



**FCC CFR47 PART 24 E
CERTIFICATION TEST REPORT
FOR
SINGLE BAND 1xRTTCDMA PHONE**

MODEL NUMBER: K33BI-01

FCC ID: OVF-K33BI01

REPORT NUMBER: 08U11721-1B

ISSUE DATE: APRIL 17, 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

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
--	04/09/08	Initial Issue	T. Chan
B	04/18/08	Changed model number from KK33Bi-01 to K33BI-01	A. Zaffar

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: KYOCERA WIRELESS
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121, USA

EUT DESCRIPTION: SINGLE BAND 1XR TT CDMA PHONE

MODEL: K33BI-01

SERIAL NUMBER: 02131

DATE TESTED: APRIL 8, 2008

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 24 SUBPART E	Pass
IC RSS-133 ISSUE 3	Pass
IC RSS-GEN ISSUE 2	Pass

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

TOM CHEN
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603C (2004), ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15 and FCC CFR 47 Part 24E.

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
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 1xRTT CDMA Phone.

The radio module is manufactured by Kyocera.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak 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	29.3	851.14
Mid CH - 1880		30.2	1047.13
High CH - 1908.75		30.6	1148.15

5.3. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.4. WORST-CASE CONFIGURATION AND MODE

The worst-case position for the EUT was investigated by examining the X, Y, and Z-Positions. As a result X-Position for PCS band was considered as the worst-case positions.

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 > 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) > 6503
> 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
Communications Test Set	Agilent/HP	E5515C	GB4616022	NA
Travel Charger	Kyocera	TXTVL10128	CE90R209302	NA
Era phone	NA	NA	NA	NA

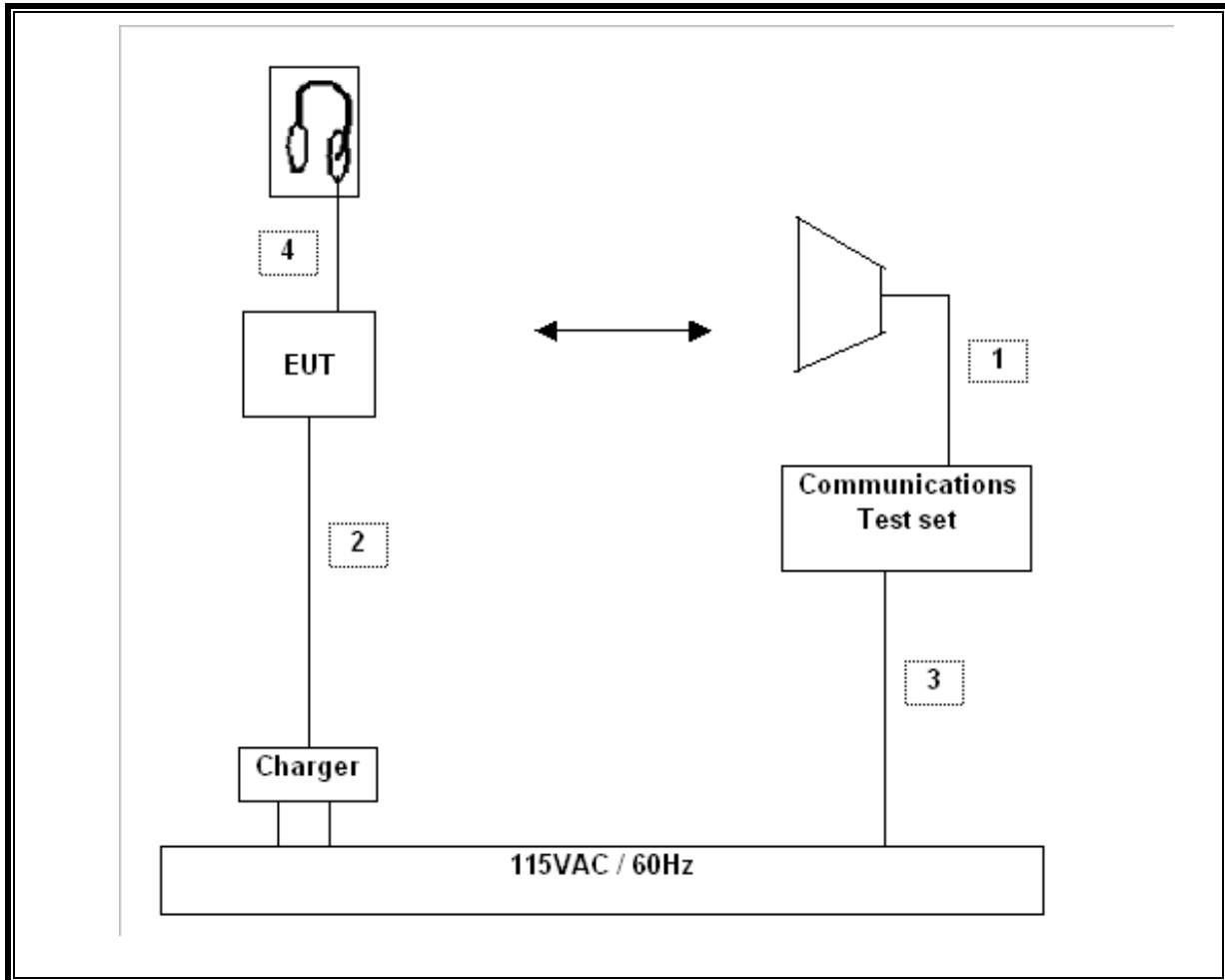
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	RF IN/OUT	1	SMA	Un-shielded	1m	Antenna Cable
2	DC	1	USB	Un-shielded	1.5m	NA
3	AC	1	US115	Un-shielded	2m	NA
4	Jack	1	Era Phone	Un-shielded	1m	NA

