NVLAP LAB CODE 200707-0

FCC PART 18
EMI MEASUREMENT AND TEST REPORT

For

ShenZhen SAST Electronic Co., Ltd.

Suite1A, Building#1, NanGuang personage Garden, FuQiang Road, FuTian, ShenZhen 518000, Guangdong, China

FCC ID: UW7RZF061211

This Report Concerns:	Equipment Type:
☒ Original Report	Ionic Lite

Test Engineer:	Henry Yang
Report Number:	RSZ06122651
Test Date:	2007-01-04
Report Date:	2007-01-12
Reviewed By:	EMC Manager: Boni Baniqued
Prepared By:	Bay Area Compliance Laboratory Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *ShenZhen SAST Electronic Co., Ltd.*'s model: *SIL06-15w; SIL06-23w; SIL06-28w* or the "EUT" as referred to in this report is the *CFL* which measures approximately *SIL06-15w:* 13.5cm L x 5.5cm W x 5.5cm H, *SIL06-15w:* 15.0cm L x 5.5cm W x 5.5cm H, *SIL06-28w:* 16.5cm L x 5.5cm W x 5.5cm H, rated input voltage: AC 120V/60Hz.

* *The test data gathered are from production sample, serial number: 0612113, Provided by the manufacturer, we received EUT on 2006-12-26.*

Objective

The following test report is prepared on behalf of *ShenZhen SAST Electronic Co., Ltd.* in accordance with Part 2, Subpart J, and Part 18, Subparts A, B and C of the Federal Communication Commissions rules and regulations.

The objective of the manufacturer is to determine compliance with FCC Part 18 limits.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with MP-5, FCC Methods of Measurements of Radio Noise Emissions from ISM Equipment, February 1986. All measurement was performed at Bay Area Compliance Laboratory 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 Laboratory Corp. (Shenzhen) to collect test data is located in 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 Laboratory 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 November 04, 2004. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

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 Laboratory Corp. (Shenzhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0). The current scope of accreditations can be found at http://ts.nist.gov/ts/htdocs/210/214/scopes/2007070.htm.

External I/O Cable

Cable Description	Length (M)	From/Port	To
Unshielded Detachable AC Power Cable	1.5	EUT	AC Port

SYSTEM TEST CONFIGURATION

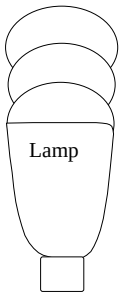
Justification

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

Equipment Modifications

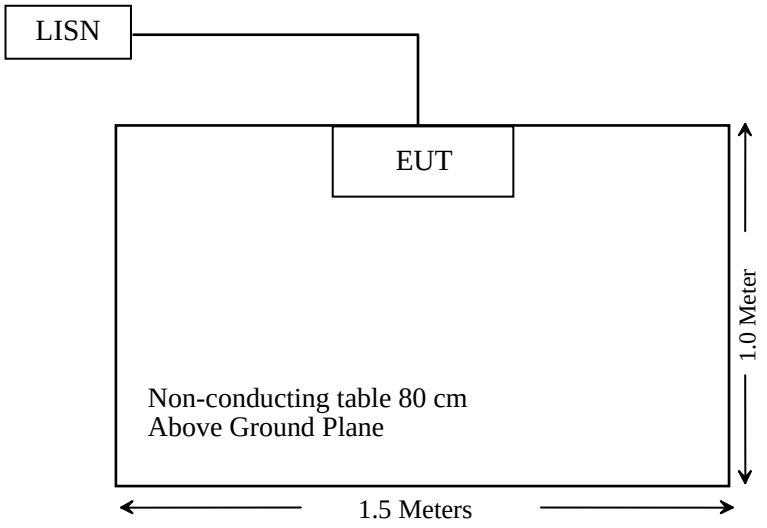
Bay Area Compliance Laboratory Corp. (Shenzhen) has not done any modification on the EUT.

