



**RADIATED SPURIOUS EMISSIONS PORTIONS OF  
FCC CFR47 PART 15 SUBPART C  
INDUSTRY CANADA RSS-210 ISSUE 8  
CERTIFICATION TEST REPORT**

**FOR**

**DUAL BAND CDMA MOBILE PHONE WITH BLUETOOTH  
MODEL NUMBER: S2150**

**FCC ID: V65S2150A1**

**IC: 3572A-S2150**

**REPORT NUMBER: 13U14874-3, Revision A**

**ISSUE DATE: APRIL 05, 2013**

*Prepared for*  
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**NVLAP LAB CODE 200065-0**

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
--	04/01/13	Initial Issue	T. LEE
A	04/05/13	Corrected header from V65S215A01 to V65S2150A1	AAumentado

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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:** DUAL BAND CDMA MOBILE PHONE WITH BLUETOOTH

**MODEL:** S2150

**SERIAL NUMBER:** 9211100074

**DATE TESTED:** MARCH 30-31, 2013

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

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:



TIM LEE  
STAFF ENGINEER  
UL CCS

CHIN PANG  
EMC ENGINEER  
UL CCS

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2009, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 3, and RSS-210 Issue 8.

## 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 <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:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 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 Bluetooth featured Dual Band CDMA Phone that is manufactured by Kyocera Communications, Inc.

### **5.2. DESCRIPTION OF AVAILABLE ANTENNAS**

The radio utilizes a dipole (internal) antenna, with a maximum gain of -1.0 dBi.

### **5.3. SOFTWARE AND FIRMWARE**

The EUT driver software installed in the phone during testing was 0.110CR.

#### 5.4. WORST-CASE CONFIGURATION AND MODE

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z, open and closed. It was determined that Y orientation, closed was worst-case orientation; therefore, all final radiated testing was performed with the EUT closed in Y orientation.

#### 5.5. DESCRIPTION OF TEST SETUP

##### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC/DC Adapter	Kyocera	SCP-31ADT	2001	N/A
Headset	N/A	N/A	N/A	N/A

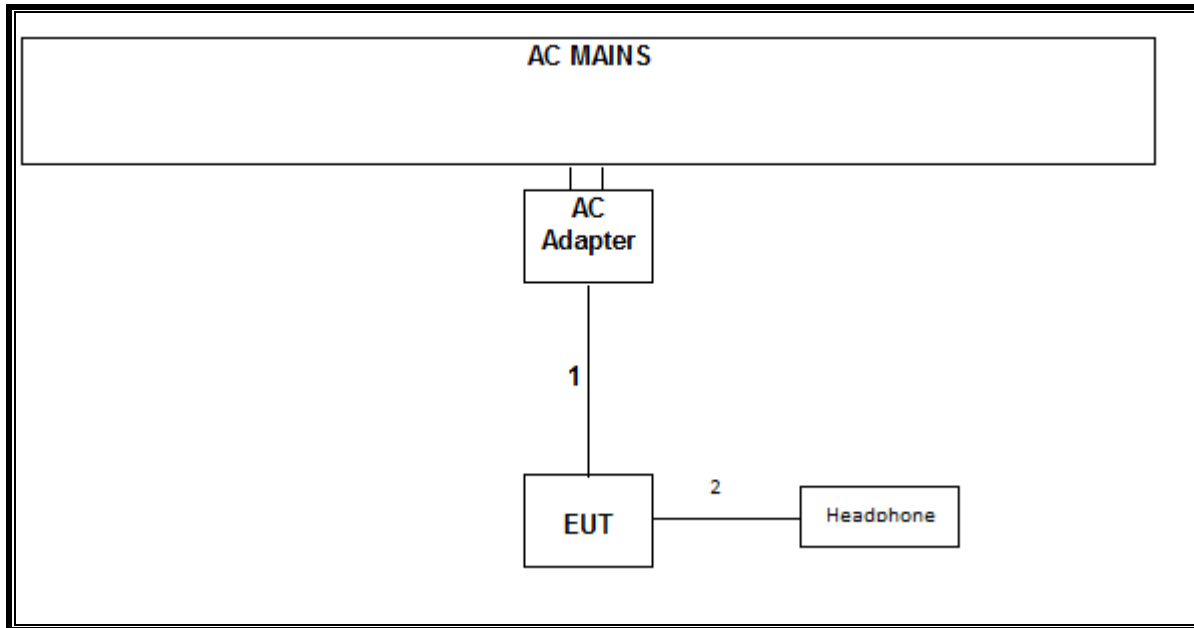
##### I/O CABLES

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

##### TEST SETUP

The EUT is setup to transmit continuously.

**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
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01012	10/21/2013
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	3/6/2014
Antenna, Horn, 18 GHz	EMCO	3117	C01006	12/12/2013
Preamplifier, 26.5 GHz	Preamplifier, 26.5 GHz	Agilent / HP	8449B	10/22/2013
Preamplifier, 1300 MHz	Preamplifier, 1300 MHz	Agilent / HP	8447D	1/18/2014
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02683	CNR
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	T31	06/08/2013
LISN, 30 MHz	FCC	LISN-50/250-25-2	C00626	1/14/2014

## 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.

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.

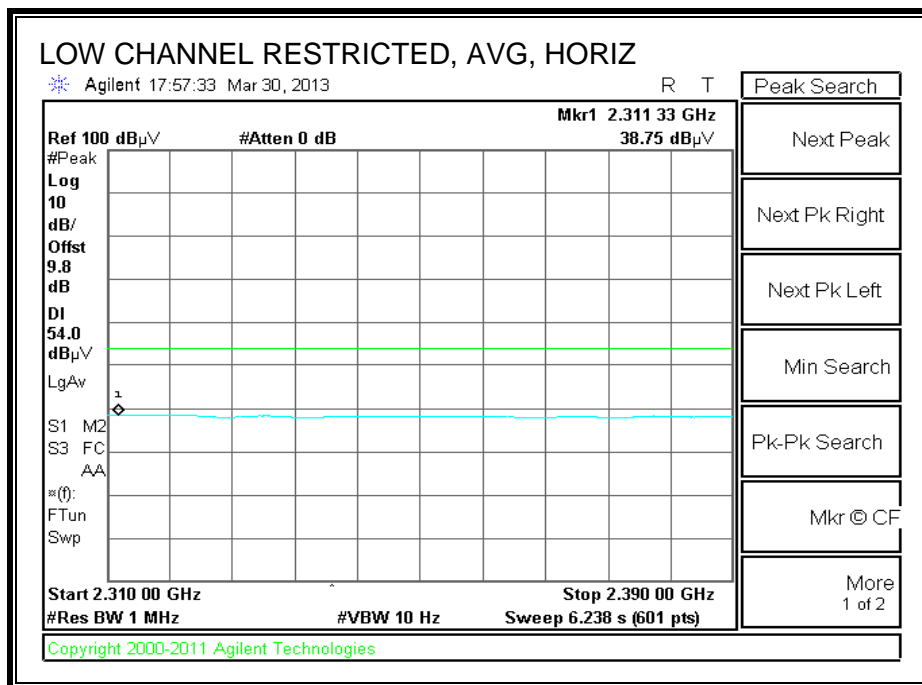
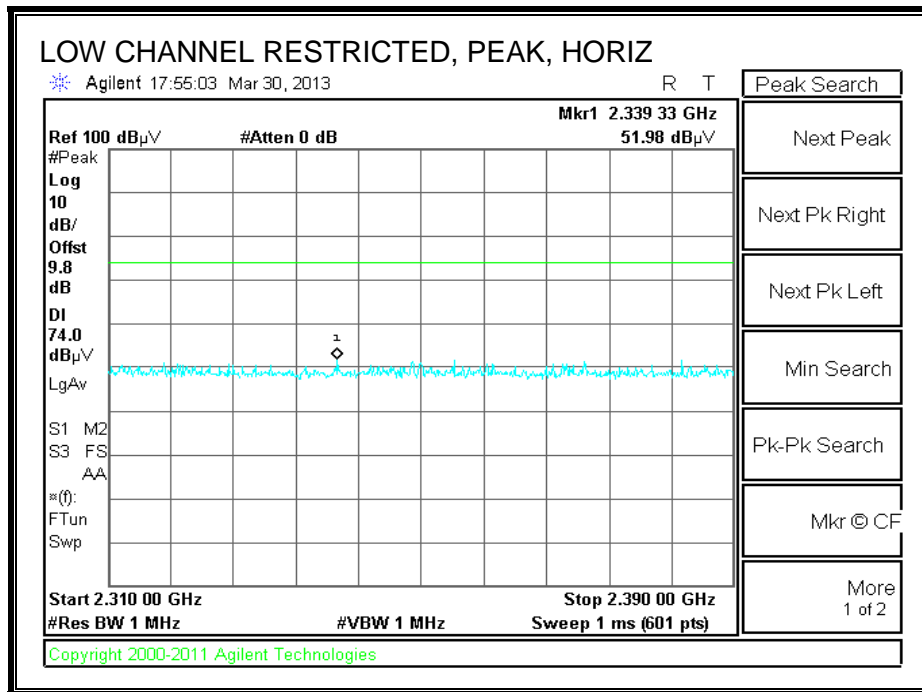
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

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.

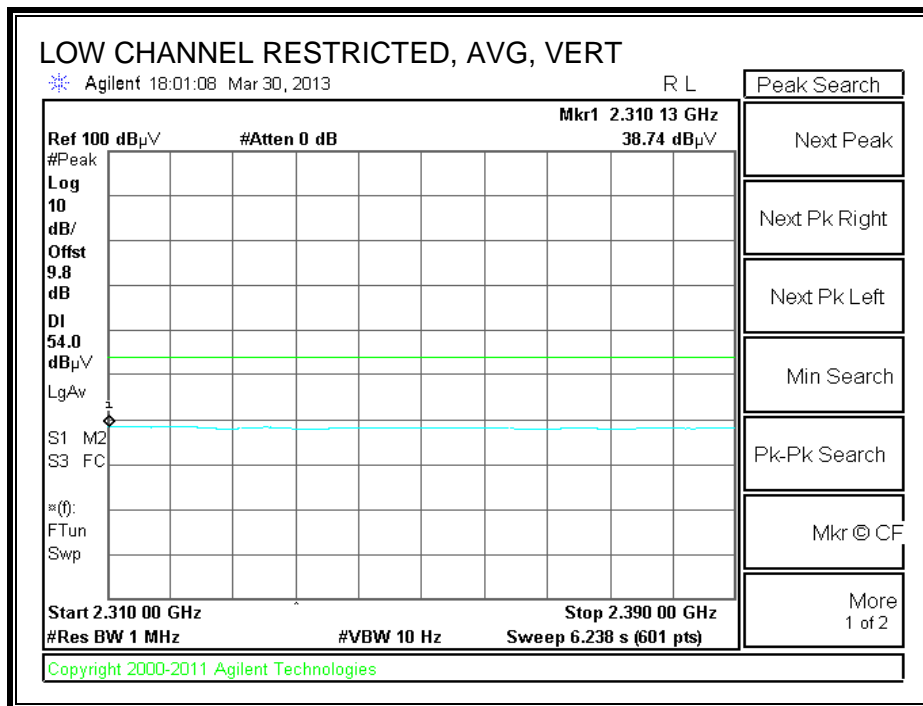
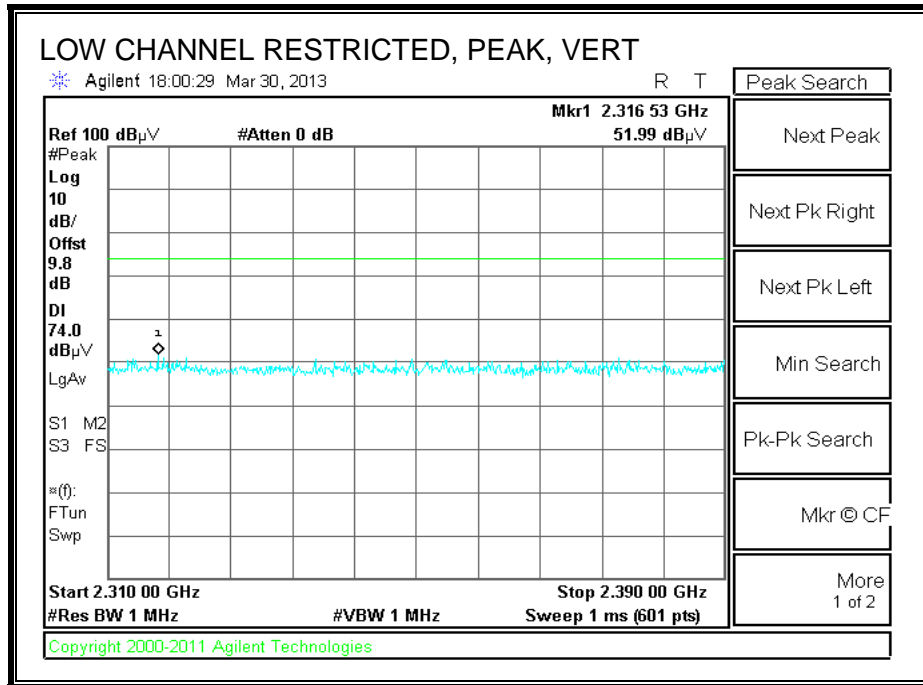
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

