: 24.JUL.2016 16:11:37

6. Measurement Data (continued)

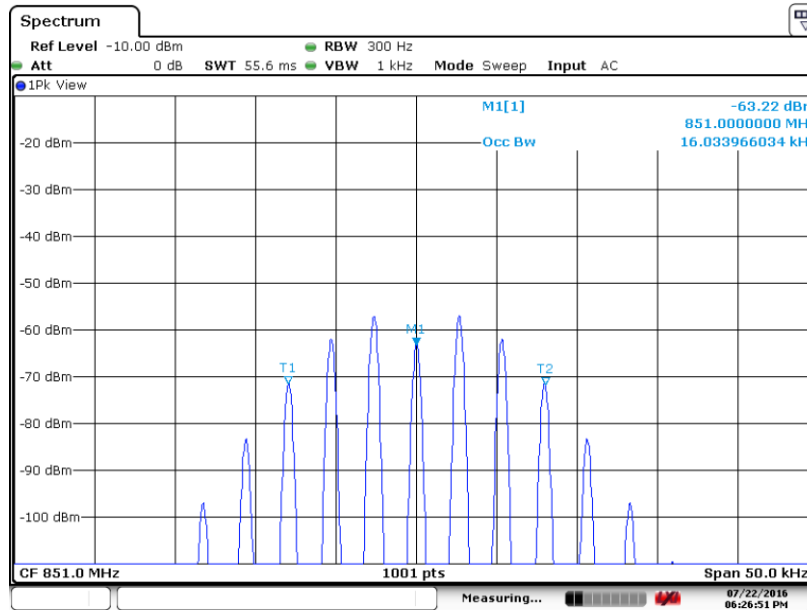
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.37. Occupied (99% Power) Bandwidth Measurement, 851 MHz, 16k FM



Date: 22.JUL.2016 14:10:02

6.2.1.38. Occupied (99% Power) Bandwidth Input, 851 MHz, 16k FM

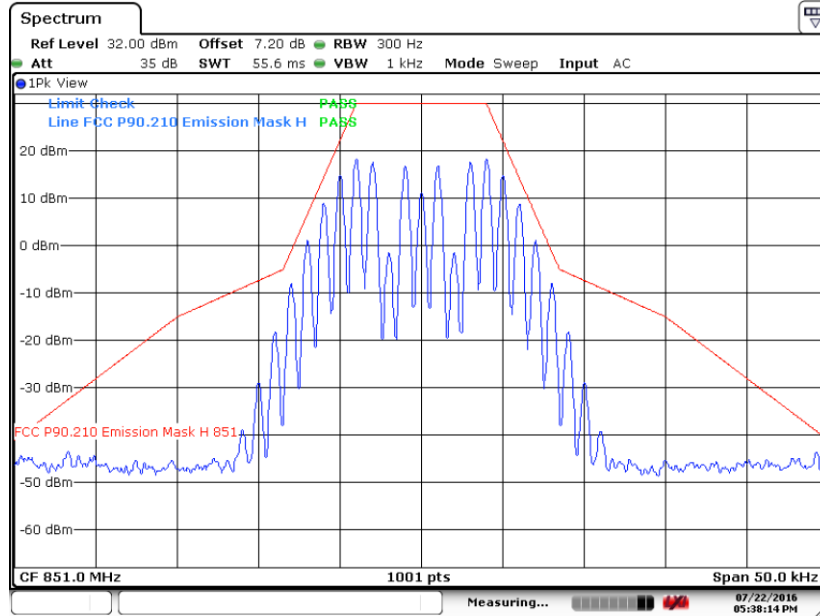


Date: 22.JUL.2016 18:26:50

6. Measurement Data (continued)

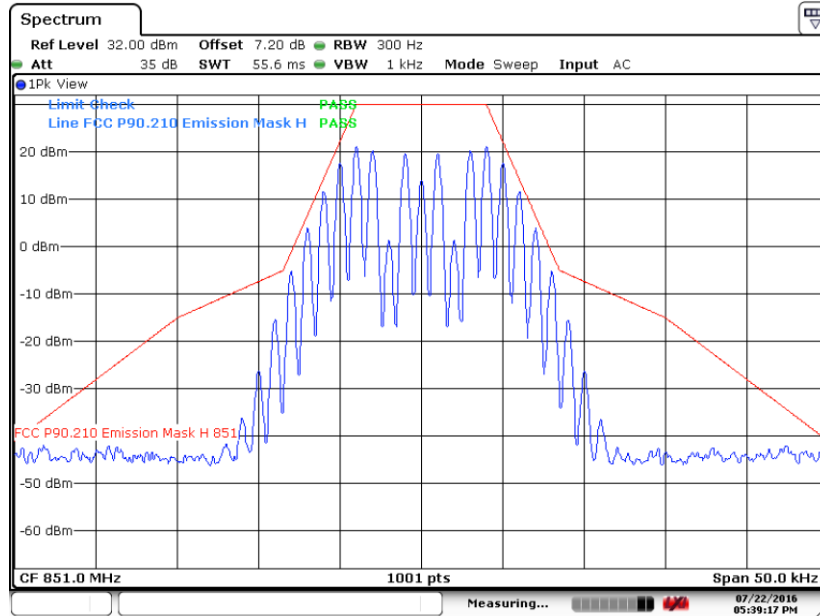
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.39. Occupied (99% Power) Emissions Mask H, 851 MHz, 16k FM



Date: 22.JUL.2016 17:38:13

6.2.1.40. Occupied (99% Power) Emissions Mask H plus 3 dB, 851 MHz, 16k FM

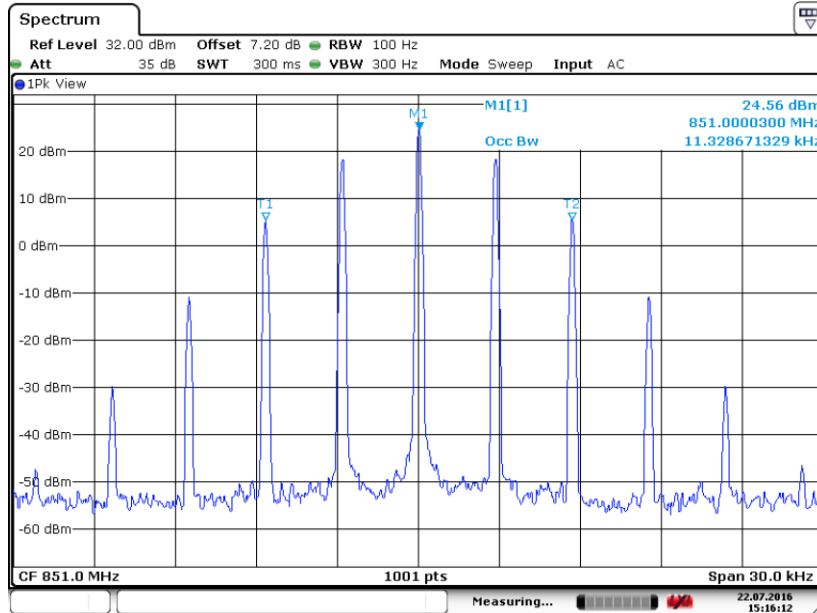


Date: 22.JUL.2016 17:39:17

6. Measurement Data (continued)

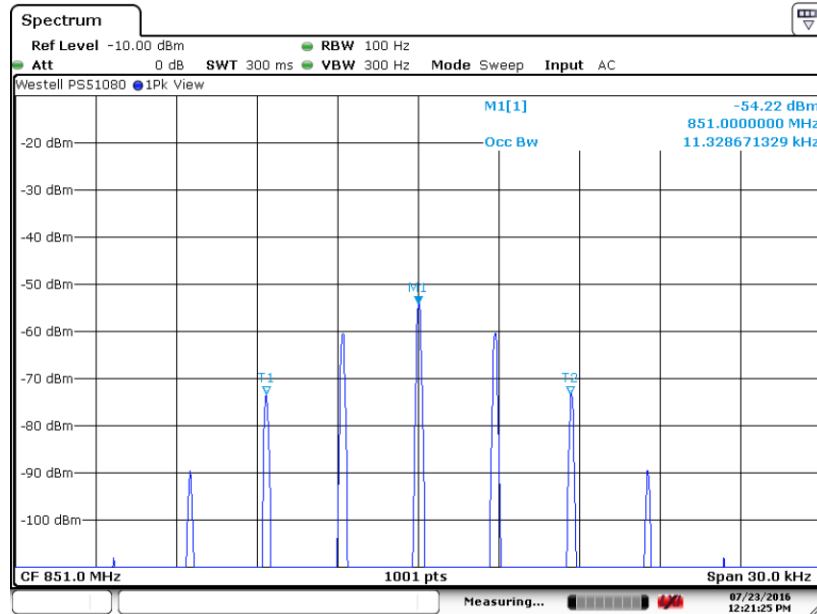
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.41. Occupied (99% Power) Bandwidth Measurement, 851 MHz, 11k FM



Date: 22.JUL.2016 15:16:11

6.2.1.42. Occupied (99% Power) Bandwidth Input, 851 MHz, 11k FM

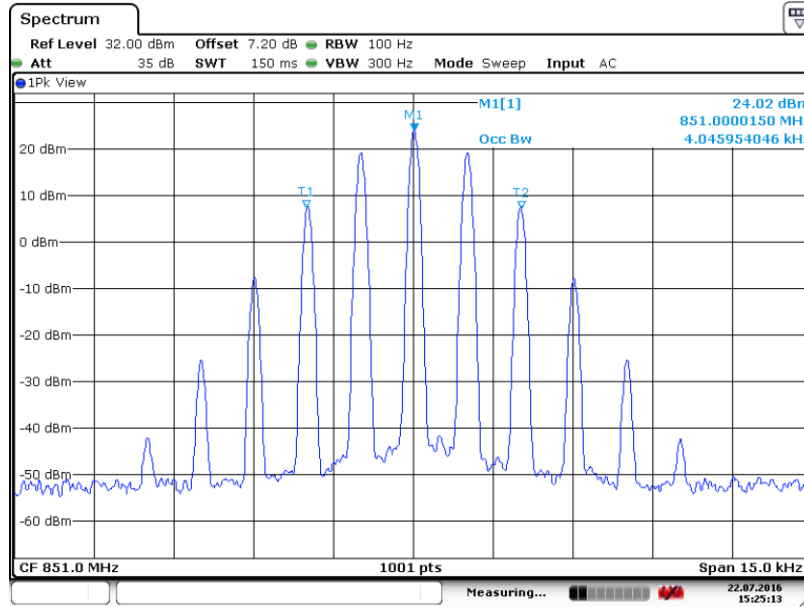


Date: 23.JUL.2016 12:21:24

6. Measurement Data (continued)

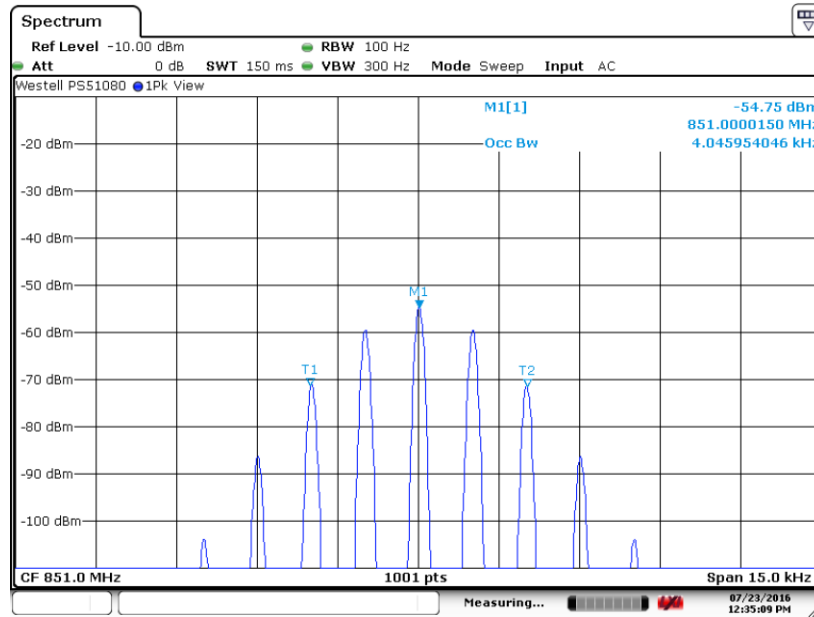
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.43. Occupied (99% Power) Bandwidth Measurement, 851 MHz, 4k FM



Date: 22.JUL.2016 15:25:12

6.2.1.44. Occupied (99% Power) Bandwidth Input, 851 MHz, 4k FM

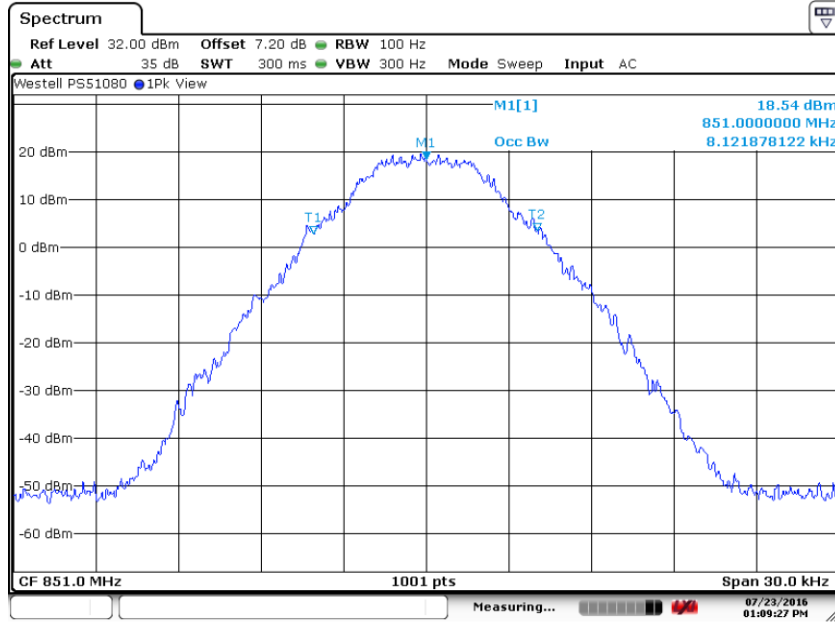


Date: 23.JUL.2016 12:35:08

6. Measurement Data (continued)

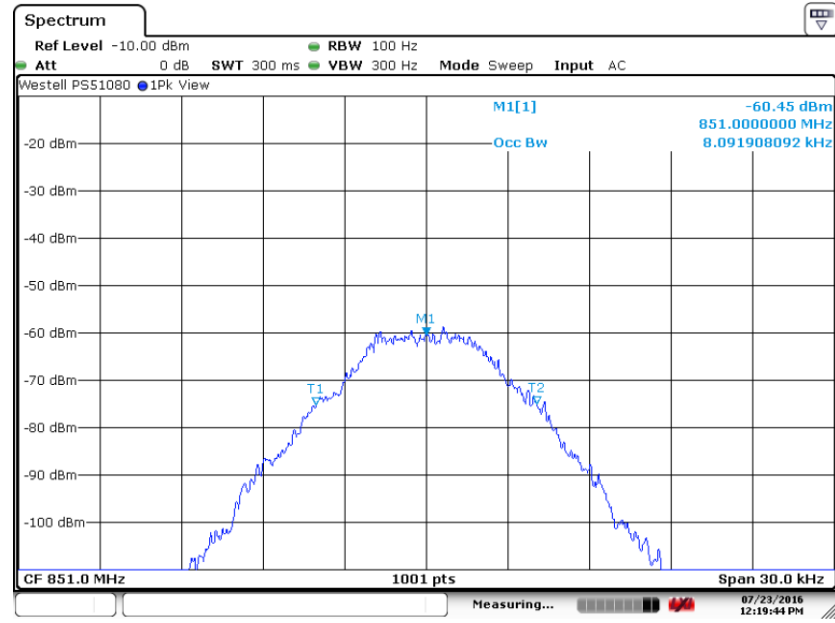
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.45. Occupied (99% Power) Bandwidth Measurement, 851 MHz, C4FM



