RADIATED SPURIOUS EMISSIONS PORTIONS OF

FCC CFR47 PART 22 SUBPART H
FCC CFR47 PART 24 SUBPART E

CERTIFICATION TEST REPORT
FOR

DUAL-BAND 1xRTT CDMA PHONE WITH BLUETOOTH

MODEL NUMBER: SCP- 3820

FCC ID: V65SCP- 3820

REPORT NUMBER: 10U13253-1

ISSUE DATE: JUNE 18, 2010

Prepared for

KYOCERA COMMUNICATIONS, INC.
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
---	06/18/10	Initial Issue	T. Chan

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: KYOCERA COMMUNICATIONS, INC.
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA. 92121

EUT DESCRIPTION: DUAL 1XRTT CDMA PHONE WITH BLUETOOTH.

MODEL NUMBER: SCP-3820

SERIAL NUMBER: 268435457816708535

DATE TESTED: JUNE 13 AND 14, 2009

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 22H AND 24E	PASS (Radiated Portion)

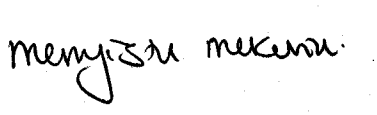
Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by CCS based on interpretations and/or observations of test results. Measurement Uncertainties 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 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 MANAGER
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-603-C, FCC CFR 47 Part 2, FCC CFR 47 Part 22, and FCC CFR Part 24.

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. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 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 a Bluetooth featured Dual-band CDMA Phone that manufactured by Kyocera Communications, Inc.

5.2. MAXIMUM OUTPUT POWER

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

824 to 849 MHz Authorized Band

Frequency Range (MHz)	Modulation	ERP Peak Power (dBm)	ERP Peak Power (mW)
Low CH - 824.70	CDMA2000	28.2	660.7
Mid CH - 836.52		29.3	851.1
High CH - 848.31		29.1	812.8

1850 to 1910 MHz Authorized Band

Frequency Range (MHz)	Modulation	EIRP Average Power (dBm)	EIRP Average Power (mW)
Low CH - 1851.25	CDMA2000	29.3	851.1
Mid CH - 1880.00		28.6	724.4
High CH - 1908.75		28.4	691.8

5.3. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.4. WORST-CASE CONFIGURATION AND MODE

The worst-case is, EUT with highest emissions. To determine the worst-case, the EUT was investigated for X, Y, Z, mobile positions, and the worst case among the above positions with AC/DC adapter and headset. After the investigations, the worst-position was turned out to be a mobile-position with headset only and Y-position with headset only for Cell, and PCS bands respectively.

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) > 0
  > 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	Sanyo	SCP-26ADT	310	DoC
HEADSET	Kyocera	N/A	N/A	N/A

