Report No.: 140808013GZU-001
Issued: 2014-9-03

TEST REPORT

Applicant Name & Address	:	Seasonal Visions International Ltd Unit C,12/F,Phase 1,Kaiser Estate,Nos.37-43 ManYue Street,Hung Hom,Kowloon
Manufacturing Site	:	SHENZHEN QIAOHUA INDUSTRIES LIMITED 301, No.1 Building, Qiaohua Industrial Zone, LuoTian Forestry Center,SongGang Town, Bao An, ShenZhen, China.
Sample Description		
Product	:	Strobe Light
Model No.	:	QS-003
Electrical Rating	:	120V~60Hz Max.5W 47mA
FCC ID		ZOPSTLAC
Date Received	:	08 August 2014
Date Test Conducted	:	09 August 2014-02 September 2014
Test standards	:	**FCC Part 18: 2011**
Test Result	:	Pass
Conclusion	:	The submitted samples complied with the above rules/standards.
Remark	:	None.

**********End of Page**********

Prepared and Checked By:

Sky Zhu

Sky Zhu
Engineer
Intertek Guangzhou

Approved By:

Helen Ma ***Signature***

Helen Ma
Sr. Project Engineer
Intertek Guangzhou
03 September 2014 ***Date***

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD Guangzhou, China
Tel / Fax: 86-20-8213 9688/86-20-3205 7538

CONTENT

1 TEST RESULTS SUMMARY

Classification of EUT: Consumer RF lighting:

Test Item	Standard	Result
Conducted Emission	**FCC Part 18: 2011**	**Pass**
Radiated Emission	**FCC Part 18: 2011**	**Pass**

Remark: 1. The symbol "N/A" in above table means Not Applicable.
2. When determining the test results, measurement uncertainty of tests has been considered.

2 Test Results Conclusion

(with Justification)

RE: EMC Testing Pursuant to FCC Part 18 Performed On the Strobe Light, Models: QS-003.

We tested the Strobe Light, Model: QS-003, to determine if it was in compliance with the relevant FCC rules as marked on the Test Results Summary. We found that the unit met the requirement of FCC Part 18 when tested as received. The worst case's test data was presented in this test report.

Conclusion:
The sample as received complied with the FCC Part 18 requirement.

The production units are required to conform to the initial sample as received when the units are placed on the market.

3 LABORATORY MEASUREMENTS

Configuration Information

Equipment Under Test (EUT):	Strobe Light	
Model:	QS-003	
Serial No.	Not Labeled	
Support Equipment:	N/A	
Rated Voltage:	120V/60Hz	
Condition of Environment:	Temperature :	22~28°C
	Relative Humidity:	35~60%
	Atmosphere Pressure	86~106kPa

Notes:
1. The EMI measurements had been made in the operating mode producing the largest emission in the frequency band being investigated consistent with normal applications.
An attempt had been made to maximize the emission by varying the configuration of the EUT.

2. Test Sites:
All of the tests are performed at:
Intertek Testing Services Shenzhen Ltd. Guangzhou Branch.
Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD Guangzhou, China 510663.

This test facility and site measurement data have been fully placed on file with the FCC, test firm registration number is 549654.