### 7.1.1. BASIC DATA RATE GFSK MODULATION

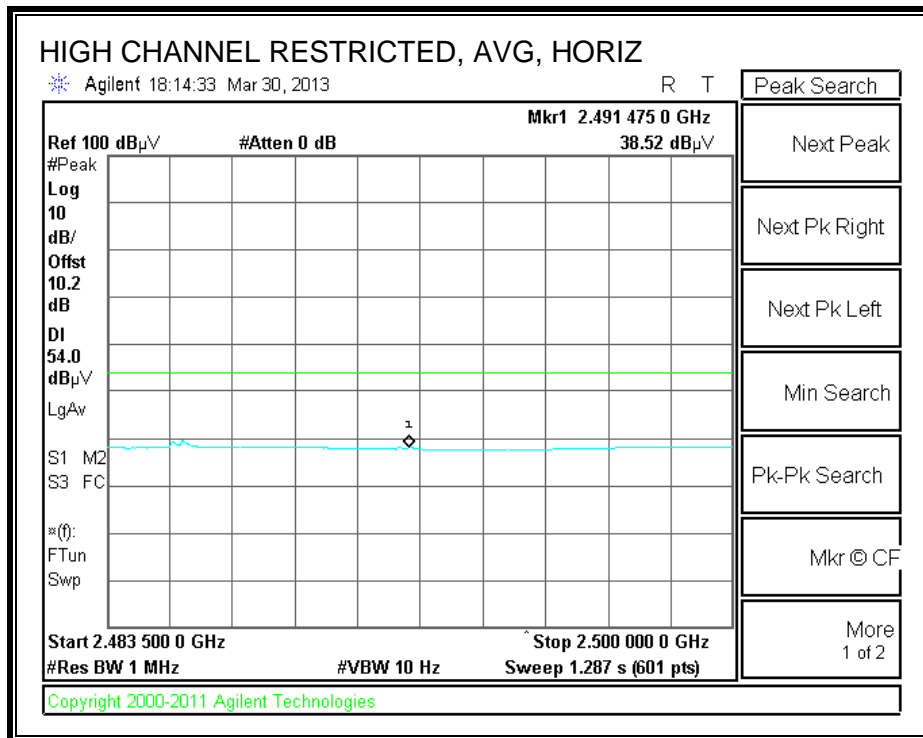
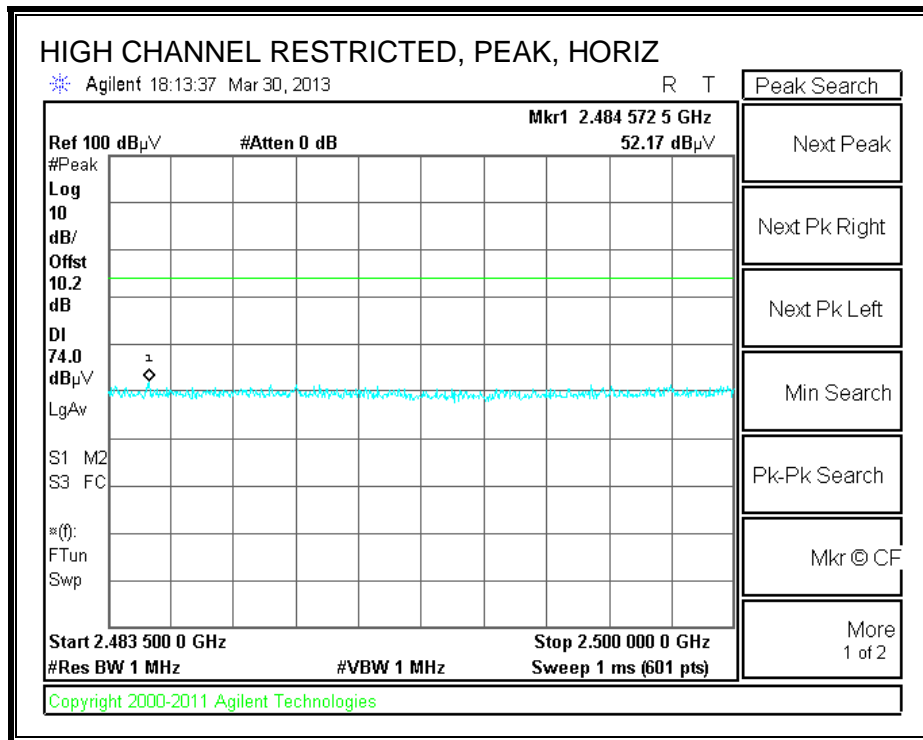
#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



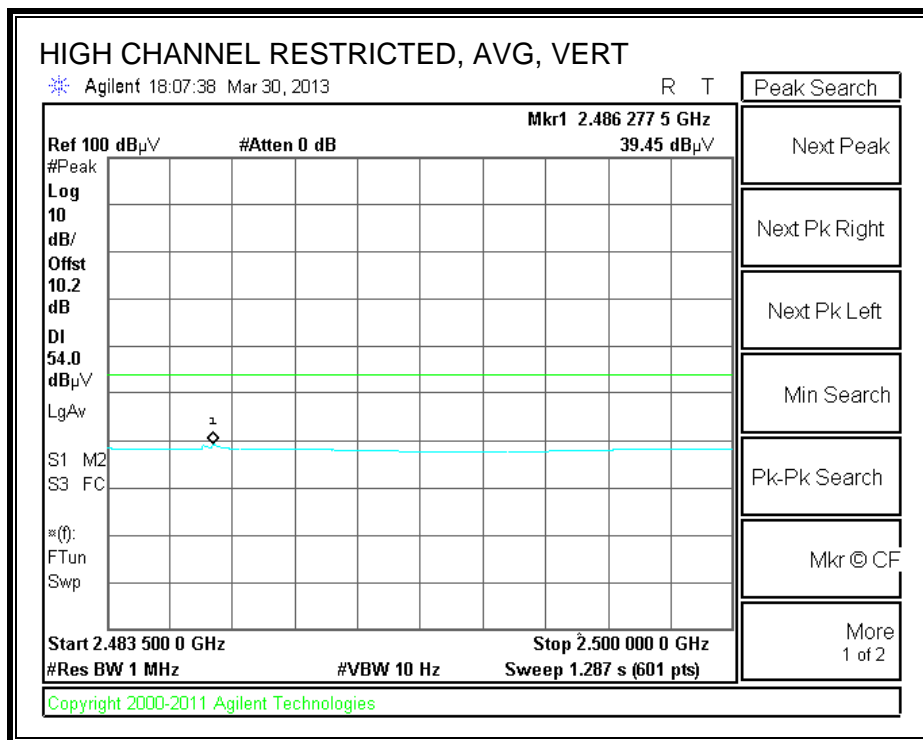
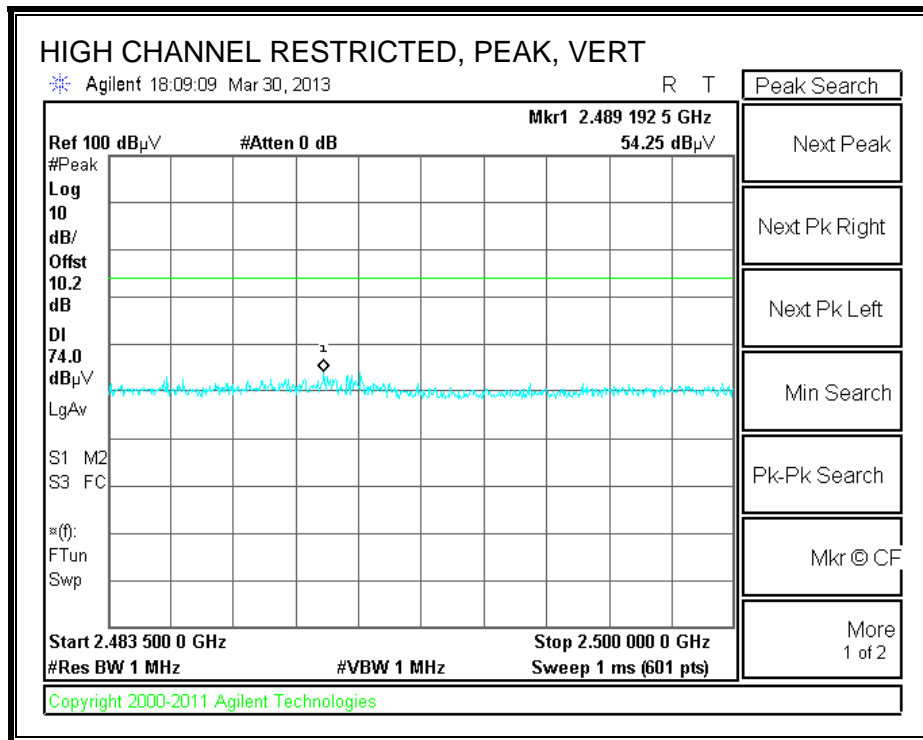
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



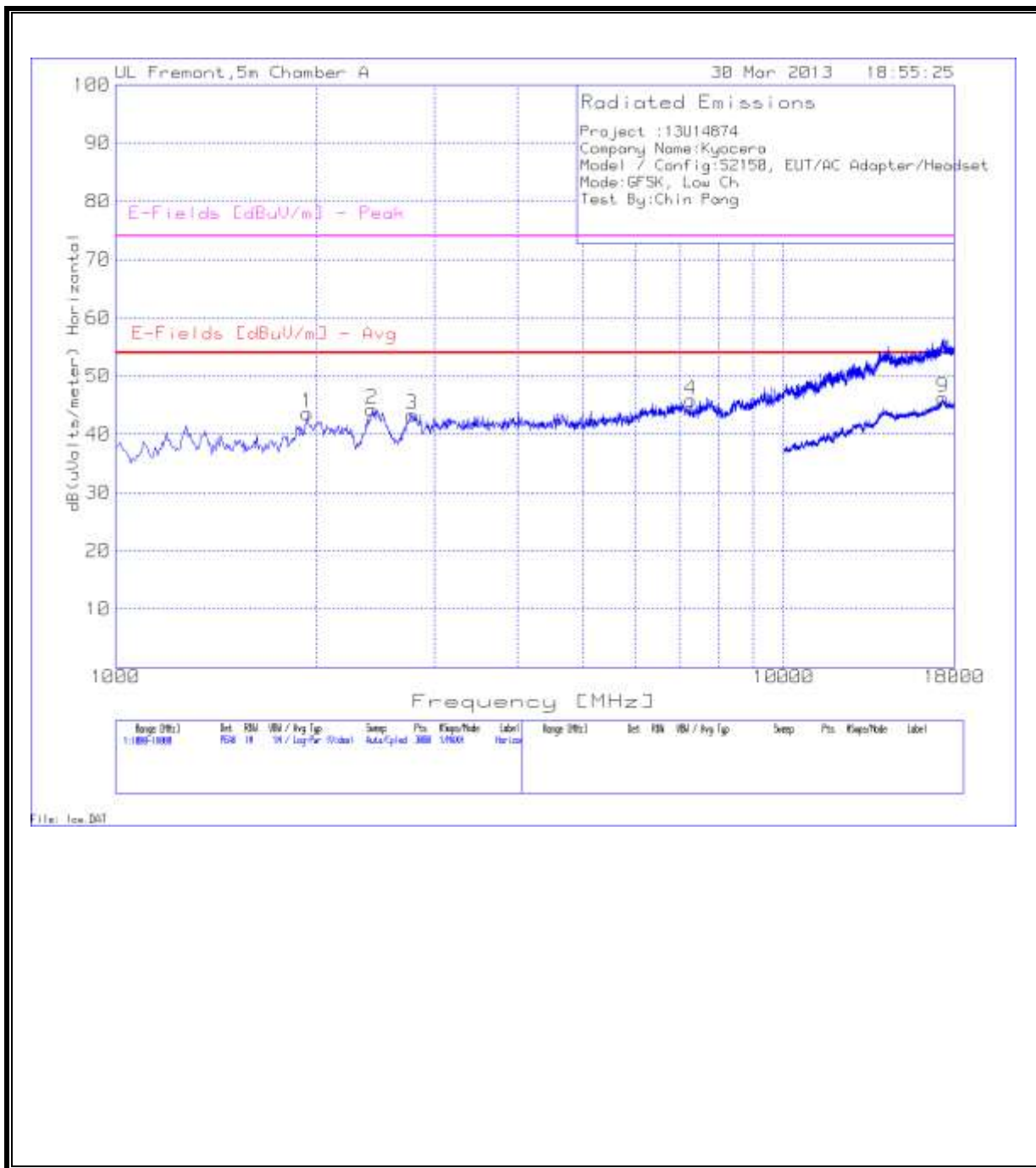
**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



