

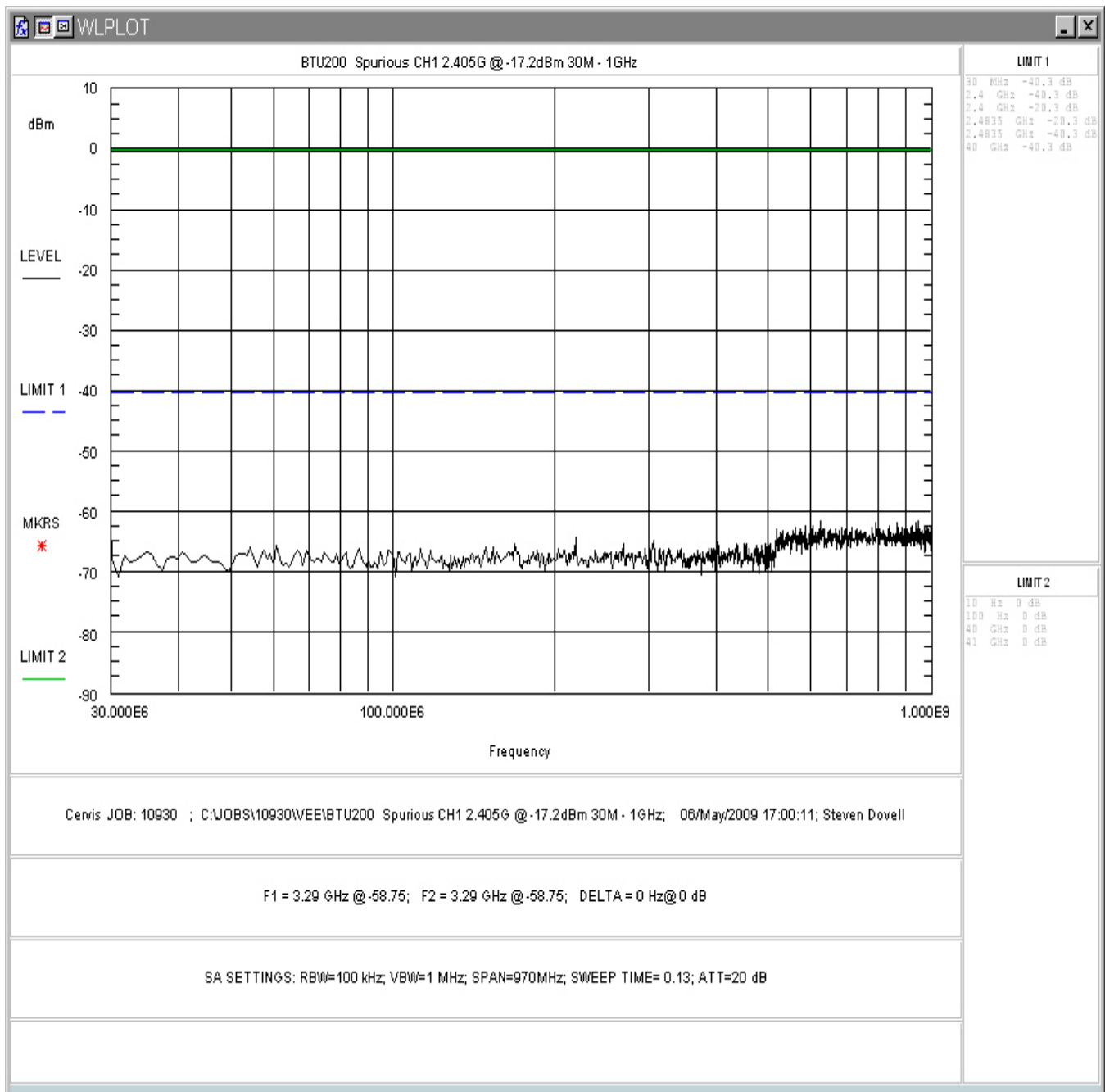


Figure 5-31. Conducted Spurious Emissions, Low Channel 30 - 1000MHz -17dBm Setting

