FCC PART 15, SUBPART C
IC RSS-210, ISSUE 8, DECEMBER 2010

TEST AND MEASUREMENT REPORT

For

Looxcie, Inc.

1196 Borregas Avenue, Suite 200, Sunnyvale, CA 94089, USA

FCC ID: YJ8-LXQ1
IC: 9087A-LXQ1

Report Type:	**Product Type:**
Class II Permissive Change	SD Camera with Wi-Fi

Prepared By:	Cipher Chu Test Engineer
Report Number:	R1406243-247
Report Date:	2014-08-05
Reviewed By:	Ivan Cao RF Lead

Bay Area Compliance Laboratories Corp.
1274 Anvilwood Avenue,
Sunnyvale, CA 94089, USA
Tel: (408) 732-9162
Fax: (408) 732-9164

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R1406243-247	Class II Permissive Change	2014-08-05

1 General Description

1.1 Product Description for Equipment Under Test (EUT)

This test and measurement report was prepared on behalf of *Looxcie, Inc*., and their product model: *LXQ1*; *FCC ID: YJ8-LXQ1*, IC: 9087A-LXQ1 or the "EUT" as referred to in this report. The EUT is an SD Camera with 802.11b/g Wi-Fi capability.

1.2 Mechanical Description of EUT

The EUT measures approximately 8.5 cm (L) x 1.7 cm (W) x 2.5 cm (H) and weighs 21.5 g.

The test data gathered are from a typical production sample, Serial Number: I95Z21 assigned by BACL.

1.3 Objective

This report is prepared on behalf of *Looxcie, Inc*. in accordance with Part 2, Subpart J, and Part 15, Subparts B and C of the Federal Communication Commission's rules.

The objective is to determine compliance with FCC Part 15.247 and IC RSS-210.

This is a CIIPC application of the device; the differences between the original device and the current one are as follows:

Antenna is changed; the new antenna is an inverted-F element printed on a PCB and uses the ground plane of the PCB.

For the changes mode to the EUT, the Radiated Spurious Emissions test was performed.

1.4 Related Submittal(s)/Grant(s)

Original submission with FCC ID: *YJ8-LXQ1*granted on 2013-09-30.

1.5 Test Methodology

All measurements contained in this report were conducted in accordance with ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz and FCC KDB 558074 D01 DTS Meas Guidance: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247

1.6 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR16-4-2:2011, The Treatment of Uncertainty in EMC Measurements, the values ranging from $\pm$2.0 dB for Conducted Emissions tests and $\pm$4.0 dB for Radiated Emissions tests are the most accurate estimates pertaining to uncertainty of EMC measurements at BACL Corp.

1.7 Test Facility

Bay Area Compliance Laboratories Corp. (BACL) is:

1- An independent Commercial Test Laboratory accredited to **ISO 17025: 2005** by **A2LA**, in the fields of: Electromagnetic Compatibility & Telecommunications covering Emissions, Immunity, Radio, RF Exposure, Safety and Telecom. This includes NEBS (Network Equipment Building System), Wireless RF, Telecommunications Terminal Equipment (TTE); Network Equipment; Information Technology Equipment (ITE); Medical Electrical Equipment; Industrial, Commercial, and Medical Test Equipment; Professional Audio and Video Equipment; Electronic (Digital) Products; Industrial and Scientific Instruments; Cabled Distribution Systems and Energy Efficiency Lighting.

2- An ENERGY STAR Recognized Laboratory, for the LM80 Testing, a wide variety of Luminaires and Computers.

3- A NIST Designated Phase-I and Phase-II CAB including: ACMA (Australian Communication and Media Authority), BSMI (Bureau of Standards, Metrology and Inspection of Taiwan), IDA (Infocomm Development Authority of Singapore), IC (Industry Canada), Korea (Ministry of Communications Radio Research Laboratory), NCC (Formerly DGT; Directorate General of Telecommunication of Chinese Taipei) OFTA (Office of the Telecommunications Authority of Hong Kong), Vietnam, VCCI - Voluntary Control Council for Interference of Japan and a designated EU CAB (Conformity Assessment Body) (Notified Body) for the EMC and R&TTE Directives.