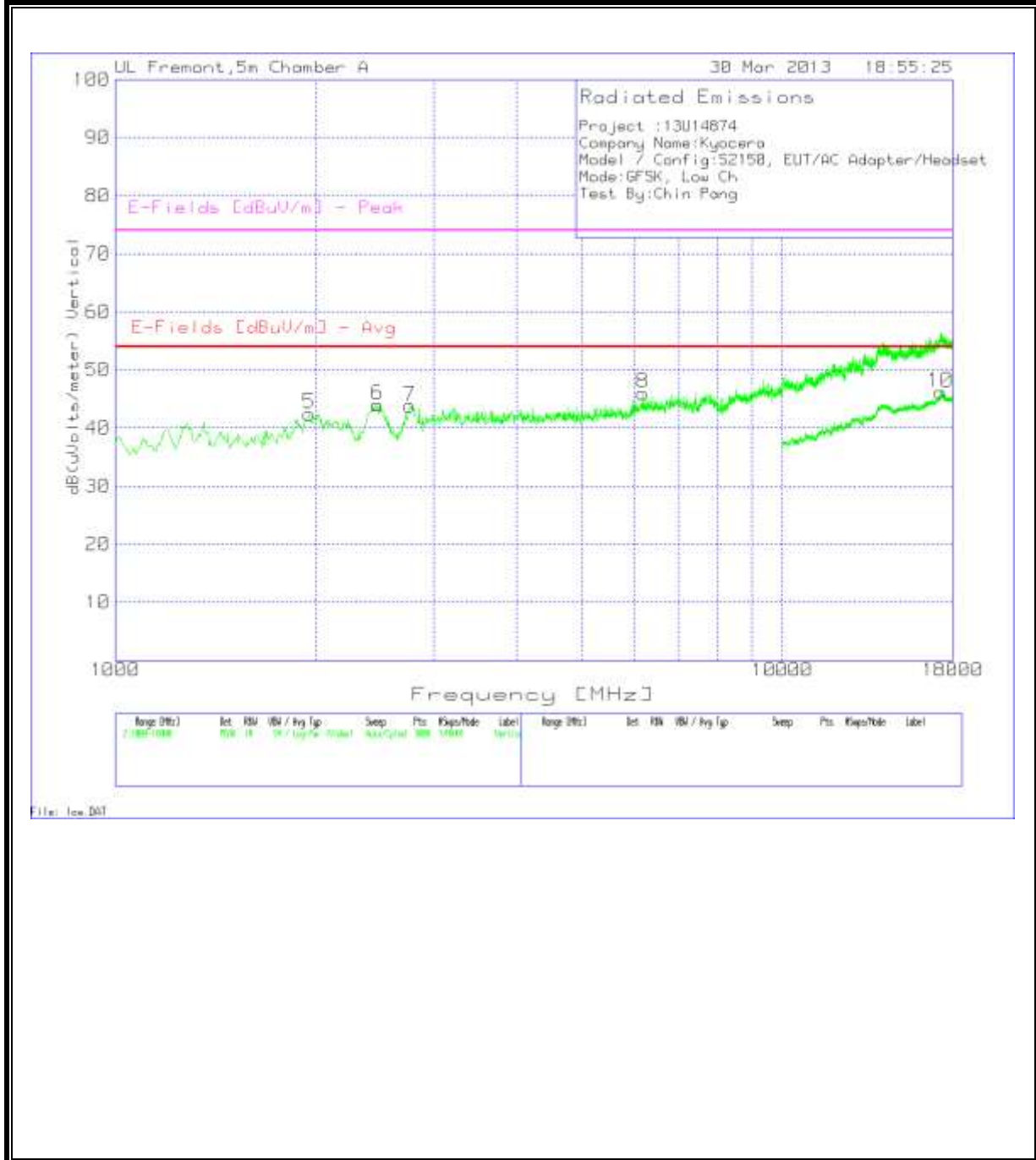
**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



**GFSK, HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL**



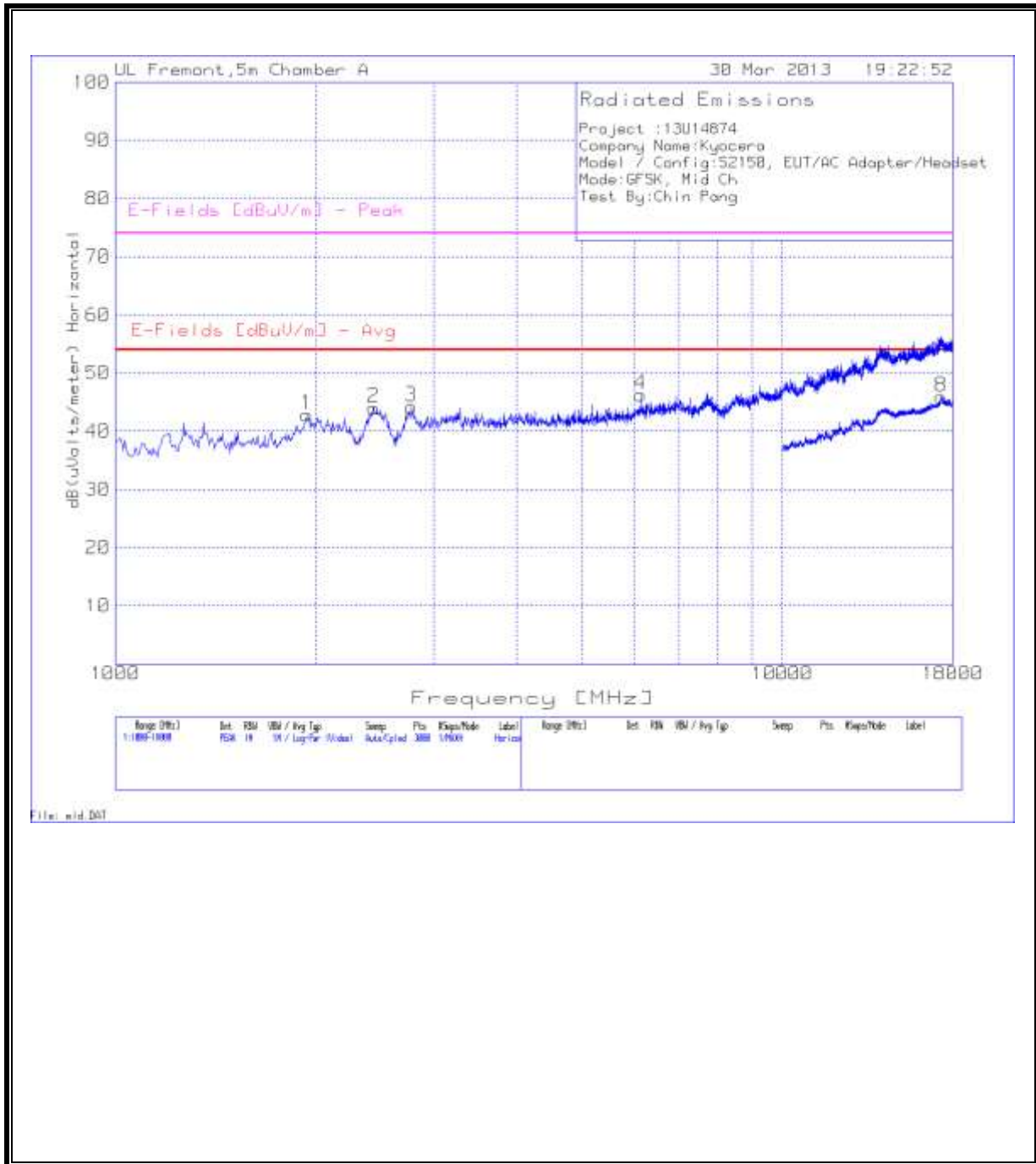


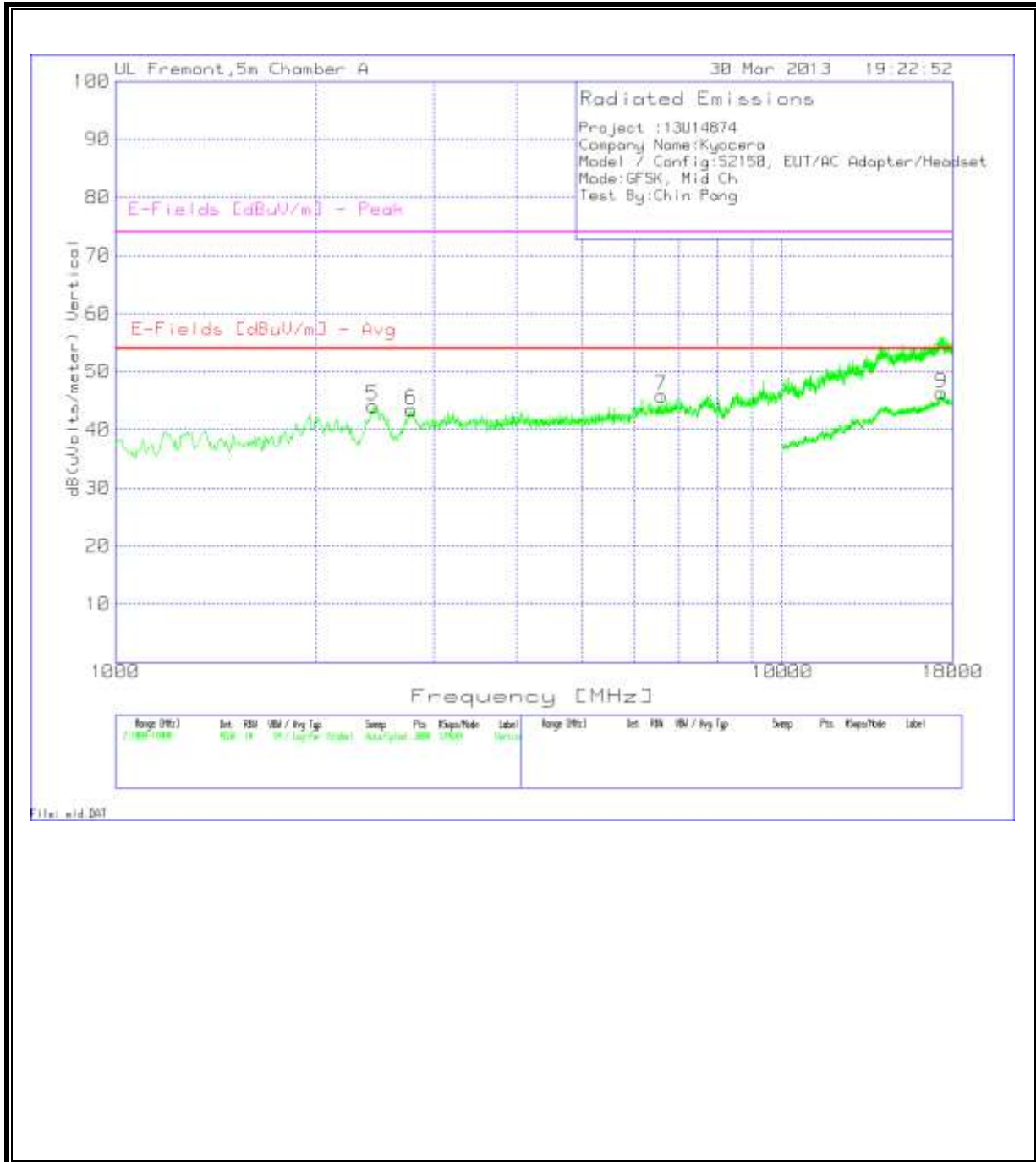


DATA

Project :13U14874												
Company Name:Kyocera												
Model / Config:S2150, EUT/AC Adapter/Headset												
Mode:GFSK, Low Ch												
Test By:Chin Pang												
Horizontal 1000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	Factor [dB/m]	Preamp Gain [dB]	Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	[dBuV/m] - Peak	Margin (dB)	Polarity	
1	1940.04	44.11	PK	31.8	-37.2	4	0.9	43.61	74	-30.39	Horz	
2	2421.386	43.63	PK	32.2	-36.9	4.5	0.9	44.33	74	-29.67	Horz	
3	2783.811	41.81	PK	32.6	-36.7	4.8	0.9	43.41	74	-30.59	Horz	
4	7268.821	37.45	PK	35.3	-35.8	8.7	0.2	45.85	74	-28.15	Horz	
Vertical 1000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	Factor [dB/m]	Preamp Gain [dB]	Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	[dBuV/m] - Peak	Margin (dB)	Polarity	
5	1951.366	42.84	PK	31.8	-37.1	4	0.9	42.44	74	-31.56	Vert	
6	2472.352	42.87	PK	32.5	-36.8	4.5	0.9	43.97	74	-30.03	Vert	
7	2766.822	42.32	PK	32.6	-36.8	4.8	0.9	43.82	74	-30.18	Vert	
8	6181.546	38.17	PK	35.4	-35.6	7.8	0.2	45.97	74	-28.03	Vert	
Horizontal 10000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity	
9	17412.294	24.34	PK	40.9	-34.5	14.2	0.5	45.44	74	-28.56	Horz	
Vertical 10000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity	
10	17208.396	24.28	PK	40.9	-34.3	14.1	0.5	45.48	74	-28.52	Vert	

