FCC CFR47 PART 15 SUBPART C
CERTIFICATION TEST REPORT

FOR

DUAL BAND 1xRTT CDMA PHONE WITH BLUETOOTH

MODEL NUMBER: E1000

FCC ID: OVF E1000-255

REPORT NUMBER: 07U11009-1

ISSUE DATE: MAY 08, 2007

Prepared for
KYOCERA WIRELESS CORP.
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121 U.S.A.

Prepared by
COMPLIANCE CERTIFICATION SERVICES
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
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FAX: (510) 661-0888

NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	05/08/07	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: KYOCERA WIRELESS CORP.
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121
U.S.A.

EUT DESCRIPTION: DUAL BAND 1xRTT CDMA PHONE WITH BLUETOOTH

MODEL: E1000

SERIAL NUMBER: FFE10000001274

DATE TESTED: APRIL 24 – MAY 4, 2007

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 15 SUBPART C	NO NON-COMPLIANCE NOTED

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

Tested By:

FRANK IBRAHIM
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2 and FCC CFR 47 Part 15.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Radiated Emission Above 2000 MHz	+/- 4.3 dB
Power Line Conducted Emission	+/- 2.9 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a dual band 1xRTT CDMA phone with BT.

The radio module is manufactured by Kyocera Wireless.

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an IFA antenna, with a maximum gain of 0dBi.

5.3. SOFTWARE AND FIRMWARE

Two application software were used as follows:

1) StartGraphitePassThru.exe
Version: 1.0.0.1

2) BtCliCtrl.exe
Version: 1.0

Platform of EUT: E1000
SW Version of EUT: JV0.2.13

5.4. WORST-CASE CONFIGURATION AND MODE

Worst- case configuration was for EUT with headphones connected to the charger in Z orientation, refer to set up photos for details about different orientations.

Mode of operation was charging the EUT and transmitting at mid channel.

5.5. DESCRIPTION OF TEST SETUP

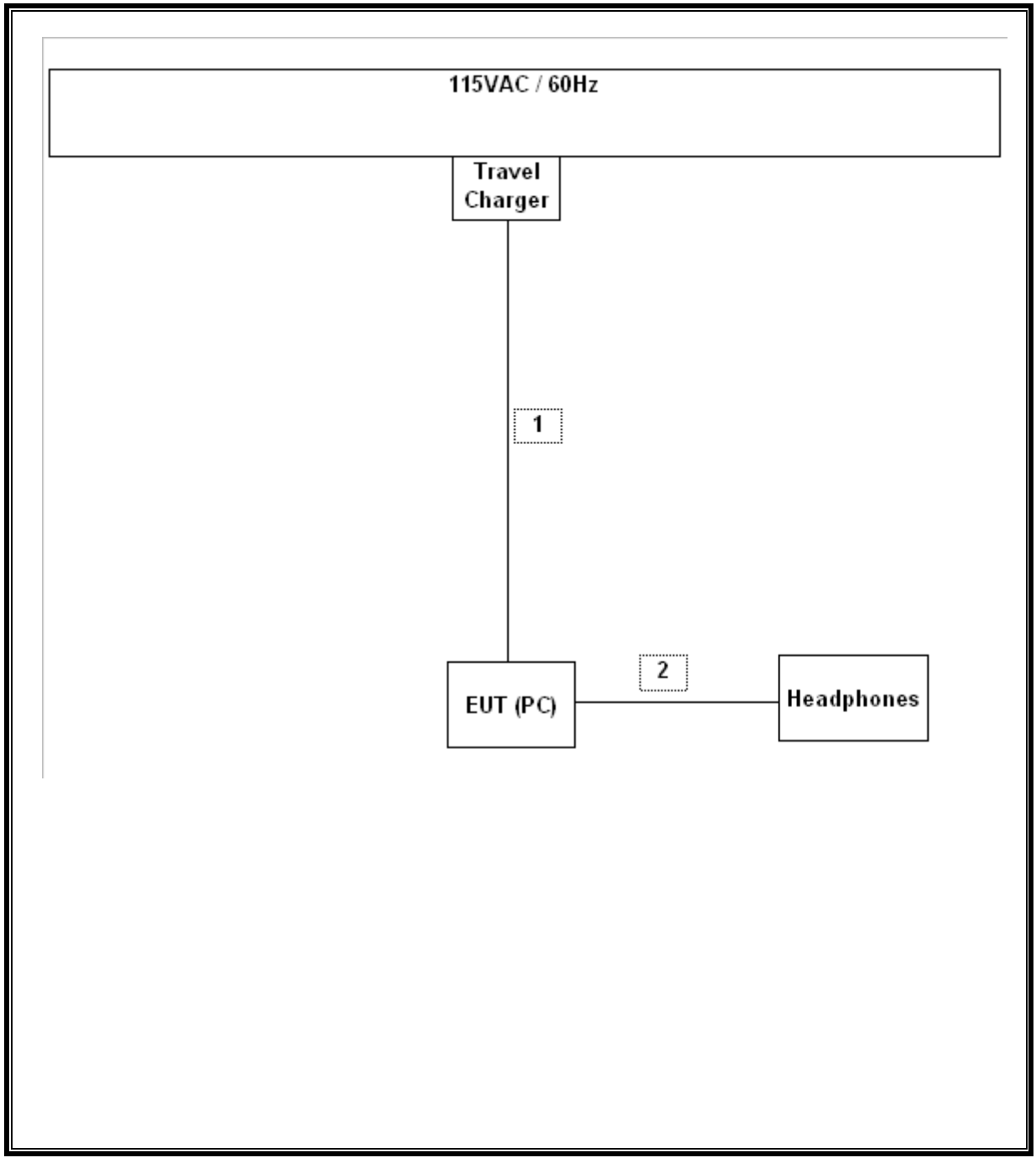
SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Travel Charger	Kyocera	TXTVL10101	642S-001	N/A
Headphones	NA	NA	NA	NA

