



**RADIATED SPURIOUS EMISSIONS PORTIONS OF  
FCC CFR47 PART 22H, 24E AND 27L  
CERTIFICATION TEST REPORT  
FOR  
TRI BAND CDMA MOBILE PHONE WITH BLUETOOTH + WiFi  
FCC MODEL NUMBER: C5171  
FCC ID: V65C5171  
REPORT NUMBER: 12U14556-1  
ISSUE DATE: AUGUST 20, 2012**

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NVLAP LAB CODE 200065-0

Revision History

| <u>Rev.</u> | <u>Issue<br/>Date</u> | <u>Revisions</u> | <u>Revised By</u> |
|-------------|-----------------------|------------------|-------------------|
| ---         | 08/20/12              | Initial Issue    | T. Chan           |

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** KYOCERA COMMUNICATIONS, INC  
8611 BALBOA AVENUE  
SAN DIEGO, CA 92123, U.S.A

**EUT DESCRIPTION:** TRI BAND CDMA MOBILE PHONE WITH BLUETOOTH + WiFi

**MODEL:** C5171

**SERIAL NUMBER:** 268435457816727686

**DATE TESTED:** AUGUST 18, 2011

| APPLICABLE STANDARDS       |                         |
|----------------------------|-------------------------|
| STANDARD                   | TEST RESULTS            |
| FCC PART 22H, 24E, AND 27L | PASS (Radiated Portion) |

Compliance Certification Services, Inc. (UL CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

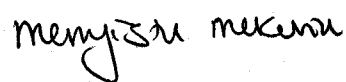
**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

Tested By:



THU CHAN  
ENGINEERING MANAGER  
UL CCS



MENGISTU MEKURIA  
EMC TECHNICIAN  
UL CCS

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA-603-C, FCC CFR 47 Part 2, FCC CFR 47 Part 22, FCC CFR Part 24, and FCC Part 27.

## 3. FACILITIES AND ACCREDITATION

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

UL 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. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\text{Field Strength (dBuV/m)} = \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Preamp Gain (dB)}$$

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

### 4.3. MEASUREMENT UNCERTAINTY

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

| PARAMETER                             | UNCERTAINTY |
|---------------------------------------|-------------|
| Conducted Disturbance, 0.15 to 30 MHz | 3.52 dB     |
| Radiated Disturbance, 30 to 1000 MHz  | 4.94 dB     |

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

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is Bluetooth featured Tri Band CDMA Phone that is manufactured by Kyocera Communications, Inc.

### 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak ERP & EIRP output powers as follows:

| Part 22 Cellular Band |                |                  |       |       |       |
|-----------------------|----------------|------------------|-------|-------|-------|
| Frequency range (MHz) | Modulation     | Channe Frequency |       | ERP   |       |
|                       |                |                  |       | dBm   | mW    |
| 824.70 – 848.31       | CDMA2000 1xRTT | 1013             | 824.7 | 26.12 | 409.3 |
|                       |                | 384              | 836.5 | 25.76 | 376.7 |
|                       |                | 777              | 848.3 | 27.65 | 582.1 |

| Part 24 PCS Band      |                |                  |        |       |       |
|-----------------------|----------------|------------------|--------|-------|-------|
| Frequency range (MHz) | Modulation     | Channe Frequency |        | EIRP  |       |
|                       |                |                  |        | dBm   | mW    |
| 1851.25 – 1908.75     | CDMA2000 1xRTT | 25               | 1851.3 | 25.44 | 349.9 |
|                       |                | 600              | 1880.0 | 26.94 | 494.3 |
|                       |                | 1175             | 1908.8 | 25.60 | 363.1 |

| Part 27 PCS Band      |                |                  |        |       |       |
|-----------------------|----------------|------------------|--------|-------|-------|
| Frequency range (MHz) | Modulation     | Channe Frequency |        | EIRP  |       |
|                       |                |                  |        | dBm   | mW    |
| 1711.25 – 1753.75     | CDMA2000 1xRTT | 25               | 1711.3 | 26.31 | 427.6 |
|                       |                | 460              | 1330.0 | 25.48 | 353.2 |
|                       |                | 875              | 1753.8 | 26.36 | 432.5 |

### **5.3. SOFTWARE AND FIRMWARE**

The EUT is linked with Agilent Communication Test Set.

