Washington Laboratories, Ltd.

FCC Certification Test Report
For the
Airorlite Communications, Inc.
Model 50289 Bi-Directional Booster (Uplink)

FCC ID: UT650289BAX8800UL

WLL JOB: 9863
August 10, 2007

Prepared for:

Airorlite Communications, Inc.
17-01 Pollitt Drive
Fair Lawn, NJ07410

Prepared By:

Washington Laboratories, Ltd.
7560 Lindbergh Drive
Gaithersburg, Maryland 20879

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Prepared by: John P. Repella
QA Manager

Reviewed by: Steven D. Koster
EMC Operations Manager

Abstract

This report has been prepared on behalf of Airorlite Communications, Inc. to support the attached Application for Equipment Authorization. The test report and application are submitted for a Licensed Transmitter under Part 90 of the FCC Rules. This Certification Test Report documents the test configuration and test results for an Airorlite Communications, Inc. Model 50289 Bi-Directional Booster (Uplink).

Testing was performed on an Open Area Test Site (OATS) of Washington Laboratories, Ltd, 7560 Lindbergh Drive, Gaithersburg, MD 20879. Site description and site attenuation data have been placed on file with the FCC's Sampling and Measurements Branch at the FCC laboratory in Columbia, MD. Washington Laboratories, Ltd. has been accepted by the FCC and approved by NIST NVLAP (NVLAP Lab Code: 200066-0) as an independent FCC test laboratory.

The Airorlite Communications, Inc. Model 50289 Bi-Directional Booster (Uplink) complies with the limits for a Licensed Transmitter device under FCC Part 90.

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1 Introduction

1.1 Compliance Statement

The Airorlite Communications, Inc. Model 50289 Bi-Directional Booster (Uplink) complies with the limits for a Licensed Transmitter device under FCC Part 90.

1.2 Test Scope

Tests for radiated and conducted (at antenna terminal) emissions were performed. All measurements were performed in accordance with the 2003 version of ANSI C63.4. The measurement equipment conforms to ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation.

1.3 Contract Information

Customer:	Airorlite Communications, Inc. 17-01 Pollitt Drive Fair Lawn, NJ07410
Purchase Order Number:	001994
Quotation Number:	63696

1.4 Test Dates

Testing was performed on the following date(s):	June 28, 2007 – July 3, 2007

1.5 Test and Support Personnel

Washington Laboratories, LTD	John P. Repella
Client Representative	Lee Masoian

2 Equipment Under Test

2.1 EUT Identification & Description

The Airorlite Communications, Inc. Model 50289 Bi-Directional Booster (Uplink) is an eight channel bi-directional amplifier utilizing 16 channels of synchronized down-up conversions.

The multi-channel booster is divided into two independent 8 channel systems (8 high bands and 8 low bands) for full duplex operations. Downlink signals are received at the roof antenna, 8 selected frequencies are processed (filtering and amplification), and rebroadcast on radiating cable. Conversely, uplink signals induced onto radiating cable are similarly processed and rebroadcast on the roof antenna. The downlink channels are the high band signals (851-869 MHz), and the 8 uplink channels are low band (806-824 MHz).

Each system consisting of a LNA/8-way splitter, 8 channel modules (down-up converters with synthesized LO), 8-way combiner, and RF power amplifiers with an 8-way power combiner. In addition a duplexer combines the uplink RF output and downlink RF input to a common “Off the Air” antenna.

The RF signal flow of the two systems is identical. RF band pass filters internal to the system modules determine high band or low band operations.

Table 1. Device Summary

ITEM	DESCRIPTION
Manufacturer:	Airorlite Communications, Inc.
FCC ID:	UT650289BAX8800UL
Model:	Model 50289 Bi-Directional Booster (Uplink)
FCC Rule Parts:	§90
Frequency Range:	819 - 824MHz
Maximum Output Power:	375mW (25.7dBm) (Per channel) (Total output limited to 31dBm at the power combiner)
Antenna Gain (dBd)	5.0
Modulation:	N/A
Necessary Bandwidth:	N/A
Keying:	N/A
Type of Information:	Depends on system
Number of Channels:	8
Power Output Level	Fixed
Antenna Connector	N-type
Frequency Tolerance:	N/A
Emission Type(s):	F1E
Interface Cables:	N/A
Power Source & Voltage:	120Vac

2.2 Test Configuration

The Model 50289 Bi-Directional Booster (Uplink) was configured with the Downlink unit and a signal generator. See diagram below.

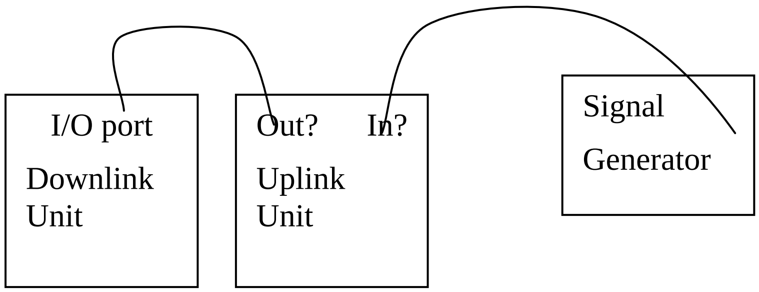

Figure 1. Test Configuration.

2.3 Testing Algorithm

A signal Generator was setup and used to send an RF signal into the RF input port on the unit under test. The signal was set to -60dBm with FM modulation at 2.5kHz per the client. The client has determined that this is the highest signal expected to be present at the input.

Worst case emission levels are provided in the test results data.

2.4 Test Location

All measurements herein were performed at Washington Laboratories, Ltd. test center in Gaithersburg, MD. Site description and site attenuation data have been placed on file with the FCC's Sampling and Measurements Branch at the FCC laboratory in Columbia, MD. Washington Laboratories, Ltd. has been accepted by the FCC and approved by NIST NVLAP (NVLAP Lab Code: 200066-0) as an independent FCC test laboratory.

2.5 Measurements

2.5.1 References

ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation

ANSI C63.4 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

Land Mobile FM or PM Communications Equipment Measurement and Performance Standards (ANSI/TIA/EIA-603-93)

2.6 Measurement Uncertainty

All results reported herein relate only to the equipment tested. For the purposes of the measurements performed by Washington Laboratories, the measurement uncertainty is ±2.3 dB. This has been calculated for a *worst-case situation* (radiated emissions measurements performed on an open area test site).

The following measurement uncertainty calculation is provided:

$$\text{Total Uncertainty} = (A^2 + B^2 + C^2)^{1/2}/(n-1)$$

where:

A = Antenna calibration uncertainty, in dB = 2 dB

B = Spectrum Analyzer uncertainty, in dB = 1 dB

C = Site uncertainty, in dB = 4 dB

n = number of factors in uncertainty calculation = 3

Thus, Total Uncertainty = $0.5\ (2^2 + 1^2 + 4^2)^{1/2} = \pm 2.3$ dB.

3 Test Equipment

Table 2 shows a list of the test equipment used for measurements along with the calibration information.

Table 2: Test Equipment List

Site 1 List:

WLL Asset #	Manufacturer Model/Type	Function	Cal. Due
00070	HP, 85685A	Preselector, RF w/opt 8ZE	07/03/2007
00074	HP, 8593A	Analyzer, Spectrum	10/13/2007
00066	HP, 8449B	Pre-Amplifier, RF. 1-26.5GHz	08/01/2007
00001	A.H., Systems, SAS-200/518	Antenna, LP, 1-18GHz	04/05/2008
00004	ARA, DRG-118/A	Antenna, DRG, 1-18GHz	02/02/2009
00028	EMCO,3146	Antenna, Log Periodic	09/15/2008
00382	Sunol,JB1	Antenna, Biconlog	02/2/2008
00068	HP, 85650A	Adapter, QP	07/03/2007
00072	HP, 8568B	Analyzer, Spectrum	07/03/2007

4 Test Results

4.1 RF Power Output: (FCC Part §2.1046 § 90.219)

The output from the transmitter was connected to an attenuator and then to the input of the RF Spectrum Analyzer. The analyzer offset was adjusted to compensate for the attenuator and other losses in the system.

Table 3. RF Power Output

Frequency	Level	Antenna Gain	ERP W	Limit § 90.219	Pass/Fail
Low Channel 806.0125MHz	23.19 dBm	5.0 dBd	1.08	5 W ERP	Pass
Mid Channel 816.3125MHz	23.5 dBm	5.0 dBd	1.16	5 W ERP	Pass
High Channel 823.9875MHz	25.62 dBm	5.0 dBd	1.89	5 W ERP	Pass

Table 4. Antenna Specifications

Item: 473442 des: 806-2300 MicroFill, Outdoor

Parameter	**Specification**
Specific Freq. (MHz)	806-960/1710-2300
Bandwidth @ Rated VSWR (MHz)	154/590 MHz
Polarization	Vertical
Bending Moment (ft lbs)	Not Specified
Connector (direct)	N Female
Connector Placement	Bottom
Downtilt (deg)	None
Front to Back Ratio (dB)	Not Specified
Gain (dBd)	4.5/5.0
Gain(dBi)	6.6/7.1
General Freq. (MHz)	806-960/1710-2300
H. Beamwidth	70 Deg.
Incl. Hardware	Fits 4 Holes In Backplate
Intermodulation	Not Specified
Jumper Included	None
Lateral Thrust @ RWV (lbs)	Not Specified
Lightning Prot.	DC Ground
Maximum Power Input (Watts)	75
Mount Hdw. Incl.	Light Duty Outdoor Wall
Vertical Beamwidth	50 Deg