I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	DC Power	1	DC Power	Unshielded	1.8m	N/A
2	Audio	1	Audio	Unshielded	1.2m	N/A

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**S/N**	**Cal Due**
Spectrum Analyzer 3 Hz ~ 44 GHz	Agilent / HP	E4446A	US42070220	11/26/07
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	2238	04/15/08
Preamplifier, 1 ~ 26.5 GHz	Agilent / HP	8449B	3008A00561	10/03/07
2.4-2.5 GHz Reject Filter	Micro-Tronics	BRM50702	1	CNR
Antenna, Horn 18 ~ 26 GHz	ARA	MWH-1826/B	1049	08/06/07
Antenna, Bilog 30 MHz ~ 2 GHz	Sunol Sciences	JB1	A0022704	08/13/07
Preamplifier, 1300 MHz	Agilent / HP	8447D	1937A02062	01/23/08
SA Display Section 2	Agilent / HP	85662A	2816A16696	04/07/08
Quasi-Peak Adaptor	Agilent / HP	85650A	3145A01654	01/21/08
SA RF Section, 1.5 GHz	Agilent / HP	85680B	2814A04227	01/07/08
EMI Test Receiver	R & S	ESHS 20	827129/006	01/27/08
LISN, 10 kHz ~ 30 MHz	FCC	LISN-50/250-25-2	2023	09/15/07

7. LIMITS AND RESULTS

7.1. RADIATED EMISSIONS

7.1.1. TRANSMITTER RADIATED SPURIOUS EMISSIONS

LIMITS

§15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2] Above 38.6

§15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

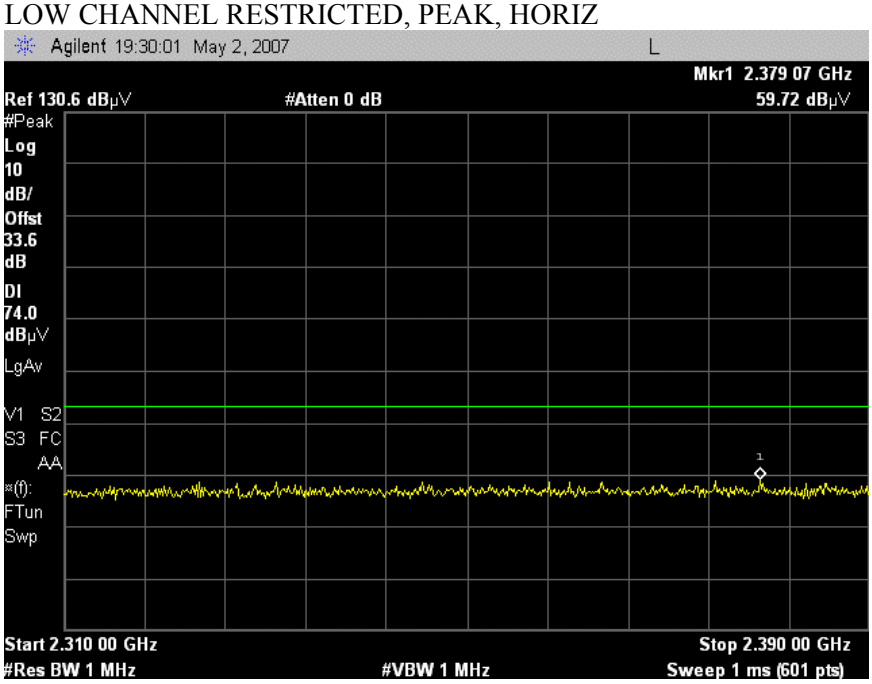
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each 5 GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

