DECLARATION OF COMPLIANCE
FCC PART 24(E) EMC MEASUREMENTS

Test Lab

CELLTECH LABS INC.
Testing and Engineering Services
1955 Moss Court
Kelowna, B.C.
Canada V1Y 9L3
Phone: 250-448-7047
Fax: 250-448-7046
e-mail: info@celltechlabs.com
web site: www.celltechlabs.com

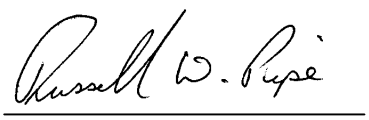
Applicant Information

ITRONIX CORPORATION
801 South Stevens Street
Spokane, WA 99210-0179

Rule Part(s):	**FCC 47 CFR §24(E), §2; IC RSS-133 Issue 2**
Test Procedure(s):	**FCC 47 CFR §24(E), §2; ANSI TIA/EIA-603-A-2001**
FCC Device Classification:	**Licensed Base Station for Part 24 (PCB)**
IC Device Classification:	**2GHz Personal Communication Services**
Device Type:	**Rugged Laptop PC with Sierra Wireless AirCard 750 PCS GSM/GPRS Modem (Co-located with Cisco Systems MPI-350 Mini-PCI DSSS WLAN Card)**
FCC ID:	**KBCIX260AC750-MPI**
Model(s):	**IX260**
Tx Frequency Range:	**1850.25 - 1909.875 MHz**
Max. RF Output Power:	**0.968 Watts EIRP (29.86 dBm)**
Conducted Power Tested:	**27.9 dBm Peak (1850.25 MHz)** **27.9 dBm Peak (1880.00 MHz)** **27.8 dBm Peak (1909.875 MHz)**
Modulation:	**GMSK**
Emission Designator:	**271KGXW**
Frequency Tolerance:	**0.1 PPM**
Antenna Type(s):	**External Dipole (PCS GSM/GPRS Modem)** **Dual Internal (Co-located DSSS WLAN Card)**
Battery Type:	**11.1V Lithium-Ion, 6.0Ah (Model: A2121-2)**

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in FCC 47 CFR §24(E), §2, and ANSI TIA/EIA-603-A-2001.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.



Russell Pipe
Senior Compliance Technologist
Celltech Labs Inc.

TABLE OF CONTENTS

FCC PART 24(E) EMC MEASUREMENT REPORT

1.1 SCOPE

Measurement and determination of electromagnetic emissions (EME) from radio frequency devices for compliance with the technical rules and regulations of the Federal Communications Commission and Industry Canada.

1.2 GENERAL INFORMATION - §2.1033(a)

APPLICANT

ITRONIX CORPORATION
801 South Stevens Street
Spokane, WA 99210-0179

FCC ID	KBCIX260AC750-MPI
Model(s)	IX260
Serial No.	Pre-production
EUT Type	Rugged Laptop PC with Sierra Wireless AirCard 750 PCS GSM/GPRS PCMCIA Modem Card (Co-located with Cisco MPI-350 Mini-PCI DSSS WLAN Card)
Rule Part(s)	FCC 47 CFR §24(E), §2; IC RSS-133 Issue 2
FCC Classification	Licensed Base Station for Part 24 (PCB)
IC Classification	2GHz Personal Communication Services
Test Procedure(s)	FCC 47 CFR §24(E), §2; ANSI TIA/EIA-603-A-2001
Tx Frequency Range	1850.25 - 1909.875 MHz
Modulation	GMSK
Max. RF Output Power	0.968 Watts EIRP (29.86 dBm)
RF Conducted Output Power Tested	27.9 dBm Peak (1850.25 MHz) 27.9 dBm Peak (1880.00 MHz) 27.8 dBm Peak (1909.875 MHz)
Emission Designator	271KGXW
Frequency Tolerance	0.1 PPM
Battery Type(s)	11.1V Lithium-Ion, 6.0Ah (Model: A2121-2)
Antenna Type(s)	External Dipole (Length: 4.3 inches) Dual Internal (Co-located DSSS WLAN Card)

2.1 MEASUREMENT PROCEDURES

2.2 RF OUTPUT POWER MEASUREMENT - §2.1046

The peak conducted power was measured with a Gigatronics 8650A Universal Power Meter in burst average power mode. An offset was entered into the power meter to correct for the losses of the attenuator and cable installed before the sensor input. The transmitter terminal was coupled to the power meter and the EUT was placed into test mode via internal software. All subsequent tests were performed using the same tune-up procedures.

2.3 SPURIOUS EMISSIONS AT ANTENNA TERMINAL - §2.1051

The peak conducted power was measured with a Gigatronics 8650A Universal Power Meter in burst average power mode. An offset was entered into the power meter to correct for all losses of the attenuator and cable installed before the sensor input. The EUT was placed into test mode via internal software. The level of the carrier and the various conducted spurious frequencies were measured by means of a calibrated spectrum analyzer. The resolution bandwidth and video bandwidth were set to 1MHz. The spectrum was scanned from 10MHz to 20GHz at the low, medium, and high channels. The radio transmitter was operating at maximum output power. The antenna output terminal of the EUT was connected to the input of a 50Ω spectrum analyzer through a matched 30dB attenuator and coaxial cable. The reported emissions were below the specified limit of -13dBm.

2.4 OCCUPIED BANDWIDTH - §2.1049, §24.238

The EUT was placed into test mode via internal software at a full rated power. The EUT was connected to the input of a 50Ω spectrum analyzer through a matched 30dB attenuator. The resolution bandwidth and video bandwidth were set to 3kHz. The radio transmitter was operating at maximum output power. 100% of the in-band modulation was below the specified mask per §24.238.

Specified Limits (as of February 18, 2003):

(a) On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB.
(b) Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
(c) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges, both upper and lower, as the design permits.
(d) The measurements of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

(a) (e) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

2.5 EFFECTIVE ISOTROPIC RADIATED POWER OUTPUT - §24.232(b)

EIRP measurements were performed using the Signal Substitution Method in accordance with ANSI TIA/EIA-603-A-2001 on a 3-meter open area test site. The EUT was placed on a turntable 3-meters from the receive antenna and placed into test mode via internal software at a full rated power. The field of maximum intensity was found by rotating the EUT 360 degrees and changing the height of the receive antenna from 1 to 4 meters. Once a peak was found the spectrum analyzer was set to peak hold and the value of the emission was extracted. The field strength was recorded for each channel being tested, and for both EUT antenna polarizations and modes. A standard gain horn antenna was substituted in place of the EUT. The antenna was fed through a directional coupler and the power at the coupler port was monitored. A signal generator and power amplifier controlled the signal to the antenna, and the input level of the antenna was adjusted to the same field strength level as the EUT. The feed point for the antenna was then connected to a calibrated power meter and the power adjusted to read the same as the coupler port previously recorded, this is to account for any mismatch in impedance, which may occur at the horn antenna. The conducted power at the antenna feed point was recorded. The forward conducted power for the horn antenna was then determined and the EIRP level was determined by adding the horn forward conducted power and the antenna gain in dB.

2.6 FIELD STRENGTH OF SPURIOUS RADIATION - §2.1053

Radiated and harmonic emissions were measured on a 3-meter outdoor site. The EUT was placed into test mode via internal software at a full rated power. The EUT was placed on the turntable with the transmitter transmitting into a non-radiating load. A receiving antenna located 3 meters from the turntable received any signal radiated from the transmitter and its operating accessories. The receiving antenna was varied in height from 1 to 4 meters and the polarization was varied (horizontal and vertical) to determine the worst-case emission level. All spurious emissions made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier were investigated.

2.7 RADIATED MEASUREMENT TEST SETUP

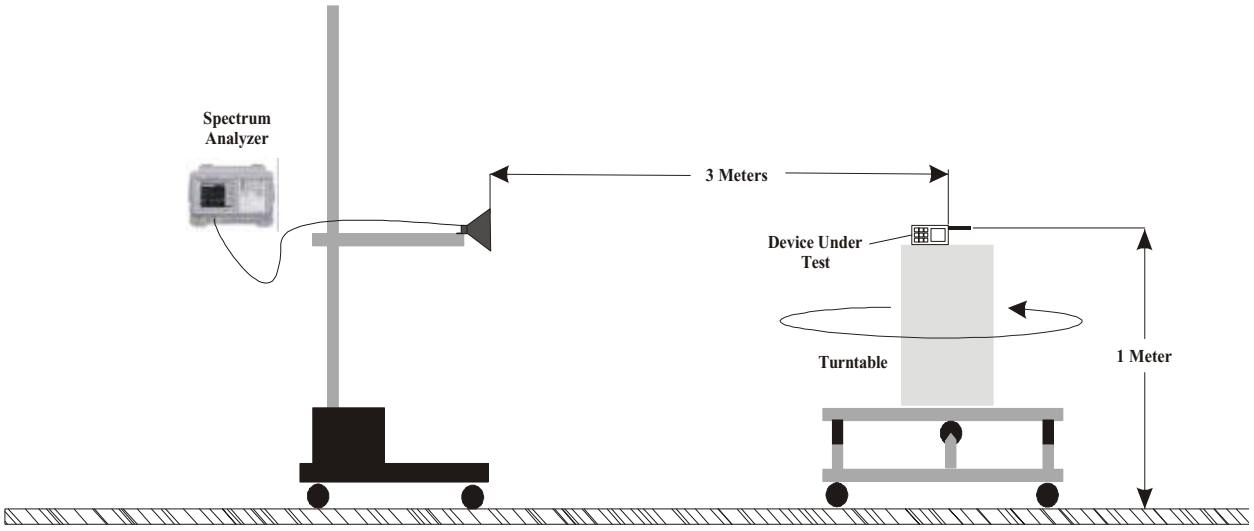


Figure 1. Radiated Measurement Test Setup Diagram

2.8 FREQUENCY STABILITY / TEMPERATURE VARIATION - §2.1055, §24.235

The minimum frequency stability shall be ±150Hz referenced to a received carrier frequency. This meets the requirement for operational accuracy of 0.00001%. An HP 53181A Frequency Counter was used to measure the error in the fundamental frequency. The transmitter was set to maximum power at the center frequency of the band and placed inside the ESPEC ECT-2 temperature chamber.

Measurement Method:

The frequency stability of the transmitter was measured by:

1. Temperature: The temperature was varied from -30°C to +60°C at intervals no more than 10°C throughout the temperature range using an environmental chamber. A period of time sufficient to stabilize all of the components in the equipment was allowed prior to each frequency measurement.

2. Primary Supply Voltage: The primary supply voltage was set at the specified nominal rating and reduced to the battery operating endpoint specified by the manufacturer. The voltage was measured at the terminals of the power supply or at the input to the cable normally provided with the equipment.

Time Period and Procedure:

1. The carrier frequency of the transmitter was measured at room temperature (25°C to 27°C to provide a reference).
2. The equipment was subjected to an overnight “soak” at -30°C without any power applied.
3. After the overnight “soak” at -30°C, the measurement of the carrier frequency of the transmitter was made within a three-minute interval after applying power to the transmitter.
4. Frequency measurements were made at 10°C intervals up to +60°C, then back to room temperature. A minimum period of one hour was provided to allow stabilization of the equipment at each temperature level.