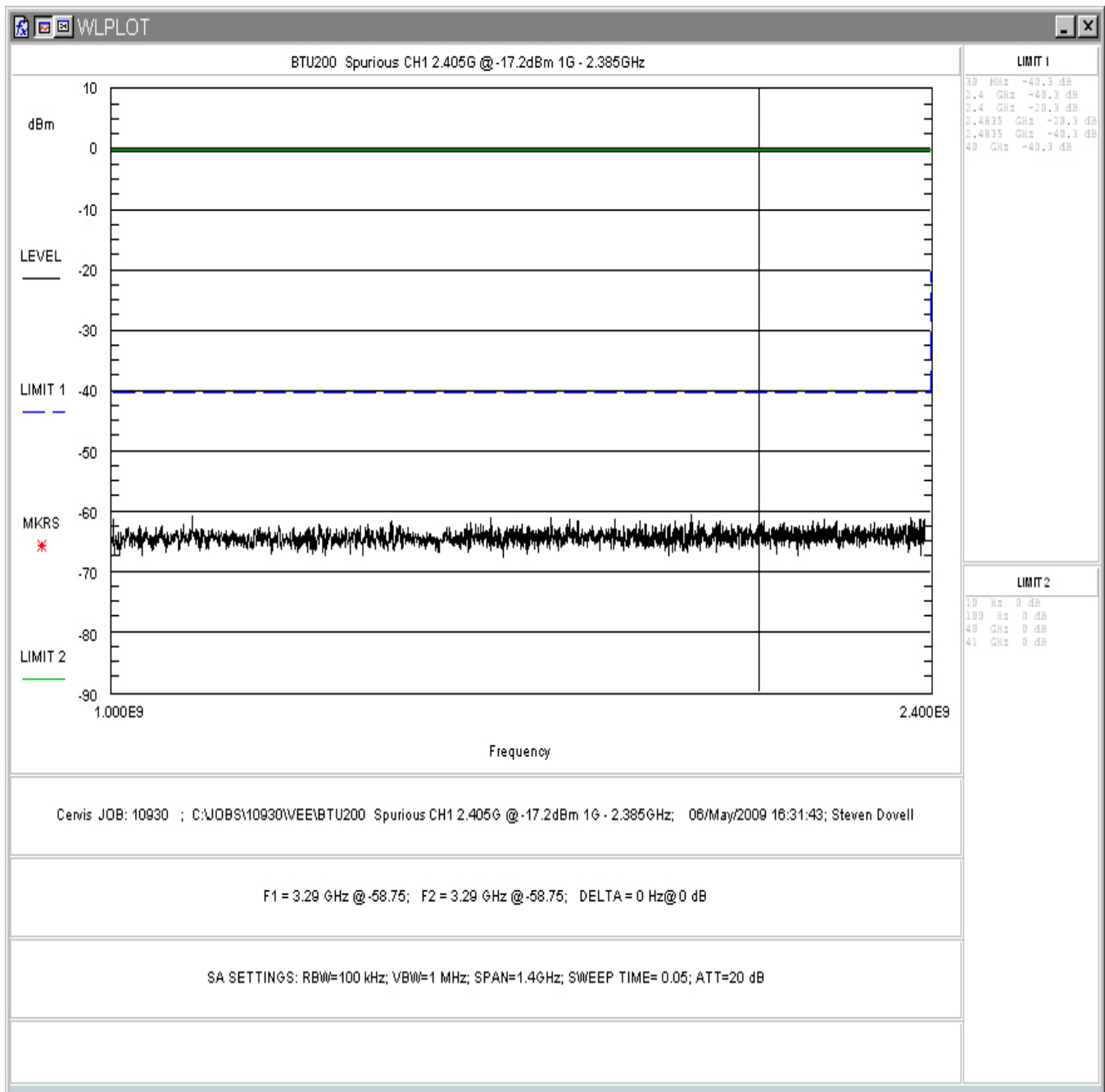


Figure 5-32. Conducted Spurious Emissions, Low Channel 1 – 2.4GHz -17dBm Setting



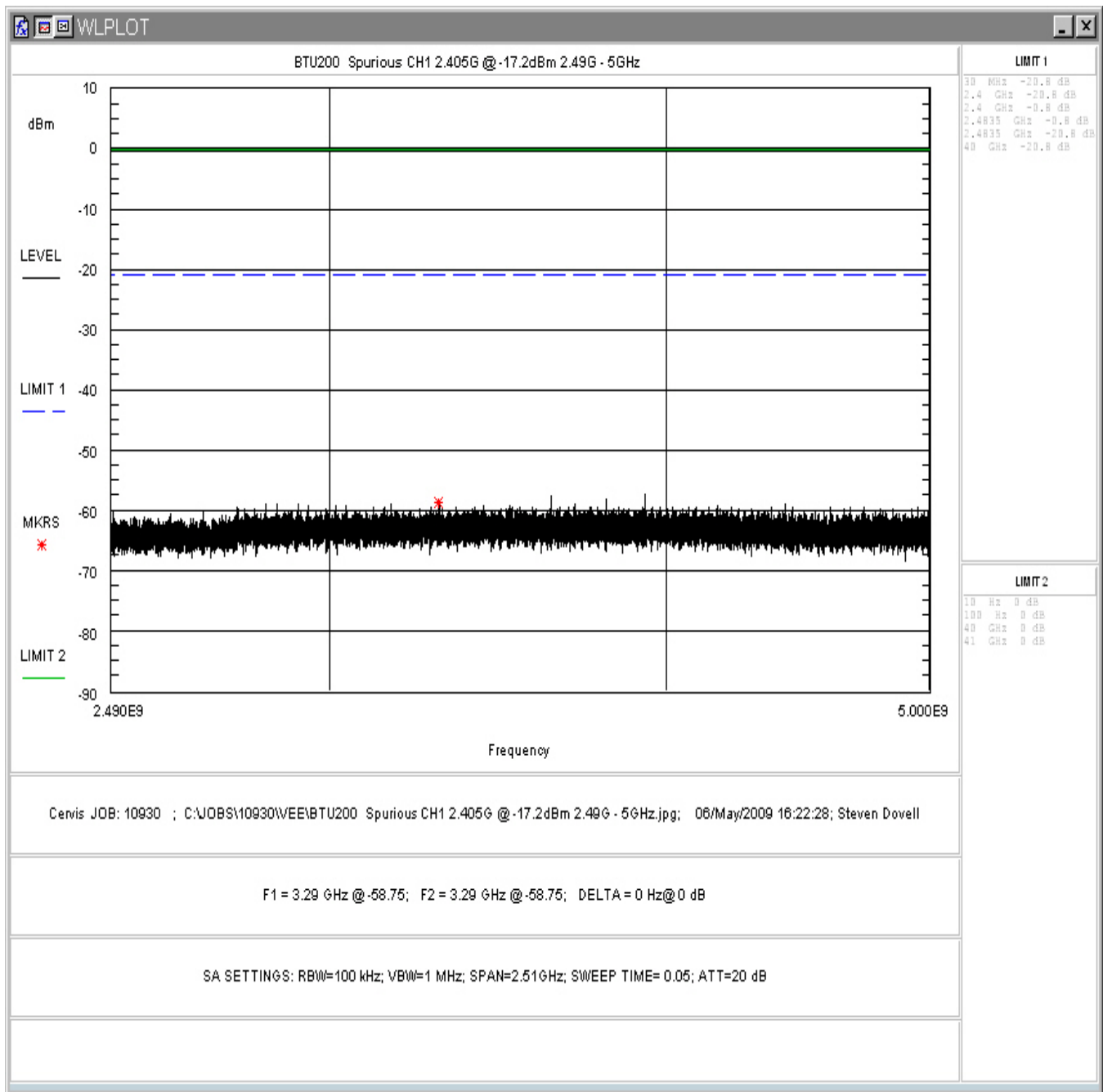


Figure 5-34. Conducted Spurious Emissions, Low Channel 2.5 - 5GHz -17dBm Setting

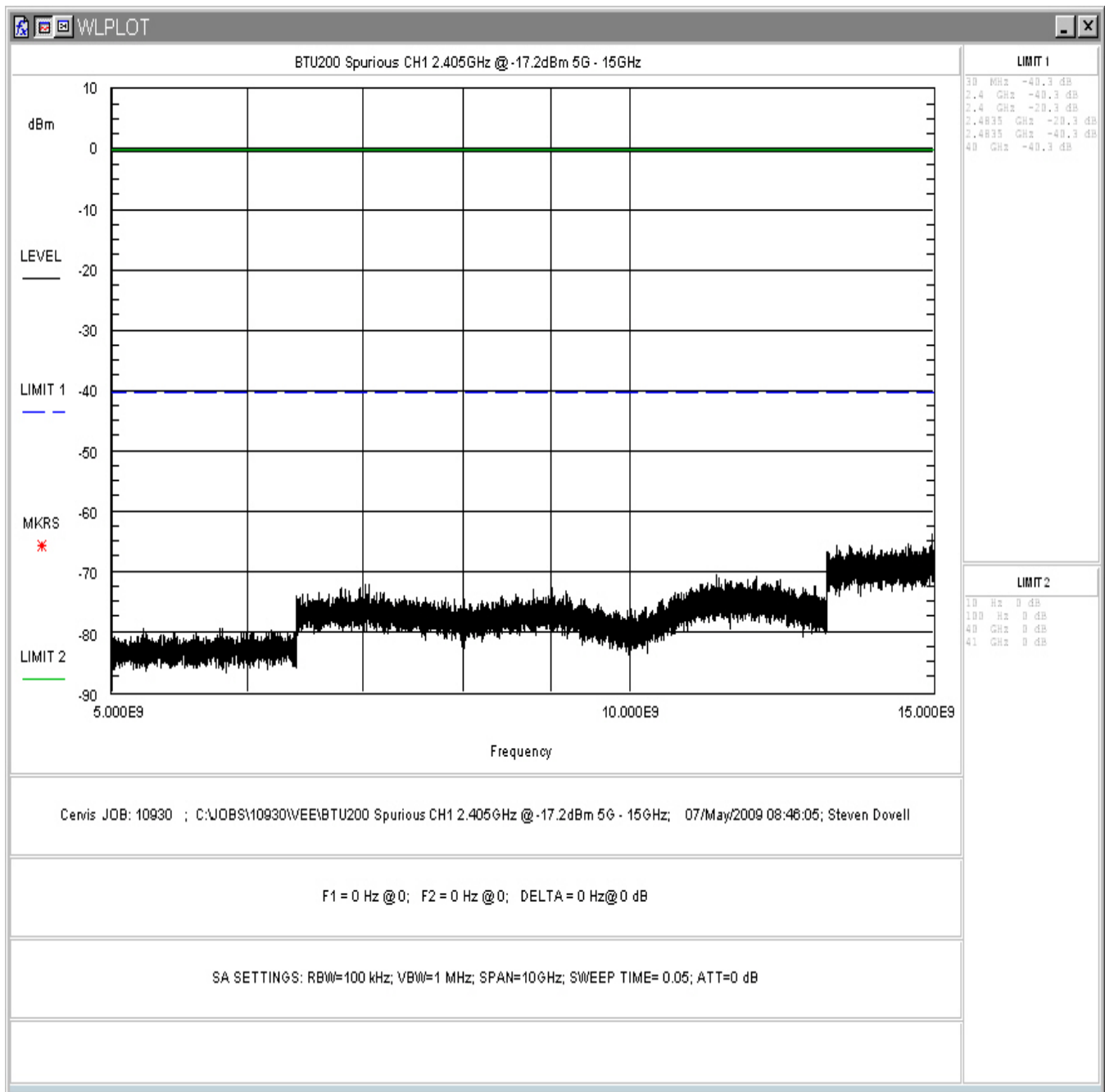


Figure 5-35. Conducted Spurious Emissions, Low Channel 5 - 15GHz -17dBm Setting

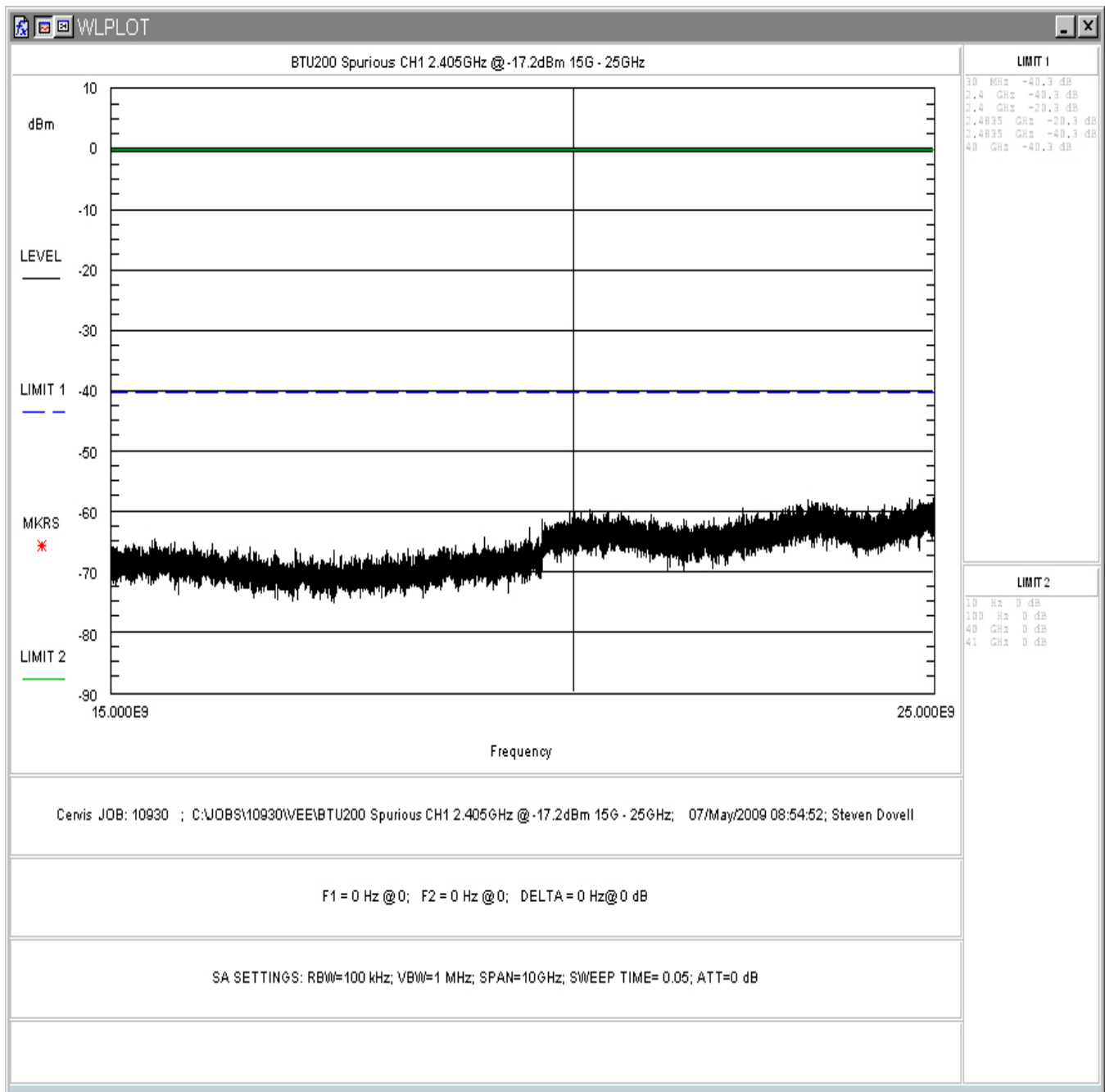


Figure 5-36. Conducted Spurious Emissions, Low Channel 15 - 25GHz -17dBm Setting

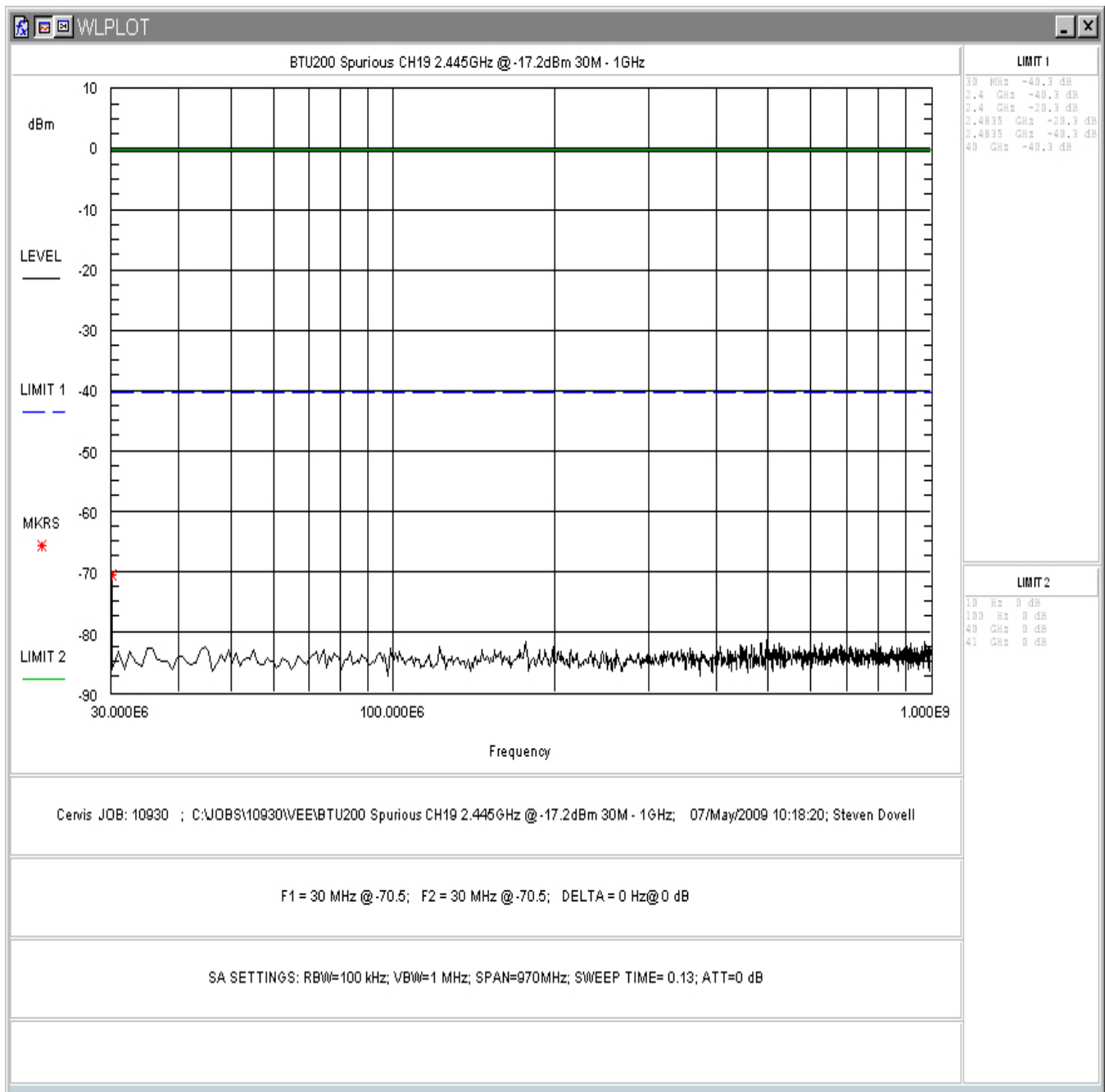


Figure 5-37. Conducted Spurious Emissions, Mid Channel 30 - 1000MHz -17dBm Setting

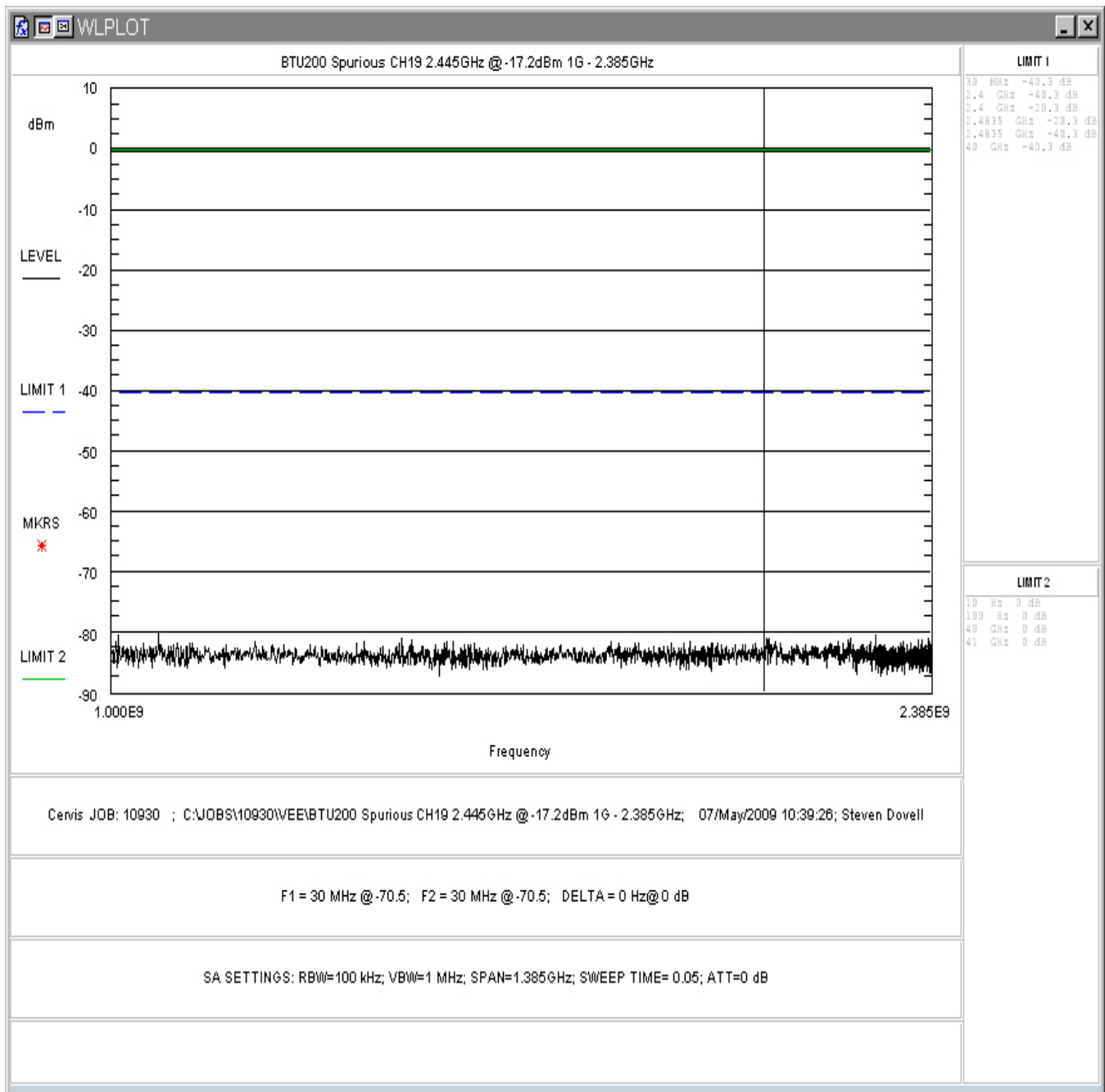


Figure 5-38. Conducted Spurious Emissions, Mid Channel 1 – 2.4GHz -17dBm Setting

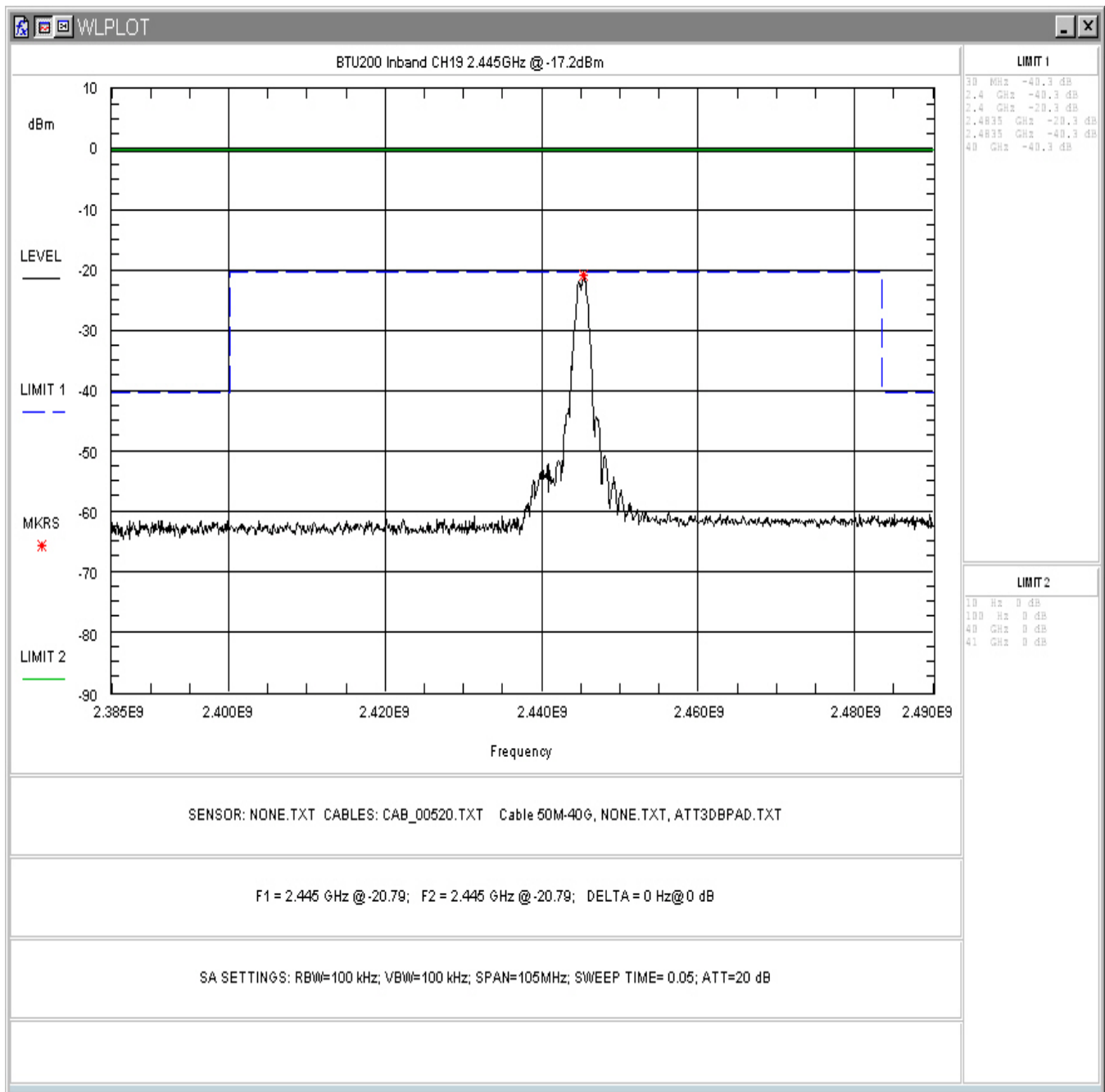


Figure 5-39. Conducted Spurious Emissions, Mid Channel 2.4 – 2.5GHz -17dBm Setting