4 - A Product Certification Body accredited to **ISO Guide 65: 1996** by **A2LA** to certify:
1- Unlicensed, Licensed radio frequency devices and Telephone Terminal Equipment for the FCC. Scope A1, A2, A3, A4, B1, B2, B3, B4 & C.
2. Radio Standards Specifications (RSS) in the Category I Equipment Standards List and All Broadcasting Technical Standards (BETS) in Category I Equipment Standards List for Industry Canada.
3. Radio Communication Equipment for Singapore.
4. Radio Equipment Specifications, GMDSS Marine Radio Equipment Specifications, and Fixed Network Equipment Specifications for Hong Kong.
5. Japan MIC Telecommunication Business Law (A1, A2) and Radio Law (B1, B2 and B3).
6. Audio/Video, Battery Charging Systems, Computers, Displays, Enterprise Servers, Imaging Equipment, Set-Top Boxes, Telephony, Televisions, Ceiling Fans, CFLs (including GU24s), Decorative Light Strings, Integral LED Lamps, Luminaires, Residential Ventilating Fans.

The test site used by BACL Corp. to collect radiated and conducted emissions measurement data is located at its facility in Sunnyvale, California, USA.

The test site at BACL Corp. has been fully described in reports submitted to the Federal Communication Commission (FCC) and Voluntary Control Council for Interference (VCCI). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 11 and December 10, 1997, and Article 8 of the VCCI regulations on December 25, 1997. The test site also complies with the test methods and procedures set forth in CISPR 22:2008 §10.4 for measurements below 1 GHz and §10.6 for measurements above 1 GHz, as well as ANSI C63.4-2009, ANSI C63.4-2009, TIA/EIA-603 & CISPR 24:2010.

The Federal Communications Commission and Voluntary Control Council for Interference have the reports on file and they are listed under FCC registration number: 90464 and VCCI Registration No.: A-0027. The test site has been approved by the FCC and VCCI for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, BACL Corp. is an American Association for Laboratory Accreditation (A2LA) accredited laboratory (Lab Code 3297-02). The current scope of accreditations can be found at

http://www.a2la.org/scopepdf/3297-02.pdf?CFID=1132286&CFTOKEN=e42a3240dac3f6ba-6DE17DCB-1851-9E57-477422F667031258&jsessionid=8430d44f1f47cf2996124343c704b367816b

2 System Test Configuration

2.1 Justification

The EUT was configured for testing according to ANSI C63.4-2009 and FCC KDB 558074 D01 DTS Meas Guidance v03r01.

The EUT was tested in a testing mode to represent worst-case results during the final qualification test.

2.2 EUT Exercise Software

The test utility used was *yugicon* and was provided by Looxcie, Inc., and was verified Cipher Chu to comply with the standard requirements being tested against.

2.3 Special Equipment

There were no special accessories were required, included, or intended for use with EUT during these tests.

2.4 Equipment Modifications

No modifications were made to the EUT.

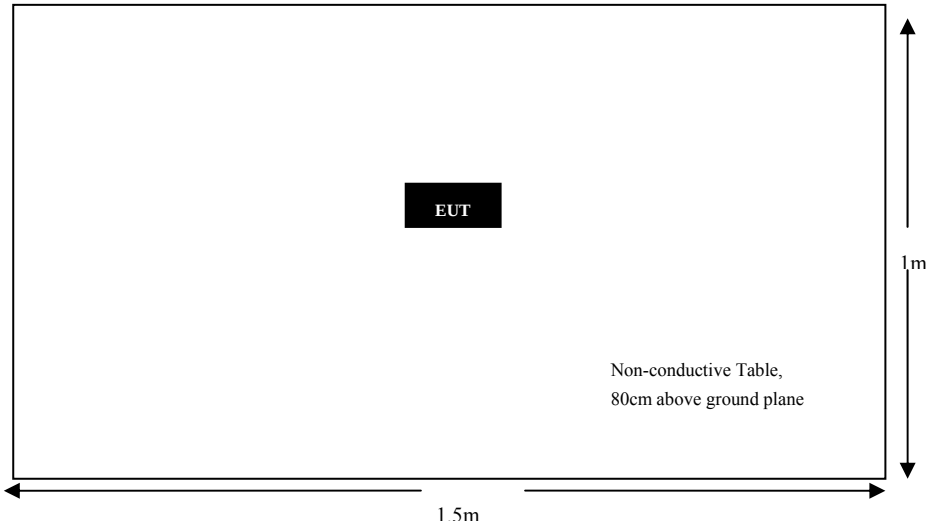
2.5 Local Support Equipment

Manufacturer	Description	Model	Serial Number
Lenovo	Laptop	G550	CBU2109946

2.6 EUT Internal Configuration Details

Manufacturer	Description	Model	Serial Number
Looxcie	PCB board	31-2026-00 Rev 2	-
SYNergy	Battery	AHB541262PS-01	-

2.7 Test Setup Block Diagram



3 Summary of Test Results

Results reported relate only to the product tested.

