**FCC CFR47 PART 24 SUBPART E**

**INDUSTRY CANADA RSS-133**

# CERTIFICATION TEST REPORT

**FOR**

**SINGLE BAND 1x RTT CDMA PHONE**

**MODEL NUMBER: K48-01**

**FCC ID: OVF - K4801**

**REPORT NUMBER: 08U12290-3**

**ISSUE DATE: DECEMBER 17, 2008**

*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.**
**TEL: (510) 771-1000**
**FAX: (510) 661-0888**

NVLAP LAB CODE 200065-0

## Revision History

| Rev. | Issue Date | Revisions | Revised By |
|---|---|---|---|
| -- | 12/17/08 | Initial Issue | T. Chan |
| | | | |

# TABLE OF CONTENTS

# 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:** K48-01

**SERIAL NUMBER:** A0000004138198

**DATE TESTED:** DECEMBER 10, 2008

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

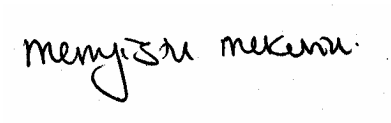
Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All expressions of Pass/Fail in this report are opinions expressed by CCS based on interpretations of the test results. The test results show that the equipment 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 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:



MENGISTU MEKURIA
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 |
|---|---|
| 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 Single Band 1x RTT CDMA Phone that manufactured by Kyocera Wireless Corporations

## 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum EIRP output powers 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 | 25.8 | 380.2 |
| Mid CH - 1880.00 | | 25.2 | 331.1 |
| High CH - 1908.75 | | 24.3 | 269.2 |

## 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 and slide out conditions, after the investigations, the worst-position to be an X-position with AC/DC adapter and slide in conditions.

## 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.

| Application | Rev, License |
|---|---|
| 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 > 55
- 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 |