**GFSK, HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL**

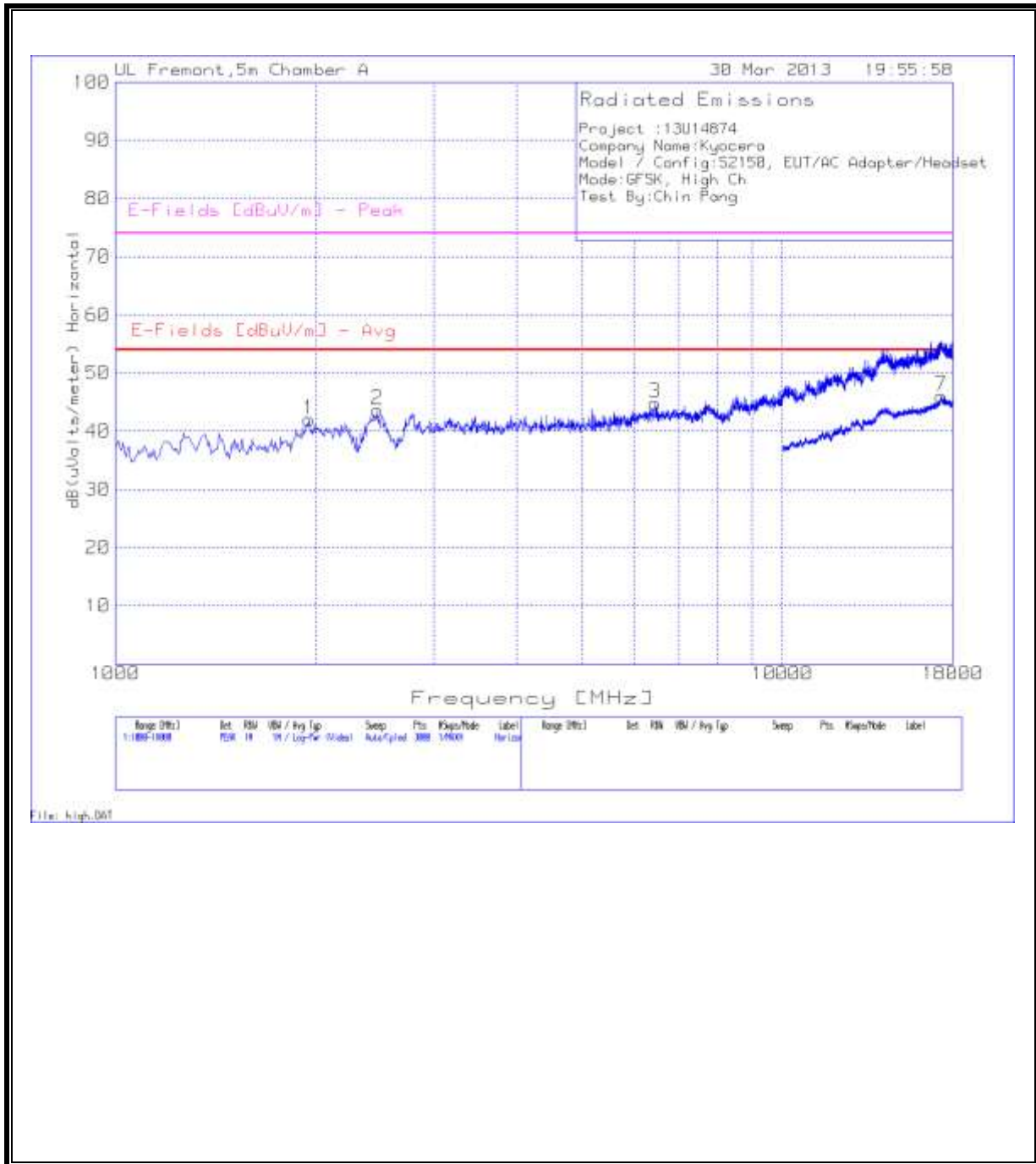




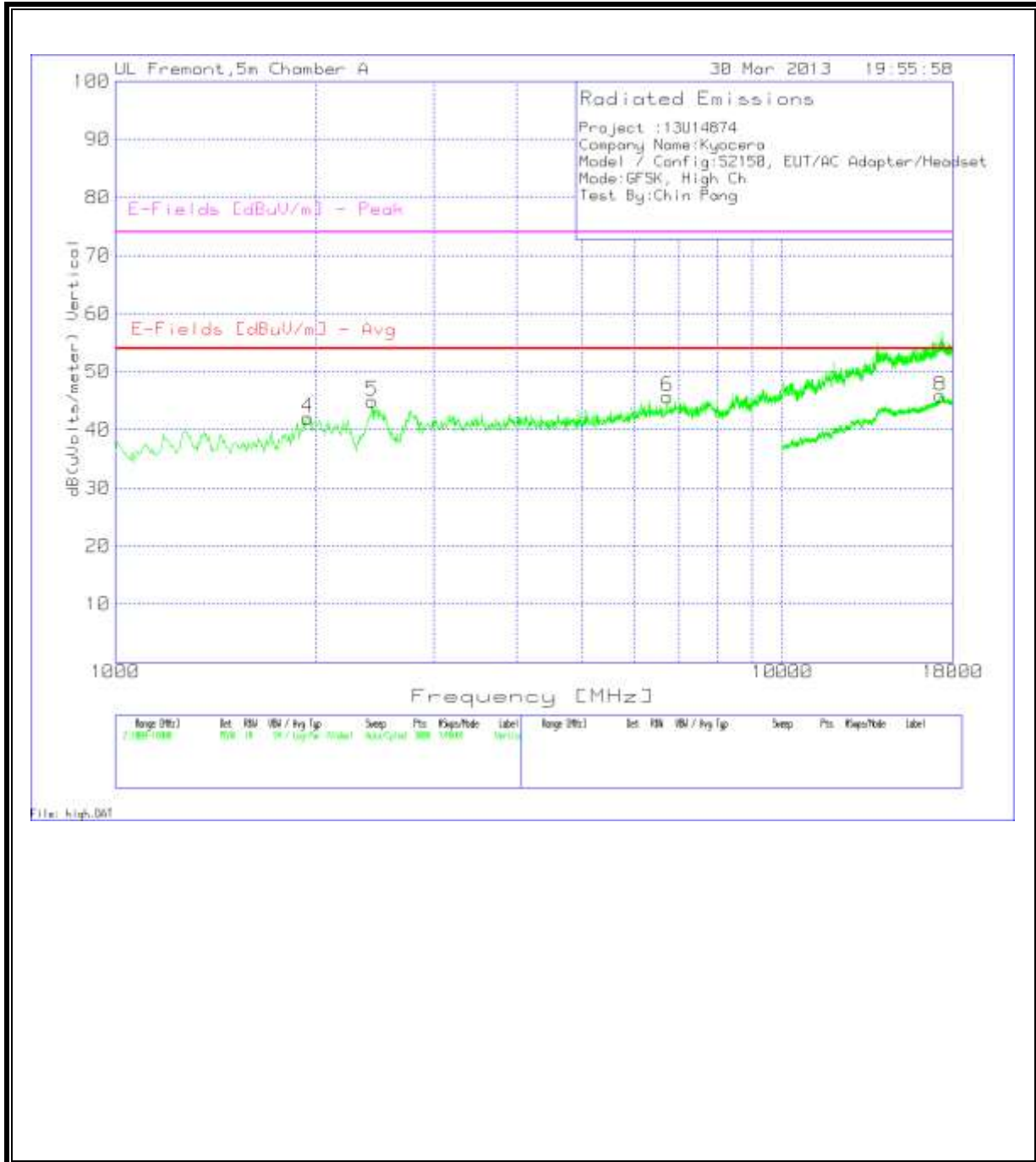
**DATA**

Project :13U14874											
Company Name:Kyocera											
Model / Config:S2150, EUT/AC Adapter/Headset											
Mode:GFSK, Mid Ch											
Test By:Chin Pang											
Horizontal 1000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp	Cable Factor	T160 BRF [dB]	dB(uVolt s/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
1	1940.04	43.28	PK	31.8	-37.2	4	0.9	42.78	74	-31.22	Horz
2	2438.374	43.23	PK	32.3	-36.9	4.5	0.9	44.03	74	-29.97	Horz
3	2783.811	42.53	PK	32.6	-36.7	4.8	0.9	44.13	74	-29.87	Horz
4	6130.58	38.53	PK	35.3	-35.6	7.8	0.2	46.23	74	-27.77	Horz
Vertical 1000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp	Cable Factor	T160 BRF [dB]	dB(uVolt s/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
5	2432.712	43.41	PK	32.3	-36.9	4.5	0.9	44.21	74	-29.79	Vert
6	2783.811	41.85	PK	32.6	-36.7	4.8	0.9	43.45	74	-30.55	Vert
7	6589.274	37.58	PK	35.5	-35.6	8.2	0.2	45.88	74	-28.12	Vert
Horizontal 10000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp	Cable Factor	T160 BRF [dB]	dB(uVolts s/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
8	17292.354	24.69	PK	41	-34.4	14.1	0.5	45.89	74	-28.11	Horz
Vertical 10000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp	Cable Factor	T160 BRF [dB]	dB(uVolts s/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
9	17292.354	25.14	PK	41	-34.4	14.1	0.5	46.34	74	-27.66	Vert

**GFSK, HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL**







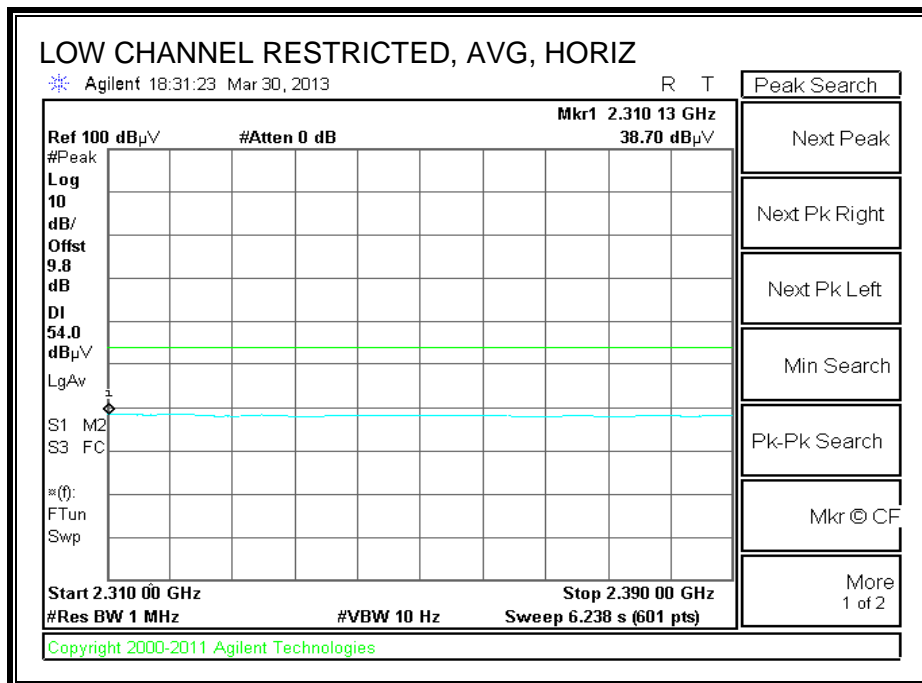
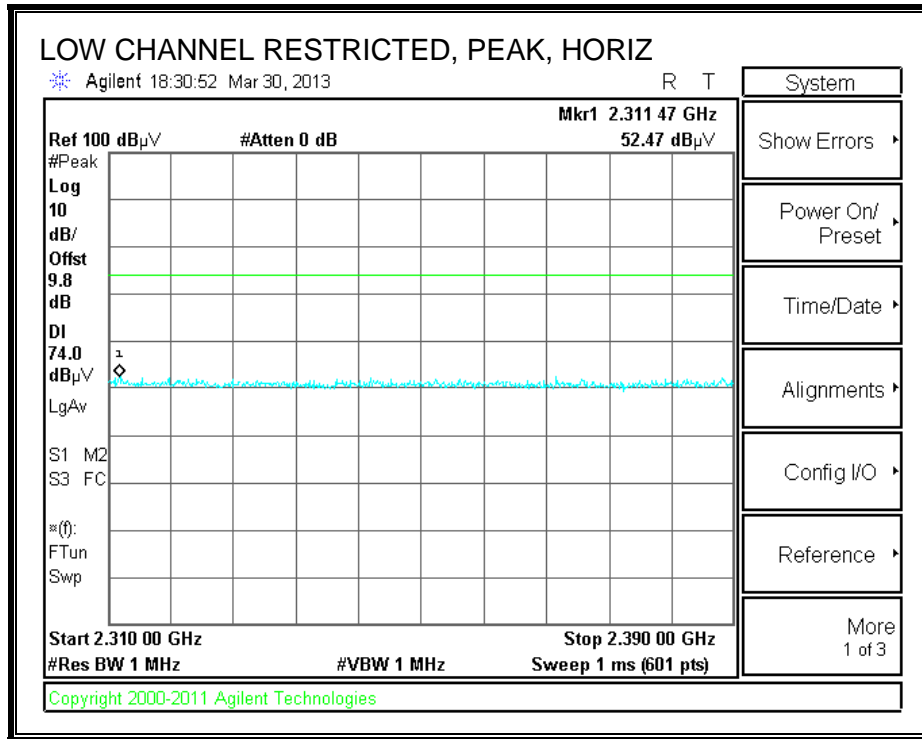
DATA

Project :13U14874												
Company Name:Kyocera												
Model / Config:S2150, EUT/AC Adapter/Headset												
Mode:GFSK, High Ch												
Test By:Chin Pang												
Horizontal 1000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolt s/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity	
1	1951.366	42.37	PK	31.8	-37.1	4	0.9	41.97	74	-32.03	Horz	
2	2472.352	42.57	PK	32.5	-36.8	4.5	0.9	43.67	74	-30.33	Horz	
3	6453.364	36.67	PK	35.5	-35.6	8.1	0.2	44.87	74	-29.13	Horz	
Vertical 1000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	Factor [dB/m]	Preamp Gain [dB]	Factor [dB]	T160 BRF [dB]	dB(uVolt s/meter)	[dBuV/m] - Peak	Margin (dB)	Polarity	
4	1945.703	42.49	PK	31.8	-37.2	4	0.9	41.99	74	-32.01	Vert	
5	2427.049	44.29	PK	32.2	-36.9	4.5	0.9	44.99	74	-29.01	Vert	
6	6725.183	37.3	PK	35.4	-35.6	8.3	0.3	45.7	74	-28.3	Vert	
Horizontal 10000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	Factor [dB/m]	Preamp Gain [dB]	Factor [dB]	T160 BRF [dB]	dB(uVolt s/meter)	[dBuV/m] - Peak	Margin (dB)	Polarity	
7	17308.346	24.74	PK	41	-34.4	14.1	0.6	46.04	74	-27.96	Horz	
Vertical 10000 - 18000MHz												
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolt s/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity	
8	17276.362	24.61	PK	41	-34.4	14.1	0.5	45.81	74	-28.19	Vert	