4 TEST RESULTS

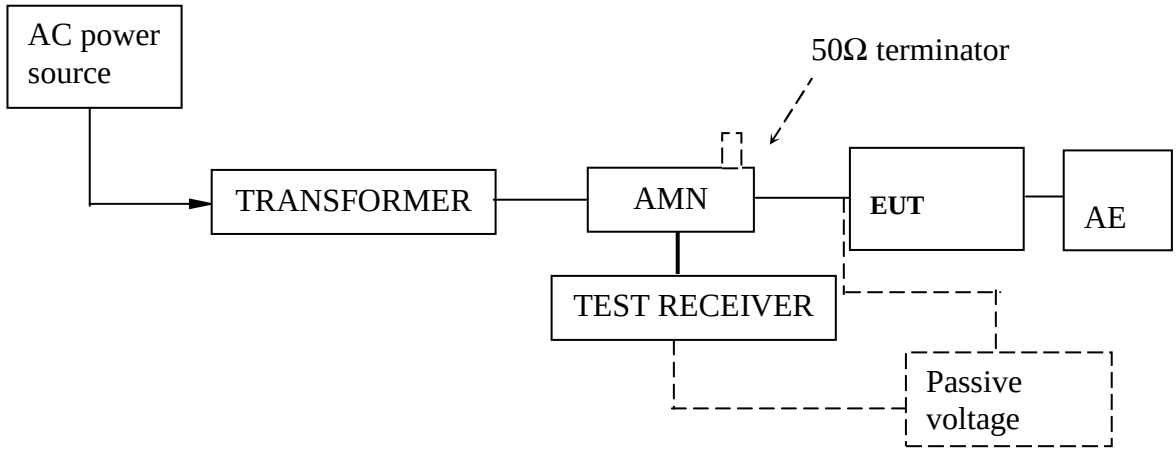
4.1 Conducted Emission Test

Test Result: Pass

4.1.1 Used Test Equipment

Equipment No.	Equipment	Model	Manufacturer
EM004-04	EMC shield Room	8m×3m×3m	Zhongyu
EM080-05	EMI receiver	ESCI	R&S
EM006-05	LISN	ENV216	R&S

4.1.2 Block Diagram of Test Setup



4.1.3 Test Setup and Procedure

Test was performed according to FCC OST/ MP-5:1986. The EUT was set to achieve the maximum emission level. The mains terminal disturbance voltage was measured with the EUT in a shielded room. The EUT was connected to AC power source through an Artificial Mains Network which provides a 50Ω linear impedance Artificial hand is used if appropriate (for handheld apparatus). The load/control terminal disturbance voltage was measured with passive voltage probe if appropriate.

The table-top EUT was placed on a 0.8m high non-metallic table above earthed ground plane(Ground Reference Plane).And for floor standing EUT, was placed on a 0.1m high non-metallic supported on GRP. The EUT keeps a distance of at least 0.8m from any other of the metallic surface. The Artificial Mains Network is situated at a distance of 0.8m from the EUT.

During the test, mains lead of EUT excess 0.8m was folded back and forth parallel to the lead so as to form a horizontal bundle with a length between 0.3m and 0.4m.

The bandwidth of test receiver was set at 9 kHz. The frequency range from 450 kHz to 30MHz was checked.

4.1.4 Test Data

At main terminal: Pass

Tested Wire: Live **Operation Mode: Lighting on**

EDIT PEAK LIST (Final Measurement Results)

Trace1: FCC18
Trace2: ---
Trace3: ---

TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	682 kHz	39.84	L1	-8.10
1	Quasi Peak	450 kHz	39.44	L1	-8.50
1	Quasi Peak	710 kHz	39.36	L1	-8.58
1	Quasi Peak	914 kHz	38.91	L1	-9.03
1	Quasi Peak	630 kHz	38.91	L1	-9.03
1	Quasi Peak	478 kHz	38.06	L1	-9.88
1	Quasi Peak	606 kHz	37.80	L1	-10.14
1	Quasi Peak	862 kHz	37.54	L1	-10.40
1	Quasi Peak	990 kHz	35.86	L1	-12.08
1	Quasi Peak	1.418 MHz	34.35	L1	-13.59
1	Quasi Peak	1.194 MHz	32.30	L1	-15.64
1	Quasi Peak	1.09 MHz	30.18	L1	-17.76
1	Quasi Peak	2.062 MHz	30.13	L1	-17.82
1	Quasi Peak	3.25 MHz	29.48	L1	-18.46
1	Quasi Peak	3.126 MHz	28.68	L1	-19.26
1	Quasi Peak	4.234 MHz	28.37	L1	-19.57
1	Quasi Peak	6.286 MHz	25.99	L1	-21.95
1	Quasi Peak	7.694 MHz	24.75	L1	-23.19

