RADIATED SPURIOUS EMISSIONS PORTIONS OF

FCC CFR47 PART 15 SUBPART C

FOR

DUAL-BAND 1xRTT CDMA PHONE WITH BLUETOOTH AND WIFI

MODEL NUMBER: SCP-8600

FCC ID: V65SCP-8600

REPORT NUMBER: 10U13193-3

ISSUE DATE: MAY 13, 2010

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

Prepared by
COMPLIANCE CERTIFICATION SERVICES
47173 BENICIA STREET
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	05/13/10	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, U.S.A.

EUT DESCRIPTION: DUAL-BAND 1xRTT CDMA PHONE WITH BLUETOOTH AND WIFI

MODEL: SCP-8600

SERIAL NUMBER: A0000012FEED44

DATE TESTED: MAY 11-12, 2010

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	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 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:

THU CHAN
EMC MANAGER
COMPLIANCE CERTIFICATION SERVICES

Tested By:

CHIN PANG
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2009, FCC CFR 47 Part 2, and FCC CFR 47 Part 15.

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 with Bluetooth and WiFi feature that manufactured by KYOCERA Communications, Inc.

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an internal antenna, with a maximum gain of -1.0dBi.

5.3. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was 1.0.10.0.

The test utility software used during testing was FCC_tools.

5.4. WORST-CASE CONFIGURATION

The EUT has been evaluated at X, Y, Z-axis, and AC/DC adapter. The highest measured output power was at X-Axis with 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-ODF263-71615-720-2D21	N/A
AC Adapter	Sanyo	SCP-24ADT	NA	NA
Headset	N/A	N/A	N/A	N/A

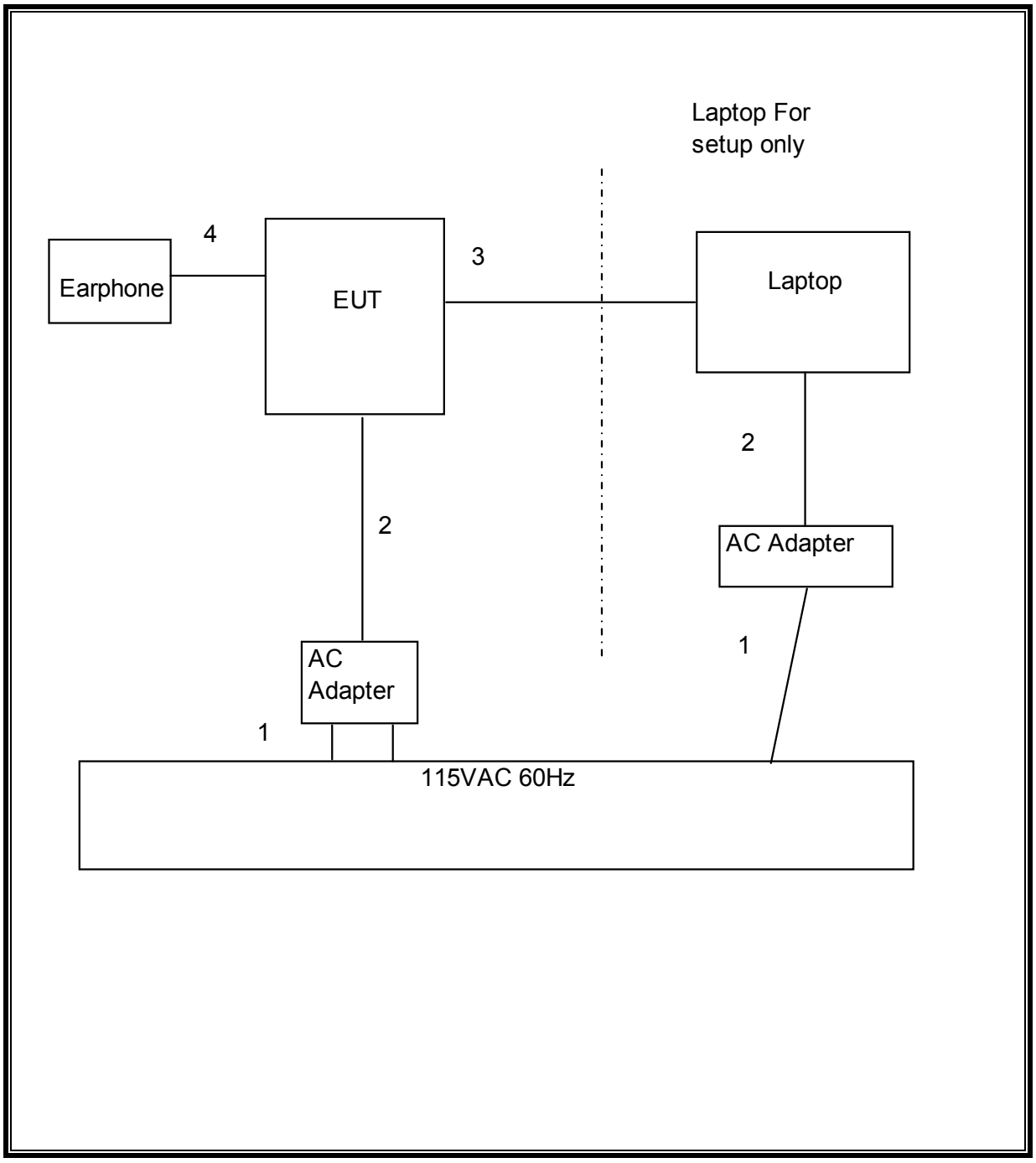
I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**# of Identic Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	AC	2	US115V	Un-Shielded	1m	NA
2	DC Input	2	Mini-USB	Un-Shielded	2m	N/A
3	USB	1	Mini-USB	Un-Shielded	1m	N/A
4	AUDIO	1	Mini-Jack	Un-Shielded	1.2m	NA

TEST SETUP

The headset attached EUT is tested as stand-alone unit. The support laptop is used only to setup, change channels and modulations for the EUT.

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
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00885	07/06/10
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01016	07/14/10
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	08/31/10
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05/06/11
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11/06/10
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRC13192	N02683	CNR

7. RADIATED TEST RESULTS

7.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

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.

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, 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.

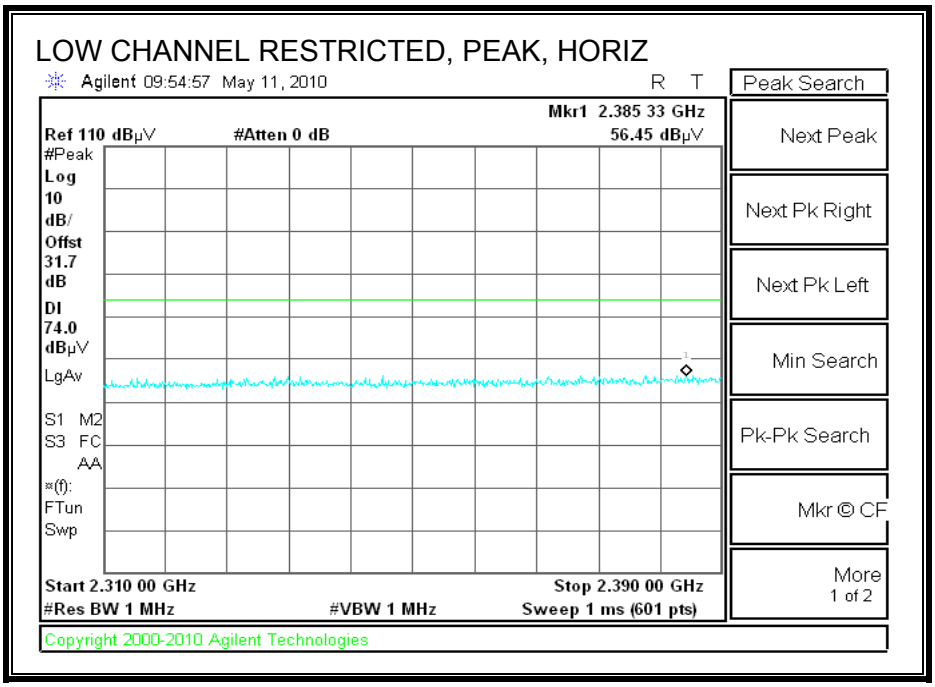
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