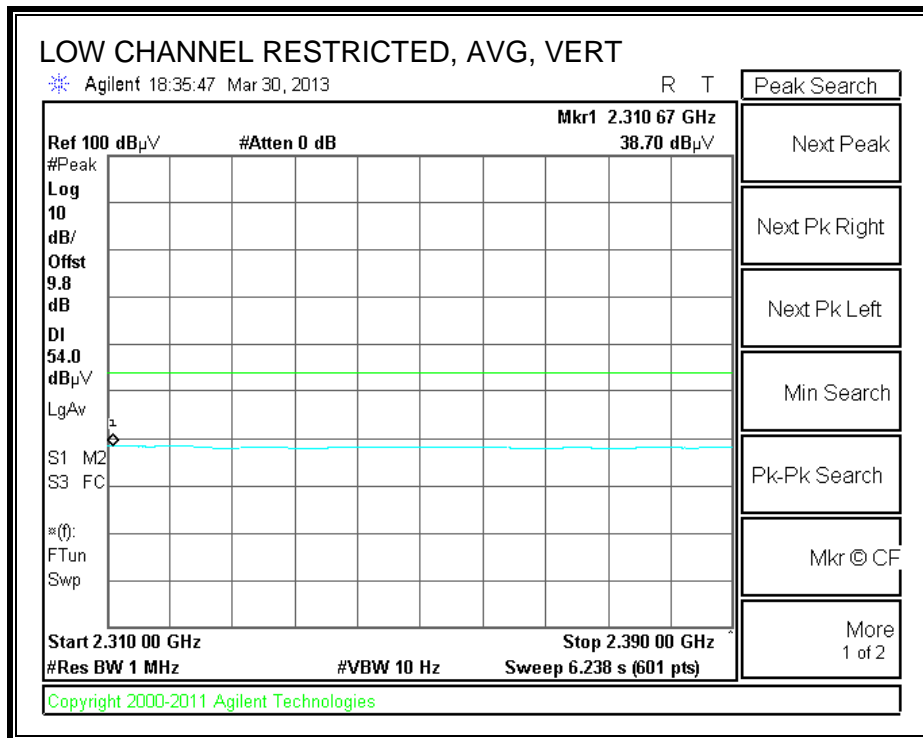
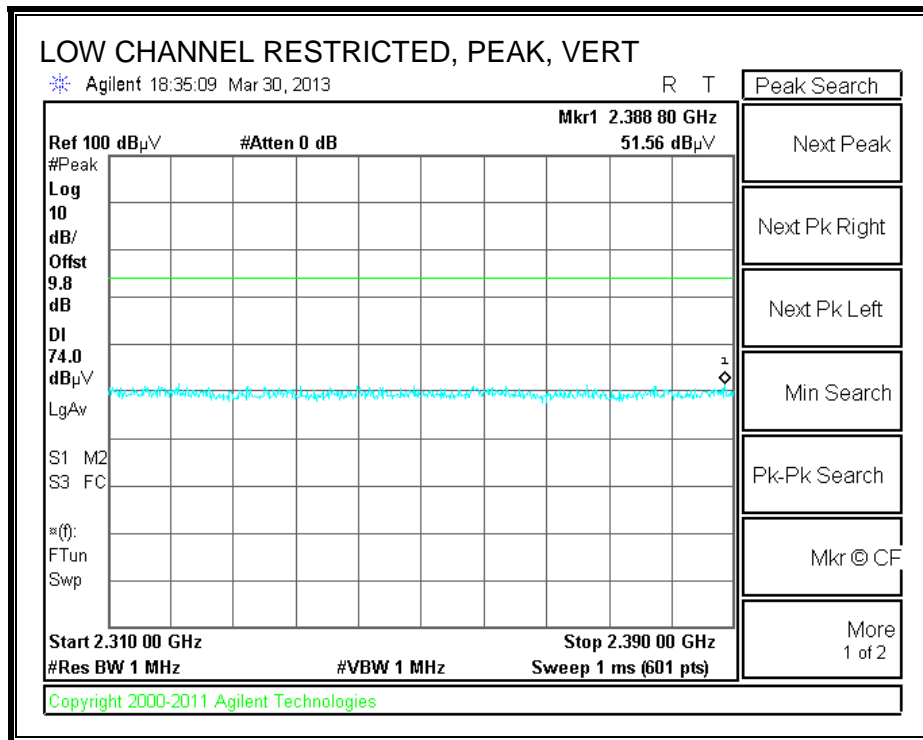


### 7.1.2. ENHANCED DATA RATE 8PSK MODULATION

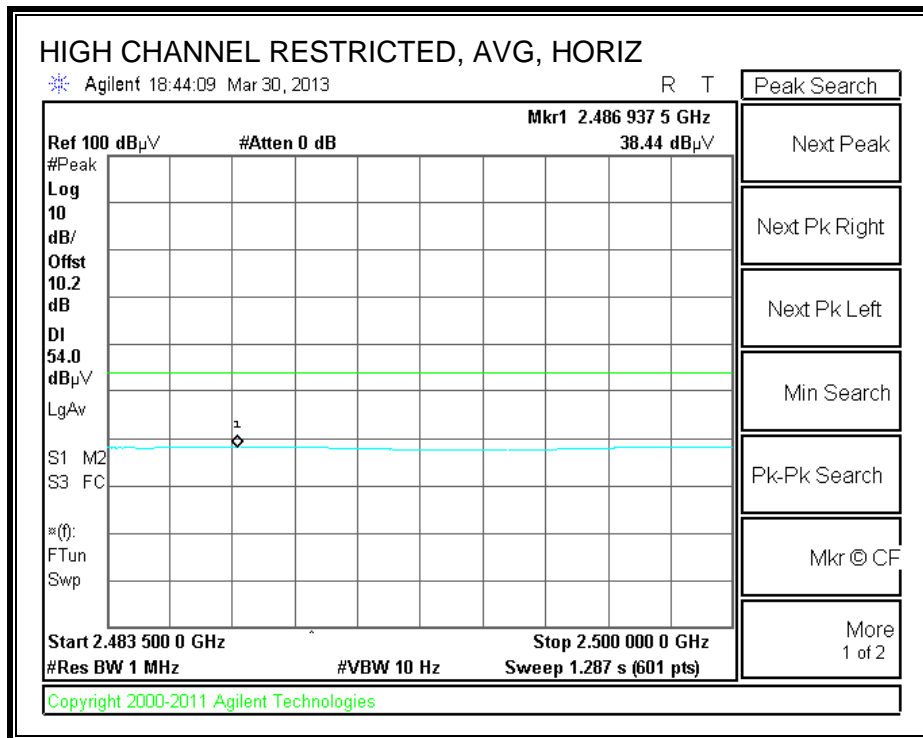
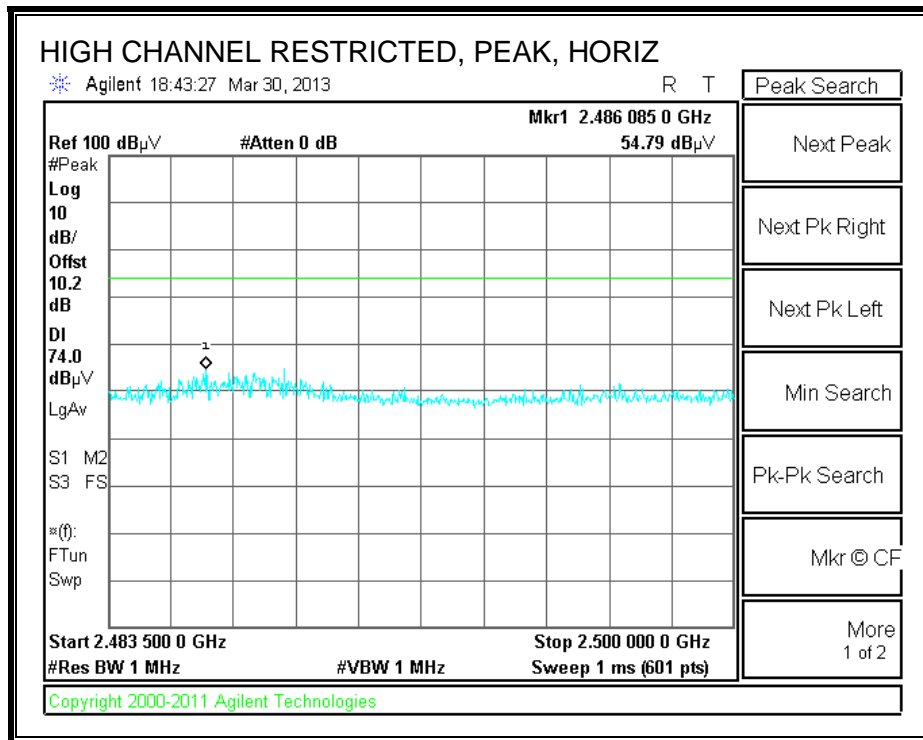
#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



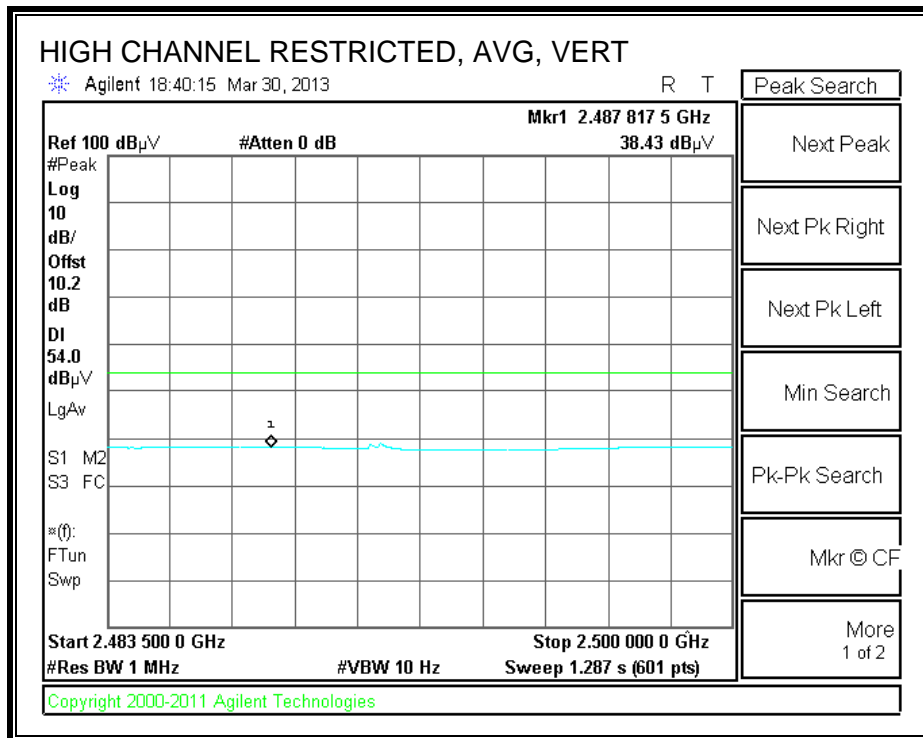
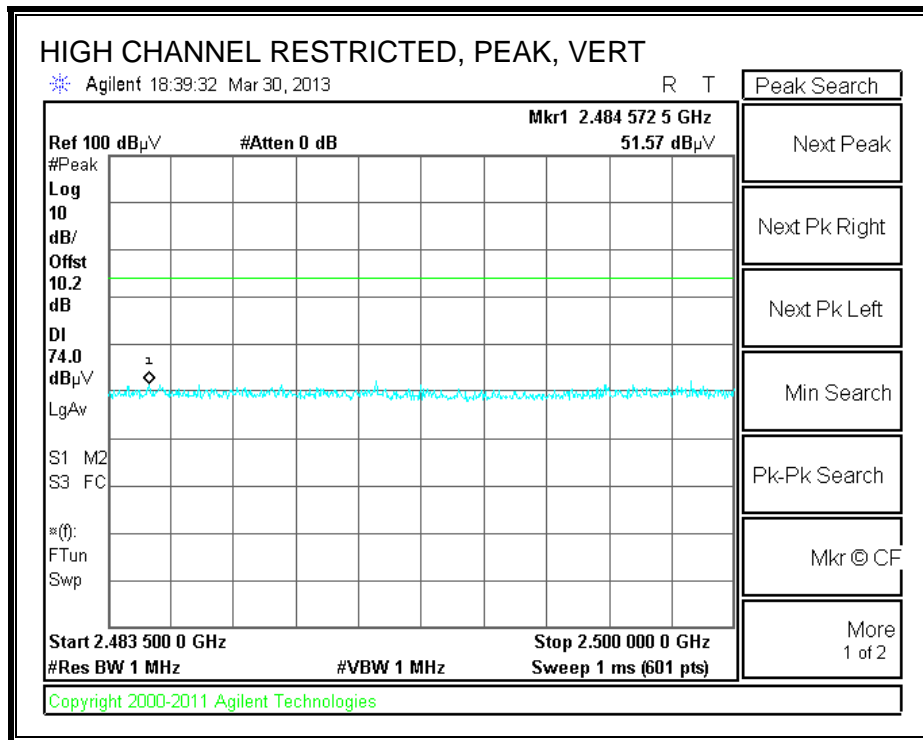
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