### **5.4. WORST-CASE CONFIGURATION AND MODE**

The worst-position is 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, or Z with AC/DC adapter and headset, after the investigations, the worst-position was turned out to be Z-Position without AC Adapter and headset for cell band and X-Position without AC Adapter and headset for PCS and AWS bands respectively..

## PROCEDURE USED TO ESTABLISH TEST SIGNAL

### **3G-CDMA2000 1xRTT**

This procedure assumes the Agilent E5515C 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 > 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) > 2  
> Network ID (NID) > 0  
> Initial Registration Channel > 25 (PCS)

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

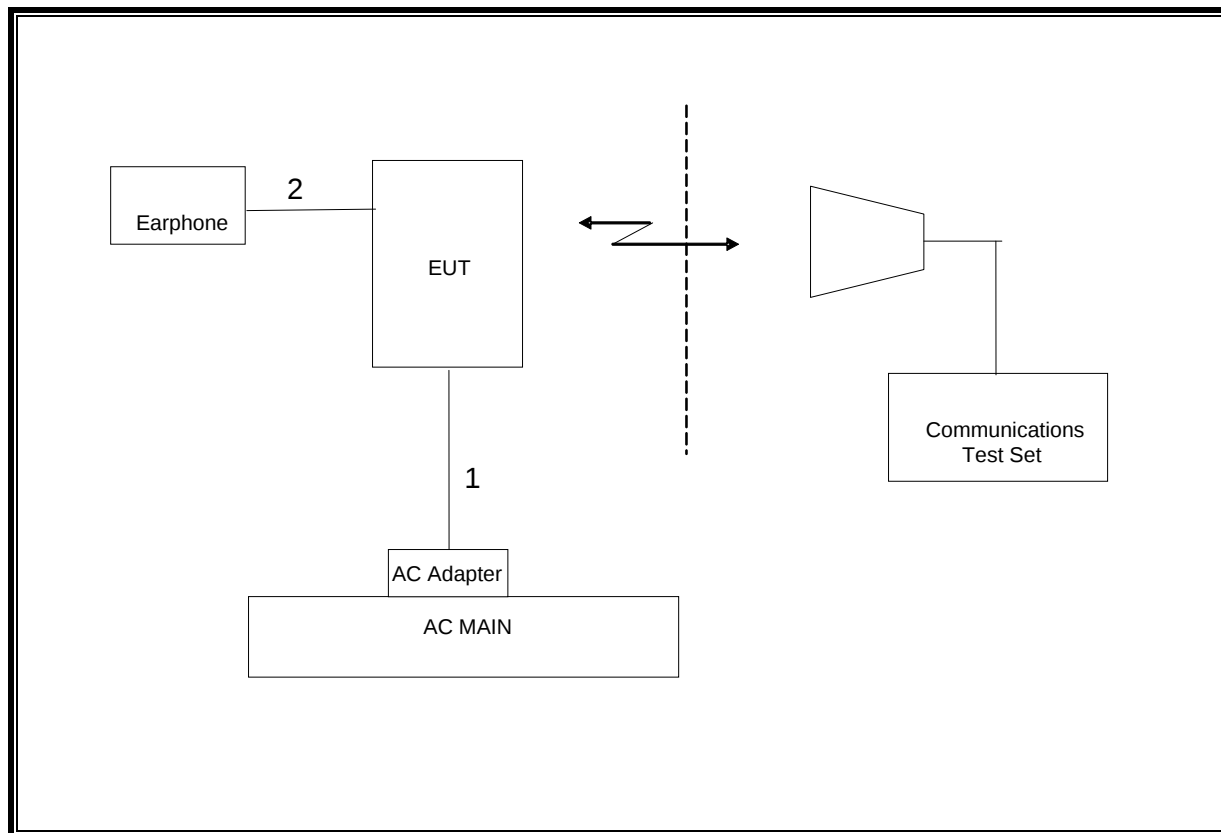
| TEST EQUIPMENT LIST             |                 |           |                |          |
|---------------------------------|-----------------|-----------|----------------|----------|
| Description                     | Manufacturer    | Model     | Asset          | Cal Due  |
| Spectrum Analyzer, 26.5 GHz     | Agilent / HP    | E4440A    | C01161         | 12/16/12 |
| Communications Test Set         | Agilent / HP    | E5515C    | 1000732        | 09/27/12 |
| Vector signal generator, 20 GHz | Agilent / HP    | E8267C    | C01066         | 11/17/12 |
| Antenna, Horn, 18 GHz           | EMCO            | 3115      | C00943         | CNR      |
| Antenna, Horn, 18 GHz           | EMCO            | 3115      | C00783         | 41200    |
| Antenna, Horn, 18 GHz           | EMCO            | 3115      | C01218/1000614 | 09/01/12 |
| Antenna, Bilog, 30MHz-1 GHz     | Suncoi Sciences | JB1       | C01011         | 03/23/13 |
| Preamplifier, 26.5 GHz          | Agilent / HP    | 8449B     | C01063         | 11/07/12 |
| Tuned Dipole 400-1000 MHz       | ETS             | 3121C DB4 | C00994         | 09/16/12 |
| Highpass Filter, 1.5 GHz        | Micro-Tronics   | HPM13193  | N02689         | CNR      |
| Highpass Filter, 2.7 GHz        | Micro-Tronics   | HPM13194  | N02687         | CNR      |