Tested Wire: Neutral **Operation Mode: Lighting on**

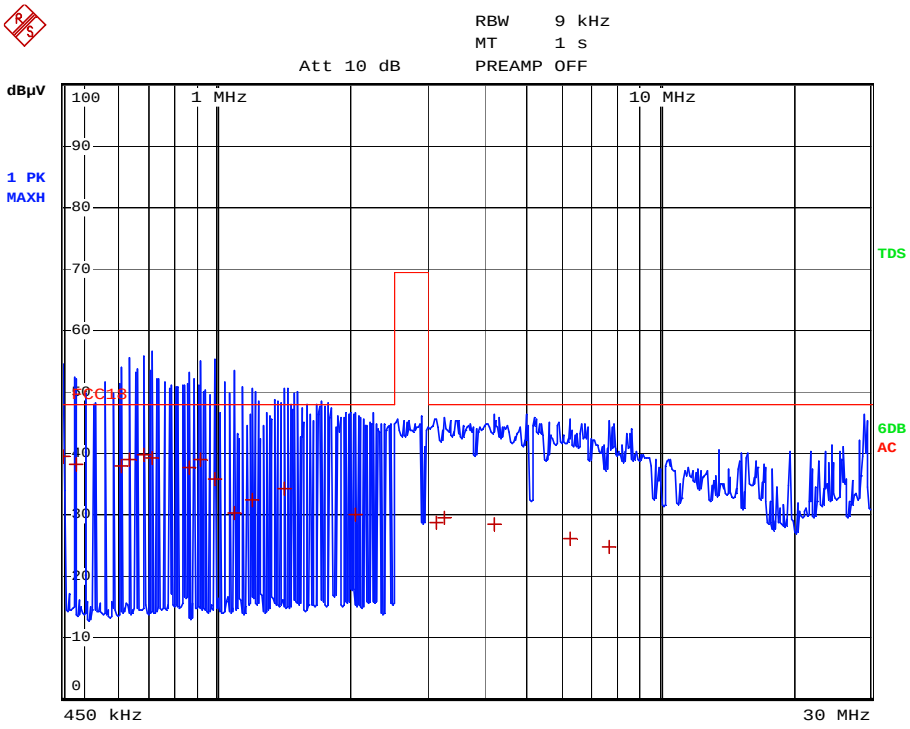
EDIT PEAK LIST (Final Measurement Results)

Trace1: FCC18
Trace2: ---
Trace3: ---

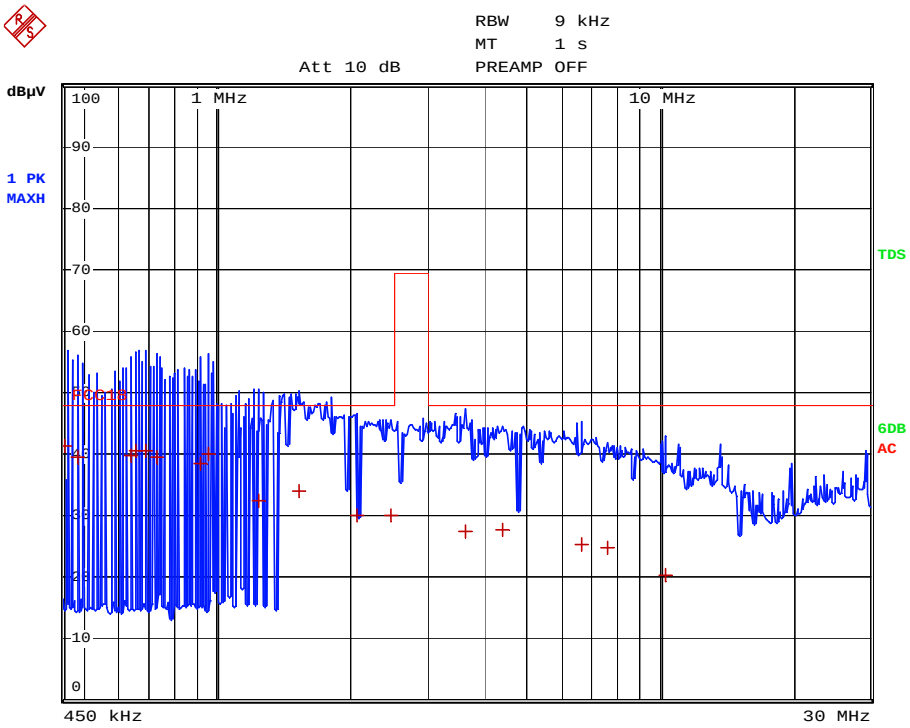
TRACE		FREQUENCY	LEVEL dBµV		DELTA LIMIT dB
1	Quasi Peak	458 kHz	41.46	L1	-6.48
1	Quasi Peak	686 kHz	40.65	L1	-7.29
1	Quasi Peak	650 kHz	40.57	L1	-7.37
1	Quasi Peak	954 kHz	39.99	L1	-7.95
1	Quasi Peak	638 kHz	39.65	L1	-8.29
1	Quasi Peak	482 kHz	39.56	L1	-8.38
1	Quasi Peak	726 kHz	39.52	L1	-8.42
1	Quasi Peak	918 kHz	38.57	L1	-9.37
1	Quasi Peak	1.53 MHz	34.02	L1	-13.92
1	Quasi Peak	1.238 MHz	32.33	L1	-15.61
1	Quasi Peak	2.47 MHz	29.96	L1	-17.98
1	Quasi Peak	2.066 MHz	29.94	L1	-18.00
1	Quasi Peak	4.41 MHz	27.70	L1	-20.24
1	Quasi Peak	3.65 MHz	27.50	L1	-20.44
1	Quasi Peak	6.658 MHz	25.36	L1	-22.58
1	Quasi Peak	7.638 MHz	24.83	L1	-23.11
1	Quasi Peak	10.278 MHz	20.29	L1	-27.65