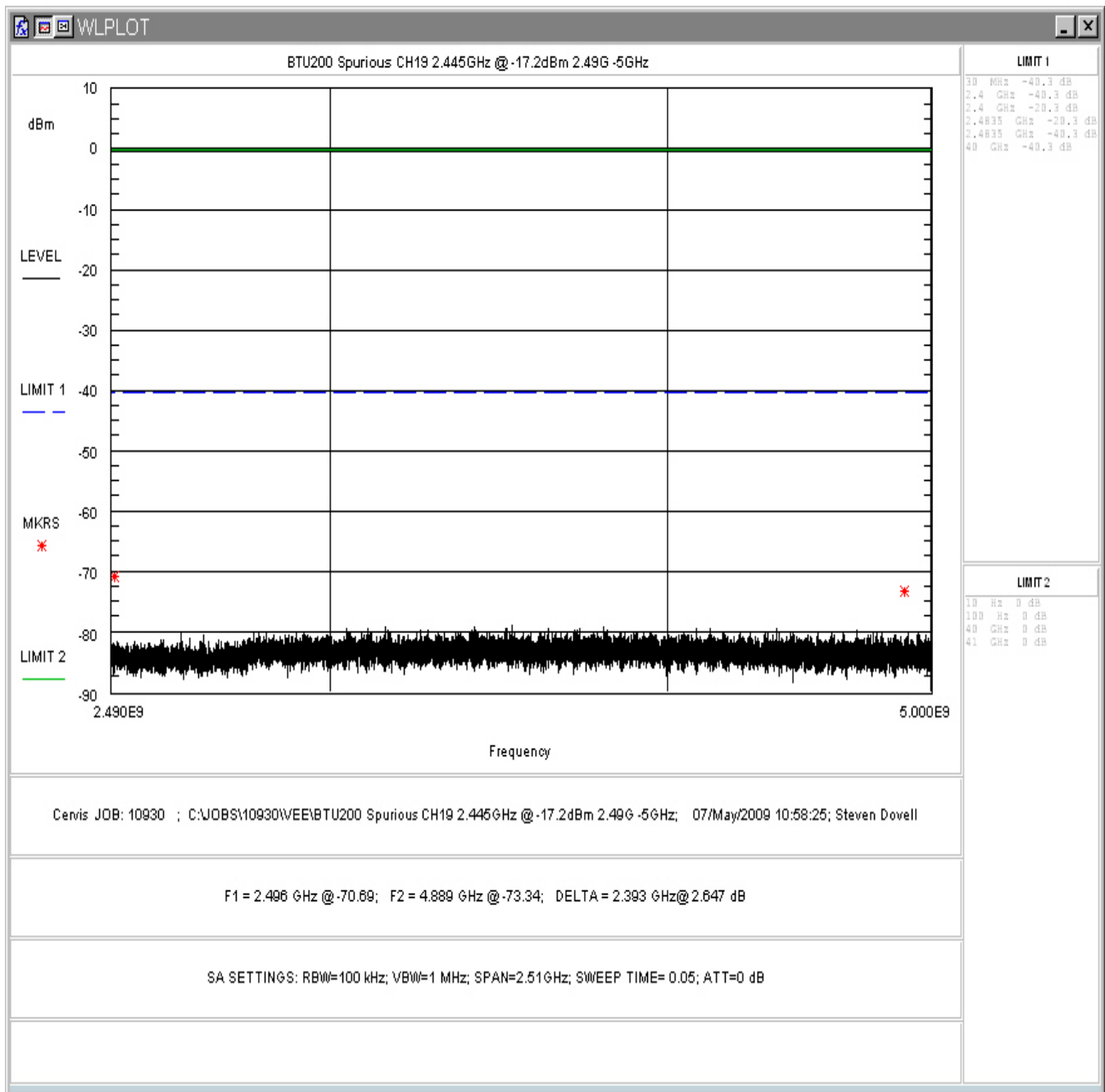


Figure 5-40. Conducted Spurious Emissions, Mid Channel 2.5 - 5GHz -17dBm Setting

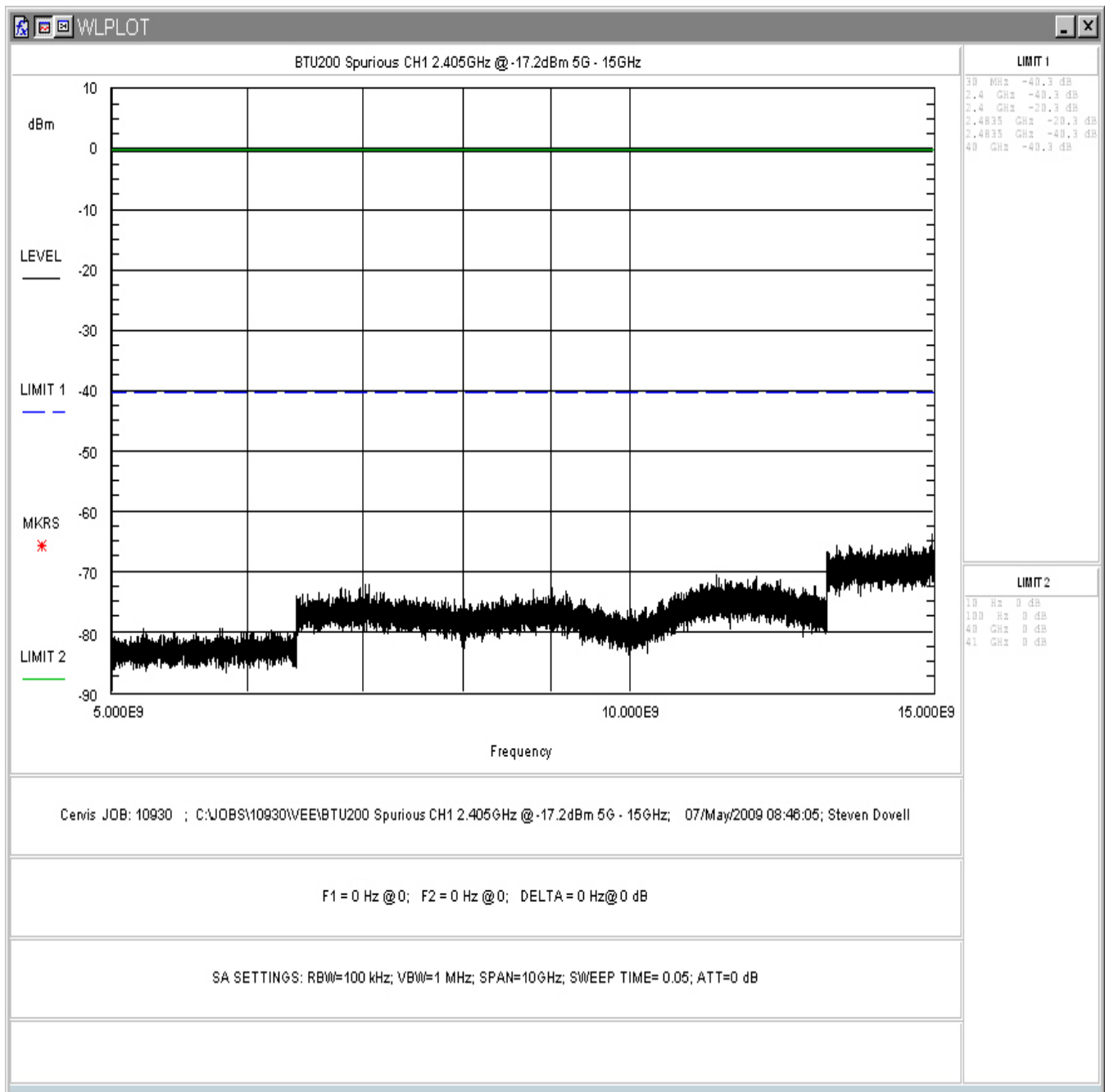


Figure 5-41. Conducted Spurious Emissions, Mid Channel 5 - 15GHz -17dBm Setting

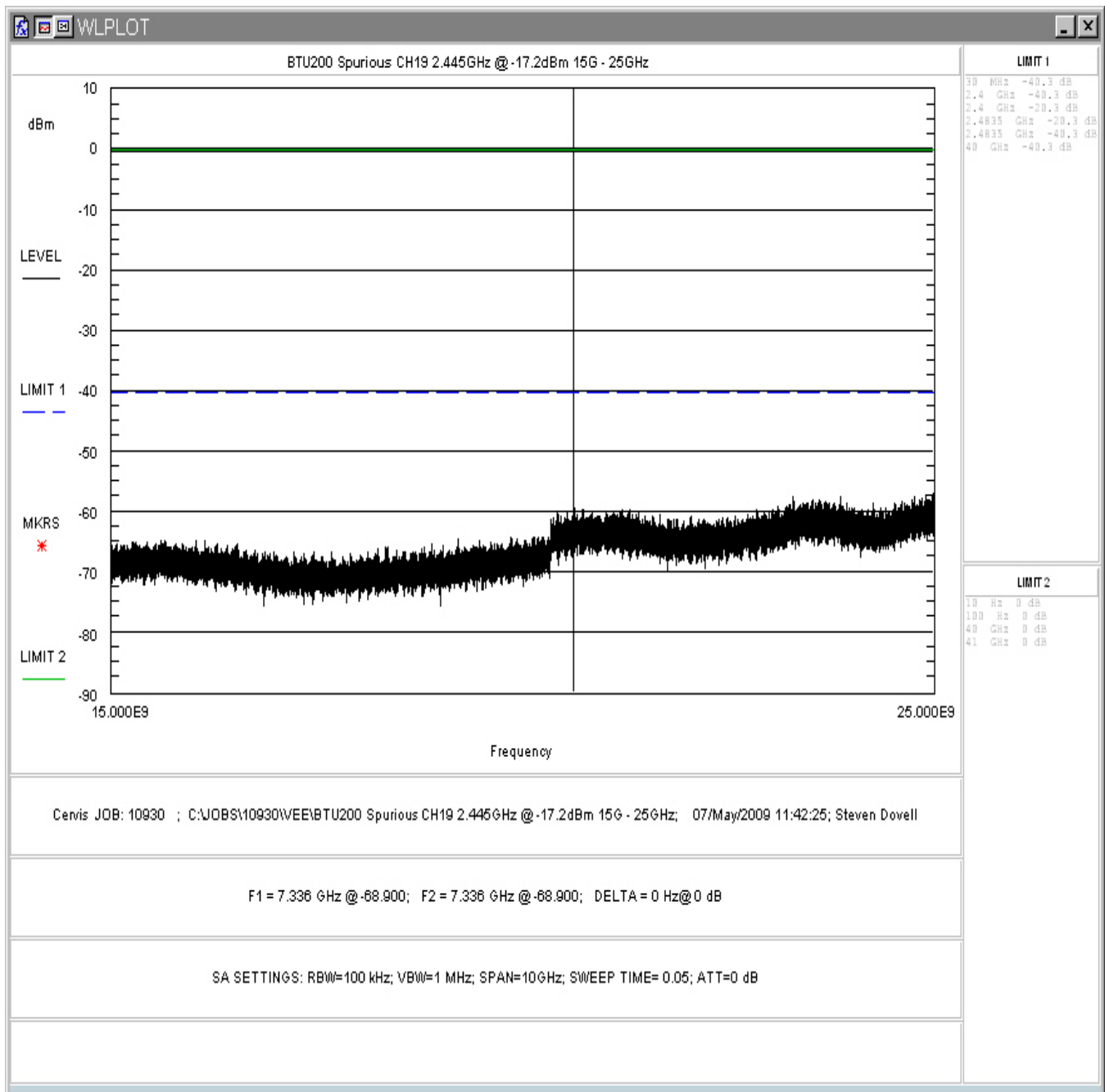


Figure 5-42. Conducted Spurious Emissions, Mid Channel 15 - 25GHz -17dBm Setting

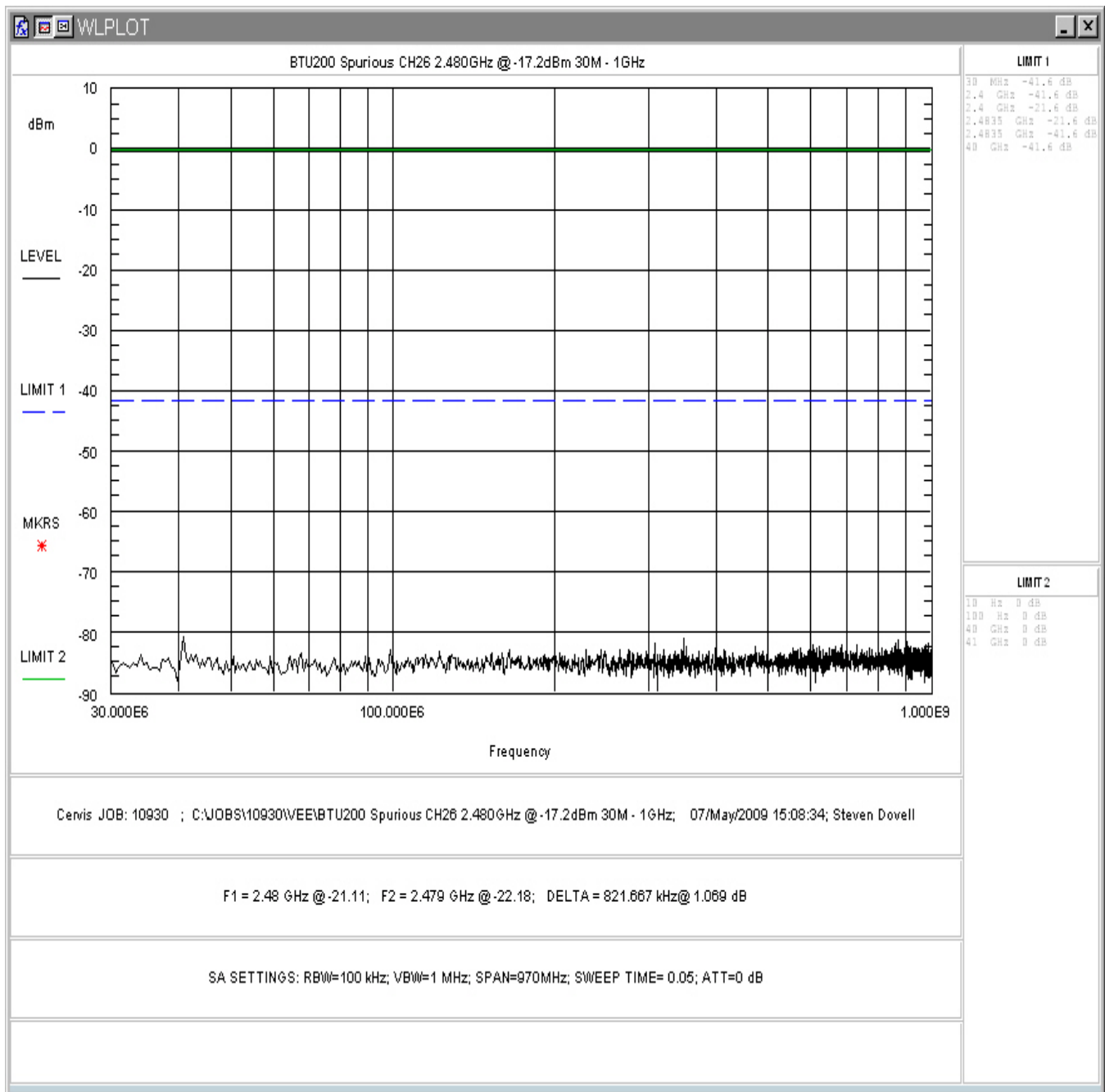


Figure 5-43. Conducted Spurious Emissions, High Channel 30 - 1000MHz -17dBm Setting