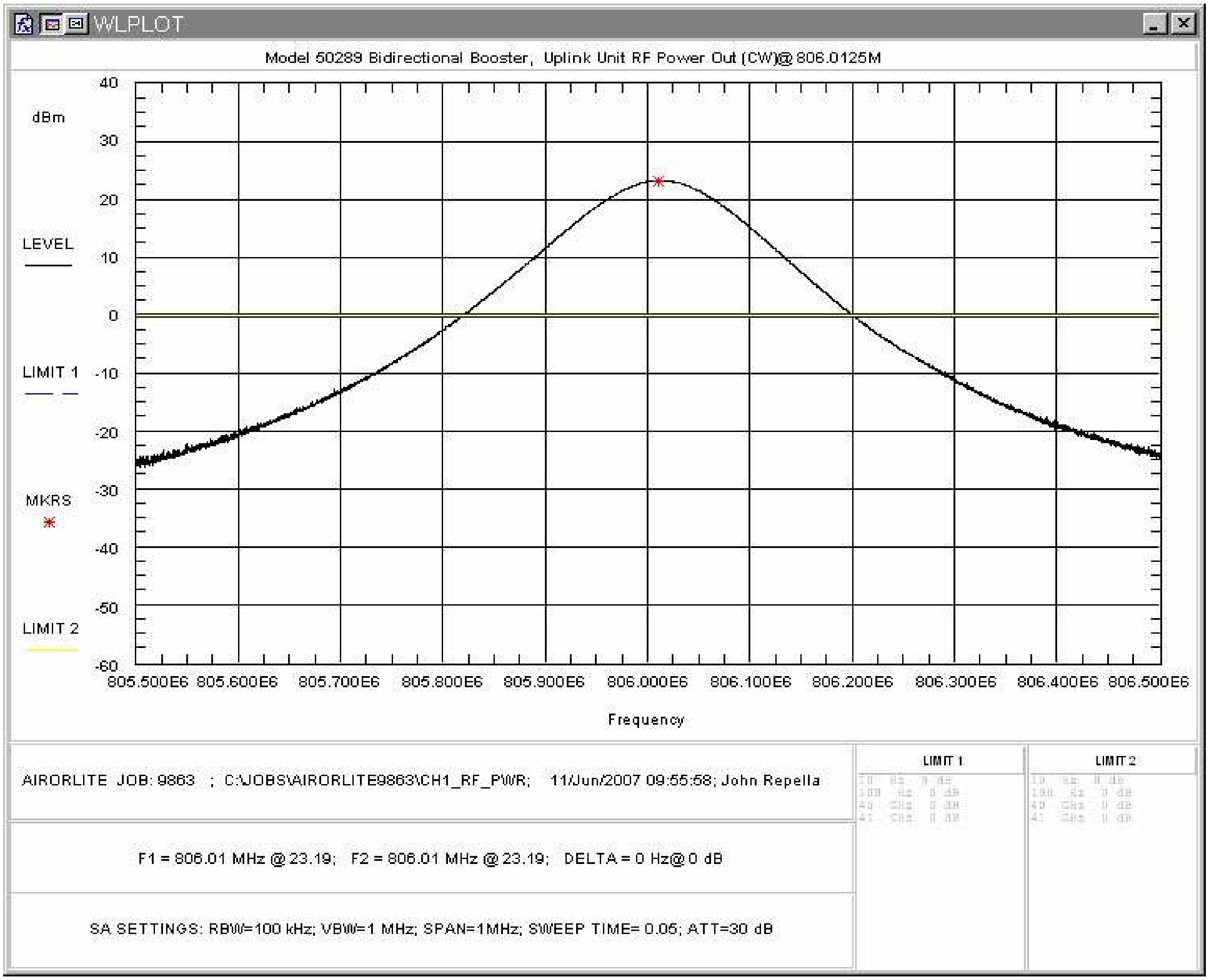

Figure 4-1. RF Peak Power, Low Channel, Carrier Wave

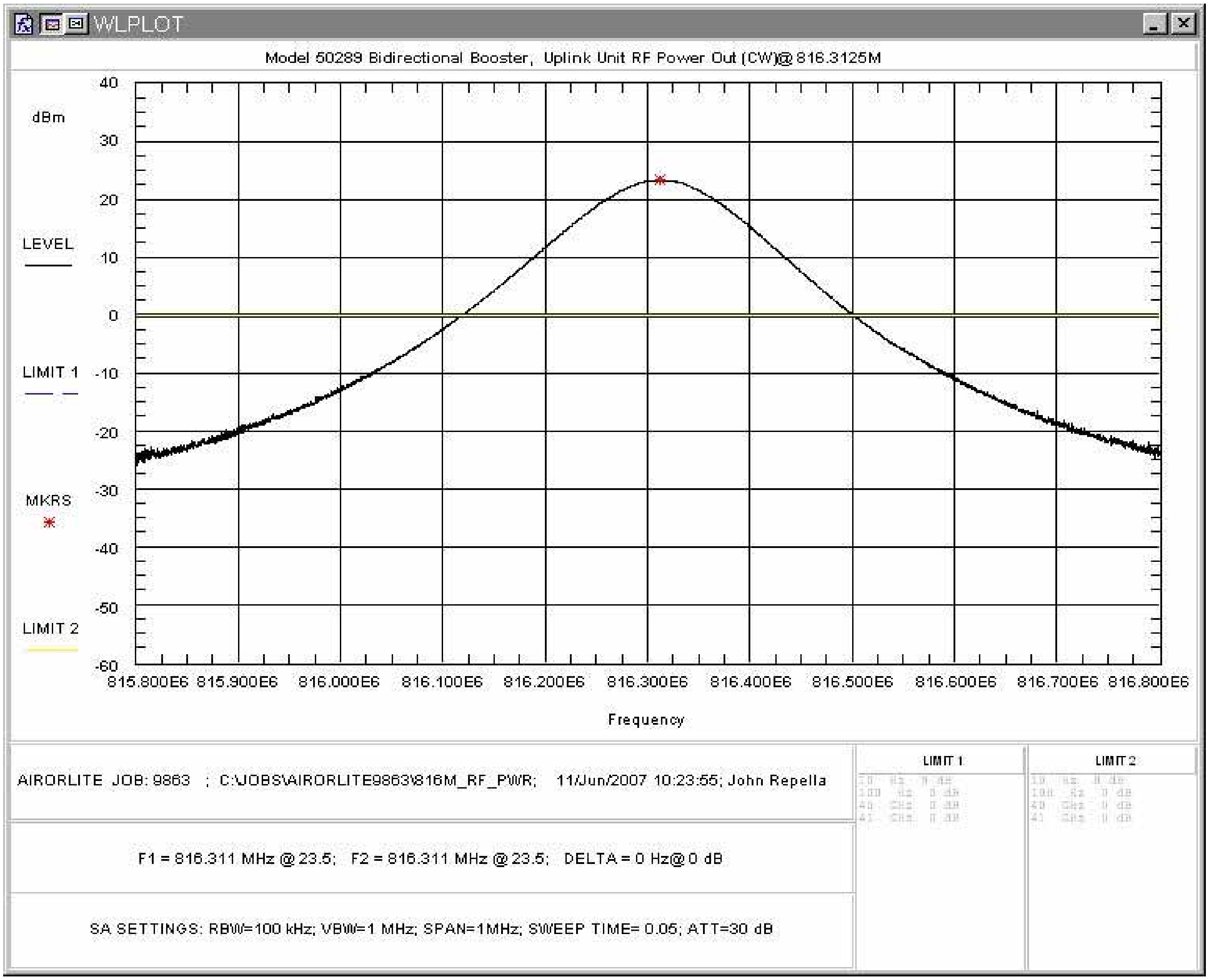

Figure 4-2. RF Peak Power, Mid Channel, Carrier Wave

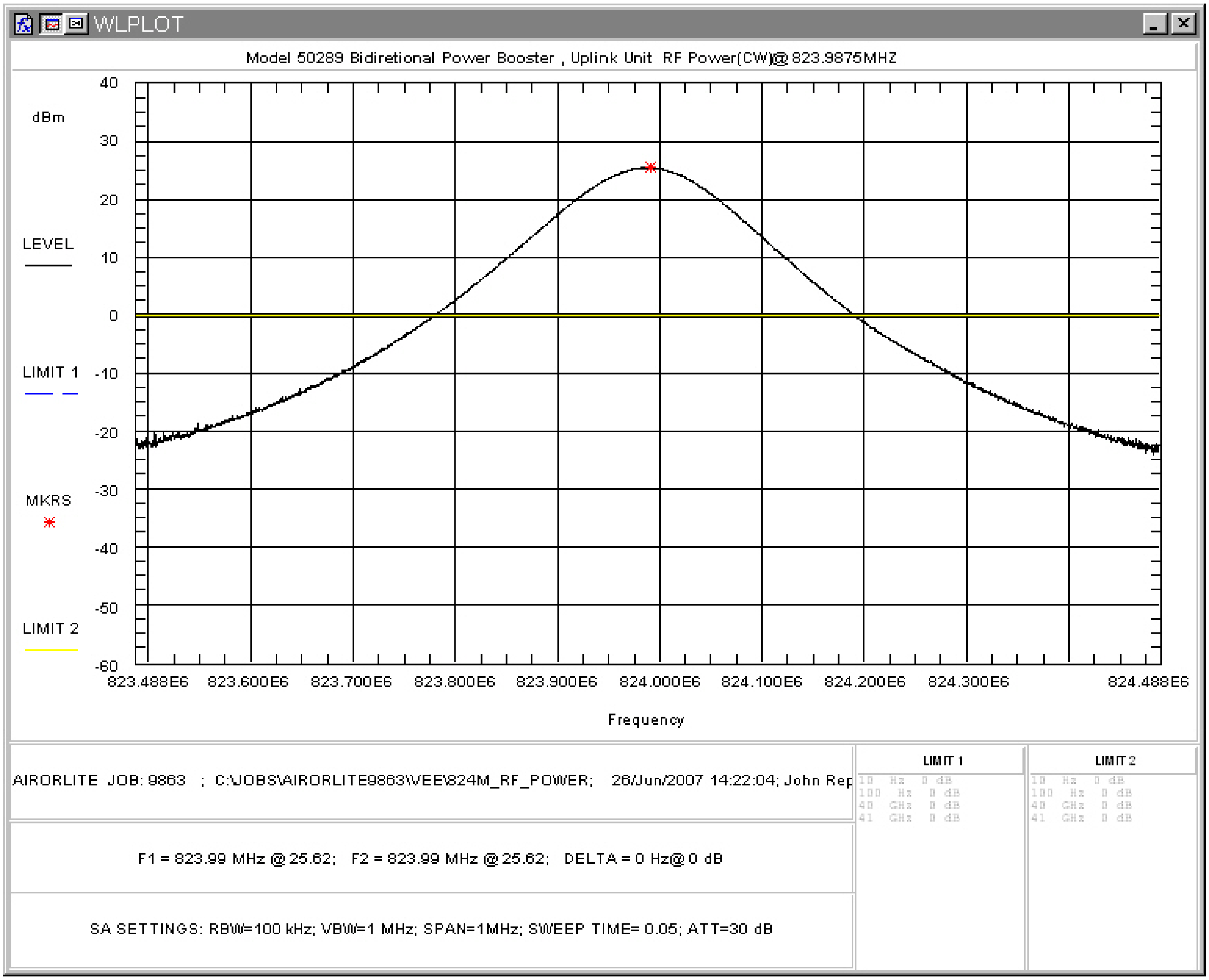

Figure 4-3. RF Peak Power, High Channel, Carrier Wave

4.2 Occupied Bandwidth: (FCC Part §2.1049)

Occupied bandwidth was performed by coupling the output of the EUT to the input of a spectrum analyzer.

At full modulation, the occupied bandwidth was measured as shown:

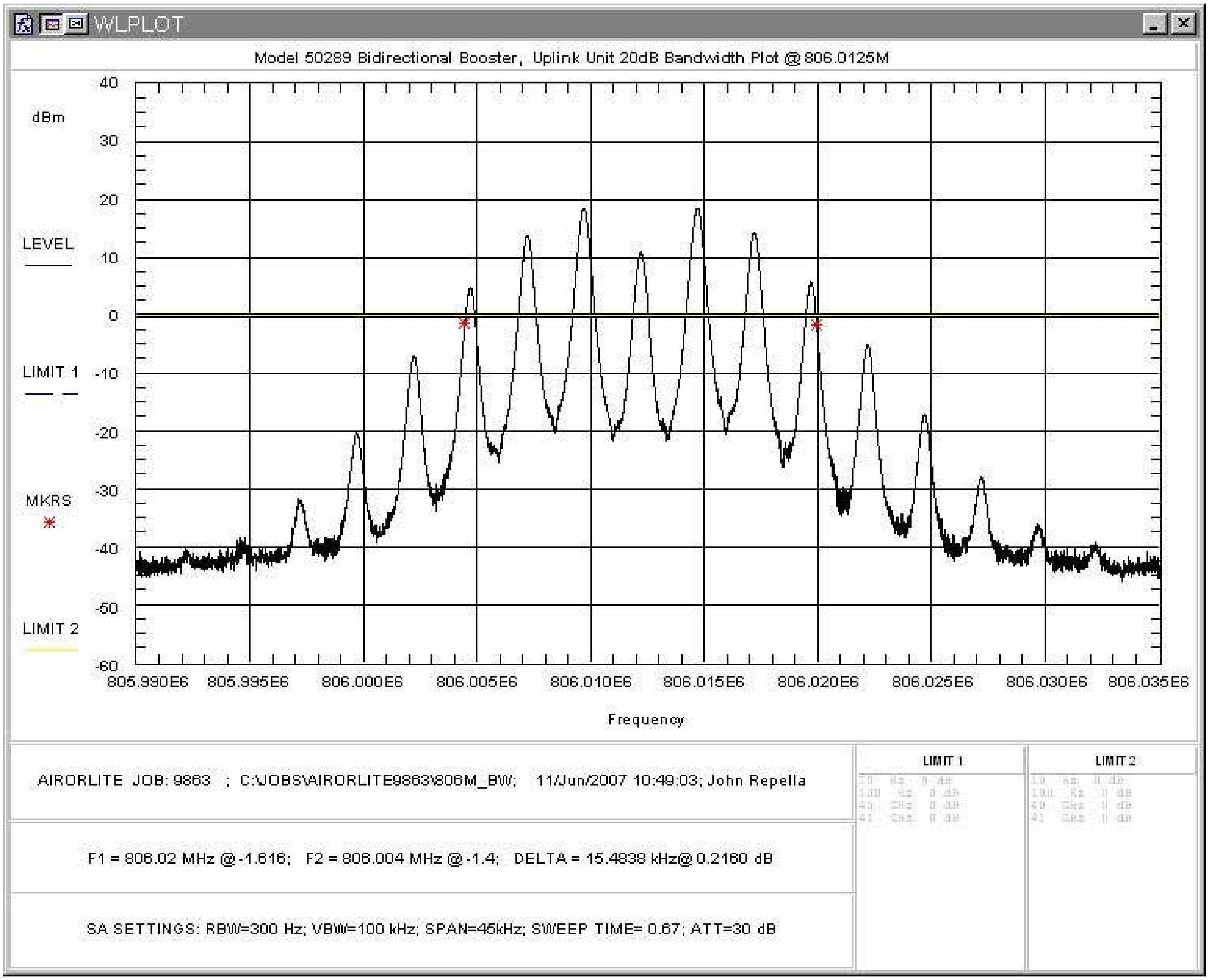

Figure 4-4. Occupied Bandwidth, Low Channel

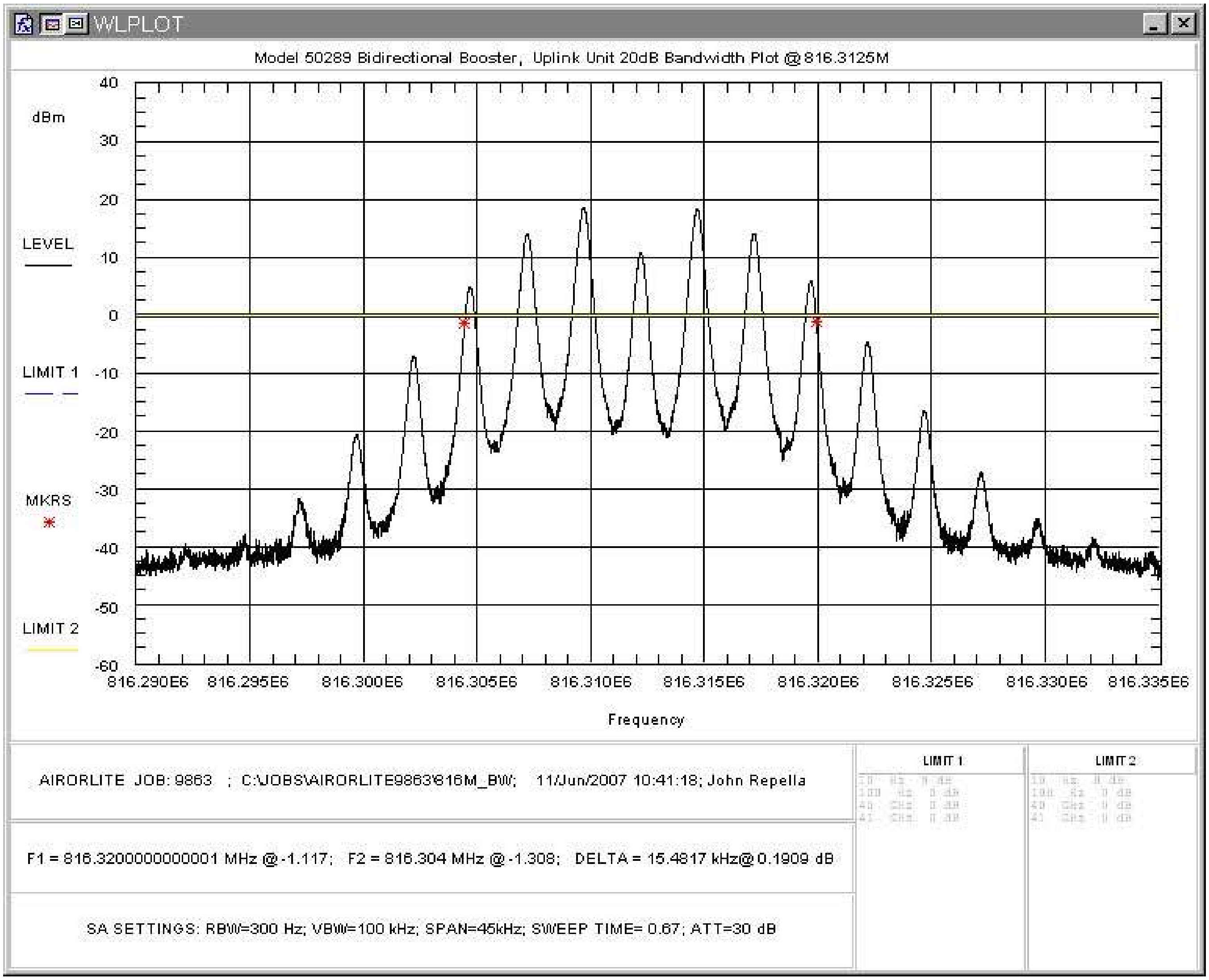

Figure 4-5. Occupied Bandwidth, Mid Channel

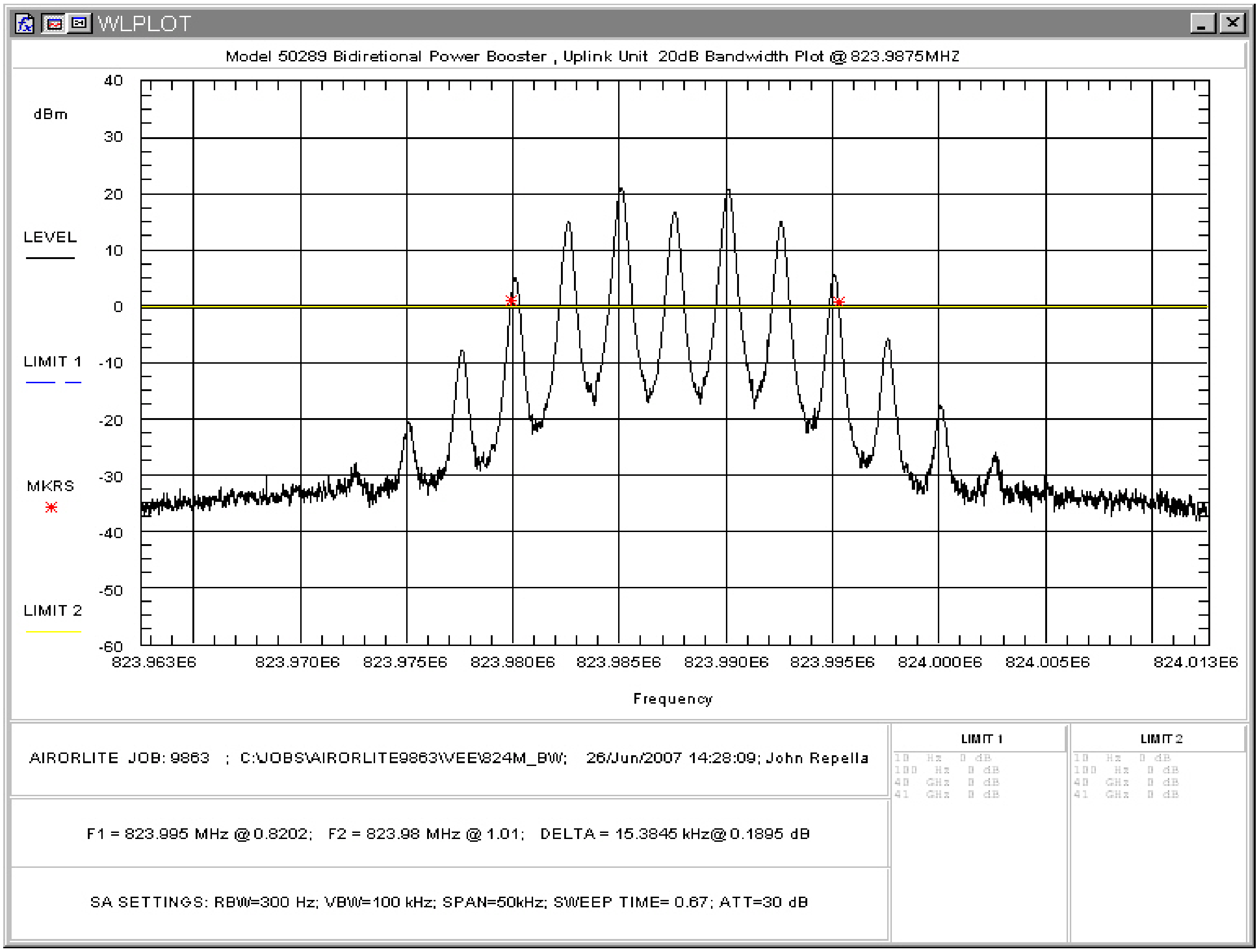

Figure 4-6. Occupied Bandwidth, High Channel

Table 5 provides a summary of the Occupied Bandwidth Results.

