



LCIE

TEST REPORT N°: CQL-08MA323LTSPB

# EMC TEST REPORT

To :	LINHAI CHUANGQI LIGHTS CO., LTD.	Fax :	0576 5133170
Attn :	Ms. LISA LIN	Email :	<a href="mailto:LISALINCN@163.COM">LISALINCN@163.COM</a>
Address :	No. 4 Building, Da Yang Industrial Park Linhai City, 317000 Zhejiang P.R.China		
Cc :		Fax/Email :	
Attn :			
This document includes : 10 pages		Test date :	April 03 – June 01, 2008

FACTORY NAME :	LINHAI CHUANGQI LIGHTS CO., LTD.	
ADDRESS :	No. 4 Building, Da Yang Industrial Park Linhai City, 317000 Zhejiang P.R.China	
PRODUCT :	Lighting Chain	
TYPE REFERENCE :	CQxxx*-B	
RATED VOLTAGE :	AC220-240V, 50Hz	
RATED INPUT POWER:	-	
PROTECTION CLASS :	II	
TESTS REALISED :	On 1 sample of CQ100-B	

STANDARDS USED(DATE) :	EN 55014-1:2006 EN 55014-2:1997+A1:2001 EN 61000-3-2:2006 EN 61000-3-3:1995+A1:2001+A2:2005
CLAUSES EXAMINED :	All Clauses Relevant.

All the tests done in this report are subcontracted to Shanghai Testing and Inspection Institute for Electrical Appliances (TIET), which is accredited by CNAS under number 'L0200'.

CONCLUSION :	<b>The sample does satisfy the clauses examined .</b>
--------------	---

Test done by:	Approved by:
---------------	--------------

Name : Trulli LI Date : June 01, 2008 <i>Trulli Li</i>	Name : Zhaoqian YU Date : June 01, 2008 <i>Zhaoqian YU</i>
--	--

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.



**TEST REPORT N°: CQL-08MA323LTSPB**

**1 TESTING PROGRAM**

The tests have been carried out according to the requirements of the following standards :

**Emission standard EN 55014-1:2006**

- Measurement of the disturbance voltage levels.
- Measurement of the discontinuous disturbance levels.
- Measurement of the disturbance power levels.
- Measurement of the radiated disturbance levels.

**Immunity standard EN 55014-2:1997+A1:2001**

- No tests are needed according to the standard.

**Emission standard EN 61000-3-2:2006**

- Measurement of the harmonic currents.

**Emission standard EN 61000-3-3:1995+A1:2001+A2:2005**

- Measurement of the voltage fluctuations and flickers.

Special Comment : We performed all EMC tests on the model CQ100-B to represent the others because this sample is the max power.

**2 HISTORY OF FAILURE**

None.

**3 EQUIPMENT CHARACTERISTICS**

**3.1 List of critical EMC components**

Object/Part No.	Manufacturer / Trademark	Type / Model	Technical data	Mark(s) of conformity
Capacitor	-	MPX - X2	0.22µF	-
Flash Bulb	-	-	-	-

#### 4 Explanation for the models

<b>CQ</b>	Factory code, abbreviation of company "CHUANG QI"
<b>xxx</b>	number of bulbs
<b>δ</b>	code of bulb (If no indication, light is with normal bulbs)
<b>*</b>	code of decoration (If no indication, light has no decorations)
<b>'-B</b>	flashing caused by blinking bulb
<b>color of bulb:</b> clear, red, blue, green ,pink, gold, purple, white and etc.	
<b>Shape of Light Chain:</b> rope, net, curtain,etc.	
<b>Color of Supply Cord:</b> white, brown, black, green, blue, etc.	
<b>Color of decorations:</b> transparent, white, black, red, yellow, blue, green, pink, purple, orange, and etc.	

#### 5 Pictures for test setup








	
Disturbance Voltage Test	Disturbance Power Test
	
Clicks	Harmonic



LCIE

TEST REPORT N°: CQL-08MA323LTSPB

6 Pictures for the sample

			
			
			
		None	



TEST REPORT N°: CQL-08MA323LTSPB

## 7 OPERATING CONDITIONS

The apparatus was placed in a shielded room, and was powered with an alternative current source through filters mounted on the shielded room wall. The apparatus was worked continuously.