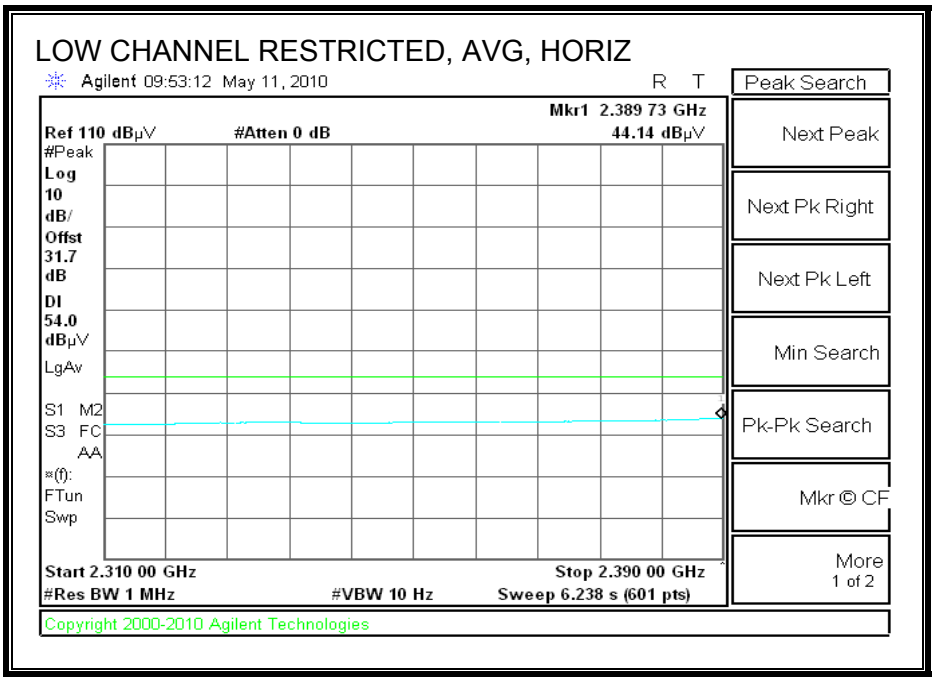
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

RESULTS

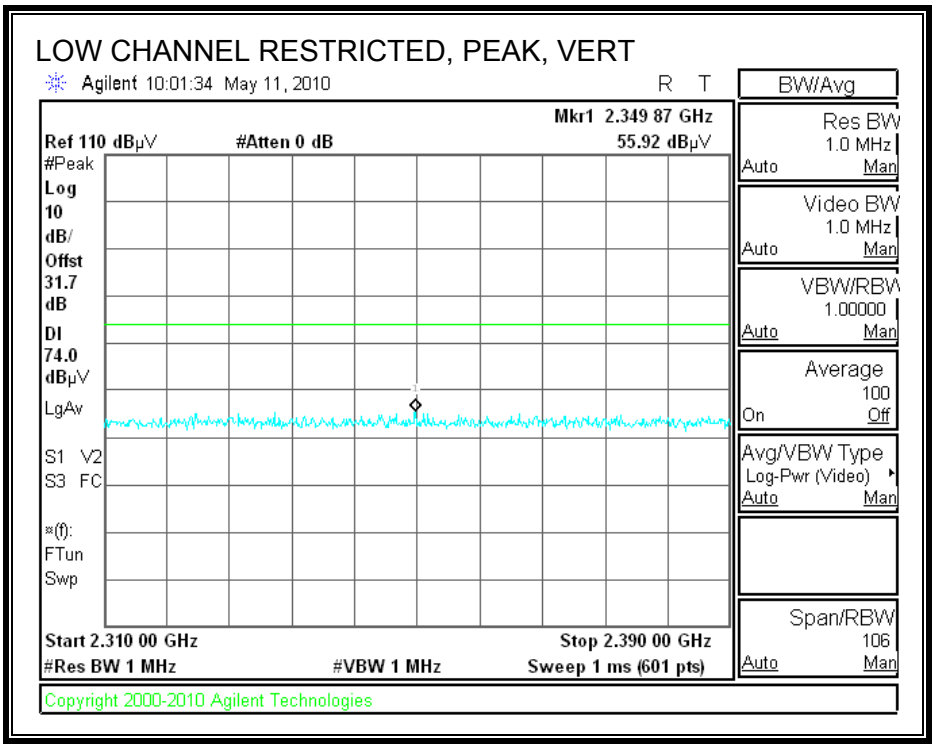
7.1.1. TRANSMITTER ABOVE 1 GHz FOR 802.11b MODE IN THE 2.4 GHz BAND

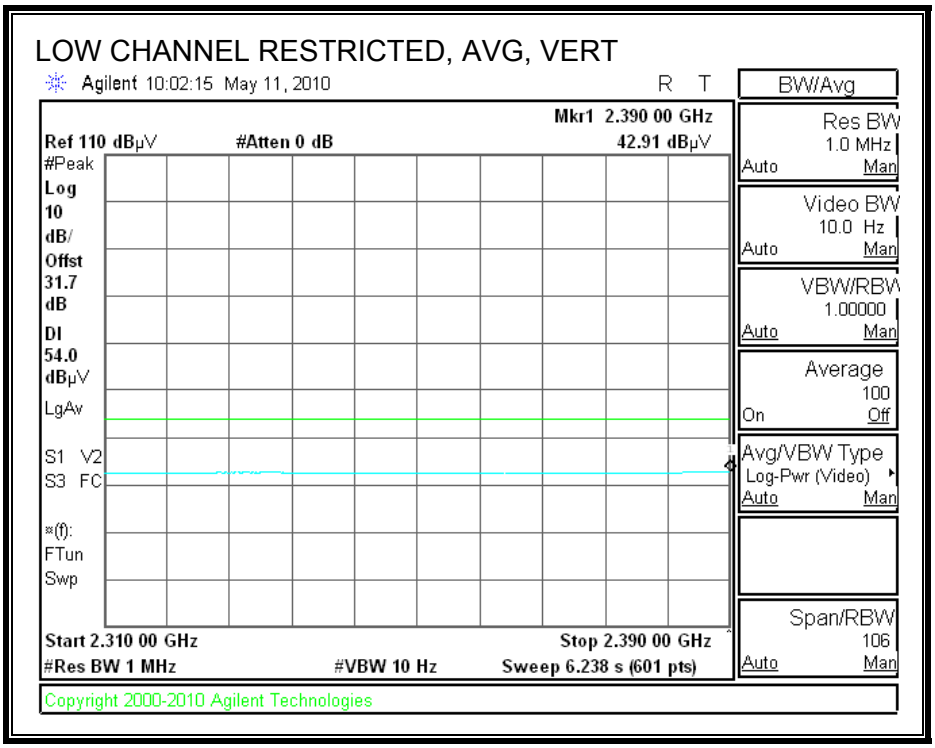
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