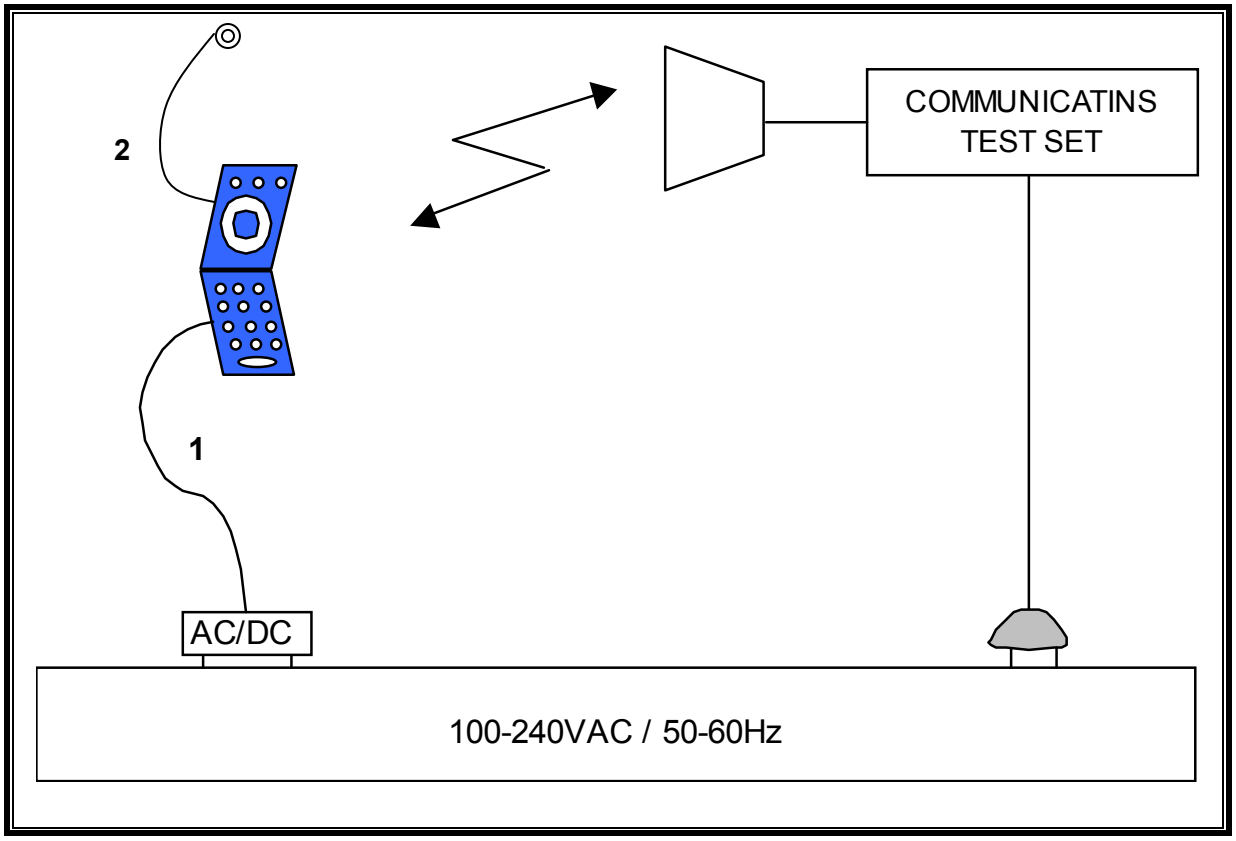
I/O CABLES

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	AUDIO	1	Mini-Jack	Un-Shielded	1.8 m	Volume Control on the Cable

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	08/04/10
Antenna, Horn, 18 GHz	EMCO	3115	C00945	07/29/10
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01016	07/14/10
Dipole	Speag	D900V2	N/A	11/16/11
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02689`	CNR
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR
Signal Generator	R & S	SMP04	C00953	02/16/11
Communications Test Set	Agilent / HP	E5515C	N/A	02/22/11
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01179	08/24/10

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) & 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.

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, RSS-132, and RSS-133.

RESULTS

CELL OUTPUT POWER (ERP)

High Frequency Substitution Measurement
Compliance Certification Services Chamber A

Company: KYOCERA WIRELESS
Project #: 10U13253
Date: 6/14/2010
Test Engineer: MENGISTU MEKURIA
Configuration: EUT, HEADSET, AND AC ADAPTER
Mode: TX, CDMA CELL BAND

Test Equipment:
Receiving: Sunol T122, and 3m Chamber N-type Cable (Setup this one for testing EUT)
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f MHz	SA reading (dBm)	Ant. Pol. (H/V)	Path Loss (dBm)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.70	-11.3	V	34.8	23.5	38.5	-15.0	
824.70	-2.3	H	30.5	28.2	38.5	-10.2	
836.52	-11.5	V	33.1	21.6	38.5	-16.8	
836.52	-1.9	H	31.2	29.3	38.5	-9.2	
848.31	-11.6	V	32.1	20.5	38.5	-17.9	
848.31	-2.1	H	31.2	29.1	38.5	-9.3	

Rev. 1.24.7

PCS OUTPUT POWER (EIRP)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber A

Company: KYOCERA WIRELESS
Project #: 10U13253
Date: 6/14/2010
Test Engineer: MENGISTU MEKURIA
Configuration: EUT, HEADSET, AND AC ADAPTER
Mode: TX, CDMA PCS BAND

Test Equipment:
Receiving: Horn T73, and Camber B SMA Cables
Substitution: Horn T72 Substitution, 6ft SMA Cable (208947003) Warehouse

f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Path Loss (dBm)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.850	-22.1	V	40.4	18.4	33.0	-14.6	
1.850	-10.5	H	39.7	29.3	33.0	-3.8	
1.880	-25.3	V	39.9	14.7	33.0	-18.3	
1.880	-11.5	H	40.1	28.6	33.0	-4.4	
1.910	-24.9	V	39.8	14.9	33.0	-18.1	
1.910	-11.8	H	40.2	28.4	33.0	-4.6	

Rev. 1.24.7

7.2. FIELD STRENGTH OF SPURIOUS RADIATION

LIMIT

§22.917 (e) and §24.238 (a), RSS-132 § 4.5.1, & 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 22.917 (b), FCC 24.238 (b), & FCC 27.53 (g)(1)(2)(3), RSS-132, and RSS-133.