3.1 TEST DATA

3.2 EFFECTIVE ISOTROPIC RADIATED POWER OUTPUT - §24.232(b)

Modem Transmit Configuration	Freq. Tuned	EUT Conducted Power	Maximum Field Strength of EUT	Antenna Polariz.	Horn Gain	Horn Forward Conducted Power	EIRP of EUT Horn Gain + Horn Forward Conducted Power	
	MHz	dBm	dBm	H/V	dBi	dBm	dBm	Watts
AC750	1850.25	27.9	- 9.21	H	6.55	21.70	28.25	0.668
AC750	1880.00	27.9	- 9.23	H	6.58	22.46	29.04	0.802
AC750	1909.875	27.8	- 9.32	H	6.61	23.25	29.86	0.968
AC750 & MPI-350	1850.25	27.9	- 9.56	H	6.55	21.62	28.17	0.656
AC750 & MPI-350	1880.00	27.9	- 9.25	H	6.58	22.54	29.12	0.817
AC750 & MPI-350	1909.875	27.8	- 10.06	H	6.61	22.59	29.20	0.832

Notes:

1. EIRP measurements were performed for both horizontal and vertical antenna polarizations and the worst-case is reported.
2. The co-located Cisco MPI-350 DSSS WLAN Card was set to the maximum conducted power level (21.1 dBm) at the high channel (2462MHz) with a modulated DSSS signal for the simultaneous transmit tests, based on the maximum EIRP measured for the DSSS WLAN Card recorded at the high channel (right side internal antenna). Please refer to the EIRP measurement data in the Part 15.247 test report for the Cisco MPI-350 Mini-PCI DSSS WLAN Card submitted simultaneously with this application.

3.3 FIELD STRENGTH OF SPURIOUS RADIATION - §2.1053

Operating Frequency (MHz): 1850.25
Channel: 512 (Low)
EUT Conducted Pwr. (dBm): 27.90
Measured EIRP (dBm): 28.25
Modulation: GMSK (Single Transmit)
Distance: 3 Meters
Limit: 43 + 10 log (W) = 41.25 dBc

Frequency	Field Strength of Spurious Radiation	Horn Forward Cond. Pwr.	Standard Gain Horn Antenna Gain	POL	EIRP	ERP	dBc
MHz	dBm	dBm	dBi	H/V	dBm	dBm	
3700.50	-88.21	-55.32	6.6	H	-48.72	-50.86	79.11
5550.75	-87.64	-49.84	7.8	H	-42.04	-44.18	72.43
7401.00	-86.42	-49.84	7.8	H	-42.04	-44.18	72.43
9251.25	-87.08	-49.06	7.6	H	-41.46	-43.60	71.85
11101.50	-87.37	-51.01	8.5	H	-42.51	-44.65	72.90
12951.75	-86.40	-48.52	8.8	H	-39.72	-41.86	70.11
14802.00	-83.19	-45.31	9.6	H	-35.71	-37.85	66.10
16652.25	-83.95	-46.12	9.0	H	-37.12	-39.26	67.51
18502.50	-84.54	-48.33	9.3	H	-39.03	-41.17	69.42

Notes:
1. Radiated spurious measurements were performed using the Signal Substitution Method per ANSI/TIA/EIA-603-A-2001.
2. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
3. Spurious emissions more than 20 dB below the limit are reported, though not required per §2.1051.

FIELD STRENGTH OF SPURIOUS RADIATION - §2.1053

Operating Frequency (MHz): 1850.25
Channel: 512 (Low)
EUT Conducted Pwr. (dBm): 27.90
Measured EIRP (dBm): 28.17
Modulation: GMSK (Simultaneous Transmit with co-located DSSS WLAN Card)
Distance: 3 Meters
Limit: 43 + 10 log (W) = 41.17 dBc

Frequency	Field Strength of Spurious Radiation	Horn Forward Cond. Pwr.	Standard Gain Horn Antenna Gain	POL	EIRP	ERP	dBc
MHz	dBm	dBm	dBi	H/V	dBm	dBm	
3700.50	-88.67	-55.78	6.6	H	-49.18	-51.32	79.49
5550.75	-88.13	-50.33	7.8	H	-42.53	-44.67	72.84
7401.00	-87.54	-50.96	7.8	H	-43.16	-45.30	73.47
9251.25	87.21	125.23	7.6	H	132.83	130.69	-102.52
11101.50	-87.55	-51.19	8.5	H	-42.69	-44.83	73.00
12951.75	-86.68	-48.80	8.8	H	-40.00	-42.14	70.31
14802.00	-83.37	-45.49	9.6	H	-35.89	-38.03	66.20
16652.25	-84.14	-46.31	9.0	H	-37.31	-39.45	67.62
18502.50	-84.62	-48.41	9.3	H	-39.11	-41.25	69.42

Notes:
1. Radiated spurious measurements were performed using the Signal Substitution Method per ANSI/TIA/EIA-603-A-2001 Section 2.212.
2. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
3. Spurious emissions more than 20 dB below the limit are reported, though not required per §2.1051.
4. The co-located Cisco MPI-350 DSSS WLAN Card was set to the maximum conducted power level (21.1 dBm) at the high channel (2462MHz) with a modulated DSSS signal for the simultaneous transmit tests, based on the maximum radiated spurious emission measured for the DSSS WLAN Card recorded at the high channel (right side internal antenna). Please refer to the radiated spurious emissions measurement data in the Part 15.247 test report for the Cisco MPI-350 Mini-PCI DSSS WLAN Card submitted simultaneously with this application.

FIELD STRENGTH OF SPURIOUS RADIATION - §2.1053

Operating Frequency (MHz): 1880.00
Channel: 661 (Mid)
EUT Conducted Pwr. (dBm): 27.90
Measured EIRP (dBm): 29.04
Modulation: GMSK (Single Transmit)
Distance: 3 Meters
Limit: 43 + 10 log (W) = 42.04 dBc

Frequency	Field Strength of Spurious Radiation	Horn Forward Cond. Pwr.	Standard Gain Horn Antenna Gain	POL	EIRP	ERP	dBc
MHz	dBm	dBm	dBi	H/V	dBm	dBm	
3760.00	-86.65	-53.76	6.6	H	-47.16	-49.30	78.34
5640.00	-87.16	-49.36	7.8	H	-41.56	-43.70	72.74
7520.00	-85.13	-48.55	7.8	H	-40.75	-42.89	71.93
9400.00	-86.33	-48.31	7.6	H	-40.71	-42.85	71.89
11280.00	-85.27	-48.91	8.5	H	-40.41	-42.55	71.59
13160.00	-85.32	-47.44	8.8	H	-38.64	-40.78	69.82
15040.00	-82.18	-44.30	9.6	H	-34.70	-36.84	65.88
16920.00	-83.24	-45.41	9.0	H	-36.41	-38.55	67.59
18800.00	-83.36	-47.15	9.3	H	-37.85	-39.99	69.03

Notes:
1. Radiated spurious measurements were performed using the Signal Substitution Method per ANSI/TIA/EIA-603-A-2001.
2. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
3. Spurious emissions more than 20 dB below the limit are reported, though not required per §2.1051.

FIELD STRENGTH OF SPURIOUS RADIATION - §2.1053

Operating Frequency (MHz): 1880.00
Channel: 661 (Mid)
EUT Conducted Pwr. (dBm): 27.90
Measured EIRP (dBm): 29.12
Modulation: GMSK (Simultaneous Transmit with co-located DSSS WLAN Card)
Distance: 3 Meters
Limit: 43 + 10 log (W) = 42.12 dBc

Frequency	Field Strength of Spurious Radiation	Horn Forward Cond. Pwr.	Standard Gain Horn Antenna Gain	POL	EIRP	ERP	dBc
MHz	dBm	dBm	dBi	H/V	dBm	dBm	
3760.00	-86.93	-54.04	6.6	H	-47.44	-49.58	78.70
5640.00	-87.44	-49.64	7.8	H	-41.84	-43.98	73.10
7520.00	-85.38	-48.80	7.8	H	-41.00	-43.14	72.26
9400.00	-86.31	-48.29	7.6	H	-40.69	-42.83	71.95
11280.00	-85.54	-49.18	8.5	H	-40.68	-42.82	71.94
13160.00	-85.60	-47.72	8.8	H	-38.92	-41.06	70.18
15040.00	-82.72	-44.84	9.6	H	-35.24	-37.38	66.50
16920.00	-83.49	-45.66	9.0	H	-36.66	-38.80	67.92
18800.00	-83.51	-47.30	9.3	H	-38.00	-40.14	69.26

Notes:
1. Radiated spurious measurements were performed using the Signal Substitution Method per ANSI/TIA/EIA-603-A-2001 Section 2.212.
2. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
3. Spurious emissions more than 20 dB below the limit are reported, though not required per §2.1051.
4. The co-located Cisco MPI-350 DSSS WLAN Card was set to the maximum conducted power level (21.1 dBm) at the high channel (2462MHz) with a modulated DSSS signal for the simultaneous transmit tests, based on the maximum radiated spurious emission measured for the DSSS WLAN Card recorded at the high channel (right side internal antenna). Please refer to the radiated spurious emissions measurement data in the Part 15.247 test report for the Cisco MPI-350 Mini-PCI DSSS WLAN Card submitted simultaneously with this application.

FIELD STRENGTH OF SPURIOUS RADIATION - §2.1053

Operating Frequency (MHz): 1909.875
Channel: 810 (High)
EUT Conducted Pwr. (dBm): 27.80
Measured EIRP (dBm): 29.86
Modulation: GMSK (Single Transmit)
Distance: 3 Meters
Limit: 43 + 10 log (W) = 42.86 dBc

Frequency	Field Strength of Spurious Radiation	Horn Forward Cond. Pwr.	Standard Gain Horn Antenna Gain	POL	EIRP	ERP	dBc
MHz	dBm	dBm	dBi	H/V	dBm	dBm	
3819.75	-85.43	-52.54	6.6	H	-45.94	-48.08	77.94
5729.63	-86.74	-48.94	7.8	H	-41.14	-43.28	73.14
7639.50	-86.29	-49.71	7.8	H	-41.91	-44.05	73.91
9549.38	-85.80	-47.78	7.6	H	-40.18	-42.32	72.18
11459.25	-86.14	-49.78	8.5	H	-41.28	-43.42	73.28
13369.13	-84.37	-46.49	8.8	H	-37.69	-39.83	69.69
15279.00	-83.11	-45.23	9.6	H	-35.63	-37.77	67.63
17188.88	-84.08	-46.25	9.0	H	-37.25	-39.39	69.25
19098.75	-84.32	-48.11	9.3	H	-38.81	-40.95	70.81

Notes:
1. Radiated spurious measurements were performed using the Signal Substitution Method per ANSI/TIA/EIA-603-A-2001.
2. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
3. Spurious emissions more than 20 dB below the limit are reported, though not required per §2.1051.

FIELD STRENGTH OF SPURIOUS RADIATION - §2.1053

Operating Frequency (MHz): 1909.875
Channel: 810 (High)
EUT Conducted Pwr. (dBm): 27.80
Measured EIRP (dBm): 29.20
Modulation: GMSK (Simultaneous Transmit with co-located DSSS WLAN Card)
Distance: 3 Meters
Limit: 43 + 10 log (W) = 42.20 dBc

