FCC CFR47 PART 15 SUBPART B
ICES-003 ISSUE 4

CERTIFICATION
TEST REPORT

FOR

PHONE WITH 802.11B/G/N AND BLUETOOTH 2.1+EDR

FCC ID: O8F-BROU

MODEL NUMBER: P160UNA

REPORT NUMBER: 10U13357-3, Revision A

ISSUE DATE: JANUARY 6, 2011

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

Prepared by
COMPLIANCE CERTIFICATION SERVICES (UL CCS)
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	12/13/10	Initial Issue	T. Chan
A	01/06/11	Revised Software and Firmware Section	A. Zaffar

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: PALM
950 MAUDE AVENUE
SUUNYVALE, CA 94085, U.S.A.

EUT DESCRIPTION: PHONE WITH 802.11B/G/N AND BLUETOOTH 2.1+EDR

MODEL: P160UNA

SERIAL NUMBER: BD3LE0728

DATE TESTED: OCTOBER 13-18 AND DECEMBER 04, 2010

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 15 SUBPART B	Pass
ICES-003 ISSUE 4	Pass

Compliance Certification Services (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:

THU CHAN
ENGINEERING MANAGER
UL CCS

Tested By:

CHIN PANG
EMC ENGINEER
UL CCS

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2009, and CAN/CSA-CEI/IEC CISPR 22:02 as referenced by ICES-003 Issue 4.

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:

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 850/900/1800/1900 MHz GSM/GPRS/EDGE and 850/1900/2100 WCDMA/HSDPA/HSUPA phone with 802.11b/g/n and Bluetooth v2.1+EDR.

GENERAL INFORMATION

Power Requirements	100-240 VAC / 50-60 Hz
List of frequencies generated or used by the EUT	1000 MHz

ACCESSORIES

The EUT was using the following accessories:

AC Adapter 1	Brand Name	Palm	P/N: 157-10124-00
	Power Rating	I/P: 100-240 Vac, 0.2 A, O/P: 5 Vdc, 1000 mA	
AC Adapter 2	Brand Name	Palm	P/N: 157-10130-00
	Power Rating	I/P: 100-240 Vac, 0.2 A, O/P: 5 Vdc, 1000 mA	
Inductive Charger	Brand Name	Palm	P/N: 157-10123-00
	Power Rating	I/P: 5 Vdc, 1000 mA	
Battery 1	Brand Name	Palm	P/N: 157-10150-00
	Power Rating	3.7Vdc, 920 mAh	Type: Rechargeable Li-ion battery
Battery 2	Brand Name	Palm	P/N: 157-10151-00
	Power Rating	3.7Vdc, 920 mAh	Type: Rechargeable Li-ion battery
Audio adapter	Brand Name	Palm	P/N: 180-10815-00
Earphone	Brand Name	Palm	P/N: 180-10632-00
USB Cable	Brand Name	Palm	P/N: 180-10647-00
USB cable with adapter	Brand Name	Palm	P/N: 180-10816-00

5.2. TEST CONFIGURATIONS

The following configurations were investigated during testing:

AC Power Adapter Source#1 Part Number: 157-10124-00 and 157-130-00

Configuration	Description	Mode
1	EUT powered by to AC adapter.	Charging
2	EUT powered by Inductive Charging Dock,	Charging
3	EUT powered by laptop Via USB Cable	Charging

5.3. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Palm WebOS v2.1.1

5.4. MODIFICATIONS

No modifications were made during testing.

5.5. DETAILS OF TESTED SYSTEM

SUPPORT EQUIPMENT & PERIPHERALS

PERIPHERAL SUPPORT EQUIPMENT LIST			
Description	**Manufacturer**	**Model**	**Serial Number**
AC Power Adapter	Palm	157-10124-00	NA
AC Power Adapter	Palm	157-10130-00	NA
Inductive Charging Dock	Palm	157-10123-00	NA
EarPhone	Palm	180-10632-00	NA
Laptop PC	DELL	Latitude D400	601405
AC Power Adapter	DELL	LA90PS0-00	C266N-0DF71615-735

I/O CABLES

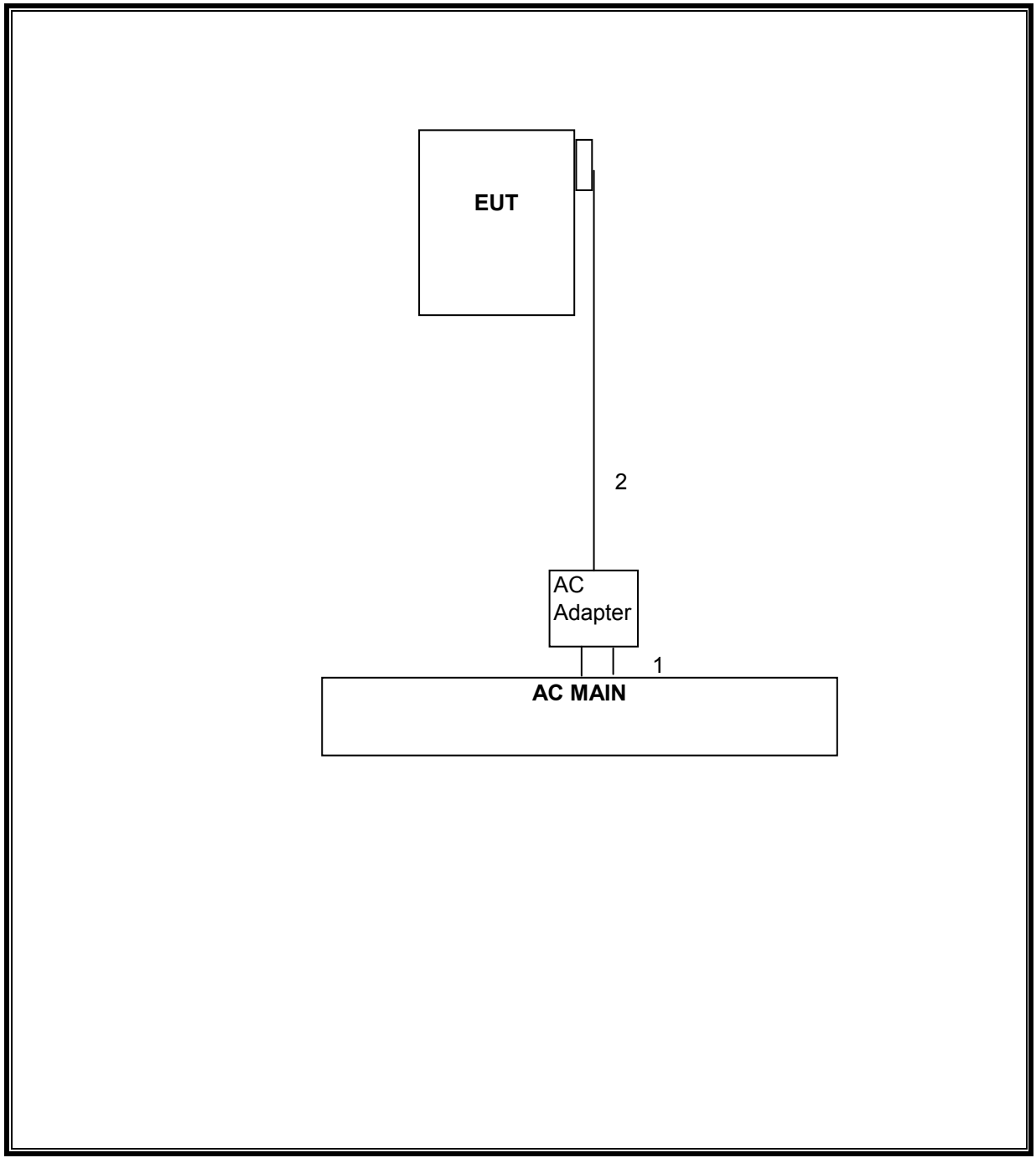
I/O CABLE LIST						
Cable No.	**Port**	**# of Identica Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	AC	2	AC	Unshielded	1 m	N/A
2	DC	1	USB	Un-shielded	1.5m	N/A
3	Ear phone	1	Magnetic	Un-shielded	1.2m	N/A
4	Printer	1	USB	Un-Shielded	2.0 m	N/A
5	Mouse	1	USB	Un-Shielded	2.0 m	N/A
5	Printer	1	USB	Un-Shielded	2.0 m	N/A

TEST SETUP

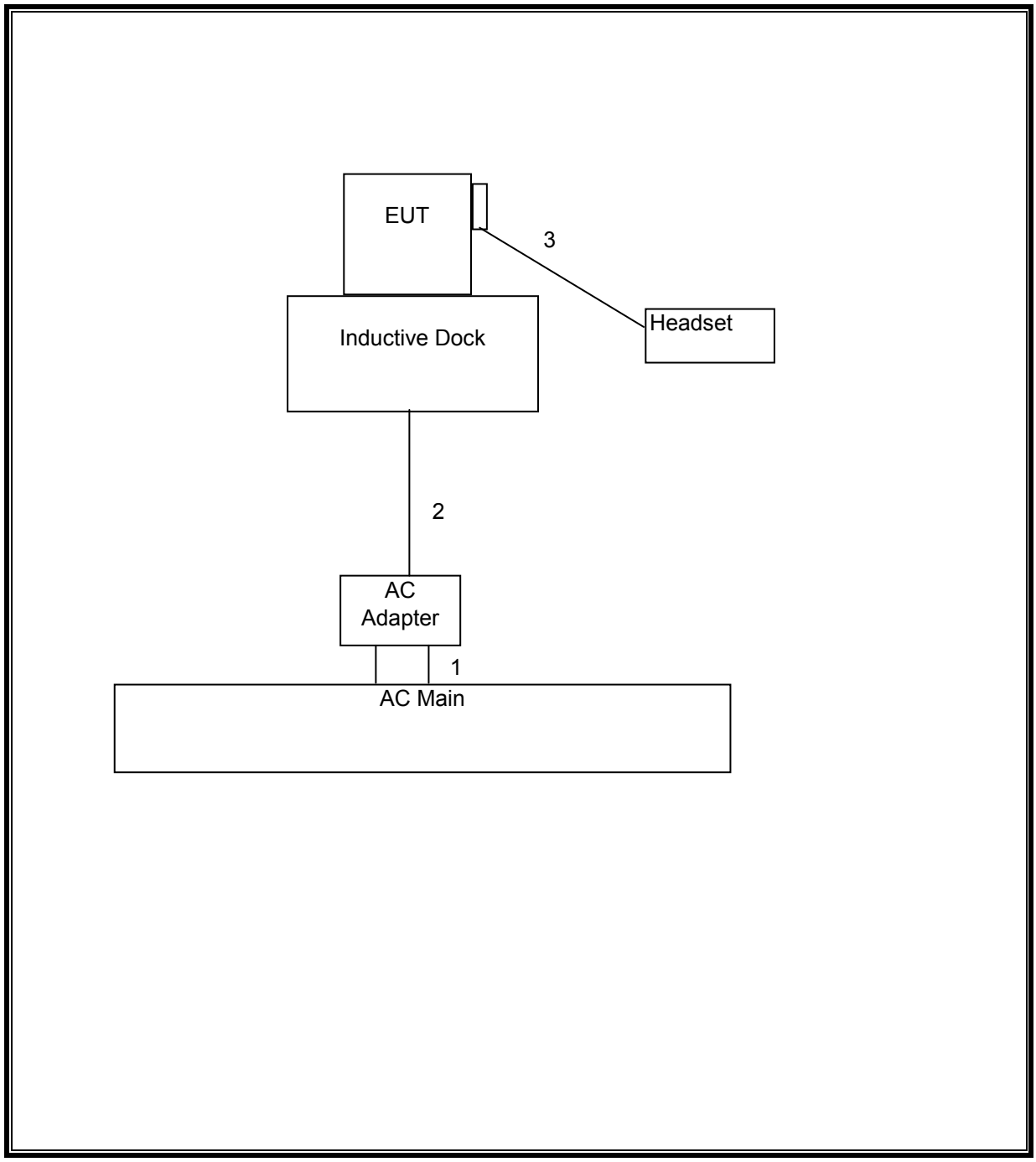
The EUT is installed in a typical configuration. Test software exercised the EUT.