4.1.5 Emission Curve

Tested Wire: Live



Tested Wire: Neutral



4.1.6 Measurement Uncertainty

Uncertainty: 2.70 dB at a level of confidence of 95%

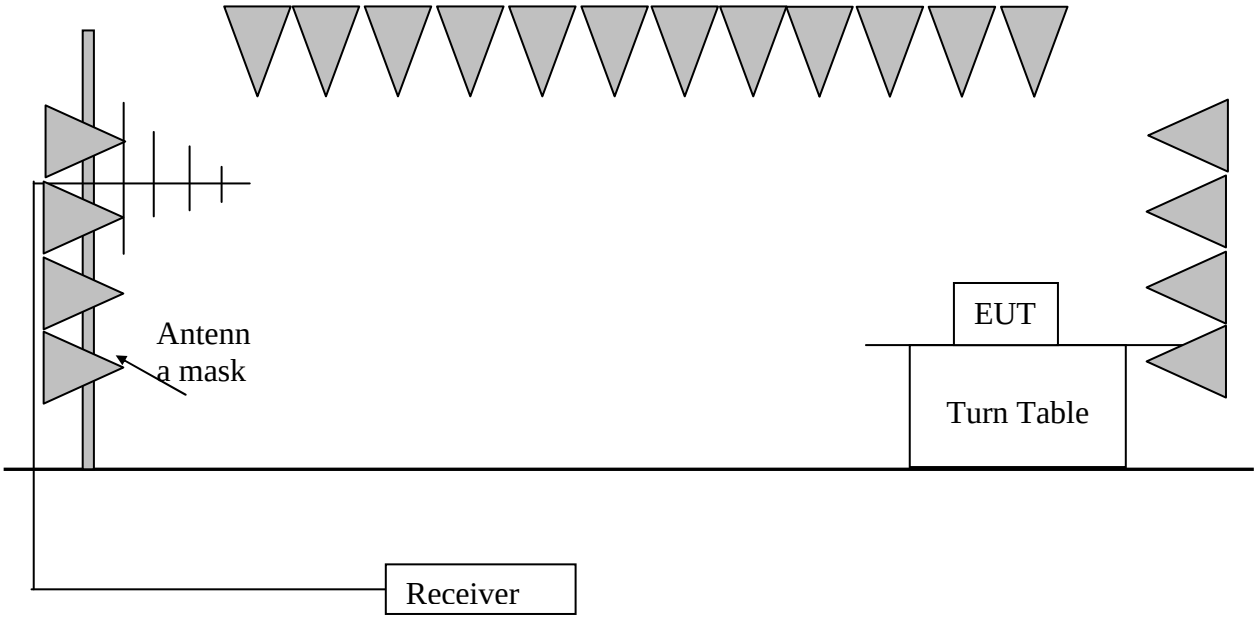
4.2 Radiated Emission

Test Result: Pass

4.2.1 Used Test Equipment

Equip. No.	Equipment	Model	Manufacturer
EM030-01	3m Semi-Anechoic Chamber	9×6×6 m3	ETS·LINDGREN
EM030-02	Control room for 3m Semi-Anechoic Chamber	4×4×3 m3	ETS·LINDGREN
EM031-02	EMI Test Receiver (9 kHz~7 GHz)	R&S ESR7	R&S
EM033-01	TRILOG Super Broadband test Antenna（30 MHz-3 GHz）	VULB 9163	SCHWARZBECK
EM031-02-01	Coaxial cable	/	R&S

4.2.2 Block Diagram of Test Setup



4.2.3 Test Setup and Procedure