RESULTS

CELL SPURIOUS & HARMONIC (ERP)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: KYOCERA WIRELESS
Project #: 10U13253
Date: 6/15/2010
Test Engineer: MENGISTU MEKURIA
Configuration: EUT, HEADSET, AND AC ADAPTER
Mode: TX, CDMA CELL BAND

Chamber	Pre-amplifer	Filter	Limit
5m Chamber A	T144 8449B	Filter 1	FCC PART 22

f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Path Loss (dB)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch. (824.70 MHz)										
1.649	-40.1	H	3.0	36.6	38.2	1.0	-40.7	-13.0	-27.7	
2.474	-49.1	H	3.0	40.0	37.5	1.0	-45.6	-13.0	-32.6	
3.299	-56.4	H	3.0	43.9	37.1	1.0	-48.6	-13.0	-35.6	
3.480	-55.6	H	3.0	44.4	37.0	1.0	-47.2	-13.0	-34.2	
4.124	-61.7	H	3.0	46.2	36.5	1.0	-51.0	-13.0	-38.0	
4.948	-64.7	H	3.0	48.6	36.3	1.0	-51.4	-13.0	-38.4	
1.649	-44.1	V	3.0	36.8	38.2	1.0	-44.4	-13.0	-31.4	
2.474	-50.9	V	3.0	41.7	37.5	1.0	-45.7	-13.0	-32.7	
3.299	-57.8	V	3.0	44.0	37.1	1.0	-49.9	-13.0	-36.9	
3.480	-53.7	V	3.0	44.4	37.0	1.0	-45.3	-13.0	-32.3	
4.124	-59.5	V	3.0	45.9	36.5	1.0	-49.1	-13.0	-36.1	
4.948	-60.1	V	3.0	48.1	36.3	1.0	-47.3	-13.0	-34.3	
Mid Ch (836.52 MHz)										
1.673	-38.5	H	3.0	36.8	38.1	1.0	-38.8	-13.0	-25.8	
2.510	-52.4	H	3.0	40.1	37.5	1.0	-48.7	-13.0	-35.7	
3.346	-55.9	H	3.0	44.0	37.1	1.0	-48.0	-13.0	-35.0	
3.549	-54.9	H	3.0	44.6	36.9	1.0	-46.3	-13.0	-33.3	
4.183	-59.6	H	3.0	46.4	36.5	1.0	-48.8	-13.0	-35.8	
5.019	-61.0	H	3.0	48.8	36.3	1.0	-47.5	-13.0	-34.5	
1.673	-46.2	V	3.0	37.1	38.1	1.0	-46.2	-13.0	-33.2	
2.510	-51.7	V	3.0	41.8	37.5	1.0	-46.3	-13.0	-33.3	
3.346	-52.6	V	3.0	44.1	37.1	1.0	-44.5	-13.0	-31.5	
3.549	-52.3	V	3.0	44.6	36.9	1.0	-43.7	-13.0	-30.7	
4.183	-53.8	V	3.0	46.1	36.5	1.0	-43.3	-13.0	-30.3	
5.019	-54.3	V	3.0	48.3	36.3	1.0	-41.3	-13.0	-28.3	
Hi Ch. (848.31 MHz)										
1.697	-42.2	H	3.0	37.0	38.1	1.0	-42.3	-13.0	-29.3	
2.545	-52.5	H	3.0	40.3	37.5	1.0	-48.6	-13.0	-35.6	
3.393	-58.5	H	3.0	44.1	37.1	1.0	-50.4	-13.0	-37.4	
3.753	-53.2	H	3.0	45.1	36.8	1.0	-43.8	-13.0	-30.8	
4.242	-56.7	H	3.0	46.5	36.5	1.0	-45.7	-13.0	-32.7	
5.090	-60.9	H	3.0	49.0	36.3	1.0	-47.1	-13.0	-34.1	
1.697	-41.2	V	3.0	37.4	38.1	1.0	-40.9	-13.0	-27.9	
2.545	-53.4	V	3.0	42.0	37.5	1.0	-47.9	-13.0	-34.9	
3.393	-54.1	V	3.0	44.2	37.1	1.0	-46.0	-13.0	-33.0	
3.753	-53.7	V	3.0	45.0	36.8	1.0	-44.4	-13.0	-31.4	
4.242	-53.6	V	3.0	46.2	36.5	1.0	-42.9	-13.0	-29.9	
5.090	-56.6	V	3.0	48.5	36.3	1.0	-43.4	-13.0	-30.4	