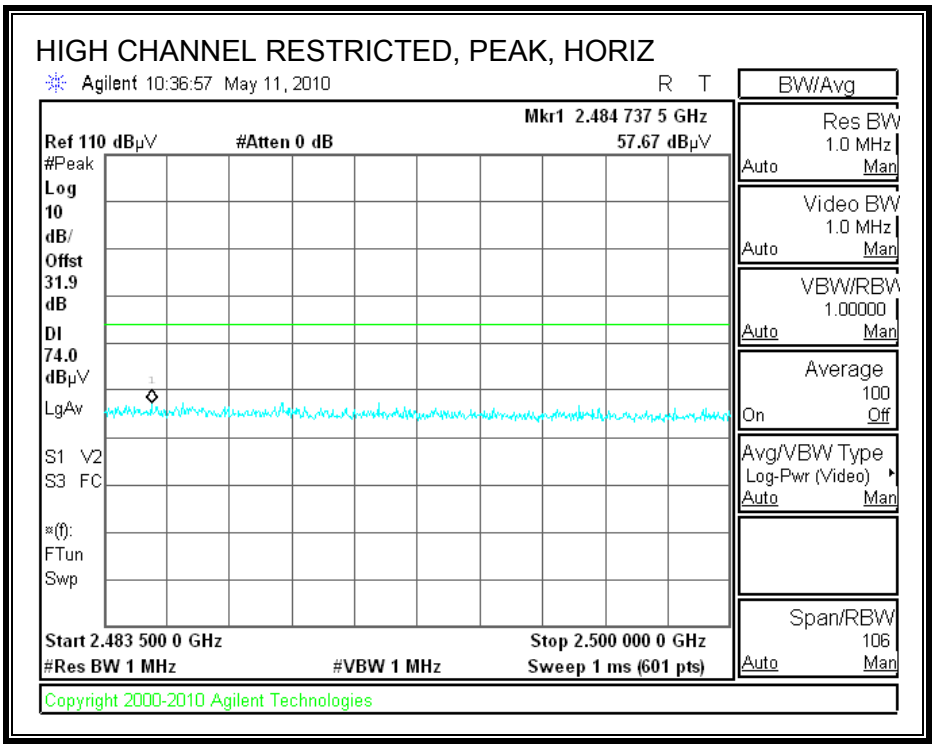


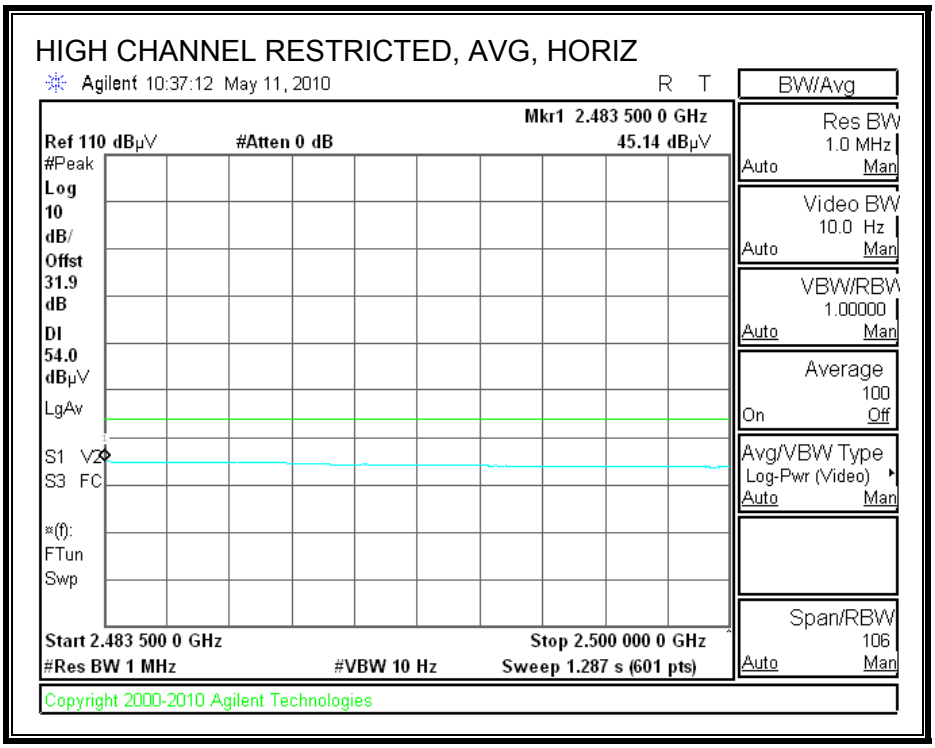
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



