



L. S. Compliance, Inc.
W66 N220 Commerce Court
Cedarburg, Wisconsin 53012

Phone: 262 - 375 - 4400 Fax: 262 - 375 - 4248

L. S. Compliance, Inc.

Compliance Testing of:

MOTOROLA Gen 6 (on-star) Cellular Phone System

Prepared for:

*Motorola, Inc.
Attn.: Mr. Weidong Zhang
50 NW Point
Elk Grove Village, IL 60007*



Test Report Number: 302401 RX

Dates of Testing: November 25-27 and December 12, 2002

All results of this report relate only to the items that were tested.

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Index

1	Description of Measurement Facilities	3
2	A2LA Certificate of Accreditation	4
3	A2LA Scope of Accreditation	5
4	Validation Letter – U.S. Competent Body for EMC Directive 89/336/EEC	6
5	Summary of Test Report	7
6	Introduction	8
7	Purpose	8
8	Radiated Emission Test Setup	9
9	Radiated Emission Test Procedure	9
10	Test Equipment Utilized for the Radiated Emission Test	10
11	Conducted Emission Test	10
12	Photos Taken During Testing	11-12
13	Test Equipment List	13
Appendices		
A	Sample Calculations	15
B	Data Charts	17-18
C	Graphs	20-33

1. DESCRIPTION OF MEASUREMENT FACILITIES

Site on File With the FCC

ID Number: 31040/SIT

Site on file with Industry Canada:

ID Number: IC 3088

*" The site referenced above has been found to comply with the test site criteria found in ANSI
C63.4-2001 and 47CFR Section 2.948."*

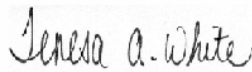
Tested by:



December 19,
2002

Abtin Spantman, EMC Engineer

Date



December 19,
2002

Prepared By:

*Teresa A. White, Document
Coordinator*

Date



December 19,
2002

Approved By:


*Kenneth L. Boston, EMC Lab Manager
PE #31926
Registered Professional Engineer
(State of Wisconsin)*

Date

2.. A2LA Certificate of Accreditation



3. A2LA Scope of Accreditation



American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025-1999


L.S. COMPLIANCE, INC.
 W66 N220 Commerce Court
 Cedarburg, WI 53012
 James Blaha Phone: 262 375 4400

ELECTRICAL (EMC)

Valid to: January 31, 2003 Certificate Number: 1255-01


In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests:

<u>Test</u>	<u>Test Method(s)</u>
Conducted Emissions Continuous/Discontinuous	Code of Federal Regulations (CFR) 47, FCC Method Parts 15 and 18 using ANSI C63.4; EN: 55011, 55022, 55081-1, 55081-2; CISPR: 11, 22, CNS 13438
Radiated Emissions	Code of Federal Regulations (CFR) 47, FCC Method Parts 15 and 18 using ANSI C63.4; EN: 55011, 55022, 55081-1, 55081-2; CISPR: 11,22; CNS 13438
Conducted Immunity Fast Transients/Burst	IEC: 1000-4-4, 801-4; EN: 61000-4-4, 50082-1, 50082-2
Surge	IEC: 1000-4-5, 801-5; ENV 50142; EN: 61000-4-5, 50082-1, 50082-2
RF Fields	IEC: 1000-4-6, 801-6; ENV 50141; EN: 61000-4-6, 50082-1, 50082-2
Voltage Dips Interruptions	IEC 1000-4-11; EN: 61000-4-11, 50082-1, 50082-2
Radiated Immunity RF Fields	IEC: 801-3, 1000-4-3; ENV 50140; EN: 61000-4-3, 50082-1, 50082-2
RF Fields (50 Hz) RF Fields (Pulse Mode)	IEC 1000-4-8; EN 61000-4-8 EN: 50082-1, 50082-2; ENV 50204
Electrostatic Discharge (ESD)	IEC: 1000-4-2, 801-2; BSEN 60801-2; EN: 61000-4-2, 50082-1, 50082-2


(A2LA Cert. No. 1255.01) 06/26/01
 5301 Buckeystown Pike, Suite 350 • Frederick, MD 21704-8373 • Phone: 301-644-5248 • Fax: 301-662-2974 

Peter Blaha Page 1 of 1

4. Validation Letter – U. S. Competent Body for EMC Directive 89/336/EEC



1901-2001
NIST CENTENNIAL



DEPARTMENT OF COMMERCE
UNITED STATES OF AMERICA

UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-

January 16, 2001

Mr. James J. Blaha
L.S. Compliance Inc.
W66 N220 Commerce Court
Cedarburg, WI 53012-2636

Dear Mr. Blaha:

I am pleased to inform you that the European Commission has validated your organization's nomination as a U.S. Conformity Assessment Body (CAB) for the following checked (✓) sectoral annex(es) of the U.S.-EU Mutual Recognition Agreement (MRA).


- (✓) Electromagnetic Compatibility-Council Directive 89/336/EEC, Article 10(2)
- () Telecommunication Equipment-Council Directive 98/13/EC, Annex III
- () Telecommunication Equipment-Council Directive 98/13/EC, Annex III and IV
 Identification Number:
- () Telecommunication Equipment-Council Directive 98/13/EC, Annex V
 Identification Number:

This validation is only for the location noted in the address block, unless otherwise indicated below.

- (✓) Only the facility noted in the address block above has been approved.
- () Additional EMC facilities:
- () Additional R&TTE facilities:

Please note that an organization's validations for various sectors of the MRA are listed on our web site at <http://ts.nist.gov/mra>. You may now participate in the conformity assessment activities for the operational period of the MRA as described in the relevant sectoral annex or annexes of the U.S.-EU MRA document.

NIST will continue to work with you throughout the operational period. All CABs validated for the operational phase of the Agreement must sign and return the enclosed CAB declaration form, which states that each CAB is responsible for notifying NIST of any relevant changes such as accreditation status, liability insurance, and key staff involved with projects under the MRA. Please be sure that you fully understand the terms under which you are obligated to operate as a condition of designation as a CAB. As a designating authority, NIST is responsible for monitoring CAB performance to ensure continued competence under the terms of the MRA.



5. SUMMARY OF TEST REPORT

MANUFACTURER: MOTOROLA
MODEL: Gen 6 (on-star) Cellular Phone System
SERIAL: QLH6B
DESCRIPTION: Cellular Telephone, tri-mode (on-star)

FREQUENCY RANGE:

Transmit (TX): low end: Channel 991: 824.04 MHz, analog, and CDMA Channel 1013; 824.7 MHz

(TX): middle : Channel 384: 836.52 MHz, analog, and CDMA Channel 384; 836.52 MHz

(TX): top end: Channel 799: 848.97 MHz, analog, and CDMA Channel 777; 848.31MHz

(TX) low end : Channel 025: 1851.25 MHz CDMA 1900

(TX): middle: Channel 600: 1880.0 MHz CDMA 1900

(TX): top end: Channel 1175: 1908.75 MHz CDMA 1900

The Motorola Gen 6 (on-star) Cellular Telephone was found to **meet** the Radiated emission specification of Title 47 CFR FCC, Part 22, and 24, for a low power cellular telephone. The emission tests were performed with the cellphone, operating in the 800MHz cellular band; in the analog and CDMA 1900 modes, plus the CDMA 1900 mode in the PCS band (1.9 GHz).

The Motorola Gen 6 (on-star) Cellular Telephone was also found to **meet** the radiated emission specifications of Title 47 CFR 15, Subpart B for emissions with regards to the receiver and digital sections of the product.

6. INTRODUCTION

On November 25th, 26th, 27th and December 12th, 2002 a series of Radiated Emissions tests were performed on a sample model of the Motorola Gen 6 (on-star) Cellular Telephone. These tests were performed using the test procedures outlined in ANSI C63.4-2001 for intentional radiators, as called for in Section 2.1033 for a type accepted device, and in accordance with the limits set forth in FCC Parts 22.917e and 24.238. These tests were performed by Abtin Spantman EMC engineer, and Kenneth L. Boston, PE, of L. S. Compliance, Inc. and witnessed by Weidong Zhang of Motorola.

7. PURPOSE

The above mentioned tests were performed in order to determine the compliance of the test sample with limits contained in various provisions of Title 47 CFR, including:

2.1051	15.109	
2.1053	22.917	24.238

All radiated emissions tests were performed to measure the emissions in the frequency bands described by the above sections, and to determine whether said emissions are below the limits established by the above sections. These tests were performed in accordance with the procedure described in the 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 (ANSI C63.4-2001). Additional guidance for these tests were found in TIA/EIA 603; Industry Canada documents RSS-118, RSS-129 and RSS-133. Another document used as reference for the EMI receiver specification was the International Special Committee on Radio Interference (CISPR) number 16-1, 2002.

8. RADIATED EMISSION TEST SETUP

The test sample was operated within the 3 meter Semi-Anechoic, FCC listed Chamber located at L.S. Compliance in Cedarburg, WI. The sample was placed on an 80cm non-conductive table, which was centered on the flush-mounted 2m diameter metal turntable. The test sample was operated with a cable harness, providing appropriate power and control signals. The test sample was configured to run in a continuous transmit mode, with a 50 ohm termination load attached to the antenna port, during the Radiated measurements. The test sample was set to operate on one of three standard channels within the 800 MHz cellular frequency assignment: one at the low end of the band is (991), one in the middle of the band (384) and one near the top of the band (799). For testing at 1.9 GHz, the sample was set to operate at the low channel (025), middle channel (600) or high channel (1175)

9. RADIATED EMISSION TEST PROCEDURE

The fundamental and spurious (harmonic) emissions of the transmitter were tested for compliance to Title 47 CFR, FCC Part 22.917e limits for transmitters in the Public mobile services, and were also compared with the limits for Broadband PCS found in Part 24.238. For the calculations used to determine the limits applicable for the test sample, refer to Appendix A. These limits are expressed in decibels below carrier level. (-dBc) The samples were tested from the lowest frequency generated by the transmitter (without going below 9 kHz) to the 10th harmonic of the fundamental frequency generated by the device. The samples were placed on a nonconductive pedestal in the 3 Meter Chamber and the Antenna Mast was placed such that the antenna was 3m from the unit under test. A Biconical Antenna was used to measure emissions from 30 to 300 MHz, a Log Periodic Antenna was used to measure emissions from 300 to 1000 MHz, and a Double Ridged Wave-Guide Horn Antenna was used to measure emissions above 1 GHz. The test object was programmed to operate in continuous transmit, while generating a continuous analog modulated signal, and the resultant signals were maximized by rotating the turntable 360 degrees, and by raising and lowering the antenna between 1 and 4 meters. The test object was operated in a standard orientation, used to determine the maximum signal levels, using both horizontal and vertical antenna polarities. Measurements from a frequency of 6 GHz and up were performed at a 1 meter separation, and at a fixed antenna height of 1 meter. The microwave HP Spectrum Analyzer was located right next to the antenna in order to keep cable losses minimal.