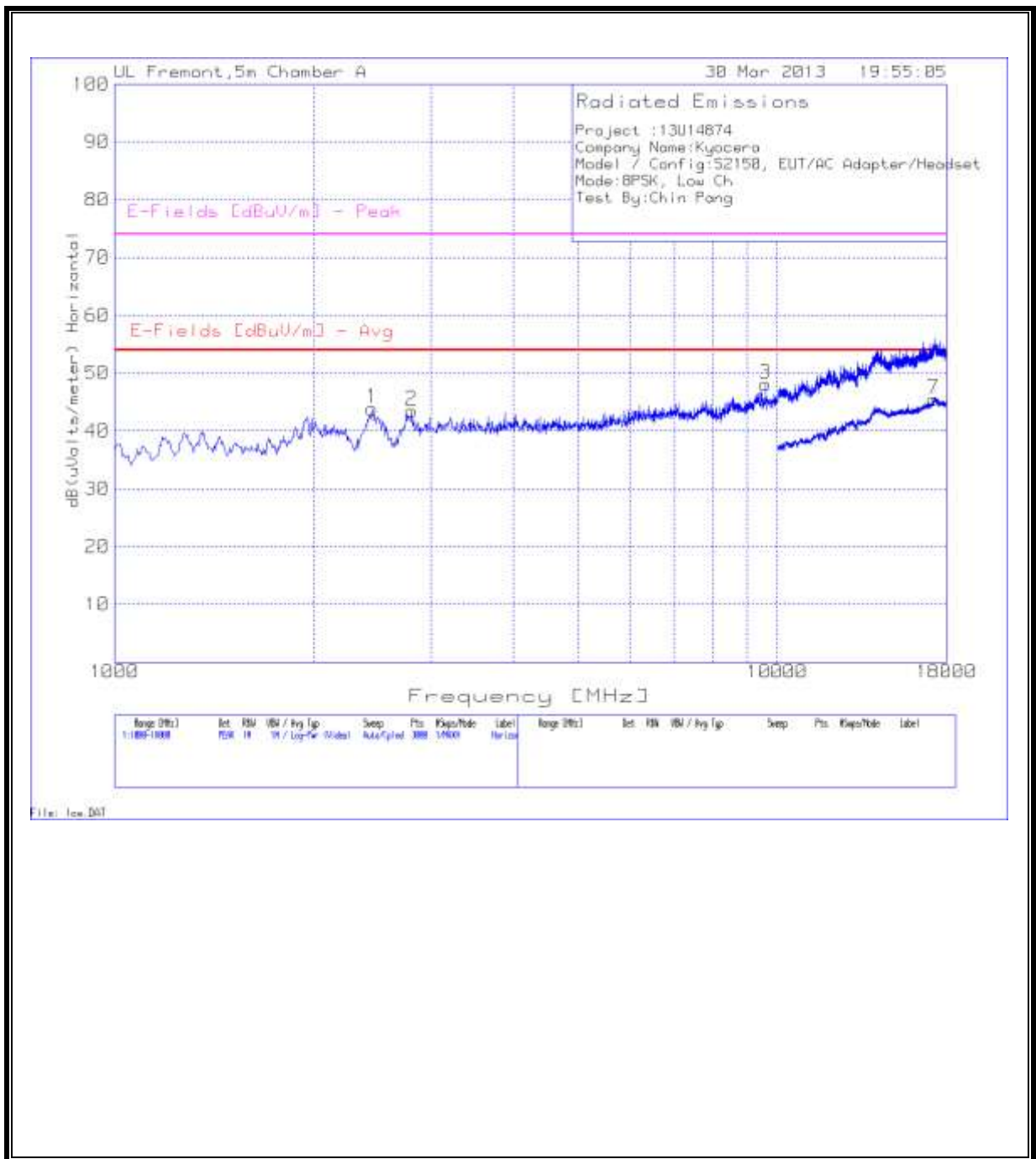
**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**

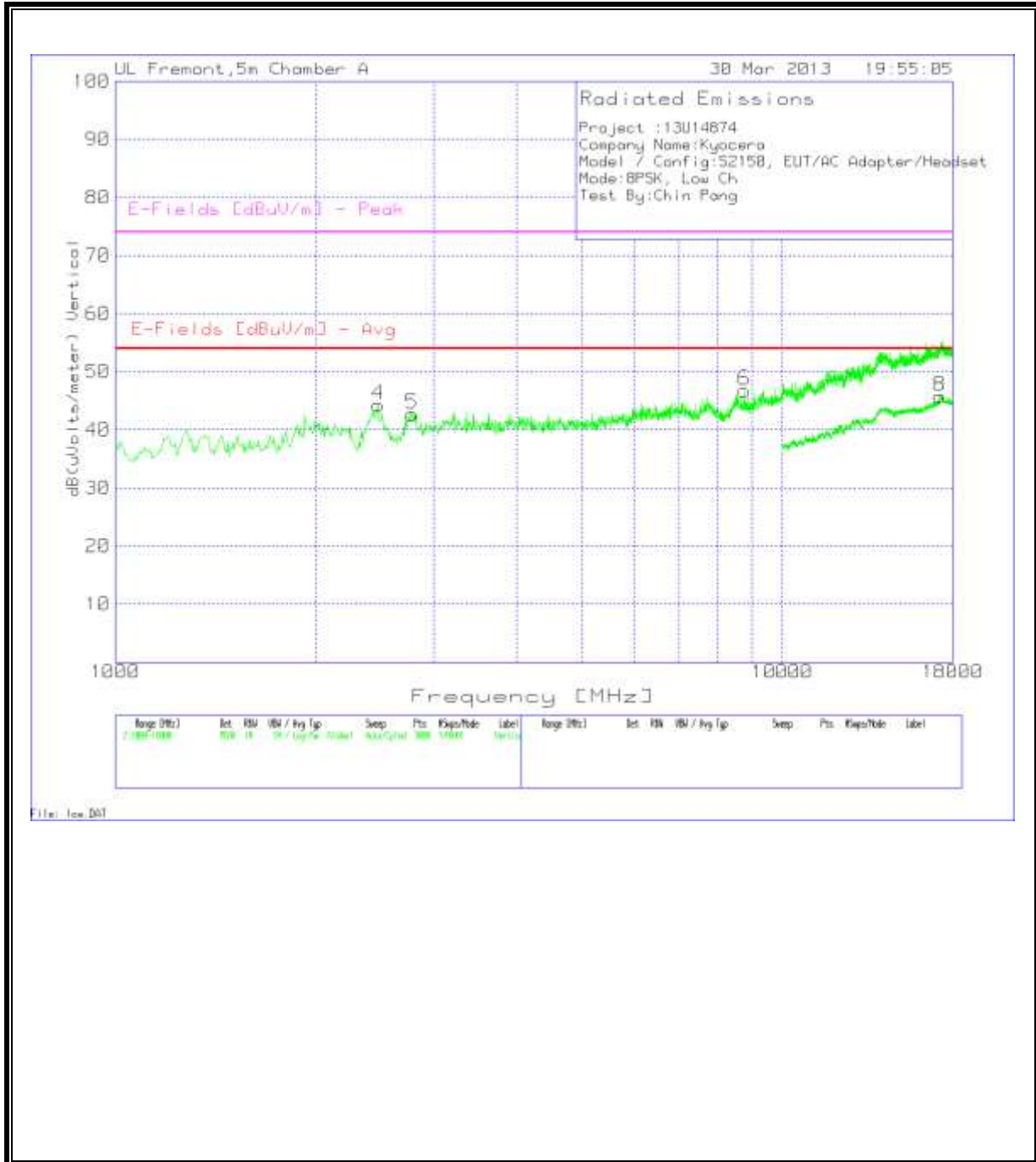


**RESTRICTED BANEDGE (HIGH CHANNEL, VERTICAL)**



**8PSK, HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL**

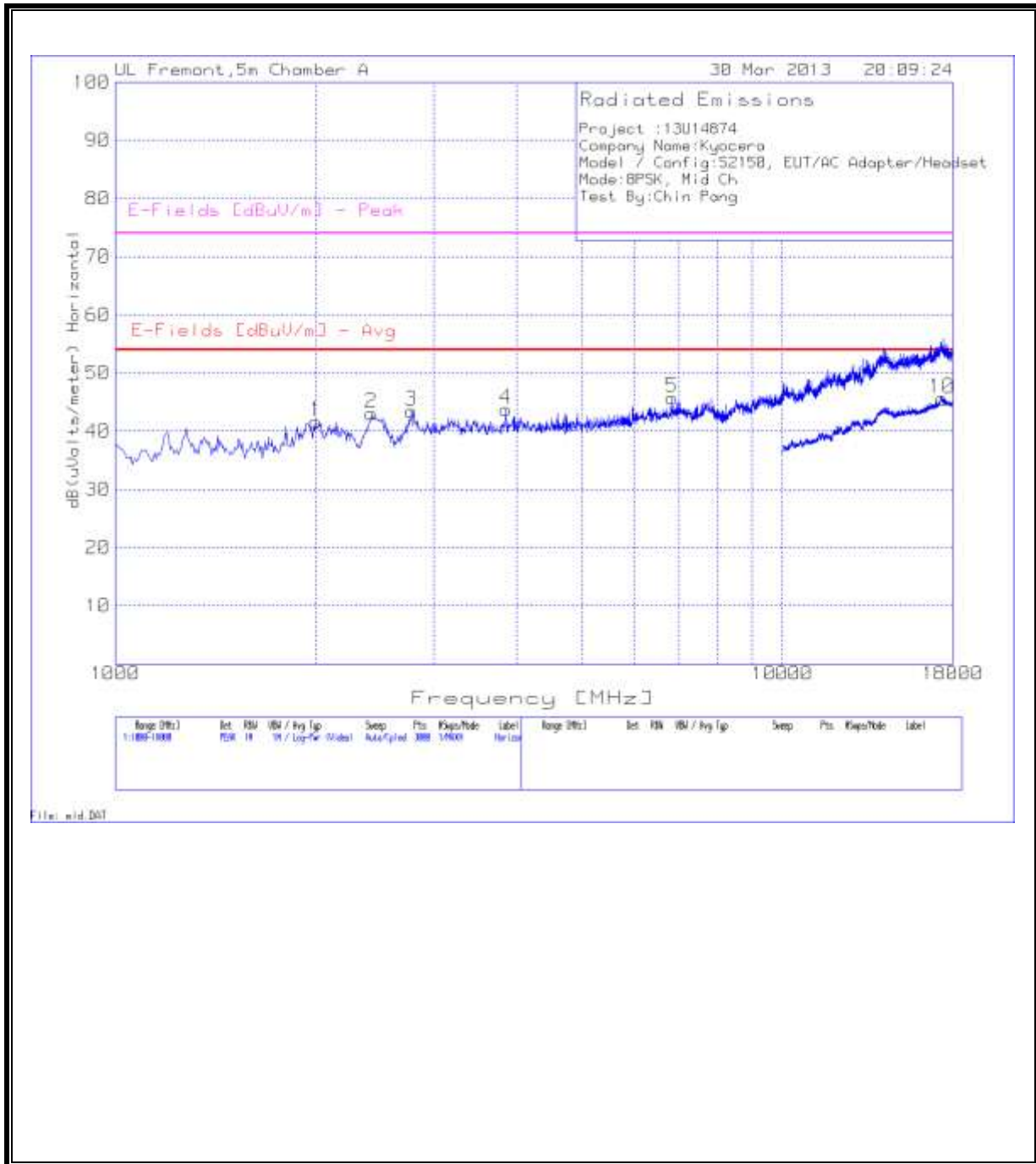




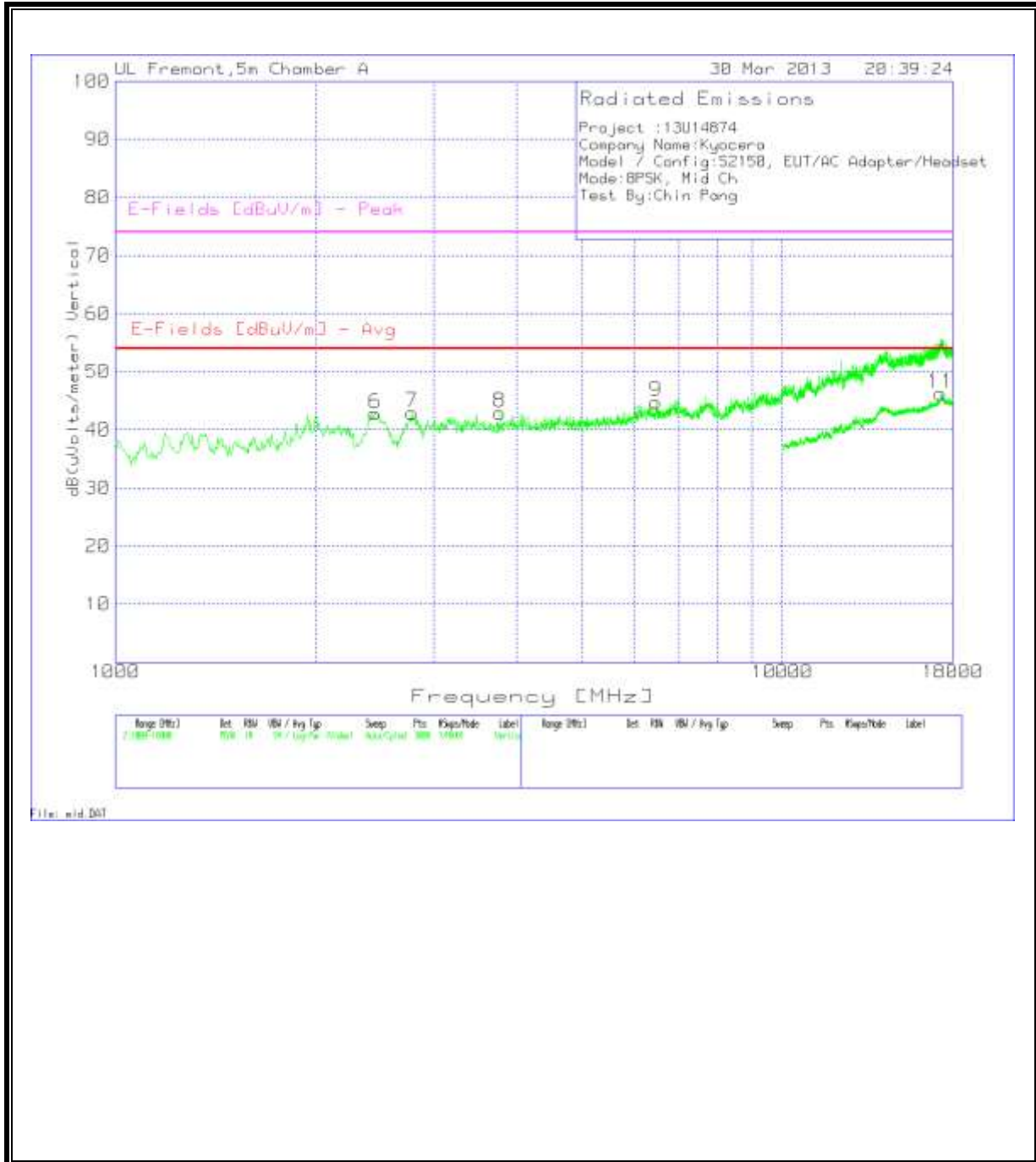
DATA

Project :13U14874											
Company Name:Kyocera											
Model / Config:S2150, EUT/AC Adapter/Headset											
Mode:8PSK, Low Ch											
Test By:Chin Pang											
Horizontal 1000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp	Cable Factor	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
1	2449.7	43.06	PK	32.3	-36.9	4.5	0.9	43.86	74	-30.14	Horz
2	2812.125	41.83	PK	32.6	-36.7	4.9	0.9	43.53	74	-30.47	Horz
3	9607.595	36.96	PK	36.7	-36.3	10.2	0.5	48.06	74	-25.94	Horz
Vertical 1000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp	Cable Factor	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
4	2478.015	43.21	PK	32.5	-36.8	4.5	0.9	44.31	74	-29.69	Vert
5	2789.474	41.11	PK	32.6	-36.7	4.8	0.9	42.71	74	-31.29	Vert
6	8780.813	36.94	PK	35.8	-36	9.7	0.4	46.84	74	-27.16	Vert
Horizontal 10000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp	Cable Factor	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
7	17228.386	24.3	PK	40.9	-34.3	14.1	0.5	45.5	74	-28.5	Horz
Vertical 10000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor	T144 Preamp	Cable Factor	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
8	17228.386	24.49	PK	40.9	-34.3	14.1	0.5	45.69	74	-28.31	Vert