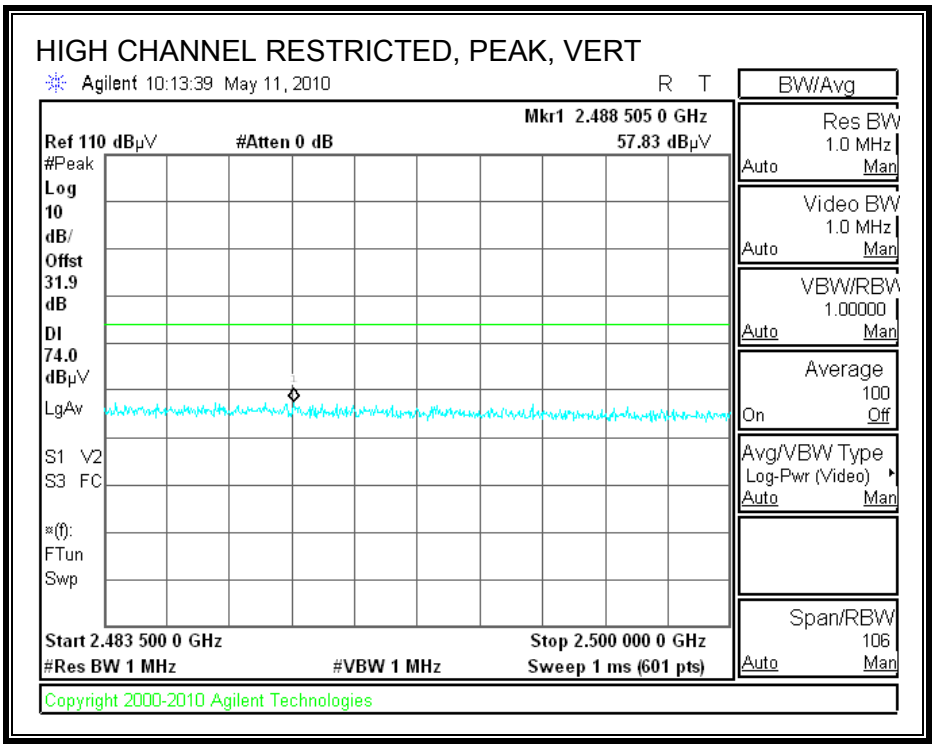


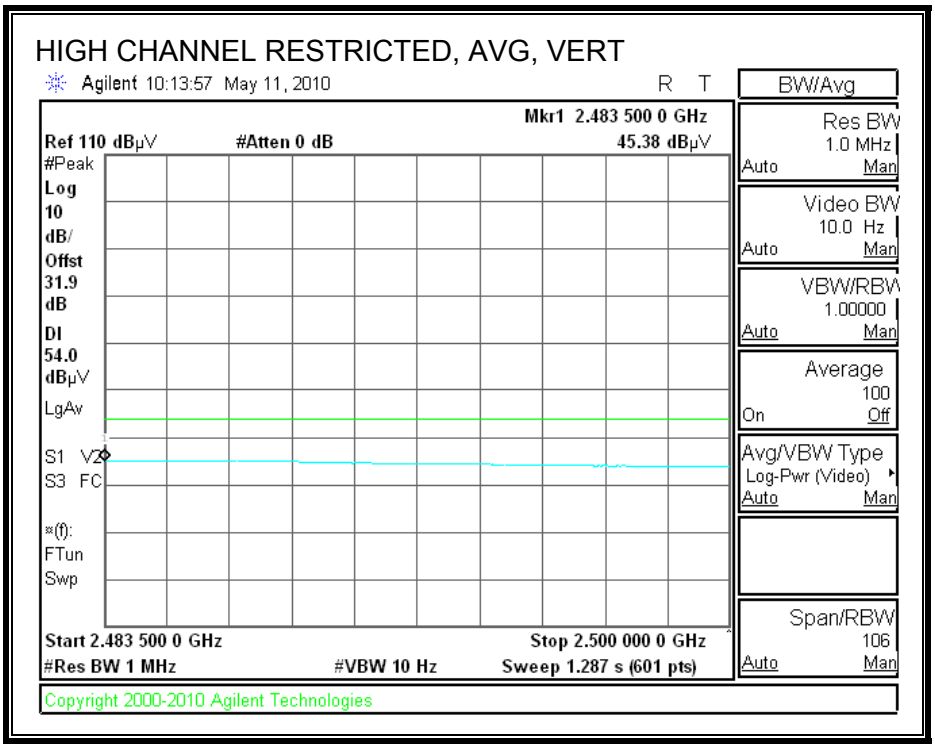
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 05/11/10
Project #: 10U13193
Company: Kyocera
EUT Description: WiFi + Dual-Band CDMA Phone with Bluetooth 2.0 + EDR
EUT M/N: SCP-8600
Test Target: FCC 15.247
Mode Oper: TX, b mode

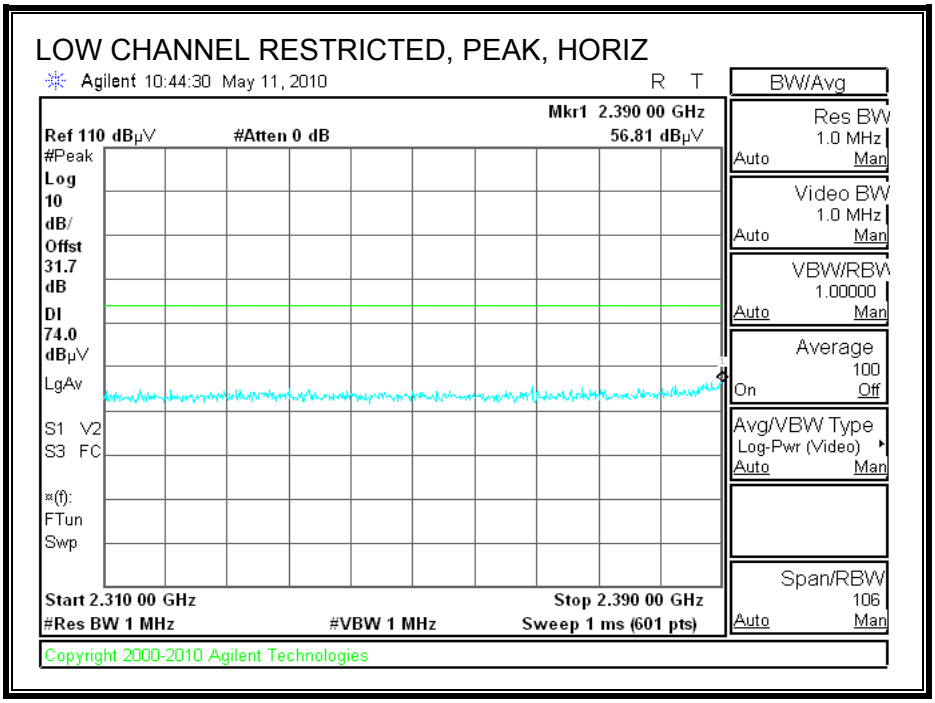
f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs.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

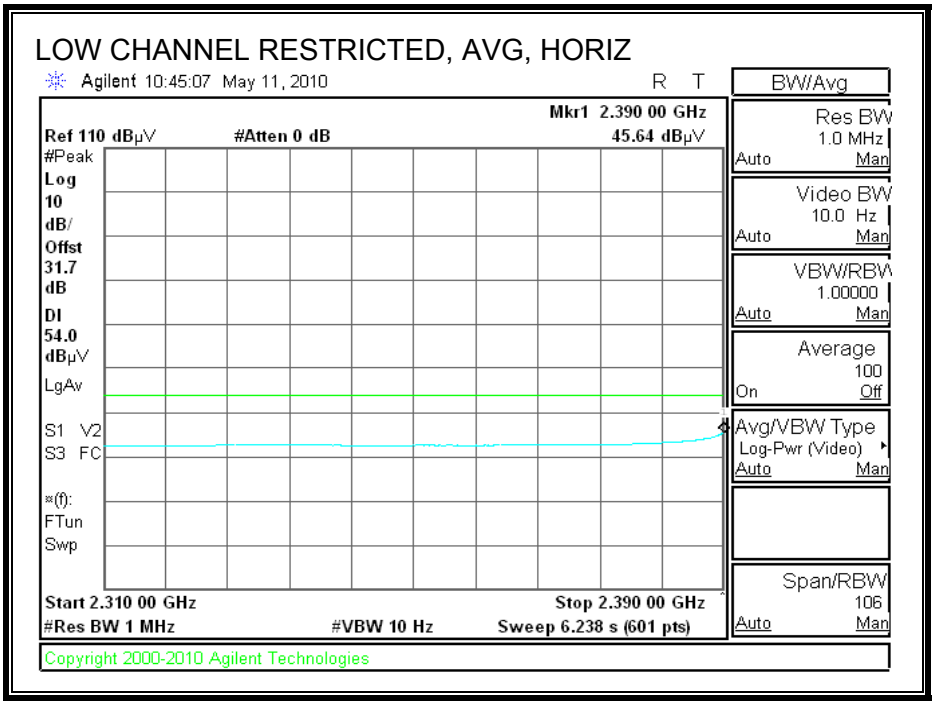
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	39.6	33.0	5.8	-36.5	0.0	0.0	41.9	74.0	-32.1	H	P	
4.824	3.0	26.6	33.0	5.8	-36.5	0.0	0.0	28.9	54.0	-25.1	H	A	
4.824	3.0	38.3	33.0	5.8	-36.5	0.0	0.0	40.7	74.0	-33.3	V	P	
4.824	3.0	27.4	33.0	5.8	-36.5	0.0	0.0	29.8	54.0	-24.2	V	A	
Mid Ch, 2437MHz													
4.874	3.0	38.9	33.1	5.8	-36.5	0.0	0.0	41.4	74.0	-32.6	H	P	
4.874	3.0	26.8	33.1	5.8	-36.5	0.0	0.0	29.3	54.0	-24.7	H	A	
7.311	3.0	38.1	35.3	7.3	-36.2	0.0	0.0	44.4	74.0	-29.6	H	P	
7.311	3.0	25.7	35.3	7.3	-36.2	0.0	0.0	32.0	54.0	-22.0	H	A	
4.874	3.0	38.7	33.1	5.8	-36.5	0.0	0.0	41.1	74.0	-32.9	V	P	
4.874	3.0	27.5	33.1	5.8	-36.5	0.0	0.0	30.0	54.0	-24.0	V	A	
7.311	3.0	38.3	35.3	7.3	-36.2	0.0	0.0	44.6	74.0	-29.4	V	P	
7.311	3.0	25.6	35.3	7.3	-36.2	0.0	0.0	32.0	54.0	-22.0	V	A	
High Ch, 2462MHz													
4.924	3.0	38.2	33.1	5.9	-36.5	0.0	0.0	40.7	74.0	-33.3	H	P	
4.924	3.0	26.4	33.1	5.9	-36.5	0.0	0.0	29.0	54.0	-25.0	H	A	
7.386	3.0	37.8	35.4	7.3	-36.2	0.0	0.0	44.3	74.0	-29.7	H	P	
7.386	3.0	25.3	35.4	7.3	-36.2	0.0	0.0	31.8	54.0	-22.2	H	A	
4.924	3.0	39.2	33.1	5.9	-36.5	0.0	0.0	41.7	74.0	-32.3	V	P	
4.924	3.0	27.2	33.1	5.9	-36.5	0.0	0.0	29.7	54.0	-24.3	V	A	
7.386	3.0	38.2	35.4	7.3	-36.2	0.0	0.0	44.7	74.0	-29.3	V	P	
7.386	3.0	26.1	35.4	7.3	-36.2	0.0	0.0	32.6	54.0	-21.4	V	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

