



**FCC CFR47 PART 15 SUBPART C
CERTIFICATION
TEST REPORT**

FOR

BASE UNIT FOR IPOD

MODEL NUMBER: 006-1000

FCC ID: UIX0702A

REPORT NUMBER: 07U10967-1

ISSUE DATE: APRIL 09, 2007

Prepared for

**NETALOG, INC. D/B/A DIGITAL LIFESTYLE OUTFITTERS
145 KING ST., SUITE 306
CHARLESTON, SC 29401**

Prepared by

**COMPLIANCE CERTIFICATION SERVICES
47173 BENICIA STREET
FREMONT, CA 94538, USA
TEL: (510) 771-1000
FAX: (510) 661-0888**



NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	04/09/07	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: NETALOG, INC. D/B/A DIGITAL LIFESTYLE OUTFITTERS
145 KING ST., SUITE 306
CHARLESTON, SC 29401

EUT DESCRIPTION: BASE UNIT FOR IPOD

MODEL: 006-1000

SERIAL NUMBER: 011-026

DATE TESTED: MARCH 31 – APRIL 2, 2007

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 15 SUBPART C	NO NON-COMPLIANCE NOTED

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. 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 Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

Tested By:



THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

FRANK IBRAHIM
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2 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. The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

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. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Power Line Conducted Emission	+/- 2.9 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

Equipment Type	Transceiver
Fundamental Frequency	915.92 MHz
Power Source	5 VDC, from IPOD battery
Manufacturer	Advanced Bridging Technologies

5.2. SOFTWARE AND FIRMWARE

EUT is modified to transmit continuously if the button is depressed.

5.3. WORST-CASE CONFIGURATION AND MODE

Configuration for digital radiated and conducted emissions was as follows:

Base unit was connected to IPOD and music was played to external speakers. Remote control was placed on the base unit in charging mode.