**8PSK, HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL**



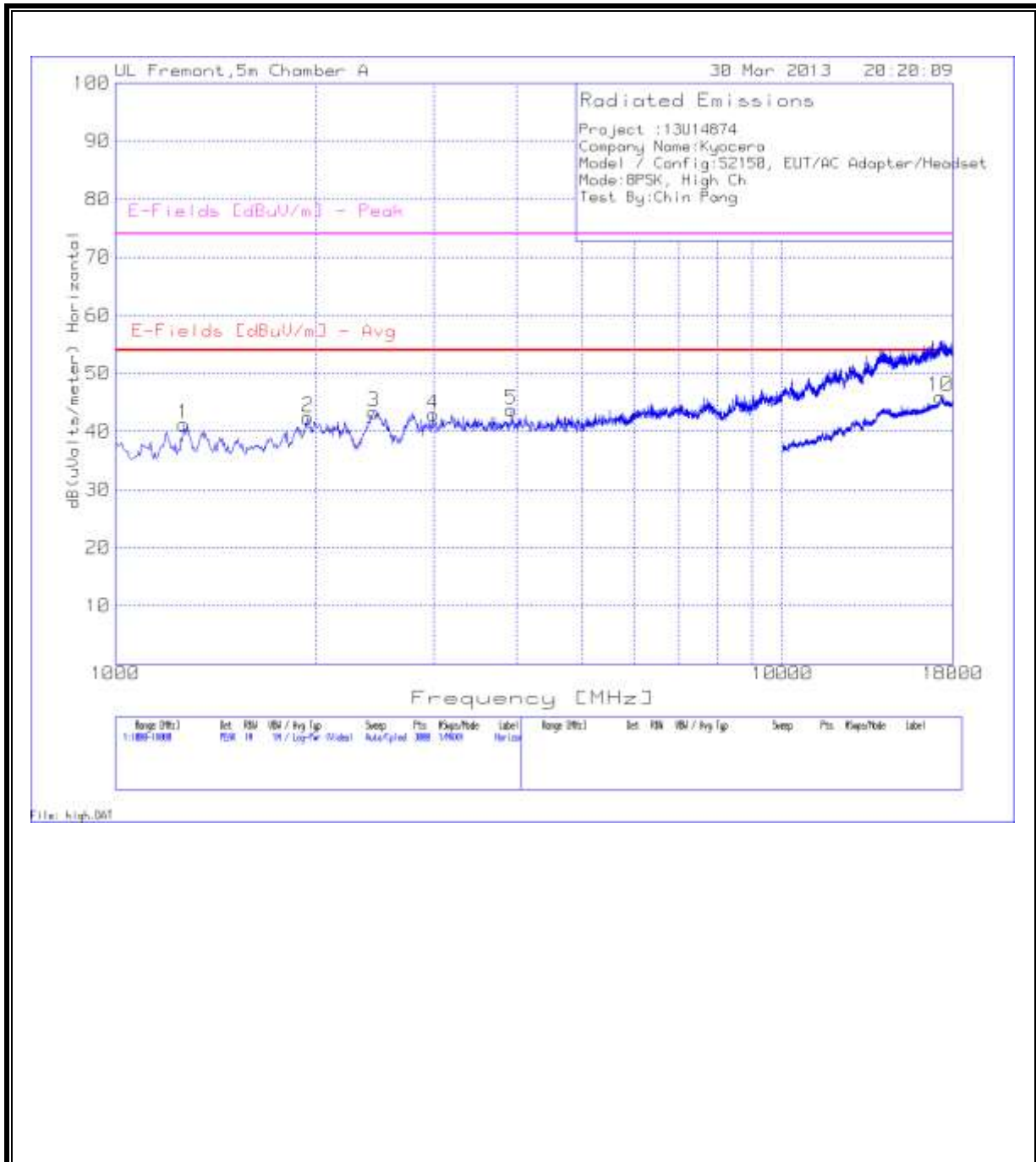


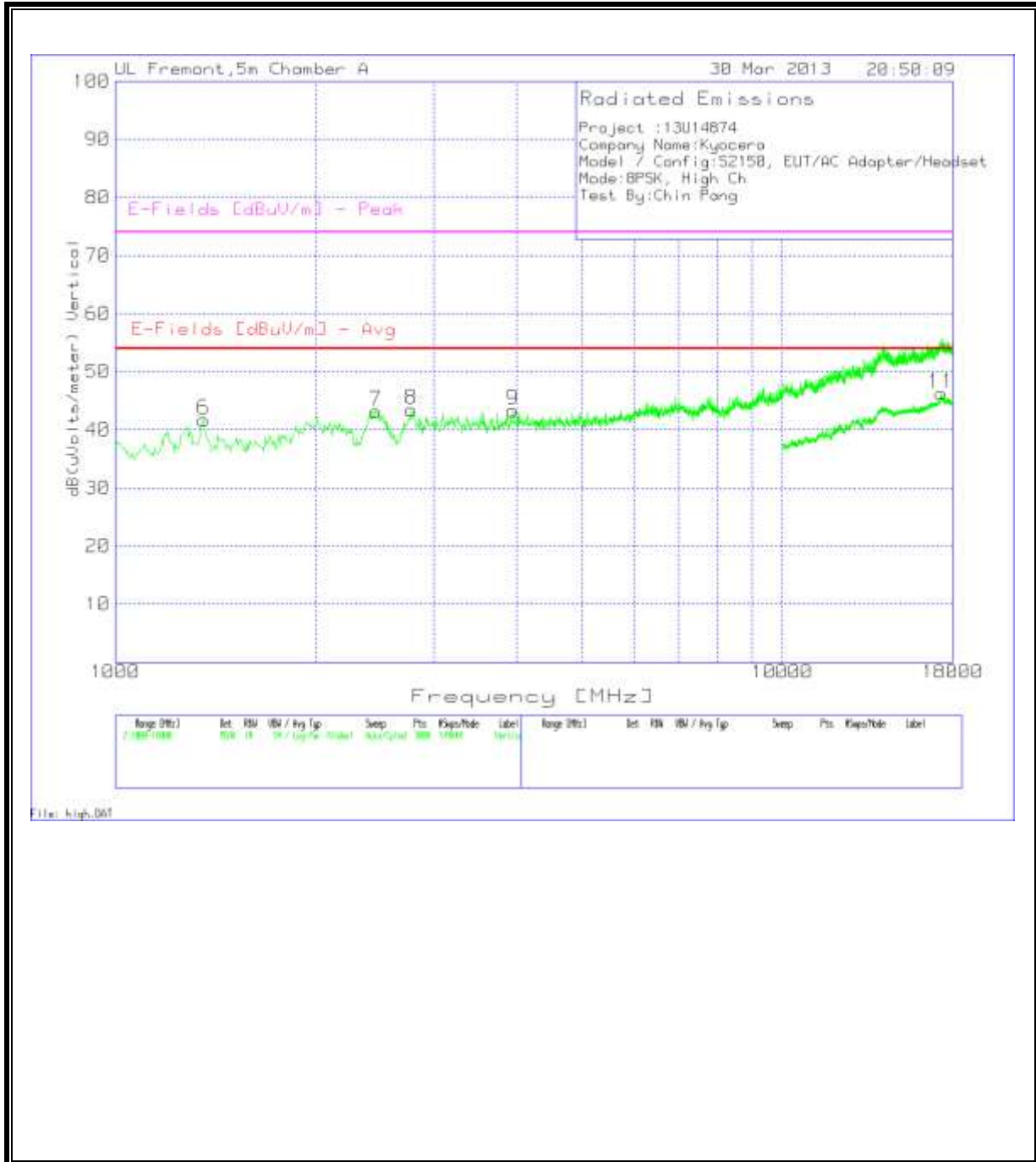


DATA

Project :13U14874												
Company Name:Kyocera												
Model / Config:S2150, EUT/AC Adapter/Headset												
Mode:8PSK, Mid Ch												
Test By:Chin Pang												
Horizontal 1000 - 18000MHz												
Marker Nc	Test Freq	Meter Res	Detector	T136 Ant F	T144 Prea	Cable Fact	T160 BRF [	dB(uVolts	E-Fields [c	Margin (dB)	Polarity	
1	2002.332	41.98	PK	31.9	-37.1	4	0.9	41.68	74	-32.32	Horz	
2	2421.386	42.37	PK	32.2	-36.9	4.5	0.9	43.07	74	-30.93	Horz	
3	2783.811	41.93	PK	32.6	-36.7	4.8	0.9	43.53	74	-30.47	Horz	
4	3854.097	40.05	PK	33.6	-36.1	5.9	0.3	43.75	74	-30.25	Horz	
5	6838.441	37.23	PK	35.4	-35.6	8.4	0.3	45.73	74	-28.27	Horz	
Vertical 1000 - 18000MHz												
Marker Nc	Test Freq	Meter Res	Detector	T136 Ant F	T144 Prea	Cable Fact	T160 BRF [	dB(uVolts	E-Fields [c	Margin (dB)	Polarity	
6	2455.363	41.89	PK	32.4	-36.8	4.5	0.9	42.89	74	-31.11	Vert	
7	2789.474	41.31	PK	32.6	-36.7	4.8	0.9	42.91	74	-31.09	Vert	
8	3769.154	39.57	PK	33.4	-36.1	5.8	0.3	42.97	74	-31.03	Vert	
9	6470.353	36.57	PK	35.5	-35.6	8.1	0.2	44.77	74	-29.23	Vert	
Horizontal 10000 - 18000MHz												
Marker Nc	Test Freq	Meter Res	Detector	T136 Ant F	T144 Prea	Cable Fact	T160 BRF [	dB(uVolts	E-Fields [c	Margin (dB)	Polarity	
10	17356.32	24.44	PK	40.9	-34.4	14.2	0.5	45.64	74	-28.36	Horz	
Vertical 10000 - 18000MHz												
Marker Nc	Test Freq	Meter Res	Detector	T136 Ant F	T144 Prea	Cable Fact	T160 BRF [	dB(uVolts	E-Fields [c	Margin (dB)	Polarity	
11	17276.36	25.01	PK	41	-34.4	14.1	0.5	46.21	74	-27.79	Vert	