No significant emissions were found aside from the transmitter fundamental and some low order harmonics. Other emissions that were seen were lower than 20 dB below the specified limits. The unit was scanned for emissions, over the range 30 to 9000 MHz (up to 19,000 MHz for the PCS mode) to establish compliance with Part 22.917 and 24.238 for the transmitter.

During the evaluation of the radiated emissions in the receive mode, a representative quarter wave antenna was connected to the device instead of a dummy load. The unit was operated in a scanning mode, while in receive only.

10. TEST EQUIPMENT UTILIZED FOR THE RADIATED EMISSION TEST

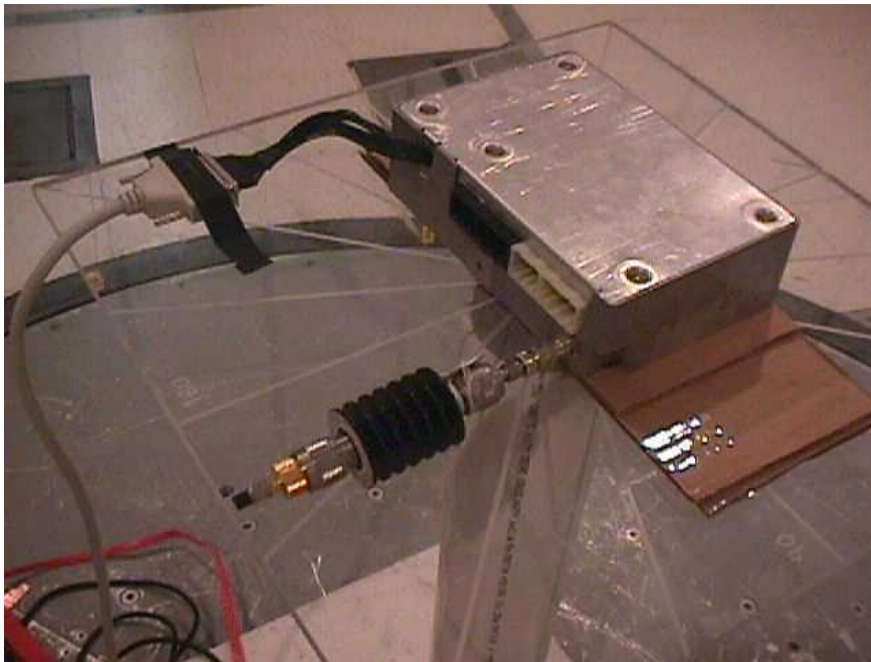
A list of the test equipment and antennas used for the tests can be found in Section 13, which includes the calibration information as well as the equipment description. All equipment is calibrated and used according to the user manuals supplied by the manufacturer. All antenna calibrations were performed at a N.I.S.T traceable site, and the resultant correction factors were entered into the Hewlett Packard 8546A EMI Receiver software database. The connecting cables used were also measured for loss using a calibrated Signal Generator and the HP 8546A EMI Receiver. The resulting loss factors were entered into the HP 8546A database. This allowed for automatic changes in the antenna correction factor, as well as cable loss or other corrections, to be added to the EMI Receiver display while taking measurements. Thus, the resulting data taken from the HP 8546A is an actual reading and can be entered into the database as a corrected meter reading. The HP 8546A EMI Receiver was operated with a bandwidth of 120 kHz when receiving signals below 1 GHz, and with a bandwidth of 1 MHz when receiving signals above 1 GHz, in accordance with CISPR 16, while performing the Part 15 measurements. Other IF and Video bandwidths, such as 30 kHz, were used where appropriate and allowable. A Hewlett Packard E4407B Microwave Spectrum Analyzer, connected to the Horn Antenna with a very short section of RG-214 cable used for measurement of frequencies above 6 GHz, at a distance of 1 meter.

11. Conducted Emission Test:

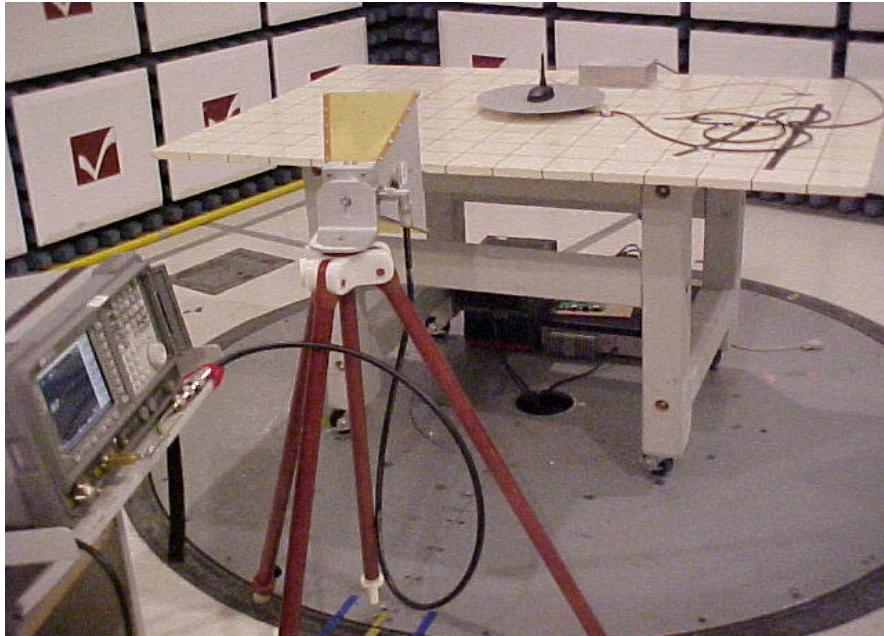
For the conducted Emission tests, the Antenna port of the sample was directly coupled to the input of the HP E4407B through a special coupling cable and a 30 dB passive Attenuator. The transceiver sample was set to transmit continuously in either the Analog or CDMA mode. Scans were then performed from 2 MHz to 9 or 20 GHz, while observing the fundamental signal level, plus any harmonics or other spurious signals. The bandwidth was initially set to 1 MHz for signature scans, and then reduced to 30 kHz to measure individual signal strengths.

Graphs of the fundamental and harmonics can be found in Appendix C. A chart of the signal levels can be found in Appendix B.

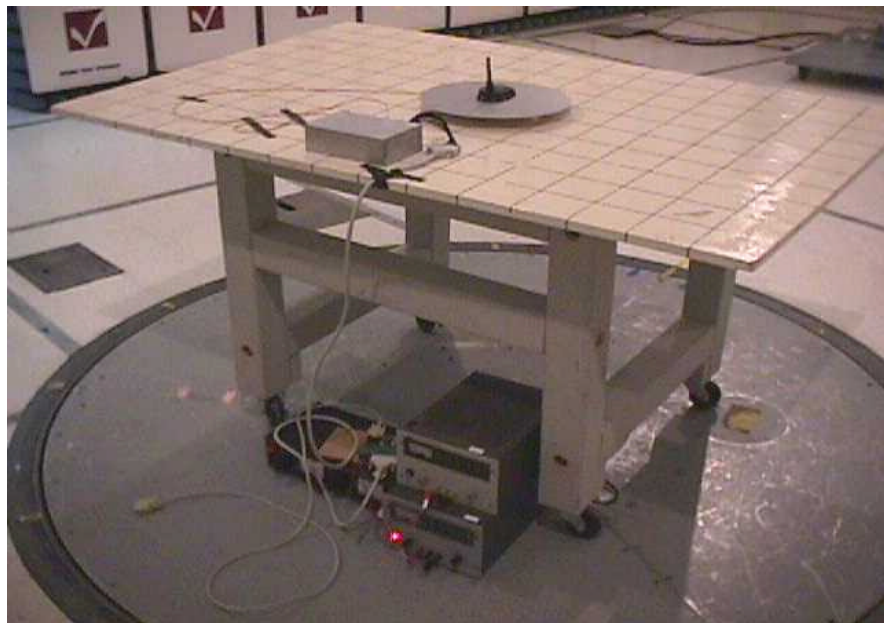
12. PHOTOS TAKEN DURING TESTING



View of the Motorola Gen 6 (on-star) cellular phone in Tx mode with the 50 Ohm termination load, while performing radiated emission testing



View of the Motorola Gen 6 (on-star) cellular phone in (Rx) Receive mode with the antenna connected, while performing radiated emission testing at 1 meter. This configuration was also used for radiated measurements of transmitter spurious emissions above 5 GHz.



