



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

FOR

LABEL DEACTIVATOR

MODEL NUMBER: WG LynX

FCC ID: P9I-WGLYNX

REPORT NUMBER: 08U11968-1A

ISSUE DATE: SEPTEMBER 18, 2008

Prepared for
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NVLAP[®]

NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue	Revisions	Revised By
--	09/03/08	Initial Issue	F. Ibrahim
A	09/18/08	Added FCC ID to report	A. Zaffar

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: WG SECURITY PRODUCTS, INC.
3031 TISCH WAY, SUITE 602
SAN JOSE, CA 95128, U.S.A.

EUT DESCRIPTION: LABEL DEACTIVATOR

MODEL: WG LynX

SERIAL NUMBER: 02181

DATE TESTED: JULY 15-16, 2008

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:



FRANK IBRAHIM
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

Tested By:



THANH NGUYEN
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003.

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.cesemc.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

The EUT is a distance deactivator designed for deactivating 58 kHz acousto-magnetic labels.

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integral loop coil antenna, with a size of 35x113x105 mm

5.3. SOFTWARE AND FIRMWARE

Not Applicable.

5.4. WORST-CASE CONFIGURATION AND MODE

The EUT consists of a controller box and an antenna box.

The EUT, once powered, will start transmitting the 58 kHz signal, so there is only one operating mode.

5.5. DESCRIPTION OF TEST SETUP

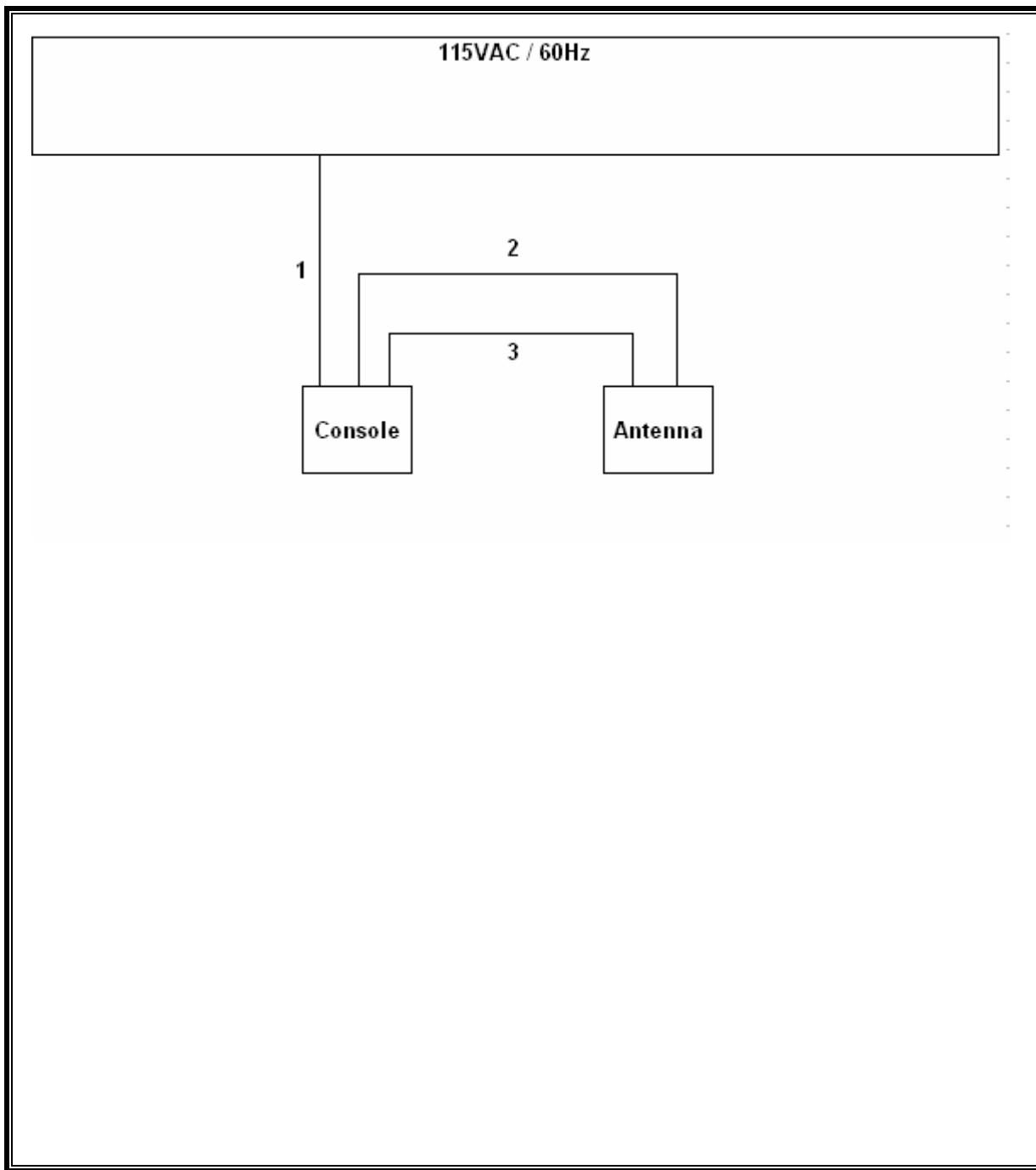
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	1	IEC-320	Unshielded	1.5m	N/A
2	ANT1	1	Hardwired	Shielded	1.5m	N/A
3	ANT2	1	Hardwired	Shielded	1.5m	N/A