5.4. DESCRIPTION OF TEST SETUP

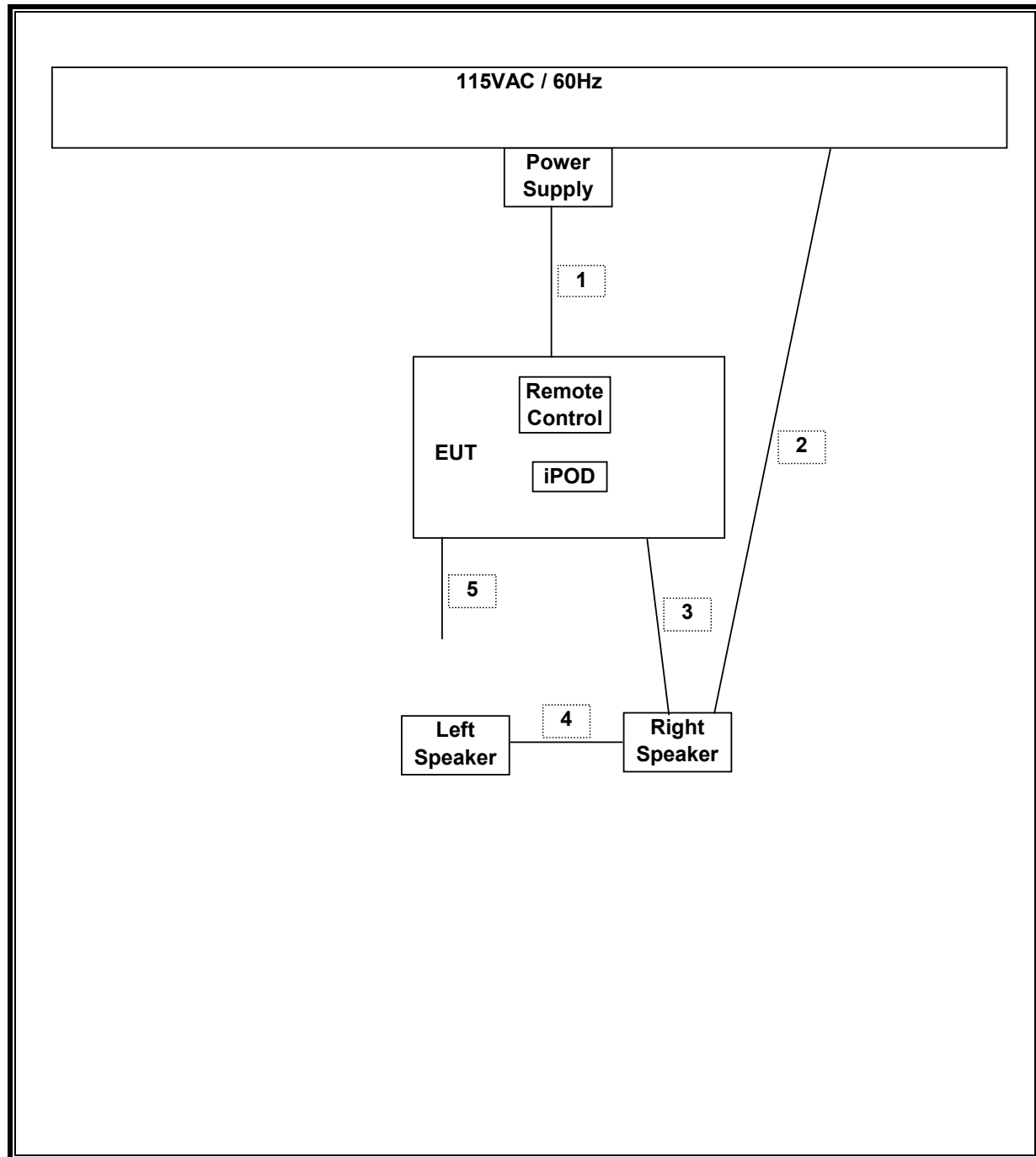
SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
External Speakers	Altec Lansing Technologies	ACS21W	12500FMUS0115991	N/A
iPOD	Apple	A1199	5U636HLAVQ5	DoC
Remote Control	Advanced Bridging Tech.	006-1000	010-024	UIX0702C
Power Supply	CLICK	CPS005B050100U	5	N/A

I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	DC	1	DC	Unshielded	1.7m	N/A
2	AC	1	AC	Unshielded	1.2m	N/A
3	Audio	1	Audio	Unshielded	1.8m	N/A
4	Audio	1	Audio	Unshielded	1.5m	N/A
5	USB	1	USB	Unshielded	0.8m	N/A

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	S/N	Cal Due
Spectrum Analyzer 3Hz - 44GHz	Agilent	E4446A	US42070220	11/26/07
SA RF Section, 1.5 GHz	HP	85680B	2814A04227	01/07/08
SA Display Section 2	HP	85662A	2816A16696	04/07/08
Quasi-Peak Adaptor	HP	85650A	3145A01654	01/21/08
Antenna, Horn 1 - 18 GHz	ETS	3117	29301	04/22/08
Preamplifier 1-26.5 GHz	HP	8449B	3008A00931	08/01/07
Antenna, Bilog 30MHz - 2GHz	Sunol Sciences	JB1	A0022704	08/13/07
Preamplifier	Sonoma Instruments	310N	185623	01/20/08
EMI Test Receiver	R & S	ESHS 20	827129/006	01/27/08
LISN, 10 kHz - 30 MHz	FCC	50/250-25-2	114	09/15/07
LISN, 10 kHz - 30 MHz	Solar	8012-50-R-24-BNC	8379443	09/15/07

7. APPLICABLE LIMITS AND TEST RESULTS

7.1. DUTY CYCLE

LIMITS

None; for reporting purposes only.

RESULTS FOR 802.11b MODE

Tx on = 112.5 mS

Tx on + Tx off = 335 mS

Duty Cycle x = 33.58 %

Duty Cycle Correction Factor = $20 * \log(x) = -9.48$ dB

7.2. RADIATED EMISSIONS

TEST PROCEDURE

ANSI C63.4

The highest clock frequency generated or used in the EUT is 915.92 MHz; therefore the frequency range was investigated from 30 MHz to 9.1592 GHz.

