

RADIATED SPURIOUS EMISSIONS PORTIONS OF FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

GSM PHONE WITH 802.11B/G AND BLUETOOTH

MODEL NUMBER: P121UEU

FCC ID: O8F-PIXYW

REPORT NUMBER: 10U13098-2

ISSUE DATE: MARCH 22, 2010

Prepared for
PALM
950 MAUDE AVENUE
SUNNYVALE, CA 94085, U.S.A.

Prepared by

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REPORT NO: 10U13098-2 DATE: MARCH 22, 2010 EUT: GSM PHONE WITH 802.11B/G AND BLUETOOTH FCC ID: O8F-PIXYW

Revision History

Dov	Issue	Devisions	Devised Dv
Rev.	Date	Revisions	Revised By
	03/22/10	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: PALM

950 MAUDE AVENUE

SUNNYVALE, CA. 94085, U.S.A.

EUT DESCRIPTION: GSM PHONE WITH 802.11B/G AND BLUETOOTH

MODEL: P121UEU

SERIAL NUMBER: PD4EU27A3201

DATE TESTED: MARCH 15-20, 2010

APPLICABLE STANDARDS

STANDARD TEST RESULTS

Radiated Spurious Emissions Portions of CFR 47 Part 15 Subpart C

Pass

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.

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://ts.nist.gov/Standards/scopes/2000650.htm.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB) 36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

GSM850/1900MHz with 802.11b/g and Bluetooth phone.

GENERAL INFORMATION

Power Requirements	100-240 VAC / 50-60 Hz
List of frequencies generated or used by the EUT	600MHz

ACCESSORIES

The EUT was constructed and using the following accessories:

Accessories Description	Manufacture r/Trademark	Part Number
AC Power Adapter source #1 Input Rating: 100–240 Vac, 50/60Hz, 0.2A Output Rating: 5Vdc, 1000mA	Palm	157-10130-00
Inductive Charging Dock Input Rating: 5Vdc, 1000mA	Palm	157-10123-00
Battery source Type: Rechargeable Li-ion Polymer Rating: 3.7Vdc, 1150mAh (minimum)	Palm	157-10119-00
Wired Stereo Headset	Palm	180-10632-00
USB cable	Palm	180-10647-00
Inductive Back Cover (black color)	Palm	180-10721-00

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PCB integrated antenna, with a maximum gain of -1 dBi. 802.11bg and Bluetooth transmitters share a common antenna.

5.3. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Palm WebOS.

The test utility software used during testing was Build 901, HW Rev. PIXIE-DVT1, BT MAC: 00:1D:FE:89:66:a7.; WiFi Mac: 00:1D:FE:BD:70:64

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5.4. WORST-CASE CONFIGURATION AND MODE

The worst-case channel is determined as the channel with the highest output power.

For the fundamental investigation, since the EUT is a portable device that has three orientations; therefore X, Y and Z orientations have been investigated, also with AC/DC adapter, and inductive charging dock position, and the worst case was found to be at X orientation with AC/DC adapter.

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For the radiated emissions below 1GHz and AC line conducted tests, both worst configurations were tested as EUT with AC/DC adapter and EUT with inductive charging dock.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

	PERIPHERAL SUPPORT EQUIPMENT LIST										
Description Manufacturer Model Serial Number FCC ID											
AC Adaptor	PALM	157-10130-00	N/A	DOC							
Earphone	PALM	NA	N/A	DOC							

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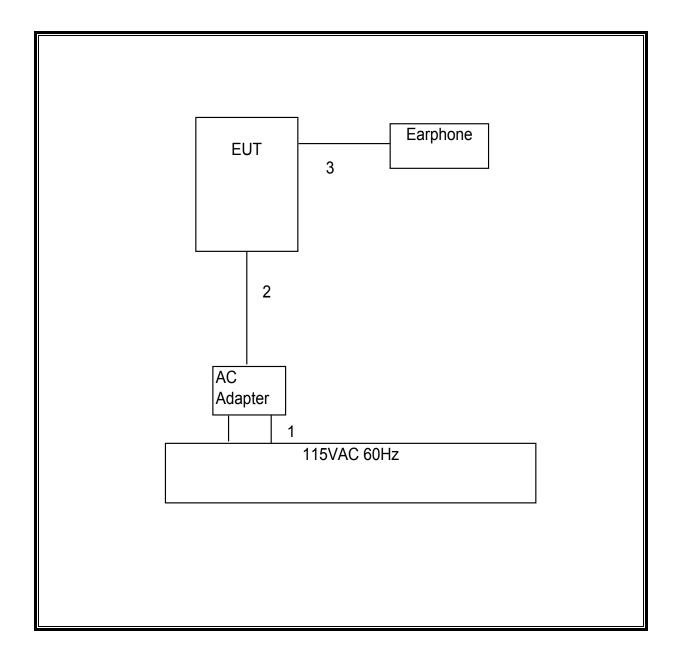
I/O CABLES

	I/O CABLE LIST											
Cable No.	. Identica		Connector Type	Cable Type	Cable Length	Remarks						
		Ports										
1	AC	1	USB	Un-shielded	None	N/A						
2	DC	1	DC	Un-shielded	1.5m	N/A						
3	Ear phone	1	jack	Un-shielded	1.2m	N/A						

TEST SETUP

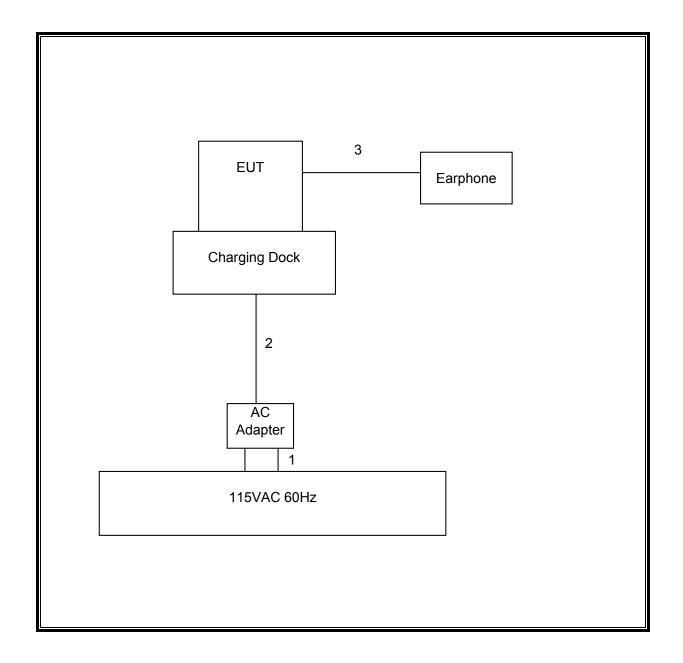
The EUT is a stand alone unit. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



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SETUP DIAGRAM FOR EUT WITH INDUCTIVE CHARGING DOCK



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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					
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					
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	08/04/10					
Antenna, Horn, 18 GHz	EMCO	3115	C00783	07/29/10					
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	08/31/10					
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	07/06/10					
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	07/14/10					
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR					
Peak Power Meter	Agilent / HP	E4416A	C00963	12/04/11					
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	01/07/12					

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.

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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, 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 appplicable band.

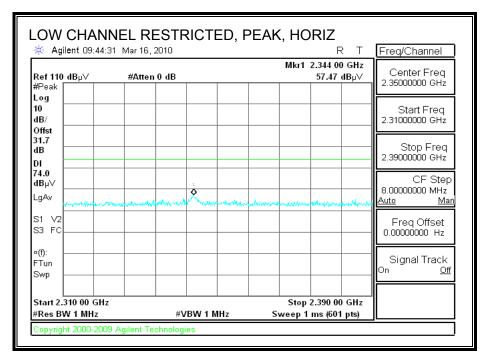
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

7.2. TRANSMITTER ABOVE 1 GHz

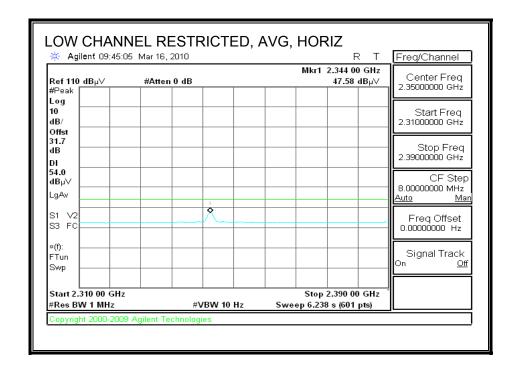
7.2.1. 802.11b MODE

EUT WITH STANDARD BACKCOVER

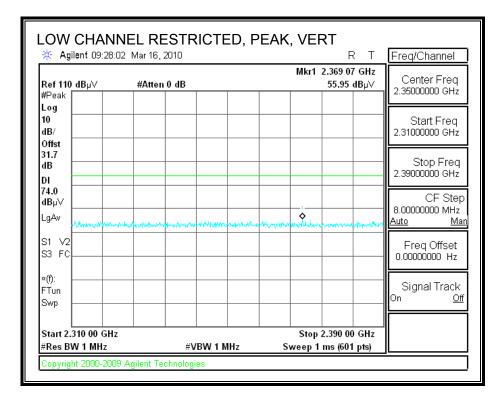
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



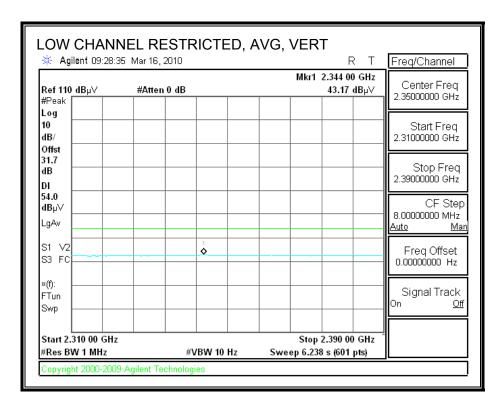
DATE: MARCH 22, 2010



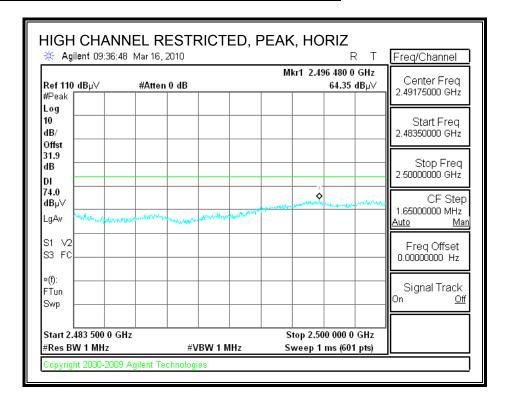
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



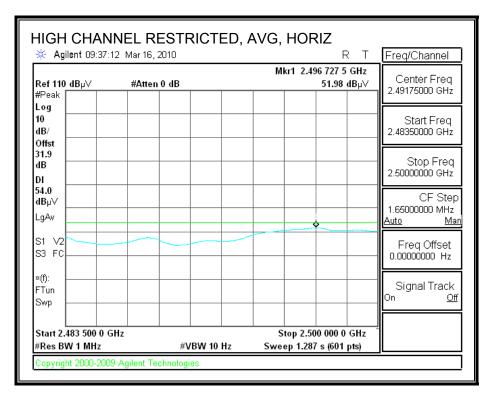
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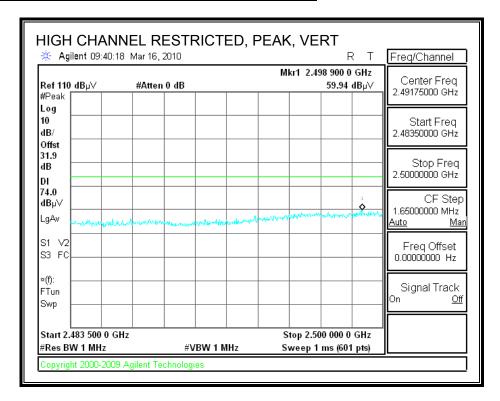
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