TEST SETUP

The EUT consists of a controller box and an antenna box.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	Cal Due
EMI Receiver, 9 kHz ~ 2.9 GHz	Agilent / HP	8542E	3942A00286	09/19/09
RF Filter Section	Agilent / HP	85420E	3705A00256	09/19/09
Antenna, Loop 9 kHz ~ 30 MHz	EMCO	6502	9202-2722	10/24/08
Antenna, Bilog 30 MHz ~ 2 Ghz	Sunol Sciences	JB1	A0022704	09/29/08
LISN, 10 kHz ~ 30 MHz	FCC	LISN-50/250-25-2	2023	10/25/08
EMI Test Receiver	R & S	ESHS 20	827129/006	08/06/09
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	11/30/08

7. APPLICABLE LIMITS AND TEST RESULTS

7.1. RADIATED EMISSIONS

TEST PROCEDURE

ANSI C63.4

The EUT is an intentional radiator that incorporates a digital device, the operating frequency generated and transmitted by the EUT is 58 kHz.

Frequency range was investigated from 9 kHz to 1000 MHz.

LIMIT

§15.209 (a) 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 (microvolts/meter)	Measurement Distance (m)
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 to 216	150	3
216 to 960	200	3
Above 960 MHz	500	3

Note: The lower limit shall apply at the transition frequency.

RESULTS

SPURIOUS EMISSIONS 0.15 TO 30 MHz (WORST-CASE CONFIGURATION)

FCC Part 15, Subpart B & C 3 Meter Distance Measurement At Open Field												
Frequency (MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	AF dB/m	Distance Correction (dB)	PK Corrected Reading (dBuV/m)	AV Corrected Reading (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	PK Margin (dB)	AV Margin (dB)	Notes
Face On:												
0.058	83.05			11.06	-80.00	14.11		52.34	32.34	-38.2	-18.2	3m distance
0.116	60.60			10.49	-80.00	-8.91		46.32	26.32	-55.2	-35.2	3m distance
0.174	56.66			10.44	-80.00	-12.90		42.79	22.79	-55.7	-35.7	3m distance
0.232	48.13			10.4	-80.00	-21.47		40.29	20.29	-61.8	-41.8	3m distance
0.290	40.36			10.36	-80.00	-29.28		38.36	18.36	-67.6	-47.6	3m distance
0.348	38.67			10.31	-80.00	-31.02		36.77	16.77	-67.8	-47.8	3m distance
0.406	38.68			10.27	-80.00	-31.05		35.43	15.43	-66.5	-46.5	3m distance
0.464	39.56			10.23	-80.00	-30.21		34.27	14.27	-64.5	-44.5	3m distance
Face Off:												
0.058	69.5			11.06	-80.00	0.56		52.34	32.34	-51.8	-31.8	3m distance
0.116	58.67			10.49	-80.00	-10.84		46.32	26.32	-57.2	-37.2	3m distance
0.174	47.45			10.44	-80.00	-22.11		42.79	22.79	-64.9	-44.9	3m distance
0.232	47.8			10.40	-80.00	-21.80		40.29	20.29	-62.1	-42.1	3m distance
0.290	42.46			10.36	-80.00	-27.18		38.36	18.36	-65.5	-45.5	3m distance
0.348	41.78			10.31	-80.00	-27.91		36.77	16.77	-64.7	-44.7	3m distance
0.406	40.47			10.27	-80.00	-29.26		35.43	15.43	-64.7	-44.7	3m distance
0.464	39.67			10.23	-80.00	-30.10		34.27	14.27	-64.4	-44.4	3m distance

