

RADIATED SPURIOUS EMISSIONS PORTIONS OF FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT FOR

TRI-BAND 1xRTT CDMA PHONE WITH BLUETOOTH

FCC MODEL NUMBER: K54-02 IC MODEL NUMBER: E3100

FCC ID: OVF-K5402 IC ID: 3572A-E3100

REPORT NUMBER: 10U13257-3

ISSUE DATE: JUNE 17, 2010

Prepared for

KYOCERA COMMUNICATIONS, INC. 10300 CAMPUS POINT DRIVE SAN DIEGO, CA 92121, U.S.A.

Prepared by

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REPORT NO: 10U13257-1 DATE: JUNE 17, 2010 EUT: TRI-BAND 1xRTT CDMA PHONE WITH BLUETOOTH FCC ID: OVF-K5402

Revision History

Rev.	Issue Date	Revisions	Revised By
	06/17/10	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: KYOCERA COMMUNICATIONS, INC.

10300 CAMPUS POINT DRIVE

SAN DIEGO, CA 92121

EUT DESCRIPTION: TRI-BAND 1XRTT CDMA PHONE WITH BLUETOOTH

MODEL: K54-02 for FCC & E3100 for IC

SERIAL NUMBER: FFE31000002588

DATE TESTED: JUNE 14-16, 2010

APPLICABLE STANDARDS

STANDARD TEST RESULTS

CFR 47 Part 15 Subpart C PASS (Radiated Portions)

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 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. 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 CCS By:

Tested By:

THU CHAN EMC MANAGER

COMPLIANCE CERTIFICATION SERVICES

CHIN PANG EMC ENGINEER

Chin Pany

COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2, and FCC CFR 47 Part 15.

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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 Tri-band CDMA Phone that manufactured by Kyocera Communications, Inc.

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5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an internal antenna, with a maximum gain of 0 dBi.

5.3. SOFTWARE AND FIRMWARE

The EUT driver and utility software installed in the host support equipment during testing was StarGraphitePassThru, rev. 1.0.0.1 and CSR Blue Suite (BtCliCtrl), rev. 2.0.0.0.

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 case is X position without AC/DC adapter.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

	PERIPHERAL SUPPORT EQUIPMENT LIST											
Description	Manufacturer	Model	Serial Number	FCC ID								
Laptop PC	DELL	D620	CCS # C01095	E2KWM3945ABG								
AC Adapter	DELL	LA65NS0-00	CN-ODF23-71615-72M-2925	N/A								
AC Adapter	Kyocera	TXTVL10148	N/A	DOC								
Headset	Kyocera	N/A	N/A	N/A								

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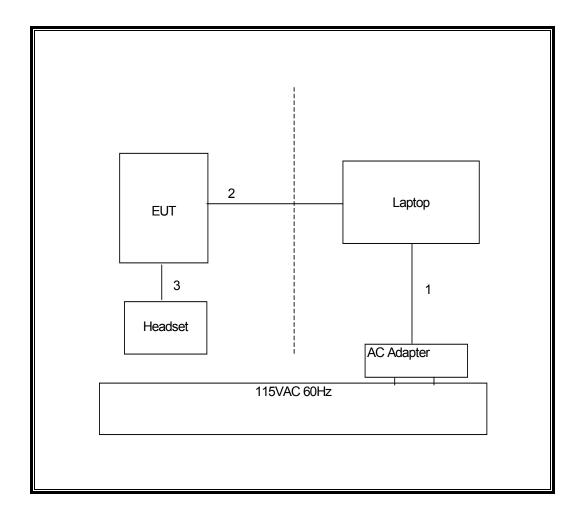
I/O CABLES

	I/O CABLE LIST												
Cable No.	Port	# of Identica Ports	Connector Type	Cable Type	Cable Length	Remarks							
1	DC Input	1	USB	Un-Shielded	1.85 m	N/A							
2	USB	1	USB	Un-Shielded	1 m	N/A							
3	AUDIO	1	Jack	Un-Shielded	1.2 m	NA							

TEST SETUP

The EUT is a stand alone for above 1GHz radiated emission, and with AC/DC adapter for below 1GHz radiated emissions, also AC Line Conduction tests.