Table 5. Occupied Bandwidth Results

Frequency	Bandwidth	Limit	Pass/Fail
Low Channel: 806.0125MHz	15.483kHz	25kHz	Pass
Mid Channel: 816.3125MHz	15.481kHz	25kHz	Pass
High Channel: 823.9875MHz	15.384kHz	25kHz	Pass

4.3 Out of Band Response

The out of band response was measured by sweeping the input signal across the channel band and measuring the output response. The signal generator was set to -60dBm, which is the maximum input signal for the device.

The limit line is set to the absolute limit of -13dBm. The limit band edges are set to ± 125% of the occupied bandwidth.

The results are shown in the following figures.

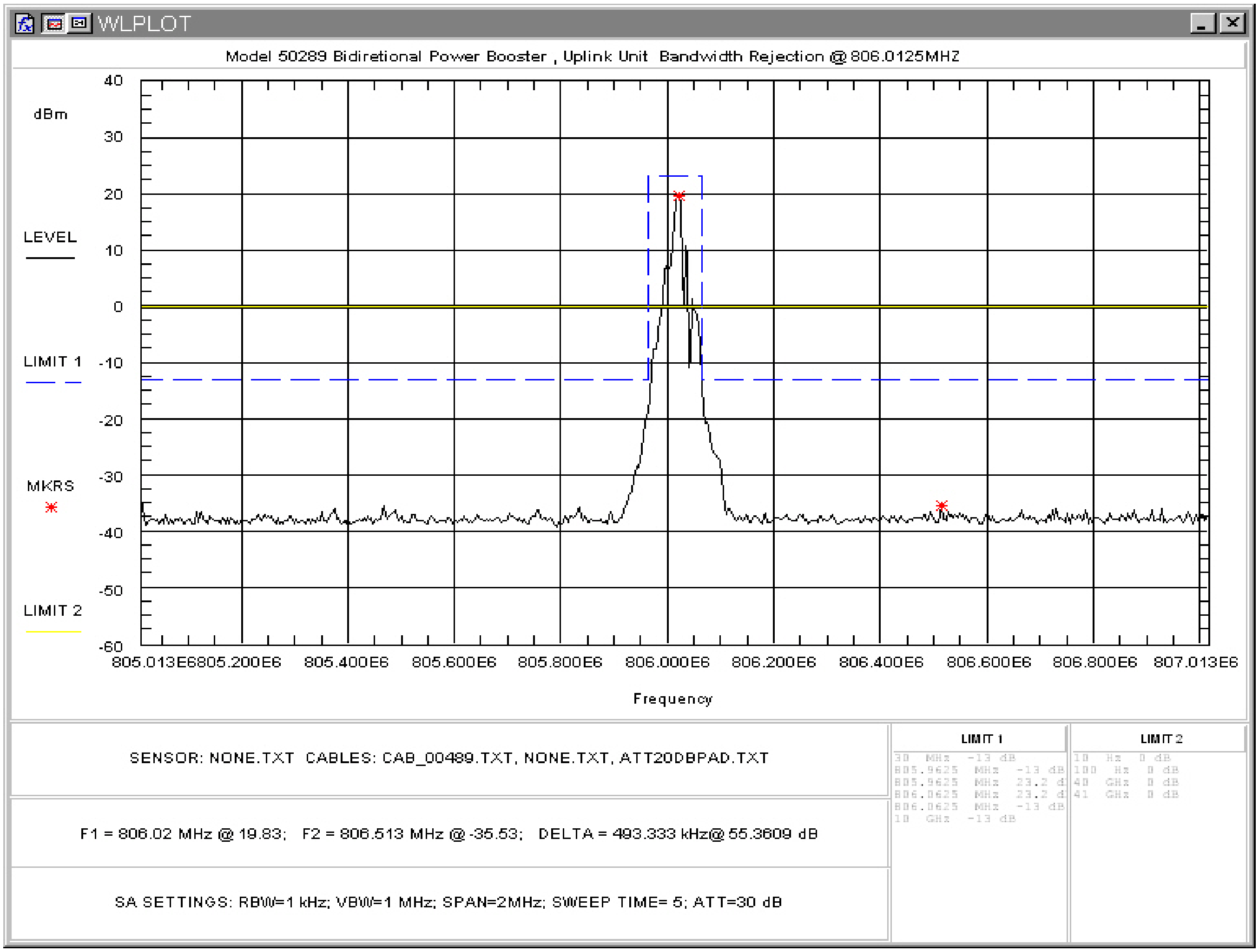

Figure 4-7. Band Reject, Low Channel

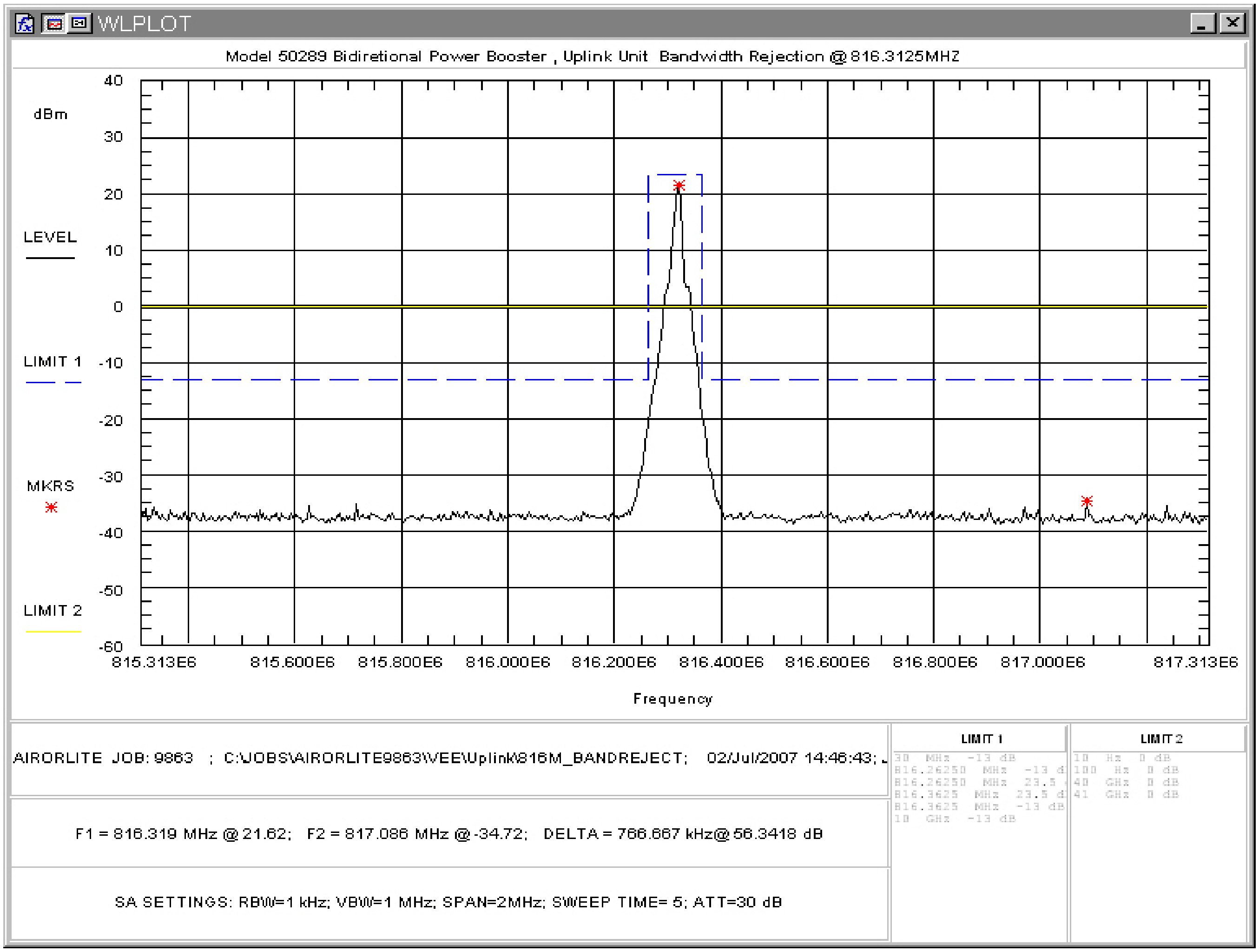

Figure 4-8. Band Reject, Mid Channel

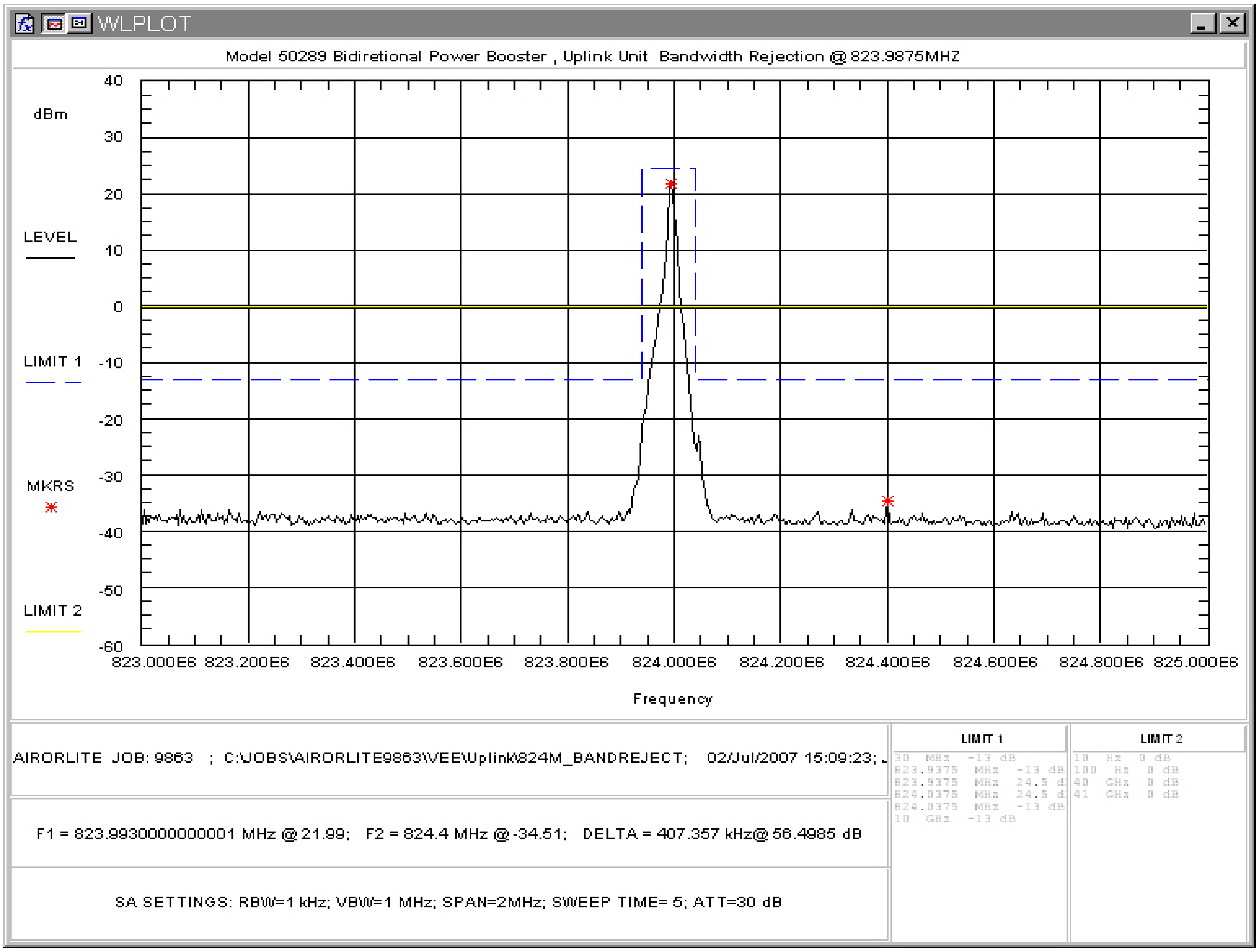

Figure 4-9. Band Reject, High Channel

4.4 Conducted Spurious Emissions at Antenna Terminals (FCC Part §2.1051)

The following are plots of the conducted spurious emissions data.