LIMIT

§ 15.249 Operation within the bands 902–928 MHz, 2400–2483.5 MHz, 5725–5875 MHz, and 24.0–24.25 GHz.

(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/ meter)	Field strength of harmonics (microvolts/ meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

Frequency (MHz)	Field strength (microvolts/meter)	Measure- ment dis- tance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 ^{***}	3
88-216	150 ^{***}	3
216-960	200 ^{***}	3
Above 960	500	3

^{***} Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

RESULTS

No non-compliance noted:

7.2.1. FUNDAMENTAL FREQUENCY RADIATED EMISSION

High Frequency Measurement Compliance Certification Services															
Company:		Advanced Bridging Technologies													
Project #:		07U10967													
Date:		04/02/07													
Test Engineer:		Frank Ibrahim													
Configuration:		Base Unit -5 dBm													
Mode:		TX ON													
S/N:		011-026													
f MHz	Dist (m)	Read Pk dBuV	Read Avg dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Ftr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
915.92	3.0	56.77		22.9	3.5	0.0	0.0	0.0	83.17	26.40	94.0		-10.83		V, PK, (RBW=VBW=100kHz)
915.92	3.0	63.00		22.9	3.5	0.0	0.0	0.0	89.40	26.40	94.0		-4.60		H, PK, (RBW=VBW=100kHz)
<div> <div>f</div> <div>Measurement Frequency</div> </div> <div> <div>Amp</div> <div>Preamp Gain</div> </div> <div> <div>Avg Lim</div> <div>Average Field Strength Limit</div> </div> <div> <div>Dist</div> <div>Distance to Antenna</div> </div> <div> <div>D Corr</div> <div>Distance Correct to 3 meters</div> </div> <div> <div>Pk Lim</div> <div>Peak Field Strength Limit</div> </div> <div> <div>Read</div> <div>Analyzer Reading</div> </div> <div> <div>Avg</div> <div>Average Field Strength @ 3 m</div> </div> <div> <div>Avg Mar</div> <div>Margin vs. Average Limit</div> </div> <div> <div>AF</div> <div>Antenna Factor</div> </div> <div> <div>Peak</div> <div>Calculated Peak Field Strength</div> </div> <div> <div>Pk Mar</div> <div>Margin vs. Peak Limit</div> </div> <div> <div>CL</div> <div>Cable Loss</div> </div> <div> <div>HPF</div> <div>High Pass Filter</div> </div>															

7.2.2. DIGITAL RADIATED EMISSIONS

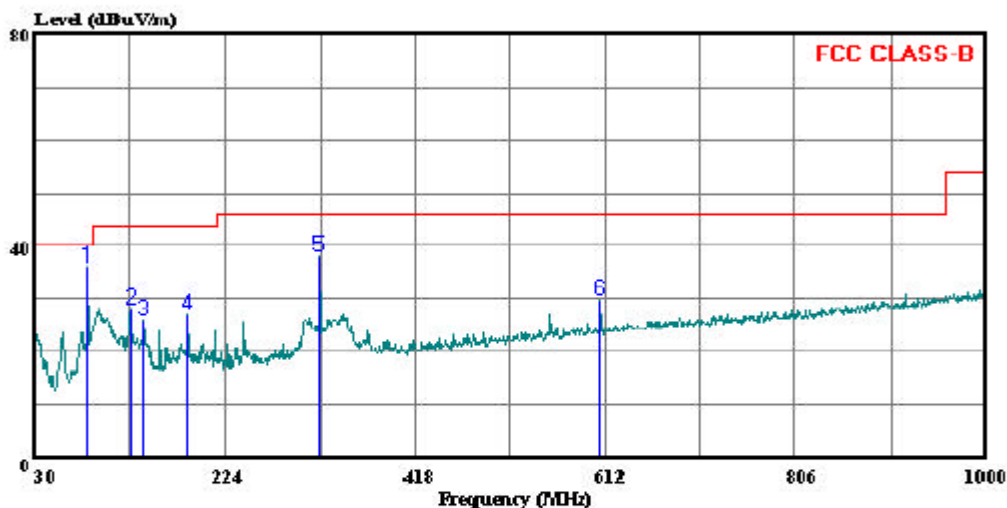
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

