



FCC Test Report

FCC Part 22, 24 / RSS 129, 133

SONY Corporation

Notebook PC

Model Number: PCG-1P1L

FCC ID: AK8PCG1P1L

IC-ID: 409B-PCG1P1L

TEST REPORT #: EMC_SONYE_027_08001_FCC22_24
DATE: 2008-10-24



FCC listed:
A2LA accredited

IC recognized #
3462B

CETECOM Inc.

411 Dixon Landing Road ♦ Milpitas, CA 95035 ♦ U.S.A.

Phone: + 1 (408) 586 6200 ♦ Fax: + 1 (408) 586 6299 ♦ E-mail: info@cetecomusa.com ♦ <http://www.cetecom.com>

CETECOM Inc. is a Delaware Corporation with Corporation number: 2113686

Board of Directors: Dr. Harald Ansorge, Dr. Klaus Matkey, Hans Peter May

Table of Contents

1	ASSESSMENT	4
	<i>EMC & Radio.....</i>	<i>4</i>
	<i>EMC & Radio.....</i>	<i>4</i>
2	ADMINISTRATIVE DATA.....	5
2.1	IDENTIFICATION OF THE TESTING LABORATORY ISSUING THE REPORT	5
2.2	IDENTIFICATION OF THE CLIENT	5
2.3	IDENTIFICATION OF THE MANUFACTURER.....	5
3	EQUIPMENT UNDER TEST (EUT).....	6
3.1	SPECIFICATION OF THE EQUIPMENT UNDER TEST	6
4	SUBJECT OF INVESTIGATION.....	7
5	MEASUREMENTS.....	8
5.1	RF POWER OUTPUT	8
5.1.1	<i>FCC 2.1046 Measurements required: RF power output.....</i>	<i>8</i>
5.1.2	<i>Limits:</i>	<i>8</i>
5.1.2.1	FCC 22.913 (a) Effective radiated power limits.	8
5.1.2.2	FCC 24.232 (b)(c) Power limits.....	8
5.1.3	<i>Radiated Output Power measurement procedure:</i>	<i>8</i>
5.1.4	<i>ERP Results 800 MHz band:</i>	<i>10</i>
5.1.5	<i>EIRP Results 1900 MHz band:.....</i>	<i>10</i>
5.2	SPURIOUS EMISSIONS RADIATED	23
5.2.1	<i>FCC 2.1053 Measurements required: Field strength of spurious radiation.....</i>	<i>23</i>
5.2.2	<i>Limits:</i>	<i>23</i>
5.2.2.1	FCC 22.917 Emission limitations for cellular equipment.	23
5.2.2.2	FCC 24.238 Emission limitations for Broadband PCS equipment.	23
5.2.3	<i>Radiated out of band measurement procedure:</i>	<i>24</i>
5.2.4	<i>Radiated out of band emissions results on EUT:</i>	<i>26</i>
5.2.4.1	RESULTS OF RADIATED TESTS 800:	26
5.2.4.2	RADIATED SPURIOUS EMISSIONS (800 band).....	27
5.2.4.3	RESULTS OF RADIATED TESTS PCS-1900:.....	35
5.2.4.4	RADIATED SPURIOUS EMISSIONS(PCS 1900)	36
5.3	RECEIVER RADIATED EMISSIONS § 2.1053 / RSS-129 & 133	47
5.3.1	<i>Receiver Radiated Spurious Emissions Results.....</i>	<i>47</i>
5.4	AC POWER LINE CONDUCTED EMISSIONS § 15.107/207.....	52
5.4.1	<i>LIMITS</i>	<i>52</i>
5.4.2	<i>RESULTS TX Line CDMA 800:</i>	<i>53</i>
5.4.3	<i>RESULTS TX Neutral CDMA 800:</i>	<i>55</i>
5.4.4	<i>RESULTS TX Line EVDO 800:</i>	<i>57</i>
5.4.5	<i>RESULTS TX Neutral EVDO 800:</i>	<i>59</i>
5.4.6	<i>RESULTS TX Neutral CDMA 1900:</i>	<i>61</i>
5.4.7	<i>RESULTS TX Neutral CDMA 1900:</i>	<i>63</i>
5.4.8	<i>RESULTS TX Line EVDO 1900:</i>	<i>65</i>
5.4.9	<i>RESULTS TX Neutral EVDO 1900:</i>	<i>67</i>
5.4.10	<i>RESULTS RX Line CDMA:</i>	<i>69</i>



5.4.11 RESULTS RX Neutral CDMA:71

6 TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS73

7 REFERENCES74

8 BLOCK DIAGRAMS75

9 REVISION HISTORY.....76

1 Assessment

The following is in compliance with the applicable criteria specified in FCC rules Parts 2, 22 and 24 of Title 47 of the Code of Federal Regulations and in compliance with the applicable criteria specified in Industry Canada rules RSS129 and RSS133.

Company	Description	Model #
SONY Corporation	Notebook PC	PCQ-1P1L

Technical responsibility for area of testing:

Lothar Schmidt
 (Director Regulatory and
 Antenna Services)

2008-10-24 EMC & Radio

Date	Section	Name	Signature
------	---------	------	-----------

This report is prepared by:

Peter Mu
 (EMC Project Engineer)

2008-10-24 EMC & Radio

Date	Section	Name	Signature
------	---------	------	-----------

The test results of this test report relate exclusively to the test item specified in Identification of the Equipment under Test. The CETECOM Inc. USA does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the CETECOM Inc USA.

2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the Report

Company Name: CETECOM Inc.
Department: EMC
Address: 411 Dixon Landing Road Milpitas, CA 95035 U.S.A.
Telephone: +1 (408) 586 6200
Fax: +1 (408) 586 6299
Responsible Test Lab Manager: Lothar Schmidt

2.2 Identification of the Client

Applicant's Name: SONY Corporation
Address: 1-7-1 Konan, Minato-ku, Tokyo 108-0075, Japan
Contact Person: Michio Kobayashi
Phone No. +81-263-72-5696
Fax: +81-263-72-9755
e-mail: Michio.Kobayashi@jp.sony.com

2.3 Identification of the Manufacturer

MANUFACTURER (If different from Applicant)	
Applicant (Firm Name):	Sony EMCS Corporation
Contact Person:	Michio Kobayashi
Telephone:	+81-263-72-5696
Fax:	+81-263-72-9755
Address Line 1:	5432 Toyoshima,
City:	Azumino-shi, Nagano
Postal Code:	399-8282,
Country:	Japan
e-mail:	Michio.Kobayashi@jp.sony.com

3 Equipment under Test (EUT)

3.1 Specification of the Equipment under Test

Product Type	Notebook PC
Marketing Name:	PCG-1P1L
Model No:	PCG-1P1L
FCC-ID:	AK8PCG1P1L
IC-ID :	409B-PCG1P1L
Frequency Range:	824.7 MHz to 848.31 MHz & 1851.25 MHz to 1908.75 MHz
Type(s) of Modulation:	CDMA
Antenna Type:	Monopole
	Conducted:
	CDMA Cellular: 24.92dBm (0.310W)
Output Power	CDMA PCS: 24.61dBm (0.289W)
	Radiated:
	CDMA Cellular: 22.07dBm (0.161W) ERP
	CDMA PCS: 26.66dBm (0.463W) EIRP

4 Subject of Investigation

All testing was performed on the EUT listed in Section 3. The EUT was maximized in the X, Y, Z positions, all data in this report shows the worst case between horizontal and vertical polarization for above 1GHz.

The objective of the measurements done by Cetecom Inc. was to measure the performance of the EUT as specified by requirements listed in FCC rules Parts 2, 22 and 24 of Title 47 of the Code of Federal Regulations. The maximization of portable equipment is conducted in accordance with ANSI C63.4.

5 Measurements

5.1 RF Power Output

5.1.1 FCC 2.1046 Measurements required: RF power output.

Power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on circuit elements as specified. The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

5.1.2 Limits:

5.1.2.1 FCC 22.913 (a) Effective radiated power limits.

The effective radiated power (ERP) of mobile transmitters must not exceed 7 Watts.

5.1.2.2 FCC 24.232 (b)(c) Power limits.

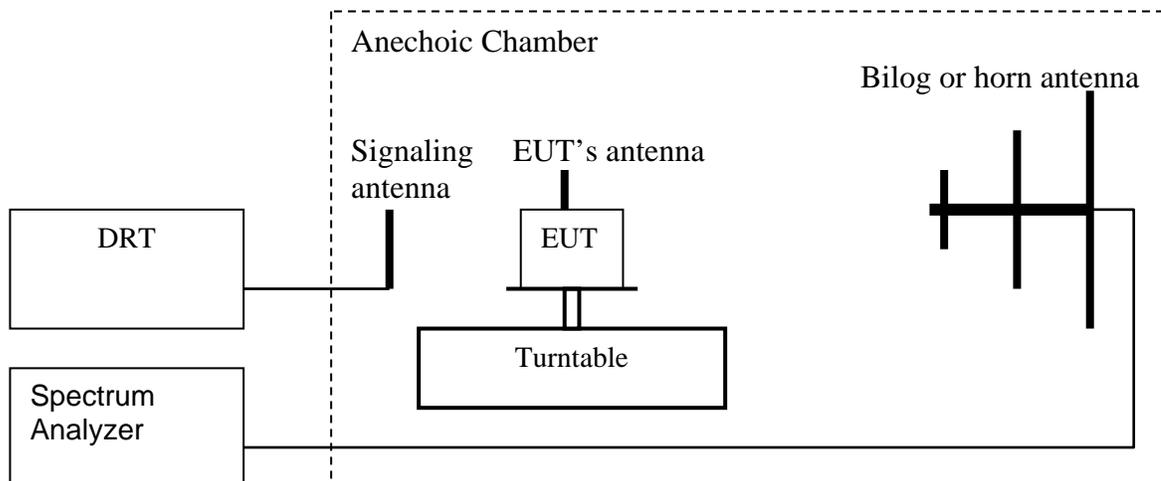
(b) Mobile/portable stations are limited to 2 Watts effective isotropic radiated power (EIRP).

(c) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms equivalent voltage. The measurement results shall be properly adjusted for any limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement over the full bandwidth of the channel.

5.1.3 Radiated Output Power measurement procedure:

Based on TIA-603C 2004

2.2.17.2 Effective Radiated Power (ERP) or Effective Isotropic Radiated Power (EIRP)



1. Connect the equipment as shown in the above diagram with the EUT's antenna in a vertical orientation.

2. Adjust the settings of the Digital Radiocommunication Tester (DRT) to set the EUT to its maximum power at the required channel.
 3. Set the spectrum analyzer to the channel frequency. Set the analyzer to measure peak hold with the required settings.
 4. Rotate the EUT 360°. Record the peak level in dBm (**LVL**).
 5. Replace the EUT with a vertically polarized half wave dipole or known gain antenna. The center of the antenna should be at the same location as the center of the EUT's antenna.
 6. Connect the antenna to a signal generator with known output power and record the path loss in dB (**LOSS**). **LOSS** = Generator Output Power (dBm) – Analyzer reading (dBm).
 7. Determine the ERP using the following equation:
ERP (dBm) = LVL (dBm) + LOSS (dB)
 8. Determine the EIRP using the following equation:
EIRP (dBm) = ERP (dBm) + 2.14 (dB)
 9. Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band. **Spectrum analyzer settings = rbw=vbw=3MHz**
- (**note:** Steps 5 and 6 above are performed prior to testing and **LOSS** is recorded by test software. Steps 3, 4, 7 and 8 above are performed with test software.)

5.1.4 ERP Results 800 MHz band:

	Burst Peak ERP
	≤38.45dBm (7W)

Frequency (MHz)	Effective Radiated Power (dBm)	
	CDMA	EVDO
824.7	20.60	20.45
836.6	21.42	21.61
848.31	21.18	22.07

5.1.5 EIRP Results 1900 MHz band:

	Burst Peak EIRP
	≤33dBm (2W)

Frequency (MHz)	Equivalent Isotropic Radiated Power (dBm)	
	CDMA	EVDO
1851.25	26.37	26.66
1880.0	23.83	24.38
1908.25	23.53	24.15



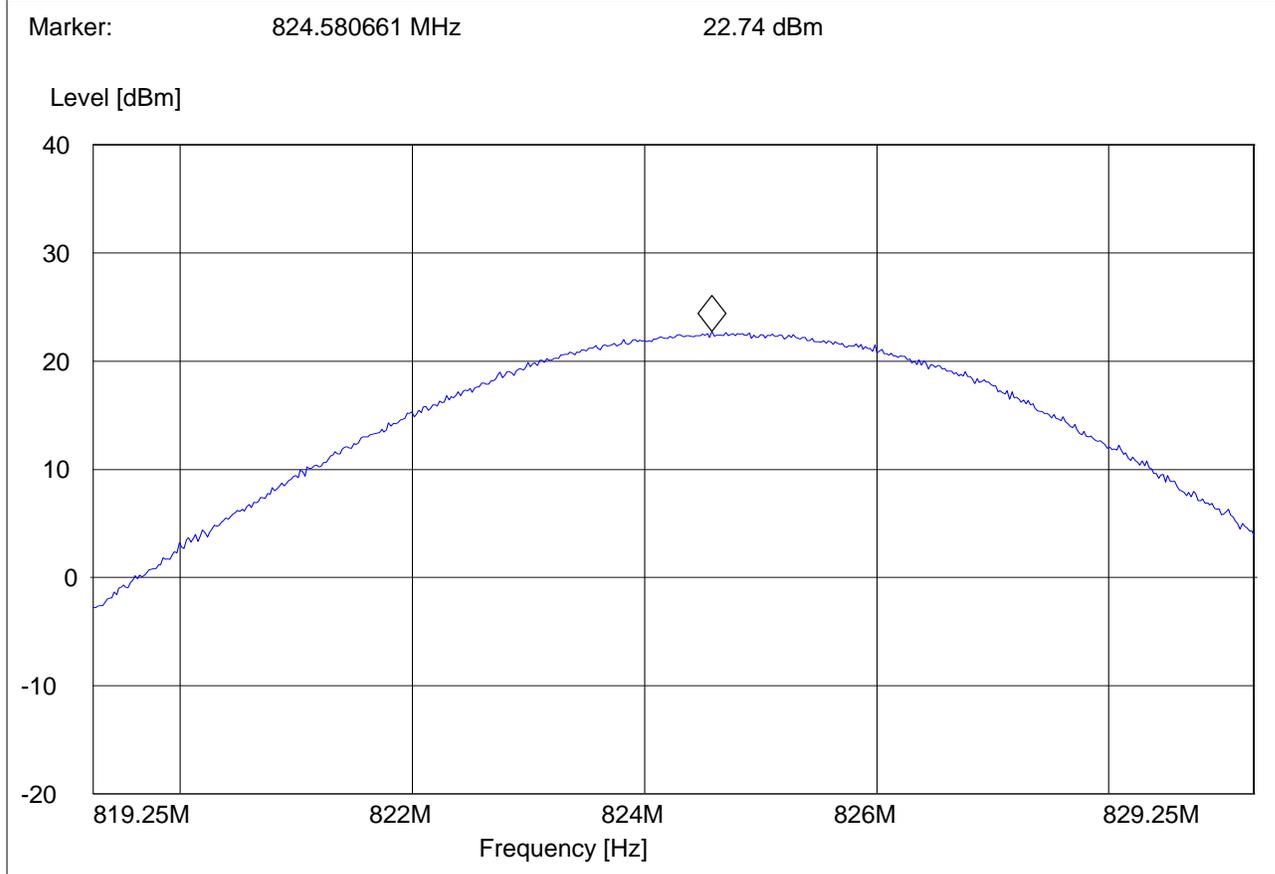
**EIRP (800 band) CDMA
 CHANNEL 1013**

§22.913(a)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 850; CH 1013
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA 850 CH8"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
819.3 MHz	829.3 MHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM





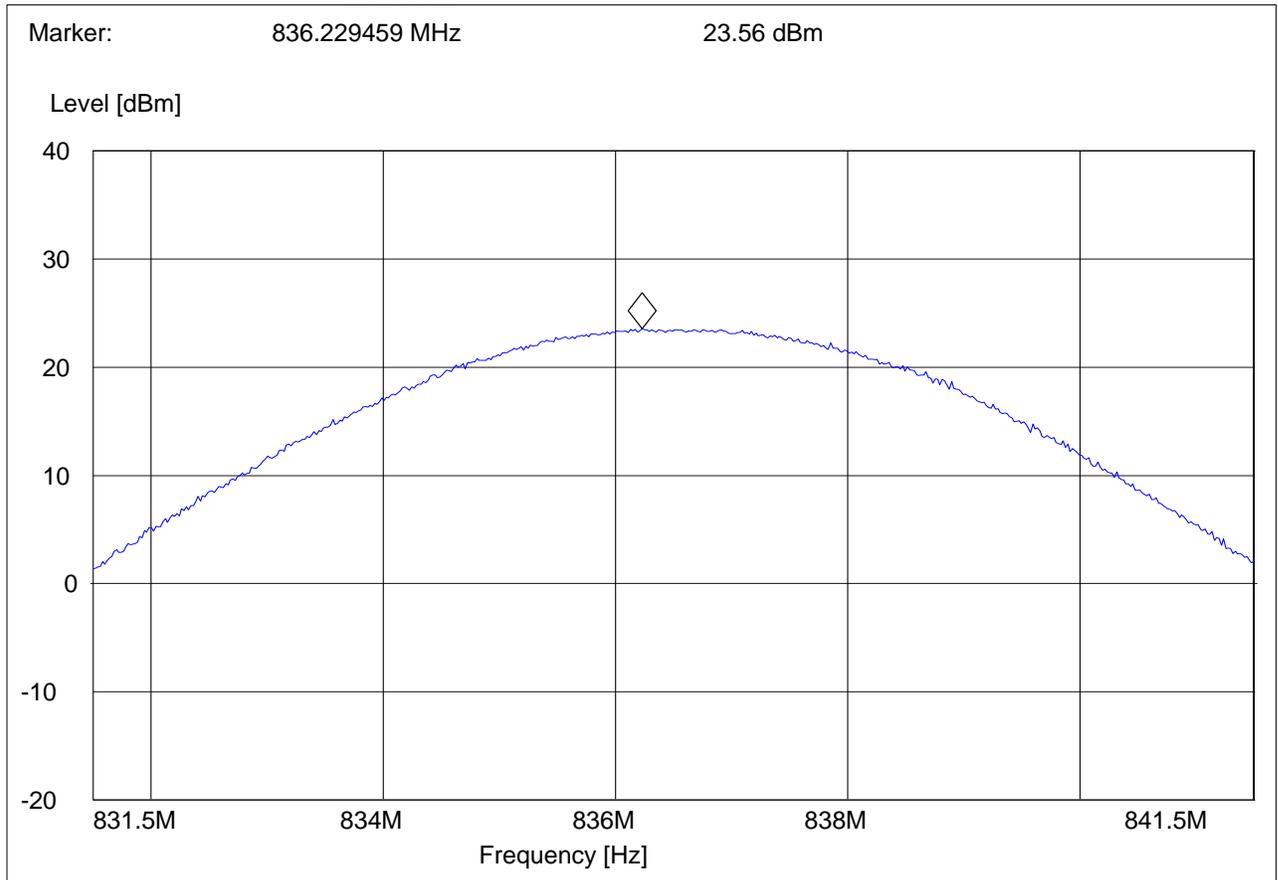
**EIRP (800 band) CDMA
 CHANNEL 384**

§22.913(a)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 850; CH 384
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA 850 CH383"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
831.5 MHz	841.5 MHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM
		MaxPeak			



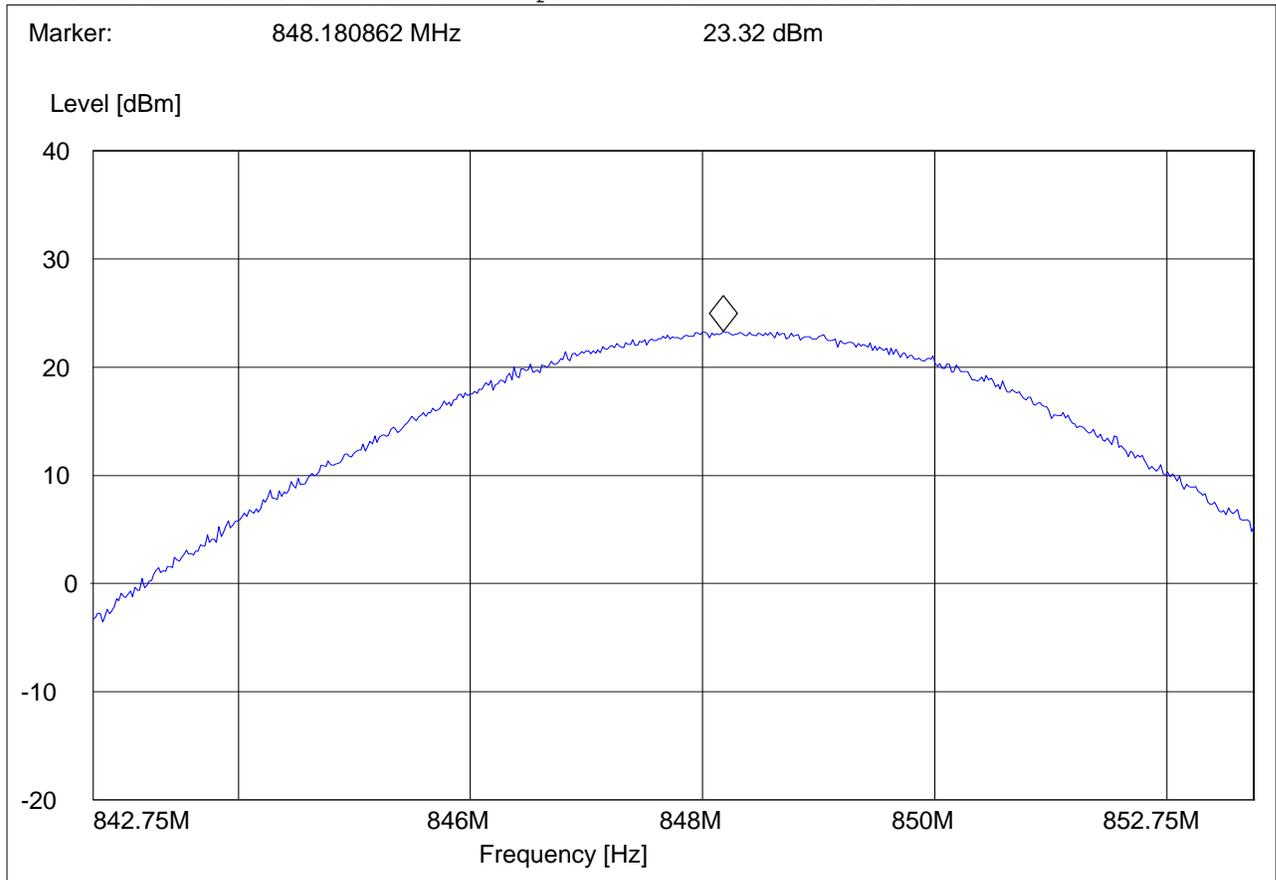
**EIRP (800 band) CDMA
 CHANNEL 777**

§22.913(a)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 850; CH 777
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA 850 CH758"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
842.8 MHz	852.8 MHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM





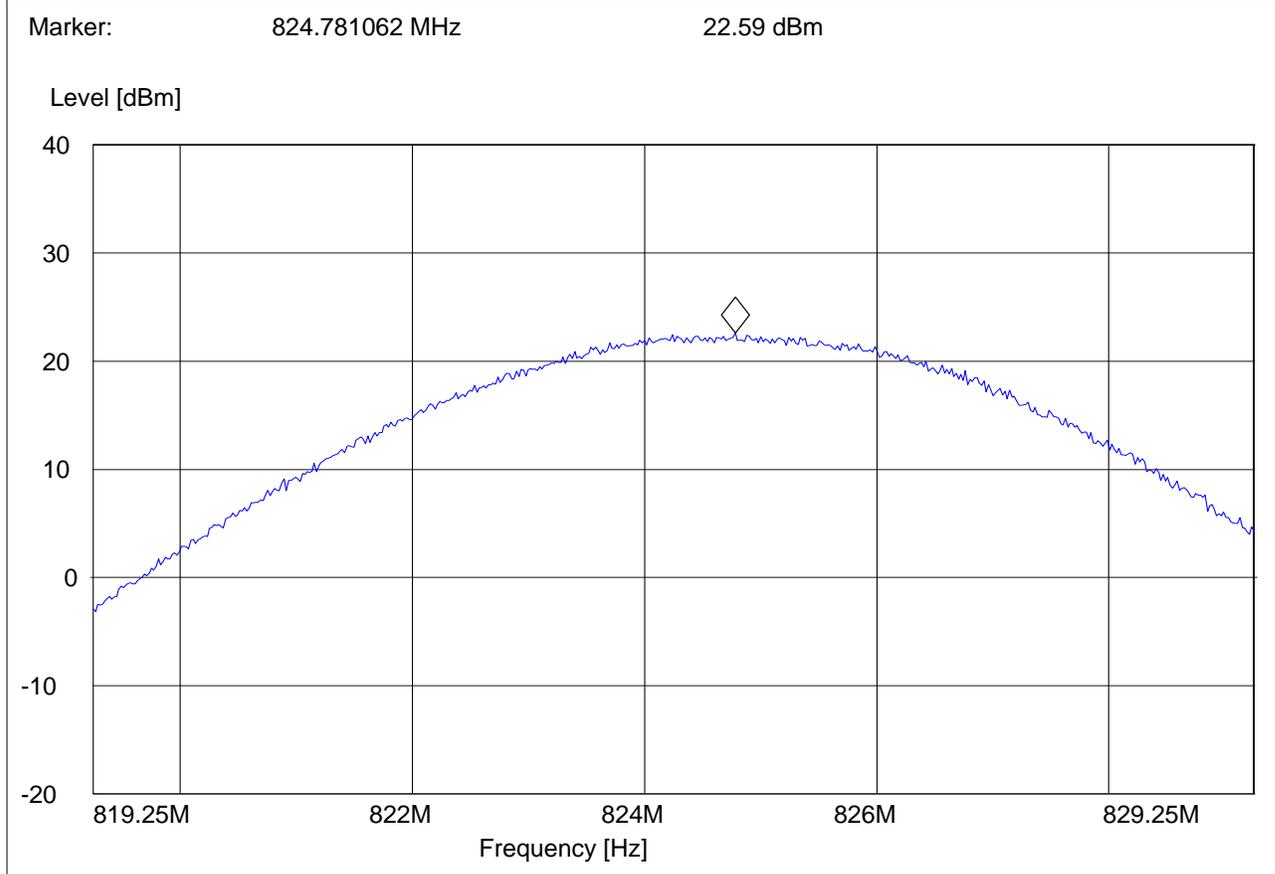
**EIRP (800 band) EVDO
 CHANNEL 1013**

§22.913(a)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: EVDO 850 CH 1013
 ANT Orientation: V
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA 850 CH8"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
819.3 MHz	829.3 MHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM





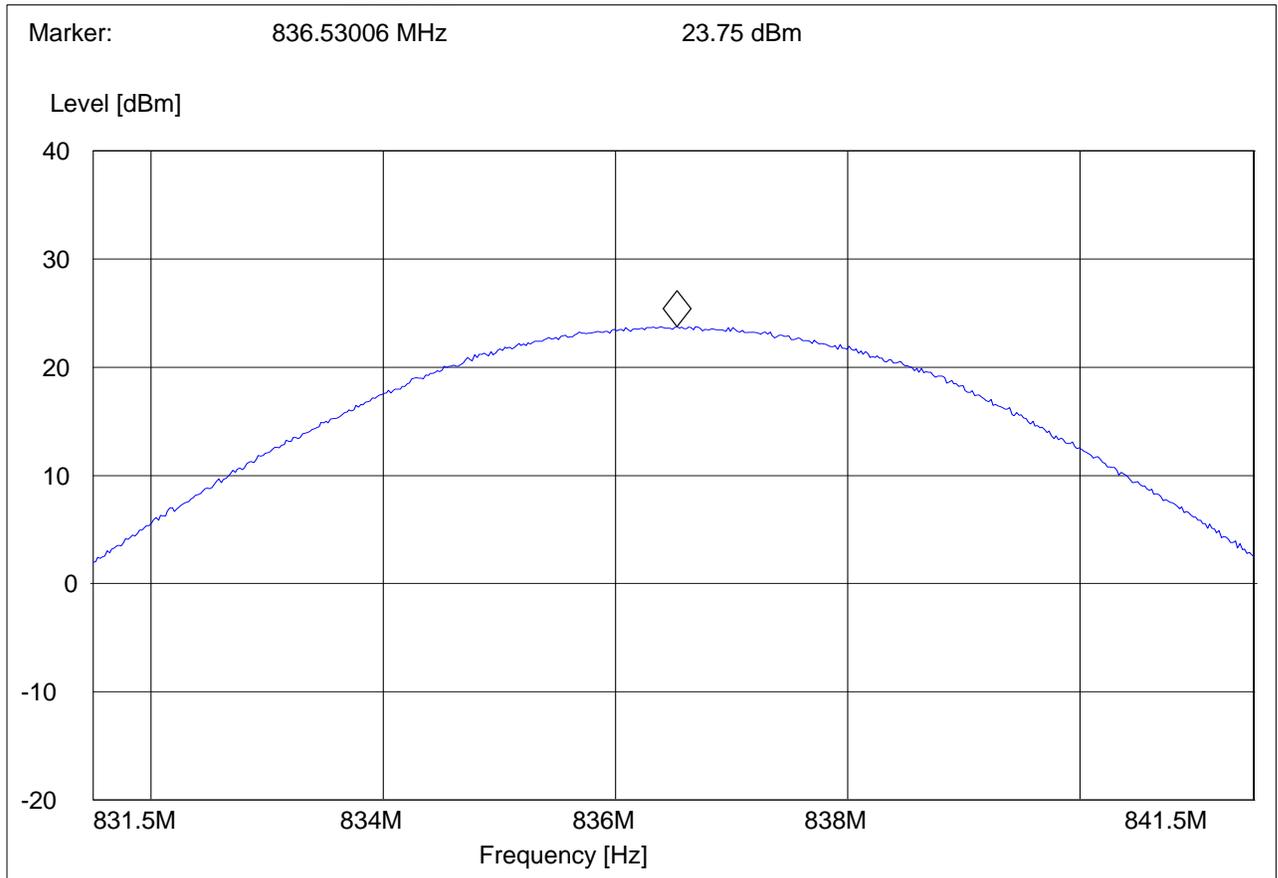
**EIRP (800 band) EVDO
 CHANNEL 384**

§22.913(a)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: EVDO 850 CH 384
 ANT Orientation: V
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA 850 CH383"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
831.5 MHz	841.5 MHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM
		MaxPeak			



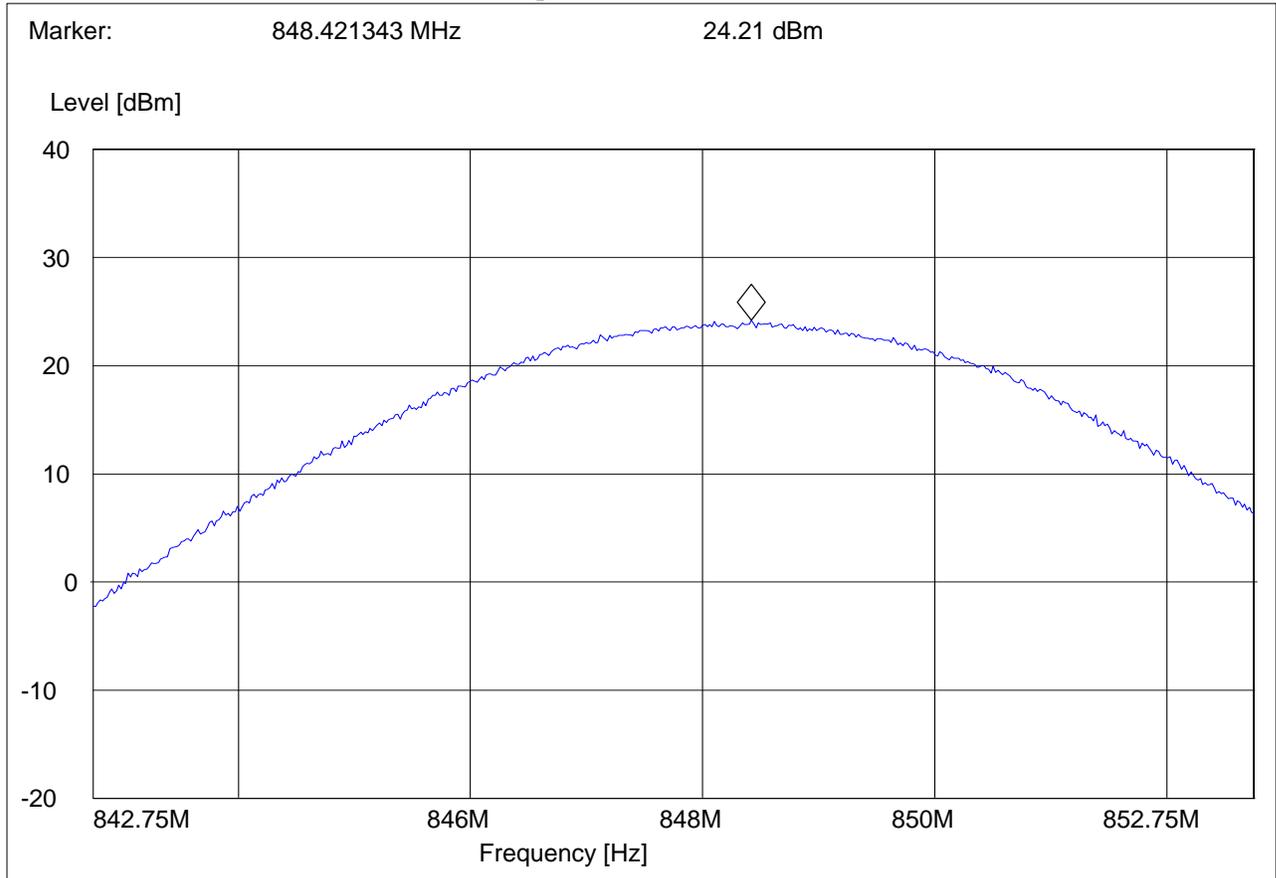
**EIRP (800 band) EVDO
CHANNEL 777**

§22.913(a)

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: EVDO 850 CH 777
ANT Orientation: V
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "EIRP CDMA 850 CH758"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
842.8 MHz	852.8 MHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM





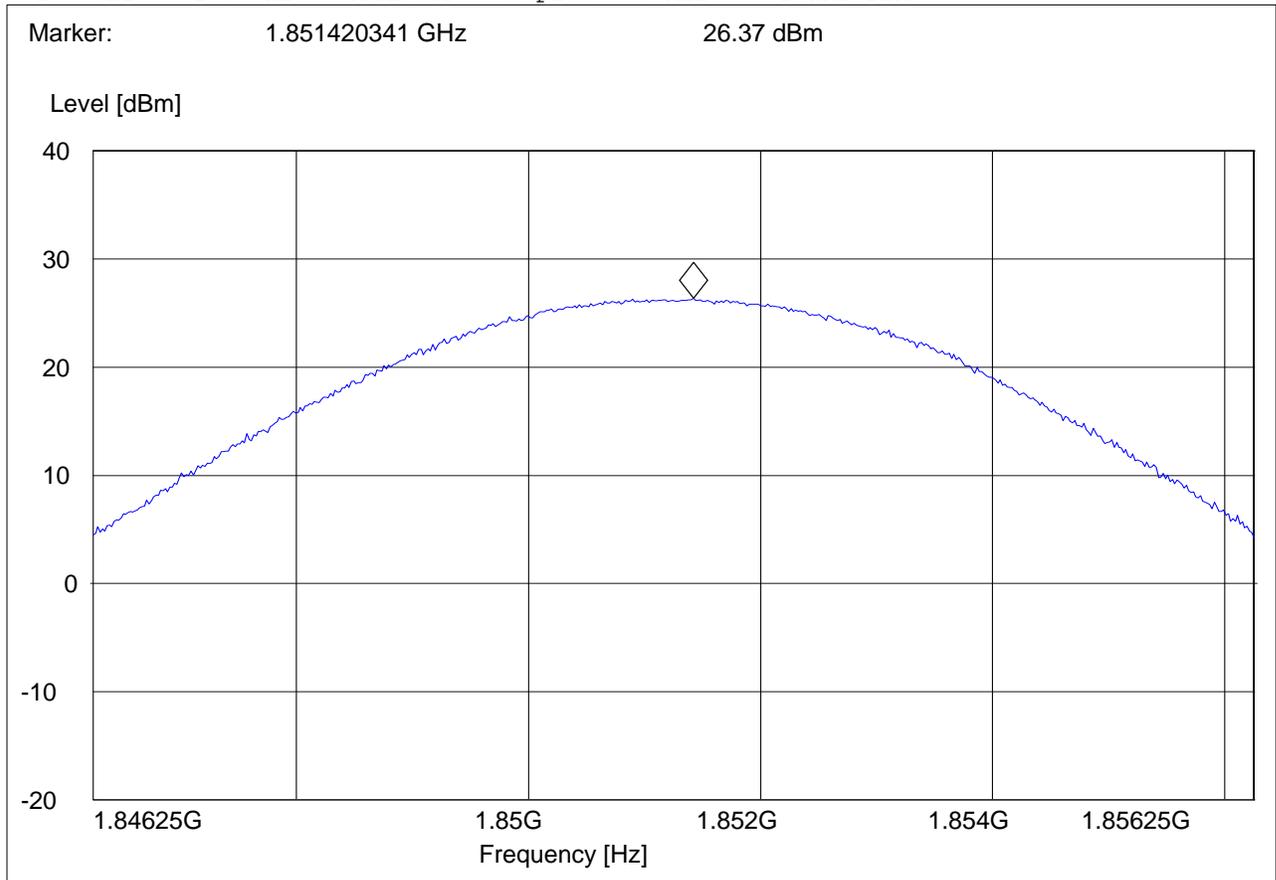
**EIRP (PCS-1900) CDMA
 CHANNEL 25**

§24.232(b)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; CH 25
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA1900 CH25"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.8 GHz	1.9 GHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM





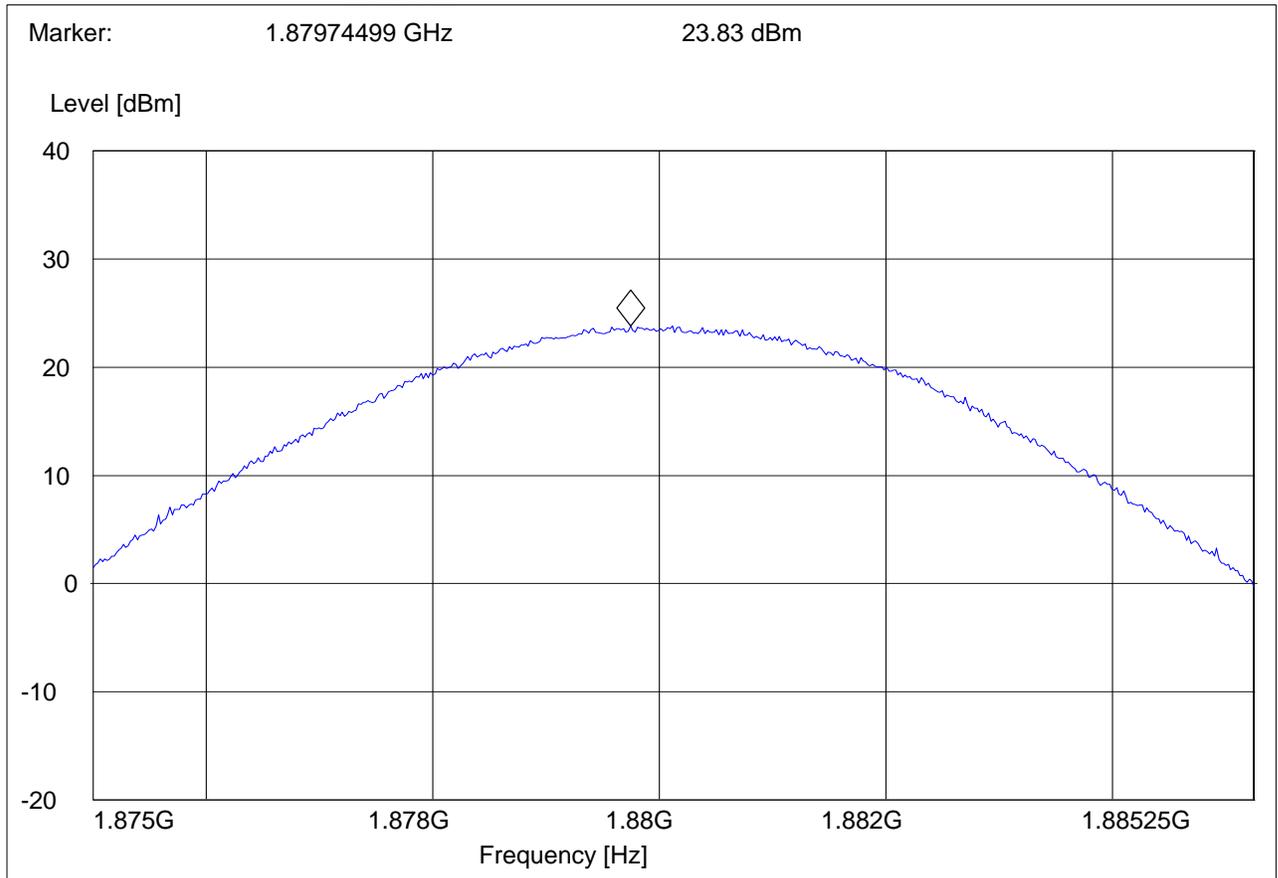
**EIRP (PCS-1900) CDMA
 CHANNEL 600**

§24.232(b)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; CH 600
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA1900 CH600"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.9 GHz	1.9 GHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM
		MaxPeak			



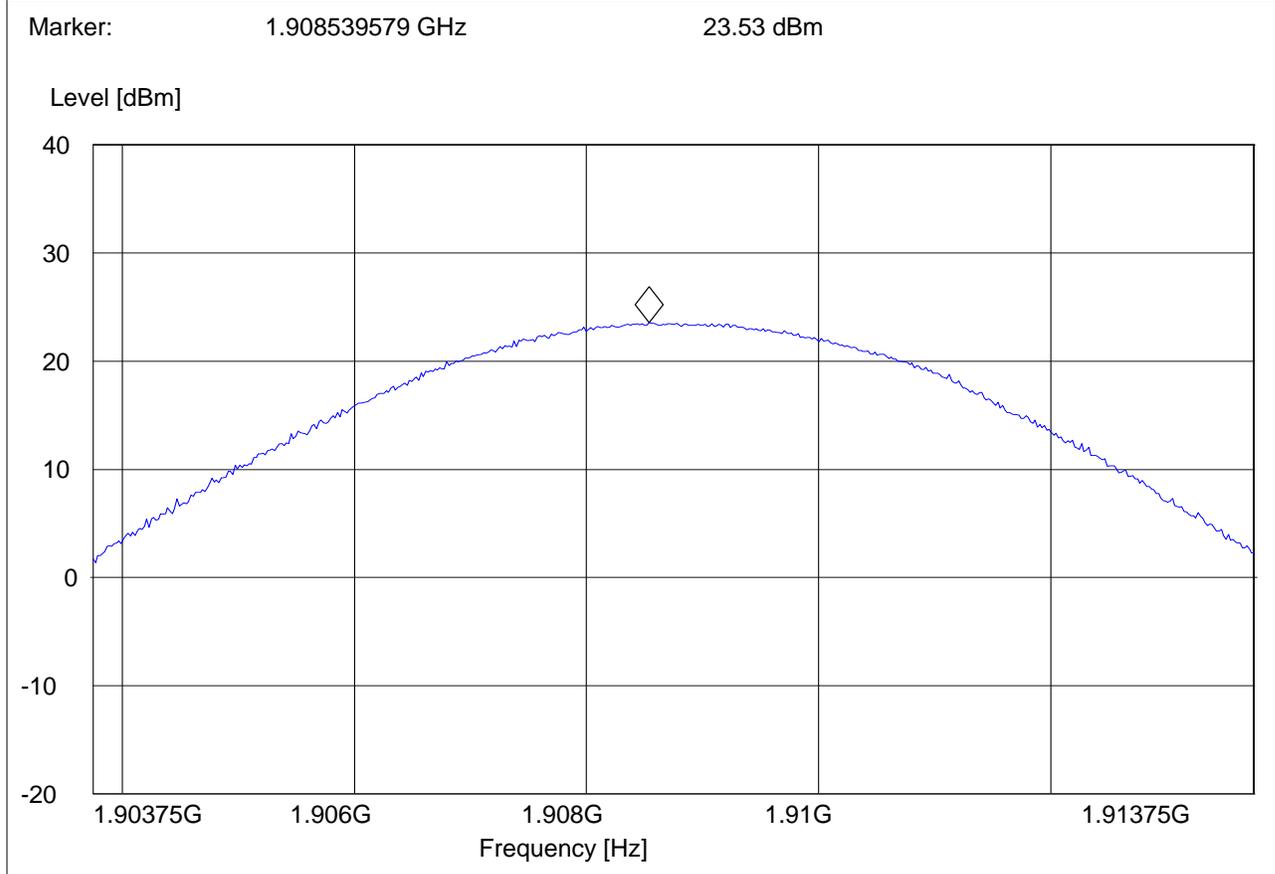
**EIRP (PCS-1900) CDMA
 CHANNEL 1175**

§24.232(b)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; CH 1175
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA1900 CH1175"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.9 GHz	1.9 GHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM



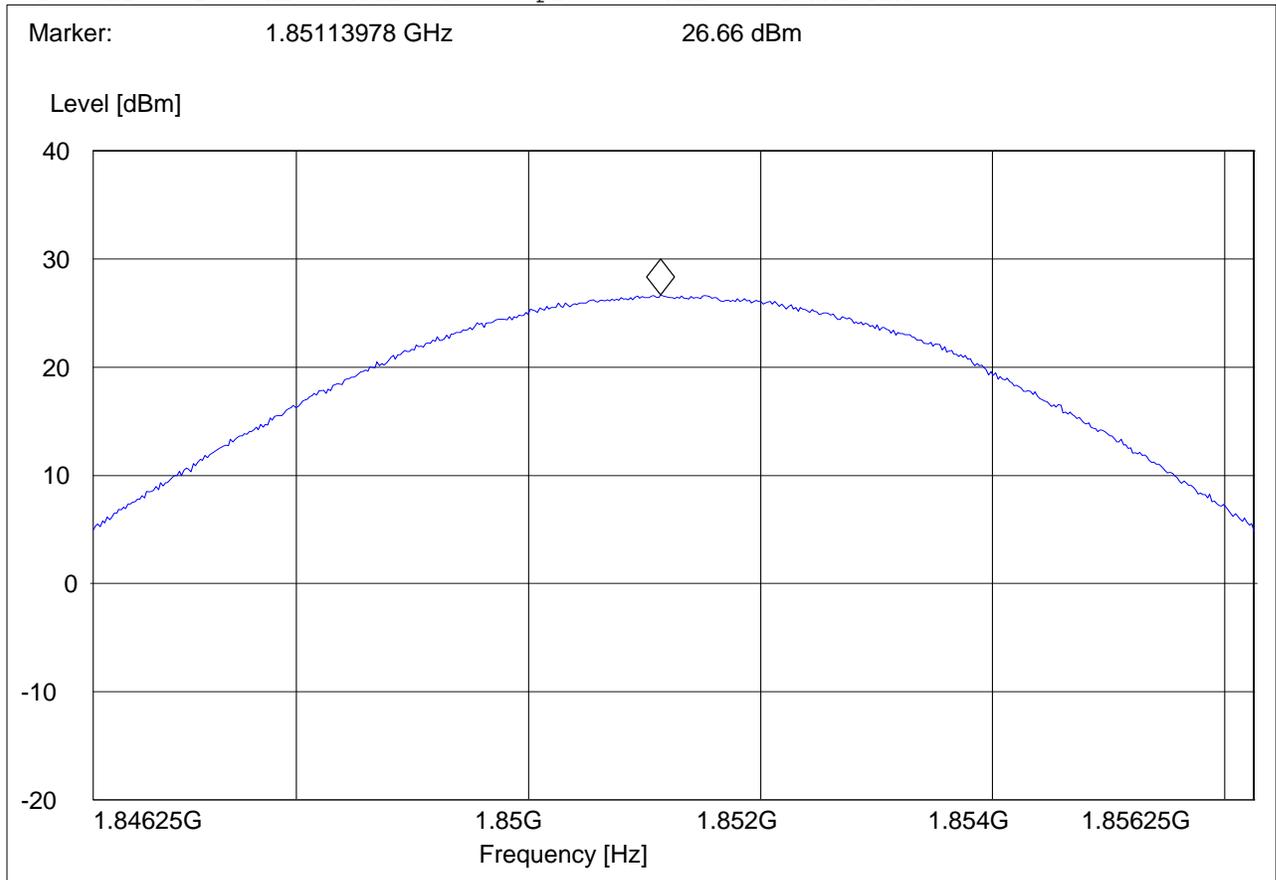
**EIRP (PCS-1900) EVDO
 CHANNEL 25**

§24.232(b)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: EVDO 1900 CH 25
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA1900 CH25"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.8 GHz	1.9 GHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM





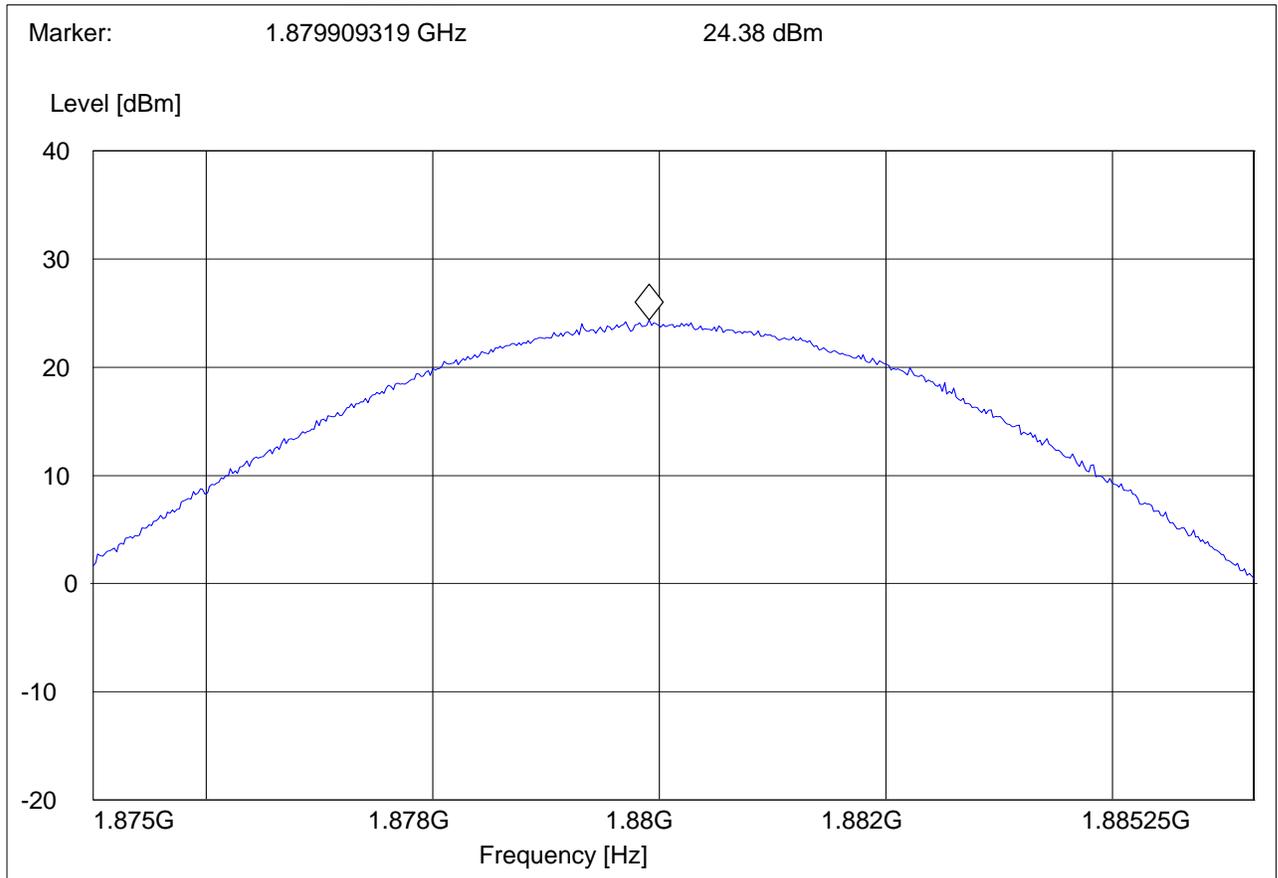
**EIRP (PCS-1900) EVDO
CHANNEL 600**

§24.232(b)

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: EVDO 1900 CH 600
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "EIRP CDMA1900 CH600"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.9 GHz	1.9 GHz	MaxPeak MaxPeak	Coupled	3 MHz	DUMMY-DBM





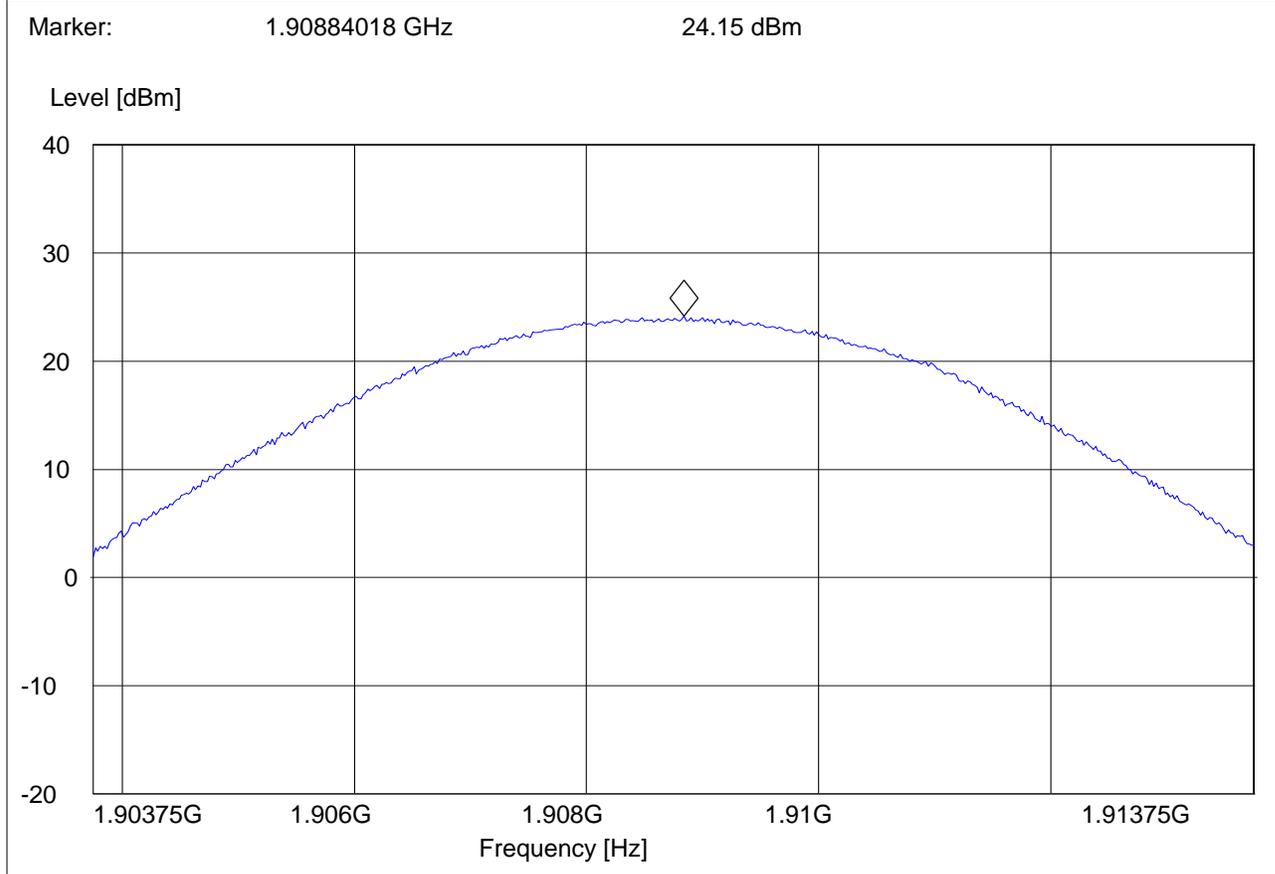
**EIRP (PCS-1900) EVDO
 CHANNEL 1175**

§24.232(b)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: EVDO 1900 CH 1175
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "EIRP CDMA1900 CH1175"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.9 GHz	1.9 GHz	MaxPeak	Coupled	3 MHz	DUMMY-DBM



5.2 Spurious Emissions Radiated

5.2.1 FCC 2.1053 Measurements required: Field strength of spurious radiation.

- (a) Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission.

5.2.2 Limits:

5.2.2.1 FCC 22.917 Emission limitations for cellular equipment.

The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

(a) *Out of band emissions.* The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

(b) *Measurement procedure.* Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. 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. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (*i.e.* 100 kHz of 1 percent of emission bandwidth, as specified). 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.

5.2.2.2 FCC 24.238 Emission limitations for Broadband PCS equipment.

The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

(a) *Out of band emissions.* The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

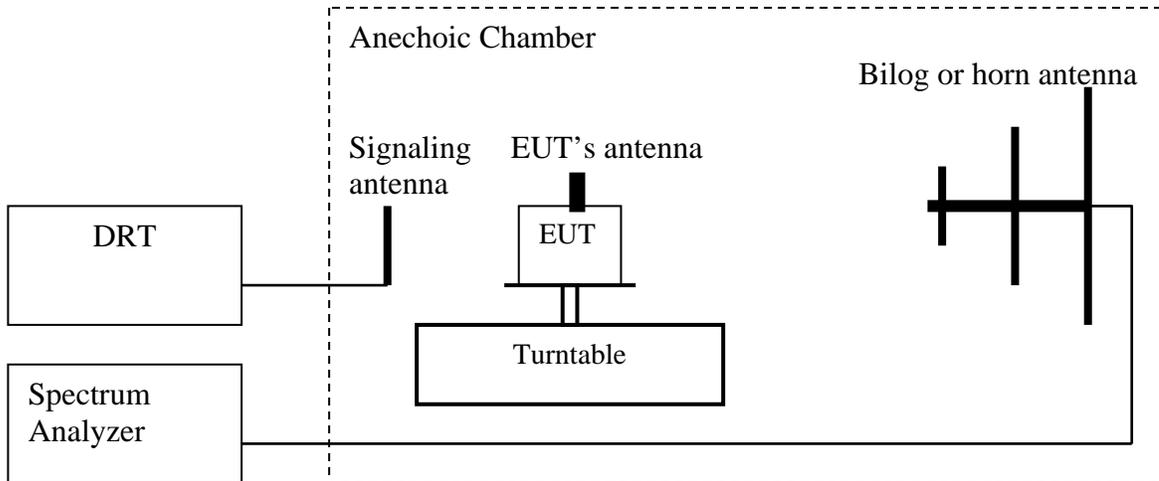
(b) *Measurement procedure.* Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required

measurement bandwidth (*i.e.* 100 kHz of 1 percent of emission bandwidth, as specified). 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.

5.2.3 Radiated out of band measurement procedure:

Based on TIA-603C 2004

2.2.12 Unwanted emissions: Radiated Spurious



1. Connect the equipment as shown in the above diagram with the EUT's antenna in a horizontal orientation.
2. Adjust the settings of the Digital Radiocommunication Tester (DRT) to set the EUT to its maximum power at the required channel.
3. Set the spectrum analyzer to measure peak hold with the required settings.
4. Place the measurement antenna in a horizontal orientation. Rotate the EUT 360°. Raise the measurement antenna up to 4 meters in 0.5 meters increments and rotate the EUT 360° at each height to maximize all emissions. Measure and record all spurious emissions (LVL) up to the tenth harmonic of the carrier frequency.
5. Replace the EUT with a horizontally polarized half wave dipole or known gain antenna. The center of the antenna should be at the same location as the center of the EUT's antenna.
6. Connect the antenna to a signal generator with known output power and record the path loss in dB (LOSS). $LOSS = \text{Generator Output Power (dBm)} - \text{Analyzer reading (dBm)}$.
7. Determine the level of spurious emissions using the following equation:
Spurious (dBm) = LVL (dBm) + LOSS (dB):
8. Repeat steps 4, 5 and 6 with all antennas vertically polarized.
9. Determine the level of spurious emissions using the following equation:
Spurious (dBm) = LVL (dBm) + LOSS (dB):
10. Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

(**note:** Steps 5 and 6 above are performed prior to testing and **LOSS** is recorded by test software. Steps 3, 4 and 7 above are performed with test software.)

Spectrum analyzer settings:

Res B/W: 1 MHz

Vid B/W: 1 MHz

Measurement Survey:

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the GSM-850 & PCS-1900 bands. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of the GSM-850 & PCS-1900 band into any of the other blocks respectively. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this.

5.2.4 Radiated out of band emissions results on EUT:

5.2.4.1 RESULTS OF RADIATED TESTS 800:

Harmonics	Tx ch-1013 Freq. (MHz)	Level (dBm)	Tx ch-600 Freq. (MHz)	Level (dBm)	Tx ch-777 Freq. (MHz)	Level (dBm)
2	1648.4	NF	1673.2	NF	1697.6	NF
3	2472.6	NF	2509.8	NF	2546.4	NF
4	3296.8	NF	3346.4	NF	3395.2	NF
5	4121	NF	4183	NF	4244	NF
6	4945.2	NF	5019.6	NF	5092.8	NF
7	5769.4	NF	5856.2	NF	5941.6	NF
8	6593.6	NF	6692.8	NF	6790.4	NF
9	7417.8	NF	7529.4	NF	7639.2	NF
10	8242	NF	8366	NF	8488	NF
NF = NOISE FLOOR						



5.2.4.2 RADIATED SPURIOUS EMISSIONS (800 band)

TX: 30MHz - 1GHz Ant Vertical

Spurious emission limit -13dBm

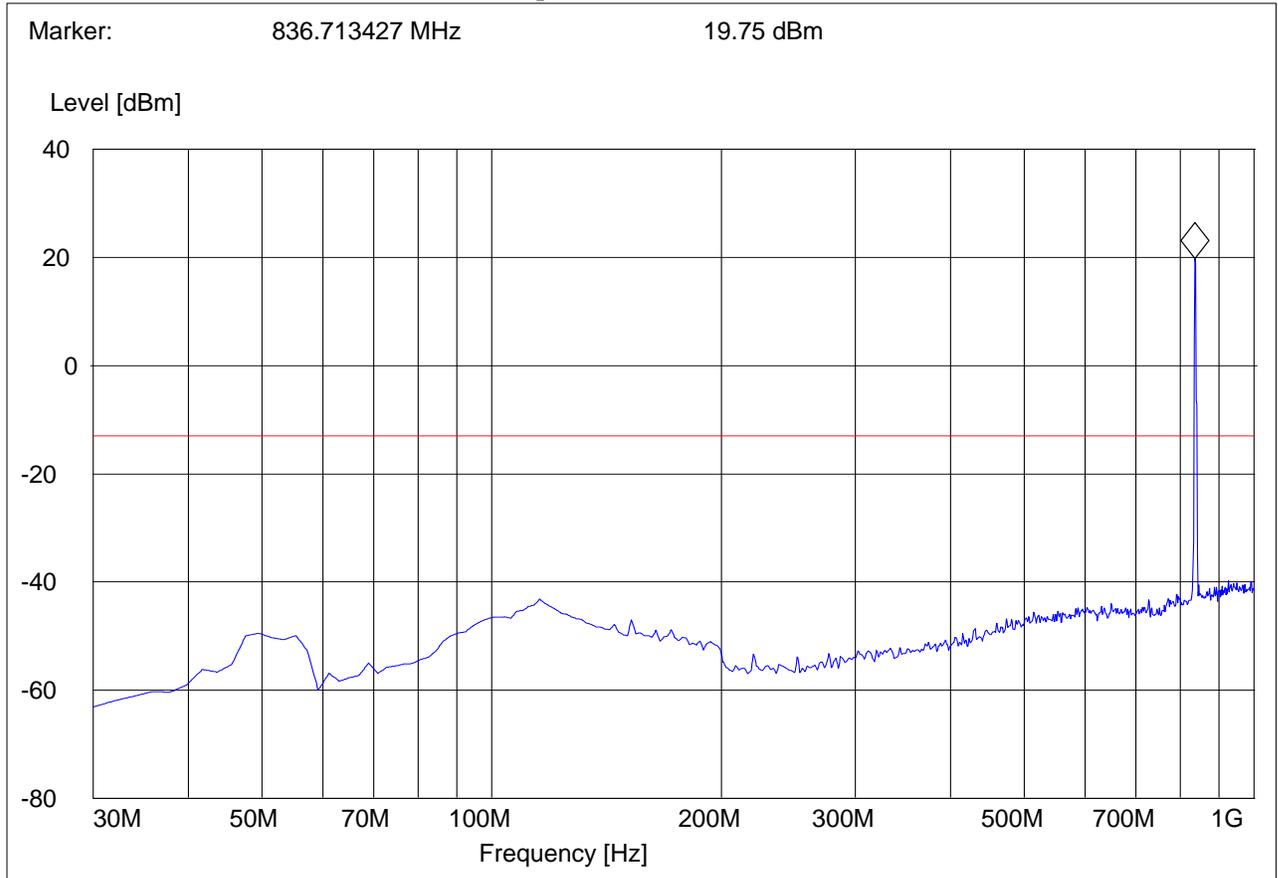
Note:

- 1. The peak above the limit line is the carrier freq.
- 2. This plot is valid for low, mid & high channels (worst-case plot)

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 850; CH 384
ANT Orientation: V
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 24 Spur 30M-1G_V"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





TX: 30MHz - 1GHz Ant Horizontal

Spurious emission limit -13dBm

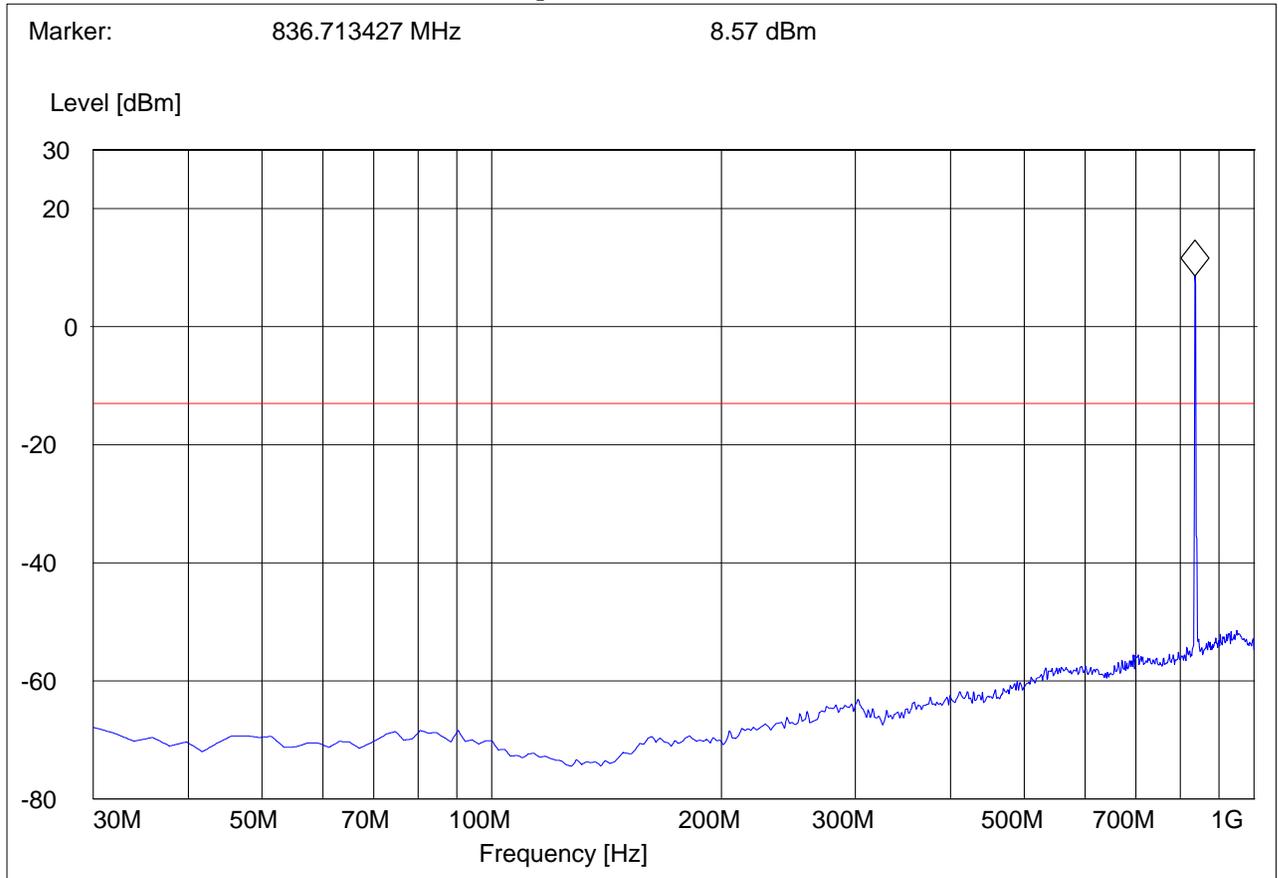
Note:

1. The peak above the limit line is the carrier freq.
2. This plot is valid for low, mid & high channels (worst-case plot)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 850; CH 384
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "FCC 24 Spur 30M-1G_H"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS (800 band)

Ch 1013

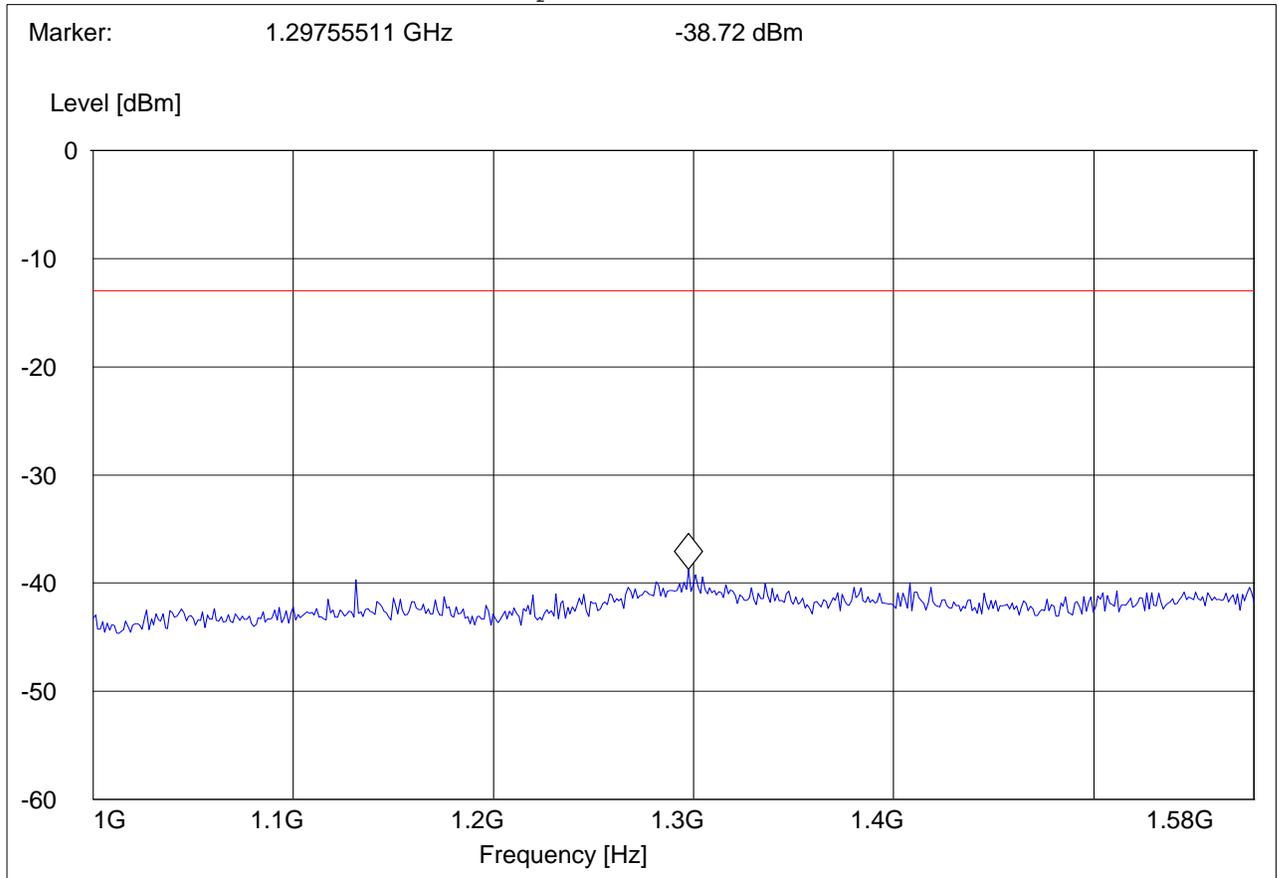
1GHz – 1.58GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 850; CH 1013
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 22Spuri 1-1.58G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	1.6 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS (800 band)