### I/O CABLES

| I/O CABLE LIST |      |                      |                |             |              |         |
|----------------|------|----------------------|----------------|-------------|--------------|---------|
| Cable No.      | Port | # of Identical Ports | Connector Type | Cable Type  | Cable Length | Remarks |
| 2              | DC   | 1                    | USB            | Un-shielded | 1.0m         | N/A     |
| 3              | Mic  | 1                    | Earphone       | Un-shielded | 1.5m         | 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  |
| Spectrum Analyzer, 26.5 GHz     | Agilent / HP   | E4440A    | C01161         | 12/16/12 |
| Communications Test Set         | Agilent / HP   | E5515C    | 1000732        | 09/27/12 |
| Vector signal generator, 20 GHz | Agilent / HP   | E8267C    | C01066         | 11/17/12 |
| Antenna, Horn, 18 GHz           | EMCO           | 3115      | C00943         | CNR      |
| Antenna, Horn, 18 GHz           | EMCO           | 3115      | C00783         | 41200    |
| Antenna, Horn, 18 GHz           | EMCO           | 3115      | C01218/1000614 | 09/01/12 |
| Antenna, Bilog, 30MHz-1 GHz     | Sunol Sciences | JB1       | C01011         | 03/23/13 |
| Preamplifier, 26.5 GHz          | Agilent / HP   | 8449B     | C01063         | 11/07/12 |
| Tuned Dipole 400~1000 MHz       | ETS            | 3121C DB4 | C00994         | 09/16/12 |
| Highpass Filter, 1.5 GHz        | Micro-Tronics  | HPM13193  | N02689         | CNR      |
| Highpass Filter, 2.7 GHz        | Micro-Tronics  | HPM13194  | N02687         | CNR      |

## **7. LIMITS AND RESULTS**

### **7.1. RADIATED OUTPUT POWER**

#### **LIMITS**

22.913(a) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(b) 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.

27.50 (d) (2) 6.4 Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band are limited to a peak EIRP of 1 watt.

RSS-132 § 4.4 The maximum ERP shall be 6.3 Watts for mobile stations.