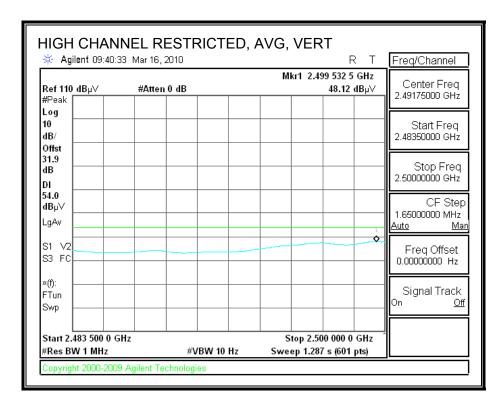
DATE: MARCH 22, 2010



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

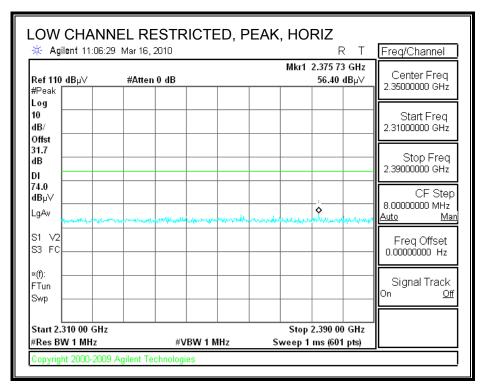


DATE: MARCH 22, 2010

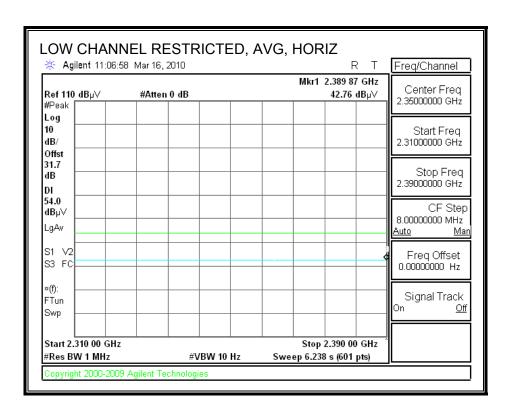


EUT WITH INDUCTIVE BACKCOVER

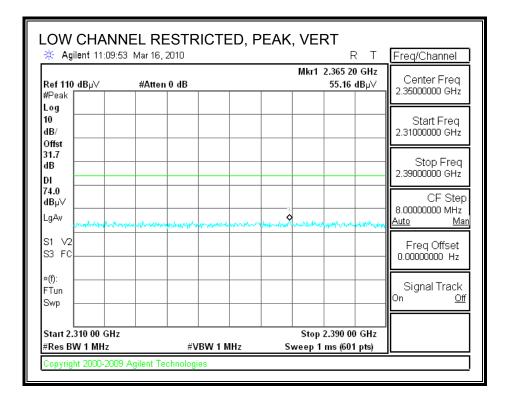
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



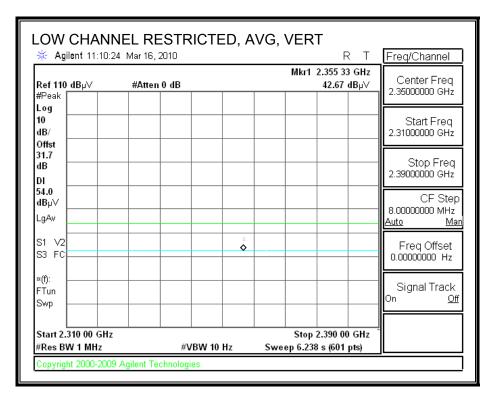
DATE: MARCH 22, 2010



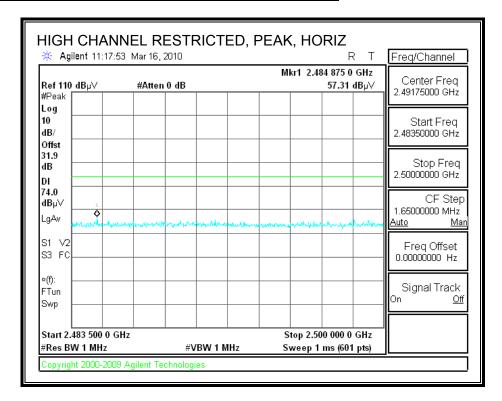
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



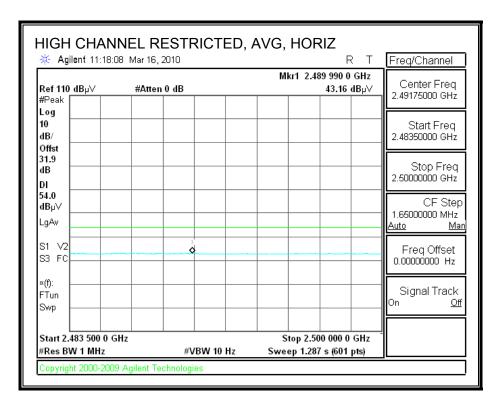
DATE: MARCH 22, 2010



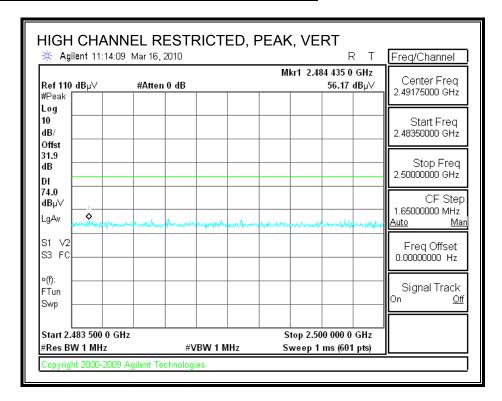
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



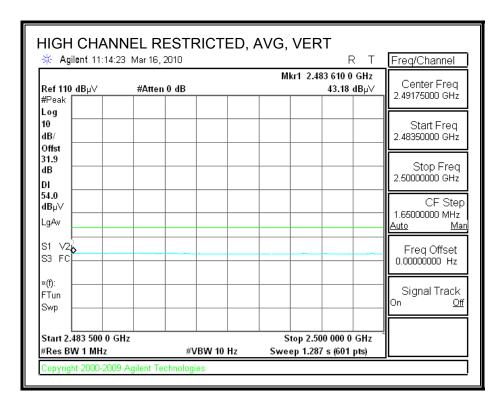
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RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



DATE: MARCH 22, 2010



EUT WITH STANDARD BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03/19/10
Project #: 10U13098
Company: Palm

EUT Description: GSM Phone with 802.11 b/g and Bluetooth Configuration: EUT (Standard Cover) with AC Adapter

EUT M/N: P121UEU
Test Target: FCC 15.247
Mode Oper: TX, b mode

 f
 Measurement Frequency Amp
 Preamp Gain
 Average Field Strength Limit

 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	Dist	Read	AF	CL	-	D Corr	Fltr	Corr.		Margin	Ant Pol	Det	Notes
GHz	(m)	dBuV	dB/m	dВ	dВ	dB	dВ	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
low Ch, 2	412MH	:											
4.824	3.0	39.3	32.7	5.8	-34.8	0.0	0.0	42.9	74.0	-31.1	H	P	
4.824	3.0	30.9	32.7	5.8	-34.8	0.0	0.0	34.5	54.0	-19.5	H	A	
12.060	3.0	33.3	38.5	9.8	-32.5	0.0	0.0	49.1	74.0	-24.9	H	P	
12.060	3.0	21.3	38.5	9.8	-32.5	0.0	0.0	37.0	54.0	-17.0	H	A	
4.824	3.0	39.3	32.7	5.8	-34.8	0.0	0.0	43.0	74.0	-31.0	V	P	
4.824	3.0	31.2	32.7	5.8	-34.8	0.0	0.0	34.8	54.0	-19.2	V	A	
12.060	3.0	34.0	38.5	9.8	-32.5	0.0	0.0	49.8	74.0	-24.2	v	P	
12.060	3.0	21.3	38.5	9.8	-32.5	0.0	0.0	37.1	54.0	-16.9	V	A	
Mid Ch, 2	437MHz												
4.874	3.0	39.7	32.7	5.8	-34.8	0.0	0.0	43.4	74.0	-30.6	H	P	
4.874	3.0	30.9	32.7	5.8	-34.8	0.0	0.0	34.6	54.0	-19.4	Н	A	
7.311	3.0	42.1	35.3	7.3	-36.2	0.0	0.0	48.4	74.0	-25.6	H	P	
7.311	3.0	33.0	35.3	7.3	-36.2	0.0	0.0	39.4	54.0	-14.6	H	A	
12.185	3.0	33.0	38.5	9.8	-32.5	0.0	0.0	48.9	74.0	-25.1	H	P	
12.185	3.0	21.1	38.5	9.8	-32.5	0.0	0.0	36.9	54.0	-17.1	H	A	
1.874	3.0	39.2	32.7	5.8	-34.8	0.0	0.0	42.9	74.0	-31.1	V	A P	
1.874	3.0	31.5	32.7	5.8	-34.8	0.0	0.0	35.2	54.0	-18.8	V	A	
7.311	3.0	39.0	35.5	7.3	-34.1	0.0	0.0	47.6	74.0	-26.4	V	P	
7.311	3.0	31.1	35.5	7.3	-34.1	0.0	0.0	39.8	54.0	-14.2	v		
12.185	3.0	34.9	38.5	9.8	-32.5	0.0	0.0	50.8	74.0	-23.2	V	A P	
12.185	3.0	24.5	38.5	9.8	-32.5	0.0	0.0	40.3	54.0	-13.7	v V	A	
High Ch,	2462MH	[z											
4.924	3.0	37.9	32.7	5.9	-34.8	0.0	0.0	41.7	74.0	-32.3	н	P	
4.924	3.0	29.3	32.7	5.9	-34.8	0.0	0.0	33.1	54.0	-20.9	H	A	
7.386	3.0	38.2	35.6	7.3	-34.1	0.0	0.0	47.0	74.0	-27.0	Н	A P	
7.386	3.0	29.8	35.6	7.3	-34.1	0.0	0.0	38.6	54.0	-15.4	Н	A	
12.310	3.0	33.6	38.5	9.9	-32.5	0.0	0.0	49.4	74.0	-24.6	H	P	
12.310	3.0	21.0	38.5	9.9	-32.5	0.0	0.0	36.9	54.0	-17.1	H	A	
1.924	3.0	40.1	32.7	5.9	-34.8	0.0	0.0	43.9	74.0	-30.1	V	P	
1.924	3.0	32.2	32.7	5.9	-34.8	0.0	0.0	36.0	54.0	-18.0	V	A	
7.386	3.0	43.1	35.6	7.3	-34.1	0.0	0.0	51.9	74.0	-22.1	v v	A P	
7.386	3.0	38.0	35.6	7.3	-34.1	0.0	0.0	46.8	54.0	-7.2	V	A	
12.310	3.0	34.9	38.5	9.9	-32.5	0.0	0.0	50.7	74.0	-23.3	v	P	
12.310	3.0	25.8	38.5	9.9	-32.5	0.0	0.0	41.7	54.0	-12.3	V	A	

Rev. 4.1.2.7

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

DATE: MARCH 22, 2010

EUT WITH INDUCTIVE BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03/18/10
Project #: 10U13098
Company: Palm

EUT Description: GSM Phone with 802.11 b/g and Bluetooth Configuration: EUT(Inductive Cover) with Charging Dock

EUT M/N: P121UEU
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

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

f	Dist	Read	AF	CL		D Corr		Corr.		. • :	Ant Pol	Det.	Notes
GHz	(m)	dBuV	dB/m	dВ	dВ	dB	dВ	dBuV/m	dBuV/m	dВ	V/H	P/A/QP	
Low Ch, 2	2412MHz	E											
4.824	3.0	38.8	33.0	5.8	-36.5	0.0	0.0	41.1	74.0	-32.9	V	P	
4.824	3.0	26.6	33.0	5.8	-36.5	0.0	0.0	28.9	54.0	-25.1	V	A	
4.824	3.0	38.7	33.0	5.8	-36.5	0.0	0.0	41.0	74.0	-33.0	H	P	
4.824	3.0	27.4	33.0	5.8	-36.5	0.0	0.0	29.8	54.0	-24.2	Н	A	
Mid Ch, 2	437MHz	 !											
4.874	3.0	37.9	33.1	5.8	-36.5	0.0	0.0	40.3	74.0	-33.7	v	P	
4.874	3.0	26.9	33.1	5.8	-36.5	0.0	0.0	29.4	54.0	-24.6	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	26.9	35.3	7.3	-36.2	0.0	0.0	33.2	54.0	-20.8	V	A	
4.874	3.0	38.4	33.1	5.8	-36.5	0.0	0.0	40.9	74.0	-33.1	H	P	
4.874	3.0	26.6	33.1	5.8	-36.5	0.0	0.0	29.1	54.0	-24.9	H	A	
7.311	3.0	38.2	35.3	7.3	-36.2	0.0	0.0	44.5	74.0	-29.5	H	P	
7.311	3.0	25.9	35.3	7.3	-36.2	0.0	0.0	32.2	54.0	-21.8	Н	A	
High Ch,	2462MH	[z											
4.924	3.0	40.1	33.1	5.9	-36.5	0.0	0.0	42.7	74.0	-31.3	V	P	
4.924	3.0	28.2	33.1	5.9	-36.5	0.0	0.0	30.8	54.0	-23.2	V	A	
7.386	3.0	38.4	35.4	7.3	-36.2	0.0	0.0	44.9	74.0	-29.1	V	P	
7.386	3.0	26.9	35.4	7.3	-36.2	0.0	0.0	33.4	54.0	-20.6	V	A	
4.924	3.0	38.7	33.1	5.9	-36.5	0.0	0.0	41.3	74.0	-32.7	H	P	
4.924	3.0	26.6	33.1	5.9	-36.5	0.0	0.0	29.1	54.0	-24.9	H	A	
7.386	3.0	37.0	35.4	7.3	-36.2	0.0	0.0	43.5	74.0	-30.5	H	P	
7.386	3.0	25.4	35.4	7.3	-36.2	0.0	0.0	31.9	54.0	-22.1	H	A	