The measurement was applied in a 3 m semi-anechoic chamber. The EUT and simulators were placed on a 0.8 m high wooden turntable above the horizontal metal ground plane. The turn table rotated 360 degrees to determine the position of the maximum emission level. The

EUT was set 3 meters away from the receiving antenna which was mounted on an antenna mask. The antenna moved up and down between from 1meter to 4 meters to find out the maximum emission level.

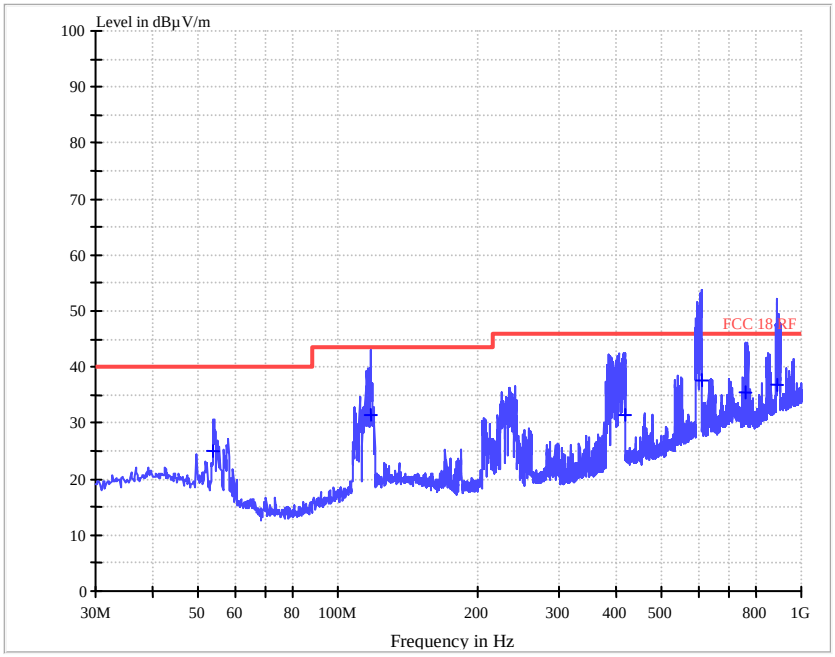
Broadband antenna was used as receiving antenna. Both horizontal and vertical polarization of the antenna was set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC OST/ MP-5:1986 requirement during radiated test. The bandwidth setting on R&S Test Receiver was 100 kHz. The frequency range from 30 MHz to 1000 MHz was checked