TEST SETUP DIAGRAM

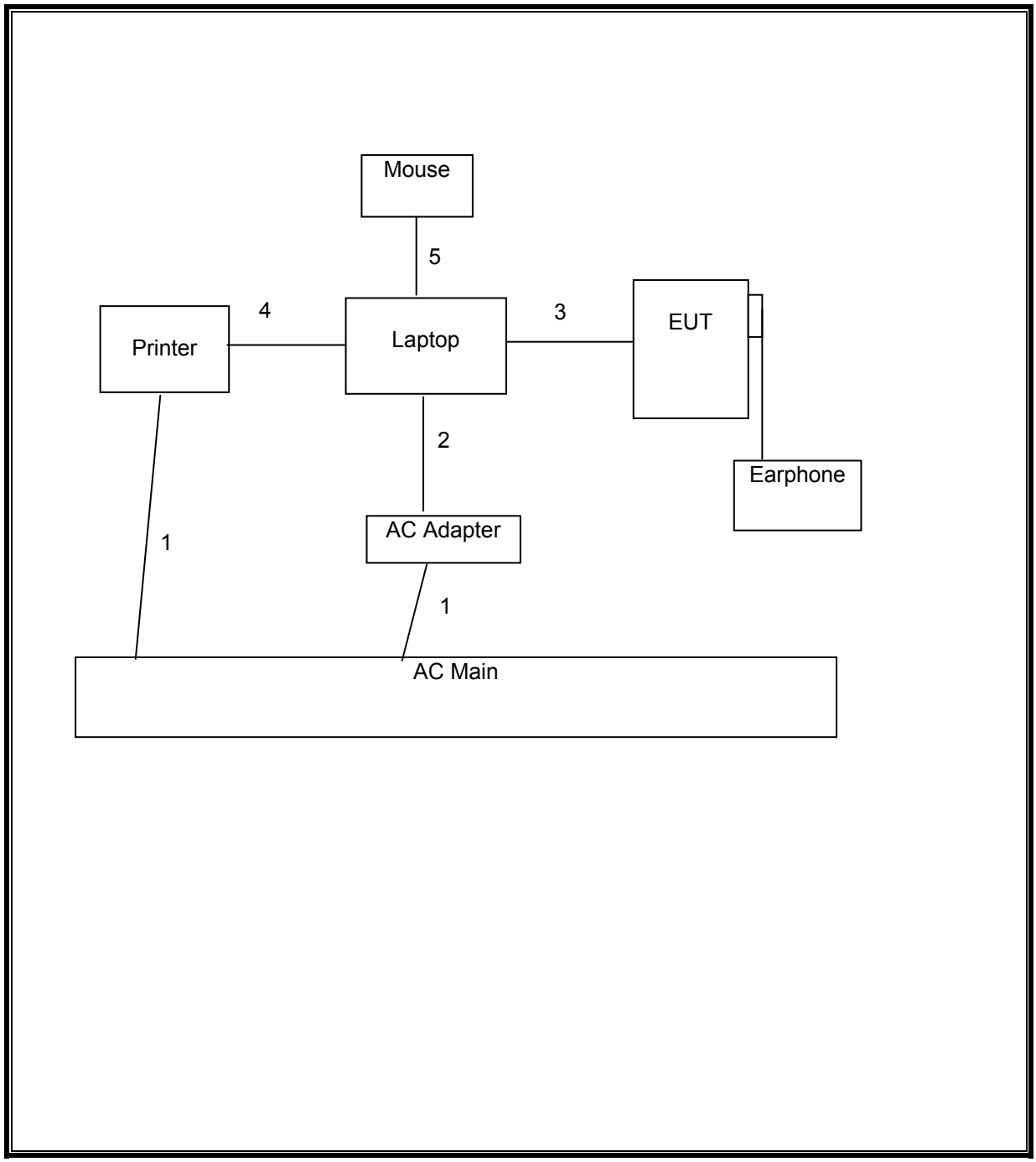
Configuration 1: EUT powered by AC adapter



Configuration 2: EUT Powered by Inductive Charging Dock



Configuration 3: EUT powered by laptop VIA USB cable



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, 26.5 GHz	Agilent / HP	E4440A	C01178	08/18/11
Antenna, Horn, 18 GHz	EMCO	3115	C00783	07/29/11
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	08/04/11
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01016	07/14/11
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	07/06/11
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11/06/11
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05/06/11

7. APPLICABLE LIMITS AND TEST RESULTS

7.1. RADIATED EMISSIONS BELOW 1GHZ

TEST PROCEDURE

ANSI C63.4

The highest clock frequency generated or used in the EUT is 1000 MHz, therefore the frequency range was investigated from 30 MHz to 5 GHz.

LIMIT

§15.109 (a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

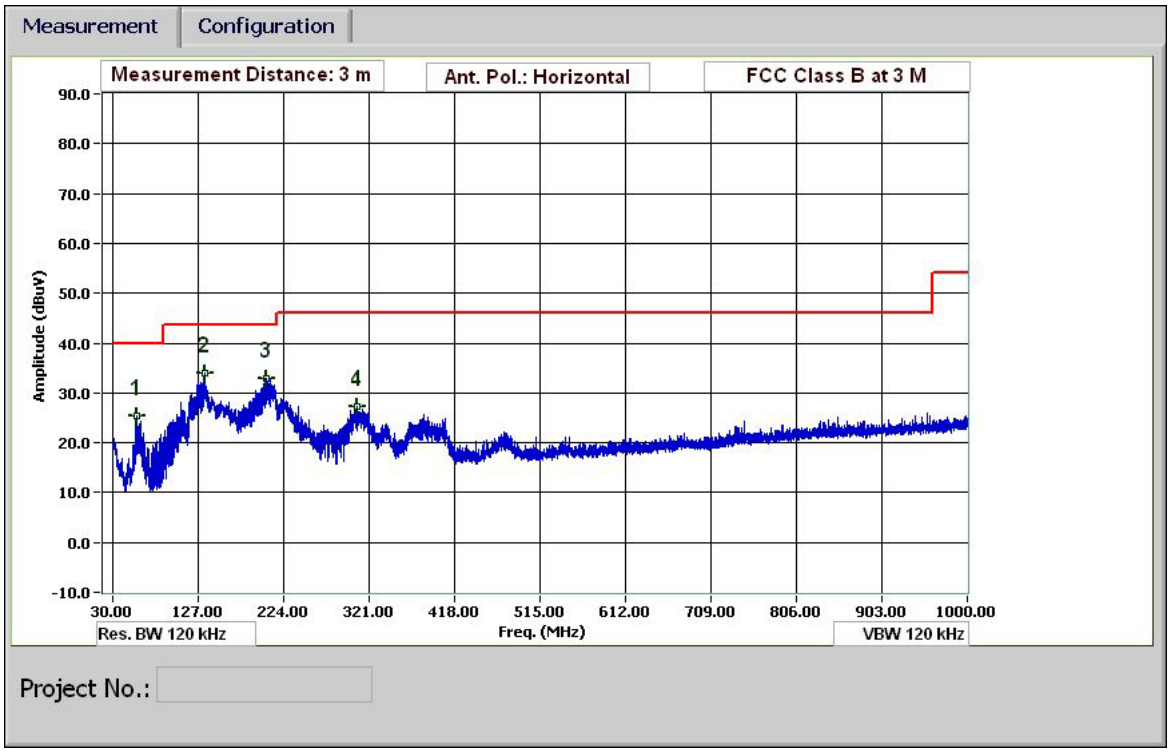
Limits for radiated disturbance of Class B ITE at measuring distance of 3 m	
Frequency range (MHz)	Quasi-peak limits (dBµV/m)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960 MHz	54
Note: The lower limit shall apply at the transition frequency.	

RESULTS

AC Adapter Part Number: 157-10124-00
Configuration 1: EUT powered by AC adapter

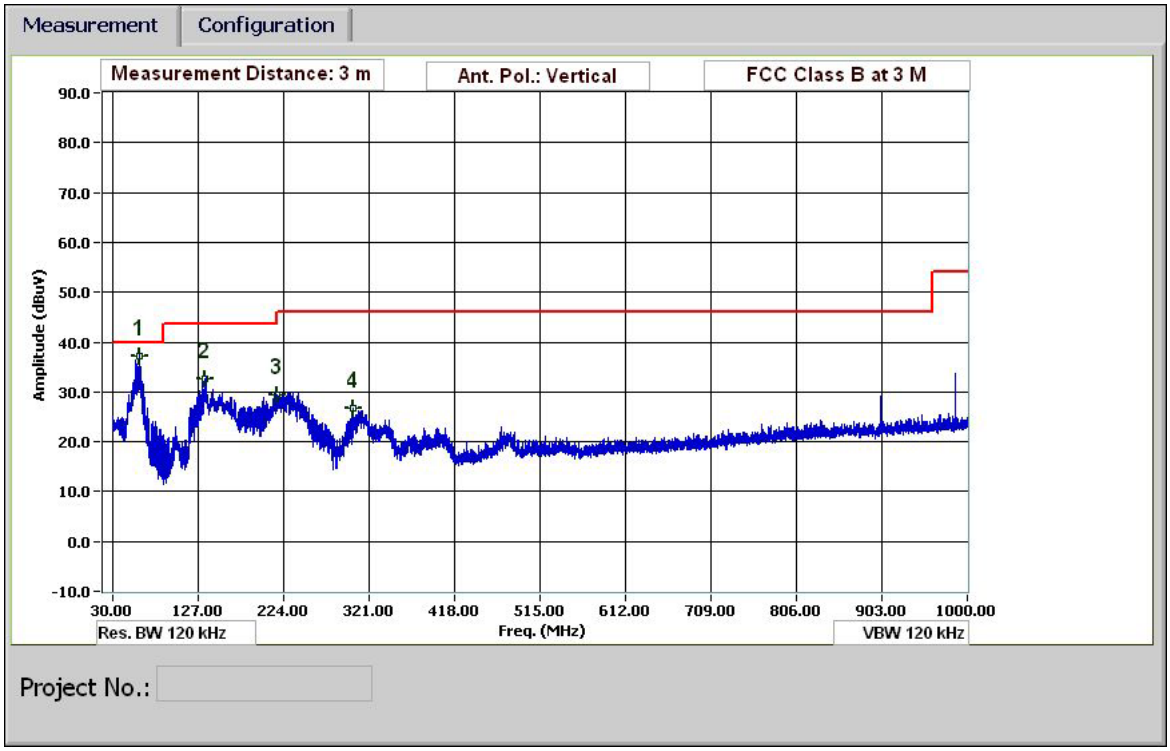
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



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

HORIZONTAL AND VERTICAL DATAT

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

Test Engr: Chin Pang
Date: 12/04/10
Company: Palm
Project #: 10U13357
EUT Configuration: EUT powered by AC Adapter
Test Target: FCC 15B
Mode Oper: Charging mode
AC Adapter SN: 157-10124-00

