



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

FOR

REMOTE CONTROL FOR IPOD

MODEL NUMBER: 006-1000

FCC ID: UIX0702C

REPORT NUMBER: 07U10967-2

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

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
--	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: REMOTE CONTROL FOR IPOD

MODEL: 006-1000

SERIAL NUMBER: 010-024

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	915.92 MHz Transceiver
Fundamental Frequency	915.92 MHz
Power Source	5 VDC, from 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

The EUT was tested in three orthogonal axes to determine worst orientation, it was found that X orientation is worst one, refer to setup photos for details on the three axes orientations.

This configuration was used for measuring the fundamental, harmonics and other spurious in the frequency range of 30 MHz to 10 GHz.

5.4. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Stand-alone EUT

I/O CABLES

Stand-alone EUT

SETUP DIAGRAM FOR TESTS

Stand-alone EUT

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	Serial Number	Cal Due
Quasi-Peak Adaptor	HP	85650A	2521A01038	01/11/08
SA Display Section 3	HP	85662A	2314A04793	12/17/07
SA RF Section, 1.5 GHz	HP	85680A	2314A02604	06/17/07
Preamplifier, 1300MHz	HP	8447D	2944A06550	08/03/07
Spectrum Analyzer 20 Hz ~ 44 GHz	Agilent	E4446A	US42070220	11/26/07
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	6717	04/22/07
Amplifier 1-26GHz	MITEQ	NSP2600-SP	924342	08/01/07
Antenna, Bilog 30MHz ~ 2GHz	Sunol Sciences	JB1	A0022704	08/13/07

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 = $20 * \log (x) = -9.48 \text{ dB}$

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:		03/31/07													
Test Engineer:		Frank Ibrahim													
Configuration:		Remote Control													
Mode:		TX ON													
S/N:		010-024													
f MHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filtr dB	Peak dBuV/m	Avg dBuV/m	QP Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
915.92	3.0	61.70		22.9	3.5	0.0	0.0	0.0	88.10		94.0		-5.90		V, X orientation
915.92	3.0	52.20		22.9	3.5	0.0	0.0	0.0	78.60		94.0		-15.40		H, X orientation
915.92	3.0	53.90		22.9	3.5	0.0	0.0	0.0	80.30		94.0		-13.70		V, Y orientation
915.92	3.0	60.70		22.9	3.6	0.0	0.0	0.0	87.20		94.0		-6.80		H, Y orientation
915.92	3.0	53.40		22.9	3.5	0.0	0.0	0.0	79.80		94.0		-14.20		V, Z orientation
915.92	3.0	58.00		22.9	3.5	0.0	0.0	0.0	84.40		94.0		-9.60		H, Z orientation
<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

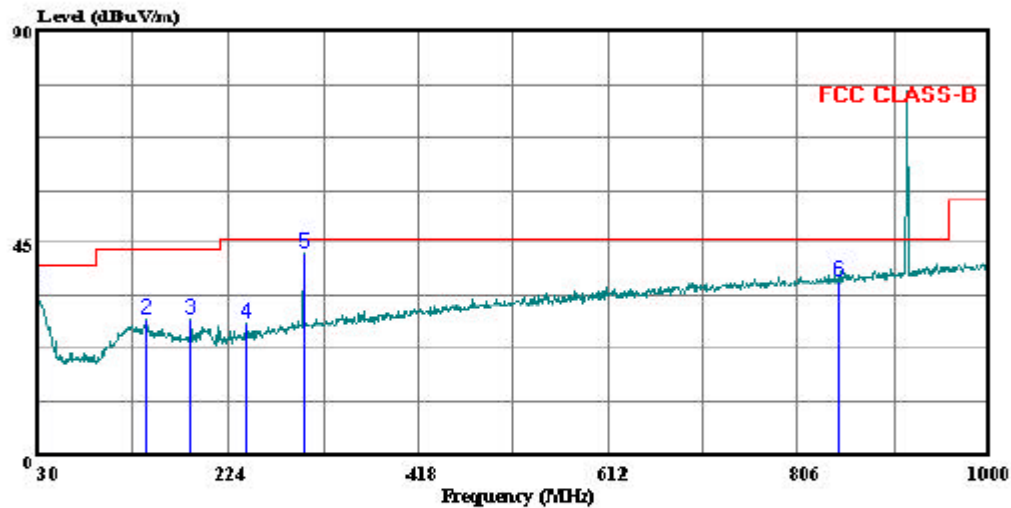
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

