

**Figure 81. Conducted Spurious Emissions: 40MHz BW, Low Channel, High Power, 35GHz – 40GHz**

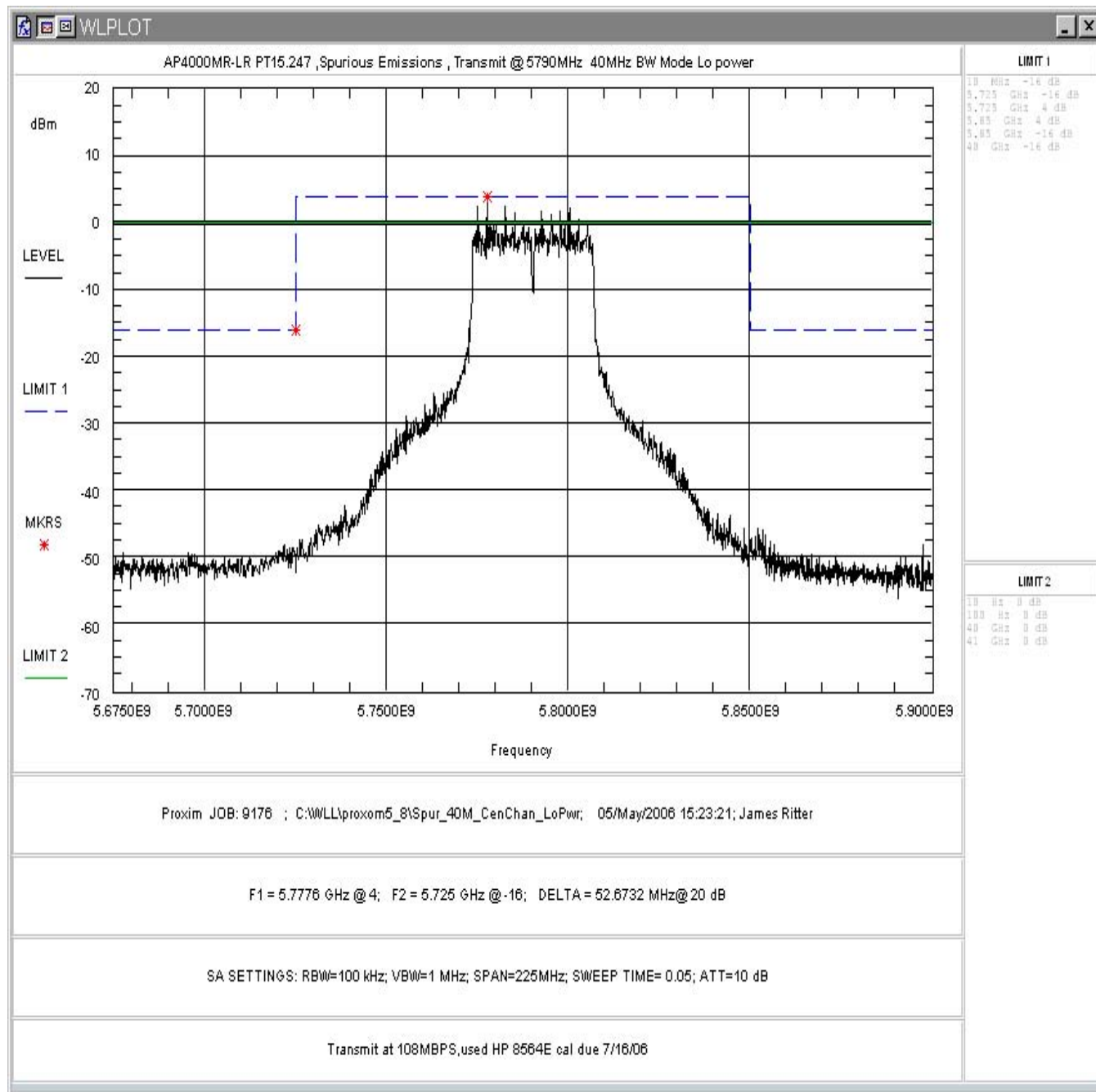
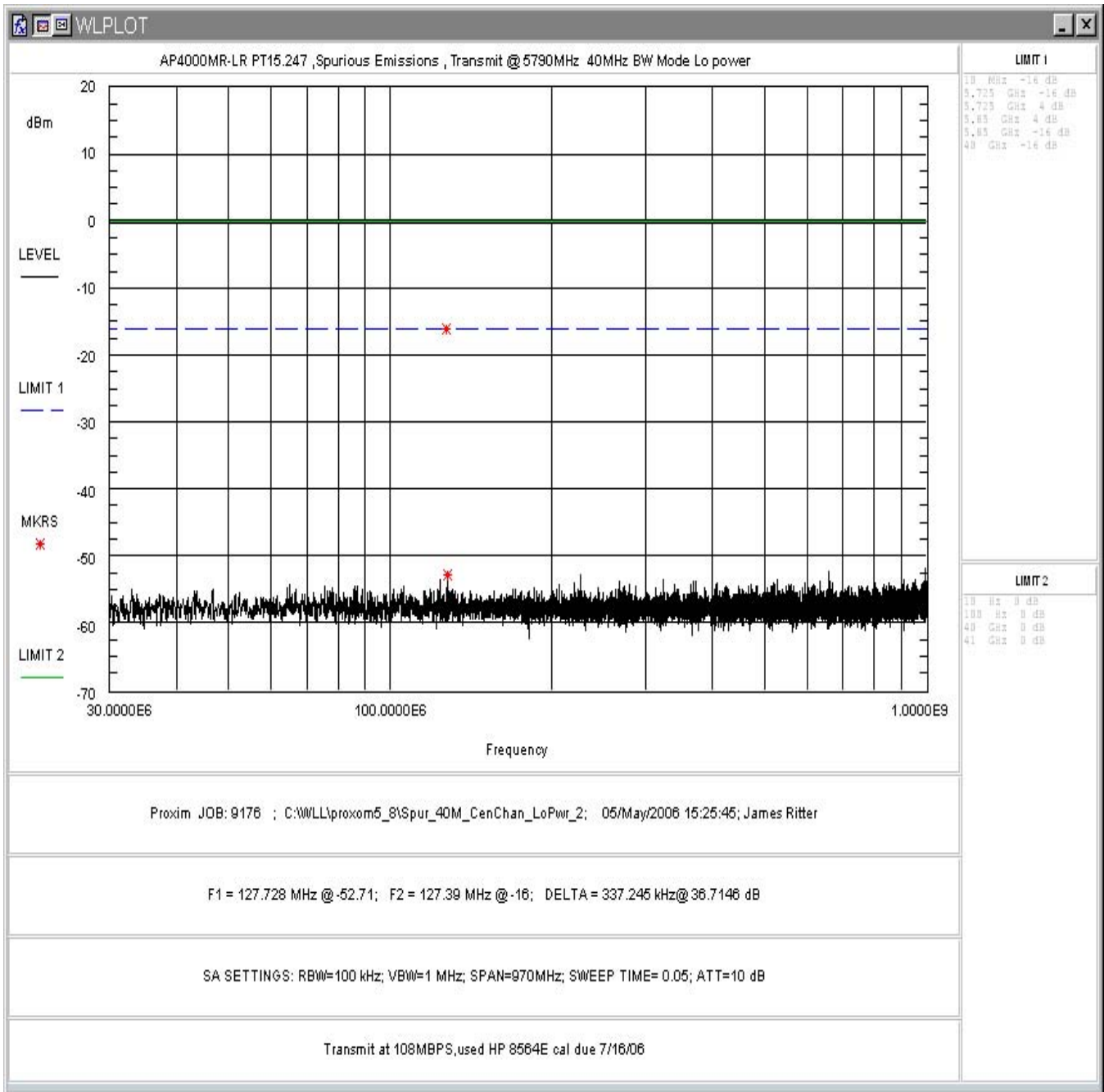
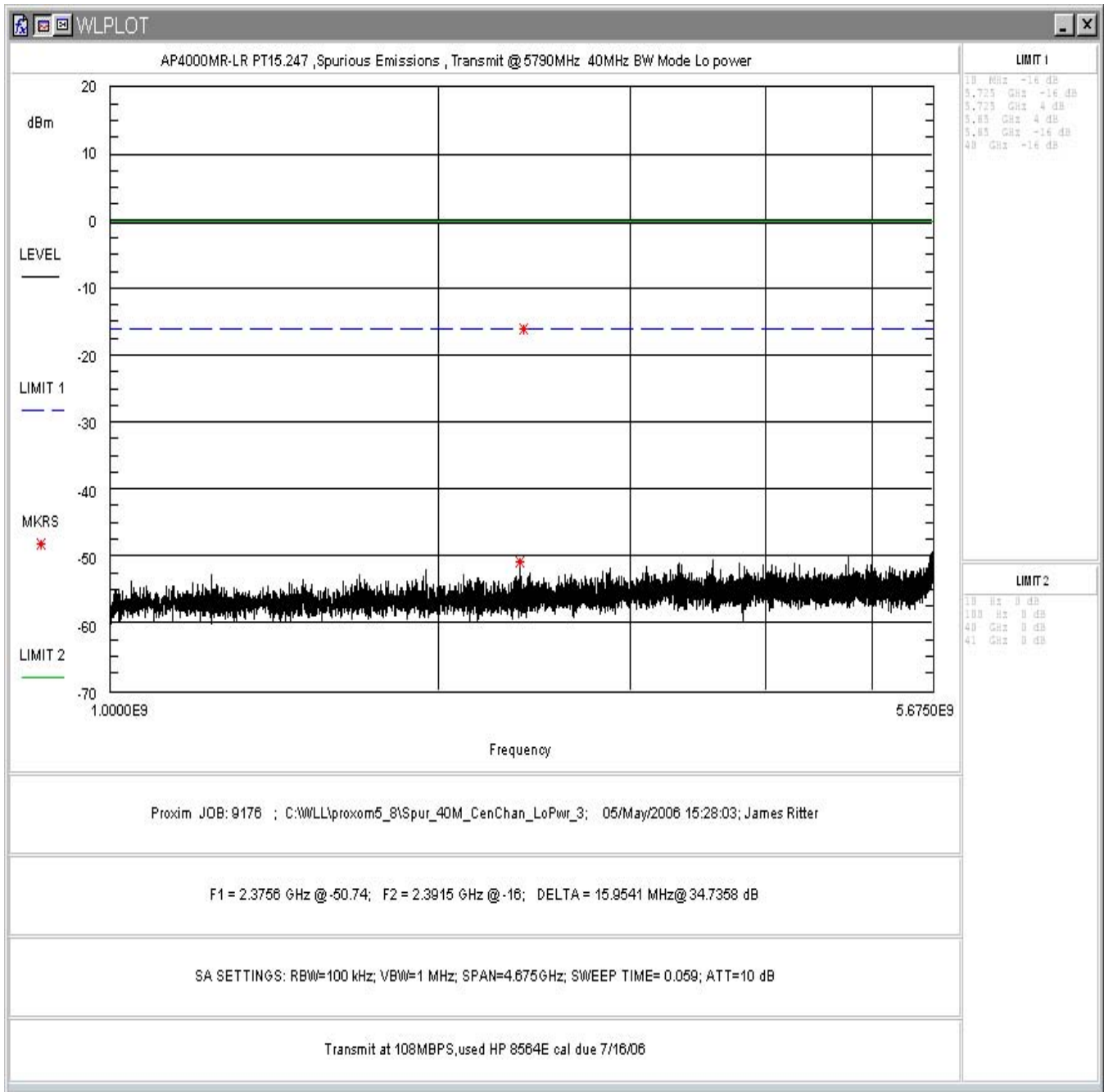


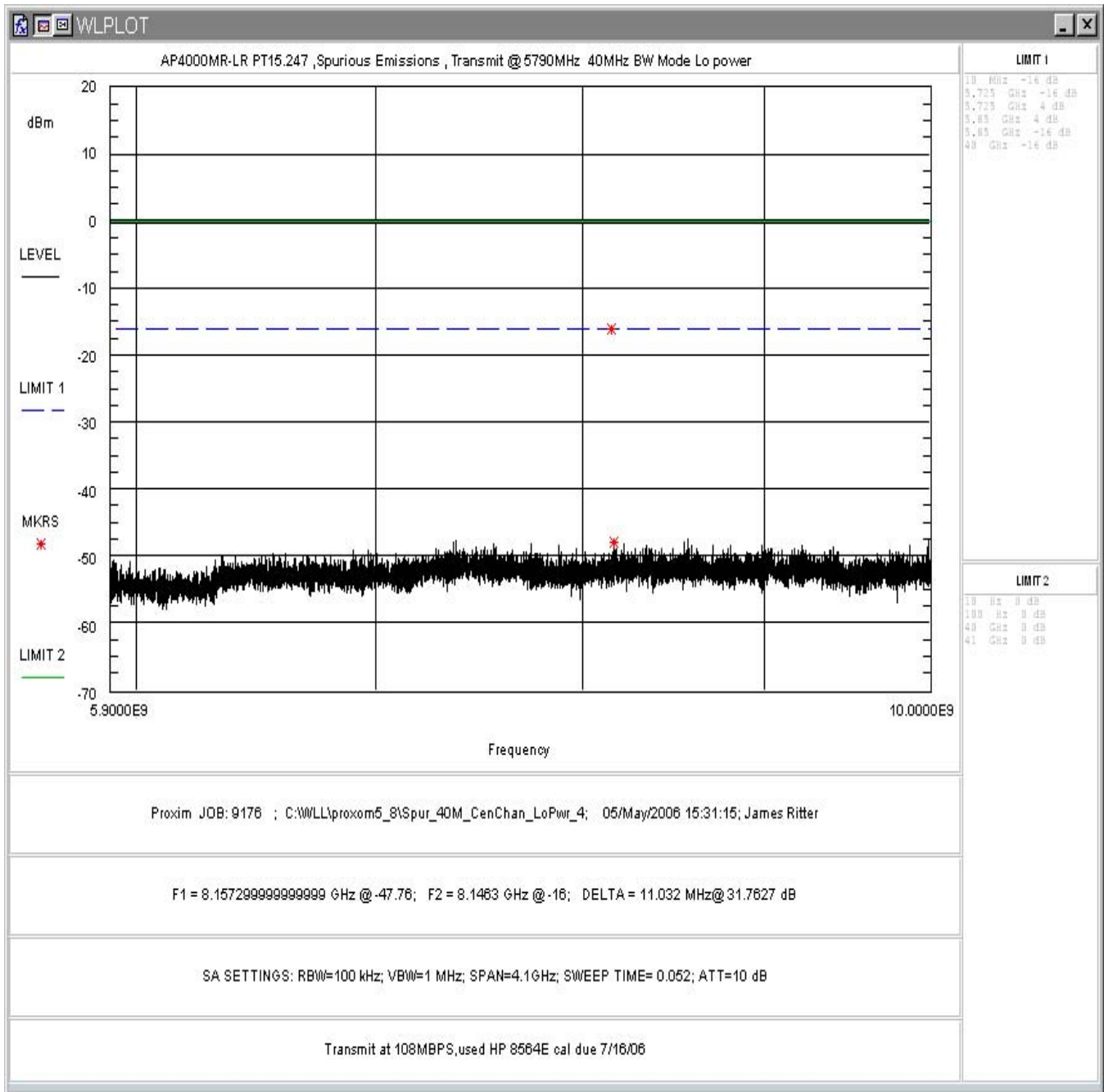
Figure 82. Conducted Spurious Emissions: 40MHz BW, Mid Channel, Low Power, In-Band



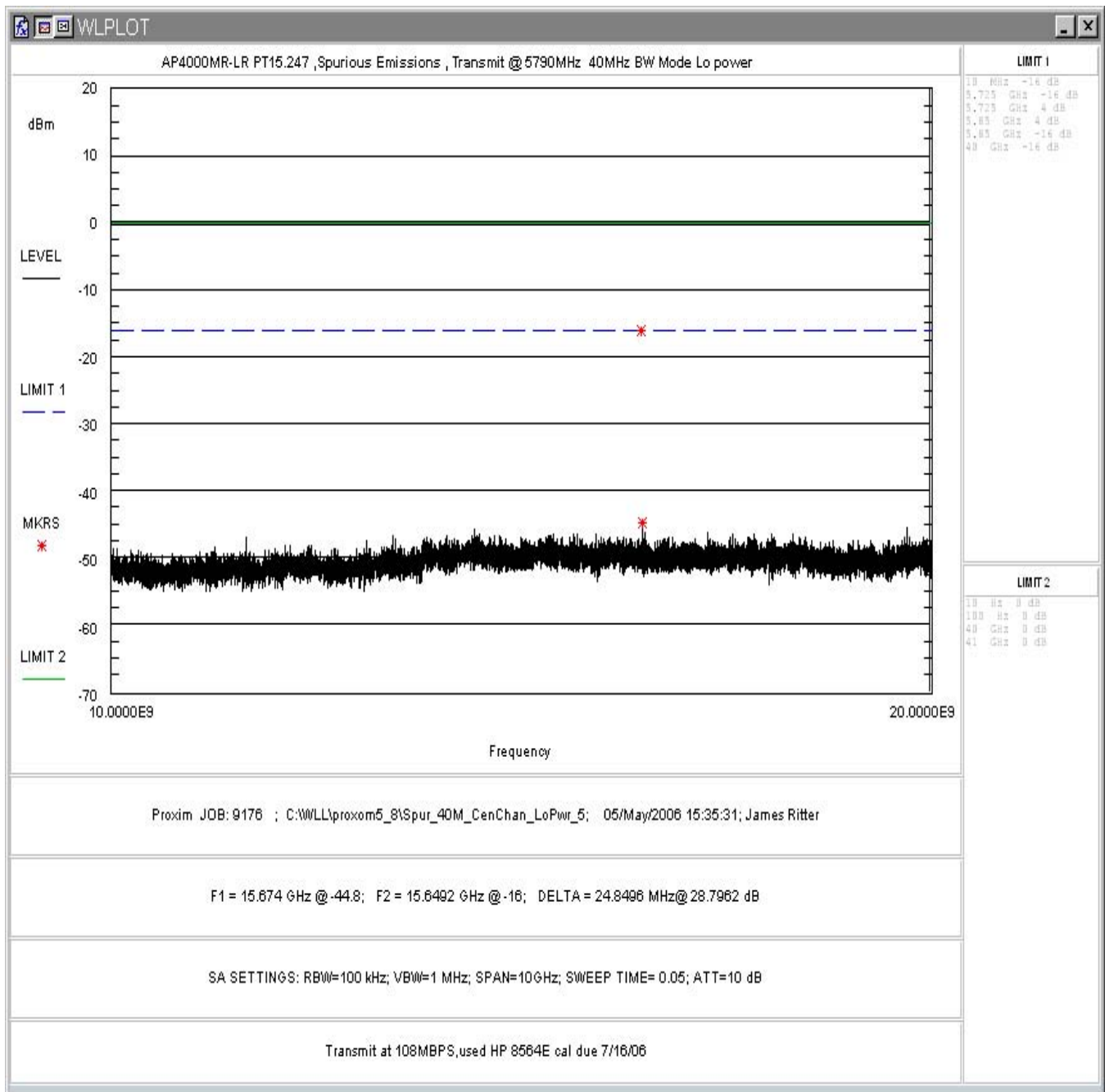
**Figure 83. Conducted Spurious Emissions: 40MHz BW, Mid Channel, Low Power, 30MHz – 1GHz**