View of the Motorola Gen 6 (on-star) cellular phone in (Rx) Receive mode with the antenna connected, while performing radiated emission testing

13. Test Equipment List

Asset #	Manufacturer	Model #	Serial#	Description	Due Date
AA960004	EMCO	93146	9512-4276	Log Periodic Antenna	05-09-03
AA960077	EMCO	93110B	9702-2918	Bi-Conical Antenna	09-19-03
AA960081	ETS	3115	6907	Double-Ridge Horn Antenna	11-12-03
EE960004	EMCO	2090	9607-1164	Mast/Table controller	--
EE960014	HP	85460	3617A00320	EMI receiver	09-24-03
EE960013	HP	85462	3205A00103	EMI receiver Pre-Selector section	09-24-03
CC000221	HP	E4407b	Us39160256	26.5 GHz Spectrum Analyzer	10-28-03
N/A	LSC	Cable	0011	3 meter 1/2 " Heliac Cable	06-07-03
N/A	LSC	Cable	0038	1 meter RG214 Cable	06-07-03
N/A	LSC	cable	0050	10 meter RG214 Cable	06-07-03
N/A	Motorola	Cert# 1000016576	BH4478	30 dB Attenuator	05-03-03

APPENDIX A:

SAMPLE CALCULATIONS

FIELD STRENGTH OF SPURIOUS/HARMONIC FREQUENCIES :

In accordance with section 22.917e:
 All out of band spurious emissions must be below the mean power of the carrier by at least:

$$43 + 10 \log(\text{carrier power})$$

which for a .7 watt rating on the test sample is:

$$43 + 10 \log(0.7)$$

$$43 - 1.55 = 41.45 \text{ dBc}$$

$$-41.45\text{dBc from } 28.45 \text{ dBm} = -13. \text{ dBm}$$

FIELD STRENGTH OF PART 22 LIMIT:

AT R = 3 METERS DISTANCE

FROM THE STANDARD REFERENCE FORMULA FOR POWER TRANSMITTED VERSUS ELECTRIC FIELD:

$$P_t = (R^{**}) \times |E|^{**} / 30$$

Then to convert to dB:

$$P_t = 20\log |E| + 20\log(R) - 10\log(30)$$

Insert additional terms to convert watts to milli-watts (in dB) and volts to micro-volts (in dBuV):

$$P_t = 20\log |E_{uv}| - 20 \log(1,000,000) + 10\log(1000) + 20\log(3) - 10\log(30)$$

$$P_t = 20\log |E_{uv}| - 120 + 30 + 9.54 - 14.77$$

$$P_t = 20\log |E_{uv}| - 95.23$$

OR; $20\log |E_{uv}| = P_t \text{ (in dBm)} + 95.23$

$$|E| \text{ (in dBuV)} = -13 \text{ dBm} + 95.23 = \underline{82.23 \text{ dBuV/m}}, \text{ at 3 meters}$$

AT R = 1 METER DISTANCE

$$|E| \text{ (in dBuV)} = -13 \text{ dBm} + 104.77 = \underline{91.77 \text{ dBuV/m}}, \text{ at 1 meter}$$

The following table depicts the Class B limits for an unintentional radiator: These limits are obtained from Title 47CFR, Part 15.109b, for radiated emissions measurements:

Frequency (MHz)	uV/m	3m limit (dBuV/m)
30-88	100	40.0
88-216	150	43.5
216-960	200	46
960-40000	500	54

APPENDIX B:

DATA CHARTS

RADIATED EMISSIONS IN THE 3 METER FCC LISTED CHAMBER

Date of Test:	November 25 th , 26 th and 27 th , 2002	Manufacturer:	Motorola
Location:	L. S. Compliance, Inc. W66 N220 Commerce Court Cedarburg, WI 53012	Model No.:	Gen 6 (on-star)
Specifications:	22.917e, 24.238, 1 and 3 meters	Serial No.:	QLH6B
Equipment:	HP 8546A EMI Receiver	Configuration:	Continuous transmit
	EMCO 93110B Biconical	Detector Used:	Peak
	EMCO 93146 Log Periodic		Channel 991, 384, 799, 1013, 384, 777
	EMCO 3115 Waveguide Horn		And 025, 600, 1175 (pcs)

Channel	Frequency (MHz)	Height (meters)	Azimuth (degrees)	Polarity	Peak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
1013 D	2105	1.25	0	H	53.5	82.2	28.7
384 D	2130	1.3	120	H	52.4	82.2	29.8
384 D	3346	1.05	245	V	53.8	82.2	28.4
384 A	2130	1.2	125	H	53.2	82.2	29.0
799 A	2155	1.2	170	H	53.1	82.2	29.1
025	2114	1.0	10	H	56.8	82.2	25.4
025	5550	1.0	50	H	59.3	82.2	22.9
025	7400	1.0	180	V	62.3	91.8	29.5
600	2144	1.25	35	H	52.3	82.2	29.9
600	5640	1.35	170	H	59.6	82.2	22.6
600	7520	1.0	180	H	61.3	91.8	30.5
600	9400	1.0	120	V	60.2	91.8	31.6
1175	5730	1.5	170	H	64.8	82.2	17.4

All other spurious signals were seen to be at least 30 dB below the FCC part 22 (24) limits.

RADIATED EMISSIONS IN THE 3 METER FCC LISTED CHAMBER

Date of Test:	December 12, 2002	Manufacturer:	Motorola
Location:	L. S. Compliance, Inc. W66 N220 Commerce Court Cedarburg, WI 53012	Model No.:	Gen 6 (on-star)
Specifications:	15.109 , to 5,000 MHz	Serial No.:	QLH6B
Equipment:	HP 8546A EMI Receiver	Configuration:	Receive (Rx)
	EMCO 3110B biconical	Detector(s) Used:	Average, Quasi-peak
	EMCO 3146A Log Periodic		All 3 modes in Channel Scan
	EMCO 3115 Wave-guide Horn		

Channel	Frequency (MHz)	Height (meters)	Azimuth (degrees)	Polarity	Q-peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)
All	72.62	2.25	205	H	24.9		40.0	15.1
All	129.3	1.05	215	V	37.4		43.5	6.1
All	133.9	1.05	215	V	34.7		43.5	8.8
All	138.4	1.05	215	V	30.9		43.5	12.6
All	147.5	2.3	180	H	30.9		43.5	12.6
All	217.8	1.45	270	H	23.6		46.0	22.4
All	270.0	1.80	210	V	30.0		46.0	16.0
All	344.9	1.0	185	V	30.4		46.0	15.6
All	462.0	1.0	170	H	39.0		46.0	7.0
All	544.6	1.0	200	H	36.1		46.0	9.9
All	635.4	1.0	190	H	37.9		46.0	8.1
All	660.0	1.0	170	V	35.7		46.0	10.3
All	907.7	1.0	245	V	36.9		46.0	9.1
All	944.0	1.0	245	V	36.5		46.0	9.5
All	1035.0	1.35	165	V		39.6	54.0	14.4
All	1053.0	1.35	165	V		39.1	54.0	14.9
All	1717.0	1.35	165	V		42.1	54.0	11.9

All other spurious signals were seen to be at least 20 dB below the FCC 15.109 limits.

CONDUCTED EMISSIONS DIRECTLY INTO THE H.P. ANALYZER

Date of Test:	November 25,27, 2002	Manufacturer:	Motorola
Location:	L. S. Compliance, Inc.	Model No.:	Gen 6
	W66 N220 Commerce Court		
	Cedarburg, WI 53012		
Specifications:	22.917e, 24.133 (a)	Serial No.:	QLH6B
Equipment:	HP-E4407B Spectrum Analyzer	Configuration:	Continuous transmit
		Detector Used:	peak
			BW-30 kHz

Channel	Frequency (MHz)	Level(dBm)	Limit (dBm)	Margin (dB)
991A	821.6	-25.5	-13	12.5
991A	826.45	-25.9	-13	12.9
991A	834.65	-26.0	-13	13.0
991A *	1648.1	-33.1	-13	20.1
384A	827.85	-30.3	-13	17.3
384A	835.3	-22.8	-13	9.8
384A	838.9	-26.2	-13	13.2
384A	845.15	-30.4	-13	17.4
384A *	1673.0	-32.8	-13	19.8
799A	829.9	-28.6	-13	15.6
799A	838.5	-26.6	-13	13.6
799A	846.7	-26.2	-13	13.2
799A *	1697.9	-36.5	-13	23.5
025	1869.3	-34.0	-13	21.0
025	1870.4	-35.4	-13	22.4
600	1859.8	-33.6	-13	20.6
600	1860.8	-32.7	-13	19.7
600	1899.2	-34.7	-13	21.7
600	1900.2	-35.2	-13	22.2
1175	1889.8	-33.8	-13	20.8
1175	1891.0	-34.9	-13	21.9

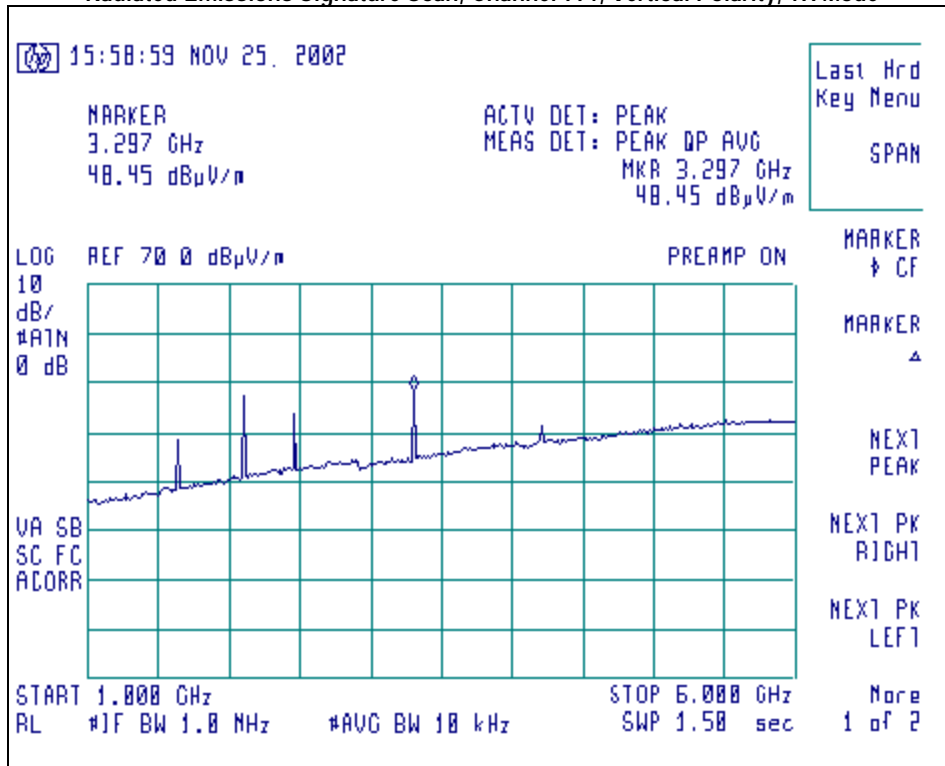
* 2nd harmonic signal, all other signals are spurious emissions.