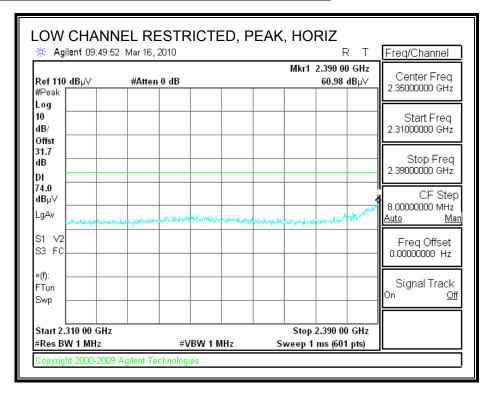
Rev. 4.1.2.7

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

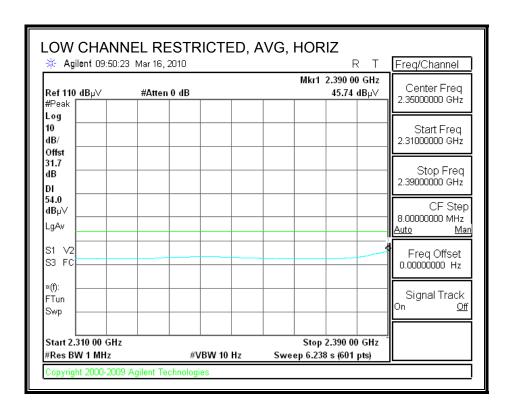
7.2.2. 802.11g MODE

EUT WITH STANDARD BACKCOVER

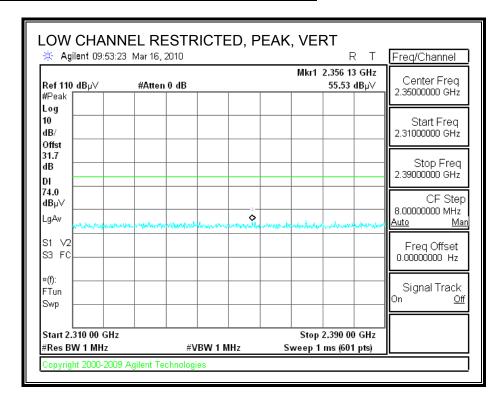
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



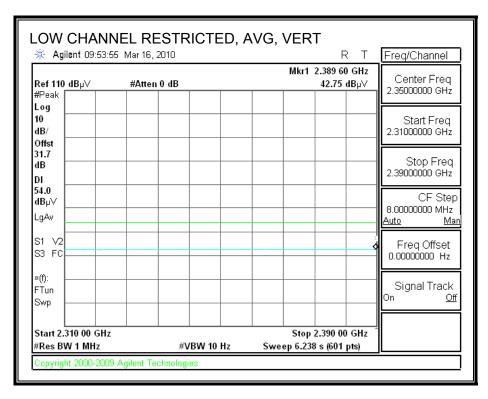
DATE: MARCH 22, 2010



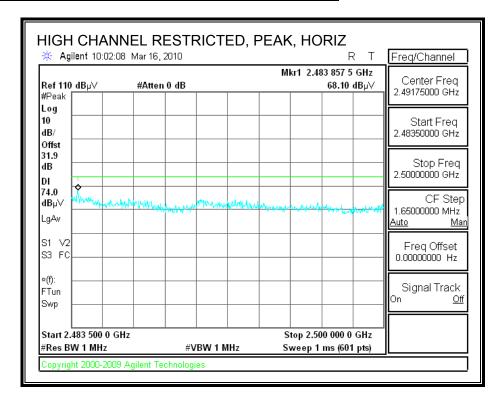
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



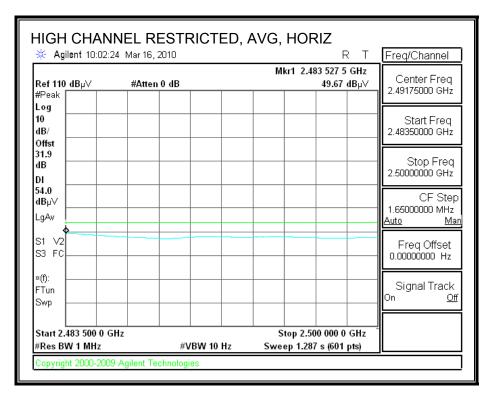
DATE: MARCH 22, 2010



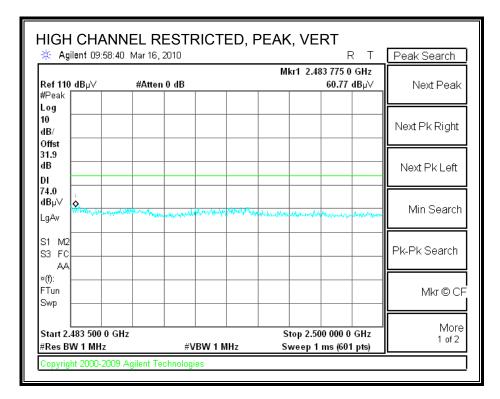
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



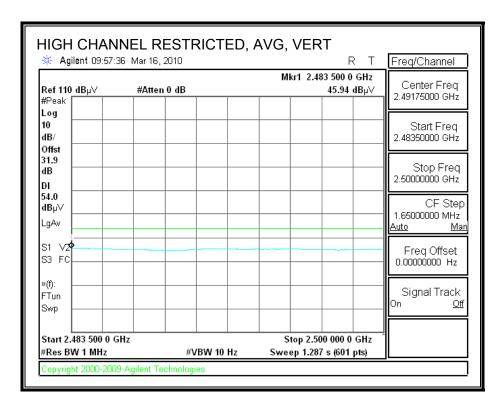
DATE: MARCH 22, 2010



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

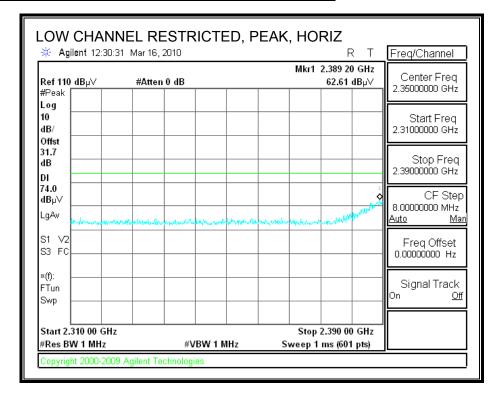


DATE: MARCH 22, 2010

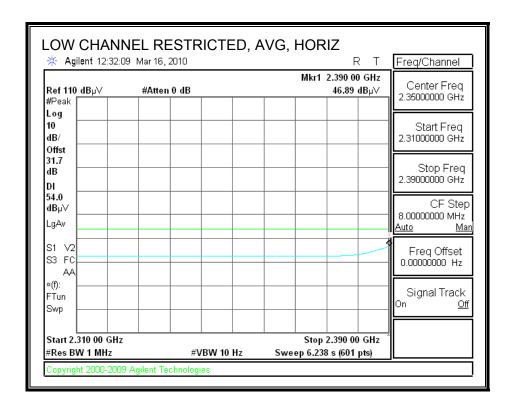


EUT WITH INDUCTIVE BACKCOVER

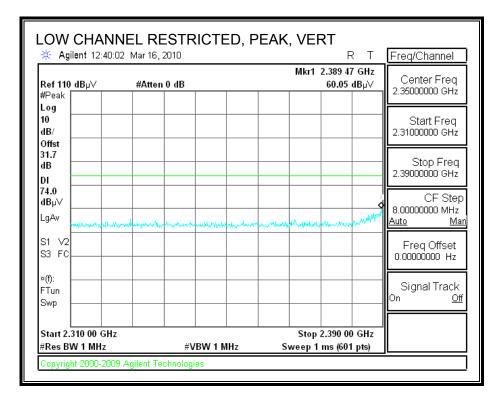
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



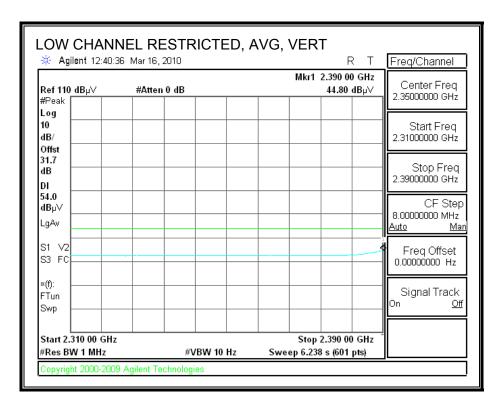
DATE: MARCH 22, 2010



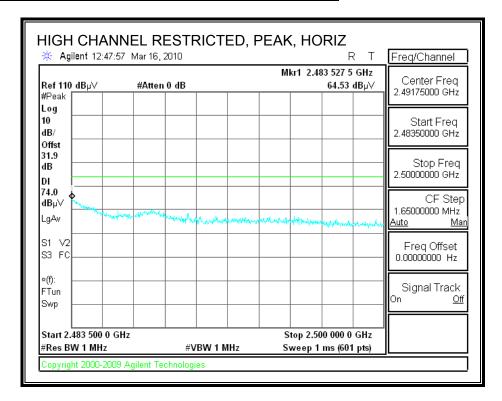
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



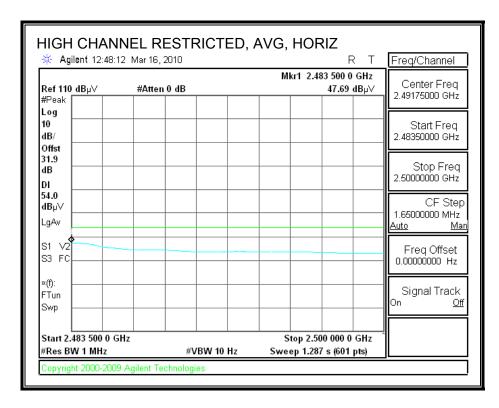
DATE: MARCH 22, 2010



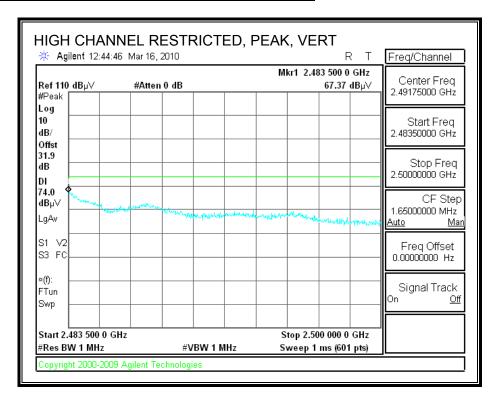
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



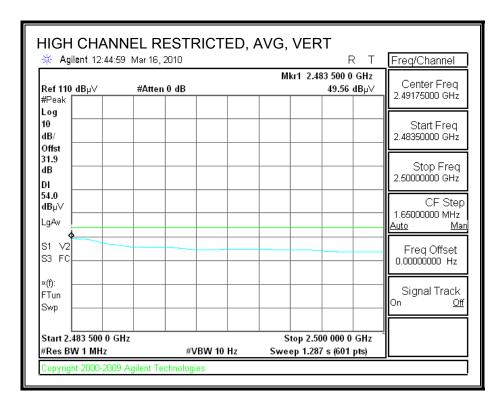
DATE: MARCH 22, 2010



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



DATE: MARCH 22, 2010



EUT WITH STANDARD BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang 03/18/10 Date: Project #: 10U13098 Palm Company:

EUT Description: GSM Phone with 802.11 b/g and Bluetooth Configuration: EUT(Standard Cover) with AC Adapter

EUT M/N: P121UEU FCC 15.247 Test Target: Mode Oper: TX, g mode

> 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 Lin AF Antenna Factor Peak Calculated Peak Field Strength Margin vs. Peak Limit Margin vs. Average Limit Antenna Factor Peak Carcurated
>
> Called Occ HPF High Pass Filter

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

CL Cable Loss

f	Dist	Read	AF	CL	Amp	D Corr	Fltr	Corr.	Limit	Margin	Ant Pol	Det	Notes
GHz	(m)	dBuV	dB/m	dВ	dВ	dВ	dВ	dBuV/m	dBuV/m	dВ	V/H	P/A/QP	
Low Ch, 2	2412MH:	Z.											
4.824	3.0	39.2	33.0	5.8	-36.5	0.0	0.0	41.5	74.0	-32.5	V	P	
4.824	3.0	26.7	33.0	5.8	-36.5	0.0	0.0	29.1	54.0	-24.9	v	A	
4.824	3.0	38.9	33.0	5.8	-36.5	0.0	0.0	41.3	74.0	-32.7	H	P	
4.824	3.0	26.3	33.0	5.8	-36.5	0.0	0.0	28.7	54.0	- 25. 3	Н	A	
Mid Ch, 2	437MH	 [
4.874	3.0	38.9	33.1	5.8	-36.5	0.0	0.0	41.3	74.0	-32.7	v	P	
4.874	3.0	25.9	33.1	5.8	-36.5	0.0	0.0	28.3	54.0	-25.7	v	A	
7.311	3.0	42.9	35.3	7.3	-36.2	0.0	0.0	49.3	74.0	-24.7	v	P	
7.311	3.0	28.5	35.3	7.3	-36.2	0.0	0.0	34.8	54.0	-19.2	V	A	
4.874	3.0	39.1	33.1	5.8	-36.5	0.0	0.0	41.6	74.0	-32.4	Н	P	
4.874	3.0	26.4	33.1	5.8	-36.5	0.0	0.0	28.9	54.0	-25.1	Н	A	
7.311	3.0	41.7	35.3	7.3	-36.2	0.0	0.0	48.0	74.0	-26.0	Н	P	
7.311	3.0	28.6	35.3	7.3	-36.2	0.0	0.0	35.0	54.0	-19.0	H	A	
High Ch.	2462MH	Iz											
4.924	3.0	39.8	33.1	5.9	-36.5	0.0	0.0	42.4	74.0	-31.6	V	P	
4.924	3.0	26.7	33.1	5.9	-36.5	0.0	0.0	29.2	54.0	-24.8	V	A	
7.386	3.0	40.8	35.4	7.3	-36.2	0.0	0.0	47.3	74.0	-26.7	V	P	
7.386	3.0	27.0	35.4	7.3	-36.2	0.0	0.0	33.5	54.0	-20.5	v	A	
4.924	3.0	39.4	33.1	5.9	-36.5	0.0	0.0	42.0	74.0	-32.0	Н	P	
4.924	3.0	26.9	33.1	5.9	-36.5	0.0	0.0	29.5	54.0	-24.5	Н	A	
7.386	3.0	44.3	35.4	7.3	-36.2	0.0	0.0	50.8	74.0	-23.2	Н	P	
7.386	3.0	30.0	35.4	7.3	-36.2	0.0	0.0	36.5	54.0	-17.5	Н	A	