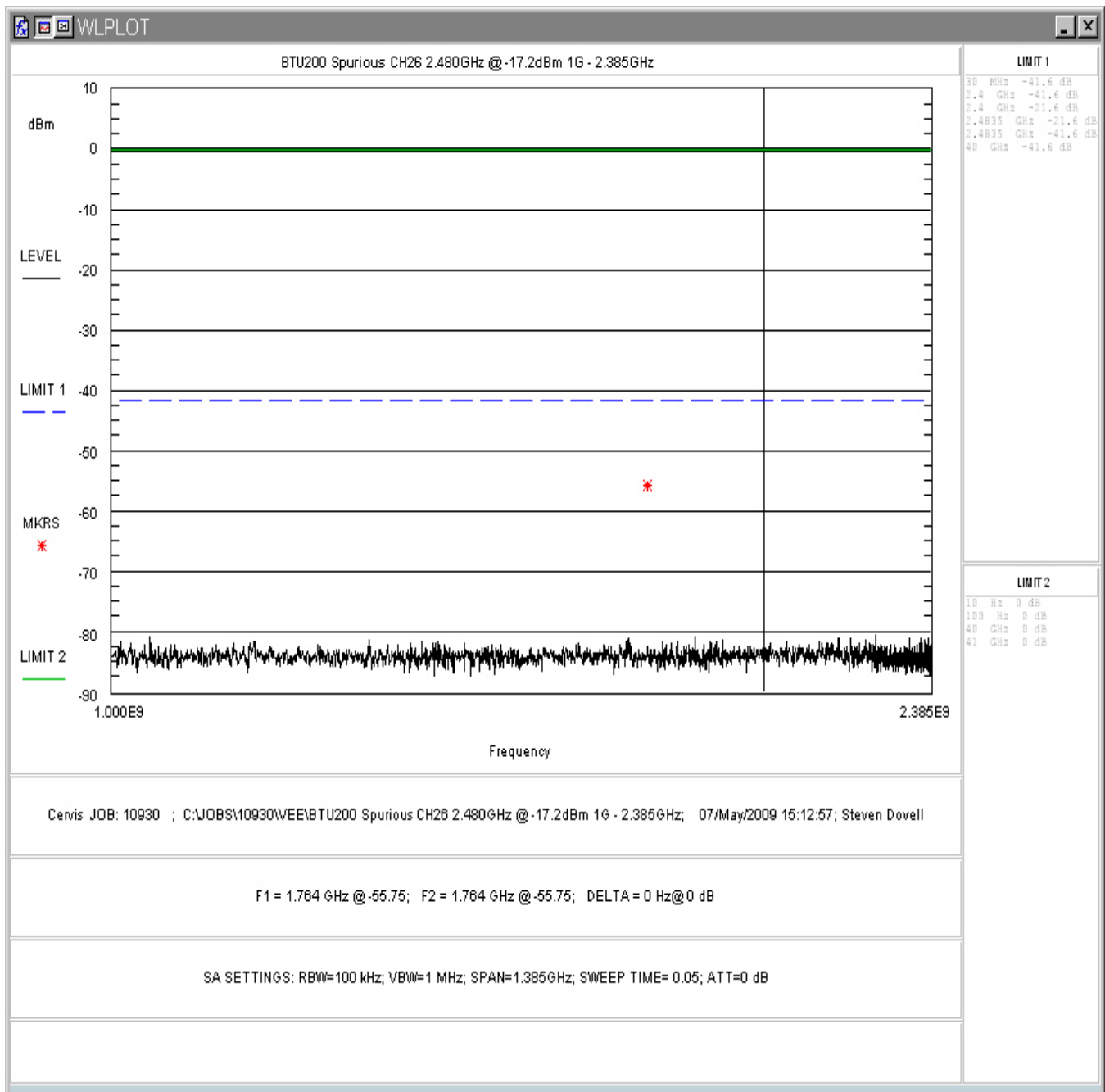


Figure 5-44. Conducted Spurious Emissions, High Channel 1 – 2.4GHz -17dBm Setting

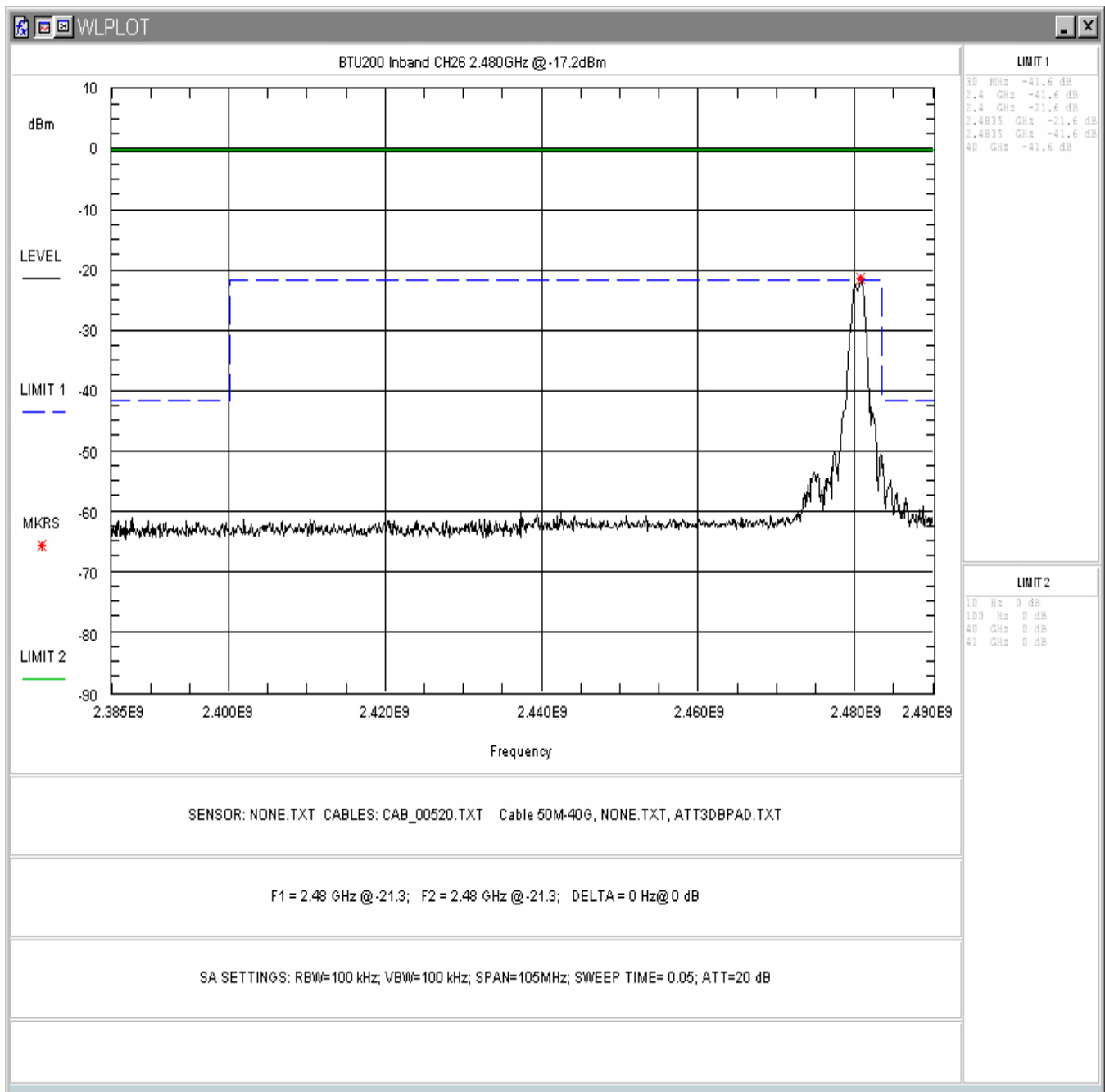


Figure 5-45. Conducted Spurious Emissions, High Channel 2.4 – 2.5GHz -17dBm Setting

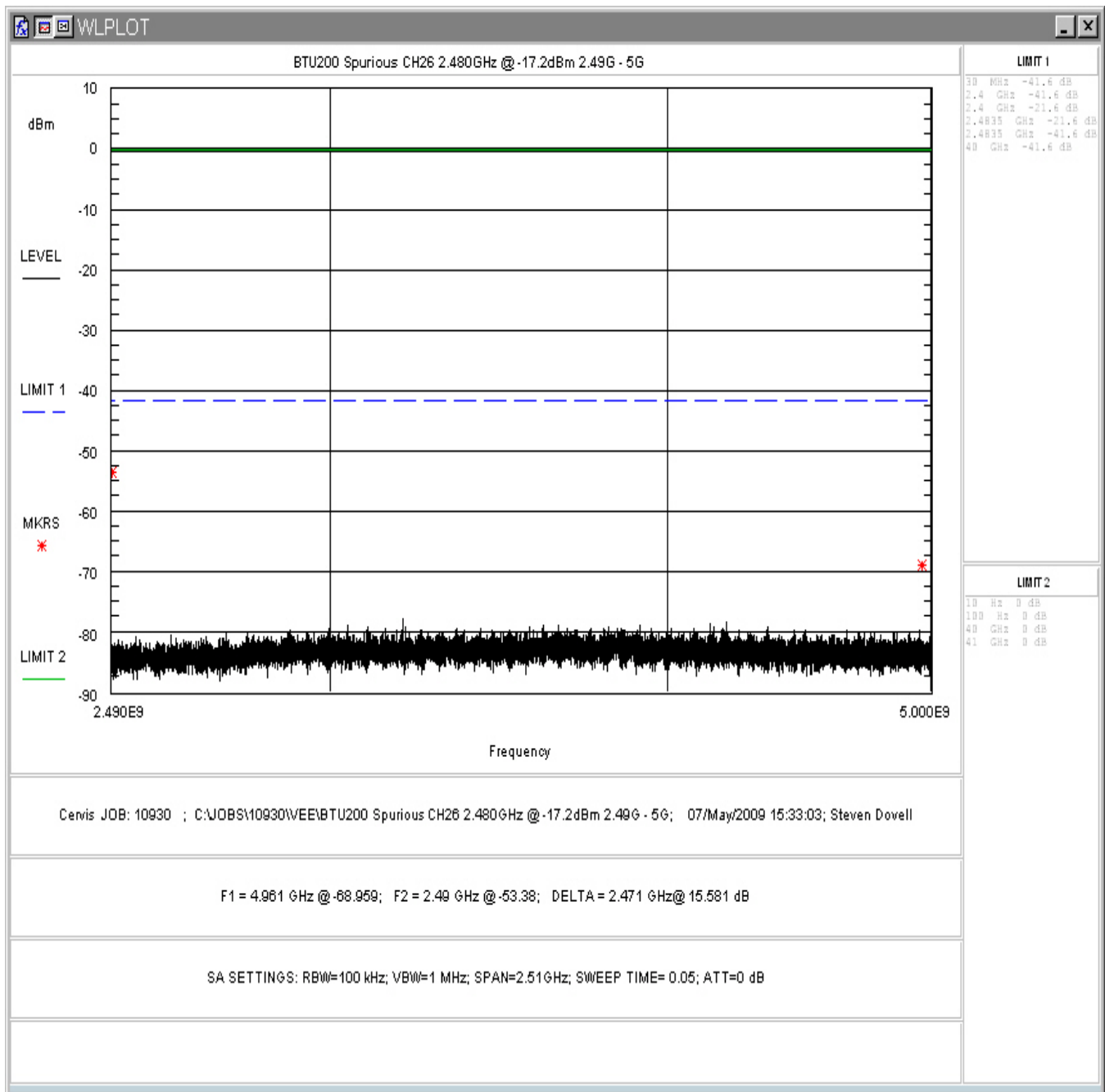


Figure 5-46. Conducted Spurious Emissions, High Channel 2.5 - 5GHz -17dBm Setting

