

FCC PART 15.245

MEASUREMENT AND TEST REPORT

For

Concealite Life Safety Products

202 Elk Street, PO Box 160 , Elkton, South Dakota 57026, USA

FCC ID: A7S-SS2000

Report Type: Original Report	Product Type: Sensor Control Switch
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Report Number: <u>RSZ111012005-00 Rev A</u>	
Report Date: <u>2012-02-29</u>	
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Shenzhen). This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP*, NIST, or any agency of the Federal Government.

* This report contains data that are not covered by the NVLAP accreditation and are marked with an asterisk "★" (Rev.2)

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RSZ111012005-00	Initial	2011-12-20
A	RSZ111012005-00 Rev A	Updated Conducted Emissions and Spurious Emissions Data	2012-02-29

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Concealite Life Safety Products* 's product, model SS2000(FCC ID: A7S-SS2000), or the "EUT" as referred to in this report is an *Sensor Control Switch*, which measures approximately: 9.5 cm (L) x 7.5 cm (W) x 3.5 cm (H), rated input voltage: AC 120 /230/277 V.

** All measurement and test data in this report was gathered from production sample serial number: 1110026 (Assigned by BACL, Shenzhen). The EUT was received on 2011-10-12.*

Objective

This report is prepared on behalf of *Concealite Life Safety Products* in accordance with Part 2-Subpart J, and Part 15-Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.245 rules.

Related Submittal(s)/Grant(s)

No related submittal (s).

Test Methodology

All measurements contained in this report were conducted 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.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp.(Shenzhen) to collect test data is located on the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at <http://ts.nist.gov/Standards/scopes/2007070.htm>

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

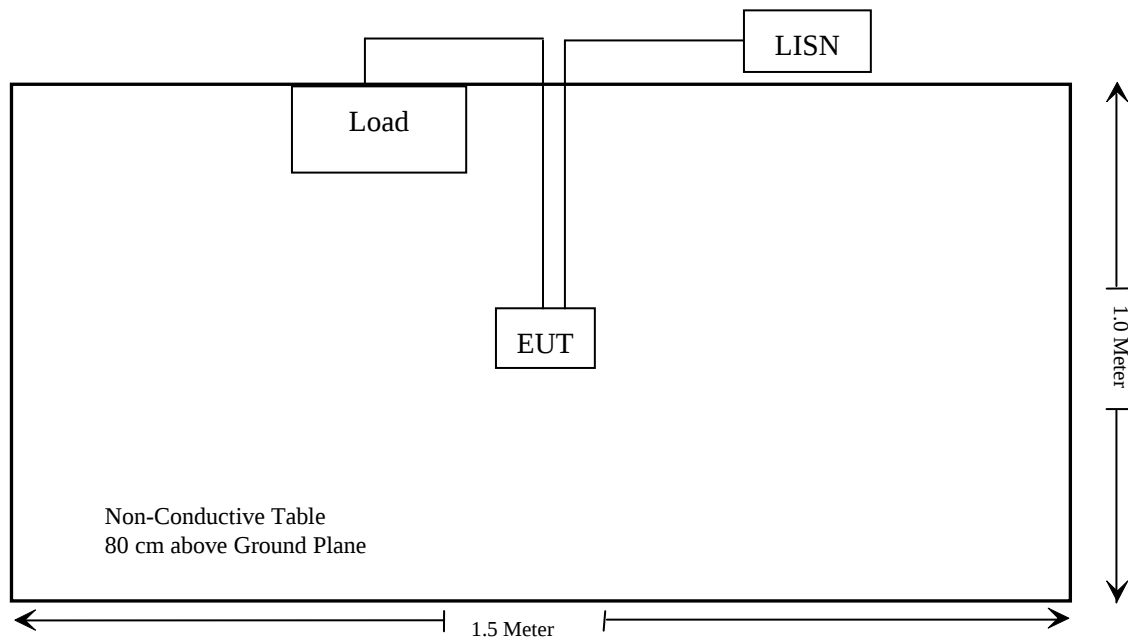
Equipment Modifications

No modification was made to the EUT tested.

Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Philips	Tungsten lamp (800/1600/2000 Watts)	N/A	N/A
Concealite	Electronic load (Artificial ballast & Tube) (5~2000 Watts)	N/A	N/A

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
15.205, §15.209, §15.245(b)	Radiated Emissions	Compliance

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used.

Antenna Connector Construction

The EUT has an integral patch antenna, which in accordance to section 15.203, is considered sufficient to comply with the provisions of this section.

Result: Compliant, Please refer to the EUT photos.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

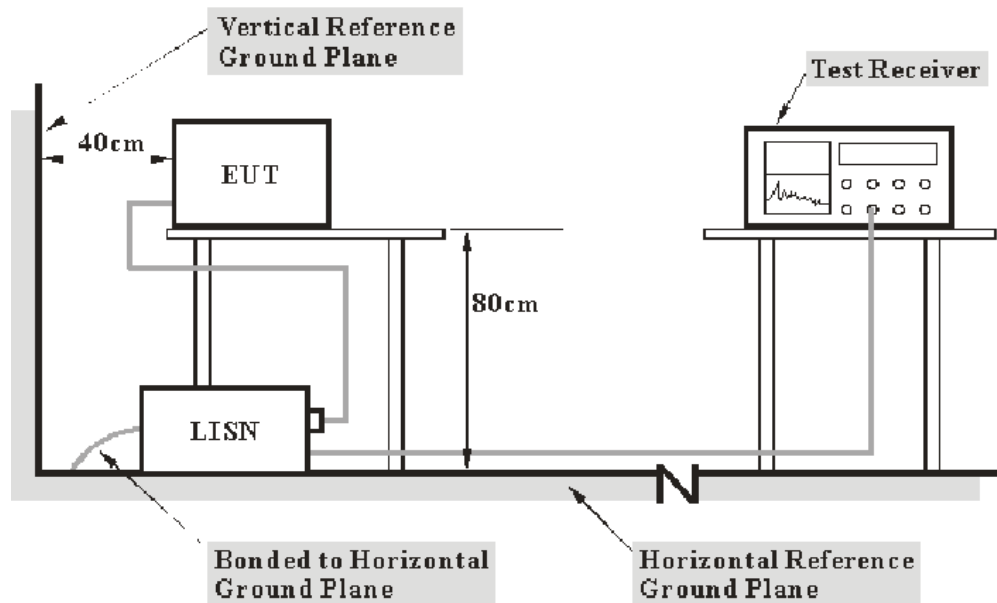
FCC §15.207

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on CISPR 16-4-4, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratory Corp. (Shenzhen) is 2.4 dB(k=2, 95% level of confidence).

EUT Setup



- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2009 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

<u>Frequency Range</u>	<u>IF B/W</u>
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2011-03-03	2012-03-02
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2011-03-09	2012-03-08

* **Statement of Traceability:** Bay Area Compliance Laboratory Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

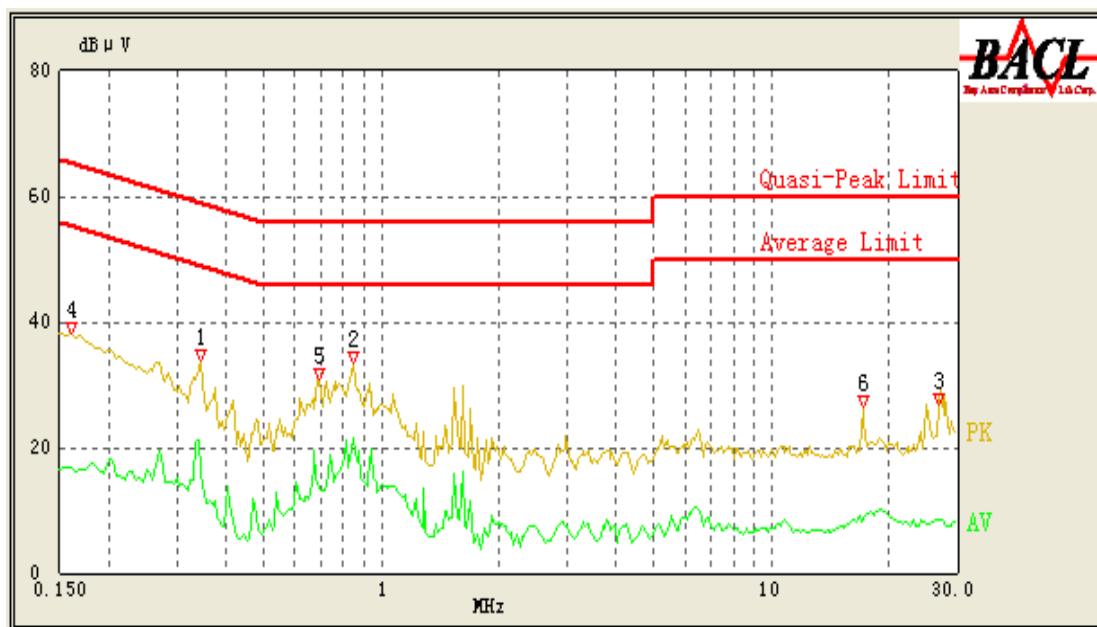
Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

* The testing was performed by Herry Ding on 2012-02-09.

