

### RADIATED SPURIOUS EMISSIONS PORTIONS OF

FCC CFR47 PART 22H, 24E AND 27L

## **CERTIFICATION TEST REPORT**

### FOR

TRI BAND CDMA MOBILE PHONE WITH BLUETOOTH FCC MODEL NUMBER: S2150

FCC ID: V65S2150

**REPORT NUMBER: 12U14613-1** 

**ISSUE DATE: SEPTEMBER 16, 2012** 

Prepared for

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

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Revision History

Rev.	Issue Date	Revisions	Revised By
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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 WIT	TH BLUETOOTH
MODEL:	S2150	
SERIAL NUMBER:	268435457816728097	
DATE TESTED:	AUGUST 25 & 30, 2012	
	APPLICABLE STANDARDS	
	STANDARD	TEST RESULTS
FCC PAF	RT 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:

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MENGISTU MEKURIA EMC TECHNICIAN UL CCS

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# 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 <u>http://www.ccsemc.com</u>.

# 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%.

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## 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 Bar	nd				
Frequency range	Modulation	Channe	Frequency	EF	۲P
(MHz)				dBm	mW
	001440000	1013	824.7	26.68	465.6
824.70 - 848.31	CDMA2000 1xRTT	384	836.5	27.73	592.9
		777	848.3	26.70	467.7

Part 24 PCS Band					
Frequency range	Modulation	Channe F	Frequency	EIF	RP
(MHz)				dBm	mW
	001400000	25	1851.25	25.65	367.3
1851.25 – 1908.75	CDMA2000 1xRTT	600	1880.00	26.34	430.5
		1175	1908.75	25.17	328.9

Part 27 PCS Band					
Frequency range	Modulation	Channe F	Frequency	EIF	RP
(MHz)				dBm	mW
	00140000	25	1711.25	24.97	314.1
1711.25 – 1753.75	CDMA2000 1xRTT	460	1733.00	25.83	382.8
		875	1753.75	27.22	527.2

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## 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 folded and unfolded 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 folded X-Position with AC Adapter and headset for cell band and folded Y-Position with an AC Adapter only PCS and AWS bands respectively..

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### 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.

ApplicationRev, LicenseCDMA2000 Mobil TestB.10.11, L

<u>1xRTT</u>

- 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) > 1234

> Network ID (NID) > 1

> 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.

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## 5.5. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

	PERIPHERAL	_ SUPPORT EQUIP	MENT LIST	
Description	Manufacturer	Model	Serial Number	FCC ID
Travel Adapter	Kyocera	SCP-31ADT	N/A	N/A
Headphones	N/A	N/A	N/A	N/A

### I/O CABLES

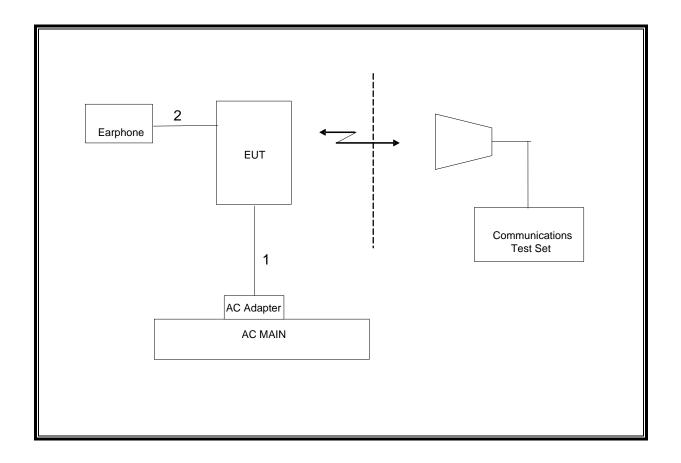
			I/(	O CABLE LIST		
Cable	Port	# of	Connector	Cable	Cable	Remarks
No.		Identical Ports	Туре	Туре	Length	
	_	1 0113				
2	DC	1	USB	Shielded	1.5m	N/A
3	Mic	1	Earphone	Un-shielded	1.5m	N/A

### 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.

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#### SETUP DIAGRAM FOR TESTS



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## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