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

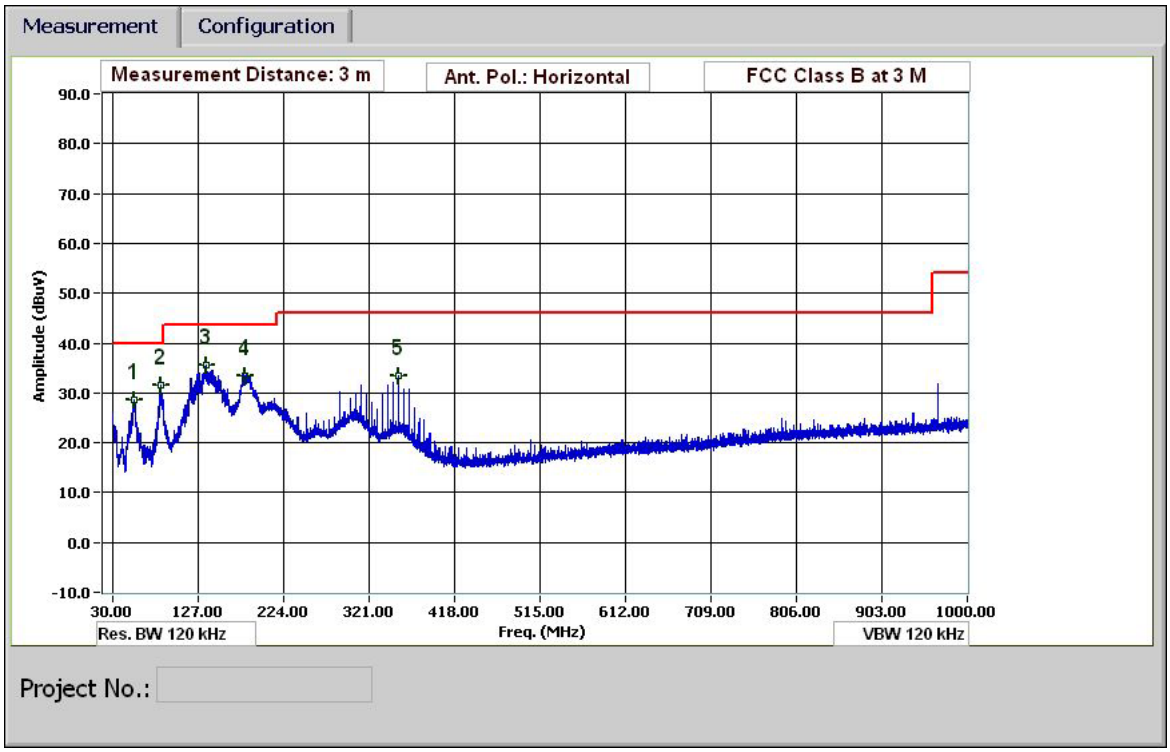
Margin — Margin vs. Limit

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
59.881	3.0	58.2	7.9	0.7	29.6	0.0	0.0	37.1	40.0	-2.9	V	P	
59.881	3.0	55.4	7.9	0.7	29.6	0.0	0.0	34.3	40.0	-5.7	V	QP	
134.404	3.0	47.6	13.5	1.0	29.4	0.0	0.0	32.7	43.5	-10.8	V	P	
216.848	3.0	45.0	11.9	1.3	28.9	0.0	0.0	29.4	46.0	-16.6	V	P	
302.531	3.0	40.5	13.3	1.6	28.8	0.0	0.0	26.6	46.0	-19.4	V	P	
57.721	3.0	46.3	7.9	0.7	29.6	0.0	0.0	25.3	40.0	-14.7	H	P	
134.644	3.0	48.8	13.4	1.0	29.4	0.0	0.0	33.9	43.5	-9.6	H	P	
203.647	3.0	48.5	12.0	1.3	28.9	0.0	0.0	32.9	43.5	-10.6	H	P	
307.091	3.0	41.1	13.4	1.6	28.8	0.0	0.0	27.3	46.0	-18.7	H	P	

AC Adapter Part Number: 157-10124-00
Configuration 2: EUT powered by Inductive Charging Dock
Note: Inductive Charging Dock connected to AC adapter

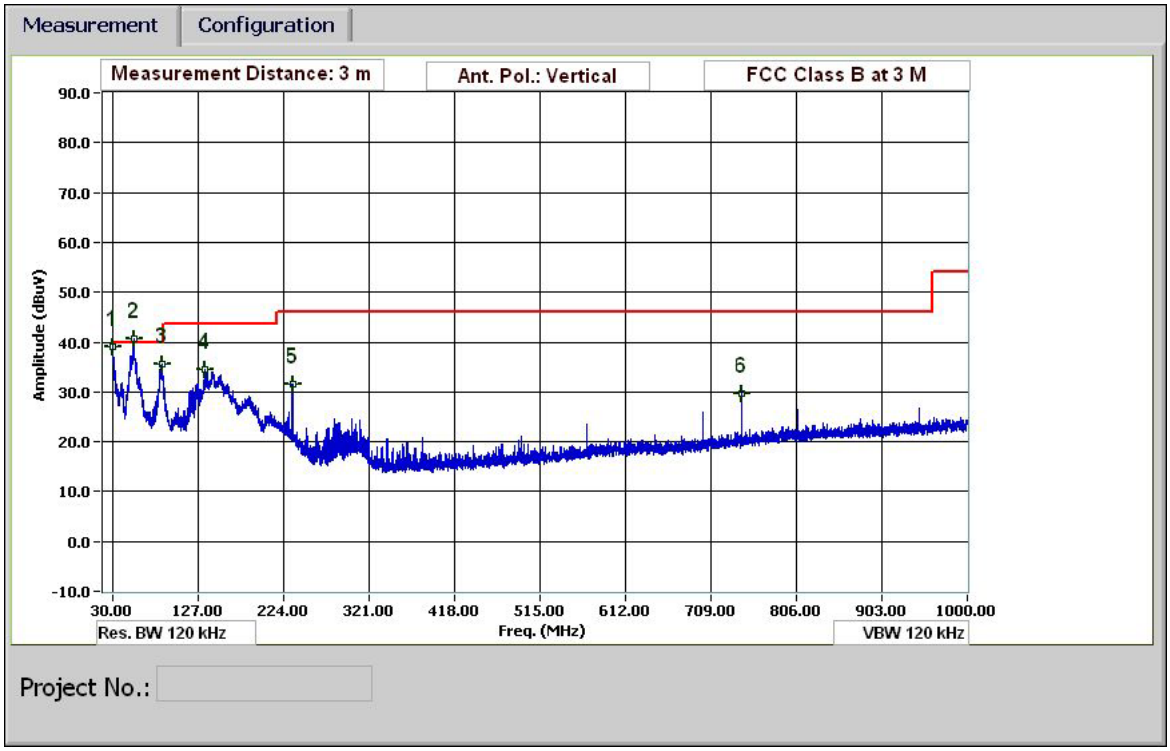
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



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

HORIZONTAL AND VERTICAL DATA

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

Test Engr: Chin Pang
Date: 12/04/10
Company: Palm
Project #: 10U13357
EUT Configuration: EUT powered by Inductive Charging Dock with Headset
Test Target: FCC 15B
Mode Oper: Charging mode
AC Adapter SN: 157-10124-00

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

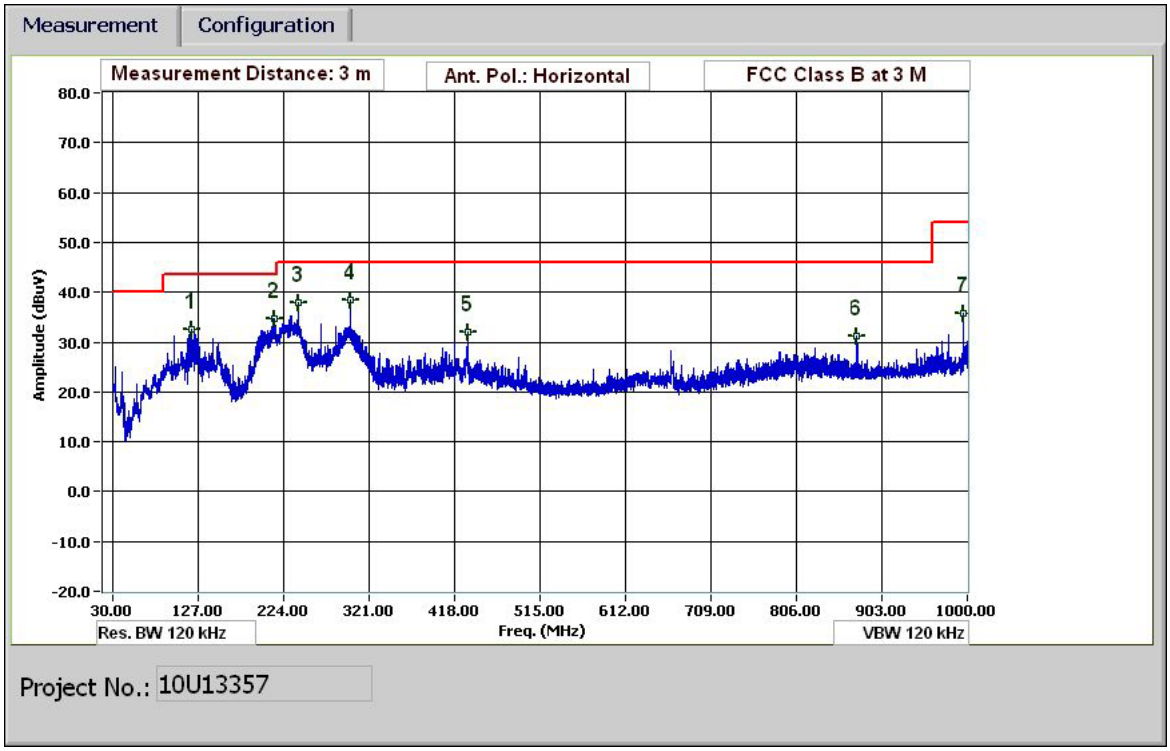
Margin — Margin vs. Limit

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
vert													
30.72	3.0	48.2	20.0	0.5	29.7	0.0	0.0	39.1	40.0	-0.9	V	P	
30.72	3.0	44.2	20.0	0.5	29.7	0.0	0.0	35.1	40.0	-4.9	V	QP	
54.001	3.0	61.8	7.9	0.6	29.6	0.0	0.0	40.7	40.0	0.7	V	P	
54.001	3.0	57.7	7.9	0.6	29.6	0.0	0.0	36.7	40.0	-3.3	V	QP	
85.442	3.0	56.9	7.5	0.8	29.6	0.0	0.0	35.7	40.0	-4.3	V	P	
134.884	3.0	49.4	13.4	1.0	29.4	0.0	0.0	34.5	43.5	-9.0	V	P	
233.888	3.0	47.0	11.9	1.4	28.8	0.0	0.0	31.5	46.0	-14.5	V	P	
744.029	3.0	36.3	20.0	2.7	29.4	0.0	0.0	29.6	46.0	-16.4	V	P	
54.001	3.0	49.6	7.9	0.6	29.6	0.0	0.0	28.5	40.0	-11.5	H	P	
84.722	3.0	52.8	7.5	0.8	29.6	0.0	0.0	31.5	40.0	-8.5	H	P	
135.604	3.0	50.5	13.4	1.0	29.4	0.0	0.0	35.6	43.5	-7.9	H	P	
180.366	3.0	50.3	10.9	1.2	29.0	0.0	0.0	33.4	43.5	-10.1	H	P	
354.013	3.0	46.6	14.2	1.8	29.1	0.0	0.0	33.5	46.0	-12.5	H	P	