Climatic conditions :

Temperature	:	20 °C
Relative humidity	:	50 %
Atmospheric pressure	:	101.5 kPa



TEST REPORT N°: CQL-08MA323LTSPB

## 8 TEST RESULTS

### 8.1 EMISSION STANDARD EN 55014-1:2006

Article	TEST	TEST SPECIFICATION	RESULTS			
			P	F	NA	Rem
4.1	<b><u>Disturbance Voltage Limit</u></b>	Operating conditions : according to the article 7.3.1				
4.1.1	Frequency range: 0.15 to 30 MHz	<input checked="" type="checkbox"/> Not for Toy <input type="checkbox"/> Toys of Category: E Port(s) : <ul style="list-style-type: none"> <li>• AC mains port</li> <li>•</li> </ul> Diagram No. <1>	[X]	[ ]	[ ]	[ ]
4.1.2	<b><u>Disturbance Power Limit</u></b>	Operating conditions : according to the article 7.3.1				
4.1.2	Frequency range : 30 to 300 MHz	<input checked="" type="checkbox"/> Not for Toy <input type="checkbox"/> Toys of Category: E Port(s) : <ul style="list-style-type: none"> <li>• AC mains port</li> <li>•</li> </ul> Diagram No. <2>	[X]	[ ]	[ ]	[ ]
4.1.3	<b><u>Radiated disturbance limits</u></b>	Operating conditions : according to the article 7.3.6				
4.1.3	Frequency range: 30 to 1000 MHz	<input type="checkbox"/> For Toys of Category: E Measuring Distance: 3 m Antenna : - horizontal position - vertical position Diagram(s) No. <>	[ ] [ ]	[ ] [ ]	[X] [X]	[ ] [ ]
4.2	<b><u>Discontinuous Disturbance Limit</u></b>	Operating conditions : according to the article 7.3.1				
4.2	Frequency range: 0.15 to 30 MHz	<input checked="" type="checkbox"/> Not for Toy <input type="checkbox"/> Toys of Category: E Port(s) : <ul style="list-style-type: none"> <li>• AC mains port</li> <li>•</li> </ul> Table(s) No. <1>	[X]	[ ]	[ ]	[ ]

P : pass – F : Fail – NA : not applicable – Rem : remark

**Remark(s) :**



TEST REPORT N°: CQL-08MA323LTSPB

**8.2 IMMUNITY STANDARD EN 55014-2:1997+A1:2001**

Apparatus category : I  
 The apparatus under test is part of the category I listed in article 4.1 of the standard (apparatus without electronic control circuit), it is considered consistent with suitable immunity requirements, without perform any test.

**8.3 EMISSION STANDARD EN 61000-3-2:2006**

TEST	TEST SPECIFICATION	RESULTS			
		P	F	NA	Rem
<u>Limits for harmonic currents emission</u>	Frequency range: 0 to 2 kHz Class of the apparatus : C Table(s) No. <>	[X]	[ ]	[ ]	[*]

P : pass - F : Fail - NA : not applicable - Rem : remark

**Remark(s) :**

\* : There is no electronic transformer and dimming device in the apparatus, so it is deemed to fulfil the harmonic current requirements without further testing.

**8.4 EMISSION STANDARD EN 61000-3-3:1995+A1:2001+A2:2005**

TEST	TEST SPECIFICATION	RESULTS			
		P	F	NA	Rem
<u>Limitation of voltage fluctuations and flicker in low-voltage supply systems</u>	Frequency range: 0 to 2 kHz Table(s) No. < >	[X]	[ ]	[ ]	[*]

P : pass - F : Fail - NA : not applicable - Rem : remark

**Remark(s) :**

\* : The inrush current of this EUT does not exceed 20A, and the supply current after inrush is within a variation band of 1,5A. So according to 6.1 of this standard, the EUT is deemed to comply with this standard without further testing.