	TEST EQU	IPMENT 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	C00945	10/06/12
Antenna, Horn, 18 GHz	EMCO	3115	C00943	CNR
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	C01016	08/14/13
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	11/11/12
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

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## 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**

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### **CELL OUTPUT POWER (ERP)**

#### High Frequency Substitution Measurement Compliance Certification Services Chamber A

Company:	KYOCERA WIRELESS
Project #:	12U14613
Date:	8/302012
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT WITH AC ADAPTER AND HEADSET
Mode:	TX, 850 MHz BAND, CDMA2000 1xRTT MODE

#### Test Equipment:

Receiving: Sunol T243, and Chamber A N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f /Hz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.70	27.18	v	0.5	0.0	26.68	38.5	-11.8	
824.70	23.24	Н	0.5	0.0	22.74	38.5	-15.7	
836.52	28.23	V	0.5	0.0	27.73	38.5	-10.7	
836.52	23.12	Н	0.5	0.0	22.62	38.5	-15.8	
848.31	27.20	V	0.5	0.0	26.70	38.5	-11.7	
848.31	23.37	Н	0.5	0.0	22.87	38.5	-15.6	

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#### PCS OUTPUT POWER (EIRP)

#### High Frequency Fundamental Measurement Compliance Certification Services Chamber A

Company:	KYOCERA WIRELESS
Project #:	12U14613
Date:	8/302012
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT WITH AC ADAPTER
Mode:	TX, 1900 MHz BAND CDMA2000 1xRTT MODE

#### Test Equipment:

Receiving: Horn T73, and Camber A SMA Cables Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
054					25.25			
1.851	17.9	V	0.85	8.62	25.65	33.0	-7.4	
1.851	14.4	Н	0.85	8.47	22.05	33.0	-11.0	
1.880	18.7	V	0.85	8.46	26.34	33.0	-6.7	
.880	14.2	Н	0.85	8.36	21.68	33.0	-11.3	
.909	17.7	V	0.85	8.30	25.17	33.0	-7.8	
1.909	12.3	Н	0.85	8.25	19.66	33.0	-13.3	

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### AWS OUTPUT POWER (EIRP)

			-	ental Measuremen Services Chamber				
Company	:	KYOCERA WIF	ELESS					
Project #:		12U14613						
Date:		8/302012						
Test Eng		MENGISTU ME	KURIA					
Configura		EUT WITH AC						
Vlode:		TX, 1700 MHz E						
Mode: <u>Test Equi</u>	pment:		MA Cables					
Test Equi Receiving	i <u>pment:</u> g: Horn T73, an	d Camber A S		(244639001) Wareho	use			
Test Equi Receiving	i <u>pment:</u> g: Horn T73, an	d Camber A S		(244639001) Wareho Antenna Gain	use EIRP	Limit	Delta	Notes
<u>Test Equ</u> Receiving Substitut	<u>pment:</u> g: Horn T73, an ion: Horn T217	d Camber A S Substitution,	4ft SMA Cable			Limit (dBm)	Delta (dB)	Notes
Test Equ Receiving Substitut f GHz	pment: g: Horn T73, an ion: Horn T217 SG reading (dBm)	d Camber A S Substitution, Ant. Pol. (H/V)	4ft SMA Cable Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	(dBm)	(dB)	Notes
Test Equi Receiving Substitut	ip <u>ment:</u> g: Horn T73, an ion: Horn T217 SG reading	d Camber A S Substitution, Ant. Pol.	4ft SMA Cable Cable Loss	Antenna Gain	EIRP			Notes
Test Equi Receiving Substitut f GHz 1.711	ipment: g: Horn T73, an ion: Horn T217 SG reading (dBm) 17.2 17.4	d Camber A S Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 24.95 24.97	(dBm) 30.0 30.0	(dB) -5.1 -5.0	Notes
Test Equi Receiving Substitut GHz .711 .711	ipment: g: Horn T73, an ion: Horn T217 SG reading (dBm) 17.2 17.4 18.2	d Camber A S Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 24.95 24.97 25.83	(dBm) 30.0 30.0 30.0 30.0	(dB) -5.1 -5.0 -4.2	Notes
Test Equi Receiving Substitut GHz .711 .711	ipment: g: Horn T73, an ion: Horn T217 SG reading (dBm) 17.2 17.4	d Camber A S Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85	Antenna Gain (dBi) 8.62 8.47	EIRP (dBm) 24.95 24.97	(dBm) 30.0 30.0	(dB) -5.1 -5.0	Notes
Test Equ Receiving Substitut f GHz 1.711	ipment: g: Horn T73, an ion: Horn T217 SG reading (dBm) 17.2 17.4 18.2	d Camber A S Substitution, Ant. Pol. (H/V) V H	4ft SMA Cable Cable Loss (dB) 0.85 0.85 0.85	Antenna Gain (dBi) 8.62 8.47 8.46	EIRP (dBm) 24.95 24.97 25.83	(dBm) 30.0 30.0 30.0 30.0	(dB) -5.1 -5.0 -4.2	Notes

