



**FCC CFR47 PART 24 SUBPART E
INDUSTRY CANADA RSS-133**

**CERTIFICATION TEST REPORT
FOR**

SINGLE BAND 1x RTT CDMA PHONE

MODEL NUMBER: K33BIC-01

FCC ID: OVF-K33BIC01

REPORT NUMBER: 08U12299-2

ISSUE DATE: DECEMBER 18, 2008

Prepared for

**KYOCERA WIRELESS CORP.
10300 CAMPUS POINT DRIVE
San Diego, CA 92121, U.S.A.**

Prepared by

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	12/18/08	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, USA

EUT DESCRIPTION: SINGLE BAND 1x RTT CDMA PHONE

MODEL: K33BIC-01

SERIAL NUMBER: FSS10000003010

DATE TESTED: DECEMBER 12 and 15, 2008

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 24 SUBPART E AND RSS-133 ISSUE 4	PASS (Radiated Only)

Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All expressions of Pass/Fail in this report are opinions expressed by CCS based on interpretations of the test results. 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 CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by CCS 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:

Tested By:



THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

CHIN PANG
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603C (2004), FCC CFR 47 Part 2, FCC CFR 47 Part 24E, and RSS-GEN, RSS133.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

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
Power Line Conducted Emission	+/- 2.3 dB
Radiated Emission	+/- 3.4 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Single Band 1x RTT CDMA Phone that manufactured by Kyocera Wireless Corporations

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

1850 to 1910 MHz Authorized Band

Frequency Range (MHz)	Modulation	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low CH - 1851.25	CDMA2000	23.30	213.8
Mid CH - 1880.00		22.90	195.0
High CH - 1908.75		23.00	199.5

5.3. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.4. WORST-CASE CONFIGURATION AND MODE

The worst-position was the EUT with highest emissions. To determine the worst-case, the EUT was investigated for X, Y, and Z-Positions, and the worst position among X, Y, and Z with AC/DC adapter, after the investigations, the worst-position to be a Y-position with AC/DC adapter.

PROCEDURE USED TO ESTABLISH TEST SIGNAL

3G-CDMA2000 1xRTT

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

<u>Application</u>	<u>Rev, License</u>
CDMA2000 Mobil Test	B.10.11, L

1xRTT

- Call Setup > Shift & Preset
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > RC3 (Fwd3, Rvs3)
- FCH Service Option (SO) Setup > 32 (+ F-SCH)
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps
> R-SCH Parameters > R-SCH Data Rate > 153.6 kbps
- Cell Info > Cell Parameters > System ID (SID) > 4145
> Network ID (NID) > 0

Once "Active Cell" show "Connected " then change "Rvs Power Ctrl" from "Active bits" to "**All Up bits**" to get the maximum power.

Worst-case Measurement Result @ Low, Middle and High Channel

Worst-case Measurement Result for Low, Middle and High Channel under Radio Configuration RC3 and Service Option 55.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
AC/DC Adapter	Kyocera	TXTVL10127	834S-002	DoC
Headset	N/A	N/A	N/A	N/A