SETUP DIAGRAM FOR TESTS



DATE: JUNE 17, 2010

6. TEST AND MEASUREMENT EQUIPMENT

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

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	TEST EQUIPMENT LIST										
Description	Manufacturer	Model	Asset	Cal Due							
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	10/08/10							
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	08/05/10							
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00885	12/16/10							
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	01/14/11							
Antenna, Horn, 18 GHz	EMCO	3115	C00945	01/29/11							
EMI Test Receiver, 30 MHz	R&S	ESHS 20	N02396	05/06/11							
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	10/29/10							
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR							

7. RADIATED TEST RESULTS

7.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

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For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

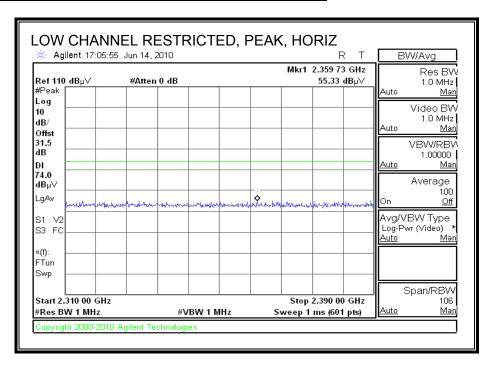
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

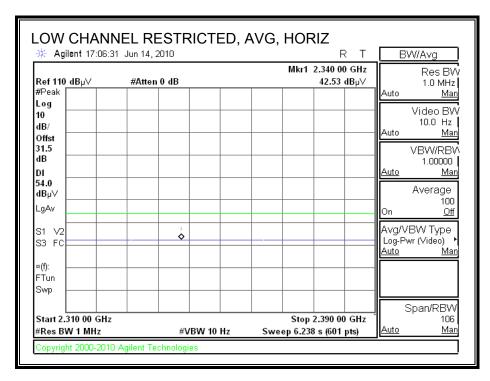
7.2. TRANSMITTER ABOVE 1 GHz

7.2.1. BASIC DATA RATE GFSK MODULATION

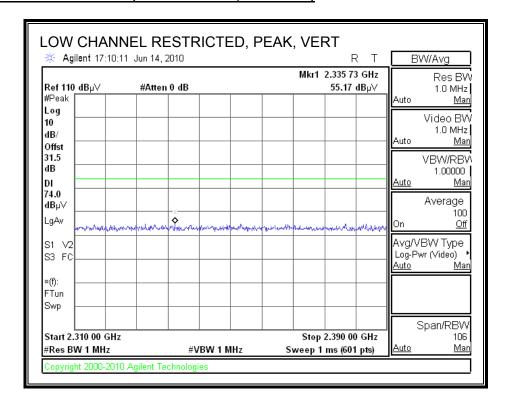
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



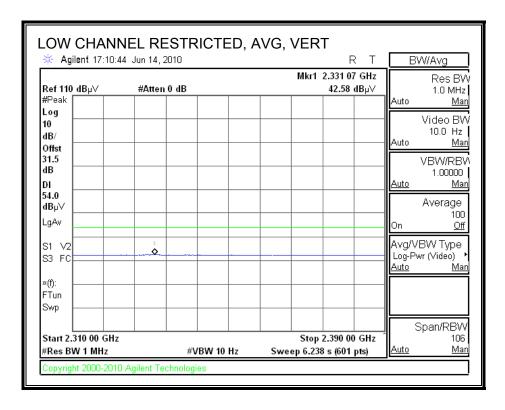
DATE: JUNE 17, 2010 FCC ID: OVF-K5402



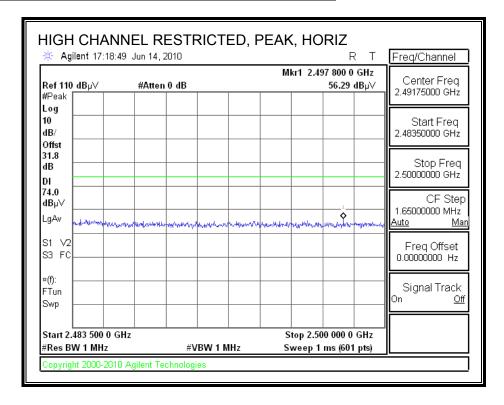
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