**8PSK, HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL**



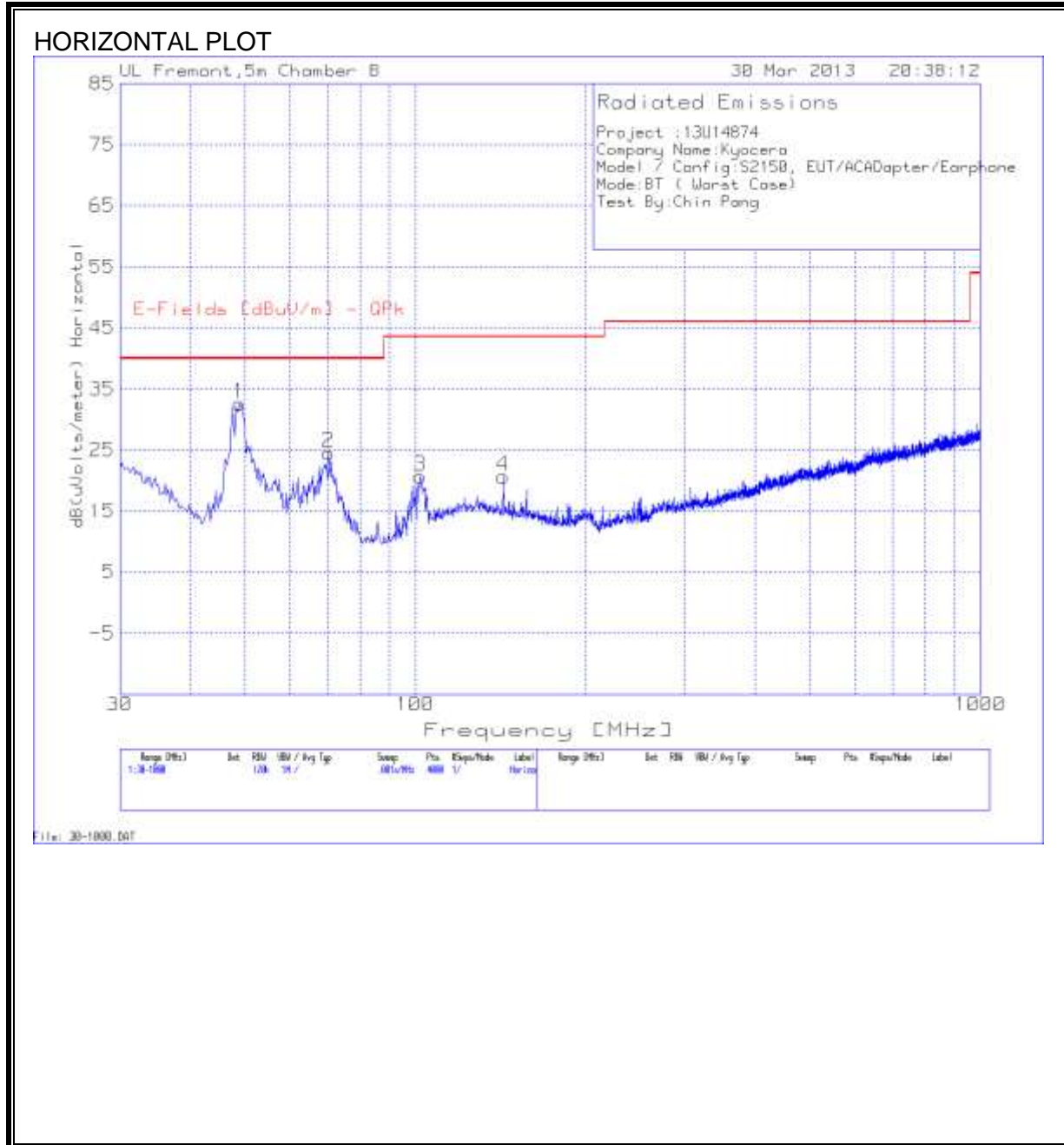


**DATA**

Project :13U14874											
Company Name:Kyocera											
Model / Config:S2150, EUT/AC Adapter/Headset											
Mode:8PSK, High Ch											
Test By:Chin Pang											
Horizontal 1000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uV/s/meter)	[dBuV/m] - Peak	Margin (dB)	Polarity
1	1266.156	45.98	PK	30	-38.3	3.3	0.3	41.28	74	-32.72	Horz
2	1945.703	42.98	PK	31.8	-37.2	4	0.9	42.48	74	-31.52	Horz
3	2444.037	42.53	PK	32.3	-36.9	4.5	0.9	43.33	74	-30.67	Horz
4	2999.001	41.17	PK	32.7	-36.7	5	0.8	42.97	74	-31.03	Horz
5	3927.715	39.71	PK	33.7	-36	6	0.3	43.71	74	-30.29	Horz
Vertical 1000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uV/s/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
6	1356.762	46.09	PK	30	-38.1	3.4	0.4	41.79	74	-32.21	Vert
7	2461.026	42.25	PK	32.4	-36.8	4.5	0.9	43.25	74	-30.75	Vert
8	2783.811	41.87	PK	32.6	-36.7	4.8	0.9	43.47	74	-30.53	Vert
9	3944.704	39.39	PK	33.7	-36	6	0.3	43.39	74	-30.61	Vert
Horizontal 10000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uV/s/meter)	[dBuV/m] - Peak	Margin (dB)	Polarity
10	17260.37	24.56	PK	41	-34.3	14.1	0.6	45.96	74	-28.04	Horz
Vertical 10000 - 18000MHz											
Marker No.	Test Frequency	Meter Reading	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uV/s/meter)	[dBuV/m] - Peak	Margin (dB)	Polarity
11	17300.35	25.03	PK	41	-34.4	14.1	0.6	46.33	74	-27.67	Vert

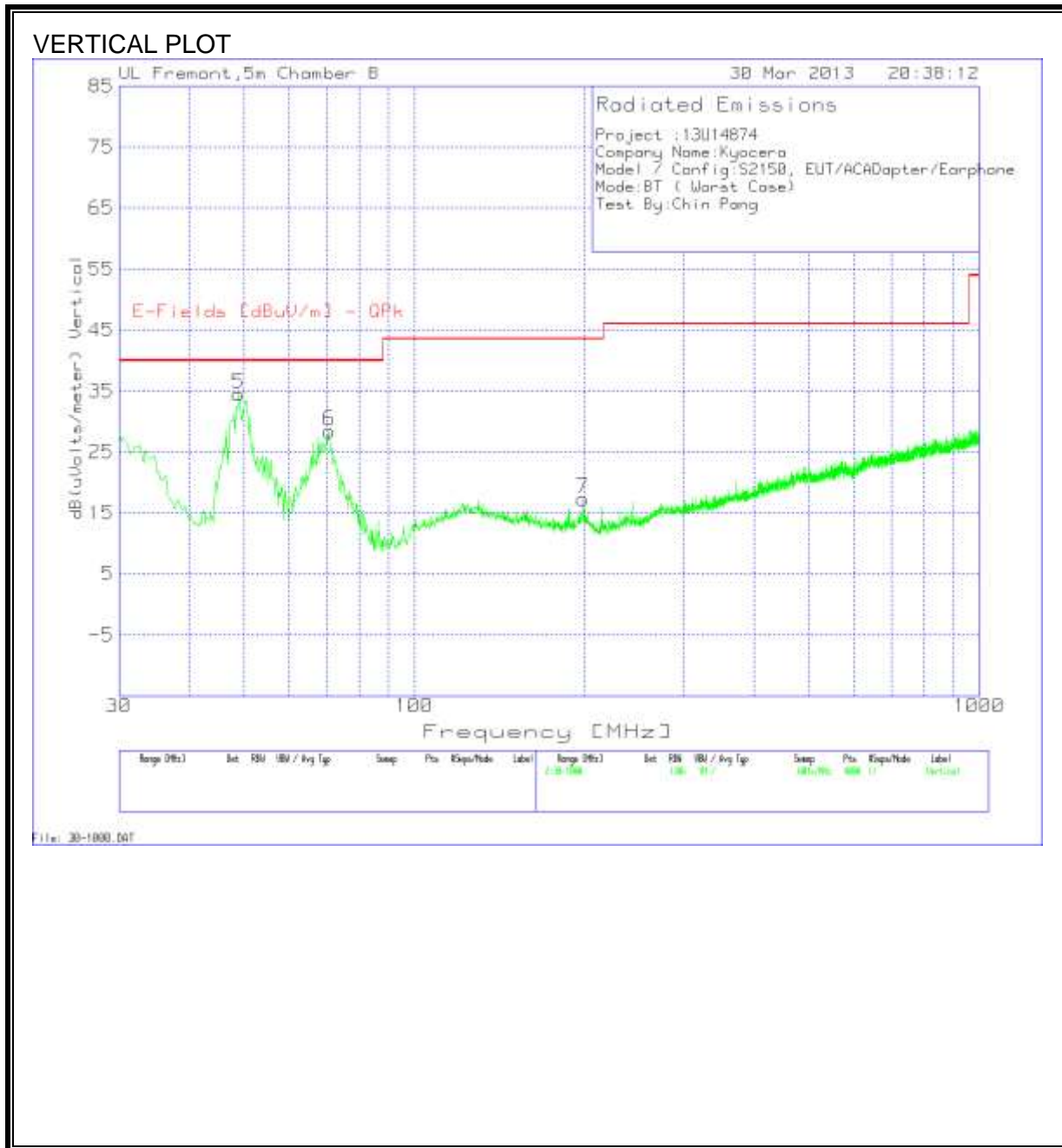
### 7.1. WORST-CASE BELOW 1 GHz

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





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



DATA

Project :13U14874									
Company Name:Kyocera									
Model / Config:S2150, EUT/ACADapter/Earphone									
Mode:BT ( Worst Case)									
Test By:Chin Pang									
Horizontal 30 - 1000MHz									
Marker No.	Frequency	Meter Reading	Detector	T185 Antenna Factor dB/m	T64 preamp/cable	dB(uVolts/meter)	E-Fields [dBuV/m]	Margin (dB)	Polarity
1	48.9008	51.98	PK	8.1	-27.5	32.58	40	-7.42	Horz
2	70.2248	43.78	PK	8.1	-27.3	24.58	40	-15.42	Horz
3	101.9685	36.96	PK	10.6	-26.9	20.66	43.52	-22.86	Horz
4	143.1626	34.52	PK	12.8	-26.7	20.62	43.52	-22.9	Horz
Vertical 30 - 1000MHz									
Marker No.	Test Frequency	Meter Reading	Detector	T185 Antenna Factor dB/m	preamp/cable loss [dB]	dB(uVolts/meter)	[dBuV/m] - QPk	Margin (dB)	Polarity
5	48.9008	53.86	PK	8.1	-27.5	34.46	40	-5.54	Vert
6	70.7095	47.53	PK	8.1	-27.2	28.43	40	-11.57	Vert
7	129.8351	29.8	PK	14	-26.8	17	43.52	-26.52	Vert
8	198.8958	31.37	PK	12.1	-26.2	17.27	43.52	-26.25	Vert



## 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.

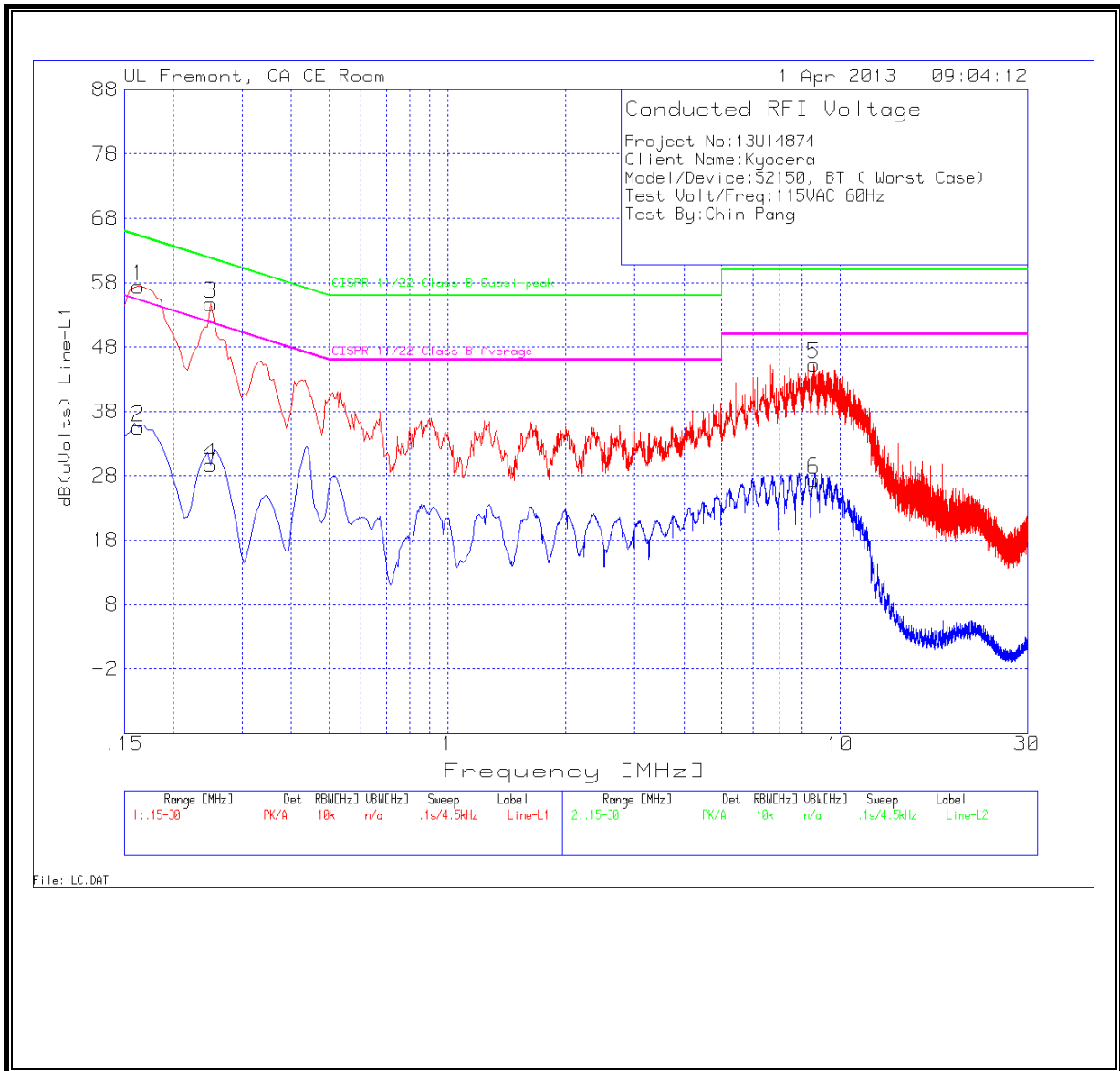
Line conducted data is recorded for both NEUTRAL and HOT lines.

**RESULTS**

**6 WORST EMISSIONS**

Project No:13U14874									
Client Name:Kyocera									
Model/Device:S2150, BT ( Worst Case)									
Test Volt/Freq:115VAC 60Hz									
Test By:Chin Pang									
Line-L1 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L1.TXT	LC Cables 1&3.TXT	dB(uVolts)	CISPR 11/22 Class B	Margin	CISPR 11/22 Class	Margin
0.1635	57.35	PK	0.1	0	57.45	65.3	-7.85	-	-
0.1635	35.39	Av	0.1	0	35.49	-	-	55.3	-19.81
0.249	54.65	PK	0.1	0	54.75	61.8	-7.05	-	-
0.249	29.57	Av	0.1	0	29.67	-	-	51.8	-22.13
8.583	45.16	PK	0.1	0.1	45.36	60	-14.64	-	-
8.583	27.24	Av	0.1	0.1	27.44	-	-	50	-22.56
Line-L2 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L2.TXT	LC Cables 2&3.TXT	dB(uVolts)	CISPR 11/22 Class B	Margin	CISPR 11/22 Class	Margin
0.1635	60.38	PK	0.1	0	60.48	65.3	-4.82	-	-
0.1635	27.85	Av	0.1	0	27.95	-	-	55.3	-27.35
0.2445	53.69	PK	0.1	0	53.79	61.9	-8.11	-	-
0.2445	23.94	Av	0.1	0	24.04	-	-	51.9	-27.86
0.3345	48.1	PK	0.1	0	48.2	59.3	-11.1	-	-
0.3345	18.55	Av	0.1	0	18.65	-	-	49.3	-30.65

**LINE 1 RESULTS**



**LINE 2 RESULTS**