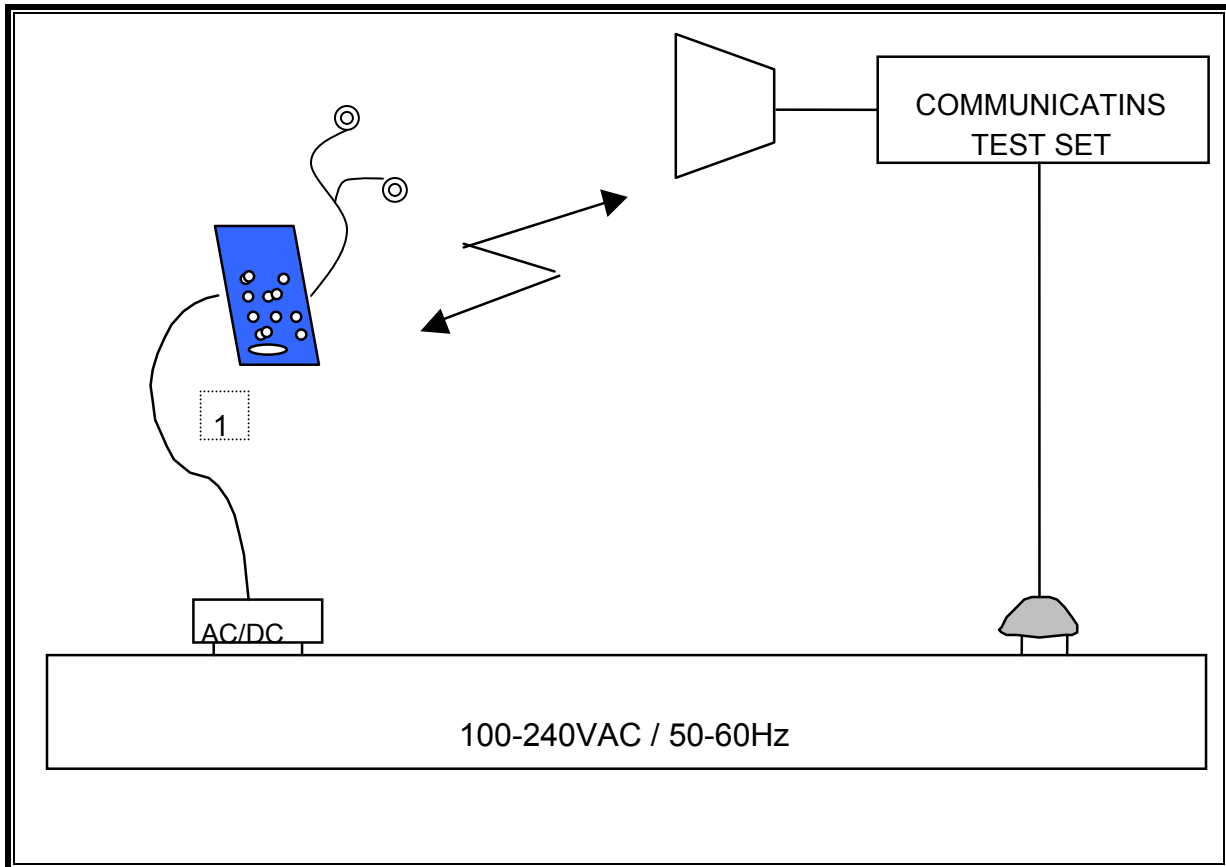
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	DC Input	1	Mini-USB	Un-Shielded	2.0 m	N/A
2	Jack	1	Audio	Un-Shielded	0.8 m	N/A

TEST SETUP

The EUT is a CDMA phone and-is tested as a standalone configuration. Communications Test Set is used to link the device under test.

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	Asset	Cal Due
Antenna, Horn, 18 GHz	EMCO	3115	C00945	04/22/09
EMI Receiver, 2.9 GHz	Agilent / HP	8542E	C00957	09/19/09
RF Filter Section, 2.9 GHz	Agilent / HP	85420E	C00958	09/19/09
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01012	03/03/09
Preamp, 1000MHz	Sonoma	310N	N02891	03/31/09
Antenna, Horn, 18 GHz	ETS	3117	C01006	04/22/09
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	09/27/09
EMI Receiver, 2.9 GHz	Agilent / HP	8542E	C00957	09/19/09
RF Filter Section, 2.9 GHz	Agilent / HP	85420E	C00958	09/19/09
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/06/09
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02868	CNR
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	10/25/09
Communications Test Set	Agilent / HP	E5515C	C01086	06/16/09
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	02/11/09

7. LIMITS AND RESULTS

7.1. RADIATED OUTPUT POWER

LIMITS

24.232(b) & RSS133 § 6.4 Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17, & RSS-133.

RESULTS

PCS OUTPUT POWER (X-position with AC/DC adapter at worst conditions, EIRP)

High Frequency Fundamental Measurement									
Compliance Certification Services, Fremont 5m Chamber Site									
Company: Kyocera									
Project #: 08U12299									
Date: 12/12/2008									
Test Engineer: Chin Pang , X									
Configuration: EUT/AC Adapter/Headset									
Mode: TX, PCS CDMA2000, 1xRTT									
Test Equipment:									
Receiving: Horn T73, and 20ft S/N: 228076 003									
Substitution: Horn T60 Substitution, 4ft SMA Cable Warehouse S/N: 187215 001									
f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch									
1851	90.9	V	15.6	0.6	8.3	23.3	33.0	-9.7	
1851	87.0	H	10.9	0.6	8.3	18.6	33.0	-14.4	
Mid Ch									
1880	90.7	V	15.2	0.6	8.3	22.9	33.0	-10.1	
1880	87.0	H	11.1	0.6	8.3	18.8	33.0	-14.2	
High Ch									
1909	90.5	V	15.4	0.7	8.4	23.0	33.0	-10.0	
1909	86.0	H	9.7	0.7	8.4	17.4	33.0	-15.6	
Rev. 1.24.7									