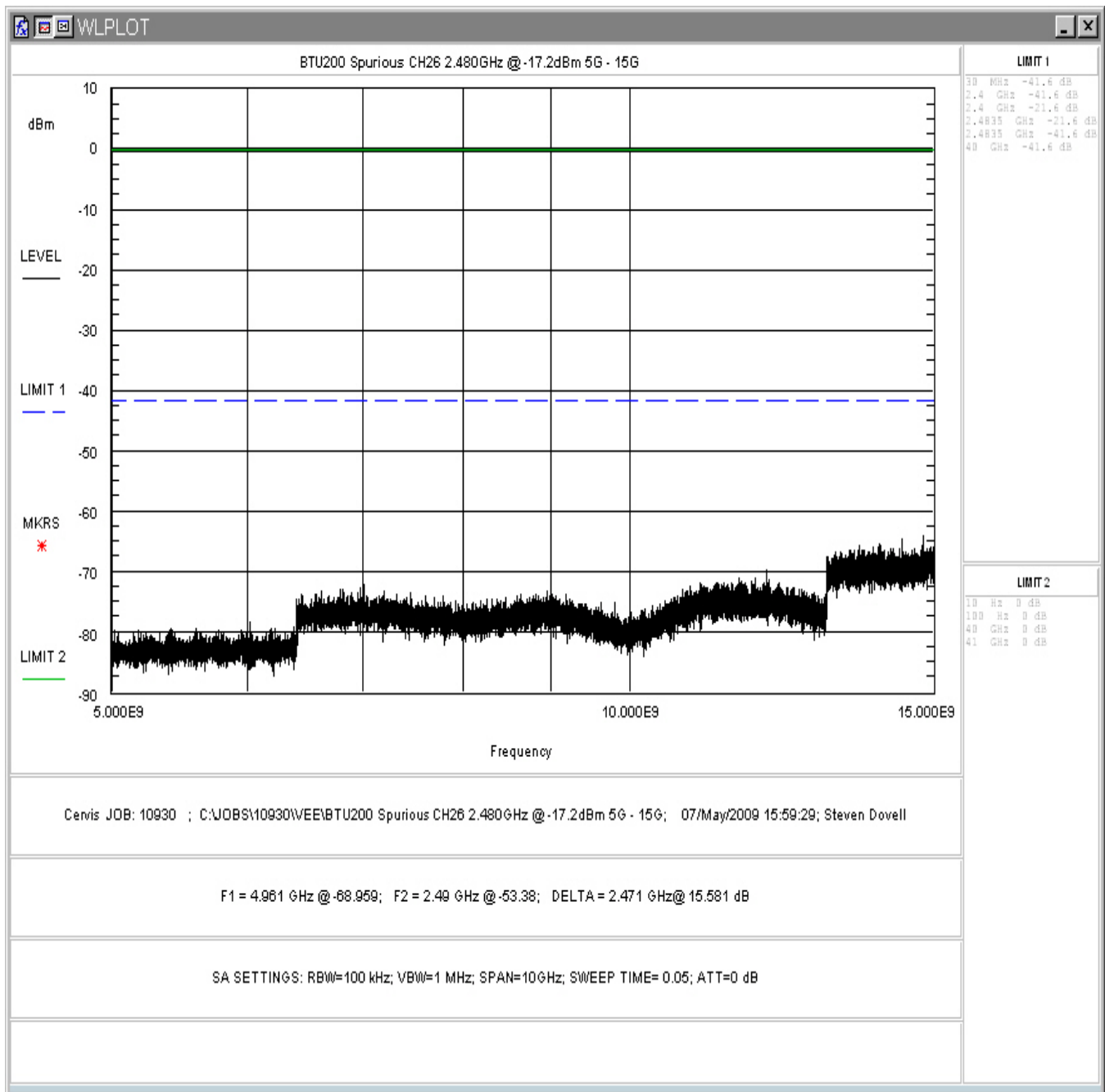


Figure 5-47. Conducted Spurious Emissions, High Channel 5 - 15GHz -17dBm Setting

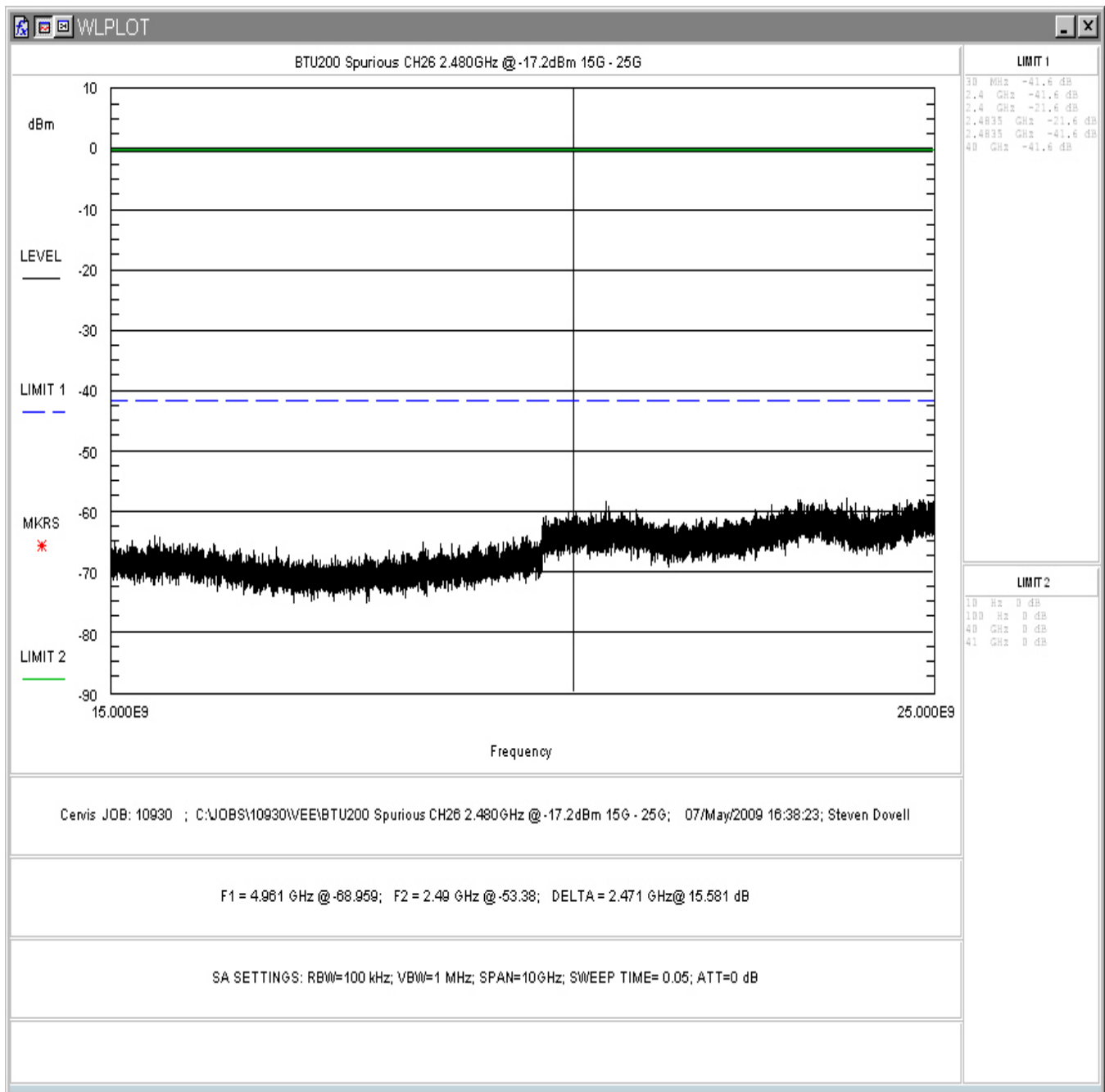


Figure 5-48. Conducted Spurious Emissions, High Channel 15 - 25GHz -17dBm Setting