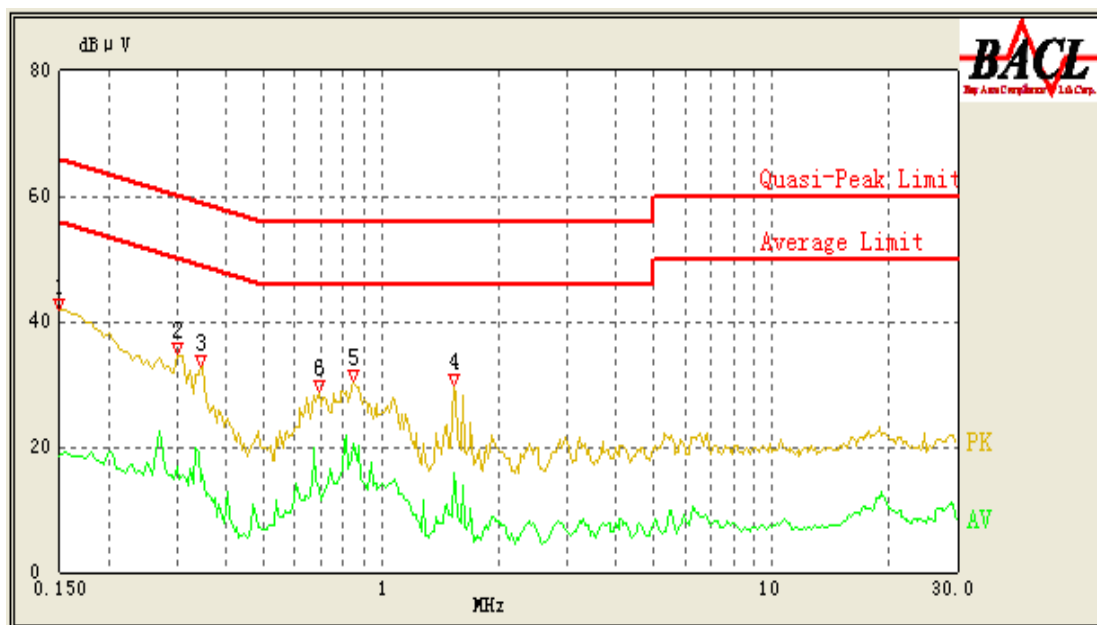
Test Mode: Transmitting (Tungsten lamp-800 W)

AC 120V, Line



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
0.845	21.35	9.97	46.00	24.65	Ave.
0.845	26.39	9.97	56.00	29.61	QP
0.345	29.13	9.96	60.43	31.30	QP
0.695	13.77	9.97	46.00	32.23	Ave.
0.345	16.07	9.96	50.43	34.36	Ave.
0.695	21.33	9.97	56.00	34.67	QP
0.160	30.54	9.96	65.71	35.17	QP
17.170	21.38	10.06	60.00	38.62	QP
26.770	21.36	10.13	60.00	38.64	QP
0.160	16.70	9.96	55.71	39.01	Ave.
26.950	8.42	10.13	50.00	41.58	Ave.
17.080	8.22	10.06	50.00	41.78	Ave.

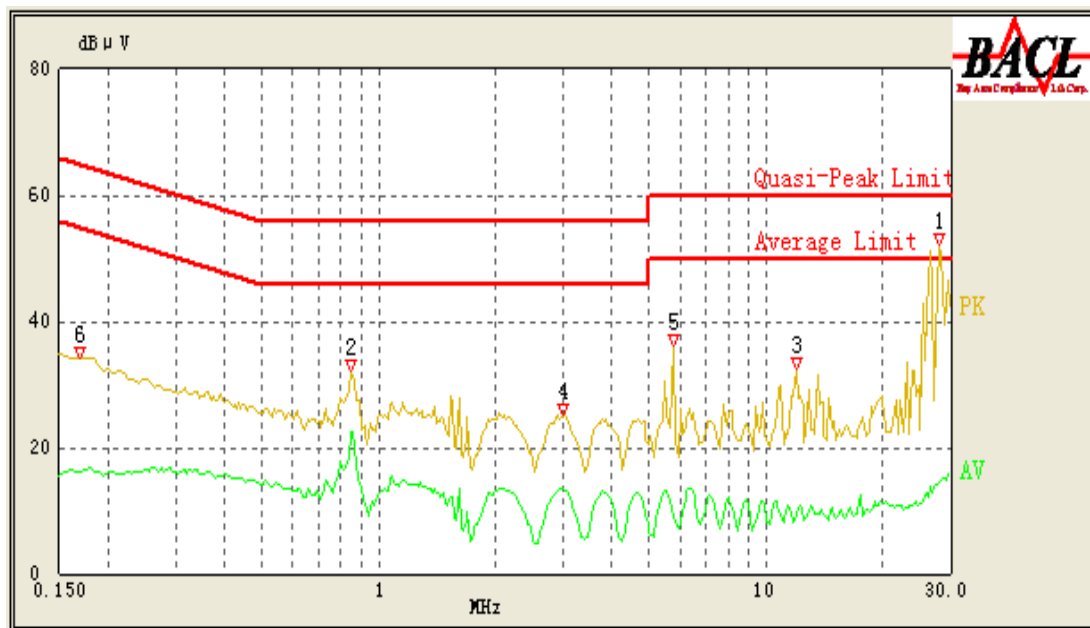
AC 120V, Neutral



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
0.850	20.34	9.97	46.00	25.66	Ave.
0.845	27.37	9.97	56.00	28.63	QP
1.540	26.54	9.97	56.00	29.46	QP
1.540	15.82	9.97	46.00	30.18	Ave.
0.345	29.73	9.96	60.43	30.70	QP
0.300	30.10	9.96	61.71	31.61	QP
0.690	13.50	9.97	46.00	32.50	Ave.
0.695	22.59	9.97	56.00	33.41	QP
0.150	32.11	9.96	66.00	33.89	QP
0.300	16.79	9.96	51.71	34.92	Ave.
0.345	14.56	9.96	50.43	35.87	Ave.
0.150	18.48	9.96	56.00	37.52	Ave.

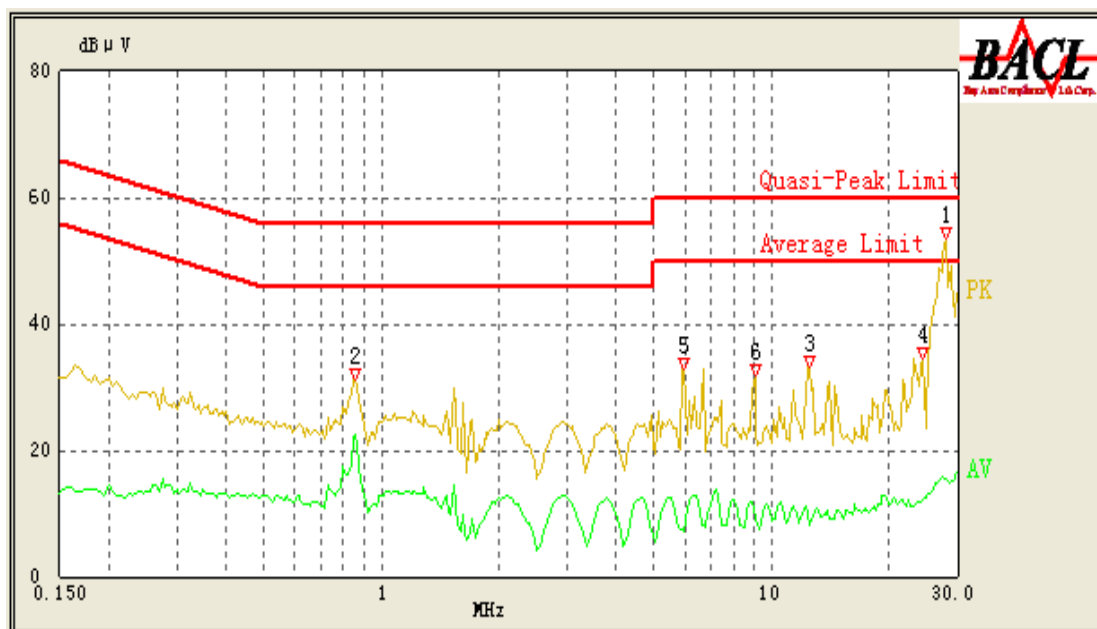
Test Mode: Transmitting (Tungsten lamp-1600 W)