7.2. FIELD STRENGTH OF SPURIOUS RADIATION

LIMIT

§24.238 (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.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 24.238 (b), & RSS-133

RESULTS

PCS Spurious & Harmonic (X-position with AC/DC adapter at worst conditions, EIRP)

High Frequency Substitution Measurement
 Compliance Certification Services, Fremont 5m Chamber

Company: Kyocera
 Project #: 08U12299
 Date: 12/12/2008
 Test Engineer: Chin Pang
 Configuration: EUT/Headset
 Mode: TX, PCS CDMA2000, 1xRTT

Test Equipment:

EMCO Horn 1-18GHz

T73; S/N: 6717 @3m

Horn > 18GHz

Limit

FCC 24

High Pass Filter

Hi Frequency Cables

3' cable
22807700

12' cable
22807600

20' cable
22897500

Pre-amplifier 1-26GHz

T145 Agilent 3008A1

Pre-amplifier 26-40GHz

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch, 1851.25MHz										
3.703	60.6	H	-38.4	4.9	9.7	7.6	-33.6	-13.0	-20.6	
5.554	50.5	H	-43.2	6.3	11.3	9.1	-38.2	-13.0	-25.2	
9.256	48.0	H	-42.3	8.3	13.0	10.8	-37.6	-13.0	-24.6	
3.703	58.5	V	-40.6	4.9	9.7	7.6	-35.8	-13.0	-22.8	
5.554	48.0	V	-46.7	6.3	11.3	9.1	-41.7	-13.0	-28.7	
9.256	48.2	V	-42.0	8.3	13.0	10.8	-37.4	-13.0	-24.4	
Mid Ch, 1880MHz										
3.760	55.0	H	-43.7	5.0	9.7	7.6	-39.0	-13.0	-26.0	
5.640	46.7	H	-47.2	6.3	11.5	9.3	-42.1	-13.0	-29.1	
9.400	47.5	H	-42.7	8.4	13.0	10.9	-38.0	-13.0	-25.0	
3.760	53.3	V	-45.5	5.0	9.7	7.6	-40.8	-13.0	-27.8	
5.640	45.6	V	-49.3	6.3	11.5	9.3	-44.2	-13.0	-31.2	
9.400	47.5	V	-42.7	8.4	13.0	10.9	-38.0	-13.0	-25.0	
High Ch, 1908.75MHz										
3.818	51.6	H	-46.8	5.0	9.7	7.5	-42.1	-13.0	-29.1	
5.726	46.8	H	-47.3	6.4	11.6	9.5	-42.0	-13.0	-29.0	
3.818	50.5	V	-48.0	5.0	9.7	7.5	-43.3	-13.0	-30.3	
5.726	47.0	V	-48.1	6.4	11.6	9.5	-42.8	-13.0	-29.8	

Rev. 12.02.08
 Note: No other emissions were detected above the system noise floor.

7.3. RECEIVER SPURIOUS EMISSIONS

LIMIT

Spurious Emission Limits for Receivers:

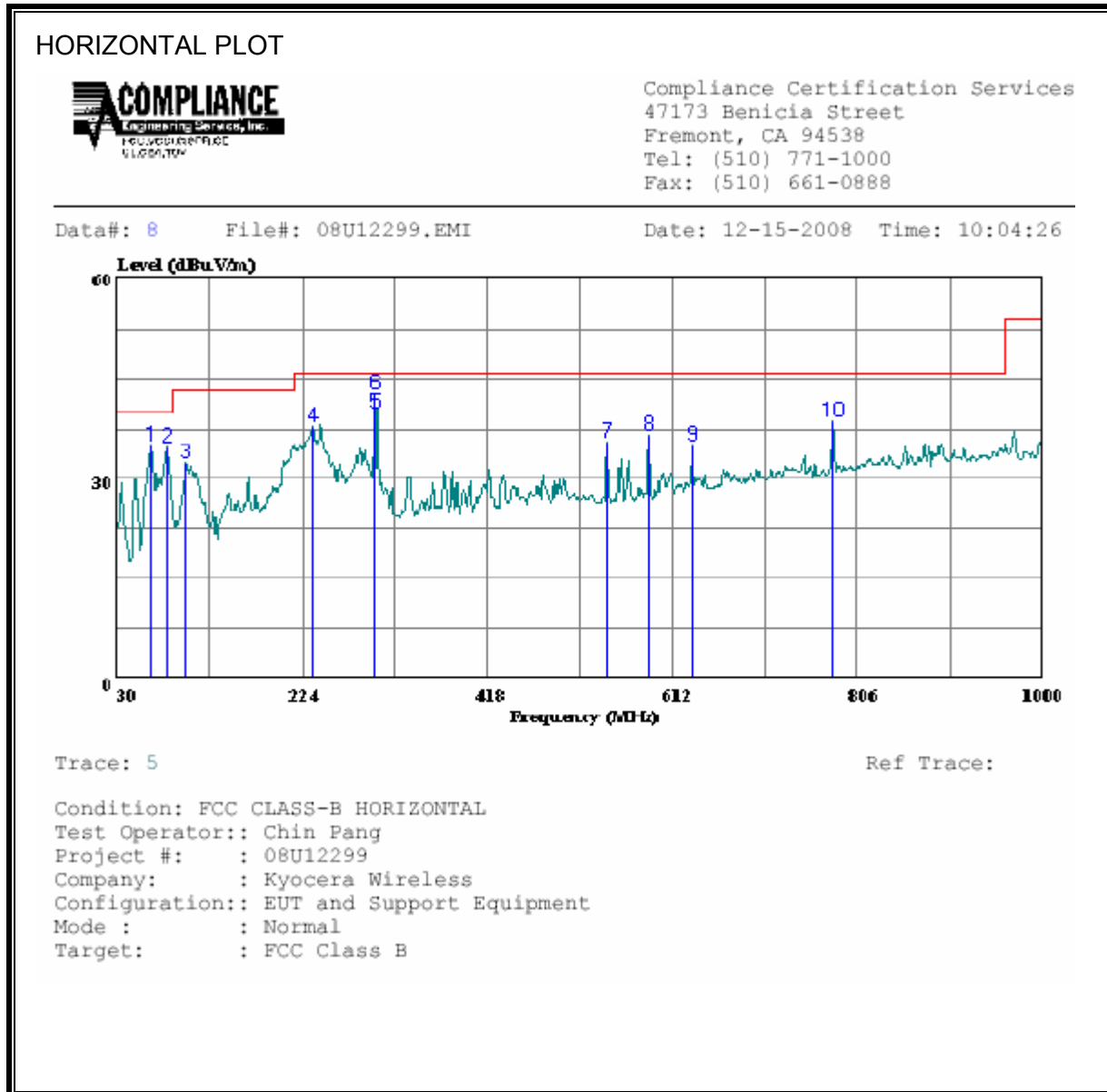
Spurious Frequency (MHz)	Field Strength (microvolts/m at 3 metres)
30-88	100
88-216	150
216-960	200
Above 960	500

TEST PROCEDURE

The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (local oscillator frequency, intermediate frequency or carrier frequency), or 30 MHz, whichever is the higher, to at least 3 times the highest tunable and local oscillator frequencies.