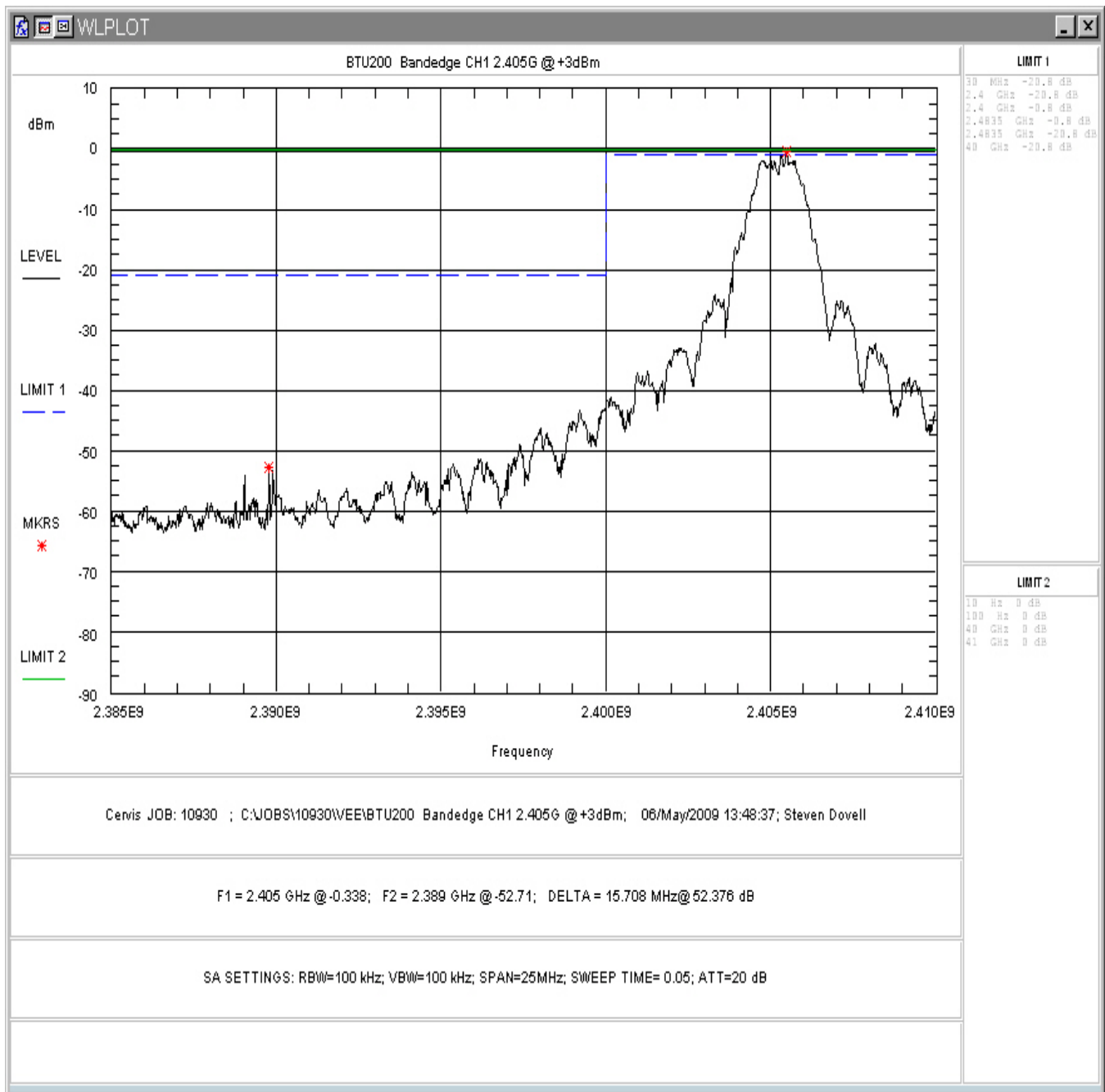


Figure 5-49. Band Edge, Low Channel +3dBm Setting

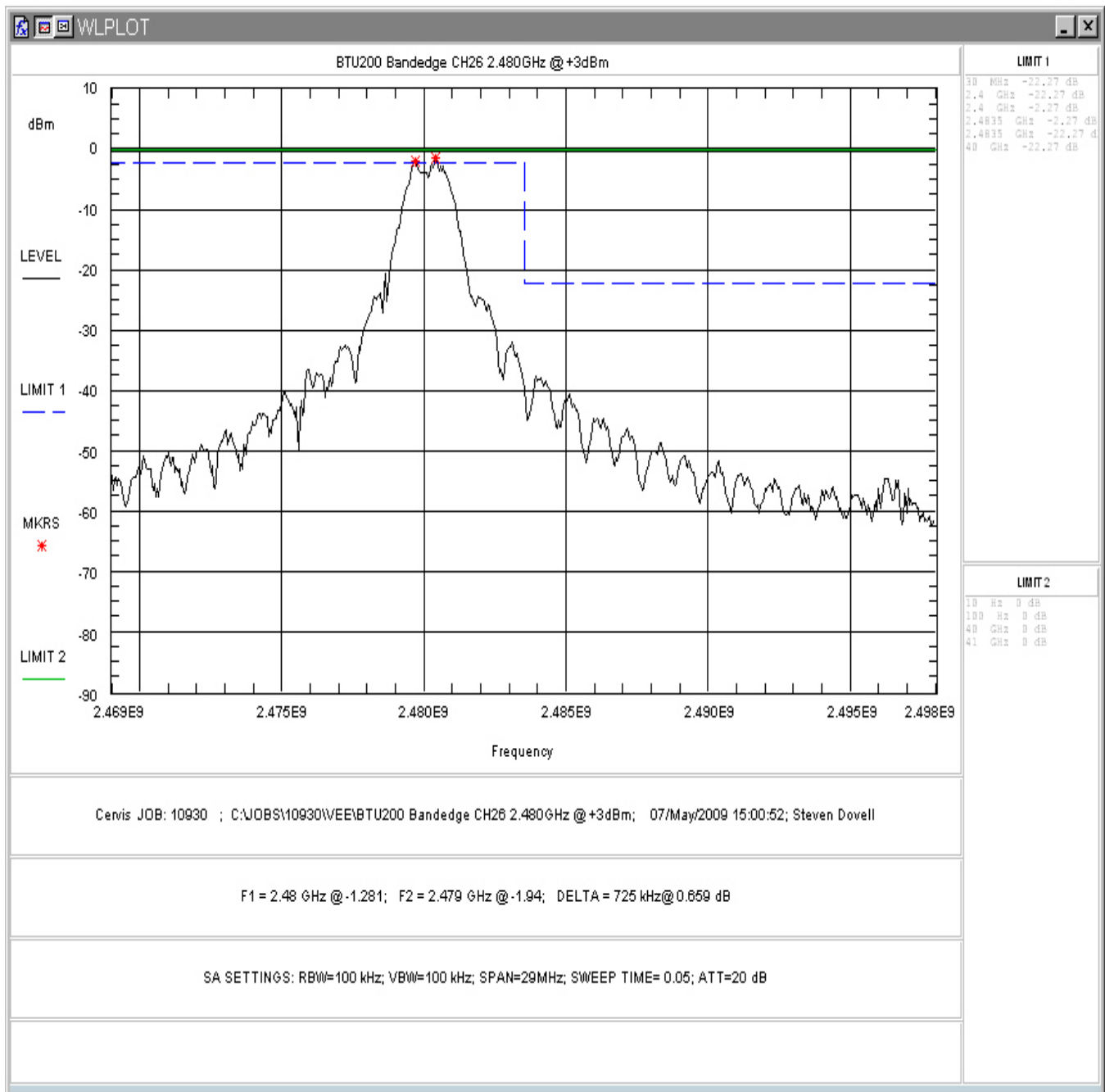


Figure 5-50. Band Edge, High Channel +3dBm Setting

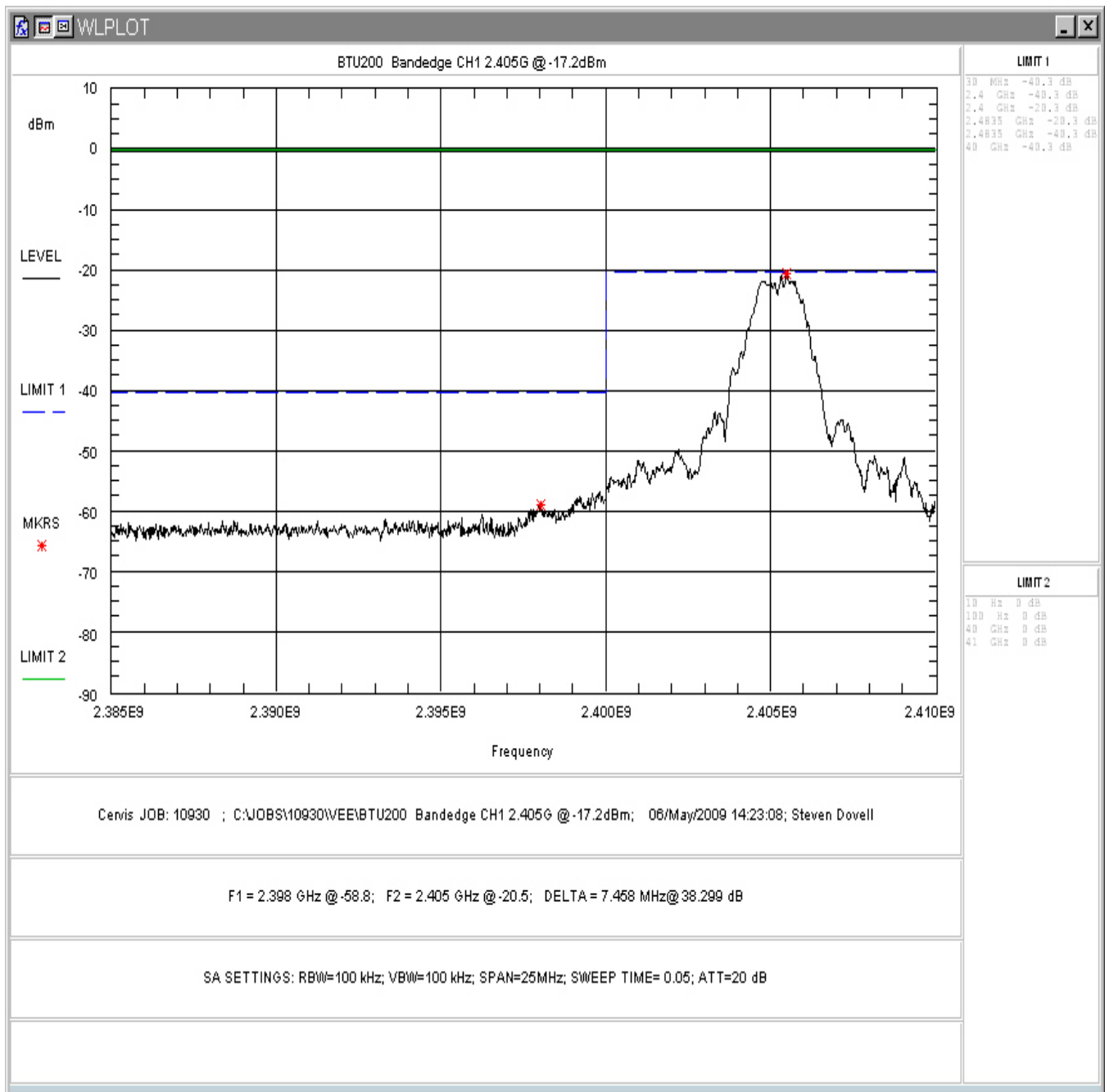


Figure 5-51. Band Edge, Low Channel -17dBm Setting

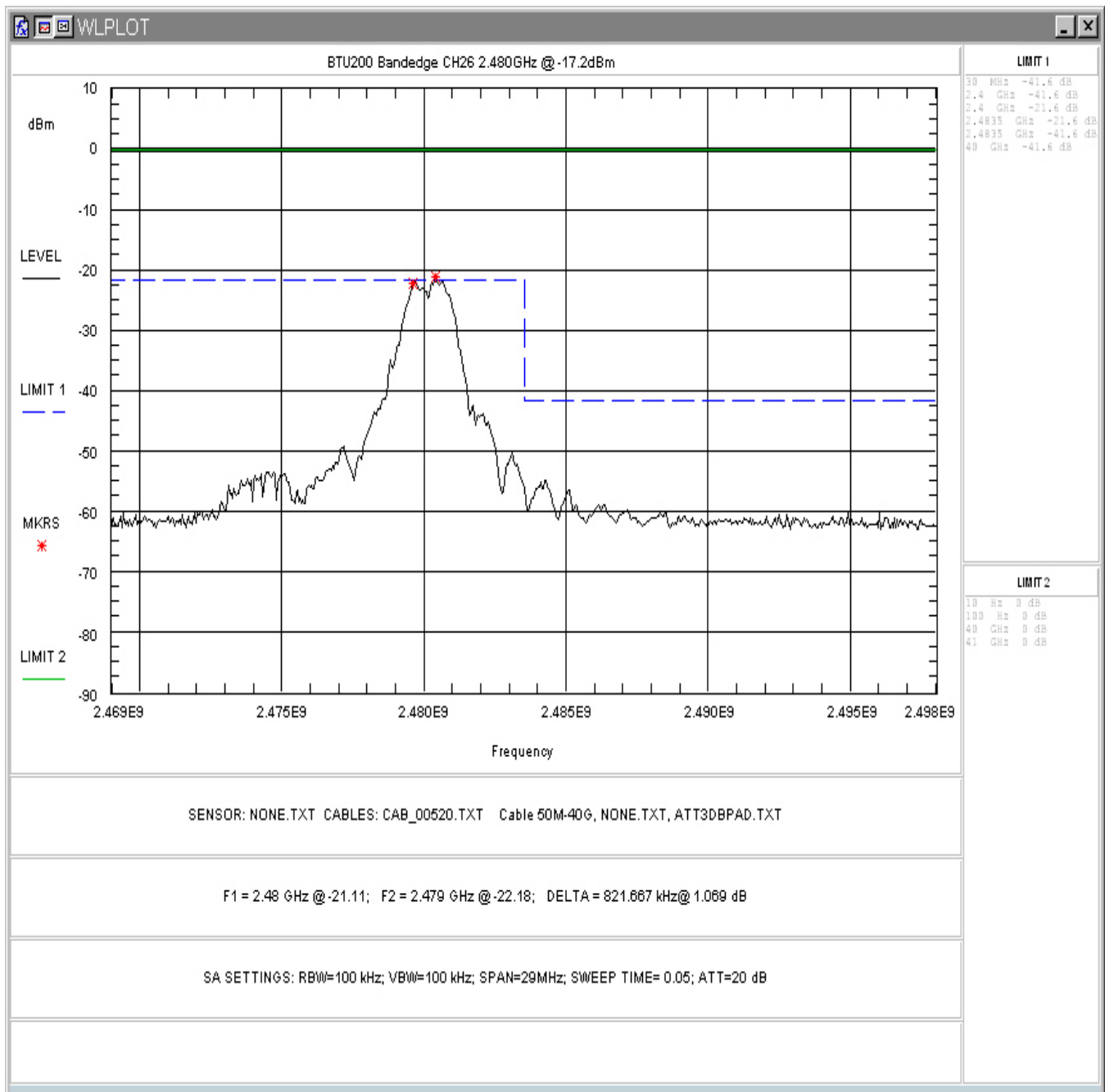


Figure 5-52. Band Edge, High Channel -17dBm Setting

5.4 Power Spectral Density: (FCC Part §15.247 (e))

For digitally modulated systems, the power spectral density conducted from the EUT to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. Figure 5-53 through Figure 5-58 demonstrate compliance.