**All other harmonics and spurs were greater than 25 dB below the limit, in a 30 kHz Bandwidth.

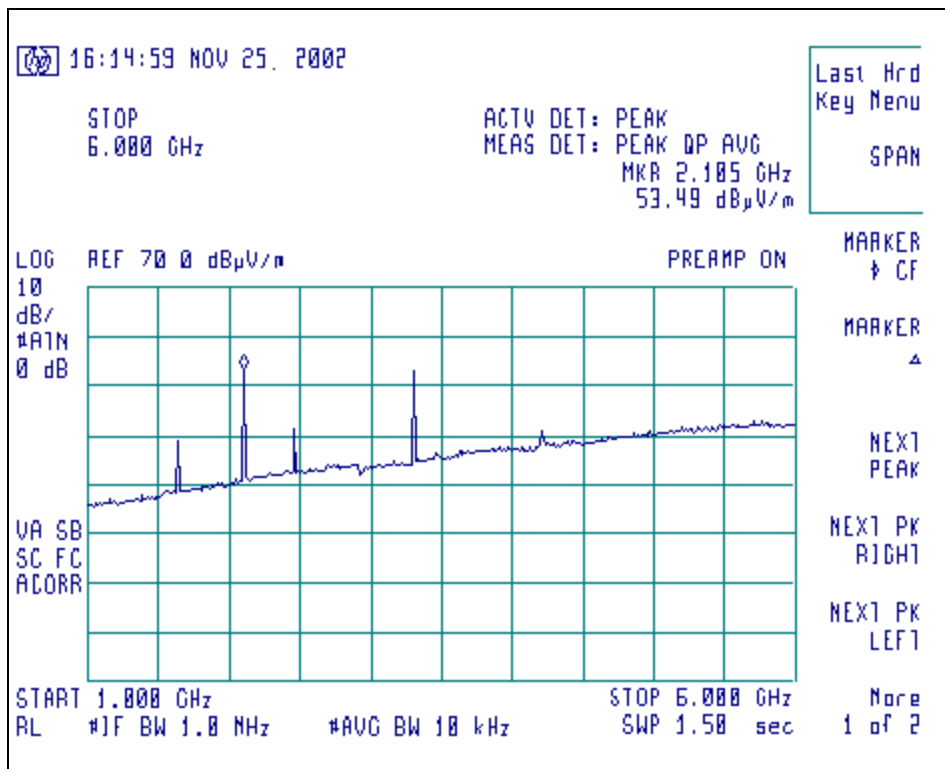
APPENDIX C:

GRAPHS

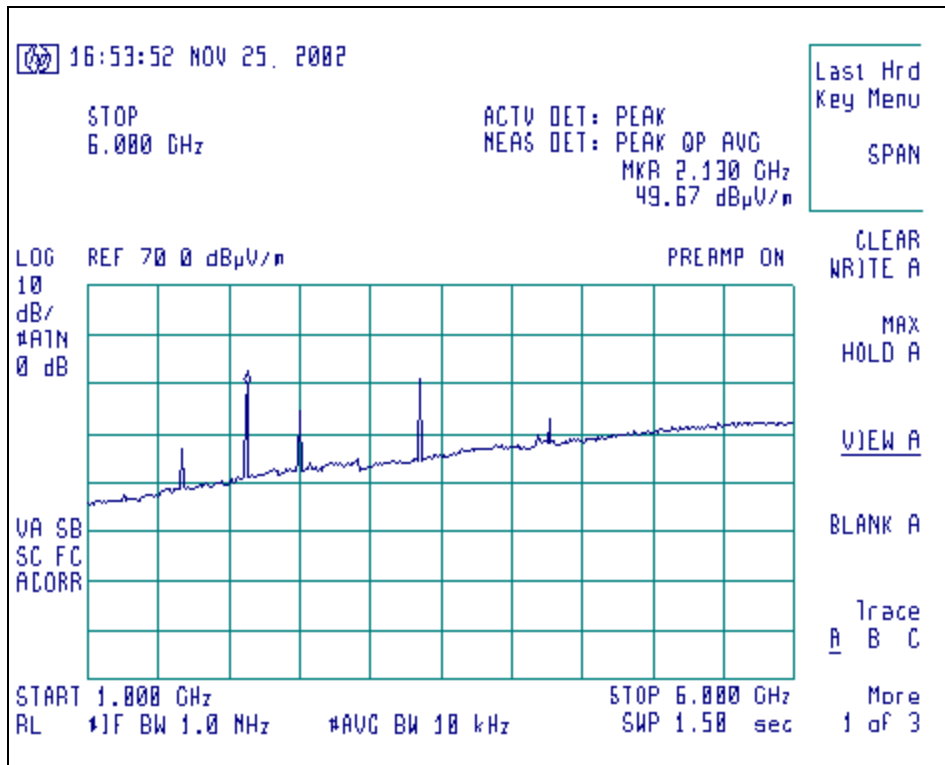
Radiated Emissions Signature Scan, Channel 991, Vertical Polarity, TX Mode



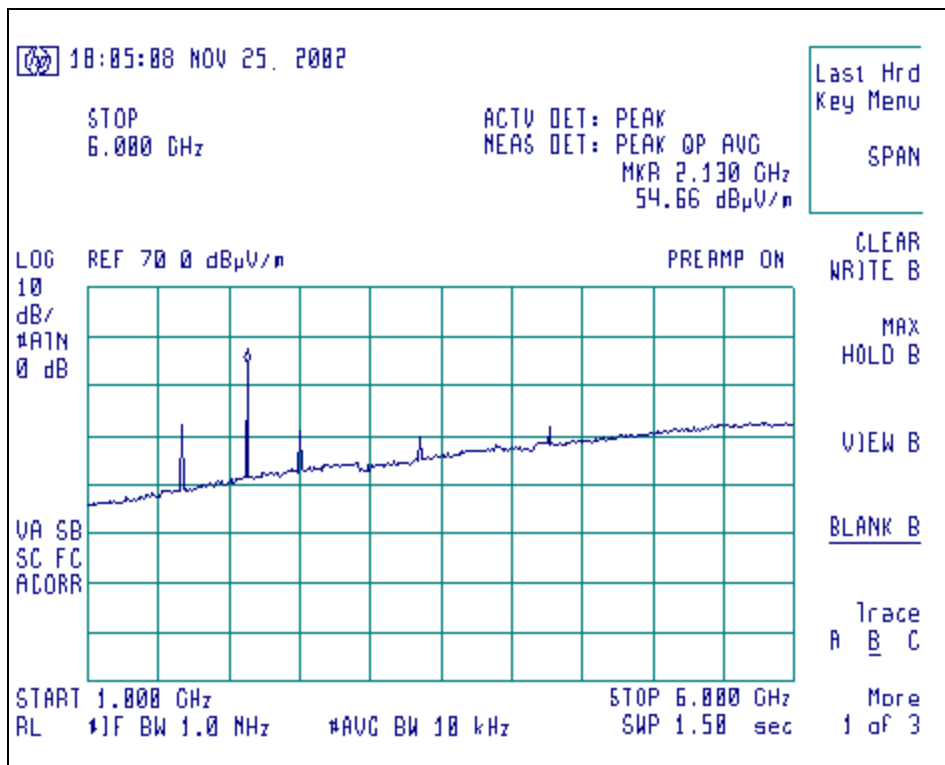
Radiated Emissions Signature Scan, Channel 991, Horizontal Polarity, TX Mode



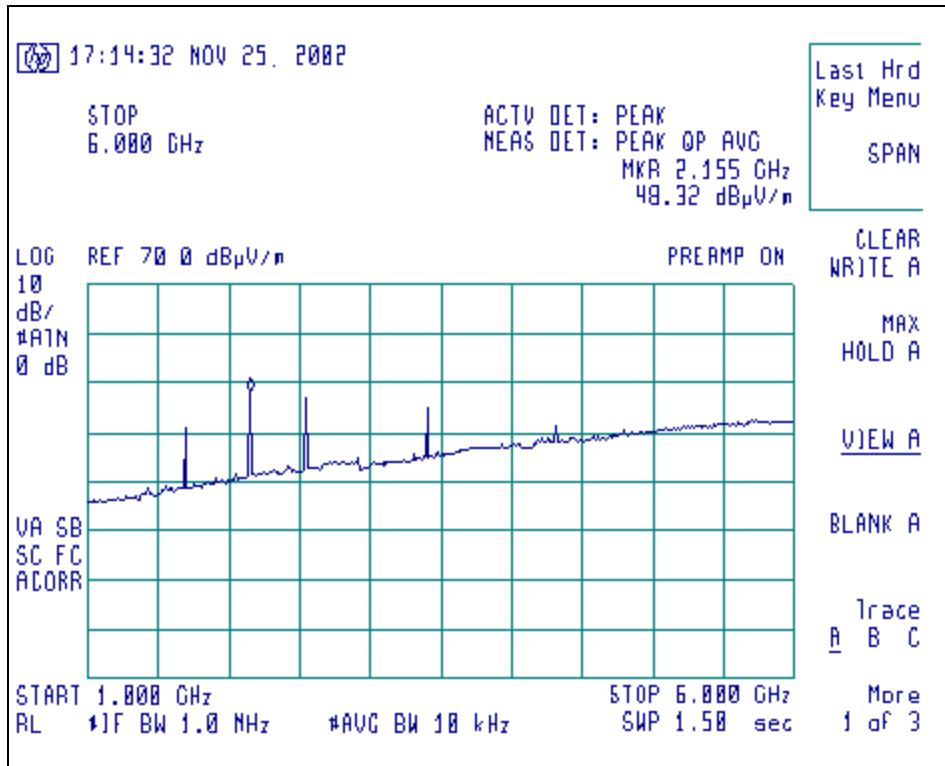
Radiated Emissions Signature Scan, Channel 384, Vertical Polarity, TX Mode