#### **TEST PROCEDURE**

ANSI / TIA / EIA 603 Clause 2.2.17.

#### **RESULTS**

**CELL OUTPUT POWER (ERP)****High Frequency Substitution Measurement  
Compliance Certification Services Chamber B**

**Company:** KYOCERA WIRELESS  
**Project #:** 12U14556  
**Date:** 08/18/12  
**Test Engineer:** MENGISTU MEKURIA  
**Configuration:** EUT ALONE  
**Mode:** TX, CELL BAND, CDMA 1XRTT MODE

**Test Equipment:**

Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT)  
 Substitution: Dipole S/N: 1629, 4ft SMA Cable (245182002) Warehouse.

| f<br>MHz | SG reading<br>(dBm) | Ant. Pol.<br>(H/V) | Cable Loss<br>(dB) | Antenna Gain<br>(dBd) | ERP<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Notes |
|----------|---------------------|--------------------|--------------------|-----------------------|--------------|----------------|----------------|-------|
| 824.70   | 26.62               | V                  | 0.5                | 0.0                   | 26.12        | 38.5           | -12.3          |       |
| 824.70   | 11.66               | H                  | 0.5                | 0.0                   | 11.16        | 38.5           | -27.3          |       |
| 836.52   | 26.26               | V                  | 0.5                | 0.0                   | 25.76        | 38.5           | -12.7          |       |
| 836.52   | 11.41               | H                  | 0.5                | 0.0                   | 10.91        | 38.5           | -27.5          |       |
| 848.31   | 28.15               | V                  | 0.5                | 0.0                   | 27.65        | 38.5           | -10.8          |       |
| 848.31   | 11.50               | H                  | 0.5                | 0.0                   | 11.00        | 38.5           | -27.4          |       |

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**PCS OUTPUT POWER (EIRP)****High Frequency Fundamental Measurement  
Compliance Certification Services Chamber B**

**Company:** KYOCERA WIRELESS  
**Project #:** 12U14556  
**Date:** 08/18/12  
**Test Engineer:** MENGISTU MEKURIA  
**Configuration:** EUT ALONE  
**Mode:** TX, PCS BAND, CDMA 1XRTT MODE

**Test Equipment:**

Receiving: Horn T59, and Camber B SMA Cables

Substitution: Horn T217 Substitution, 4ft SMA Cable (245182002) Warehouse

| f<br>GHz | SG reading<br>(dBm) | Ant. Pol.<br>(H/V) | Cable Loss<br>(dB) | Antenna Gain<br>(dBi) | EIRP<br>(dBm) | Limit<br>(dBm) | Delta<br>(dB) | Notes |
|----------|---------------------|--------------------|--------------------|-----------------------|---------------|----------------|---------------|-------|
| 1.851    | 10.3                | V                  | 0.85               | 8.62                  | 18.02         | 33.0           | -15.0         |       |
| 1.851    | 17.8                | H                  | 0.85               | 8.47                  | 25.44         | 33.0           | -7.6          |       |
| 1.880    | 10.7                | V                  | 0.85               | 8.46                  | 18.29         | 33.0           | -14.7         |       |
| 1.880    | 19.4                | H                  | 0.85               | 8.36                  | 26.94         | 33.0           | -6.1          |       |
| 1.909    | 8.9                 | V                  | 0.85               | 8.30                  | 16.31         | 33.0           | -16.7         |       |
| 1.909    | 18.2                | H                  | 0.85               | 8.25                  | 25.60         | 33.0           | -7.4          |       |