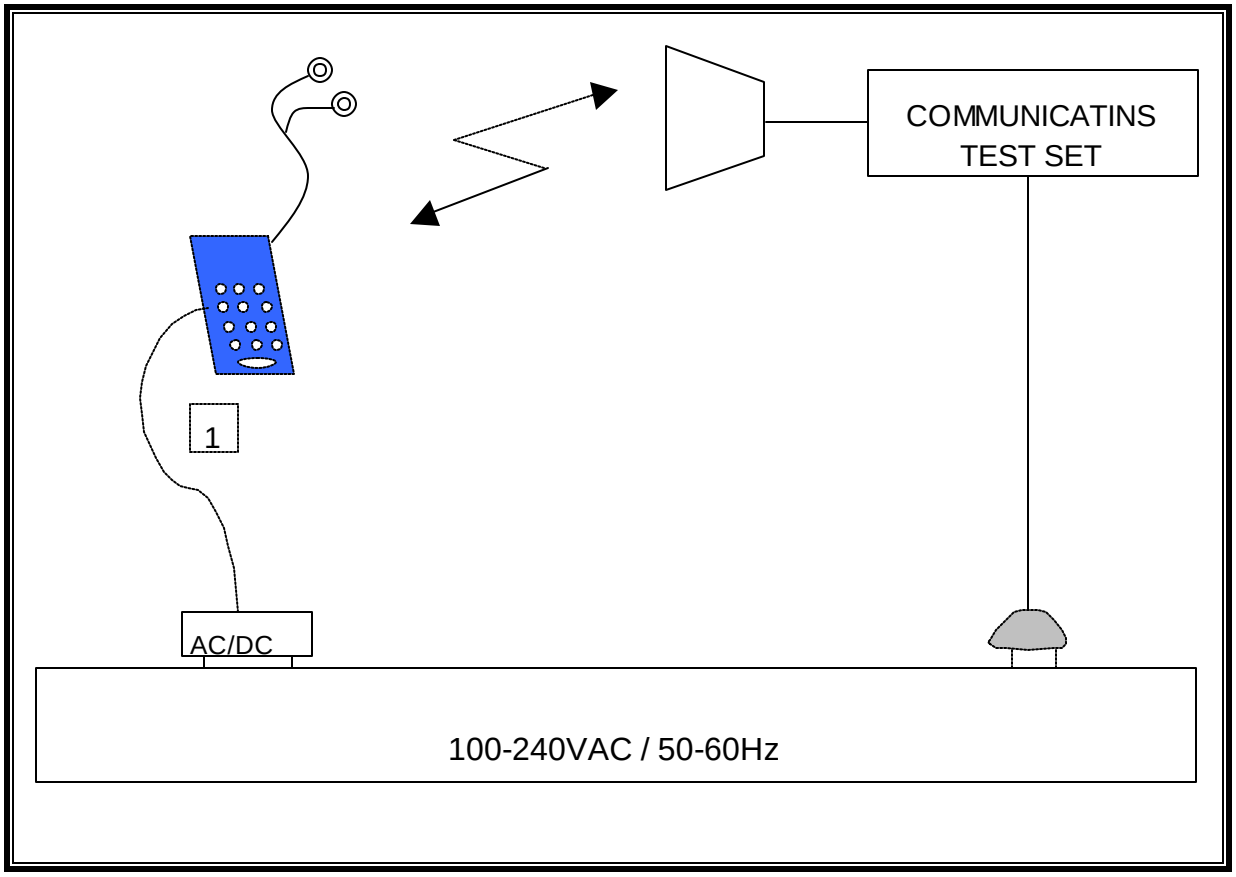
**I/O CABLES**

| 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** |
| Preamplifier, 26.5 GHz | Agilent / HP | 8449B | C01052 | 08/05/09 |
| Antenna, Horn, 18 GHz | EMCO | 3115 | C00945 | 04/22/09 |
| Antenna, Horn, 18 GHz | EMCO | 3115 | C00872 | 04/22/09 |
| Highpass Filter, 2.7 GHz | Micro-Tronics | HPM13194 | N02687 | CNR |
| Signal Generator | R & S | SMP04 | C00953 | 02/16/09 |
| Communications Test Set | Agilent / HP | E5515C | C01086 | 06/16/09 |
| Spectrum Analyzer, 26.5 GHz | Agilent / HP | E4440A | C01161 | 08/06/09 |
| Peak Power Meter | Agilent / HP | E4416A | C00963 | 12/04/09 |
| Peak / Average Power Sensor | Agilent / HP | E9327A | C00964 | 12/07/09 |

# 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 and slide in at worst conditions, EIRP)**

High Frequency Fundamental Measurement
Compliance Certification Services, Morgan Hill 5m Chamber Site

Company: KYOCERA WIRELESS
Project #: 08U12290
Date: 12/10/2008
Test Engineer: MENGISTU MEKURIA
Configuration: EUT AND HEADSET
Mode: TX PCS BAND

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 | | | | | | | | | |
| 1.851 | 89.1 | V | 13.8 | 0.6 | 8.3 | 21.5 | 33.0 | -11.5 | |
| 1.851 | 94.2 | H | 18.1 | 0.6 | 8.3 | 25.8 | 33.0 | -7.2 | |
| | | | | | | | | | |
| Mid Ch | | | | | | | | | |
| 1.880 | 88.0 | V | 12.5 | 0.6 | 8.3 | 20.2 | 33.0 | -12.8 | |
| 1.880 | 93.4 | H | 17.5 | 0.6 | 8.3 | 25.2 | 33.0 | -7.8 | |
| | | | | | | | | | |
| High Ch | | | | | | | | | |
| 1.909 | 87.3 | V | 12.2 | 0.7 | 8.4 | 19.8 | 33.0 | -13.2 | |
| 1.909 | 92.9 | H | 16.6 | 0.7 | 8.4 | 24.3 | 33.0 | -8.7 | |

Rev. 1.24.7

## 7.2. FIELD STRENGTH OF SPURIOUS RADIATION

**LIMIT**

§24.238 (a) , & RSS-133 § 6.5.1 (a) (i) & (b) 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-139

**RESULTS**

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

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

Company: KYOCERA WIRELESS
Project #: 08U12290
Date: 12/10/2008
Test Engineer: MENGISTU MEKURIA
Configuration: EUT AND HEADSET
Mode: TX PCS BAND