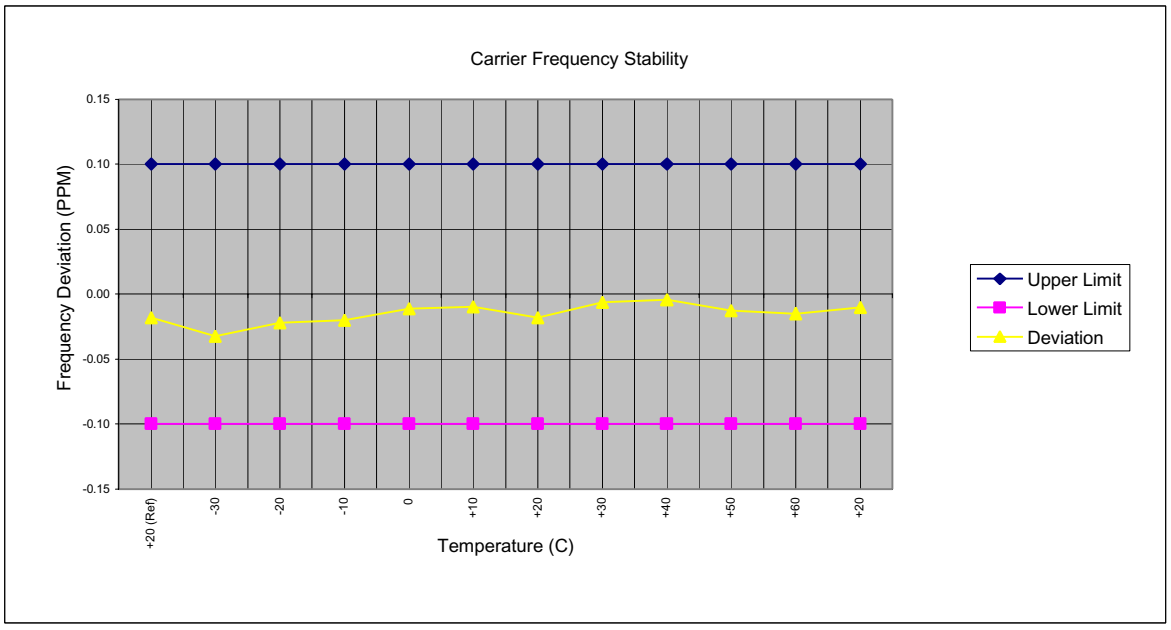
Frequency	Field Strength of Spurious Radiation	Horn Forward Cond. Pwr.	Standard Gain Horn Antenna Gain	POL	EIRP	ERP	dBc
MHz	dBm	dBm	dBi	H/V	dBm	dBm	
3819.75	-85.74	-52.85	6.6	H	-46.25	-48.39	77.59
5729.63	-86.88	-49.08	7.8	H	-41.28	-43.42	72.62
7639.50	-86.42	-49.84	7.8	H	-42.04	-44.18	73.38
9549.38	-86.15	-48.13	7.6	H	-40.53	-42.67	71.87
11459.25	-86.43	-50.07	8.5	H	-41.57	-43.71	72.91
13369.13	-84.71	-46.83	8.8	H	-38.03	-40.17	69.37
15279.00	-83.43	-45.55	9.6	H	-35.95	-38.09	67.29
17188.88	-84.50	-46.67	9.0	H	-37.67	-39.81	69.01
19098.75	-84.86	-48.65	9.3	H	-39.35	-41.49	70.69

Notes:
1. Radiated spurious measurements were performed using the Signal Substitution Method per ANSI/TIA/EIA-603-A-2001 Section 2.212.
2. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
3. Spurious emissions more than 20 dB below the limit are reported, though not required per §2.1051.
4. The co-located Cisco MPI-350 DSSS WLAN Card was set to the maximum conducted power level (21.1 dBm) at the high channel (2462MHz) with a modulated DSSS signal for the simultaneous transmit tests, based on the maximum radiated spurious emission measured for the DSSS WLAN Card recorded at the high channel (right side internal antenna). Please refer to the radiated spurious emissions measurement data in the Part 15.247 test report for the Cisco MPI-350 Mini-PCI DSSS WLAN Card submitted simultaneously with this application.

3.4 FREQUENCY STABILITY - §2.1055, §24.235

Test Date: 11/5/2002
Carrier Frequency (GHz): 1.88
Channel: 661
Mode: GPRS
Deviation Limit (PPM): 0.1

Temperature	Voltage	Power	Carrier Frequency Deviation		Specification	
(C)	(%)	(VDC)	(Hz)	(PPM)	Lower Limit (PPM)	Upper Limit (PPM)
+20 (Ref)	100	5.5	-33.98	-0.018	0.1	-0.1
-30	100	5.5	-60.67	-0.032	0.1	-0.1
-20	100	5.5	-41.13	-0.022	0.1	-0.1
-10	100	5.5	-37.65	-0.020	0.1	-0.1
0	100	5.5	-20.88	-0.011	0.1	-0.1
+10	100	5.5	-18.19	-0.010	0.1	-0.1
+20	100	5.5	-33.98	-0.018	0.1	-0.1
+30	100	5.5	-12.26	-0.007	0.1	-0.1
+40	100	5.5	-7.71	-0.004	0.1	-0.1
+50	100	5.5	-23.54	-0.013	0.1	-0.1
+60	100	5.5	-28.12	-0.015	0.1	-0.1
+20	Endpoint	3.1	-18.83	-0.010	0.1	-0.1



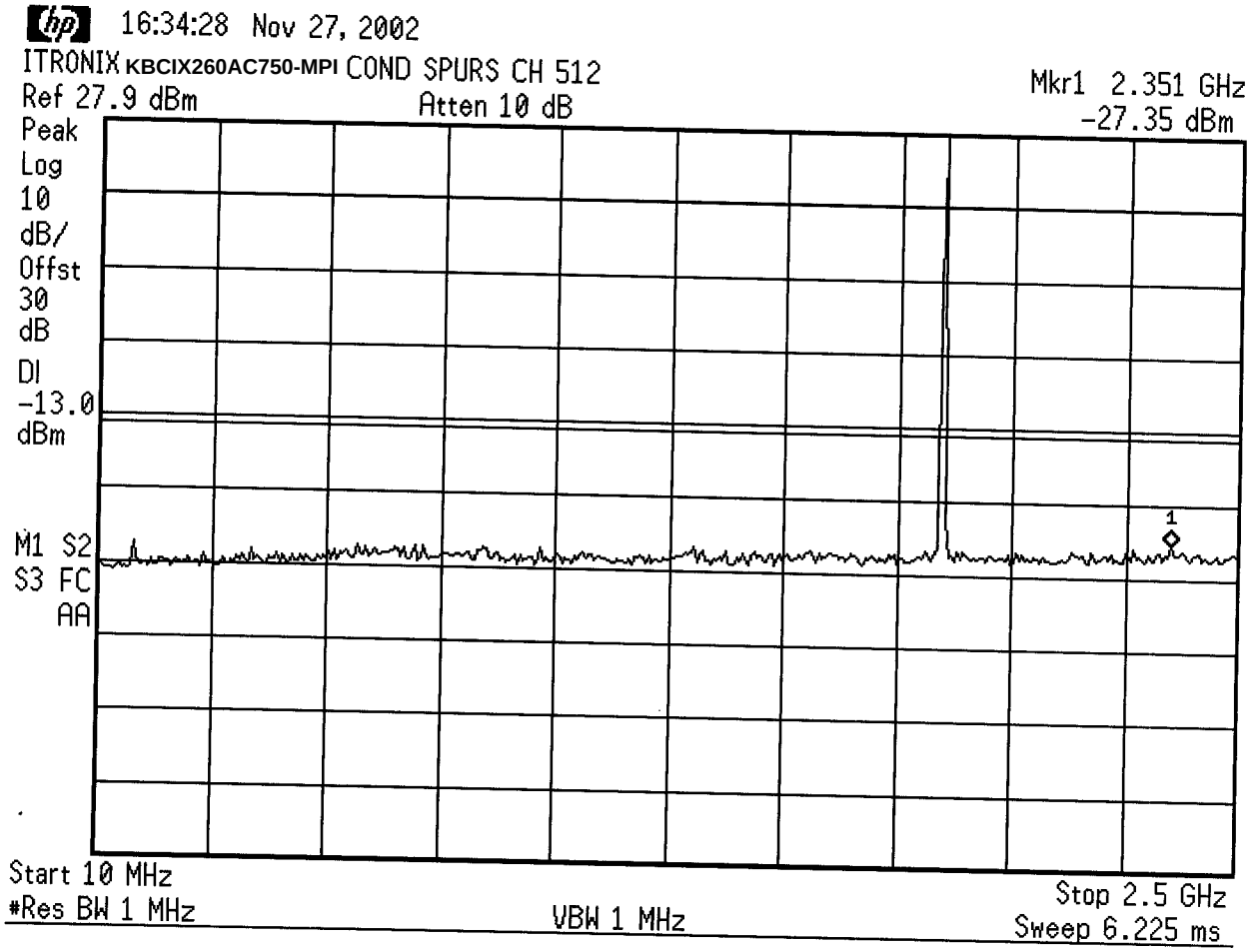
4.1 TEST EQUIPMENT LIST

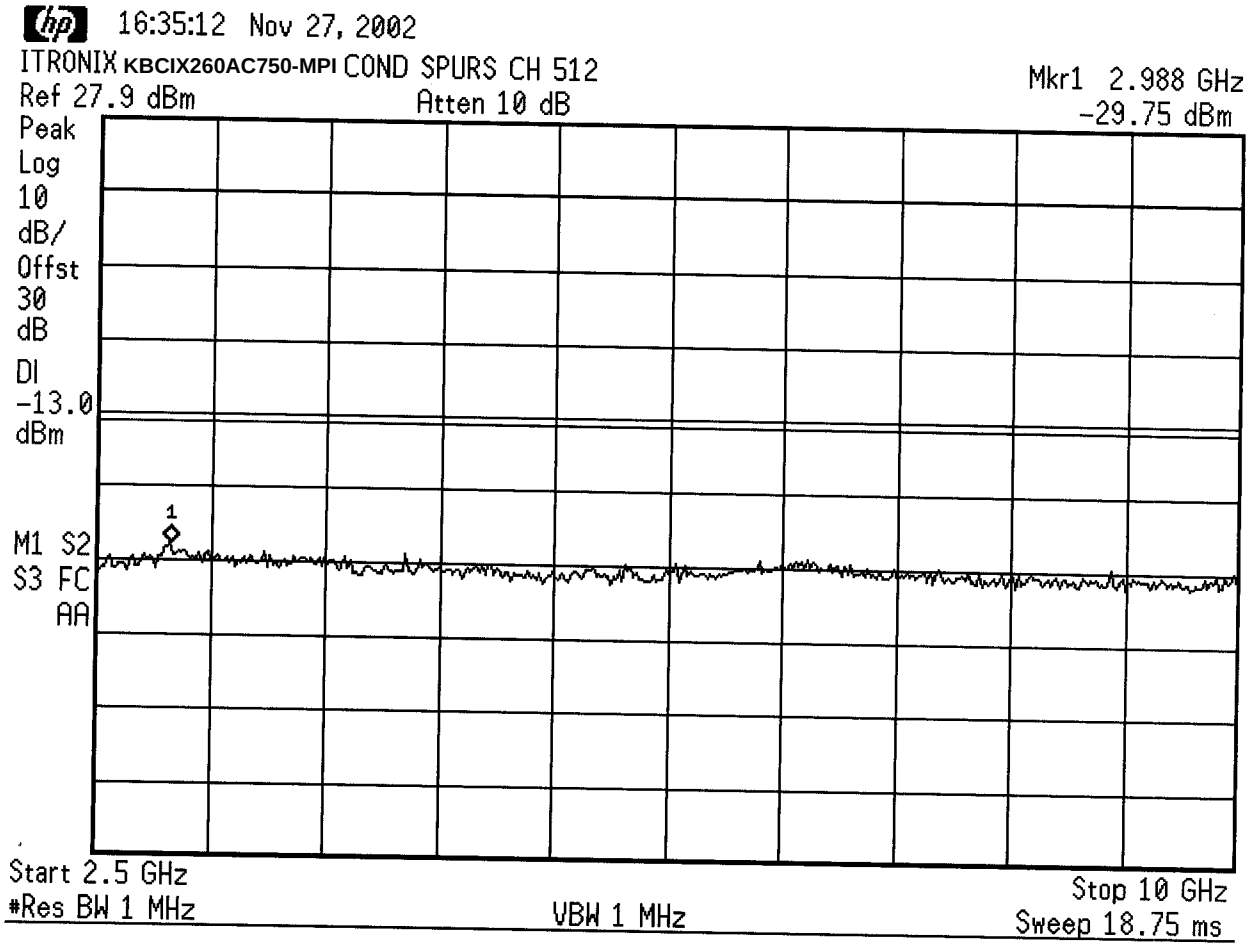
TEST EQUIPMENT LIST			
Equipment Type	**Model**	**Serial No.**	**Calibration Due Date**
HP Signal Generator	8648D (9kHz-4.0GHz)	3847A00611	Feb 2003
Rohde & Schwarz Signal Generator	SMR40 (10MHz-40GHz)	835537/022	Nov 2003
Gigatronics Power Meter	8652A	1835272	Feb 2003
Gigatronics Power Sensor	80701A (0.05-18GHz)	1833535	Feb 2003
Gigatronics Power Sensor	80701A (0.05-18GHz)	1833542	Feb 2003
Amplifier Research Power Amp.	5S1G4 (5W, 800MHz-4.2GHz)	26235	N/A
Microwave System Amplifier	HP 83017A (0.5-26.5GHz)	3123A00587	N/A
Network Analyzer	HP 8753E (30kHz-3GHz)	US38433013	Feb 2003
Audio Analyzer	HP 8903B	3729A18691	Nov 2003
Modulation Analyzer	HP 8901A	3749A07154	July 2003
Frequency Counter	HP 53181A (3GHz)	3736A05175	May 2003
DC Power Supply	HP E3611A	KR83015294	N/A
Multi-Device Controller	EMCO 2090	9912-1484	N/A
Mini Mast	EMCO 2075	0001-2277	N/A
Turntable	EMCO 2080-1.2/1.5	0002-1002	N/A
Double Ridged Horn Antenna	ETS 3115 (1-18GHz)	6267	Oct. 2003
Double Ridged Horn Antenna	ETS 3115 (1-18GHz)	6276	Oct. 2003
Horn Antenna	Chase BBHA 9120-A (0.7-4.8GHz)	9120A-239	Sept 2003
Horn Antenna	Chase BBHA 9120-A (0.7-4.8GHz)	9120A-240	Sept 2003
Roberts Dipoles	Compliance Design (2 sets) 3121C		June 2003
Spectrum Analyzer	HP 8594E	3543A02721	Feb 2003
Spectrum Analyzer	HP E4408B	US39240170	Nov 2003
Shielded Screen Room	Lindgren R.F. 18W-2/2-0	16297	N/A
Environmental Chamber	ESPEC ECT-2 (Temperature/Humidity)	0510154-B	Feb 2003