Rev. 4.1.2.7

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

EUT WITH INDUCTIVE BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang 03/18/10 Date: Project #: 10U13098 Palm Company:

EUT Description: GSM Phone with 802.11 b/g and Bluetooth Configuration EUT(Inductive Cover) with Charging Dock

EUT M/N: P121UEU FCC 15.247 Test Target: Mode Oper: TX, g mode

> 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 Lin AF Antenna Factor Peak Calculated Peak Field Strength Margin vs. Peak Limit Margin vs. Average Limit Antenna Factor Peak Carcurated
>
> Called Occ HPF High Pass Filter

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

CL Cable Loss

f	Dist	Read	AF	CL	Amp	D Corr	Fltr	Corr.	Limit	Margin	Ant Pol	Det	Notes
GHz	(m)	dBuV	dB/m	dВ	dВ	dВ	dВ	dBuV/m	dBuV/m	dВ	V/H	P/A/QP	
Low Ch, 2	2412MH:	E.											
4.824	3.0	38.9	33.0	5.8	-36.5	0.0	0.0	41.3	74.0	-32.7	V	P	
4.824	3.0	26.4	33.0	5.8	-36.5	0.0	0.0	28.7	54.0	-25.3	V	A	
4.824	3.0	38.5	33.0	5.8	-36.5	0.0	0.0	40.9	74.0	-33.1	H	P	
4.824	3.0	26.4	33.0	5.8	-36.5	0.0	0.0	28.7	54.0	- 25. 3	Н	A	
Mid Ch, 2	437MH	<u> </u>											
4.874	3.0	38.6	33.1	5.8	-36.5	0.0	0.0	41.1	74.0	-32.9	V	P	
4.874	3.0	25.8	33.1	5.8	-36.5	0.0	0.0	28.3	54.0	-25.7	V	A	
7.311	3.0	39.2	35.3	7.3	-36.2	0.0	0.0	45.5	74.0	-28.5	V	P	
7.311	3.0	26.9	35.3	7.3	-36.2	0.0	0.0	33.2	54.0	-20.8	V	A	
4.874	3.0	38.2	33.1	5.8	-36.5	0.0	0.0	40.7	74.0	-33.3	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	39.1	35.3	7.3	-36.2	0.0	0.0	45.5	74.0	-28.5	H	P	
7.311	3.0	25.5	35.3	7.3	-36.2	0.0	0.0	31.9	54.0	-22.1	H	A	
High Ch,	2462MH	Īz .											
4.924	3.0	38.6	33.1	5.9	-36.5	0.0	0.0	41.2	74.0	-32.8	V	P	
4.924	3.0	26.3	33.1	5.9	-36.5	0.0	0.0	28.8	54.0	-25.2	V	A	
7.386	3.0	40.3	35.4	7.3	-36.2	0.0	0.0	46.8	74.0	-27.2	V	P	
7.386	3.0	28.0	35.4	7.3	-36.2	0.0	0.0	34.5	54.0	-19.5	V	A	
4.924	3.0	38.9	33.1	5.9	-36.5	0.0	0.0	41.5	74.0	-32.5	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	37.7	35.4	7.3	-36.2	0.0	0.0	44.2	74.0	-29.8	H	P	
7.386	3.0	25.7	35.4	7.3	-36.2	0.0	0.0	32.2	54.0	-21.8	H	A	

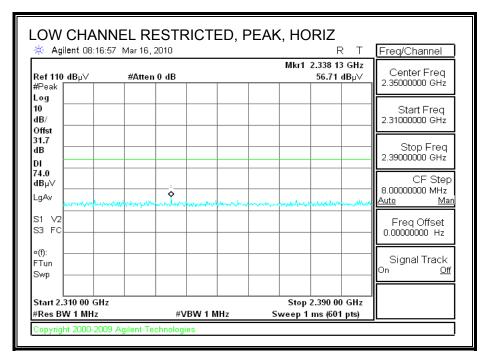
Rev. 4.1.2.7

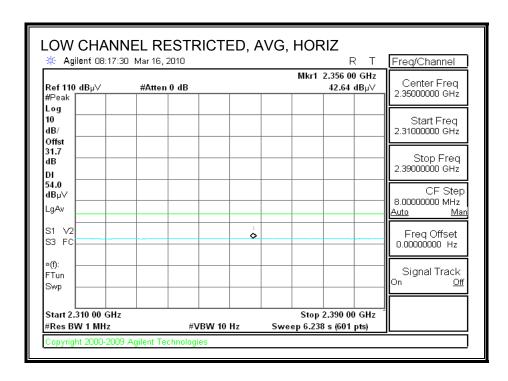
Note: No other emissions were detected above the system noise floor.

7.2.3. BLUETOOTH GFSK MODE

EUT WITH STANDARD BACKCOVER

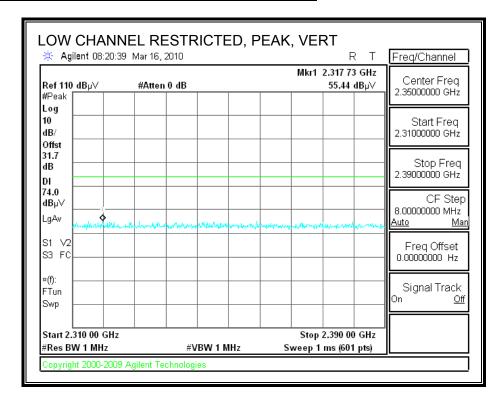
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



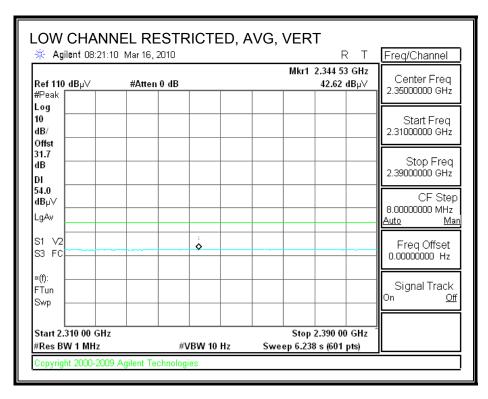


DATE: MARCH 22, 2010

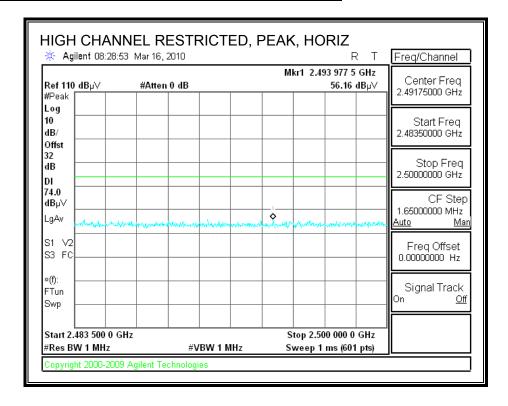
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



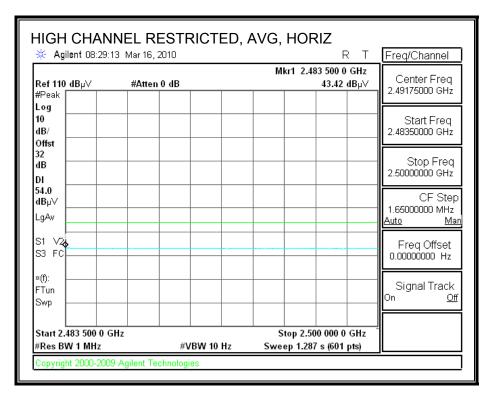
DATE: MARCH 22, 2010



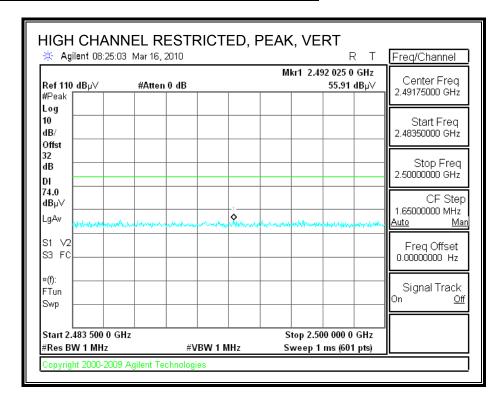
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



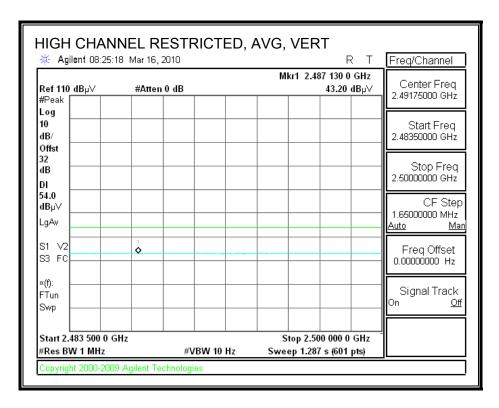
DATE: MARCH 22, 2010



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

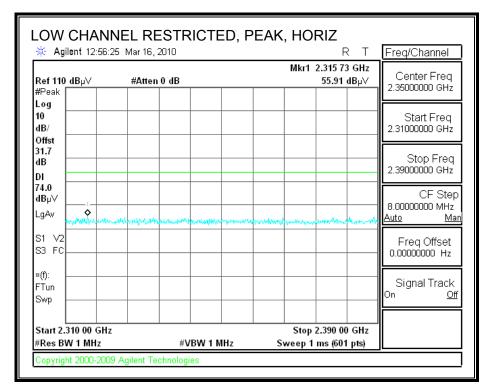


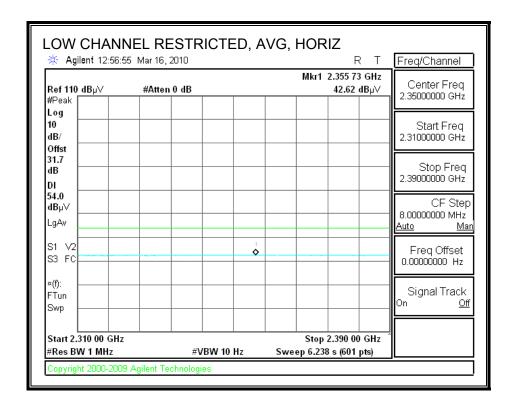
DATE: MARCH 22, 2010



EUT WITH INDUCTIVE BACKCOVER

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



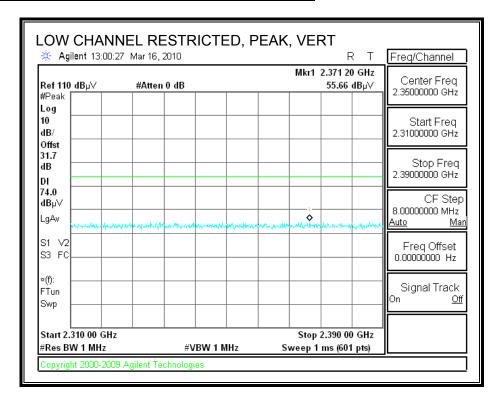


DATE: MARCH 22, 2010

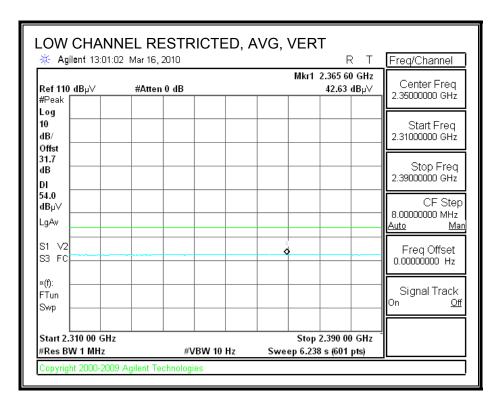
FCC ID: O8F-PIXYW

TEL: (510) 771-1000

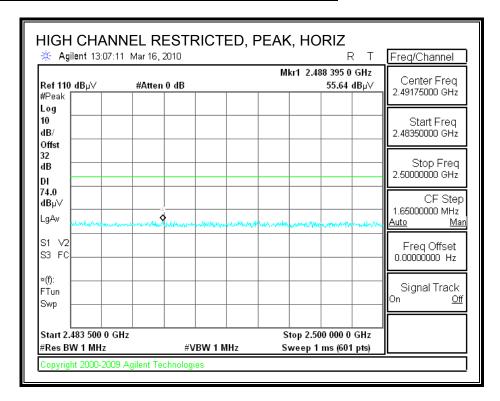
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