Date: 23.JUL.2016 13:09:26

6.2.1.46. Occupied (99% Power) Bandwidth Input, 851 MHz, C4FM



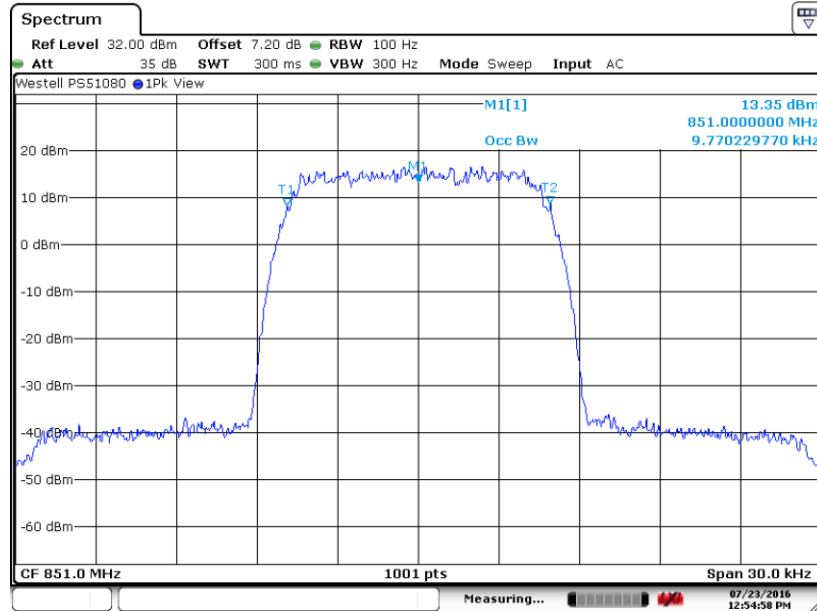
Date: 23.JUL.2016 12:19:43



6. Measurement Data (continued)

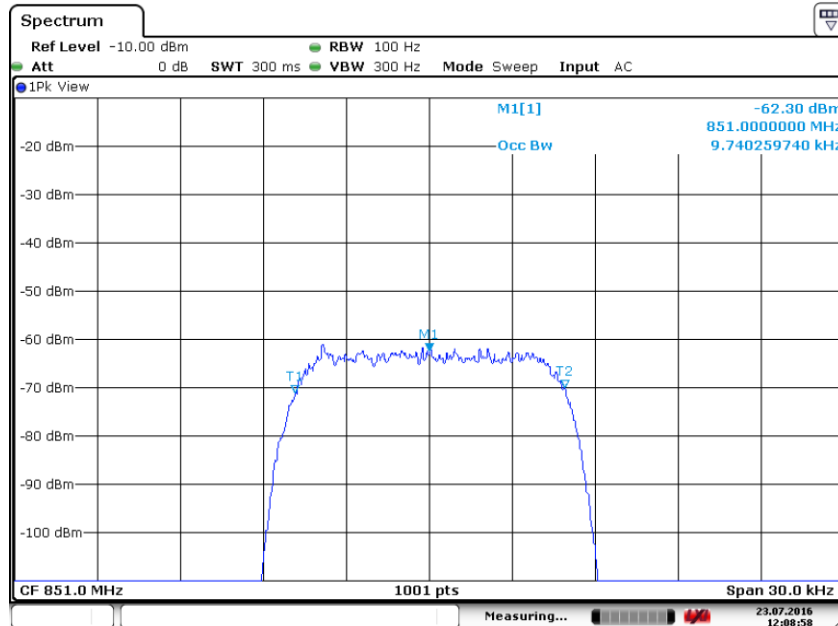
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.47. Occupied (99% Power) Bandwidth Measurement, 851 MHz,  $\pi/4$ -DQPSK



Date: 23.JUL.2016 12:54:57

6.2.1.48. Occupied (99% Power) Bandwidth Input, 851 MHz,  $\pi/4$ -DQPSK

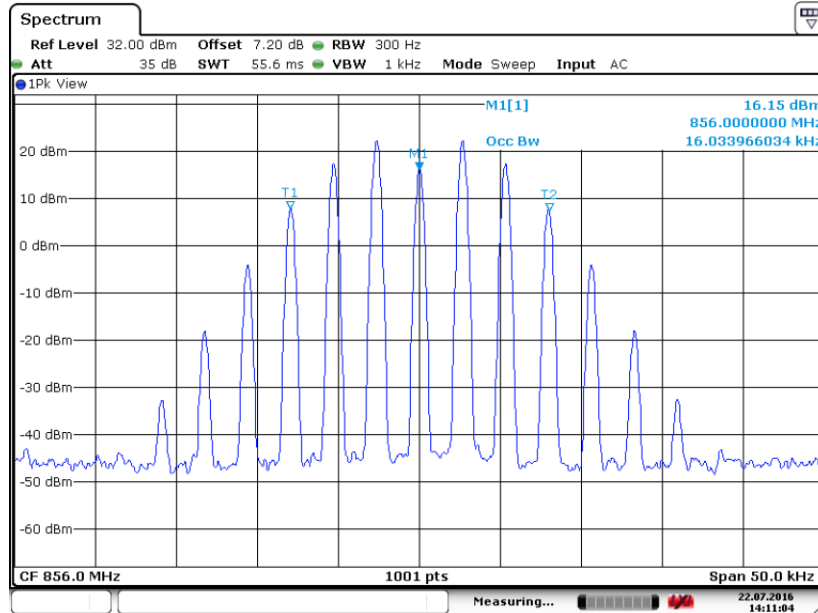


Date: 23.JUL.2016 12:08:57

6. Measurement Data (continued)

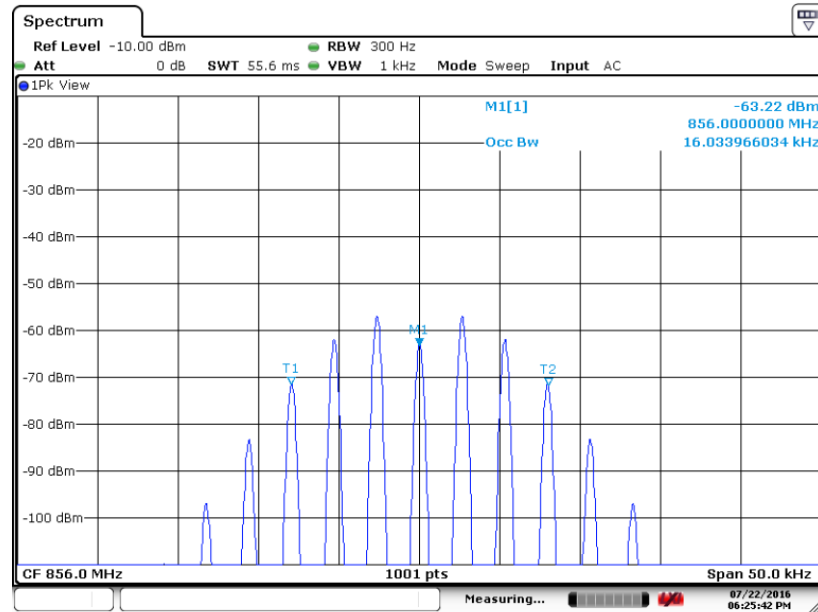
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.49. Occupied (99% Power) Bandwidth Measurement, 856 MHz, 16k FM



Date: 22.JUL.2016 14:11:03

6.2.1.50. Occupied (99% Power) Bandwidth Input, 856 MHz, 16k FM

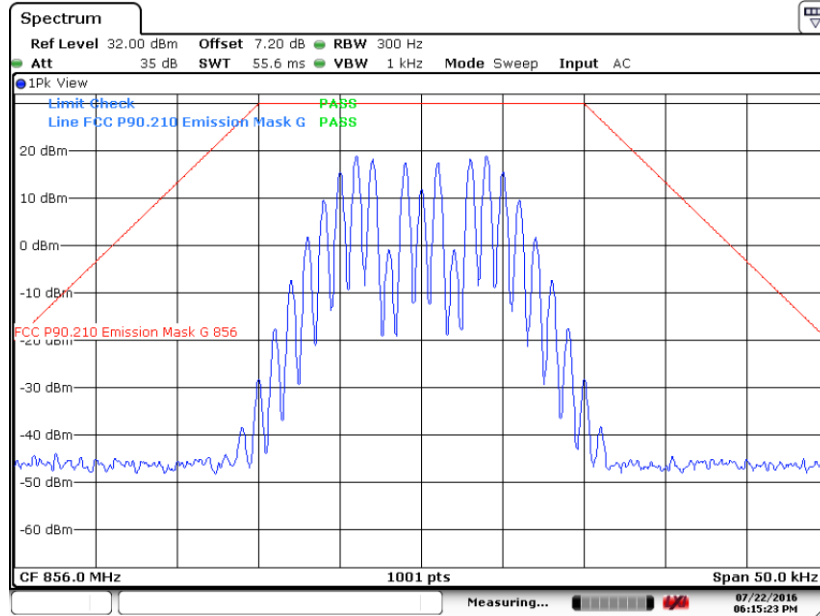


Date: 22.JUL.2016 18:25:41

6. Measurement Data (continued)

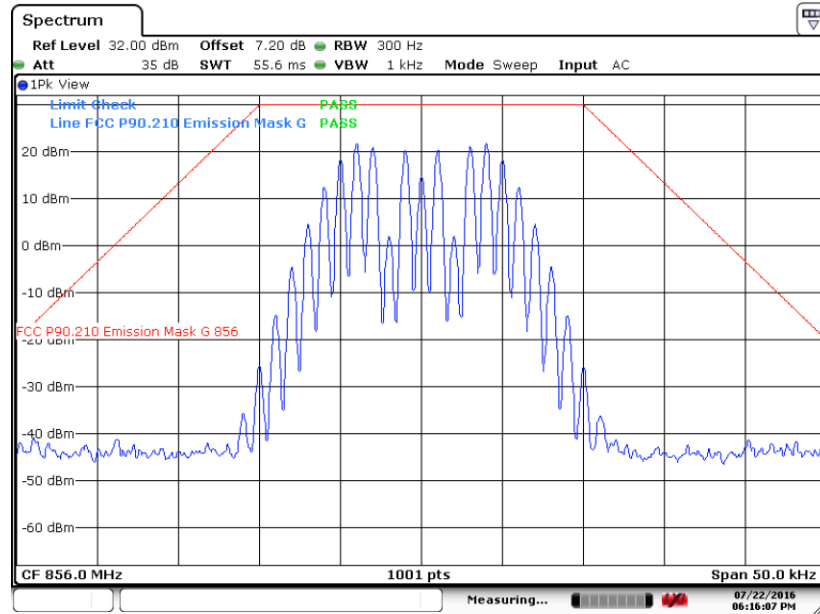
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.51. Occupied (99% Power) Emissions Mask G, 856 MHz, 16k FM



Date: 22.JUL.2016 18:15:23

6.2.1.52. Occupied (99% Power) Emissions Mask G plus 3 dB, 856 MHz, 16k FM

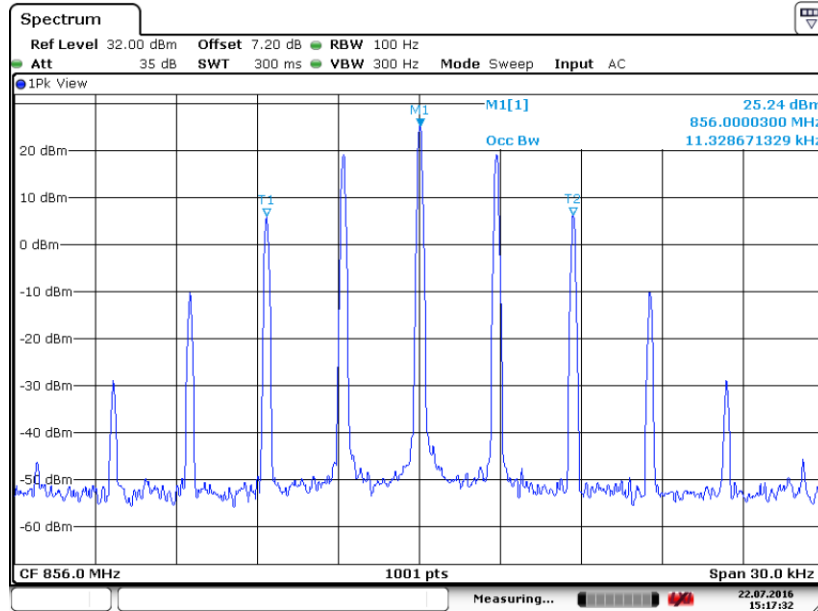


Date: 22.JUL.2016 18:16:06

6. Measurement Data (continued)

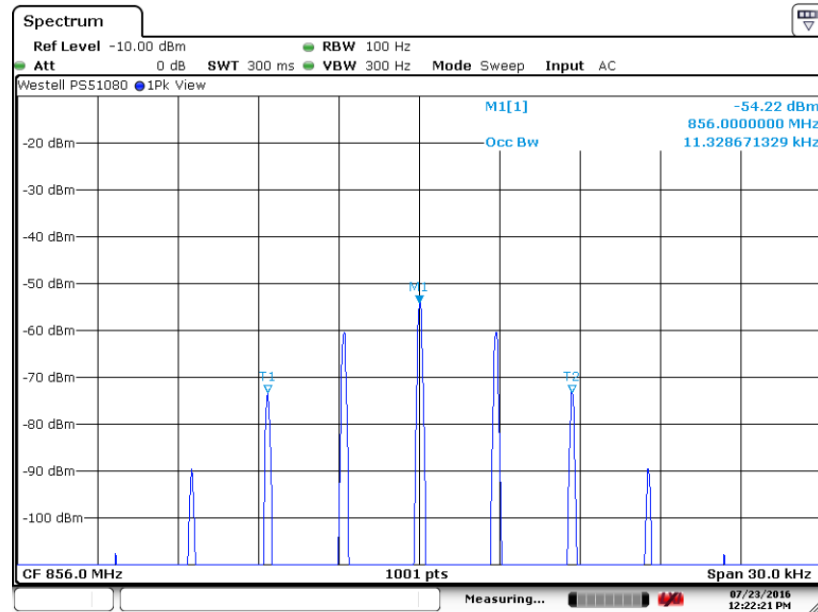
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.53. Occupied (99% Power) Bandwidth Measurement, 856 MHz, 11k FM



Date: 22.JUL.2016 15:17:31

6.2.1.54. Occupied (99% Power) Bandwidth Input, 856 MHz, 11k FM

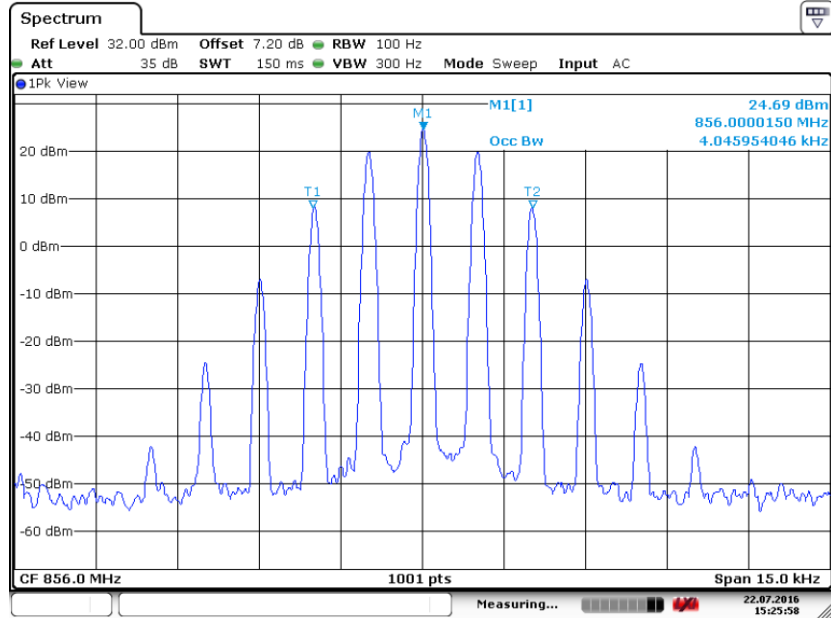


Date: 23.JUL.2016 12:22:21

6. Measurement Data (continued)

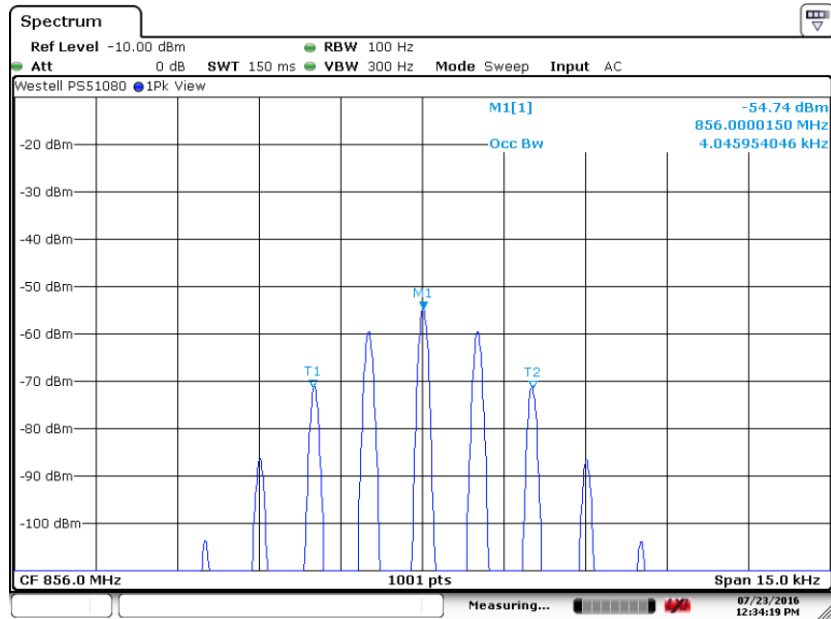
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.55. Occupied (99% Power) Bandwidth Measurement, 856 MHz, 4k FM