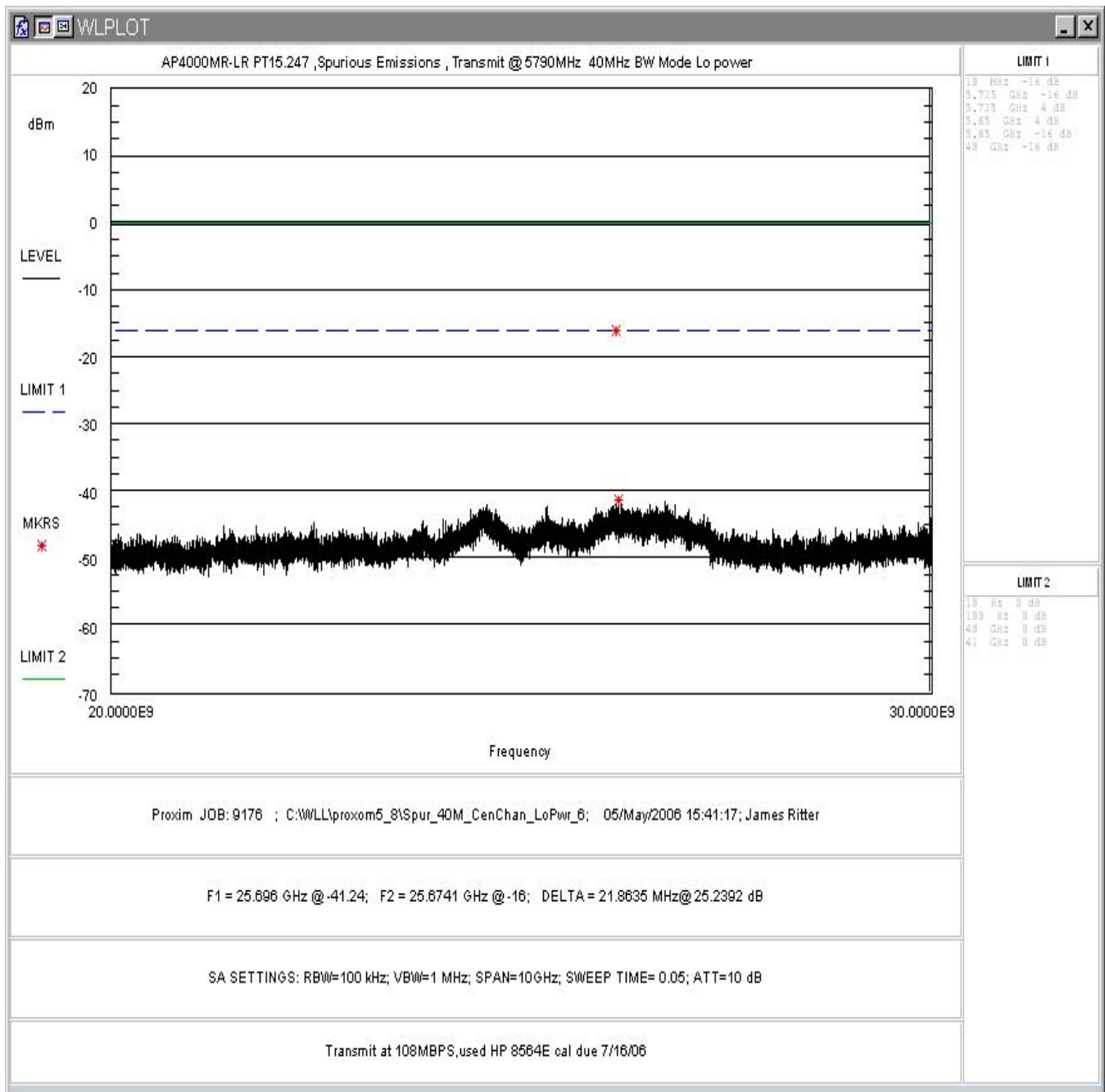
**Figure 84. Conducted Spurious Emissions: 40MHz BW, Mid Channel, Low Power, 1GHz – 5.675GHz**



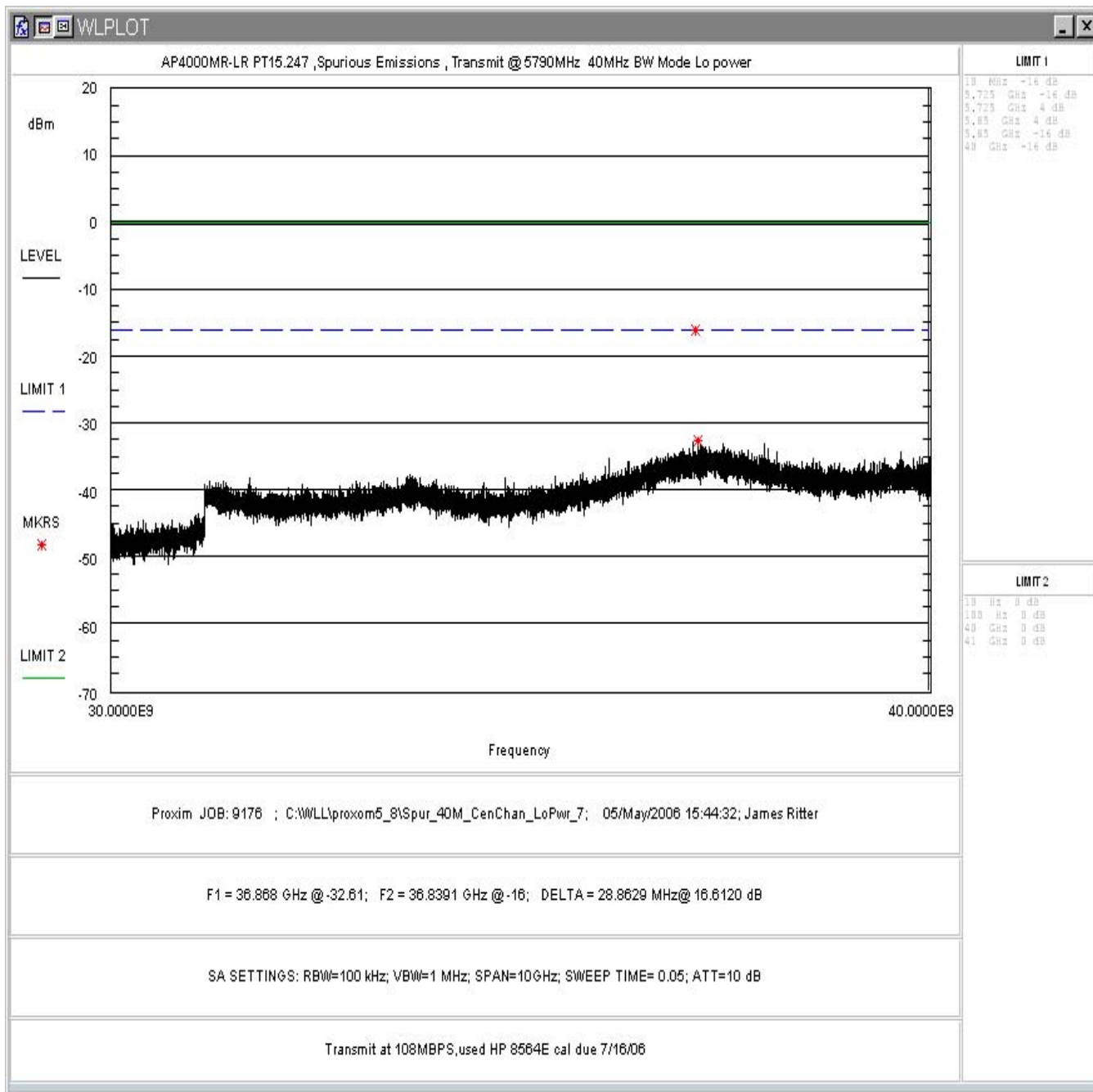
**Figure 85. Conducted Spurious Emissions: 40MHz BW, Mid Channel, Low Power, 5.9GHz – 10GHz**



**Figure 86. Conducted Spurious Emissions: 40MHz BW, Mid Channel, Low Power, 10GHz – 20GHz**



**Figure 87. Conducted Spurious Emissions: 40MHz BW, Mid Channel, Low Power, 20GHz – 30GHz**



**Figure 88. Conducted Spurious Emissions: 40MHz BW, Mid Channel, Low Power, 30GHz – 40GHz**



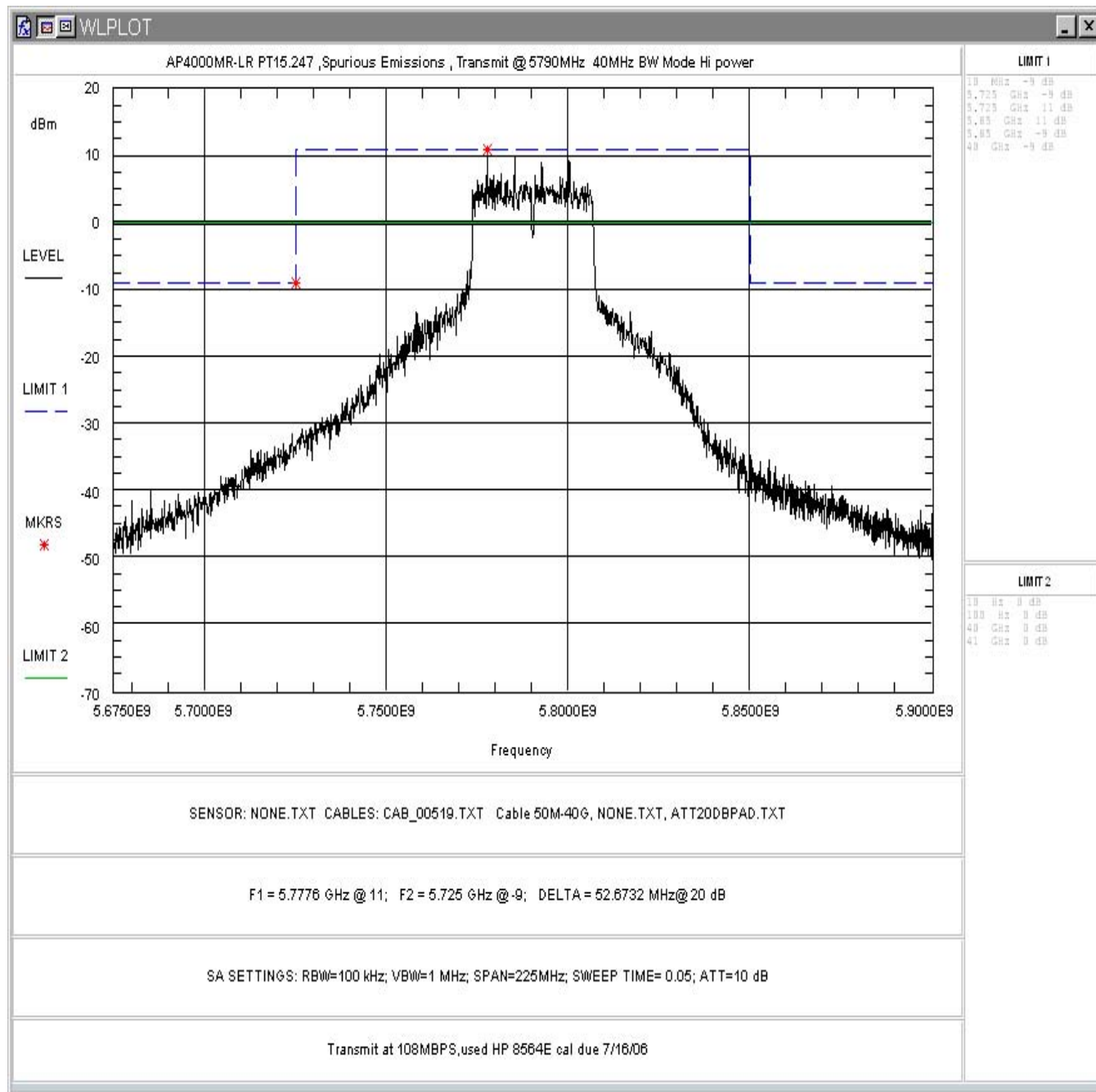
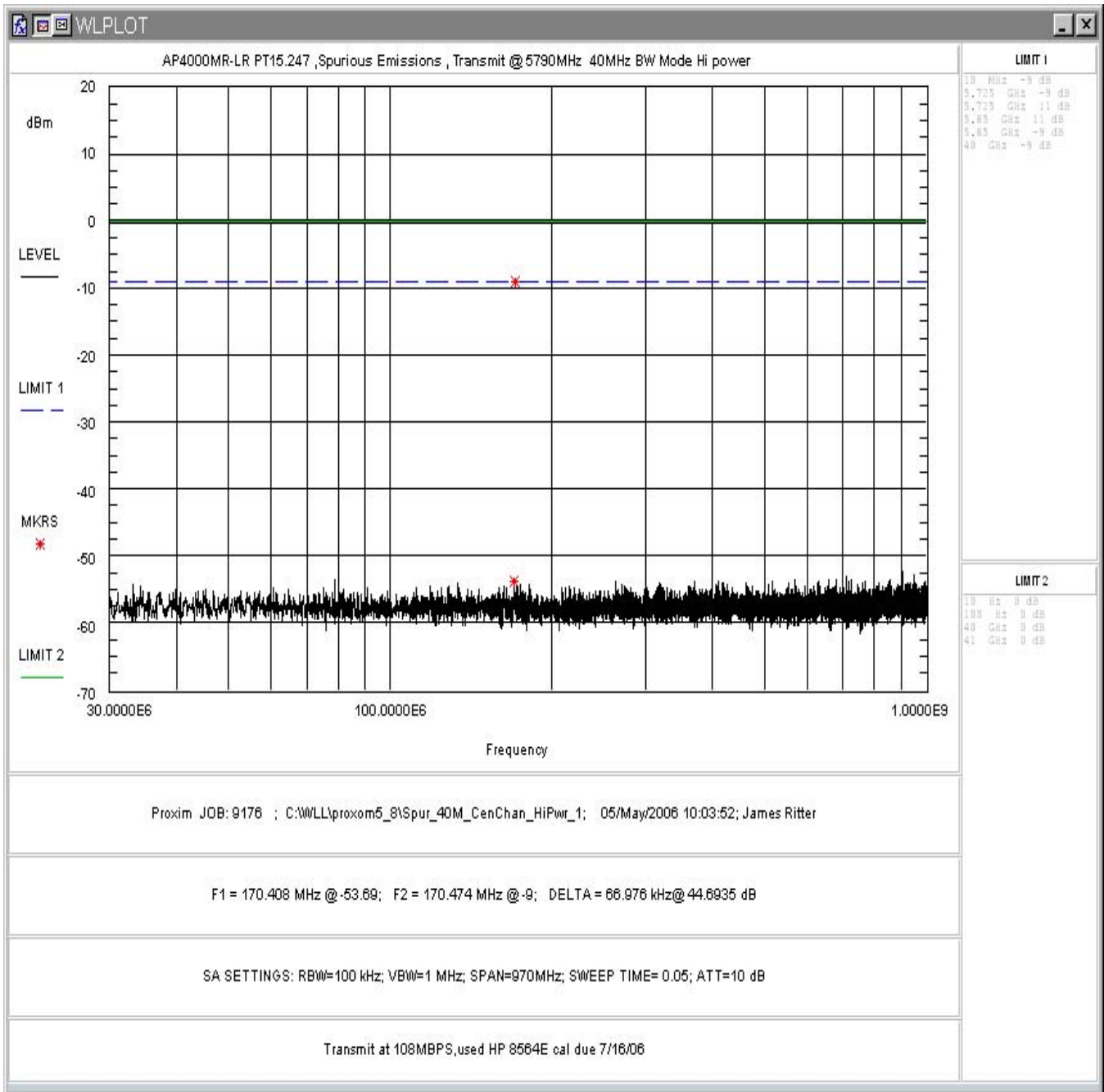
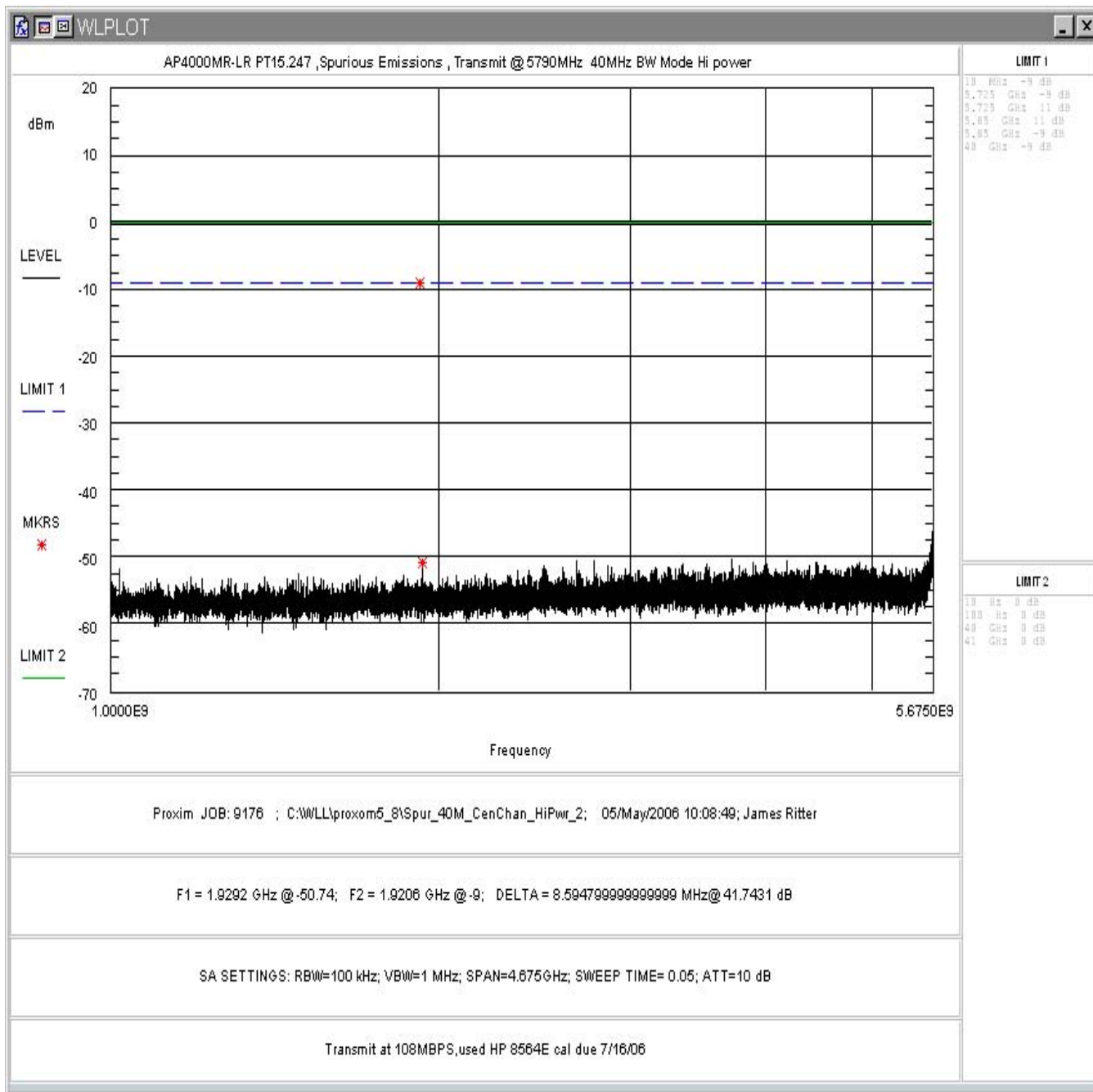


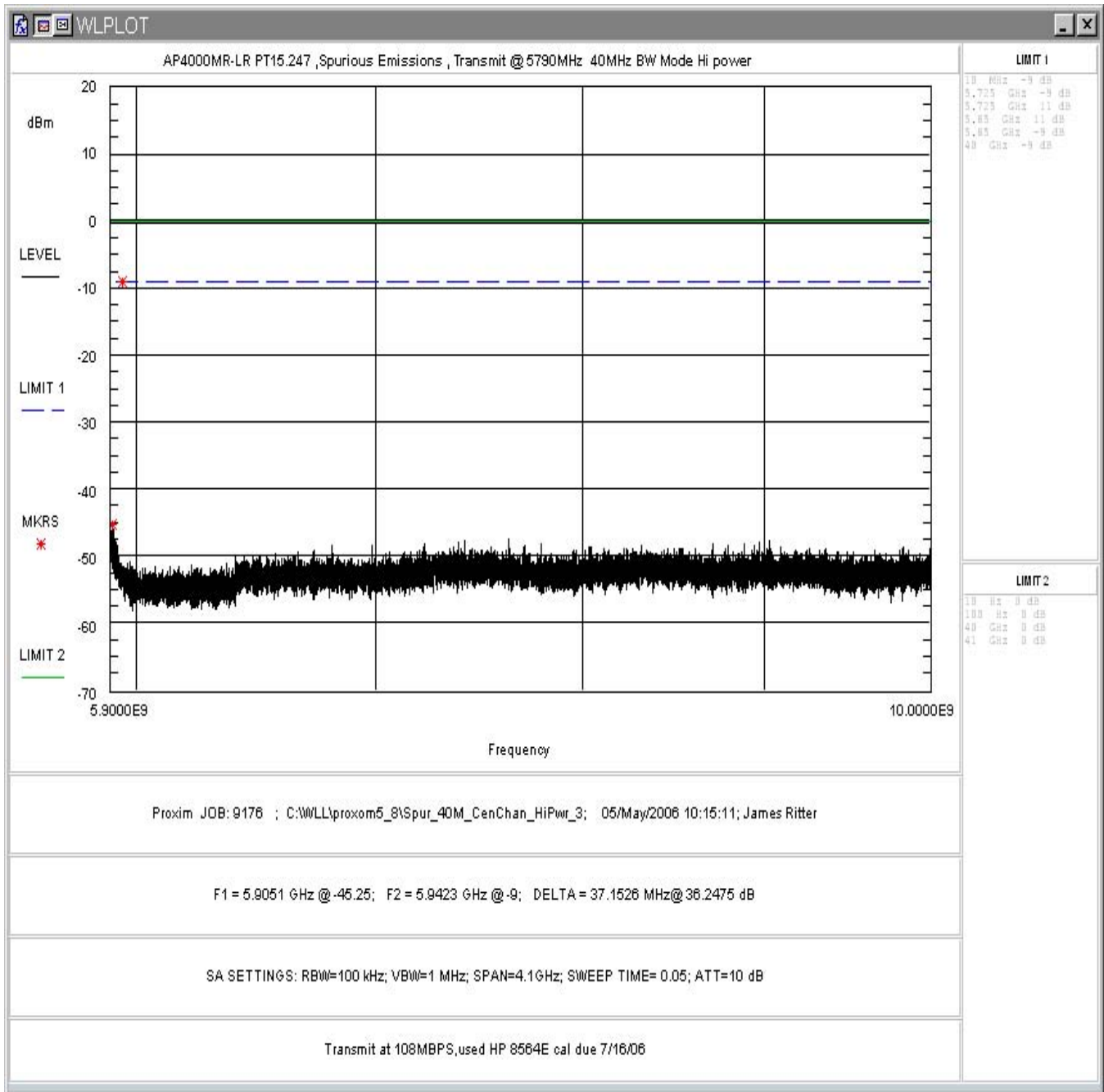
Figure 89. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, In-Band