Configuration of Test Setup



EUT

Block Diagram of Test Setup



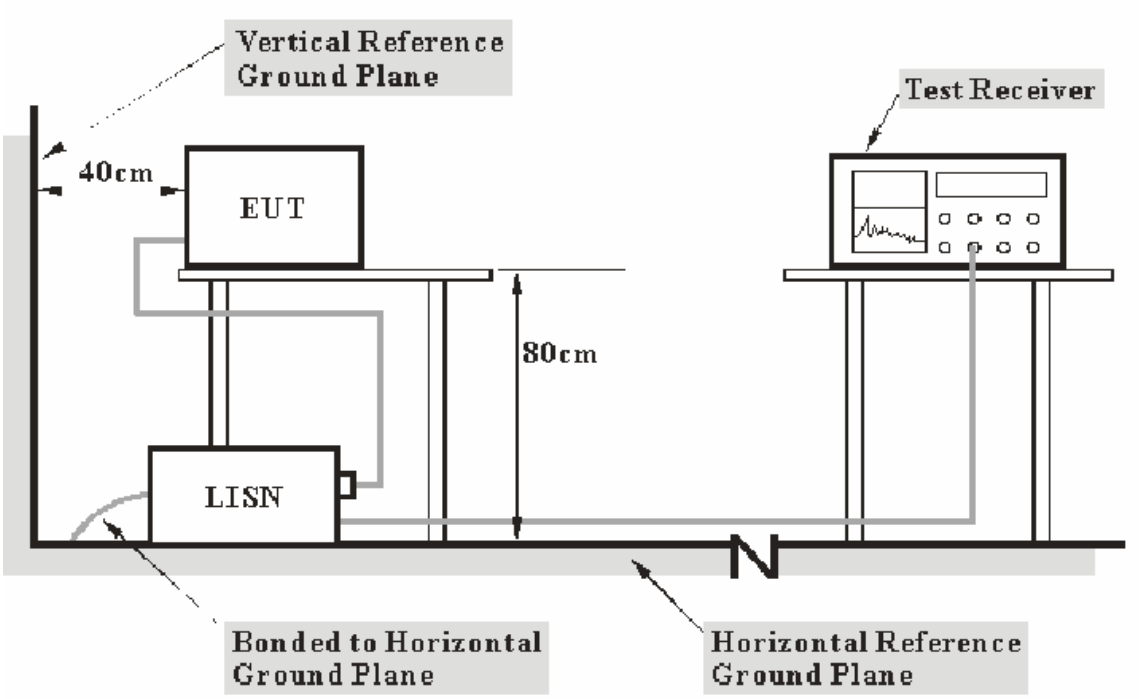
CONDUCTED EMISSIONS

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 NIS 81, 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.

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 MP-5: 1986 measurement procedure. Specification used was with the FCC Part 18 limits.

The EUT was connected to a 120 VAC/ 60Hz power source.

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:

Frequency Range	***IFBW***
150 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	DE25330	2006-3-20	2007-03-19
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2006-03-01	2007-03-01

***** Com-Power's LISN were used as the supporting equipment.
*** 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 Procedure

During the conducted emission test, the EUT power cord 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 detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 18, with the worst margin reading of:

SIL06-15w: **9.00 dB** at **0.455 MHz** in the **Live** conductor mode.
SIL06-23w: **3.00 dB** at **0.450 MHz** in the **Neutral** conductor mode.
SIL06-28w: **6.50 dB** at **0.615 MHz** in the **Live** conductor mode.

Test Data

Environmental Conditions

Temperature:	25° C
Relative Humidity:	56%
ATM Pressure:	940mbar

Testing was performed by Henry Yang on 2007-01-04.