Date: 22.JUL.2016 15:25:57

6.2.1.56. Occupied (99% Power) Bandwidth Input, 856 MHz, 4k FM

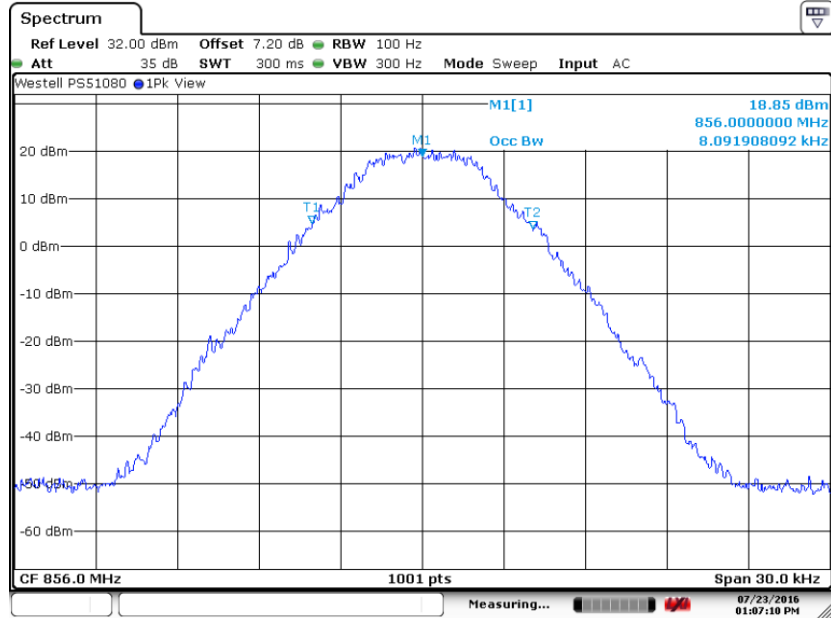


Date: 23.JUL.2016 12:34:18

6. Measurement Data (continued)

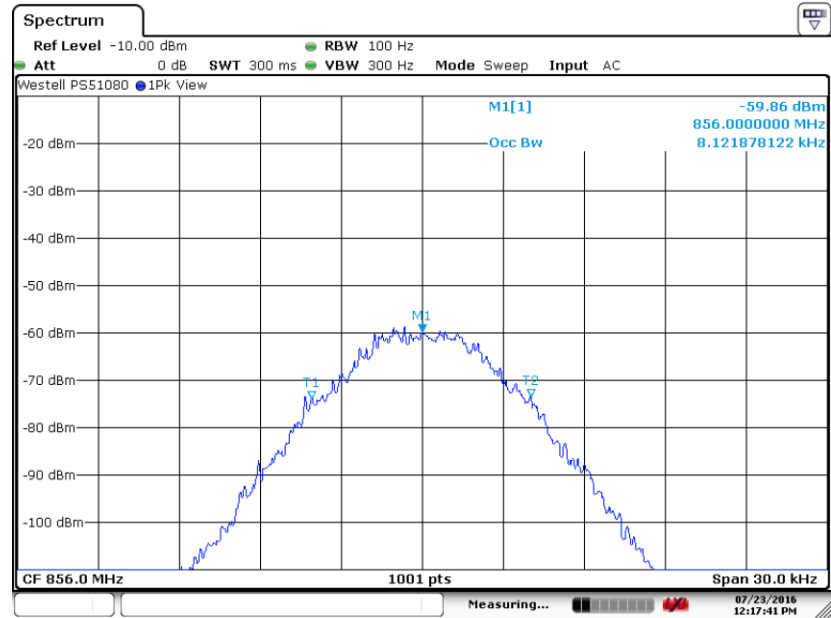
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.57. Occupied (99% Power) Bandwidth Measurement, 856 MHz, C4FM



Date: 23.JUL.2016 13:07:09

6.2.1.58. Occupied (99% Power) Bandwidth Input, 856 MHz, C4FM

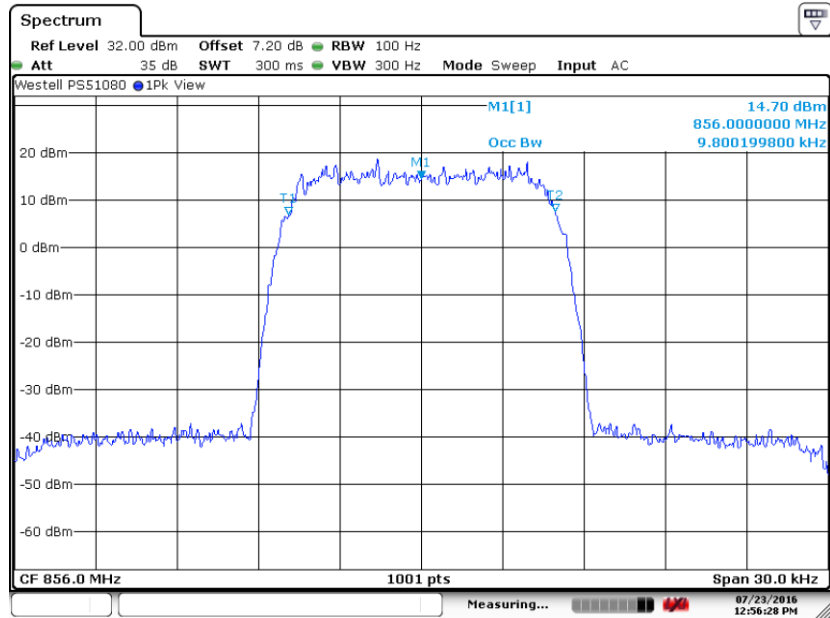


Date: 23.JUL.2016 12:17:40

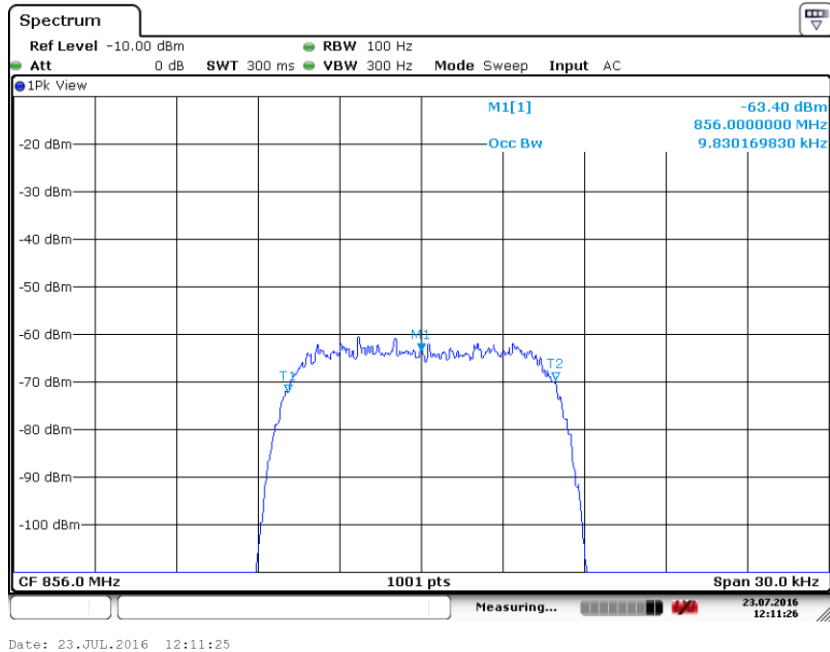
6. Measurement Data (continued)

6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.59. Occupied (99% Power) Bandwidth Measurement, 856 MHz,  $\pi/4$ -DQPSK



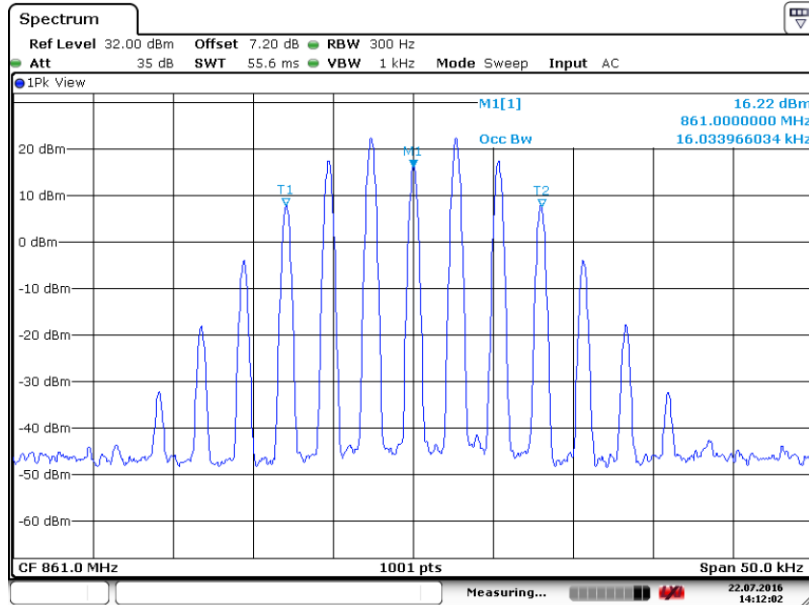
6.2.1.60. Occupied (99% Power) Bandwidth Input, 856 MHz,  $\pi/4$ -DQPSK



6. Measurement Data (continued)

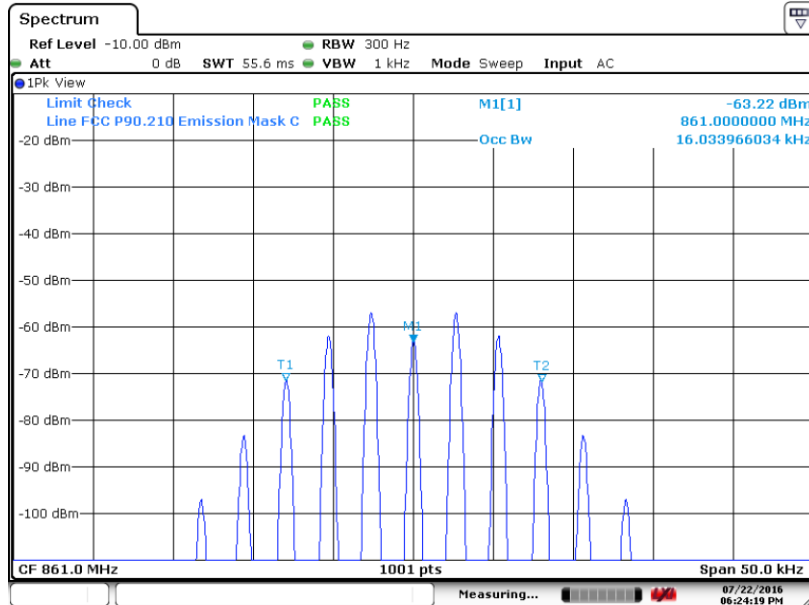
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.61. Occupied (99% Power) Bandwidth Measurement, 861 MHz, 16k FM



Date: 22.JUL.2016 14:12:02

6.2.1.62. Occupied (99% Power) Bandwidth Input, 861 MHz, 16k FM



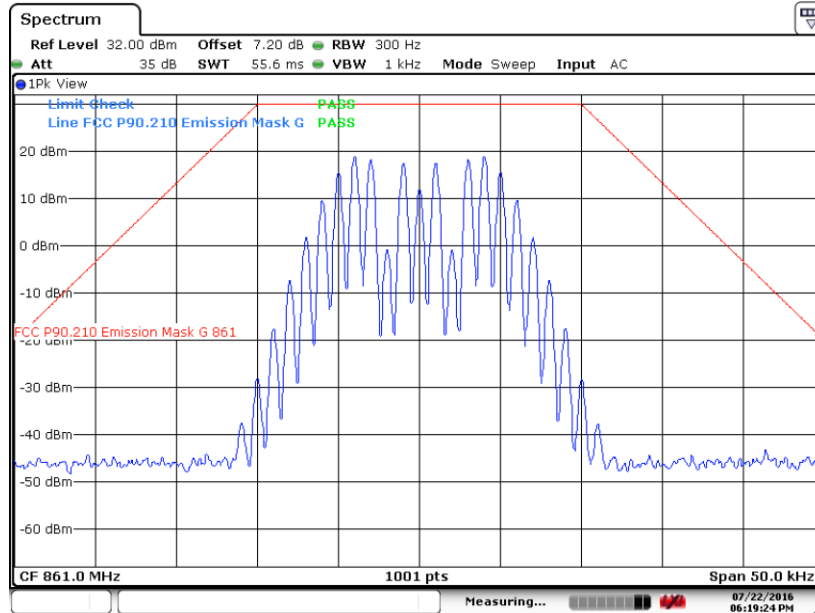
Date: 22.JUL.2016 18:24:18



6. Measurement Data (continued)

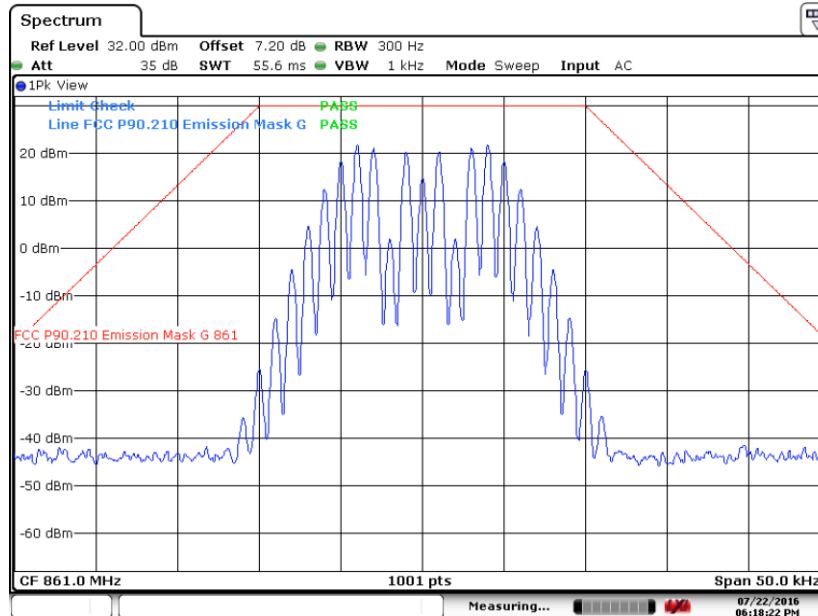
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.63. Occupied (99% Power) Emissions Mask G, 861 MHz, 16k FM



Date: 22.JUL.2016 18:19:23

6.2.1.64. Occupied (99% Power) Emissions Mask G Plus 3 dB, 861 MHz, 16k FM

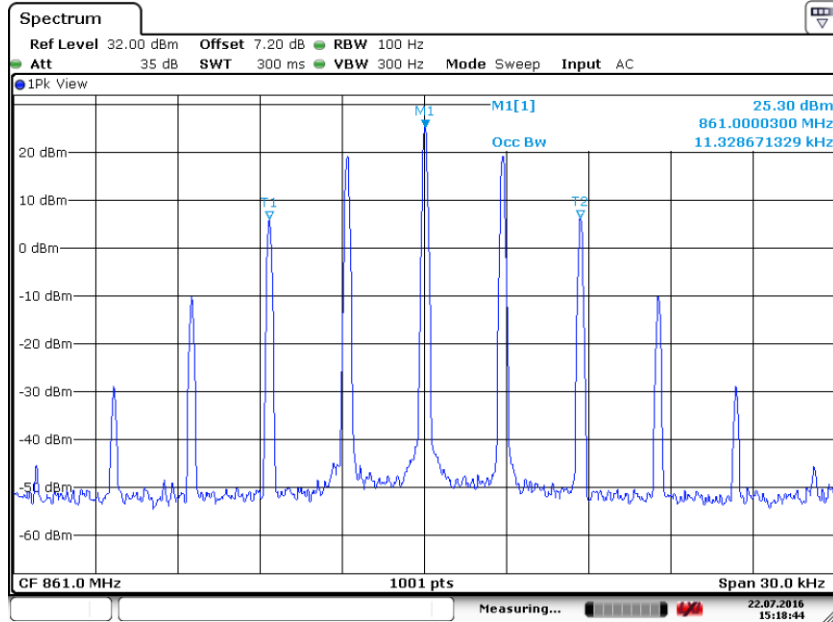


Date: 22.JUL.2016 18:18:21

6. Measurement Data (continued)

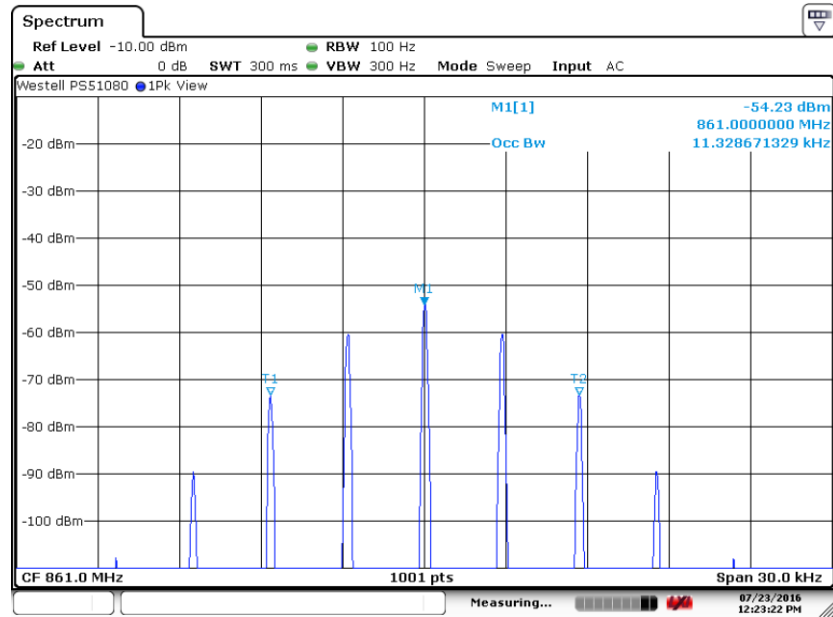
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.65. Occupied (99% Power) Bandwidth Measurement, 861 MHz, 11k FM