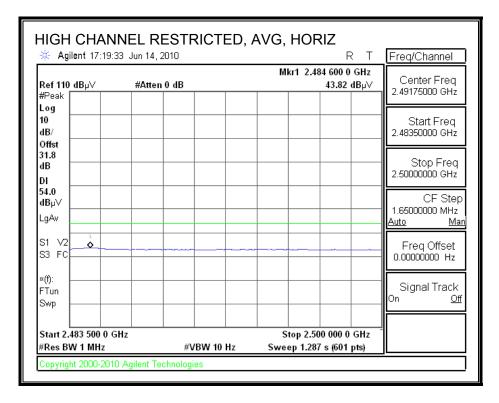


DATE: JUNE 17, 2010 FCC ID: OVF-K5402



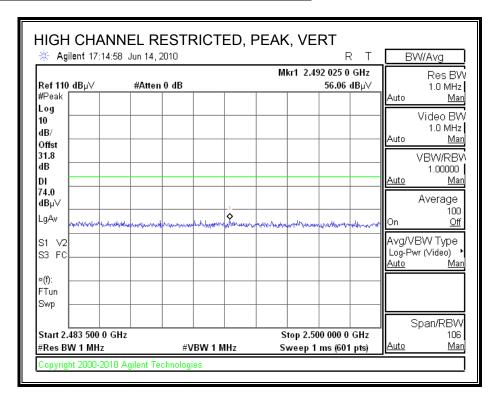
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



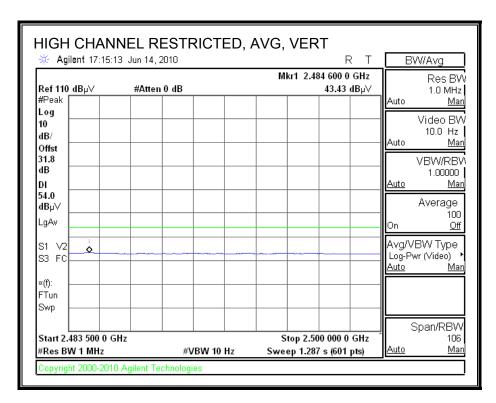


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RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



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HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Chin Pang Test Engr: 06/14/10 Date: Project #: 10U13257

Kyocera Communications, Inc. Company: EUT Description: Tri-Band 1xRTT CDMA with Bluetooth

EUT M/N: K54-02 FCC 15.247 Test Target: Mode Oper: TX, Basic Rate

> Measurement Frequency Amp Preamp Gain Average Field Strength Limit Dist Distance to Antenna D Corr Distance Correct to 3 meters Peak Field Strength Limit Read Analyzer Reading Avg Average Field Strength @ 3 m Margin vs. Average Limit AF Antenna Factor Peak Calculated Peak Field Strength Margin vs. Peak Limit CL Cable Loss HPF High Pass Filter