Test Mode: On (SIL06-15w)

LINE CONDUCTED EMISSIONS				FCC Part 18	
Frequency (MHz)	Amplitude (dBμV)	Detector	Phase Neutral/Live	Limit (dBμV)	Margin (dB)
0.455	39.00	QP	Live	48.00	9.00
0.465	38.90	QP	Neutral	48.00	9.10
0.530	35.40	QP	Neutral	48.00	12.60
0.635	35.20	QP	Neutral	48.00	12.80
0.740	35.10	QP	Neutral	48.00	12.90
0.575	34.80	QP	Live	48.00	13.20
0.735	34.70	QP	Live	48.00	13.30
0.840	33.70	QP	Neutral	48.00	14.30
0.825	33.00	QP	Live	48.00	15.00
0.520	32.30	QP	Live	48.00	15.70
0.905	31.90	QP	Neutral	48.00	16.10
1.005	31.00	QP	Live	48.00	17.00

Test Mode: On (SIL06-23w)

LINE CONDUCTED EMISSIONS				FCC Part 18	
Frequency (MHz)	Amplitude (dBμV)	Detector	Phase Neutral/Live	Limit (dBμV)	Margin D(B)
0.450	45.00	QP	Neutral	48.00	3.00
0.455	43.60	QP	Live	48.00	4.40
0.525	42.30	QP	Live	48.00	5.70
0.485	39.20	QP	Live	48.00	8.80
0.575	38.80	QP	Neutral	48.00	9.20
0.510	38.30	QP	Neutral	48.00	9.70
0.475	37.10	QP	Neutral	48.00	10.90
0.545	37.10	QP	Neutral	48.00	10.90
0.660	35.70	QP	Live	48.00	12.30
1.320	34.80	QP	Neutral	48.00	13.20
0.590	34.60	QP	Live	48.00	13.40
0.625	34.40	QP	Live	48.00	13.60

Test Mode: On (SIL06-28w)

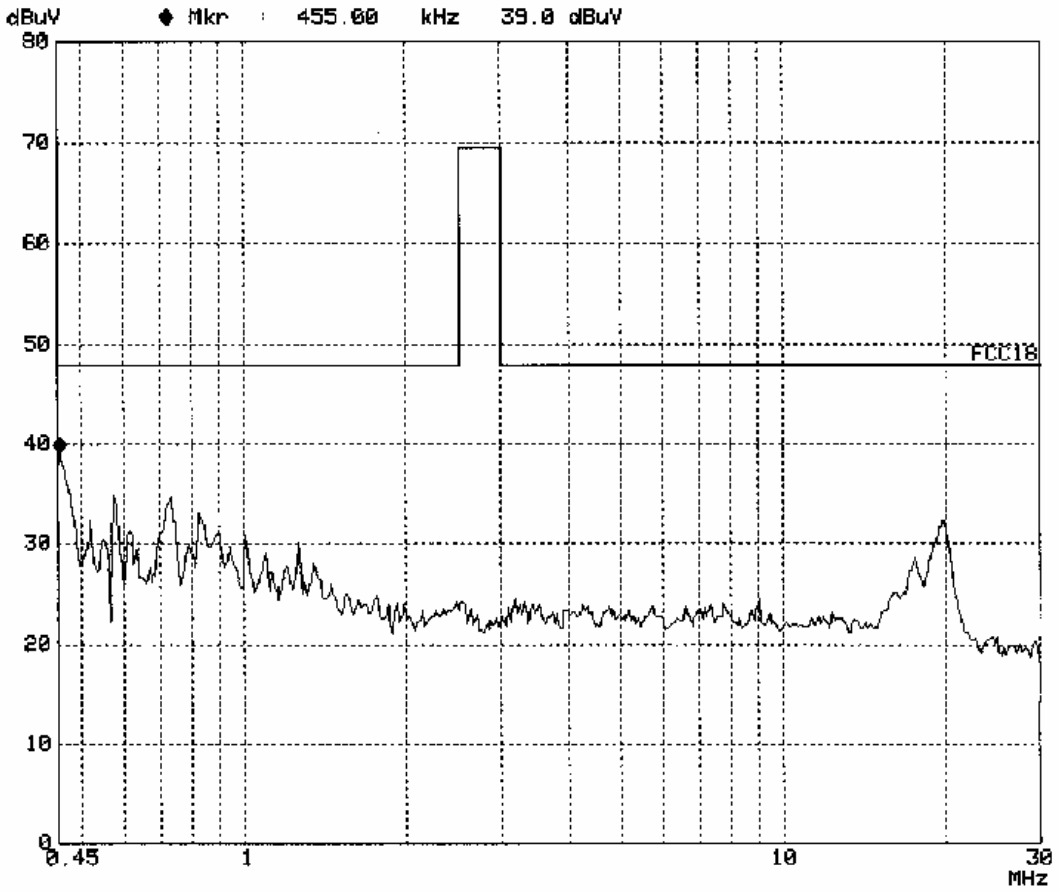
LINE CONDUCTED EMISSIONS				FCC Part 18	
Frequency (MHz)	Amplitude (dBμV)	Detector	Phase Neutral/Live	Limit (dBμV)	Margin (dB)
0.615	41.50	QP	Live	48.00	6.50
0.455	40.80	QP	Live	48.00	7.20
0.485	39.10	QP	Neutral	48.00	8.90
1.425	37.90	QP	Neutral	48.00	10.10
0.560	37.10	QP	Neutral	48.00	10.90
1.335	37.10	QP	Neutral	48.00	10.90
1.210	36.60	QP	Neutral	48.00	11.40
1.300	36.50	QP	Neutral	48.00	11.50
0.540	35.40	QP	Live	48.00	12.60
1.340	32.10	QP	Live	48.00	15.90
1.455	31.60	QP	Live	48.00	16.40
1.255	31.20	QP	Live	48.00	16.80

