

EMC TEST REPORT
for
Chevy Light Co., Ltd.

LED Traffic Light
Model No: CLJD300C-R/Y/G, CLRX300C-R/G, CLJD200C-R/Y/G,
CLRX200C-R/G

Prepared for : Chevy Light Co., Ltd.
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Industry Zone, Shiyan, Bao'an District, Shenzhen, P.R. China

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Report No. : ATE20081112
Date of Test : June 18-27, 2008
Date of Report : June 27, 2008

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Appendix I (2 pages)

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Appendix III (Photos of EUT) (3 pages)

TEST REPORT DECLARATION

Applicant : Chevy Light Co., Ltd.
 Manufacturer : Chevy Light Co., Ltd.
 Product : LED Traffic Light
 Model No. : CLJD300C-R/Y/G, CLRX300C-R/G, CLJD200C-R/Y/G,
 : CLRX200C-R/G
 Rating : Input: AC 85-265; 50/60Hz

Measurement Procedure Used:

EN 55015: 2006

EN 61000-3-2: 2006

EN 61000-3-3: 1995+A1: 2001+ A2: 2005

EN 61547: 1995 + A1: 2000 (IEC61000-4-2: 2001

IEC61000-4-3: 2006

IEC61000-4-4: 2004

IEC61000-4-5: 2005

IEC61000-4-6: 2006

IEC61000-4-8: 2001

IEC61000-4-11: 2004)

The device described above is tested by Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the EN 55015, EN 61000-3-2, EN 61000-3-3 and EN 61547 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Accurate Technology Co., Ltd.

Date of Test : June 18-27, 2008

Prepared by :



(Engineer)

Approved & Authorized Signer :



(Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product : LED Traffic Light
Model Number : CLJD300C-R/Y/G, CLRX300C-R/G, CLJD200C-R/Y/G,
CLR200C-R/G
(Note: These samples are same except for the power are difference. So We
prepare the CLJD300C-R/Y/G for EMC test)

Rating : Input: AC 85-265V; 50/60Hz
Applicant : Chevy Light Co., Ltd.
Address : 4/Floor, Block B1, Xingdabao Industrial Building, Sanlian
Industry Zone, Shiyan, Bao'an District, Shenzhen,
P.R. China

Manufacturer : Chevy Light Co., Ltd.
Address : 4/Floor, Block B1, Xingdabao Industrial Building, Sanlian
Industry Zone, Shiyan, Bao'an District, Shenzhen,
P.R. China

Date of sample : June 17, 2008
receiver
Date of Test : June 18-27, 2008

1.2. Description of Test Facility

| | | |
|----------------------|---|--|
| EMC Lab | : | Accredited by TUV Rheinland Shenzhen |
| | | Listed by FCC The Registration Number is 253065 |
| | | Listed by FCC The Registration Number is 752051 |
| | | Listed by Industry Canada The Registration Number is 5077A-1 |
| | | Listed by Industry Canada The Registration Number is 5077A-2 |
| | | Accredited by China National Accreditation Committee for Laboratories The Certificate Registration Number is L3193 |
| Name of Firm | : | ACCURATE TECHNOLOGY CO. LTD |
| Site Location | : | F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China |
| Subcontracted Items: | : | Magnetic Measurement Test RF Strength Susceptibility Test Injected Current Susceptibility Test |
| Subcontractor | : | Shenzhen Academy Of Metrology And Quality Inspection |
| Site Location | : | Bldg. Of Shenzhen Academy Of Metrology And Quality Inspection, Longzhu Road, Nanshan, Shenzhen, Guangdong P. R. China |

1.3. Measurement Uncertainty

| | | |
|---|---|-------------|
| Conducted emission expanded uncertainty | = | 2.23dB, k=2 |
| Power disturbance expanded uncertainty: | = | 2.92dB, k=2 |
| Radiated emission expanded uncertainty | = | 4.12dB, k=2 |