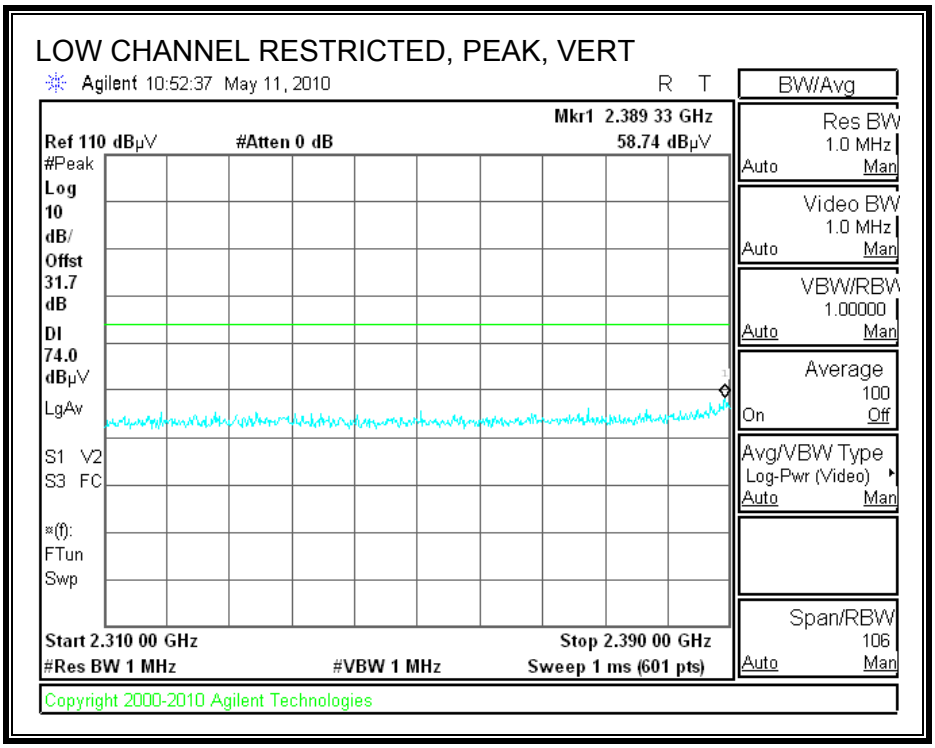
7.1.2. TRANSMITTER ABOVE 1 GHz FOR 802.11g MODE IN THE 2.4 GHz BAND

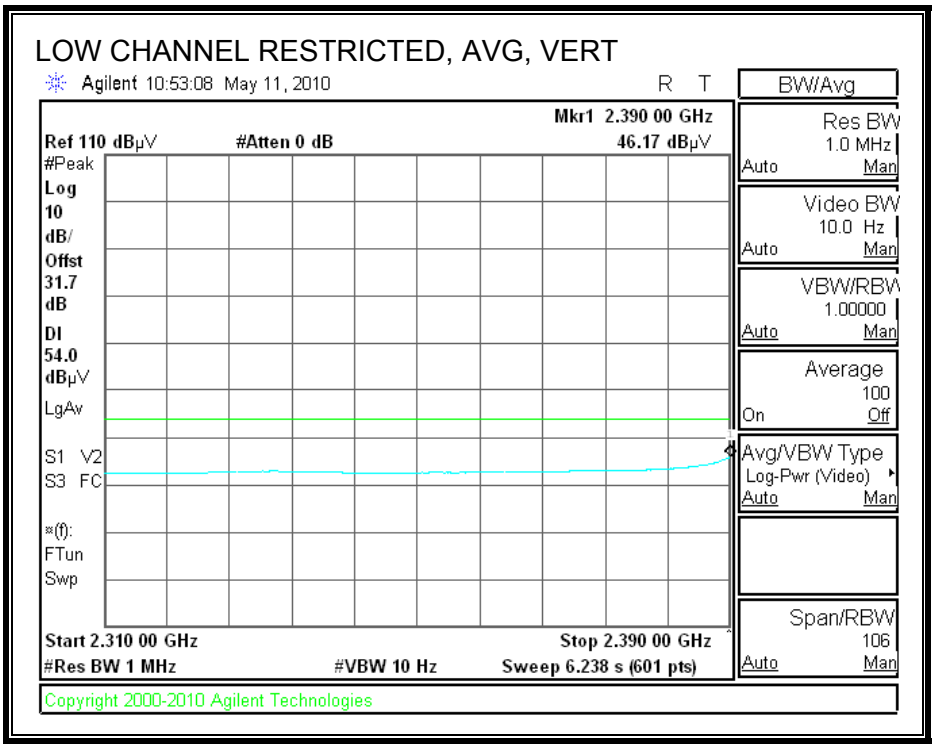
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