Notes:

- 1) The emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 10000MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
- 2) The Peak Values pass the AV limits; therefore, no AV measurements were necessary.

P.K. = Peak
Q.P. = Quasi Peak Readings
A.F. = Antenna factor

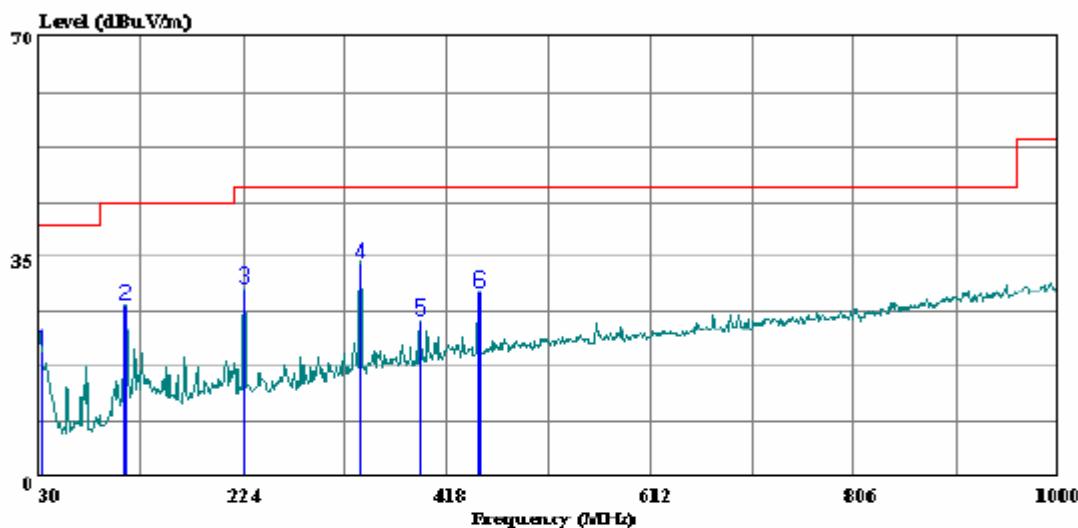
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



Compliance Certification Services
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Data#: 4 File#: 08u11TBD-FCC.EMI Date: 07-15-2008 Time: 20:57:33



Trace: 3

Ref Trace:

Condition: FCC CLASS-B HORIZONTAL
Test Operator:: Can Ming Chung
Project #: : 08U11968
Company: : WG Security
Configuration:: EUT Only
Mode : : Continuous Tx
Target: : FCC Class B

Page: 1

Freq	Read		Limit	Over	Remark
	Level	Factor			
MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1	31.940	28.25	-8.29	19.96	40.00 -20.04 Peak
2	112.450	41.67	-14.30	27.37	43.50 -16.13 Peak
3	224.970	43.00	-13.08	29.91	46.00 -16.09 Peak
4	335.550	43.95	-9.90	34.05	46.00 -11.95 Peak
5	391.810	33.05	-8.29	24.77	46.00 -21.23 Peak
6	448.070	35.71	-6.47	29.24	46.00 -16.76 Peak

