RADIATED SPURIOUS EMISSIONS PORTIONS OF FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

DUAL-BAND 1xRTT CDMA PHONE WITH BLUETOOTH

MODEL NUMBER: SCP-6760

FCC ID: V65SCP- 6760

REPORT NUMBER: 09U12612-2, Revision C

ISSUE DATE: AUGUST 19, 2009

Prepared for
KYOCERA CORPORATION
C/O KYOCERA COMMUNICATIONS, INC
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA. 92121

Prepared by
COMPLIANCE CERTIFICATION SERVICES
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	07/07/09	Initial Issue	T. Chan
A	08/05/09	Updated company information on section 5.1	A. Zaffar
B	08/12/09	Revised data plots	A. Zaffar
C	08/19/09	Removed 'Star Graphite' from software section and edited data plots	A. Zaffar

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: DUAL 1XRTT CDMA PHONE WITH BLUETOOTH.

MODEL NUMBER: SCP-6760

SERIAL NUMBER: 6760D312

DATE TESTED: JULY 01, 2009

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	PASS (Radiated Portions)

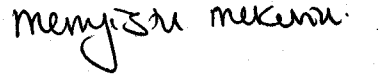
Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by CCS based on interpretations and/or observations of test results. Measurement Uncertainties 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:

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 ANSI C63.4-2003, FCC CFR 47 Part 2, 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 that manufactured by Kyocera Communication 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

Software: 0.201SP07a and Firmware: 183.

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. After the investigations, the worst-position was turned out to be mobile position without an AC Adapter.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC/DC Adapter	Sanyo	SCP-19ADT	0309A	DoC
HEADSET	N/A	N/A	2252	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 was a stand-alone unit during the test. The soft ware installed inside could help to setup the EUT.

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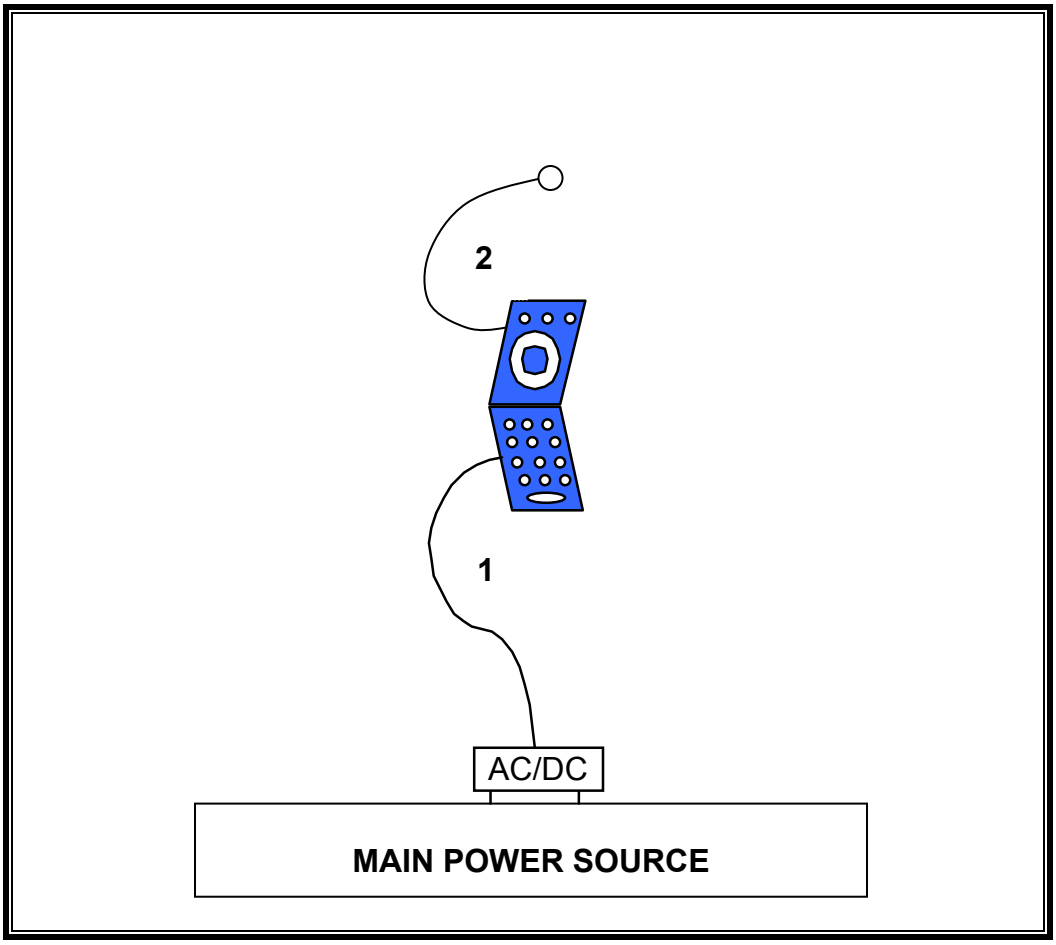
SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

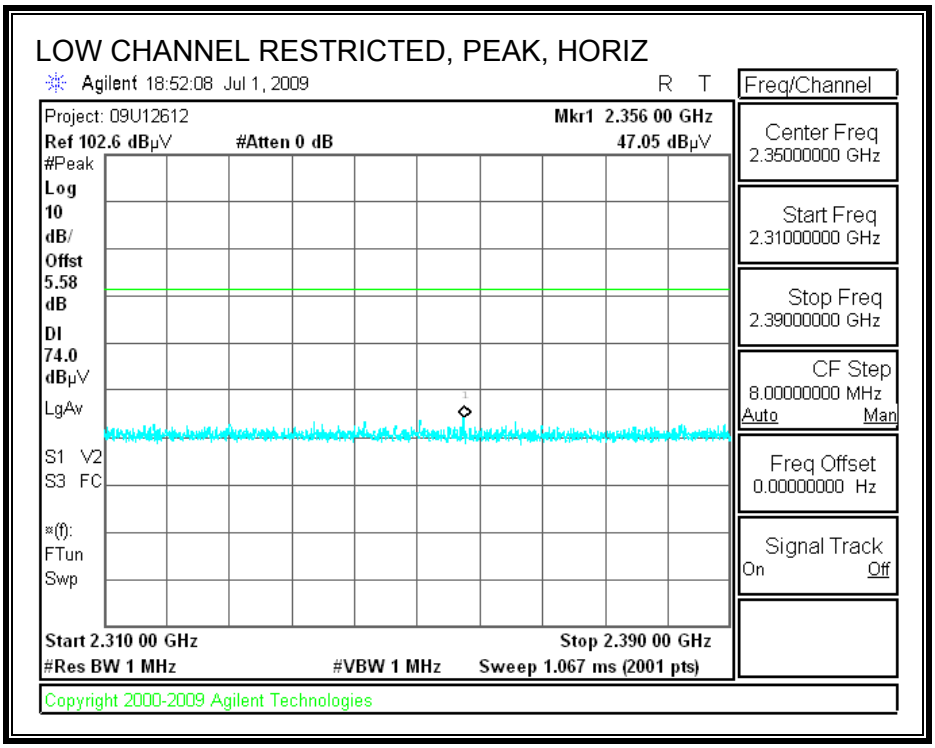
TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Asset**	**Cal Due**
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C00749	02/04/10
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00558	12/16/09
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01171	01/14/10
Antenna, Horn, 18 GHz	EMCO	3115	C00872	01/29/10
2.4 - 2.5 Reject Filter	Micro Tronics	BRM50702	N/A	N/A
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01161	08/06/09
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	10/29/09
LISN, 10 kHz ~ 30 MHz	Solar	8012-50-R-24-BNC	N02481	10/29/10
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/06/09