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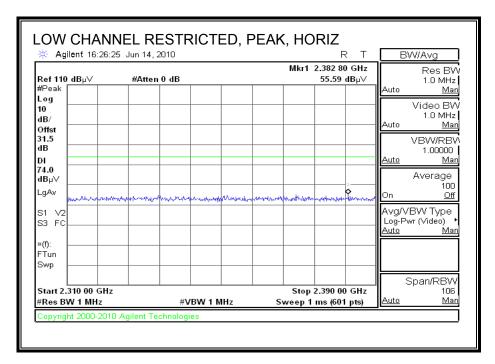
4.804 3.0 36.4 4.804 3.0 24.1 4.804 3.0 24.1 4.804 3.0 24.1 4.804 3.0 24.1 Mid Ch 2441MHz 4.882 3.0 36.4 4.882 3.0 35.7 7.323 3.0 35.7 7.323 3.0 36.4 4.882 3.0 36.4 4.882 3.0 36.4 4.882 3.0 36.4 4.882 3.0 33.4 4.882 3.0 33.4 4.882 3.0 35.7 7.323 3.0 34.8 7.323 3.0 34.8 7.323 3.0 34.8 7.323 3.0 35.7 4.960 3.0 35.9 4.960 3.0 35.9 4.960 3.0 35.1	4 32.7 5.8 1 32.7 5.8 4 32.7 5.8 1 32.7 5.8 1 32.7 5.8 3 32.7 5.8	-34.8 -34.8	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	40.0 27.7 40.0 27.7	74.0 54.0 74.0 54.0 74.0	-34.0 -26.3 -34.0 -26.3	V/H H H V V	P/A/QP P A P A	
4.804 3.0 24.1 4.804 3.0 36.4 4.804 3.0 24.1 Mid Ch 2441MHz 4.882 3.0 36.1 4.882 3.0 35.7 7.323 3.0 35.7 7.323 3.0 36.4 4.882 3.0 36.4 4.882 3.0 36.4 7.323 3.0 33.9 7.323 3.0 34.8 7.323 3.0 33.9 7.323 3.0 34.8 7.323 3.0 35.7 7.440 3.0 35.1	1 32.7 5.8 4 32.7 5.8 1 32.7 5.8 1 32.7 5.8 1 32.7 5.8 8 32.7 5.8	-34.8 -34.8 -34.8 -34.8 -34.8	0.0 0.0 0.0	0.0 0.0 0.0	27.7 40.0	54.0 74.0	-26.3 -34.0	H V	A P	
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4.882 3.0 36.1 4.882 3.0 23.8 7.323 3.0 35.7 7.323 3.0 23.3 4.882 3.0 23.8 7.323 3.0 23.8 7.323 3.0 34.8 7.323 3.0 23.1 High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 35.9 7.440 3.0 35.1	B 32.7 5.8	-34.8							· · · · · · · · · · · · · · · · · · ·	
4.882 3.0 23.8 7.323 3.0 35.7 7.323 3.0 23.3 4.882 3.0 23.8 7.323 3.0 34.8 7.323 3.0 23.1 High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 35.9 7.440 3.0 35.1	B 32.7 5.8	-34.8								
7.323 3.0 35.7 7.323 3.0 23.3 4.882 3.0 36.4 4.882 3.0 23.8 7.323 3.0 34.8 7.323 3.0 23.1 High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 35.9 7.440 3.0 35.1				0.0	39.8	74.0	-34.2	V	P	
7.323 3.0 23.3 4.882 3.0 36.4 4.882 3.0 23.8 7.323 3.0 34.8 7.323 3.0 23.1 High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 35.9 7.440 3.0 35.1	7 35.5 7.3	-34.1	0.0	0.0	27.6	54.0	-26.4	V	A	
4.882 3.0 36.4 4.882 3.0 23.8 7.323 3.0 34.8 7.323 3.0 23.1 High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 35.7 7.440 3.0 35.1			0.0	0.0	44.3	74.0	-29.7	V	P	
4.882 3.0 23.8 7.323 3.0 34.8 7.323 3.0 23.1 High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 35.7 7.440 3.0 35.1	3 35.5 7.3	-34.1	0.0	0.0	31.9	54.0	-22.1	V	A	
7.323 3.0 34.8 7.323 3.0 23.1 High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 23.5 7.440 3.0 35.1	4 32.7 5.8	-34.8	0.0	0.0	40.1	74.0	-33.9	H	P	
7.323 3.0 23.1 High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 23.5 7.440 3.0 35.1	32.7 5.8	-34.8	0.0	0.0	27.6	54.0	-26.4	H	A	
High Ch, 2480MHz 4.960 3.0 35.9 4.960 3.0 23.5 7.440 3.0 35.1	B 35.5 7.3	-34.1	0.0	0.0	43.5	74.0	-30.5	H	P	
4.960 3.0 35.9 4.960 3.0 23.5 7.440 3.0 35.1	1 35.5 7.3	-34.1	0.0	0.0	31.7	54.0	-22.3	н	A	
4.960 3.0 23.5 7.440 3.0 35.1										
7.440 3.0 35.1	9 32.8 5.9	-34.8	0.0	0.0	39.7	74.0	-34.3	H	P	
······	5 32.8 5.9	-34.8	0.0	0.0	27.3	54.0	-26.7	H	A	
7.440 3.0 2 3.0	1 35.6 7.3	-34.1	0.0	0.0	44.0	74.0	-30.0	H	P	
) 35.6 7.3	-34.1	0.0	0.0	31.9	54.0	-22.1	H	A	
4.960 3.0 36.0	32.8 5.9	-34.8	0.0	0.0	39.9	74.0	-34.1	V	P	
4.960 3.0 2 3.5	5 32.8 5.9	-34.8	0.0	0.0	27.3	54.0	-26.7	V	A	
7.440 3.0 34.8	35.6 7.3	-34.1	0.0	0.0	43.7	74.0	-30.3	V	P	
7.440 3.0 22.6		-34.1	0.0	0.0	31.5	54.0	-22.5	V	A	