Configuration 3: EUT powered by laptop

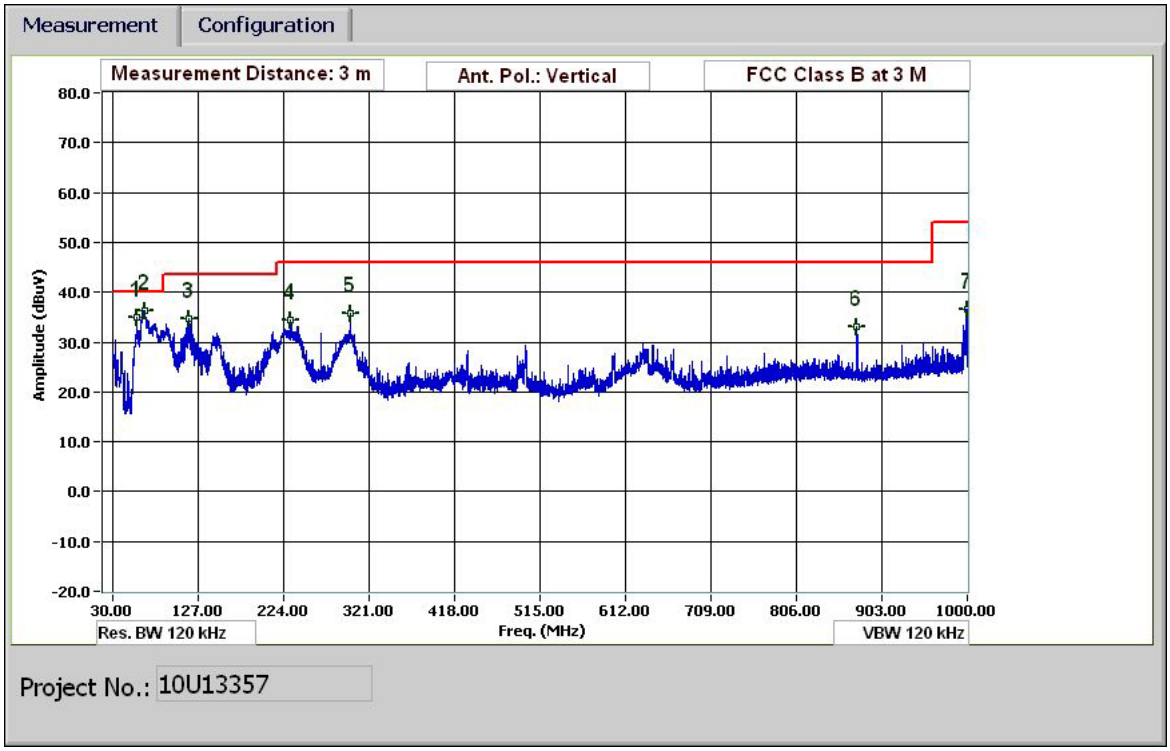
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



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

HORIZONTAL AND VERTICAL DATA

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

Test Engr: Mengistu Mekuria
Date: 10/13/10
Project #: 10U13357
Company: Palm
Test Target: FCC Class B
Mode Oper: Charging Mode (EUT directly connected to Support Laptop via USB Cable)

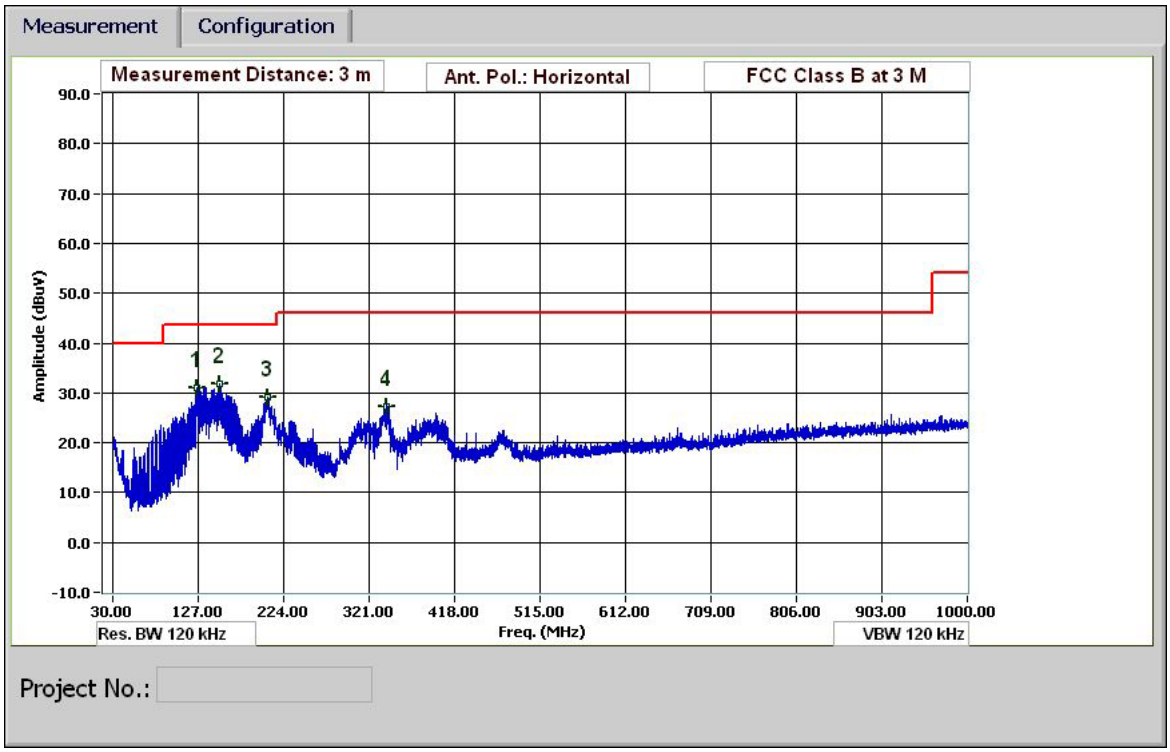
f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
57.721	3.0	56.0	7.9	0.7	29.6	0.0	0.0	34.9	40.0	-5.1	V	P	
66.241	3.0	57.0	8.1	0.7	29.6	0.0	0.0	36.2	40.0	-3.8	V	P	
116.884	3.0	50.0	13.2	1.0	29.5	0.0	0.0	34.7	43.5	-8.8	V	P	
232.328	3.0	50.1	11.9	1.4	28.8	0.0	0.0	34.5	46.0	-11.5	V	P	
299.291	3.0	49.7	13.3	1.6	28.8	0.0	0.0	35.8	46.0	-10.2	V	P	
874.955	3.0	37.5	21.4	3.0	28.7	0.0	0.0	33.1	46.0	-12.9	V	P	
999.28	3.0	39.3	22.6	3.2	28.4	0.0	0.0	36.7	54.0	-17.3	V	P	
119.524	3.0	47.3	13.6	1.0	29.5	0.0	0.0	32.4	43.5	-11.1	H	P	
212.648	3.0	50.4	11.9	1.3	28.9	0.0	0.0	34.8	43.5	-8.7	H	P	
240.129	3.0	53.6	11.8	1.4	28.8	0.0	0.0	38.0	46.0	-8.0	H	P	
299.411	3.0	52.5	13.3	1.6	28.8	0.0	0.0	38.6	46.0	-7.4	H	P	
432.977	3.0	43.8	15.6	2.0	29.4	0.0	0.0	32.0	46.0	-14.0	H	P	
874.955	3.0	35.7	21.4	3.0	28.7	0.0	0.0	31.3	46.0	-14.7	H	P	
995.8	3.0	38.4	22.5	3.2	28.4	0.0	0.0	35.8	54.0	-18.2	H	P	

AC Adapter Part Number: 157-10130-00
Configuration 1: EUT powered by AC adapter

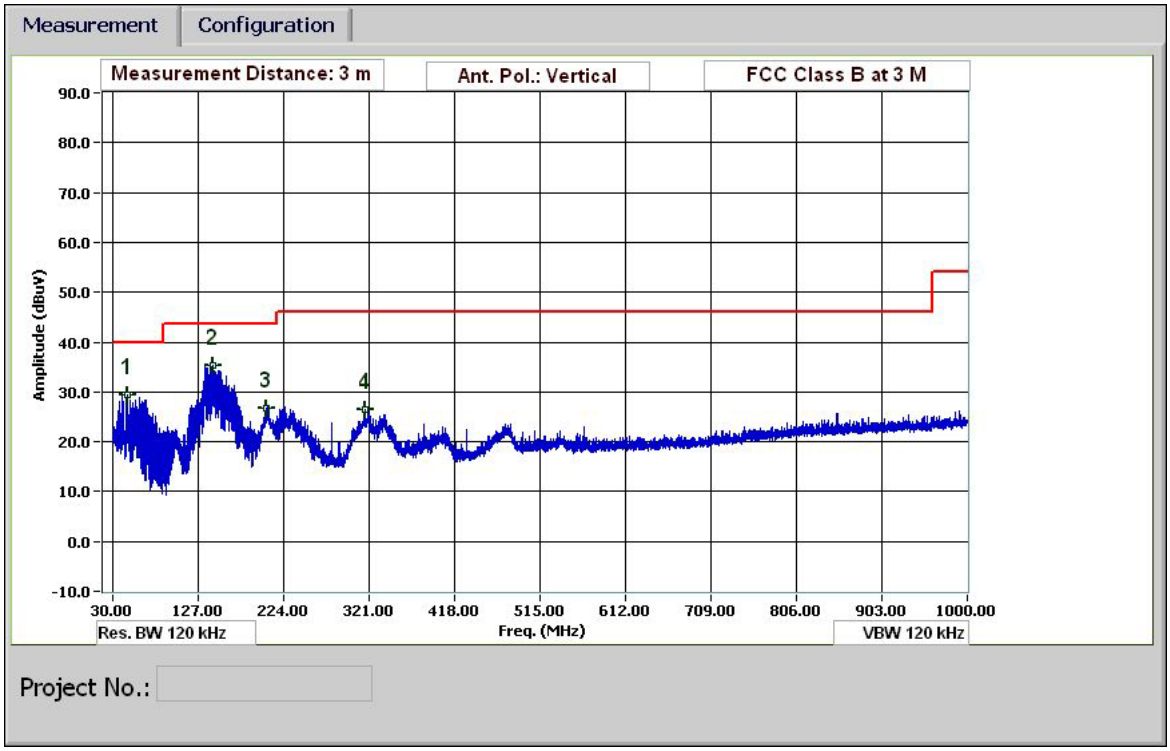
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



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

HORIZONTAL AND VERTICAL DATAT

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

Test Engr: Chin Pang
Date: 12/04/10
Company: Palm
Project #: 10U13357
EUT Configuration: EUT powered by AC Adapter
Test Target: FCC 15B
Mode Oper: Charging mode
AC Adapter SN: 157-10130-00

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

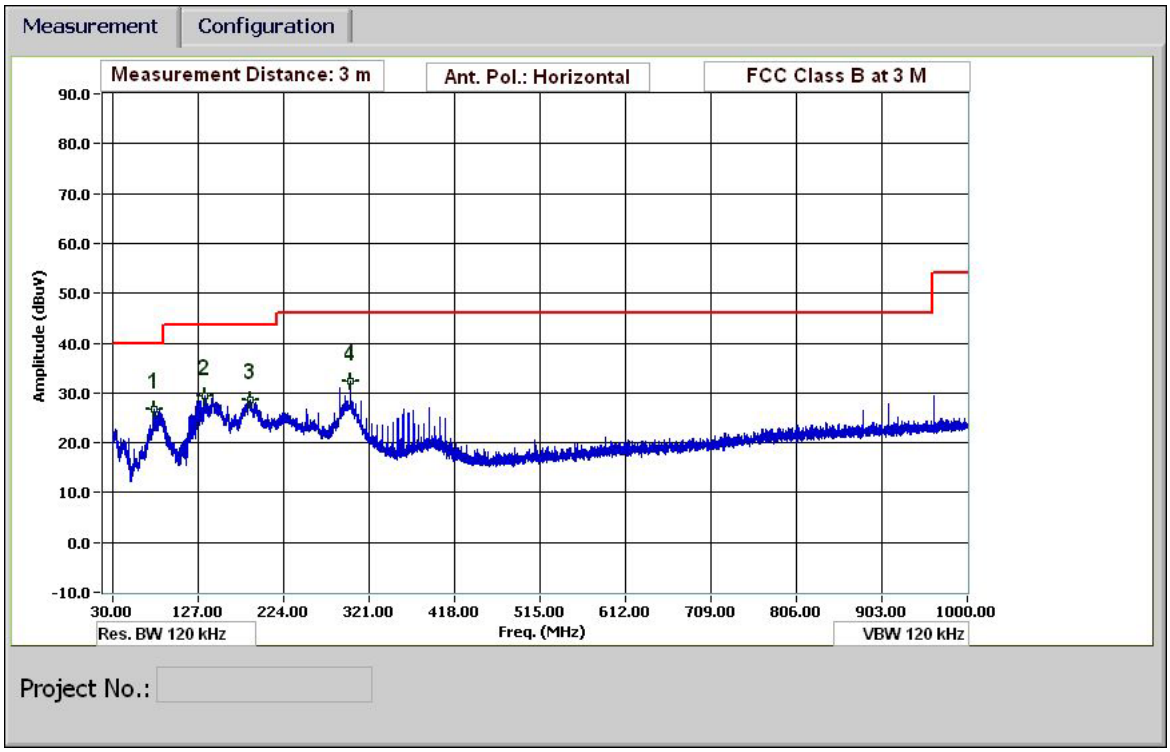
Margin — Margin vs. Limit

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
vert													
47.041	3.0	48.6	9.8	0.6	29.6	0.0	0.0	29.4	40.0	-10.6	V	P	
143.525	3.0	50.5	13.0	1.1	29.3	0.0	0.0	35.3	43.5	-8.2	V	P	
203.767	3.0	42.3	12.0	1.3	28.9	0.0	0.0	26.7	43.5	-16.8	V	P	
317.172	3.0	40.0	13.6	1.6	28.9	0.0	0.0	26.4	46.0	-19.6	V	P	
126.004	3.0	45.5	13.8	1.0	29.4	0.0	0.0	30.9	43.5	-12.6	H	P	
151.805	3.0	47.6	12.3	1.1	29.3	0.0	0.0	31.7	43.5	-11.8	H	P	
205.447	3.0	44.7	12.0	1.3	28.9	0.0	0.0	29.1	43.5	-14.4	H	P	
340.693	3.0	40.5	14.0	1.7	29.0	0.0	0.0	27.3	46.0	-18.7	H	P	