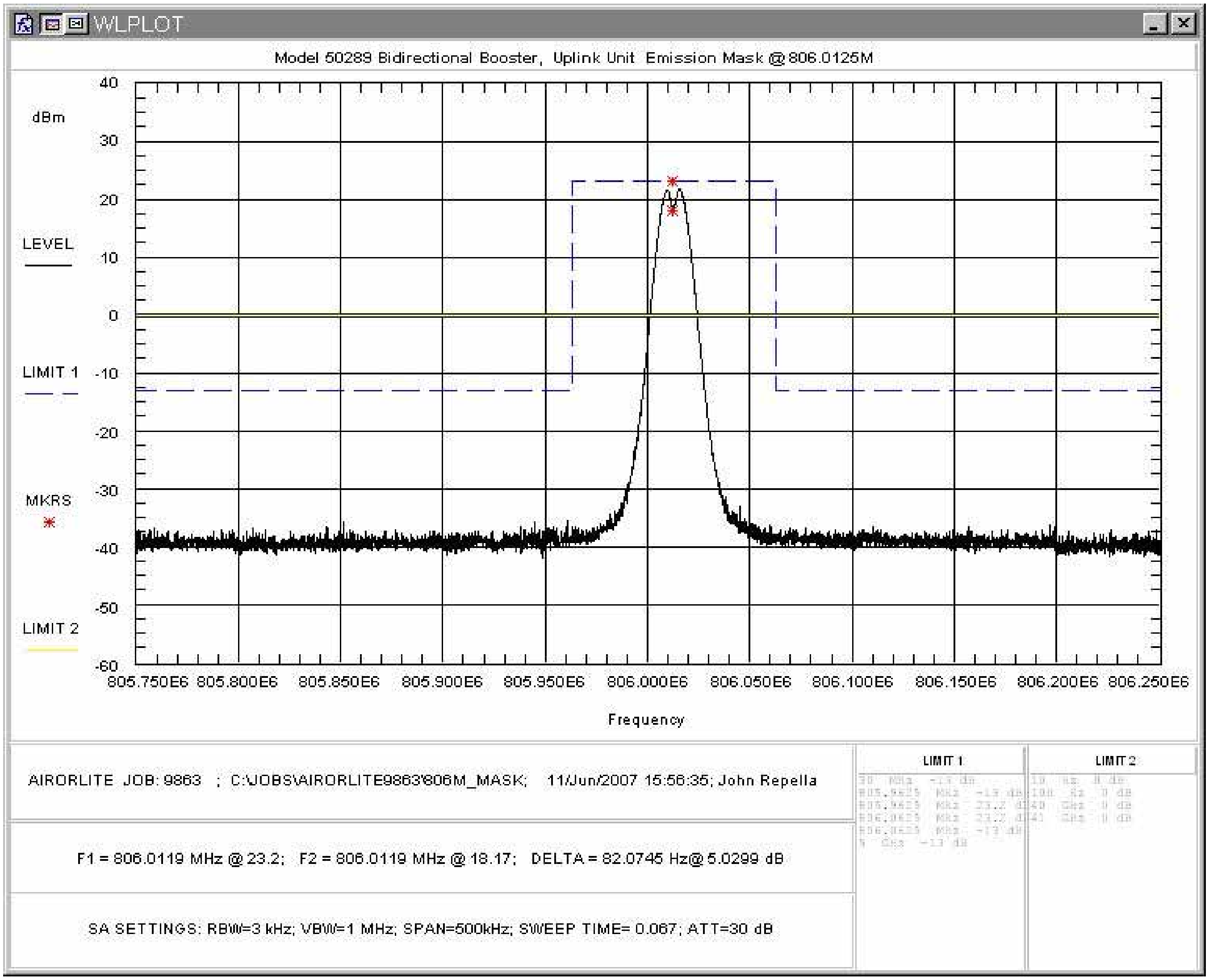

Figure 4-10. Conducted Spurious Emissions, Low Channel Inband

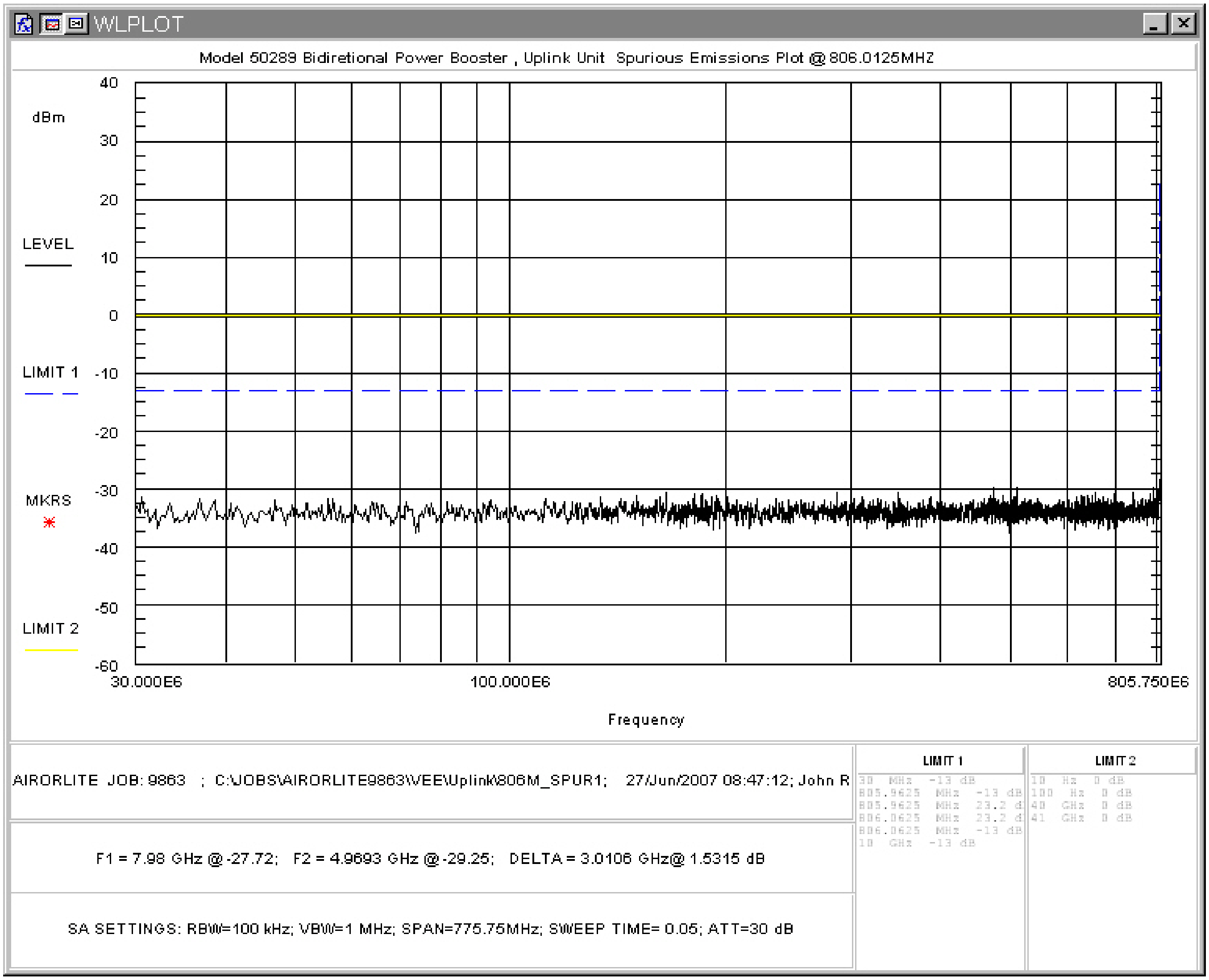

Figure 4-11. Conducted Spurious Emissions, Low Channel 30 – 805MHz

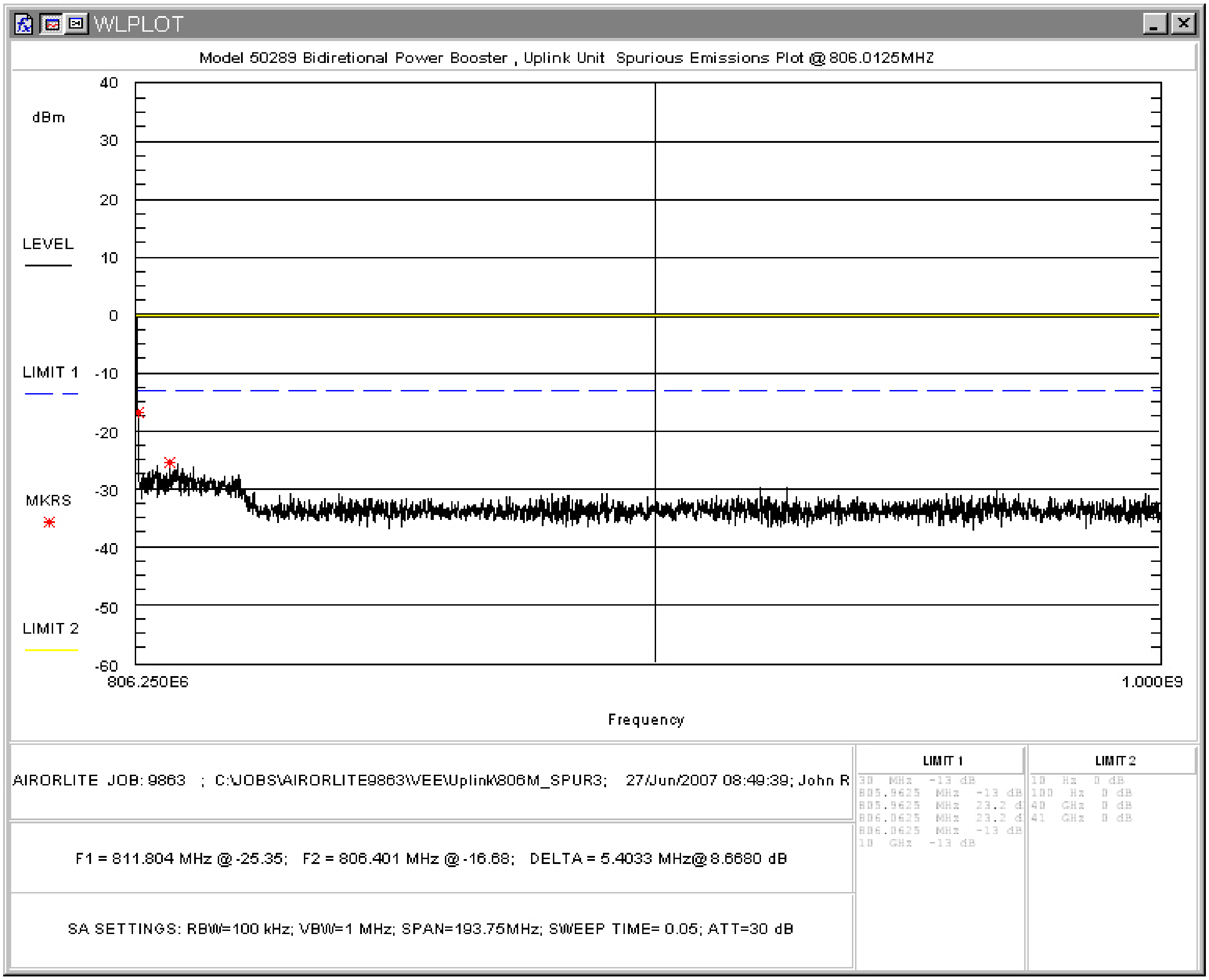

Figure 4-12. Conducted Spurious Emissions, Low Channel 806 – 1000MHz

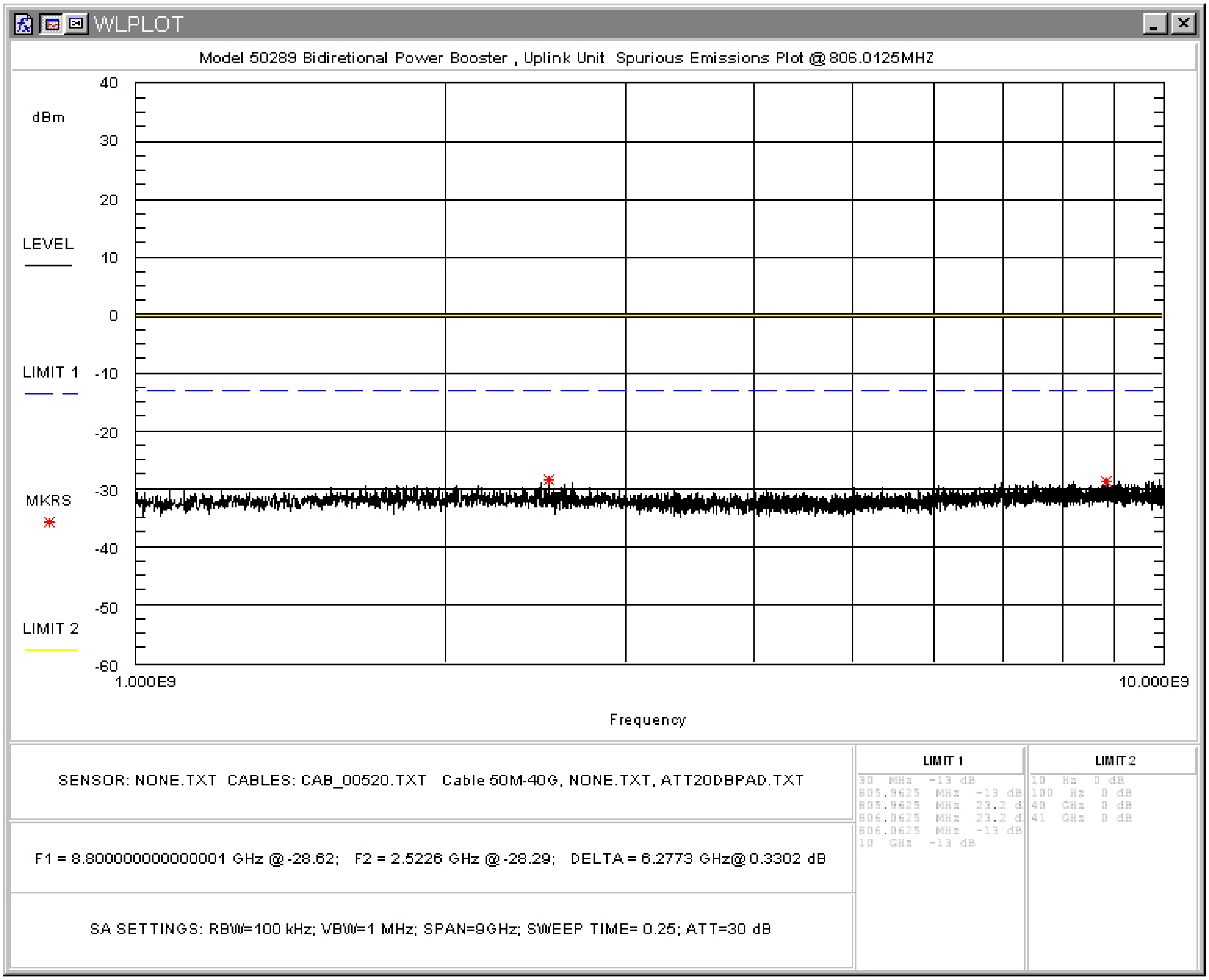

Figure 4-13. Conducted Spurious Emissions, Low Channel 1 – 10GHz

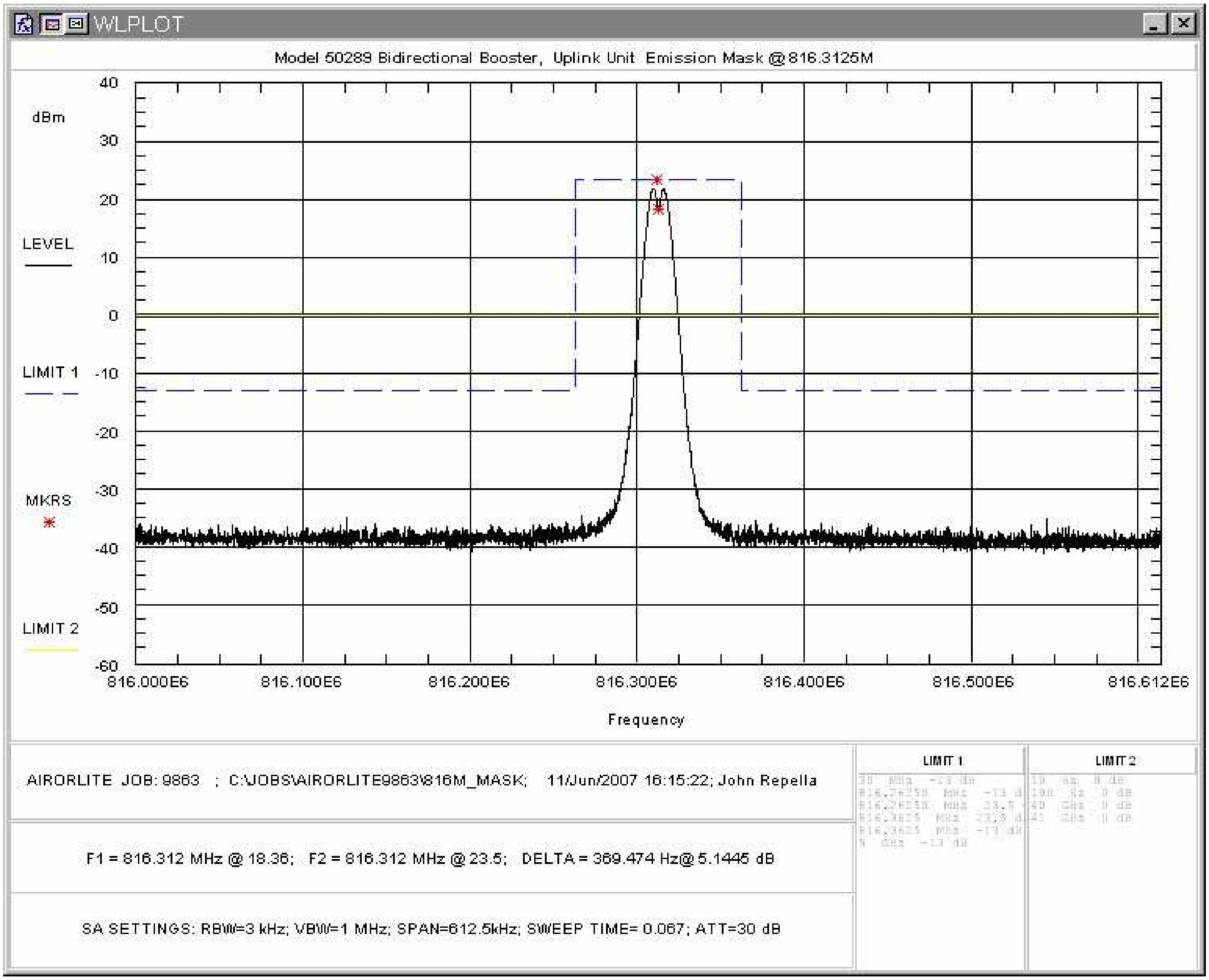

Figure 4-14. Conducted Spurious Emissions, Mid Channel Inband

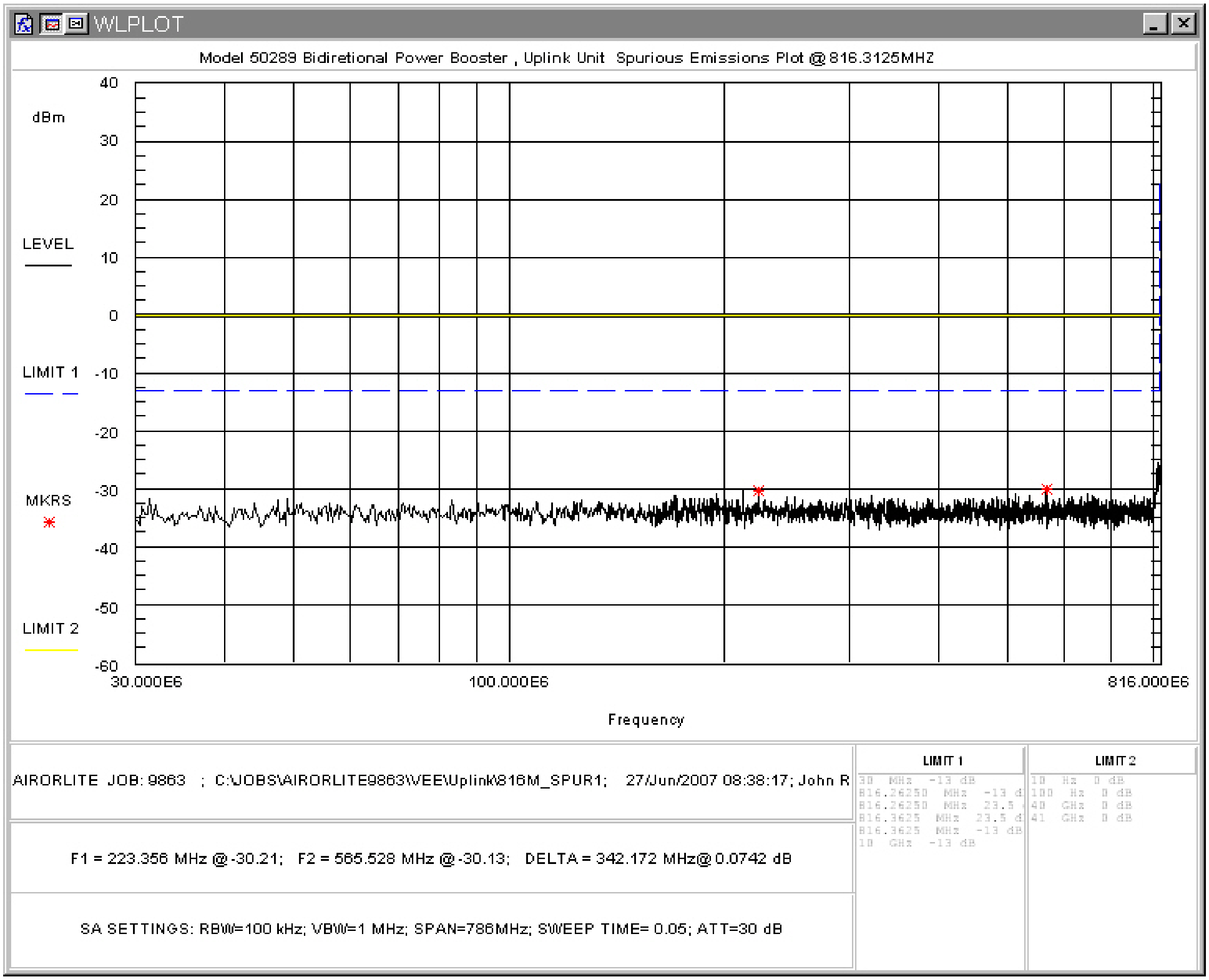