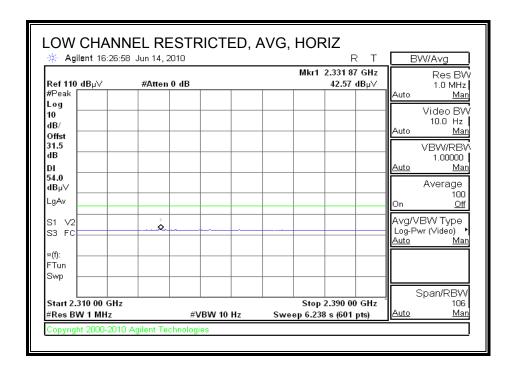
Rev. 4.1.2.7

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

7.2.2. ENHANCED DATA RATE 8PSK MODULATION

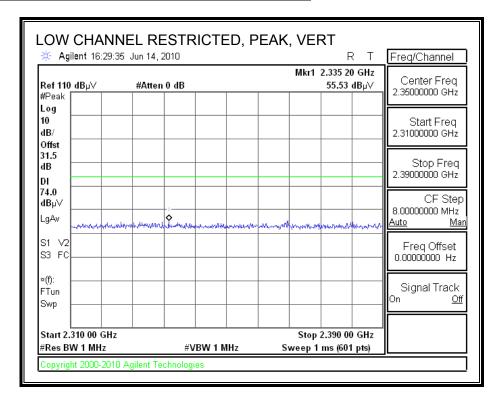
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



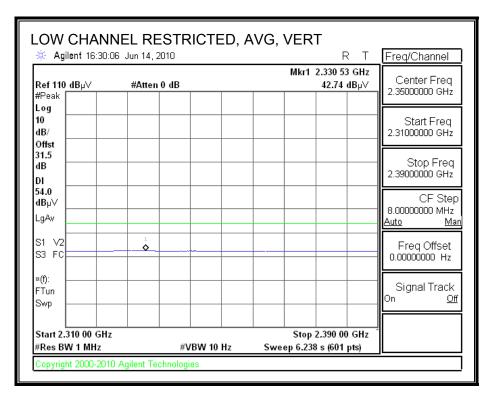


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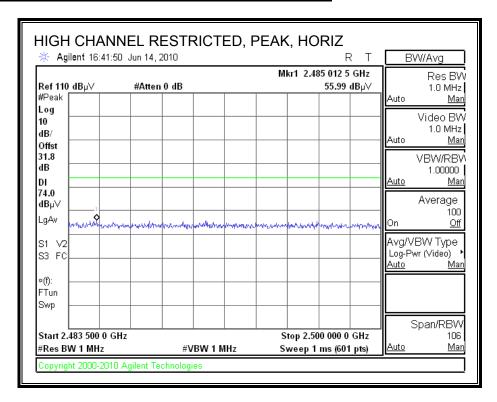
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



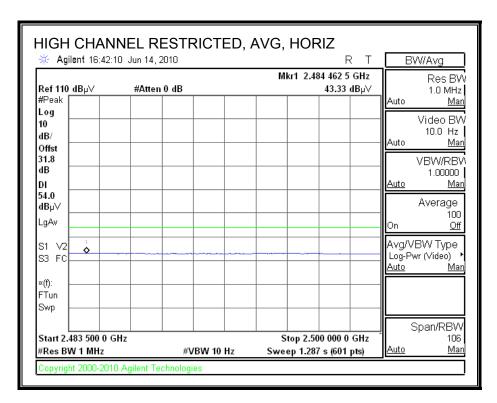
DATE: JUNE 17, 2010



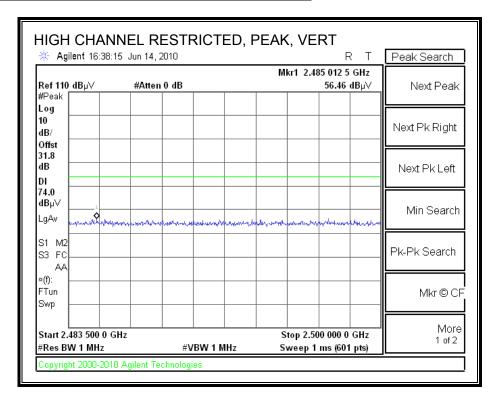
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