Date: 22.JUL.2016 15:18:44

6.2.1.66. Occupied (99% Power) Bandwidth Input, 861 MHz, 11k FM

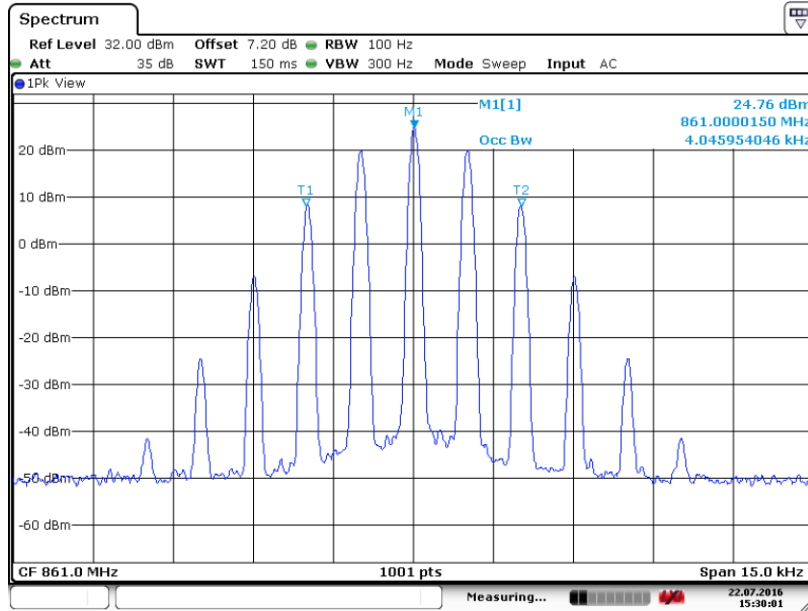


Date: 23.JUL.2016 12:23:21

6. Measurement Data (continued)

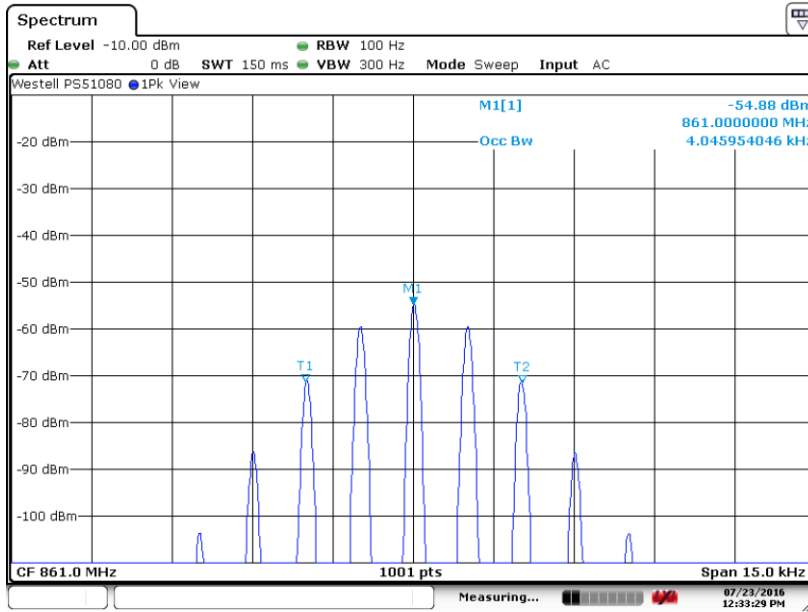
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.67. Occupied (99% Power) Bandwidth Measurement, 861 MHz, 4k FM



Date: 22.JUL.2016 15:30:00

6.2.1.68. Occupied (99% Power) Bandwidth Input, 861 MHz, 4k FM

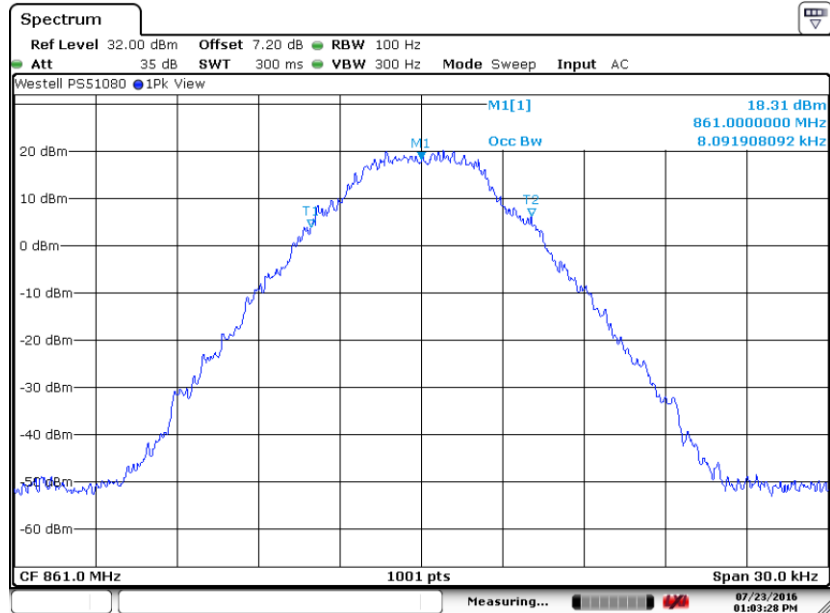


Date: 23.JUL.2016 12:33:28

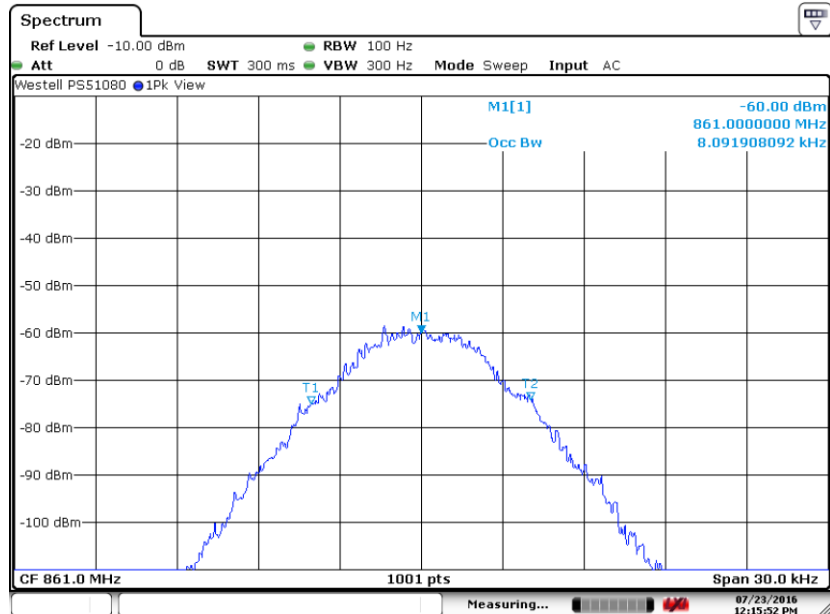
6. Measurement Data (continued)

6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.69. Occupied (99% Power) Bandwidth Measurement, 861 MHz, C4FM



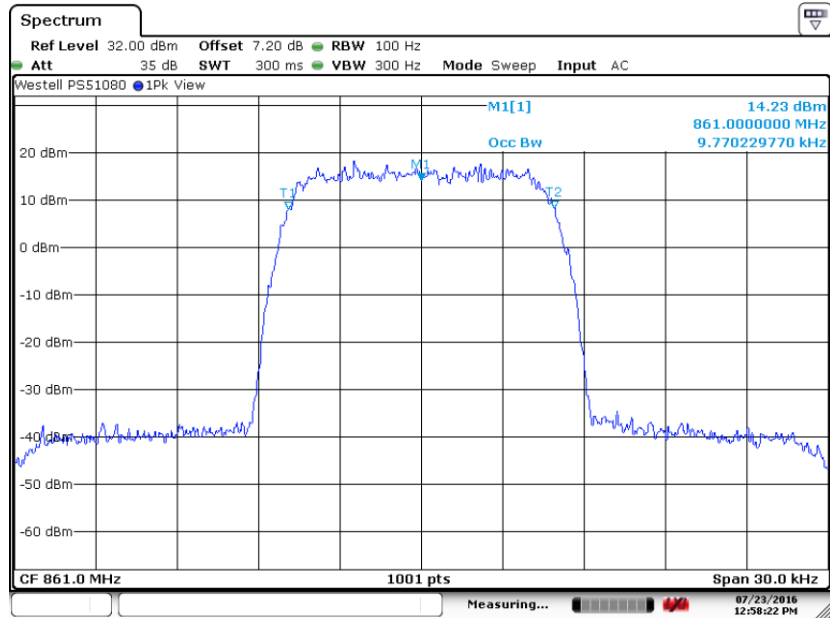
6.2.1.70. Occupied (99% Power) Bandwidth Input, 861 MHz, C4FM



6. Measurement Data (continued)

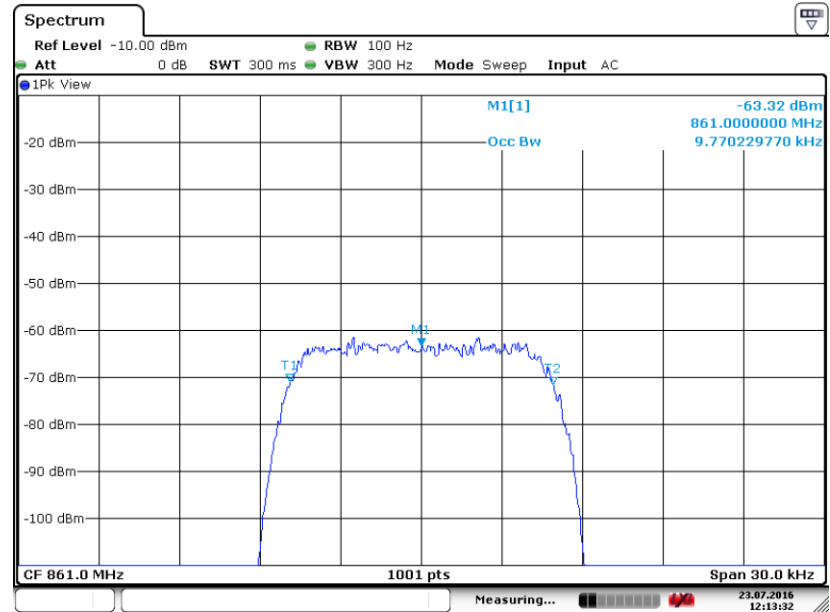
6.2. Bandwidth Limitations 90.219(e)(4)(ii), FCC Part 2.1049 (continued)

6.2.1.71. Occupied (99% Power) Bandwidth Measurement, 861 MHz,  $\pi/4$ -DQPSK



Date: 23.JUL.2016 12:58:21

6.2.1.72. Occupied (99% Power) Bandwidth Input, 861 MHz,  $\pi/4$ -DQPSK



Date: 23.JUL.2016 12:13:31

6. Measurement Data (continued)

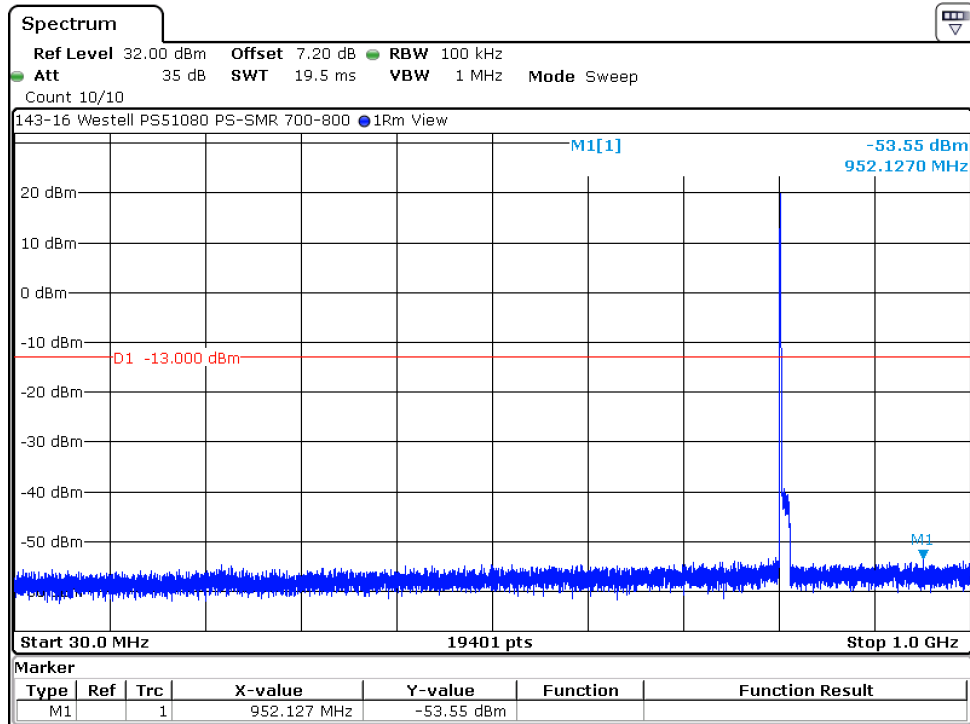
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669

**Requirement:** Transmitters designed to operate in the 806 to 824 MHz, 851 to 869 MHz, 896 to 901 MHz and 935 to 940 MHz bands, any emission outside of the MTA licensee's spectrum shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB or 80 decibels, whichever is the lesser attenuation.

Compliance with this provision is based upon the use of measurement instrumentation employing a resolution bandwidth of 100 kHz bandwidth for frequencies less than 1 GHz, and in a 1 MHz bandwidth for frequencies greater than 1 GHz.

Test Method: KDB 935210 Section 4.73

6.3.1. 807 MHz, 30 MHz to 1 GHz

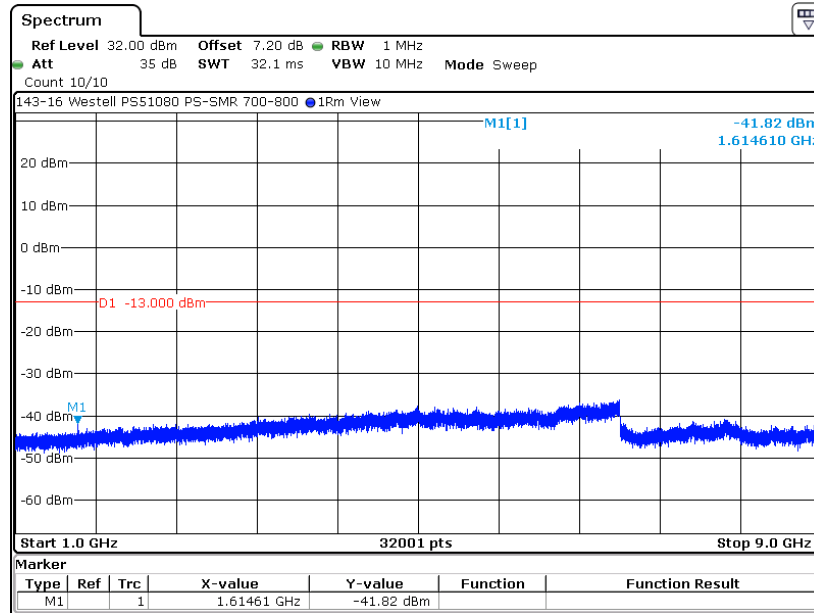


Date: 20.JAN.2016 17:12:26

6. Measurement Data (continued)

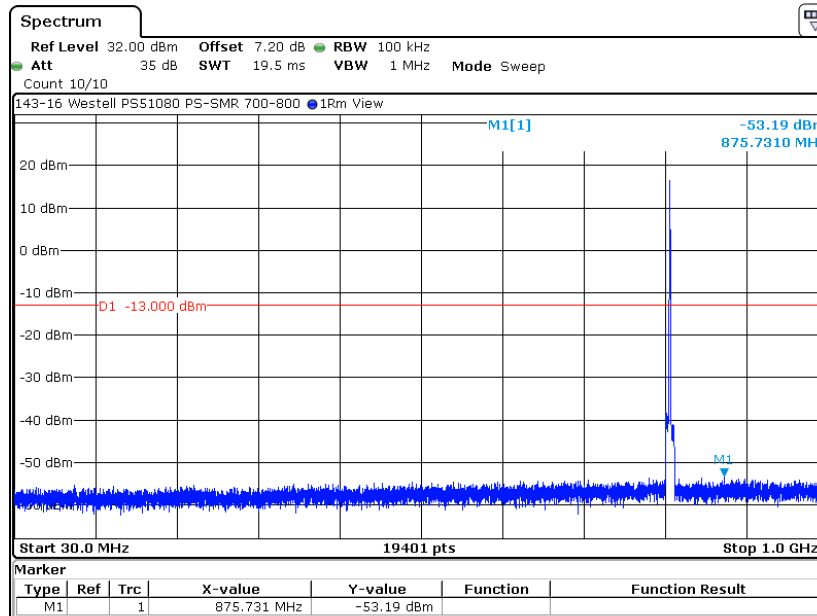
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.2. 807 MHz, 1 to 9 GHz



Date: 20.JAN.2016 17:14:09

6.3.3. 811 MHz, 30 MHz to 1 GHz

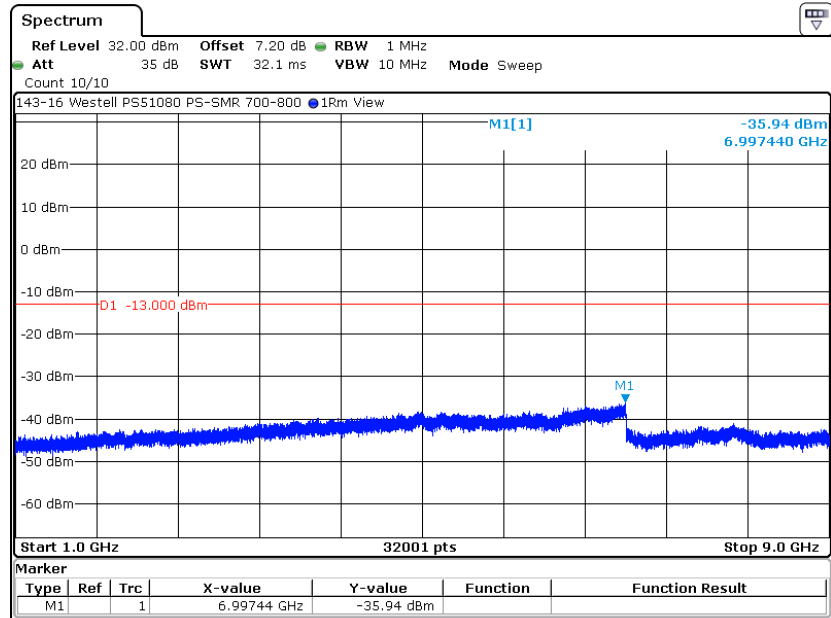


Date: 20.JAN.2016 17:16:03

6. Measurement Data (continued)

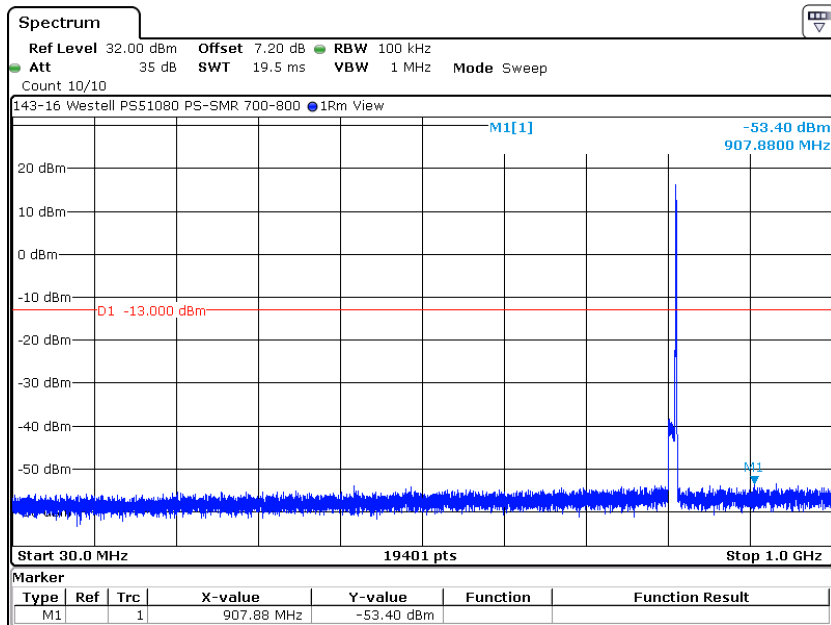
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.4. 811 MHz, 1 to 9 GHz