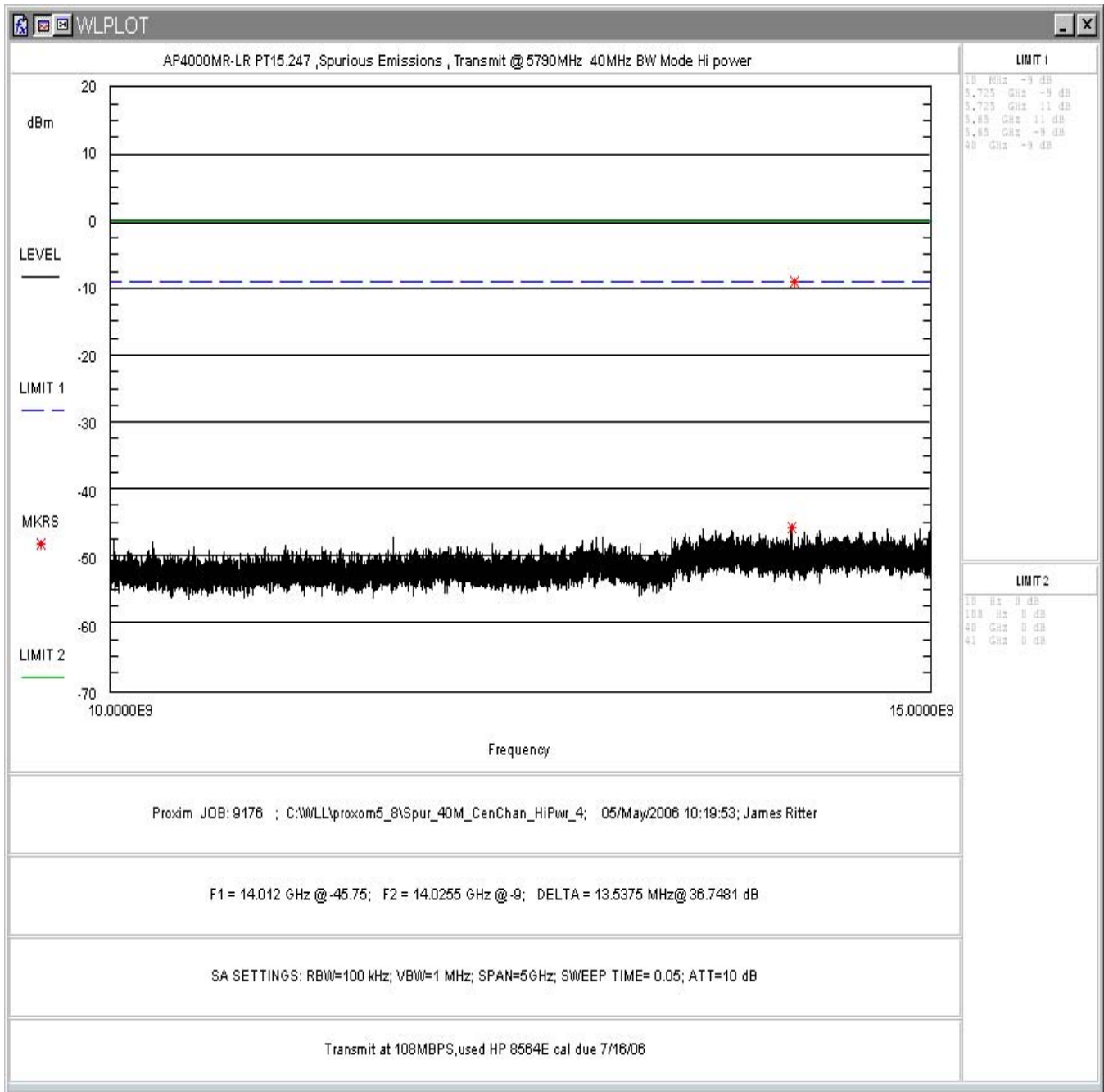
**Figure 90. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 30MHz – 1GHz**



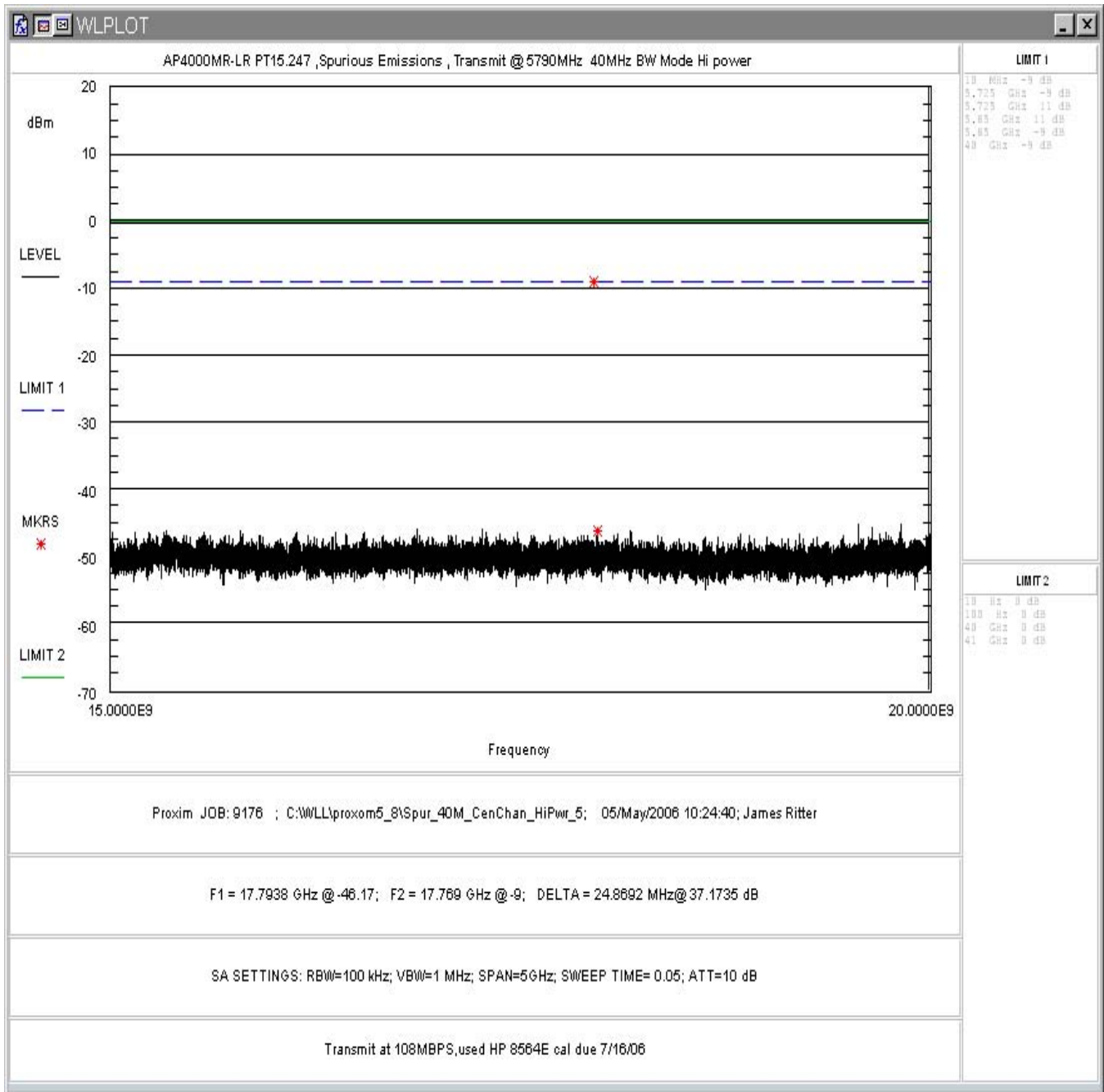
**Figure 91. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 1GHz – 5.675GHz**



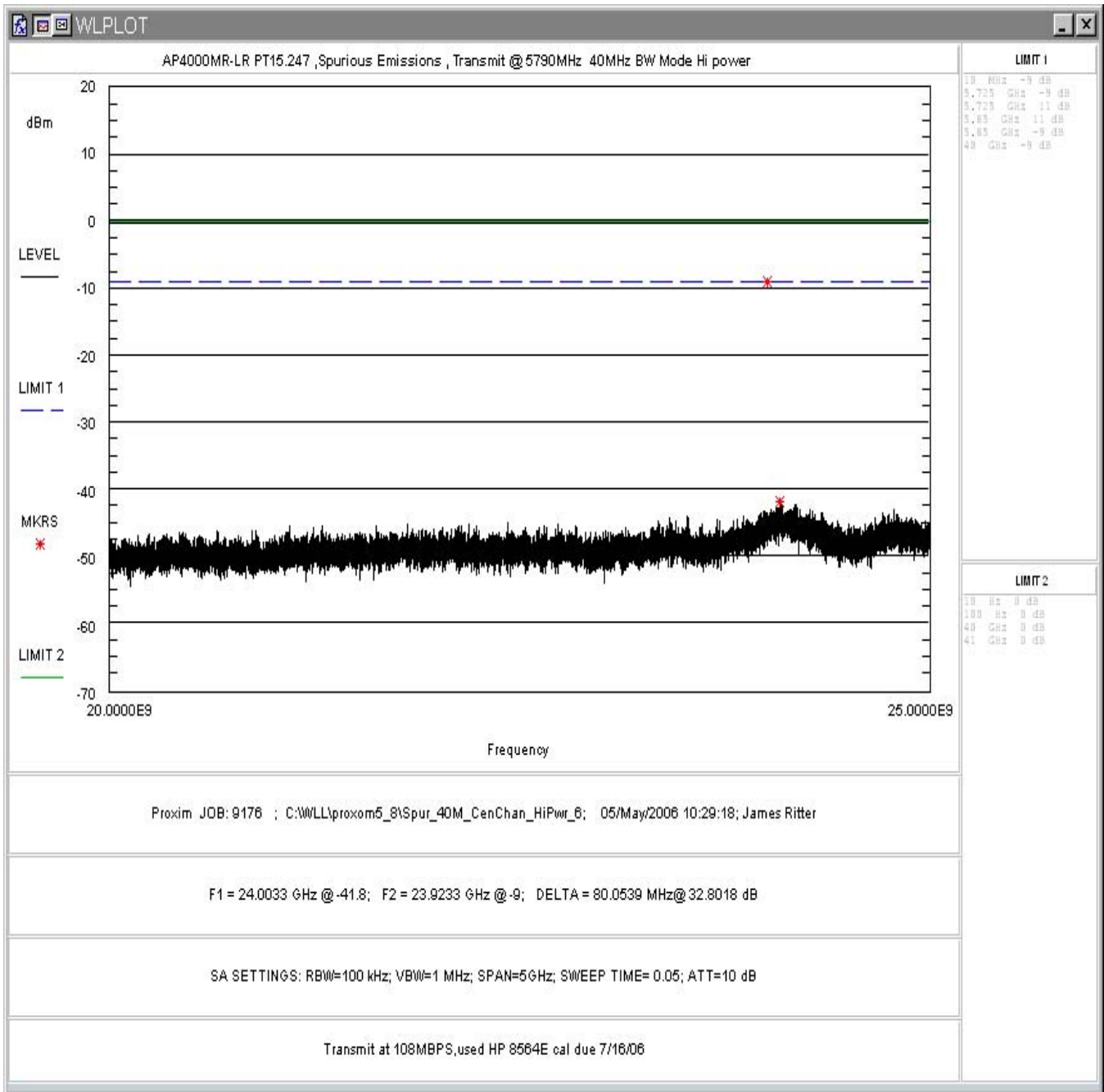
**Figure 92. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 5.9GHz – 10GHz**



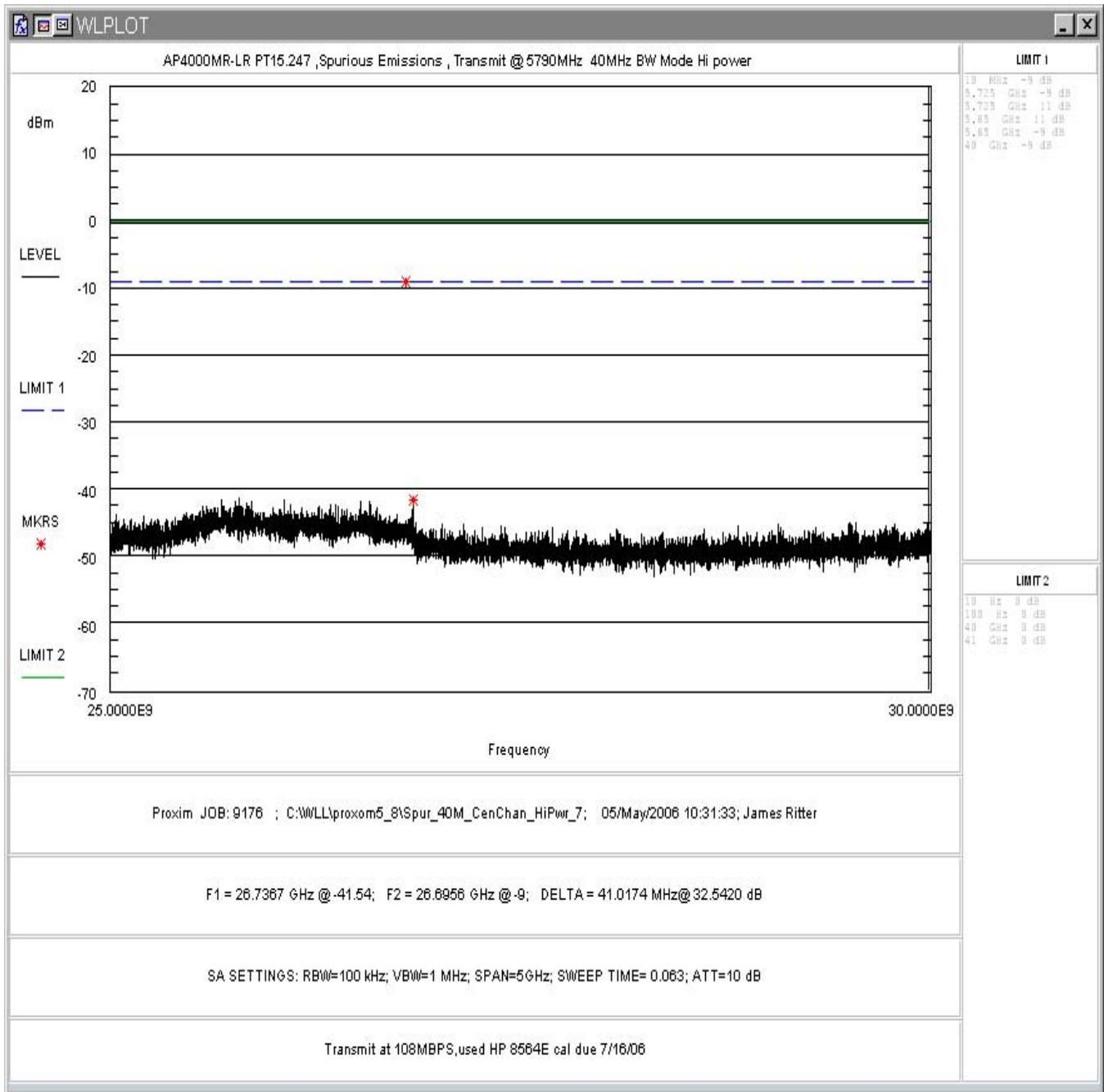
**Figure 93. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 10GHz – 15GHz**