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## 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 log10 (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

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### **CELL SPURIOUS & HARMONIC (ERP)**

				mpliance Co Iz High Freq				ement	
Company Project # Date: Test Eng Configur: Mode:									
	Chambe	r	Pre-ar	nplifer		Filter		Li	mit
5r	n Chamber A	-	T144 8449	T144 8449B -		ter 1	•	Part 22	
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
GHz Low Ch, 8	(dBm) 24.70MHz	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	Notes
GHz Low Ch, 82 1.649	(dBm) 24.70MHz -15.6	(H/V) V	(m) 3.0	(dB) 38.2	(dB) 1.0	(dBm) -52.8	(dBm) -13.0	(dB) -39.8	Notes
GHz Low Ch, 8 1.649 2.474	(dBm) 24.70MHz -15.6 -21.1	(H/V) V V	(m) 3.0 3.0	(dB) 38.2 37.5	(dB) 1.0 1.0	(dBm) -52.8 -57.6	(dBm) -13.0 -13.0	(dB) -39.8 -44.6	Notes
GHz Low Ch, 8 1.649 2.474 1.649	(dBm) 24.70MHz -15.6 -21.1 -17.9	(H/V) V V H	(m) 3.0 3.0 3.0	(dB) 38.2 37.5 38.2	(dB) 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1	(dBm) -13.0 -13.0 -13.0	(dB) -39.8 -44.6 -42.1	Notes
GHz Low Ch, 8 1.649 2.474	(dBm) 24.70MHz -15.6 -21.1	(H/V) V V	(m) 3.0 3.0	(dB) 38.2 37.5	(dB) 1.0 1.0	(dBm) -52.8 -57.6	(dBm) -13.0 -13.0	(dB) -39.8 -44.6	Notes
GHz Low Ch, 8 1.649 2.474 1.649	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8	(H/V) V V H	(m) 3.0 3.0 3.0	(dB) 38.2 37.5 38.2	(dB) 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1	(dBm) -13.0 -13.0 -13.0	(dB) -39.8 -44.6 -42.1	Notes
GHz Low Ch, 8: 1.649 2.474 1.649 2.474 2.474 Mid Ch, 8: 1.673	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8 36.52MHz -12.6	(H/V) V H H	(m) 3.0 3.0 3.0 3.0 3.0	(dB) 38.2 37.5 38.2 37.5 38.1	(dB) 1.0 1.0 1.0 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1 -60.3 -49.7	(dBm) -13.0 -13.0 -13.0 -13.0 -13.0	(dB) -39.8 -44.6 -42.1 -47.3 	Notes
GHz Low Ch, 8: 1.649 2.474 1.649 2.474 Mid. Ch, 8: 1.673 2.510	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8 36.52MHz -12.6 -19.7	(H/V) V H H V V V	(m) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	(dB) 38.2 37.5 38.2 37.5 38.1 38.1 37.5	(dB) 1.0 1.0 1.0 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1 -60.3 	(dBm) -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	(dB) 39.8 44.6 42.1 47.3 36.7 43.2	Notes
GHz Low Ch, 8: 1.649 2.474 1.649 2.474 Mid Ch, 8: 1.673 2.510 1.673	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8 36.52MHz -12.6 -19.7 -12.2	(H/V) V H H V V V H	(m) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	(dB) 38.2 37.5 38.2 37.5 38.1 38.1 37.5 38.1	(dB) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1 -60.3 -49.7 -56.2 -49.3	(dBm) -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	(dB) -39.8 44.6 42.1 47.3 -36.7 -43.2 -36.3	Notes