Figure 4-15. Conducted Spurious Emissions, Mid Channel 30 – 816MHz

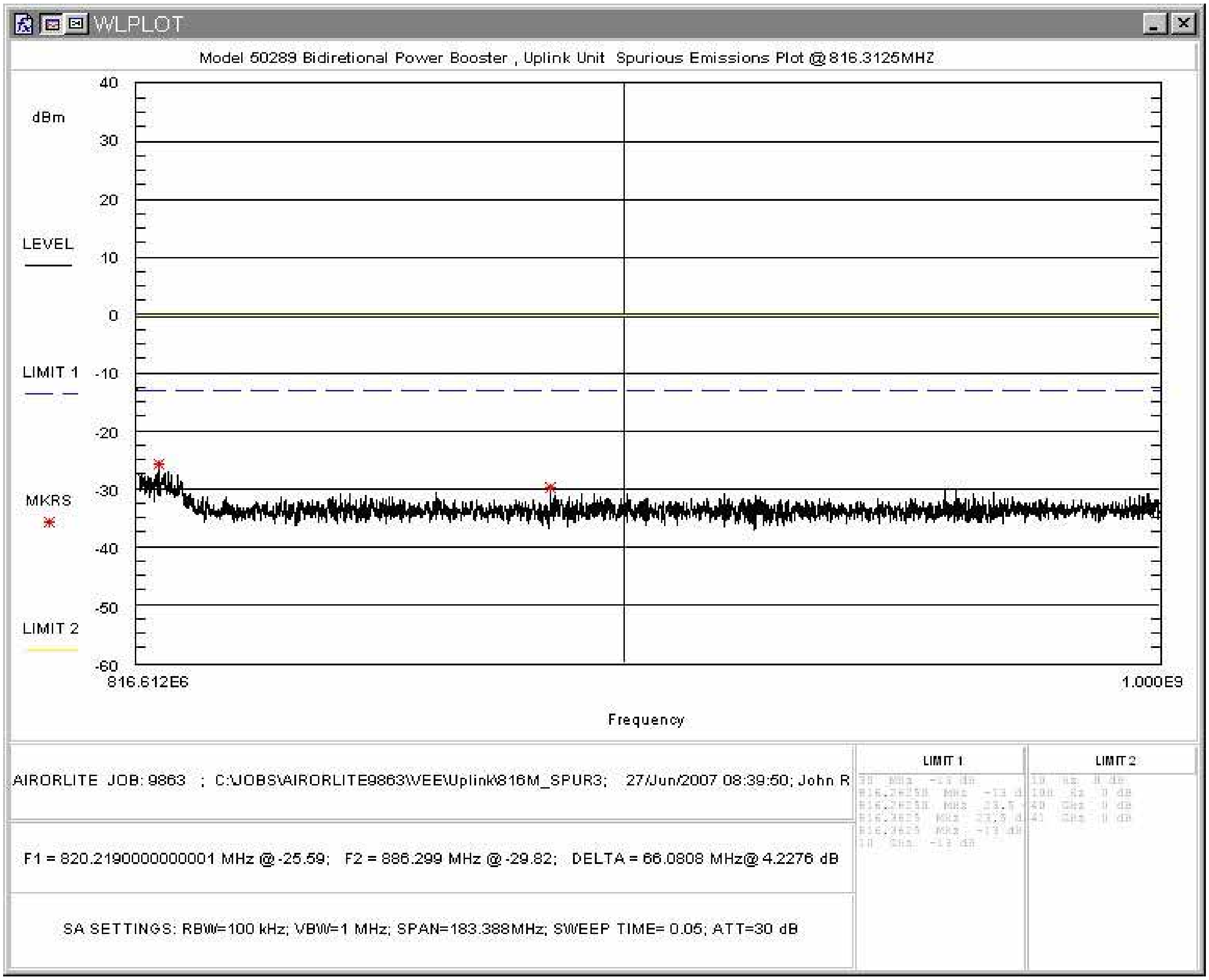

Figure 4-16. Conducted Spurious Emissions, Mid Channel 816 – 1000MHz

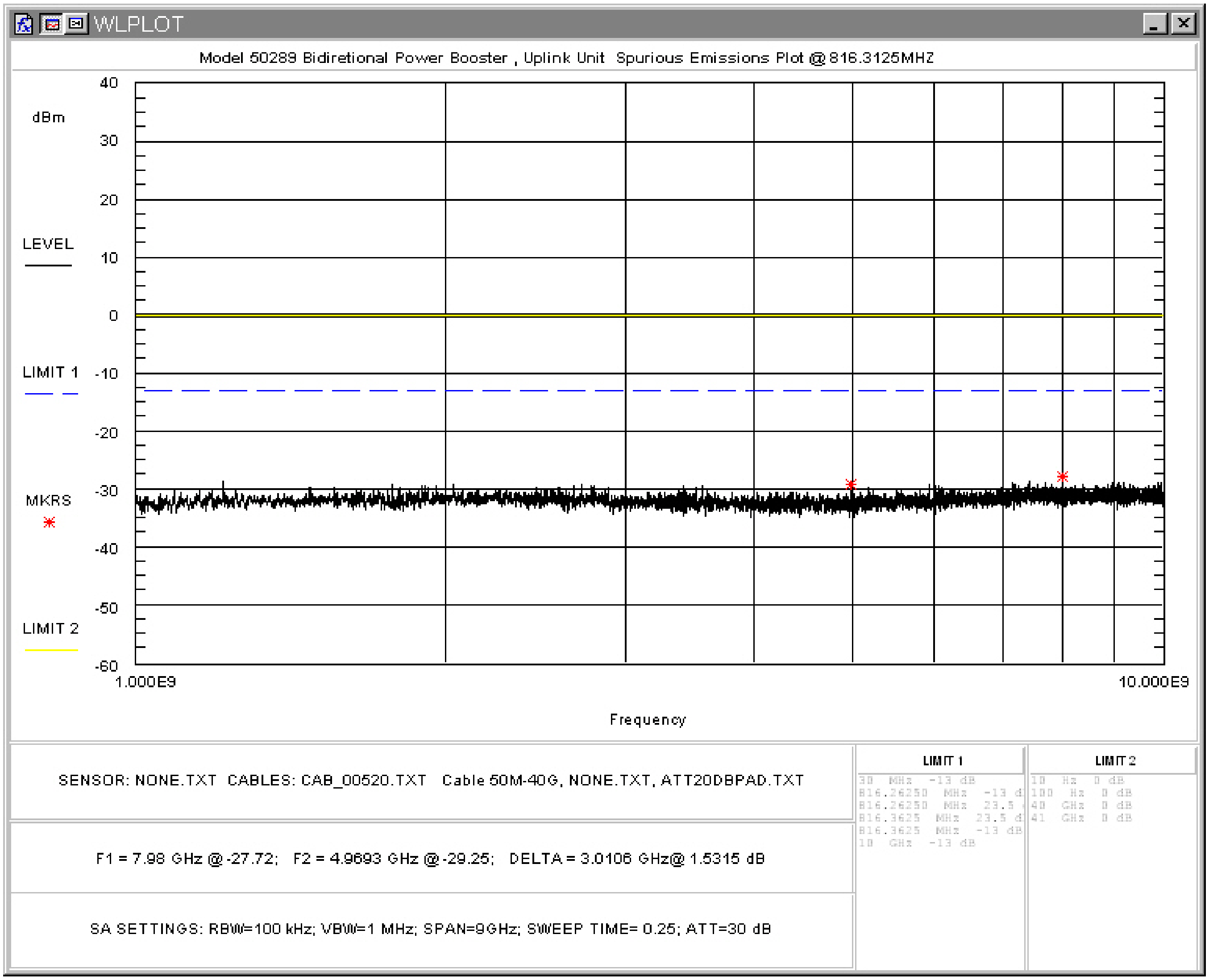

Figure 4-17. Conducted Spurious Emissions, Mid Channel 1 – 10GHz

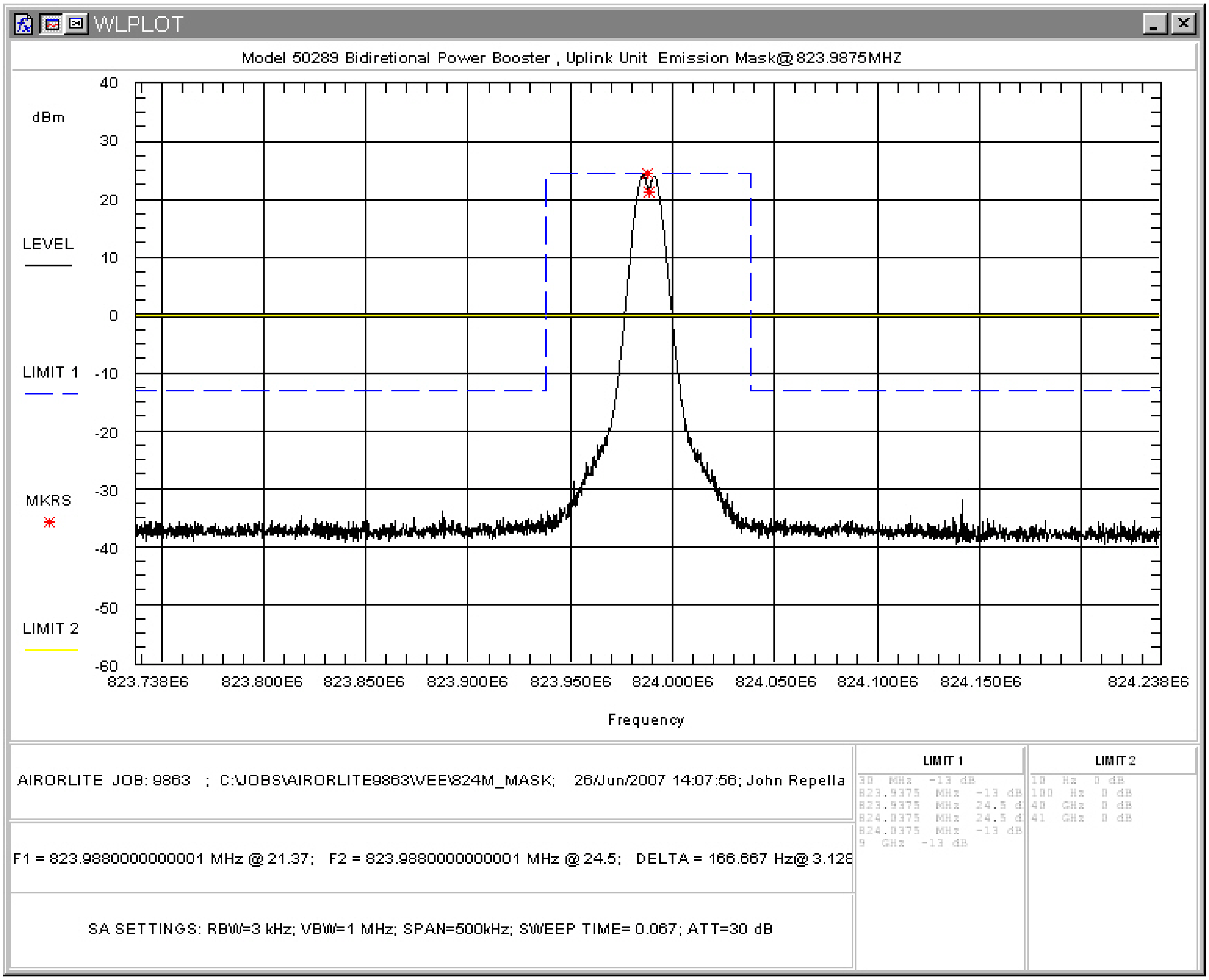

Figure 4-18. Conducted Spurious Emissions, High Channel Inband

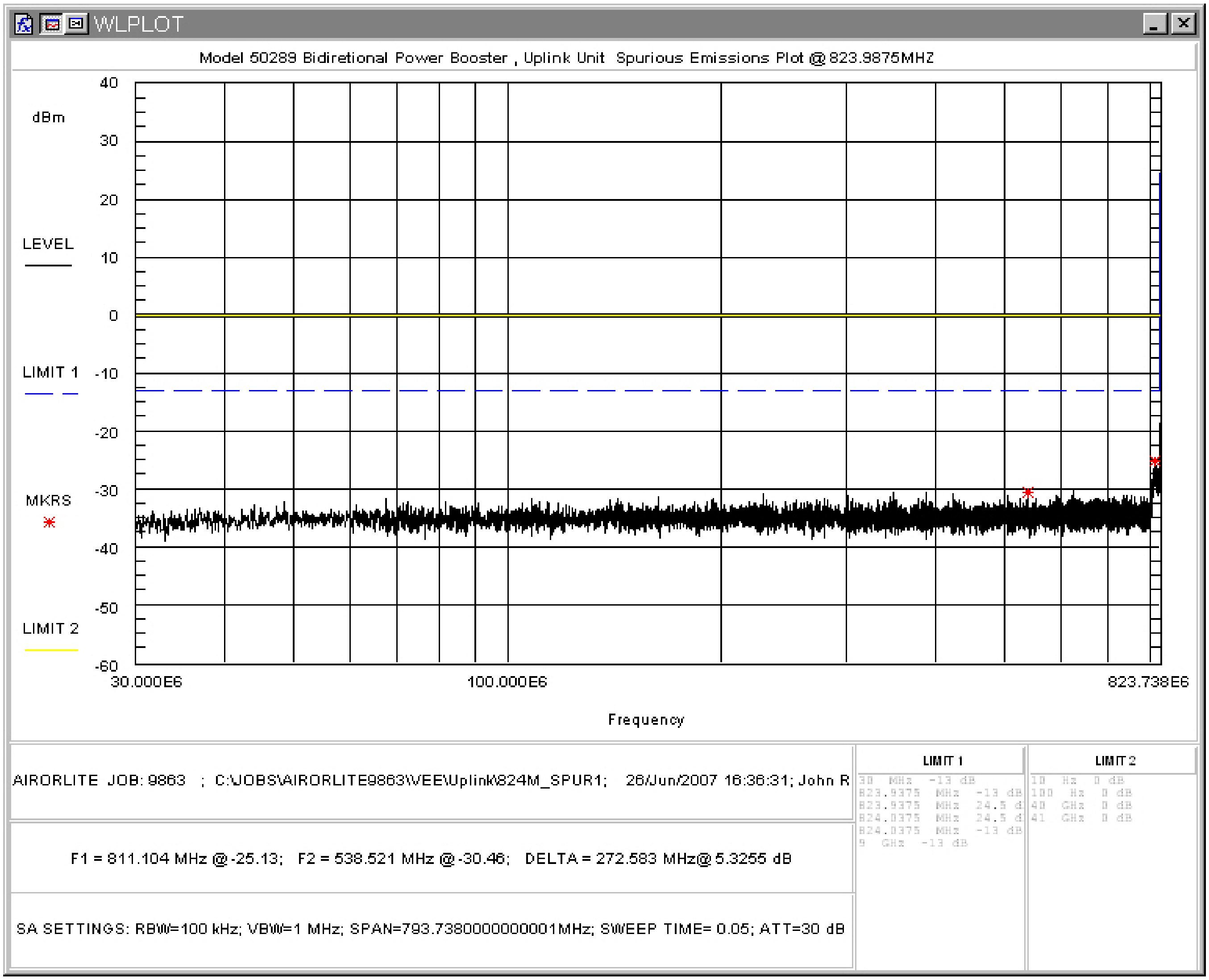

Figure 4-19. Conducted Spurious Emissions, High Channel 30 – 825MHz

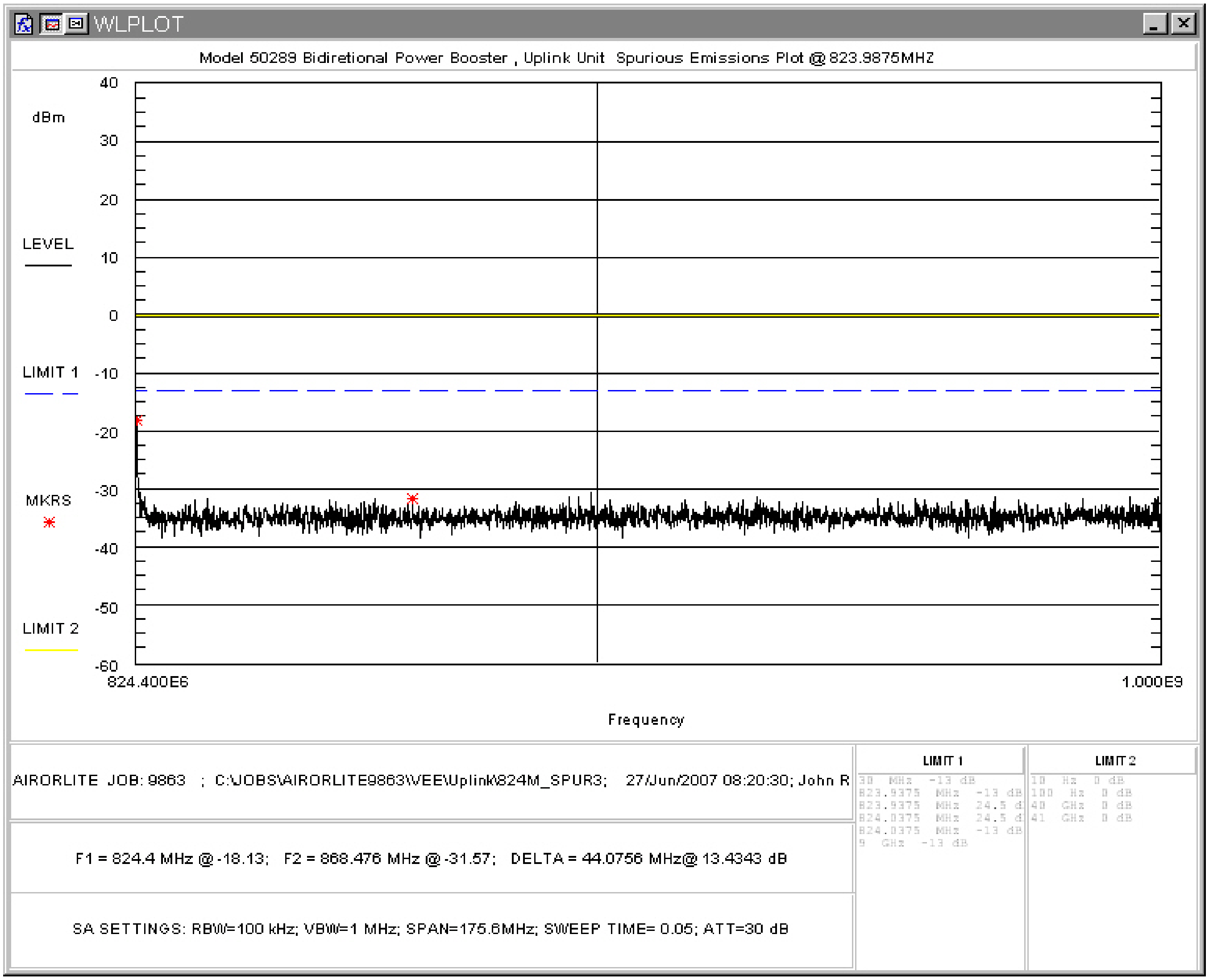