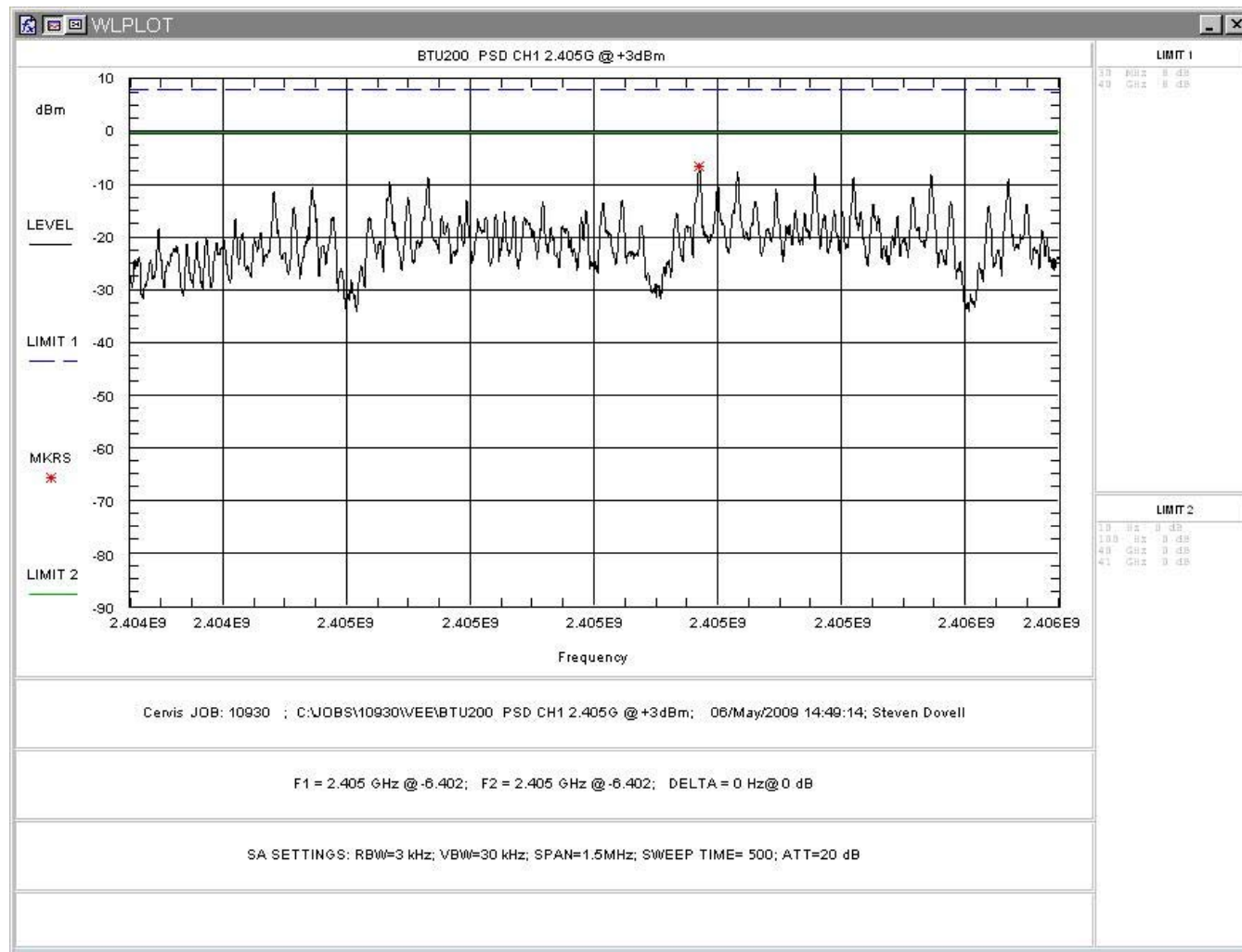


Figure 5-53. Power Spectral Density, Low Channel +3dBm Setting

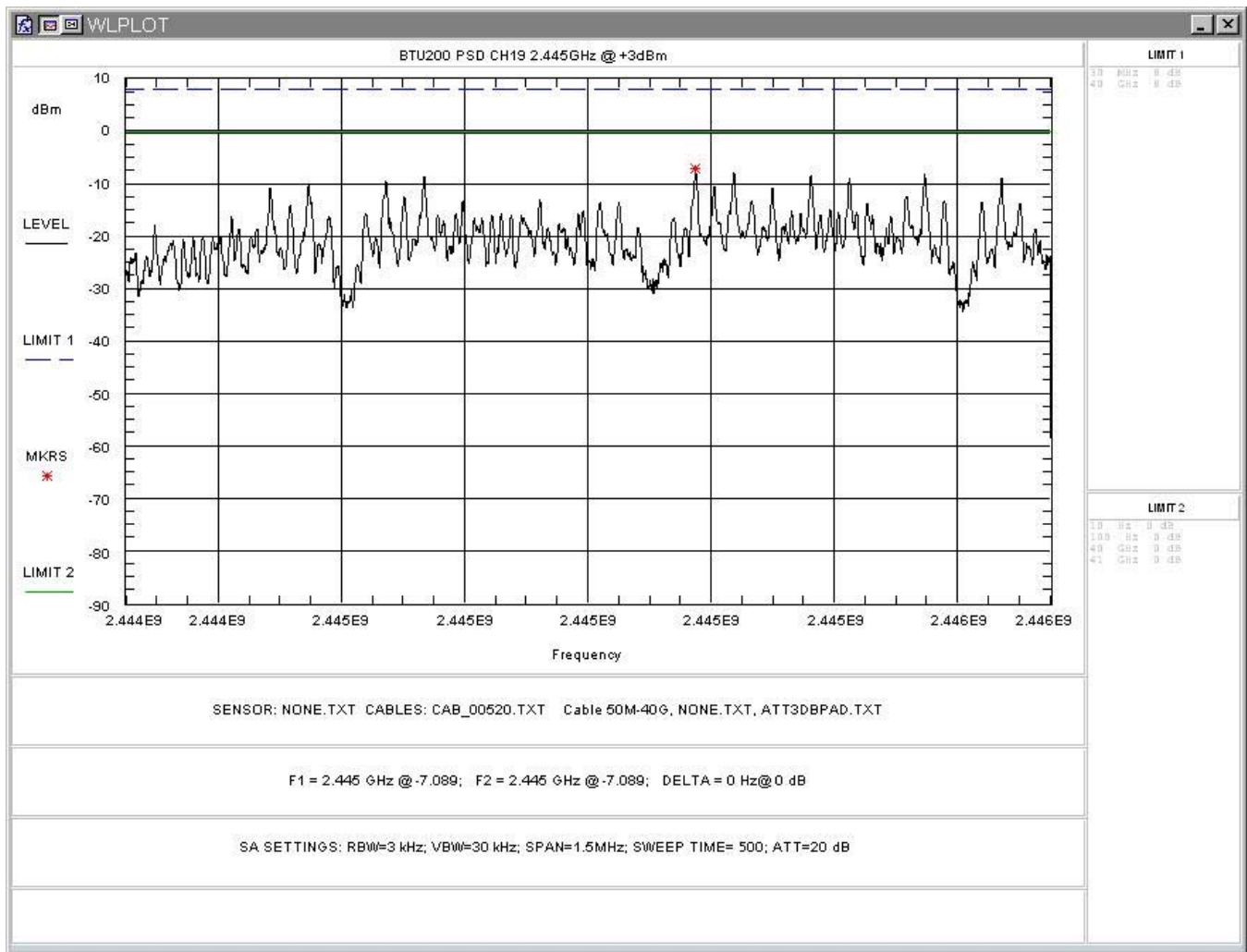


Figure 5-54. Power Spectral Density, Mid Channel +3dBm Setting

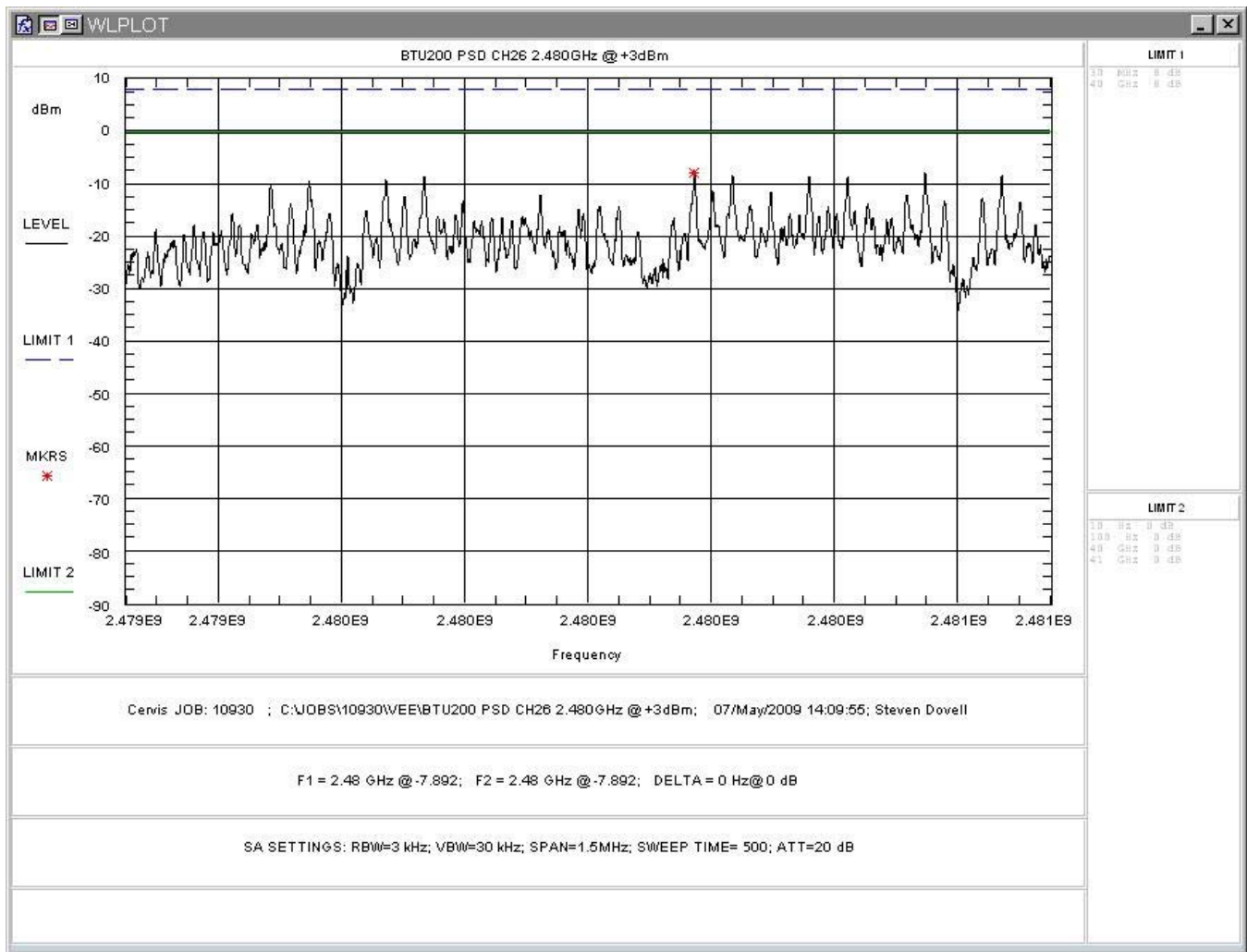


Figure 5-55. Power Spectral Density, High Channel +3dBm Setting

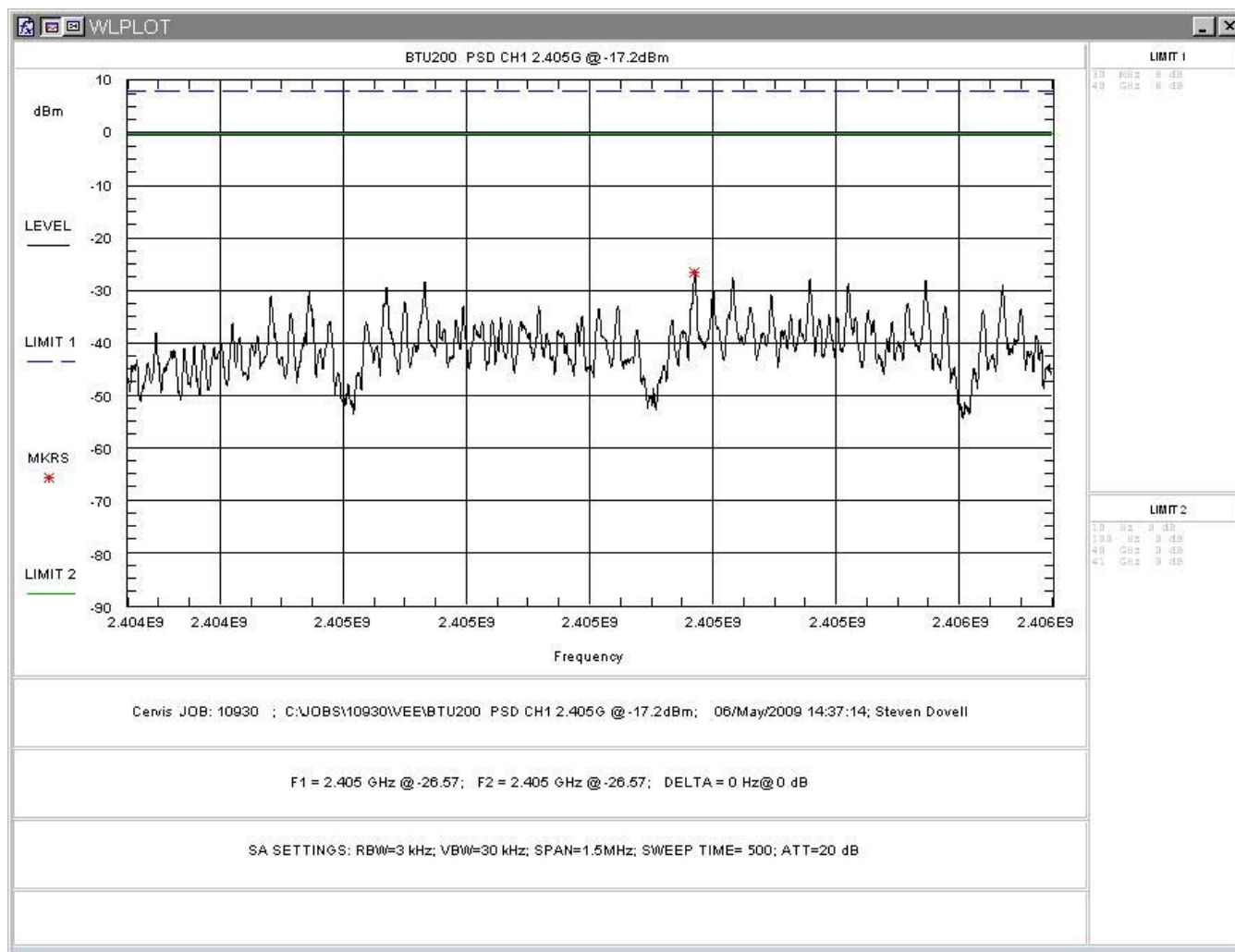


Figure 5-56. Power Spectral Density, Low Channel -17dBm Setting

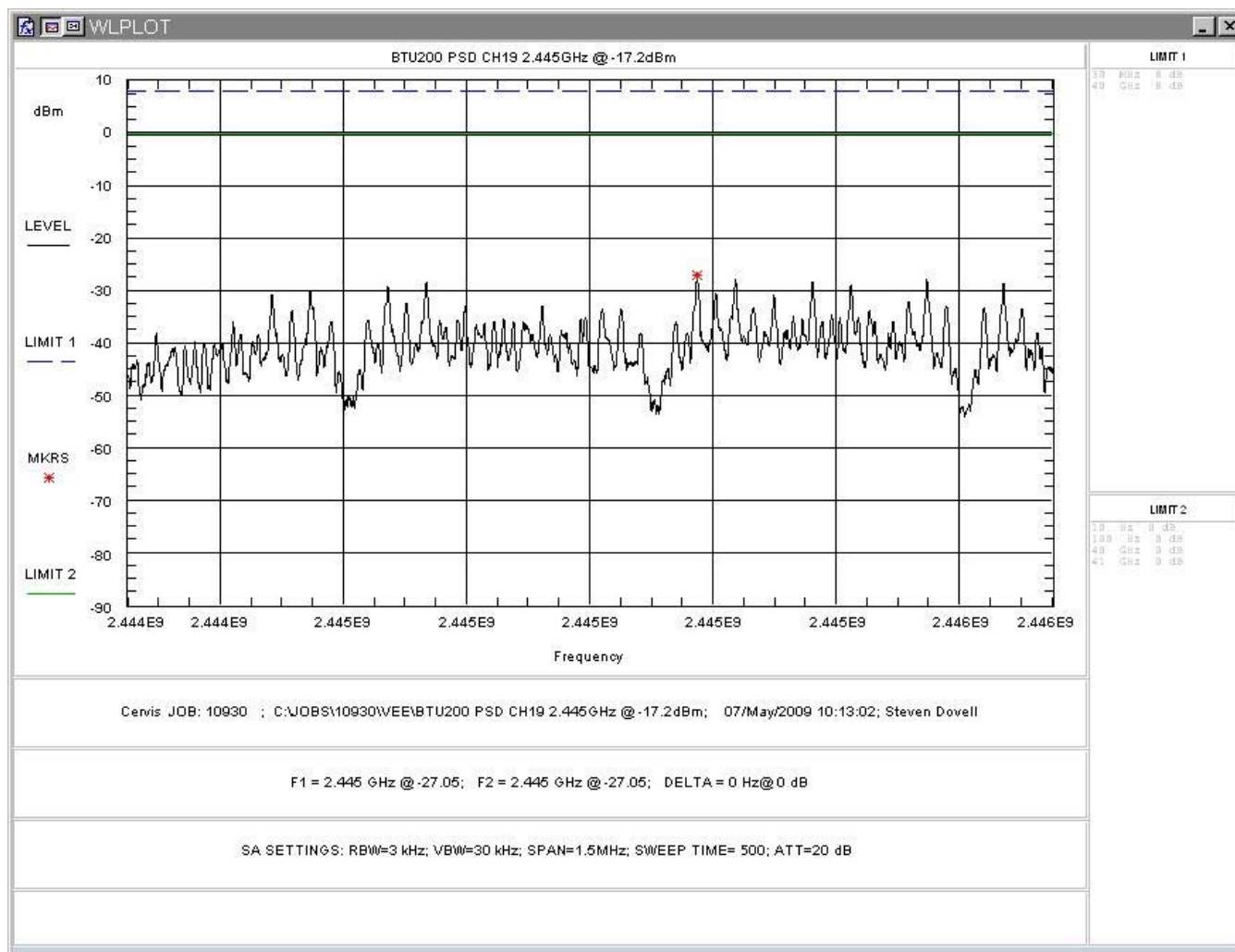


Figure 5-57. Power Spectral Density, Mid Channel -17dBm Setting

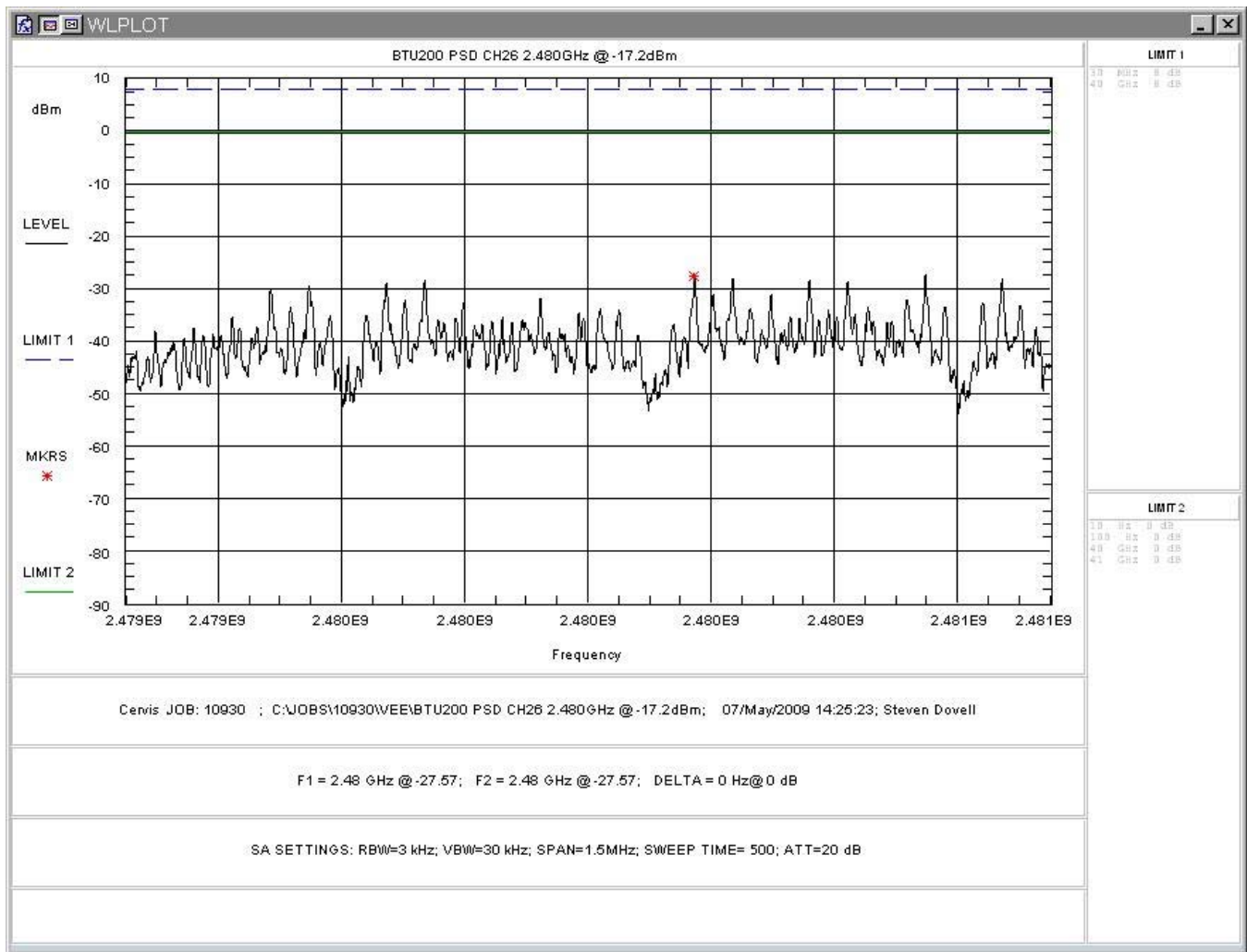


Figure 5-58. Power Spectral Density, High Channel -17dBm Setting

5.5 Radiated Spurious Emissions: (FCC Part §2.1053)

The EUT must comply with the requirements for radiated spurious emissions that fall within the restricted bands. These emissions must meet the limits specified in §15.209 and §15.35(b) for peak measurements.

5.5.1 Test Procedure

The EUT was placed on motorized turntable for radiated testing on a 3-meter open field test site. The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. Receiving antennas were mounted on an antenna mast to determine the height of maximum emissions. The height of the antenna was varied between 1 and 4 meters. The peripherals were placed on the table in accordance with ANSI C63.4-2003. Cables were varied in position to produce maximum emissions. Both the horizontal and vertical field components were measured.