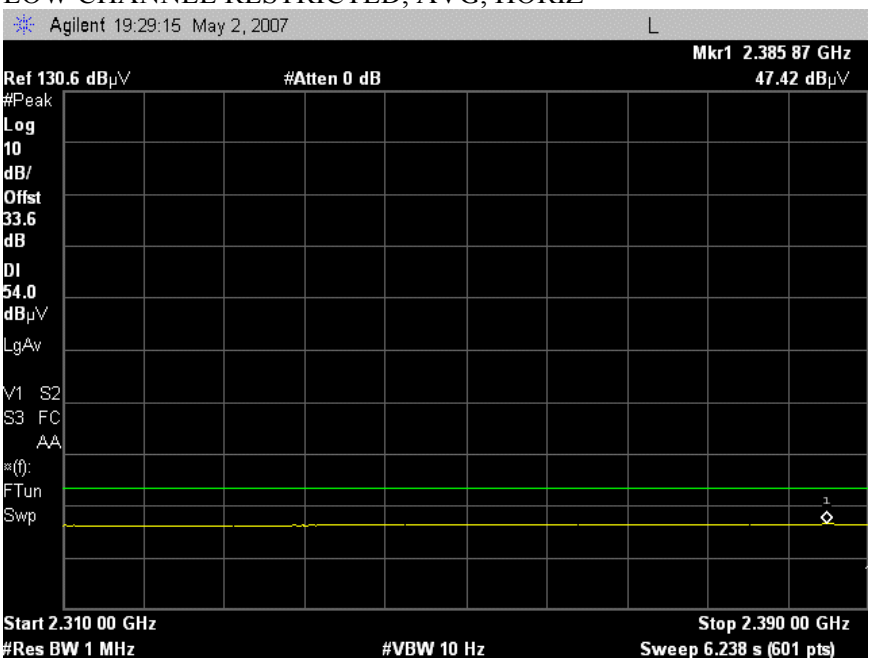
7.1.2. TRANSMITTER RADIATED EMISSIONS ABOVE 1 GHZ