Plot(s) of Test Data

Plot(s) of Test Data is presented hereinafter as reference.

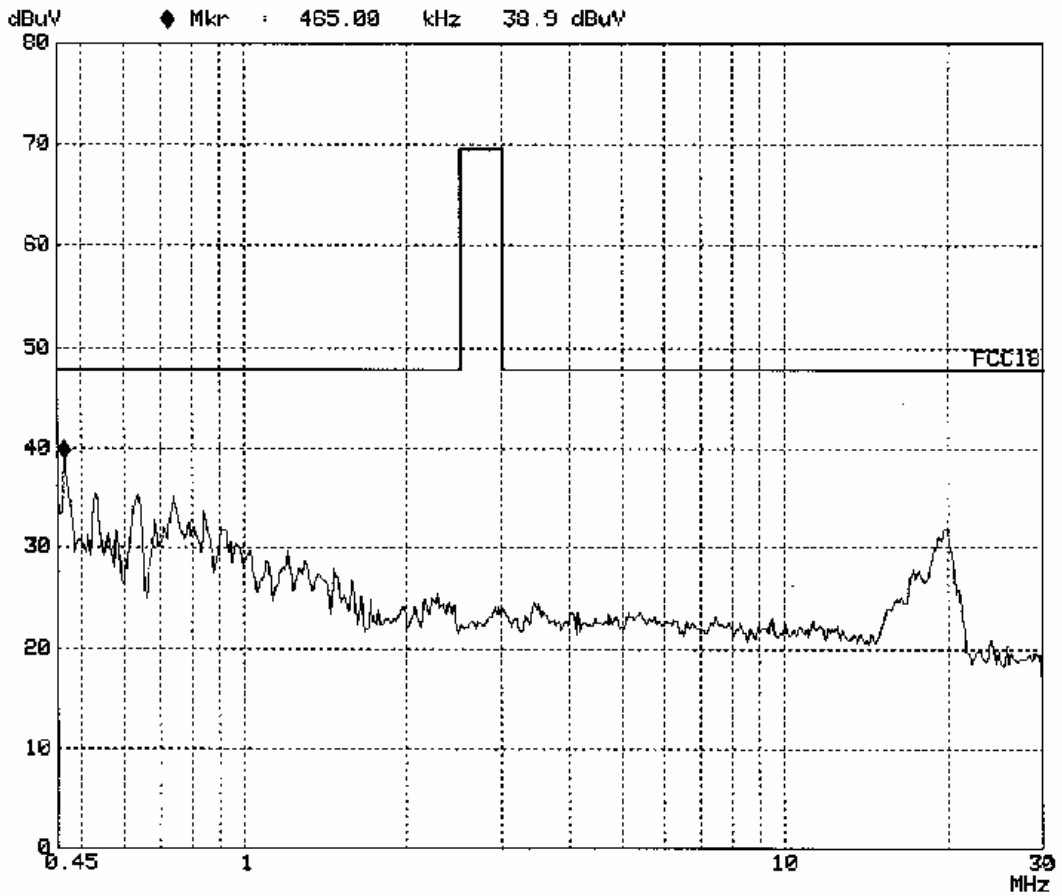
Conducted Emission Test
FCC 18

EUT:	Ionic Lite M/N:SIL06-15w
Manuf:	SAST
Op Cond:	Running
Operator:	Henry
Test Spec:	AC 120V/60Hz L
Comment:	Temp:25'C Humi:56%
Date:	04. Jan 07 21:08



Conducted Emission Test
FCC 18

EUT:	Ionic Lite M/N:SIL06-15W