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Horn > 18GHz:
Limit: FCC 24
High Pass Filter
Hi Frequency Cables: (2 ft) (2 ~ 3 ft) (4 ~ 6 ft) (12 ft)
Pre-amplifer 1-26GHz: T144 Miteq 3008A0(
Pre-amplifer 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. (1851.25 MHz) | | | | | | | | | | |
| 3.703 | 54.5 | V | -44.5 | 5.9 | 9.7 | 7.6 | -40.7 | -13.0 | -27.7 | |
| 5.554 | 53.7 | V | -40.2 | 7.4 | 11.3 | 9.1 | -36.3 | -13.0 | -23.3 | |
| 7.405 | 43.7 | V | -48.2 | 8.3 | 12.6 | 10.4 | -43.9 | -13.0 | -30.9 | |
| 9.256 | 44.3 | V | -46.0 | 9.3 | 13.0 | 10.8 | -42.3 | -13.0 | -29.3 | |
| 11.108 | 41.5 | V | -43.9 | 11.2 | 13.8 | 11.7 | -41.3 | -13.0 | -28.3 | |
| 12.959 | 39.8 | V | -43.2 | 12.3 | 15.2 | 13.1 | -40.2 | -13.0 | -27.2 | |
| 3.703 | 58.0 | H | -41.0 | 5.9 | 9.7 | 7.6 | -37.2 | -13.0 | -24.2 | |
| 5.554 | 43.5 | H | -49.4 | 7.4 | 11.3 | 9.1 | -45.5 | -13.0 | -32.5 | |
| 7.405 | 40.0 | H | -51.1 | 8.3 | 12.6 | 10.4 | -46.8 | -13.0 | -33.8 | |
| 9.256 | 45.6 | H | -44.7 | 9.3 | 13.0 | 10.8 | -41.0 | -13.0 | -28.0 | |
| 11.108 | 38.1 | H | -46.6 | 11.2 | 13.8 | 11.7 | -44.0 | -13.0 | -31.0 | |
| 12.959 | 40.3 | H | -43.7 | 12.3 | 15.2 | 13.1 | -40.8 | -13.0 | -27.8 | |
| | | | | | | | | | | |
| Mid Ch. (1880.00 MHz) | | | | | | | | | | |
| 3.760 | 53.8 | V | -44.9 | 6.0 | 9.7 | 7.6 | -41.2 | -13.0 | -28.2 | |
| 5.640 | 51.7 | V | -42.3 | 7.4 | 11.5 | 9.3 | -38.3 | -13.0 | -25.3 | |
| 7.520 | 45.2 | V | -46.6 | 8.3 | 12.6 | 10.5 | -42.3 | -13.0 | -29.3 | |
| 9.400 | 45.2 | V | -44.8 | 9.4 | 13.0 | 10.9 | -41.2 | -13.0 | -28.2 | |
| 11.280 | 41.1 | V | -43.7 | 11.4 | 13.9 | 11.7 | -41.2 | -13.0 | -28.2 | |
| 13.160 | 39.2 | V | -43.5 | 12.3 | 15.3 | 13.1 | -40.5 | -13.0 | -27.5 | |
| 3.760 | 57.5 | H | -41.1 | 6.0 | 9.7 | 7.6 | -37.4 | -13.0 | -24.4 | |
| 5.640 | 45.2 | H | -47.9 | 7.4 | 11.5 | 9.3 | -43.8 | -13.0 | -30.8 | |
| 7.520 | 42.0 | H | -49.0 | 8.3 | 12.6 | 10.5 | -44.7 | -13.0 | -31.7 | |
| 9.400 | 45.7 | H | -44.4 | 9.4 | 13.0 | 10.9 | -40.8 | -13.0 | -27.8 | |
| 11.280 | 39.1 | H | -45.1 | 11.4 | 13.9 | 11.7 | -42.6 | -13.0 | -29.6 | |
| 13.160 | 39.5 | H | -42.5 | 12.3 | 15.3 | 13.1 | -39.5 | -13.0 | -26.5 | |
| | | | | | | | | | | |
| Hi Ch. (1908.75 MHz) | | | | | | | | | | |
| 3.818 | 52.6 | V | -45.8 | 6.0 | 9.7 | 7.5 | -42.2 | -13.0 | -29.2 | |
| 5.726 | 51.4 | V | -42.9 | 7.5 | 11.6 | 9.5 | -38.7 | -13.0 | -25.7 | |
| 7.635 | 46.3 | V | -45.4 | 8.4 | 12.7 | 10.5 | -41.1 | -13.0 | -28.1 | |
| 9.544 | 45.3 | V | -44.5 | 9.6 | 13.1 | 11.0 | -41.0 | -13.0 | -28.0 | |
| 11.453 | 45.5 | V | -38.7 | 11.6 | 13.9 | 11.8 | -36.4 | -13.0 | -23.4 | |
| 13.361 | 39.3 | V | -43.3 | 12.3 | 15.3 | 13.2 | -40.3 | -13.0 | -27.3 | |
| 3.818 | 57.3 | H | -41.0 | 6.0 | 9.7 | 7.5 | -37.3 | -13.0 | -24.3 | |
| 5.726 | 46.0 | H | -47.3 | 7.5 | 11.6 | 9.5 | -43.1 | -13.0 | -30.1 | |
| 7.635 | 44.5 | H | -46.3 | 8.4 | 12.7 | 10.5 | -42.0 | -13.0 | -29.0 | |
| 9.544 | 46.5 | H | -43.3 | 9.6 | 13.1 | 11.0 | -39.8 | -13.0 | -26.8 | |
| 11.453 | 42.6 | H | -41.1 | 11.6 | 13.9 | 11.8 | -38.7 | -13.0 | -25.7 | |
| 13.361 | 39.4 | H | -42.4 | 12.3 | 15.3 | 13.2 | -39.4 | -13.0 | -26.4 | |