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

LOW CHANNEL RESTRICTED, PEAK, HORIZ

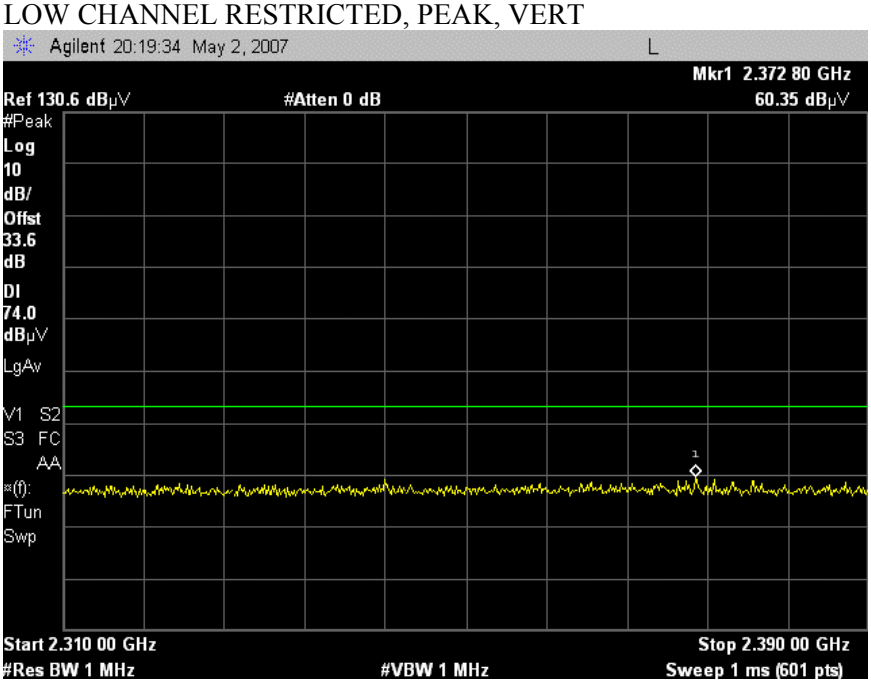


LOW CHANNEL RESTRICTED, AVG, HORIZ

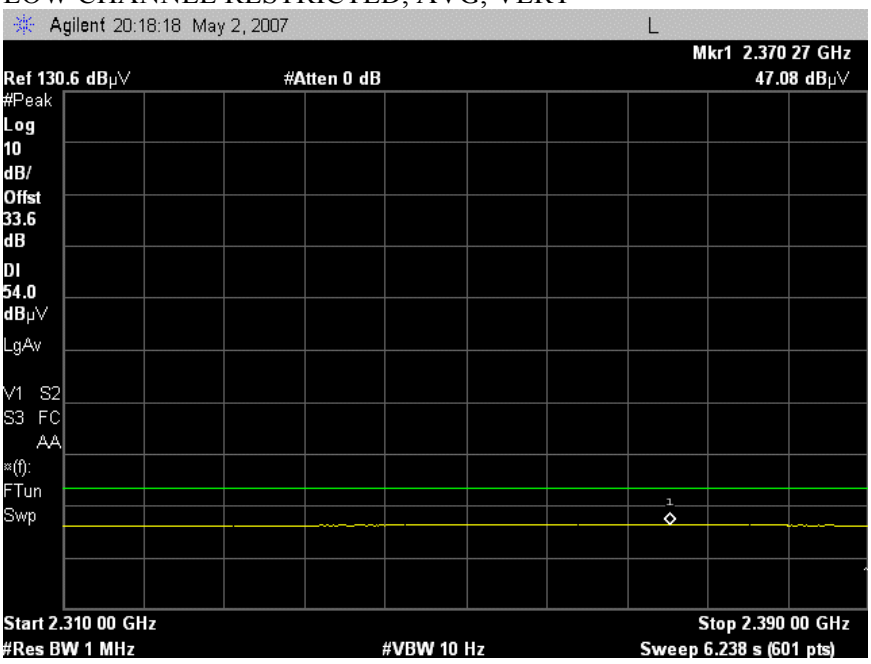


RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

LOW CHANNEL RESTRICTED, PEAK, VERT

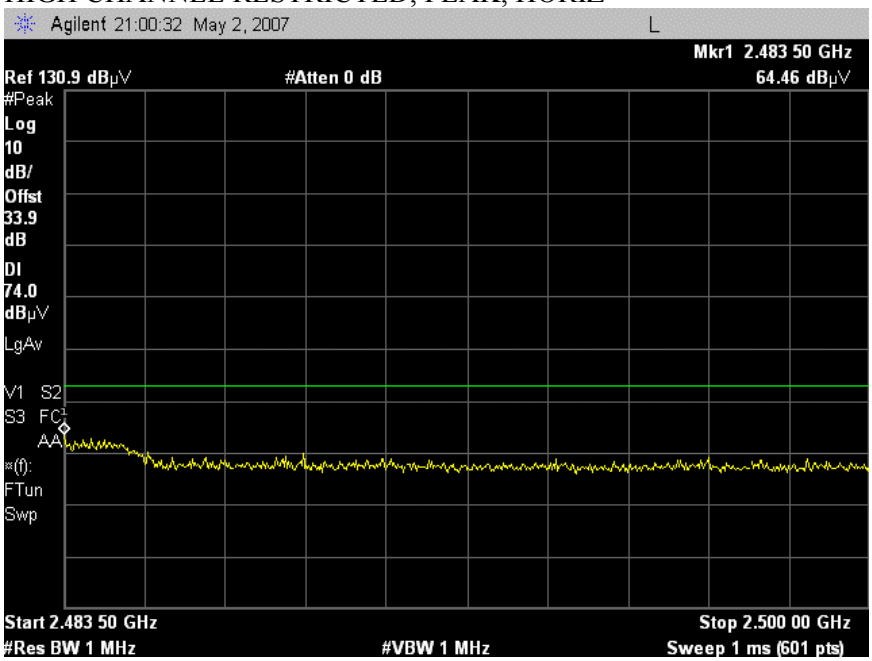


LOW CHANNEL RESTRICTED, AVG, VERT

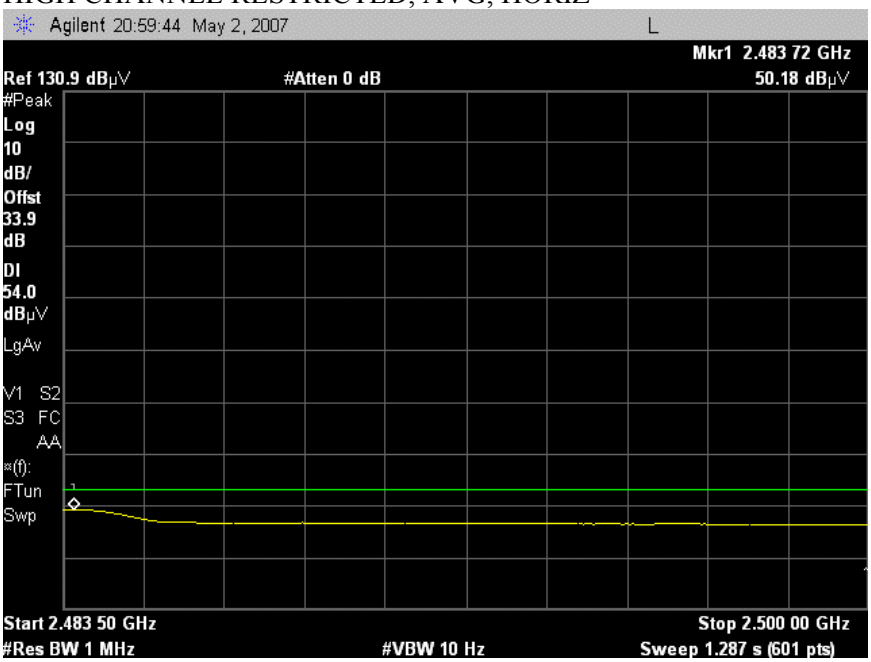


RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

HIGH CHANNEL RESTRICTED, PEAK, HORIZ



HIGH CHANNEL RESTRICTED, AVG, HORIZ



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

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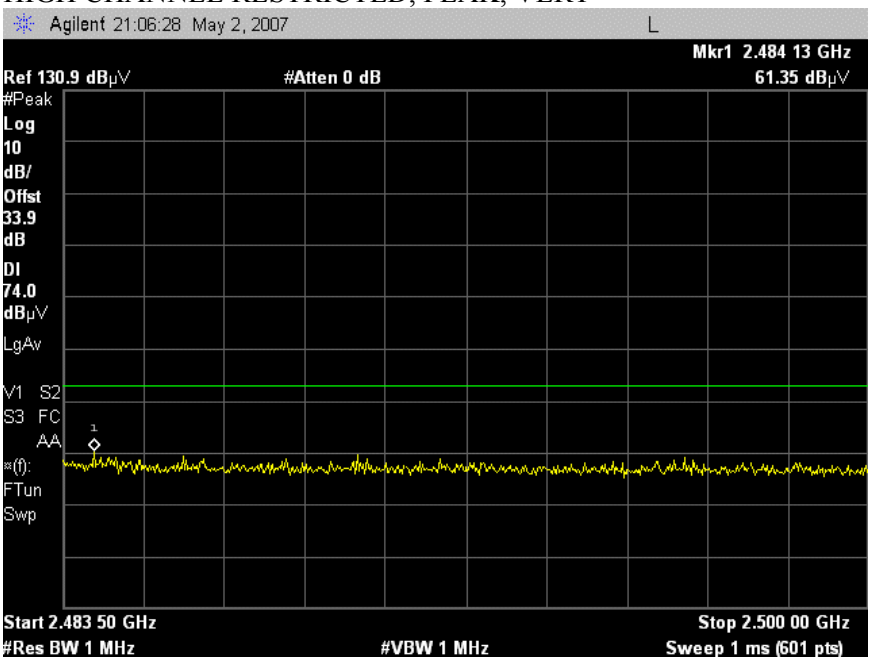
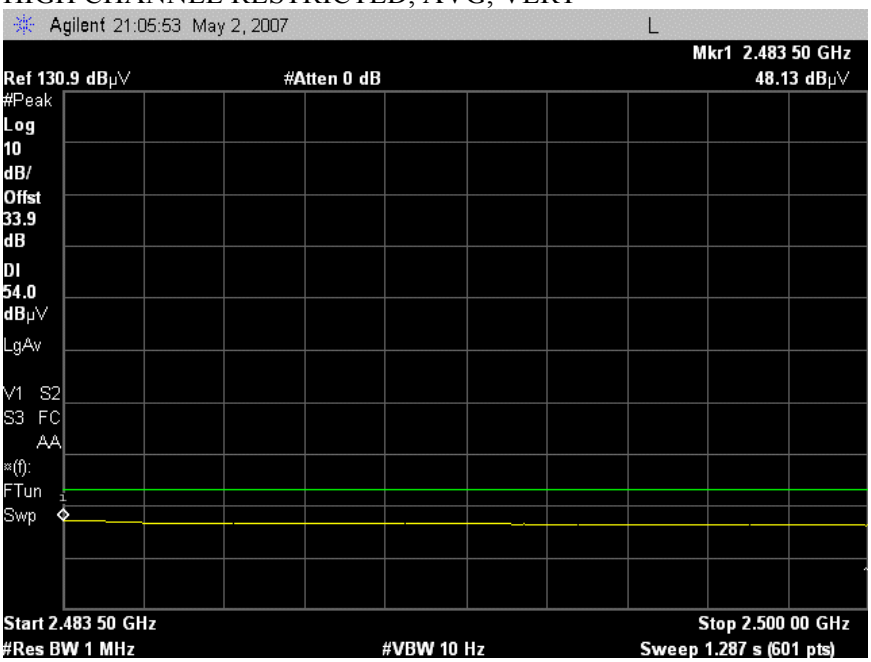


HIGH CHANNEL RESTRICTED, AVG, VERT



HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company:	Kyocera
Project #:	07U11009
Date:	05/02/07
Test Engineer:	Frank Ibrahim
Configuration:	Stand-alone EUT, connected to charger and headphones, (Z orientation - worst case)
Mode:	TX ON
S/N:	FFE10000001274

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T145 Agilent 3008A005(		T89; ARA 18-26GHz; S/N:1049	FCC 15.205