Rev. 3.17.11

**AWS OUTPUT POWER (EIRP)**

| High Frequency Fundamental Measurement<br>Compliance Certification Services Chamber B |                     |                               |                    |                       |               |                |               |       |
|---------------------------------------------------------------------------------------|---------------------|-------------------------------|--------------------|-----------------------|---------------|----------------|---------------|-------|
| <b>Company:</b>                                                                       |                     | KYOCERA WIRELESS              |                    |                       |               |                |               |       |
| <b>Project #:</b>                                                                     |                     | 12U14556                      |                    |                       |               |                |               |       |
| <b>Date:</b>                                                                          |                     | 08/18/12                      |                    |                       |               |                |               |       |
| <b>Test Engineer:</b>                                                                 |                     | MENGISTU MEKURIA              |                    |                       |               |                |               |       |
| <b>Configuration:</b>                                                                 |                     | EUT ALONE                     |                    |                       |               |                |               |       |
| <b>Mode:</b>                                                                          |                     | TX, AWS BAND, CDMA 1XRTT MODE |                    |                       |               |                |               |       |
| <b>Test Equipment:</b>                                                                |                     |                               |                    |                       |               |                |               |       |
| Receiving: Horn T59, and Camber B SMA Cables                                          |                     |                               |                    |                       |               |                |               |       |
| Substitution: Horn T217 Substitution, 4ft SMA Cable (245182002) Warehouse             |                     |                               |                    |                       |               |                |               |       |
| f<br>GHz                                                                              | SG reading<br>(dBm) | Ant. Pol.<br>(H/V)            | Cable Loss<br>(dB) | Antenna Gain<br>(dBi) | EIRP<br>(dBm) | Limit<br>(dBm) | Delta<br>(dB) | Notes |
| 1.711                                                                                 | 10.8                | V                             | 0.85               | 8.62                  | 18.57         | 30.0           | -11.4         |       |
| 1.711                                                                                 | 18.7                | H                             | 0.85               | 8.47                  | 26.31         | 30.0           | -3.7          |       |
| 1.732                                                                                 | 10.3                | V                             | 0.85               | 8.46                  | 17.94         | 30.0           | -12.1         |       |
| 1.732                                                                                 | 18.0                | H                             | 0.85               | 8.36                  | 25.48         | 30.0           | -4.5          |       |
| 1.754                                                                                 | 11.3                | V                             | 0.85               | 8.30                  | 18.70         | 30.0           | -11.3         |       |
| 1.754                                                                                 | 19.0                | H                             | 0.85               | 8.25                  | 26.36         | 30.0           | -3.6          |       |
| Rev. 3.17.11                                                                          |                     |                               |                    |                       |               |                |               |       |

## **7.2. FIELD STRENGTH OF SPURIOUS RADIATION**

### **LIMIT**

§22.917 (e) and §24.238 (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.

§27.53 (g) 6.5 For operations in the 1710–1755MHz and 2110–2155 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10} (P)$  dB.

### **TEST PROCEDURE**

ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 22.917 (b), FCC 24.238 (b), & FCC 27.53 (g)(1)(2)(3).