Rev. 4.12.7

## 7.3. RECEIVER SPURIOUS EMISSIONS

**LIMIT**

RSS-Gen 7.2.2

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)**

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

Data#: 10 File#: 08u12290_RAD EMISSIONS.EMI
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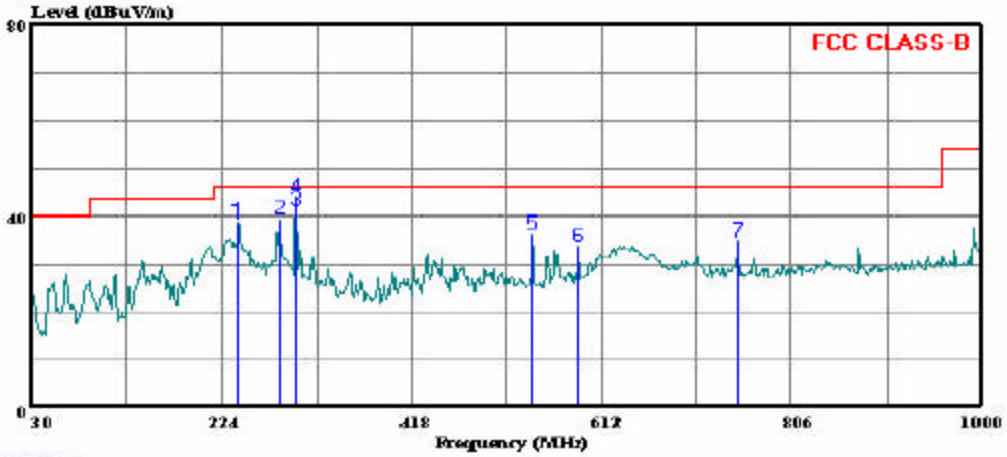


Trace: 7 Ref Trace:

Condition: FCC CLASS-B HORIZONTAL
Test Operator:: Tom Chen
Project #: : 08U12290
Company: : Kyocera
Configuration:: EUT with support equiptment
Mode : : Standby
Target: : FCC Class B

Page: 1

| | Freq | Read Level | Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | 239.520 | 56.50 | -17.70 | 38.80 | 46.00 | -7.20 | Peak |
| 2 | 283.170 | 55.67 | -16.31 | 39.36 | 46.00 | -6.64 | Peak |
| 3 | 299.660 | 56.60 | -15.55 | 41.05 | 46.00 | -4.95 | QP |
| 4 | 299.660 | 59.50 | -15.55 | 43.95 | 46.00 | -2.05 | Peak |
| 5 | 542.160 | 45.67 | -9.26 | 36.41 | 46.00 | -9.59 | Peak |
| 6 | 587.750 | 42.67 | -8.69 | 33.98 | 46.00 | -12.02 | Peak |
| 7 | 750.710 | 40.33 | -5.44 | 34.90 | 46.00 | -11.10 | Peak |

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

VERTICAL

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

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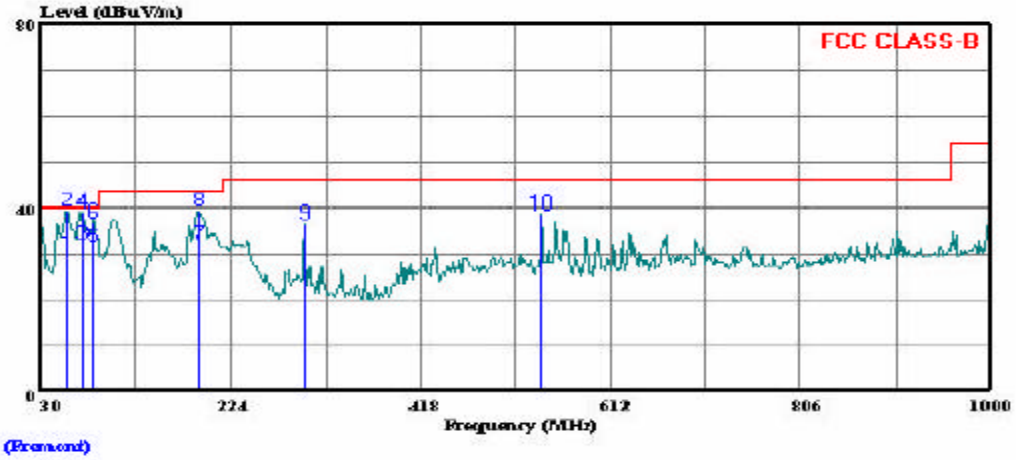