Data#: 13 File#: RAD 0331.EMI Date: 03-31-2007 Time: 20:24:11



Trace: 12

Ref Trace:

Condition: FCC CLASS-B 3m A-5M CHAMBER 012007 HORIZONTAL
Test Operator: : Frank Ibrahim
Company: : Advanced Bridging Technologies
Project #: : 07U10967
Configuration: : Remote Control - stand-alone
Mode of Operation: : TX ON
Target: : FCC 15.209
S/N : 010-024

HORIZONTAL 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	30.000	43.20	22.03	0.62	31.78	34.07	40.00	-5.93	Peak
2	141.550	45.80	13.64	1.23	31.71	28.96	43.50	-14.54	Peak
3	185.200	47.30	11.78	1.43	31.75	28.76	43.50	-14.74	Peak
4	242.430	46.00	11.98	1.65	31.65	27.98	46.00	-18.02	Peak
5	301.600	58.60	13.95	1.86	31.61	42.80	46.00	-3.20	Peak
6	847.710	43.10	22.22	3.22	31.54	37.00	46.00	-9.00	Peak

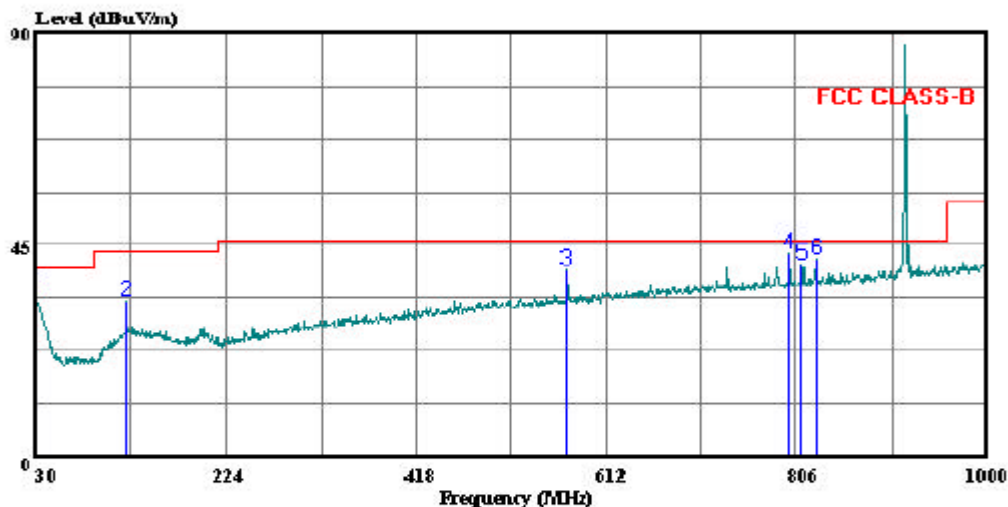
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT



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

Data#: 11 File#: RAD 0331.EMI Date: 03-31-2007 Time: 20:19:16



Trace: 10

Ref Trace:

Condition: FCC CLASS-B 3m A-5M CHAMBER 012007 VERTICAL
Test Operator: : Frank Ibrahim
Company: : Advanced Bridging Technologies
Project #: : 07U10967
Configuration: : Remote Control - stand-alone
Mode of Operation: : TX ON
Target: : FCC 15.209
S/N : 010-024