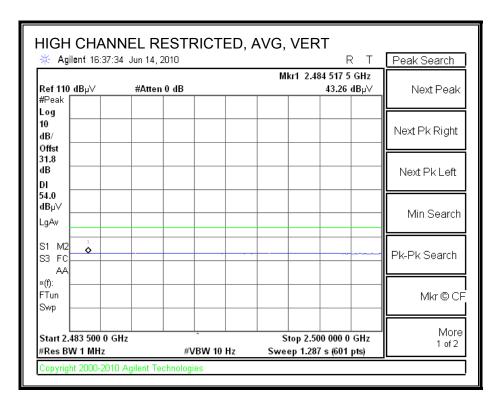


DATE: JUNE 17, 2010 FCC ID: OVF-K5402



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





DATE: JUNE 17, 2010 FCC ID: OVF-K5402

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

William Zhuang Test Engr: Date: 6/15/2010 Project #: 10U13257

Kyocera Communications, Inc. Company: EUT Description: Tri Band 1xRTT CDMA with Bluetooth

K54-02 EUT M/N: Test Target: FCC 15.247 Mode Oper: Tx, EDR Bluetooth

> Measurement Frequency Amp Preamp Gain Average Field Strength Limit Dist Distance to Antenna D Corr Distance Correct to 3 meters Peak Field Strength Limit Read Analyzer Reading Avg Average Field Strength @ 3 m
>
> AF Antenna Factor Peak Calculated Peak Field Strength
>
> CL Cable Loss HPF High Pass Filter Margin vs. Average Limit Margin vs. Peak Limit

f	Dist	Read	AF	CL	Amp	: :		1 1			Ant Pol		Notes
GHz	(m)	dBuV	dB/m	dB	dВ	dB	dВ	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
Low Ch. 2	2402 MH:	E											
4.804	3.0	39.2	32.7	5.8	-34.8	0.0	0.0	42.8	74.0	-31.2	V	P	
4.804	3.0	24.3	32.7	5.8	-34.8	0.0	0.0	27.9	54.0	-26.1	V	A	
4.804	3.0	38.1	32.7	5.8	-34.8	0.0	0.0	41.7	74.0	-3 2. 3	H	P	
4.804	3.0	24.1	32.7	5.8	-34.8	0.0	0.0	27.7	54.0	- 26. 3	H	A	
Mid Ch. 2	441 MHs	 E											
4.882	3.0	36.6	32.7	5.8	-34.8	0.0	0.0	40.4	74.0	-33.6	V	P	
4.882	3.0	23.8	32.7	5.8	-34.8	0.0	0.0	27.5	54.0	-26.5	V	A	
7.323	3.0	35.7	35.5	7.3	-34.1	0.0	0.0	44.4	74.0	-29.6	V	P	
7.323	3.0	22.5	35.5	7.3	-34.1	0.0	0.0	31.2	54.0	-22.8	V	A	
4.882	3.0	36.3	32.7	5.8	-34.8	0.0	0.0	40.1	74.0	-33.9	H	P	
4.882	3.0	23.6	32.7	5.8	-34.8	0.0	0.0	27.4	54.0	-26.6	H	A	
7.323	3.0	34.8	35.5	7.3	-34.1	0.0	0.0	43.4	74.0	-30.6	H	P	
7.323	3.0	22.6	35.5	7.3	-34.1	0.0	0.0	31.2	54.0	-22.8	H	A	
High Ch.	2480 MH	lz											
4.960	3.0	42.9	32.8	5.9	-34.8	0.0	0.0	46.8	74.0	-27.2	V	P	
4.960	3.0	25.4	32.8	5.9	-34.8	0.0	0.0	29.2	54.0	-24.8	V	A	
7.440	3.0	35.0	35.6	7.3	-34.1	0.0	0.0	43.9	74.0	-30.1	V	P	
7.440	3.0	22.5	35.6	7.3	-34.1	0.0	0.0	31.3	54.0	-22.7	V	A	
4.960	3.0	41.7	32.8	5.9	-34.8	0.0	0.0	45.5	74.0	-28.5	H	P	
4.960	3.0	25.1	32.8	5.9	-34.8	0.0	0.0	29.0	54.0	-25.0	H	A	
7.440	3.0	34.7	35.6	7.3	-34.1	0.0	0.0	43.6	74.0	-30.4	H	P	***************************************
7.440	3.0	22.3	35.6	7.3	-34.1	0.0	0.0	31.2	54.0	-22.8	H	A	