Figure 4-20. Conducted Spurious Emissions, High Channel 824 – 1000MHz

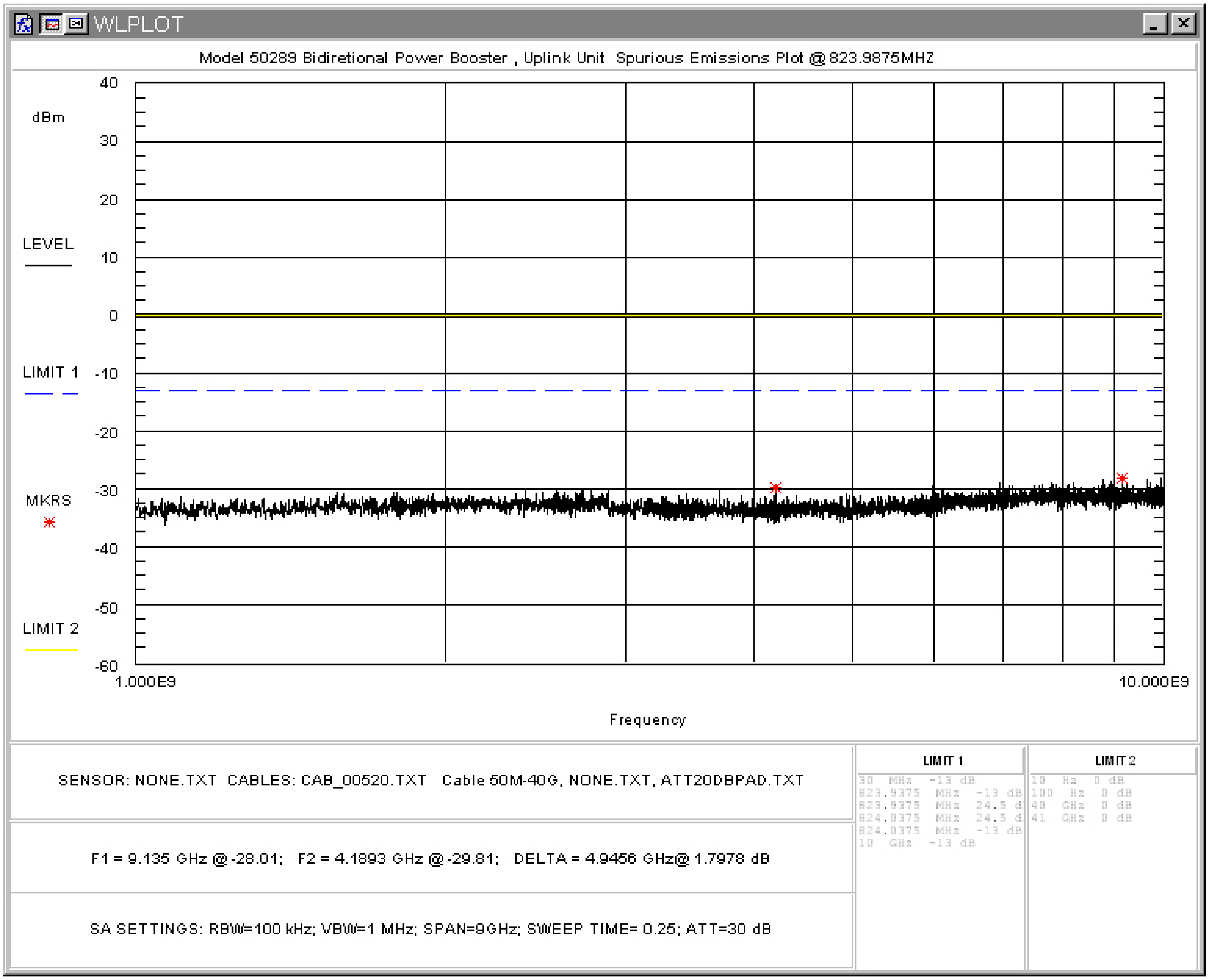

Figure 4-21. Conducted Spurious Emissions, High Channel 1 – 10GHz

4.5 Inter-modulated Spurious Emissions

Testing for inter-modulated spurious emissions used two signal generators set at -60dBm. The first signal generator was set at 806.0125MHz with FM Modulation, 2.5 kHz deviation, 1 kHz tone. The second was set at 823.9875MHz with 4.2 kHz deviation and a 2.5 kHz tone. Testing was performed from 30M – 8GHz. The data is presented in the charts below.