Date: 20.JAN.2016 17:15:07

6.3.5. 815 MHz, 30 MHz to 1 GHz



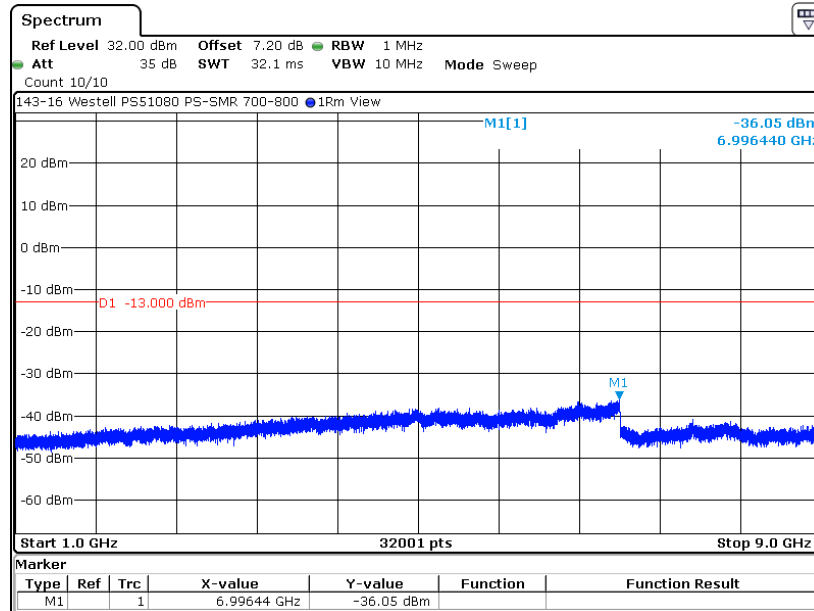
Date: 20.JAN.2016 17:16:47



6. Measurement Data (continued)

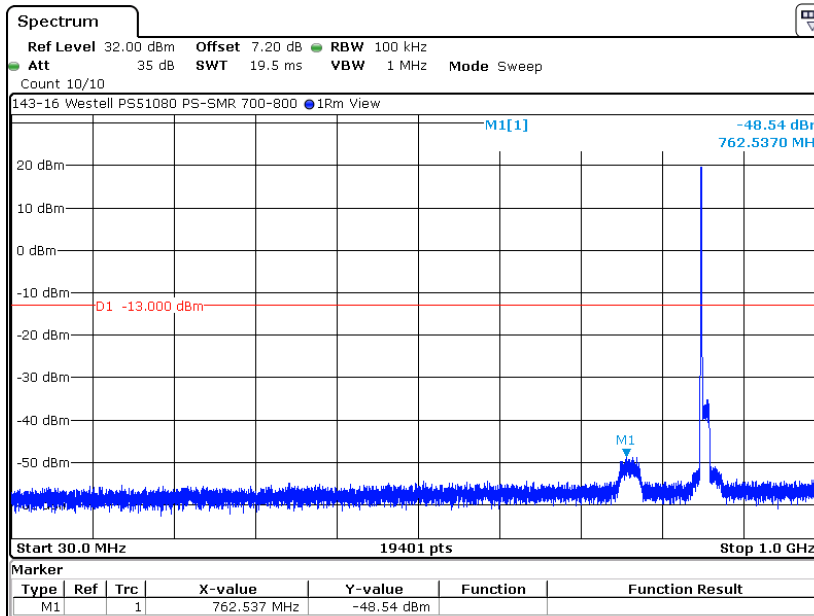
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.6. 815 MHz, 1 to 9 GHz



Date: 20.JAN.2016 17:17:38

6.3.7. 852 MHz, 30 MHz to 1 GHz

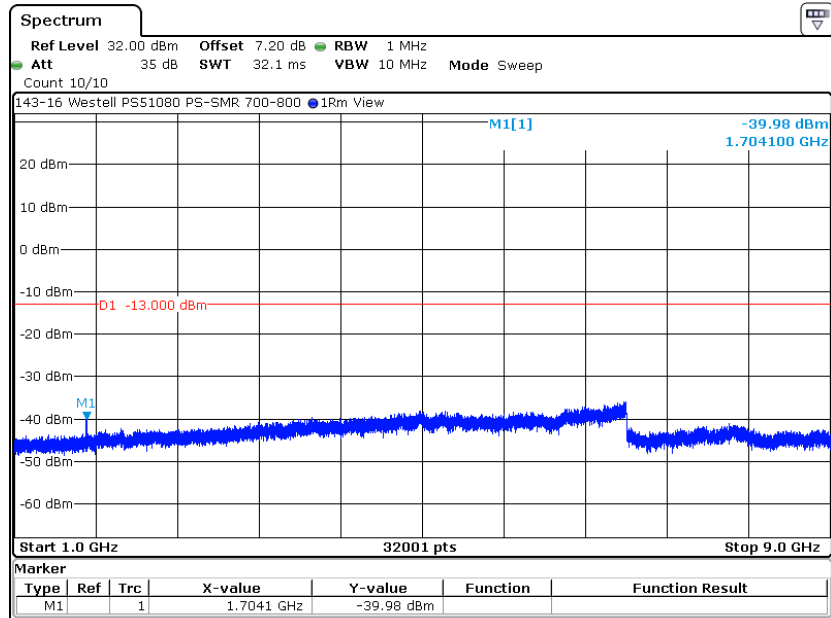


Date: 20.JAN.2016 16:16:06

6. Measurement Data (continued)

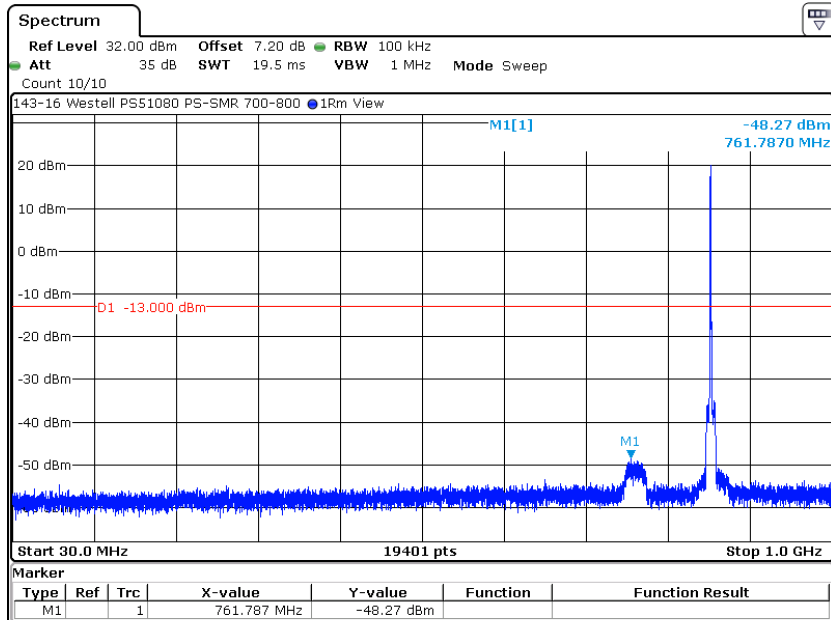
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.8. 852 MHz, 1 to 9 GHz



Date: 20.JAN.2016 16:16:57

6.3.9. 856 MHz, 30 MHz to 1 GHz

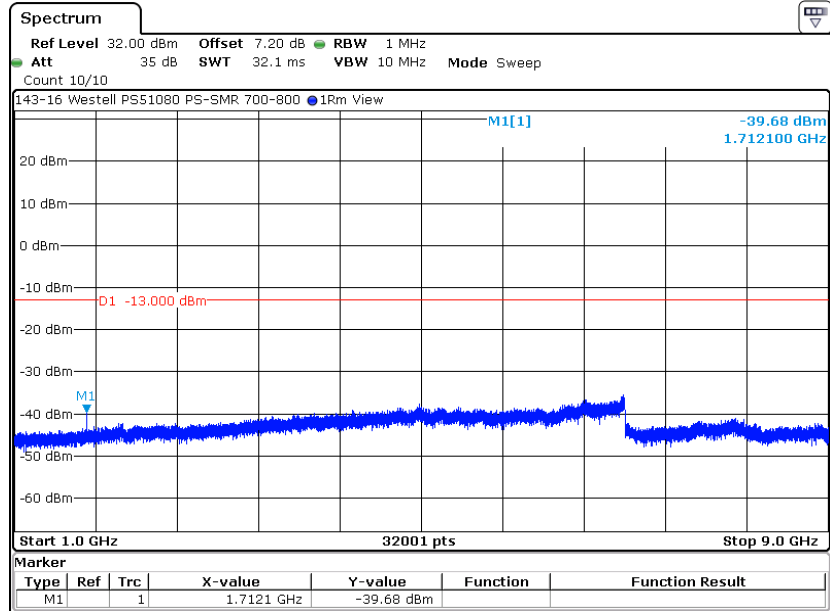


Date: 20.JAN.2016 16:19:09

6. Measurement Data (continued)

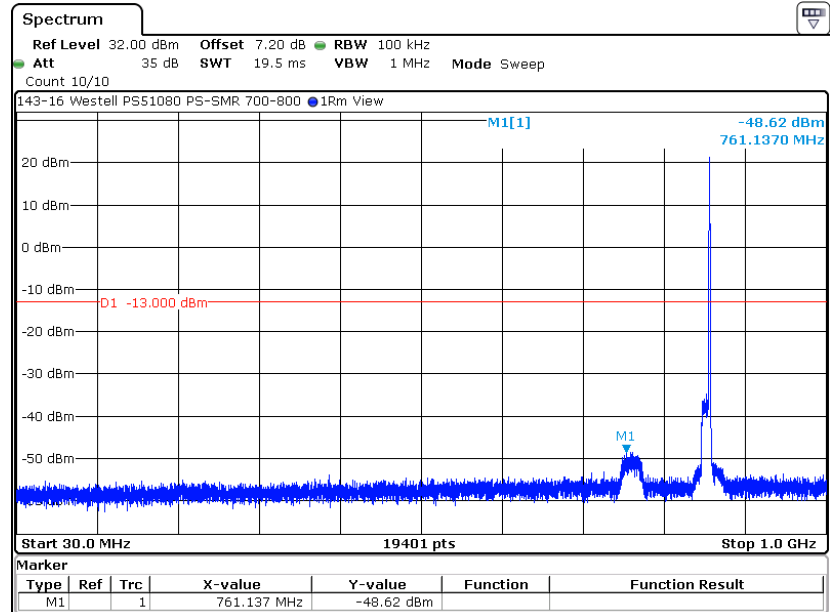
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.10. 856 MHz, 1 to 9 GHz



Date: 20.JAN.2016 16:18:09

6.3.11. 860 MHz, 30 MHz to 1 GHz

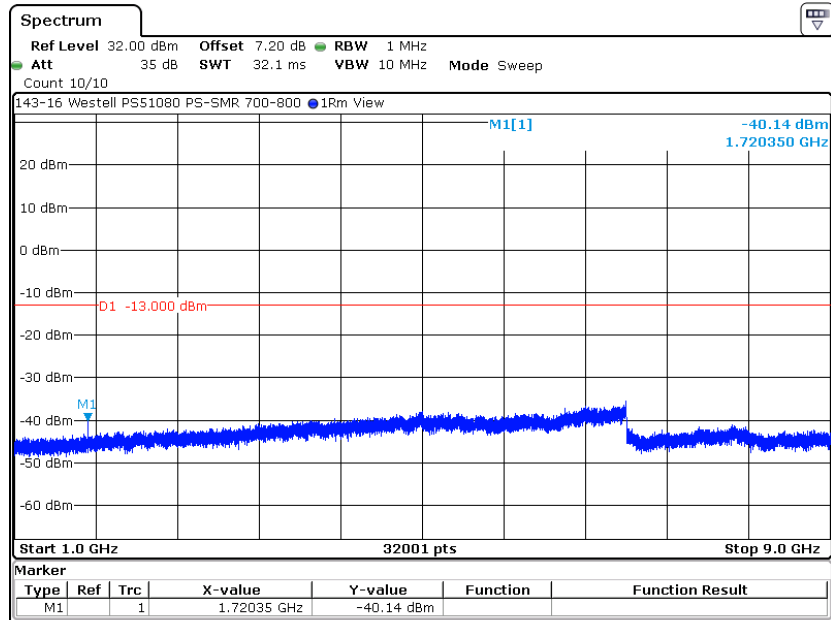


Date: 20.JAN.2016 16:20:03

6. Measurement Data (continued)

6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.12. 860 MHz, 1 to 9 GHz



Date: 20.JAN.2016 16:21:00

Out of Band / Out of Block Inter-modulation

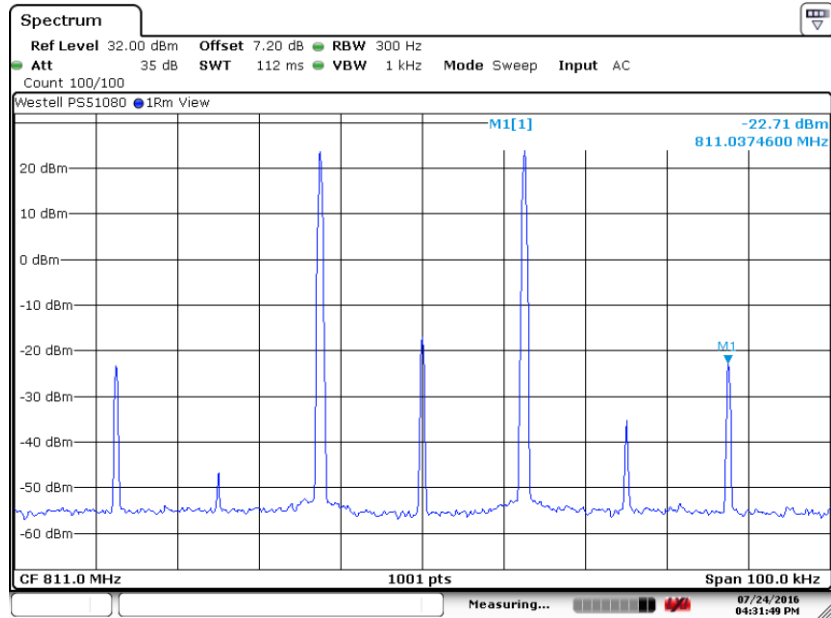
**Requirement:** The mean power Inter-modulation products shall be measured using two CW signals with each of the available channel spacings of 6.25 kHz, 12.5 kHz and 25 kHz on a center frequency of each applicable band over a 100 kHz span when measured in a 300 Hz RBW. This shall be verified at AGC threshold and 3 dB above AGC threshold. See next pages for plots.