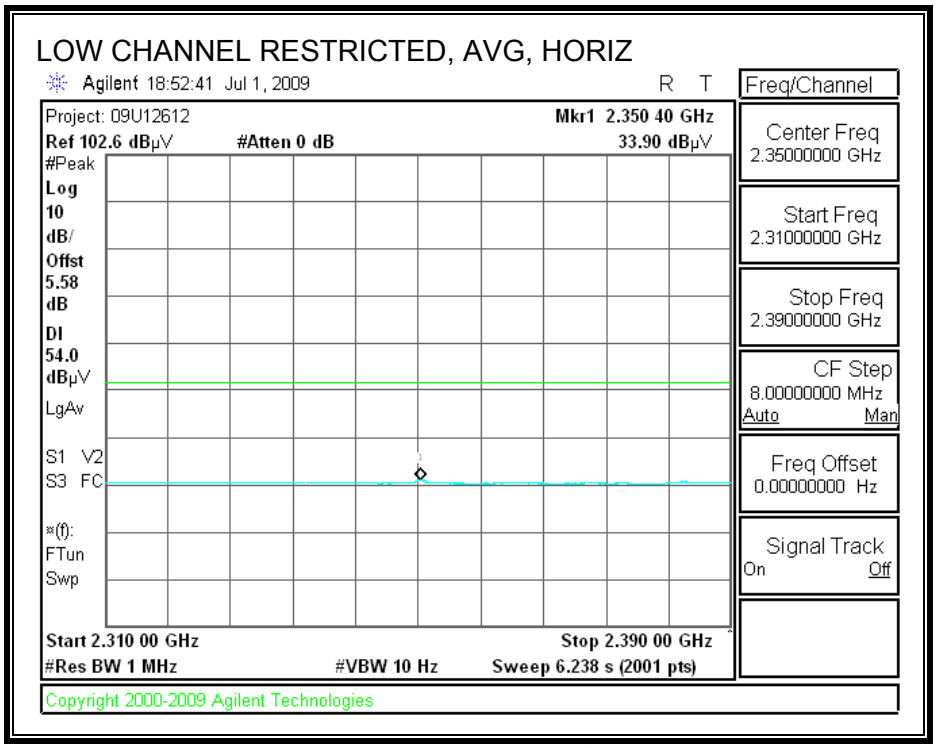
7. RADIATED TEST RESULTS

7.1. TRANSMITTER ABOVE 1 GHz

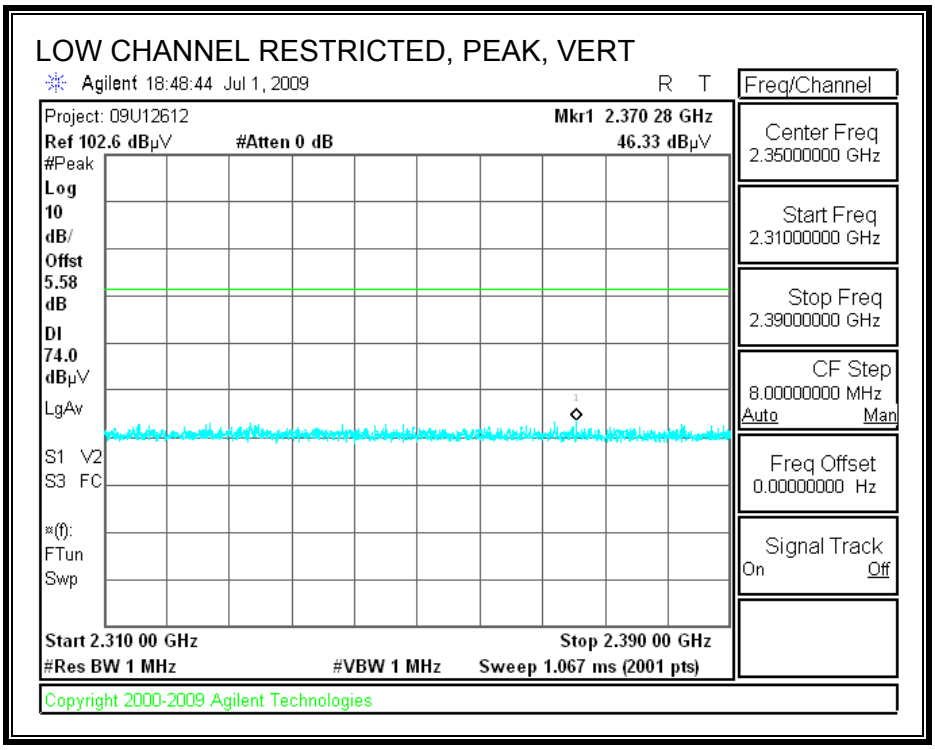
7.1.1. BASIC DATA RATE GFSK MODULATION

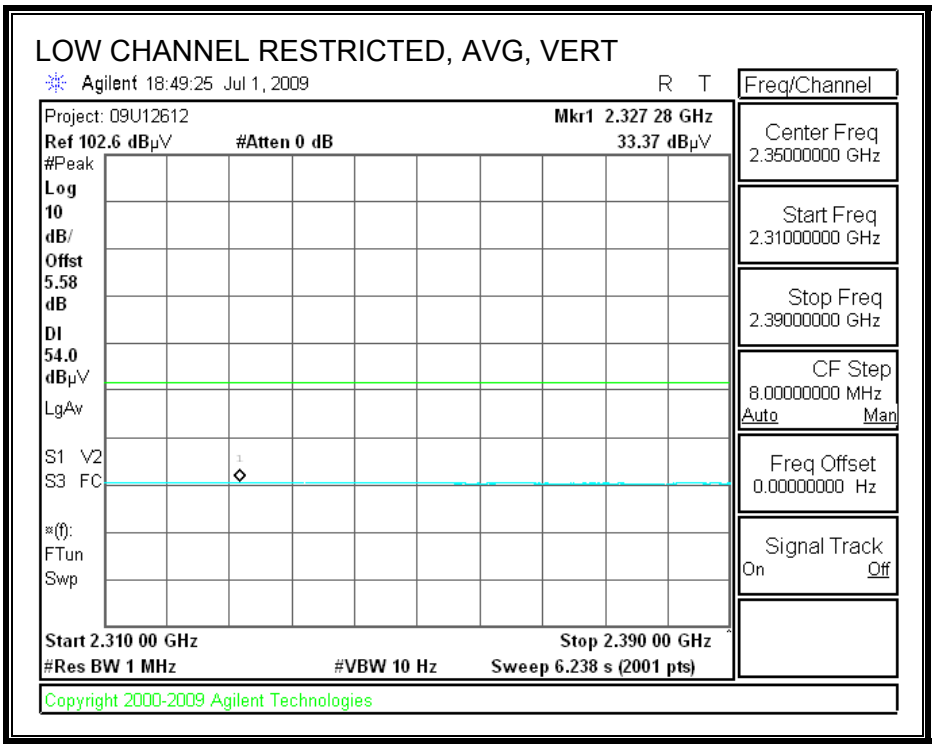
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