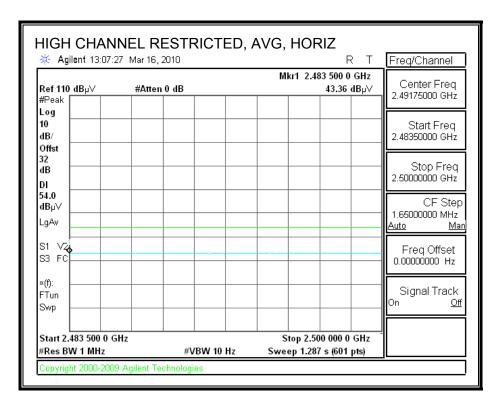
DATE: MARCH 22, 2010



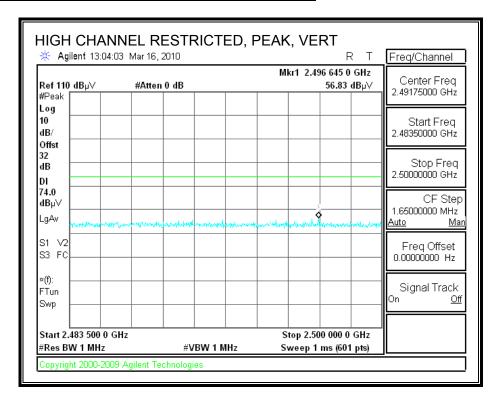
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



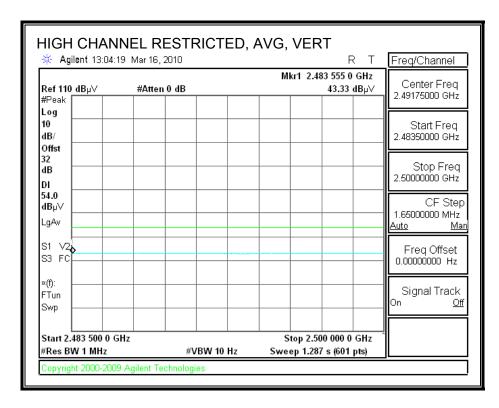
DATE: MARCH 22, 2010



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



DATE: MARCH 22, 2010



EUT WITH STANDARD BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Chin Pang Test Engr: Date: 03/16/10 10U13098 Project #: Company: Palm

EUT Description: GSM Phone with 802.11 b/g and Bluetooth

EUT M/N: P121UEU

Configuration: EUT (Standard Cover) with AC/DC Adapter

Test Target: FCC 15.247 TX, BT GFSK Mode Oper:

> 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	Dist	Read	AF	CL	Amp	D Corr	Fltr	Corr.	Limit	Margin	Ant Pol	Det	Notes
GHz	(m)	dBuV	dB/m	dВ	dВ	dB	dВ	dBuV/m	dBuV/m	dВ	V/H	P/A/QP	
ow Ch, 2	402MHz												
4.804	3.0	39.7	32.8	5.8	-34.8	0.0	0.0	43.4	74.0	-30.6	Н	P	
4.804	3.0	29.0	32.8	5.8	-34.8	0.0	0.0	32.7	54.0	-21.3	H	A	
4.804	3.0	39.0	32.8	5.8	-34.8	0.0	0.0	42.6	74.0	-31.4	V	P	
4.804	3.0	27.9	32.8	5.8	-34.8	0.0	0.0	31.6	54.0	-22.4	V	A	
Mid Ch, 2	441MHz	 :											
4.882	3.0	40.0	32.8	5.8	-34.9	0.0	0.0	43.9	74.0	-30.1	H	P	
4.882	3.0	30.4	32.8	5.8	-34.9	0.0	0.0	34.2	54.0	-19.8	H	A	
7.323	3.0	37.1	35.2	7.3	-34.7	0.0	0.0	45.0	74.0	-29.0	Н	P	
7.323	3.0	24.6	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	Н	A	
4.882	3.0	40.0	32.8	5.8	-34.9	0.0	0.0	43.8	74.0	-30.2	V	P	
4.882	3.0	30.5	32.8	5.8	-34.9	0.0	0.0	34.3	54.0	-19.7	V	A	
7.3 2 3	3.0	37.2	35.2	7.3	-34.7	0.0	0.0	45.0	74.0	-29.0	V	P	
7.323	3.0	26.4	35.2	7.3	-34.7	0.0	0.0	34.2	54.0	-19.8	V	A	
High Ch,	2480MH	[z											
4.960	3.0	37.7	32.9	5.9	-34.9	0.0	0.0	41.6	74.0	-32.4	Н	P	
1.960	3.0	27.2	32.9	5.9	-34.9	0.0	0.0	31.2	54.0	-22.8	H	A	
7.440	3.0	37.5	35.4	7.3	-34.6	0.0	0.0	45.6	74.0	-28.4	H	P	
7.440	3.0	24.7	35.4	7.3	-34.6	0.0	0.0	32.8	54.0	-21.2	H	A	
4.960	3.0	38.5	32.9	5.9	-34.9	0.0	0.0	42.4	74.0	-31.6	V	P	
4.960	3.0	28.6	32.9	5.9	-34.9	0.0	0.0	32.5	54.0	-21.5	V	A	
7.440	3.0	37.0	35.4	7.3	-34.6	0.0	0.0	45.1	74.0	-28.9	V	P	
7.440	3.0	24.8	35.4	7.3	-34.6	0.0	0.0	32.8	54.0	-21.2	V	A	

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

DATE: MARCH 22, 2010

EUT WITH INDUCTIVE BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03/16/10
Project #: 10U13098
Company: Palm

EUT Description: GSM Phone with 802.11 b/g and Bluetooth Configuration: EUT (Inductive Cover) with Charging Dock

EUT M/N: P121UEU
Test Target: FCC 15.247
Mode Oper: TX, BT GFSK

 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

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB		: :	Limit dBuV/m	. • :	Ant. Pol. V/H	Det. P/A/OP	Notes
Low Ch. 2	:		420.311						42 4 1 1 M		****		
4.804	3.0	38.9	32.8	5.8	-34.8	0.0	0.0	42.6	74.0	-31.4	н	D	
4.804	3.0	26.0	32.8	5.8	-34.8	0.0	0.0	29.7	54.0	-24.3	H	Ā	
4.804	3.0	37.8	32.8	5.8	-34.8	0.0	0.0	41.5	74.0	-32.5	v	P	
4.804	3.0	27.2	32.8	5.8	-34.8	0.0	0.0	30.9	54.0	-23.1	v	A	
Mid Ch. 2	441MH-												
4.882	3.0	38.1	32.8	5.8	-34.9	0.0	0.0	41.9	74.0	-32.1	н	P	
4.882	3.0	25.9	32.8	5.8	-34.9	0.0	0.0	29.7	54.0	-24.3	Н	Ā	
7.323	3.0	37.5	35.2	7.3	-34.7	0.0	0.0	45.4	74.0	-28.6	H	P	
7.323	3.0	25.1	35.2	7.3	-34.7	0.0	0.0	32.9	54.0	-21.1	H	A	
4.882	3.0	38.2	32.8	5.8	-34.9	0.0	0.0	42.0	74.0	-32.0	v	P	
4.882	3.0	25.5	32.8	5.8	-34.9	0.0	0.0	29.3	54.0	-24.7	v	A	
7.323	3.0	37.9	35.2	7.3	-34.7	0.0	0.0	45.7	74.0	-28.3	V	P	
7.3 2 3	3.0	24.6	35.2	7.3	-34.7	0.0	0.0	32.4	54.0	-21.6	V	A	
High Ch,	2480MH	lz											
4.960	3.0	38.7	32.9	5.9	-34.9	0.0	0.0	42.6	74.0	-31.4	H	P	
4.960	3.0	26.7	32.9	5.9	-34.9	0.0	0.0	30.6	54.0	-23.4	H	A	
7.440	3.0	36.9	35.4	7.3	-34.6	0.0	0.0	44.9	74.0	-29.1	H	P	
7.440	3.0	24.7	35.4	7.3	-34.6	0.0	0.0	32.8	54.0	-21.2	H	A	
4.960	3.0	37.2	32.9	5.9	-34.9	0.0	0.0	41.1	74.0	-32.9	V	P	
4.960	3.0	25.3	32.9	5.9	-34.9	0.0	0.0	29.2	54.0	-24.8	V	A	
7.440	3.0	38.1	35.4	7.3	-34.6	0.0	0.0	46.2	74.0	-27.8	v	P	
7.440	3.0	24.7	35.4	7.3	-34.6	0.0	0.0	32.7	54.0	-21.3	V	A	

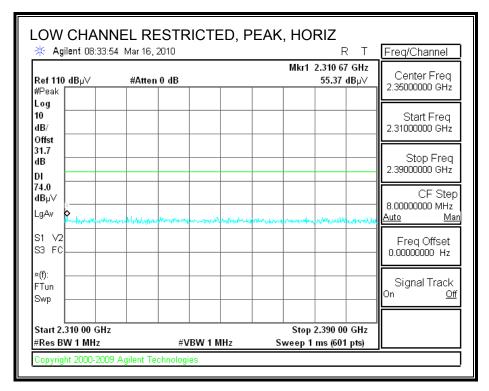
Rev. 4.1.2.7

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

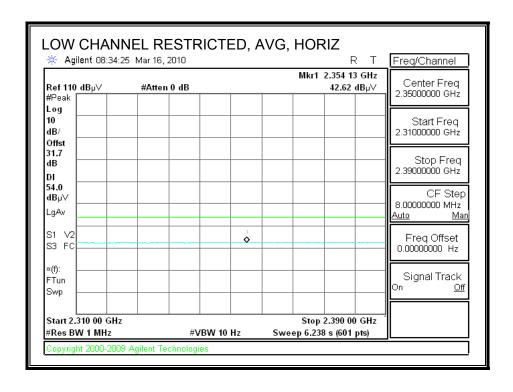
7.2.4. BLUETOOTH 8PSK MODE

EUT WITH STANDARD BACKCOVER

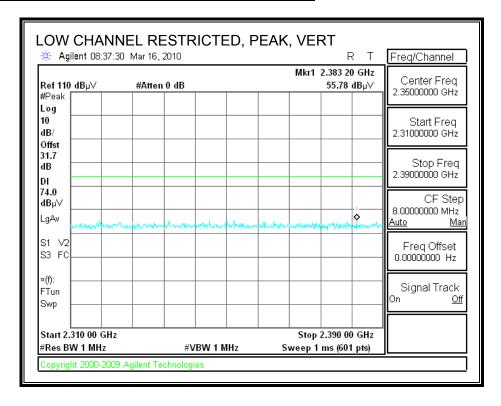
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



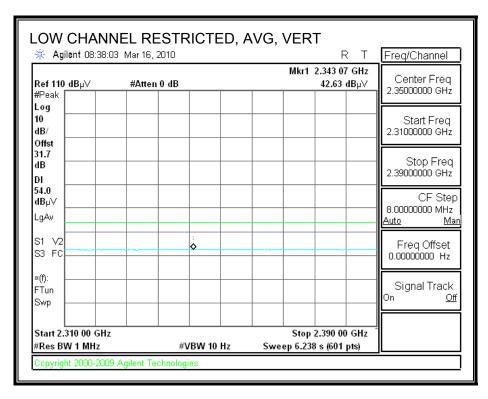
DATE: MARCH 22, 2010



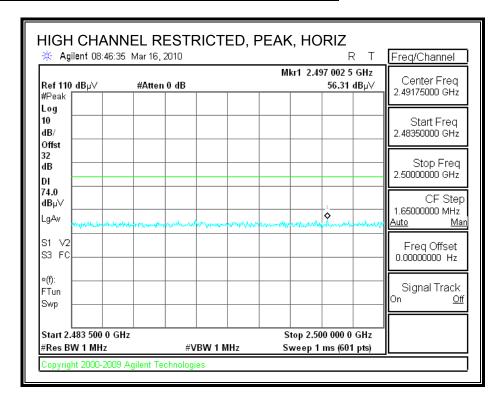
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