Note: No other emissions were found within 40 dB margin to the limit.
Rev. 03.03.09

PCS Spurious & Harmonic (EIRP)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: KYOCERA WIRELESS
Project #: 10U13253
Date: 6/15/2010
Test Engineer: MENGISTU MEKURIA
Configuration: EUT, HEADSET, AND AC ADAPTER
Mode: TX, CDMA PCS BAND

Chamber	Pre-amplifer	Filter	Limit
5m Chamber A	T144 8449B	Filter 1	FCC PART 24

f GHz	SA reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Path Loss (dB)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch.										
3.703	-40.7	H	3.0	45.0	36.8	1.0	-31.5	-13.0	-18.5	
3.863	-54.3	H	3.0	45.5	36.7	1.0	-44.5	-13.0	-31.5	
5.554	-55.0	H	3.0	49.9	36.3	1.0	-40.4	-13.0	-27.4	
7.405	-61.7	H	3.0	52.9	36.6	1.0	-44.4	-13.0	-31.4	
9.256	-62.6	H	3.0	55.3	37.0	1.0	-43.3	-13.0	-30.3	
11.108	-62.0	H	3.0	55.9	36.9	1.0	-42.1	-13.0	-29.1	
3.703	-39.7	V	3.0	44.9	36.8	1.0	-30.6	-13.0	-17.6	
3.863	-46.7	V	3.0	45.3	36.7	1.0	-37.1	-13.0	-24.1	
5.554	-53.3	V	3.0	49.3	36.3	1.0	-39.3	-13.0	-26.3	
7.405	-56.9	V	3.0	51.8	36.6	1.0	-40.7	-13.0	-27.7	
9.256	-56.1	V	3.0	54.2	37.0	1.0	-37.8	-13.0	-24.8	
11.108	-58.5	V	3.0	56.3	36.9	1.0	-38.1	-13.0	-25.1	
Mid Ch										
3.760	-42.4	H	3.0	45.2	36.8	1.0	-33.0	-13.0	-20.0	
3.920	-54.4	H	3.0	45.6	36.6	1.0	-44.4	-13.0	-31.4	
5.640	-54.7	H	3.0	50.1	36.3	1.0	-39.9	-13.0	-26.9	
7.520	-58.8	H	3.0	53.1	36.6	1.0	-41.4	-13.0	-28.4	
9.400	-63.0	H	3.0	55.4	37.0	1.0	-43.6	-13.0	-30.6	
11.280	-57.3	H	3.0	55.8	36.8	1.0	-37.3	-13.0	-24.3	
3.760	-36.5	V	3.0	45.1	36.8	1.0	-27.2	-13.0	-14.2	
3.920	-46.7	V	3.0	45.4	36.6	1.0	-36.9	-13.0	-23.9	
5.640	-51.9	V	3.0	49.4	36.3	1.0	-37.8	-13.0	-24.8	
7.520	-54.8	V	3.0	52.0	36.6	1.0	-38.4	-13.0	-25.4	
9.400	-57.7	V	3.0	54.4	37.0	1.0	-39.4	-13.0	-26.4	
11.280	-54.3	V	3.0	56.5	36.8	1.0	-33.6	-13.0	-20.6	
Hi Ch.										
3.818	-41.9	H	3.0	45.3	36.7	1.0	-32.3	-13.0	-19.3	
3.978	-52.6	H	3.0	45.8	36.6	1.0	-42.4	-13.0	-29.4	
5.726	-56.9	H	3.0	50.2	36.3	1.0	-41.9	-13.0	-28.9	
7.635	-61.9	H	3.0	53.2	36.6	1.0	-44.3	-13.0	-31.3	
9.544	-64.7	H	3.0	55.6	37.1	1.0	-45.2	-13.0	-32.2	
11.453	-62.8	H	3.0	55.7	36.8	1.0	-42.8	-13.0	-29.8	
3.818	-39.1	V	3.0	45.2	36.7	1.0	-29.6	-13.0	-16.6	
3.978	-47.6	V	3.0	45.5	36.6	1.0	-37.6	-13.0	-24.6	
5.726	-53.3	V	3.0	49.5	36.3	1.0	-39.1	-13.0	-26.1	
7.635	-58.1	V	3.0	52.1	36.6	1.0	-41.6	-13.0	-28.6	
9.544	-61.2	V	3.0	54.6	37.1	1.0	-42.7	-13.0	-29.7	
11.453	-58.4	V	3.0	56.7	36.8	1.0	-37.6	-13.0	-24.6	

Note: No other emissions were found within 40 dB margit to the limit
Rev. 03.03.09