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 Date	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/14/07	08/07/08
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/03/07	09/27/08
Horn	EMCO	3115	C00945	05/15/07	05/15/08
Horn	EMCO	3115	C00872	05/15/07	05/15/08
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	09/15/07	09/30/08
Communications Test Set	Agilent / HP	E5515C	C01086	06/29/07	06/29/08
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR	CNR
Dipole	Speag	D900V2	NA	11/16/07	11/16/08
Signal Generator	R & S	SMP04	C00953	11/16/07	02/16/09
Signal Generator	R & S	SMY01	C00979	11/28/07	05/28/09

7. LIMITS AND RESULTS

7.1. RF POWER OUTPUT

LIMIT

24.232(b) 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

RESULTS

No non-compliance noted.

PCS Output Power (EIRP)

High Frequency Fundamental Measurement									
Compliance Certification Services, Fremont 5m Chamber Site									
Company:		Kyocera							
Project #:		08U11721							
Date:		4/3/2008							
Test Engineer:		Tom Chen							
Configuration:		EUT ALONE							
Mode:		Tx, CDMA2000, PCS, X Position (Worst Case)							
Test Equipment:									
Receiving: Horn T73, and 12ft S/N: 197209005 (Setup this one for testing EUT)									
Substitution: Horn T60 Substitution, 4ft SMA Cable Warehouse S/N: 177081002									
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									
X Position (Worst Case)									
1.851	92.7	V	20.5	0.9	8.3	27.9	33.0	-5.1	X Position
1.851	95.2	H	21.9	0.9	8.3	29.3	33.0	-3.7	
Mid Ch									
1.880	92.7	V	20.5	0.9	8.3	28.0	33.0	-5.0	
1.880	95.3	H	22.7	0.9	8.3	30.2	33.0	-2.8	
High Ch									
1.909	91.3	V	19.0	0.9	8.4	26.5	33.0	-6.5	
1.909	95.3	H	23.1	0.9	8.4	30.6	33.0	-2.4	

7.1. 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)

RESULTS

No non-compliance noted.

PCS Spurious & Harmonic (EIRP):

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

Company: Kyocera Wireless Corporation
Project #: 08U11721
Date: 4/8/2008
Test Engineer: Tom Chen
Configuration: EUT ALONE
Mode: Tx, CDMA2000, PCS, X Position (Worst Case)

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-amplifier 1-26GHz
T34 HP 8449B

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										
3.702	40.0	V	-57.4	5.9	9.7	7.6	-53.6	-13.0	-40.6	
5.554	38.9	V	-53.5	7.4	11.3	9.1	-49.6	-13.0	-36.6	
3.702	40.1	H	-57.2	5.9	9.7	7.6	-53.4	-13.0	-40.4	
5.554	37.9	H	-53.4	7.4	11.3	9.1	-49.5	-13.0	-36.5	
Mid Ch										
3.760	39.7	V	-57.4	6.0	9.7	7.6	-53.7	-13.0	-40.7	
5.640	37.4	V	-55.1	7.4	11.5	9.3	-51.1	-13.0	-38.1	
3.760	40.2	H	-56.8	6.0	9.7	7.6	-53.1	-13.0	-40.1	
5.640	38.5	H	-53.0	7.4	11.5	9.3	-49.0	-13.0	-36.0	
High Ch										
3.818	39.9	V	-56.9	6.0	9.7	7.5	-53.2	-13.0	-40.2	
5.726	38.1	V	-54.7	7.5	11.6	9.5	-50.5	-13.0	-37.5	
3.818	39.6	H	-57.1	6.0	9.7	7.5	-53.4	-13.0	-40.4	
5.726	38.3	H	-53.5	7.5	11.6	9.5	-49.3	-13.0	-36.3	

Rev. 4.12.7
Note: No other emissions were detected above the system noise floor.