VERTICAL 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	30.000	43.70	22.03	0.62	31.78	34.57	40.00	-5.43	Peak
2	122.150	49.60	13.92	1.16	31.70	32.98	43.50	-10.52	Peak
3	571.260	49.90	18.93	2.63	31.81	39.65	46.00	-6.35	Peak
4	799.210	50.10	21.69	3.20	31.77	43.23	46.00	-2.77	Peak
5	811.820	47.80	21.83	3.14	31.68	41.09	46.00	-4.91	Peak
6	825.400	48.30	21.98	3.20	31.54	41.94	46.00	-4.06	Peak

7.2.3. RADIATED EMISSIONS ABOVE 1 GHz

High Frequency Measurement Compliance Certification Services																
Company:		Advanced Bridging Technologies														
Project #:		07U10967														
Date:		03/31/07														
Test Engineer:		Frank Ibrahim														
Configuration:		Remote Control														
Mode:		TX ON														
S/N:		010-024														
		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	Filt 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	49.57	40.09	30.9	4.1	-38.3	0.0	0.3	46.59	37.11	74	54	-27.41	-16.89	V	
2.74776	3.0	52.00	42.52	32.2	5.1	-37.4	0.0	0.6	52.45	42.97	74	54	-21.55	-11.03	V	
4.57960	3.0	44.24	34.76	33.6	6.7	-36.5	0.0	0.6	48.55	39.07	74	54	-25.45	-14.93	V	
5.49552	3.0	52.24	42.76	34.1	7.4	-36.4	0.0	0.5	57.89	48.41	74	54	-16.11	-5.59	V	
6.41144	3.0	46.08	36.60	34.8	7.9	-36.3	0.0	0.5	53.03	43.55	74	54	-20.97	-10.45	V	
7.32736	3.0	42.03	32.55	35.2	8.4	-36.2	0.0	0.6	50.03	40.56	74	54	-23.97	-13.44	V	
8.24328	3.0	45.32	35.84	35.3	8.7	-36.3	0.0	0.7	53.79	44.32	74	54	-20.21	-9.68	V	
9.15920	3.0	43.08	33.60	35.8	9.2	-36.7	0.0	0.7	52.04	42.56	74	54	-21.96	-11.44	V	
2.74776	3.0	56.33	46.85	32.2	5.1	-37.4	0.0	0.6	56.78	47.30	74	54	-17.22	-6.70	H	
3.66368	3.0	51.54	42.06	33.0	5.9	-36.9	0.0	0.6	54.14	44.66	74	54	-19.86	-9.34	H	
4.57960	3.0	44.73	35.25	33.6	6.7	-36.5	0.0	0.6	49.04	39.56	74	54	-24.96	-14.44	H	
5.49552	3.0	47.54	38.06	34.1	7.4	-36.4	0.0	0.5	53.19	43.71	74	54	-20.81	-10.29	H	
6.41144	3.0	43.94	34.46	34.8	7.9	-36.3	0.0	0.5	50.89	41.41	74	54	-23.11	-12.59	H	
7.32736	3.0	45.45	35.97	35.2	8.4	-36.2	0.0	0.6	53.45	43.98	74	54	-20.55	-10.02	H	
8.24328	3.0	53.13	43.65	35.3	8.7	-36.3	0.0	0.7	61.60	52.13	74	54	-12.40	-1.87	H	
9.15920	3.0	50.60	41.12	35.8	9.2	-36.7	0.0	0.7	59.56	50.08	74	54	-14.44	-3.92	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.

8. SETUP PHOTOS

RADIATED RF MEASUREMENT SETUP FOR PORTABLE CONFIGURATION



X-AXIS BACK PHOTO



Y-AXIS FRONT PHOTO



Y-AXIS BACK PHOTO



Z-AXIS FRONT PHOTO



Z-AXIS BACK PHOTO



END OF REPORT