Data#: 4 File#: RAD 0331.EMI Date: 03-31-2007 Time: 19:41:32



Trace: 3

Ref Trace:

Condition: FCC CLASS-B 3m A-5M CHAMBER 012007 HORIZONTAL

Test Operator: : Frank Ibrahim

Company: : Advanced Bridging Technologies

Project #: : 07U10967

Configuration: : Base Unit, Remote control, IPOD and
: external speakers

Mode of Operation: : Playing music to external speakers and
: charging remote control

Target: : FCC 15.209

S/N : 011-022

HORIZONTAL DATA

	Freq	Read Level	Probe Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	83.350	59.00	7.95	0.96	31.74	36.17	40.00	-3.83	Peak
2	127.970	44.60	14.00	1.20	31.72	28.08	43.50	-15.42	Peak
3	141.550	42.90	13.64	1.23	31.71	26.06	43.50	-17.44	Peak
4	185.200	45.50	11.78	1.43	31.75	26.96	43.50	-16.54	Peak
5	320.030	53.40	14.37	1.93	31.64	38.06	46.00	-7.94	Peak
6	607.150	39.50	19.38	2.74	31.92	29.70	46.00	-16.30	Peak

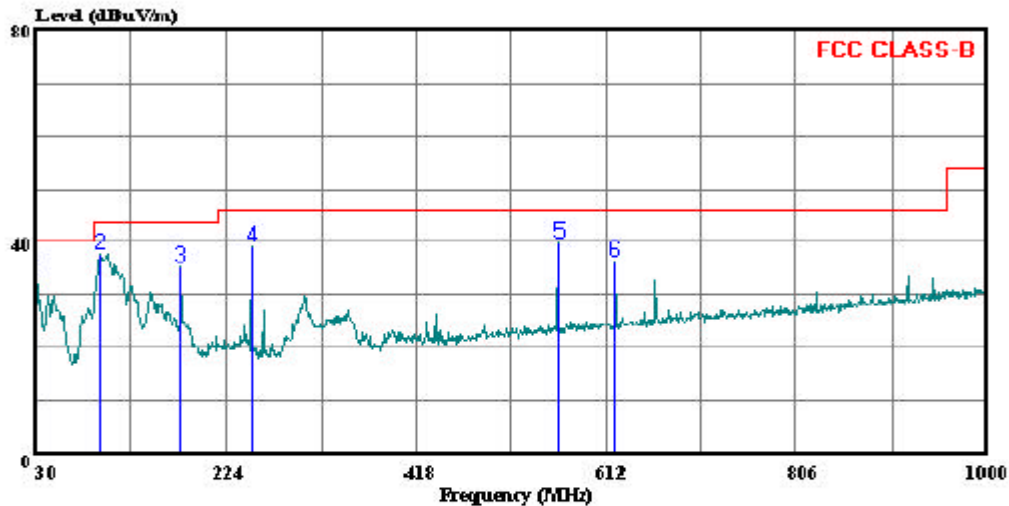
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



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

Data#: 2 File#: RAD 0331.EMI Date: 03-31-2007 Time: 19:32:51



Trace: 1

Ref Trace:

Condition: FCC CLASS-B 3m A-5M CHAMBER 012007 VERTICAL
Test Operator: : Frank Ibrahim
Company: : Advanced Bridging Technologies
Project #: : 07U10967
Configuration: : Base Unit, Remote control, iPod and
: external speakers
Mode of Operation: : Playing music to external speakers and
: charging remote control
Target: : FCC 15.209
S/N : 011-022