Hi Frequency Cables

2 foot cable	3 foot cable	12 foot cable	HPF	Reject Filter
		B-5m Chamber		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Channel (2402 MHz)															
4.804	3.0	38.47	25.42	33.0	7.1	-34.8	0.0	0.0	43.73	30.68	74	54	-30.27	-23.32	V, noise floor
4.804	3.0	39.10	25.89	33.0	7.1	-34.8	0.0	0.0	44.36	31.15	74	54	-29.64	-22.85	H, noise floor
Mid Channel (2441 MHz)															
4.882	3.0	38.78	25.77	33.1	7.2	-34.9	0.0	0.0	44.15	31.14	74	54	-29.85	-22.86	V, noise floor
7.323	3.0	37.66	24.59	35.5	8.7	-34.7	0.0	0.0	47.16	34.09	74	54	-26.84	-19.91	V, noise floor
4.882	3.0	38.78	25.71	33.1	7.2	-34.9	0.0	0.0	44.15	31.08	74	54	-29.85	-22.92	H, noise floor
7.323	3.0	37.93	25.44	35.5	8.7	-34.7	0.0	0.0	47.43	34.94	74	54	-26.57	-19.06	H, noise floor
High Channel (2480 MHz)															
4.960	3.0	39.00	26.10	33.1	7.2	-34.9	0.0	0.0	44.49	31.59	74	54	-29.51	-22.41	V, noise floor
7.440	3.0	37.98	25.13	35.6	8.7	-34.6	0.0	0.0	47.68	34.83	74	54	-26.32	-19.17	V, noise floor
4.960	3.0	37.63	24.34	33.1	7.2	-34.9	0.0	0.0	43.12	29.83	74	54	-30.88	-24.17	H, noise floor
7.440	3.0	38.08	25.46	35.6	8.7	-34.6	0.0	0.0	47.78	35.16	74	54	-26.22	-18.84	H, noise floor