AC Adapter Part Number: 157-10130-00
Configuration 2: EUT powered by Inductive Charging Dock
Note: Inductive Charging Dock connected to AC adapter

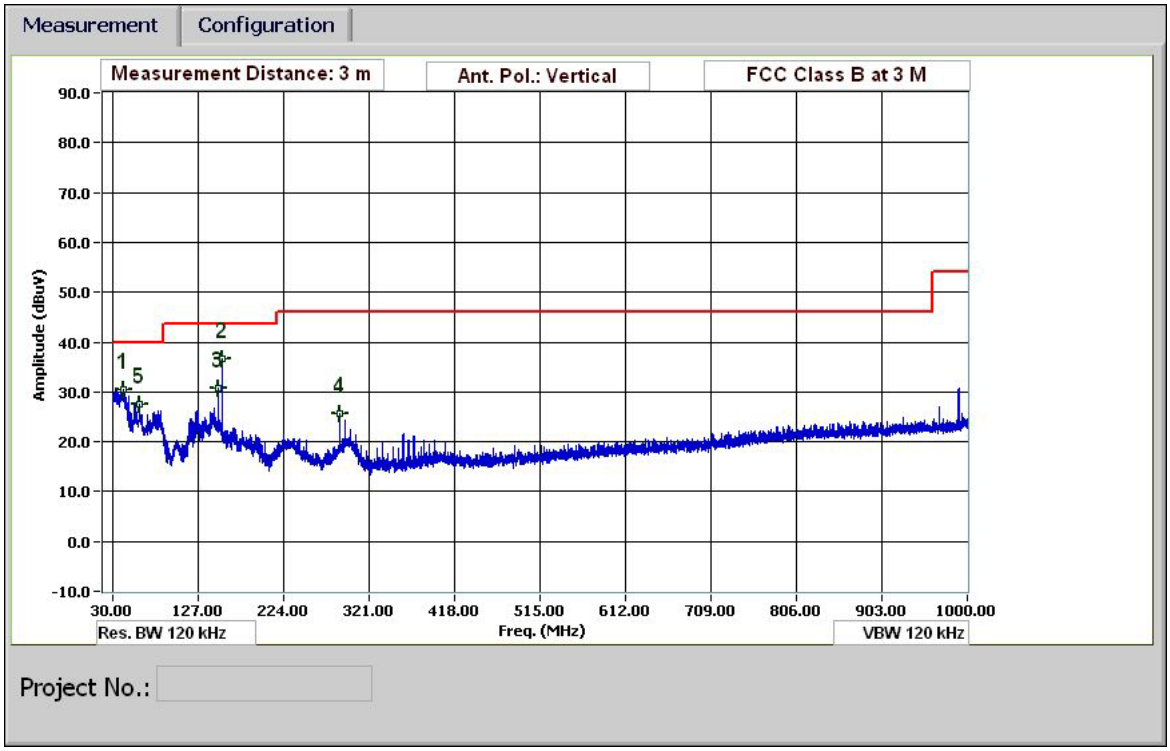
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



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

HORIZONTAL AND VERTICAL DATA

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

Test Engr: Chin Pang
Date: 12/04/10
Company: Palm
Project #: 10U13357
EUT Configuration: EUT powered by Inductive Charging Dock with Headset
Test Target: FCC 15B
Mode Oper: Charging mode
AC Adapter SN: 157-10130-00

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

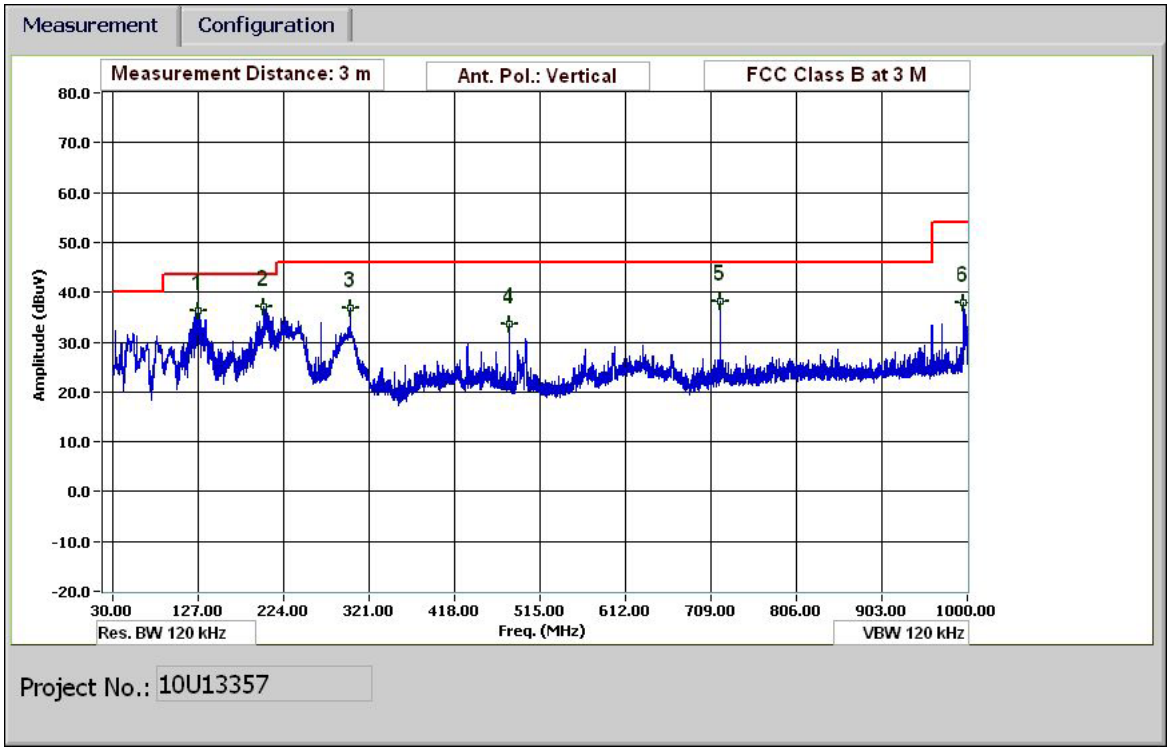
Margin — Margin vs. Limit

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
vert													
41.52	3.0	46.4	13.2	0.6	29.6	0.0	0.0	30.5	40.0	-9.5	V	P	
60.001	3.0	48.6	7.9	0.7	29.6	0.0	0.0	27.5	40.0	-12.5	V	P	
150.485	3.0	46.4	12.5	1.1	29.3	0.0	0.0	30.7	43.5	-12.8	V	P	
154.325	3.0	52.9	11.8	1.1	29.3	0.0	0.0	36.6	43.5	-6.9	V	P	
287.771	3.0	39.9	12.9	1.6	28.8	0.0	0.0	25.6	46.0	-20.4	V	P	
77.282	3.0	47.7	7.8	0.8	29.6	0.0	0.0	26.6	40.0	-13.4	H	P	
134.164	3.0	44.2	13.5	1.0	29.4	0.0	0.0	29.4	43.5	-14.1	H	P	
185.766	3.0	45.2	11.1	1.2	29.0	0.0	0.0	28.5	43.5	-15.0	H	P	
299.771	3.0	46.3	13.3	1.6	28.8	0.0	0.0	32.4	46.0	-13.6	H	P	

Configuration 3: EUT powered by laptop

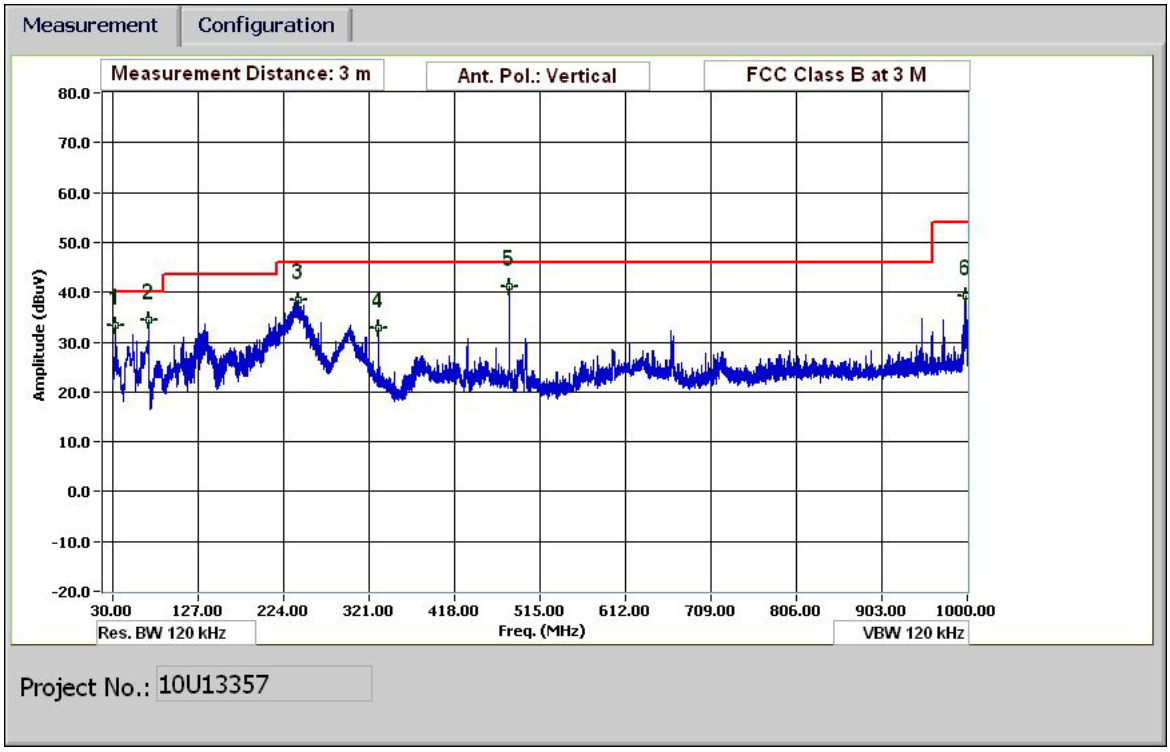
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



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

HORIZONTAL AND VERTICAL DATA

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

Test Engr: MENGISTU MEKURIA
Date: 10/17/10
Project #: 10U13357
Company: PALM
Test Target: FCC CLASS B
Mode Oper: Charging and Active Sync Mode (EUT, Inductive Charger, Laptop, and AC Adapter), No Headset.