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

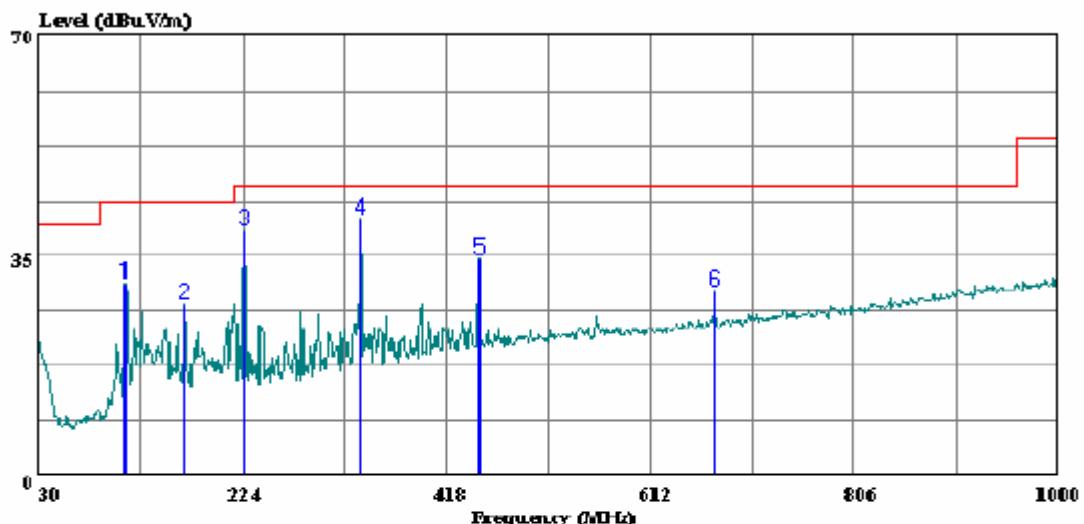
VERTICAL PLOT



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Data#: 2 File#: 08u11TBD-FCC.EMI

Date: 07-15-2008 Time: 20:45:26



Trace: 1

Ref Trace:

Condition: FCC CLASS-B VERTICAL
Test Operator:: Can Ming Chung
Project #: 08U11968
Company: WG Security
Configuration:: EUT Only
Mode : Continuous Tx
Target: FCC Class B

Page: 1

Freq	Read		Limit	Over	Remark
	Level	Factor			
MHz	dBuV	dB	dBuV/m	dBuV/m	dB
1 112.450	48.50	-17.80	30.70	43.50	-12.80 Peak
2 168.710	45.33	-18.02	27.31	43.50	-16.19 Peak
3 224.970	55.67	-16.59	39.08	46.00	-6.92 Peak
4 336.520	54.17	-13.38	40.79	46.00	-5.21 Peak
5 448.070	44.83	-10.26	34.58	46.00	-11.42 Peak
6 673.110	35.17	-5.83	29.34	46.00	-16.66 Peak

7.2. AC MAINS LINE CONDUCTED EMISSIONS

TEST PROCEDURE

ANSI C63.4

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 frequencies ranges.

Frequency of emission (MHz)	Conducted Limit (dB μ V)	
	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