Ch1013

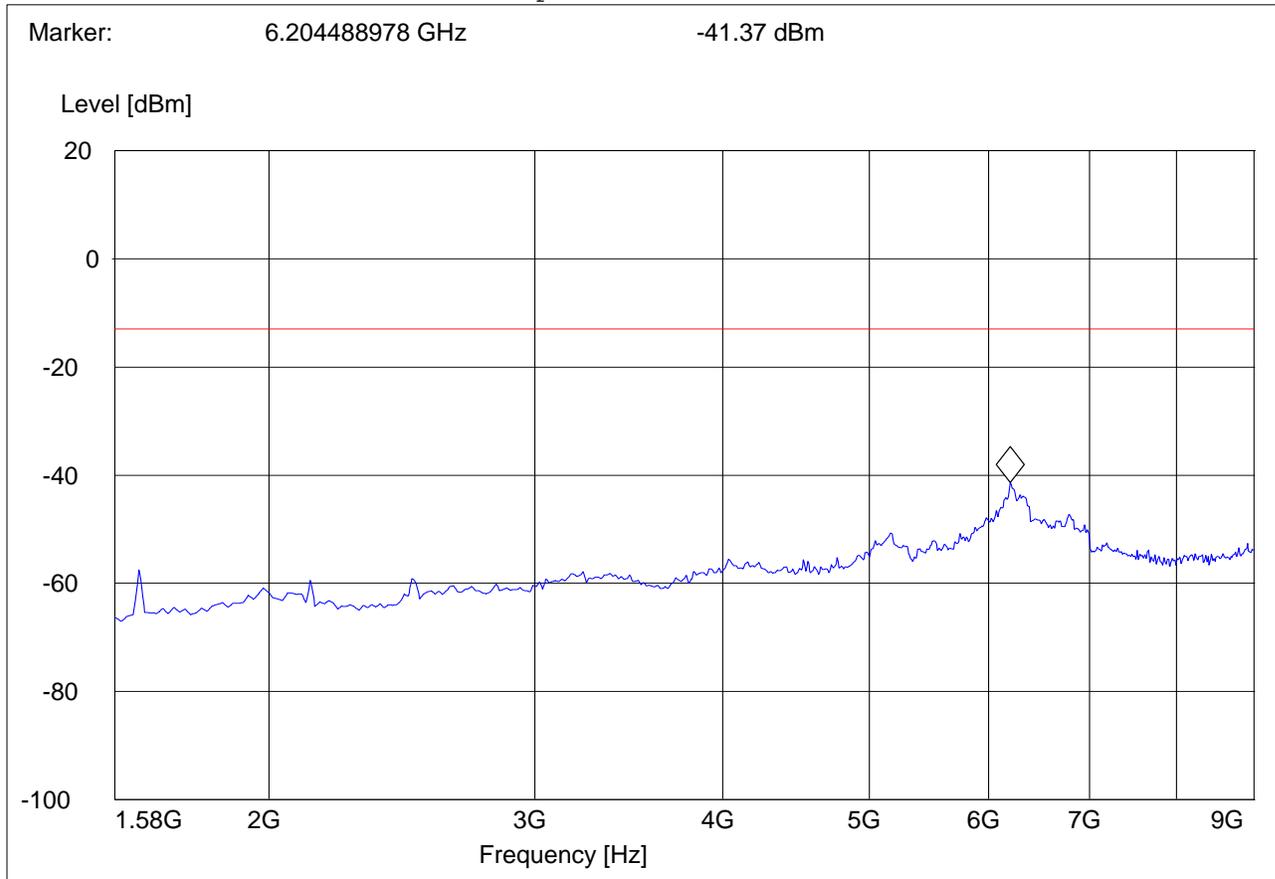
1.58GHz – 9GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 850; CH 1013
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 22Spuri 1.58-9G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.6 GHz	9.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS (800 band)

Ch 384

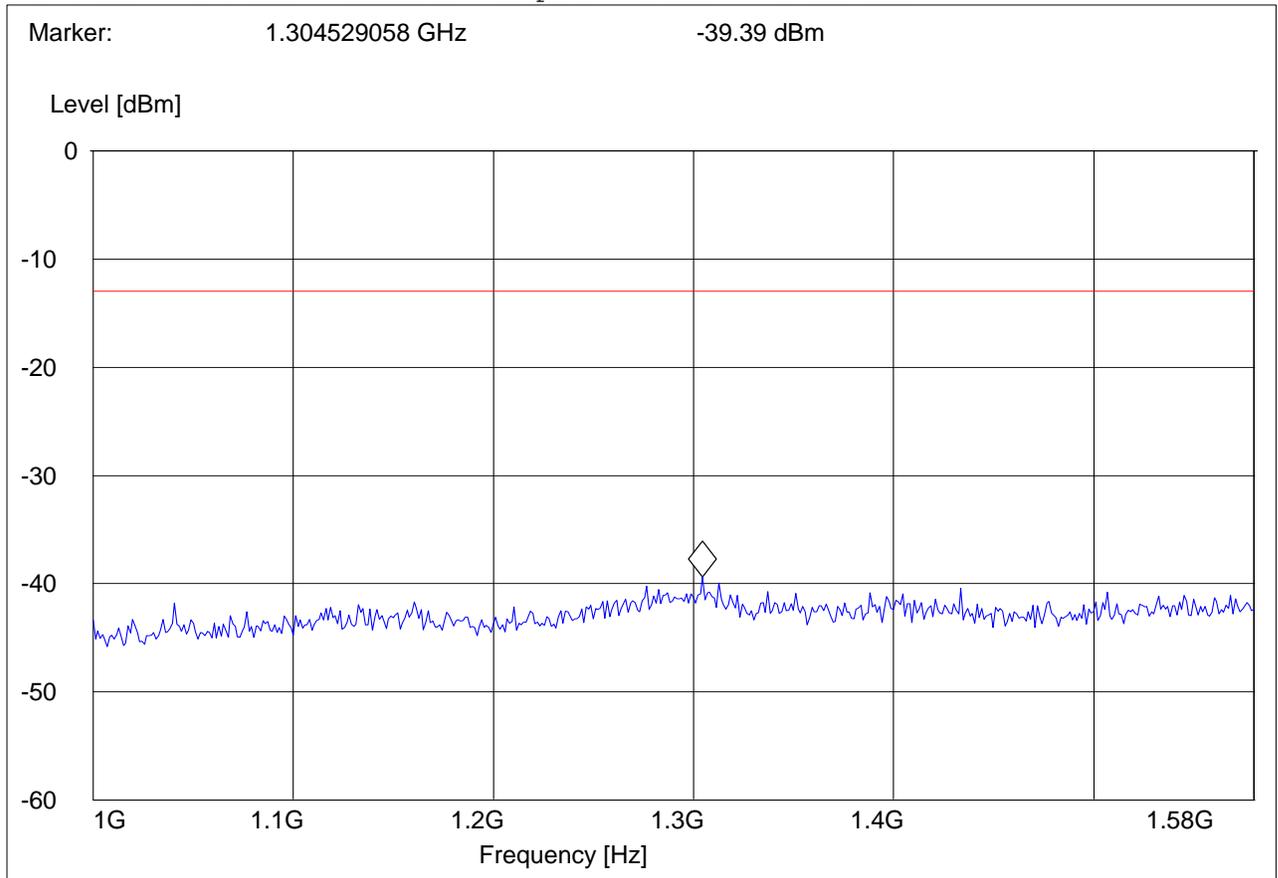
1GHz – 1.58GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 850; CH 384
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "FCC 22Spuri 1-1.58G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	1.6 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS (800 band)

Ch 384

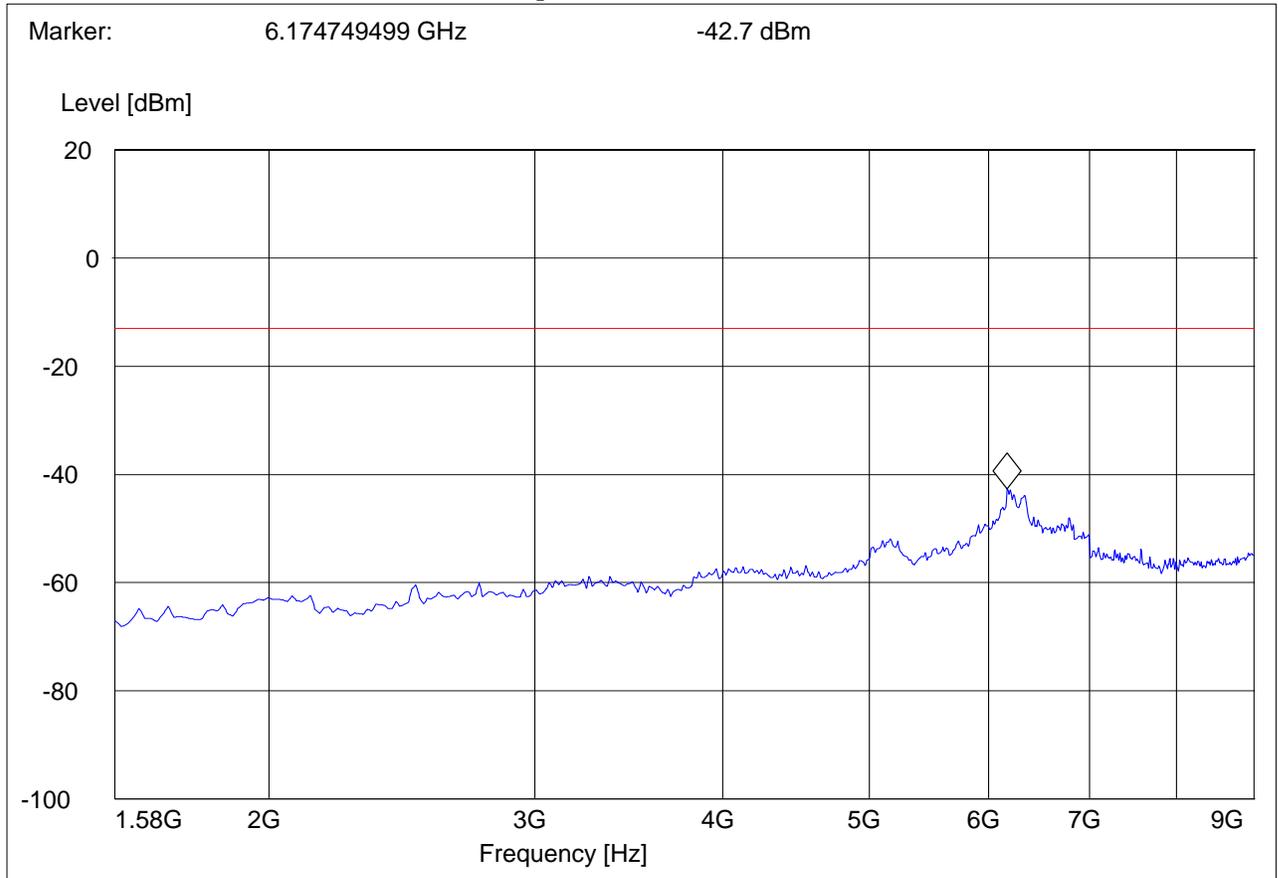
1.58GHz – 9GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 850; CH 384
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 22Spuri 1.58-9G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.6 GHz	9.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS (800 band)

Ch 777

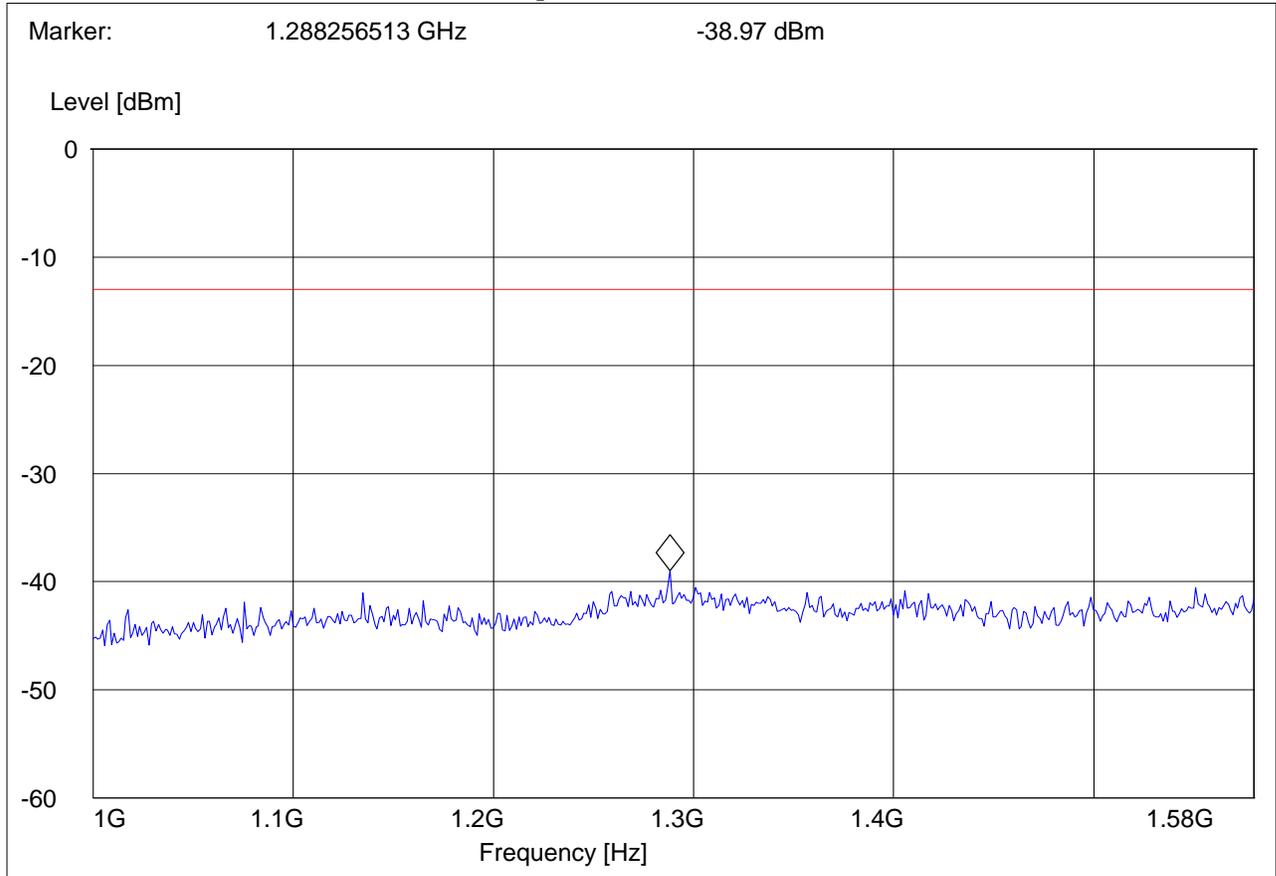
1GHz – 1.58GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 850; CH 777
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "FCC 22Spuri 1-1.58G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	1.6 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS (800)

Ch 777

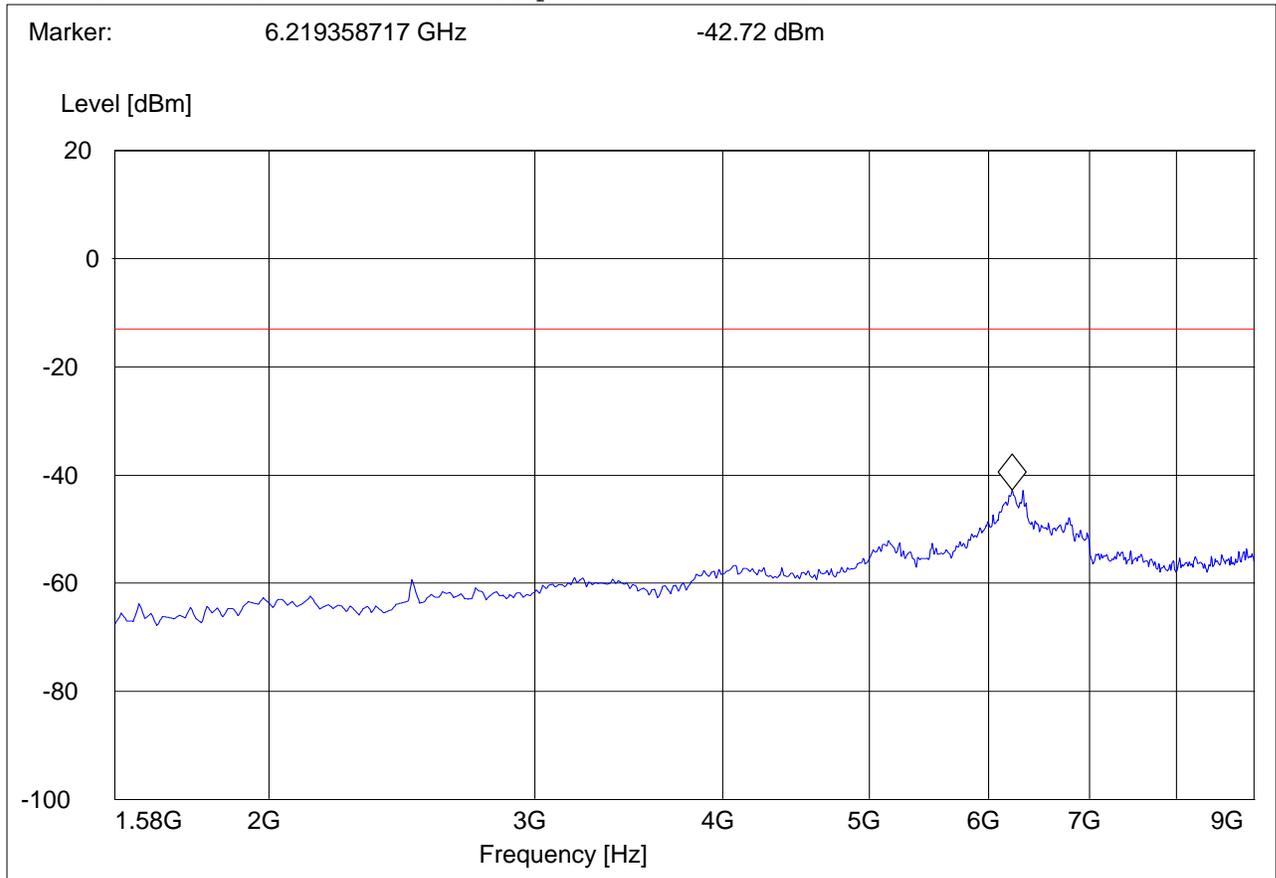
1.58GHz – 9GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 850; CH 777
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 22Spuri 1.58-9G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.6 GHz	9.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM



5.2.4.3 RESULTS OF RADIATED TESTS PCS-1900:

Harmonic	Tx ch-25 Freq.(MHz)	Level (dBm)	Tx ch-600 Freq. (MHz)	Level (dBm)	Tx ch-1175 Freq. (MHz)	Level (dBm)
2	3700.4	NF	3760	NF	3819.6	NF
3	5550.6	NF	5640	NF	5729.4	NF
4	7400.8	NF	7520	NF	7639.2	NF
5	9251	NF	9400	NF	9549	NF
6	11101.2	NF	11280	NF	11458.8	NF
7	12951.4	NF	13160	NF	13368.6	NF
8	14801.6	NF	15040	NF	15278.4	NF
9	16651.8	NF	16920	NF	17188.2	NF
10	18502	NF	18800	NF	19098	NF

NF = NOISE FLOOR

5.2.4.4 RADIATED SPURIOUS EMISSIONS(PCS 1900)

TX: 30MHz - 1GHz

Spurious emission limit -13dBm

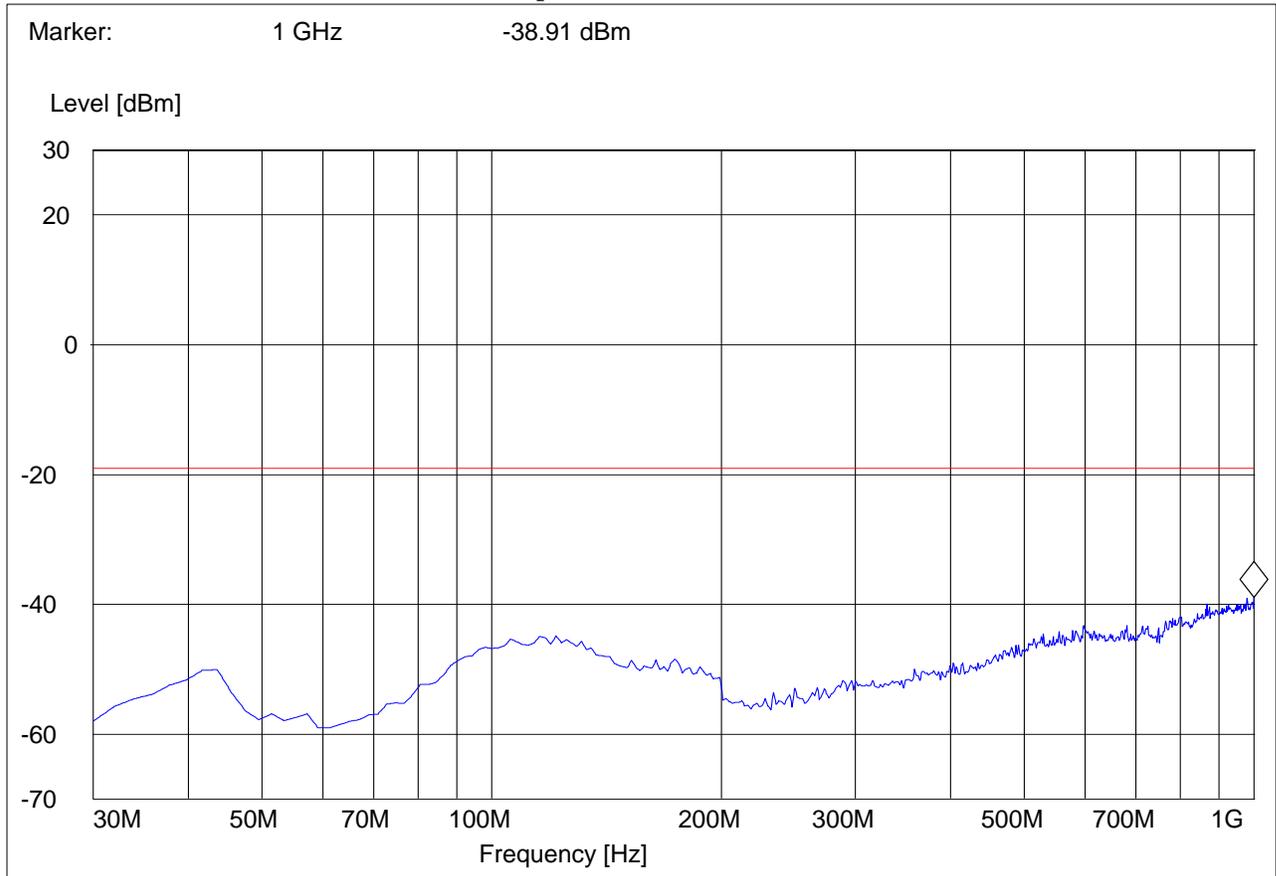
Antenna: vertical

Note: This plot is valid for low, mid & high channels (worst-case plot)

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; CH 600
 ANT Orientation: V
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "FCC 24 Spur 30M-1G_V"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





TX: 30MHz - 1GHz

Spurious emission limit -13dBm

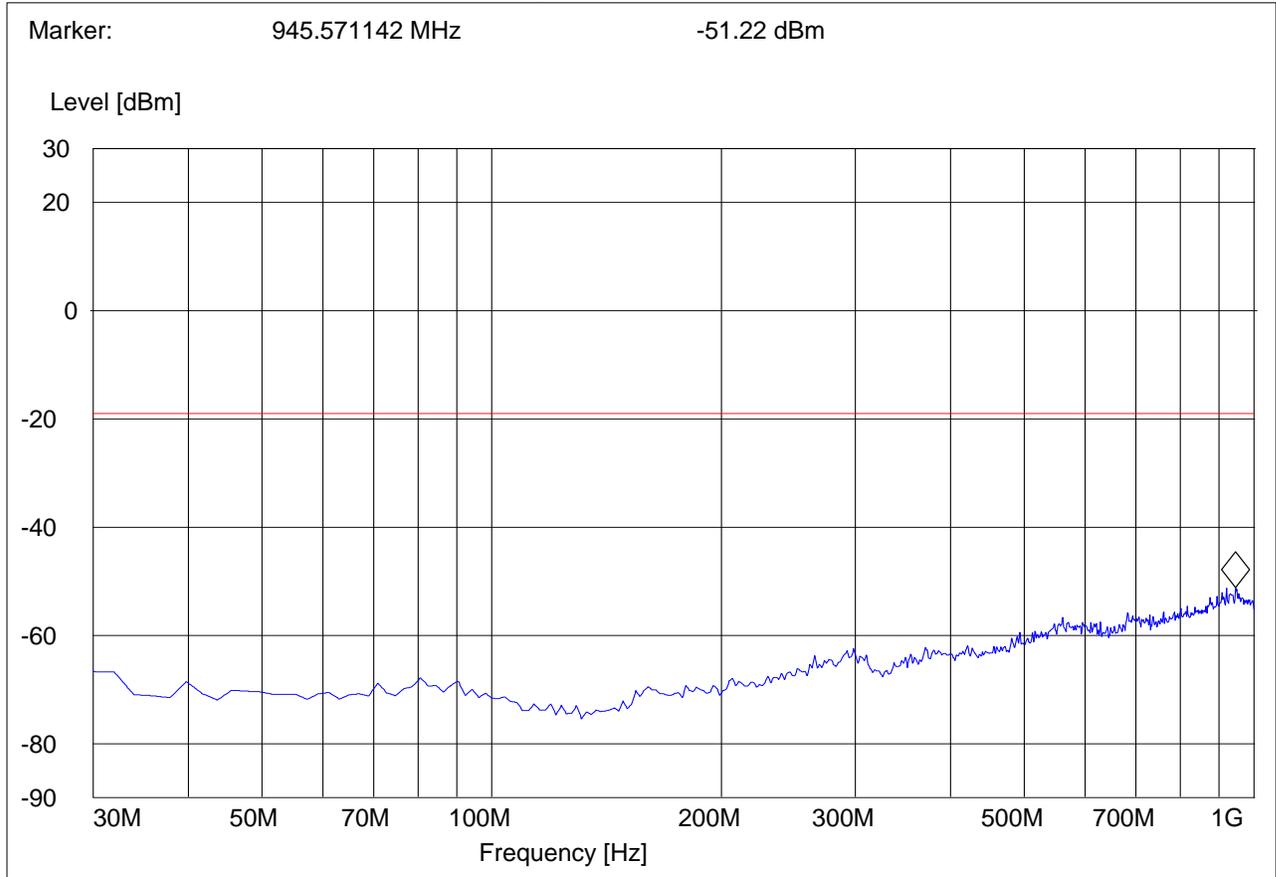
Antenna: Horizontal

Note: This plot is valid for low, mid & high channels (worst-case plot)

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 1900; CH 600
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 24 Spur 30M-1G_H"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS(PCS 1900)

Ch 25

1GHz – 3GHz

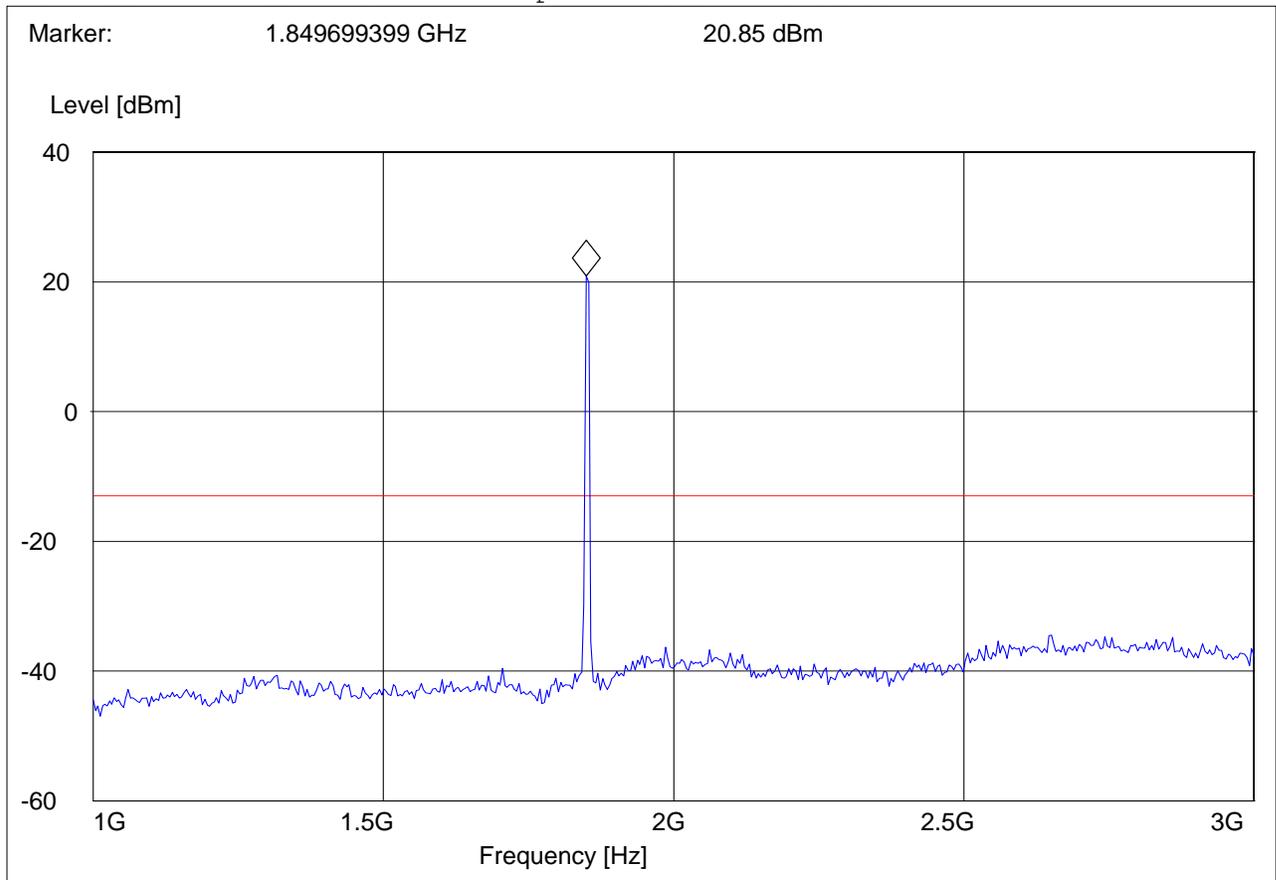
Spurious emission limit -13dBm

Note: The peak above the limit line is the carrier freq. at ch-25.