Rev. 4.1.2.7

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

DATE: JUNE 17, 2010 FCC ID: OVF-K5402

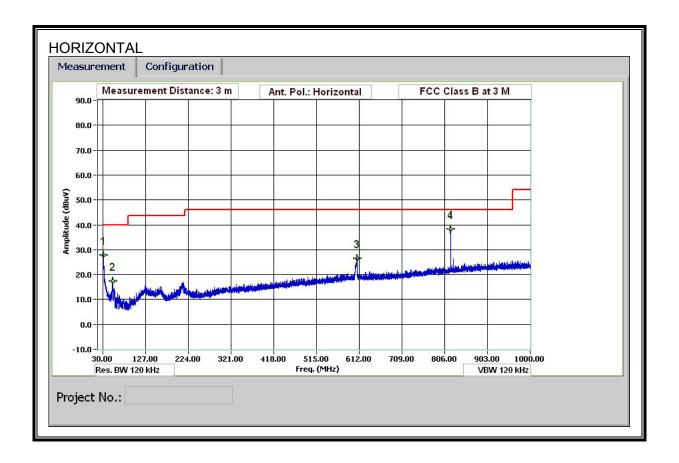
7.3. WORST-CASE BELOW 1 GHz

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

DATE: JUNE 17, 2010

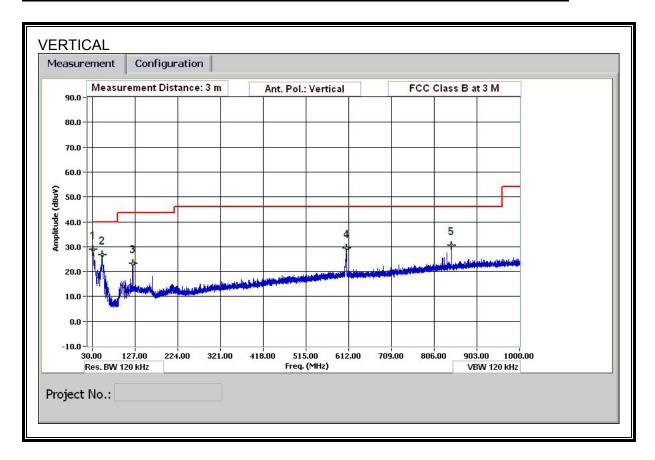
FCC ID: OVF-K5402

PLOTS



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

DATE: JUNE 17, 2010



DATA

30-1000MHz Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Chin Pang Test Engr: Date: 06/15/10 Project #: 10U13257

Company: Kyocera Communications, Inc. EUT Description: Tri-Band 1xRTT CDMA with Bluetooth

Configuration: EUT and AC Adapter

EUT M/N: K54-02 Test Target: FCC 15B Mode Oper:

TX (Worst Case)

f Measurement Frequency Amp Preamp Gain
Dist Distance to Antenna D Corr Distance Correct to 3 meters
Read Analyzer Reading Filter Filter Insert Loss
AF Antenna Factor Corr. Calculated Field Strength
CL Cable Loss Limit Field Strength Limit

f	Dist	Read	AF	CL	Amp	D Corr	Filter	Corr.	Limit	Margin	Ant Pol	Det	Notes
MHz	(m)	dBuV	dB/m	dВ	dВ	dВ	dВ	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
31.560	3.0	37.5	19.2	0.5	28.4	0.0	0.0	28.8	40.0	-11.2	V	P	
52.561	3.0	45.5	9.0	0.6	28.3	0.0	0.0	26.7	40.0	-13.3	V	P	
122.764	3.0	36.6	13.9	0.9	28.0	0.0	0.0	23.4	43.5	-20.1	V	P	
607.344	3.0	37.2	18.5	2.2	28.6	0.0	0.0	29.4	46.0	-16.7	V	P	
845.554	3.0	34.6	21.4	2.6	28.1	0.0	0.0	30.6	46.0	-15.4	V	P	
31.320	3.0	36.4	19.3	0.5	28.4	0.0	0.0	27.8	40.0	-12.2	H	P	
52.561	3.0	36.1	9.0	0.6	28.3	0.0	0.0	17.3	40.0	-22.7	Н	P	
606.864	3.0	34.3	18.5	2.2	28.6	0.0	0.0	26.4	46.0	-19.6	Н	P	
819.273	3.0	42.8	21.1	2.6	28.1	0.0	0.0	38.3	46.0	-7.7	H	P	
			•										