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	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
207.967	3.0	52.7	12.0	1.3	28.9	0.0	0.0	37.1	43.5	-6.4	H	P	
240.129	3.0	52.9	11.8	1.4	28.8	0.0	0.0	37.3	46.0	-8.7	H	P	
266.05	3.0	50.2	12.3	1.5	28.8	0.0	0.0	35.1	46.0	-10.9	H	P	
480.019	3.0	52.0	16.4	2.1	29.6	0.0	0.0	40.9	46.0	-5.1	H	P	
995.56	3.0	41.4	22.5	3.2	28.4	0.0	0.0	38.8	54.0	-15.2	H	P	
33.24	3.0	43.7	18.9	0.5	29.7	0.0	0.0	33.4	40.0	-6.6	V	P	
70.442	3.0	55.0	8.2	0.7	29.6	0.0	0.0	34.3	40.0	-5.7	V	P	
240.129	3.0	54.1	11.8	1.4	28.8	0.0	0.0	38.5	46.0	-7.5	V	P	
332.052	3.0	46.2	13.8	1.7	28.9	0.0	0.0	32.8	46.0	-13.2	V	P	
480.019	3.0	52.1	16.4	2.1	29.6	0.0	0.0	41.0	46.0	-5.0	V	P	
998.08	3.0	41.8	22.6	3.2	28.4	0.0	0.0	39.2	54.0	-14.8	V	P	

7.2. RADIATED EMISSIONS ABOVE 1GHZ (WORST CASE)

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company:	Palm
Project #:	10U13357
Date:	12/4/2010
Test Engineer:	Chin Pang
Configuration:	EUT Powered by Inductive Charging Dock with Headset
Mode:	Charging Mode
	AC Adapter Serial number: 157-10124

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T59; S/N: 3245 @3m	T145 Agilent 3008A0056			FCC 15.209

Hi Frequency Cables

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

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)
1.167	3.0	52.7	31.5	24.6	2.6	-36.0	0.0	0.0	43.8	22.6	74	54	-30.2	-31.4	V
1.513	3.0	51.5	30.3	25.8	3.0	-35.8	0.0	0.0	44.5	23.3	74	54	-29.5	-30.7	V
2.160	3.0	45.0	29.6	27.9	3.6	-35.3	0.0	0.0	41.2	25.8	74	54	-32.8	-28.2	V
1.037	3.0	48.0	29.2	24.1	2.4	-36.1	0.0	0.0	38.4	19.6	74	54	-35.6	-34.4	H
2.280	3.0	45.6	28.5	28.0	3.7	-35.2	0.0	0.0	42.2	25.1	74	54	-31.8	-28.9	H

Rev. 07.22.09
Note:No other emissions were detected above the system noise floor.

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		

7.3. AC MAINS LINE CONDUCTED EMISSIONS

TEST PROCEDURE

ANSI C63.4

LIMIT

§15.107 (a) Except for Class A digital devices, for equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the band edges.

Frequency range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
Notes: 1. The lower limit shall apply at the transition frequencies 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

RESULTS

AC Adapter Part Number: 157-10124-00

Configuration 1: EUT powered by AC Adapter

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
0.22	55.72	--	36.91	0.00	62.67	52.67	-6.95	-15.76	L1
0.51	52.90	--	34.23	0.00	56.00	46.00	-3.10	-11.77	L1
4.14	44.31	--	29.54	0.00	56.00	46.00	-11.69	-16.46	L1
0.22	56.26	--	36.95	0.00	62.78	52.78	-6.52	-15.83	L2
0.38	53.35	--	32.27	0.00	58.30	48.30	-4.95	-16.03	L2
3.96	39.12	--	25.18	0.00	56.00	46.00	-16.88	-20.82	L2
6 Worst Data									

Configuration 2: EUT powered by Inductive Charging Dock

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
0.22	61.40	--	41.86	0.00	62.71	52.71	-1.31	-10.85	L1
0.72	51.96	--	38.45	0.00	56.00	46.00	-4.04	-7.55	L1
4.98	45.68	--	34.89	0.00	56.00	46.00	-10.32	-11.11	L1
0.22	56.79	--	37.68	0.00	62.71	52.71	-5.92	-15.03	L2
0.72	50.92	--	33.50	0.00	56.00	46.00	-5.08	-12.50	L2
4.98	44.36	--	29.13	0.00	56.00	46.00	-11.64	-16.87	L2
6 Worst Data									

Configuration 3: EUT powered by LAPTOP via USB Cable

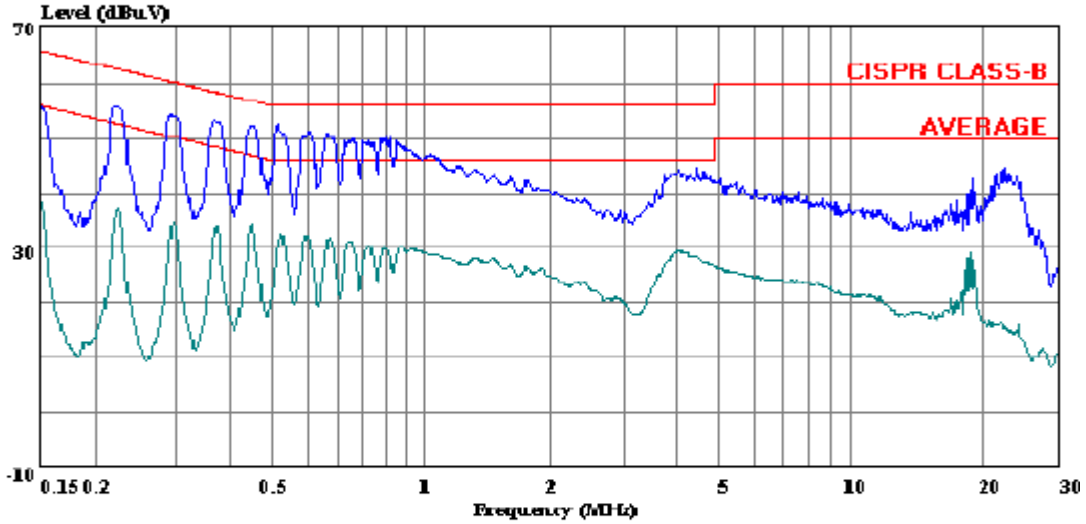
CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.48	50.23	--	37.19	0.00	56.41	46.41	-6.18	-9.22	L1
0.71	49.85	--	36.30	0.00	56.00	46.00	-6.15	-9.70	L1
5.96	52.14	--	45.32	0.00	60.00	50.00	-7.86	-4.68	L1
0.47	52.64	--	37.27	0.00	56.51	46.51	-3.87	-9.24	L2
7.16	49.79	--	36.36	0.00	60.00	50.00	-10.21	-13.64	L2
5.96	52.82	--	45.52	0.00	60.00	50.00	-7.18	-4.48	L2
6 Worst Data									

COFIGURATION 1

LINE 1 RESULTS

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

Data#: 7 File#: 10u13517.emi Date: 12-04-2010 Time: 13:44:12



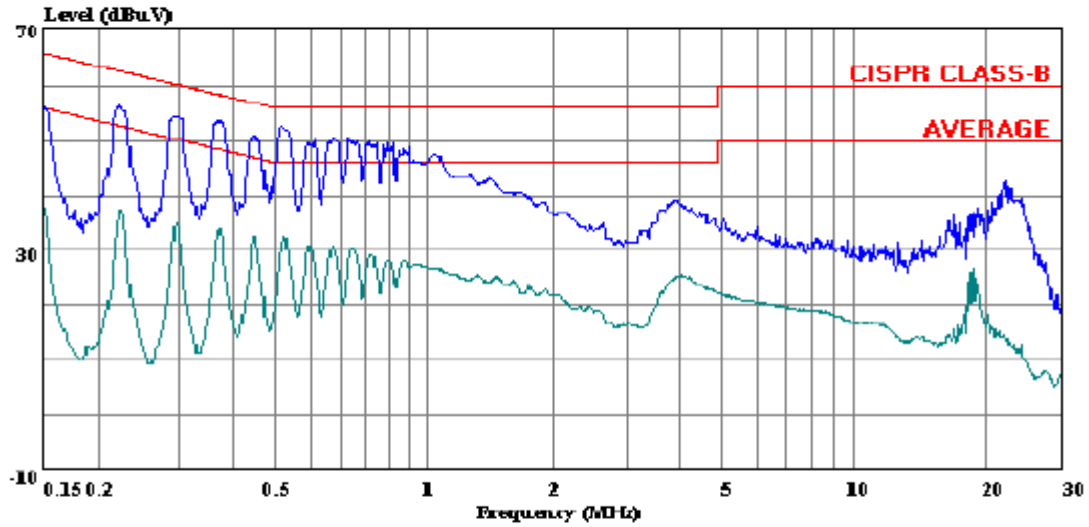
Trace: 5 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: Chin Pang
Project # : 10U13357
Company : Palm
Configuration: EUTPowered by AC Adapter
: Adapter Serial number: 157-10124-00
Mode : Charging mode
Target : FCC Class B
Voltage : 115 VAC / 60 Hz
: L1: (Peak: Blue, Average: Green)

LINE 2 RESULTS

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

Data#: 14 File#: 10u13517.emi Date: 12-04-2010 Time: 13:49:25



Trace: 12 Ref Trace:

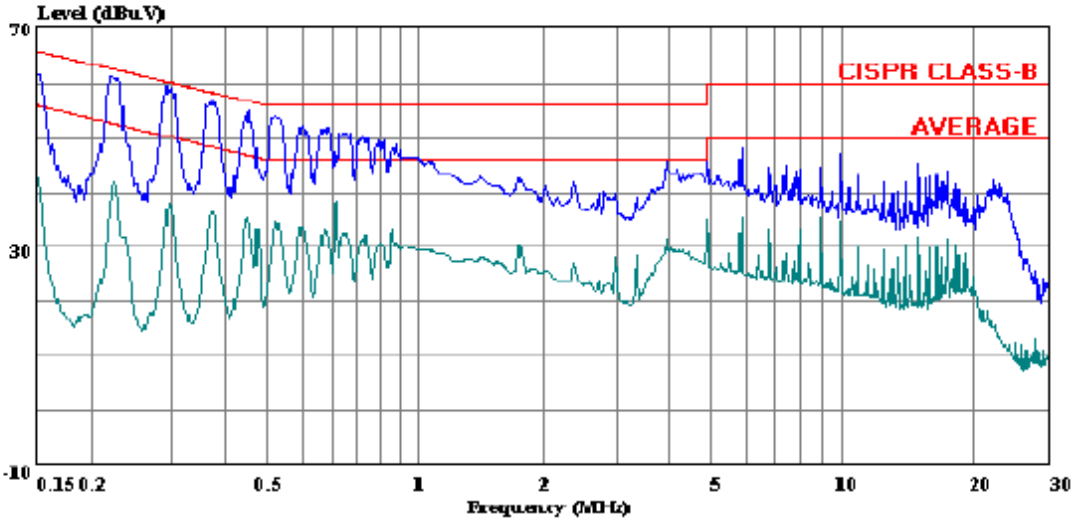
Condition: CISPR CLASS-B
Test Operator: Chin Pang
Project # : 10U13357
Company : Palm
Configuration: EUTPowered by AC Adapter
: Adapter Serial number: 157-10124-00
Mode : Charging mode
Target : FCC Class B
Voltage : 115 VAC / 60 Hz
: L2: (Peak: Blue, Average: Green)