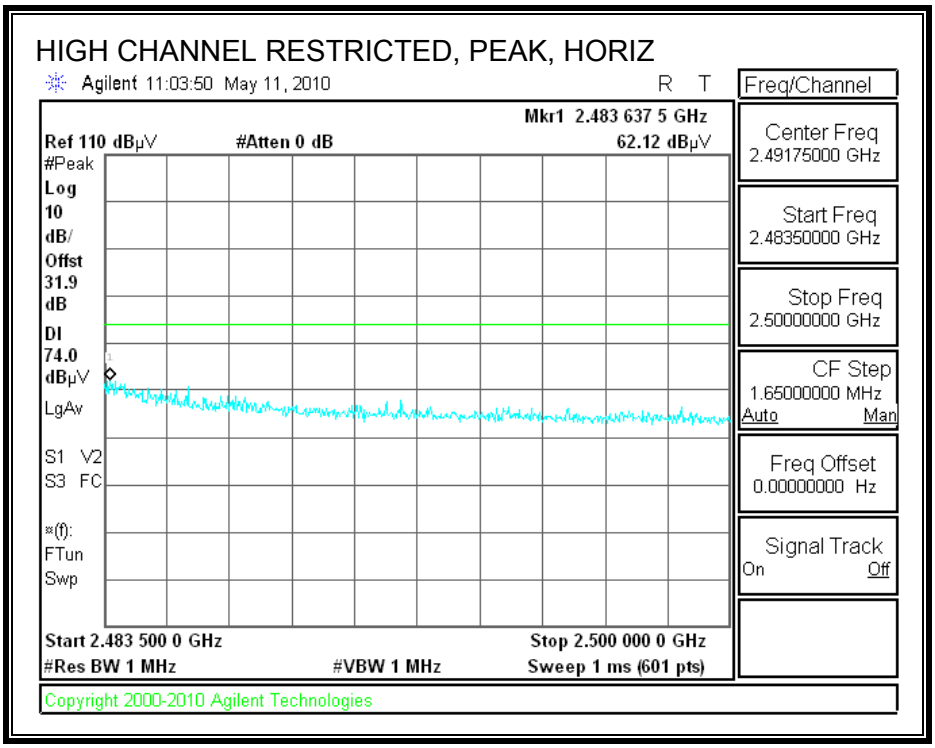


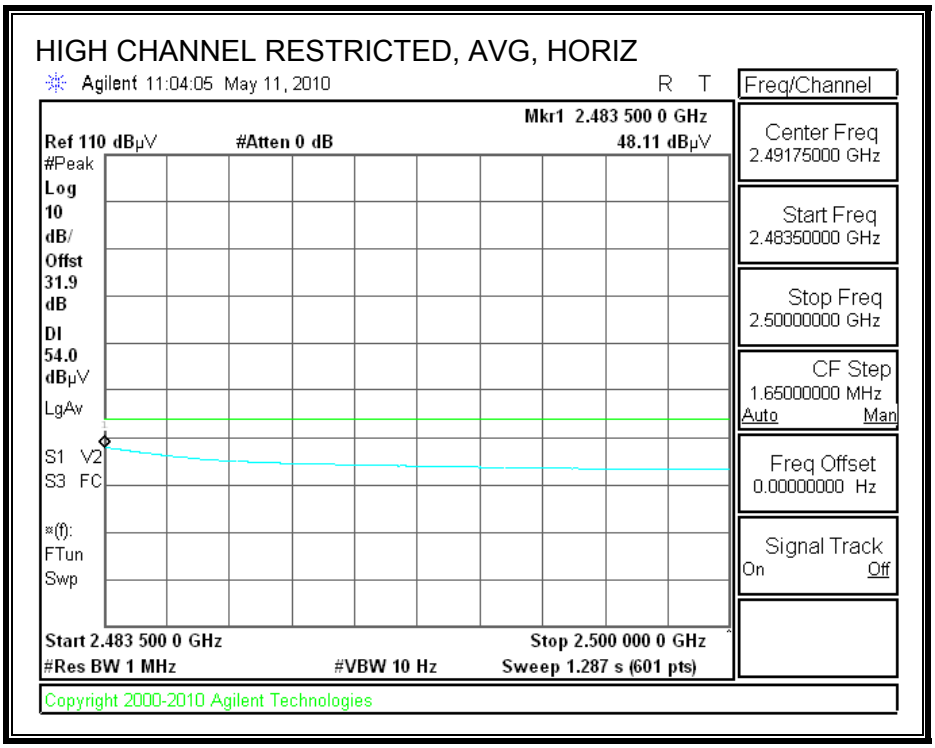
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



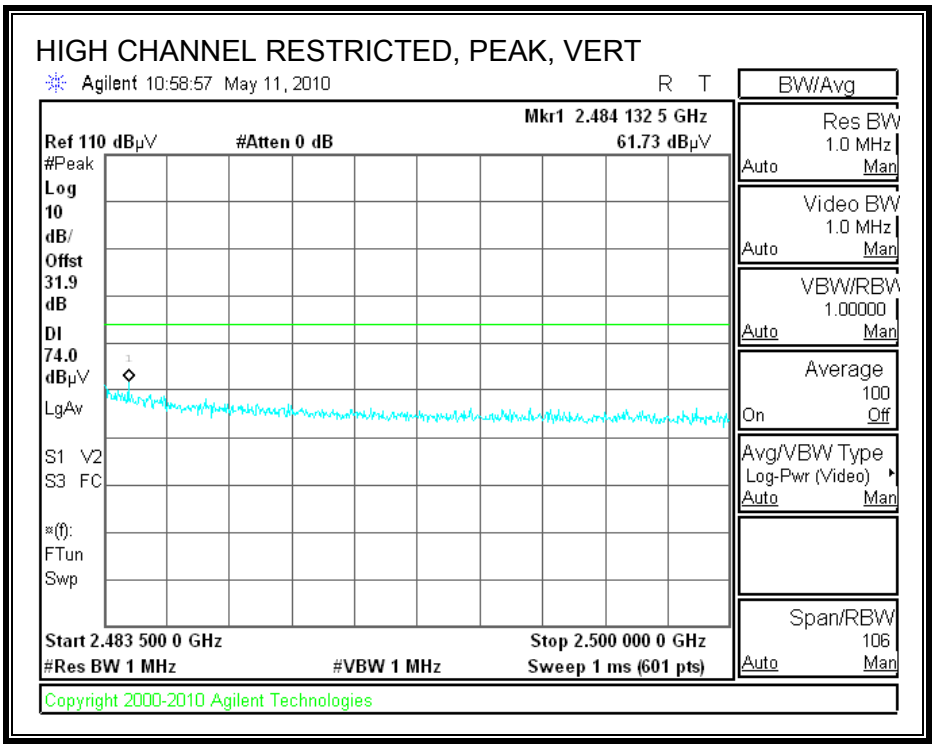


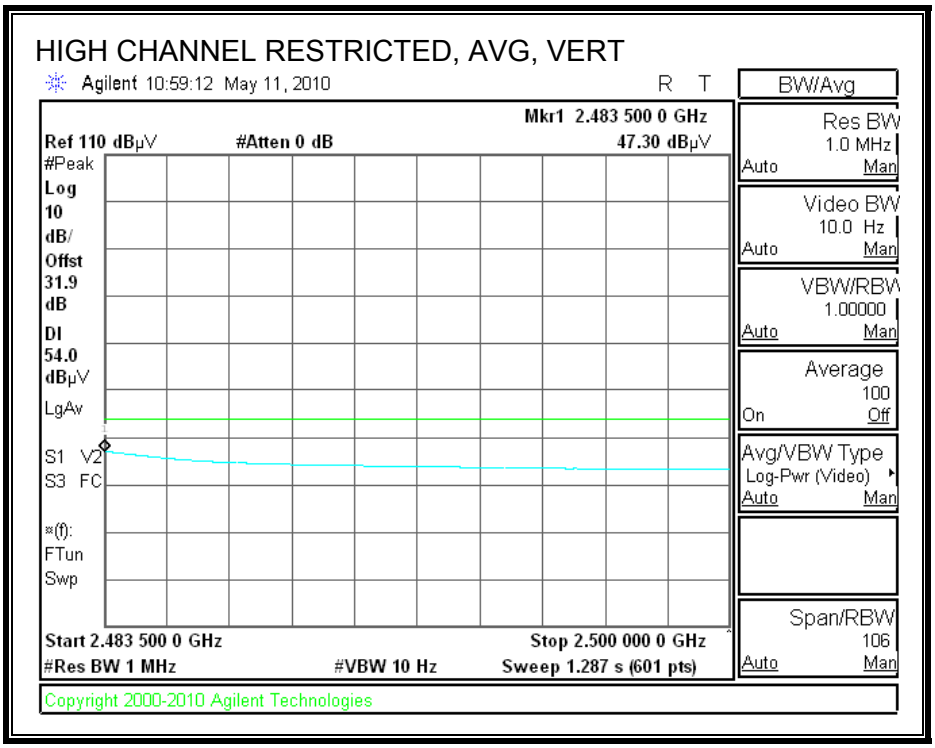
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 05/11/10
Project #: 10U13193
Company: Kyocera
EUT Description: WiFi + Dual-Band CDMA Phone with Bluetooth 2.0 + EDR
EUT M/N: SCP-8600
Test Target: FCC 15.247
Mode Oper: TX, g mode