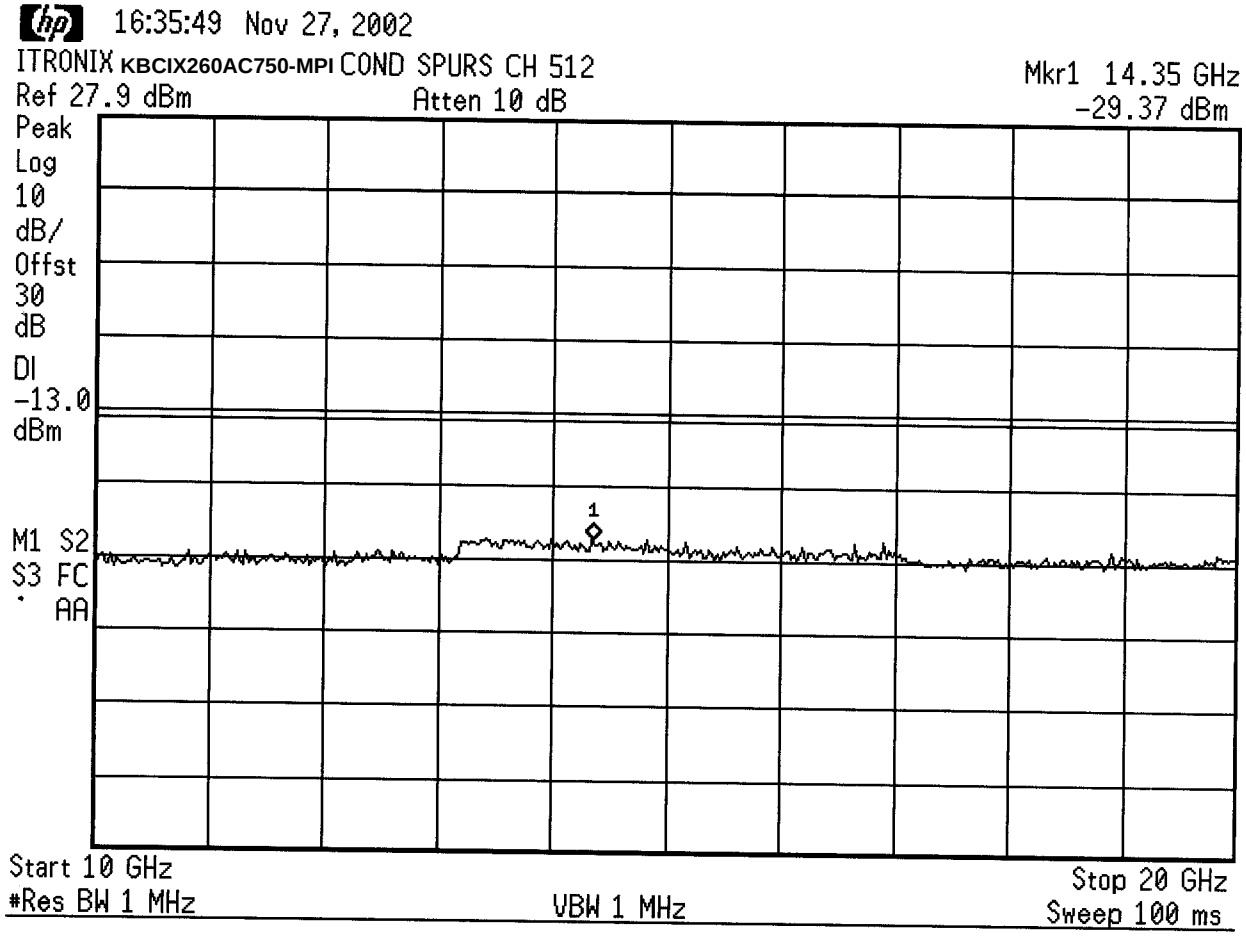
5.1 CONCLUSION

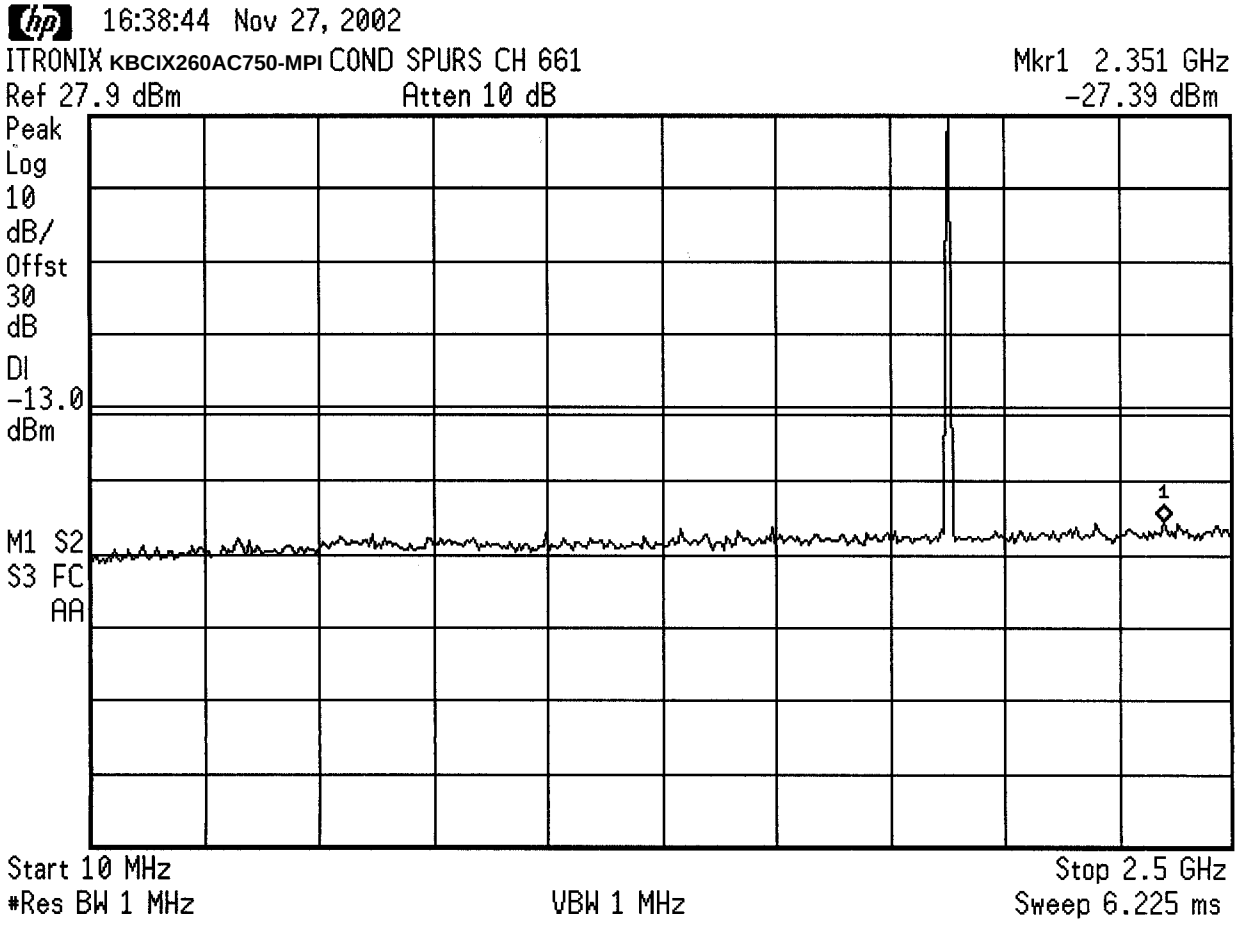
The data in this measurement report shows that the ITRONIX CORPORATION Model: IX260 FCC ID: KBCIX260AC750-MPI Rugged Laptop PC with Sierra Wireless AirCard 750 PCS GSM/GPRS PCMCIA Modem Card co-located with Cisco Systems MPI-350 Mini-PCI DSSS WLAN Card complies with the requirements of FCC Rule Parts §24(E) and §2.