Test Method: KDB 935210 Section 4.7.1, 4.7.2

6. Measurement Data (continued)

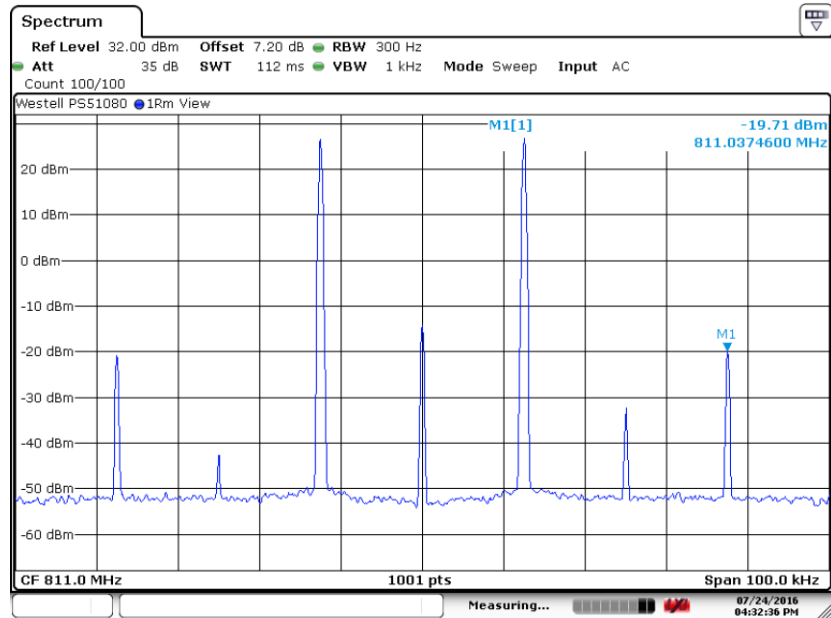
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.13. 811 MHz Two Tone Modulation, 25 kHz Spacing



Date: 24.JUL.2016 16:31:46

6.3.14. 811 MHz Two Tone Modulation plus 3 dB, 25 kHz Spacing

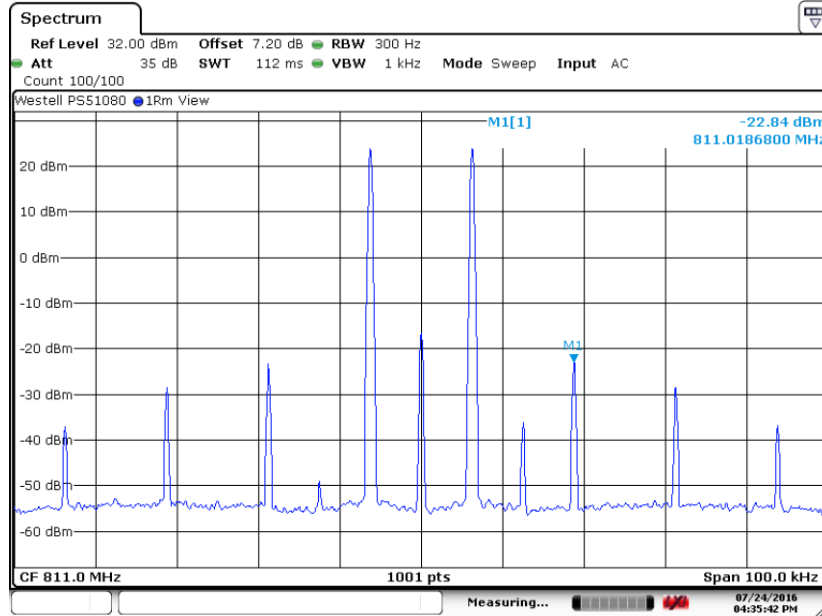


Date: 24.JUL.2016 16:32:36

6. Measurement Data (continued)

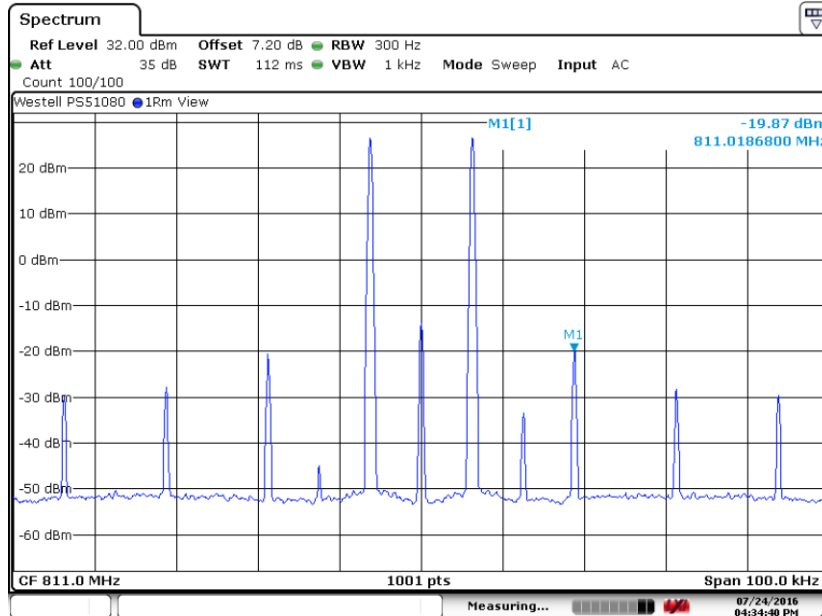
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.15. 811 MHz Two Tone Modulation, 12.5 kHz Spacing



Date: 24.JUL.2016 16:35:41

6.3.16. 811 MHz Two Tone Modulation plus 3 dB, 12.5 kHz Spacing

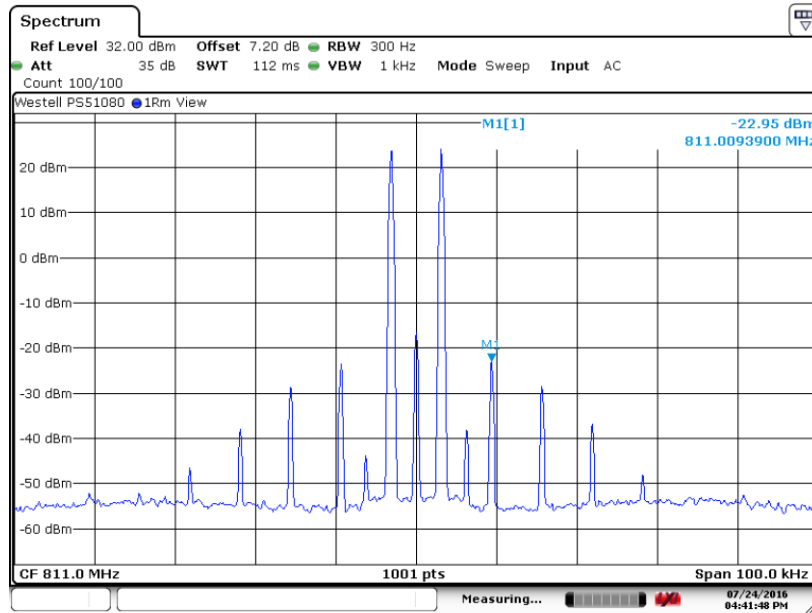


Date: 24.JUL.2016 16:34:39

6. Measurement Data (continued)

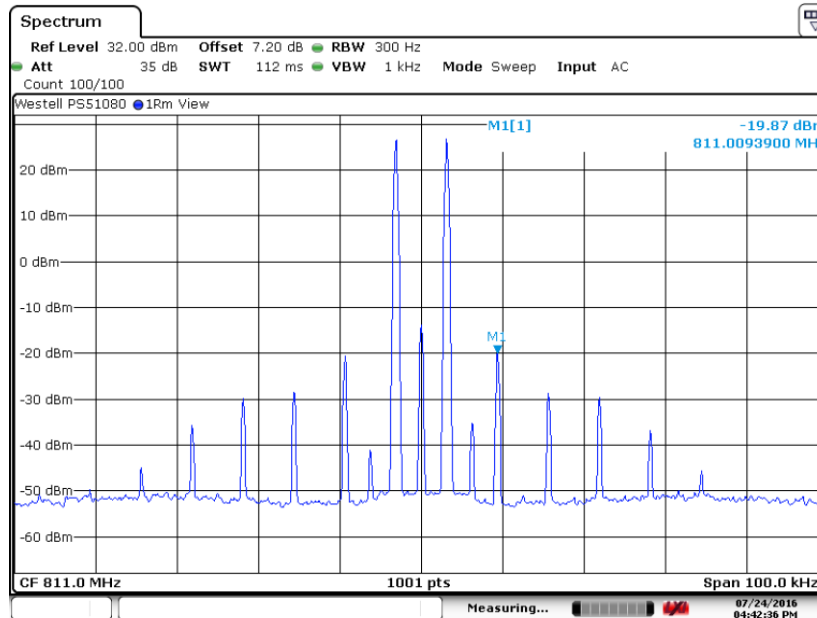
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.17. 811 MHz Two Tone Modulation, 6.25 kHz Spacing



Date: 24.JUL.2016 16:41:47

6.3.18. 811 MHz Two Tone Modulation plus 3 dB, 6.25 kHz Spacing

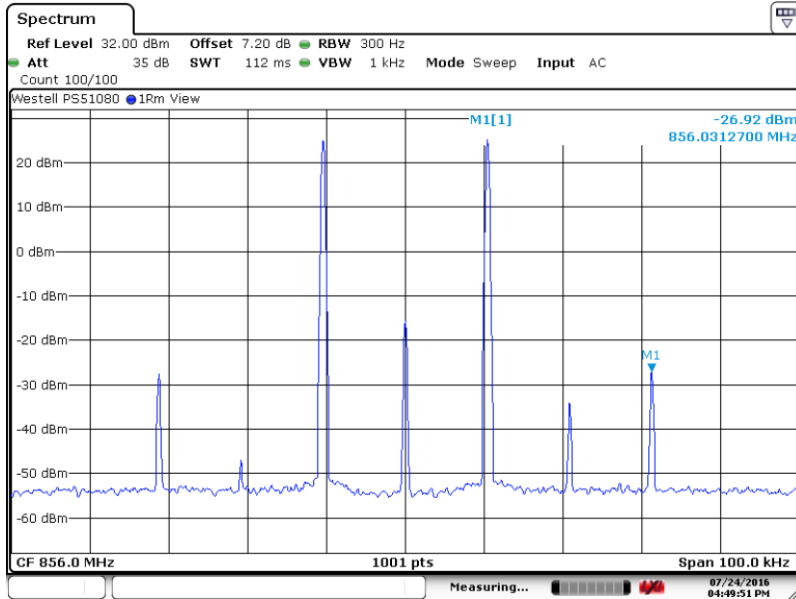


Date: 24.JUL.2016 16:42:35

6. Measurement Data (continued)

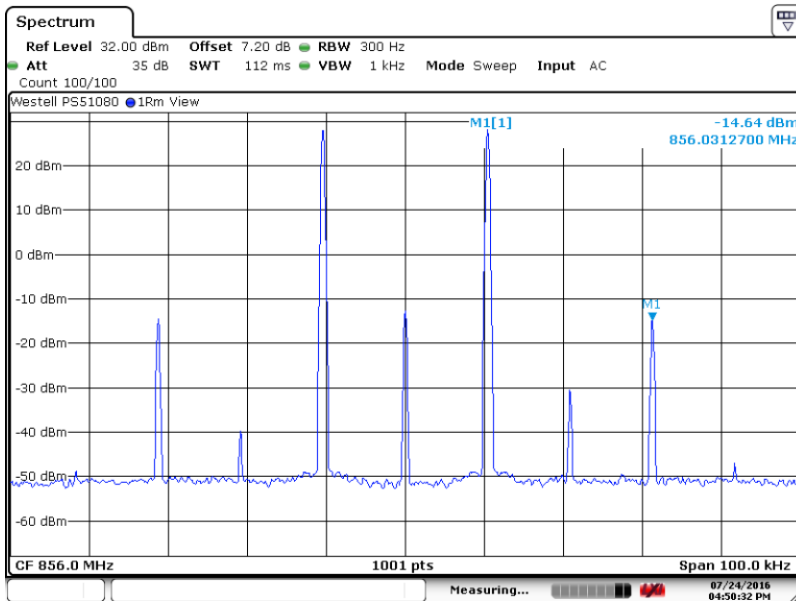
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.19. 856 MHz 2 Tone Modulation, 25 kHz Spacing



Date: 24.JUL.2016 16:49:50

6.3.20. 856 MHz 2 Tone Modulation plus 3 dB, 25 kHz Spacing



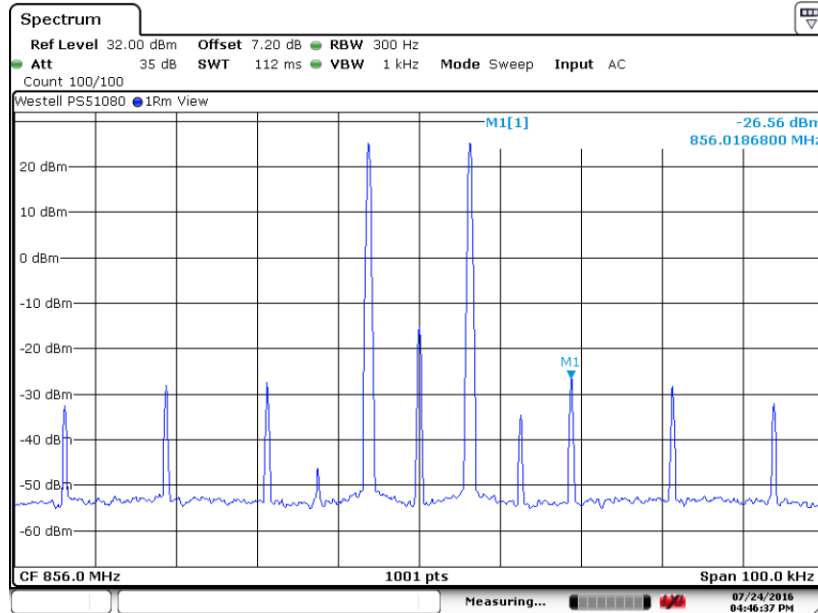
Date: 24.JUL.2016 16:50:31



6. Measurement Data (continued)

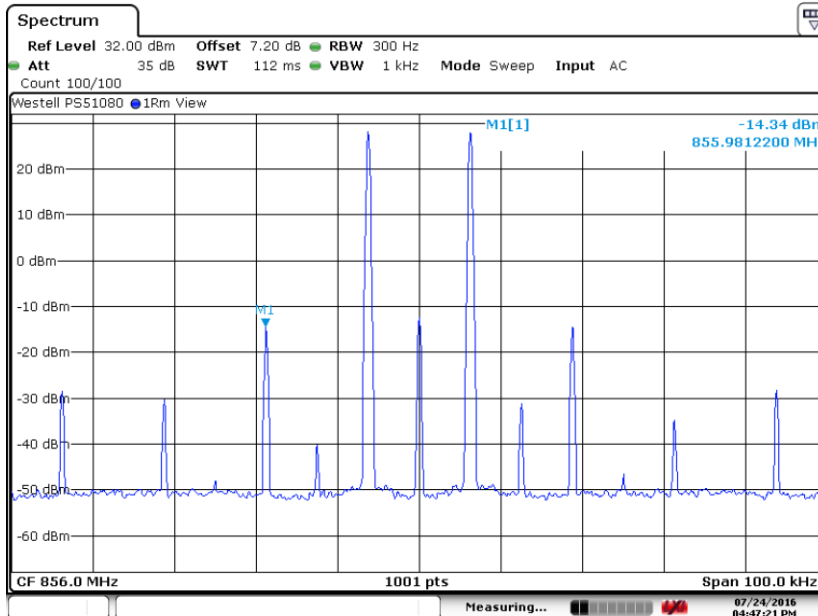
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.21. 856 MHz 2 Tone Modulation, 12.5 kHz Spacing



Date: 24.JUL.2016 16:46:36

6.3.22. 856 MHz 2 Tone Modulation plus 3 dB, 12.5 kHz Spacing

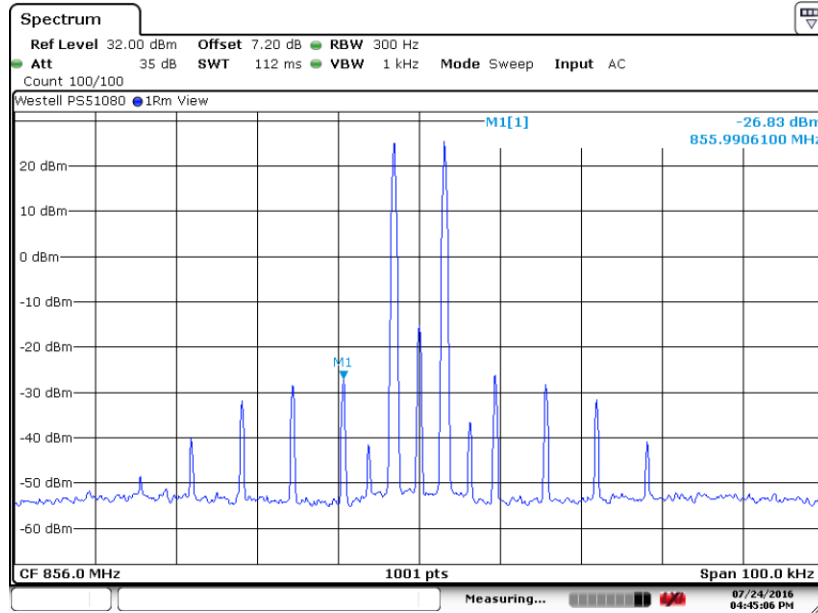


Date: 24.JUL.2016 16:47:20

6. Measurement Data (continued)

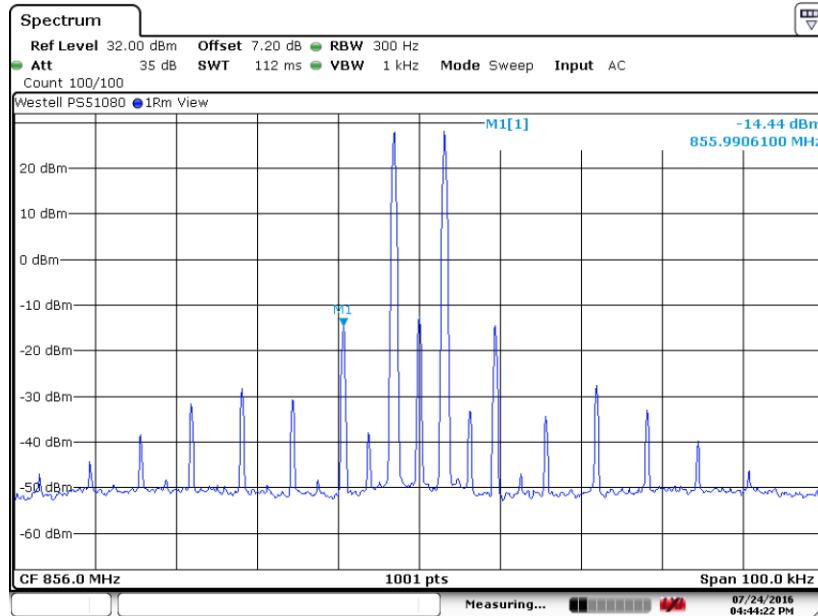
6.3. Spurious Emissions at the Antenna Terminals 90.219(e)(3), 90.669 (continued)

6.3.23. 856 MHz 2 Tone Modulation, 6.25 kHz Spacing



Date: 24.JUL.2016 16:45:05

6.3.24. 856 MHz 2 Tone Modulation plus 3 dB, 6.25 kHz Spacing



Date: 24.JUL.2016 16:44:21

**6. Measurement Data (continued)****6.4. Field Strength of Spurious Emissions 90.219(e)(3), 90.669**

**Requirement:** Transmitters designed to operate in the 806 to 824 MHz, 851 to 869 MHz, 896 to 901 MHz and 935 to 940 MHz bands, any emission outside of the MTA licensee's spectrum shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB.