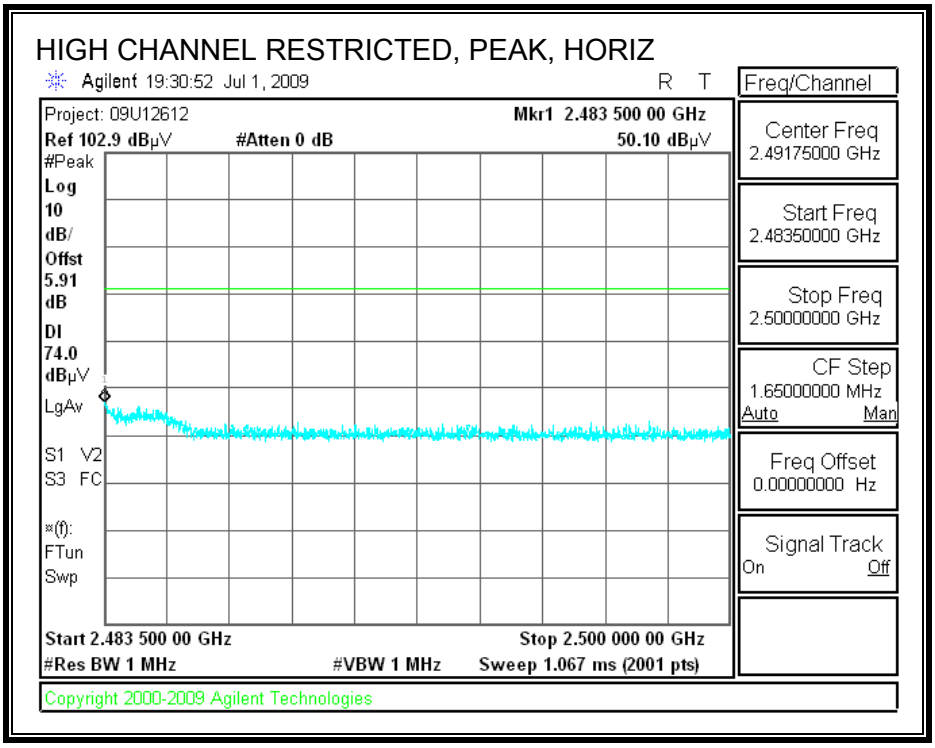


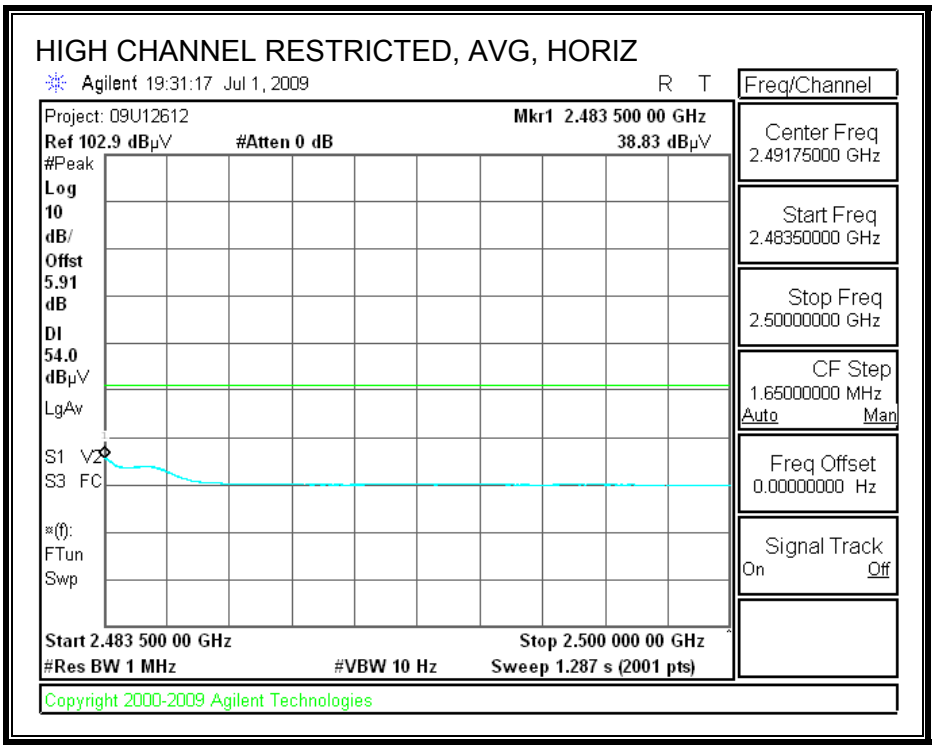
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