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

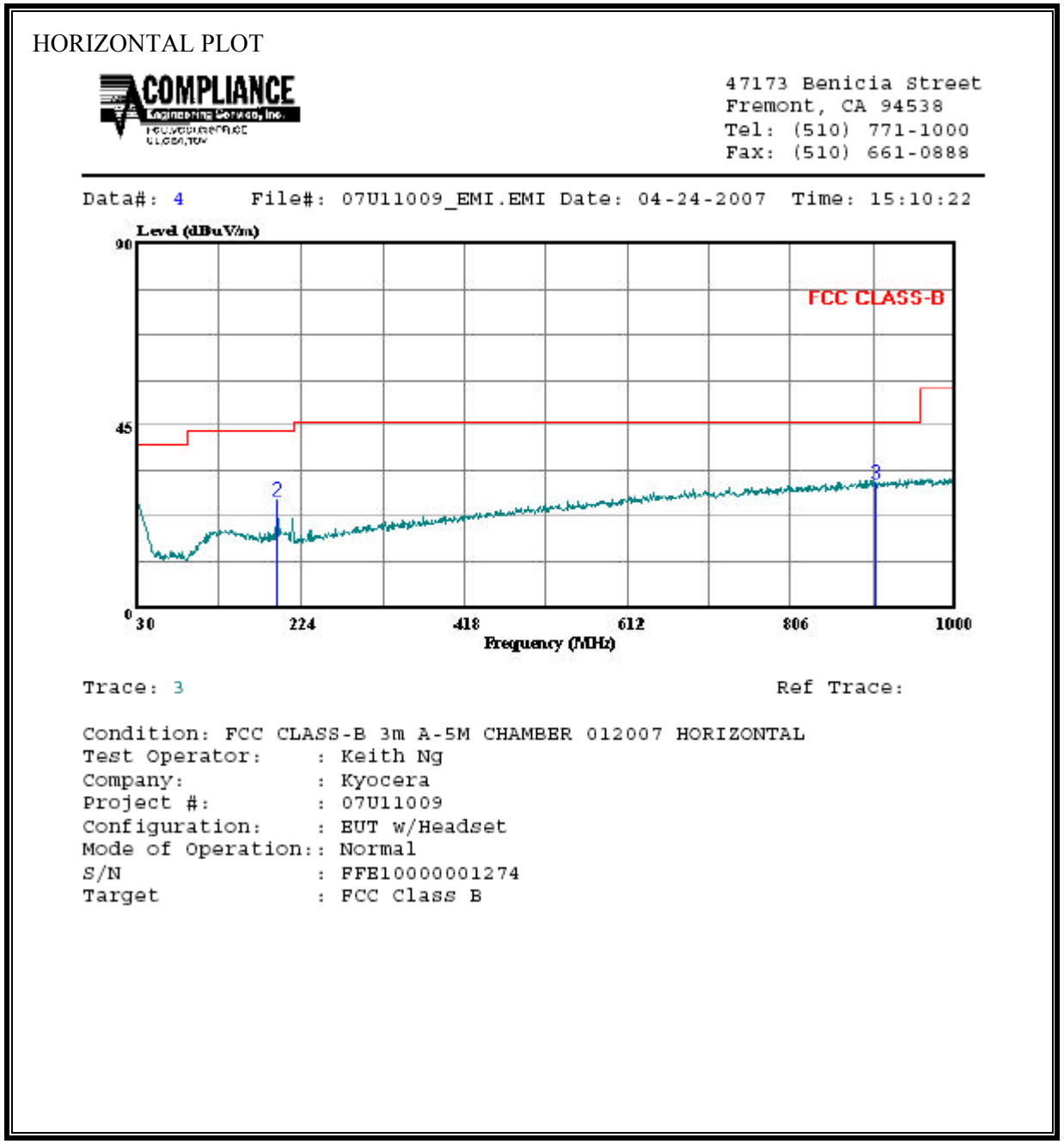
Note: EUT was scanned from 1 GHz to 26 GHz, no emissions from EUT were detected above the system noise floor.

7.1.3. WORST-CASE RADIATED EMISSIONS BELOW 1 GHz

EUT With Headset

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



HORIZONTAL DATA

Page: 1

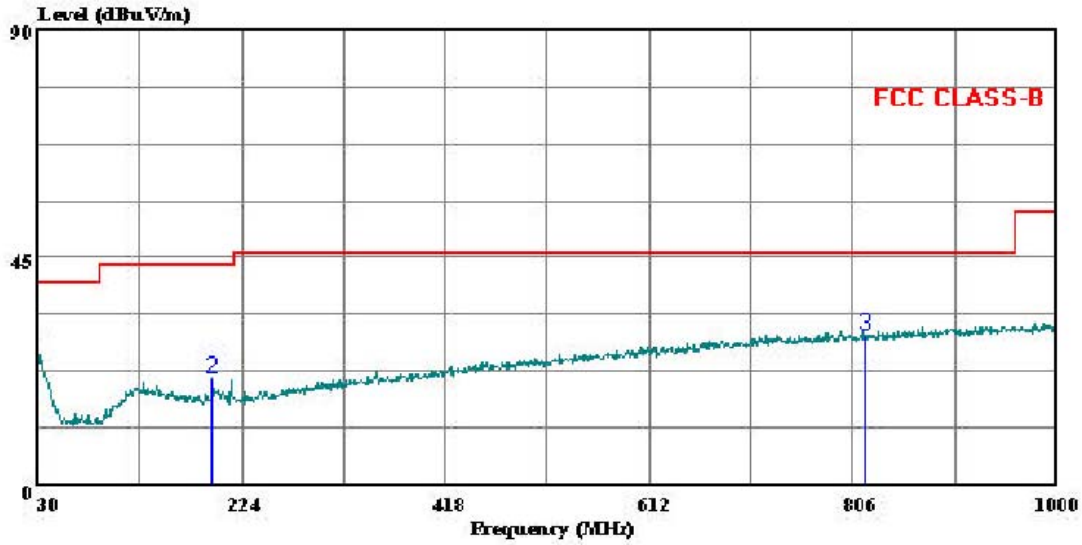
	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	30.000	32.50	22.03	0.62	28.41	26.74	40.00	-13.26	Peak
2	195.870	40.50	12.56	1.48	28.13	26.41	43.50	-17.09	Peak
3	905.910	31.90	22.80	3.44	27.28	30.86	46.00	-15.14	Peak