FCC & IC Rules	Description of Test	Results
FCC §15.247(i), §2.1093 IC RSS-102	RF Exposure	Compliant
FCC §15.203 IC RSS-Gen §7.1.2	Antenna Requirement	Compliant
FCC §15.207(a) IC RSS-Gen §7.2.4	AC Line Conducted Emissions	Compliant*
FCC §15.247 (d) IC RSS-210 §A8.5	Spurious Emissions at Antenna Port	Compliant*
FCC §15.205 IC RSS-210 §2.2	Restricted Bands	Compliant*
FCC §15.209, §15.247 (d) IC RSS-210 §A8.5	Radiated Spurious Emissions	Compliant
FCC §15.247(a)(2) IC RSS-210 §A8.2	6 dB Emission Bandwidth	Compliant*
FCC §15.247(b)(3) IC RSS-210 §A8.4	Maximum Peak Output Power	Compliant*
FCC §15.247(d) IC RSS-210 §A8.5	100 kHz Bandwidth of Frequency Band Edge	Compliant*
FCC §15.247(e) IC RSS-210 §A8.2(b)	Power Spectral Density	Compliant*

Note: Compliance*, Please referred to FCC ID: *YJ8-LXQ1granted on 2013-09-30, report No.:* R1308012-247, which was tested by Bay Area Compliance Laboratories Corp.

4 FCC §15.247 (i), §2.1093 & IC RSS-102 – RF Exposure

4.1 Applicable Standards

According to FCC §15.247(i), §2.1093

4.2 SAR Exemption Guidelines

According to FCC KDB 447498, § 4.3.1

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

   [(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,[25] where

   - $f_{(GHz)}$ is the RF channel transmit frequency in GHz
   - Power and distance are rounded to the nearest mW and mm before calculation[26]
   - The result is rounded to one decimal place for comparison
   - 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

   The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

According to RSS-102 §2.5.1

SAR evaluation is required if the separation distance between the user and the radiating element of the device is less than or equal to 20 cm, except when the device operates as follows:

Above 2.2 GHz and up to 3 GHz inclusively, and with output power (i.e. the higher of the conducted or radiated (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 20 mW for general public use and 100 mW for controlled use;

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the output power of the device was derived.

4.3 Evaluation Result

The maximum conducted output power of this device is 2.62 dBm=1.82 mW, the antenna gain is 0dBi, the maximum e.i.r.p. less than 20mW for IC,

And

[(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$]=(1.83/5)*(√2.462)=0.57<3 for FCC.

So SAR evaluation is not required.

5 FCC §15.203 & IC RSS-Gen §7.1.2 – Antenna Requirements

5.1 Applicable Standards

According to FCC §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

And according to FCC §15.247 (b) (4), if transmitting antennas of directional gain greater than 6 dBi are used the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to IC RSS-Gen §7.1.2: Transmitter Antenna

A transmitter can only be sold or operated with antennas with which it was certified. A transmitter may be certified with multiple antenna types. An antenna type comprises antennas having similar in-band and out-of-band radiation patterns. Testing shall be performed using the highest-gain antenna of each combination of transmitter and antenna type for which certification is being sought, with the transmitter output power set at the maximum level. Any antenna of the same type and having equal or lesser gain as an antenna that had been successfully tested for certification with the transmitter, will also be considered certified with the transmitter, and may be used and marketed with the transmitter. The manufacturer shall include with the application for certification a list of acceptable antenna types to be used with the transmitter.

When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on measurement or on data from the antenna manufacturer. Any antenna gain in excess of 6 dBi (6 dB above isotropic gain) shall be added to the measured RF output power before using the power limits specified in RSS-210 or RSS-310 for devices of RF output powers of 10 mW or less. For devices of output powers greater than 10 mW, except devices subject to RSS-210 Annex 8 (Frequency Hopping and Digital Modulation Systems Operating in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz Bands) or RSS-210 Annex 9 (Local Area Network Devices), the total antenna gain shall be added to the measured RF output power before using the specified power limits. For devices subject to RSS-210 Annex 8 or Annex 9, the antenna gain shall not be added.