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 1900; CH 25
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 24Spuri 1-3G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS(PCS 1900)

Ch 25

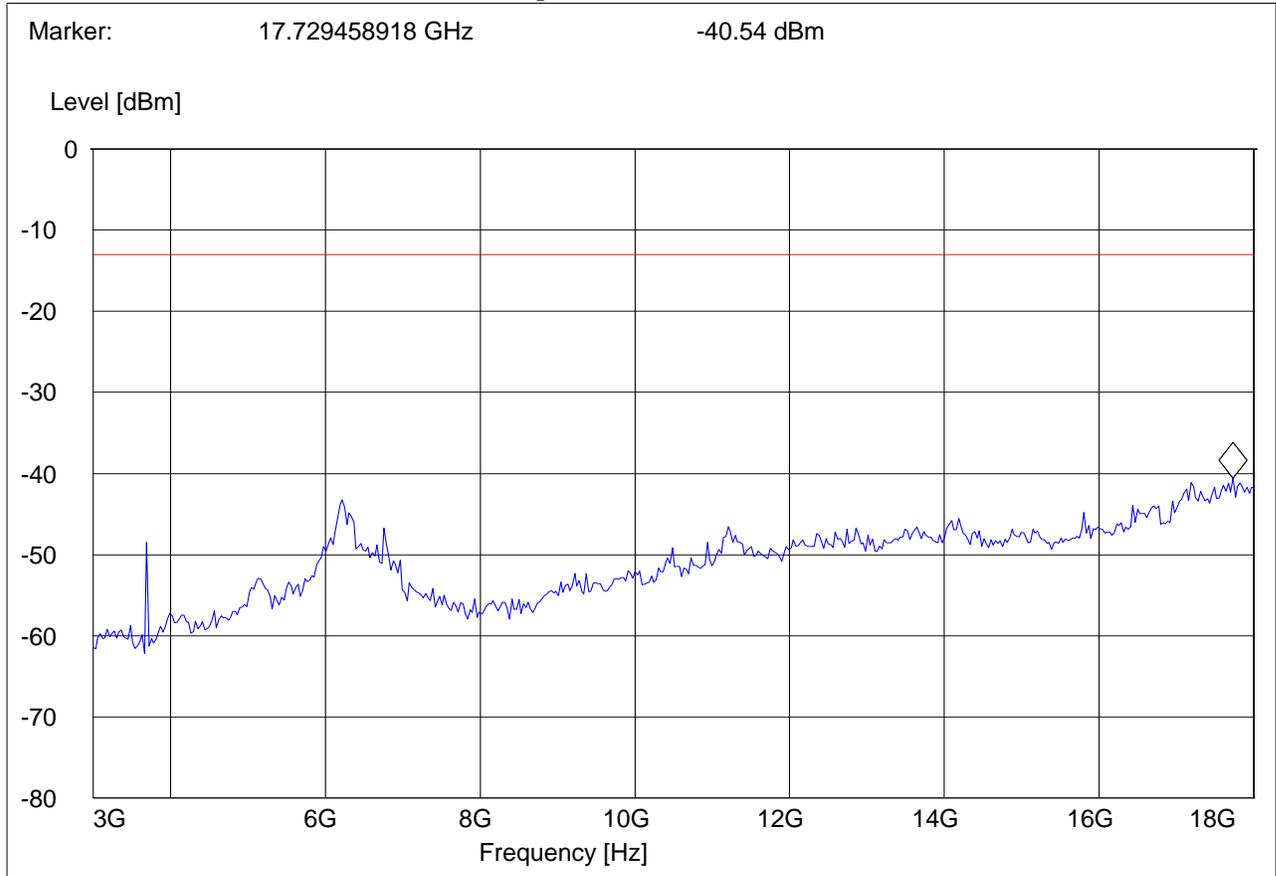
3GHz – 18GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; CH 25
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "FCC 24Spuri 3-18G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
3.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS(PCS 1900)

Ch 25

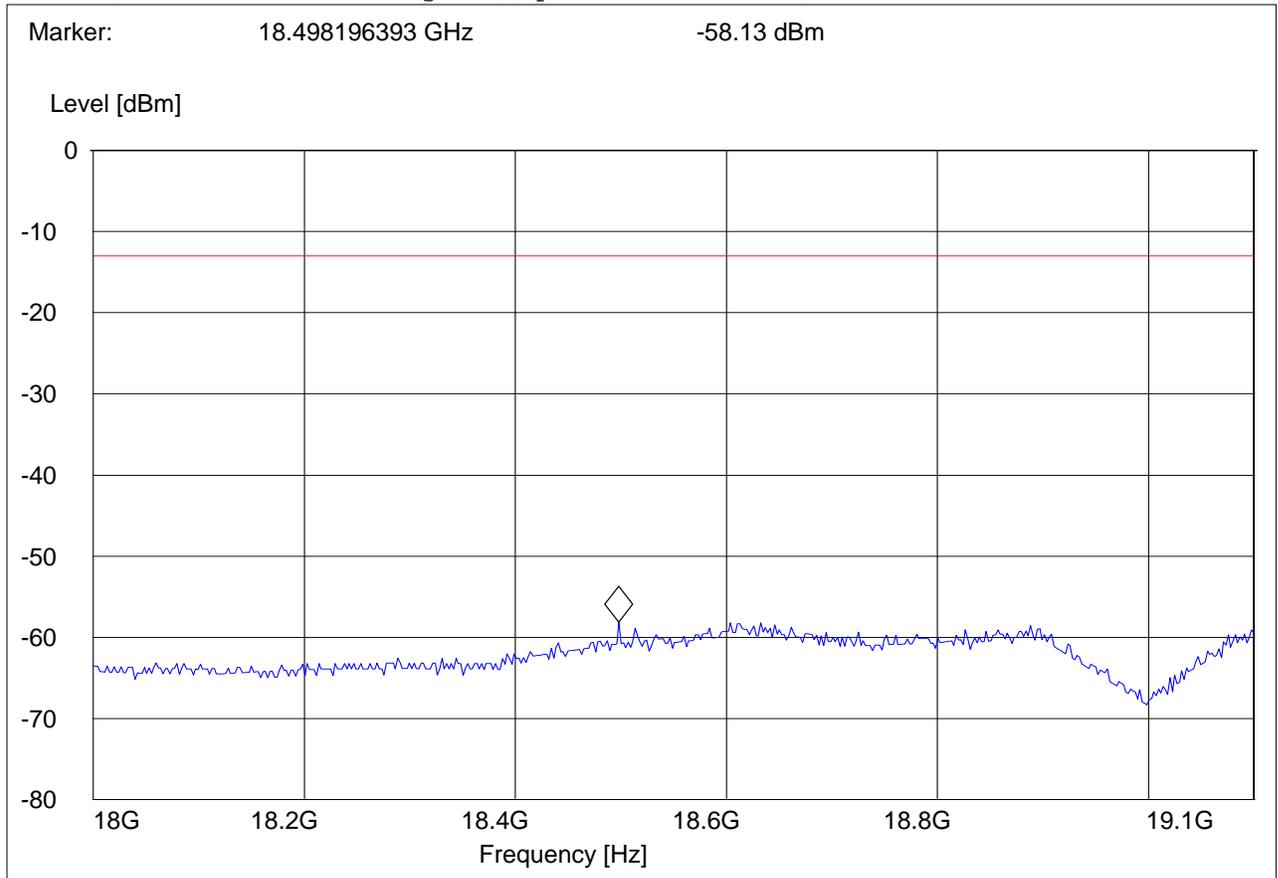
18GHz – 19GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 1900; CH 25
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 24spuri 18-19.1G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
18.0 GHz	19.1 GHz	Average	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS(PCS 1900)

Ch 600

1GHz – 3GHz

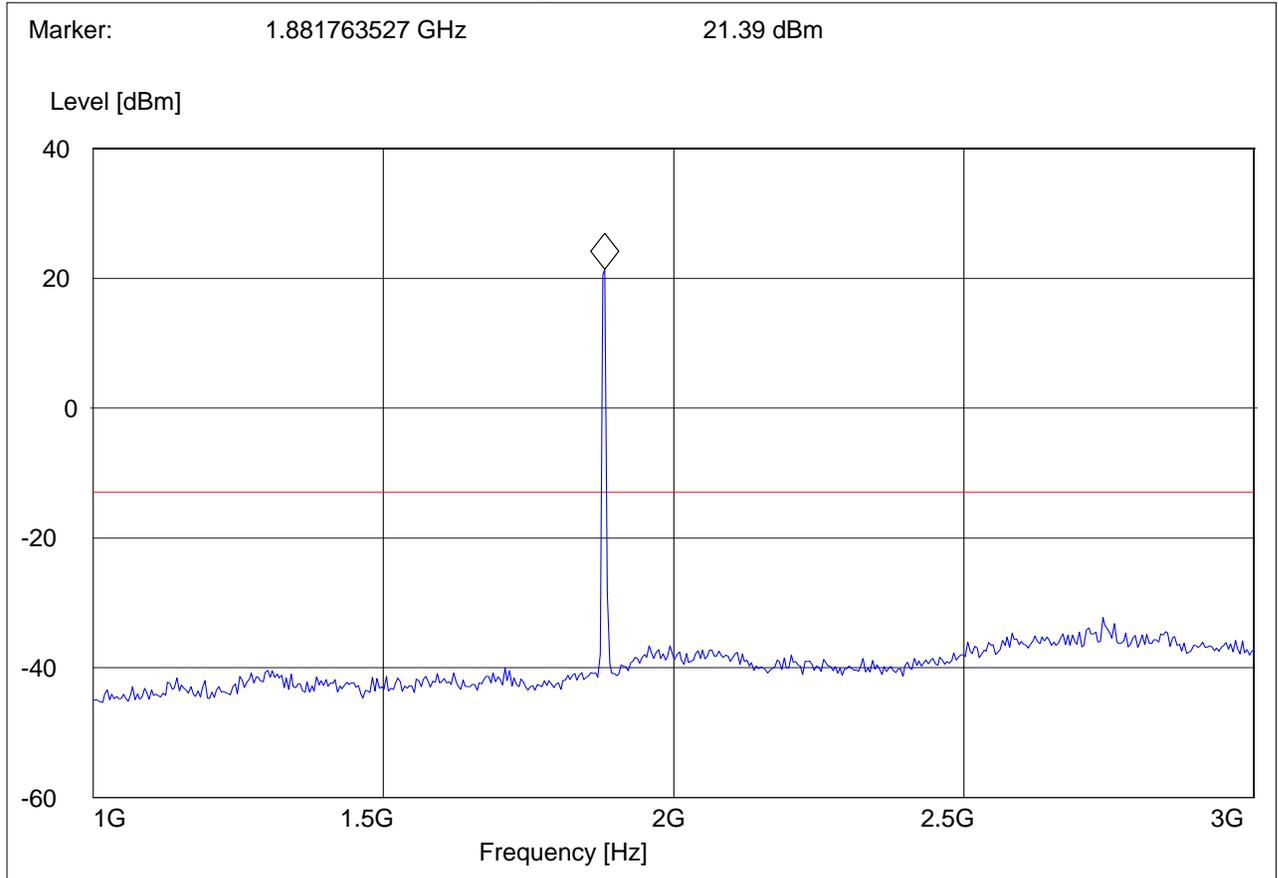
Spurious emission limit -13dBm

Note: The peak above/close to the limit line is the carrier freq. at ch-600.

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 1900; CH 600
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 24Spuri 1-3G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS(PCS 1900)

Ch 600

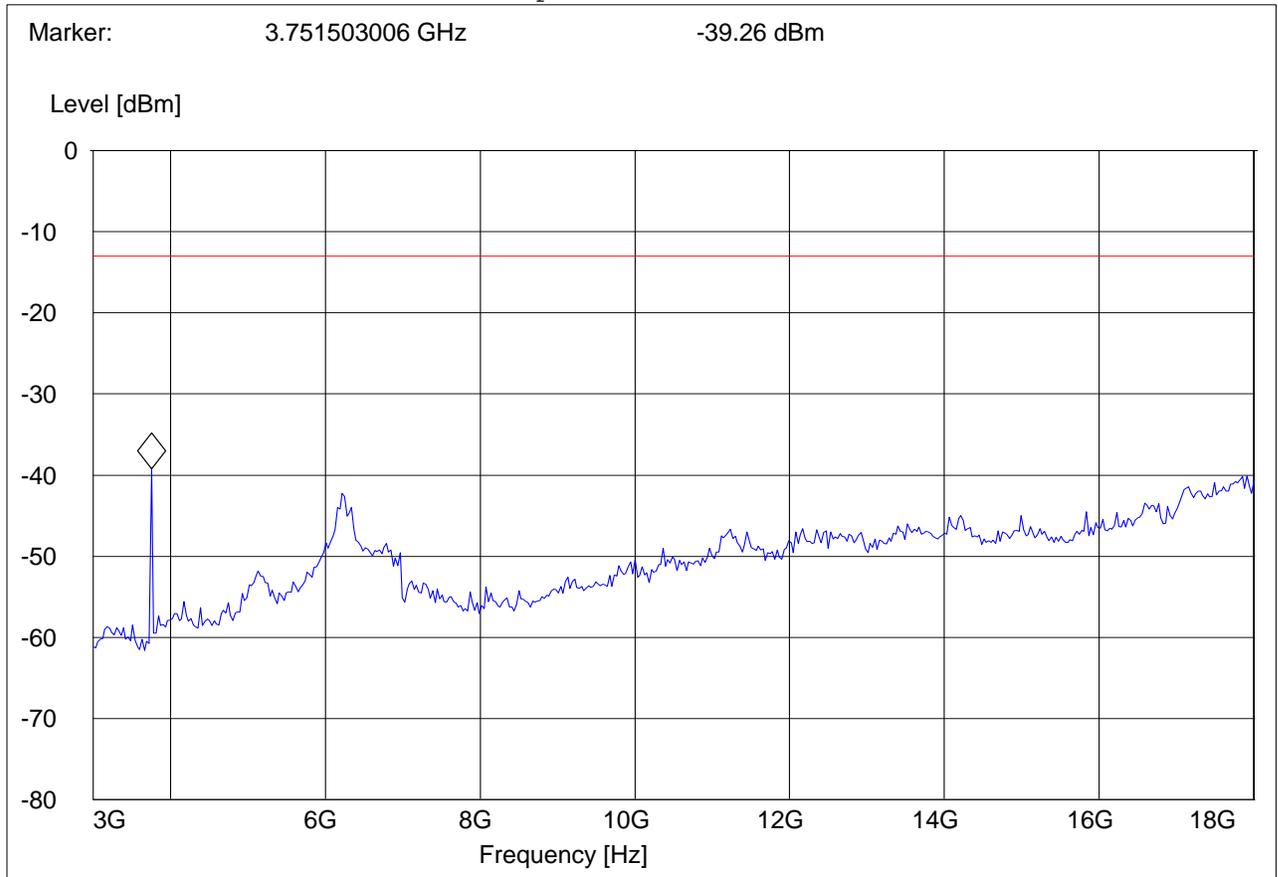
3GHz – 18GHz

Spurious emission limit –13dBm

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 1900; CH 600
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 24Spuri 3-18G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
3.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS(PCS 1900)

Ch 600

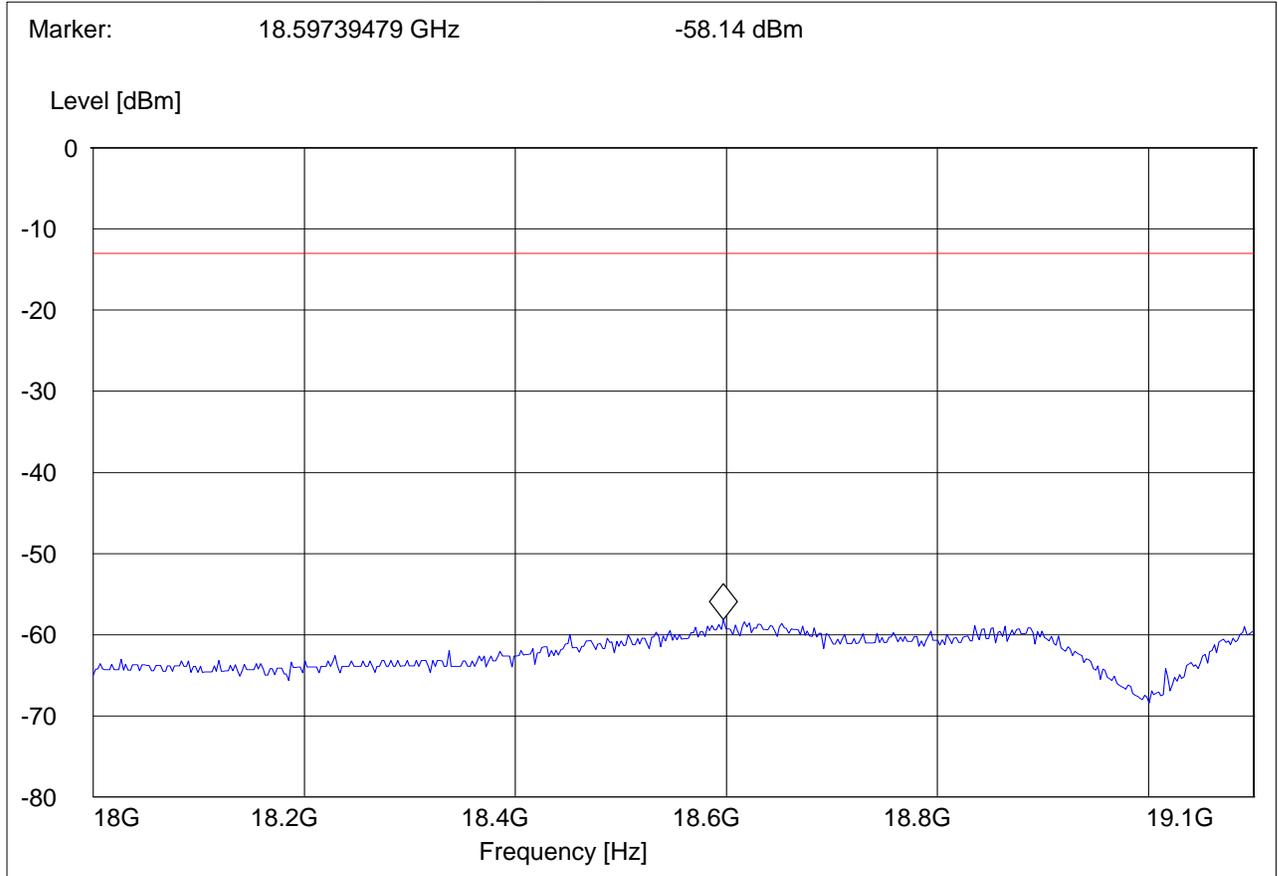
18GHz – 19GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; CH 600
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "FCC 24spuri 18-19.1G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
18.0 GHz	19.1 GHz	Average	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS(PCS 1900)

Ch 1175

1GHz – 3GHz

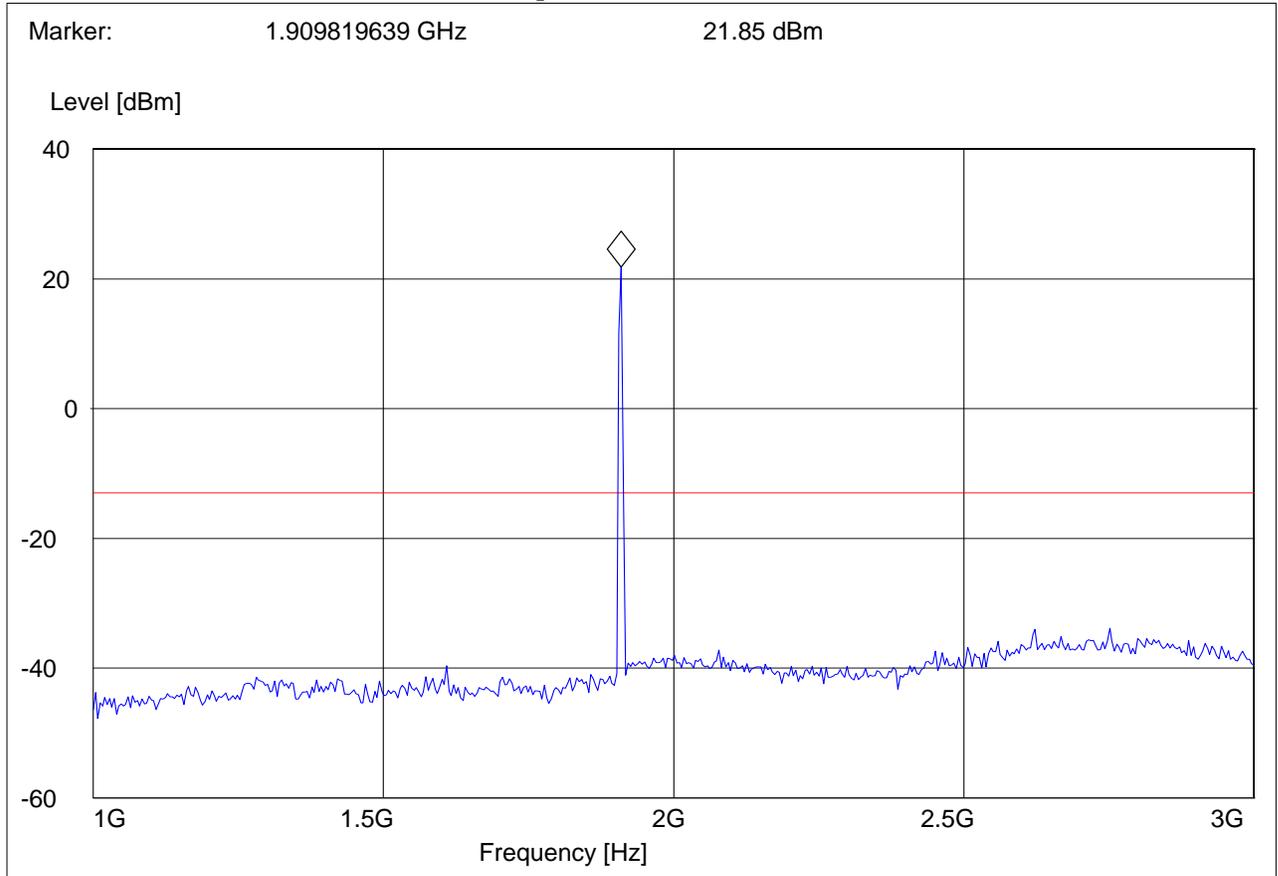
Spurious emission limit -13dBm

Note: The peak above the limit line is the carrier freq. at ch-1175.