**Figure 94. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 15GHz – 20GHz**

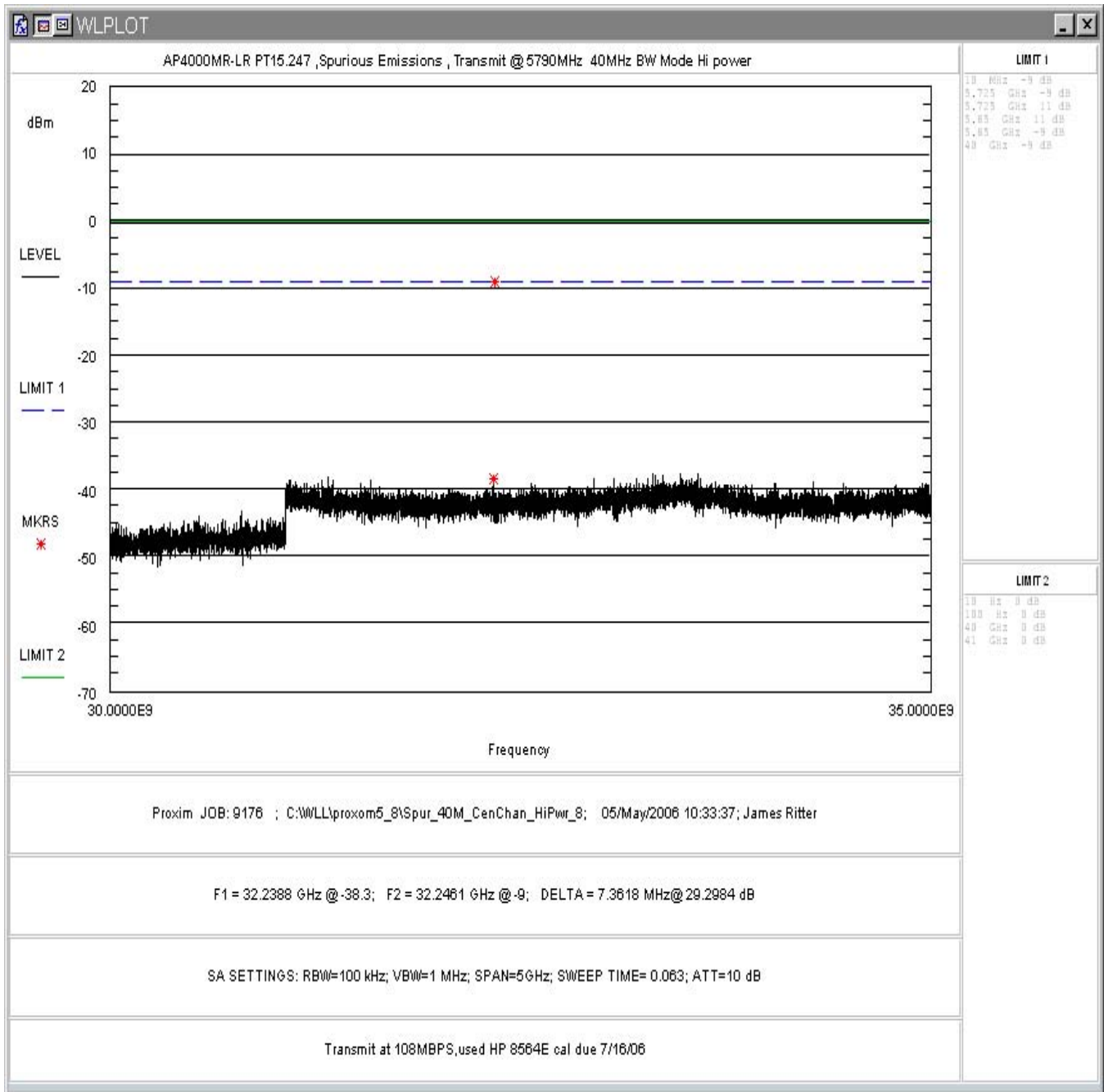


**Figure 95. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 20GHz – 25GHz**

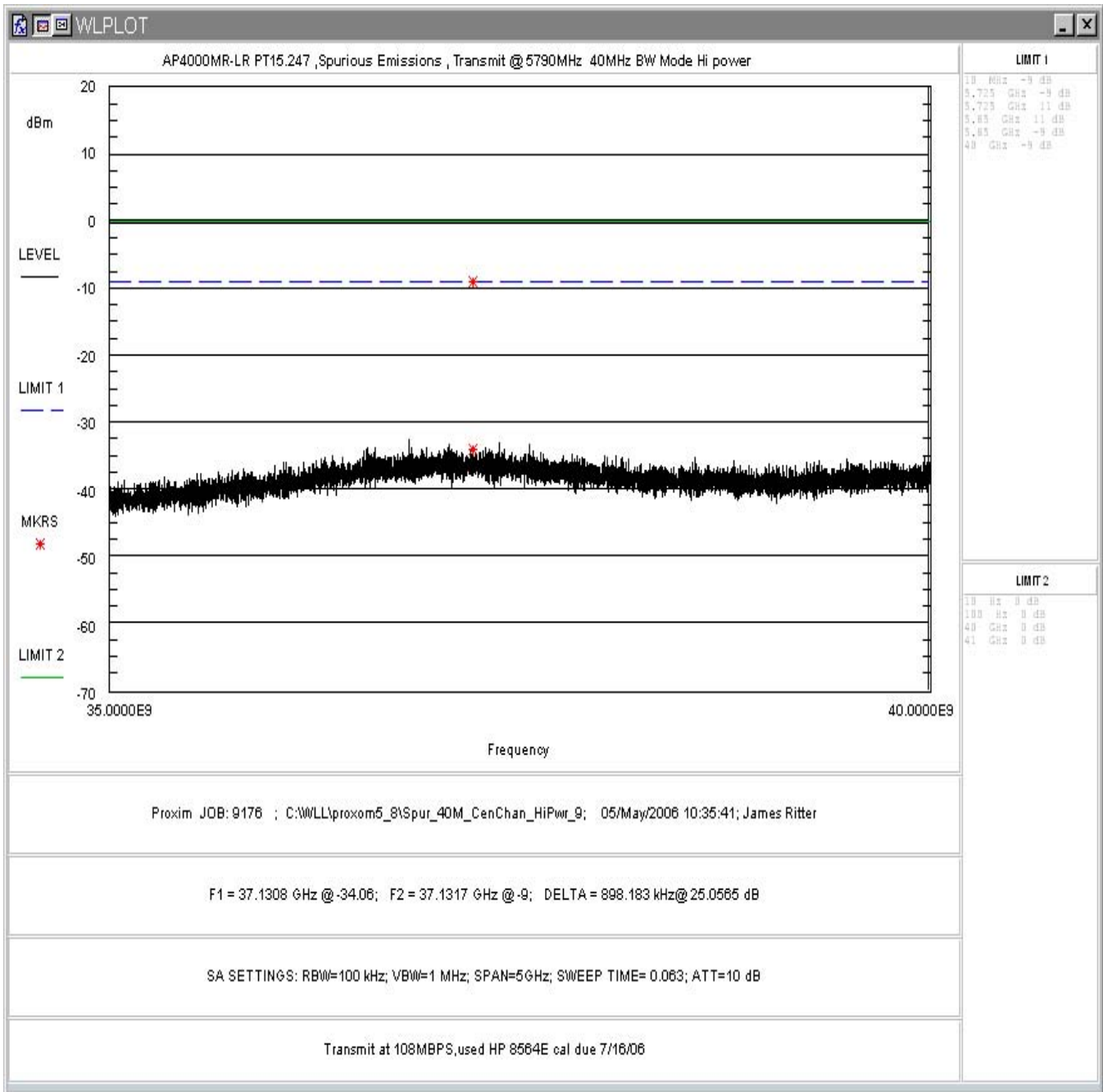


**Figure 96. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 25GHz – 30GHz**





**Figure 97. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 30GHz – 35GHz**



**Figure 98. Conducted Spurious Emissions: 40MHz BW, Mid Channel, High Power, 35GHz – 40GHz**

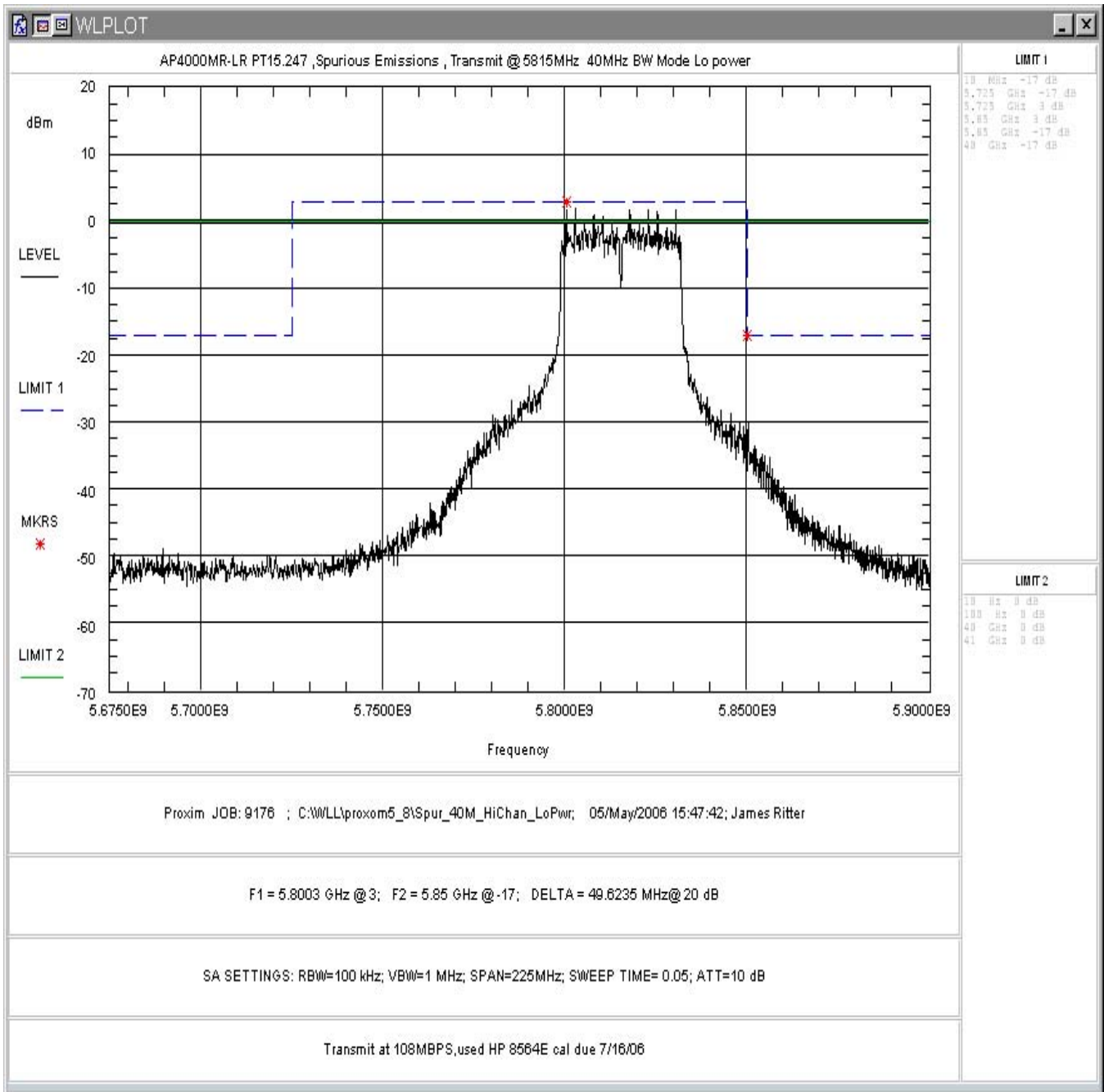
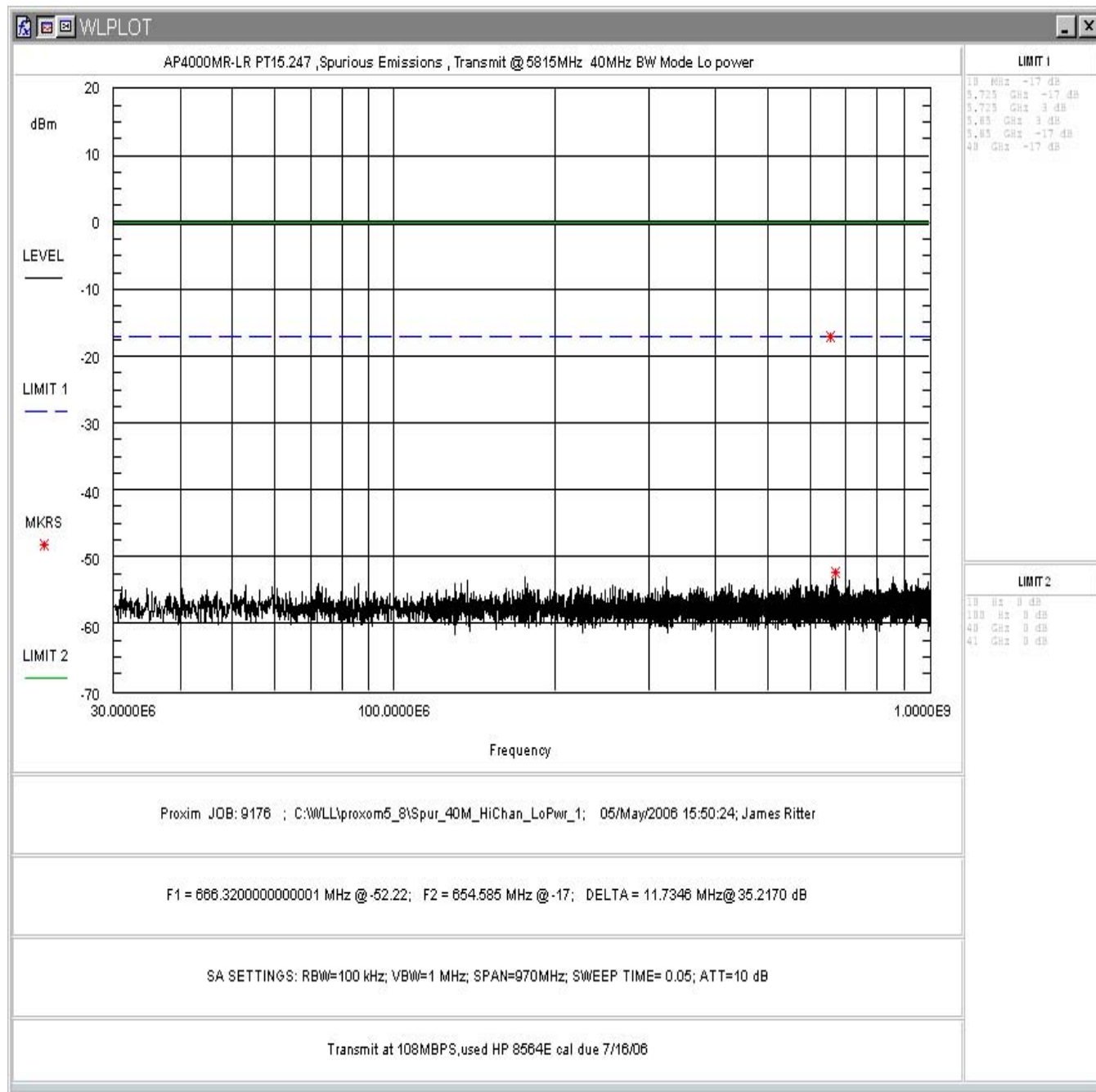
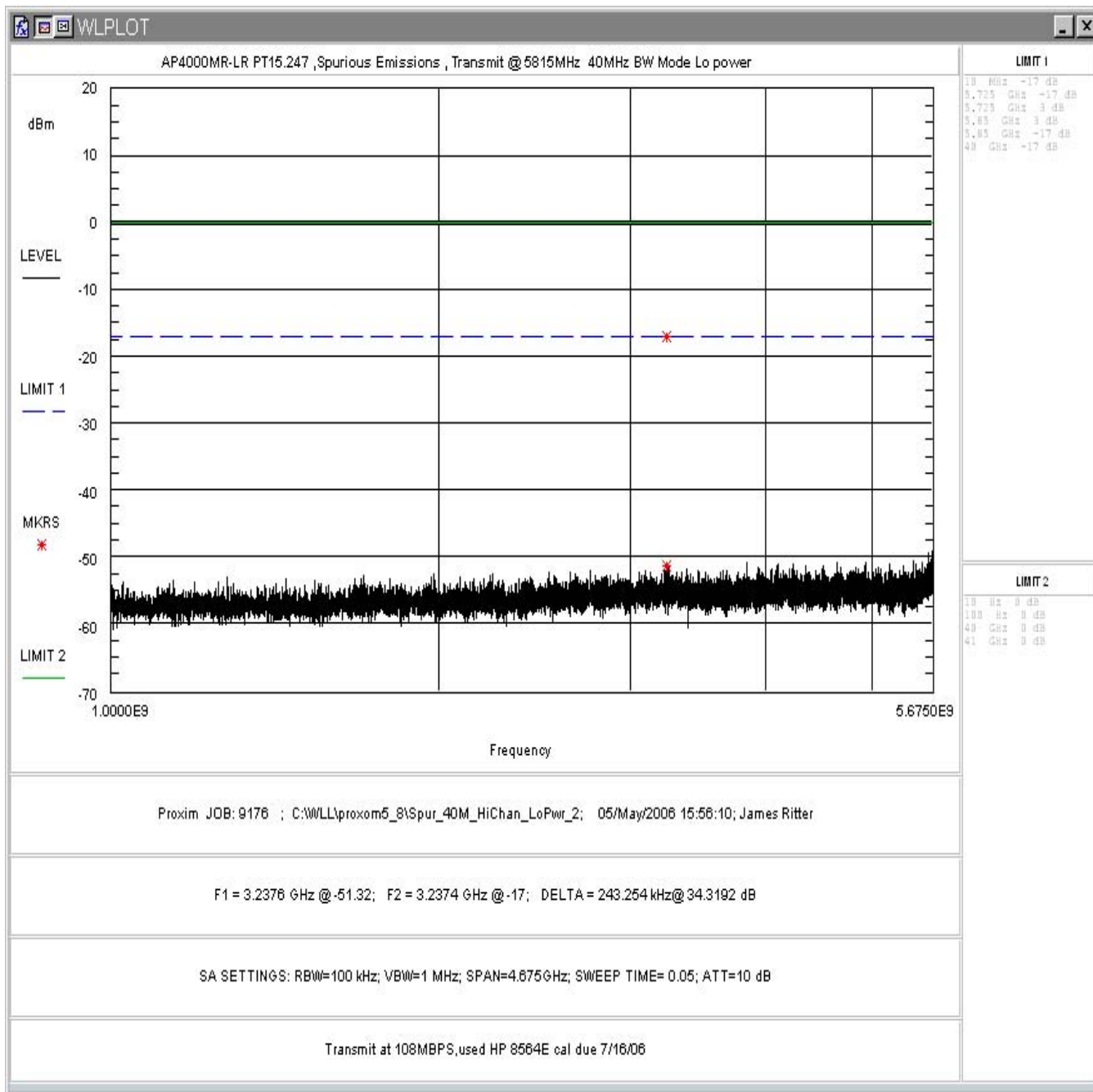


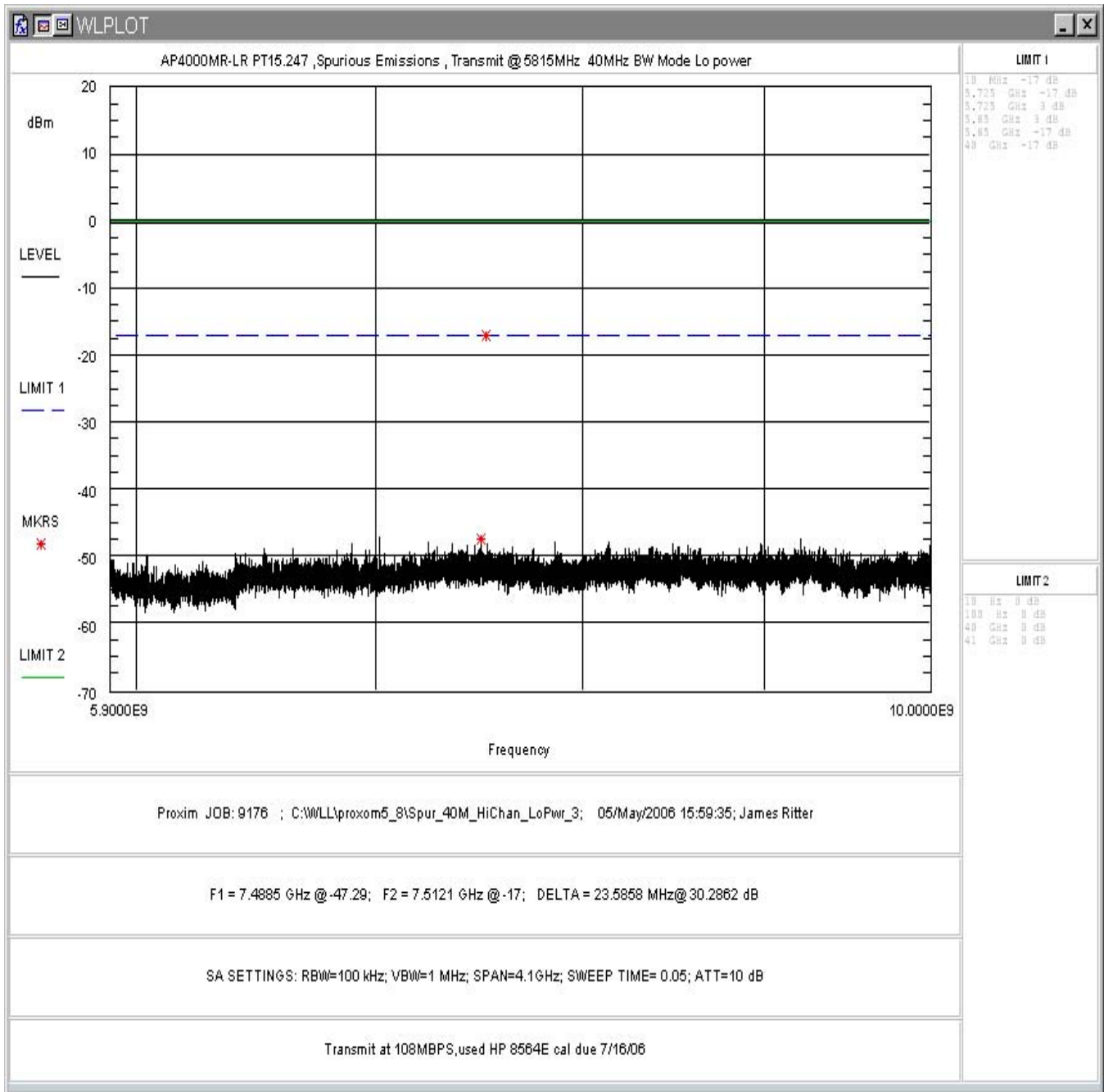
Figure 99. Conducted Spurious Emissions: 40MHz BW, High Channel, Low Power, In-Band



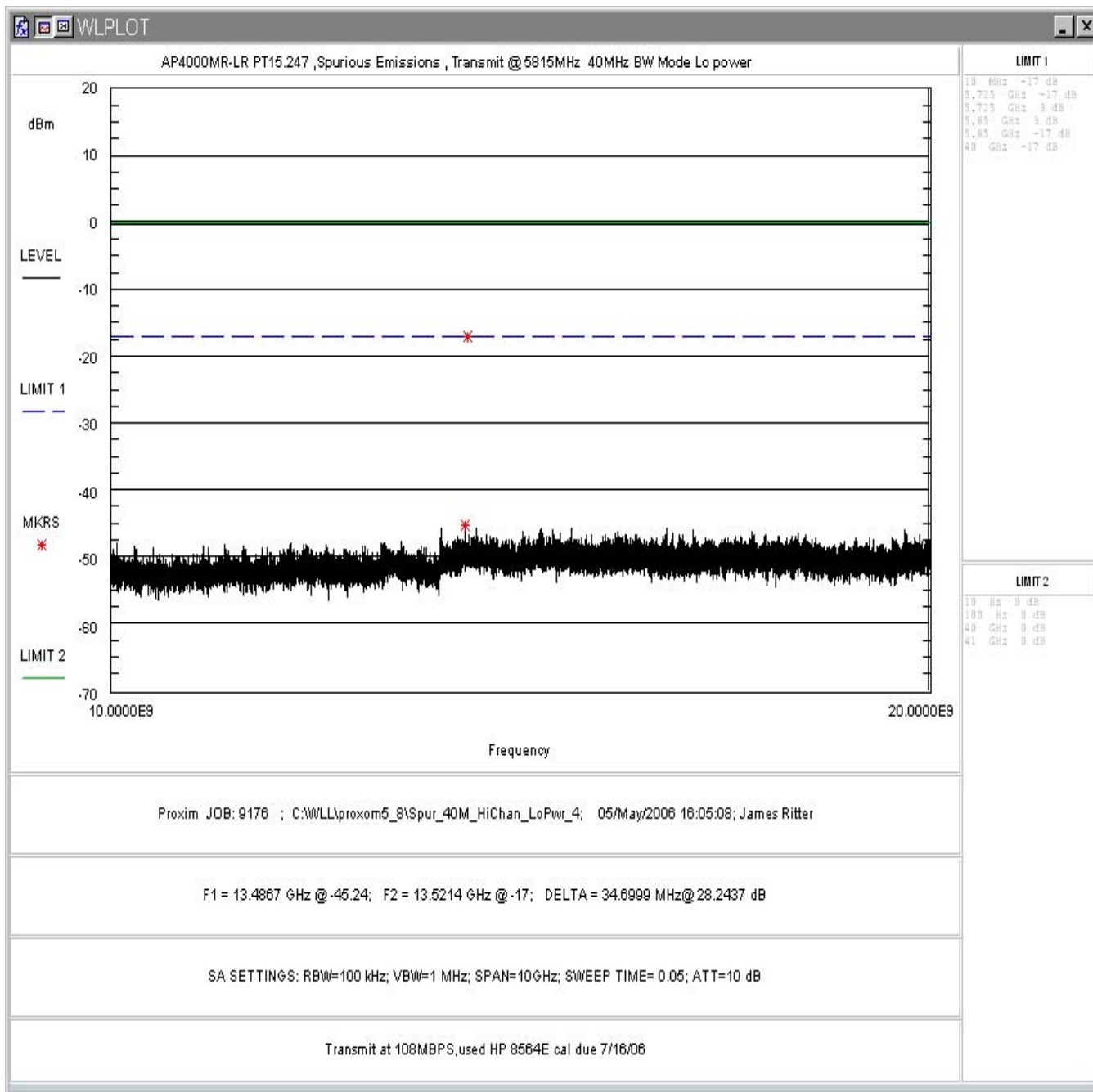
**Figure 100. Conducted Spurious Emissions: 40MHz BW, High Channel, Low Power, 30MHz – 1GHz**