CONFIGURATION 2

LINE 1 RESULTS

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

Data#: 49 File#: 10u13517.emi Date: 12-04-2010 Time: 14:46:50



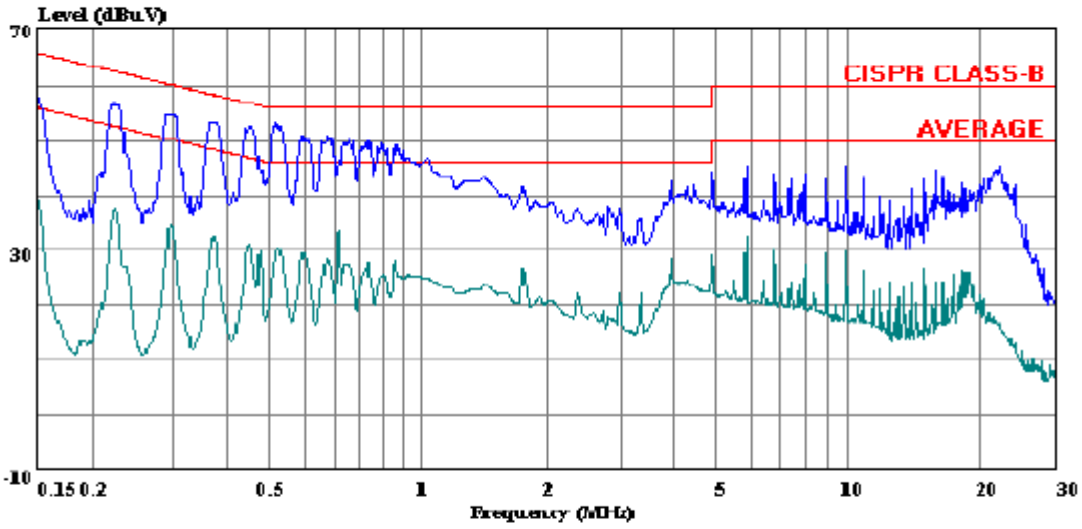
Trace: 47 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: Chin Pang
Project # : 10U13357
Company : Palm
Configuration: EUT Powered by Inductive Charging Dock
: Adapter Serial number: 157-10124-00
Mode : Charging mode
Target : FCC Class B
Voltage : 115 VAC / 60 Hz
: 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#: 56 File#: 10u13517.emi Date: 12-04-2010 Time: 14:51:54



Trace: 54 Ref Trace:

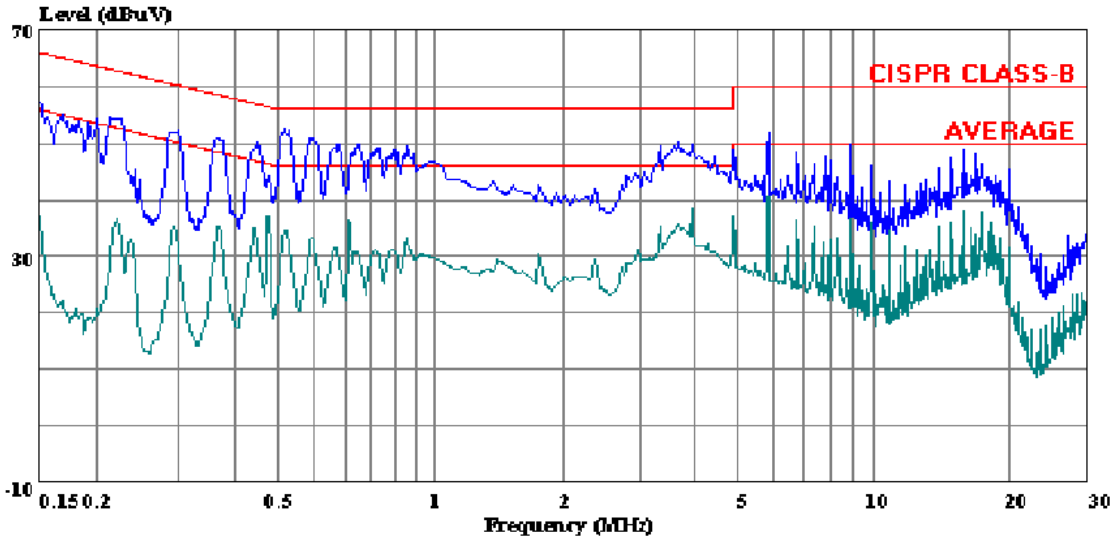
Condition: CISPR CLASS-B
Test Operator: Chin Pang
Project # : 10U13357
Company : Palm
Configuration: EUT Powered by Inductive Charging Dock
: Adapter Serial number: 157-10124-00
Mode : Charging mode
Target : FCC Class B
Voltage : 115 VAC / 60 Hz
: L2: (Peak: Blue, Average: Green)

CONFIGURATION 3

LINE 1 RESULTS

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

Data#: 84 File#: 10U13357_LC.EMI Date: 10-18-2010 Time: 01:33:13



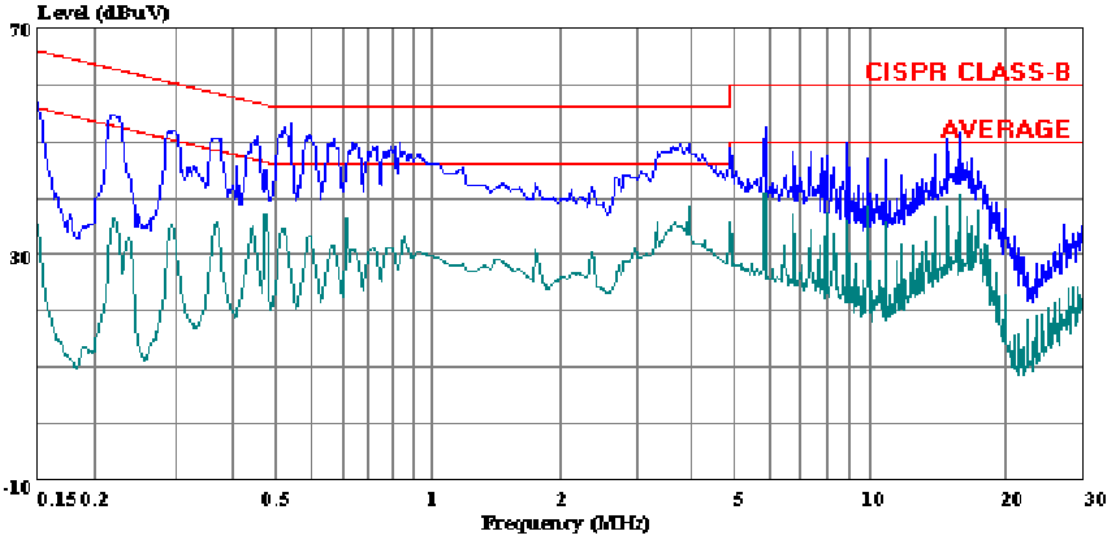
Trace: 82 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: Mengistu Mekuria
Project # : 10U13357
Company : Palm
Configuration: EUT(10124) Connected to Inducttive
: Charger, AC Adapter, and Laptop
Mode : Active Sync and Charging Mode
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#: 70 File#: 10U13357_LC.EMI Date: 10-18-2010 Time: 01:19:11



Trace: 68 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: Mengistu Mekuria
Project # : 10U13357
Company : Palm
Configuration: EUT(10124) Connected to Inductive
: Charger, AC Adapter, and Laptop
Mode : Charging and Active Sync.
Target : FCC Class B
Voltage : 115VAC / 60Hz
: L2: (Peak: Blue, Average: Green)

AC Adapter Part Number: 157-10130-00

Configuration1: EUT powered by AC adapter

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
0.20	57.72	--	48.51	0.00	63.45	53.45	-5.73	-4.94	L1
0.40	53.32	--	46.79	0.00	57.90	47.90	-4.58	-1.11	L1
1.78	50.78	--	29.45	0.00	56.00	46.00	-5.22	-16.55	L1
0.20	55.48	--	45.23	0.00	63.61	53.61	-8.13	-8.38	L2
0.41	50.98	--	44.36	0.00	57.65	47.65	-6.67	-3.29	L2
1.78	46.52	--	28.49	0.00	56.00	46.00	-9.48	-17.51	L2
6 Worst Data									

Configuration 2: EUT powered by Inductive Charging Dock

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
0.16	58.18	--	45.15	0.00	65.31	55.31	-7.13	-10.16	L1
0.95	54.56	--	44.65	0.00	56.00	46.00	-1.44	-1.35	L1
4.98	50.39	--	40.77	0.00	56.00	46.00	-5.61	-5.23	L1
0.19	54.84	--	42.98	0.00	63.99	53.99	-9.15	-11.01	L2
0.72	53.74	--	42.65	0.00	56.00	46.00	-2.26	-3.35	L2
4.98	47.37	--	35.85	0.00	56.00	46.00	-8.63	-10.15	L2
6 Worst Data									

Configuration 3: EUT powered by Laptop via USB Cable

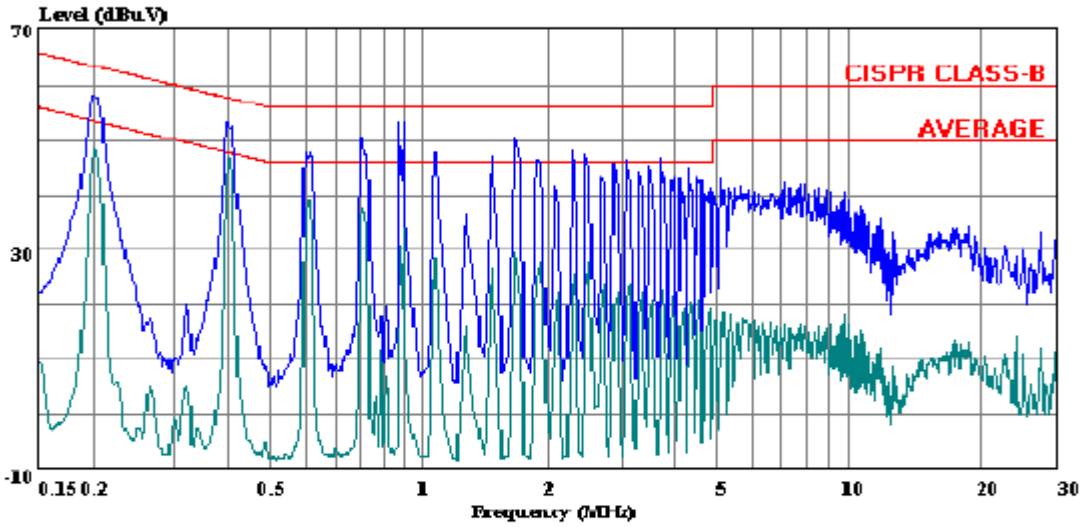
CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.19	59.23	--	39.92	0.00	64.08	54.08	-4.85	-14.16	L1
0.57	47.30	--	31.51	0.00	56.00	46.00	-8.70	-14.49	L1
1.43	46.79	--	29.55	0.00	56.00	46.00	-9.21	-16.45	L1
0.19	60.39	--	40.54	0.00	63.99	53.99	-3.60	-13.45	L2
0.45	46.92	--	31.38	0.00	56.84	46.84	-9.92	-15.46	L2
1.37	48.37	--	29.39	0.00	56.00	46.00	-7.63	-16.61	L2
6 Worst Data									

CONFIGURATION 1

LINE 1 RESULTS

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

Data#: 21 File#: 10u13517.emi Date: 12-04-2010 Time: 14:02:26



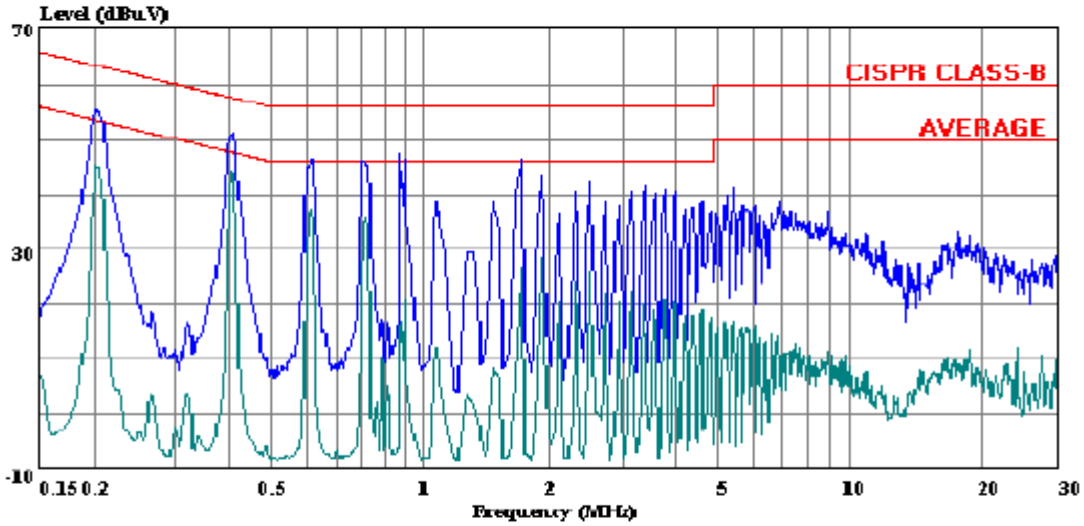
Trace: 19 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: Chin Pang
Project # : 10U13357
Company : Palm
Configuration: EUT Powered by AC Adapter
: Adapter Serial number: 157-10130-00
Mode : Charging mode
Target : FCC Class B
Voltage : 115 VAC / 60 Hz
: 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#: 28 File#: 10u13517.emi Date: 12-04-2010 Time: 14:07:36