VERTICAL DATA

	Freq	Read Level	Probe Factor	Cable Loss	Preamplifier Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	30.970	42.09	22.03	0.62	31.78	32.96	40.00	-7.04	Peak
2	94.990	59.40	8.98	1.01	31.78	37.61	43.50	-5.89	Peak
3	177.440	53.80	11.85	1.39	31.74	35.30	43.50	-8.20	Peak
4	249.220	56.90	12.18	1.68	31.58	39.18	46.00	-6.82	Peak
5	563.500	50.10	18.83	2.59	31.84	39.68	46.00	-6.32	Peak
6	621.700	45.90	19.57	2.72	31.93	36.26	46.00	-9.74	Peak

7.2.3. RADIATED EMISSIONS ABOVE 1 GHz

High Frequency Measurement Compliance Certification Services																
Company:		Advanced Bridging Technologies														
Project #:		07U10967														
Date:		04/02/07														
Test Engineer:		Frank Ibrahim														
Configuration:		Base Unit with IPOD, -5 dBm														
Mode:		TX ON														
S/N:		011-025														
		Duty Cycle:										33.58%				
		Duty Cycle CF (dB):										-9.48				
Test Equipment:																
Horn 1-18GHz			Pre-amplifier 1-26GHz			Pre-amplifier 26-40GHz			Horn > 18GHz			Limit				
T119; S/N: 29301 @3m			T144 Miteq 3008A00931									FCC 15.209				
Hi Frequency Cables																
2 foot cable			3 foot cable			12 foot cable			HPF			Reject Filter			Peak Measurements RBW=VBW=1MHz Average Measurements RBW=1MHz ; VBW=10Hz	
						Gordon 203134001			HPF_1.5GHz							
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Ftr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)	
1.83184	3.0	47.22	37.74	30.9	4.1	-38.3	0.0	0.3	44.24	34.76	74	54	-29.76	-19.24	V	
5.49552	3.0	43.98	34.50	34.1	7.4	-36.4	0.0	0.5	49.63	40.15	74	54	-24.37	-13.85	V	
7.32736	3.0	40.56	31.08	35.2	8.4	-36.2	0.0	0.6	48.56	39.09	74	54	-25.44	-14.91	V	
1.83184	3.0	50.80	41.32	30.9	4.1	-38.3	0.0	0.3	47.82	38.34	74	54	-26.18	-15.66	H	
5.49552	3.0	47.52	38.04	34.1	7.4	-36.4	0.0	0.5	53.17	43.69	74	54	-20.83	-10.31	H	
7.32736	3.0	41.42	31.94	35.2	8.4	-36.2	0.0	0.6	49.42	39.95	74	54	-24.58	-14.05	H	
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									
Note: EUT was scanned from 1 GHz to 10 GHz, no other emissions from EUT were detected above the system noise floor.																

7.3. POWERLINE CONDUCTED EMISSIONS

LIMIT

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator 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 μ H/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 boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The resolution bandwidth is set to 9 kHz for both peak detection and quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