5.2 Antenna List

Manufacturers	Antenna Type/Pattern	Antenna Gain (dBi) @ 2.4 GHz
Looxcie	Internal	0

The antenna consists of non-standard (UFL) connectors with less 6 dBi gain; therefore, it complies with the antenna requirement.

6 FCC §15.205, §15.209 & §15.247(d) & IC RSS-210 §A8.5 – Spurious Radiated Emissions

6.1 Applicable Standards

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz.

As per FCC §15.209(a) and RSS-210: Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table.

Frequency (MHz)	Field Strength (micro volts/meter)	Measurement Distance (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., Sections 15.231 and 15.241.

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423	960 – 1240	4. 5 – 5. 15
0.495 – 0.505	16.69475 – 16.69525	1300 – 1427	5. 35 – 5. 46
2.1735 – 2.1905	25.5 – 25.67	1435 – 1626.5	7.25 – 7.75
4.125 – 4.128	37.5 – 38.25	1645.5 – 1646.5	8.025 – 8.5
4.17725 – 4.17775	73 – 74.6	1660 – 1710	9.0 – 9.2
4.20725 – 4.20775	74.8 – 75.2	1718.8 – 1722.2	9.3 – 9.5
6.215 – 6.218	108 – 121.94	2200 – 2300	10.6 – 12.7
6.26775 – 6.26825	123 – 138	2310 – 2390	13.25 – 13.4
6.31175 – 6.31225	149.9 – 150.05	2483.5 – 2500	14.47 – 14.5
8.291 – 8.294	156.52475 – 156.52525	2690 – 2900	15.35 – 16.2
8.362 – 8.366	156.7 – 156.9	3260 – 3267	17.7 – 21.4
8.37625 – 8.38675	162.0125 –167.17	3.332 – 3.339	22.01 – 23.12
8.41425 – 8.41475	167.72 – 173.2	3 3458 – 3 358	23.6 – 24.0
12.29 – 12.293	240 – 285	3.600 – 4.400	31.2 – 31.8
12.51975 – 12.52025	322 – 335.4		36.43 – 36.5
12.57675 – 12.57725	399.9 – 410		Above 38.6
13.36 – 13.41	608 – 614		

As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

As per IC RSS-210 A8.5 Out-of-band Emissions, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section A8.4 (4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

6.2 Test Setup

The radiated emissions tests were performed in the 5-meter Chamber, using the setup in accordance with ANSI C63.4-2009. The specification used was the FCC 15C and IC RSS-210/RSS-Gen limits.

The spacing between the peripherals was 3 centimeters.
External I/O cables were draped along the edge of the test table and bundle when necessary.

6.3 Test Procedure

The measurements are based on FCC KDB 558074 D01 DTS Meas Guidance v03r01: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 section 11: Emissions in non-restricted frequency bands and section 12: Emissions in restricted frequency bands. As well as ANSI C63.4: 2009 as described below:

For the radiated emissions test, the EUT host, and all support equipment power cords was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 meter, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

The spectrum analyzer or receiver is set as:

Below 1000 MHz:

RBW = 100 kHz / VBW = 300 kHz / Sweep = Auto

Above 1000 MHz:

(1) Peak: RBW = 1MHz / VBW = 1MHz / Sweep = Auto
(2) Average: RBW = 1MHz / VBW = 10Hz / Sweep = Auto

6.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude (CA) is calculated by adding the Antenna Factor (AF), the Cable Loss (CL), the Attenuator Factor (Atten) and subtracting the Amplifier Gain (Ga) to indicated Amplitude (Ai) reading. The basic equation is as follows:

CA = Ai + AF + CL + Atten – Ga

For example, a corrected amplitude of 40.3 dBuV/m = Indicated Reading (32.5 dBuV) + Antenna Factor (+23.5dB) + Cable Loss (3.7 dB) + Attenuator (10 dB) - Amplifier Gain (29.4 dB)

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the maximum limit. The equation for margin calculation is as follows:

Margin = Corrected Amplitude - Limit

6.5 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Sunol Science Corp	System Controller	SC99V	122303-1	N/R	N/R
Sunol Science Corp	Combination Antenna	JB3	A020106-3	2013-07-11	1 year
Hewlett Packard	Pre-amplifier	8447D	2944A04374	2014-06-09	1 year
Mini-Circuits	Pre-amplifier	ZVA-183-S	570400946	2013-09-09	1 year
Agilent	Spectrum Analyzer	E4446A	US44300386	2013-10-22	1 year
EMCO	Horn Antenna	3115	9511-4627	2014-01-06	1 year
Rohde & Schwarz	EMI Test Receiver	ESCI 1166.5950K03	100337	2013-07-28	1 year

Statement of Traceability: BACL *attests that all calibrations have been performed per the A2LA requirements, traceable to NIST.*

6.6 Test Environmental Conditions

Temperature:	24 ºC
Relative Humidity:	44 %
ATM Pressure:	101.7 kPa

The testing was performed by Cipher Chu on 2014-07-11 in 5 m chamber 3.

6.7 Summary of Test Results

According to the data hereinafter, the EUT complied with the FCC Title 47, Part 15C and IC RSS-210 standard's radiated emissions limits, and had the worst margin of:

30-1000 MHz:

Mode: Transmitting			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Mode, Channel**
-18.52	307.947	Horizontal	802.11 b mode

1–25 GHz:

Mode: Transmitting			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Mode, Channel**
-1.013	4924	Horizontal	802.11 b mode High Channel

Please refer to the following table and plots for specific test result details.

6.8 Radiated Spurious Emissions Test Data

1) 30 MHz–1 GHz, Measured at 3 meters, Quasi-Peak Measurements

802.11b mode

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
30.40725	15.73	101	H	360	40	-24.27
475.3753	17.47	164	H	355	46	-28.53
307.947	27.48	100	H	340	46	-18.52
966.407	20.1	269	V	73	54	-33.9

802.11g mode

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
63.307	16.31	200	H	0	40	-23.69
36.445	15.98	400	V	0	40	-24.02
130.395	20.03	200	H	0	43.5	-23.47
993.24	21.2	200	H	0	54	-32.8