4.2.4 Test Data

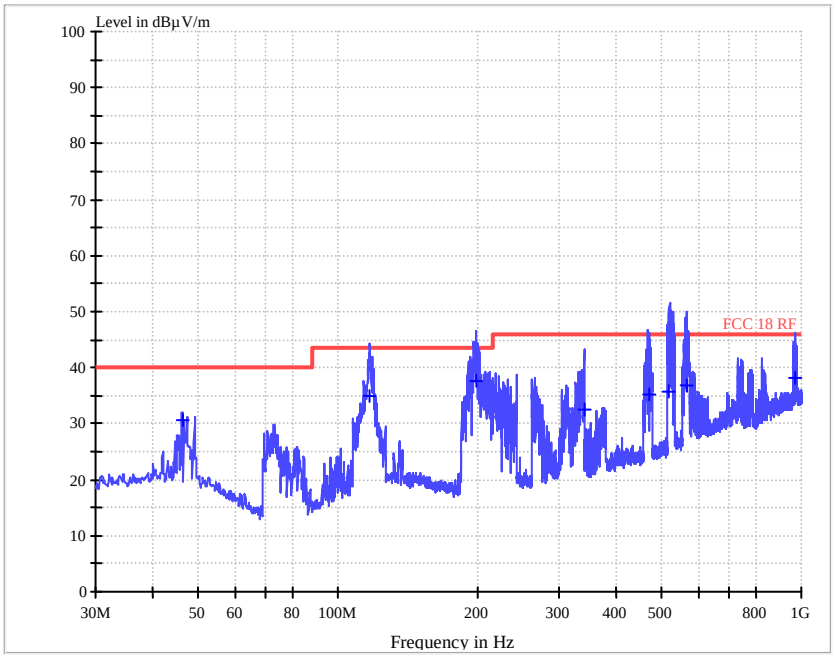
Antenna Polarization	Frequency [MHz]	Measured Net at 3m [dB(μV/m)]	Limit at 3m [dB(μV/m)]
Horizontal	53.8	24.9	40.0
Horizontal	117.8	31.6	43.5
Horizontal	415.6	31.4	46.0
Horizontal	608.9	37.6	46.0
Horizontal	758.8	35.5	46.0
Horizontal	889.6	36.9	46.0
Vertical	46.2	30.6	40.0
Vertical	116.7	35.0	43.5
Vertical	198.8	37.5	43.5
Vertical	339.5	32.5	46.0
Vertical	469.0	35.2	46.0
Vertical	519.4	35.8	46.0
Vertical	567.4	36.7	46.0
Vertical	971.8	38.3	54.0

4.2.5 Test Curve

Horizontal



Vertical



4.2.6 Measurement uncertainty

Uncertainty: 4.87 dB in the frequency range of 30-1000 MHz at a level of confidence of 95%

5 Appendix I - Photos of test setup

Conducted Emission

Radiated Emission

6 Appendix II - Photos of EUT

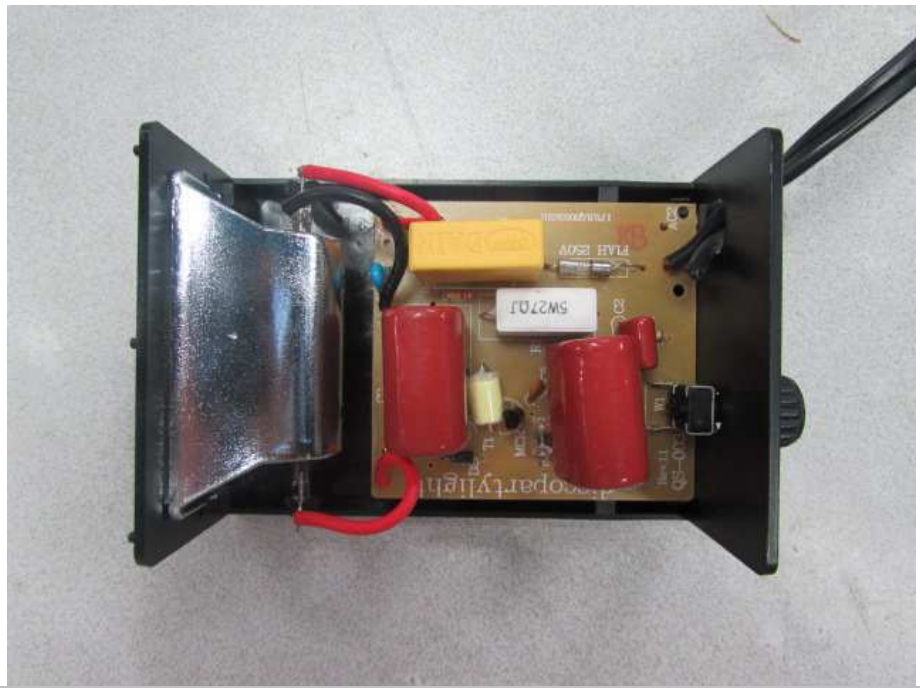
Outside view

Outside view


Front view

Back view

Inside view



PCB View