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

Average Field Strength Limit
Peak Field Strength Limit
Margin vs. Average Limit
Margin vs. Peak Limit

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	39.1	33.0	5.8	-36.5	0.0	0.0	41.5	74.0	-32.5	V	P	
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Mid Ch, 2437MHz													
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7.311	3.0	25.3	35.3	7.3	-36.2	0.0	0.0	31.6	54.0	-22.4	V	A	
4.874	3.0	38.3	33.1	5.8	-36.5	0.0	0.0	40.8	74.0	-33.2	H	P	
4.874	3.0	25.8	33.1	5.8	-36.5	0.0	0.0	28.3	54.0	-25.7	H	A	
7.311	3.0	37.7	35.3	7.3	-36.2	0.0	0.0	44.1	74.0	-29.9	H	P	
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High Ch, 2462MHz													
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4.924	3.0	26.2	33.1	5.9	-36.5	0.0	0.0	28.7	54.0	-25.3	V	A	
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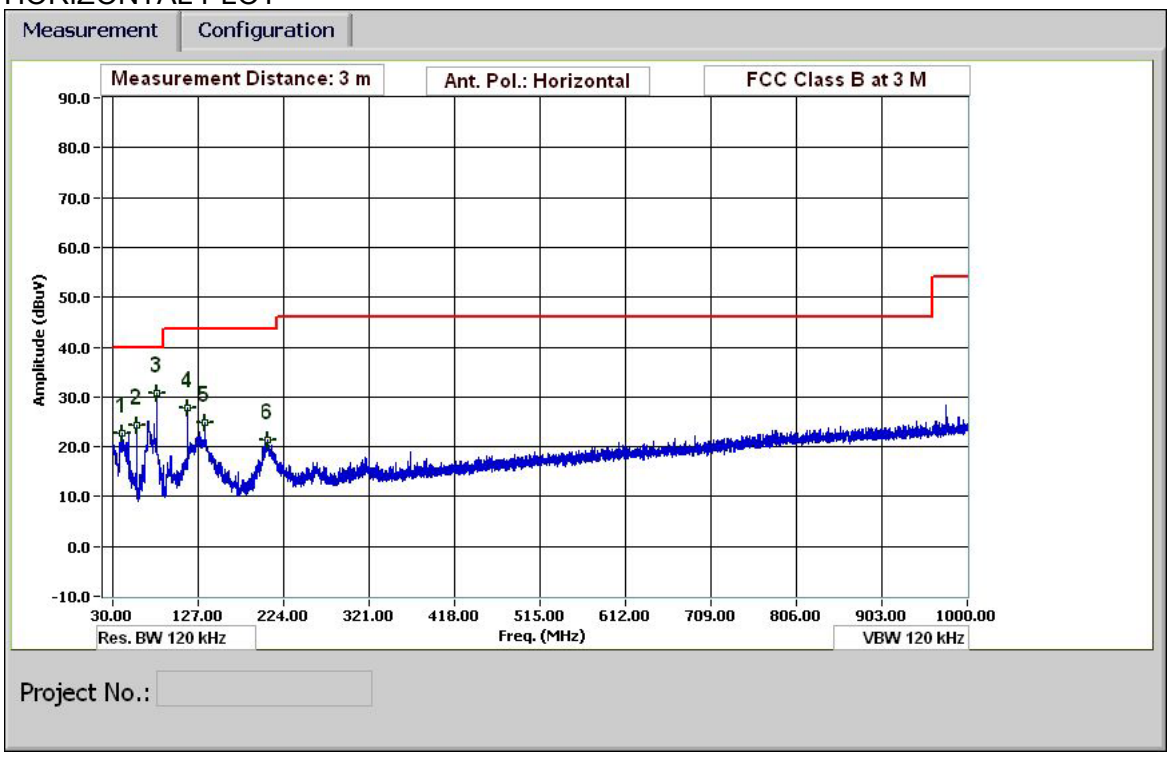
7.386	3.0	24.9	35.4	7.3	-36.2	0.0	0.0	31.4	54.0	-22.6	V	A	
4.924	3.0	38.6	33.1	5.9	-36.5	0.0	0.0	41.2	74.0	-32.8	H	P	
4.924	3.0	26.2	33.1	5.9	-36.5	0.0	0.0	28.7	54.0	-25.3	H	A	
7.386	3.0	37.9	35.4	7.3	-36.2	0.0	0.0	44.4	74.0	-29.6	H	P	
7.386	3.0	24.9	35.4	7.3	-36.2	0.0	0.0	31.4	54.0	-22.6	H	A	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

7.2. WORST-CASE BELOW 1 GHz

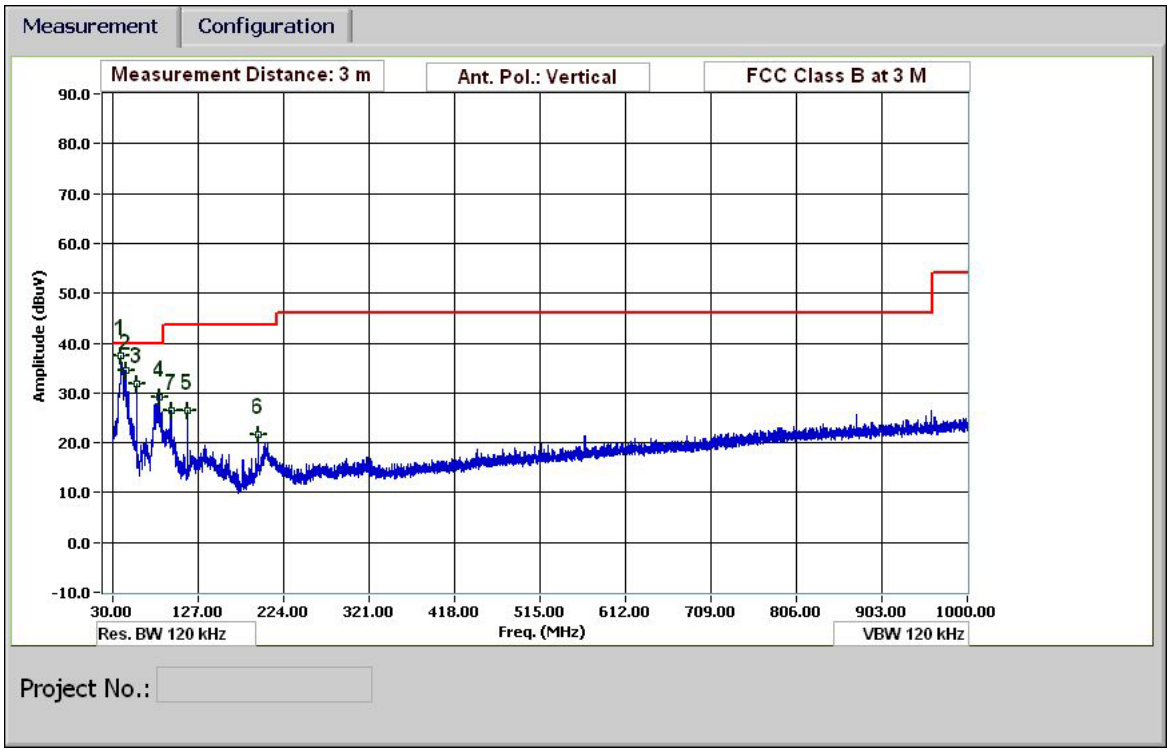
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