The emissions were measured using the following resolution bandwidths:

Frequency Range	Resolution Bandwidth	Video Bandwidth
30MHz-1000 MHz	120kHz	>100 kHz
>1000 MHz	1 MHz	<30 Hz (Avg.) 1MHz (Peak)

Table 7: Radiated Emission Test Data Low Channel – Strip Line Antenna

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
112.00	V	114.00	1.00	21.30	14.6	62.3	150.0	-7.6	
116.00	V	114.00	1.00	21.20	15.2	66.1	150.0	-7.1	
124.00	V	114.00	1.00	21.00	15.6	67.3	150.0	-7.0	
128.00	V	114.00	1.00	22.00	15.5	75.0	150.0	-6.0	
132.00	V	114.00	1.00	21.00	15.3	65.2	150.0	-7.2	
164.00	V	243.00	1.00	22.00	13.9	62.2	150.0	-7.6	
168.00	V	197.00	1.00	19.80	13.8	47.8	150.0	-9.9	
172.05	V	197.00	1.00	18.70	13.6	41.4	150.0	-11.2	
4810.00	V	195.00	2.53	50.05	1.7	388.8	5000.0	-22.2	Peak
4810.00	V	195.00	2.53	40.90	1.7	135.6	500.0	-11.3	AVG
12025.00	V	0.00	2.50	46.60	10.6	725.3	5000.0	-16.8	Peak
12025.00	V	0.00	2.50	35.60	10.6	204.4	500.0	-7.8	Avg
112.00	H	322.00	2.00	23.27	14.6	78.2	150.0	-5.7	QP
116.00	H	322.00	2.00	23.50	15.2	86.1	150.0	-4.8	QP
128.00	H	230.00	2.10	24.10	15.5	95.5	150.0	-3.9	QP
132.00	H	230.00	2.10	23.30	15.3	85.0	150.0	-4.9	QP
163.95	H	80.00	2.00	24.00	13.9	78.3	150.0	-5.6	QP
168.00	H	62.00	2.00	26.10	13.8	98.7	150.0	-3.6	QP
172.00	H	61.00	2.00	24.00	13.6	76.2	150.0	-5.9	QP
4810.00	H	85.00	2.18	50.00	1.7	386.5	5000.0	-22.2	Peak
4810.00	H	85.00	2.18	41.40	1.7	143.6	500.0	-10.8	AVG
12025.00	H	0.00	2.10	46.30	10.6	700.7	5000.0	-17.1	Peak
12025.00	H	0.00	2.10	35.60	10.6	204.4	500.0	-7.8	Avg

Table 8: Radiated Emission Test Data Mid Channel – Strip Line Antenna

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
112.00	V	114.00	1.00	21.30	14.6	62.3	150.0	-7.6	
116.00	V	114.00	1.00	21.20	15.2	66.1	150.0	-7.1	
124.00	V	114.00	1.00	21.00	15.6	67.3	150.0	-7.0	
128.00	V	114.00	1.00	22.00	15.5	75.0	150.0	-6.0	
132.00	V	114.00	1.00	21.00	15.3	65.2	150.0	-7.2	
164.00	V	243.00	1.00	22.00	13.9	62.2	150.0	-7.6	
168.00	V	197.00	1.00	19.80	13.8	47.8	150.0	-9.9	
172.05	V	197.00	1.00	18.70	13.6	41.4	150.0	-11.2	
4890.00	V	201.00	2.40	49.85	1.9	386.9	5000.0	-22.2	Peak
4890.00	V	201.00	2.40	39.80	1.9	121.7	500.0	-12.3	AVG
7335.00	V	0.00	2.20	45.20	8.6	492.3	5000.0	-20.1	Peak
7335.00	V	0.00	2.20	24.50	8.6	45.4	500.0	-20.8	Avg
12225.00	V	0.00	2.20	44.50	11.4	623.9	5000.0	-18.1	Peak
12225.00	V	0.00	2.20	33.80	11.4	182.0	500.0	-8.8	AVG
14670.00	V	0.00	2.20	43.10	19.7	1378.0	5000.0	-11.2	Peak
14670.00	V	0.00	2.20	32.10	19.7	388.4	500.0	-2.2	Avg
112.00	H	322.00	2.00	23.27	14.6	78.2	150.0	-5.7	QP
116.00	H	322.00	2.00	23.50	15.2	86.1	150.0	-4.8	QP
128.00	H	230.00	2.10	24.10	15.5	95.5	150.0	-3.9	QP
132.00	H	230.00	2.10	23.30	15.3	85.0	150.0	-4.9	QP
163.95	H	80.00	2.00	24.00	13.9	78.3	150.0	-5.6	QP
168.00	H	62.00	2.00	26.10	13.8	98.7	150.0	-3.6	QP
172.00	H	61.00	2.00	24.00	13.6	76.2	150.0	-5.9	QP
4890.00	H	98.00	2.21	49.30	0.0	291.7	5000.0	-24.7	Peak
4890.00	H	98.00	2.21	40.00	0.0	100.0	500.0	-14.0	AVG
7335.00	H	0.00	2.20	44.10	0.0	160.3	5000.0	-29.9	Peak
7335.00	H	0.00	2.20	33.60	0.0	47.9	500.0	-20.4	Avg
12225.00	H	0.00	2.20	46.50	0.0	211.3	5000.0	-27.5	Peak
12225.00	H	0.00	2.20	34.60	0.0	53.7	500.0	-19.4	AVG
14670.00	H	0.00	2.20	42.00	0.0	125.9	5000.0	-32.0	Peak
14670.00	H	0.00	2.20	33.00	0.0	44.7	500.0	-21.0	Avg

Table 9: Radiated Emission Test Data High Channel – Strip Line Antenna

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
112.00	V	114.00	1.00	21.30	14.6	62.3	150.0	-7.6	
116.00	V	114.00	1.00	21.20	15.2	66.1	150.0	-7.1	
124.00	V	114.00	1.00	21.00	15.6	67.3	150.0	-7.0	
128.00	V	114.00	1.00	22.00	15.5	75.0	150.0	-6.0	
132.00	V	114.00	1.00	21.00	15.3	65.2	150.0	-7.2	
164.00	V	243.00	1.00	22.00	13.9	62.2	150.0	-7.6	
168.00	V	197.00	1.00	19.80	13.8	47.8	150.0	-9.9	
172.05	V	197.00	1.00	18.70	13.6	41.4	150.0	-11.2	
4960.00	V	176.00	2.50	51.50	2.0	475.3	5000.0	-20.4	Peak
4960.00	V	176.00	2.50	41.50	2.0	150.3	500.0	-10.4	AVG
7440.00	V	0.00	2.10	41.60	8.8	331.6	5000.0	-23.6	Peak
7440.00	V	0.00	2.10	31.80	8.8	107.3	500.0	-13.4	Avg
14880.00	V	0.00	2.10	45.60	18.0	1511.6	5000.0	-10.4	Peak
14880.00	V	0.00	2.10	33.40	18.0	371.1	500.0	-2.6	AVG
112.00	H	322.00	2.00	23.27	14.6	78.2	150.0	-5.7	QP
116.00	H	322.00	2.00	23.50	15.2	86.1	150.0	-4.8	QP
128.00	H	230.00	2.10	24.10	15.5	95.5	150.0	-3.9	QP
132.00	H	230.00	2.10	23.30	15.3	85.0	150.0	-4.9	QP
163.95	H	80.00	2.00	24.00	13.9	78.3	150.0	-5.6	QP
168.00	H	62.00	2.00	26.10	13.8	98.7	150.0	-3.6	QP
172.00	H	61.00	2.00	24.00	13.6	76.2	150.0	-5.9	QP
4960.00	H	63.00	2.10	51.40	2.0	469.9	5000.0	-20.5	Peak
4960.00	H	63.00	2.10	41.50	2.0	150.3	500.0	-10.4	AVG
7440.00	H	0.00	2.10	41.60	8.8	331.6	5000.0	-23.6	Peak
7440.00	H	0.00	2.10	31.80	8.8	107.3	500.0	-13.4	Avg
14880.00	H	0.00	2.10	45.60	18.0	1511.6	5000.0	-10.4	Peak
14880.00	H	0.00	2.10	33.40	18.0	371.1	500.0	-2.6	AVG

Table 10: Radiated Emission Test Data Low Channel – Dipole Antenna

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
112.00	V	114.00	1.00	21.30	14.6	62.3	150.0	-7.6	
116.00	V	114.00	1.00	21.20	15.2	66.1	150.0	-7.1	
124.00	V	114.00	1.00	21.00	15.6	67.3	150.0	-7.0	
128.00	V	114.00	1.00	22.00	15.5	75.0	150.0	-6.0	
132.00	V	114.00	1.00	21.00	15.3	65.2	150.0	-7.2	
164.00	V	243.00	1.00	22.00	13.9	62.2	150.0	-7.6	
168.00	V	197.00	1.00	19.80	13.8	47.8	150.0	-9.9	
172.05	V	197.00	1.00	18.70	13.6	41.4	150.0	-11.2	
4810.00	V	45.00	2.53	47.53	3.0	334.3	5000.0	-23.5	Peak
4810.00	V	45.00	2.53	38.53	3.0	118.6	500.0	-12.5	AVG
12025.00	V	0.00	2.50	44.70	13.5	808.3	5000.0	-15.8	Peak
12025.00	V	0.00	2.50	33.20	13.5	215.1	500.0	-7.3	Avg
112.00	H	322.00	2.00	23.27	14.6	78.2	150.0	-5.7	QP
116.00	H	322.00	2.00	23.50	15.2	86.1	150.0	-4.8	QP
128.00	H	230.00	2.10	24.10	15.5	95.5	150.0	-3.9	QP
132.00	H	230.00	2.10	23.30	15.3	85.0	150.0	-4.9	QP
163.95	H	80.00	2.00	24.00	13.9	78.3	150.0	-5.6	QP
168.00	H	62.00	2.00	26.10	13.8	98.7	150.0	-3.6	QP
172.00	H	61.00	2.00	24.00	13.6	76.2	150.0	-5.9	QP
4810.00	H	0.00	2.30	47.30	3.0	325.6	5000.0	-23.7	Peak
4810.00	H	0.00	2.30	37.00	3.0	99.5	500.0	-14.0	AVG
12025.00	H	0.00	2.10	43.30	13.5	688.0	5000.0	-17.2	Peak
12025.00	H	0.00	2.10	32.70	13.5	203.0	500.0	-7.8	Avg

Table 11: Radiated Emission Test Data Mid Channel – Dipole Antenna

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
112.00	V	114.00	1.00	21.30	14.6	62.3	150.0	-7.6	
116.00	V	114.00	1.00	21.20	15.2	66.1	150.0	-7.1	
124.00	V	114.00	1.00	21.00	15.6	67.3	150.0	-7.0	
128.00	V	114.00	1.00	22.00	15.5	75.0	150.0	-6.0	
132.00	V	114.00	1.00	21.00	15.3	65.2	150.0	-7.2	
164.00	V	243.00	1.00	22.00	13.9	62.2	150.0	-7.6	
168.00	V	197.00	1.00	19.80	13.8	47.8	150.0	-9.9	
172.05	V	197.00	1.00	18.70	13.6	41.4	150.0	-11.2	
4890.00	V	300.00	2.49	44.80	3.1	249.6	5000.0	-26.0	Peak
4890.00	V	300.00	2.49	40.20	3.1	146.9	500.0	-10.6	AVG
7335.00	V	0.00	2.20	45.80	9.1	554.5	5000.0	-19.1	Peak
7335.00	V	0.00	2.20	32.20	9.1	115.9	500.0	-12.7	Avg
12225.00	V	0.00	2.20	43.00	14.0	709.3	5000.0	-17.0	Peak
12225.00	V	0.00	2.20	32.80	14.0	219.2	500.0	-7.2	AVG
14670.00	V	0.00	2.20	44.00	19.0	1409.0	5000.0	-11.0	Peak
14670.00	V	0.00	2.20	32.10	19.0	358.0	500.0	-2.9	Avg
112.00	H	322.00	2.00	23.27	14.6	78.2	150.0	-5.7	QP
116.00	H	322.00	2.00	23.50	15.2	86.1	150.0	-4.8	QP
128.00	H	230.00	2.10	24.10	15.5	95.5	150.0	-3.9	QP
132.00	H	230.00	2.10	23.30	15.3	85.0	150.0	-4.9	QP
163.95	H	80.00	2.00	24.00	13.9	78.3	150.0	-5.6	QP
168.00	H	62.00	2.00	26.10	13.8	98.7	150.0	-3.6	QP
172.00	H	61.00	2.00	24.00	13.6	76.2	150.0	-5.9	QP
4890.00	H	330.00	2.21	44.50	3.1	241.1	5000.0	-26.3	Peak
4890.00	H	330.00	2.21	39.30	3.1	132.5	500.0	-11.5	AVG
7335.00	H	0.00	2.20	42.50	9.1	379.3	5000.0	-22.4	Peak
7335.00	H	0.00	2.20	32.17	9.1	115.5	500.0	-12.7	Avg
12225.00	H	0.00	2.20	46.00	14.0	1001.9	5000.0	-14.0	Peak
12225.00	H	0.00	2.20	32.80	14.0	219.2	500.0	-7.2	AVG
14670.00	H	0.00	2.20	46.00	19.0	1773.8	5000.0	-9.0	Peak
14670.00	G	0.00	2.20	33.10	19.0	401.7	500.0	-1.9	Avg

Table 12: Radiated Emission Test Data High Channel – Dipole Antenna

Frequency (MHz)	Polarity H/V	Azimuth (Degree)	Ant. Height (m)	SA Level (dBuV)	Corr Factors (dB)	Corr. Level (uV/m)	Limit (uV/m)	Margin (dB)	Comments
112.00	V	114.00	1.00	21.30	14.6	62.3	150.0	-7.6	
116.00	V	114.00	1.00	21.20	15.2	66.1	150.0	-7.1	
124.00	V	114.00	1.00	21.00	15.6	67.3	150.0	-7.0	
128.00	V	114.00	1.00	22.00	15.5	75.0	150.0	-6.0	
132.00	V	114.00	1.00	21.00	15.3	65.2	150.0	-7.2	
164.00	V	243.00	1.00	22.00	13.9	62.2	150.0	-7.6	
168.00	V	197.00	1.00	19.80	13.8	47.8	150.0	-9.9	
172.05	V	197.00	1.00	18.70	13.6	41.4	150.0	-11.2	
4960.00	V	300.00	2.50	43.50	3.3	219.0	5000.0	-27.2	Peak
4960.00	V	300.00	2.50	38.50	3.3	123.1	500.0	-12.2	AVG
7440.00	V	0.00	2.50	43.80	9.3	452.2	5000.0	-20.9	Peak
7440.00	V	0.00	2.50	32.31	9.3	120.5	500.0	-12.4	Avg
14880.00	V	0.00	2.50	46.80	19.5	2058.6	5000.0	-7.7	Peak
14880.00	V	0.00	2.50	33.20	19.5	430.1	500.0	-1.3	AVG
4960.00	V	300.00	2.50	43.50	3.3	219.0	5000.0	-27.2	Peak
112.00	H	322.00	2.00	23.27	14.6	78.2	150.0	-5.7	QP
116.00	H	322.00	2.00	23.50	15.2	86.1	150.0	-4.8	QP
128.00	H	230.00	2.10	24.10	15.5	95.5	150.0	-3.9	QP
132.00	H	230.00	2.10	23.30	15.3	85.0	150.0	-4.9	QP
163.95	H	80.00	2.00	24.00	13.9	78.3	150.0	-5.6	QP
168.00	H	62.00	2.00	26.10	13.8	98.7	150.0	-3.6	QP
172.00	H	61.00	2.00	24.00	13.6	76.2	150.0	-5.9	QP
4960.00	H	125.00	2.10	41.00	3.3	164.2	5000.0	-29.7	Peak
4960.00	H	125.00	2.10	35.70	3.3	89.2	500.0	-15.0	AVG
7440.00	H	0.00	2.10	43.50	9.3	436.8	5000.0	-21.2	Peak
7440.00	H	0.00	2.10	32.30	9.3	120.3	500.0	-12.4	Avg
14880.00	H	0.00	2.10	45.60	19.5	1792.9	5000.0	-8.9	Peak
14880.00	H	0.00	2.10	31.50	19.5	353.6	500.0	-3.0	AVG