RESULTS

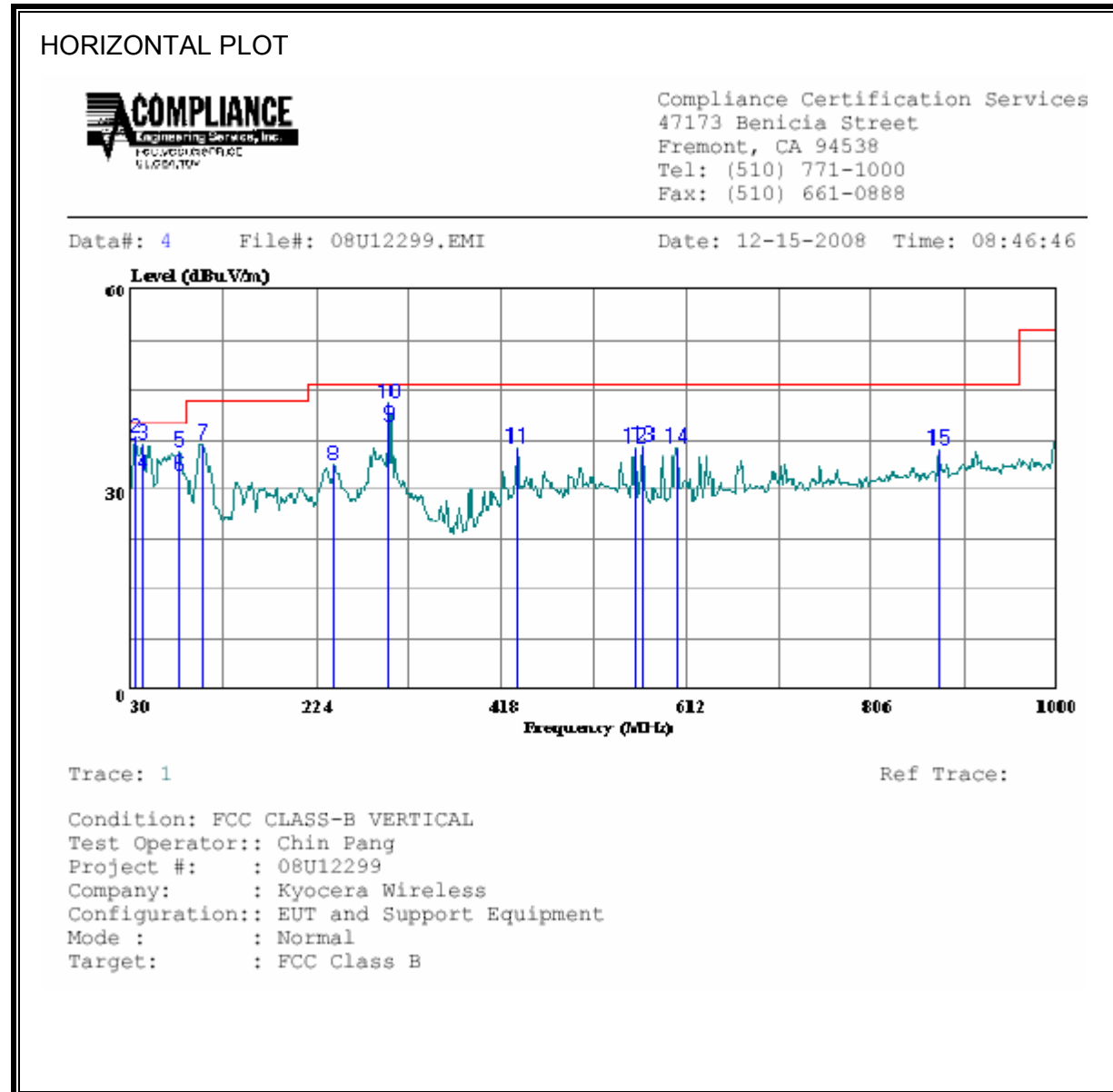
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)



HORIZONTAL DATA

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	65.890	54.33	-19.34	34.99	40.00	-5.01	Peak
2	82.380	54.05	-19.23	34.82	40.00	-5.18	Peak
3	101.780	48.93	-16.41	32.52	43.50	-10.98	Peak
4	235.640	51.01	-13.20	37.81	46.00	-8.19	Peak
5	300.630	50.95	-11.04	39.91	46.00	-6.09	QP
6	300.630	53.99	-11.01	42.98	46.00	-3.02	Peak
7	543.130	39.53	-3.89	35.64	46.00	-10.36	Peak
8	586.780	39.84	-3.10	36.74	46.00	-9.26	Peak
9	633.340	37.03	-2.07	34.96	46.00	-11.04	Peak
10	780.780	38.19	0.58	38.77	46.00	-7.23	Peak