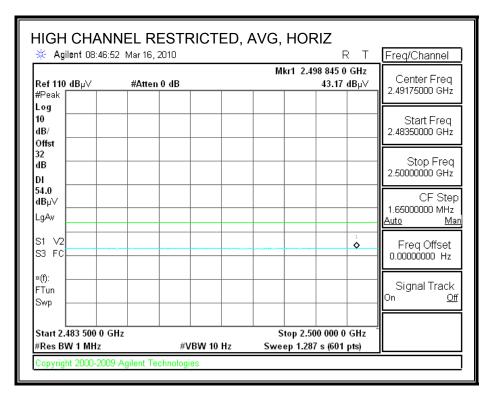
DATE: MARCH 22, 2010



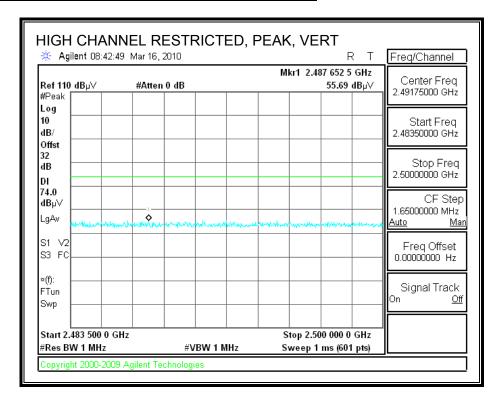
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



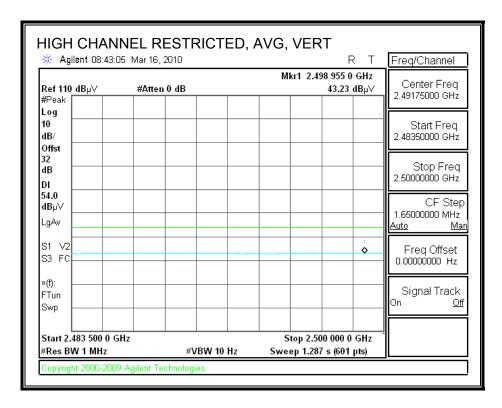
DATE: MARCH 22, 2010



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

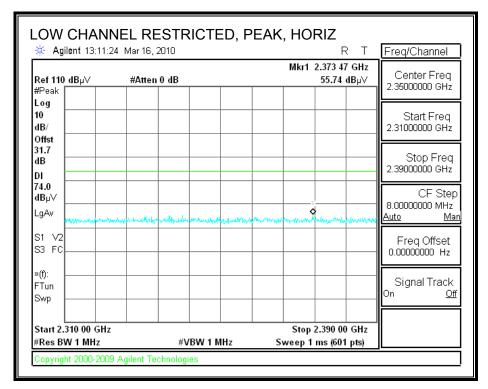


DATE: MARCH 22, 2010

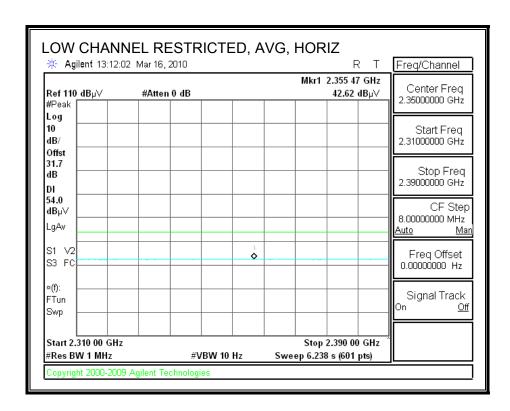


EUT WITH INDUCTIVE BACKCOVER

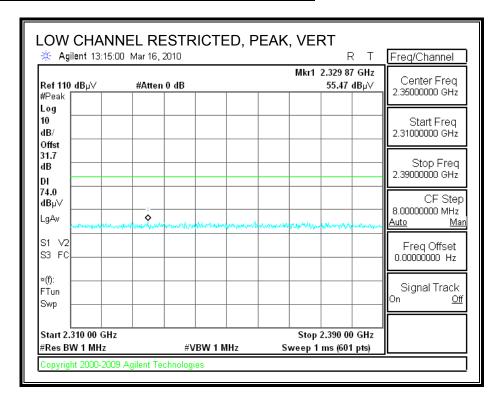
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



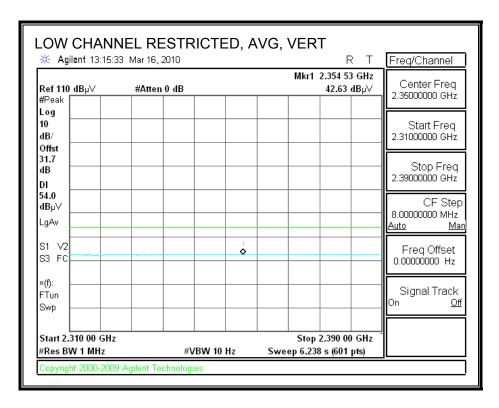
DATE: MARCH 22, 2010



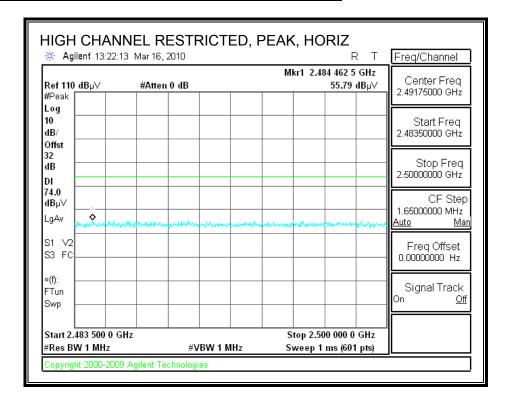
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



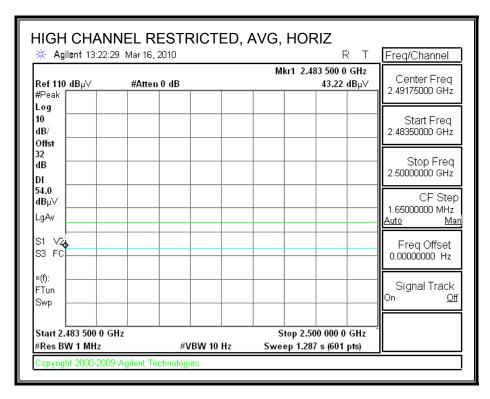
DATE: MARCH 22, 2010



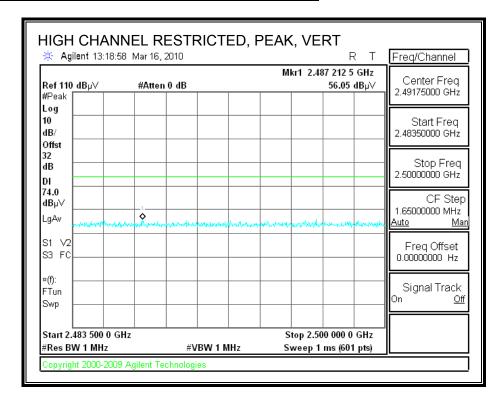
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



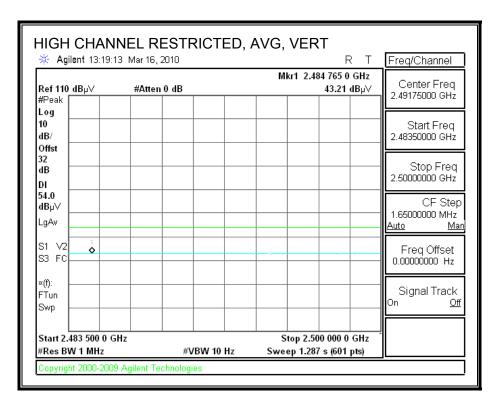
DATE: MARCH 22, 2010



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



DATE: MARCH 22, 2010



EUT WITH STANDARD BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang Date: 03/16/10 Project #: 10U13098 Company: Palm

EUT Description: GSM Phone with 802.11b/g and Bluetooth Configuration: EUT (Standard Cover) with AC/DCAdapter

EUT M/N: P121UEU FCC 15.247 Test Target: TX, 8PSK Mode Oper:

> 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
>
> AF Antenna Factor Peak Calculated Peak Field Strength
>
> CL Cable Loss HPF High Pass Filter Margin vs. Average Limit Margin vs. Peak Limit

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

f	Dist	Read	AF	CL	Amp	D Corr		Corr.		_	Ant. Pol.		Notes
GHz	(m)	dBuV	dB/m	dВ	dВ	dВ	dВ	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
Low Ch, 2	2402MHz	Z.											
4.804	3.0	38.1	32.8	5.8	-34.8	0.0	0.0	41.8	74.0	-32.2	V	P	
4.804	3.0	25.9	32.8	5.8	-34.8	0.0	0.0	29.6	54.0	-24.4	V	A	
4.804	3.0	38.2	32.8	5.8	-34.8	0.0	0.0	41.9	74.0	-32.1	H	P	
4.804	3.0	25.8	32.8	5.8	-34.8	0.0	0.0	29.5	54.0	-24.5	H	A	
Mid Ch, 2	441MHz	 E											
4.882	3.0	38.8	32.8	5.8	-34.9	0.0	0.0	42.6	74.0	-31.4	v	P	
4.882	3.0	25.5	32.8	5.8	-34.9	0.0	0.0	29.3	54.0	-24.7	v	A	
7.323	3.0	37.4	35.2	7.3	-34.7	0.0	0.0	45.2	74.0	-28.8	v	P	
7.3 2 3	3.0	24.6	35.2	7.3	-34.7	0.0	0.0	32.4	54.0	-21.6	v	A	
4.882	3.0	37.5	32.8	5.8	-34.9	0.0	0.0	41.3	74.0	-32.7	H	P	
4.882	3.0	25.7	32.8	5.8	-34.9	0.0	0.0	29.5	54.0	-24.5	H	A	
7.3 2 3	3.0	37.0	35.2	7.3	-34.7	0.0	0.0	44.8	74.0	-29.2	H	P	
7.3 2 3	3.0	24.6	35.2	7.3	-34.7	0.0	0.0	32.4	54.0	-21.6	H	A	
High Ch,	2480MH	I											
4.960	3.0	37.7	32.9	5.9	-34.9	0.0	0.0	41.6	74.0	-32.4	v	P	
4.960	3.0	25.3	32.9	5.9	-34.9	0.0	0.0	29.2	54.0	-24.8	v	Ā	
7.440	3.0	37.2	35.4	7.3	-34.6	0.0	0.0	45.3	74.0	-28.7	v	P	
7.440	3.0	24.7	35.4	7.3	-34.6	0.0	0.0	32.8	54.0	-21.2	v	A	
4.960	3.0	38.0	32.9	5.9	-34.9	0.0	0.0	41.9	74.0	-32.1	Н	P	
4.960	3.0	25.4	32.9	5.9	-34.9	0.0	0.0	29.3	54.0	-24.7	H	A	
7.440	3.0	36.8	35.4	7.3	-34.6	0.0	0.0	44.8	74.0	-29.2	H	P	
7.440	3.0	24.7	35.4	7.3	-34.6	0.0	0.0	32.7	54.0	-21.3	Н	A	

Rev. 4.1.2.7

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

EUT WITH INDUCTIVE BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03/17/10
Project #: 10U13098
Company: Palm

EUT Description: GSM Phone with 802.11 b/g and Bluetooth Configuration: EUT (Inductive Cover) with Charging Dock

EUT M/N: P121UEU
Test Target: FCC 15.247
Mode Oper: TX, BT 8PSK

f Measurement Frequency Amp Preamp Gain Average Field Strength Limit 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 ΑF Antenna Factor Peak Calculated Peak Field Strength Margin vs. Peak Limit CL Cable Loss HPF High Pass Filter

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

CL Amp Corr. Dist Read AF D Corr Limit Margin Ant. Pol. Det. Notes f Fltr GHz dB dBuV/m dBuV/m P/A/QP (m) dBuV Low Ch, 2402MHz 4.804 3.0 39.4 32.8 5.8 -34.80.0 0.0 43.1 74.0 -30.9P 4.804 3.0 26.2 32.8 5.8 -34.8 0.0 0.054.0 -24.1 V A 41.9 -32.1 H P 4.804 3.0 38.2 32.8 5.8 -34.80.0 0.074.0 4.804 3.0 26.2 32.8 5.8 -34.8 0.029.9 54.0 н A Mid Ch, 2441MHz 4.882 3.0 37.9 32.8 5.8 -34.9 41.7 74.0 -32.3 P 4.882 V -34.90.0 0.0 54.0 3.0 25.8 32.8 5.8 29.6 -24.4 A 7.323 3.0 37.2 35.2 -34.7 0.0 0.0 45.1 74.0 -28.9 V P 7.3 7.323 3.0 24.9 7.3 -34.7 0.032.7 -21.3 35.2 0.0 54.0 P 4.882 3.0 38.1 32.8 5.8 -34.9 0.0 0.041.9 74.0 -32.1 н 4.882 3.0 25.9 32.8 5.8 -34.90.0 0.029.7 54.0 -24.3 Н A 7.323 38.0 7.3 45.9 -28.1 P 3.0 35.2 -34.70.0 0.074.0 н 7.323 3.0 24.9 35.2 7.3 -34.7 32.8 54.0 н A High Ch, 2480MHz 4.960 37.6 32.9 5.9 -34.9 0.0 0.0 41.5 74.0 -32.5 V P 3.0 V 4.960 32.9 5.9 3.0 25.6 -34.9 0.0 0.0 29.5 54.0 -24.5A 7.440 3.0 37.1 35.4 7.3 -34.6 0.0 0.045.2 74.0 -28.8 v P 7.440 3.0 25.0 35.4 7.3 -34.60.0 0.033.1 54.0 -20.9 A Р 4.960 3.0 37.8 32.9 5.9 -34.9 0.0 0.041.7 74.0 -32.3 H 4.960 Н 3.0 32.9 5.9 -34.9 0.0 0.0 29.5 54.0 A 7.440 37.4 7.3 0.045.5 -28.5 P 3.0 35.4 -34.60.0 74.0 н 7.440 3.0 25.0 35.4 7.3 -34.6 0.00.0 33.0 54.0 -21.0 н A

Rev. 4.1.2.7

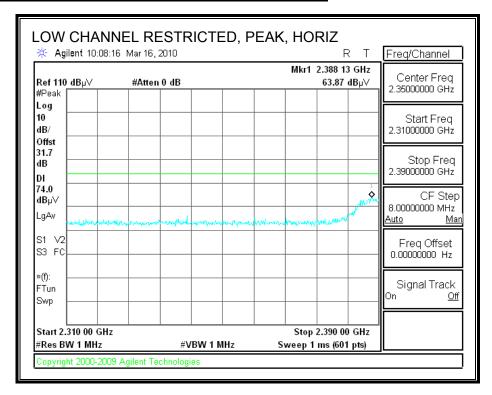
Note: No other emissions were detected above the system noise floor.