AC 230V, Line



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
28.030	46.18	10.15	60.00	13.82	QP
28.065	14.53	10.15	50.00	35.47	Ave.
0.845	26.55	9.97	56.00	29.45	QP
0.850	22.57	9.97	46.00	23.43	Ave.
12.015	23.05	10.01	60.00	36.95	QP
12.015	9.18	10.01	50.00	40.82	Ave.
2.995	19.98	9.97	56.00	36.02	QP
2.995	13.37	9.97	46.00	32.63	Ave.
5.755	25.52	9.97	60.00	34.48	QP
5.735	10.19	9.97	50.00	39.81	Ave.
0.170	28.77	9.96	65.43	36.66	QP
0.170	16.04	9.96	55.43	39.39	Ave.

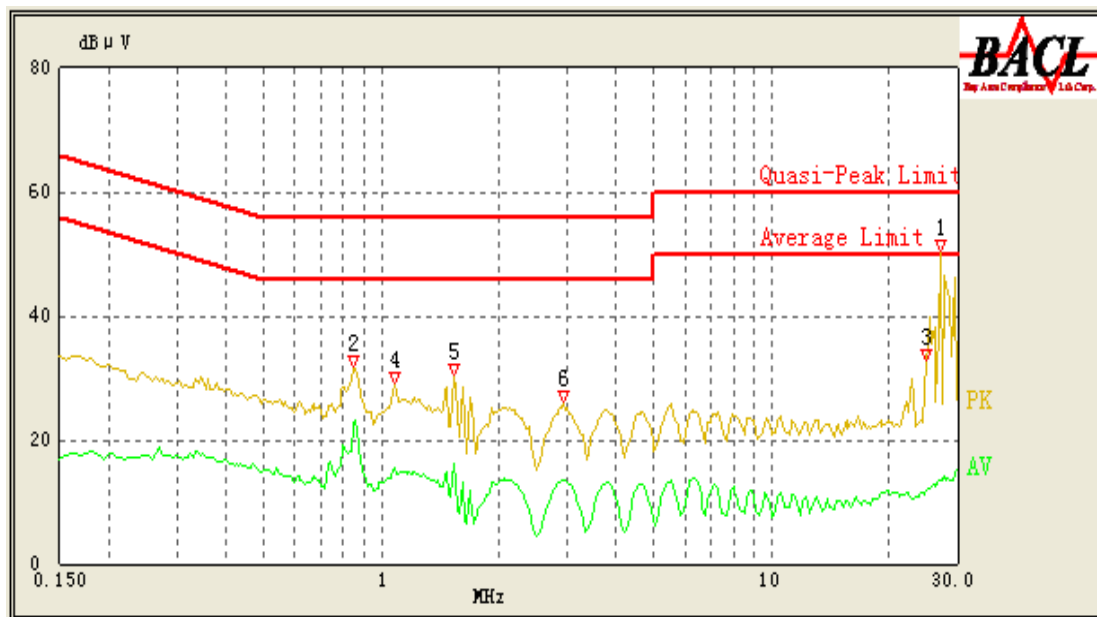
AC 230V, Neutral



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
27.990	46.29	10.15	60.00	13.71	QP
27.745	15.39	10.14	50.00	34.61	Ave.
0.855	25.97	9.97	56.00	30.03	QP
0.855	22.57	9.97	46.00	23.43	Ave.
12.455	28.59	10.02	60.00	31.41	QP
12.400	10.11	10.02	50.00	39.89	Ave.
24.355	29.15	10.10	60.00	30.85	QP
24.335	12.18	10.10	50.00	37.82	Ave.
5.965	26.32	9.97	60.00	33.68	QP
6.020	8.96	9.97	50.00	41.04	Ave.
9.085	25.71	9.99	60.00	34.29	QP
8.990	10.83	9.99	50.00	39.17	Ave.

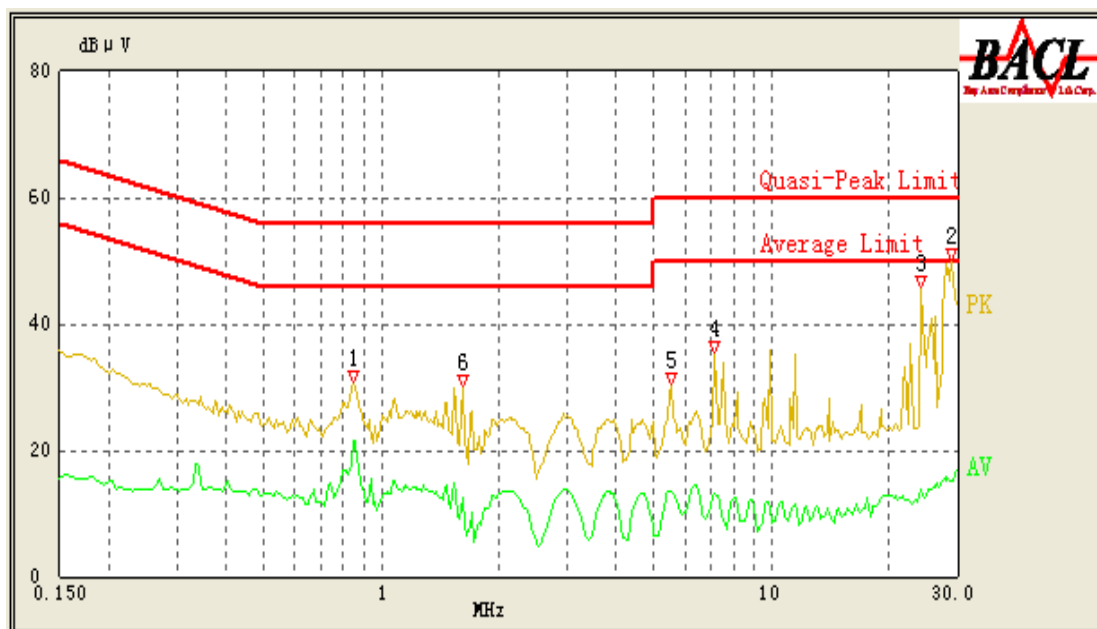
Test Mode: Transmitting (Tungsten lamp-2000 W)

AC 277V, Line



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
27.095	44.86	10.14	60.00	15.14	QP
0.850	22.47	9.97	46.00	23.53	Ave.
0.850	27.73	9.97	56.00	28.27	QP
1.540	27.21	9.97	56.00	28.79	QP
1.540	16.19	9.97	46.00	29.81	Ave.
1.080	15.55	9.97	46.00	30.45	Ave.
2.925	13.63	9.97	46.00	32.37	Ave.
1.080	21.91	9.97	56.00	34.09	QP
24.805	25.72	10.11	60.00	34.28	QP
2.920	20.08	9.97	56.00	35.92	QP
27.320	13.38	10.14	50.00	36.62	Ave.
24.775	11.26	10.11	50.00	38.74	Ave.