Manuf:	SAST
Op Cond:	Running
Operator:	Henry
Test Spec:	AC 120V/60Hz N
Comment:	Temp:25'C Humi:56%
Date:	04, Jan 07 21:01



Conducted Emission Test
FCC 18

EUT:	Ionic Lite M/N:SIL06-23w
Manuf:	SAST
Op Cond:	Running
Operator:	Henry
Test Spec:	AC 120V/60Hz L
Comment:	Temp:25'C Humi:56%
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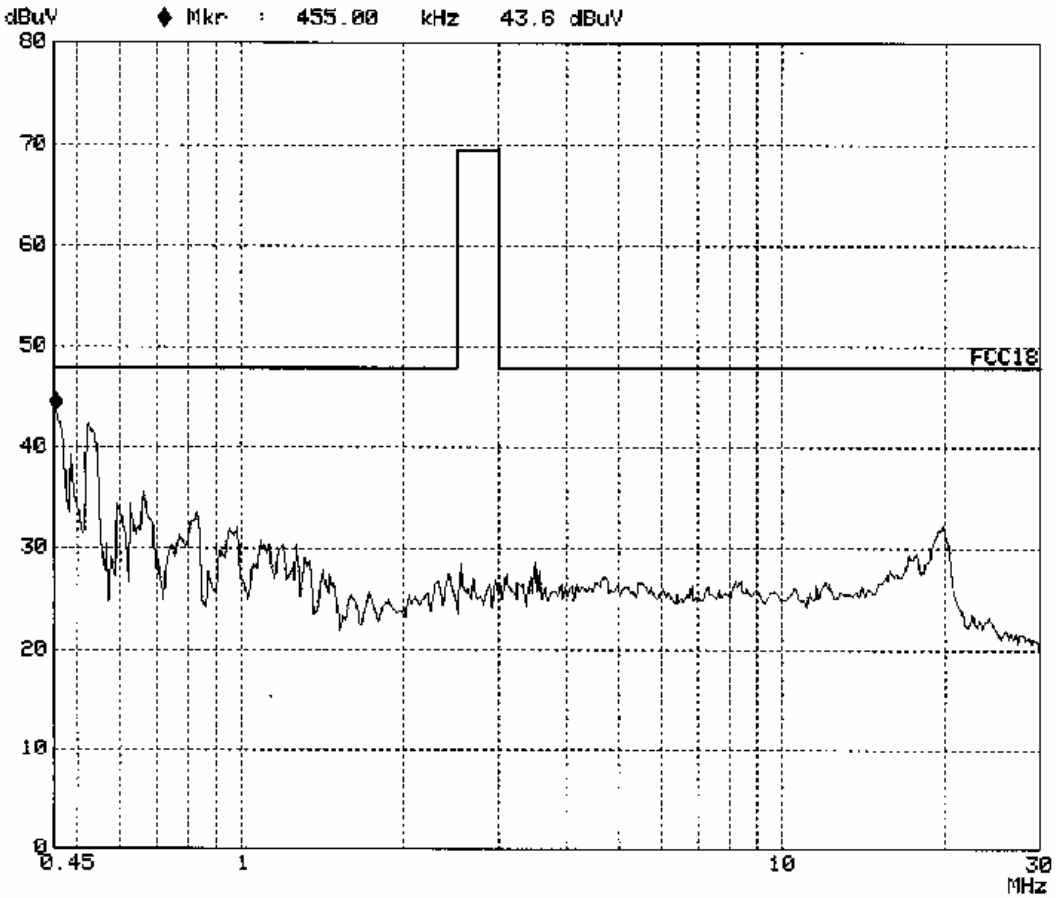