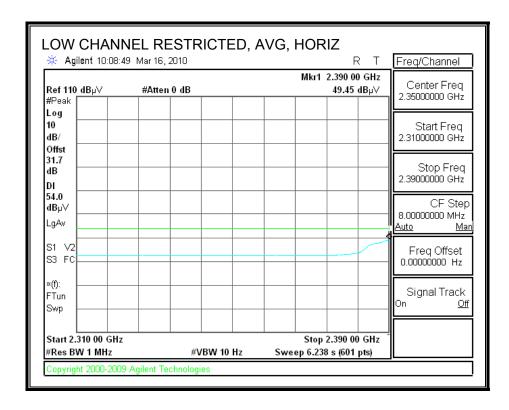
7.2.5. CO-LOCATED TRANSMITTER RADIATED EMISSIONS (WORST CASE)

DATE: MARCH 22, 2010

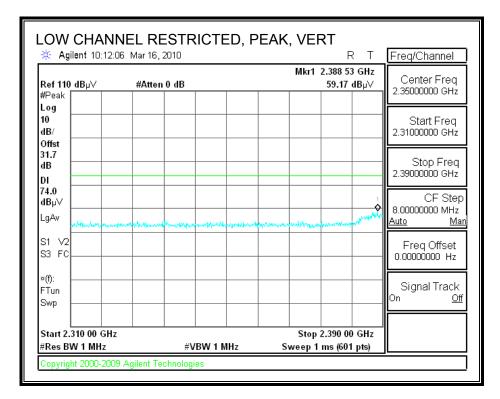
FCC ID: O8F-PIXYW

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

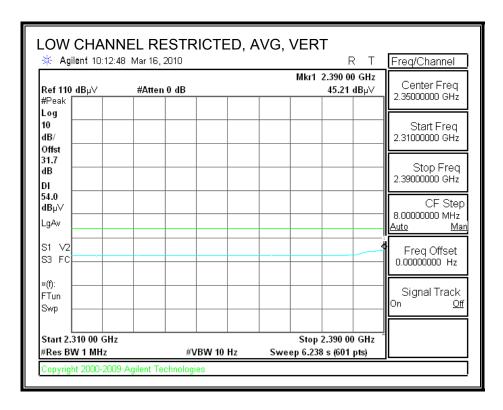




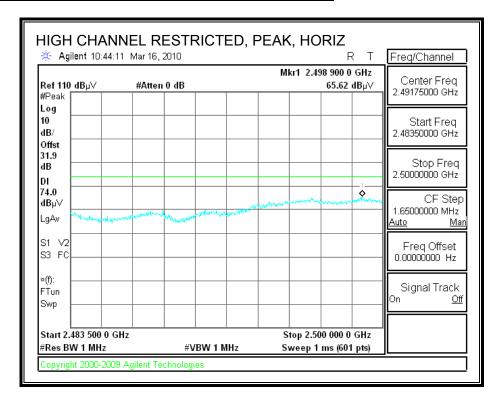
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

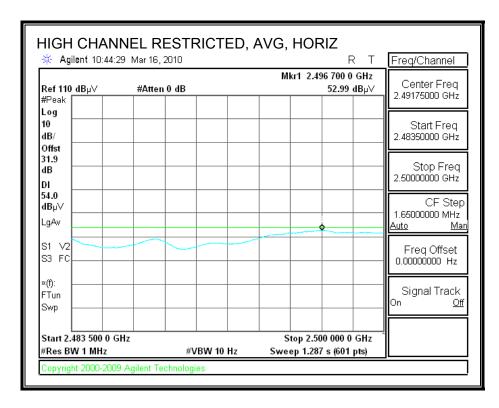


DATE: MARCH 22, 2010



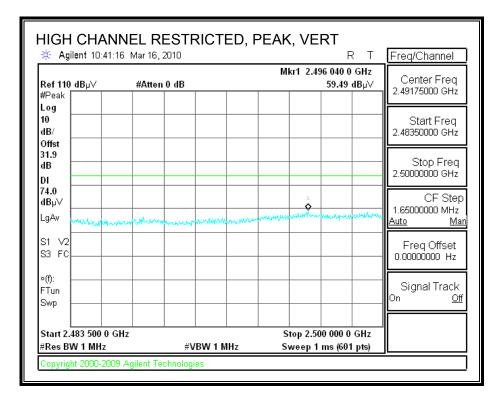
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



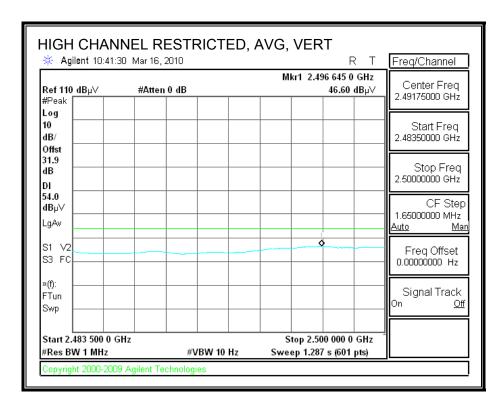


DATE: MARCH 22, 2010

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



DATE: MARCH 22, 2010



HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Chin Pang Test Engr: 03/18/10 Date: 10U13098 Project #: Company: Palm

EUT Description: GSM Phone with 802.11 b/g and Bluetooth Configuration: EUT (Standard Cover) with AC Adapter

EUT M/N: P121UEU FCC 15.247 Test Target:

Mode Oper: WLAN and BT(Worst Case) Co-Location

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

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

f	Dist	Read	AF	CL	Amp	D Corr	Fltr	Corr.	Limit	Margin	Ant Pol	Det.	Notes
GHz	(m)	dBuV	dB/m	đВ	dВ	dВ	dВ	dBuV/m	dBuV/m	dВ	V/H	P/A/QP	
Low Ch, 2	412MH	E											
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	29.9	33.0	5.8	-36.5	0.0	0.0	32.2	54.0	-21.8	H	A	
4.824	3.0	38.7	33.0	5.8	-36.5	0.0	0.0	41.1	74.0	-32.9	V	P	
4.824	3.0	26.7	33.0	5.8	-36.5	0.0	0.0	29.0	54.0	-25.0	V	A	
Mid Ch, 2	437MH	 !				ļ							
4.874	3.0	40.7	33.1	5.8	-36.5	0.0	0.0	43.2	74.0	-30.8	Н	P	
4.874	3.0	30.8	33.1	5.8	-36.5	0.0	0.0	33.3	54.0	-20.7	H	A	
7.311	3.0	38.9	35.3	7.3	-36.2	0.0	0.0	45.3	74.0	-28.7	H	P	
7.311	3.0	29.0	35.3	7.3	-36.2	0.0	0.0	35.3	54.0	-18.7	H	A	
12.185	3.0	35.9	39.0	9.8	-35.4	0.0	0.0	49.3	74.0	-24.7	H	P	
12.185	3.0	23.2	39.0	9.8	-35.4	0.0	0.0	36.6	54.0	-17.4	H	A	
4.874	3.0	39.1	33.1	5.8	-36.5	0.0	0.0	41.6	74.0	-32.4	V	P	
4.874	3.0	28.4	33.1	5.8	-36.5	0.0	0.0	30.9	54.0	-23.1	V	A	
7.311	3.0	41.4	35.3	7.3	-36.2	0.0	0.0	47.7	74.0	- 26.3	V	P	
7.311	3.0	33.1	35.3	7.3	-36.2	0.0	0.0	39.5	54.0	-14.5	V	A	
12.185	3.0	36.2	39.0	9.8	-35.4	0.0	0.0	49.6	74.0	-24.4	V	P	
12.185	3.0	24.4	39.0	9.8	-35.4	0.0	0.0	37.8	54.0	-16.2	V	A	
High Ch,	2462MH	ĺz											
4.924	3.0	40.6	33.1	5.9	-36.5	0.0	0.0	43.2	74.0	-30.8	н	P	
4.924	3.0	32.2	33.1	5.9	-36.5	0.0	0.0	34.7	54.0	-19.3	Н	A	
7.386	3.0	41.5	35.4	7.3	-36.2	0.0	0.0	48.0	74.0	-26.0	H	P	
7.386	3.0	33.6	35.4	7.3	-36.2	0.0	0.0	40.1	54.0	-13.9	H	A	
12.310	3.0	37.4	39.0	9.9	-35.4	0.0	0.0	50.9	74.0	-23.1	H	P	
12.310	3.0	23.2	39.0	9.9	-35.4	0.0	0.0	36.7	54.0	-17.3	H	A	
4.924	3.0	40.0	33.1	5.9	-36.5	0.0	0.0	42.5	74.0	-31.5	V	P	
4.924	3.0	31.6	33.1	5.9	-36.5	0.0	0.0	34.1	54.0	-19.9	V	A	
7.386	3.0	45.1	35.4	7.3	-36.2	0.0	0.0	51.6	74.0	-22.4	V	P	
7.386	3.0	39.5	35.4	7.3	-36.2	0.0	0.0	46.0	54.0	-8.0	V	A	
12.310	3.0	36.9	39.0	9.9	-35.4	0.0	0.0	50.4	74.0	- 23.6	V	P	
12.310	3.0	27.4	39.0	9.9	-35.4	0.0	0.0	40.8	54.0	-13.2	v	A	

Rev. 4.1.2.7

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

7.3. **WORST-CASE BELOW 1 GHz**

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

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

EUT WITH AC/DC ADAPTER

30-1000MHz Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Chin Pang Test Engr: Date: 03/16/10 Project #: 10U13098 Company: Palm

EUT Description: GSM Phone with 802.11 b/g and Bluetooth

EUT with AC/DC Adapter Configuration:

EUT M/N: P121UEU Test Target: FCC 15B Mode Oper: TX (Worst Case)

> Measurement Frequency Amp Preamp Gain Margin Margin vs. Limit

Distance to Antenna D Corr Distance Correct to 3 meters
Analyzer Reading Filter Filter Insert Loss Dist

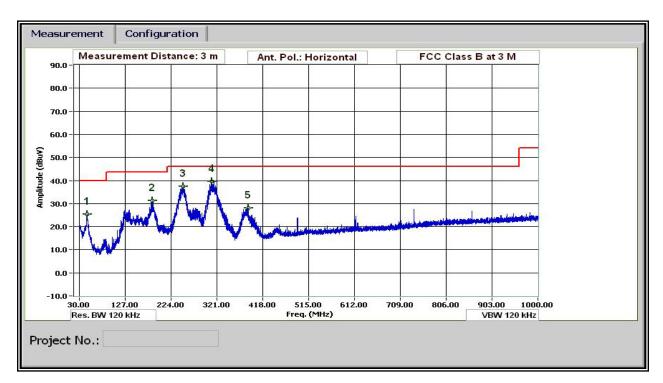
Dist Distance to IIIII

Read Analyzer Reading Filter Filter Insert 2005

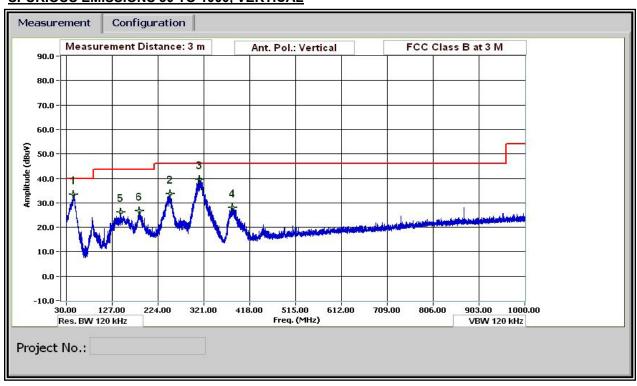
Corr. Calculated Field Strength Cable Loss Limit Field Strength Limit

f	Dist	Read	AF	\mathbf{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	dВ	V/H	P/A/QP	
vert													
45.361	3.0	51.6	10.8	0.6	29.6	0.0	0.0	33.4	40.0	-6.6	V	P	
144.965	3.0	41.6	12.9	1.1	29.3	0.0	0.0	26.3	43.5	-17.2	V	P	
184.806	3.0	43.4	11.1	1.2	29.0	0.0	0.0	26.6	43.5	-16.9	V	P	
250.209	3.0	49.4	11.8	1.4	28.8	0.0	0.0	33.8	46.0	-12.2	V	P	
312.012	3.0	53.3	13.5	1.6	28.8	0.0	0.0	39.6	46.0	-6.4	V	P	
381.014	3.0	40.8	14.7	1.9	29.2	0.0	0.0	28.2	46.0	-17.8	V	P	
46.561	3.0	44.3	10.1	0.6	29.6	0.0	0.0	25.3	40.0	-14.7	Н	P	
184.926	3.0	48.0	11.1	1.2	29.0	0.0	0.0	31.3	43.5	-12.2	H	P	
249.729	3.0	53.0	11.8	1.4	28.8	0.0	0.0	37.4	46.0	-8.6	H	P	
310.212	3.0	53.4	13.5	1.6	28.8	0.0	0.0	39.6	46.0	-6.4	Н	P	
387.015	3.0	40.7	14.8	1.9	29.2	0.0	0.0	28.2	46.0	-17.9	Н	P	
					•	•				:			