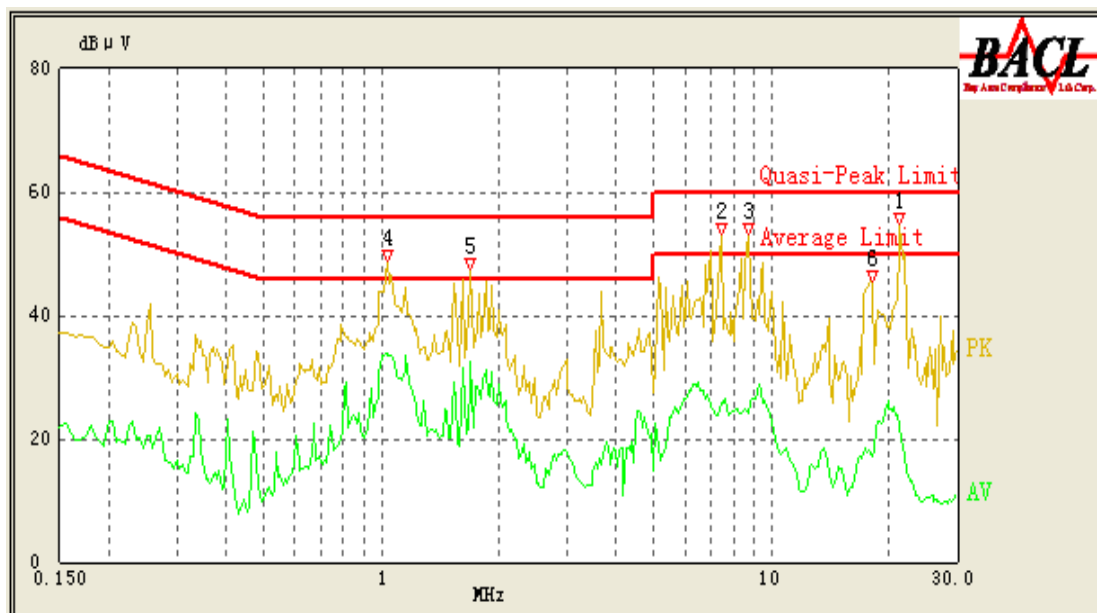
AC 277V, Neutral



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
28.845	47.38	10.16	60.00	12.62	QP
24.230	45.01	10.10	60.00	14.99	QP
0.850	21.50	9.97	46.00	24.50	Ave.
0.850	26.45	9.97	56.00	29.55	QP
1.615	26.08	9.97	56.00	29.92	QP
7.150	28.74	9.98	60.00	31.26	QP
1.620	12.56	9.97	46.00	33.44	Ave.
5.515	26.39	9.97	60.00	33.61	QP
29.150	15.28	10.16	50.00	34.72	Ave.
24.135	13.93	10.10	50.00	36.07	Ave.
5.545	13.66	9.97	50.00	36.34	Ave.
7.150	13.17	9.98	50.00	36.83	Ave.

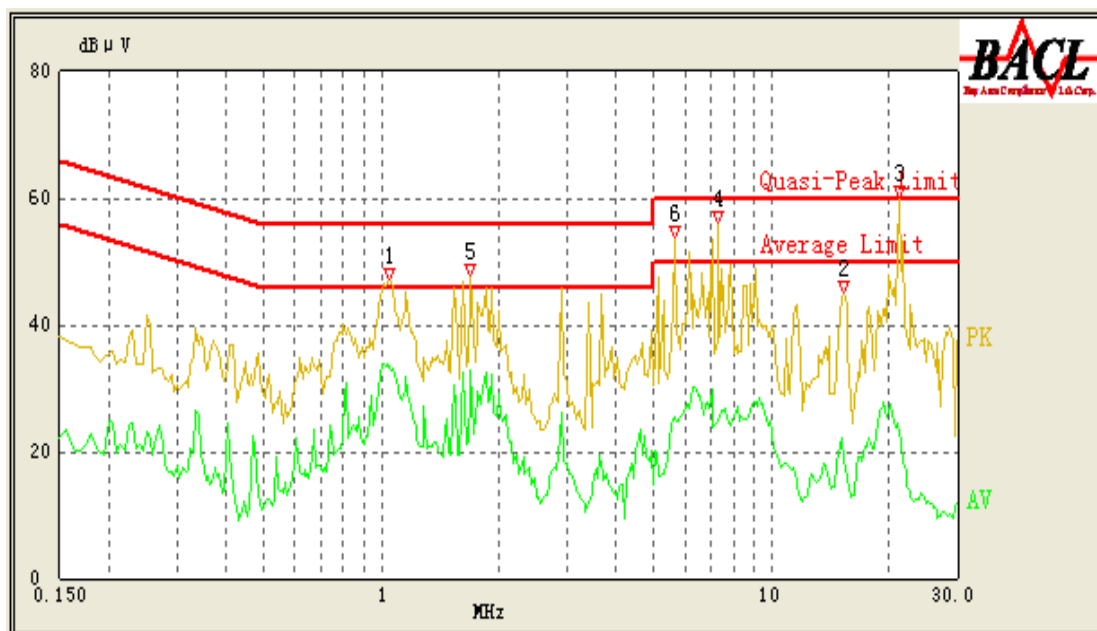
Test Mode: Transmitting (Electronic load -400 W)

AC 120V, Line



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
21.290	50.95	11.71	60.00	9.05	QP
7.450	49.71	10.78	60.00	10.29	QP
1.035	43.99	10.24	56.00	12.01	QP
1.695	43.92	10.30	56.00	12.08	QP
1.035	33.68	10.24	46.00	12.32	Ave.
8.690	47.41	10.87	60.00	12.59	QP
1.695	32.40	10.30	46.00	13.60	Ave.
18.130	39.96	11.50	60.00	20.04	QP
7.450	25.68	10.78	50.00	24.32	Ave.
8.705	24.21	10.87	50.00	25.79	Ave.
21.440	20.26	11.73	50.00	29.74	Ave.
18.065	17.12	11.50	50.00	32.88	Ave.

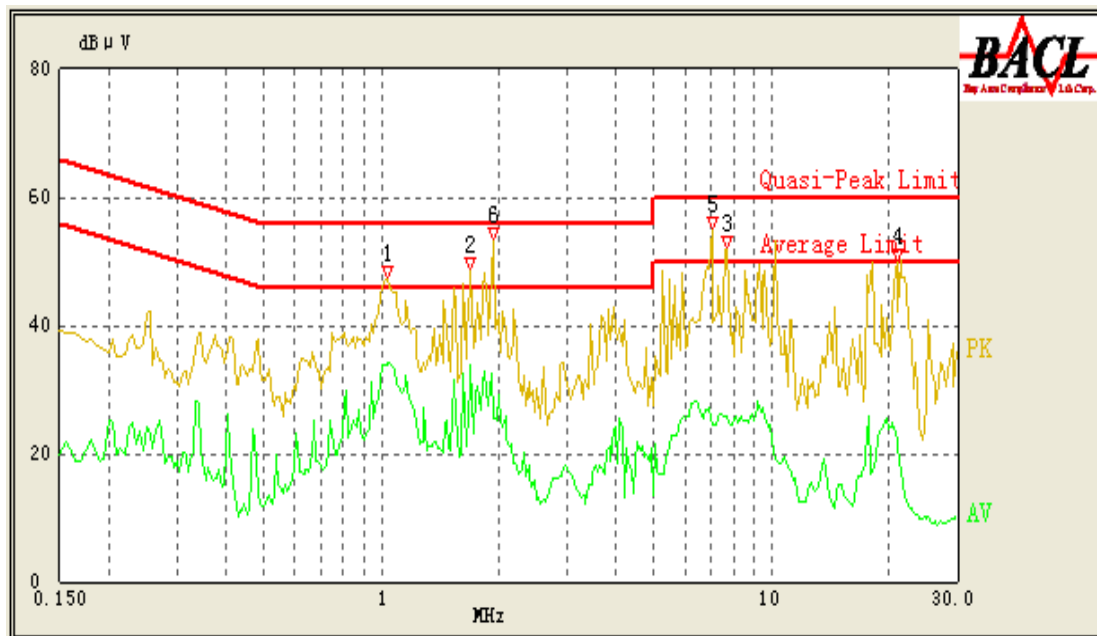
AC 120V, Neutral



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
21.205	56.51	11.70	60.00	3.49	QP
7.310	53.13	10.77	60.00	6.87	QP
5.630	49.35	10.65	60.00	10.65	QP
1.695	45.34	10.30	56.00	10.66	QP
1.040	33.96	10.24	46.00	12.04	Ave.
1.045	43.59	10.24	56.00	12.41	QP
1.695	32.73	10.30	46.00	13.27	Ave.
15.360	41.15	11.45	60.00	18.85	QP
5.625	25.45	10.65	50.00	24.55	Ave.
7.325	24.92	10.77	50.00	25.08	Ave.
21.015	24.55	11.67	50.00	25.45	Ave.
15.325	18.89	11.45	50.00	31.11	Ave.