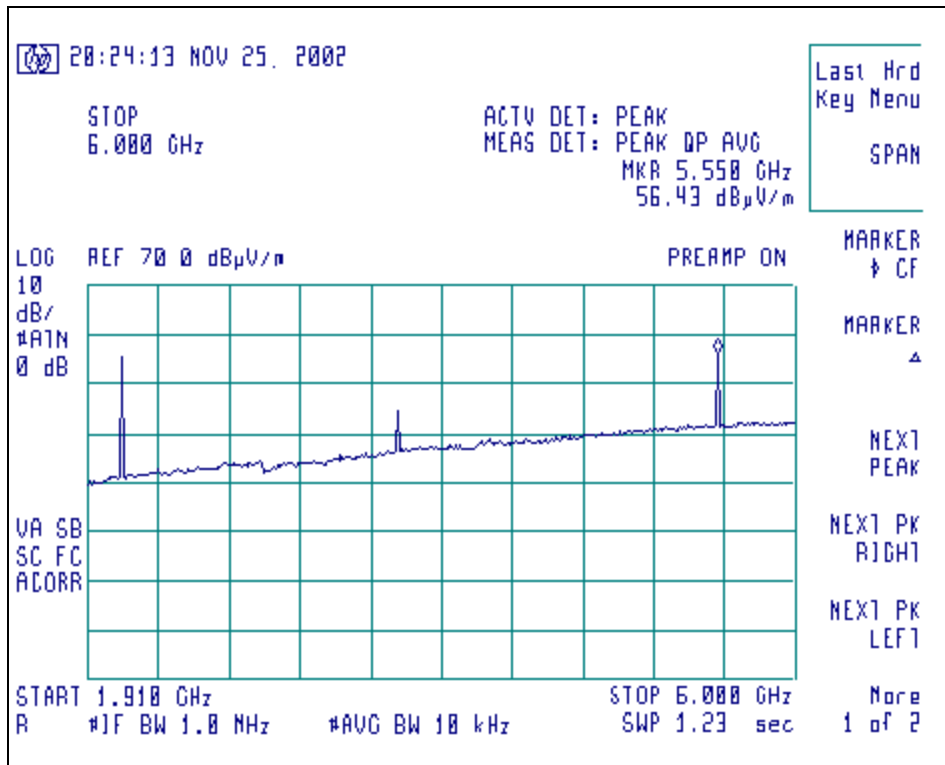
Radiated Emissions Signature Scan, Channel 384, Horizontal Polarity, TX Mode



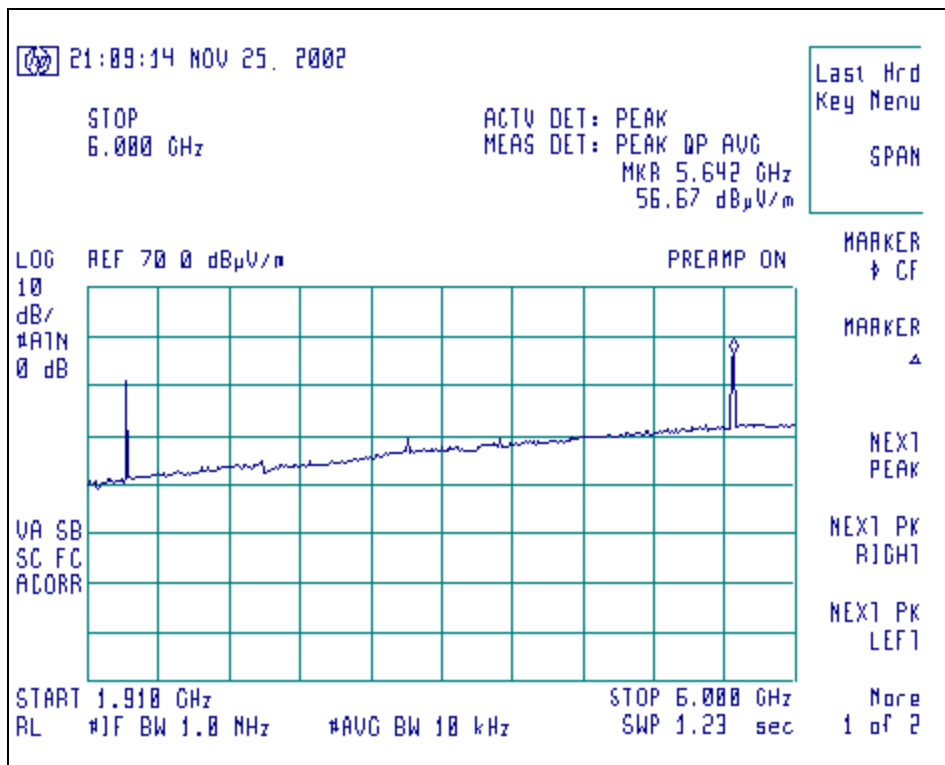
Radiated Emission Signature Scan, Channel 799, Horizontal Polarity, TX Mode



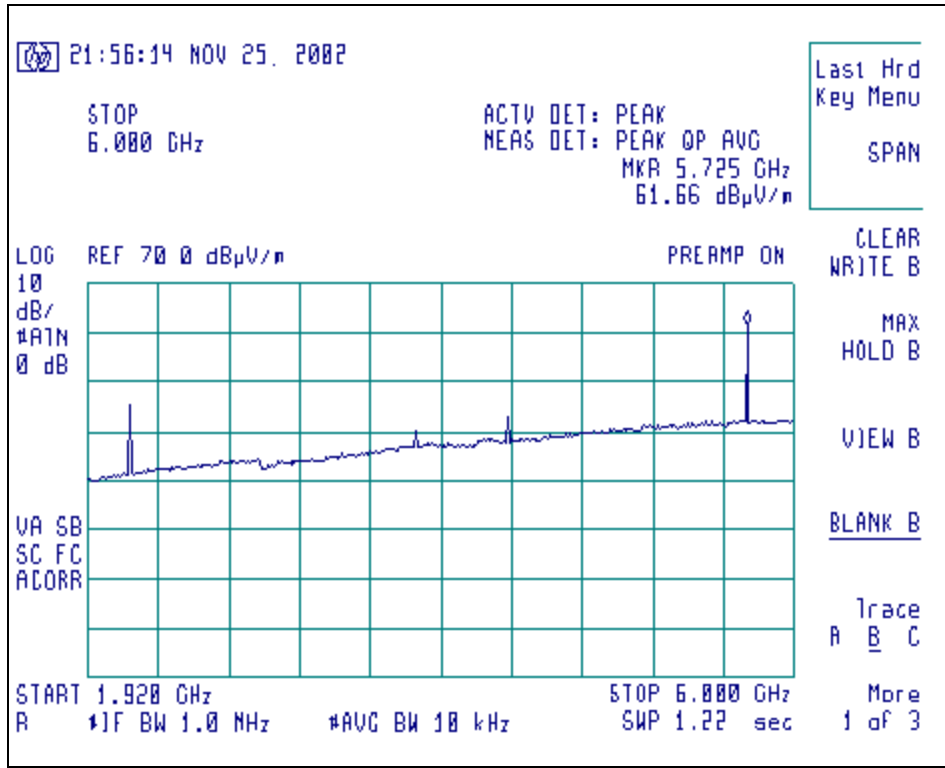
Radiated Emission Signature Scan, Channel 025, Horizontal Polarity, TX Mode