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



VERTICAL DATA

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	33.880	44.52	-9.49	35.03	40.00	-4.97	QP
2	33.880	47.35	-9.49	37.86	40.00	-2.14	Peak
3	41.640	50.54	-13.72	36.83	40.00	-3.17	Peak
4	41.640	46.97	-14.60	32.37	40.00	-7.63	QP
5	80.440	55.25	-19.29	35.96	40.00	-4.04	Peak
6	80.440	51.53	-19.29	32.24	40.00	-7.76	QP
7	104.690	52.68	-15.81	36.87	43.50	-6.63	Peak
8	242.430	46.98	-13.23	33.75	46.00	-12.25	Peak
9	300.630	50.67	-11.04	39.63	46.00	-6.37	QP
10	300.630	54.06	-11.01	43.05	46.00	-2.95	Peak
11	434.490	43.35	-6.99	36.36	46.00	-9.64	Peak
12	557.680	40.12	-3.67	36.45	46.00	-9.55	Peak
13	565.440	40.01	-3.51	36.50	46.00	-9.50	Peak
14	601.330	39.16	-2.80	36.36	46.00	-9.64	Peak
15	875.840	33.64	2.35	35.99	46.00	-10.01	Peak

SPURIOUS EMISSIONS FOR ABOVE 1GHz

Note: No emissions were found within above 1GHz of 20dB below the system noise floor.

7.4. POWER LINE CONDUCTED EMISSION

LIMIT

RSS-Gen 7.2.2

Except when the requirements applicable to a given device state otherwise, for any licence-exempt radio communication device equipped to operate from the public utility AC power supply, either directly or indirectly, the radio frequency voltage that is conducted back onto the AC power lines in the frequency range of 0.15 MHz to 30 MHz shall not exceed the limits shown in Table 2. The tighter limit applies at the frequency range boundaries.

Table 2 – AC Power Lines Conducted Emission Limits

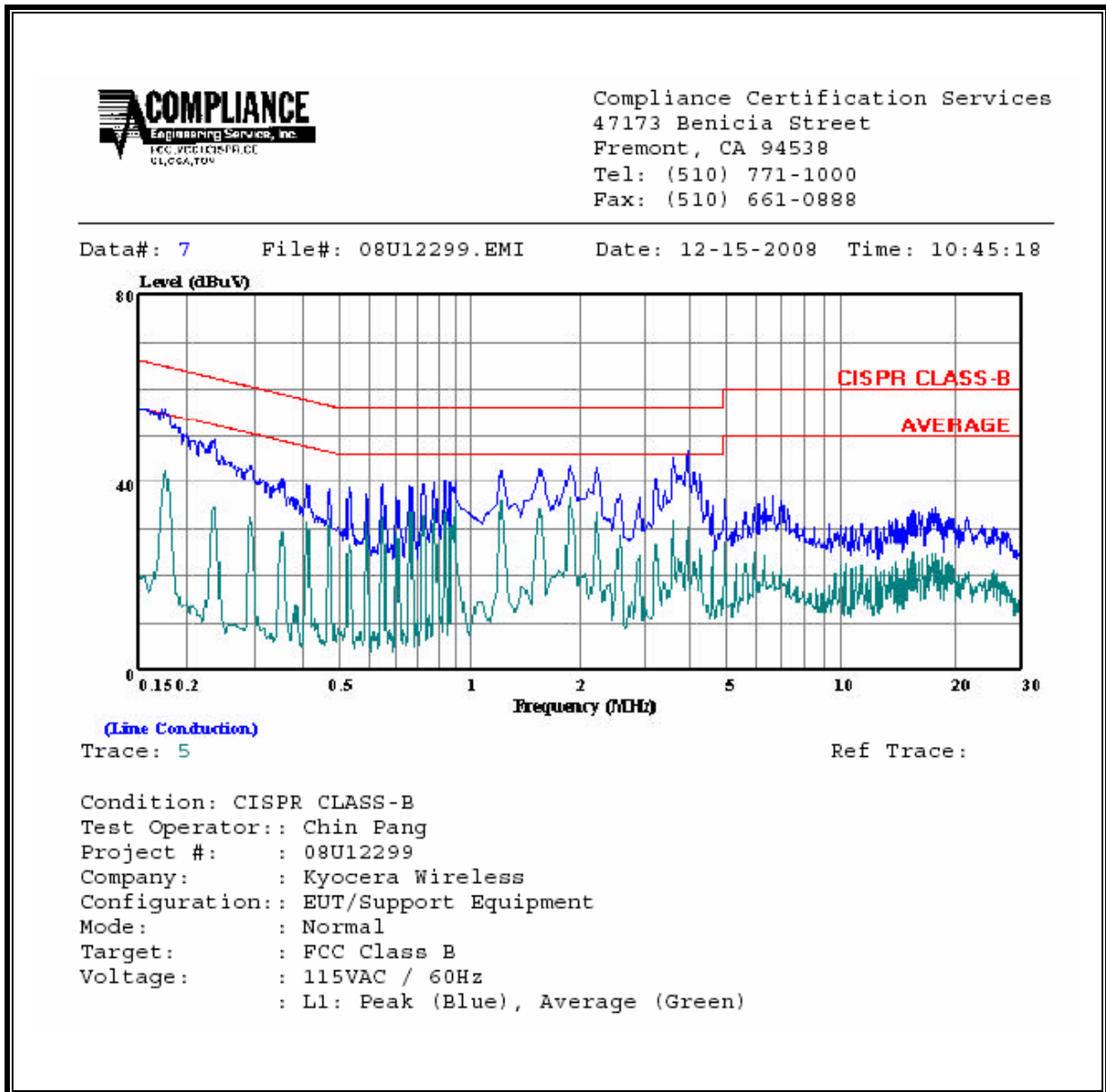
Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