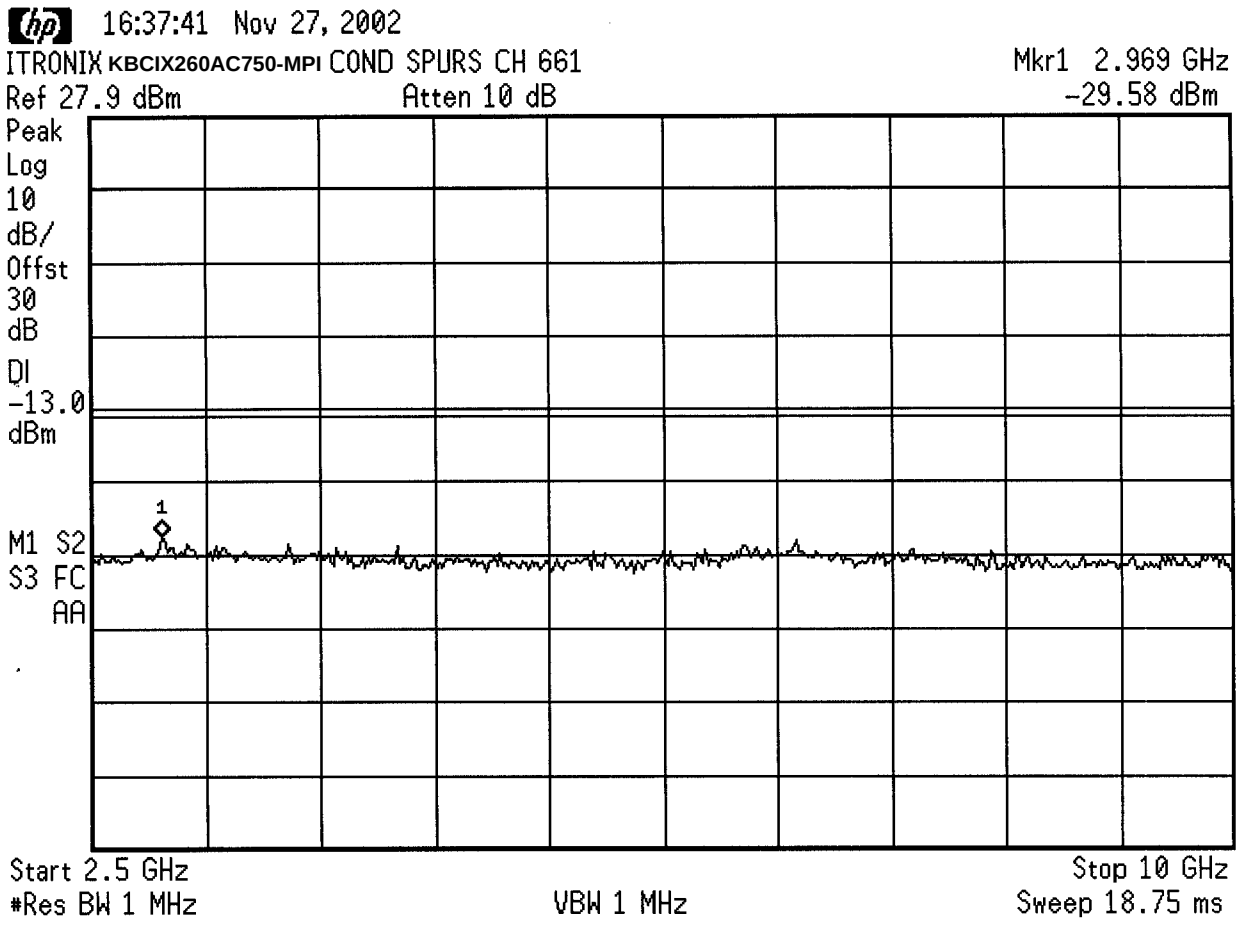
APPENDIX A - TEST PLOTS

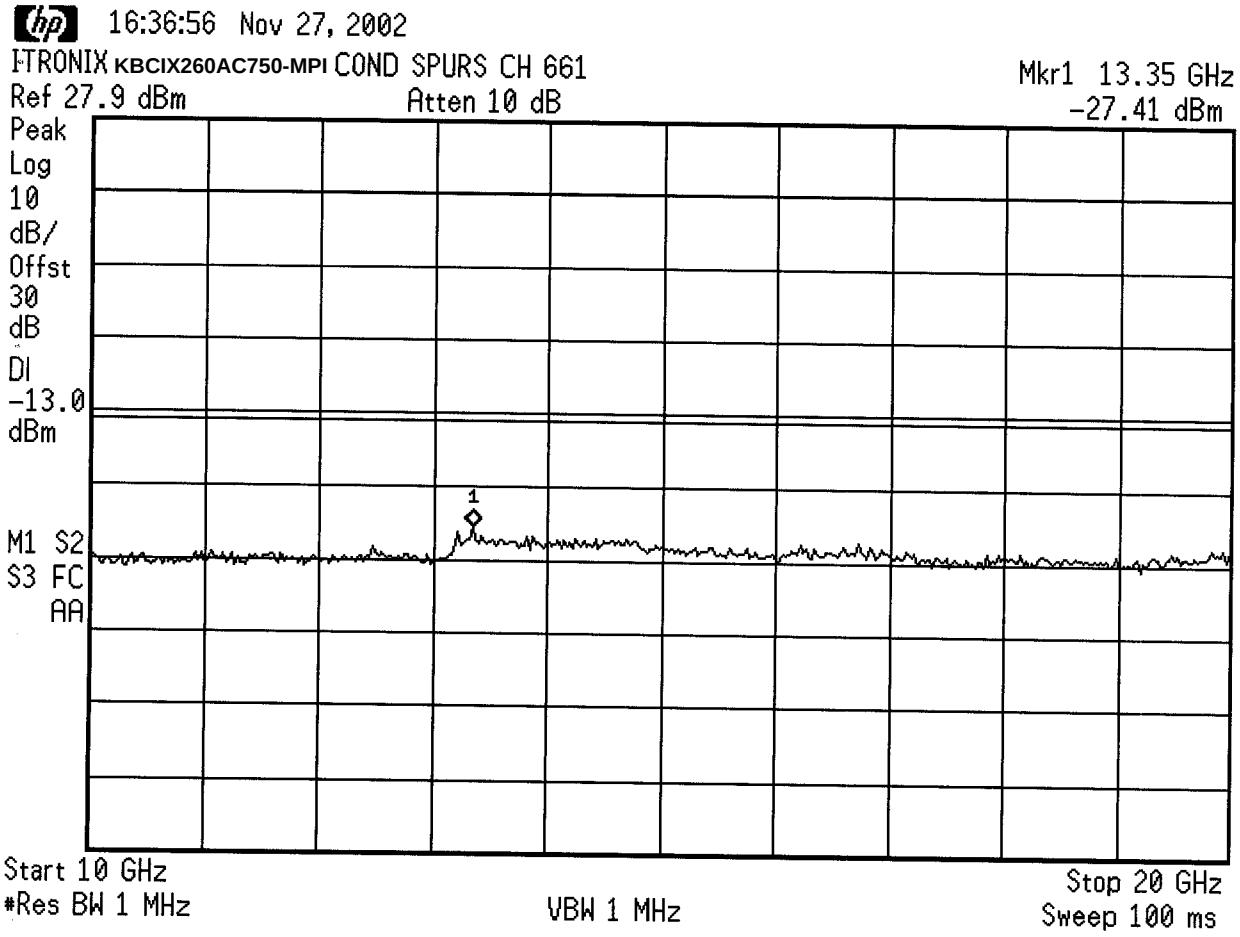

16:34:28 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 512
Ref 27.9 dBm
Atten 10 dB
Mkr1 2.351 GHz
-27.35 dBm
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
1
Start 10 MHz
#Res BW 1 MHz
VBW 1 MHz
Stop 2.5 GHz
Sweep 6.225 ms

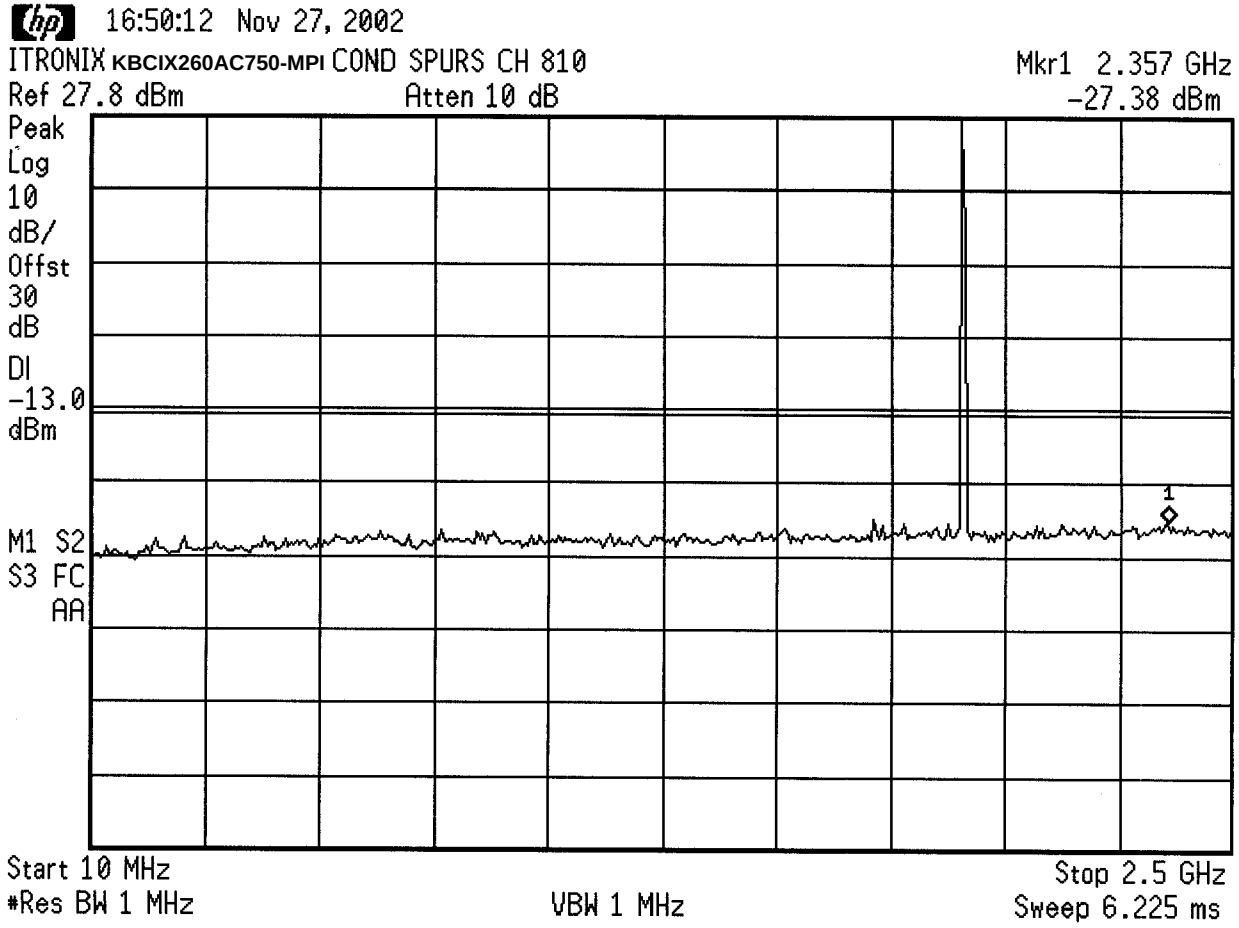

16:35:12 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 512
Ref 27.9 dBm
Atten 10 dB
Mkr1 2.988 GHz
-29.75 dBm
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
Start 2.5 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 10 GHz
Sweep 18.75 ms

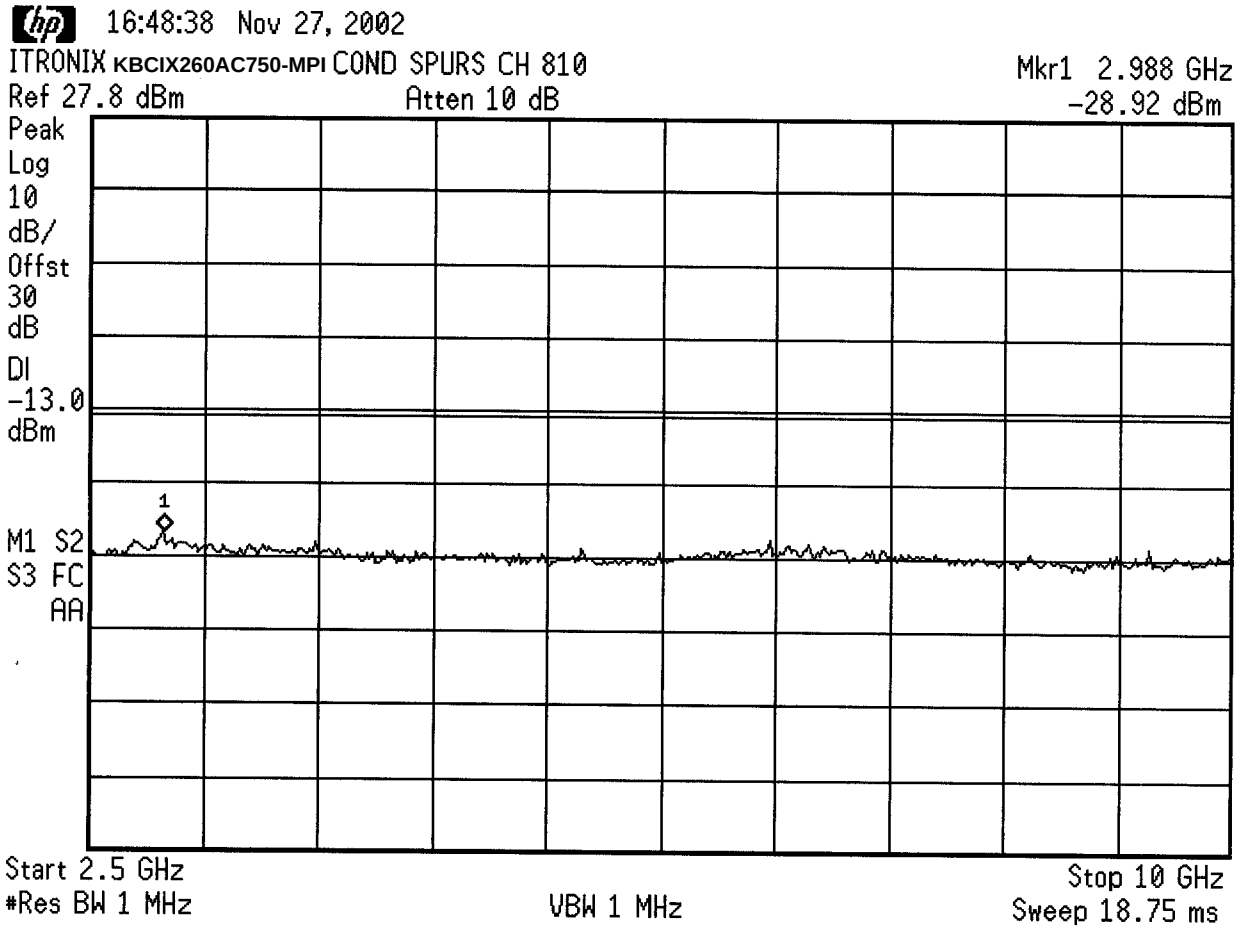

16:35:49 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 512
Ref 27.9 dBm
Atten 10 dB
Mkr1 14.35 GHz
-29.37 dBm
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
1
Start 10 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 20 GHz
Sweep 100 ms