### **RESULTS**

**CELL SPURIOUS & HARMONIC (ERP)**

| Compliance Certification Services<br>Above 1GHz High Frequency Substitution Measurement |                     |                                |                 |                |                |               |                |               |       |
|-----------------------------------------------------------------------------------------|---------------------|--------------------------------|-----------------|----------------|----------------|---------------|----------------|---------------|-------|
| <b>Company:</b>                                                                         |                     | KYOCERA WIRELESS               |                 |                |                |               |                |               |       |
| <b>Project #:</b>                                                                       |                     | 12U14556                       |                 |                |                |               |                |               |       |
| <b>Date:</b>                                                                            |                     | 08/18/12                       |                 |                |                |               |                |               |       |
| <b>Test Engineer:</b>                                                                   |                     | MENGISTU MEKURIA               |                 |                |                |               |                |               |       |
| <b>Configuration:</b>                                                                   |                     | EUT ALONE                      |                 |                |                |               |                |               |       |
| <b>Mode:</b>                                                                            |                     | TX, CELL BAND, CDMA 1XRTT MODE |                 |                |                |               |                |               |       |
| <b>Chamber</b>                                                                          |                     | <b>Pre-amplifier</b>           |                 | <b>Filter</b>  |                | <b>Limit</b>  |                |               |       |
| 5m Chamber B                                                                            |                     | T145 8449B                     |                 | Filter 1       |                | Part 22       |                |               |       |
| f<br>GHz                                                                                | SG reading<br>(dBm) | Ant. Pol.<br>(H/V)             | Distance<br>(m) | Preamp<br>(dB) | Filter<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Delta<br>(dB) | Notes |
| <b>Low Ch, 824.70MHz</b>                                                                |                     |                                |                 |                |                |               |                |               |       |
| 1.649                                                                                   | -8.2                | V                              | 3.0             | 35.5           | 1.0            | -42.7         | -13.0          | -29.7         |       |
| 2.474                                                                                   | -21.4               | V                              | 3.0             | 35.4           | 1.0            | -55.8         | -13.0          | -42.8         |       |
| 1.649                                                                                   | -9.2                | H                              | 3.0             | 35.5           | 1.0            | -43.8         | -13.0          | -30.8         |       |
| 2.474                                                                                   | -23.1               | H                              | 3.0             | 35.4           | 1.0            | -57.5         | -13.0          | -44.5         |       |
| <b>Mid Ch, 836.52MHz</b>                                                                |                     |                                |                 |                |                |               |                |               |       |
| 1.673                                                                                   | -6.5                | V                              | 3.0             | 35.5           | 1.0            | -41.0         | -13.0          | -28.0         |       |
| 2.510                                                                                   | -19.5               | V                              | 3.0             | 35.4           | 1.0            | -54.0         | -13.0          | -41.0         |       |
| 1.673                                                                                   | -8.2                | H                              | 3.0             | 35.5           | 1.0            | -42.7         | -13.0          | -29.7         |       |
| 2.510                                                                                   | -21.6               | H                              | 3.0             | 35.4           | 1.0            | -56.0         | -13.0          | -43.0         |       |
| <b>High Ch, 848.31MHz</b>                                                               |                     |                                |                 |                |                |               |                |               |       |
| 1.697                                                                                   | -1.8                | V                              | 3.0             | 35.5           | 1.0            | -36.3         | -13.0          | -23.3         |       |
| 2.545                                                                                   | -12.3               | V                              | 3.0             | 35.4           | 1.0            | -46.7         | -13.0          | -33.7         |       |
| 1.697                                                                                   | -3.9                | H                              | 3.0             | 35.5           | 1.0            | -38.5         | -13.0          | -25.5         |       |
| 2.545                                                                                   | -18.8               | H                              | 3.0             | 35.4           | 1.0            | -53.2         | -13.0          | -40.2         |       |
| Rev. 03.03.09                                                                           |                     |                                |                 |                |                |               |                |               |       |
| Note: No other emissions were detected above the system noise floor.                    |                     |                                |                 |                |                |               |                |               |       |