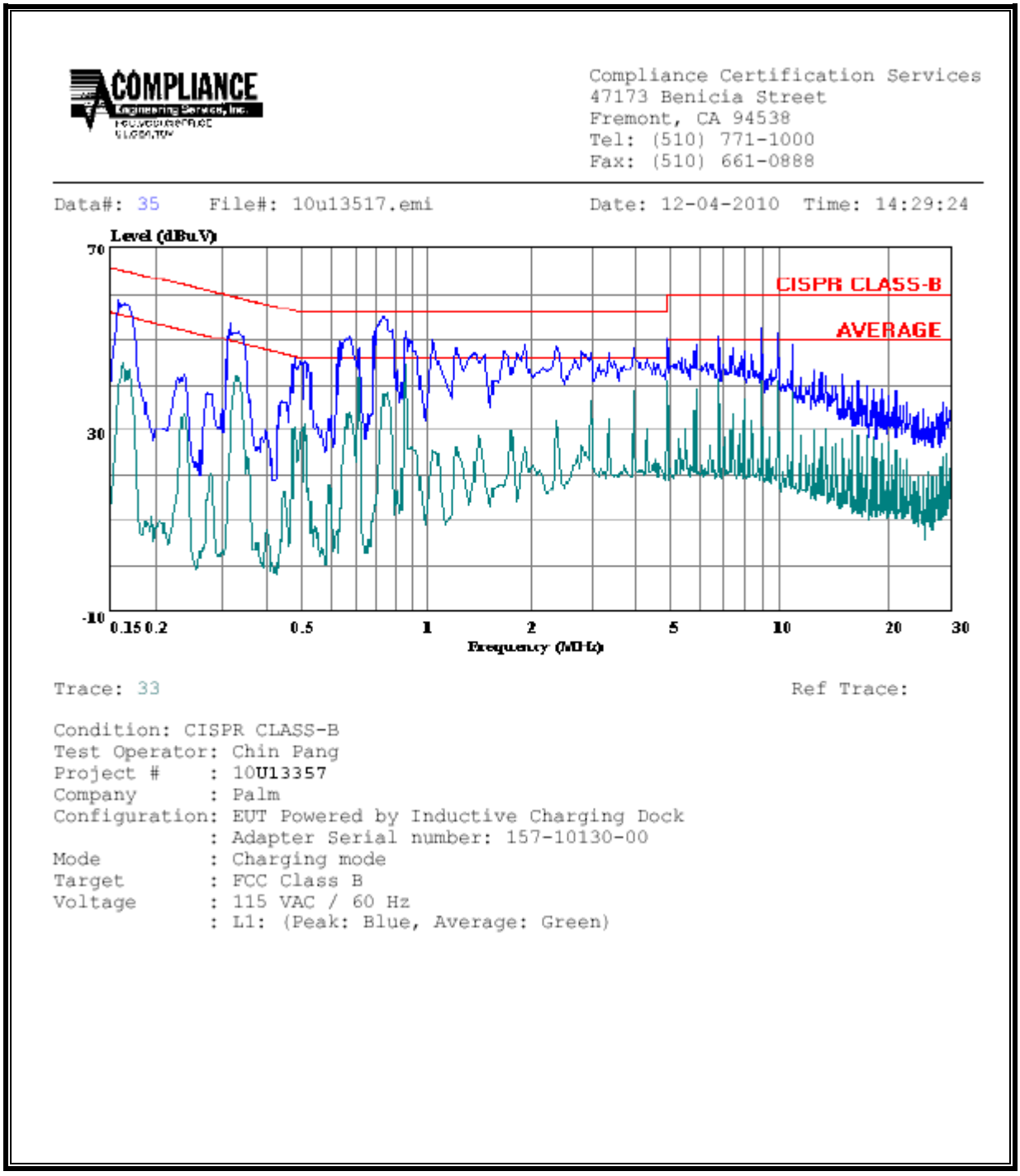


Trace: 26 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: Chin Pang
Project # : 10U13357
Company : Palm
Configuration: EUT Powered by AC Adapter
: Adapter Serial number: 157-10130-00
Mode : Charging mode
Target : FCC Class B
Voltage : 115 VAC / 60 Hz
: L2: (Peak: Blue, Average: Green)

CONFIGURATION 2

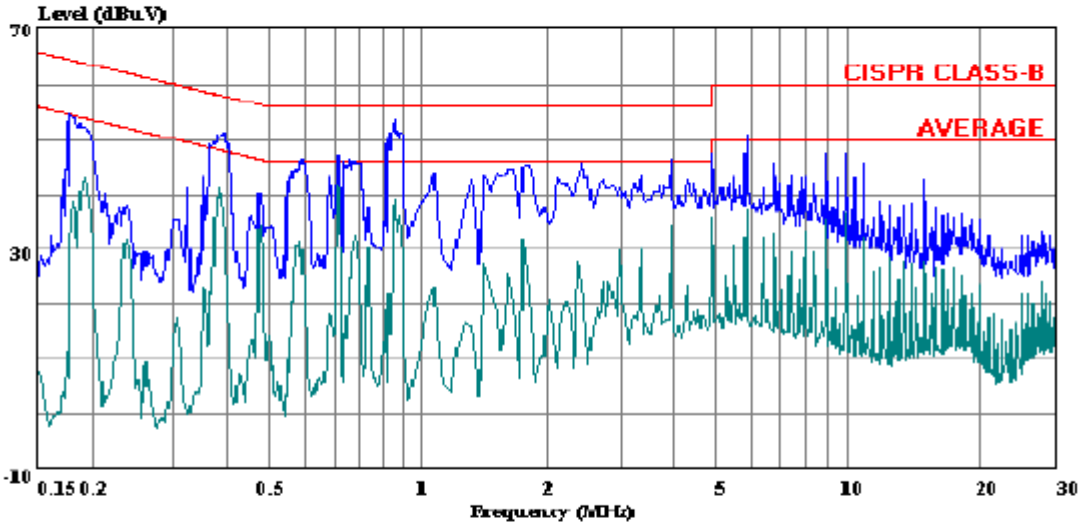
LINE 1 RESULTS



LINE 2 RESULTS

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

Data#: 42 File#: 10u13517.emi Date: 12-04-2010 Time: 14:40:55



Trace: 40 Ref Trace:

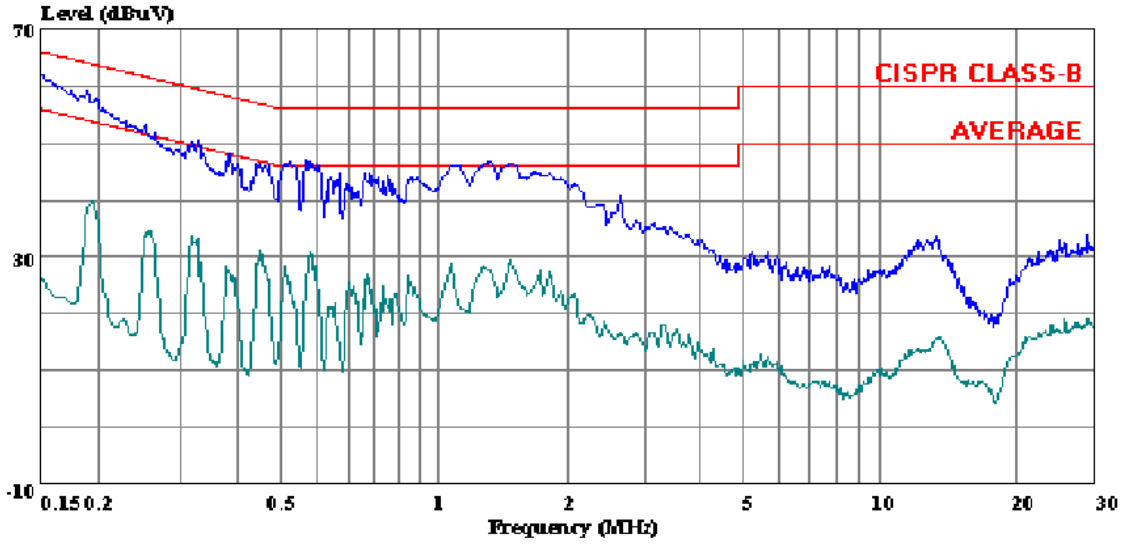
Condition: CISPR CLASS-B
Test Operator: Chin Pang
Project # : 10U13357
Company : Palm
Configuration: EUT Powered by Inductive Charging Dock
: Adapter Serial number: 157-10130-00
Mode : Charging mode
Target : FCC Class B
Voltage : 115 VAC / 60 Hz
: L2: (Peak: Blue, Average: Green)

CONFIGURATION 3

LINE 1 RESULTS

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

Data#: 119 File#: 10U13357_LC.EMI Date: 10-18-2010 Time: 02:59:59



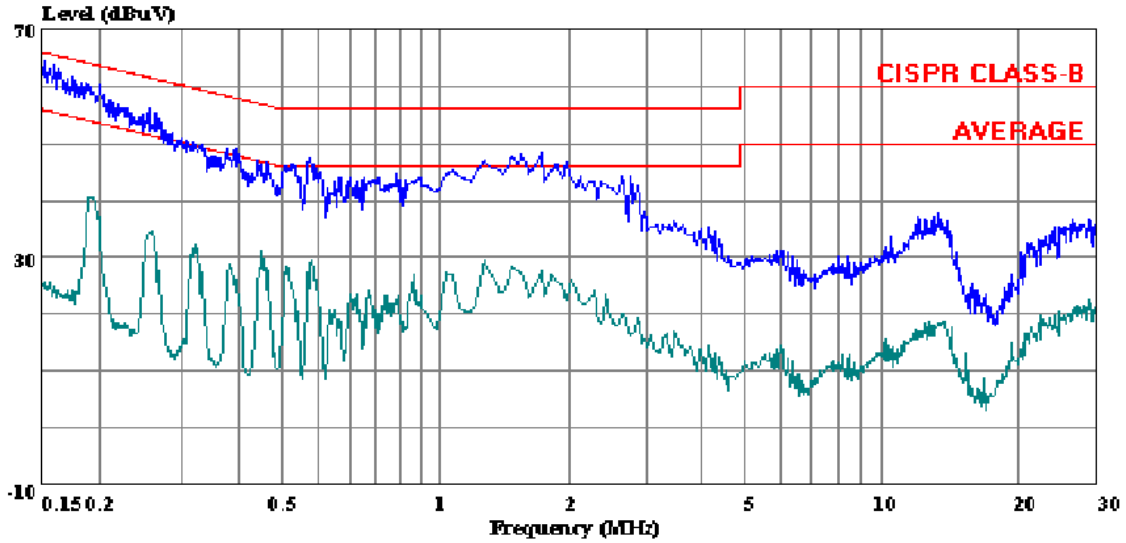
Trace: 117 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: Mengistu Mekuria
Project # : 10U13357
Company : Palm
Configuration: EUT(10130) Connected to Laptop
Mode : Active Sync and Charging Mode
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#: 112 File#: 10U13357_LC.EMI Date: 10-18-2010 Time: 02:44:57



Trace: 110 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: Mengistu Mekuria
Project # : 10U13357
Company : Palm
Configuration: EUT(10130) Connected to Laptop
Mode : Active Sync and Charging Mode
Target : FCC Class B
Voltage : 115VAC / 60Hz
: L2: (Peak: Blue, Average: Green)