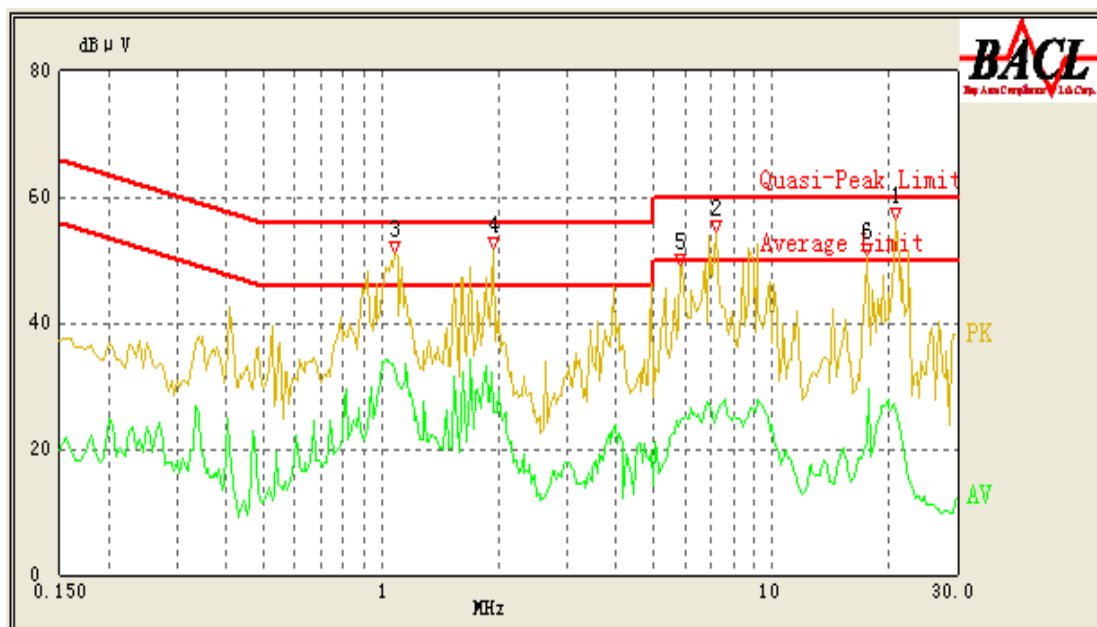
Test Mode: Transmitting (Electronic load -1000 W)

AC 230V, Line



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
1.940	47.70	10.32	56.00	8.30	QP
1.695	45.82	10.30	56.00	10.18	QP
7.050	49.51	10.75	60.00	10.49	QP
1.695	33.92	10.30	46.00	12.08	Ave.
7.675	47.85	10.79	60.00	12.15	QP
1.035	33.82	10.24	46.00	12.18	Ave.
1.035	43.52	10.24	56.00	12.48	QP
20.960	46.96	11.67	60.00	13.04	QP
1.940	25.57	10.32	46.00	20.43	Ave.
7.700	25.76	10.79	50.00	24.24	Ave.
6.990	25.38	10.74	50.00	24.62	Ave.
20.760	23.37	11.64	50.00	26.63	Ave.

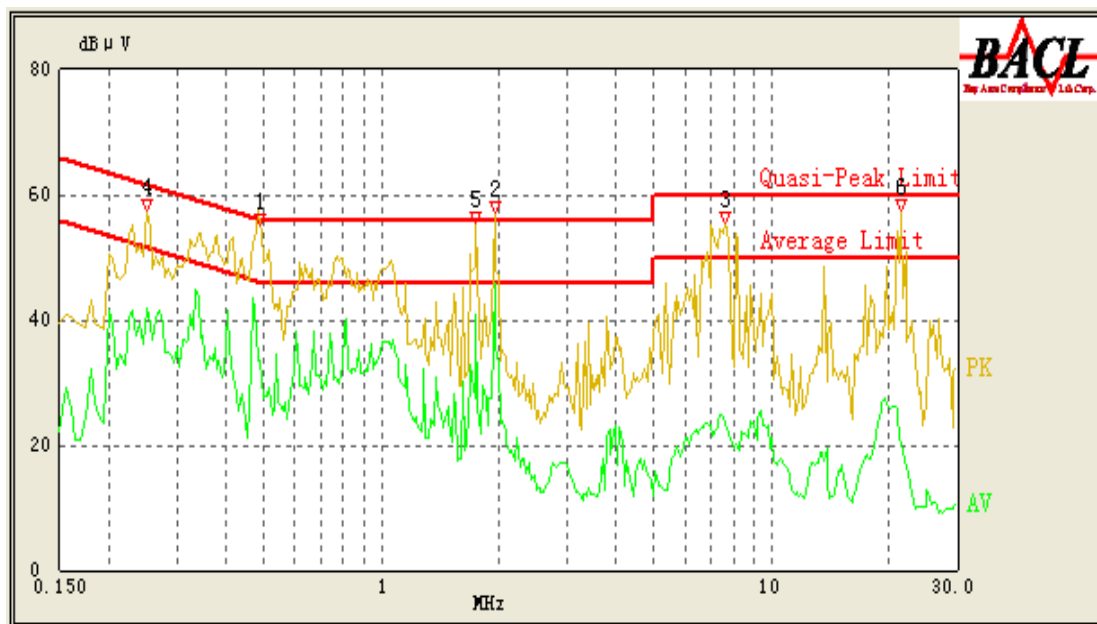
AC 230V, Neutral



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
1.080	47.99	10.25	56.00	8.01	QP
1.945	46.43	10.33	56.00	9.57	QP
7.185	49.96	10.76	60.00	10.04	QP
20.865	49.04	11.65	60.00	10.96	QP
1.080	32.95	10.25	46.00	13.05	Ave.
17.570	44.58	11.49	60.00	15.42	QP
5.825	43.47	10.66	60.00	16.53	QP
1.945	25.97	10.33	46.00	20.03	Ave.
20.835	26.62	11.65	50.00	23.38	Ave.
7.230	25.24	10.76	50.00	24.76	Ave.
5.855	24.43	10.66	50.00	25.57	Ave.
17.570	21.03	11.49	50.00	28.97	Ave.

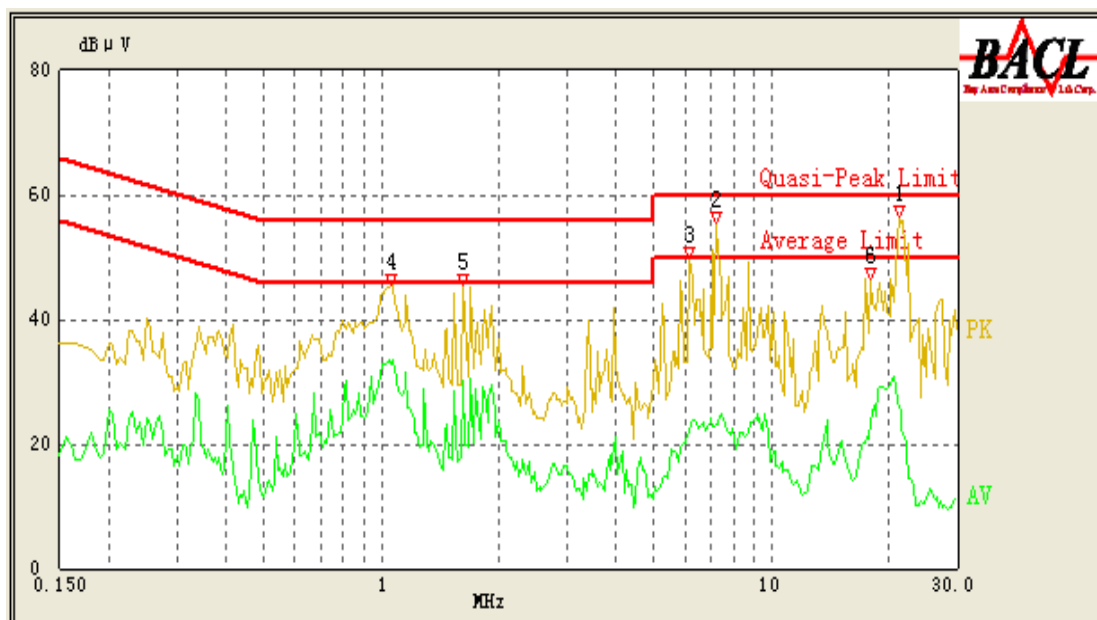
Test Mode: Transmitting (Electronic load -1200 W)

AC 277V, Line



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
1.950	43.74	10.33	46.00	2.26*	Ave.
1.950	53.68	10.33	56.00	2.32*	QP
1.740	53.29	10.31	56.00	2.71	QP
0.490	52.15	10.23	56.29	4.14	QP
1.740	40.89	10.31	46.00	5.11	Ave.
21.515	53.96	11.75	60.00	6.04	QP
7.620	50.56	10.79	60.00	9.44	QP
0.250	52.17	10.23	63.14	10.97	QP
0.250	41.86	10.23	53.14	11.28	Ave.
0.490	33.41	10.23	46.29	12.88	Ave.
7.590	23.35	10.79	50.00	26.65	Ave.
21.310	21.43	11.72	50.00	28.57	Ave.