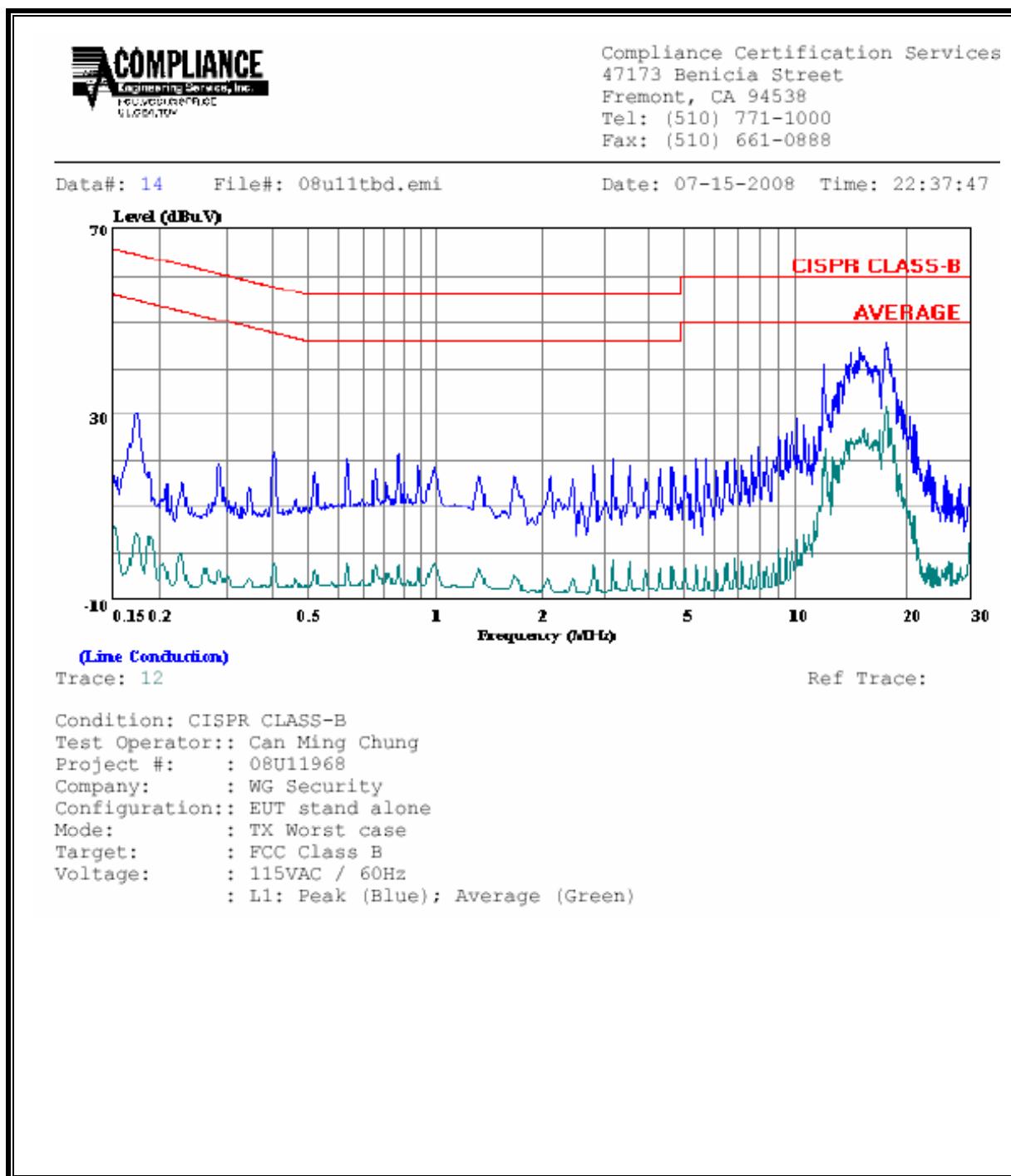
* Decreases with the logarithm of the frequency.