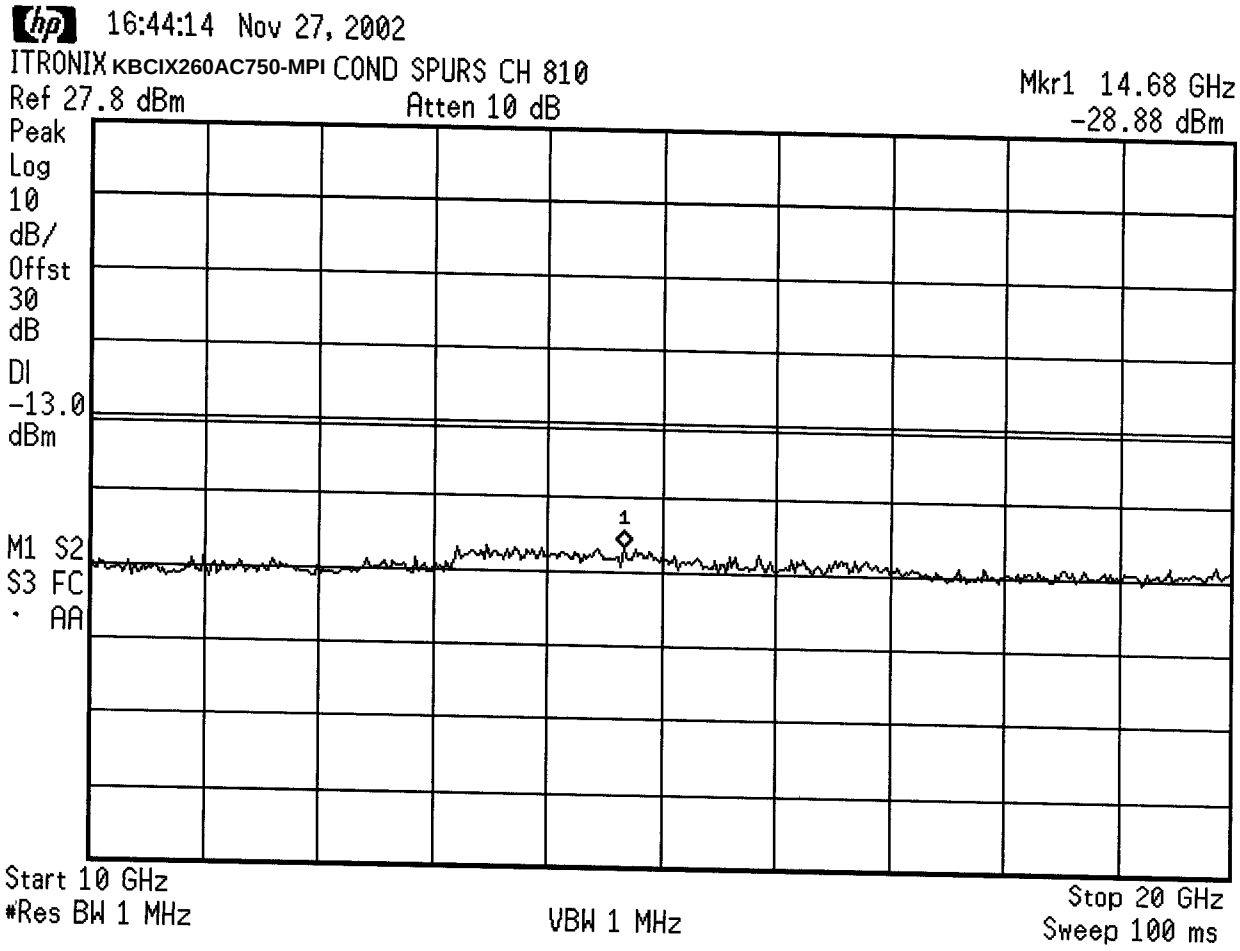

16:38:44 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 661
Mkr1 2.351 GHz
Ref 27.9 dBm
Atten 10 dB
-27.39 dBm
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
1
Start 10 MHz
Stop 2.5 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 6.225 ms

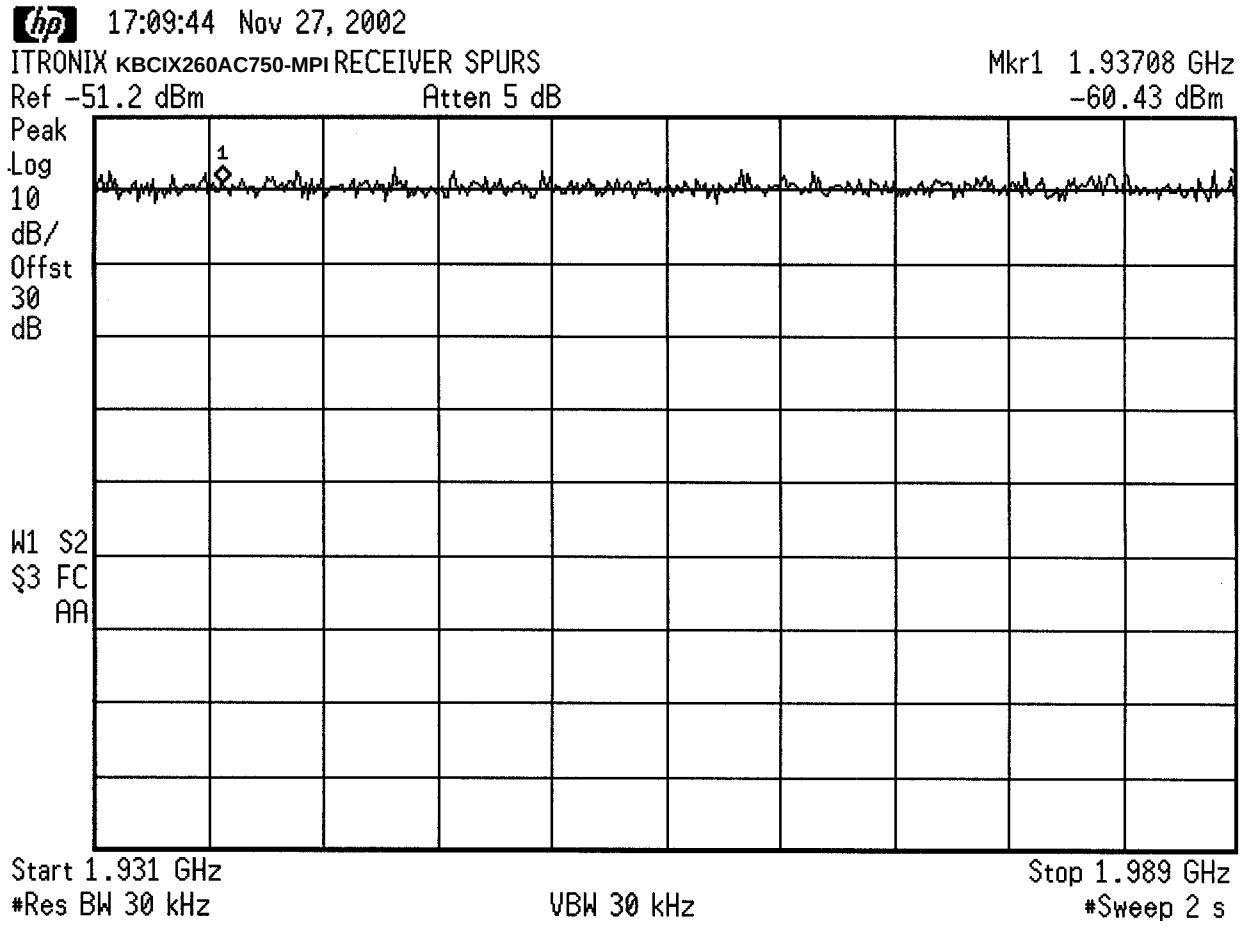

16:37:41 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 661
Mkr1 2.969 GHz
Ref 27.9 dBm
Atten 10 dB
-29.58 dBm
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
1
M1 S2
S3 FC
AA
Start 2.5 GHz
Stop 10 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 18.75 ms

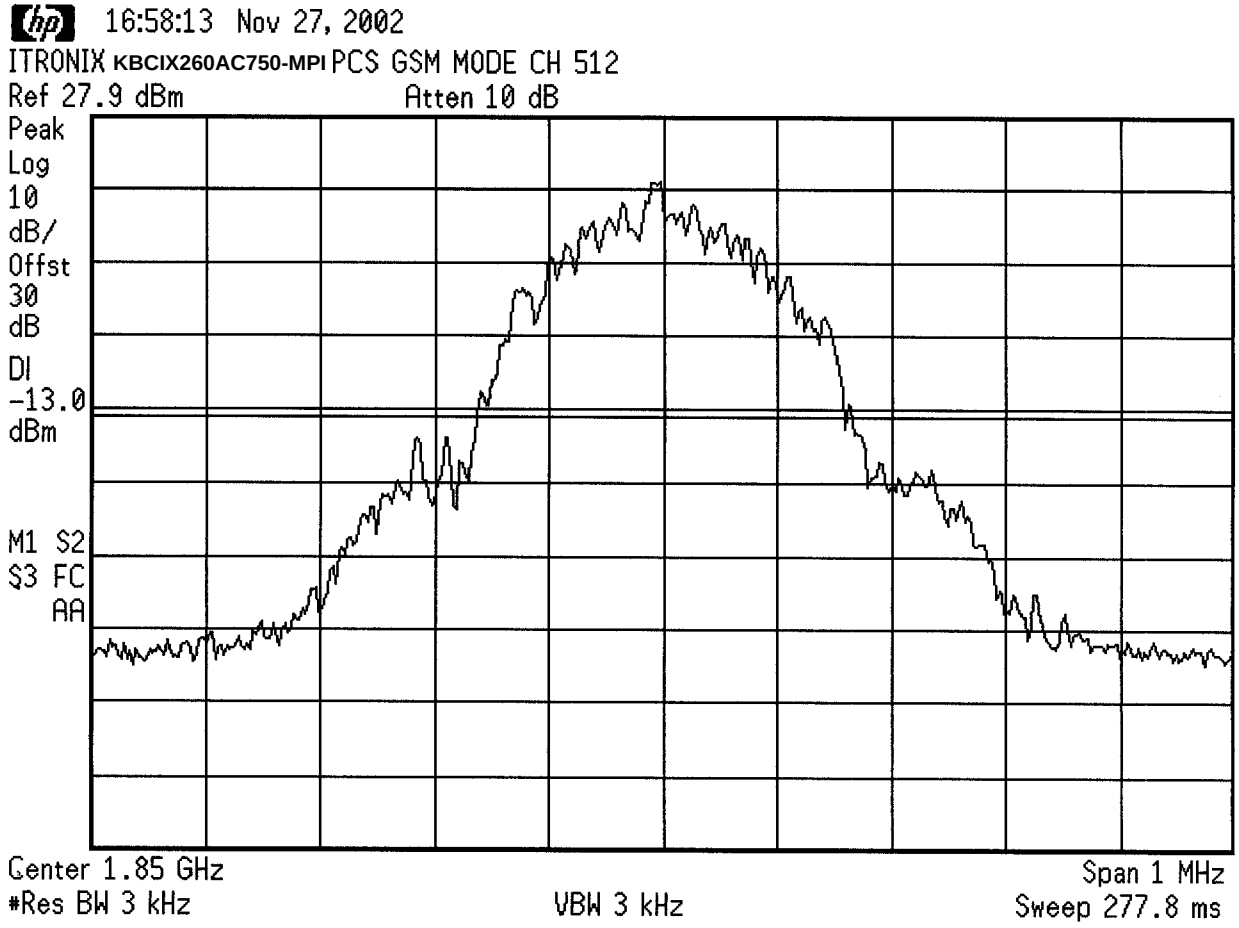

16:36:56 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 661
Ref 27.9 dBm
Atten 10 dB
Mkr1 13.35 GHz
-27.41 dBm
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
1
Start 10 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 20 GHz
Sweep 100 ms