Trace: 11 Ref Trace:

Condition: FCC CLASS-B VERTICAL
Test Operator:: Tom Chen
Project #: : 08U12290
Company: : Kyocera
Configuration:: EUT with support equiptment
Mode : : Standby
Target: : FCC Class B

Page: 1

| | Freq | Read Level | Factor | Level | Limit Line | Over Limit | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | 57.160 | 54.64 | -24.03 | 30.61 | 40.00 | -9.39 | QP |
| 2 | 57.160 | 63.47 | -24.03 | 39.44 | 40.00 | -0.56 | Peak |
| 3 | 71.710 | 55.80 | -23.33 | 32.47 | 40.00 | -7.53 | QP |
| 4 | 71.710 | 62.33 | -23.33 | 39.00 | 40.00 | -1.00 | Peak |
| 5 | 82.380 | 55.20 | -23.26 | 31.94 | 40.00 | -8.06 | QP |
| 6 | 82.380 | 60.17 | -23.26 | 36.91 | 40.00 | -3.09 | Peak |
| 7 | 191.020 | 49.70 | -17.14 | 32.56 | 43.50 | -10.94 | QP |
| 8 | 191.020 | 56.67 | -17.14 | 39.53 | 43.50 | -3.97 | Peak |
| 9 | 299.660 | 52.17 | -15.55 | 36.62 | 46.00 | -9.38 | Peak |
| 10 | 542.160 | 48.17 | -9.26 | 38.91 | 46.00 | -7.09 | Peak |

## SPURIOUS EMISSIONS ABOVE 1000 MHz

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

**Company:** Kyocera Wireless
**Project #:** 08U12290
**Date:** 12/9/2008
**Test Engineer:** Tom Chen
**Configuration:** Miniumn configuration
**Mode:** standby

**Test Equipment:**

| Horn 1-18GHz | Pre-amplifer 1-26GHz | Pre-amplifer 26-40GHz | Horn > 18GHz | Limit |
|---|---|---|---|---|
| T73; S/N: 6717 @3m | T145 Agilent 3008A0056 | | | FCC 15.209 |

Hi Frequency Cables

| 3' cable 22807700 | 12' cable 22807600 | 20' cable 22807500 | HPF | Reject Filter |
|---|---|---|---|---|
| 3' cable 22807700 | 12' cable 22807600 | 20' cable 22807500 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.000 | 3.0 | 50.1 | 36.5 | 25.7 | 2.4 | -36.2 | 0.0 | 0.0 | 42.0 | 28.4 | 74 | 54 | -32.0 | -25.6 | V |
| 1.333 | 3.0 | 50.6 | 37.0 | 26.6 | 2.8 | -35.9 | 0.0 | 0.0 | 44.1 | 30.5 | 74 | 54 | -29.9 | -23.5 | V |
| 1.822 | 3.0 | 48.8 | 35.2 | 27.9 | 3.3 | -35.5 | 0.0 | 0.0 | 44.5 | 30.9 | 74 | 54 | -29.5 | -23.1 | V |
| 2.430 | 3.0 | 48.9 | 35.3 | 29.4 | 3.9 | -35.1 | 0.0 | 0.0 | 47.0 | 33.4 | 74 | 54 | -27.0 | -20.6 | V |
| 3.957 | 3.0 | 47.2 | 33.6 | 32.7 | 5.1 | -34.8 | 0.0 | 0.0 | 50.3 | 36.7 | 74 | 54 | -23.7 | -17.3 | V |
| 1.000 | 3.0 | 50.0 | 35.3 | 25.7 | 2.4 | -36.2 | 0.0 | 0.0 | 41.9 | 27.2 | 74 | 54 | -32.1 | -26.8 | H |
| 1.215 | 3.0 | 47.0 | 32.3 | 26.3 | 2.6 | -36.0 | 0.0 | 0.0 | 39.9 | 25.2 | 74 | 54 | -34.1 | -28.8 | H |
| 1.822 | 3.0 | 49.0 | 34.3 | 27.9 | 3.3 | -35.5 | 0.0 | 0.0 | 44.7 | 30.0 | 74 | 54 | -29.3 | -24.0 | H |
| 2.449 | 3.0 | 49.1 | 34.4 | 29.4 | 3.9 | -35.1 | 0.0 | 0.0 | 47.3 | 32.6 | 74 | 54 | -26.7 | -21.4 | H |
| 3.879 | 3.0 | 45.3 | 30.6 | 32.6 | 5.1 | -34.8 | 0.0 | 0.0 | 48.1 | 33.4 | 74 | 54 | -25.9 | -20.6 | H |
| | | | | | | | | | | | | | | | H |