Radiated Emission Signature Scan, Channel 600, Horizontal Polarity, TX Mode

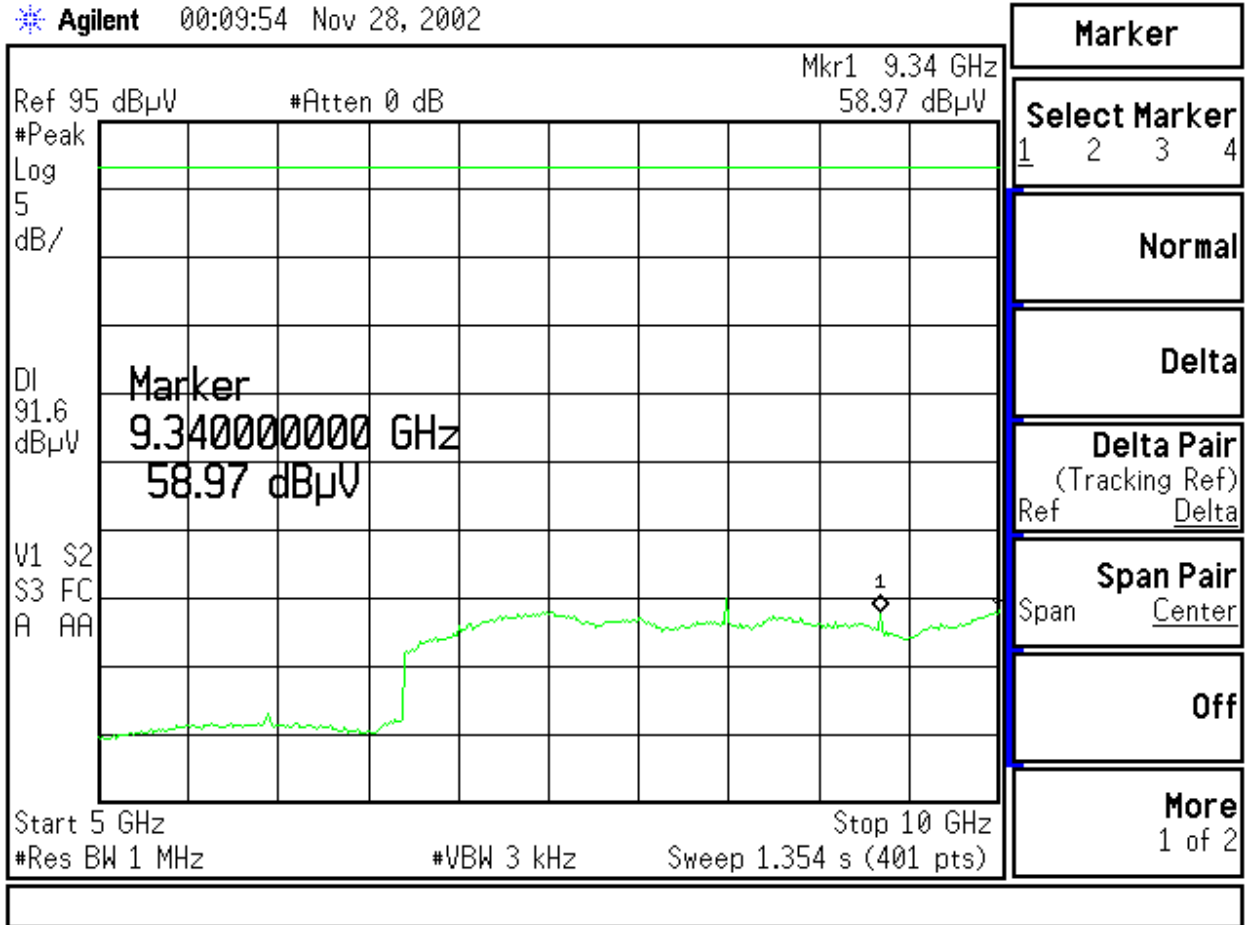


Radiated Emission Signature Scan, Channel 1175, Horizontal Polarity, TX Mode




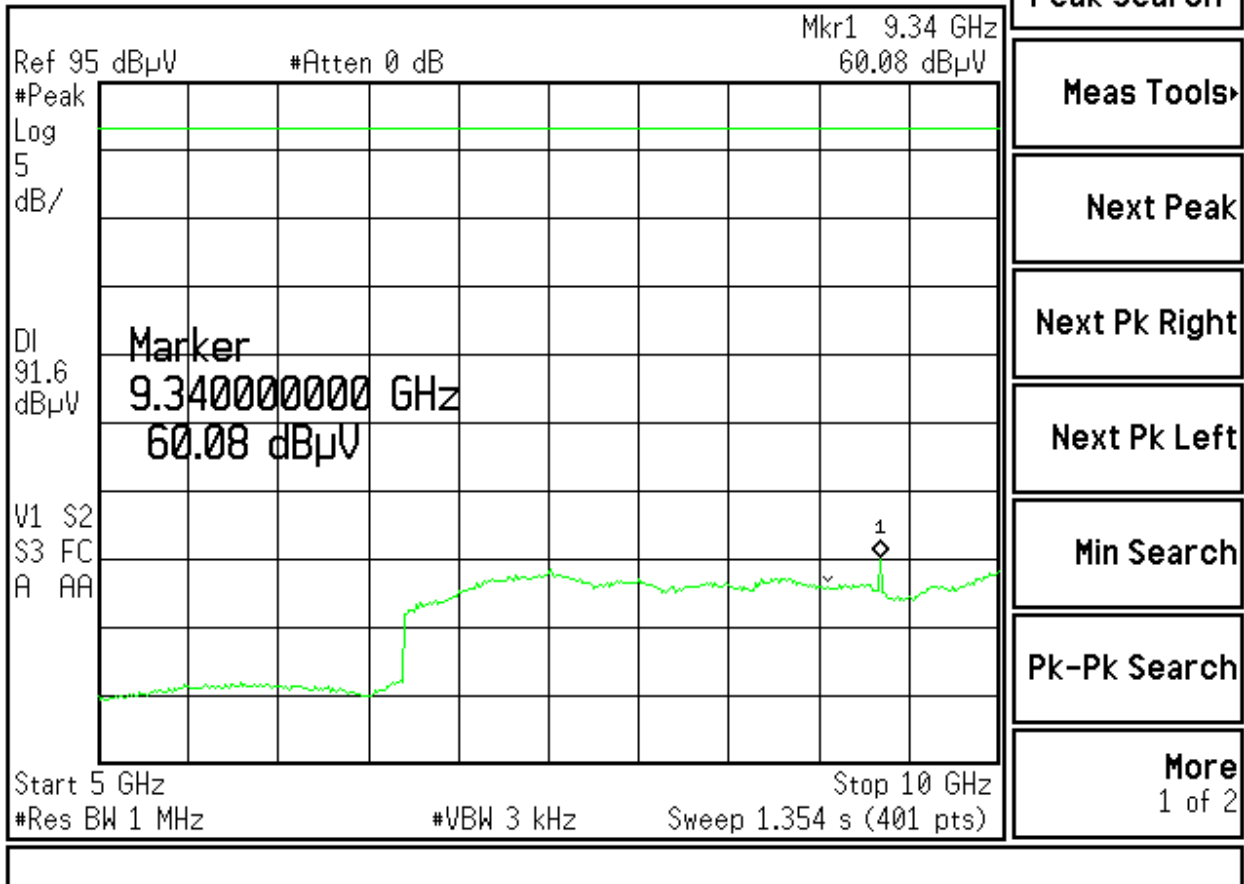
Radiated Emission Signature Scan, Channel 799, Horizontal Polarity, TX Mode

 **Agilent** 00:09:54 Nov 28, 2002




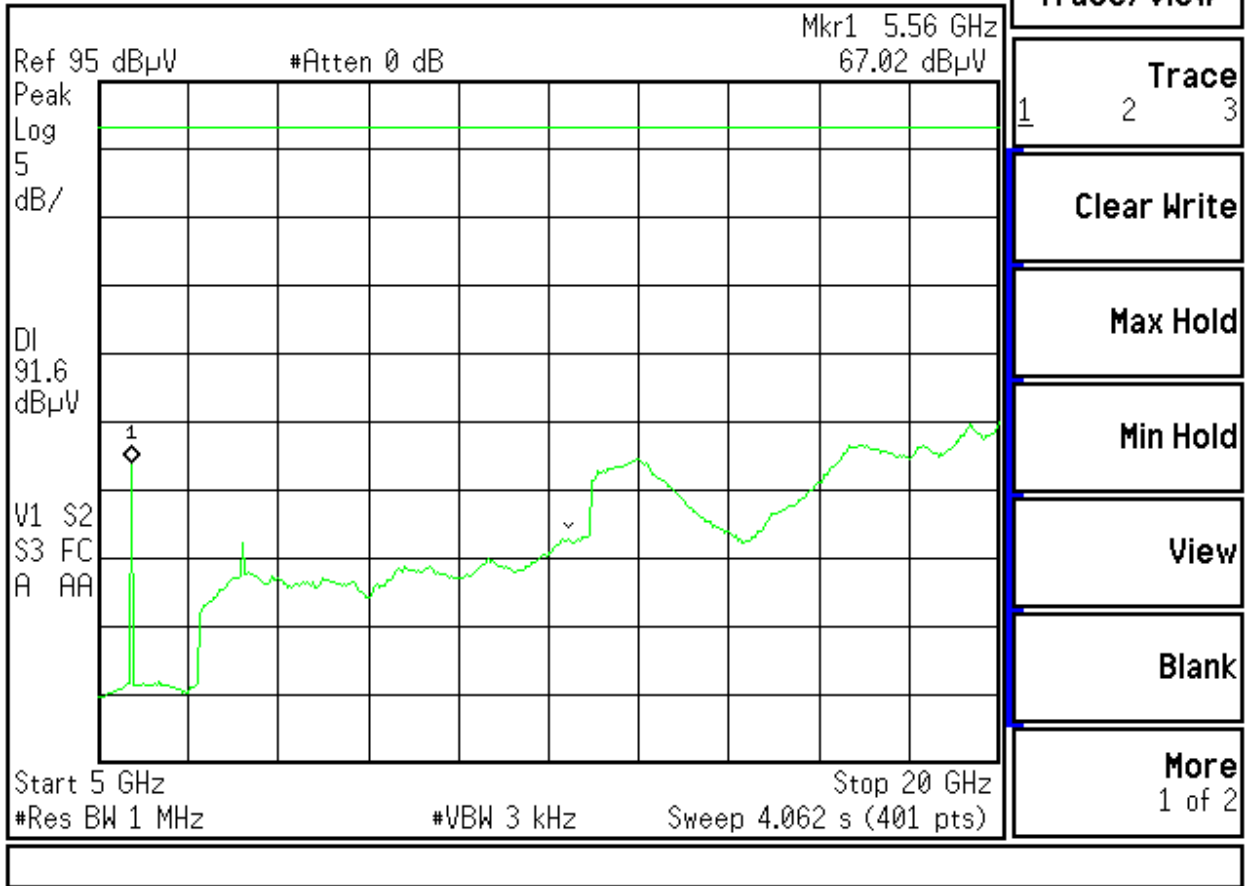
Radiated Emission Signature Scan, Channel 799, Vertical Polarity, TX