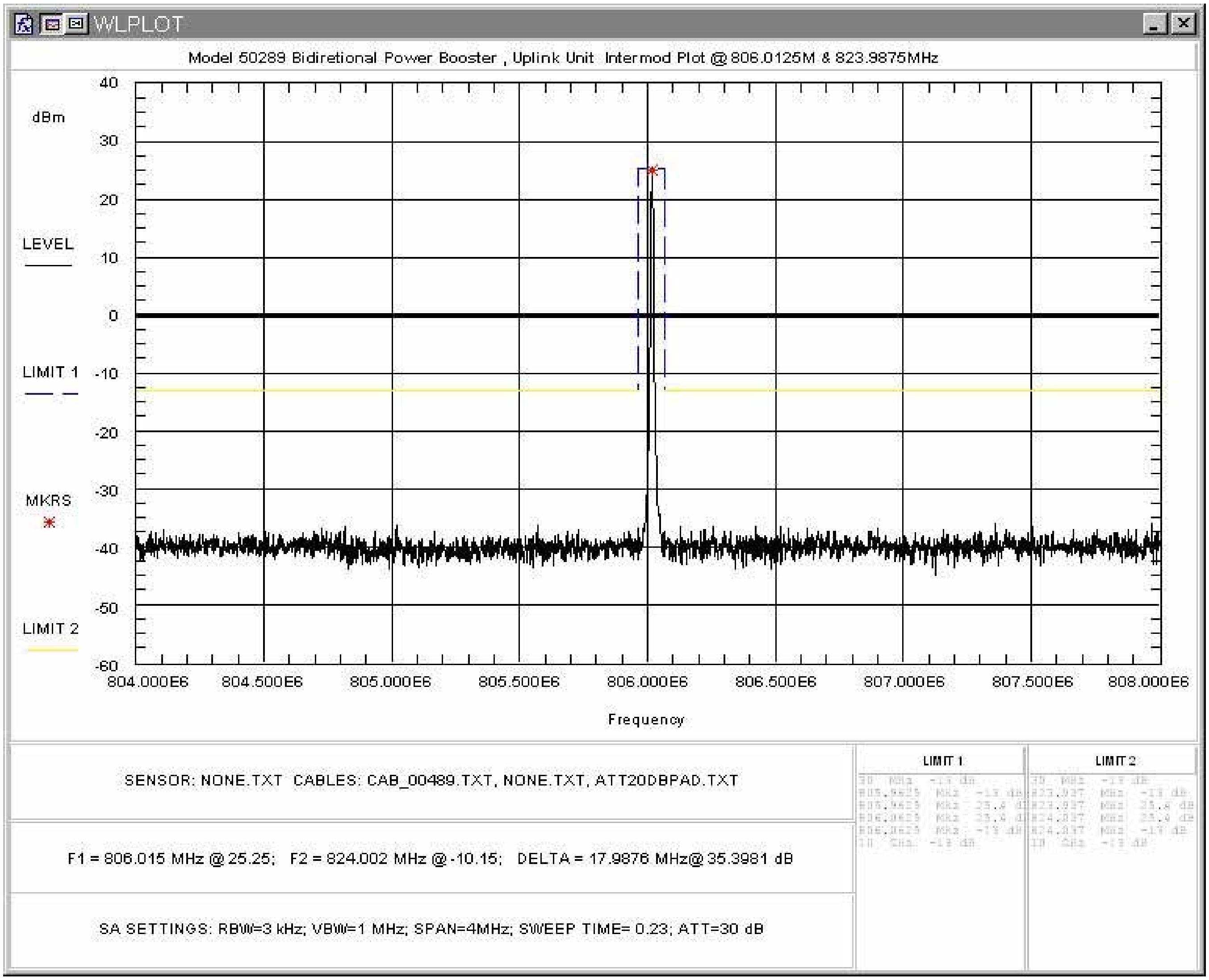

Figure 4-22. Intermodulated Spurious Emissions, In-band, Low Channel

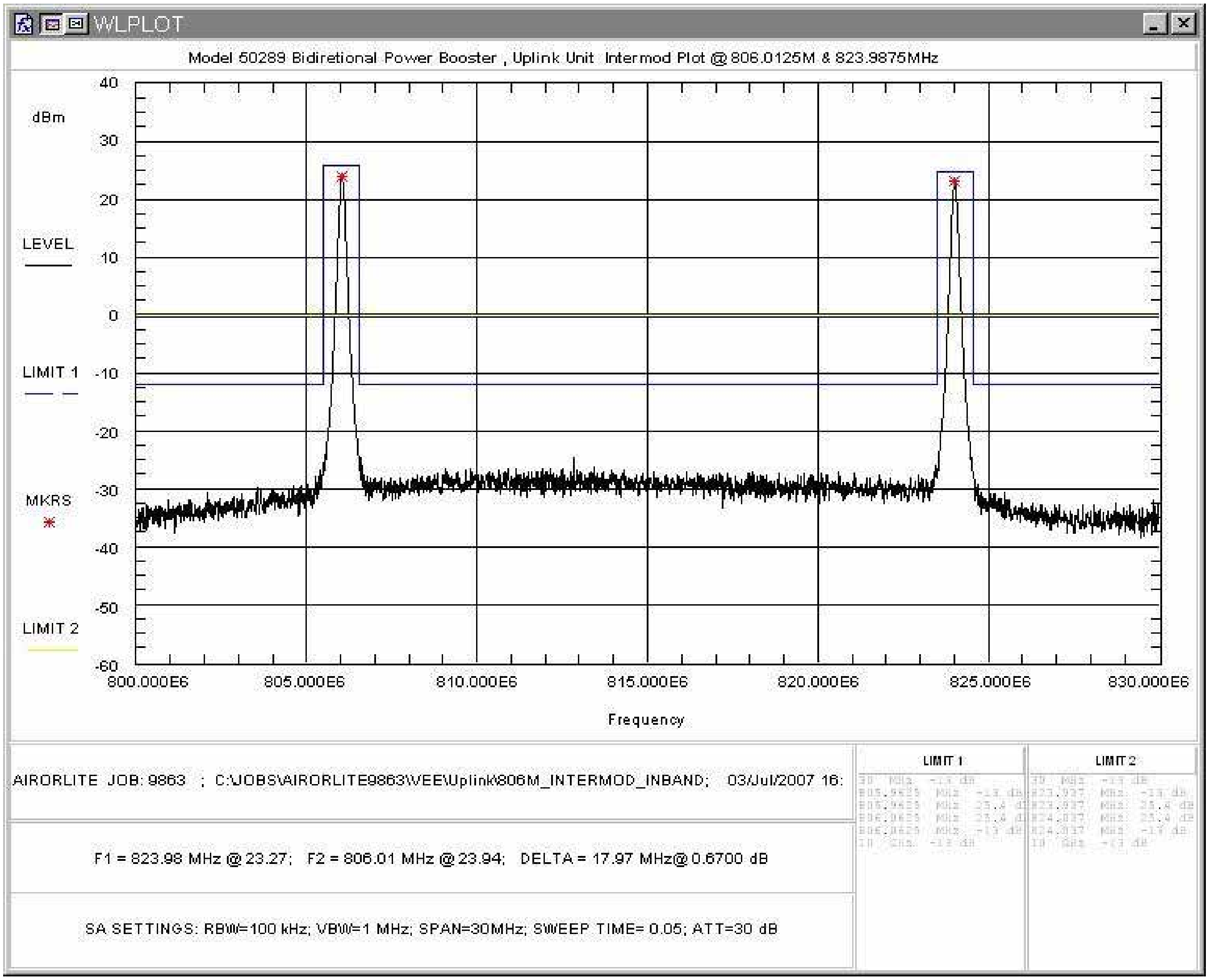

Figure 4-23. Intermodulated Spurious Emissions, In-band, Mid Channel

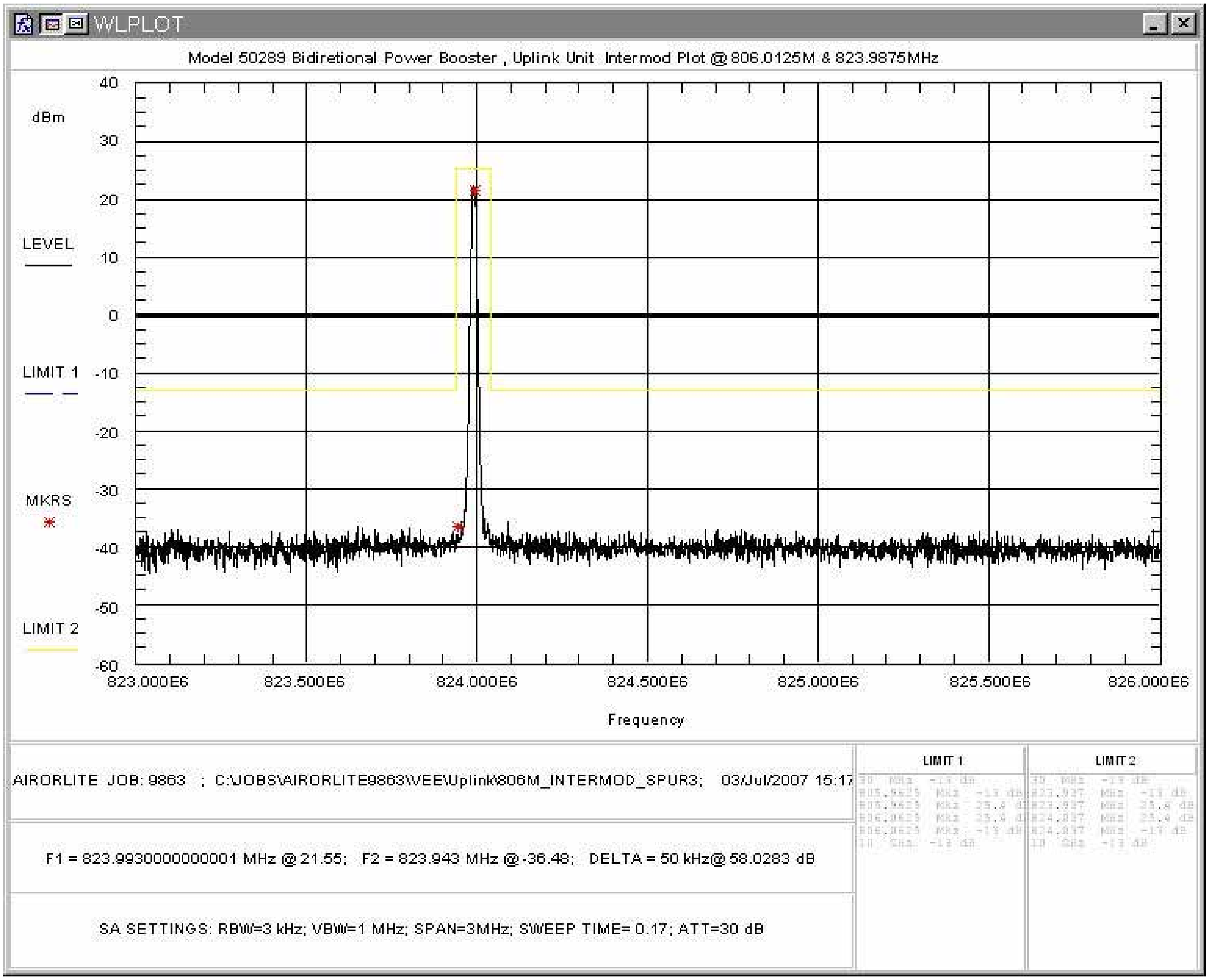

Figure 4-24. Intermodulated Spurious Emissions, In-band, High Channel

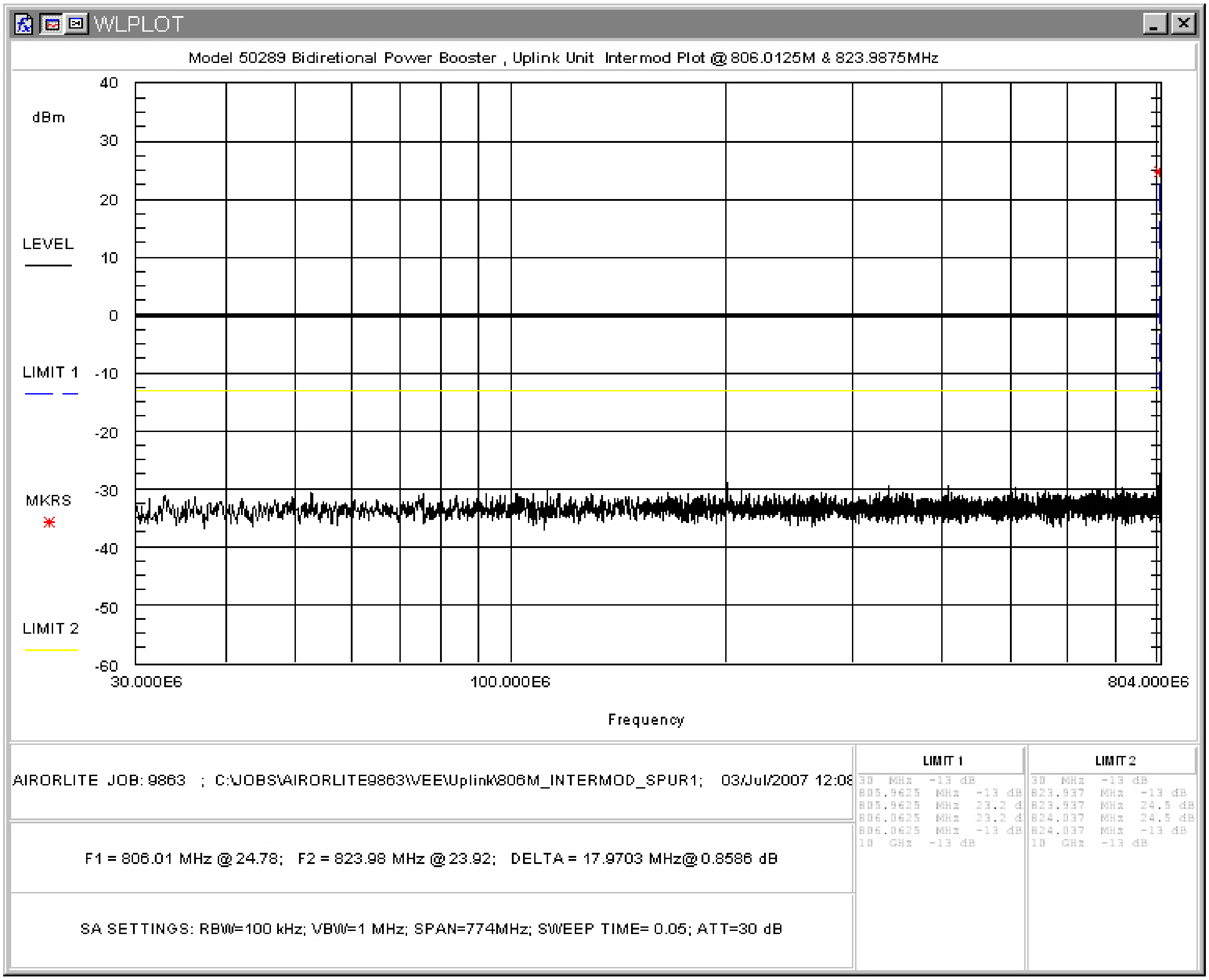

Figure 4-25. Intermodulated Spurious Emissions, 30 – 804MHz

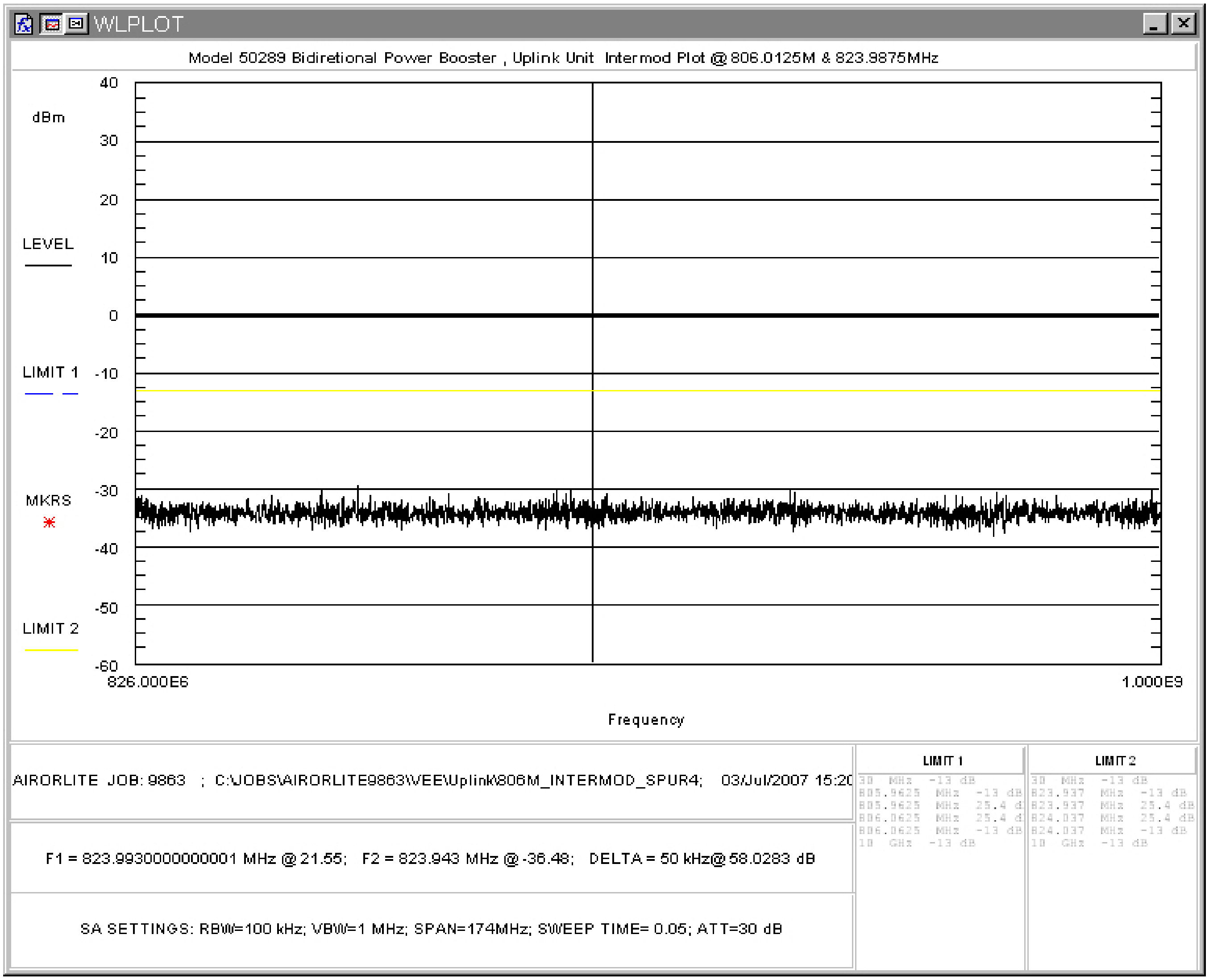

Figure 4-26. Intermodulated Spurious Emissions, 826 – 1000MHz

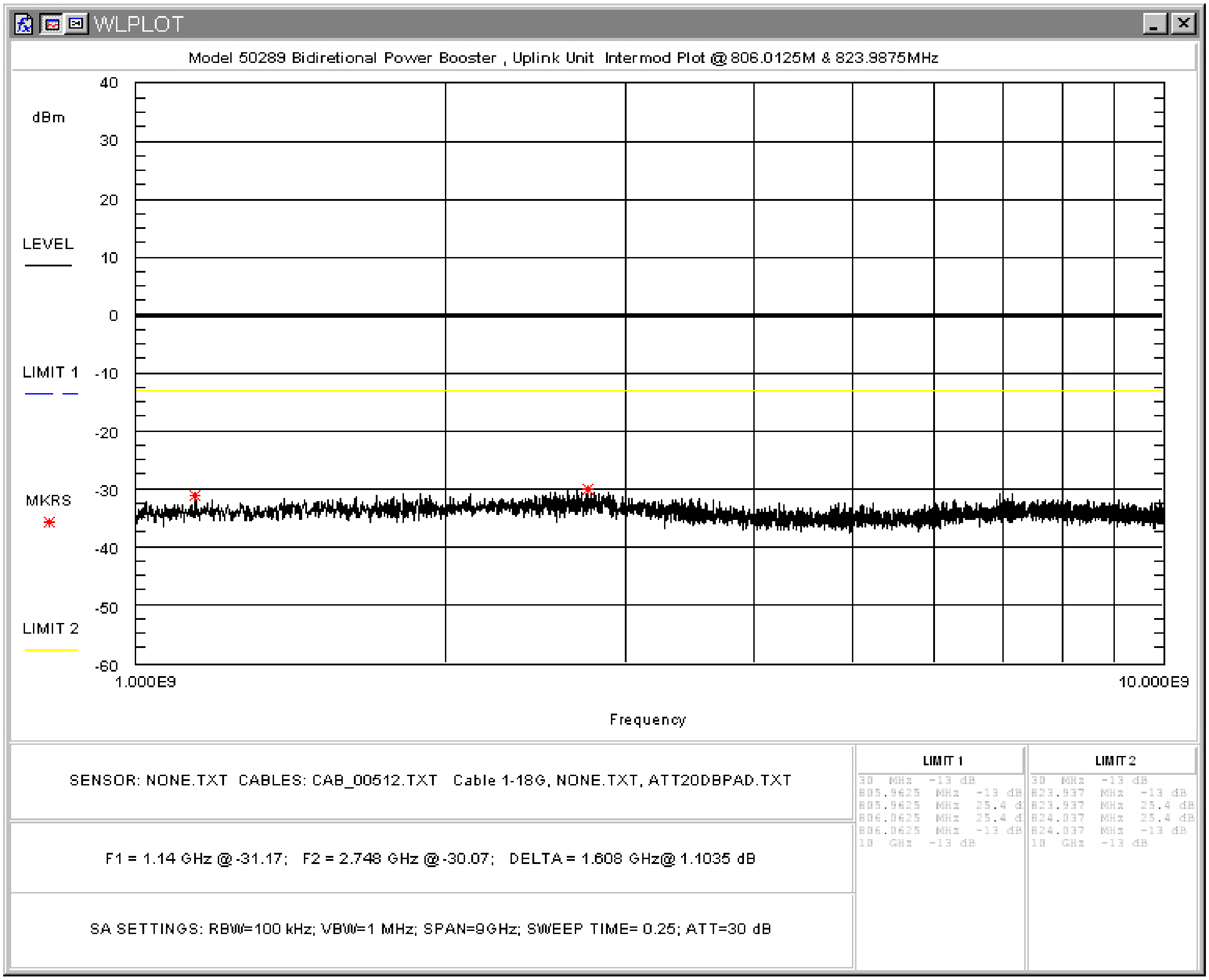

Figure 4-27. Intermodulated Spurious Emissions, 1 – 10GHz

4.6 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.

4.6.1 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. Cables were varied in position to produce maximum emissions. Both the horizontal and vertical field components were measured.

The output was terminated in 50ohms and the radiated spurious emissions measured.

Table 6: Radiated Emission Frequency Data

Low	Mid	High
806.0125	816.3125	823.9875
1612.0250	1632.6250	1647.9750
2418.0375	2448.9375	2471.9625
3224.0500	3265.2500	3295.9500
4030.0625	4081.5625	4119.9375
4836.0750	4897.8750	4943.9250
5642.0875	5714.1875	5767.9125
6448.1000	6530.5000	6591.9000
7254.1125	7346.8125	7415.8875
8060.1250	8163.1250	8239.8750

Table 7: Radiated Emission Test Data, Low Channel

Frequency (MHz)	Polarity H/V	Azimuth Degree	Ant. Height (m)	Spur. Level dBµV	Sub. Sig. Gen. Level dBm	Sub. Power Level dBm	Sub. Ant. Factor dB/m	Sub. Ant. Gain dBi	EIRP Level dBm	Limit dBm	Margin dB
806.0125	V										
1612.0250	V	0.0	1.0	44.3	-57.2	-64.2	29.0	5.4	-58.8	-13.0	-45.8
2418.0375	V	0.0	1.0	45.83	-50.0	-57.5	33.2	4.7	-52.8	-13.0	-39.8
3224.0500	V	0.0	1.0	43.23	-49.9	-58.8	36.5	3.9	-55.0	-13.0	-42.0
4030.0625	V	0.0	1.0	42.5	-48.0	-59.0	37.7	4.6	-54.4	-13.0	-41.4
4836.0750	V	0.0	1.0	42.1	-47.9	-58.7	38.4	5.5	-53.2	-13.0	-40.2
5642.0875	V	0.0	1.0	41.67	-44.5	-57.2	40.1	5.2	-52.0	-13.0	-39.0
6448.1000	V	0.0	1.0	42.67	-41.3	-53.7	41.2	5.2	-48.5	-13.0	-35.5
7254.1125	V	0.0	1.0	44.5	-35.8	-48.7	42.4	5.1	-43.6	-13.0	-30.6
8060.1250	V	0.0	1.0	43.67	-35.5	-48.5	44.4	3.9	-44.6	-13.0	-31.6
1612.0250	H	0.0	1.0	45.17	-56.5	-63.3	29.0	5.4	-57.9	-13.0	-44.9
2418.0375	H	0.0	1.0	45.33	-50.5	-58.0	33.2	4.7	-53.3	-13.0	-40.3
3224.0500	H	0.0	1.0	43.5	-49.6	-58.7	36.5	3.9	-54.8	-13.0	-41.8
4030.0625	H	0.0	1.0	43.1	-47.4	-58.3	37.7	4.6	-53.7	-13.0	-40.7
4836.0750	H	0.0	1.0	42.17	-47.9	-58.7	38.4	5.5	-53.2	-13.0	-40.2
5642.0875	H	0.0	1.0	42.17	-44.0	-56.8	40.1	5.2	-51.7	-13.0	-38.7
6448.1000	H	0.0	1.0	41.67	-42.3	-54.7	41.2	5.2	-49.5	-13.0	-36.5
7254.1125	H	0.0	1.0	44.5	-35.7	-48.7	42.4	5.1	-43.6	-13.0	-30.6
8060.1250	H	0.0	1.0	43.17	-35.3	-48.2	44.4	3.9	-44.2	-13.0	-31.2

Table 8: Radiated Emission Test Data, Mid Channel

Frequency (MHz)	Polarity H/V	Azimuth Degree	Ant. Height (m)	Spur. Level dBμV	Sub. Sig. Gen. Level dBm	Sub. Power Level dBm	Sub. Ant. Factor dB/m	Sub. Ant. Gain dBi	EIRP Level dBm	Limit dBm	Margin dB
816.3125											
1632.6250	V	0.0	1.0	44.5	-57.0	-64.3	29.1	5.4	-58.9	-13.0	-45.9
2448.9375	V	0.0	1.0	45.67	-49.8	-58.0	33.3	4.7	-53.3	-13.0	-40.3
3265.2500	V	0.0	1.0	44.33	-49.3	-58.5	36.5	4.0	-54.5	-13.0	-41.5
4081.5625	V	0.0	1.0	43.17	-46.0	-57.3	37.7	4.7	-52.6	-13.0	-39.6
4897.8750	V	0.0	1.0	42.5	-47.0	-58.0	38.5	5.5	-52.5	-13.0	-39.5
5714.1875	V	0.0	1.0	42.67	-44.0	-56.3	40.2	5.2	-51.2	-13.0	-38.2
6530.5000	V	0.0	1.0	43.83	-38.9	-51.5	41.4	5.2	-46.3	-13.0	-33.3
7346.8125	V	0.0	1.0	45.3	-34.2	-47.2	42.4	5.1	-42.0	-13.0	-29.0
8163.1250	V	0.0	1.0	44.67	-34.8	-47.0	44.6	3.9	-43.1	-13.0	-30.1
1632.6250	H	0.0	1.0	44.2	-57.3	-64.5	29.1	5.4	-59.1	-13.0	-46.1
2448.9375	H	0.0	1.0	45.1	-50.2	-58.5	33.3	4.7	-53.8	-13.0	-40.8
3265.2500	H	0.0	1.0	44.1	-49.5	-58.8	36.5	4.0	-54.8	-13.0	-41.8
4081.5625	H	0.0	1.0	43	-46.2	-57.2	37.7	4.7	-52.5	-13.0	-39.5
4897.8750	H	0.0	1.0	42.33	-47.2	-58.2	38.5	5.5	-52.7	-13.0	-39.7
5714.1875	H	0.0	1.0	42.17	-44.4	-56.7	40.2	5.2	-51.5	-13.0	-38.5
6530.5000	H	0.0	1.0	42.87	-40.0	-52.7	41.4	5.2	-47.5	-13.0	-34.5
7346.8125	H	0.0	1.0	45	-34.7	-47.7	42.4	5.1	-42.5	-13.0	-29.5