**PCS Spurious & Harmonic (EIRP)**

| Compliance Certification Services<br>Above 1GHz High Frequency Substitution Measurement |                     |                               |                 |                |                |               |                |               |       |
|-----------------------------------------------------------------------------------------|---------------------|-------------------------------|-----------------|----------------|----------------|---------------|----------------|---------------|-------|
| <b>Company:</b>                                                                         |                     | KYOCERA WIRELESS              |                 |                |                |               |                |               |       |
| <b>Project #:</b>                                                                       |                     | 12U14556                      |                 |                |                |               |                |               |       |
| <b>Date:</b>                                                                            |                     | 08/18/12                      |                 |                |                |               |                |               |       |
| <b>Test Engineer:</b>                                                                   |                     | MENGISTU MEKURIA              |                 |                |                |               |                |               |       |
| <b>Configuration:</b>                                                                   |                     | EUT ALONE                     |                 |                |                |               |                |               |       |
| <b>Mode:</b>                                                                            |                     | TX, PCS BAND, CDMA 1XRTT MODE |                 |                |                |               |                |               |       |
| <b>Chamber</b>                                                                          |                     | <b>Pre-amplifier</b>          |                 | <b>Filter</b>  |                | <b>Limit</b>  |                |               |       |
| 5m Chamber B                                                                            |                     | T145 8449B                    |                 | Filter 1       |                | Part 24       |                |               |       |
| f<br>GHz                                                                                | SG reading<br>(dBm) | Ant. Pol.<br>(H/V)            | Distance<br>(m) | Preamp<br>(dB) | Filter<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Delta<br>(dB) | Notes |
| <b>Low Ch, 1851.25MHz</b>                                                               |                     |                               |                 |                |                |               |                |               |       |
| 3.703                                                                                   | -14.9               | V                             | 3.0             | 35.4           | 1.0            | -49.2         | -13.0          | -36.2         |       |
| 5.554                                                                                   | -18.6               | V                             | 3.0             | 35.4           | 1.0            | -53.0         | -13.0          | -40.0         |       |
| 3.703                                                                                   | -15.2               | H                             | 3.0             | 35.4           | 1.0            | -49.5         | -13.0          | -36.5         |       |
| 5.554                                                                                   | -17.3               | H                             | 3.0             | 35.4           | 1.0            | -51.7         | -13.0          | -38.7         |       |
| <b>Mid Ch, 1880.00MHz</b>                                                               |                     |                               |                 |                |                |               |                |               |       |
| 3.760                                                                                   | -15.9               | V                             | 3.0             | 35.3           | 1.0            | -50.2         | -13.0          | -37.2         |       |
| 5.640                                                                                   | -17.3               | V                             | 3.0             | 35.4           | 1.0            | -51.8         | -13.0          | -38.8         |       |
| 3.760                                                                                   | -14.3               | H                             | 3.0             | 35.3           | 1.0            | -48.6         | -13.0          | -35.6         |       |
| 5.640                                                                                   | -17.3               | H                             | 3.0             | 35.4           | 1.0            | -51.7         | -13.0          | -38.7         |       |
| <b>High Ch, 1908.75MHz</b>                                                              |                     |                               |                 |                |                |               |                |               |       |
| 3.818                                                                                   | -14.6               | V                             | 3.0             | 35.3           | 1.0            | -48.9         | -13.0          | -35.9         |       |
| 5.726                                                                                   | -12.8               | V                             | 3.0             | 35.4           | 1.0            | -47.3         | -13.0          | -34.3         |       |
| 3.818                                                                                   | -14.2               | H                             | 3.0             | 35.3           | 1.0            | -48.6         | -13.0          | -35.6         |       |
| 5.726                                                                                   | -10.9               | H                             | 3.0             | 35.4           | 1.0            | -45.4         | -13.0          | -32.4         |       |
| Rev. 03.03.09                                                                           |                     |                               |                 |                |                |               |                |               |       |
| Note: No other emissions were detected above the system noise floor.                    |                     |                               |                 |                |                |               |                |               |       |