 Agilent 00:11:56 Nov 28, 2002

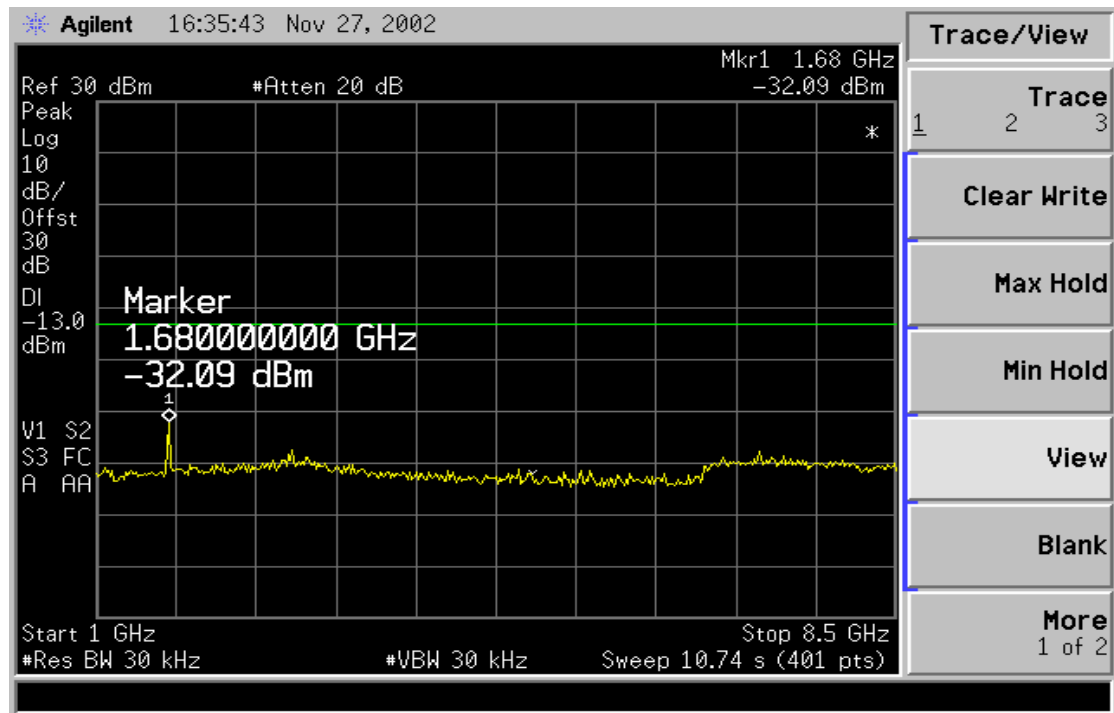
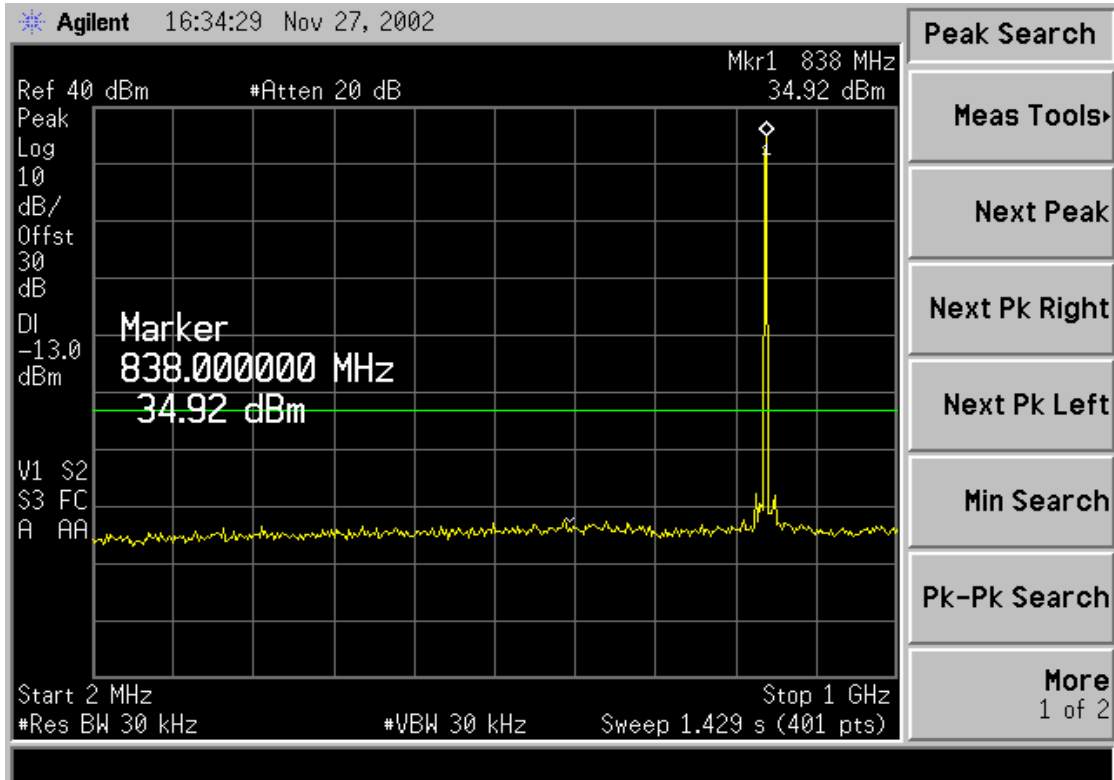


Radiated Emission Signature Scan, Channel 025, Horizontal Polarity, TX

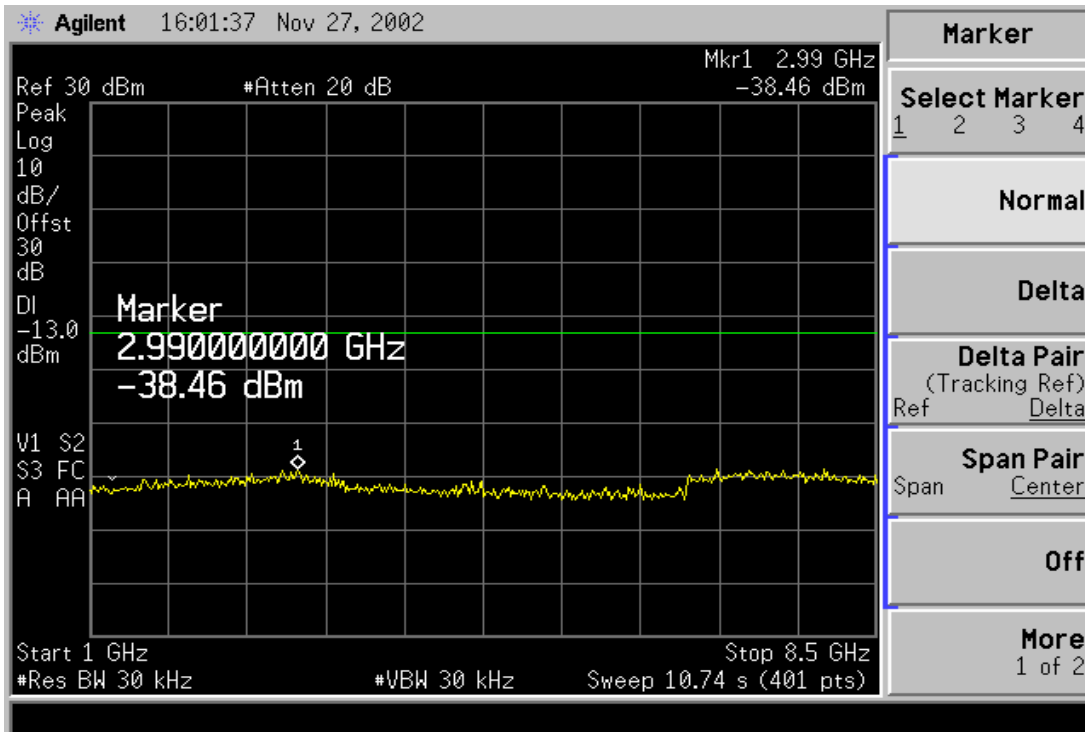
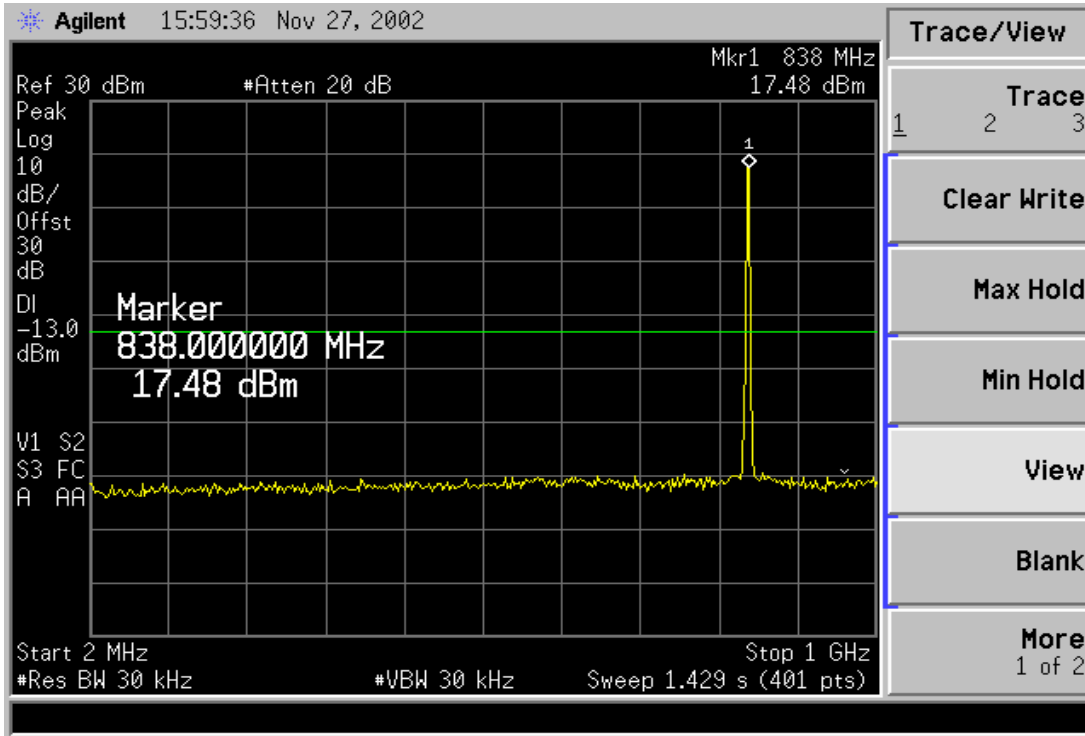
 Agilent 23:25:43 Nov 27, 2002