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

RESULTS

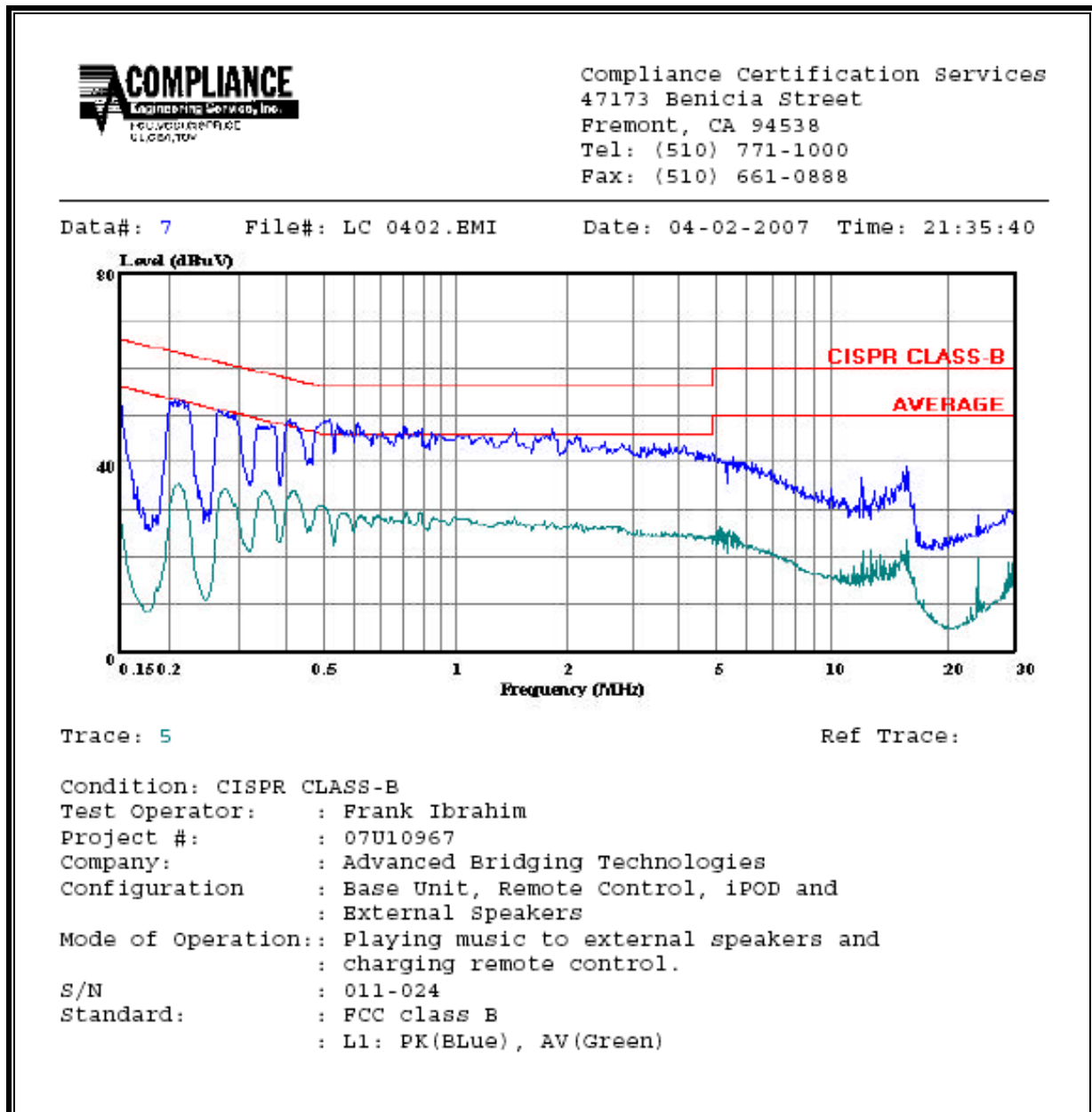
No non-compliance noted:

6 WORST EMISSIONS

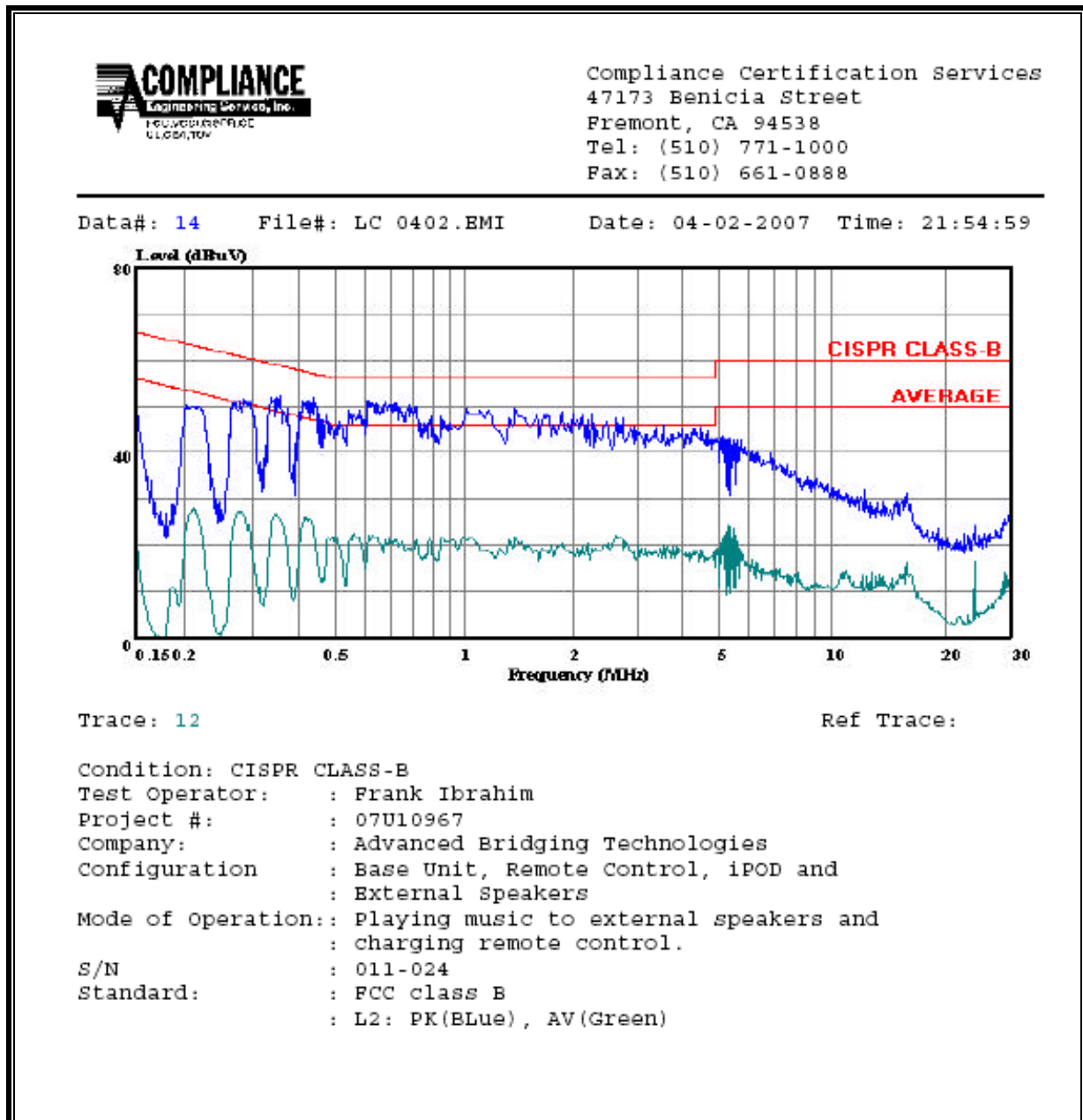
CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.410	49.03	--	34.06	0.00	57.65	47.65	-8.62	-13.59	L1
0.516	49.13	--	28.67	0.00	56.00	46.00	-6.87	-17.33	L1
0.614	48.33	--	28.65	0.00	56.00	46.00	-7.67	-17.35	L1
0.440	51.78	--	25.94	0.00	57.06	47.06	-5.28	-21.12	L2
0.608	51.36	--	22.10	0.00	56.00	46.00	-4.64	-23.90	L2
0.679	50.83	--	21.05	0.00	56.00	46.00	-5.17	-24.95	L2
6 Worst Data									