2. MEASURING DEVICES AND TEST EQUIPMENT

2.1.For Conducted Emission Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|----------------|--------------------|------------|---------------|---------------|
| 1. | Spectrum Analyzer | ANRITSU | MS2651B | 6200238856 | Mar. 29, 2008 | 1 Year |
| 2. | Spectrum Analyzer | Agilent | E7405A | MY45115511 | Mar. 29, 2008 | 1 Year |
| 3. | Test Receiver | Rohde&Schwarz | ESCS30 | 100307 | Mar. 29, 2008 | 1 Year |
| 4. | Test Receiver | Rohde& Schwarz | ESPI3 | 100396/003 | Mar. 29, 2008 | 1 Year |
| 5. | Test Receiver | Rohde& Schwarz | ESPI3 | 101526/003 | Mar. 29, 2008 | 1 Year |
| 6. | Bilog Antenna | Schwarzbeck | VULB9163 | 9163-194 | Mar. 29, 2008 | 1 Year |
| 7. | Bilog Antenna | Schwarzbeck | VULB9163 | 9163-323 | Mar. 29, 2008 | 1 Year |
| 8. | Loop Antenna | Schwarzbeck | FMZB1516 | 1516131 | Mar. 28, 2008 | 1 Year |
| 9. | Horn Antenna | Schwarzbeck | BBHA9120D | 9120D-655 | Dec. 20, 2007 | 1 Year |
| 10. | Horn Antenna | Schwarzbeck | BBHA9170 | 9170-359 | Oct. 10, 2007 | 1 Year |
| 11. | 50 Coaxial Switch | Anritsu Corp | MP59B | 6200237248 | Mar. 29, 2008 | 1 Year |
| 12. | 50 Coaxial Switch | Anritsu Corp | MP59B | 6200506474 | Mar. 29, 2008 | 1 Year |
| 13. | RF Coaxial Cable | Schwarzbeck | N-5m | No.1 | Mar. 29, 2008 | 1 Year |
| 14. | RF Coaxial Cable | Schwarzbeck | N-1m | No.6 | Mar. 29, 2008 | 1 Year |
| 15. | RF Coaxial Cable | Schwarzbeck | N-1m | No.7 | Mar. 29, 2008 | 1 Year |
| 16. | RF Coaxial Cable | SUHNER | N-3m | No.8 | Mar. 29, 2008 | 1 Year |
| 17. | RF Coaxial Cable | RESENBERGER | N-3.5m | No.9 | Mar. 29, 2008 | 1 Year |
| 18. | RF Coaxial Cable | SUHNER | N-6m | No.10 | Mar. 29, 2008 | 1 Year |
| 19. | RF Coaxial Cable | RESENBERGER | N-12m | No.11 | Mar. 29, 2008 | 1 Year |
| 20. | RF Coaxial Cable | RESENBERGER | N-0.5m | No.12 | Mar. 29, 2008 | 1 Year |
| 21. | Pre-Amplifier | Agilent | 8447D | 294A10619 | Mar. 29, 2008 | 1 Year |
| 22. | Pre-Amplifier | Rohde&Schwarz | CBLU11835 40-01 | 3791 | Mar. 31, 2008 | 1 Year |

2.2.For Magnetic Measurement

| Item | Equipment | Manufacturer | Model No. | Serial No. | NO. | Last Cal. | Cal. Interval |
|------|---------------------|-----------------|-----------|------------|------------|----------------|---------------|
| 1. | EMI Test Receiver | Rohde & Schwarz | ESCS30 | 100003 | SB33 19 | Jan 24,2008 | 1 Year |
| 2. | Triple Loop Antenna | Schwarzbeck | HXYZ9170 | 9124 | 9124 | Jan 24,2008 | 1 Year |

2.3.For Harmonic & Flicker Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-----------------|------------------------|------------|------------|------------------|---------------|
| 1. | AC Power Source | California Instruments | 5001iX-400 | 55689 | Mar. 29, 2008 | 1Year |
| 2. | Test analyzer | California Instruments | PACS-1 | 72254 | Mar. 29, 2008 | 1Year |
| 3. | PC | Lenovo | L4000 | SA03697426 | N/A | N/A |

2.4.For Electrostatic Discharge Immunity Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|------------|--------------|-----------|------------|---------------|---------------|
| 1. | ESD Tester | HAEFELY | PESD1610 | H4001552 | Mar. 31, 2008 | 1 Year |