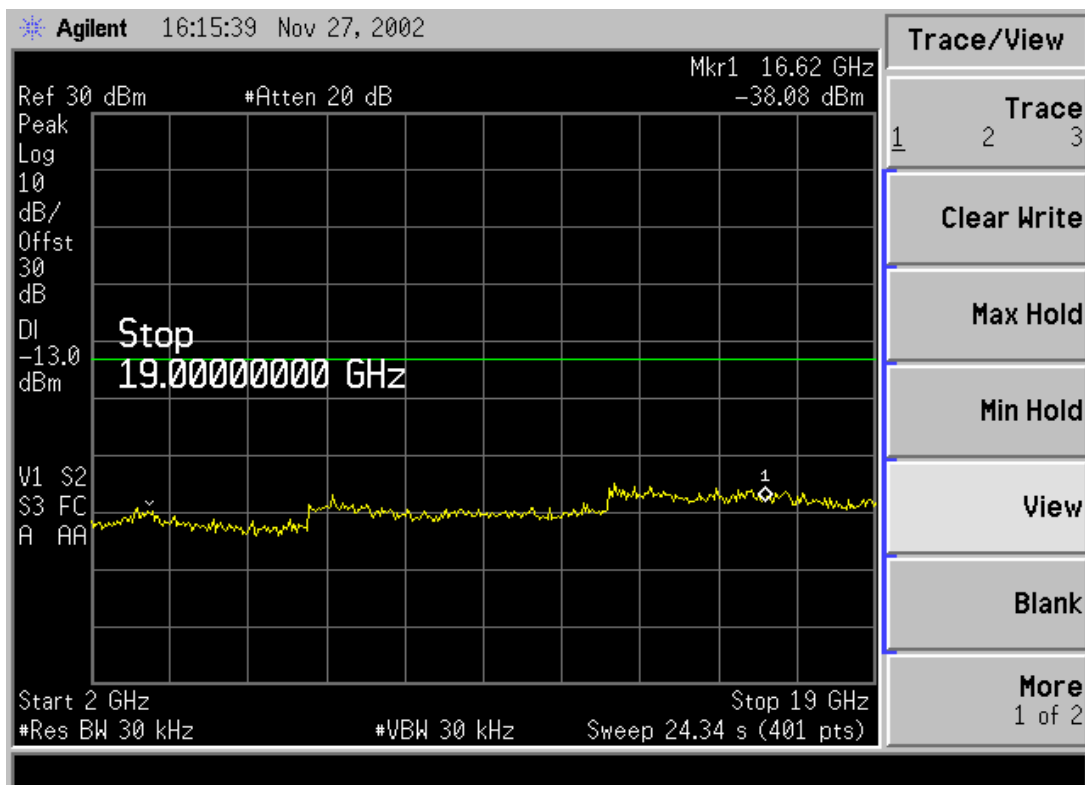
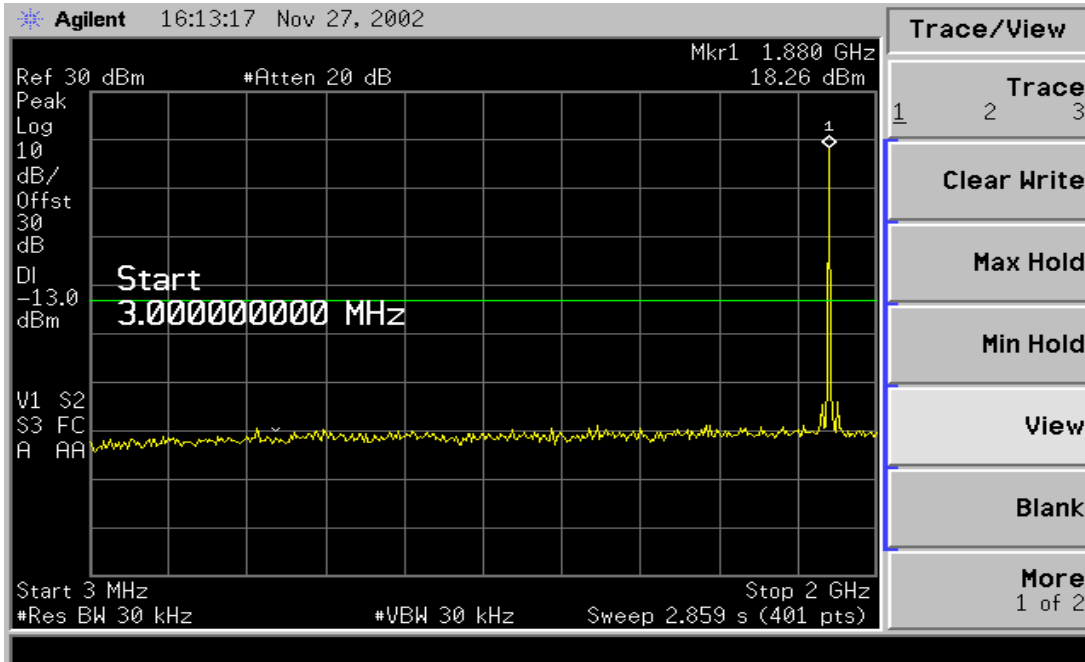
Conducted Emissions Direct into the Analyzer, Channel 384 Analog, TX



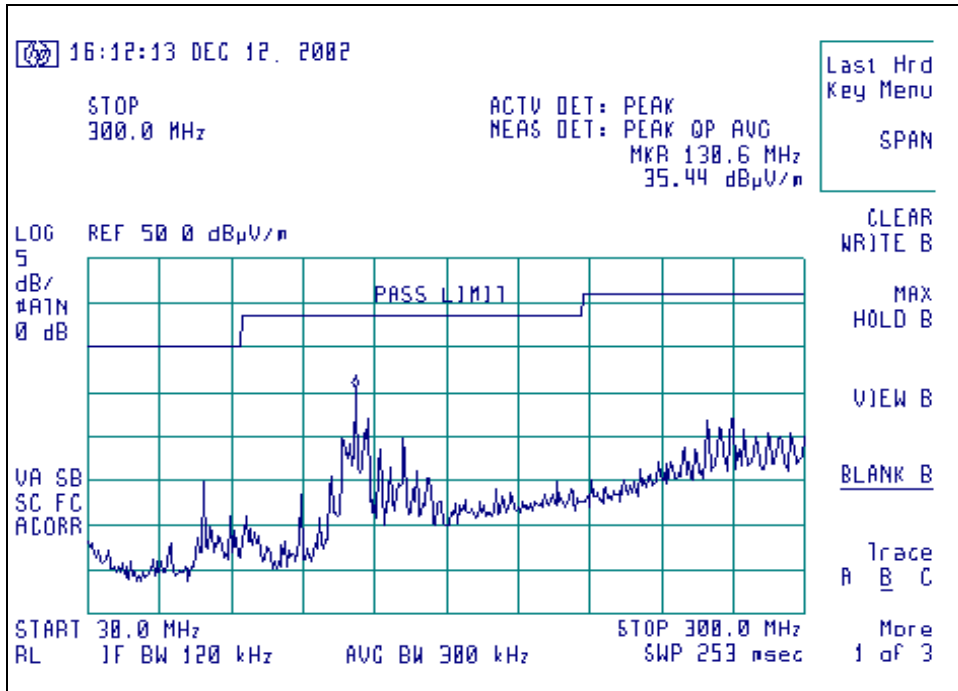
Conducted Emissions Direct into the Analyzer, Channel 384 CDMA, TX



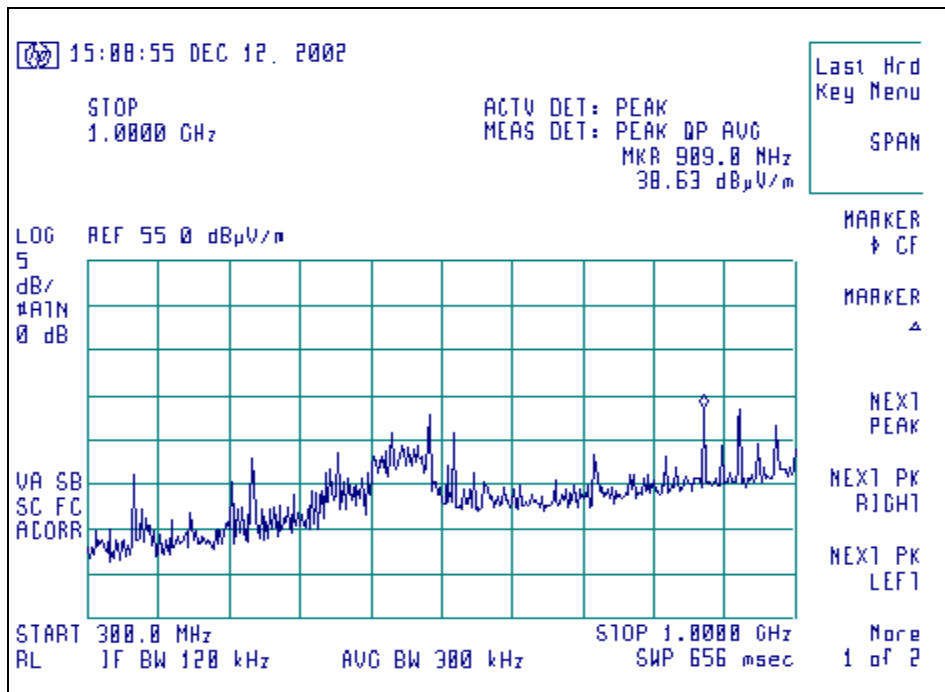
Conducted Emissions Direct into the Analyzer, Channel 600 CDMA (PCS), TX



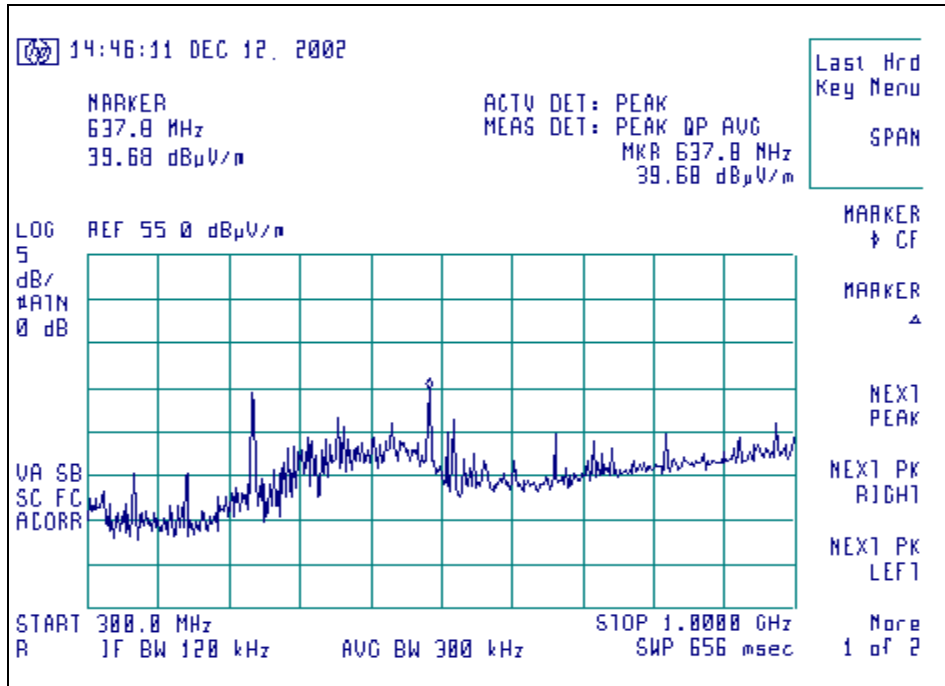
Radiated Emissions, Signature Scan, All Channels
Vertical Polarity, RX, 30 MHz - 300 MHz



Radiated Emissions Signature Scan, All Channels
Vertical Polarity, RX, 300 MHz- 1000 MHz



Radiated Emissions Signature Scan, All Channels
Horizontal Polarity, RX, 300 MHz – 1000 MHz



Radiated Emissions Signature Scan, All Channels
Vertical Polarity, RX, 1000 MHz – 5000 MHz