HORIZONTAL AND VERTICAL DATA

30-1000MHz Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 05/12/10
Project #: 10U13193
Company: Kyocera
EUT Description: WiFi + Dual band CDMA phone with Bluetooth 2.0 + EDR
EUT M/N: SCP-8600
Test Target: FCC 15C
Mode Oper: TX, Wlan (Worst Case)

f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
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 MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filter dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
40.440	3.0	37.9	13.8	0.6	29.6	0.0	0.0	22.6	40.0	-17.4	H	P	
57.601	3.0	45.3	7.9	0.7	29.6	0.0	0.0	24.3	40.0	-15.7	H	P	
80.402	3.0	51.8	7.6	0.8	29.6	0.0	0.0	30.6	40.0	-9.4	H	P	
115.204	3.0	43.4	12.8	1.0	29.5	0.0	0.0	27.7	43.5	-15.8	H	P	
134.404	3.0	39.7	13.5	1.0	29.4	0.0	0.0	24.8	43.5	-18.7	H	P	
206.407	3.0	36.9	12.0	1.3	28.9	0.0	0.0	21.3	43.5	-22.2	H	P	
39.480	3.0	52.0	14.5	0.5	29.6	0.0	0.0	37.4	40.0	-2.6	V	P	
39.480	3.0	48.9	14.5	0.5	29.6	0.0	0.0	33.3	40.0	-6.7	V	QP	
44.521	3.0	52.2	11.3	0.6	29.6	0.0	0.0	34.5	40.0	-5.5	V	P	
57.601	3.0	52.9	7.9	0.7	29.6	0.0	0.0	31.8	40.0	-8.2	V	P	
82.442	3.0	50.3	7.6	0.8	29.6	0.0	0.0	29.1	40.0	-10.9	V	P	
96.003	3.0	46.0	9.1	0.9	29.5	0.0	0.0	26.4	43.5	-17.1	V	P	
115.204	3.0	42.1	12.8	1.0	29.5	0.0	0.0	26.4	43.5	-17.1	V	P	
195.367	3.0	37.6	11.6	1.3	28.9	0.0	0.0	21.5	43.5	-22.0	V	P	

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

* Decreases with the logarithm of the frequency.

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

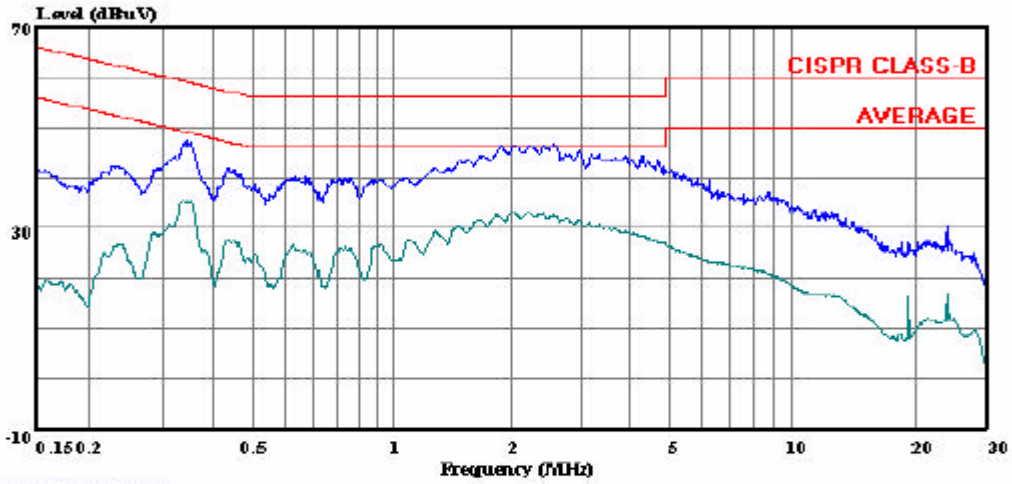
6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.35	46.72	--	35.22	0.00	59.06	49.06	-12.34	-13.84	L1
0.45	40.96	--	27.37	0.00	56.89	46.89	-15.93	-19.52	L1
2.53	46.58	--	32.75	0.00	56.00	46.00	-9.42	-13.25	L1
0.34	50.12	--	39.46	0.00	59.28	49.28	-9.16	-9.82	L2
0.85	43.11	--	30.19	0.00	56.00	46.00	-12.89	-15.81	L2
2.40	49.11	--	36.96	0.00	56.00	46.00	-6.89	-9.04	L2
6 Worst Data									

LINE 1 RESULTS

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

Data#: 7 File#: 10U13193.EMI Date: 05-12-2010 Time: 13:34:04



(Line Conduction)

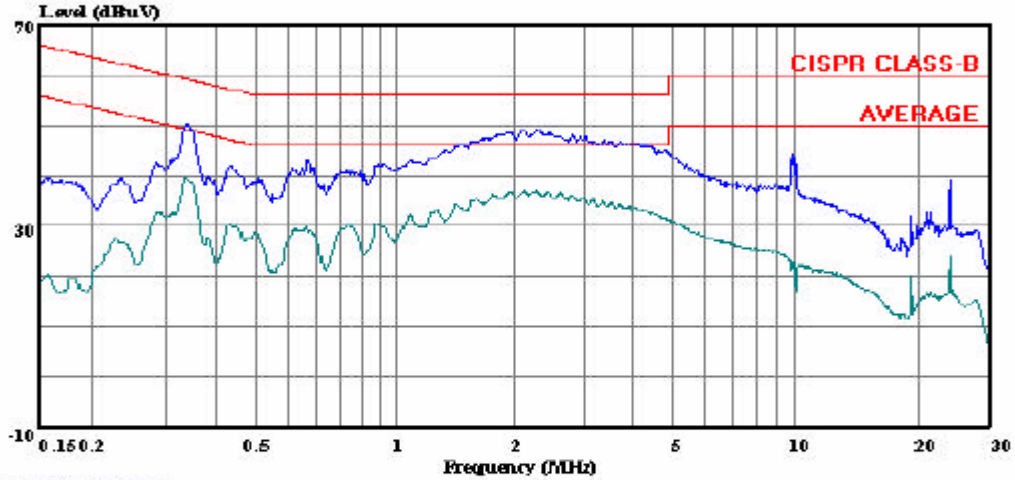
Trace: 5 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: : Chin Pang
Project #: : 10U13193
Company: : Kyocera
EUT Description:: WiFi + Dual-Band CDMA Phone with
: bluetooth 2.0 + EDR
Configuration: : EUT with AC Adapter and Earphone
Mode: : TX (Worst Case)
Target: : FCC Class B
Voltage: : 115VAC / 60Hz
: L1 Peak (Blue); Average (Green)

LINE 2 RESULTS

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

Data#: 14 File#: 10U13193.EMI Date: 05-12-2010 Time: 13:40:45



(Line Conduction)

Trace: 12 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: : Chin Pang
Project #: : 10U13193
Company: : Kyocera
EUT Description:: WiFi + Dual-Band CDMA Phone with
: bluetooth 2.0 + EDR
Configuration: : EUT with AC Adapter and Earphone
Mode: : TX (Worst Case)
Target: : FCC Class B
Voltage: : 115VAC / 60Hz
: L2 Peak (Blue); Average (Green)