GHz Low Ch, 8: 1.649 2.474 1.649 2.474 Mid. Ch, 8: 1.673 2.510	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8 36.52MHz -12.6 -19.7	(H/V) V H H V V V	(m) 3.0 3.0 3.0 3.0 3.0 3.0 3.0	(dB) 38.2 37.5 38.2 37.5 38.1 38.1 37.5	(dB) 1.0 1.0 1.0 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1 -60.3 	(dBm) -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	(dB) 39.8 44.6 42.1 47.3 36.7 43.2	Notes
GHz Low Ch, 82 1.649 2.474 1.649 2.474 Mid Ch, 82 1.673 2.510 1.673 2.510	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8 36.52MHz -12.6 -19.7 -12.2 -23.5	(H/V) V H H V V V H	(m) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	(dB) 38.2 37.5 38.2 37.5 38.1 38.1 37.5 38.1	(dB) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1 -60.3 -49.7 -56.2 -49.3	(dBm) -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	(dB) -39.8 44.6 42.1 47.3 -36.7 -43.2 -36.3	Notes
GHz Low Ch, 8: 1.649 2.474 1.649 2.474 Mid Ch, 8: 1.673 2.510 1.673 2.510 High Ch, 8	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8 36.52MHz -12.6 -19.7 -12.2 -23.5 48.31MHz	(H/V) V H H V V V H H	(m) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	(dB) 38.2 37.5 38.2 37.5 38.1 37.5 38.1 37.5 38.1	(dB) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1 -60.3 -60.3 -49.7 -56.2 -49.3 -59.9	(dBm) -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	(dB) 	Notes
GHz Low Ch, 8: 1.649 2.474 1.649 2.474 Mid Ch, 8: 1.673 2.510 1.673 2.510 High Ch, 8 1.697	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8 36.52MHz -12.6 -19.7 -12.2 -23.5 48.31MHz -12.5	(H/V) V H H V V V H	(m) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	(dB) 38.2 37.5 38.2 37.5 38.1 37.5 38.1 37.5 38.1 37.5 38.1 37.5	(dB) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1 -60.3 -49.7 -56.2 -49.3 -59.9 -59.9 -49.6	(dBm) -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	(dB) 39.8 44.6 42.1 47.3 36.7 43.2 36.3 46.9 36.6	Notes
GHz Low Ch, 8: 1.649 2.474 1.649 2.474 Mid Ch, 8: 1.673 2.510 1.673	(dBm) 24.70MHz -15.6 -21.1 -17.9 -23.8 36.52MHz -12.6 -19.7 -12.2 -23.5 48.31MHz	(H/V) V V H H V V H H V V	(m) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	(dB) 38.2 37.5 38.2 37.5 38.1 37.5 38.1 37.5 38.1	(dB) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	(dBm) -52.8 -57.6 -55.1 -60.3 -60.3 -49.7 -56.2 -49.3 -59.9	(dBm) -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	(dB) 	Notes

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### PCS Spurious & Harmonic (EIRP)