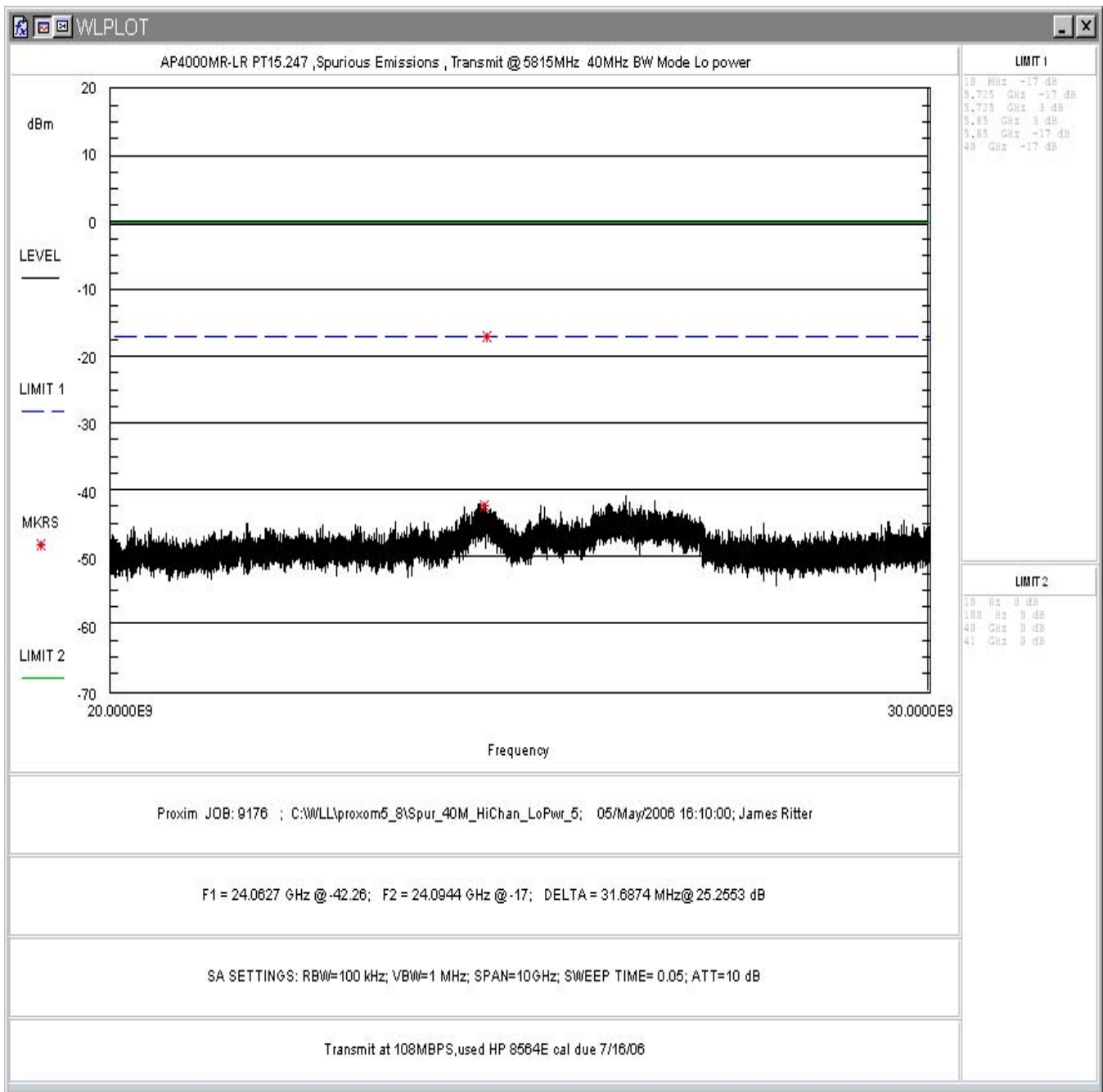
**Figure 101. Conducted Spurious Emissions: 40MHz BW, High Channel, Low Power, 1GHz – 5.675GHz**



**Figure 102. Conducted Spurious Emissions: 40MHz BW, High Channel, Low Power, 5.9GHz – 10GHz**

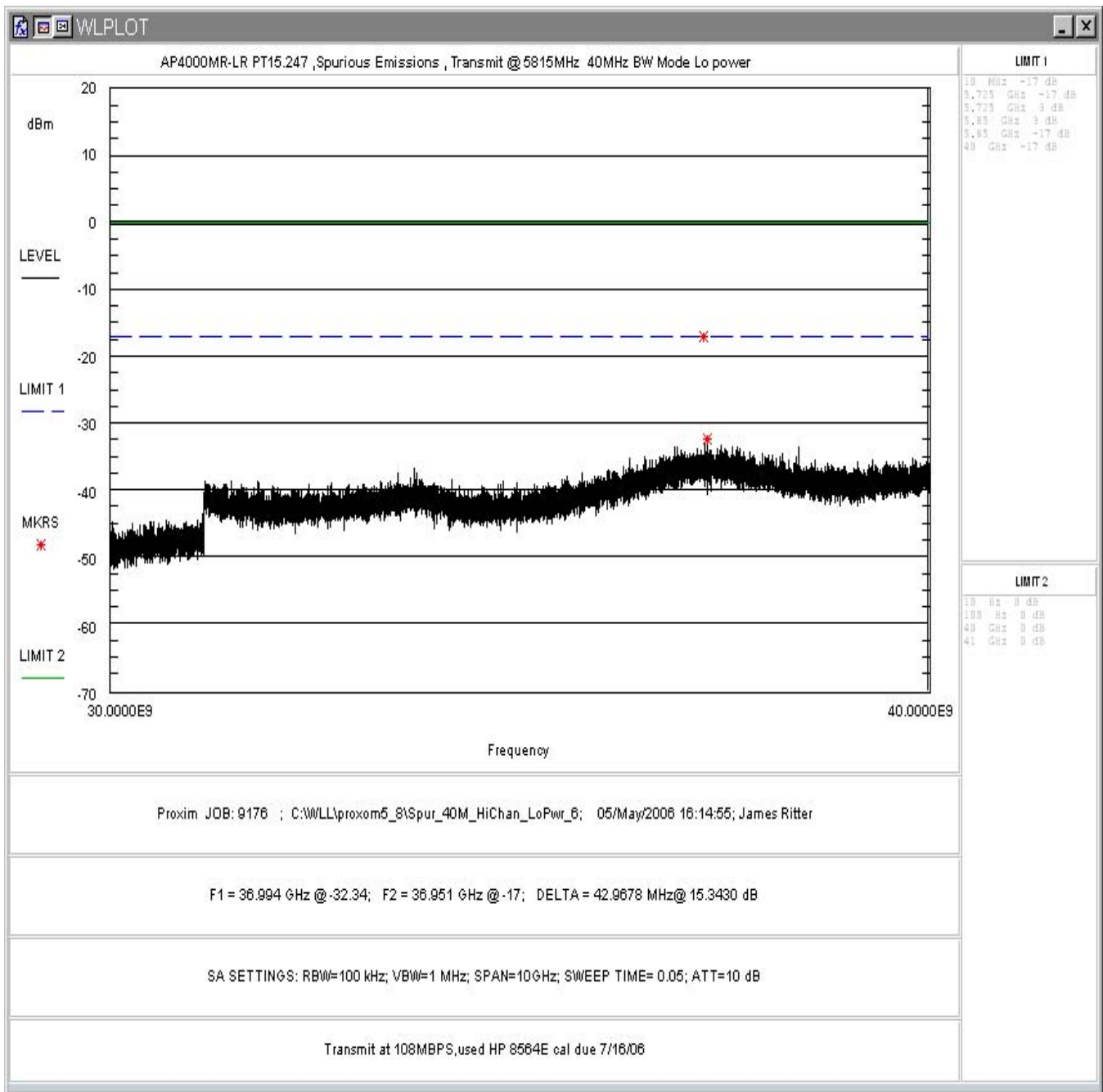


**Figure 103. Conducted Spurious Emissions: 40MHz BW, High Channel, Low Power, 10GHz – 20GHz**



**Figure 104. Conducted Spurious Emissions: 40MHz BW, High Channel, Low Power, 20GHz – 30GHz**





**Figure 105. Conducted Spurious Emissions: 40MHz BW, High Channel, Low Power, 30GHz – 40GHz**

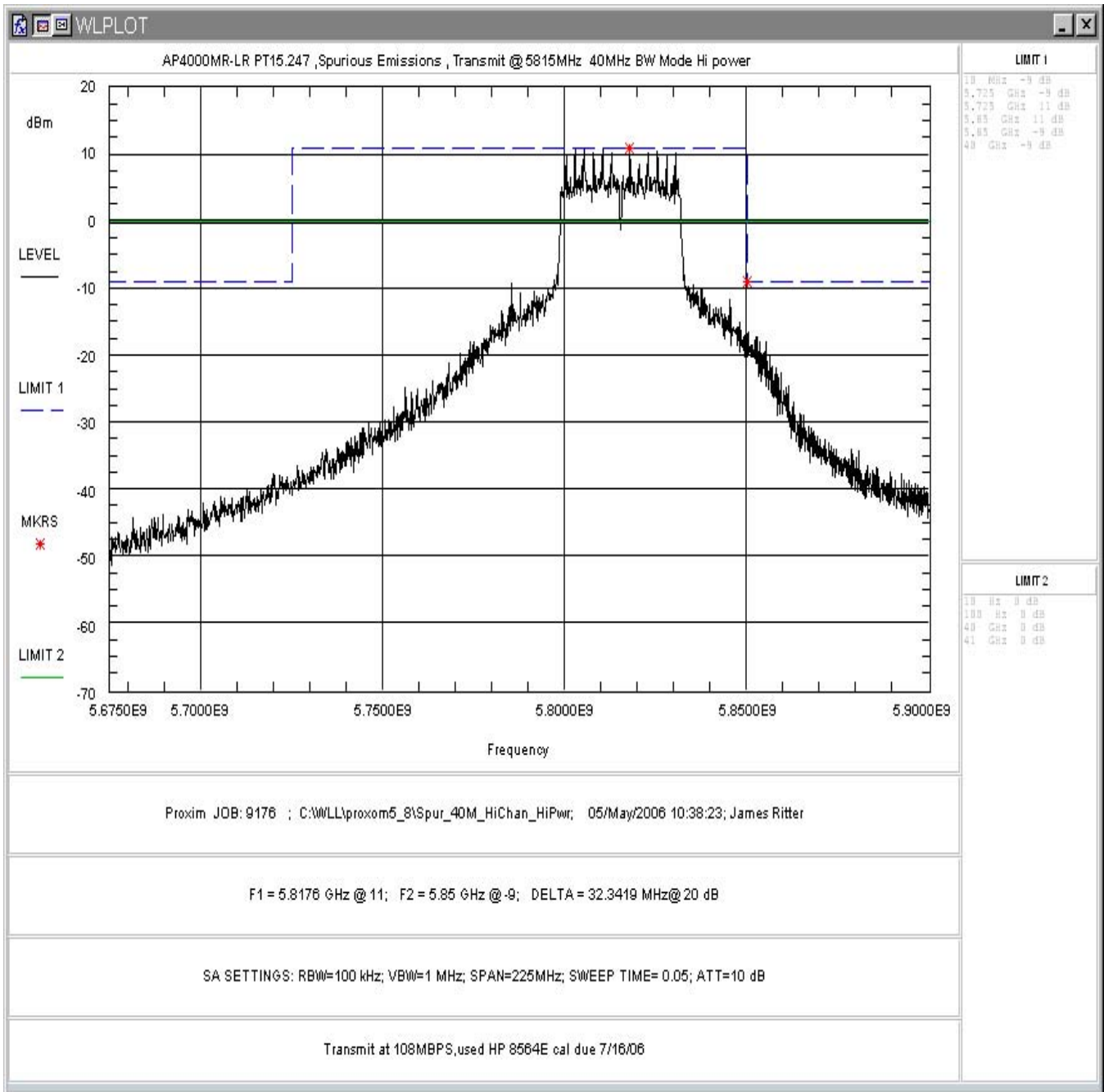
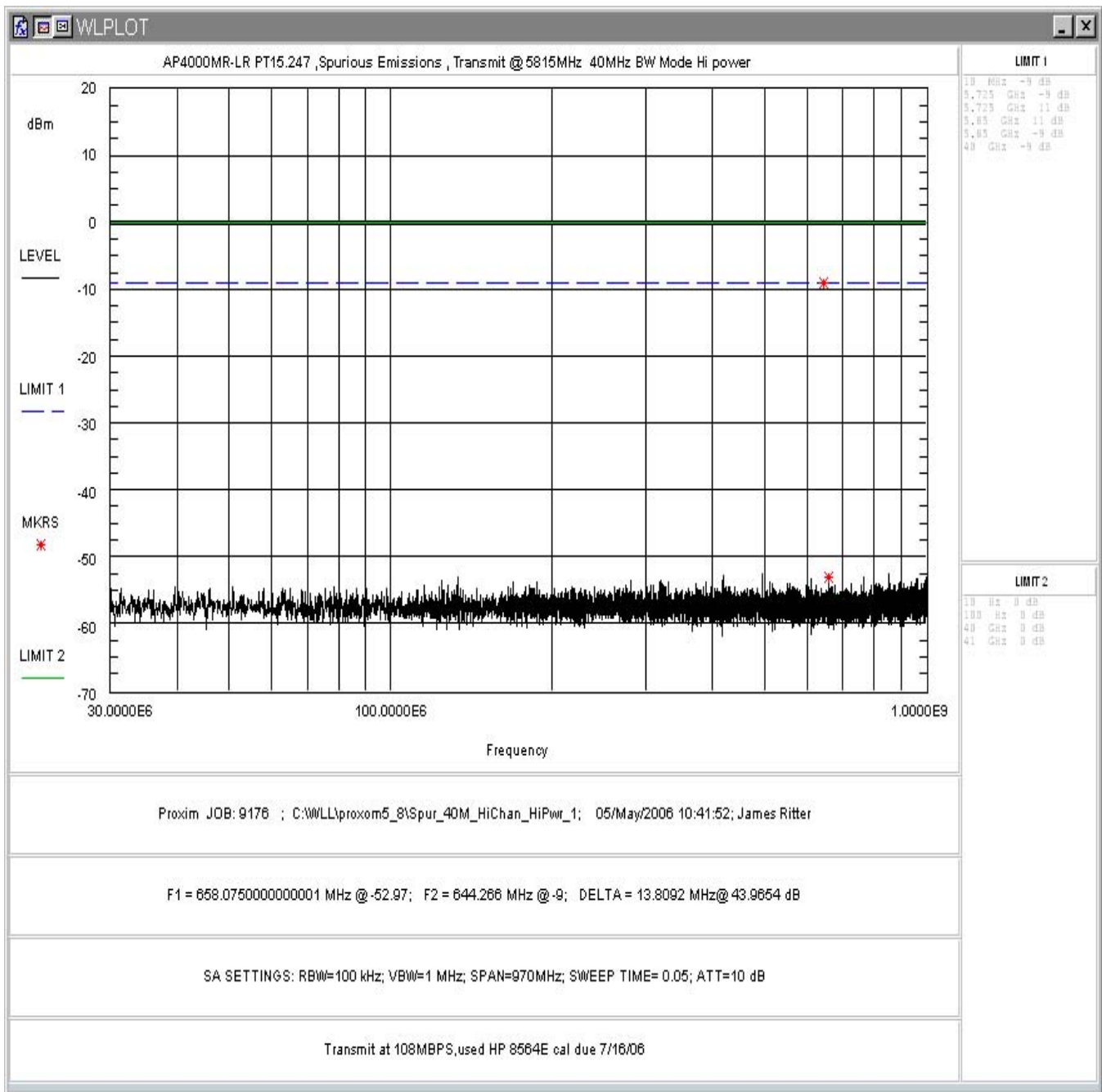
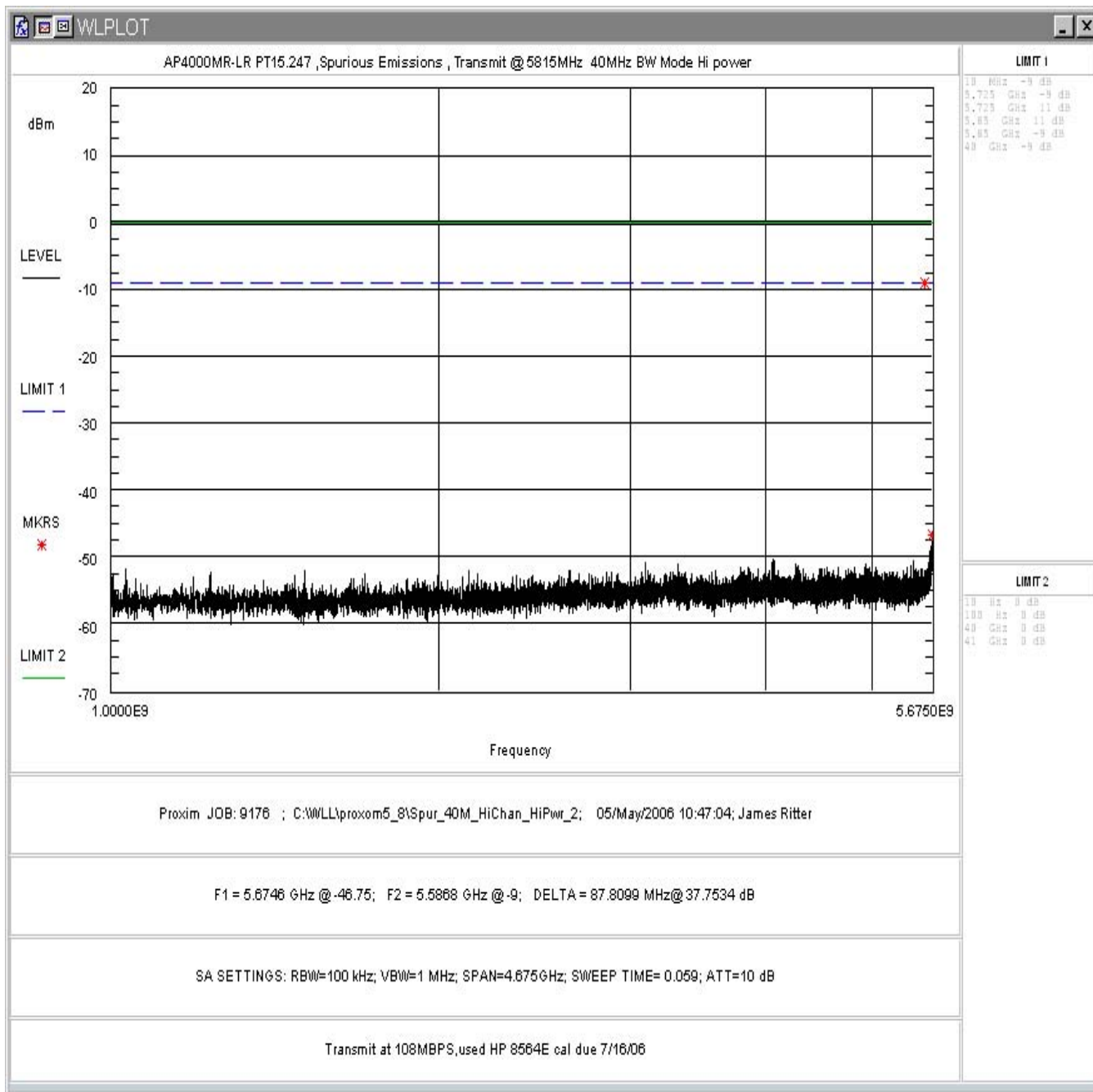