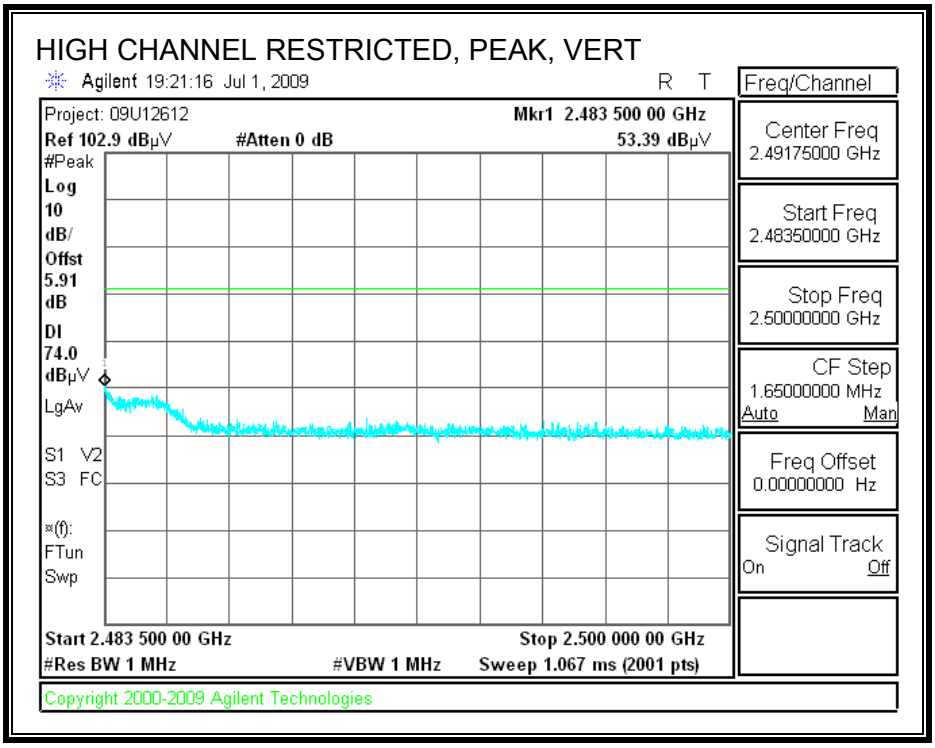


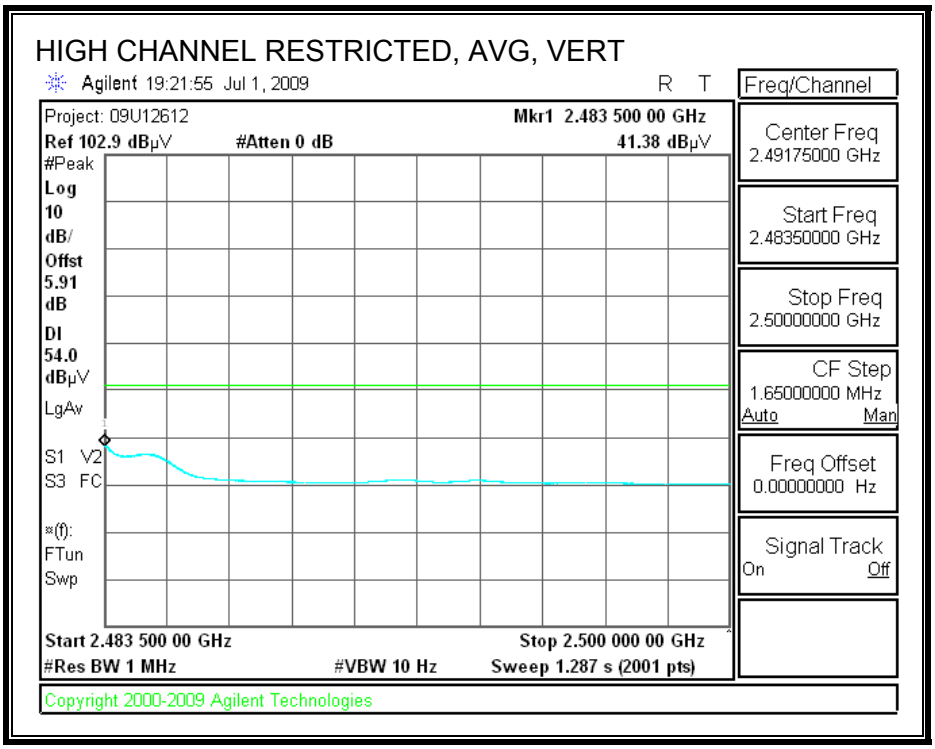
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Company:	Kyocera
Project #:	09U12645
Date:	5/22/2009
Test Engineer:	Mengistu Mekuria
Configuration:	EUT Alone
Mode:	TX GFSK

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T73; S/N: 6717 @3m	T144 Miteq 3008A00931			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

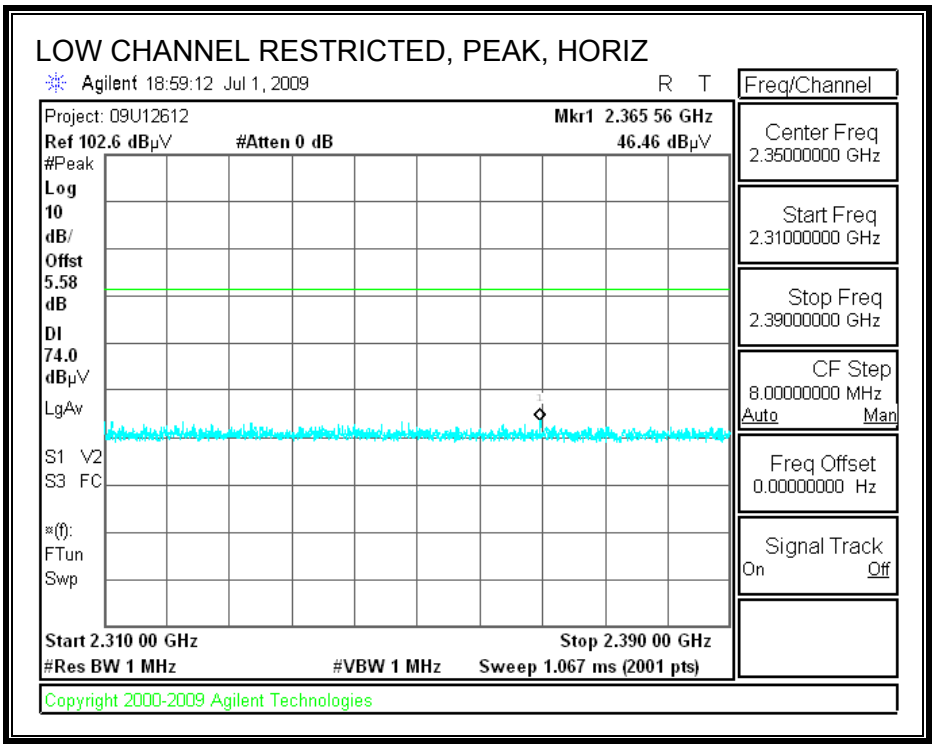
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Channel, 2402MHz															
4.804	3.0	46.7	31.6	33.0	5.8	-36.5	0.0	0.0	49.1	33.9	74	54	-24.9	-20.1	V
4.804	3.0	48.1	32.5	33.0	5.8	-36.5	0.0	0.0	50.4	34.9	74	54	-23.6	-19.1	H
Mid Channel, 2441MHz															
4.882	3.0	41.3	28.0	33.1	5.8	-36.5	0.0	0.0	43.8	30.5	74	54	-30.2	-23.5	V
4.882	3.0	43.1	28.9	33.1	5.8	-36.5	0.0	0.0	45.5	31.4	74	54	-28.5	-22.6	H
High Channel, 2480MHz															
4.960	3.0	40.0	26.8	33.2	5.9	-36.5	0.0	0.0	42.6	29.5	74	54	-31.4	-24.5	V
4.960	3.0	40.1	27.8	33.2	5.9	-36.5	0.0	0.0	42.7	30.4	74	54	-31.3	-23.6	H
		No other emissios were detected above system noise floor													