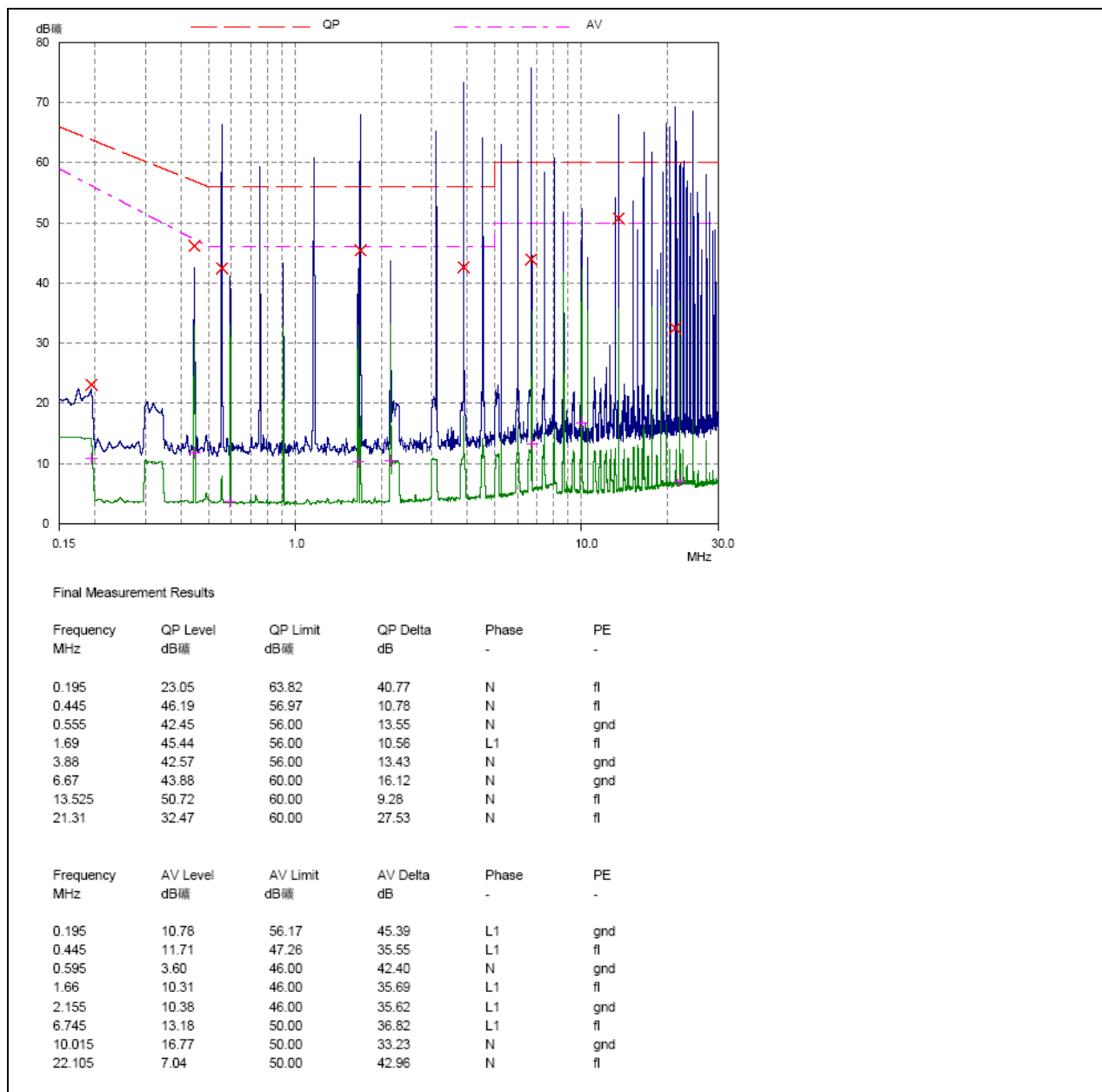
**9 CONCLUSION**

The apparatuses Lighting Chain and model CQxxx\*-B is in compliance with the requirements of the standards EN 55014-1:2006, EN 55014-2:1997+A1:2001, EN 61000-3-2:2006 and EN 61000-3-3:1995+A1:2001+A2:2005.