Conducted Emission Test
FCC 18

EUT:	Ionic Lite M/N:SIL06-23w
Manuf:	SAST
Op Cond:	Running
Operator:	Henry
Test Spec:	AC 120V/60Hz N
Comment:	Temp:25'C Humi:56%
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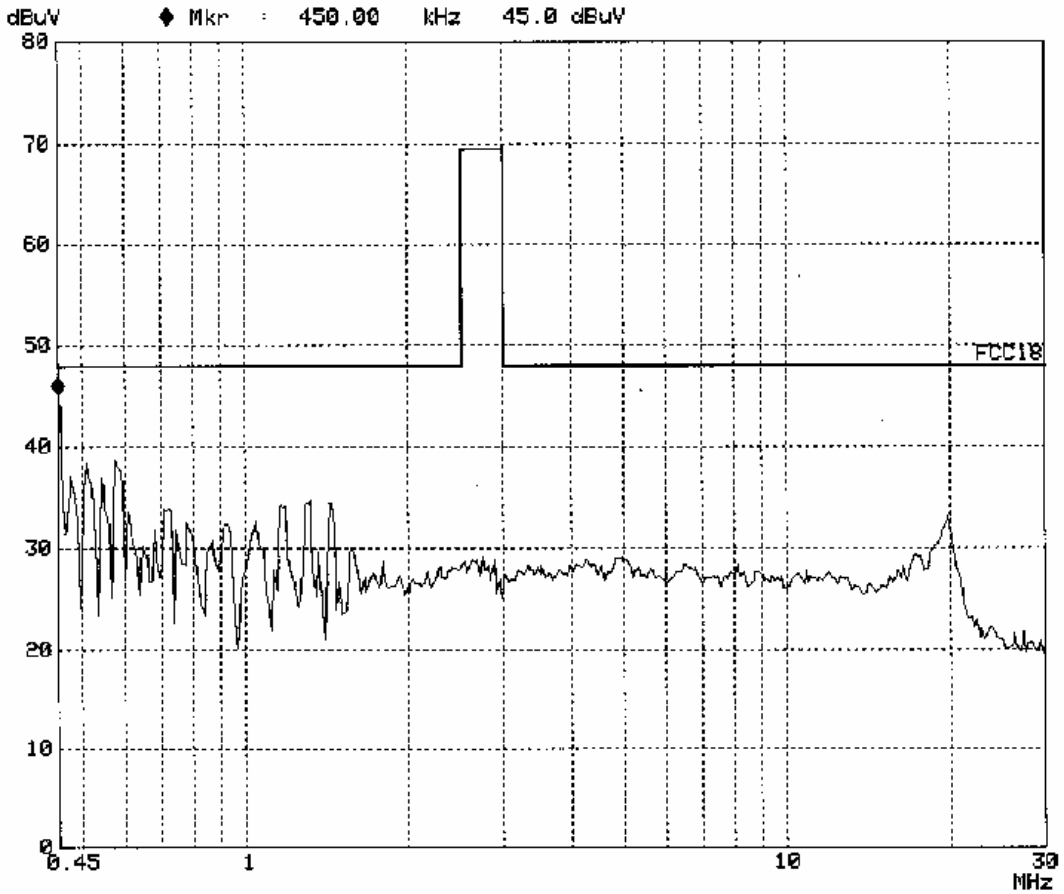
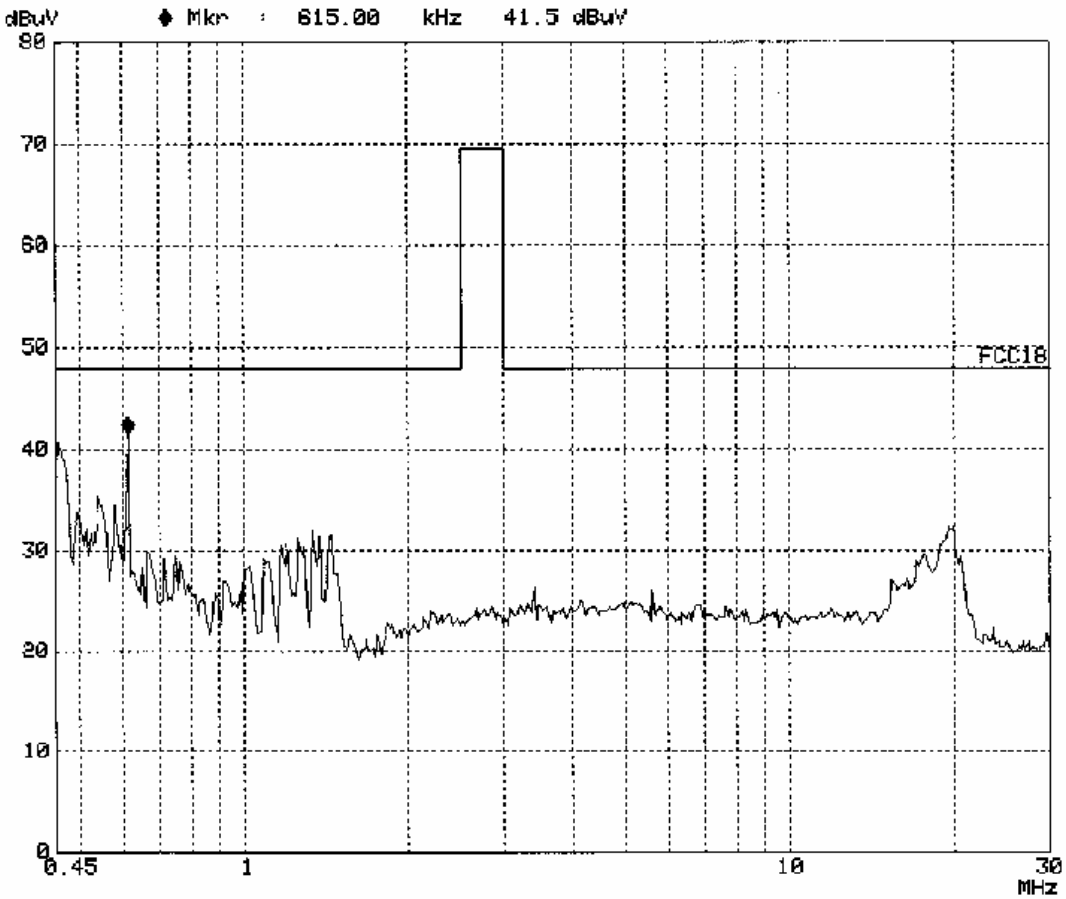


Conducted Emission Test
FCC I8

EUT:	Ionic Lite M/N:SIL06-28w
Manuf:	SAST
Op Cond:	Running
Operator:	Henry
Test Spec:	AC 120V/60Hz L
Comment:	Temp:25'C Humi:56%
Date:	04. Jan 07 21:33



Conducted Emission Test
FCC 18

EUT:	Ionic Lite M/N:SIL06-28w
Manuf:	SAST
Op Cond:	Running
Operator:	Henry
Test Spec:	AC 120V/60Hz N
Comment:	Temp:25'C Humi:56%
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