Base Unit

LINE 1 RESULTS



LINE 2 RESULTS



8. SETUP PHOTOS

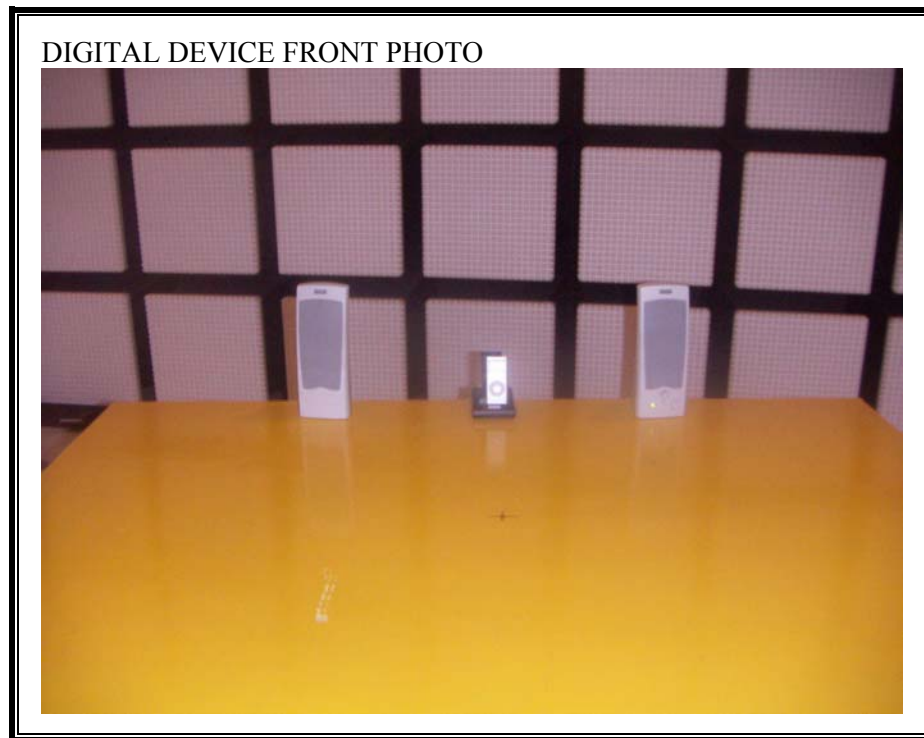
RADIATED RF MEASUREMENT SETUP



RADIATED BACK PHOTO



DIGITAL DEVICE RADIATED EMISSIONS SETUP



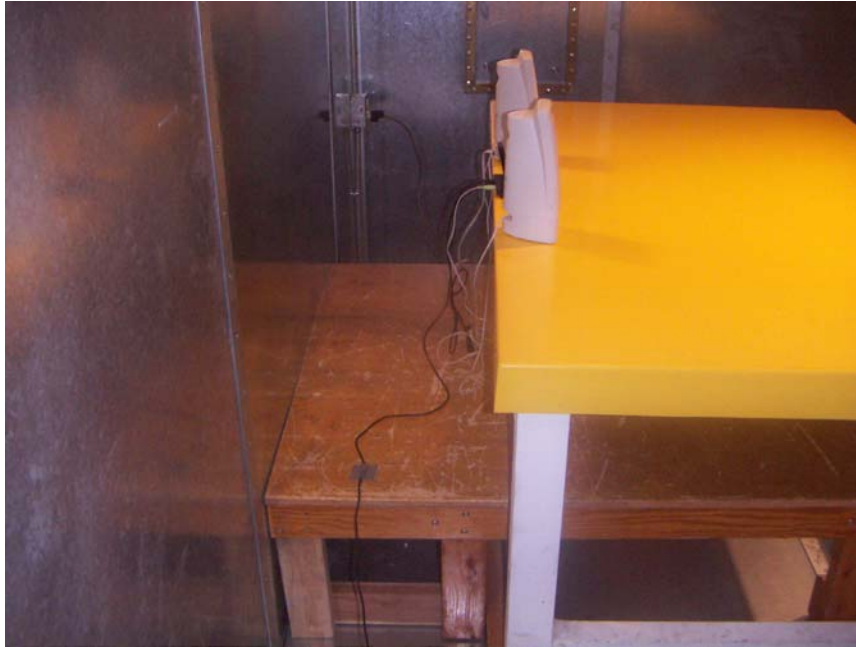
DIGITAL DEVICE BACK PHOTO



POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP



LINE CONDUCTED BACK PHOTO



END OF REPORT