2) 1–25 GHz, Measured at 3 meters

802.11b mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 2412 MHz, measured at 3 meters											
2412	47.57	353	100	V	28.956	3.12	0	79.646	-	-	Peak
2412	51.36	38	110	H	28.956	3.12	0	83.436	-	-	Peak
2412	42.98	353	100	V	28.956	3.12	0	75.056	-	-	Ave
2412	47.18	38	110	H	28.956	3.12	0	79.256	-	-	Ave
2390	26.4	0	100	V	28.956	3.12	0	58.476	74	-15.524	Peak
2390	26.54	0	100	H	28.956	3.12	0	58.616	74	-15.384	Peak
2390	12.43	0	100	V	28.956	3.12	0	44.506	54	-9.494	Ave
2390	12.41	0	100	H	28.956	3.12	0	44.486	54	-9.514	Ave
4824	45.63	23	100	V	33.097	4.56	27.7	55.587	74	-18.413	Peak
4824	44.51	317	100	H	33.097	4.56	27.7	54.467	74	-19.533	Peak
4824	39.94	23	100	V	33.097	4.56	27.7	49.897	54	-4.103	Ave
4824	39.03	317	100	H	33.097	4.56	27.7	48.987	54	-5.013	Ave
7236	32.49	0	100	V	35.928	5.49	27.58	46.328	74	-27.672	Peak
7236	33.57	0	100	H	35.928	5.49	27.58	47.408	74	-26.592	Peak
7236	18.18	0	100	V	35.928	5.49	27.58	32.018	54	-21.982	Ave
7236	18.12	0	100	H	35.928	5.49	27.58	31.958	54	-22.042	Ave
9648	32.47	0	100	V	37.954	6.54	27.06	49.904	74	-24.096	Peak
9648	31.51	0	100	H	37.954	6.54	27.06	48.944	74	-25.056	Peak
9648	20.27	0	100	V	37.954	6.54	27.06	37.704	54	-16.296	Ave
9648	20.99	0	100	H	37.954	6.54	27.06	38.424	54	-15.576	Ave
Middle Channel 2437 MHz, measured at 3 meters											
2437	49.26	334	100	V	28.956	3.12	0	81.336	-	-	Peak
2437	55.66	35	107	H	28.956	3.12	0	87.736	-	-	Peak
2437	44.95	334	100	V	28.956	3.12	0	77.026	-	-	Ave
2437	51.51	35	107	H	28.956	3.12	0	83.586	-	-	Ave
4874	46.12	23	100	V	33.327	4.54	27.76	56.227	74	-17.773	Peak
4874	46.48	317	100	H	33.327	4.54	27.76	56.587	74	-17.413	Peak
4874	41.33	23	100	V	33.327	4.54	27.76	51.437	54	-2.563	Ave
4874	41.44	317	100	H	33.327	4.54	27.76	51.547	54	-2.453	Ave
7311	32.37	0	100	V	36.369	5.57	27.51	46.799	74	-27.201	Peak
7311	33.07	0	100	H	36.369	5.57	27.51	47.499	74	-26.501	Peak
7311	17.39	0	100	V	36.369	5.57	27.51	31.819	54	-22.181	Ave
7311	17.16	0	100	H	36.369	5.57	27.51	31.589	54	-22.411	Ave
9748	33.02	0	100	V	38.087	6.62	26.98	50.747	74	-23.253	Peak
9748	32.32	0	100	H	38.087	6.62	26.98	50.047	74	-23.953	Peak
9748	23.41	0	100	V	38.087	6.62	26.98	41.137	54	-12.863	Ave
9748	23.51	0	100	H	38.087	6.62	26.98	41.237	54	-12.763	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 2462 MHz, measured at 3 meters											
2462	46.66	354	122	V	29.155	3.25	0	79.065	-	-	Peak
2462	53.06	37	123	H	29.155	3.25	0	85.465	-	-	Peak
2462	42.35	354	122	V	29.155	3.25	0	74.755	-	-	Ave
2462	48.91	37	123	H	29.155	3.25	0	81.315	-	-	Ave
2483.5	26.34	0	100	V	29.155	3.25	0	58.745	74	-15.255	Peak
2483.5	26.81	0	100	H	29.155	3.25	0	59.215	74	-14.785	Peak
2483.5	12.56	0	100	V	29.155	3.25	0	44.965	54	-9.035	Ave
2483.5	12.53	0	100	H	29.155	3.25	0	44.935	54	-9.065	Ave
4924	48.05	23	100	V	33.327	4.52	27.75	58.147	74	-15.853	Peak
4924	47.49	317	100	H	33.327	4.52	27.75	57.587	74	-16.413	Peak
4924	42.66	23	100	V	33.327	4.52	27.75	52.757	54	-1.243	Ave
4924	42.89	317	100	H	33.327	4.52	27.75	52.987	54	-1.013	Ave
7386	32.54	0	100	V	36.565	5.62	27.51	47.215	74	-26.785	Peak
7386	31.75	0	100	H	36.565	5.62	27.51	46.425	74	-27.575	Peak
7386	17.41	0	100	V	36.565	5.62	27.51	32.085	54	-21.915	Ave
7386	17.13	0	100	H	36.565	5.62	27.51	31.805	54	-22.195	Ave
9848	34.16	0	100	V	38.287	6.55	26.98	52.017	74	-21.983	Peak
9848	33.61	0	100	H	38.287	6.55	26.98	51.467	74	-22.533	Peak
9848	23.72	0	100	V	38.287	6.55	26.98	41.577	54	-12.423	Ave
9848	23.75	0	100	H	38.287	6.55	26.98	41.607	54	-12.393	Ave