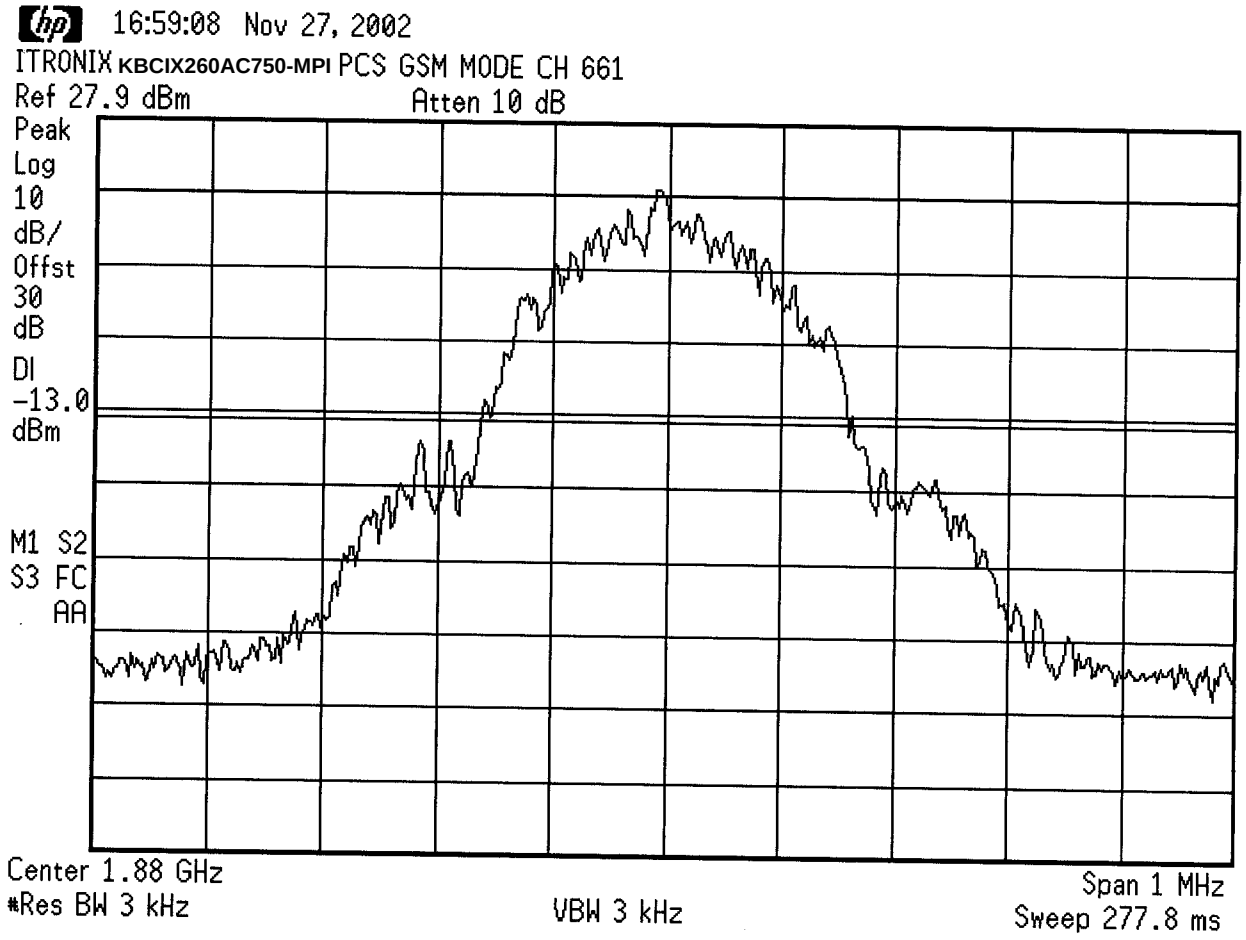

16:50:12 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 810
Mkr1 2.357 GHz
-27.38 dBm
Ref 27.8 dBm
Atten 10 dB
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
1
Start 10 MHz
#Res BW 1 MHz
VBW 1 MHz
Stop 2.5 GHz
Sweep 6.225 ms

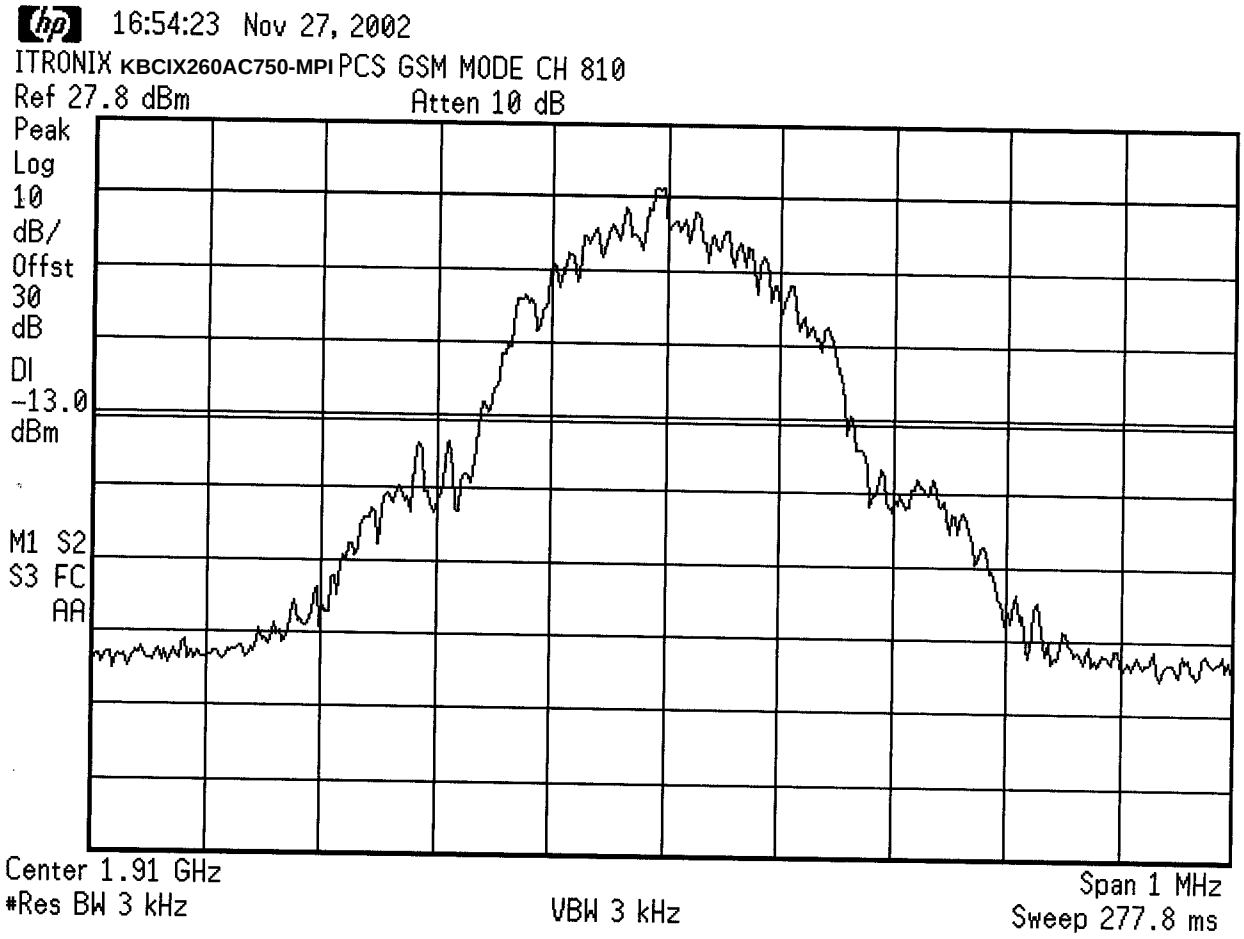

16:48:38 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 810
Mkr1 2.988 GHz
-28.92 dBm
Ref 27.8 dBm
Atten 10 dB
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
1
M1 S2
S3 FC
AA
Start 2.5 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 10 GHz
Sweep 18.75 ms