			Cor Above 1GH	npliance Co z High Frec				ement	
Company: Project #: Date: Fest Engin Configura	neer: tion:		EKURIA D HEADSET AN		2				
Node:		TX, PCS BANI	), CDMA 1XRTT	MODE					
Chamber			Pre-an	nplifer		Filter			Limit
5m	5m Chamber A 🔻		T144 8449B 🗸		Fil	ter 1	•	Part 24	ł _
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
GHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
_ow Ch, 18 3.703	51.25MHz -10.3	V	3.0	36.8	1.0	-46.1	-13.0	-33.1	
5.703 5.554	-10.3 1.8	V V	3.0 3.0	36.8	1.0	-46.1	-13.0 -13.0	-33.1	
.405	-11.2	v	3.0	36.6	1.0	-46.8	-13.0	-33.8	
9.256	-10.5	H	3.0	37.0	1.0	-46.6	-13.0	-33.6	
11.108	-11.8	H	3.0	36.9	1.0	-47.7	-13.0	-34.7	
2.959 3.703	-4.8 -12.3	H V	3.0 3.0	36.0 36.8	1.0 1.0	-39.8 -48.1	-13.0 -13.0	-26.8 -35.1	
5.703 5.554	-12.3	V	3.0	36.3	1.0	-40.1	-13.0	-35.1	
.405	-9.0	v	3.0	36.6	1.0	-44.6	-13.0	-31.6	
.256	-11.6	Н	3.0	37.0	1.0	-47.6	-13.0	-34.6	
1.108 2.959	-8.8 -9.0	H	3.0 3.0	36.9 36.0	1.0 1.0	-44.7 -44.0	-13.0 -13.0	-31.7 -31.0	
2.333	-3.0		3.0	30.0	1.0	-44.0	-13.0	-31.0	
Aid Ch, 18	80.00MHz								
3.760		V	3.0	36.8	1.0	-35.8	-13.0	-22.8	
5.640	0.8	V	3.0	36.3	1.0	-34.5	-13.0	-21.5	
7.520 9.400	-11.2 -11.2	V H	3.0 3.0	36.6 37.0	1.0 1.0	-46.8 -47.2	-13.0 -13.0	-33.8 -34.2	
1.280	-10.2	H	3.0	36.8	1.0	-46.1	-13.0	-34.2	
3.160	-5.8	Н	3.0	35.9	1.0	-40.7	-13.0	-27.7	
.760	-13.8	V	3.0	36.8	1.0	-49.5	-13.0	-36.5	
5.640 7.520	-7.9 -10.0	V V	3.0 3.0	36.3 36.6	1.0 1.0	-43.3 -45.6	-13.0 -13.0	-30.3 -32.6	
9.400	-10.0	H	3.0	36.6	1.0	-45.6	-13.0 -13.0	-32.6	
11.280	-12.9	H	3.0	36.8	1.0	-48.7	-13.0	-35.7	
13.160	-8.3	Н	3.0	35.9	1.0	-43.2	-13.0	-30.2	
	00.75111-						ļ		
ligh Ch, 19 3.818	-13.2	V	3.0	36.7	1.0	-49.0	-13.0	-36.0	
5.726	1.3	V	3.0	36.3	1.0	-49.0	-13.0	-30.0	
7.635	-7.9	V	3.0	36.6	1.0	-43.5	-13.0	-30.5	
9.544	-10.6	H	3.0	37.1	1.0	-46.7	-13.0	-33.7	
1.453 3.361	-5.1	H	3.0 3.0	36.8 35.8	1.0	-40.9	-13.0 13.0	-27.9	
3.361 3.818	-5.4 -10.9	н V	3.0	35.8 36.7	1.0 1.0	-40.2 -46.7	-13.0 -13.0	-27.2 -33.7	
	-1.4	V	3.0	36.3	1.0	-40.7	-13.0	-33.7	
.635	-9.4	V	3.0	36.6	1.0	-45.0	-13.0	-32.0	
.544	-7.2	H	3.0	37.1	1.0	-43.2	-13.0	-30.2	
1.453	-0.6	H	3.0	36.8	1.0	-36.4	-13.0	-23.4	
3.361	-2.8	H	3.0	35.8	1.0	-37.5	-13.0	-24.5	