AC 277V, Neutral



Frequency (MHz)	Correct Factor (dB)	Cord. Result (dBμV)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
21.210	49.11	11.70	60.00	10.89	QP
7.235	48.13	10.76	60.00	11.87	QP
1.065	32.84	10.25	46.00	13.16	Ave.
6.175	46.34	10.68	60.00	13.66	QP
1.615	42.13	10.30	56.00	13.87	QP
1.060	40.98	10.25	56.00	15.02	QP
1.615	30.11	10.30	46.00	15.89	Ave.
17.970	42.40	11.49	60.00	17.60	QP
21.120	26.68	11.69	50.00	23.32	Ave.
18.025	23.91	11.49	50.00	26.09	Ave.
7.260	23.06	10.76	50.00	26.94	Ave.
6.160	21.96	10.68	50.00	28.04	Ave.

*Within measurement uncertainty.

FCC §15.205, §15.209 & §15.245(b) - RADIATED EMISSIONS**Applicable Standard**

As per FCC§15.245 (b), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency (MHz)	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (millivolts/meter)
902–928	500	1.6
2435–2465	500	1.6
5785–5815	500	1.6
10500–10550	2500	25.0
24075–24175	2500	25.0

(1) Regardless of the limits shown in the above table, harmonic emissions in the restricted bands below 17.7 GHz, as specified in §15.205, shall not exceed the field strength limits shown in §15.209. Harmonic emissions in the restricted bands at and above 17.7 GHz shall not exceed the following field strength limits:

- (i) For the second and third harmonics of field disturbance sensors operating in the 24075–24175 MHz band and for other field disturbance sensors designed for use only within a building or to open building doors, 25.0 mV/m.
- (ii) For all other field disturbance sensors, 7.5 mV/m.
- (iii) Field disturbance sensors designed to be used in motor vehicles or aircraft must include features to prevent continuous operation unless their emissions in the restricted bands, other than the second and third harmonics from devices operating in the 24075–24175 MHz band, fully comply with the limits given in §15.209. Continuous operation of field disturbance sensors designed to be used in farm equipment, vehicles such as fork lifts that are intended primarily for use indoors or for very specialized operations, or railroad locomotives, railroad cars and other equipment which travels on fixed tracks is permitted. A field disturbance sensor will be considered not to be operating in a continuous mode if its operation is limited to specific activities of limited duration (e.g., putting a vehicle into reverse gear, activating a turn signal, etc.).

(2) Field strength limits are specified at a distance of 3 meters.

(3) 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.

(4) The emission limits shown above are based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply.

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in 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 CISPR 16-4-4, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is 4.0 dB.

Test Equipment Setup

The spectrum analyzer or receiver is set as:

Below 1000 MHz:

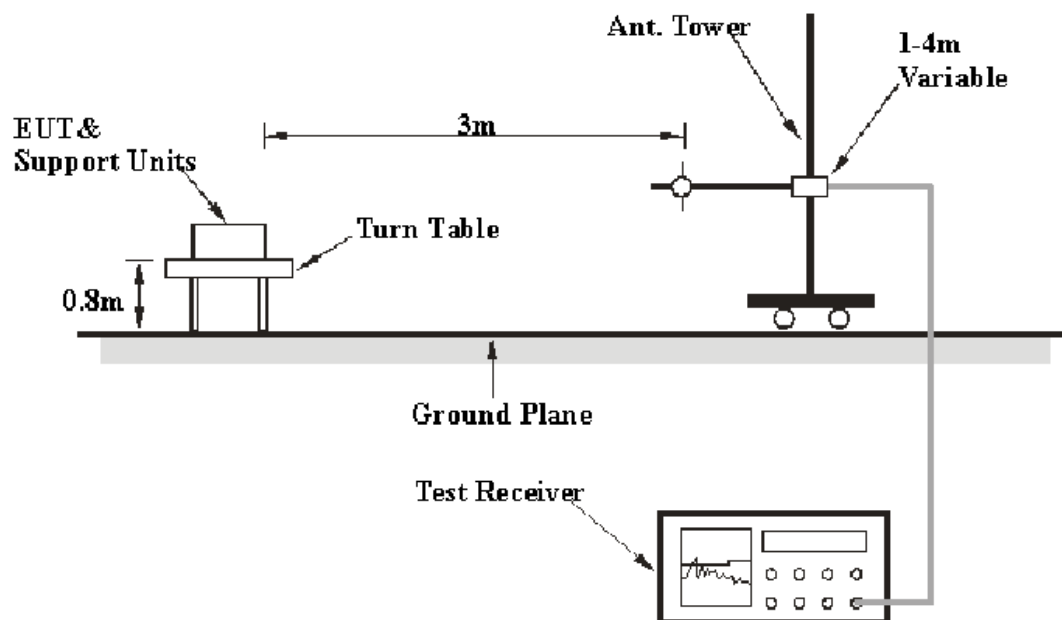
RBW = 100 kHz / VBW = 300 kHz / Sweep = Auto

Above 1000 MHz:

Peak: RBW = 1MHz / VBW = 1MHz / Sweep = Auto

Average: RBW = 1MHz / VBW = 10Hz / Sweep = Auto

EUT Setup



The radiated emission and out of band emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209 /205and FCC 15.245 limits.

Test Procedure

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.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2011-08-02	2012-08-01
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2011-11-11	2012-11-10
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2011-07-05	2012-07-04
HP	Amplifier	2VA-213+	T-E27H	2011-03-08	2012-03-07
Sunol Sciences	Horn Antenna	DRH-118	A052604	2011-05-05	2012-05-04
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2011-07-08	2012-07-07
Agilent	Spectrum Analyzer	8564E	3943A01781	2011-04-12	2012-04-11
Electro-Mechanics	Horn Antenna	3116	9510-2270	2011-10-11	2012-10-10

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209, 15.205 & 15.245, with the worst margin reading of:

8.3 dB at 45.973000 MHz in the Vertical polarization

Test Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.2 kPa

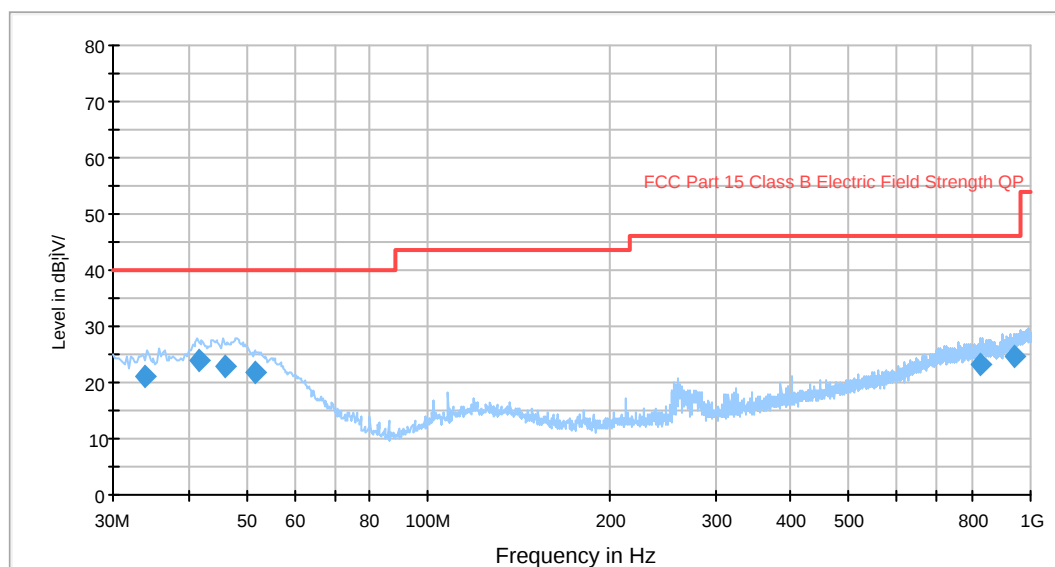
The testing was performed by Henry Ding on 2012-02-29