**AWS Spurious & Harmonic (EIRP)**

| Compliance Certification Services<br>Above 1GHz High Frequency Substitution Measurement |                     |                               |                 |                |                |               |                |               |       |
|-----------------------------------------------------------------------------------------|---------------------|-------------------------------|-----------------|----------------|----------------|---------------|----------------|---------------|-------|
| <b>Company:</b>                                                                         |                     | KYOCERA WIRELESS              |                 |                |                |               |                |               |       |
| <b>Project #:</b>                                                                       |                     | 12U14556                      |                 |                |                |               |                |               |       |
| <b>Date:</b>                                                                            |                     | 08/18/12                      |                 |                |                |               |                |               |       |
| <b>Test Engineer:</b>                                                                   |                     | MENGISTU MEKURIA              |                 |                |                |               |                |               |       |
| <b>Configuration:</b>                                                                   |                     | EUT ALONE                     |                 |                |                |               |                |               |       |
| <b>Mode:</b>                                                                            |                     | TX, AWS BAND, CDMA 1XRTT MODE |                 |                |                |               |                |               |       |
| <b>Chamber</b>                                                                          |                     | <b>Pre-amplifier</b>          |                 | <b>Filter</b>  |                | <b>Limit</b>  |                |               |       |
| 5m Chamber B                                                                            |                     | T145 8449B                    |                 | Filter 1       |                | Part 27       |                |               |       |
| f<br>GHz                                                                                | SG reading<br>(dBm) | Ant. Pol.<br>(H/V)            | Distance<br>(m) | Preamp<br>(dB) | Filter<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Delta<br>(dB) | Notes |
| <b>Low Ch, 1711.25MHz</b>                                                               |                     |                               |                 |                |                |               |                |               |       |
| 3.423                                                                                   | -17.2               | V                             | 3.0             | 35.5           | 1.0            | -51.7         | -13.0          | -38.7         |       |
| 5.134                                                                                   | -13.0               | V                             | 3.0             | 35.3           | 1.0            | -47.3         | -13.0          | -34.3         |       |
| 6.845                                                                                   | -16.6               | V                             | 3.0             | 35.7           | 1.0            | -51.3         | -13.0          | -38.3         |       |
| 3.423                                                                                   | -19.7               | H                             | 3.0             | 35.5           | 1.0            | -54.2         | -13.0          | -41.2         |       |
| 5.134                                                                                   | -15.5               | H                             | 3.0             | 35.3           | 1.0            | -49.8         | -13.0          | -36.8         |       |
| 6.845                                                                                   | -14.1               | H                             | 3.0             | 35.7           | 1.0            | -48.8         | -13.0          | -35.8         |       |
| <b>Mid Ch, 1733.00MHz</b>                                                               |                     |                               |                 |                |                |               |                |               |       |
| 3.466                                                                                   | -13.2               | V                             | 3.0             | 35.5           | 1.0            | -47.7         | -13.0          | -34.7         |       |
| 5.199                                                                                   | -17.2               | V                             | 3.0             | 35.3           | 1.0            | -51.6         | -13.0          | -38.6         |       |
| 6.932                                                                                   | -15.5               | V                             | 3.0             | 35.7           | 1.0            | -50.3         | -13.0          | -37.3         |       |
| 3.466                                                                                   | -14.9               | H                             | 3.0             | 35.5           | 1.0            | -49.3         | -13.0          | -36.3         |       |
| 5.199                                                                                   | -17.3               | H                             | 3.0             | 35.3           | 1.0            | -51.6         | -13.0          | -38.6         |       |
| 6.932                                                                                   | -14.2               | H                             | 3.0             | 35.7           | 1.0            | -48.9         | -13.0          | -35.9         |       |
| <b>High Ch, 1753.75MHz</b>                                                              |                     |                               |                 |                |                |               |                |               |       |
| 3.508                                                                                   | -14.9               | V                             | 3.0             | 35.4           | 1.0            | -49.3         | -13.0          | -36.3         |       |
| 5.261                                                                                   | -14.3               | V                             | 3.0             | 35.3           | 1.0            | -48.6         | -13.0          | -35.6         |       |
| 7.015                                                                                   | -16.7               | V                             | 3.0             | 35.7           | 1.0            | -51.5         | -13.0          | -38.5         |       |
| 3.508                                                                                   | -18.3               | H                             | 3.0             | 35.4           | 1.0            | -52.8         | -13.0          | -39.8         |       |
| 5.261                                                                                   | -16.1               | H                             | 3.0             | 35.3           | 1.0            | -50.5         | -13.0          | -37.5         |       |
| 7.015                                                                                   | -15.3               | H                             | 3.0             | 35.7           | 1.0            | -50.1         | -13.0          | -37.1         |       |
| Rev. 03.03.09                                                                           |                     |                               |                 |                |                |               |                |               |       |
| Note: No other emissions were detected above the system noise floor.                    |                     |                               |                 |                |                |               |                |               |       |