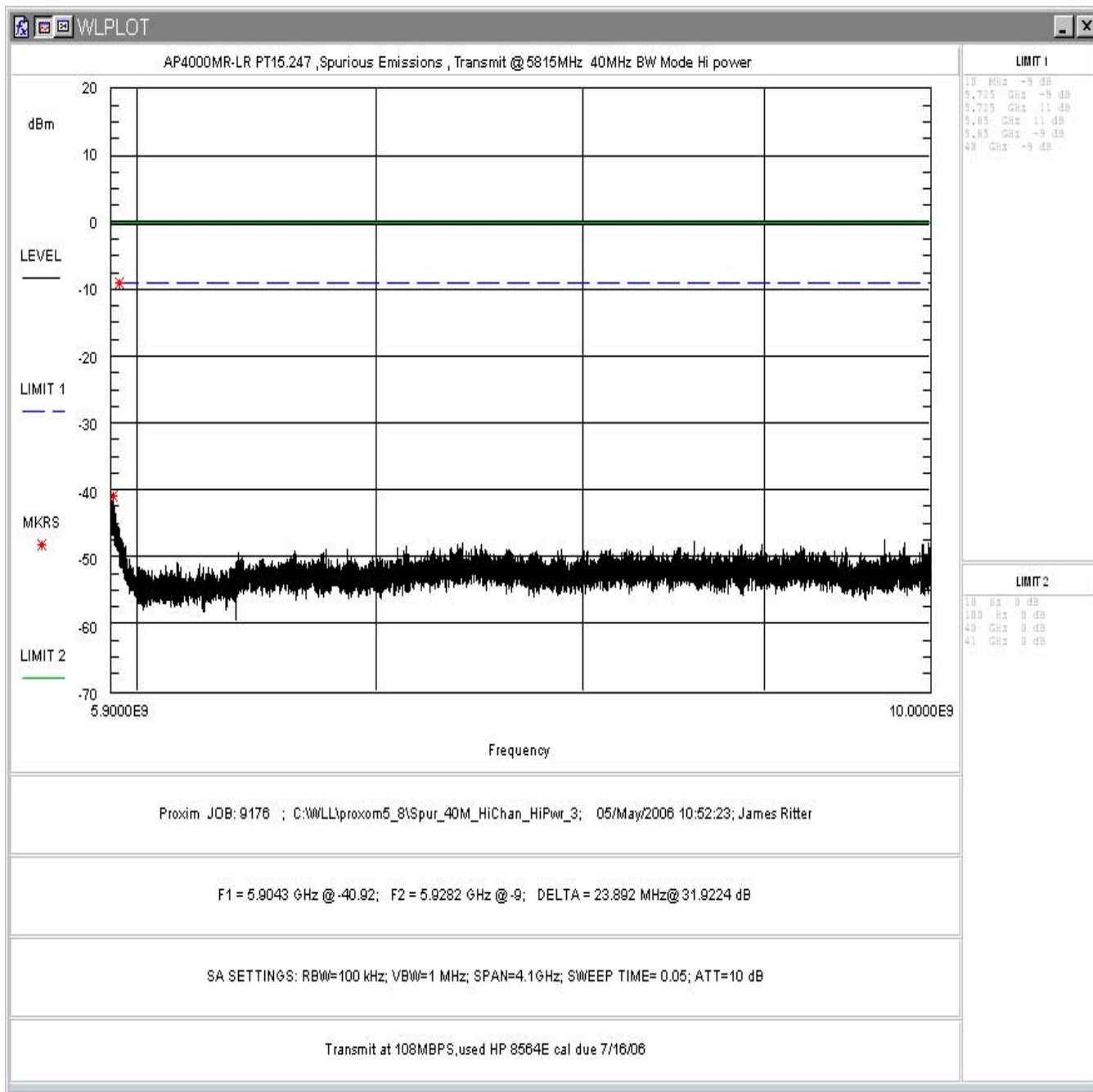
Figure 106. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, In-Band



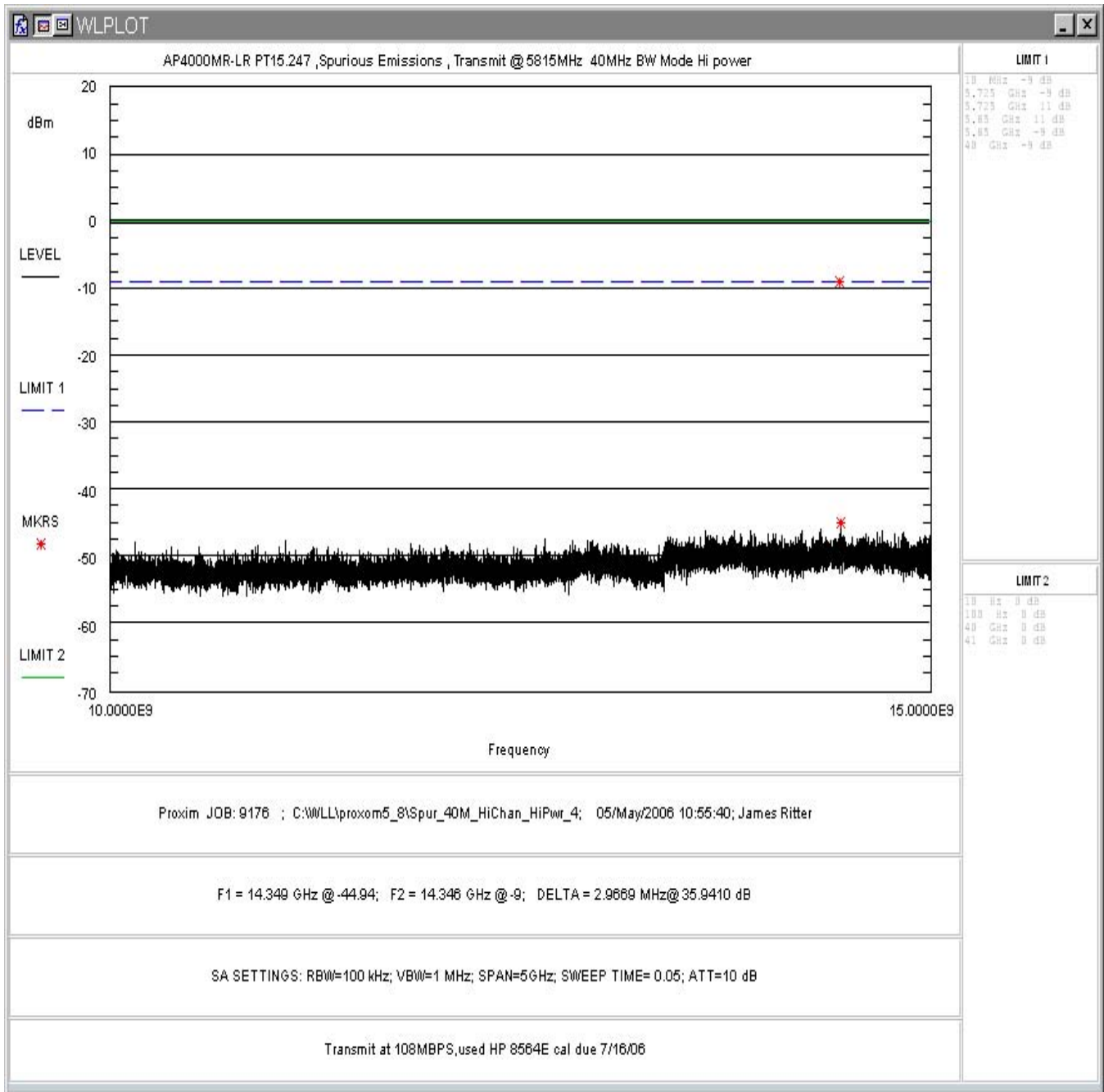
**Figure 107. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 30MHz – 1GHz**



**Figure 108. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 1GHz – 5.675GHz**



**Figure 109. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 5.9GHz – 10GHz**



**Figure 110. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 10GHz – 15GHz**

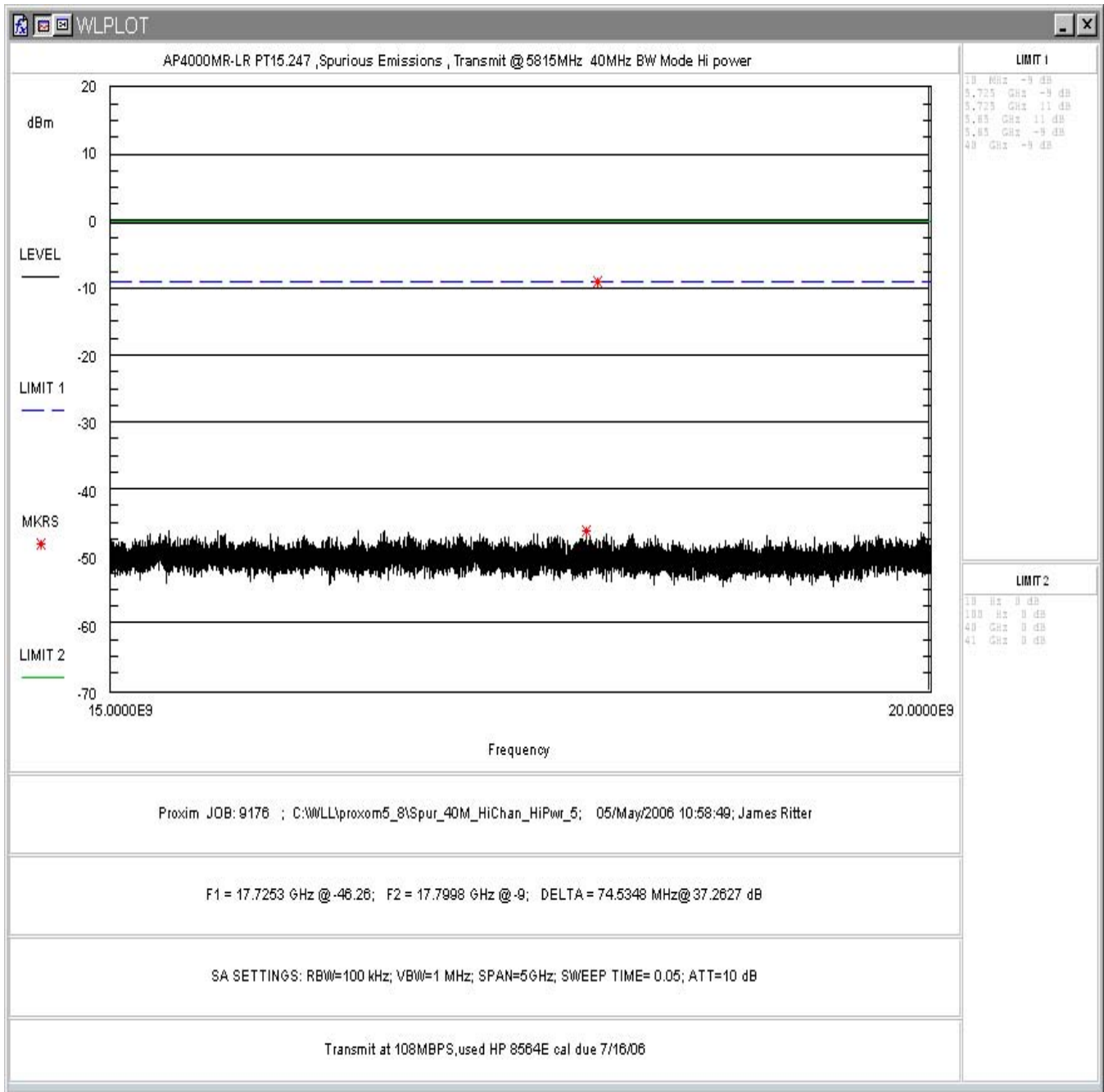
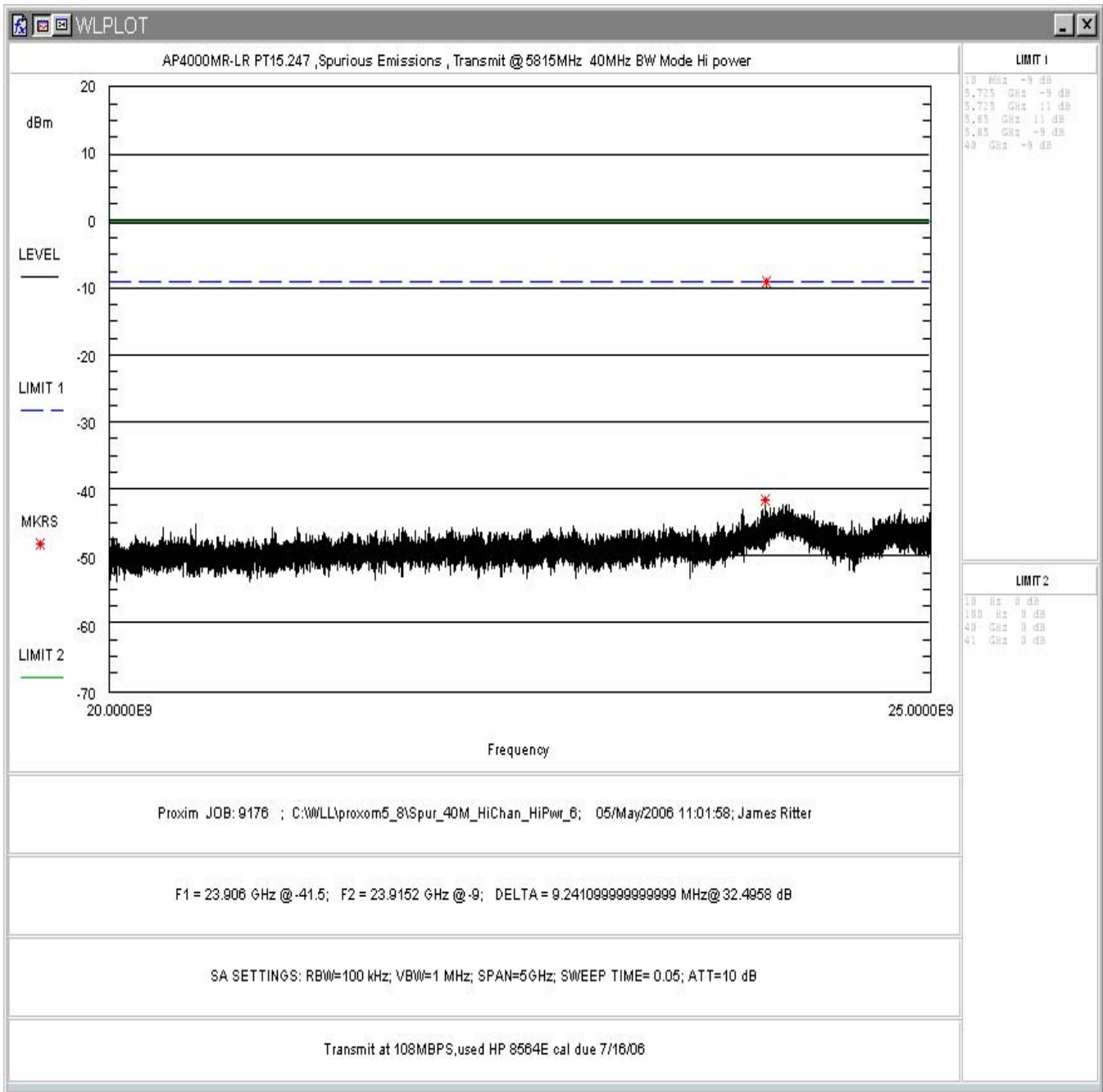
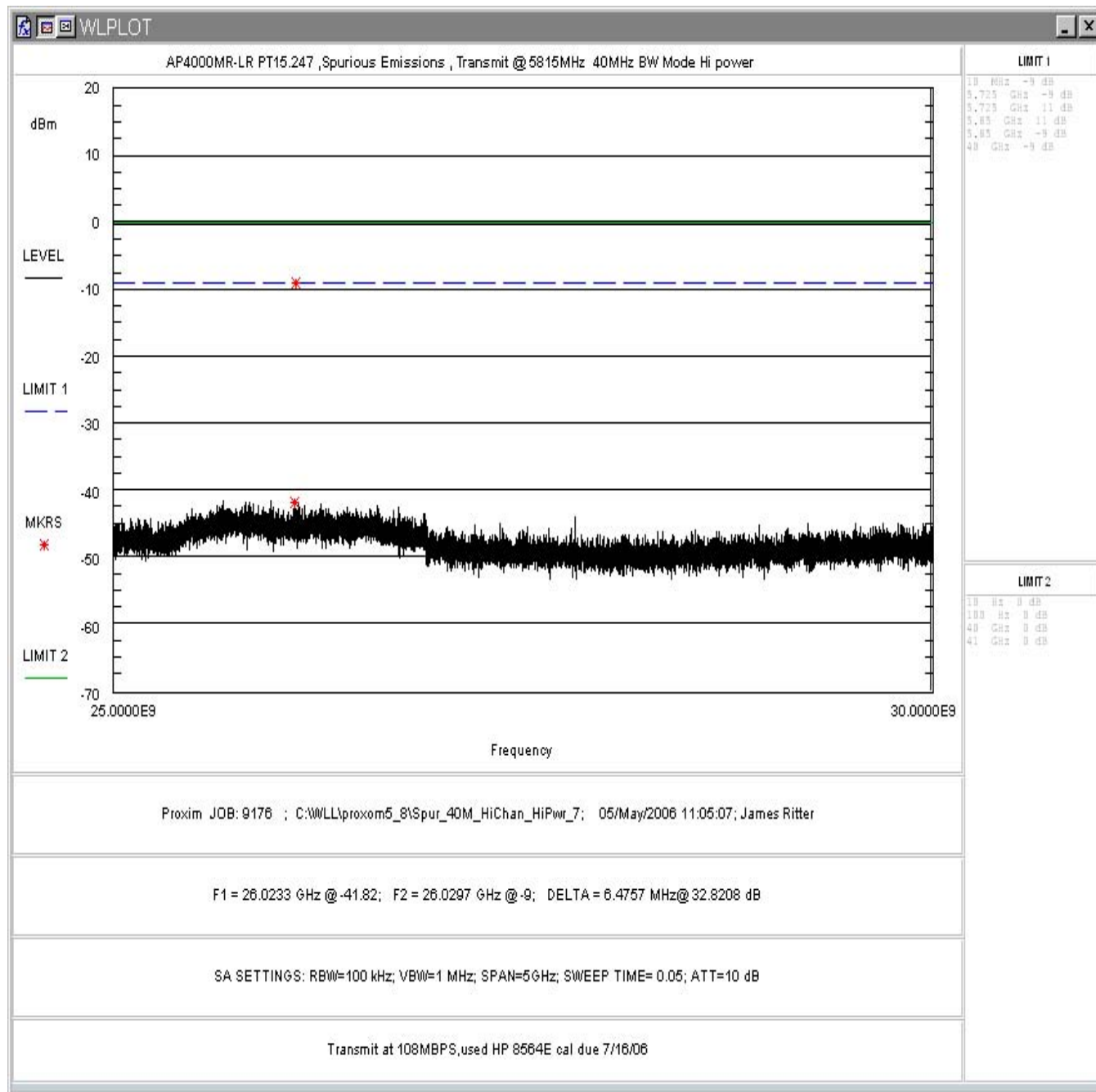