Compliance with this provision is based upon the use of measurement instrumentation employing a resolution bandwidth of 100 kHz bandwidth for frequencies less than 1 GHz, and in a 1 MHz bandwidth for frequencies greater than 1 GHz.

Test Method: KDB 935210 Section 4.9

**6.4.1. Measurement and Equipment Setup**

Test Date:	2/1/2016
Test Engineer:	Cody Merry
Site Temperature (°C):	22
Relative Humidity (%RH):	32
Frequency Range:	30 MHz to 1 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	120 kHz
EMI Receiver Avg Bandwidth:	300 kHz
Detector Functions:	Peak and Quasi-Peak.
Antenna Height:	1 to 4 meters

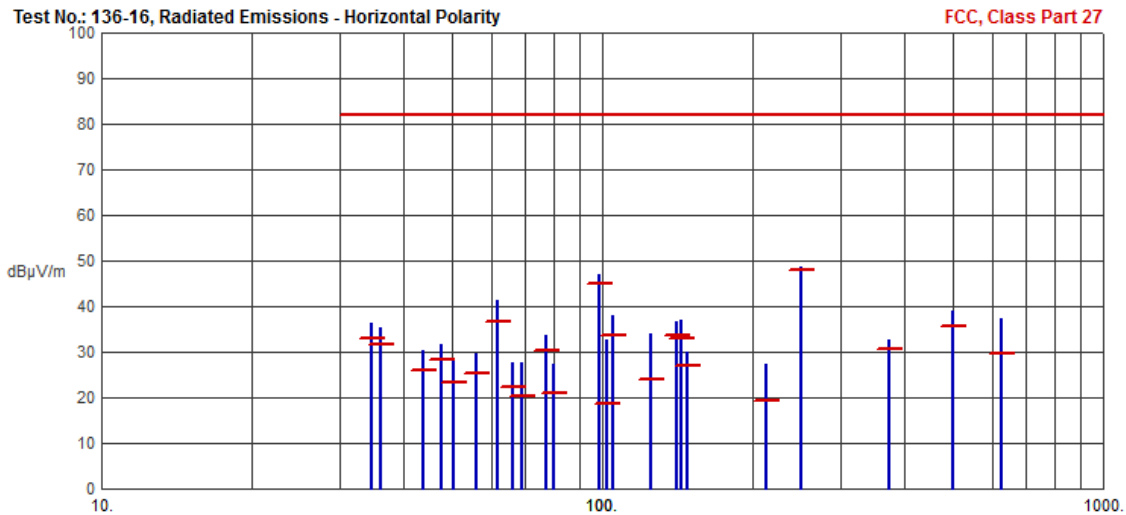
**6.4.2 Test Procedure**

Test measurements were made in accordance with ANSI C63.4-2014, Standard Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronics Equipment in the Range of 9 kHz to 40 GHz.

6. Measurement Data (continued)

6.4. Field Strength of Spurious Emissions 90.219(e)(3), 90.669 (continued)

6.4.3. Horizontal Polarity

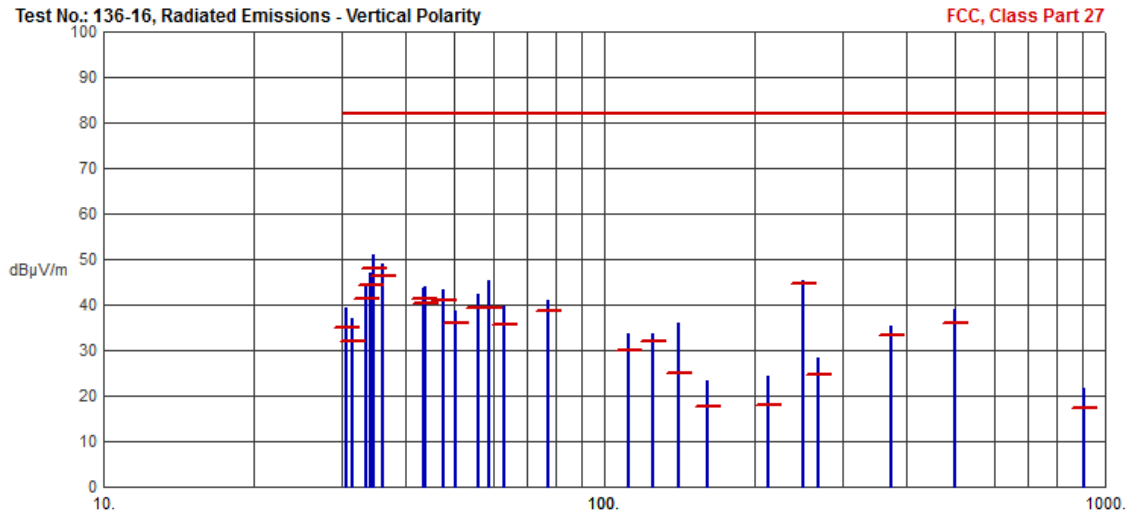


Frequency (MHz)	Pk Amp (dBµV/m)	QP Amp (dBµV/m)	QP Limit (dBµV/m)	Margin (dB)	Ant Ht (cm)	Table (Deg)	Comments
34.6273	36.17	32.87	82.00	-49.13	N/A	N/A	
36.1486	35.24	31.68	82.00	-50.32	N/A	N/A	
43.7770	30.21	26.11	82.00	-55.89	N/A	N/A	
47.7902	31.57	28.20	82.00	-53.80	N/A	N/A	
50.4102	27.88	23.31	82.00	-58.69	N/A	N/A	
55.8835	29.81	25.35	82.00	-56.65	N/A	N/A	
61.9982	41.29	36.51	82.00	-45.49	N/A	N/A	
66.2841	27.70	22.46	82.00	-59.54	N/A	N/A	
68.9830	27.82	20.31	82.00	-61.69	N/A	N/A	
77.1777	33.80	30.46	82.00	-51.54	N/A	N/A	
79.8064	27.38	20.99	82.00	-61.01	N/A	N/A	
98.4490	47.08	44.89	82.00	-37.11	N/A	N/A	
101.8657	32.55	18.82	82.00	-63.18	N/A	N/A	
104.8044	38.15	33.71	82.00	-48.29	N/A	N/A	
124.9922	34.16	24.15	82.00	-57.85	N/A	N/A	
141.1696	36.62	33.67	82.00	-48.33	N/A	N/A	
143.2824	36.87	33.09	82.00	-48.91	N/A	N/A	
148.1194	30.02	27.11	82.00	-54.89	N/A	N/A	
212.8925	27.38	19.22	82.00	-62.78	N/A	N/A	
249.9882	48.53	47.91	82.00	-34.09	N/A	N/A	
374.9902	32.50	30.63	82.00	-51.37	N/A	N/A	
499.9859	39.00	35.78	82.00	-46.22	N/A	N/A	
625.0010	37.47	29.59	82.00	-52.41	N/A	N/A	

6. Measurement Data (continued)

6.4. Field Strength of Spurious Emissions 90.219(e)(3), 90.669 (continued)

6.4.4. Vertical Polarity



Frequency (MHz)	Pk Amp (dBµV/m)	QP Amp (dBµV/m)	QP Limit (dBµV/m)	Margin (dB)	Ant Ht (cm)	Table (Deg)	Comments
30.6174	39.24	34.97	82.00	-47.03	N/A	N/A	
31.4082	36.98	32.01	82.00	-49.99	N/A	N/A	
33.4300	43.96	41.43	82.00	-40.57	N/A	N/A	
34.0650	47.05	44.25	82.00	-37.75	N/A	N/A	
34.6388	50.99	47.95	82.00	-34.05	N/A	N/A	
36.1518	49.06	46.36	82.00	-35.64	N/A	N/A	
43.5020	43.75	41.28	82.00	-40.72	N/A	N/A	
43.8006	43.84	40.17	82.00	-41.83	N/A	N/A	
47.7690	43.30	40.91	82.00	-41.09	N/A	N/A	
50.4247	38.81	35.92	82.00	-46.08	N/A	N/A	
55.9910	42.29	39.35	82.00	-42.65	N/A	N/A	
58.7035	45.21	39.42	82.00	-42.58	N/A	N/A	
62.9352	39.69	35.62	82.00	-46.38	N/A	N/A	
77.1893	40.98	38.65	82.00	-43.35	N/A	N/A	
111.5913	33.76	29.88	82.00	-52.12	N/A	N/A	
124.9831	33.82	31.97	82.00	-50.03	N/A	N/A	
141.2108	36.05	24.96	82.00	-57.04	N/A	N/A	
161.1294	23.43	17.63	82.00	-64.37	N/A	N/A	
212.3355	24.20	17.84	82.00	-64.16	N/A	N/A	
249.9882	45.45	44.80	82.00	-37.20	N/A	N/A	
268.2679	28.31	24.51	82.00	-57.49	N/A	N/A	
374.9832	35.27	33.49	82.00	-48.51	N/A	N/A	
499.9842	38.99	35.86	82.00	-46.14	N/A	N/A	
905.0078	21.52	17.26	82.00	-64.74	N/A	N/A	

**6. Measurement Data (continued)****6.4. Field Strength of Spurious Emissions 90.219(e)(3), 90.669 (continued)**

## 6.4.5. Measurement and Equipment Setup

Test Date:	02/01/2016
Test Engineer:	Cody Merry
Site Temperature (°C):	24
Relative Humidity (%RH):	33
Frequency Range:	Above 1 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	1 MHz
EMI Receiver Avg Bandwidth:	3 MHz
Detector Functions:	Peak and Average
Antenna Height:	1 to 4 meters

## 6.4.6. Radiated Emissions above 1 GHz

There were no measureable emissions above 1 GHz

**6. Measurement Data (continued)**

**6.5. Frequency Stability 90.213**

Requirement: Fixed and base stations designed to operating in the 806 to 809 MHz, 809 to 824 MHz, 851 to 854 MHz and 854 to 869 MHz frequency bands must meet the frequency stability requirements of this section which is either 1.0 or 1.5 ppm respectively.

Test Method: KDB 935210 Section 4.8

Note: The EUT does not translate the input frequency and therefore this testing was not performed.

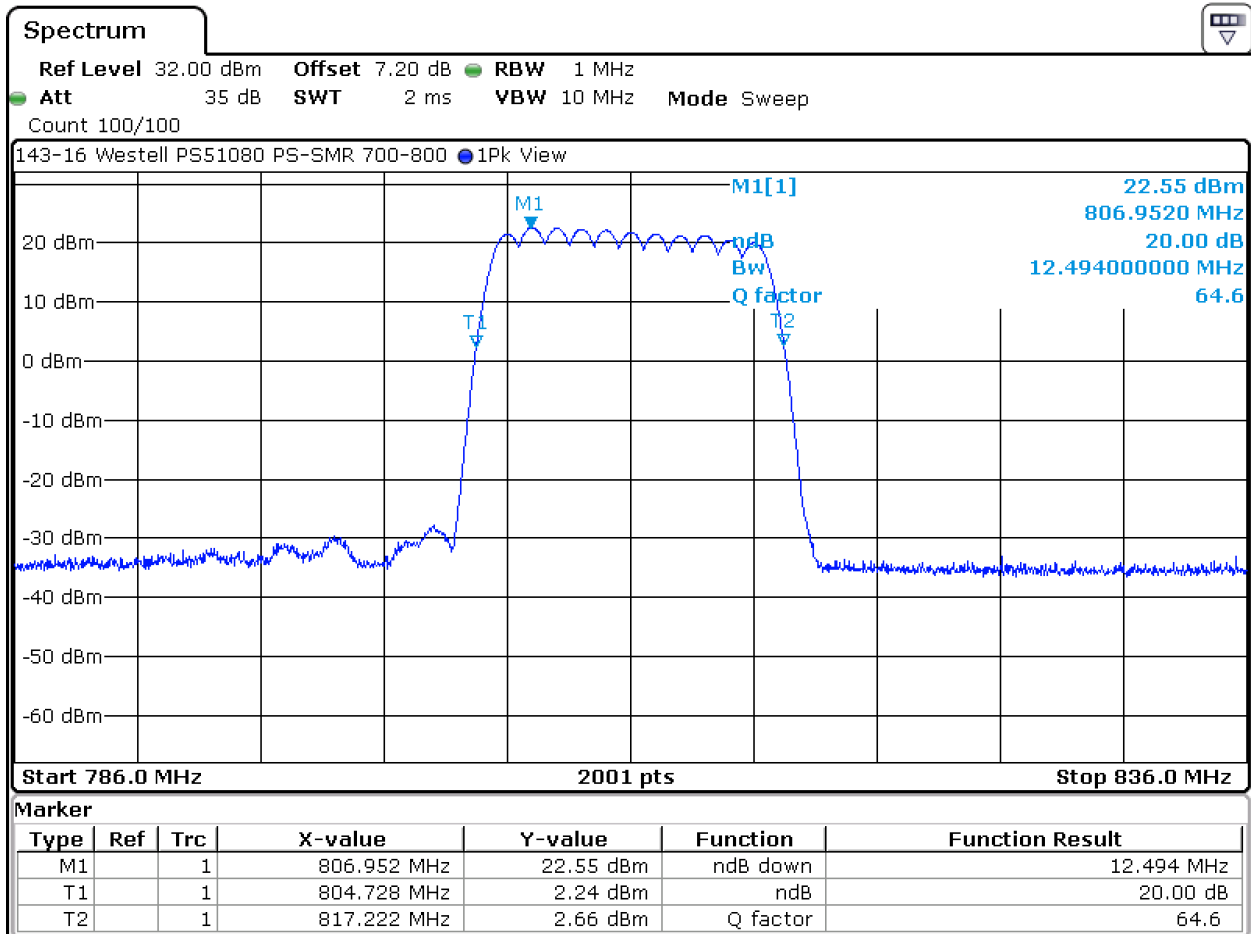
6. Measurement Data (continued)

6.6. Out of Band Rejection

Requirement: Over a +/- 250 % span of the passband of the EUT measure the 20 dB bandwidth of the pass band of the EUT.