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT

COMPLIANCE Engineering Services, Inc.
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 2 File#: 07U11009 EMI.EMI Date: 04-24-2007 Time: 15:01:39



Trace: 1 Ref Trace:

Condition: FCC CLASS-B 3m A-5M CHAMBER 012007 VERTICAL
Test Operator: : Keith Ng
Company: : Kyocera
Project #: : 07U11009
Configuration: : EUT w/Headset
Mode of Operation:: Normal
S/N : FFE10000001274
Target : FCC Class B

VERTICAL DATA

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	30.000	32.30	22.03	0.62	28.41	26.54	40.00	-13.46	Peak
2	195.870	35.10	12.56	1.48	28.13	21.01	43.50	-22.49	Peak
3	817.640	31.50	21.90	3.15	27.01	29.54	46.00	-16.46	Peak

With Headset and Charging

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT

COMPLIANCE Engineering Services, Inc.
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

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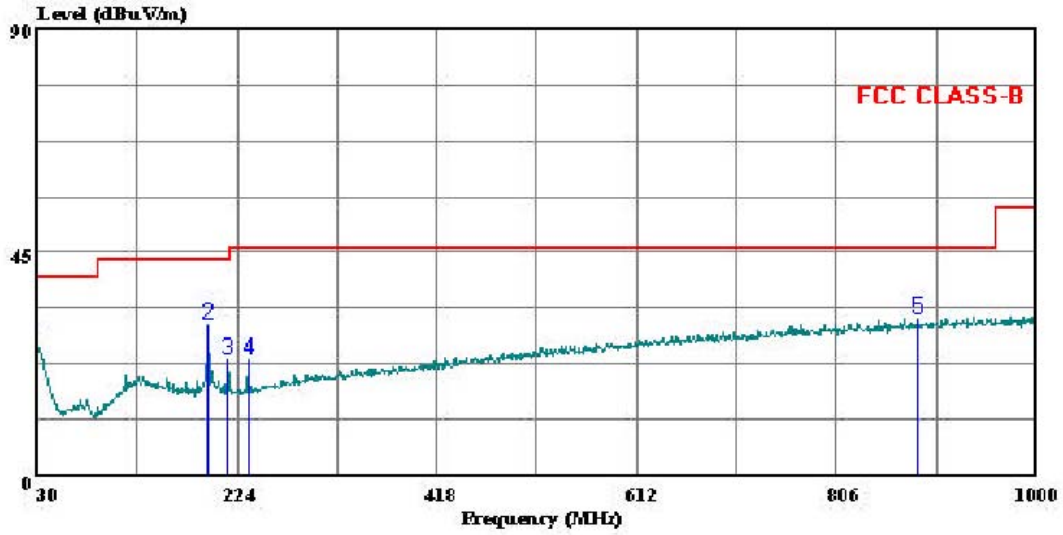

Trace: 3 Ref Trace:

Condition: FCC CLASS-B 3m A-5M CHAMBER 012007 HORIZONTAL
Test Operator: : Keith Ng
Company: : Kyocera
Project #: : 07U11009
Configuration: : EUT w/Headset/Charger
Mode of Operation:: Charging and TX in mid channel
S/N : FFE10000001274
Target : FCC Class B

HORIZONTAL DATA

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	30.000	32.40	22.03	0.62	28.41	26.64	40.00	-13.36	Peak
2	195.870	44.30	12.56	1.48	28.13	30.21	43.50	-13.29	Peak
3	215.270	38.60	11.25	1.54	28.10	23.29	43.50	-20.21	Peak
4	234.670	38.10	11.77	1.62	28.07	23.41	46.00	-22.59	Peak
5	885.540	32.70	22.60	3.36	27.20	31.45	46.00	-14.55	Peak

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT

COMPLIANCE Engineering Services, Inc.
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