802.11g mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 2412 MHz, measured at 3 meters											
2412	48.18	353	100	V	28.956	3.12	0	80.256	-	-	Peak
2412	54.62	38	110	H	28.956	3.12	0	86.696	-	-	Peak
2412	36.13	353	100	V	28.956	3.12	0	68.206	-	-	Ave
2412	42.32	38	110	H	28.956	3.12	0	74.396	-	-	Ave
2390	26.53	0	100	V	28.956	3.12	0	58.606	74	-15.394	Peak
2390	26.1	0	100	H	28.956	3.12	0	58.176	74	-15.824	Peak
2390	12.33	0	100	V	28.956	3.12	0	44.406	54	-9.594	Ave
2390	12.41	0	100	H	28.956	3.12	0	44.486	54	-9.514	Ave
4824	35.86	0	100	V	33.097	4.56	27.7	45.817	74	-28.183	Peak
4824	35.46	0	100	H	33.097	4.56	27.7	45.417	74	-28.583	Peak
4824	21.89	0	100	V	33.097	4.56	27.7	31.847	54	-22.153	Ave
4824	21.34	0	100	H	33.097	4.56	27.7	31.297	54	-22.703	Ave
7236	32.73	0	100	V	35.928	5.49	27.58	46.568	74	-27.432	Peak
7236	32.5	0	100	H	35.928	5.49	27.58	46.338	74	-27.662	Peak
7236	17.72	0	100	V	35.928	5.49	27.58	31.558	54	-22.442	Ave
7236	17.55	0	100	H	35.928	5.49	27.58	31.388	54	-22.612	Ave
9648	32.81	92	100	V	37.954	6.54	27.06	50.244	74	-23.756	Peak
9648	33.6	58	108	H	37.954	6.54	27.06	51.034	74	-22.966	Peak
9648	22.28	92	100	V	37.954	6.54	27.06	39.714	54	-14.286	Ave
9648	22.49	58	108	H	37.954	6.54	27.06	39.924	54	-14.076	Ave
Middle Channel 2437 MHz, measured at 3 meters											
2437	48.88	355	100	V	28.956	3.12	0	80.956	-	-	Peak
2437	54.33	34	110	H	28.956	3.12	0	86.406	-	-	Peak
2437	36.92	355	100	V	28.956	3.12	0	68.996	-	-	Ave
2437	42.83	34	110	H	28.956	3.12	0	74.906	-	-	Ave
4874	32.89	0	100	V	33.327	4.54	27.76	42.997	74	-31.003	Peak
4874	33.01	0	100	H	33.327	4.54	27.76	43.117	74	-30.883	Peak
4874	18.04	0	100	V	33.327	4.54	27.76	28.147	54	-25.853	Ave
4874	18.09	0	100	H	33.327	4.54	27.76	28.197	54	-25.803	Ave
7311	32.32	0	100	V	36.369	5.57	27.51	46.749	74	-27.251	Peak
7311	32.44	0	100	H	36.369	5.57	27.51	46.869	74	-27.131	Peak
7311	17.38	0	100	V	36.369	5.57	27.51	31.809	54	-22.191	Ave
7311	17.26	0	100	H	36.369	5.57	27.51	31.689	54	-22.311	Ave
9748	31.06	0	100	V	38.087	6.62	26.98	48.787	74	-25.213	Peak
9748	30.79	0	100	H	38.087	6.62	26.98	48.517	74	-25.483	Peak
9748	15.93	0	100	V	38.087	6.62	26.98	33.657	54	-20.343	Ave
9748	15.9	0	100	H	38.087	6.62	26.98	33.627	54	-20.373	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 2462 MHz, measured at 3 meters											
2462	50.1	355	100	V	29.155	3.25	0	82.505	-	-	Peak
2462	55.76	37	113	H	29.155	3.25	0	88.165	-	-	Peak
2462	38.29	355	100	V	29.155	3.25	0	70.695	-	-	Ave
2462	44.56	37	113	H	29.155	3.25	0	76.965	-	-	Ave
2483.5	26.4	0	100	V	29.155	3.25	0	58.805	74	-15.195	Peak
2483.5	26.38	0	100	H	29.155	3.25	0	58.785	74	-15.215	Peak
2483.5	12.65	0	100	V	29.155	3.25	0	45.055	54	-8.945	Ave
2483.5	12.6	0	100	H	29.155	3.25	0	45.005	54	-8.995	Ave
4924	36.79	0	100	V	33.327	4.52	27.75	46.887	74	-27.113	Peak
4924	36.33	0	100	H	33.327	4.52	27.75	46.427	74	-27.573	Peak
4924	22.85	0	100	V	33.327	4.52	27.75	32.947	54	-21.053	Ave
4924	22.12	0	100	H	33.327	4.52	27.75	32.217	54	-21.783	Ave
7386	32.05	0	100	V	36.565	5.62	27.51	46.725	74	-27.275	Peak
7386	32.17	0	100	H	36.565	5.62	27.51	46.845	74	-27.155	Peak
7386	17.38	0	100	V	36.565	5.62	27.51	32.055	54	-21.945	Ave
7386	17.23	0	100	H	36.565	5.62	27.51	31.905	54	-22.095	Ave
9848	34.34	0	100	V	38.287	6.55	26.98	52.197	74	-21.803	Peak
9848	33.27	0	100	H	38.287	6.55	26.98	51.127	74	-22.873	Peak
9848	25.18	0	100	V	38.287	6.55	26.98	43.037	54	-10.963	Ave
9848	25.37	0	100	H	38.287	6.55	26.98	43.227	54	-10.773	Ave