Figure 111. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 15GHz – 20GHz

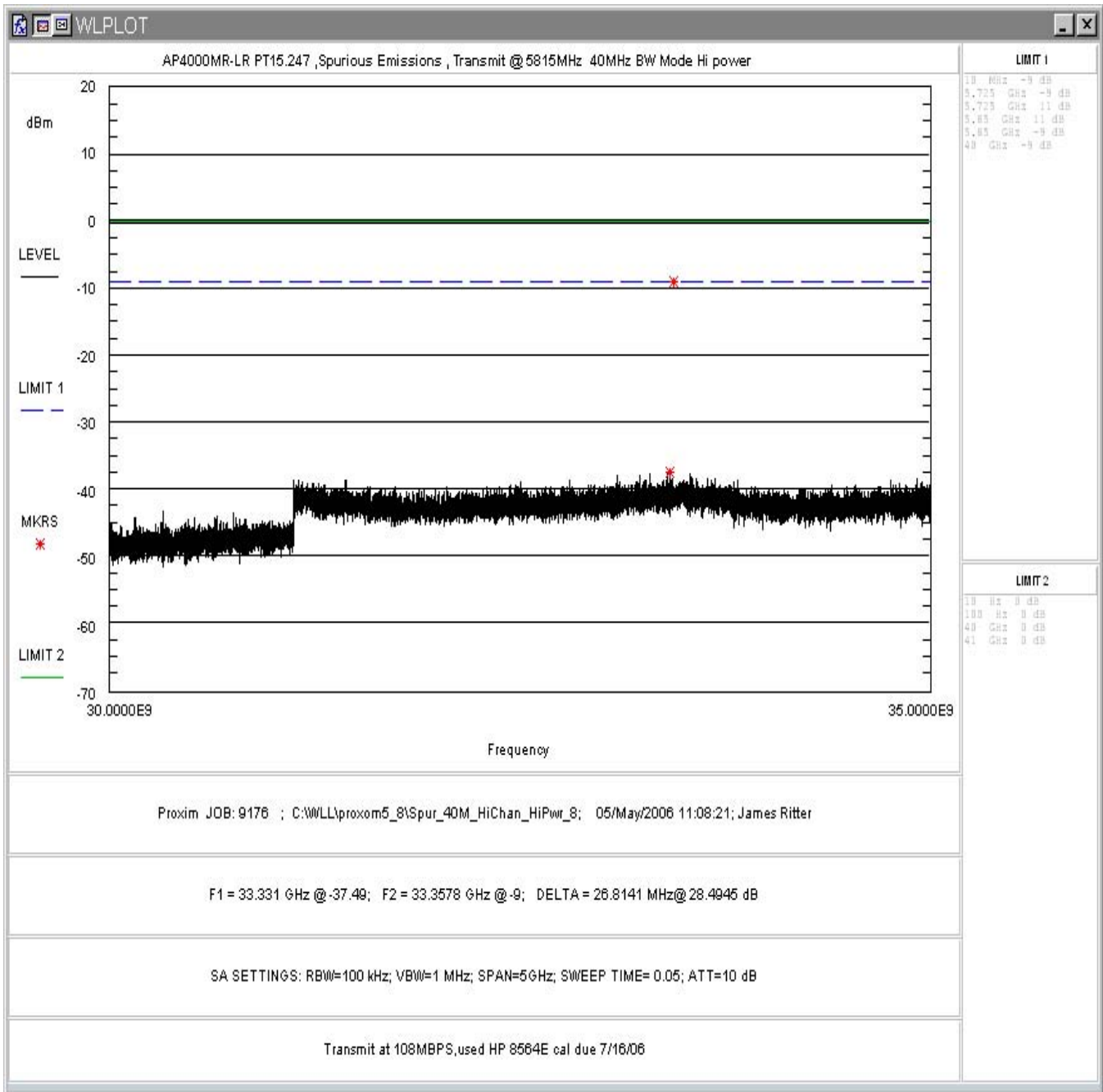


**Figure 112. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 20GHz – 25GHz**





**Figure 113. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 25GHz – 30GHz**



**Figure 114. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 30GHz – 35GHz**

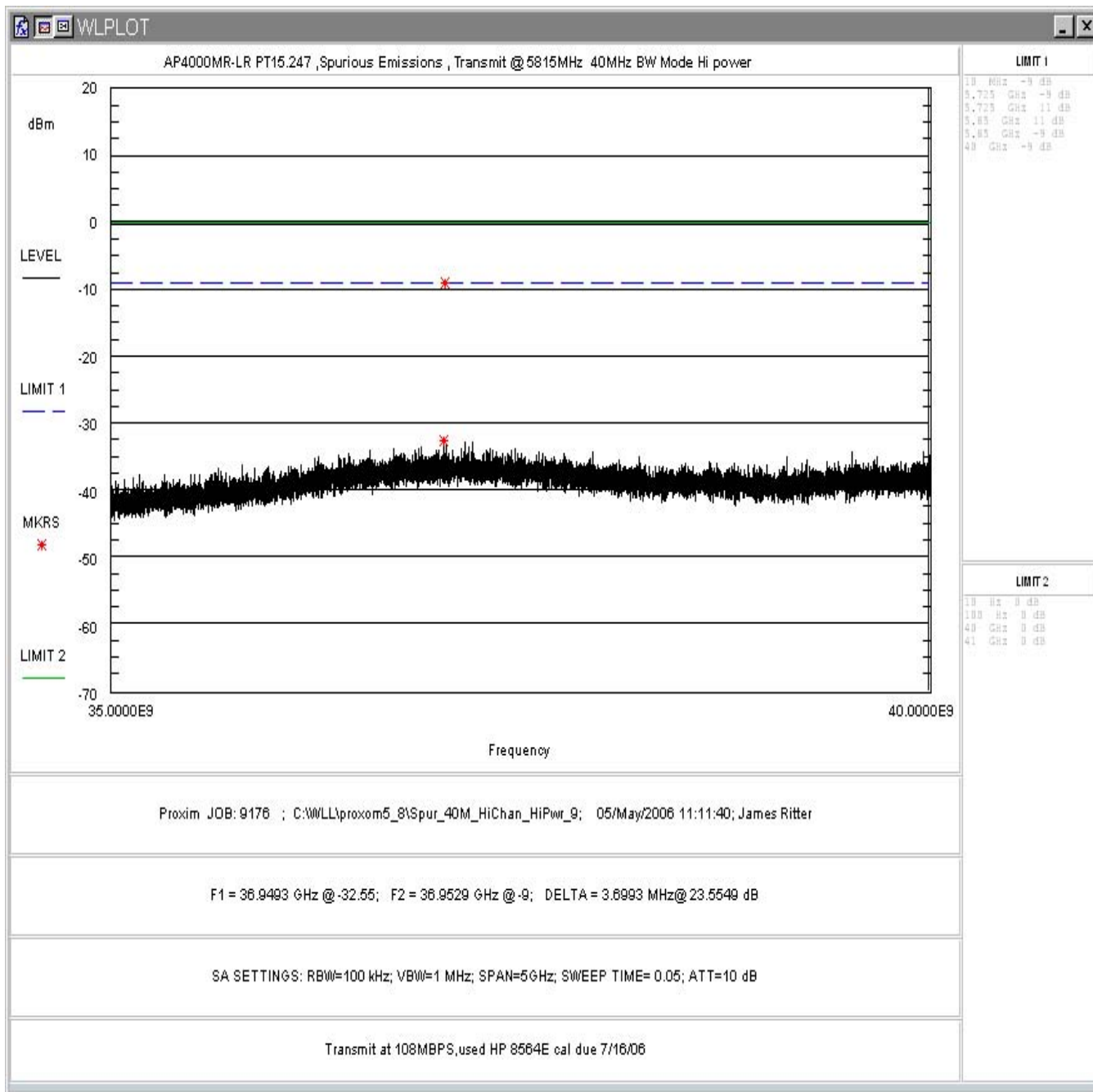


Figure 115. Conducted Spurious Emissions: 40MHz BW, High Channel, High Power, 35GHz – 40GHz

#### 4.5 Radiated Spurious Emissions: (FCC Part §15.247(c))

Radiated emissions that fall in the restricted bands must comply with the general emissions limits in 15.209(a).

The emissions were measured using the following resolution bandwidths:

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

Harmonic and Spurious emissions that were identified as coming from the EUT were checked in Peak and in Average Mode. It was verified that the peak-to-average ratio did not exceed 20dB.

Peak measurements and average measurements are made. All emissions were determined to have a peak-to-average ratio of less than 20 dB.

##### 4.5.1 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 following is a sample calculation used in the data tables for calculating the final field strength of spurious emissions and comparing these levels to the specified limits.

##### Sample Calculation:

Spectrum Analyzer Voltage (SA Level):      V dBμV  
 Antenna Factor (Ant Corr):                    AFdB/m  
 Cable Loss Correction (Cable Corr):        CCdB  
 Amplifier Gain:                                GdB  
 Electric Field (Corr Level):                EdBμV/m = VdBμV + AFdB/m + CCdB - GdB  
 To convert to linear units:                 EμV/m = antilog (EdBμV/m/20)

Data are supplied in the following tables. Testing was performed to 40GHz. No emissions were detected above 12GHz. All detected emissions are reported in the following tables. Both peak and average measurements are listed.

At frequencies above 20GHz the antenna was placed at 30cm distance from the EUT to avoid noise floor issues. The limit was adjusted

**Table 6: Radiated Emission Test Data, Low Frequency Data (<1GHz)**

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Height (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin dB
32.77	V	270.0	1.0	7.9	22.5	1.3	31.7	38.6	100.0	-8.3
62.49	V	280.0	1.0	14.8	9.8	1.7	26.3	20.7	100.0	-13.7
83.27	V	245.0	1.2	17.2	8.1	1.9	27.3	23.1	100.0	-12.7
111.03	V	180.0	1.0	10.2	11.4	2.2	23.8	15.4	150.0	-19.7
135.73	V	350.0	1.3	16.2	12.7	2.4	31.3	36.5	150.0	-12.3
171.99	V	190.0	1.0	16.4	11.0	2.6	30.0	31.6	150.0	-13.5
219.98	V	45.0	1.2	10.6	13.0	2.9	26.5	21.1	200.0	-19.5
225.00	V	225.0	1.0	7.8	13.2	2.9	23.9	15.7	200.0	-22.1
329.97	V	90.0	1.0	12.7	14.4	3.5	30.6	33.9	200.0	-15.4
360.00	V	90.0	1.0	8.5	15.3	3.7	27.5	23.6	200.0	-18.6
440.00	V	180.0	1.0	16.4	16.8	4.1	37.3	73.1	200.0	-8.7
659.98	V	0.0	1.0	8.6	20.4	5.7	34.7	54.4	200.0	-11.3
219.98	H	45.0	1.0	8.7	13.0	2.9	24.6	17.0	200.0	-21.4
225.00	H	270.0	1.0	7.3	13.2	2.9	23.4	14.8	200.0	-22.6
329.97	H	90.0	1.0	20.8	14.4	3.5	38.7	86.1	200.0	-7.3
360.00	H	180.0	1.0	6.8	15.3	3.7	25.8	19.4	200.0	-20.3
440.00	H	0.0	1.0	5.9	16.8	4.1	26.8	21.8	200.0	-19.2

**Table 7: Radiated Emission Test Data, High Frequency Data: BS5800XL12 Antenna**

5740MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11480.000	V	0.0	1.0	46.6	39.4	5.7	35.6	56.1	641.9	5000.0	-17.8
22960.000	V	90.0	N/A	53.2	40.5	4.8	20.3	78.2	8165.8	50000.0 *	-15.7
1331.125	V	290.0	1.0	64.3	26.0	1.4	35.9	55.8	613.6	5000.0	-18.2
1461.000	V	270.0	1.0	62.9	26.5	1.4	35.8	55.1	568.4	5000.0	-18.9
1463.130	V	290.0	1.0	62.7	26.6	1.4	35.8	54.9	553.7	5000.0	-19.1
1592.800	V	270.0	1.0	62.1	27.1	1.5	35.7	55.0	560.2	5000.0	-19.0
2339.000	V	90.0	1.0	59.6	29.1	1.6	35.5	54.7	544.0	5000.0	-19.3
<b>average</b>											
11480.000	V	0.0	1.0	39.6	39.4	5.7	35.6	49.1	285.4	500.0	-4.9
22960.000	V	90.0	N/A	35.3	40.5	4.8	20.3	60.3	1031.6	5000.0*	-13.7
1331.125	V	290.0	1.0	50.9	26.0	1.4	35.9	42.3	130.1	500.0	-11.7
1461.000	V	270.0	1.0	49.7	26.5	1.4	35.8	41.8	123.2	500.0	-12.2
1463.130	V	290.0	1.0	50.6	26.6	1.4	35.8	42.8	137.6	500.0	-11.2
1592.800	V	270.0	1.0	49.1	27.1	1.5	35.7	41.9	125.1	500.0	-12.0
2339.000	V	90.0	1.0	51.2	29.1	1.6	35.5	46.3	207.3	500.0	-7.6
<b>Peak</b>											
11480.000	H	300.0	1.0	47.6	39.4	5.7	35.6	57.1	715.2	5000.0	-16.9
22960.000	H	90.0	N/A	55.0	40.5	4.8	20.3	80.0	10023.1	50000.0 *	-14.0
1331.125	H	45.0	1.0	58.5	26.0	1.4	35.9	49.9	314.4	5000.0	-24.0
1461.000	H	270.0	1.0	59.7	26.5	1.4	35.8	51.9	391.9	5000.0	-22.1
1463.130	H	270.0	1.0	59.4	26.6	1.4	35.8	51.6	380.4	5000.0	-22.4
1592.800	H	290.0	1.0	61.8	27.1	1.5	35.7	54.6	535.6	5000.0	-19.4
2339.000	H	290.0	1.0	60.2	29.1	1.6	35.5	55.3	580.2	5000.0	-18.7
<b>average</b>											
11480.000	H	300.0	1.0	40.1	39.4	5.7	35.6	49.6	302.3	500.0	-4.4
22960.000	H	90.0	1.0	36.8	40.5	4.8	20.3	61.8	1233.1	5000.0*	-12.2
1331.125	H	45.0	1.0	49.1	26.0	1.4	35.9	40.5	106.0	500.0	-13.5
1461.000	H	270.0	1.0	47.1	26.5	1.4	35.8	39.2	91.3	500.0	-14.8
1463.130	H	270.0	1.0	47.5	26.6	1.4	35.8	39.7	96.3	500.0	-14.3
1592.800	H	290.0	1.0	48.3	27.1	1.5	35.7	41.1	114.0	500.0	-12.8
2339.000	H	290.0	1.0	46.5	29.1	1.6	35.5	41.6	119.8	500.0	-12.4

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\* Data taken at 30cm, limit adjusted accordingly.

Table 7: Radiated Emission Test Data, High Frequency Data: BS5800XL12 Antenna, continued

5790MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11580.000	V	270.0	1.0	52.9	39.5	5.5	35.6	62.3	1298.6	5000.0	-11.7
1331.125	V	270.0	1.0	58.5	26.0	1.4	35.9	50.0	315.1	5000.0	-24.0
1461.000	V	270.0	1.0	60.0	26.5	1.4	35.8	52.1	403.8	5000.0	-21.9
1595.300	V	190.0	1.0	60.5	27.1	1.5	35.7	53.3	463.4	5000.0	-20.7
2339.000	V	180.0	1.0	59.9	29.1	1.6	35.5	55.0	559.2	5000.0	-19.0
1198.000	V	180.0	1.0	62.0	25.4	1.3	36.1	52.6	426.0	5000.0	-21.4
<b>average</b>											
11580.000	V	270.0	1.0	42.0	39.5	5.5	35.6	51.4	371.9	500.0	-2.6
1331.125	V	270.0	1.0	46.0	26.0	1.4	35.9	37.4	74.2	500.0	-16.6
1461.000	V	270.0	1.0	45.1	26.5	1.4	35.8	37.2	72.7	500.0	-16.7
1595.300	V	90.0	1.0	47.8	27.1	1.5	35.7	40.6	107.0	500.0	-13.4
2339.000	V	180.0	1.0	48.0	29.1	1.6	35.5	43.1	142.9	500.0	-10.9
1198.000	V	180.0	1.0	49.7	25.4	1.3	36.1	40.3	103.4	500.0	-13.7
<b>Peak</b>											
11580.000	H	0.0	1.0	51.1	39.5	5.5	35.6	60.5	1059.2	5000.0	-13.5
1331.125	H	270.0	1.0	59.5	26.0	1.4	35.9	51.0	353.1	5000.0	-23.0
1461.000	H	190.0	1.0	59.9	26.5	1.4	35.8	52.0	399.6	5000.0	-21.9
1595.300	H	190.0	1.0	62.0	27.1	1.5	35.7	54.9	553.3	5000.0	-19.1
2339.000	H	260.0	1.0	59.6	29.1	1.6	35.5	54.7	543.4	5000.0	-19.3
1198.000	H	180.0	1.0	61.7	25.4	1.3	36.1	52.3	411.0	5000.0	-21.7
<b>average</b>											
11580.000	H	0.0	1.0	41.3	39.5	5.5	35.6	50.7	343.1	500.0	-3.3
1331.125	H	270.0	1.0	48.3	26.0	1.4	35.9	39.7	96.7	500.0	-14.3
1461.000	H	190.0	1.0	46.9	26.5	1.4	35.8	39.1	90.1	500.0	-14.9
1595.300	H	190.0	1.0	47.9	27.1	1.5	35.7	40.8	109.3	500.0	-13.2
2339.000	H	260.0	1.0	46.7	29.1	1.6	35.5	41.8	123.5	500.0	-12.1
1198.000	H	180.0	1.0	48.8	25.4	1.3	36.1	39.4	93.3	500.0	-14.6

\* Data taken at 30cm, limit adjusted accordingly.

Table 7: Radiated Emission Test Data, High Frequency Data: BS5800XL12 Antenna, continued

5835MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11670.000	H	0.0	1.0	52.7	39.5	5.4	35.6	62.0	1261.9	5000.0	-12.0
1331.125	H	280.0	1.0	58.2	26.0	1.4	35.9	49.6	303.0	5000.0	-24.4
1461.000	H	220.0	1.0	59.0	26.5	1.4	35.8	51.2	361.1	5000.0	-22.8
1595.300	H	190.0	1.0	60.3	27.1	1.5	35.7	53.1	453.9	5000.0	-20.8
2339.000	H	280.0	1.0	60.0	29.1	1.6	35.5	55.1	569.0	5000.0	-18.9
1198.000	H	180.0	1.0	61.0	25.4	1.3	36.1	51.6	380.5	5000.0	-22.4
<b>average</b>											
11670.000	H	0.0	1.0	41.3	39.5	5.4	35.6	50.6	339.6	500.0	-3.4
1331.125	H	280.0	1.0	49.0	26.0	1.4	35.9	40.4	105.1	500.0	-13.6
1461.000	H	220.0	1.0	46.0	26.5	1.4	35.8	38.2	80.8	500.0	-15.8
1595.300	H	190.0	1.0	45.9	27.1	1.5	35.7	38.7	86.5	500.0	-15.2
2339.000	H	280.0	1.0	47.1	29.1	1.6	35.5	42.2	128.9	500.0	-11.8
1198.000	H	180.0	1.0	47.8	25.4	1.3	36.1	38.4	83.2	500.0	-15.6
<b>Peak</b>											
11670.000	V	10.0	1.0	51.8	39.5	5.4	35.6	61.1	1137.7	5000.0	-12.9
1331.125	V	270.0	1.0	57.1	26.0	1.4	35.9	48.5	266.9	5000.0	-25.5
1461.000	V	200.0	1.0	59.0	26.5	1.4	35.8	51.2	361.1	5000.0	-22.8
1595.300	V	200.0	1.0	60.0	27.1	1.5	35.7	52.8	438.5	5000.0	-21.1
2339.000	V	290.0	1.0	58.3	29.1	1.6	35.5	53.4	467.8	5000.0	-20.6
1198.000	V	200.0	1.0	60.0	25.4	1.3	36.1	50.6	339.1	5000.0	-23.4
<b>average</b>											
11670.000	V	10.0	1.0	41.3	39.5	5.4	35.6	50.6	339.6	500.0	-3.4
1331.125	V	270.0	1.0	48.2	26.0	1.4	35.9	39.6	95.8	500.0	-14.4
1461.000	V	200.0	1.0	45.8	26.5	1.4	35.8	38.0	79.0	500.0	-16.0
1595.300	V	200.0	1.0	45.9	27.1	1.5	35.7	38.7	86.5	500.0	-15.2
2339.000	V	290.0	1.0	45.3	29.1	1.6	35.5	40.4	104.7	500.0	-13.6
1198.000	V	200.0	1.0	46.5	25.4	1.3	36.1	37.1	71.7	500.0	-16.9

\* Data taken at 30cm, limit adjusted accordingly.



**Table 8: Radiated Emission Test Data, High Frequency Data: DFPD2-52 Antenna**

5740MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11480.000	V	240.0	1.0	51.2	39.4	5.7	35.6	60.7	1085.1	5000.0	-13.3
22960.000	V	90.0	1.0	54.8	40.5	4.8	20.3	79.8	9794.9	50000.0*	-14.2
1331.125	V	280.0	1.0	64.6	26.0	1.4	35.9	56.1	635.9	5000.0	-17.9
1461.000	V	270.0	1.0	64.5	26.5	1.4	35.8	56.7	680.3	5000.0	-17.3
1463.130	V	270.0	1.0	65.5	26.6	1.4	35.8	57.6	762.5	5000.0	-16.3
1592.800	V	220.0	1.0	64.0	27.1	1.5	35.7	56.8	693.9	5000.0	-17.2
2339.000	V	90.0	1.0	64.1	29.1	1.6	35.5	59.2	914.3	5000.0	-14.8
<b>average</b>											
11480.000	V	240.0	1.0	39.2	39.4	5.7	35.6	48.7	273.2	500.0	-5.3
22960.000	V	90.0	1.0	36.5	40.5	4.8	20.3	61.5	1191.2	5000.0*	-12.5
1331.125	V	280.0	1.0	51.3	26.0	1.4	35.9	42.7	137.1	500.0	-11.2
1461.000	V	270.0	1.0	52.2	26.5	1.4	35.8	44.4	165.1	500.0	-9.6
1463.130	V	270.0	1.0	52.1	26.6	1.4	35.8	44.3	164.0	500.0	-9.7
1592.800	V	220.0	1.0	50.7	27.1	1.5	35.7	43.5	150.3	500.0	-10.4
2339.000	V	90.0	1.0	52.1	29.1	1.6	35.5	47.2	229.1	500.0	-6.8
<b>Peak</b>											
11480.000	H	245.0	1.0	53.3	39.4	5.7	35.6	62.8	1373.9	5000.0	-11.2
22960.000	H	90.0	1.0	55.2	40.5	4.8	20.3	80.2	10256.5	50000.0*	-13.8
1331.125	H	260.0	1.0	60.7	26.0	1.4	35.9	52.2	405.4	5000.0	-21.8
1461.000	H	270.0	1.0	58.7	26.5	1.4	35.8	50.8	347.3	5000.0	-23.2
1463.130	H	280.0	1.0	59.4	26.6	1.4	35.8	51.5	376.9	5000.0	-22.5
1592.800	H	280.0	1.0	60.8	27.1	1.5	35.7	53.6	480.1	5000.0	-20.4
2339.000	H	190.0	1.0	59.1	29.1	1.6	35.5	54.2	514.8	5000.0	-19.7
<b>average</b>											
11480.000	H	245.0	1.0	40.0	39.4	5.7	35.6	49.5	298.5	500.0	-4.5
22960.000	H	100.0	1.0	39.1	40.5	4.8	20.3	64.1	1606.9	5000.0*	-9.9
1331.125	H	260.0	1.0	47.8	26.0	1.4	35.9	39.2	91.3	500.0	-14.8
1461.000	H	270.0	1.0	46.1	26.5	1.4	35.8	38.2	81.4	500.0	-15.8
1463.130	H	280.0	1.0	45.5	26.6	1.4	35.8	37.7	76.3	500.0	-16.3
1592.800	H	280.0	1.0	46.1	27.1	1.5	35.7	38.9	88.1	500.0	-15.1
2339.000	H	190.0	1.0	45.8	29.1	1.6	35.5	40.9	110.8	500.0	-13.1

\* Data taken at 30cm, limit adjusted accordingly.