Rev. 10.15.08

| | | | | | |
|---|---|---|---|---|---|
| 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 | | |

## 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**

**6 WORST EMISSIONS -**

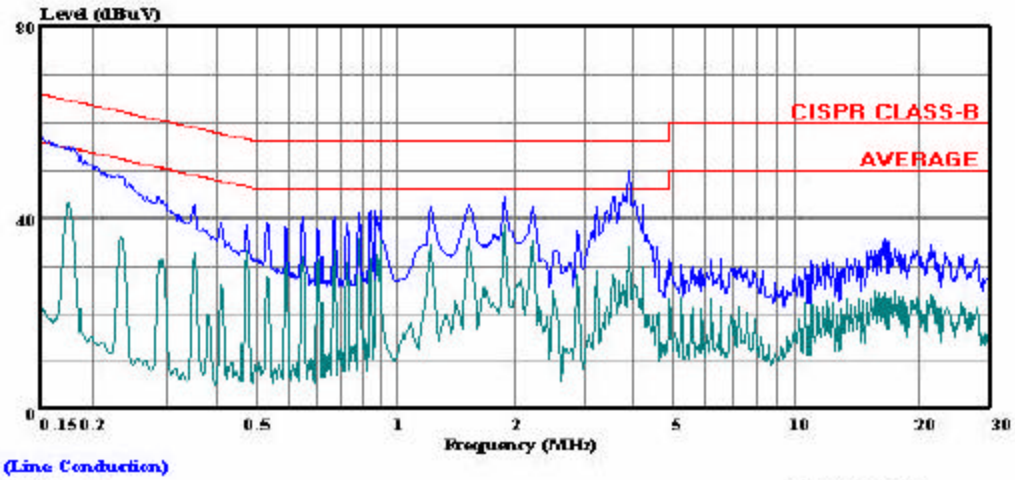
CONDUCTED EMISSIONS DATA (115VAC 60Hz)

| Freq. | Reading | | | Closs | Limit | EN_B | Margin | | Remark |
|---|---|---|---|---|---|---|---|---|---|
| (MHz) | PK (dBuV) | QP (dBuV) | AV (dBuV) | (dB) | QP | AV | QP (dB) | AV (dB) | L1 / L2 |
| 0.18 | 54.78 | -- | 39.77 | 0.00 | 64.49 | 54.49 | -9.71 | -14.72 | L1 |
| 1.99 | 44.39 | -- | 38.77 | 0.00 | 56.00 | 46.00 | -11.61 | -7.23 | L1 |
| 4.01 | 49.83 | -- | 34.31 | 0.00 | 56.00 | 46.00 | -6.17 | -11.69 | L1 |
| 0.17 | 56.13 | -- | 41.51 | 0.00 | 64.77 | 54.77 | -8.64 | -13.26 | L2 |
| 3.78 | 47.49 | -- | 29.03 | 0.00 | 56.00 | 46.00 | -8.51 | -16.97 | L2 |
| 4.14 | 46.58 | -- | 28.71 | 0.00 | 56.00 | 46.00 | -9.42 | -17.29 | 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#: 21 File#: 08u12290_Line Conduction.EMI
Date: 12-09-2008 Time: 17:09:53




(Line Conduction)
Trace: 19 Ref Trace:

Condition: CISPR CLASS-B
Test Operator:: Tom Chen
Project #: : 08U12290
Company: : Kyocera
Configuration:: EUT with peripheral
Mode: : EUT standby
Target: : FCC Class B
Voltage: : 115VAC / 60Hz
: L1: Peak (Blue), Average (Green)

**LINE 2 RESULTS**