Test Method: KDB 935210 Section 4.3

6.6.1. 811 MHz Center Frequency



Date: 20.JAN.2016 16:58:34



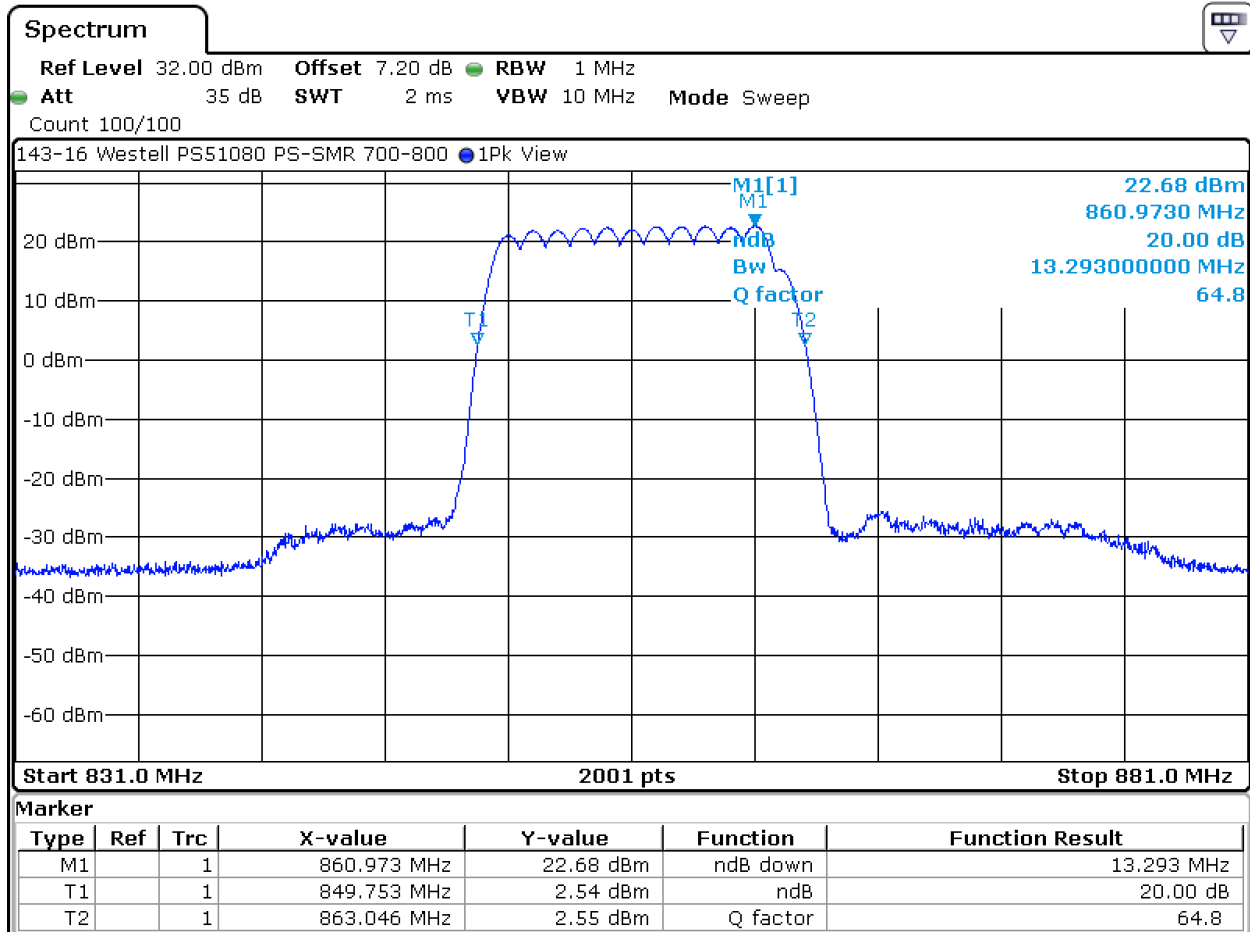
Test Number: 143-16R3

Issue Date: 7/24/2016

6. Measurement Data (continued)

6.6. Out of Band Rejection (continued)

6.6.2. 856 MHz, Center Frequency



Date: 20.JAN.2016 16:43:02

6. Measurement Data (continued)

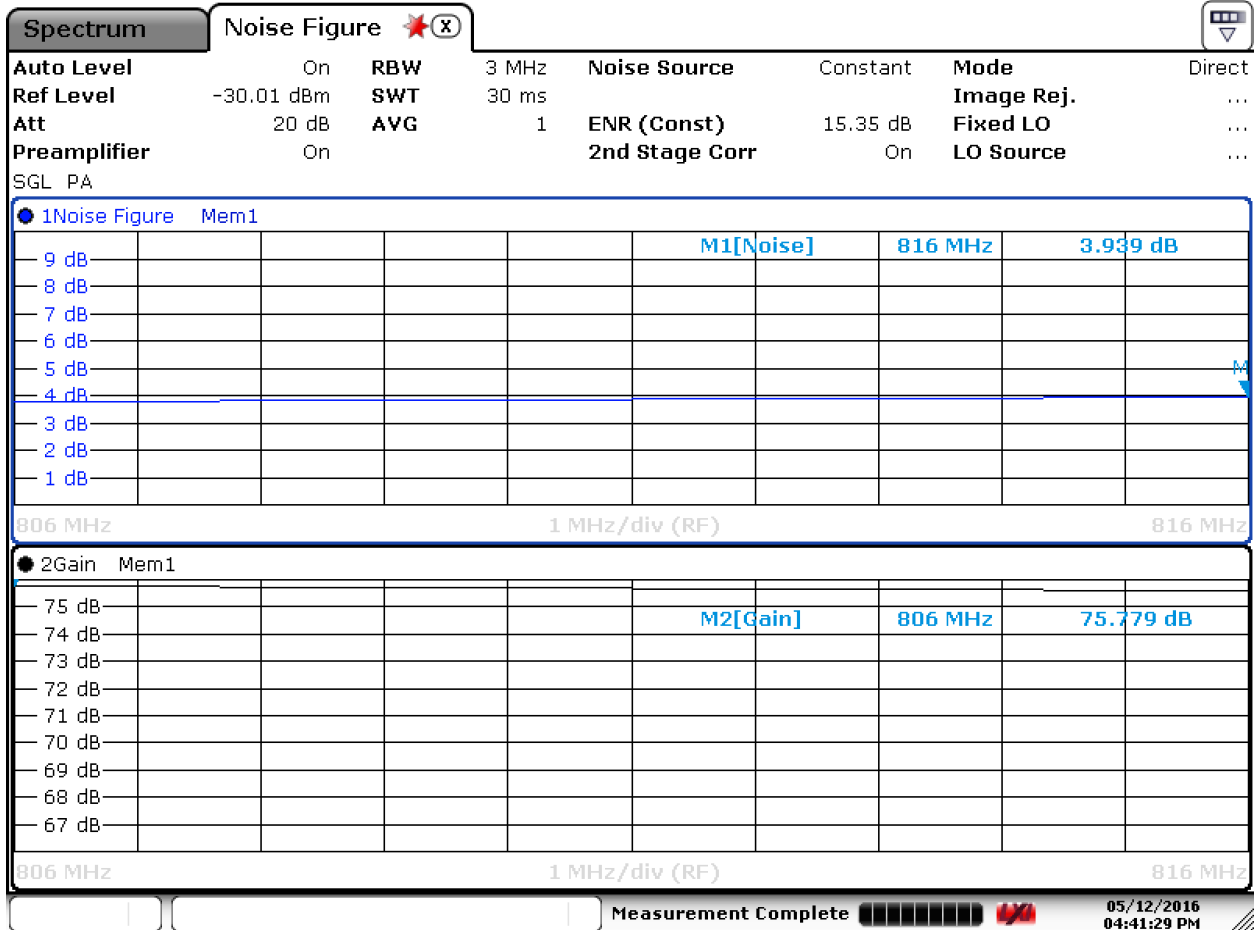
6.7. Noise Figure

Requirement: The noise figure of a signal booster must not exceed 9 dB in either direction.

Test Method: KDB 935210 Section 4.6

Result: Compliant, 3.939 dB

6.7.1. 806 to 816 MHz band



Date: 12.MAY.2016 16:41:28

6. Measurement Data (continued)

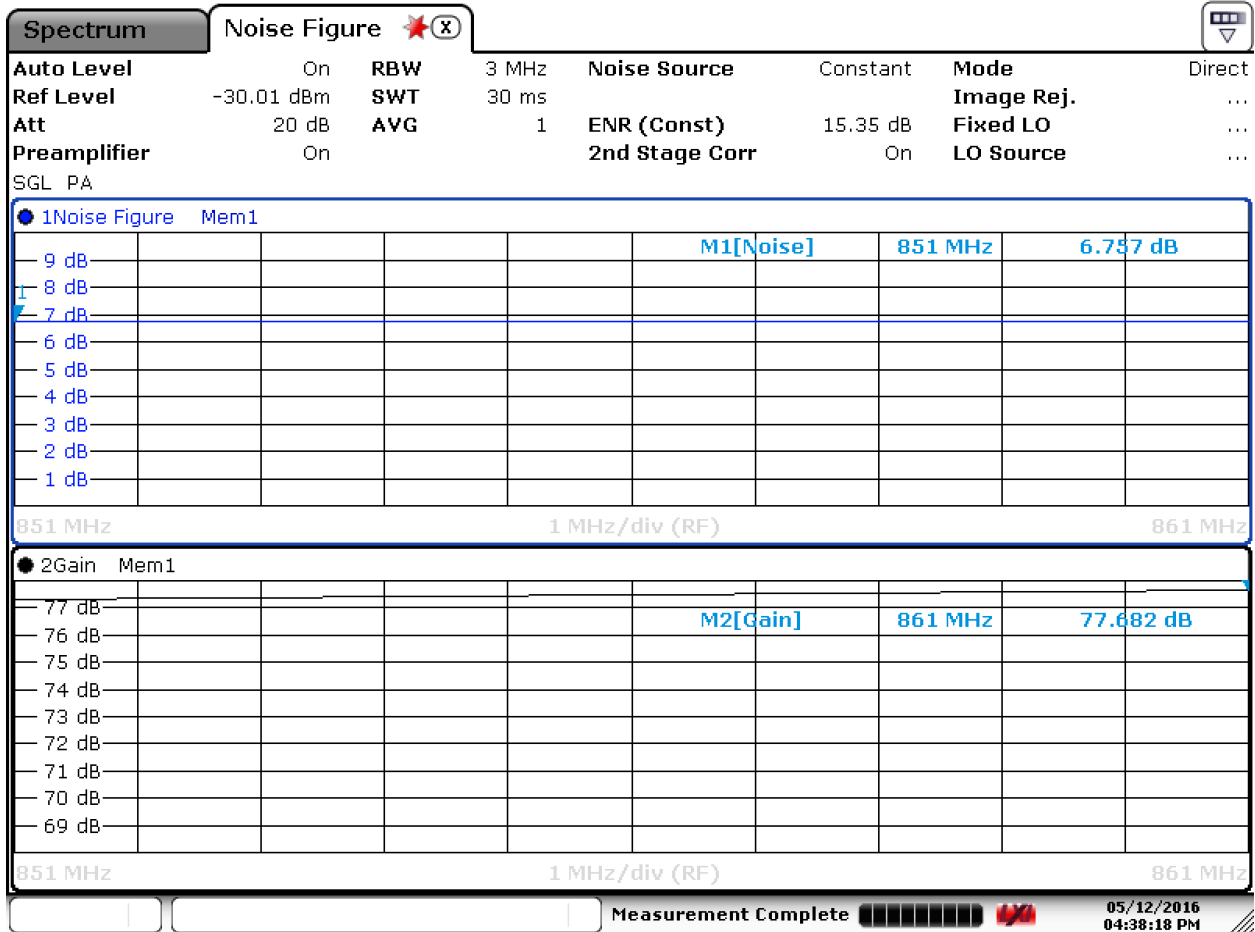
6.7. Noise Figure (continued)

Requirement: The noise figure of a signal booster must not exceed 9 dB in either direction.

Test Method: KDB 935210 Section 4.6

Result: Compliant, 6.757 dB

6.7.2. 851 to 861 MHz band



Date: 12.MAY.2016 16:38:17

6. Measurement Data (continued)

6.8. Public Exposure to Radio Frequency Energy Levels 1.1307 (b)(1)

Center Frequency (MHz)	MPE Distance (cm)	DUT Output Power (dBm)	DUT Antenna Gain (dBi)	Power Density		Limit (mW/cm2)	Result
				(mW/cm2)	(W/m2)		
	(1)	(2)	(3)	(4)		(5)	
806	20.0	27.46	3.00	0.2211720	2.2117200	1	Compliant
811	20.0	26.94	3.00	0.1962141	1.9621407	1	Compliant
816	20.0	24.98	3.00	0.1249482	1.2494824	1	Compliant
806	20.0	27.48	3.00	0.2221929	2.2219288	1	Compliant
811	20.0	26.96	3.00	0.1971198	1.9711975	1	Compliant
816	20.0	24.99	3.00	0.1252363	1.2523628	1	Compliant
806	20.0	27.56	3.00	0.2263238	2.2632376	1	Compliant
811	20.0	27.04	3.00	0.2007845	2.0078448	1	Compliant
816	20.0	25.07	3.00	0.1275646	1.2756459	1	Compliant
806	20.0	27.44	3.00	0.2201558	2.2015581	1	Compliant
811	20.0	27.11	3.00	0.2040470	2.0404697	1	Compliant
816	20.0	25.10	3.00	0.1284488	1.2844883	1	Compliant
851	20.0	26.62	3.00	0.1822763	1.8227627	1	Compliant
856	20.0	27.33	3.00	0.2146496	2.1464963	1	Compliant
861	20.0	27.25	3.00	0.2107318	2.1073183	1	Compliant
851	20.0	26.86	3.00	0.1926328	1.9263276	1	Compliant
856	20.0	27.45	3.00	0.2206633	2.2066332	1	Compliant
861	20.0	27.48	3.00	0.2221929	2.2219288	1	Compliant
851	20.0	26.61	3.00	0.1818571	1.8185705	1	Compliant
856	20.0	27.30	3.00	0.2131720	2.1317199	1	Compliant
861	20.0	27.24	3.00	0.2102472	2.1024716	1	Compliant
851	20.0	26.28	3.00	0.1685505	1.6855054	1	Compliant
856	20.0	27.01	3.00	0.1994023	1.9940229	1	Compliant
861	20.0	26.91	3.00	0.1948633	1.9486334	1	Compliant

$$PD = \frac{OP + AG}{(4 \times \pi \times d^2)}$$

1. Reference CFR 2.1093(b): For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.
2. Section 6.1.2 of this test report. Note that the value has been adjusted to include the cable insertion loss.
3. Data supplied by the client for combination of cable loss and antenna gain.
4. Power density is calculated from field strength measurement and antenna gain.
5. Reference CFR 1.1310, Table 1: Limits for Maximum Permissible Exposure (MPE), Section (B): Limits for General Population/Uncontrolled Exposure.

## **7. Test Site Description**

Compliance Worldwide is located at 357 Main Street in Sandown, New Hampshire. The test sites at Compliance Worldwide are used for conducted and radiated emissions testing in accordance with Federal Communications Commission (FCC) and Industry Canada standards. A description of the test sites is on file with the FCC (registration number **96392**) and Industry Canada (file number **IC 3023A-1**).

The radiated emissions test site is a 3 and 10 meter enclosed open area test site (OATS). Personnel, support equipment and test equipment are located in the basement beneath the OATS ground plane.

The conducted emissions site is part of a 16' x 20' x 12' ferrite tile chamber and uses one of the walls for the vertical ground plane required by EN 55022.

Both sites are designed to test products or systems 1.5 meter W x 1.5 meter L x 2.0 meter H, floor standing or table top.

## 8. Test Setup Photographs

### Antenna Port Conducted Emissions



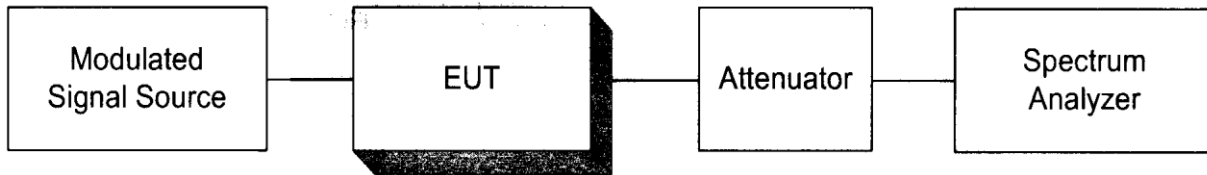
**8. Test Setup Photographs (cont)**

**Radiated Emissions**

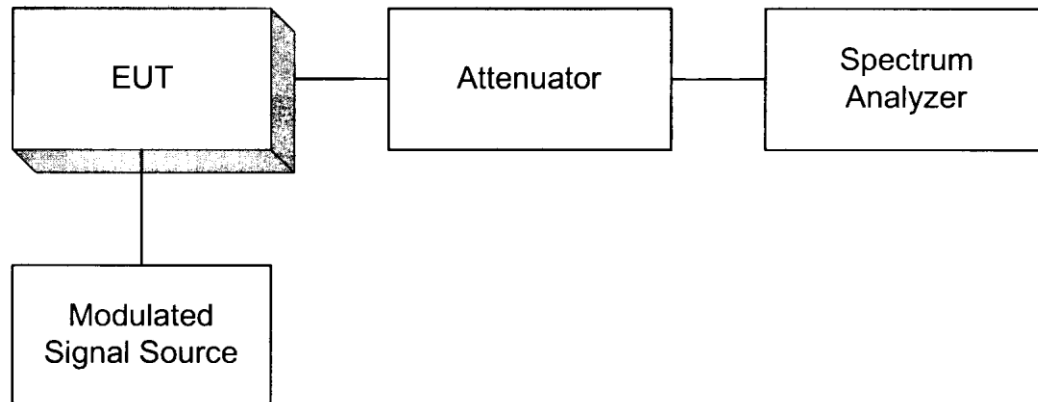


Appendix A

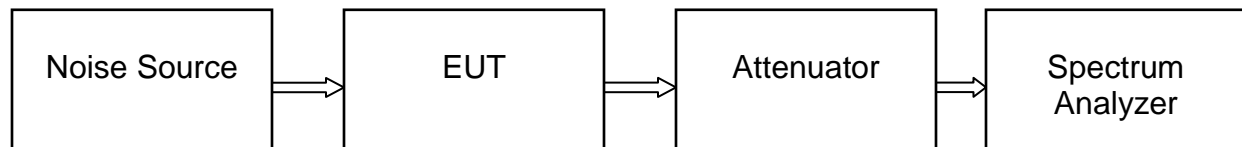
RF Output Power



Occupied Bandwidth



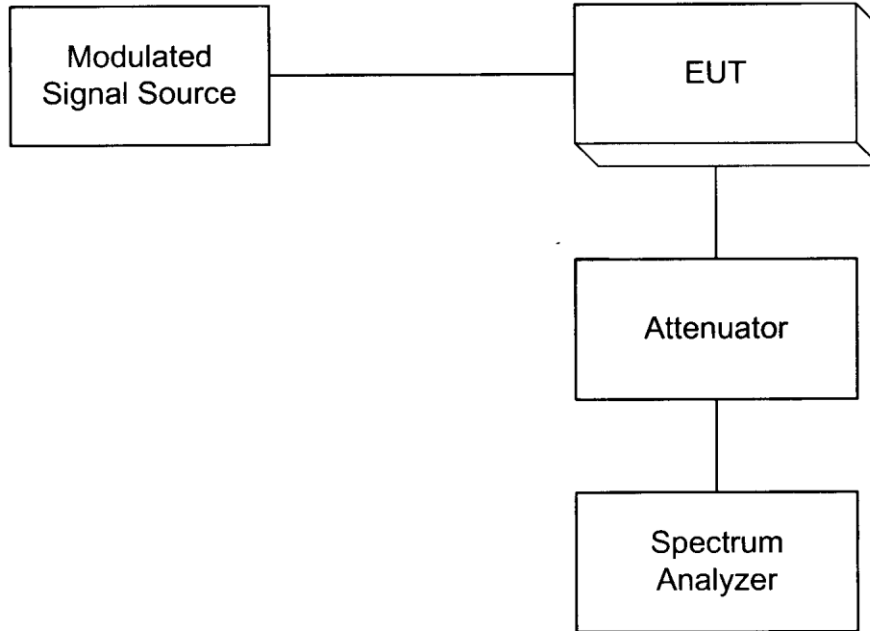
Noise Figure





### Appendix A

#### Spurious Emissions at the Antenna Terminals



#### Field Strength of Spurious Radiation