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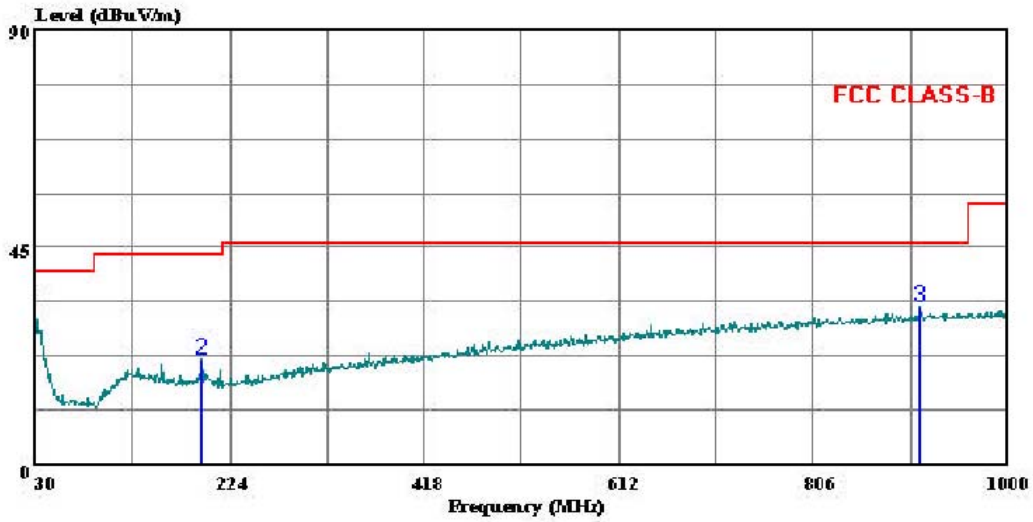


Trace: 1 Ref Trace:

Condition: FCC CLASS-B 3m A-5M CHAMBER 012007 VERTICAL
Test Operator: : Keith Ng
Company: : Kyocera
Project #: : 07U11009
Configuration: : EUT w/Headset/Charger
Mode of Operation:: Charging and TX in mid channel
S/N : FFE1000001274
Target : FCC Class B

VERTICAL DATA

Page: 1

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	30.970	37.81	22.03	0.62	28.41	32.05	40.00	-7.95	Peak
2	195.870	35.90	12.56	1.48	28.13	21.81	43.50	-21.69	Peak
3	912.700	33.80	22.86	3.44	27.32	32.78	46.00	-13.22	Peak

7.2. POWERLINE CONDUCTED EMISSIONS

LIMIT

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator 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.

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The resolution bandwidth is set to 9 kHz for both peak detection and quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

No non-compliance noted:

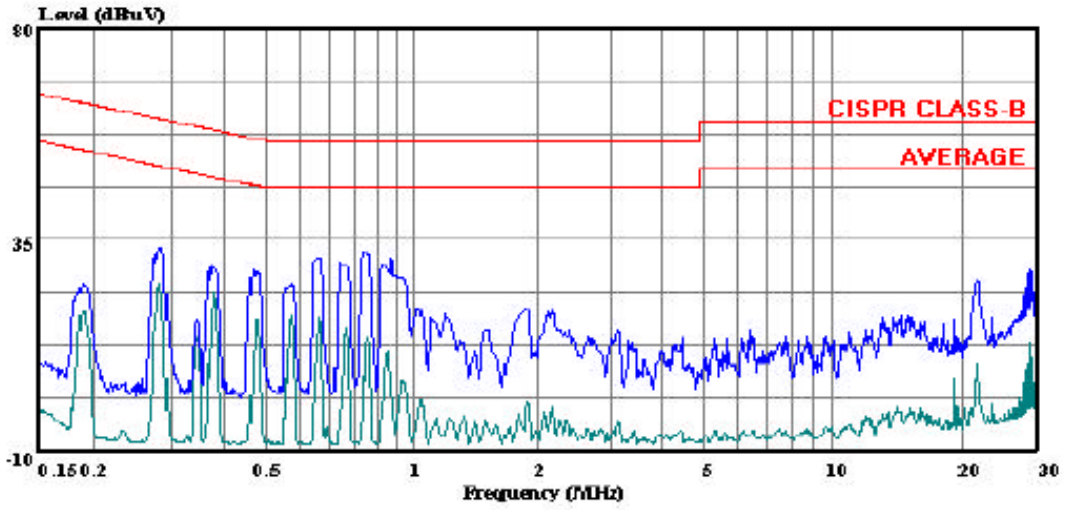
6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.29	33.09	--	25.42	0.00	60.58	50.58	-27.49	-25.16	L1
0.66	30.85	--	18.60	0.00	56.00	46.00	-25.15	-27.40	L1
0.84	32.44	--	14.11	0.00	56.00	46.00	-23.56	-31.89	L1
0.32	39.37	--	25.71	0.00	59.79	49.79	-20.42	-24.08	L2
0.86	36.24	--	18.27	0.00	56.00	46.00	-19.76	-27.73	L2
20.59	49.63	--	1.61	0.00	60.00	50.00	-10.37	-48.39	L2
6 Worst Data									

LINE 1 RESULTS

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 7 File#: LC 0504.EMI Date: 05-04-2007 Time: 18:20:35



Trace: 5 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: : Frank Ibrahim
Project #: : 07U11009
Company: : Kyocera Wireless
Configuration : EUT connected to charger and headphones
Mode of Operation:: Charging and TX in mid channel
S/N: : FFE10000001274
Power Source: : 115 VAC / 60 Hz
Target : FCC Class B
: L1: Peak (Blue), Avg (Green)

LINE 2 RESULTS