SPURIOUS EMISSIONS 30 TO 1000, HORIZONTALAL)



SPURIOUS EMISSIONS 30 TO 1000, VERTICAL



DATE: MARCH 22, 2010 FCC ID: O8F-PIXYW

EUT WITH INDUCTIVE CHARGING DOCK

30-1000MHz Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 03/16/10
Project #: 10U13098
Company: Palm

EUT Description: GSM Phone with 802.11 b/g and Bluetooth

EUT Configuration: EUT with Inductive charging dock

EUT M/N: P121UEU
Test Target: FCC Class B
Mode Oper: BT, TX (Worst Case)

Measurement Frequency Amp Preamp Gain Margin Margin vs. Limit

Margin Vs. Limit

DATE: MARCH 22, 2010

FCC ID: O8F-PIXYW

Dist Distance to Antenna D Corr Distance Correct to 3 meters

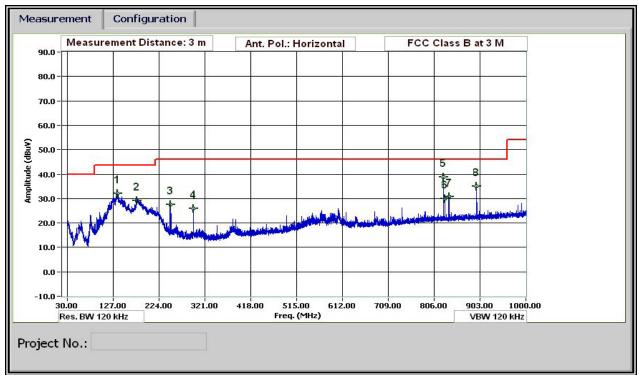
 Read
 Analyzer Reading
 Filter
 Filter Insert Loss

 AF
 Antenna Factor
 Corr.
 Calculated Field Strength

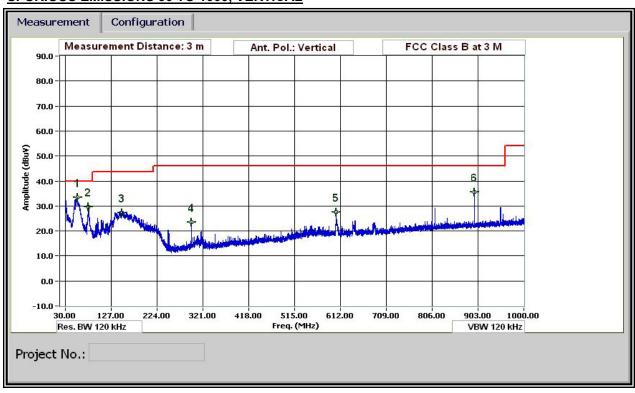
 CL
 Cable Loss
 Limit
 Field Strength Limit

f	Dist	Read	AF	\mathbf{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	dВ	V/H	P/A/QP	
horiz2													
135.724	3.0	47.0	13.4	1.0	29.4	0.0	0.0	32.1	43.5	-11.4	H	P	
177.006	3.0	46.9	10.3	1.2	29.1	0.0	0.0	29.3	43.5	-14.2	H	P	
247.569	3.0	43.0	11.8	1.4	28.8	0.0	0.0	27.4	46.0	-18.6	Н	P	
297.011	3.0	39.9	13.2	1.6	28.8	0.0	0.0	25.9	46.0	-20.1	H	P	
825.633	3.0	43.7	21.1	2.9	29.0	0.0	0.0	38.7	46.0	-7.3	Н	P	
829.233	3.0	35.0	21.2	2.9	29.0	0.0	0.0	30.0	46.0	-16.0	H	P	
837.153	3.0	35.6	21.2	2.9	28.9	0.0	0.0	30.7	46.0	-15.3	H	P	
896.076	3.0	39.1	21.5	3.0	28.6	0.0	0.0	35.0	46.0	-11.0	Н	P	
56.521	3.0	54.5	7.9	0.6	29.6	0.0	0.0	33.4	40.0	-6.6	V	P	
78.242	3.0	50.9	7.7	0.8	29.6	0.0	0.0	29.7	40.0	-10.3	V	P	
150.485	3.0	43.0	12.5	1.1	29.3	0.0	0.0	27.3	43.5	-16.2	v	P	
297.011	3.0	37.5	13.2	1.6	28.8	0.0	0.0	23.5	46.0	-22.5	v	P	
602.304	3.0	36.6	18.3	2.4	29.6	0.0	0.0	27.6	46.0	-18.4	v	P	
896.076	3.0	39.7	21.5	3.0	28.6	0.0	0.0	35.6	46.0	-10.4	V	P	
				•••••						•			
			1							。 :			

SPURIOUS EMISSIONS 30 TO 1000, HORIZONTAL



SPURIOUS EMISSIONS 30 TO 1000, VERTICAL



DATE: MARCH 22, 2010

7.4. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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: MARCH 22, 2010

FCC ID: O8F-PIXYW

TEST PROCEDURE

ANSI C63.4

RESULTS

EUT WITH AC/DC ADAPTER

6 WORST EMISSIONS

	CONDUCTED EMISSIONS DATA (115VAC 60Hz)												
Freq.		Reading		Closs	Limit	EN_B	Mar	Remark					
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2				
0.16	56.47		41.80	0.00	65.73	55.73	-9.26	-13.93	L1				
0.32	49.41		36.07	0.00	59.79	49.79	-10.38	-13.72	L1				
0.80	46.78		31.75	0.00	56.00	46.00	-9.22	-14.25	L1				
0.16	62.02		47.07	0.00	65.73	55.73	-3.71	-8.66	L2				
0.31	54.47		39.45	0.00	59.97	49.97	-5.50	-10.52	L2				
0.76	51.08		34.56	0.00	56.00	46.00	-4.92	-11.44	L2				
6 Worst I	 Data 												

Decreases with the logarithm of the frequency.

REPORT NO: 10U13098-2 EUT: GSM PHONE WITH 802.11B/G AND BLUETOOTH

EUT WITH INDUCTIVE CHARGING DOCK

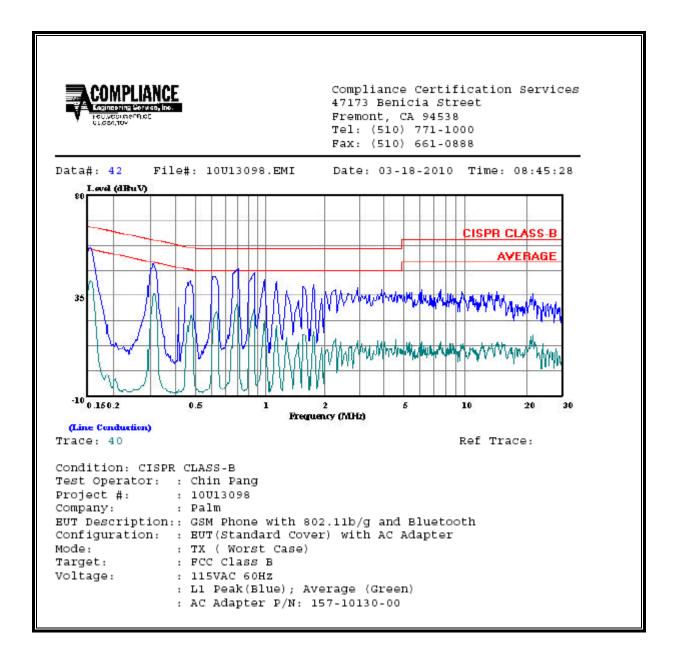
6 WORST EMISSIONS

	CONDUCTED EMISSIONS DATA (115VAC 60Hz)													
Freq.		Reading		Closs	Limit	EN_B	Mar	Remark						
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2					
0.24	54.87		42.51	0.00	62.03	52.03	-7.16	-9.52	L1					
0.48	50.31		41.29	0.00	56.32	46.32	-6.01	-5.03	L1					
5.96	45.23		37.85	0.00	60.00	50.00	-14.77	-12.15	L1					
0.25	52.63		46.02	0.00	61.72	51.72	-9.09	-5.70	L2					
0.51	54.01		45.80	0.00	56.00	46.00	-1.99	-0.20	L2					
5.96	48.59		40.82	0.00	60.00	50.00	-11.41	-9.18	L2					
6 Worst I	 Data 													

DATE: MARCH 22, 2010

EUT (STANDARD BACKCOVER) WITH AC/DC ADAPTER

LINE 1 RESULTS



DATE: MARCH 22, 2010

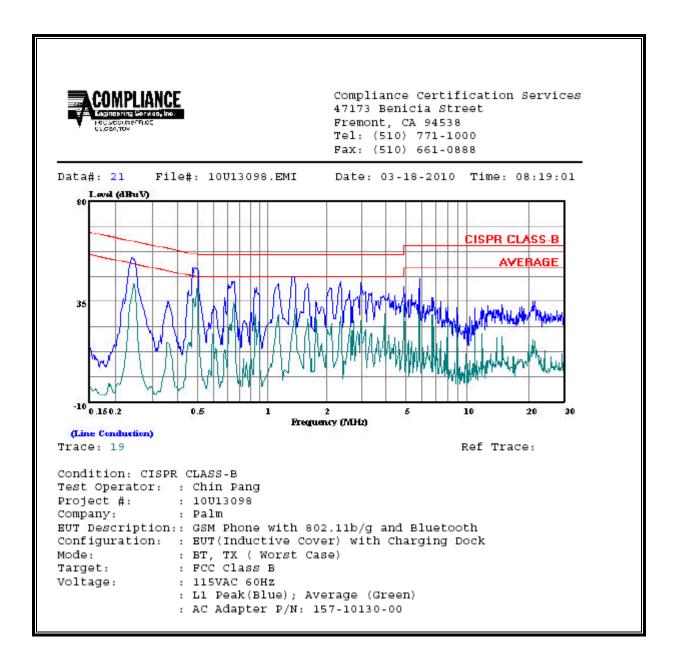
LINE 2 RESULTS

Compliance Certification Services 47173 Benicia Street Fremont, CA 94538 Tel: (510) 771-1000 Fax: (510) 661-0888 Data#: 35 File#: 10U13098.EMI Date: 03-18-2010 Time: 08:39:52 Love (dBuV) CISPR CLASS-B AVERAGE 35 ·10 0.150.2 Frequency (MHz) (Line Conduction) Ref Trace: Trace: 33 Condition: CISPR CLASS-B Test Operator: : Chin Pang Project #: : 10U13098 Company: : Palm BUT Description:: GSM Phone with 802.11b/g and Bluetooth Configuration: : BUT(Standard Cover) with AC Adapter : TX (Worst Case) : FCC Class B Target: Voltage: : 115VAC 60Hz : L2 Peak(Blue); Average (Green) : AC Adapter P/N: 157-10130-00

DATE: MARCH 22, 2010

EUT WITH INDUCTIVE CHARGING DOCK

LINE 1 RESULTS



DATE: MARCH 22, 2010

LINE 2 RESULTS

Compliance Certification Services 47173 Benicia Street Fremont, CA 94538 Tel: (510) 771-1000 Fax: (510) 661-0888 File#: 10U13098.EMI Data#: 49 Date: 03-18-2010 Time: 09:26:23 Level (dBuV) CISPR CLASS-B AVERAGE 35 0.150.2 0.5 20 Frequency (MHz) (Line Conduction) Ref Trace: Trace: 47 Condition: CISPR CLASS-B Test Operator: : Chin Pang : 10U13098 : Palm Project #: Company: EUT Description:: GSM Phone with 802.11b/g and Bluetooth Configuration: : BUT(Inductive Cover) with Charging Dock : BT, TX (Worst Case) Mode: Target: : FCC Class B Voltage: : 115VAC 60Hz : L2: Peak(Blue); Average (Green) : AC Adapter P/N: 157-10130-00

DATE: MARCH 22, 2010