Test Mode: Transmitting

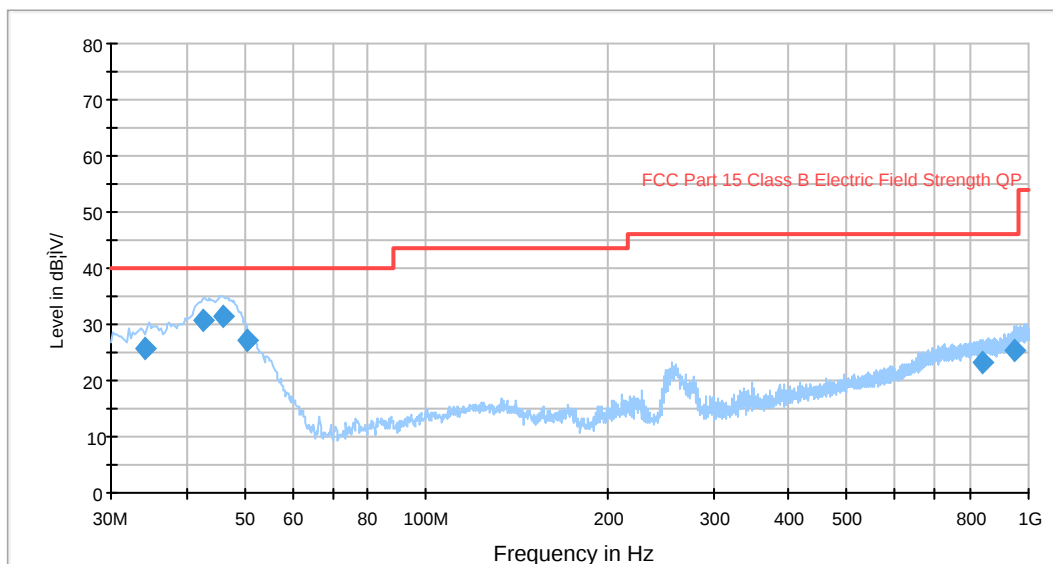
1-1): 30 MHz ~ 1 GHz (Tungsten lamp-800 W)

AC 120V

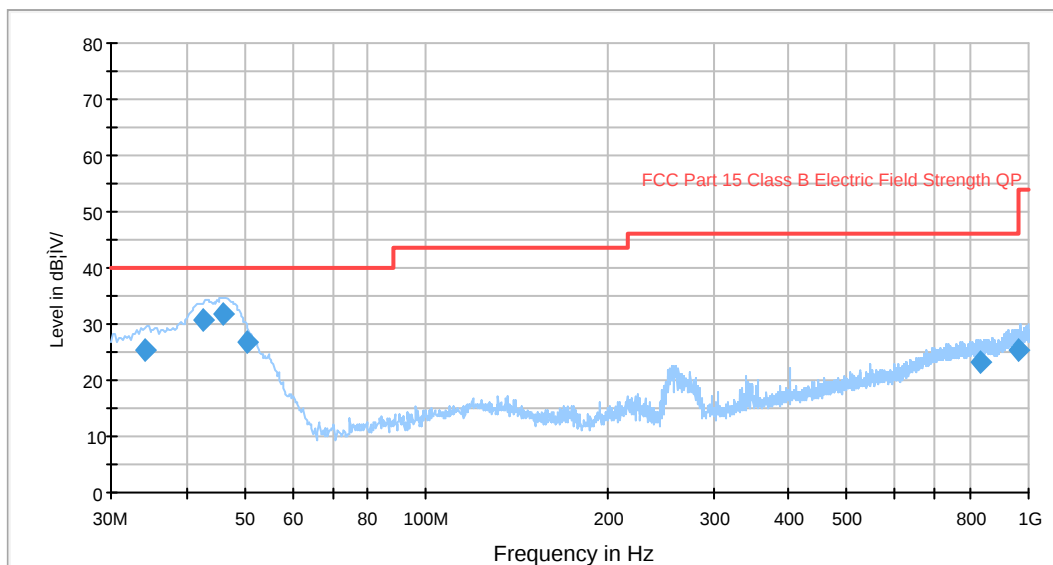
Auto Test(FCC 15 Class B)



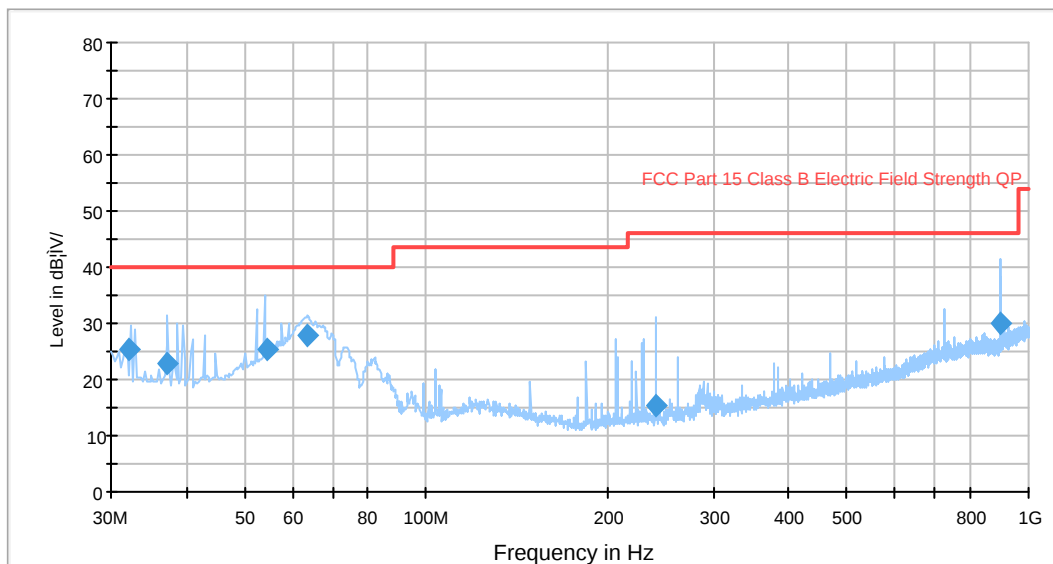
Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
41.598250	23.8	103.0	V	77.0	-13.1	40.0	16.2
46.098250	23.0	103.0	V	4.0	-15.6	40.0	17.0
51.550000	21.9	124.0	V	41.0	-17.5	40.0	18.1
33.917000	21.2	103.0	V	162.0	-8.1	40.0	18.8
939.645000	24.8	399.0	V	243.0	0.4	46.0	21.2
823.594250	23.2	357.0	V	165.0	-1.5	46.0	22.8

1-2): 30 MHz ~ 1 GHz (Tungsten lamp-1600 W)**AC 230V**

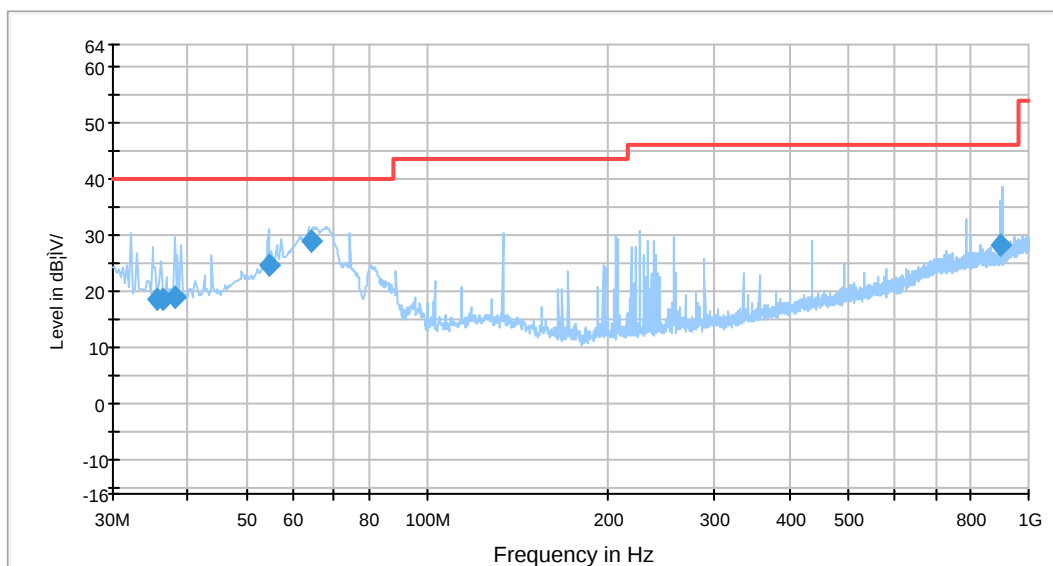
Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
45.977250	31.6	103.0	V	25.0	-15.6	40.0	8.4
42.742500	30.8	103.0	V	249.0	-13.8	40.0	9.2
50.380750	27.0	103.0	V	95.0	-17.3	40.0	13.0
34.111750	25.9	103.0	V	164.0	-8.2	40.0	14.1
947.905750	25.3	255.0	H	152.0	0.6	46.0	20.7
838.386000	23.4	401.0	H	3.0	-1.3	46.0	22.6