2.5.For RF Strength Susceptibility Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|------------------|--------------------|-----------|------------|---------------|---------------|
| 1. | Signal Generator | Rohde&Schwarz | SMT03 | 100059 | Jan. 24, 2008 | 1 Year |
| 2. | Voltage Probe | Rohde&Schwarz | URV5-Z2 | 100013 | Jan. 24, 2008 | 1 Year |
| 3. | Power Amplifier | AR | 150W1000 | 300999 | Jan. 24, 2008 | 1 Year |
| 4. | Power Amplifier | AR | 25S1G4AM1 | 305993 | Mar. 10, 2008 | 1 Year |
| 5. | Bilog Antenna | Chase | CBL6111C | 2576 | Jan. 24, 2008 | 1 Year |
| 6. | Anechoic chamber | Albatross Projects | MCDC | ---- | Mar. 20, 2007 | 2 Year |

2.6.For Electrical Fast Transient /Burst Immunity Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|------------------|--------------|-----------|------------|---------------|---------------|
| 1. | EMC PRO System | Thermo | PRO-BASE | 0403271 | Mar. 29, 2008 | 1Year |
| 2. | Capacitive Clamp | Thermo | PRO-CCL | 0403272 | Mar. 29, 2008 | 1Year |

2.7.For Surge Immunity Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------------------------|--------------|-----------|------------|---------------|---------------|
| 1. | EMC PRO System | Thermo | PRO-BASE | 0403271 | Mar. 29, 2008 | 1Year |
| 2. | Coupler Decoupler for telecom lines | Thermo | CM-TEL-CD | 0403273 | Mar. 29, 2008 | 1Year |

2.8.For Injected Current Susceptibility Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|------------------------|--------------|-------------|------------|-------------|---------------|
| 1. | CW sine Generator | EMTEST | CWS500 | 0399-11 | Jan 24,2008 | 1Year |
| 2. | CDN | EMTEST | CDN-M2 | 9907105C | Jan 24,2008 | 1Year |
| 3. | CDN | EMTEST | CDN-M3 | 9905170C | Jan 24,2008 | 1Year |
| 4. | EM Injected Clamp | EMTEST | F-2031-23mm | 325 | Jan 24,2008 | 1Year |
| 5. | Current Injected Clamp | EMTEST | F-120-9A | 248 | Jan 24,2008 | 1Year |
| 6. | CDN | EMTEST | CDN-S9 | 0006074C | Jan 24,2008 | 1Year |
| 7. | CDN | EMTEST | CDN-S1-75 | 0009053C | Jan 24,2008 | 1Year |
| 8. | CDN | EMTEST | CDN-M3 | 0006231C | Jan 24,2008 | 1Year |
| 9. | CDN | EMTEST | CDN-M5 | 0004064B | Jan 24,2008 | 1Year |
| 10. | CDN | EMTEST | CDN-M2 | 0006140C | Jan 24,2008 | 1Year |
| 11. | CDN | EMTEST | CDN-T2 | 0009072C | Jan 24,2008 | 1Year |
| 12. | CDN | EMTEST | CDN-M1/32 | 0006007C | Jan 24,2008 | 1Year |
| 13. | CDN | EMTEST | CDN-S25 | 0004076C | Jan 24,2008 | 1Year |
| 14. | CDN | EMTEST | CDN-S1-50 | 0012062C | Jan 24,2008 | 1Year |
| 15. | CDN | EMTEST | CDN-AF4 | 0004079C | Jan 24,2008 | 1Year |

2.9.For Magnetic Field Immunity Test

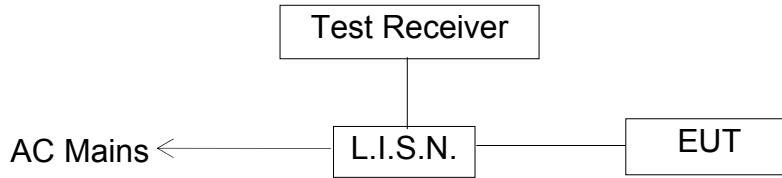
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-----------------------|--------------|-----------|------------|---------------|---------------|
| 1. | Magnetic Field Tester | HAEFELY | MAG100 | 150577 | Mar. 29, 2008 | 1 Year |
| 2. | AC Transformer | HOKUN | TDGC2J-5 | N/A | N/A | N/A |

2.10.For Voltage Dips and Interruptions Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|----------------|--------------|-----------|------------|---------------|---------------|
| 1. | EMC PRO System | Thermo | PRO-BASE | 0403271 | Mar. 29, 2008 | 1Year |

3. POWER LINE CONDUCTED MEASUREMENT

3.1. Block Diagram of Test Setup



(EUT: LED Traffic Light)