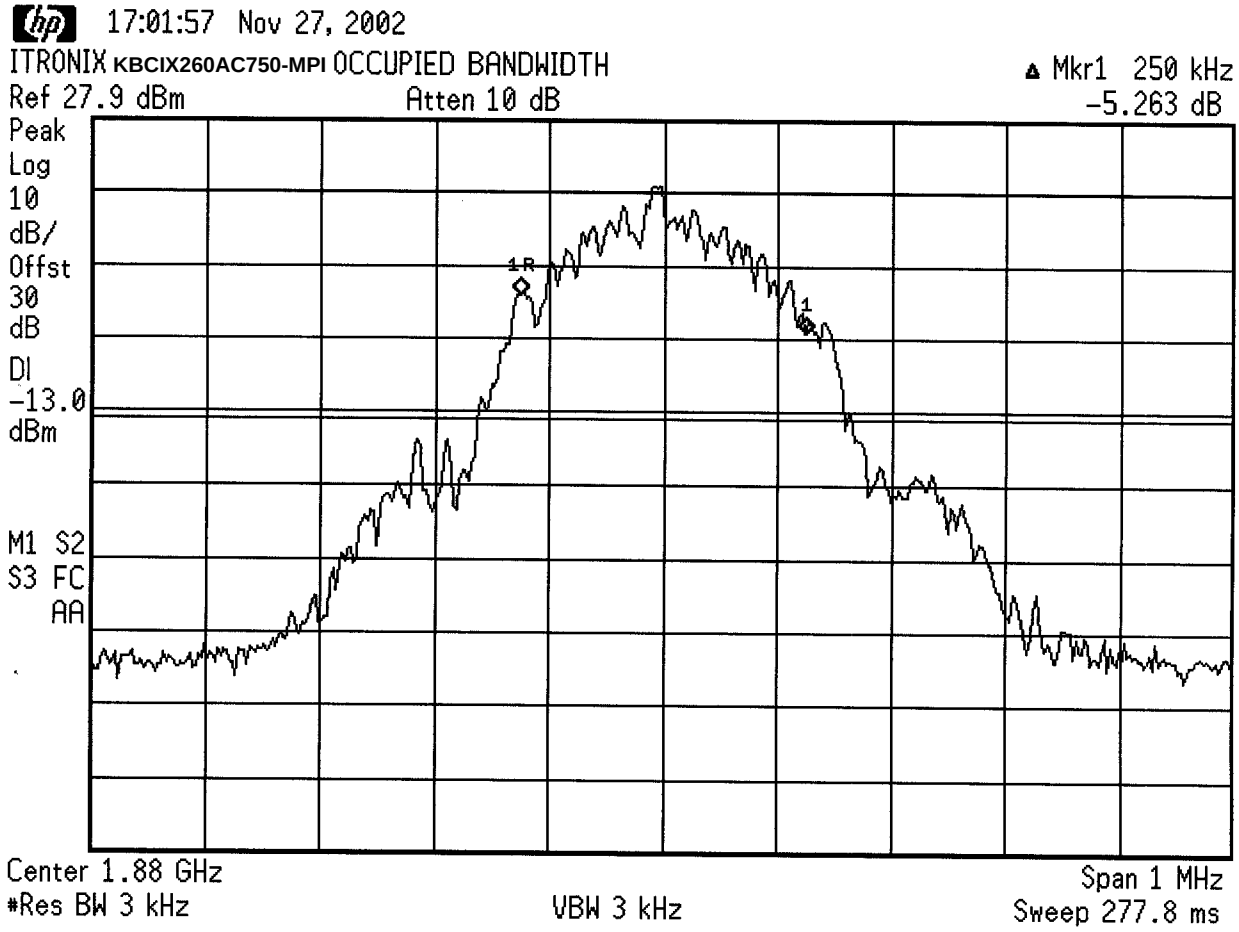

16:44:14 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI COND SPURS CH 810
Ref 27.8 dBm
Atten 10 dB
Mkr1 14.68 GHz
-28.88 dBm
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
Start 10 GHz
#Res BW 1 MHz
VBW 1 MHz
Stop 20 GHz
Sweep 100 ms

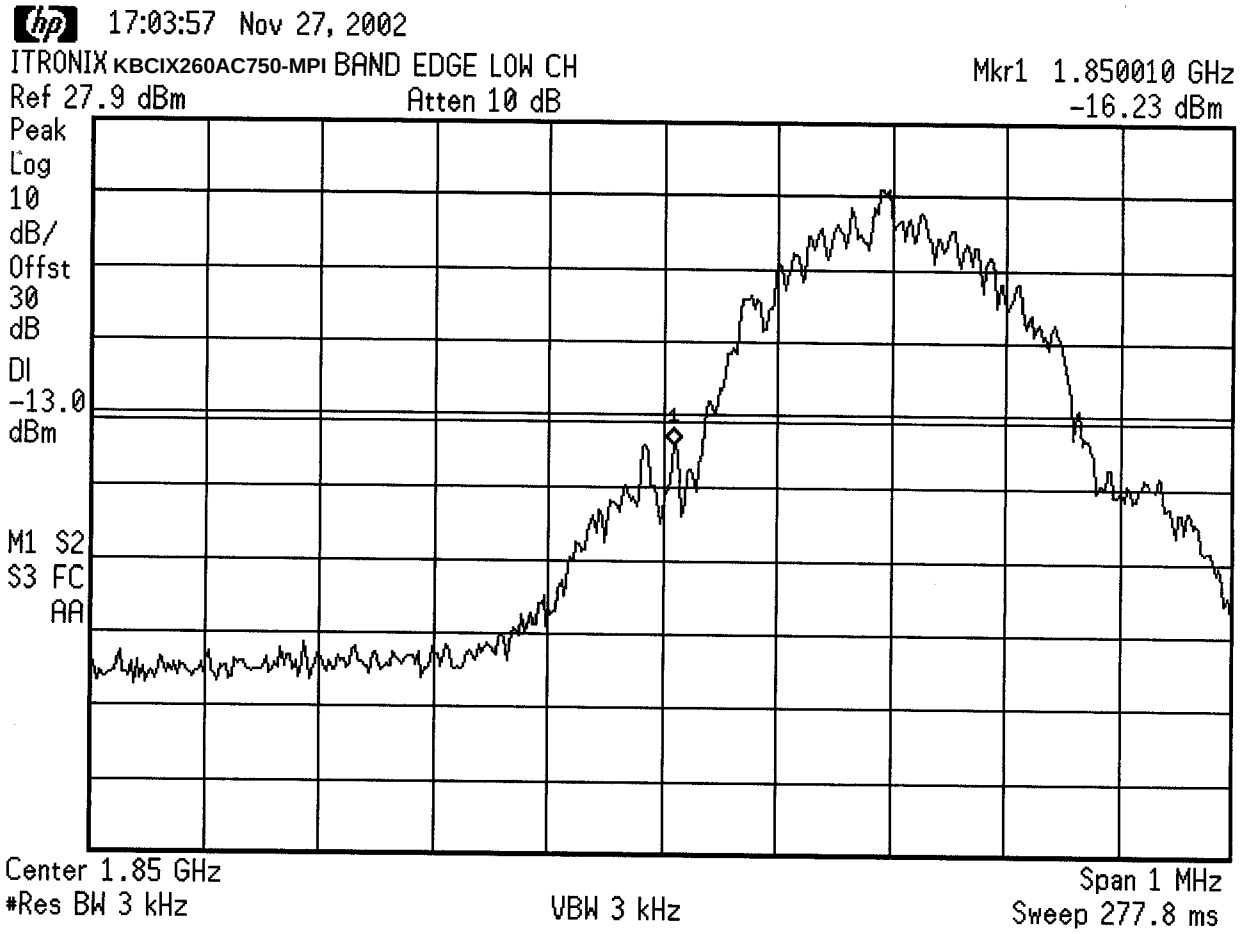

17:09:44 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI RECEIVER SPURS
Mkr1 1.93708 GHz
Ref -51.2 dBm
Atten 5 dB
-60.43 dBm
Peak
Log
10
dB/
Offst
30
dB
1
W1 S2
$3 FC
AA
Start 1.931 GHz
Stop 1.989 GHz
#Res BW 30 kHz
VBW 30 kHz
#Sweep 2 s

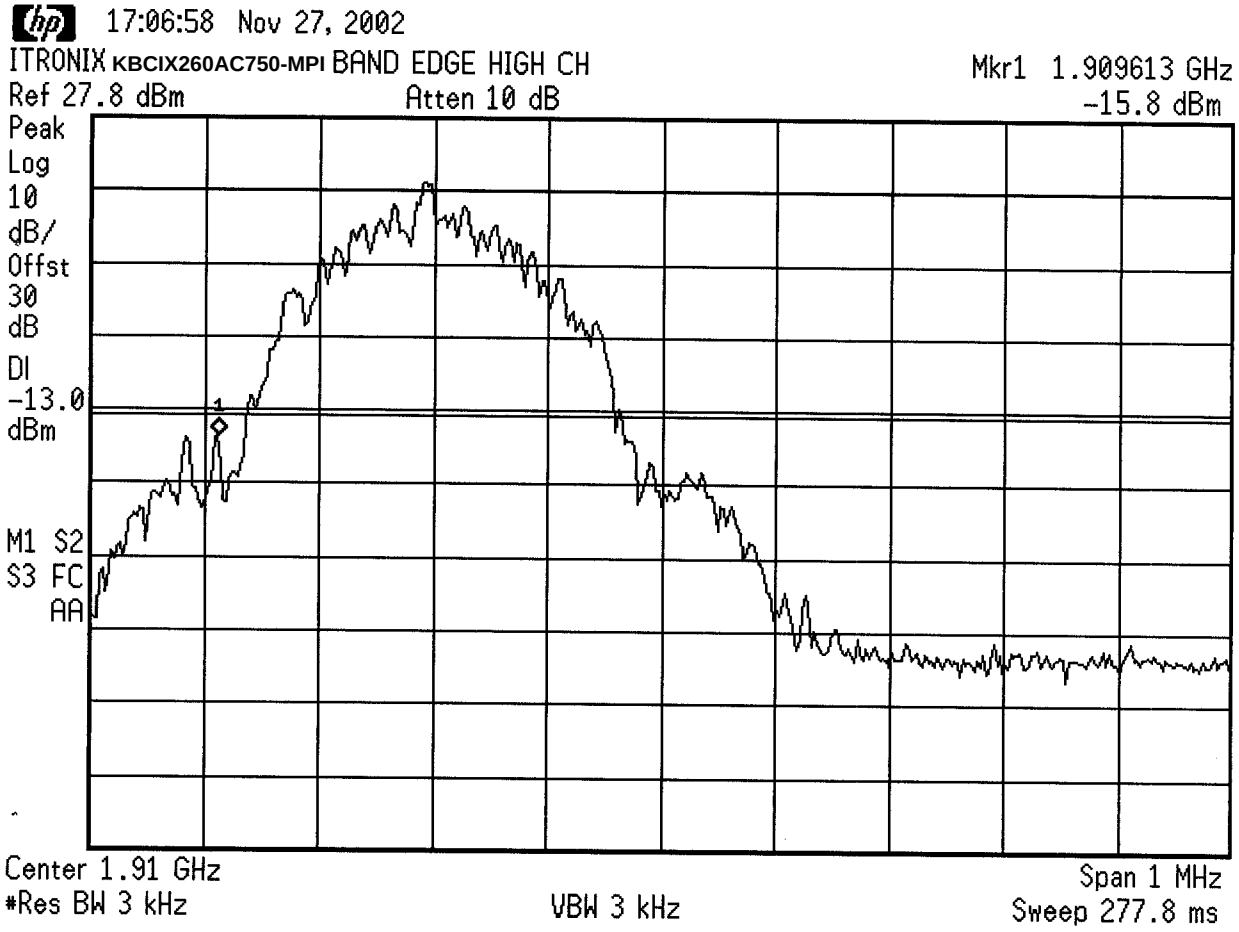

16:58:13 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI PCS GSM MODE CH 512
Ref 27.9 dBm
Atten 10 dB
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
Center 1.85 GHz
#Res BW 3 kHz
VBW 3 kHz
Span 1 MHz
Sweep 277.8 ms


16:59:08 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI PCS GSM MODE CH 661
Ref 27.9 dBm
Atten 10 dB
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
Center 1.88 GHz
#Res BW 3 kHz
VBW 3 kHz
Span 1 MHz
Sweep 277.8 ms


16:54:23 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI PCS GSM MODE CH 810
Ref 27.8 dBm
Atten 10 dB
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
Center 1.91 GHz
#Res BW 3 kHz
VBW 3 kHz
Span 1 MHz
Sweep 277.8 ms


17:01:57 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI OCCUPIED BANDWIDTH
Ref 27.9 dBm
Atten 10 dB
Mkr1 250 kHz
-5.263 dB
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
1R
1
Center 1.88 GHz
#Res BW 3 kHz
VBW 3 kHz
Span 1 MHz
Sweep 277.8 ms


17:03:57 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI BAND EDGE LOW CH
Mkr1 1.850010 GHz
-16.23 dBm
Ref 27.9 dBm
Atten 10 dB
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
Center 1.85 GHz
#Res BW 3 kHz
VBW 3 kHz
Span 1 MHz
Sweep 277.8 ms


17:06:58 Nov 27, 2002
ITRONIX KBCIX260AC750-MPI BAND EDGE HIGH CH
Mkr1 1.909613 GHz
Ref 27.8 dBm
Atten 10 dB
-15.8 dBm
Peak
Log
10
dB/
Offst
30
dB
Dl
-13.0
dBm
M1 S2
S3 FC
AA
Center 1.91 GHz
#Res BW 3 kHz
VBW 3 kHz
Span 1 MHz
Sweep 277.8 ms

APPENDIX B - RADIATED TEST SETUP PHOTOGRAPHS

RADIATED TEST SETUP PHOTOGRAPHS

Vertical Polarization

RADIATED TEST SETUP PHOTOGRAPHS

Horizontal Polarization