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; CH 1175
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "FCC 24Spuri 1-3G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	3.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM





RADIATED SPURIOUS EMISSIONS(PCS 1900)

Ch 1175

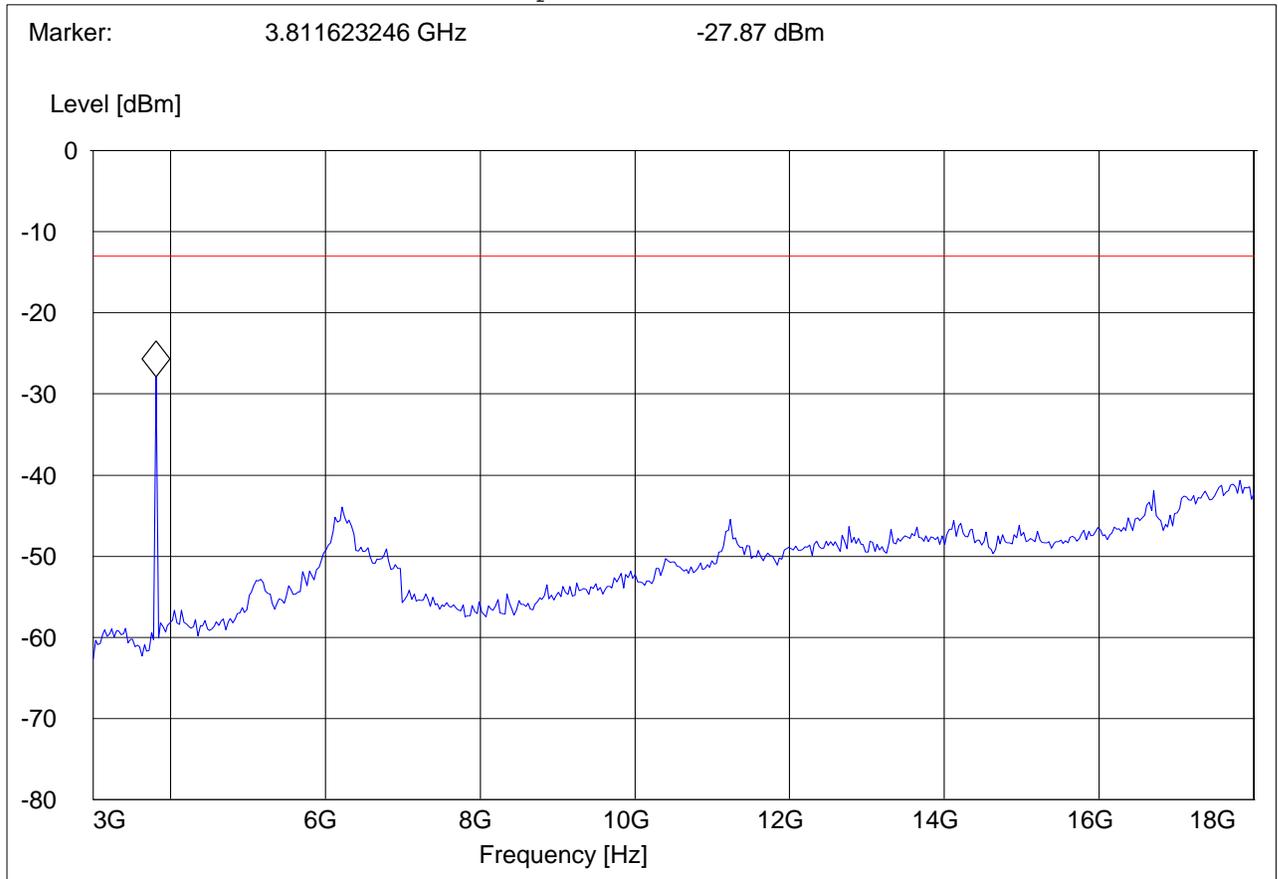
3GHz – 18GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 1900; CH 1175
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "FCC 24Spuri 3-18G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
3.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	DUMMY-DBM



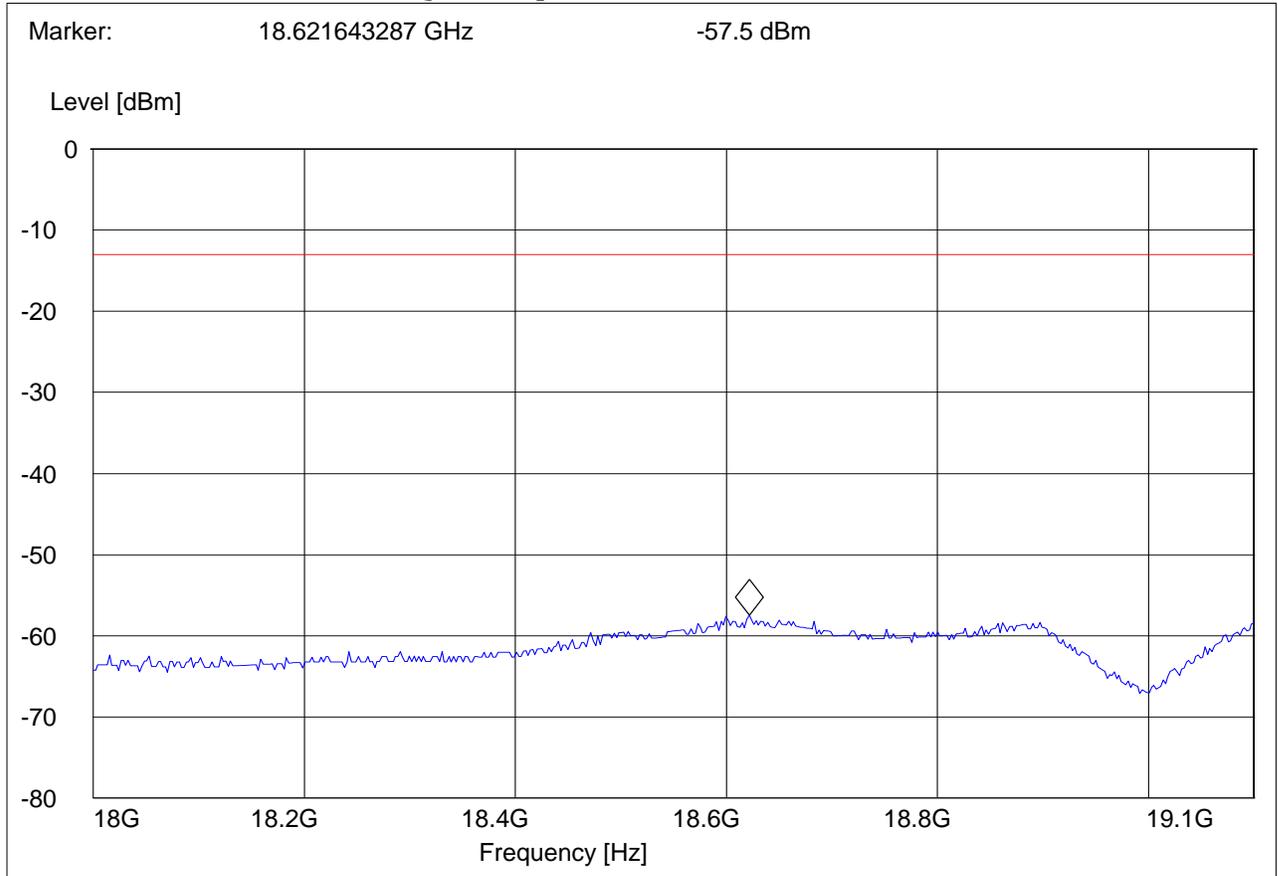


RADIATED SPURIOUS EMISSIONS(PCS 1900)
Ch 1175
18GHz – 19.1GHz
 Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; CH 1175
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "FCC 24spuri 18-19.1G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
18.0 GHz	19.1 GHz	Average	Coupled	1 MHz	DUMMY-DBM



5.3 RECEIVER RADIATED EMISSIONS § 2.1053 / RSS-129 & 133

NOTE:

1. The radiated emissions were done with different settings, using the relevant pre-amplifiers for the relevant frequency ranges. This is the reason that the graphs show different noise levels. In the range between 3GHz and 26.5GHz very short cable connections to the antenna was used to minimize the noise level.

Limits		SUBCLAUSE § RSS-133
Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

5.3.1 Receiver Radiated Spurious Emissions Results

Measurements were performed with the EUT in X, Y and Z orientations with the measurement antenna in both horizontal and vertical polarity. The plots below show the results of the worst case orientation and polarity.



RECEIVER RADIATED SPURIOUS EMISSIONS

RX: 30MHz - 1GHz

Spurious emission limit -13dBm

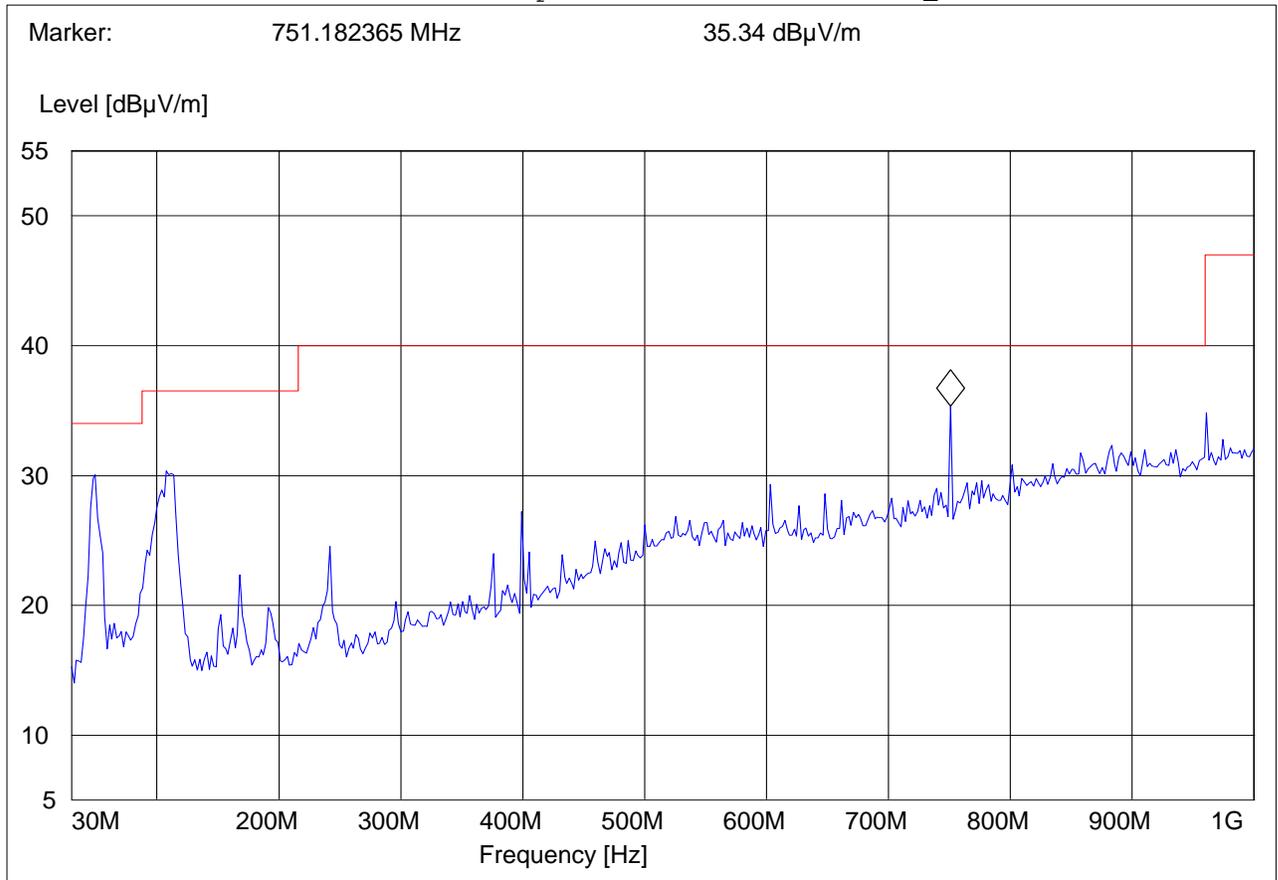
Antenna Vertical

Note: This plot is valid for low, mid & high channels (worst-case plot)

EUT: IRX-4300-FCC1
Customer: Sony Electronics
Test Mode: CDMA 1900; RX
ANT Orientation: V
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "CANADA RE_30M-1G_Ver"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186_Vert





RECEIVER RADIATED SPURIOUS EMISSIONS

RX: 30MHz - 1GHz

Spurious emission limit -13dBm

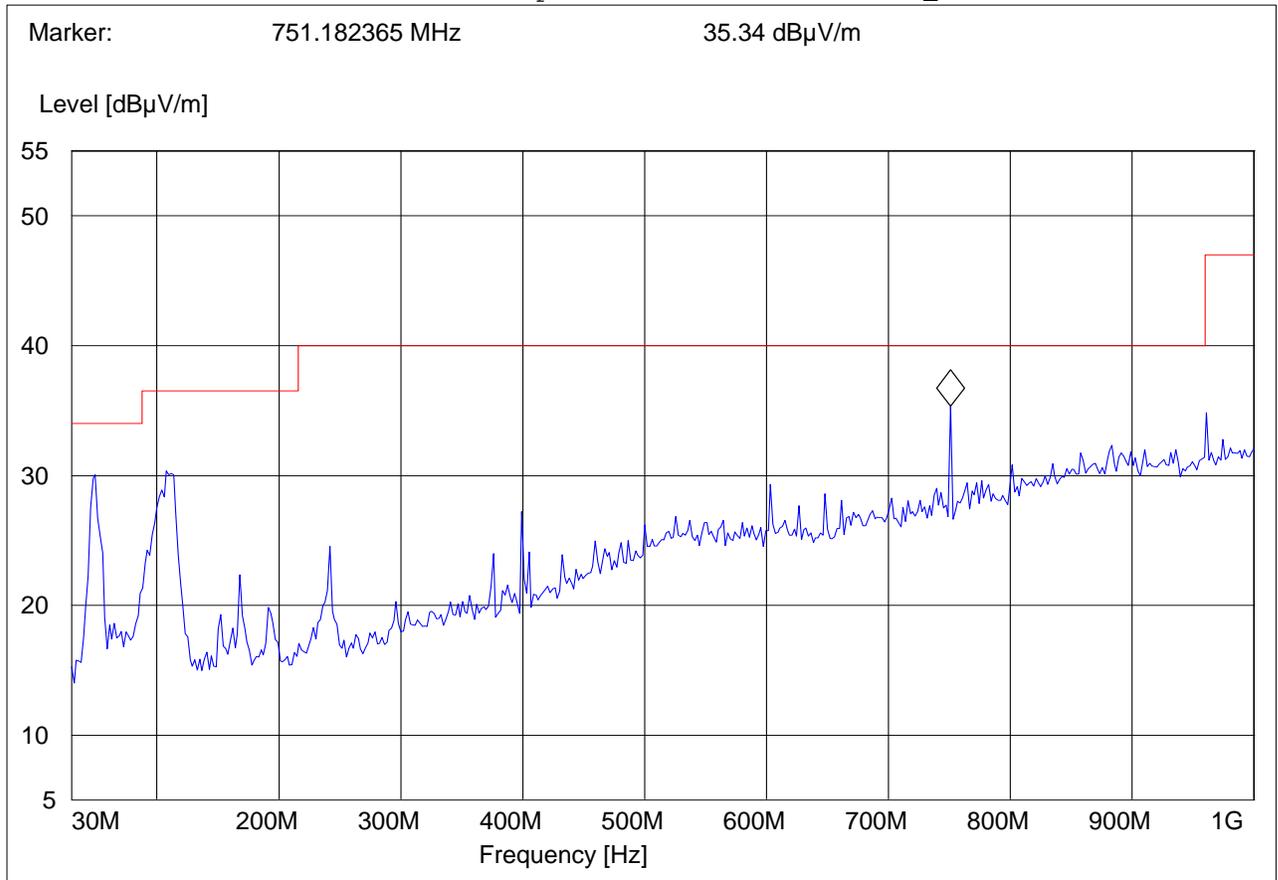
Antenna Horizontal

Note: This plot is valid for low, mid & high channels (worst-case plot)

EUT: IRX-4300-FCC1
Customer:: Sony Electronics
Test Mode: CDMA 1900; RX
ANT Orientation: H
EUT Orientation: H
Test Engineer: Chris
Voltage: AC
Comments:

SWEEP TABLE: "CANADA RE_30M-1G_Ver"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	3141-#1186_Vert





RECEIVER RADIATED SPURIOUS EMISSIONS

RX: 1GHz - 18GHz

Spurious emission limit -13dBm

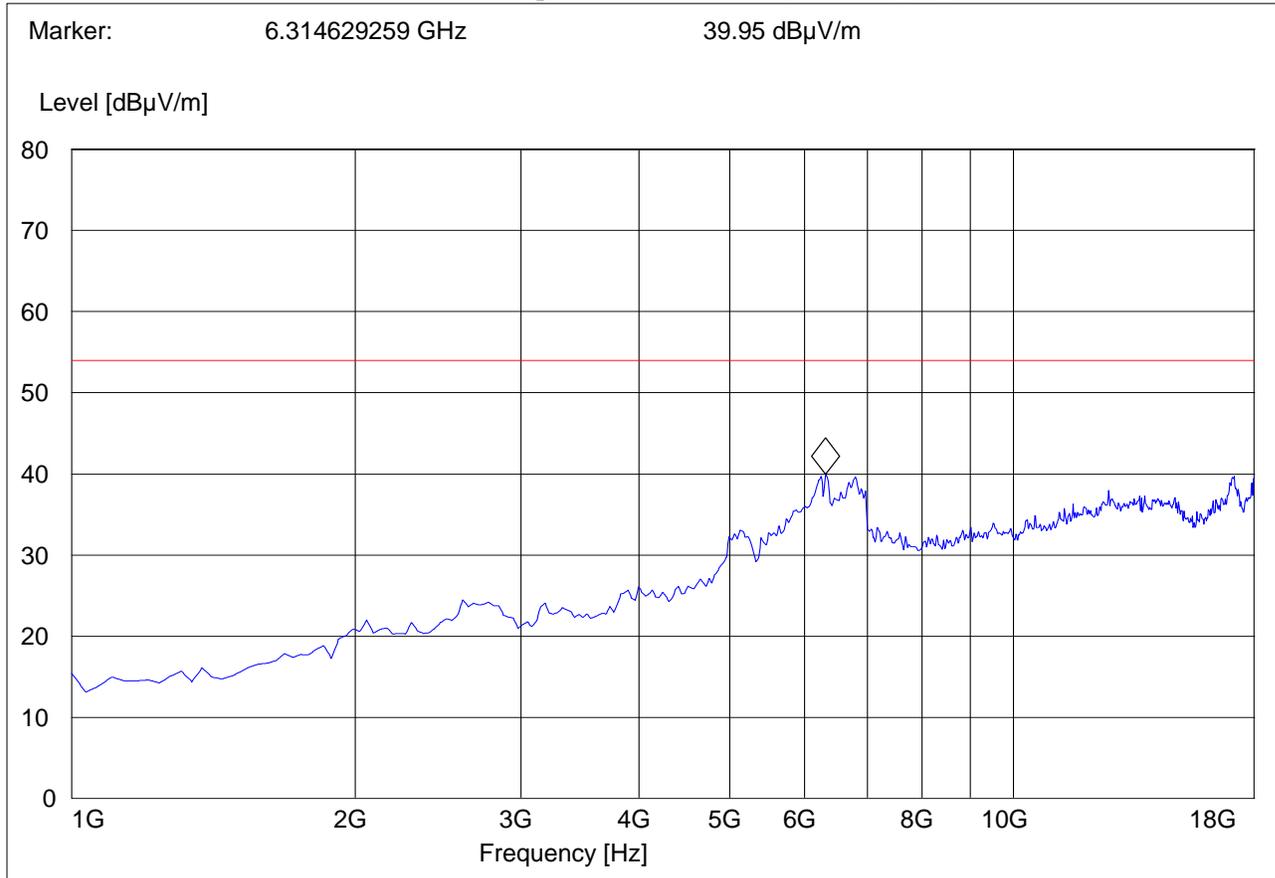
CETECOM Inc.

411 Dixon Landing Road; Milpitas, CA 95035

EUT / Description: IRX-4300-FCC2
 Customer: Sony Electronics
 Operation Mode: CDMA 1900; RX
 ANT Orientation: : H
 EUT Orientation:: H
 Test Engineer: Chris
 Voltage: AC
 Comments::

SWEEP TABLE: "CANADA RE_1-18G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	#326horn_AF_horz





RECEIVER RADIATED SPURIOUS EMISSIONS

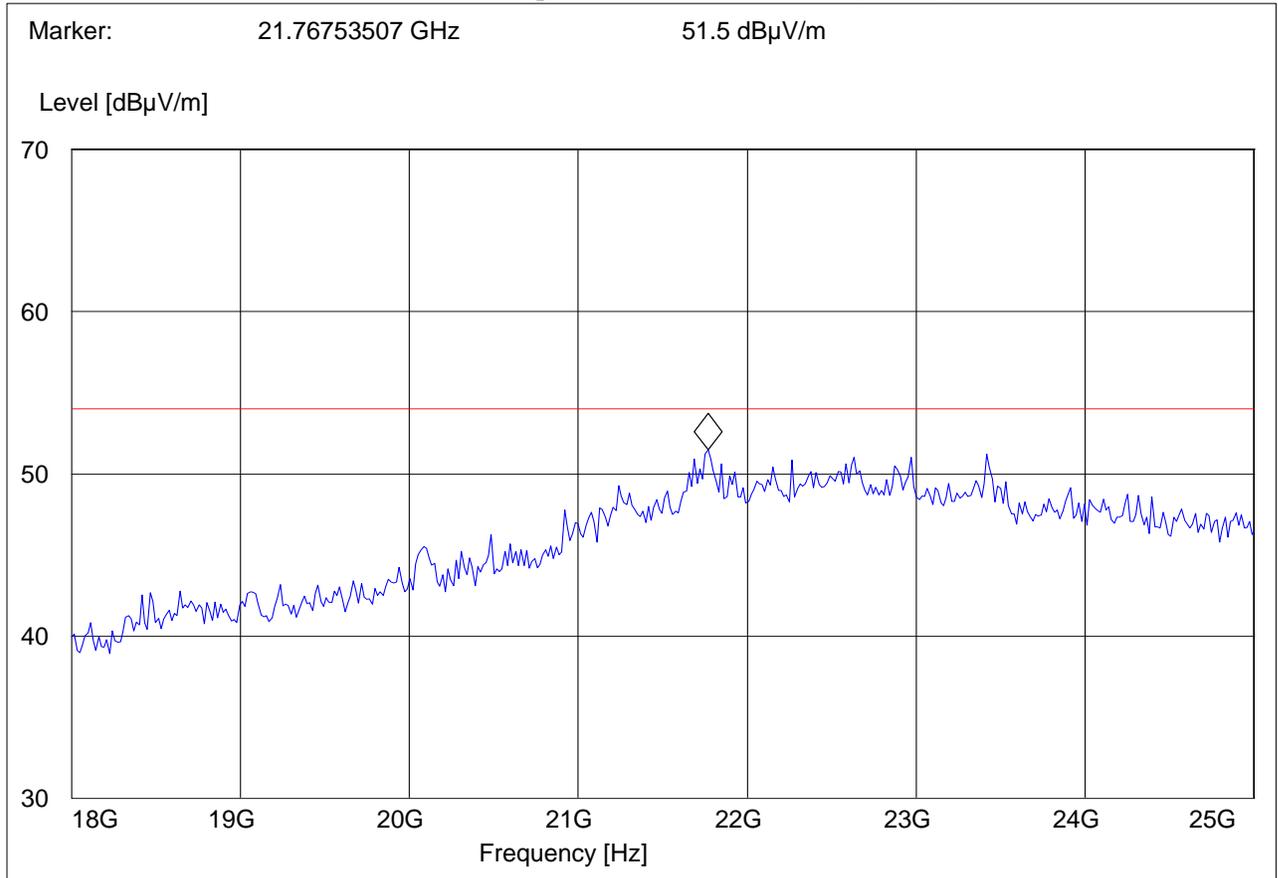
RX: 18-26GHz

Spurious emission limit -13dBm

EUT: IRX-4300-FCC1
 Customer:: Sony Electronics
 Test Mode: CDMA 1900; RX
 ANT Orientation: H
 EUT Orientation: H
 Test Engineer: Chris
 Voltage: AC
 Comments:

SWEEP TABLE: "CANADA RE_18-26.5G"

Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
18.0 GHz	26.0 GHz	MaxPeak	Coupled	1 MHz	Horn # 3116_18-40G



5.4 AC POWER LINE CONDUCTED EMISSIONS § 15.107/207

5.4.1 LIMITS

Technical specification: 15.107 / 15.207 (Revised as of August 20, 2002)

§15.107 (a) Except for Class A digital devices, for equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Limit

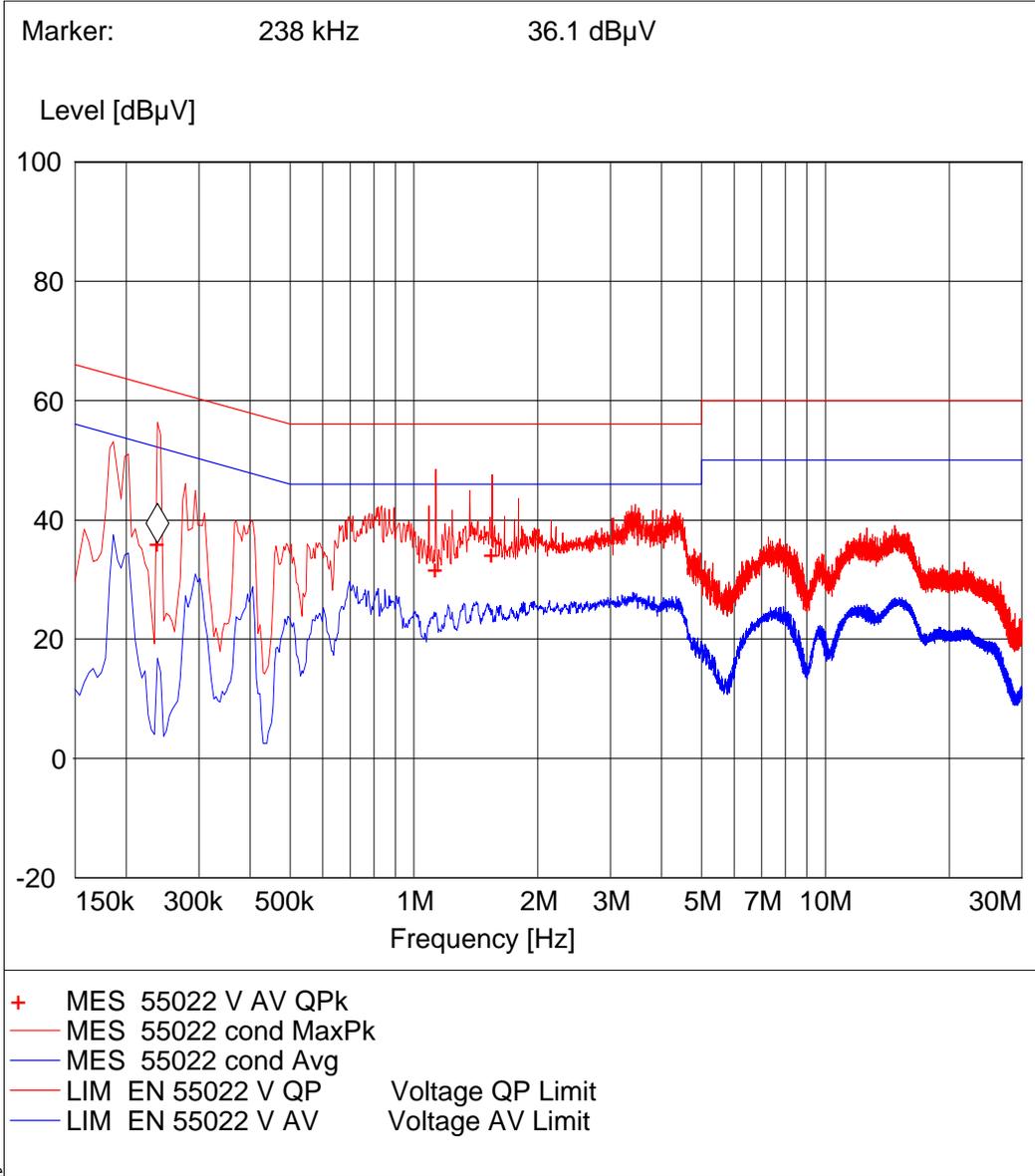
Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-Peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

* Decreases with logarithm of the frequency

ANALYZER SETTINGS: RBW = 10KHz VBW = 10KHz

5.4.2 RESULTS TX Line CDMA 800:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: CDMA 850; CH 384
 ANT Orientation: N/A
 EUT Orientation: H
 Test Engineer: Chris
 Power Supply: AC
 Comments:



Line



MEASUREMENT RESULT: "55022 V AV QPk"

10/20/2008 4:11PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
0.238000	36.10	0.1	62	26.1	1	---	OFF
1.130000	31.80	0.1	56	24.2	1	---	OFF
1.550000	34.30	0.2	56	21.7	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

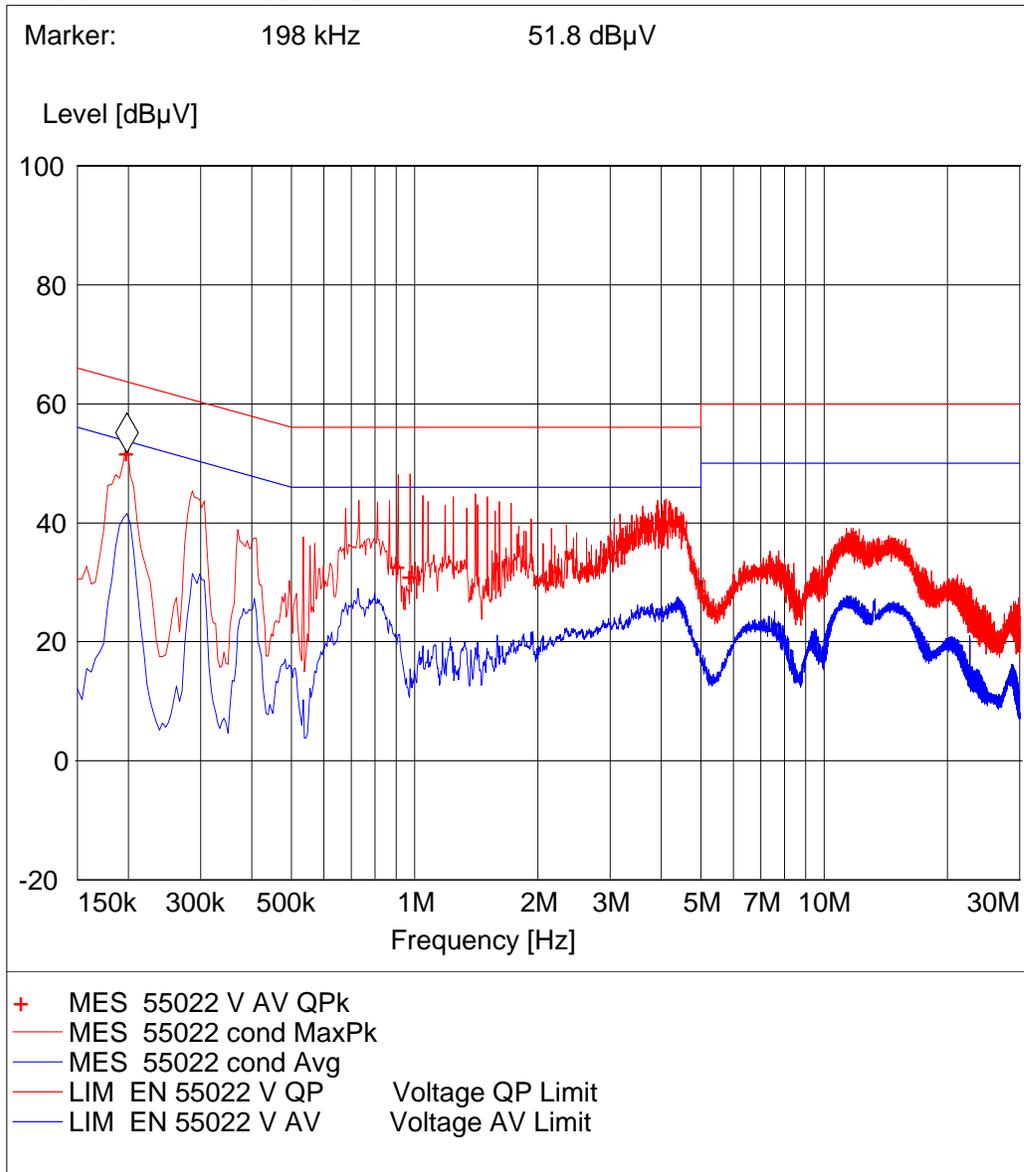
LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.3 RESULTS TX Neutral CDMA 800:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: CDMA 850; CH 384
 ANT Orientation:: N/A
 EUT Orientation:: H
 Test Engineer:: Chris
 Power Supply: : AC
 Comments: : NEUTRAL





MEASUREMENT RESULT: "55022 V AV QPk"

10/20/2008 4:23PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
0.198000	51.80	0.1	64	11.9	1	---	OFF
0.910000	32.70	0.1	56	23.3	1	---	OFF
0.974000	31.20	0.1	56	24.8	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

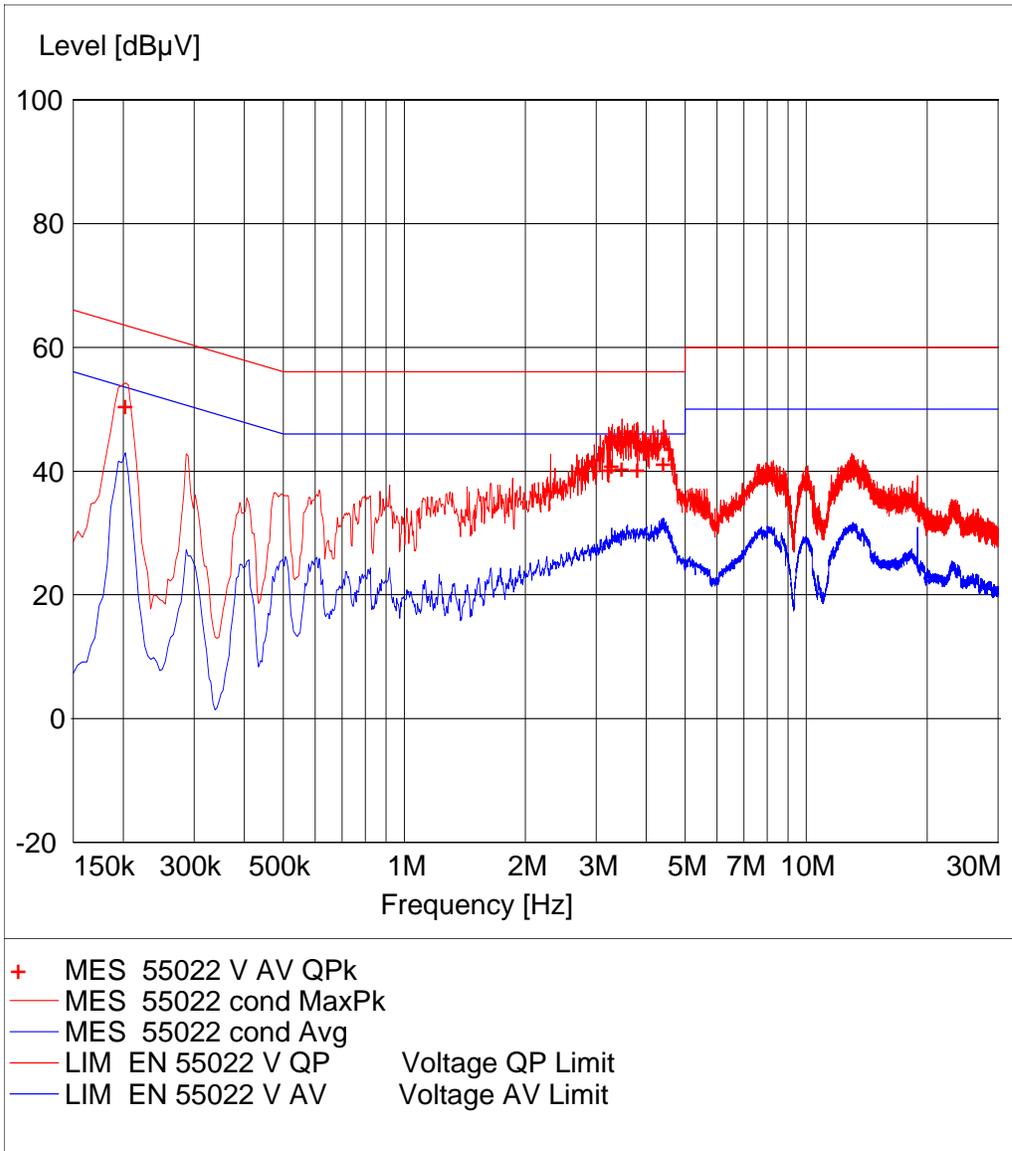
LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.4 RESULTS TX Line EVDO 800:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: EVDO 850 CH 384
 ANT Orientation:: N/A
 EUT Orientation:: H
 Test Engineer:: Chris
 Power Supply: : AC
 Comments: : Line





MEASUREMENT RESULT: "55022 V AV QPk"

10/24/2008 12:28PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
0.202000	50.60	0.1	64	12.9	1	---	OFF
3.230000	40.40	0.2	56	15.6	1	---	OFF
3.278000	41.00	0.2	56	15.0	1	---	OFF
3.478000	40.60	0.3	56	15.4	1	---	OFF
3.810000	40.40	0.3	56	15.6	1	---	OFF
4.414000	41.30	0.3	56	14.7	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

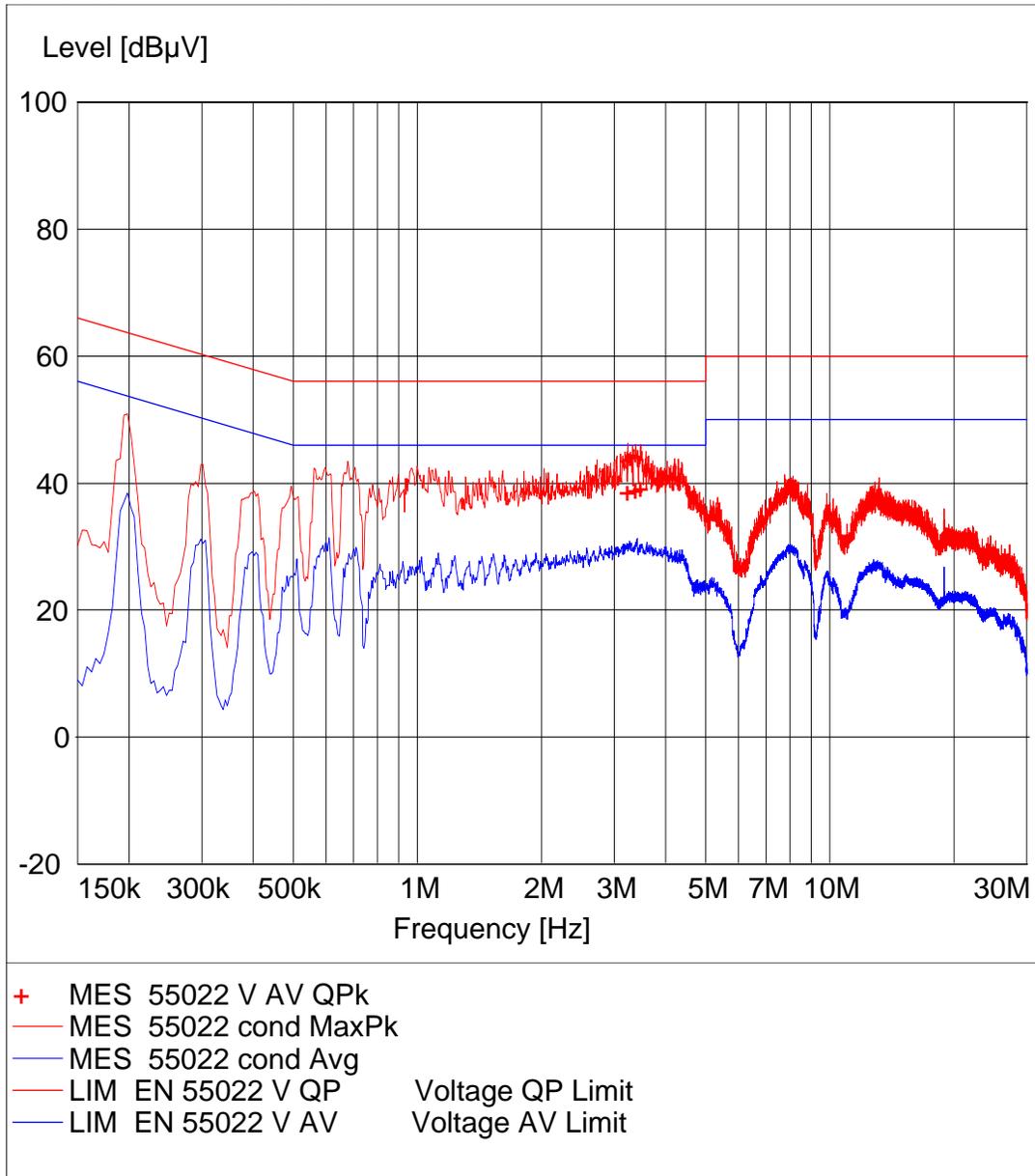
LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.5 RESULTS TX Neutral EVDO 800:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: EVDO 850 CH 384
 ANT Orientation: N/A
 EUT Orientation: H
 Test Engineer: Chris
 Power Supply: AC
 Comments: Neutral





MEASUREMENT RESULT: "55022 V AV QPk"

10/24/2008 12:22PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
3.234000	38.60	0.2	56	17.4	1	---	OFF
3.382000	39.00	0.2	56	17.0	1	---	OFF
3.474000	39.20	0.3	56	16.8	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

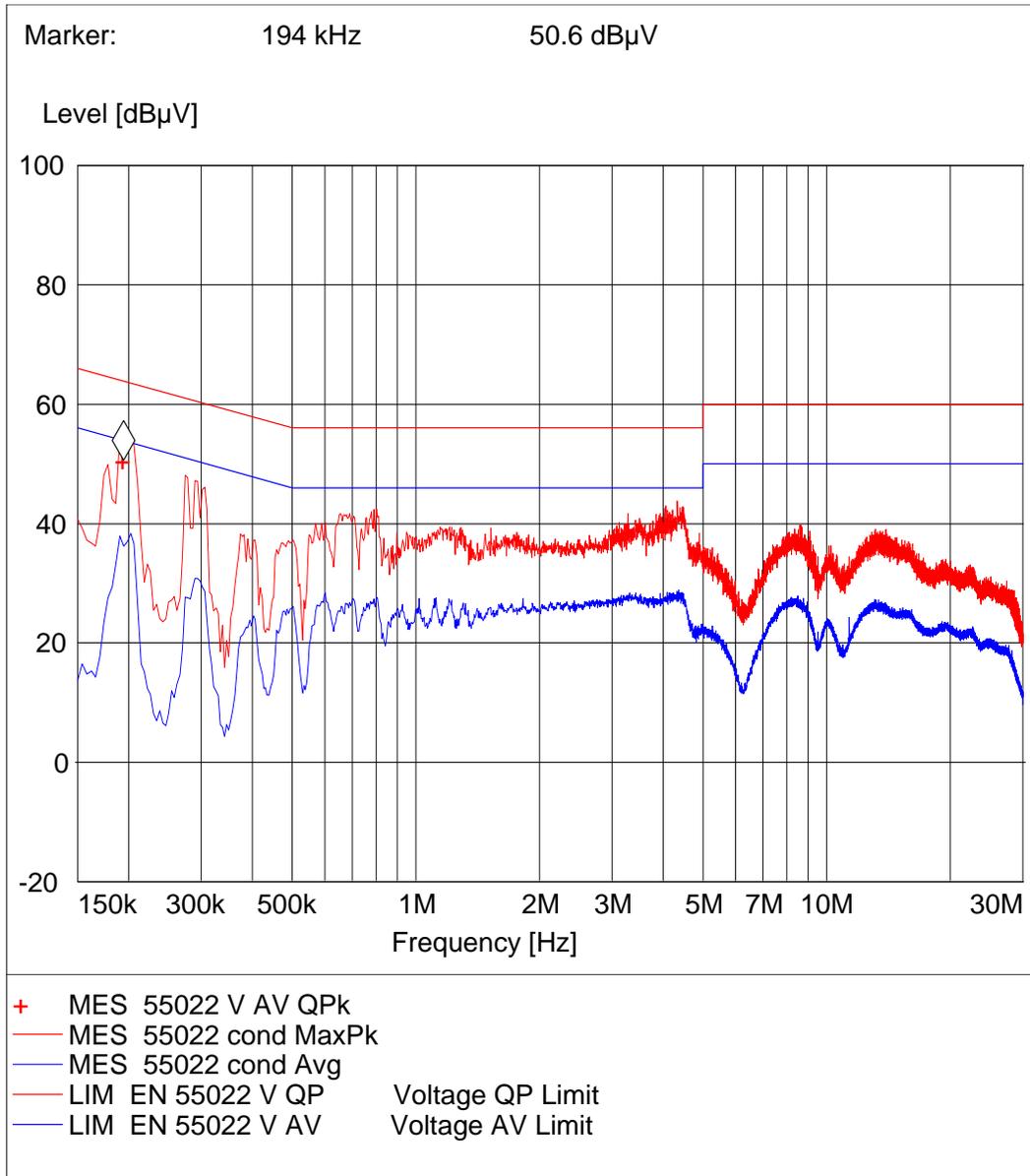
LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.6 RESULTS TX Neutral CDMA 1900:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: CDMA 1900; CH 600
 ANT Orientation: N/A
 EUT Orientation: H
 Test Engineer: Chris
 Power Supply: AC
 Comments: LINE





MEASUREMENT RESULT: "55022 V AV QPk"

10/20/2008 5:13PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
0.194000	50.60	0.1	64	13.2	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

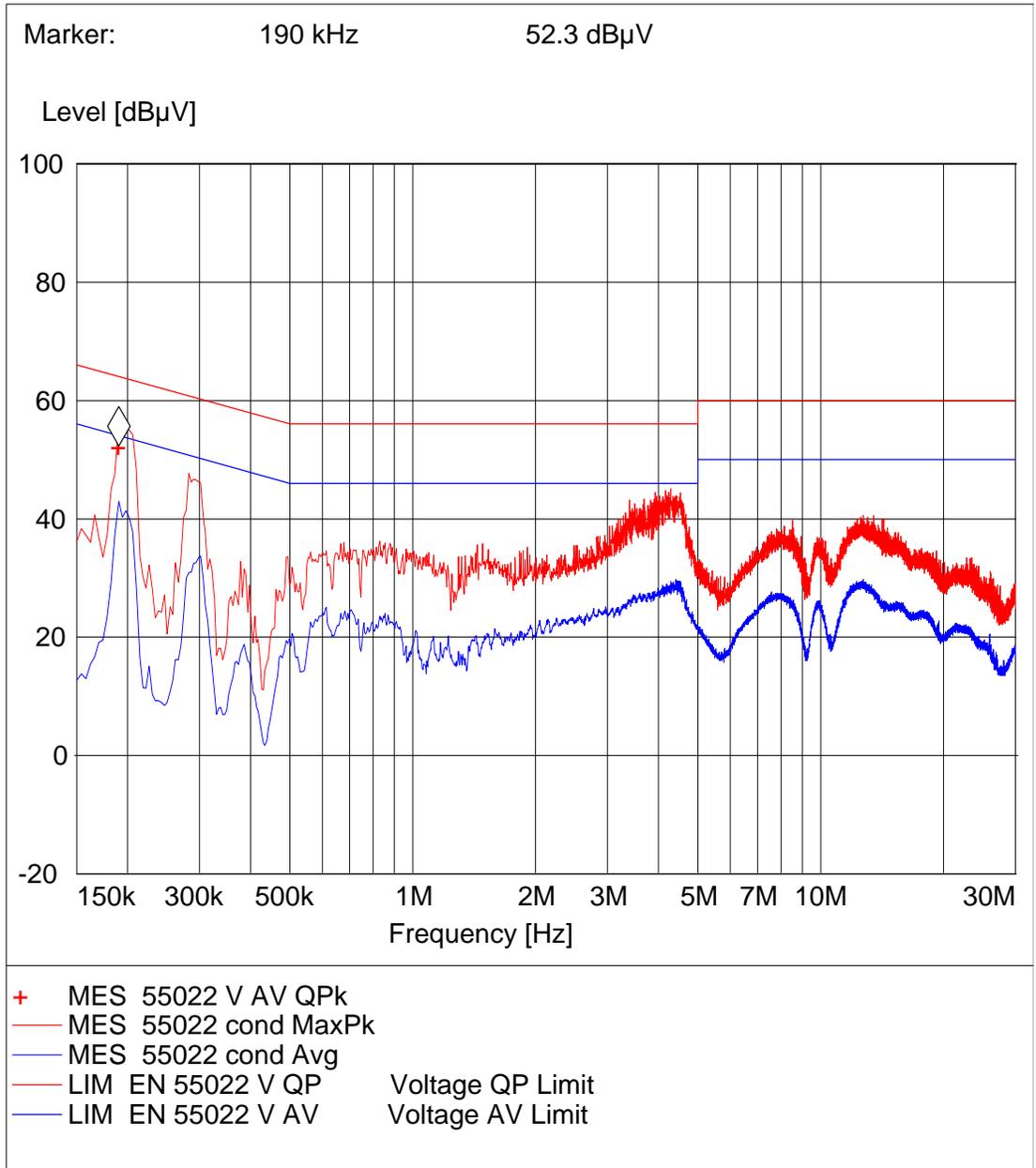
LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.7 RESULTS TX Neutral CDMA 1900:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: CDMA 1900; CH 600
 ANT Orientation: N/A
 EUT Orientation: H
 Test Engineer: Chris
 Power Supply: AC
 Comments: NEUTRAL