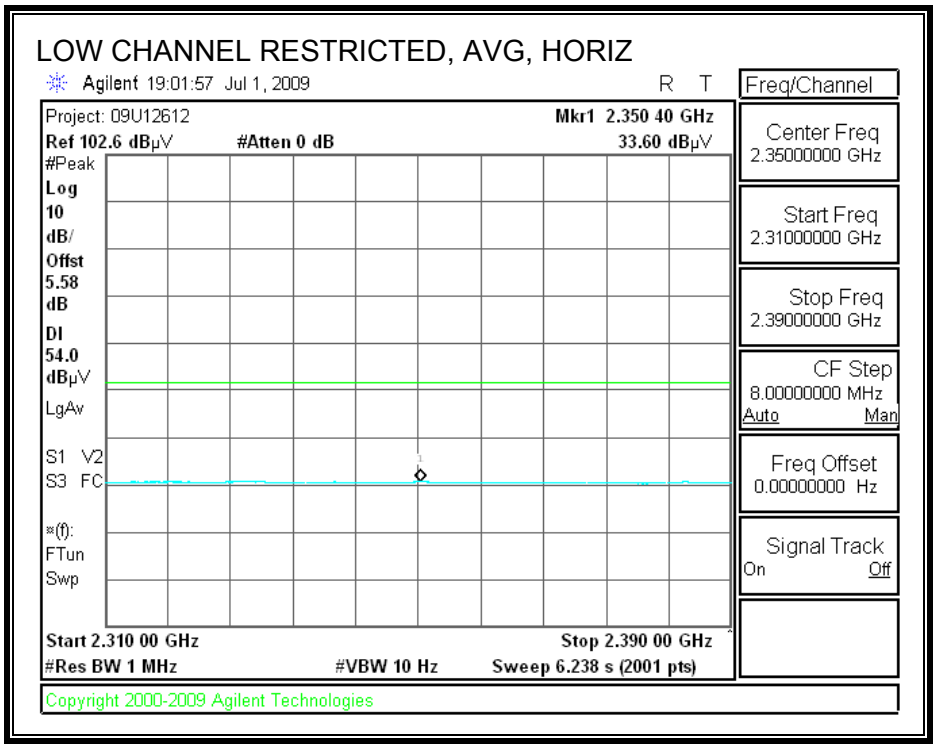
Rev. 03.03.09

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

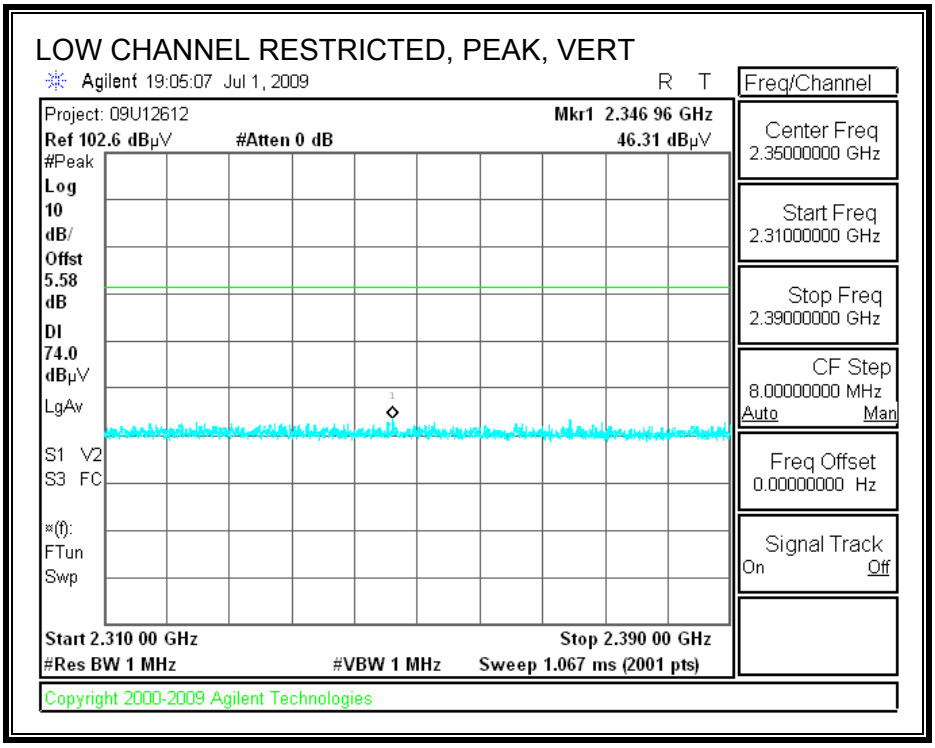
7.1.2. ENHANCED DATA RATE 8PSK MODULATION

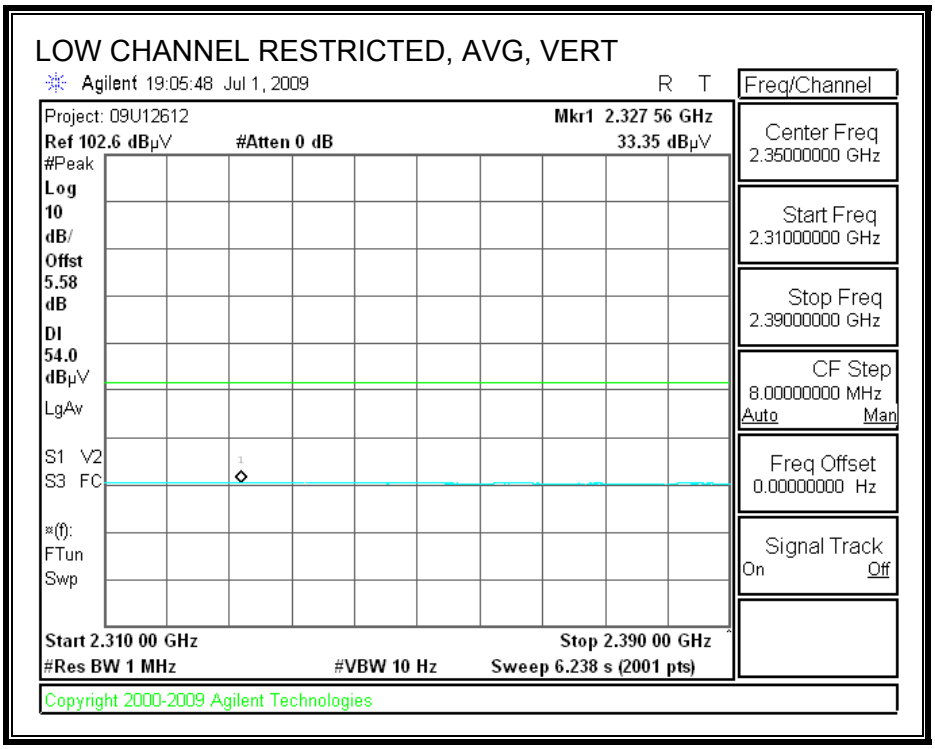
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