#### AWS Spurious & Harmonic (EIRP)

Company: KYOCERA WIRELESS   Project #: 12U14613   Date: 8/302012   Test Engineer: MENGISTU MEKURIA   Configuration: EUT ALINE   Mode: TX, AWS BAND, CDMA 1XRTT MODE										
	Chamber		Pre-an	•	Eik	Filter			mit	
5m	Chamber A	•	T144 8449	5 <u>-</u>	Fil	ter 1	•	Part 27	•	
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
ow Ch, 171										
.423	-7.7	V	3.0	37.0	1.0	-43.8	-13.0	-30.8		
.134 .845	-2.4 -3.9	V V	3.0 3.0	36.3 36.5	1.0 1.0	-37.7 -39.3	-13.0 -13.0	-24.7 -26.3		
.556	-3.5 -10.4	V	3.0	36.8	1.0	-35.3	-13.0	-20.3		
0.268	-7.2	v	3.0	37.1	1.0	-43.4	-13.0	-30.4		
1.979	-7.0	V	3.0	36.7	1.0	-42.6	-13.0	-29.6		
3.690	-3.2	V	3.0	35.6	1.0	-37.8	-13.0	-24.8		
.423	-5.4 -0.2	H	3.0 3.0	37.0 36.3	1.0 1.0	-41.4 -35.4	-13.0 -13.0	-28.4 -22.4		
.134 .845	-0.2 -5.4	H	3.0	36.3 36.5	1.0	-35.4	-13.0 -13.0	-22.4 -27.9		
.556	-7.9	H	3.0	36.8	1.0	-43.7	-13.0	-30.7		
0.268	-2.9	Н	3.0	37.1	1.0	-39.0	-13.0	-26.0		
1.979 3.690	-8.8 -3.9	H H	3.0 3.0	36.7 35.6	1.0 1.0	-44.5 -38.5	-13.0 -13.0	-31.5 -25.5		
lid Ch, 173						•				
.466	-9.1	V	3.0	37.0	1.0	-45.1	-13.0	-32.1		
.199	4.4	۷	3.0	36.2	1.0	-30.8	-13.0	-17.8		
.932	-2.2	V	3.0	36.5	1.0	-37.6	-13.0	-24.6		
.665 0.398	-7.6 -2.1	V V	3.0 3.0	36.9 37.1	1.0 1.0	-43.5 -38.2	-13.0 -13.0	-30.5 -25.2		
2.131	-2.1 -3.4	V	3.0	36.6	1.0	-38.2	-13.0 -13.0	-25.2 -26.0		
3.864	-10.4	v	3.0	35.4	1.0	-44.8	-13.0	-31.8		
.466	-5.9	H	3.0	37.0	1.0	_41.9	-13.0	-28.9		
.199	-5.0	H	3.0	36.2	1.0	-40.2	-13.0	-27.2		
.932 .665	-4.8 -6.0	H	3.0 3.0	36.5 36.9	1.0 1.0	-40.2 -41.8	-13.0 -13.0	-27.2 -28.8		
.665 0.398	-6.0 3.7	H H	3.0	36.9	1.0	-41.8	-13.0 -13.0	-28.8 -19.4		
2.131	-6.8	Н	3.0	36.6	1.0	-42.4	-13.0	-29.4		
3.864	-1.7	H	3.0	35.4	1.0	-36.2	-13.0	-23.2		
igh Ch, 175				27.0	4.0		40.0	20.0		
.508 .261	-6.9 -6.7	v v	3.0 3.0	37.0 36.3	1.0 1.0	-42.9 -41.9	-13.0 -13.0	-29.9 -28.9		
.015	-0.7 -1.2	V	3.0	36.5	1.0	-41.9	-13.0 -13.0	-20.9 -23.7		
.769	-8.5	v	3.0	36.9	1.0	-44.4	-13.0	-31.4		
0.523 🏾 🎽	-7.0	۷	3.0	37.0	1.0	_43.1	-13.0	-30.1		
2.276	-3.3	V	3.0	36.5	1.0	-38.7	-13.0	-25.7		
4.030	-1.7 5 1	V H	3.0	35.3	1.0	-36.1	-13.0 13.0	-23.1 -28.1		
.508 .261	-5.1 -7.7	H	3.0 3.0	37.0 36.3	1.0 1.0	_41.1 _42.9	-13.0 -13.0	-28.1 -29.9		
.015	-1.9	H	3.0	36.5	1.0	-37.4	-13.0	-24.4		
	-6.0	H	3.0	36.9	1.0	-41.9	-13.0	-28.9		
. <b>769</b> (	-4.6	Н	3.0	37.0	1.0	-40.6	-13.0	-27.6		
).523 🏾 🕺	-4.7	H	3.0	36.5	1.0	-40.2	-13.0	-27.2		
).523 2.276		н	3.0	35.3	1.0	-32.4	-13.0	-19.4		
.769 0.523 2.276 4.030	1.9									

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