RESULTS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)										
Freq. (MHz)	Reading			Class (dB)	Limit QP	EN B		Margin		Remark L1 / L2
	PK (dBuV)	QP (dBuV)	AV (dBuV)			AV	QP (dB)	AV (dB)		
0.18	55.70	--	42.45	0.00	64.67	54.67	-8.97	-12.22	L1	
1.32	42.50	--	35.94	0.00	56.00	46.00	-13.50	-10.06	L1	
4.03	46.84	--	30.55	0.00	56.00	46.00	-9.16	-15.45	L1	
0.16	55.87	--	40.54	0.00	65.73	55.73	-9.86	-15.19	L2	
1.66	42.57	--	37.09	0.00	56.00	46.00	-13.43	-8.91	L2	
4.09	47.36	--	32.27	0.00	56.00	46.00	-8.64	-13.73	L2	
6 Worst Data										

LINE 1 RESULTS

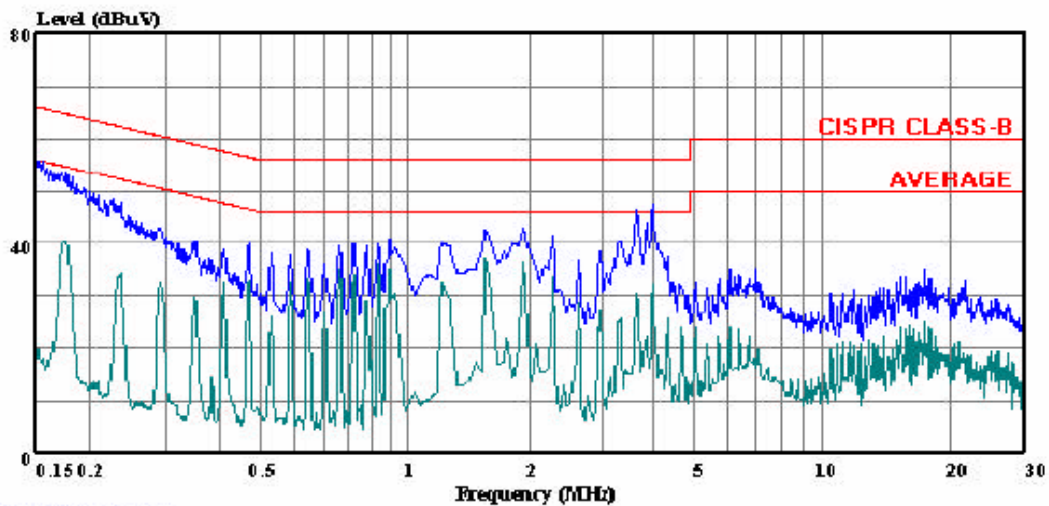


LINE 2 RESULTS



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

Data#: 14 File#: 08u12299.emi Date: 12-15-2008 Time: 10:53:49



(Line Conduction)
Trace: 12

Ref Trace:

Condition: CISPR CLASS-B
Test Operator:: Chin Pang
Project #: : 08U12299
Company: : Kyocera Wireless
Configuration: EUT/Support Equipment
Mode: : Normal
Target: : FCC Class B
Voltage: : 115VAC / 60Hz
: L2: Peak (Blue), Average (Green)