RESULTS

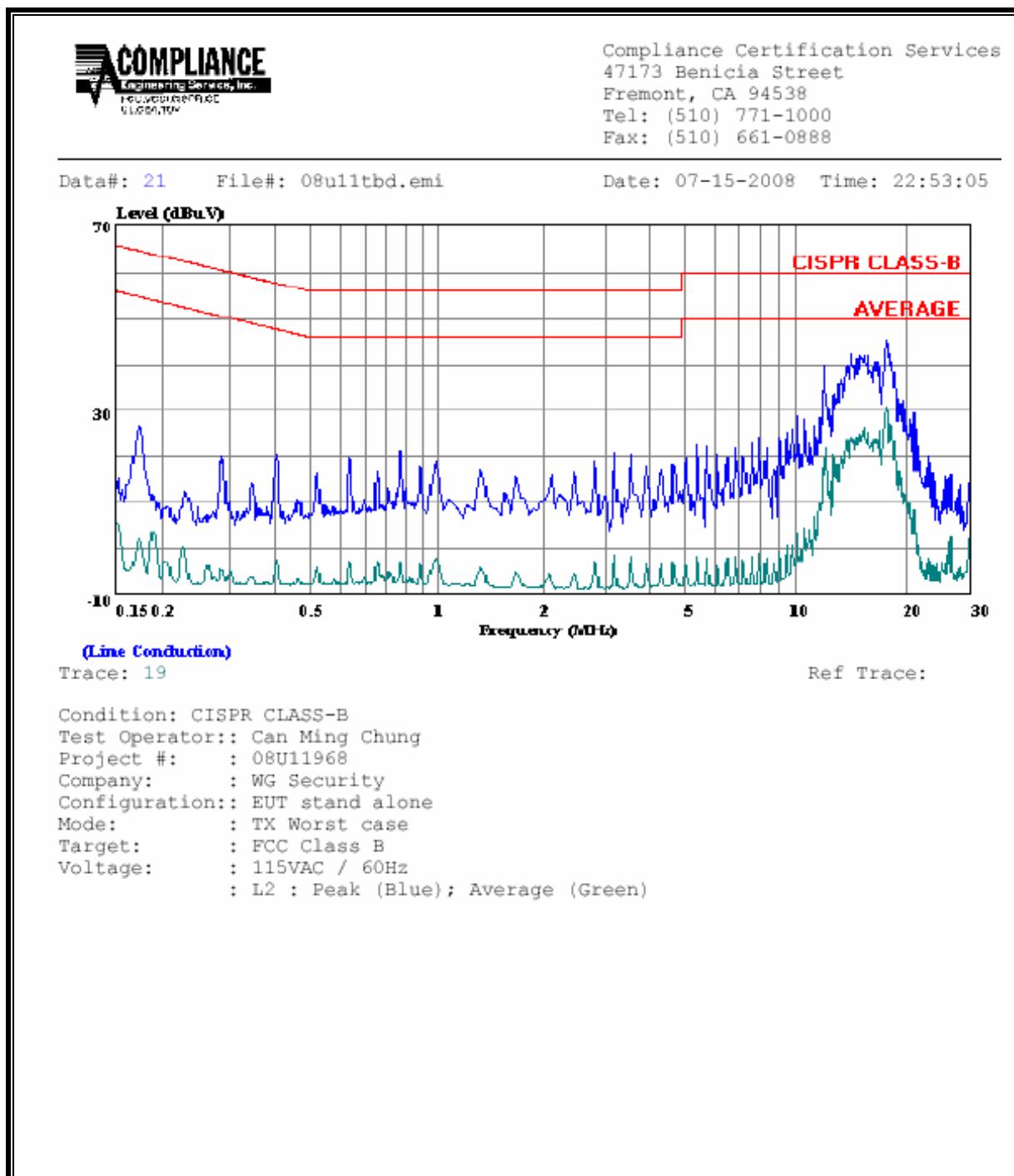
6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq. (MHz)	Reading			Closs (dB)	Limit	FCC_B	Margin		Remark
	PK (dBuV)	QP (dBuV)	AV (dBuV)				QP (dB)	AV (dB)	
0.17	30.44	--	2.71	0.00	64.86	54.86	-34.42	-52.15	L1
12.00	40.88	--	22.63	0.00	60.00	50.00	-19.12	-27.37	L1
17.75	45.87	--	31.75	0.00	60.00	50.00	-14.13	-18.25	L1
0.17	26.17	--	3.44	0.00	64.77	54.77	-38.60	-51.33	L2
12.00	39.94	--	21.87	0.00	60.00	50.00	-20.06	-28.13	L2
17.75	45.33	--	30.75	0.00	60.00	50.00	-14.67	-19.25	L2
6 Worst Data									

LINE 1 RESULTS



LINE 2 RESULTS



8. SETUP PHOTOS

RADIATED EMISSION BELOW 30 MHz



RADIATED EMISSIONS BELOW 30MHz (BACK)



RADIATED EMISSION ABOVE 30 MHz

RADIATED EMISSIONS ABOVE 30 MHz (FRONT)



RADIATED EMISSIONS ABOVE 30 MHz (BACK)



AC MAINS LINE CONDUCTED EMISSION

LINE CONDUCTED EMISSION (FRONT)



LINE CONDUCTED EMISSION (BACK)



END OF REPORT