MEASUREMENT RESULT: "55022 V AV QPk"

10/20/2008 5:19PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
0.190000	52.30	0.1	64	11.7	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

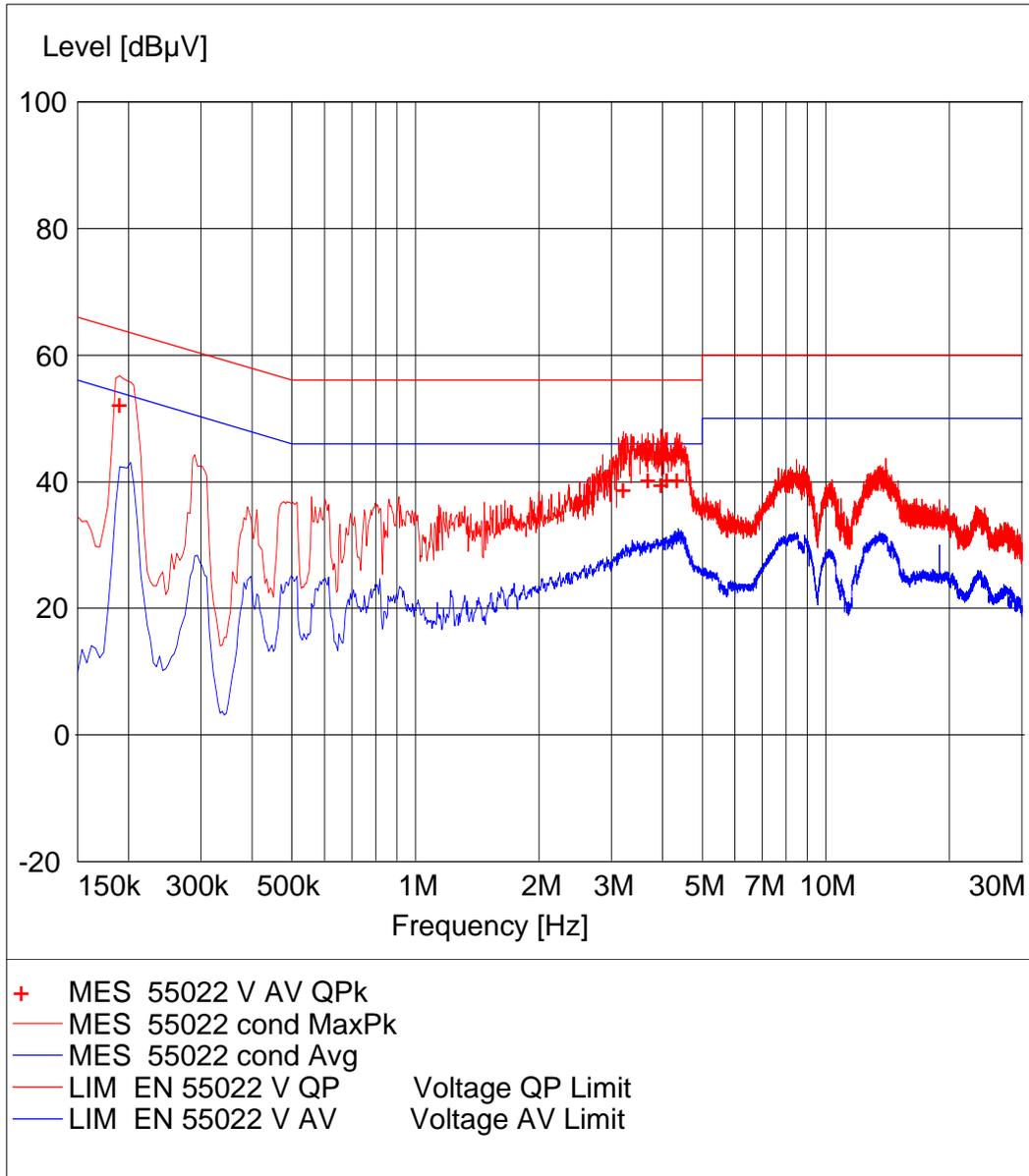
LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.8 RESULTS TX Line EVDO 1900:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: EVDO 1900 CH 600
 ANT Orientation: N/A
 EUT Orientation: H
 Test Engineer: Chris
 Power Supply: AC
 Comments: Line





MEASUREMENT RESULT: "55022 V AV QPk"

10/24/2008 12:11PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
0.190000	52.30	0.1	64	11.7	1	---	OFF
3.206000	38.90	0.2	56	17.1	1	---	OFF
3.682000	40.50	0.3	56	15.5	1	---	OFF
3.962000	39.70	0.3	56	16.3	1	---	OFF
4.098000	40.50	0.3	56	15.5	1	---	OFF
4.330000	40.60	0.3	56	15.4	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

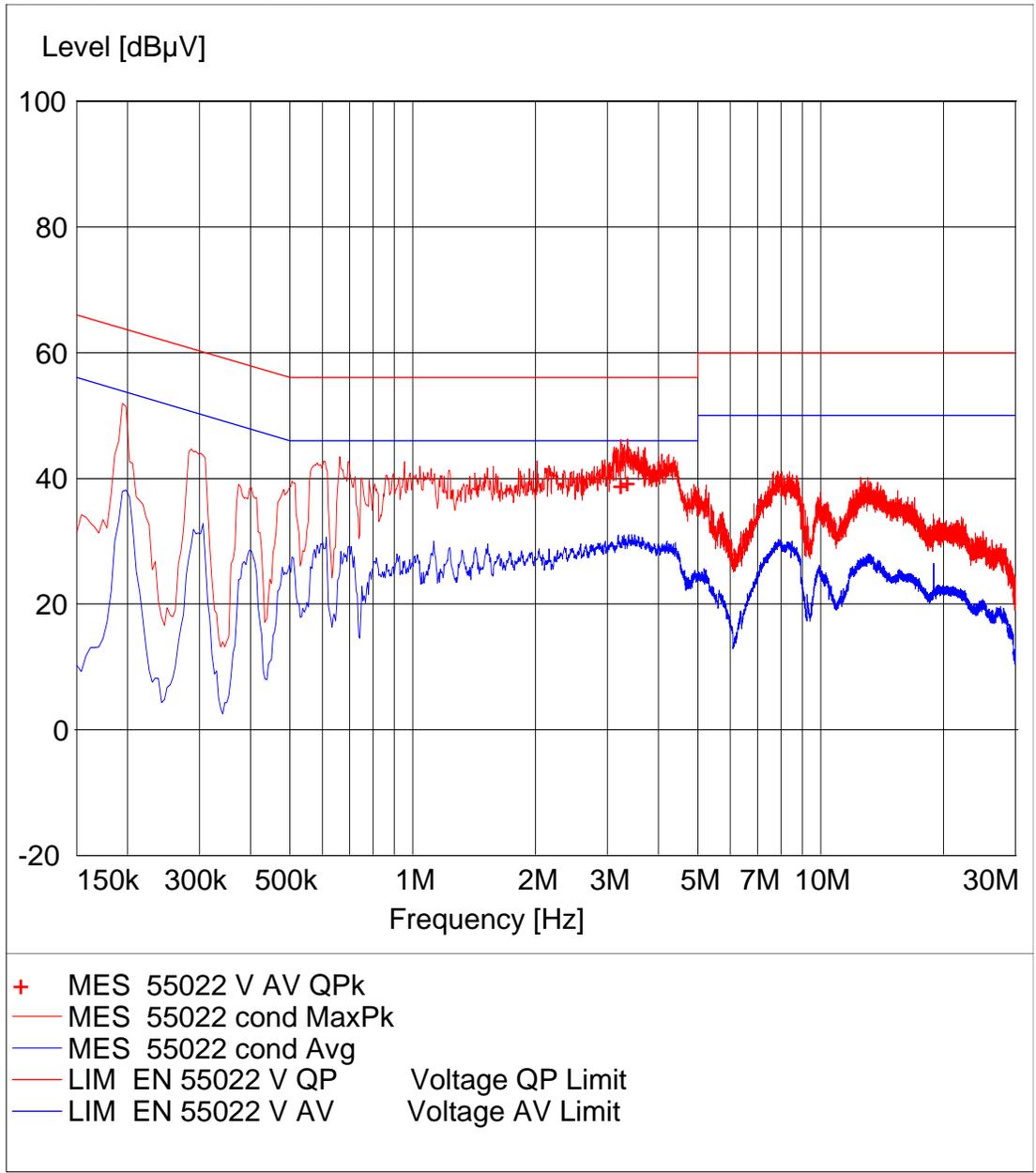
LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.9 RESULTS TX Neutral EVDO 1900:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: EVDO 1900 CH 600
 ANT Orientation: N/A
 EUT Orientation: H
 Test Engineer: Chris
 Power Supply: AC
 Comments: Neutral





MEASUREMENT RESULT: "55022 V AV QPk"

10/24/2008 12:16PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
3.234000	38.90	0.2	56	17.1	1	---	OFF
3.358000	39.40	0.2	56	16.6	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit

4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

LIMIT LINE: "EN 55022 V QP"

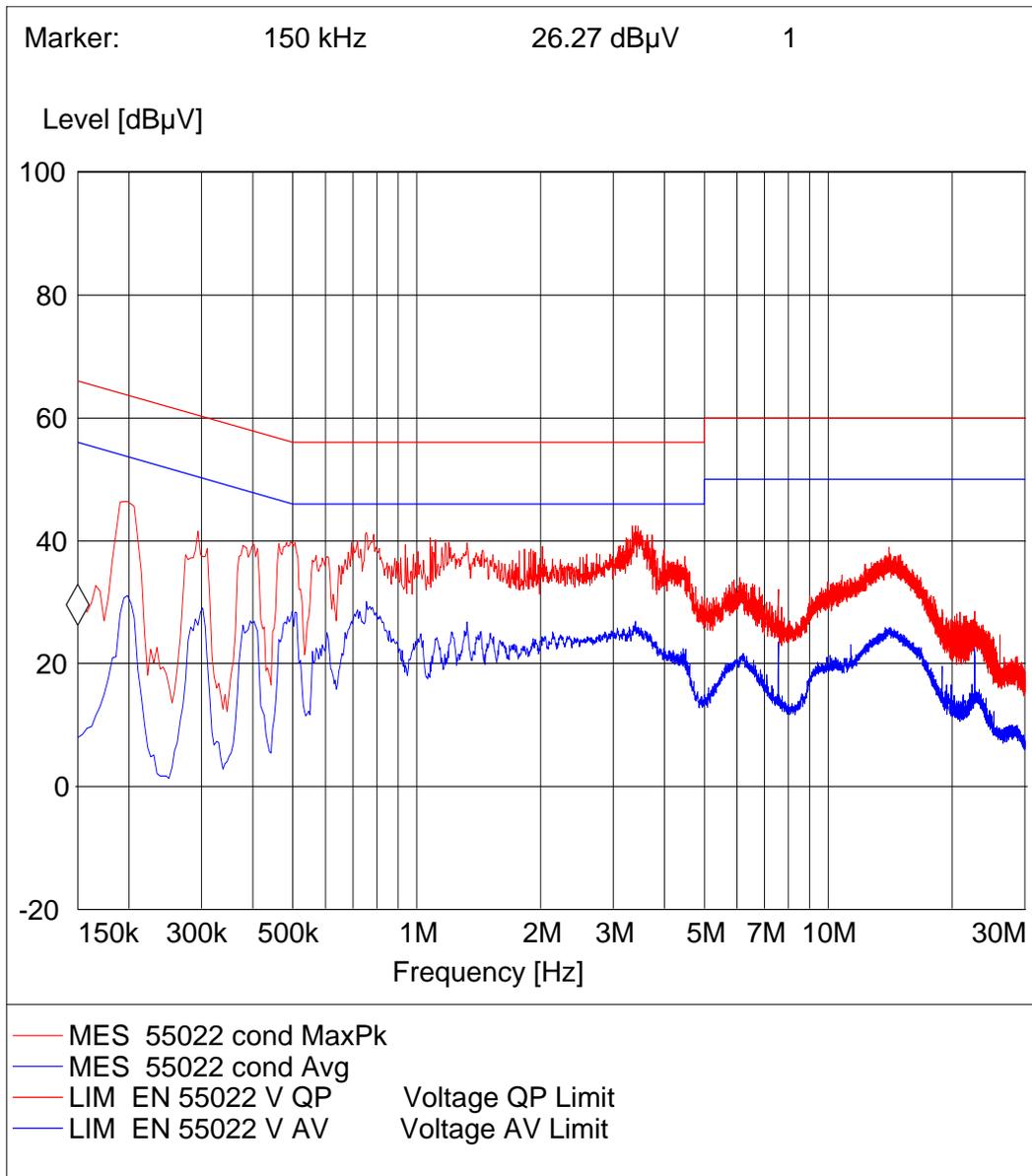
Short Description: Voltage QP Limit

4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.10 RESULTS RX Line CDMA:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: CDMA 850; IDLE
 ANT Orientation: N/A
 EUT Orientation: H
 Test Engineer: Chris
 Power Supply: AC
 Comments: LINE





LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
4/27/1998 2:24PM

Frequency MHz	Level dBμV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

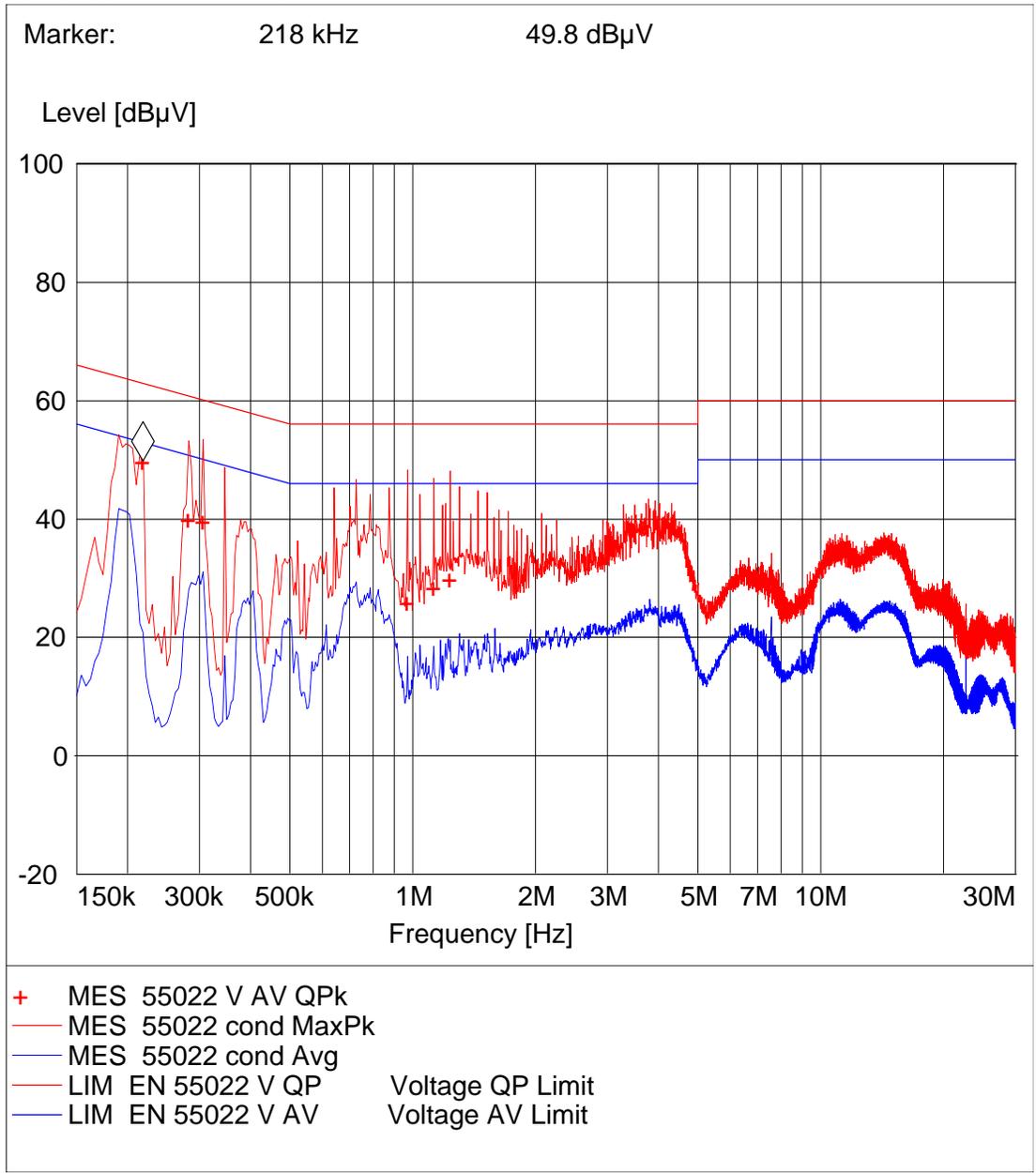
LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
4/27/1998 2:24PM

Frequency MHz	Level dBμV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

5.4.11 RESULTS RX Neutral CDMA:

EUT: IRX-4300-FCC1
 Manufacturer: Sony Electronics
 Test Mode: CDMA 850; IDLE
 ANT Orientation: N/A
 EUT Orientation: H
 Test Engineer: Chris
 Power Supply: AC
 Comments: NEUTRAL





MEASUREMENT RESULT: "55022 V AV QPk"

10/20/2008 4:28PM

Frequency	Level	Transd	Limit	Margin	Line	PE	AUX STATE
MHz	dBµV	dB	dBµV	dB			
0.218000	49.80	0.1	63	13.1	1	---	OFF
0.282000	40.00	0.1	61	20.7	1	---	OFF
0.306000	39.60	0.1	60	20.5	1	---	OFF
0.970000	26.00	0.1	56	30.0	1	---	OFF
1.126000	28.50	0.1	56	27.5	1	---	OFF
1.234000	29.90	0.1	56	26.1	1	---	OFF

LIMIT LINE: "EN 55022 V AV"

Short Description: Voltage AV Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	56.00
0.500000	46.00
5.000000	46.00
5.000000	50.00
30.000000	50.00

LIMIT LINE: "EN 55022 V QP"

Short Description: Voltage QP Limit
 4/27/1998 2:24PM

Frequency	Level
MHz	dBµV
0.150000	66.00
0.500000	56.00
5.000000	56.00
5.000000	60.00
30.000000	60.00

6 TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

No	Instrument/Ancillary	Type	Manufacturer	Serial No.	Cal Due	Interval
01	Spectrum Analyzer	ESIB 40	Rohde & Schwarz	100107	May 2009	1 year
02	Spectrum Analyzer	FSEM 30	Rohde & Schwarz	100017	August 2009	1 year
03	Signal Generator	SMY02	Rohde & Schwarz	836878/011	May 2009	1 year
04	Power-Meter	NRVD	Rohde & Schwarz	0857.8008.02	May 2009	1 year
05	Biconilog Antenna	3141	EMCO	0005-1186	June 2009	1 year
06	Horn Antenna (1-18GHz)	SAS-200/571	AH Systems	325	June 2009	1 year
07	Horn Antenna (18-26.5GHz)	3160-09	EMCO	1240	June 2009	1 year
08	Power Splitter	11667B	Hewlett Packard	645348	n/a	n/a
09	Climatic Chamber	VT4004	Voltsch	G1115	May 2009	1 year
10	High Pass Filter	5HC2700	Trilithic Inc.	9926013	n/a	n/a
11	High Pass Filter	4HC1600	Trilithic Inc.	9922307	n/a	n/a
12	Pre-Amplifier	JS4-00102600	Miteq	00616	May 2009	1 year
13	Power Sensor	URV5-Z2	Rohde & Schwarz	DE30807	May 2009	1 year
14	Digital Radio Comm. Tester	CMD-55	Rohde & Schwarz	847958/008	May 2009	1 year
15	Universal Radio Comm. Tester	CMU 200	Rohde & Schwarz	832221/06	May 2009	1 year
16	LISN	ESH3-Z5	Rohde & Schwarz	836679/003	May 2009	1 year
17	Loop Antenna	6512	EMCO	00049838	July 2009	2 years

7 References

Title 47—Telecommunication, CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION,
PART 2--FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS October 1, 2001.

Title 47—Telecommunication, CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION,
PART 22 PUBLIC MOBILE SERVICES October 1, 1998.

FCC Report and order 02-229 September 24, 2002.

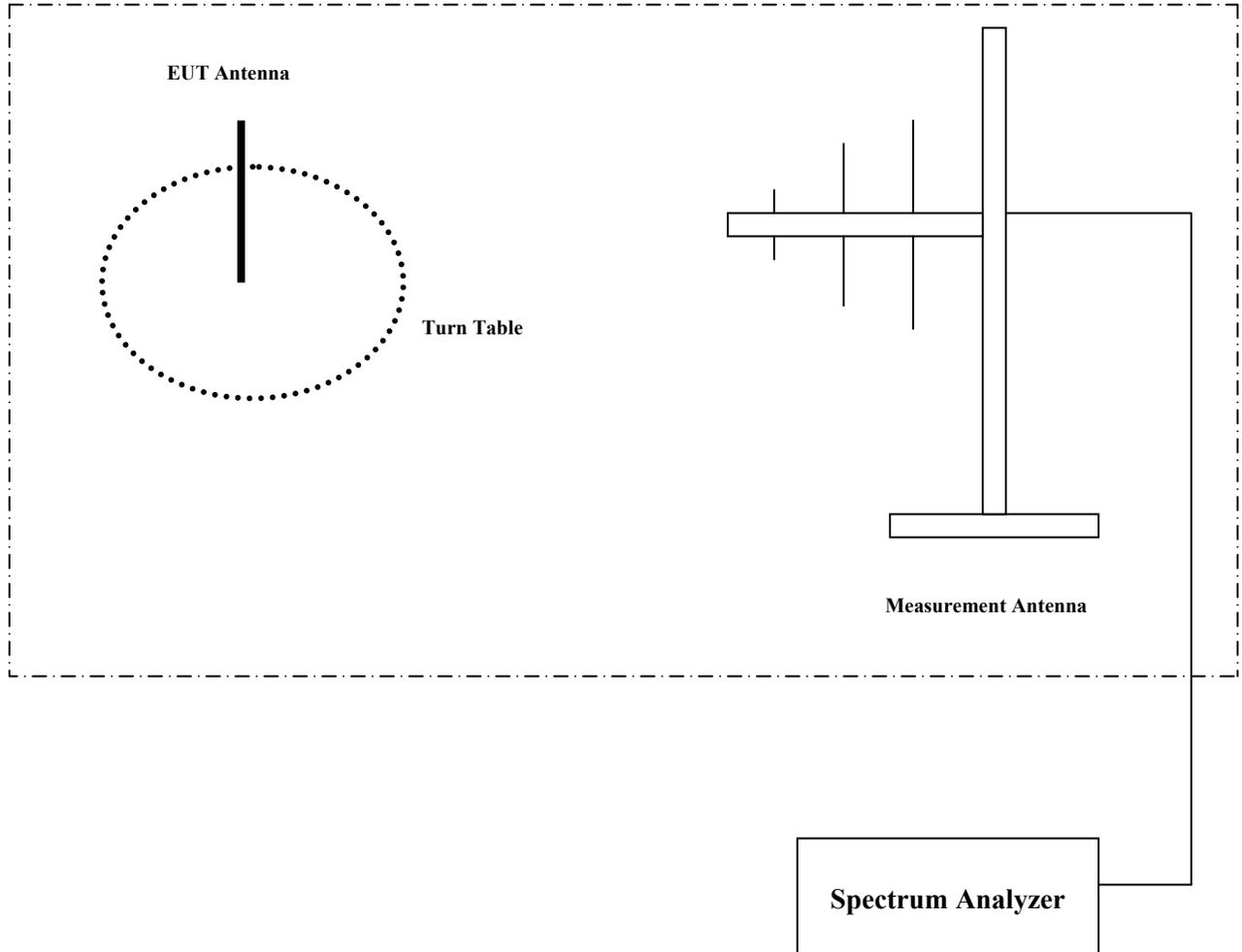
Title 47—Telecommunication, CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION,
PART 24 PERSONAL COMMUNICATIONS SERVICES October 1, 1998.

ANSI / TIA-603-C-2004 Land Mobile FM or PM Communications Equipment Measurement and Performance Standard November 7, 2002.

8 BLOCK DIAGRAMS

Radiated Testing

ANECHOIC CHAMBER



9 Revision History

2008-10-24: First Issue