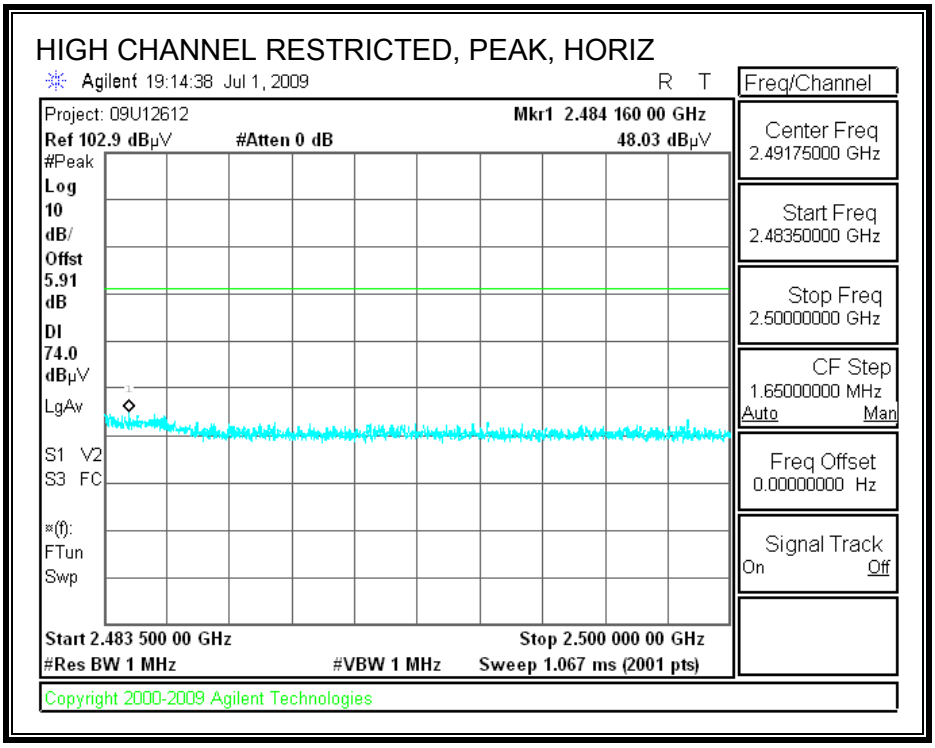


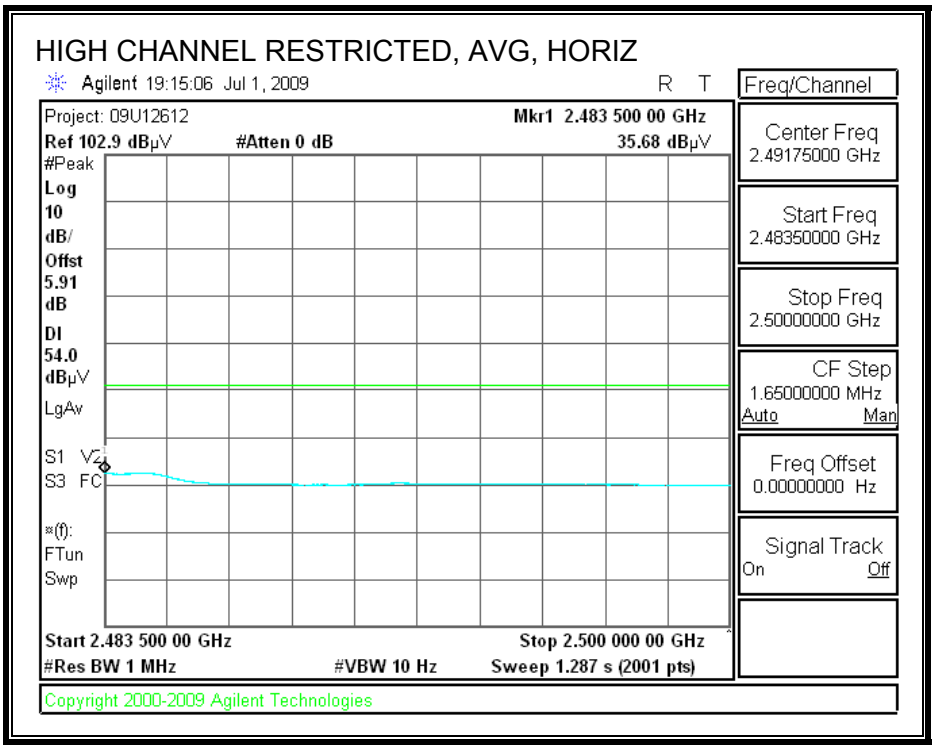
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



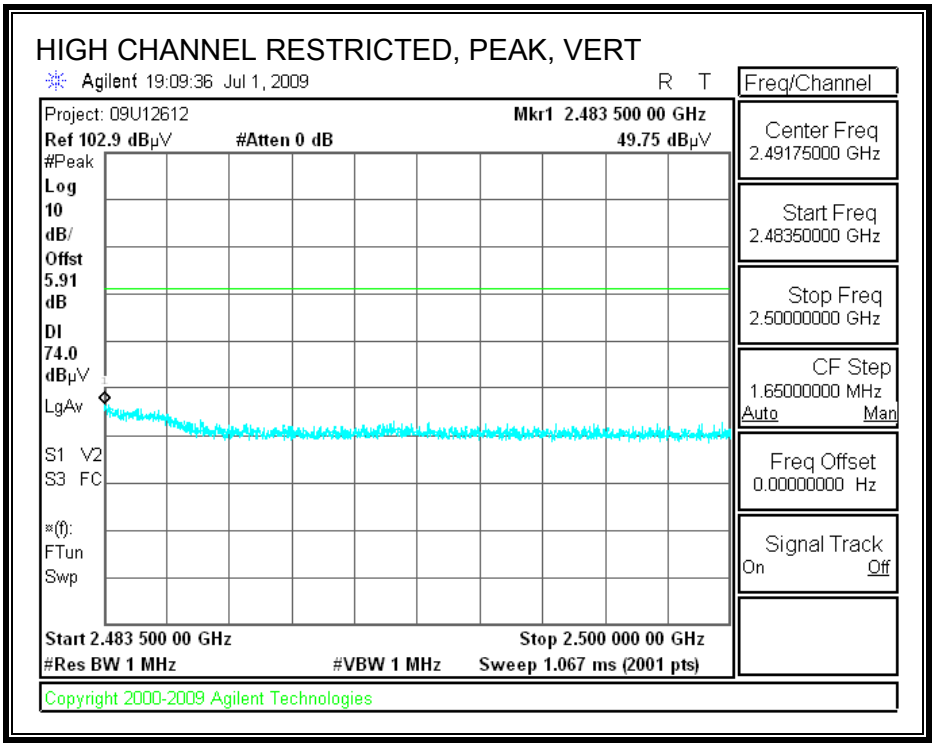


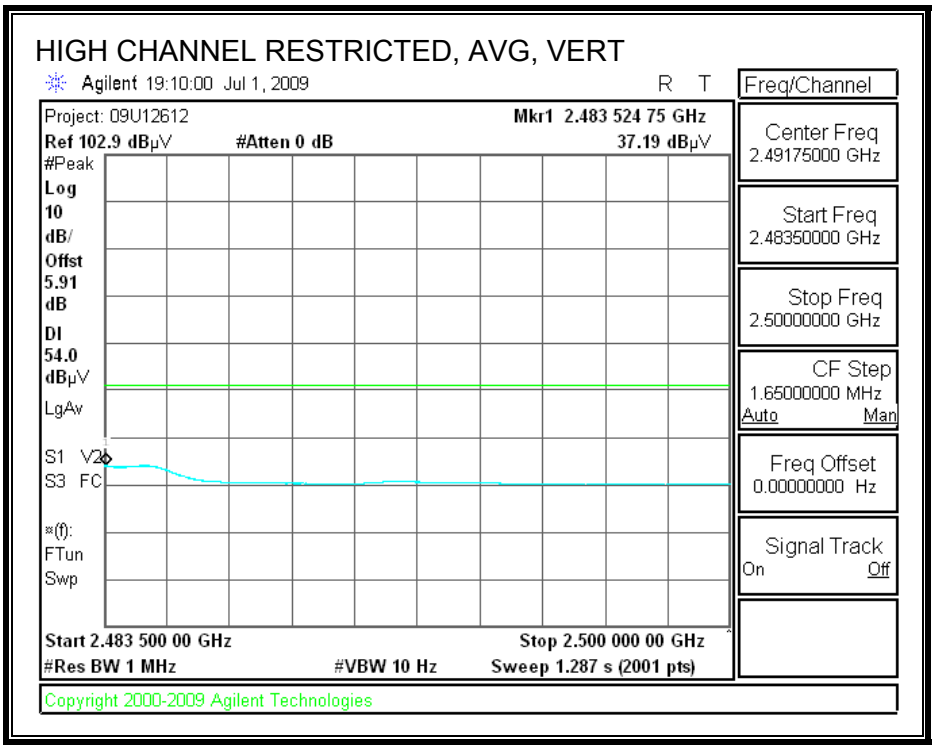
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Company: Kyocera
Project #: 09U12612
Date: 7/1/2009
Test Engineer: Mengistu Mekuria
Configuration: EUT Alone
Mode: TX 8PSK