Margin Margin vs. Limit

Rev. 1.27.09

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

DATE: JUNE 17, 2010 FCC ID: OVF-K5402

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8. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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		

DATE: JUNE 17, 2010

FCC ID: OVF-K5402

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

Decreases with the logarithm of the frequency.

REPORT NO: 10U13257-1 EUT: TRI-BAND 1xRTT CDMA PHONE WITH BLUETOOTH

6 WORST EMISSIONS (EUT WITH AC ADAPTER)

	CONDUCTED EMISSIONS DATA											
Freq.		Reading		Closs	Limit	FCC_B	Margin	Remark				
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2			
0.31	41.55		29.78	0.00	59.89	49.89	-18.34	-20.11	L1			
22.90	42.90		28.35	0.00	60.00	50.00	-17.10	-21.65	L1			
24.01	45.70		35.32	0.00	60.00	50.00	-14.30	-14.68	L1			
0.31	40.93		31.90	0.00	60.02	50.02	-19.09	-18.12	L2			
22.90	42.00		27.42	0.00	60.00	50.00	-18.00	-22.58	L2			
24.01	45.68		24.01	0.00	60.00	50.00	-14.32	-25.99	L2			
6 Worst Da	ta 											

DATE: JUNE 17, 2010

LINE 1 RESULTS

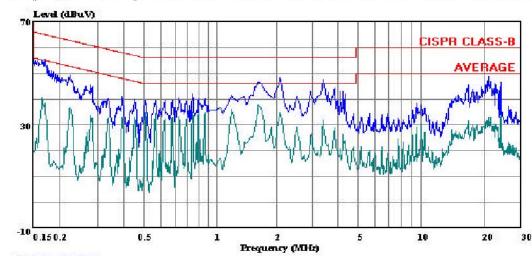
Compliance Certification Services

DATE: JUNE 17, 2010

FCC ID: OVF-K5402

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

File#: 10U13257-LC.EMI Date: 06-08-2010 Time: 10:56:32 Data#: 28



(Line Conduction)

Trace: 26 Ref Trace:

Condition: CISPR CLASS-B

Test Operator: : William Zhuang

Project #:

: 10U13257 : Kyocera Communications, Inc. Company: EUT Description:: Tri Band 1xRTT CDMA with Bluetooth

Model: : K54-02

Configuration: : EUT, Laptop and minimum configuration

: Normal Mode:

Target: : FCC Class B Voltage: : 115V / 60Hz

: L2: Peak (Blue); Average (Green)

LINE 2 RESULTS

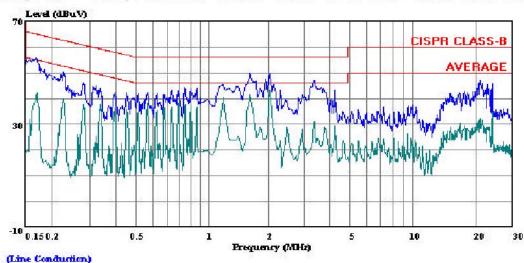
Compliance Certification Services

DATE: JUNE 17, 2010 FCC ID: OVF-K5402

47173 Benicia Street Fremont, CA 94538

Tel: (510) 771-1000 Fax: (510) 661-0888

Data#: 21 File#: 10U13257-LC.EMI Date: 06-08-2010 Time: 10:47:11



Ref Trace: Trace: 19

Condition: CISPR CLASS-B

Test Operator: : William Zhuang

Project #: : 10U13257 Company: : Kyocera Communications, Inc. EUT Description:: Tri Band 1xRTT CDMA with Bluetooth

: K54-02

Configuration: : EUT, Laptop and minimum configuration

: Normal Mode: : FCC Class B Target: : 115V / 60Hz Voltage:

: L1: Peak (Blue); Average (Green)

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