TEST REPORT N°: CQL-08MA323LTSPB

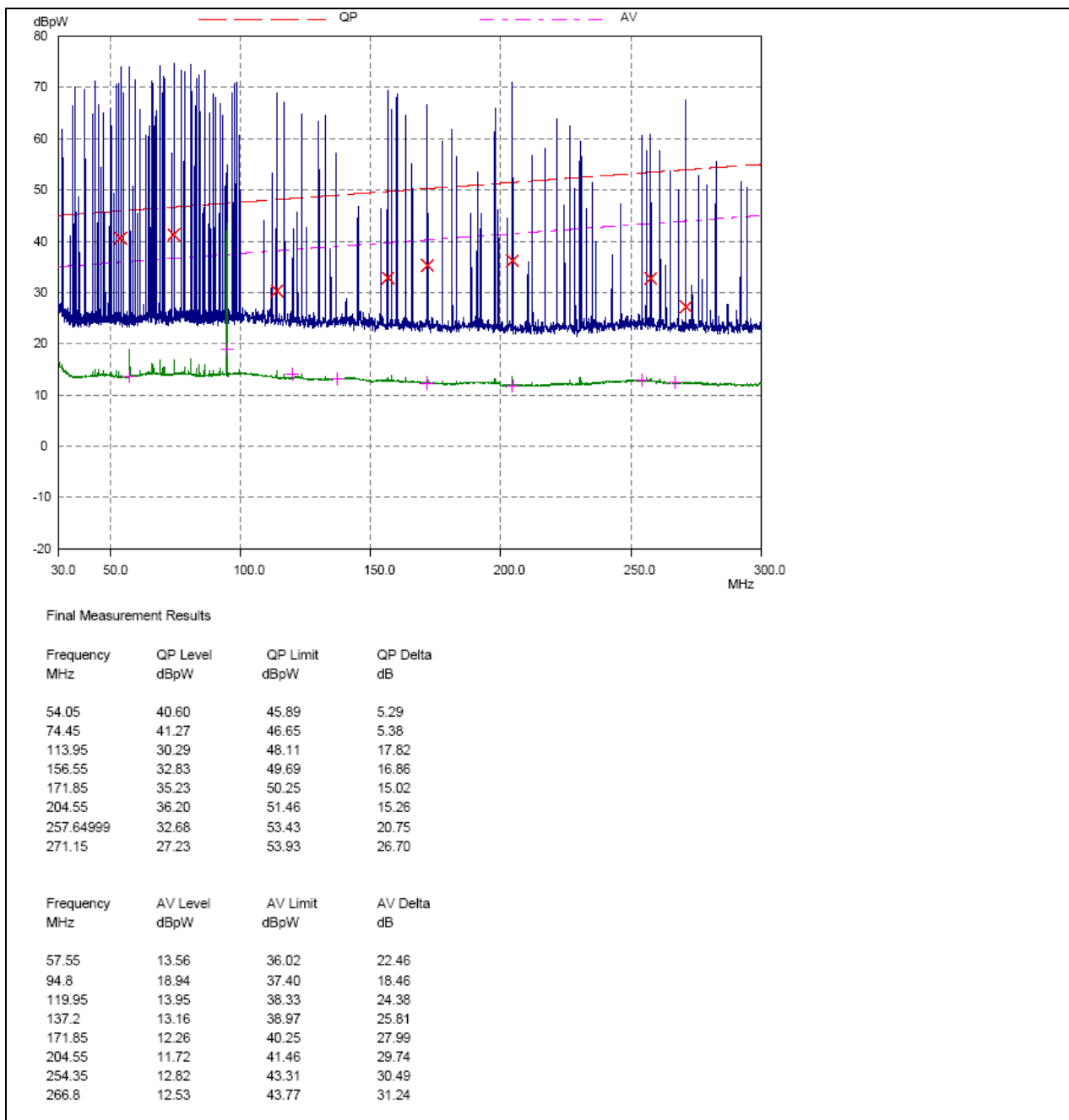
Diagram No. 1





TEST REPORT N°: CQL-08MA323LTSPB

Diagram No. 2





TEST REPORT N°: CQL-08MA323LTSPB

Table No. 1

DISCONTINUOUS INTERFERENCE TESTS

$$\text{Click rate } N = \frac{n}{T}$$

Frequency (MHz)	Limit value of the continuous interference L dB (µV)	Determination of click rate N				Permitted limit L + B dB (µV)	Clicks measurements		
		Number of counted clicks which are above L <i>n</i>	Observation duration T (min)	N	Increase of the limit value B dB		Observation duration T' (min)	Number of clicks above the limit <i>n'</i>	Number of permitted clicks $n \frac{1}{4} - \frac{T}{T'}$
0.15	66	1	120	0.01	44	110	120	0	0
0.5	56	0	120	0.01	NA	NA	NA	NA	NA
1.4	56	1	120	0.01	44	100	120	0	0
30	60	0	120	0.01	NA	NA	NA	NA	NA