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Channel, 2402MHz															
4.804	3.0	39.3	27.1	32.7	5.8	-34.8	0.0	0.0	42.9	30.7	74	54	-31.1	-23.3	V
4.804	3.0	38.7	26.5	32.7	5.8	-34.8	0.0	0.0	42.3	30.1	74	54	-31.7	-23.9	H
Mid Channel, 2441MHz															
4.882	3.0	39.7	26.5	32.7	5.8	-34.8	0.0	0.0	43.4	30.3	74	54	-30.6	-23.7	V
4.882	3.0	39.3	26.5	32.7	5.8	-34.8	0.0	0.0	43.0	30.3	74	54	-31.0	-23.7	H
High Channel, 2480MHz															
4.960	3.0	40.2	27.6	32.8	5.9	-34.8	0.0	0.0	44.1	31.5	74	54	-29.9	-22.5	V
4.960	3.0	39.8	27.0	32.8	5.9	-34.8	0.0	0.0	43.7	30.9	74	54	-30.3	-23.1	H
		No other emissios were detected above system noise floor													

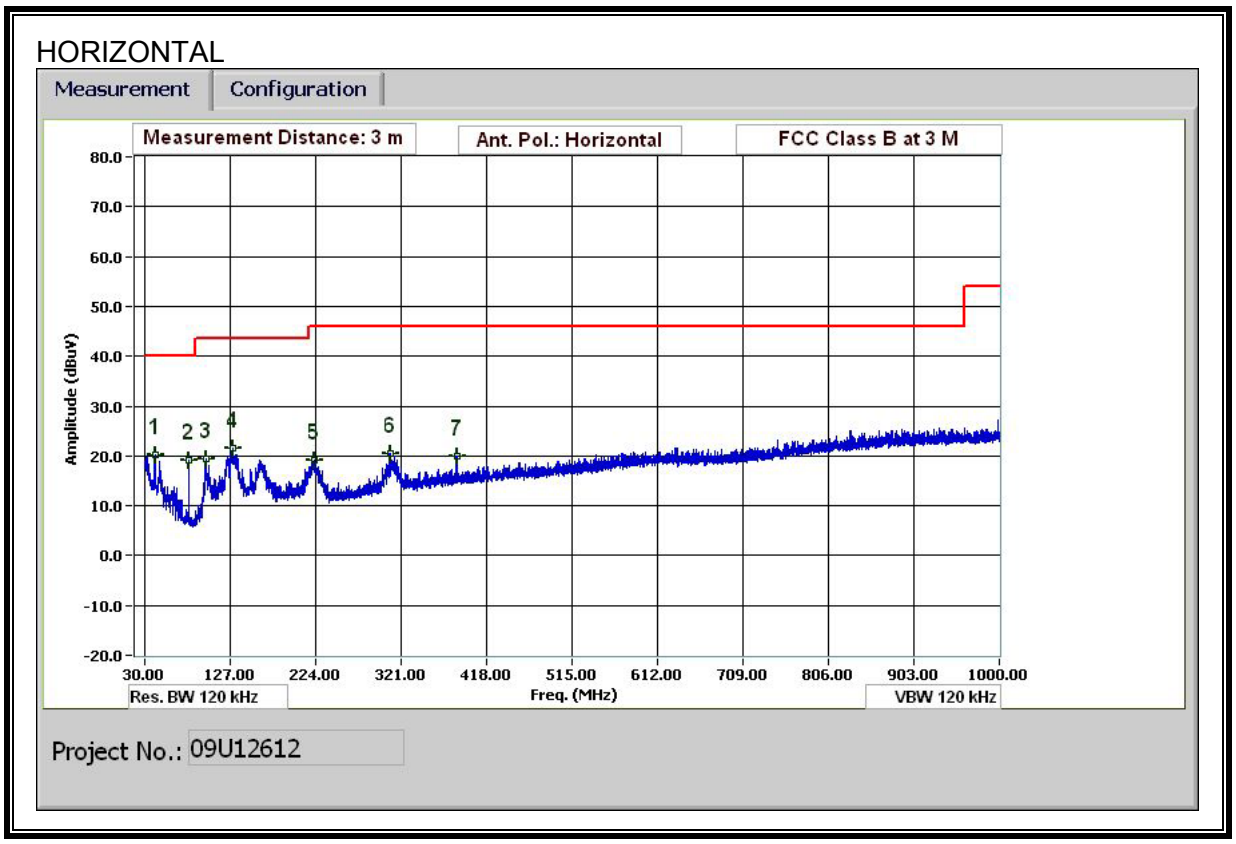
Rev. 03.03.09

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

7.2. WORST-CASE BELOW 1 GHz

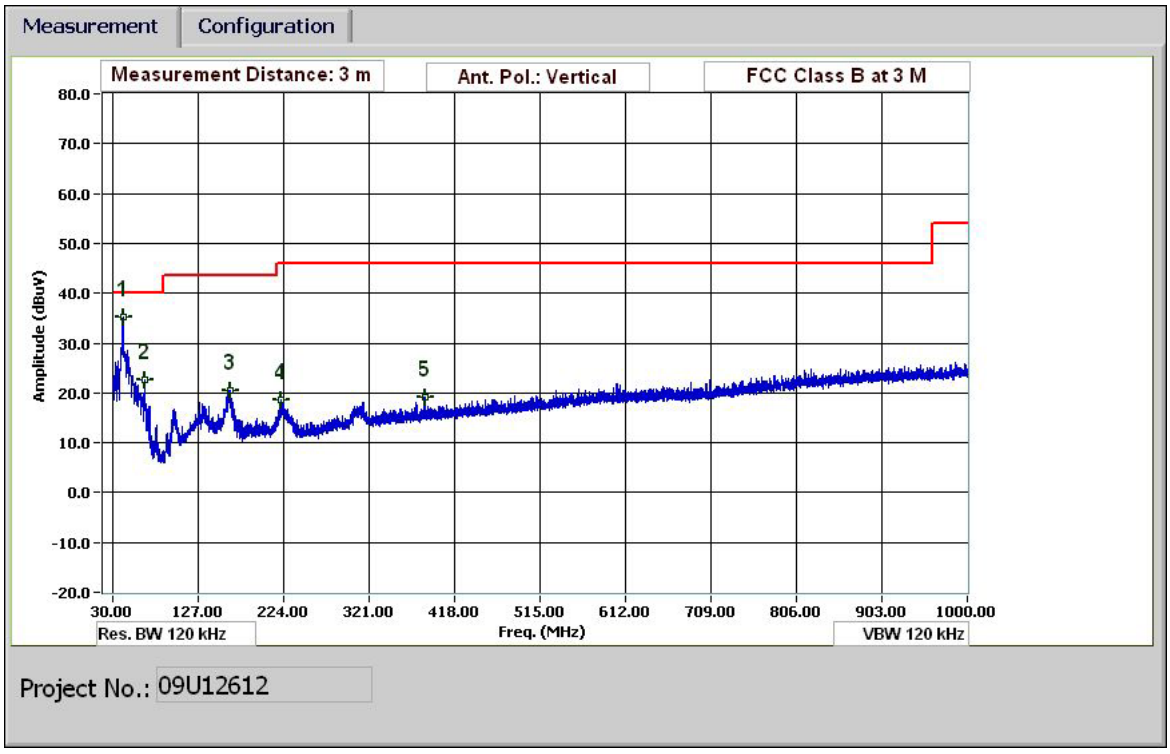
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