Table 8: Radiated Emission Test Data, High Frequency Data: DFPD2-52 Antenna, continued

5790MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11580.000	V	180.0	1.0	53.0	39.5	5.5	35.6	62.4	1319.7	5000.0	-11.6
1198.000	V	270.0	1.0	63.2	25.4	1.3	36.1	53.8	490.2	5000.0	-20.2
1331.125	V	290.0	1.0	64.0	26.0	1.4	35.9	55.4	590.8	5000.0	-18.6
1461.000	V	290.0	1.0	65.1	26.5	1.4	35.8	57.3	728.9	5000.0	-16.7
1595.300	V	170.0	1.0	66.0	27.1	1.5	35.7	58.8	874.8	5000.0	-15.1
2339.000	V	190.0	1.0	62.0	29.1	1.6	35.5	57.1	716.3	5000.0	-16.9
<b>average</b>											
11580.000	V	180.0	1.0	42.1	39.5	5.5	35.6	51.5	376.2	500.0	-2.5
1198.000	V	270.0	1.0	49.4	25.4	1.3	36.1	40.0	100.1	500.0	-14.0
1331.125	V	290.0	1.0	46.2	26.0	1.4	35.9	37.6	76.1	500.0	-16.4
1461.000	V	290.0	1.0	45.7	26.5	1.4	35.8	37.9	78.1	500.0	-16.1
1595.300	V	170.0	1.0	48.0	27.1	1.5	35.7	40.8	110.1	500.0	-13.1
2339.000	V	190.0	1.0	47.5	29.1	1.6	35.5	42.6	134.9	500.0	-11.4
<b>Peak</b>											
11580.000	H	200.0	1.0	52.1	39.5	5.5	35.6	61.5	1189.8	5000.0	-12.5
1198.000	H	270.0	1.0	63.6	25.4	1.3	36.1	54.2	513.3	5000.0	-19.8
1331.125	H	280.0	1.0	63.0	26.0	1.4	35.9	54.4	526.5	5000.0	-19.6
1461.000	H	270.0	1.0	64.1	26.5	1.4	35.8	56.3	649.6	5000.0	-17.7
1595.300	H	270.0	1.0	64.8	27.1	1.5	35.7	57.6	762.0	5000.0	-16.3
2339.000	H	265.0	1.0	63.0	29.1	1.6	35.5	58.1	803.7	5000.0	-15.9
<b>average</b>											
11580.000	H	200.0	1.0	40.6	39.5	5.5	35.6	50.0	316.6	500.0	-4.0
1198.000	H	270.0	1.0	50.1	25.4	1.3	36.1	40.7	108.5	500.0	-13.3
1331.125	H	280.0	1.0	35.9	26.0	1.4	35.9	27.3	23.2	500.0	-26.7
1461.000	H	270.0	1.0	45.0	26.5	1.4	35.8	37.2	72.1	500.0	-16.8
1595.300	H	270.0	1.0	47.1	27.1	1.5	35.7	39.9	99.3	500.0	-14.0
2339.000	H	265.0	1.0	48.3	29.1	1.6	35.5	43.4	147.9	500.0	-10.6

\* Data taken at 30cm, limit adjusted accordingly.

Table 8: Radiated Emission Test Data, High Frequency Data: DFPD2-52 Antenna, continued

5835MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11670.000	V	45.0	1.0	52.5	39.5	5.4	35.6	61.8	1233.2	5000.0	-12.2
1198.000	V	270.0	1.0	61.1	25.4	1.3	36.1	51.7	384.9	5000.0	-22.3
1331.125	V	280.0	1.0	63.0	26.0	1.4	35.9	54.4	526.5	5000.0	-19.6
1461.000	V	280.0	1.0	64.3	26.5	1.4	35.8	56.5	664.8	5000.0	-17.5
1595.300	V	250.0	1.0	66.0	27.1	1.5	35.7	58.8	874.8	5000.0	-15.1
2339.000	V	270.0	1.0	58.1	29.1	1.6	35.5	53.2	457.2	5000.0	-20.8
<b>average</b>											
11670.000	V	45.0	1.0	41.1	39.5	5.4	35.6	50.4	331.9	500.0	-3.6
1198.000	V	270.0	1.0	47.0	25.4	1.3	36.1	37.6	75.9	500.0	-16.4
1331.125	V	280.0	1.0	48.6	26.0	1.4	35.9	40.0	100.3	500.0	-14.0
1461.000	V	280.0	1.0	47.1	26.5	1.4	35.8	39.3	91.8	500.0	-14.7
1595.300	V	250.0	1.0	47.0	27.1	1.5	35.7	39.8	98.2	500.0	-14.1
2339.000	V	270.0	1.0	46.3	29.1	1.6	35.5	41.4	117.5	500.0	-12.6
<b>Peak</b>											
11670.000	H	220.0	1.0	51.9	39.5	5.4	35.6	61.2	1150.9	5000.0	-12.8
1198.000	H	270.0	1.0	59.8	25.4	1.3	36.1	50.4	331.4	5000.0	-23.6
1331.125	H	290.0	1.0	61.0	26.0	1.4	35.9	52.4	418.2	5000.0	-21.6
1461.000	H	290.0	1.0	63.0	26.5	1.4	35.8	55.2	572.4	5000.0	-18.8
1595.300	H	270.0	1.0	65.0	27.1	1.5	35.7	57.8	779.7	5000.0	-16.1
2339.000	H	280.0	1.0	57.1	29.1	1.6	35.5	52.2	407.5	5000.0	-21.8
<b>average</b>											
11670.000	H	220.0	1.0	40.6	39.5	5.4	35.6	49.9	313.3	500.0	-4.1
1198.000	H	270.0	1.0	45.1	25.4	1.3	36.1	35.7	61.0	500.0	-18.3
1331.125	H	290.0	1.0	46.2	26.0	1.4	35.9	37.6	76.1	500.0	-16.4
1461.000	H	290.0	1.0	46.1	26.5	1.4	35.8	38.3	81.8	500.0	-15.7
1595.300	H	270.0	1.0	45.4	27.1	1.5	35.7	38.2	81.6	500.0	-15.7
2339.000	H	280.0	1.0	46.4	29.1	1.6	35.5	41.5	118.9	500.0	-12.5

\* Data taken at 30cm, limit adjusted accordingly.

**Table 9: Radiated Emission Test Data, High Frequency Data: WISP4959018MBV Antenna**

5740MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11480.000	V	270.0	1.0	51.3	39.4	5.7	35.6	60.8	1092.6	5000.0	-13.2
22960.000	V	100.0	1.0	56.2	40.5	4.8	20.3	81.2	11508.0	50000.0*	-12.8
1331.125	V	270.0	1.0	64.0	26.0	1.4	35.9	55.4	590.8	5000.0	-18.6
1461.000	V	270.0	1.0	62.0	26.5	1.4	35.8	54.2	510.1	5000.0	-19.8
1463.130	V	280.0	1.0	62.9	26.6	1.4	35.8	55.1	566.6	5000.0	-18.9
1592.800	V	290.0	1.0	61.0	27.1	1.5	35.7	53.8	491.3	5000.0	-20.2
2339.000	V	120.0	1.0	59.0	29.1	1.6	35.5	54.1	507.1	5000.0	-19.9
<b>average</b>											
11480.000	V	270.0	1.0	40.0	39.4	5.7	35.6	49.5	298.5	500.0	-4.5
22960.000	V	100.0	1.0	38.3	40.5	4.8	20.3	63.3	1465.5	5000.0*	-10.7
1331.125	V	270.0	1.0	50.1	26.0	1.4	35.9	41.5	119.2	500.0	-12.5
1461.000	V	270.0	1.0	49.2	26.5	1.4	35.8	41.4	116.9	500.0	-12.6
1463.130	V	280.0	1.0	51.0	26.6	1.4	35.8	43.2	144.0	500.0	-10.8
1592.800	V	290.0	1.0	49.0	27.1	1.5	35.7	41.8	123.4	500.0	-12.2
2339.000	V	120.0	1.0	50.3	29.1	1.6	35.5	45.4	186.3	500.0	-8.6
<b>Peak</b>											
11480.000	H	270.0	1.0	51.8	39.4	5.7	35.6	61.3	1164.0	5000.0	-12.7
22960.000	H	90.0	N/A	54.8	40.5	4.8	20.3	79.8	9794.9	50000.0*	-14.2
1331.125	H	270.0	1.0	58.0	26.0	1.4	35.9	49.4	296.1	5000.0	-24.6
1461.000	H	280.0	1.0	59.6	26.5	1.4	35.8	51.8	387.0	5000.0	-22.2
1463.130	H	280.0	1.0	59.0	26.6	1.4	35.8	51.2	361.6	5000.0	-22.8
1592.800	H	290.0	1.0	62.0	27.1	1.5	35.7	54.8	551.2	5000.0	-19.2
2339.000	H	270.0	1.0	59.2	29.1	1.6	35.5	54.3	518.9	5000.0	-19.7
<b>average</b>											
11480.000	H	300.0	1.0	40.6	39.4	5.7	35.6	50.1	321.0	500.0	-3.9
22960.000	H	90.0	1.0	38.7	40.5	4.8	20.3	63.7	1534.6	5000.0*	-10.3
1331.125	H	270.0	1.0	48.8	26.0	1.4	35.9	40.2	102.7	500.0	-13.8
1461.000	H	280.0	1.0	46.6	26.5	1.4	35.8	38.8	86.6	500.0	-15.2
1463.130	H	280.0	1.0	47.1	26.6	1.4	35.8	39.3	91.9	500.0	-14.7
1592.800	H	290.0	1.0	48.4	27.1	1.5	35.7	41.2	115.2	500.0	-12.8
2339.000	H	270.0	1.0	45.1	29.1	1.6	35.5	40.2	102.4	500.0	-13.8

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\* Data taken at 30cm, limit adjusted accordingly.

Table 9: Radiated Emission Test Data, High Frequency Data: WISP4959018MBV Antenna, continued

5790MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11580.000	V	90.0	1.0	50.0	39.5	5.5	35.6	59.4	937.5	5000.0	-14.5
1198.000	V	270.0	1.0	63.5	25.4	1.3	36.1	54.1	507.4	5000.0	-19.9
1331.125	V	270.0	1.0	64.8	26.0	1.4	35.9	56.2	647.8	5000.0	-17.8
1461.000	V	300.0	1.0	64.8	26.5	1.4	35.8	57.0	704.2	5000.0	-17.0
1595.300	V	280.0	1.0	65.1	27.1	1.5	35.7	57.9	788.7	5000.0	-16.0
2339.000	V	265.0	1.0	63.1	29.1	1.6	35.5	58.2	813.0	5000.0	-15.8
<b>average</b>											
11580.000	V	90.0	1.0	38.5	39.5	5.5	35.6	47.9	248.0	500.0	-6.1
1198.000	V	270.0	1.0	53.0	25.4	1.3	36.1	43.6	151.5	500.0	-10.4
1331.125	V	270.0	1.0	46.2	26.0	1.4	35.9	37.6	76.1	500.0	-16.4
1461.000	V	300.0	1.0	44.7	26.5	1.4	35.8	36.9	69.6	500.0	-17.1
1595.300	V	280.0	1.0	47.3	27.1	1.5	35.7	40.1	101.6	500.0	-13.8
2339.000	V	265.0	1.0	48.0	29.1	1.6	35.5	43.1	142.9	500.0	-10.9
<b>Peak</b>											
11580.000	H	120.0	1.0	52.1	39.5	5.5	35.6	61.5	1189.8	5000.0	-12.5
1198.000	H	290.0	1.0	63.0	25.4	1.3	36.1	53.6	479.0	5000.0	-20.4
1331.125	H	290.0	1.0	63.1	26.0	1.4	35.9	54.5	532.6	5000.0	-19.5
1461.000	H	290.0	1.0	65.3	26.5	1.4	35.8	57.5	745.9	5000.0	-16.5
1595.300	H	270.0	1.0	63.9	27.1	1.5	35.7	56.7	687.0	5000.0	-17.2
2339.000	H	265.0	1.0	64.2	29.1	1.6	35.5	59.3	922.8	5000.0	-14.7
<b>average</b>											
11580.000	H	120.0	1.0	40.9	39.5	5.5	35.6	50.3	328.1	500.0	-3.7
1198.000	H	290.0	1.0	49.1	25.4	1.3	36.1	39.7	96.7	500.0	-14.3
1331.125	H	290.0	1.0	36.0	26.0	1.4	35.9	27.4	23.5	500.0	-26.6
1461.000	H	290.0	1.0	47.3	26.5	1.4	35.8	39.5	93.9	500.0	-14.5
1595.300	H	270.0	1.0	46.9	27.1	1.5	35.7	39.7	97.0	500.0	-14.2
2339.000	H	265.0	1.0	49.8	29.1	1.6	35.5	44.9	175.8	500.0	-9.1

\* Data taken at 30cm, limit adjusted accordingly.



Table 9: Radiated Emission Test Data, High Frequency Data: WISP4959018MBV Antenna, continued  
5835MHz

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	SA Level (QP) (dBµV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amp Gain (dB)	Corr. Level (dBµV/m)	Corr. Level (µV/m)	Limit (µV/m)	Margin (dB)
<b>Peak</b>											
11670.000	V	0.0	1.0	56.2	39.5	5.4	35.6	65.5	1890.3	5000.0	-8.4
1198.000	V	300.0	1.0	63.0	25.4	1.3	36.1	53.6	479.0	5000.0	-20.4
1331.125	V	280.0	1.0	61.1	26.0	1.4	35.9	52.5	423.1	5000.0	-21.5
1461.000	V	270.0	1.0	64.9	26.5	1.4	35.8	57.1	712.3	5000.0	-16.9
1595.300	V	270.0	1.0	68.1	27.1	1.5	35.7	60.9	1114.1	5000.0	-13.0
2339.000	V	270.0	1.0	60.1	29.1	1.6	35.5	55.2	575.6	5000.0	-18.8
<b>average</b>											
11670.000	V	0.0	1.0	42.1	39.5	5.4	35.6	51.4	372.4	500.0	-2.6
1198.000	V	300.0	1.0	48.0	25.4	1.3	36.1	38.6	85.2	500.0	-15.4
1331.125	V	280.0	1.0	48.6	26.0	1.4	35.9	40.0	100.3	500.0	-14.0
1461.000	V	270.0	1.0	46.5	26.5	1.4	35.8	38.7	85.6	500.0	-15.3
1595.300	V	270.0	1.0	49.2	27.1	1.5	35.7	42.0	126.5	500.0	-11.9
2339.000	V	270.0	1.0	47.1	29.1	1.6	35.5	42.2	128.9	500.0	-11.8
<b>Peak</b>											
11670.000	H	0.0	1.0	53.7	39.5	5.4	35.6	63.0	1419.1	5000.0	-10.9
1198.000	H	270.0	1.0	60.0	25.4	1.3	36.1	50.6	339.1	5000.0	-23.4
1331.125	H	270.0	1.0	60.5	26.0	1.4	35.9	51.9	394.8	5000.0	-22.1
1461.000	H	285.0	1.0	61.1	26.5	1.4	35.8	53.3	459.9	5000.0	-20.7
1595.300	H	290.0	1.0	66.2	27.1	1.5	35.7	59.0	895.2	5000.0	-14.9
2339.000	H	285.0	1.0	58.2	29.1	1.6	35.5	53.3	462.5	5000.0	-20.7
<b>average</b>											
11670.000	H	0.0	1.0	41.8	39.5	5.4	35.6	51.1	359.8	500.0	-2.9
1198.000	H	270.0	1.0	46.1	25.4	1.3	36.1	36.7	68.4	500.0	-17.3
1331.125	H	270.0	1.0	45.4	26.0	1.4	35.9	36.8	69.4	500.0	-17.2
1461.000	H	285.0	1.0	45.3	26.5	1.4	35.8	37.5	74.6	500.0	-16.5
1595.300	H	290.0	1.0	47.2	27.1	1.5	35.7	40.0	100.4	500.0	-13.9
2339.000	H	285.0	1.0	47.9	29.1	1.6	35.5	43.0	141.3	500.0	-11.0

\* Data taken at 30cm, limit adjusted accordingly.

#### 4.6 AC Powerline Conducted Emissions: (FCC Part §15.207)

The EUT was placed on an 80 cm high 1 x 1.5 m non-conductive table above a ground plane. Power to the EUT was provided through a Solar Corporation 50 Ω/50 μH Line Impedance Stabilization Network bonded to a 3 x 2 meter ground plane. The LISN has its AC input supplied from a filtered AC power source. Power and data cables were moved about to obtain maximum emissions.

The 50Ω output of the LISN was connected to the input of the spectrum analyzer and the emissions in the frequency range of 150 kHz to 30 MHz were measured. The detector function was set to quasi-peak, peak, or average as appropriate, and the resolution bandwidth during testing was at least 9 kHz, with all post-detector filtering no less than 10 times the resolution bandwidth for peak measurements.

Data is recorded in the following table.

**Table 10: Conducted Emissions Test Data; §15.207**

**LINE 1 - NEUTRAL**

Frequency (MHz)	Level QP (dBμV)	Cable Loss (dB)	LISN Corr (dB)	Limit QP (dBμV)	Level Corr (dBμV)	Margin QP (dB)	Level AVG (dBμV)	Cable Loss (dB)	Level Corr (dBμV)	Limit AVG (dBμV)	Margin AVG (dB)
0.151	45.7	10.1	1.2	65.9	57.0	-9.0	26.3	10.1	37.6	55.9	-18.4
0.791	42.5	10.4	0.4	56.0	53.4	-2.6	30.8	10.4	41.7	46.0	-4.3
1.020	40.7	10.5	0.4	56.0	51.6	-4.4	27.6	10.5	38.5	46.0	-7.5
5.540	32.5	10.9	0.3	60.0	43.7	-16.3	32.5	10.9	43.7	50.0	-6.3
7.130	33.3	11.2	0.3	60.0	44.8	-15.2	26.2	11.2	37.7	50.0	-12.3
11.920	30.2	11.8	0.4	60.0	42.4	-17.6	30.2	11.8	42.4	50.0	-7.6
27.160	37.7	12.7	1.3	60.0	51.7	-8.3	34.0	12.7	48.0	50.0	-2.0

**LINE 2 - PHASE**

Frequency (MHz)	Level QP (dBμV)	Cable Loss (dB)	LISN Corr (dB)	Limit QP (dBμV)	Level Corr (dBμV)	Margin QP (dB)	Level AVG (dBμV)	Cable Loss (dB)	Level Corr (dBμV)	Limit AVG (dBμV)	Margin AVG (dB)
0.155	44.5	10.1	0.9	65.7	55.5	-10.3	25.2	10.1	36.2	55.7	-19.6
0.790	42.6	10.4	0.3	56.0	53.4	-2.6	24.7	10.4	35.5	46.0	-10.5
1.300	40.7	10.5	0.3	56.0	51.5	-4.5	22.5	10.5	33.3	46.0	-12.7
3.570	34.4	10.5	0.3	56.0	45.2	-10.8	30.0	10.5	40.8	46.0	-5.2
7.140	32.8	11.2	0.3	60.0	44.3	-15.7	26.4	11.2	37.9	50.0	-12.1
11.925	30.3	11.8	0.4	60.0	42.4	-17.6	30.3	11.8	42.4	50.0	-7.6
27.120	36.6	12.7	1.1	60.0	50.4	-9.6	34.3	12.7	48.1	50.0	-1.9