8163.1250	H	0.0	1.0	44.17	-35.2	-47.5	44.6	3.9	-43.6	-13.0	-30.6

Table 9: Radiated Emission Test Data, High Channel

Frequency (MHz)	Polarity H/V	Az Deg	Ant. Hght (m)	Spurious Level dBμV	Sub. Sig. Gen. Level dBm	Sub. Power Level dBm	Sub. Ant. Factor dB/m	Sub. Ant. Gain dBi	EIRP Level dBm	Limit dBm	Margin dB
823.988											
1647.975	V	0.0	1.0	39.6	-75.8	-81.5	28.7	5.9	-75.6	-13.0	-62.6
2471.963	V	0.0	1.0	38.2	-70.4	-77.9	32.9	5.2	-72.7	-13.0	-59.7
3295.950	V	0.0	1.0	38.9	-65.1	-74.6	35.1	5.5	-69.1	-13.0	-56.1
4119.938	V	0.0	1.0	38.8	-60.4	-71.9	36.3	6.2	-65.7	-13.0	-52.7
4943.925	V	0.0	1.0	40.4	-54.3	-69.9	36.4	7.6	-62.3	-13.0	-49.3
5767.913	V	0.0	1.0	39.3	-51.3	-66.9	38.2	7.2	-59.7	-13.0	-46.7
6591.900	V	0.0	1.0	43.9	-42.5	-60.3	39.1	7.5	-52.8	-13.0	-39.8
7415.888	V	0.0	1.0	45.7	-34.3	-56.1	40.6	7.0	-49.1	-13.0	-36.1
8239.875	V	0.0	1.0	46.0	-26.6	-52.6	42.4	6.1	-46.5	-13.0	-33.5
823.988											
1647.975	H	0.0	1.0	40.1	-75.5	-81.2	28.7	5.9	-75.3	-13.0	-62.3
2471.963	H	0.0	1.0	39.3	-70.5	-78.0	32.9	5.2	-72.8	-13.0	-59.8
3295.950	H	0.0	1.0	39.4	-64.8	-74.3	35.1	5.5	-68.8	-13.0	-55.8
4119.938	H	0.0	1.0	39.0	-59.9	-71.3	36.3	6.2	-65.1	-13.0	-52.1
4943.925	H	0.0	1.0	39.6	-51.0	-66.9	36.4	7.6	-59.3	-13.0	-46.3
5767.913	H	0.0	1.0	40.9	-46.9	-62.7	38.2	7.2	-55.5	-13.0	-42.5
6591.900	H	0.0	1.0	44.8	-39.7	-58.1	39.1	7.5	-50.6	-13.0	-37.6
7415.888	H	0.0	1.0	45.6	-32.1	-54.1	40.6	7.0	-47.1	-13.0	-34.1
8239.875	H	0.0	1.0	46.9	-24.9	-50.7	42.4	6.1	-44.6	-13.0	-31.6

4.7 Conducted Emissions

Limits for AC power conducted emissions are shown in the following table.

Compliance Limits		
Frequency	**Quasi-peak**	**Average**
0.15-0.5MHz	66 to 56dBµV	56 to 46dBµV
0.5 to 5MHz	56dBµV	46dBµV
0.5-30MHz	60dBµV	50dBµV

4.7.1 Test Procedure

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 was supplied to the peripherals through a second LISN. Power and data cables were moved about to obtain maximum emissions.

The 50 Ω 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 average measurements the post-detector filter was set to 10 Hz.

At frequencies where quasi-peak or peak measurements comply with the average limit, no average measurements need be performed.

At frequencies where quasi-peak or peak measurements comply with the average limit, no average measurements need be performed. The Conducted emissions level to be compared to the FCC limit is calculated as shown in the following example.

Example:

Spectrum Analyzer Voltage: VdBµV

LISN Correction Factor: LISN dB

Cable Correction Factor: CF dB

Electric Field: EdBµV =V dBµV + LISN dB + CF dB

4.7.2 Test Data

Table 10 provides the test results for power line conducted emissions.

Table 10: Conducted Emission Test Data

816.3125MHz TX

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)
0.214	53.0	10.2	0.5	79.0	63.7	-15.3	52.1	10.2	62.8	66.0	-3.2
0.223	51.6	10.2	0.5	79.0	62.3	-16.7	51.3	10.2	62.0	66.0	-4.0
0.319	44.6	10.1	0.3	79.0	55.1	-23.9	43.7	10.1	54.2	66.0	-11.8
0.425	43.5	10.2	0.3	79.0	54.0	-25.0	42.1	10.2	52.6	66.0	-13.4
2.874	41.5	10.6	0.6	73.0	52.7	-20.3	40.9	10.6	52.1	60.0	-7.9
6.923	44.9	11.0	0.9	73.0	56.8	-16.2	43.4	11.0	55.3	60.0	-4.7
7.243	43.8	11.0	1.0	73.0	55.8	-17.2	42.4	11.0	54.4	60.0	-5.6
16.589	31.5	11.6	2.6	73.0	45.7	-27.3	30.2	11.6	44.4	60.0	-15.6

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)
0.213	54.8	10.2	0.3	79.0	65.3	-13.7	54.8	10.2	65.3	66.0	-0.7
0.223	51.5	10.2	0.3	79.0	61.9	-17.1	50.8	10.2	61.2	66.0	-4.8
0.319	44.2	10.1	0.2	79.0	54.5	-24.5	43.1	10.1	53.4	66.0	-12.6
0.425	42.8	10.2	0.2	79.0	53.2	-25.8	42.6	10.2	53.0	66.0	-13.0
2.874	41.5	10.6	0.8	73.0	52.9	-20.1	40.1	10.6	51.5	60.0	-8.5
6.923	40.6	11.0	1.3	73.0	52.9	-20.1	39.8	11.0	52.1	60.0	-7.9
7.248	37.6	11.0	1.3	73.0	50.0	-23.0	36.4	11.0	48.8	60.0	-11.2
16.589	29.6	11.6	3.4	73.0	44.6	-28.4	28.9	11.6	43.9	60.0	-16.1

4.8 Frequency Stability: (FCC Part §2.1055)

Frequency as a function of temperature and voltage variation shall be maintained within the FCC-prescribed tolerances.

There are no frequency-determining elements in the EUT. Hence, Frequency stability is not required.