1-3): 30 MHz ~ 1 GHz (Tungsten lamp-2000 W)**AC 277V**

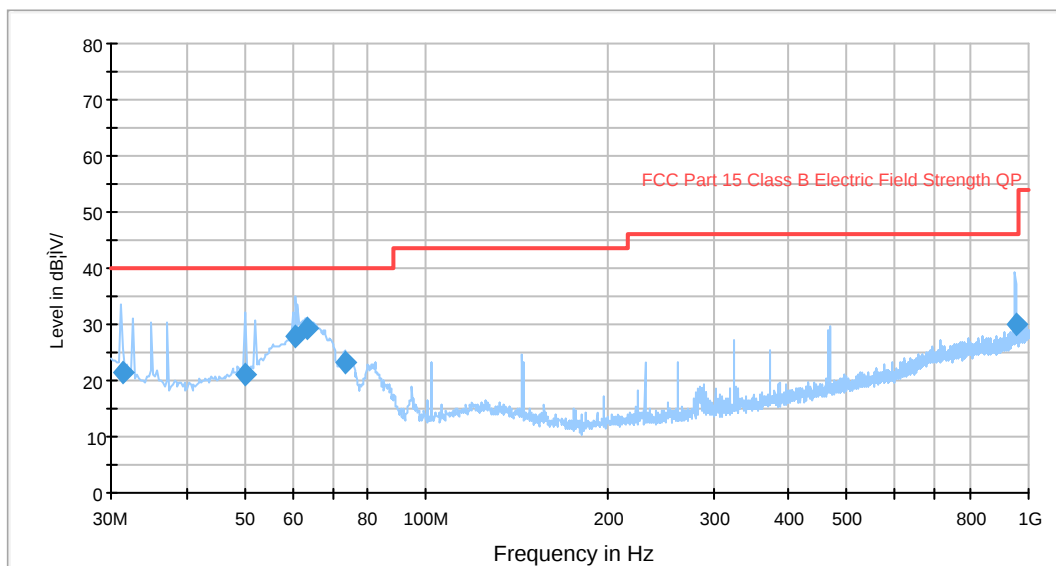
Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
45.973000	31.7	103.0	V	92.0	-15.5	40.0	8.3
42.566750	30.6	103.0	V	0.0	-13.7	40.0	9.4
50.481250	26.7	103.0	V	111.0	-17.3	40.0	13.3
34.137000	25.3	103.0	V	339.0	-8.2	40.0	14.7
959.448250	25.2	157.0	V	231.0	0.8	46.0	20.8
833.058750	23.4	399.0	V	221.0	-1.3	46.0	22.6

1-4): 30 MHz ~ 1 GHz (Electronic Load-400 W)**AC 120V**

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
63.389750	27.8	104.0	V	260.0	-18.5	40.0	14.2
901.319500	30.1	237.0	H	54.0	-0.8	46.0	15.9
32.139250	25.4	253.0	V	71.0	-6.9	40.0	24.6
37.165750	22.9	227.0	V	194.0	-10.3	40.0	27.1
54.364250	25.3	125.0	H	342.0	-17.9	40.0	34.7
240.019750	15.3	124.0	H	274.0	-13.7	46.0	37.7

1-5): 30 MHz ~ 1 GHz (Electronic Load-1000 W)**AC 230V**

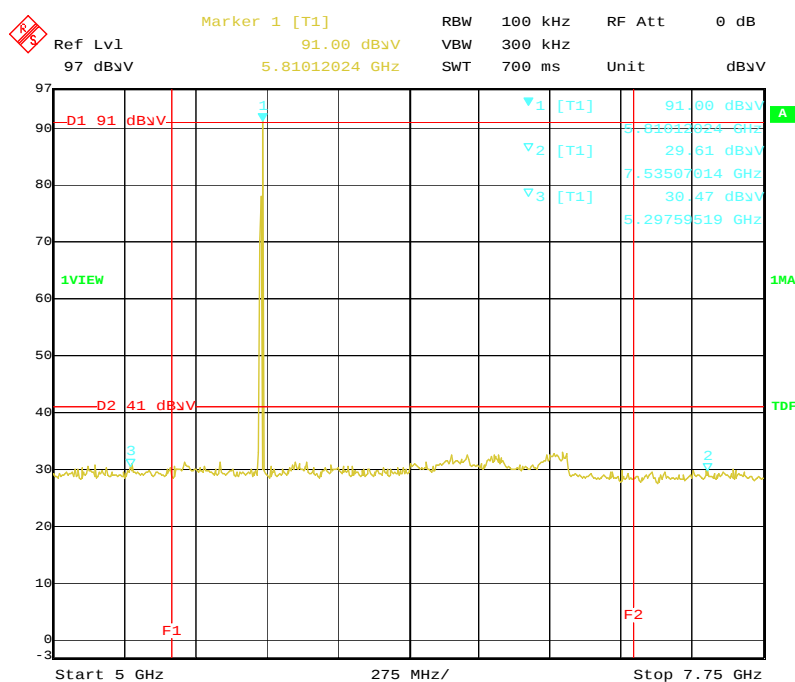
Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
63.909750	28.8	104.0	V	345.0	-18.5	40.0	14.2
897.382750	28.4	104.0	V	315.0	-0.9	46.0	24.6
36.463750	18.7	104.0	V	315.0	-9.8	40.0	25.3
35.398500	18.5	104.0	V	122.0	-9.1	40.0	25.5
38.021750	19.0	104.0	V	341.0	-10.8	40.0	26.0
54.596000	24.8	227.0	H	303.0	-17.9	40.0	35.2

1-6): 30 MHz ~ 1 GHz (Electronic Load-1200 W)**AC 277V**

Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
63.297750	29.3	104.0	V	0.0	-18.5	40.0	13.7
60.778500	27.9	104.0	V	263.0	-18.6	40.0	16.1
73.506750	23.1	104.0	V	0.0	-18.2	40.0	19.9
31.304000	21.4	104.0	V	322.0	-6.3	40.0	22.6
50.038250	21.2	104.0	V	213.0	-17.3	40.0	22.8
951.915750	30.1	104.0	H	135.0	0.6	46.0	22.9

2): 1 GHz ~ 40 GHz

Freq. (MHz)	S.A. Reading (dBμV)	Detector PK/Ave	Turntable Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.209/15.205/15.245		
				Height (m)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)	Comment
11621.12	25.24	Ave.	153	1.2	H	39	7.01	26.53	44.72	54	9.28	Harmonic
11621.12	43.67	PK	153	1.2	H	39	7.01	26.53	63.15	74	10.85	Harmonic
11621.12	25.01	Ave.	247	1.3	V	39	7.01	26.53	44.49	54	9.51	Harmonic
11621.12	43.02	PK	247	1.3	V	39	7.01	26.53	62.50	74	11.50	Harmonic
5810.56	44.74	Ave.	264	1.4	H	37.3	4.54	0	86.58	114	27.42	Fund.
5810.56	45.15	Ave.	200	1.2	V	36	4.54	0	85.69	114	28.31	Fund.
5810.56	63.98	PK	264	1.4	H	37.3	4.54	0	105.82	134	28.18	Fund.
5810.56	64.02	PK	200	1.2	V	36	4.54	0	104.56	134	29.44	Fund.

3): Band Edge

***** END OF REPORT *****