PLOT



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

VERTICAL



DATA

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

Test Engr: Mengistu Mekuria
Date: 02/12/09
Project #: 09U12612
Company: Kyocera
EUT Description: DUAL 1XRTT CDMA PHONE WITH BLUETOOTH
EUT M/N: SCP-6760
Test Target: FCC Class B
Mode Oper: Tx 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
41.760	3.0	35.1	12.8	0.6	28.4	0.0	0.0	20.1	40.0	-19.9	H	P	
80.042	3.0	38.7	7.9	0.7	28.3	0.0	0.0	19.1	40.0	-20.9	H	P	
99.483	3.0	37.7	9.2	0.8	28.2	0.0	0.0	19.5	43.5	-24.0	H	P	
130.084	3.0	34.7	13.8	0.9	28.0	0.0	0.0	21.5	43.5	-22.0	H	P	
222.008	3.0	33.3	11.9	1.2	27.4	0.0	0.0	19.0	46.0	-27.0	H	P	
308.171	3.0	32.8	13.6	1.5	27.5	0.0	0.0	20.5	46.0	-25.5	H	P	
384.015	3.0	31.5	14.8	1.7	27.9	0.0	0.0	20.1	46.0	-25.9	H	P	
41.640	3.0	50.2	12.8	0.6	28.4	0.0	0.0	35.2	40.0	-4.8	V	P	
66.121	3.0	42.2	8.1	0.7	28.3	0.0	0.0	22.7	40.0	-17.3	V	P	
163.085	3.0	34.6	12.6	1.1	27.7	0.0	0.0	20.6	43.5	-22.9	V	P	
221.048	3.0	32.9	11.9	1.2	27.4	0.0	0.0	18.7	46.0	-27.3	V	P	
384.015	3.0	30.6	14.8	1.7	27.9	0.0	0.0	19.1	46.0	-26.9	V	P	
42.029	3.0	45.2	12.7	0.6	28.4	0.0	0.0	30.1	40.0	-9.9	V	QP	

Rev. 1.27.09
Note: No other emissions were detected above the system noise floor.

7.3. 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

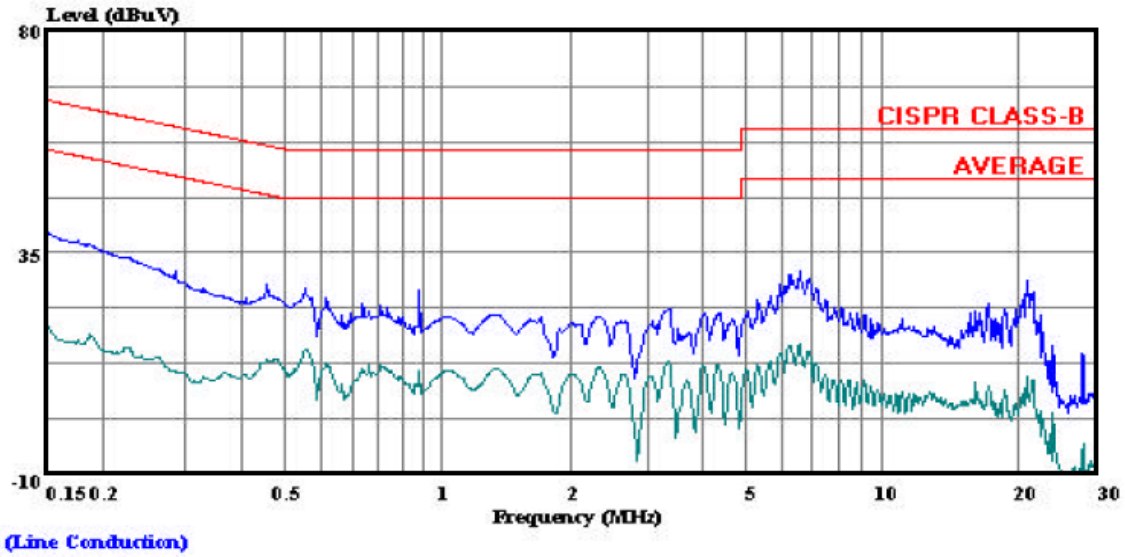
6 WORST EMISSIONS

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
0.55	27.67	--	15.42	0.00	56.00	46.00	-28.33	-30.58	L1
6.70	31.23	--	16.65	0.00	60.00	50.00	-28.77	-33.35	L1
20.92	29.22	--	9.80	0.00	60.00	50.00	-30.78	-40.20	L1
0.54	31.30	--	21.03	0.00	56.00	46.00	-24.70	-24.97	L2
5.96	37.15	--	26.54	0.00	60.00	50.00	-22.85	-23.46	L2
21.71	36.24	--	16.90	0.00	60.00	50.00	-23.76	-33.10	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#: 42 File#: 09U12612 LC.EMI Date: 07-01-2009 Time: 22:41:11



(Line Conduction)

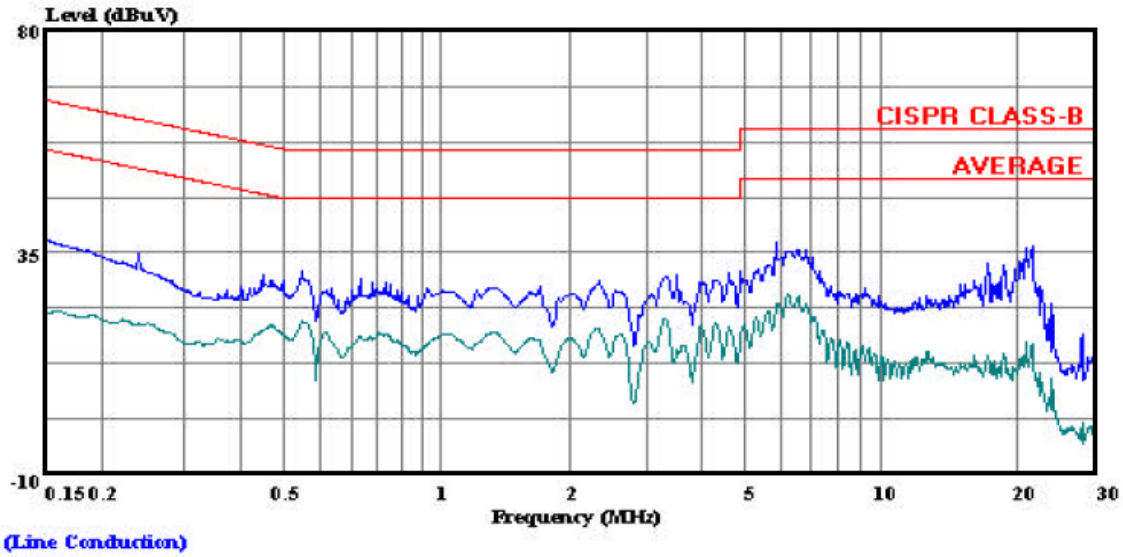
Trace: 40 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: : Mengistu Mekuria
Project #: : 09U12612
Company: : Kyocera
EUT Description:: Cell Phone (SCP-6760) with AC Adapter
Mode: : BT 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#: 35 File#: 09U12612 LC.EMI Date: 07-01-2009 Time: 22:30:50



(Line Conduction)

Trace: 33 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: : Mengistu Mekuria
Project #: : 09U12612
Company: : Kyocera
EUT Description:: Cell Phone (SCP-6760) with AC Adapter
Mode: : BT TX Worst-Case
Target: : FCC Class B
Voltage: : 115VAC, 60Hz
: L2: Peak (Blue) , Average (Green)