3.2. Measurement Standard and Limits

EN 55015: 2006

3.3. Power Line Conducted Emission Limits

| Frequency | At mains terminals dB(μV) | |
|------------------|---------------------------|---------------|
| | Quasi-peak Level | Average Level |
| 9kHz - 50KHz | 110 | -- |
| 50kHz - 150KHz | 90 - 80* | -- |
| 150kHz - 0.5MHz | 66 - 56* | 56 - 46* |
| 0.5MHz - 2.51MHz | 56 | 46 |
| 2.51MHz - 3.0MHz | 73 | 63 |
| 3.0MHz - 5.0MHz | 56 | 46 |
| 5.0MHz - 30MHz | 60 | 50 |

1. At the transition frequency the lower limit applies.
2. * Decreasing linearly with logarithm of the frequency.

3.4. EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet EN55015 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. LED Traffic Light (EUT)

Model No. : CLJD300C-R/Y/G
 Serial No. : N/A
 Manufacturer : Chevy Light Co., Ltd.

3.5. Operating Condition of EUT

- 3.5.1. Setup the EUT as shown in Section 3.1.
- 3.5.2. Turn on the power of all equipments.
- 3.5.3. Let the EUT work in test mode (On) and measure it.

3.6. Test Procedure

The EUT is put on the table which is 0.8 meter high above the ground and connected to the AC mains through a Line Impedance Stabilization Network (L.I.S.N.). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission according to the EN 55015 regulations during conducted emission measurement. And the voltage probe had been used for the load terminals measurement according to the EN 55015 standard.

The bandwidth of the test receiver (R&S ESCS30) is set at 200Hz in 9k~150kHz range and 9kHz in 150k~30MHz range.

The frequency range from 9 kHz to 30MHz is checked.

The scanning waveforms are put in APPENDIX I.

3.7.Measurement Results

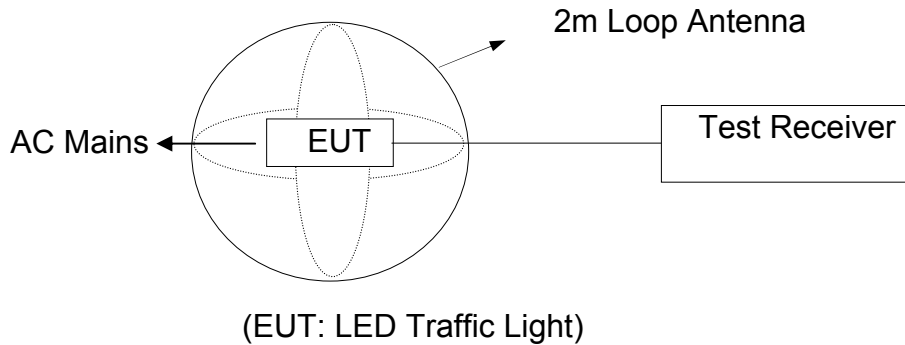
PASS.

The frequency range 9 kHz to 30MHz is investigated.

| | | | | | | | | | |
|---------------------------|-------------------|-----------------|-------------------|-----------------|--------------------|-------------------|-----------------|-------------------|-----------------|
| Model No.: CLJD300C-R/Y/G | | | | | | | | | |
| Test mode : On | | | | | | | | | |
| Neutral | | | | | Live | | | | |
| Frequency (MHz) | Quasi-Peak | | Average | | Frequency (MHz) | Quasi-Peak | | Average | |
| | Reading dB(uV) | Limit dB(uV) | Reading dB(uV) | Limit dB(uV) | | Reading dB(uV) | Limit dB(uV) | Reading dB(uV) | Limit dB(uV) |
| 0.174 | 53.84 | 64.77 | 41.91 | 54.77 | 0.174 | 53.85 | 64.77 | 39.47 | 54.77 |
| 0.302 | 49.53 | 60.19 | 39.33 | 50.19 | 0.208 | 49.15 | 63.28 | 38.16 | 53.28 |

4. MAGNETIC FIELD EMISSION MEASUREMENT

4.1. Block Diagram of Test Setup



4.2. Measurement Standard

EN 55015: 2006

4.3. Magnetic Field Emission Limits

| Frequency | Limits for loop diameter dB(μ A) |
|-----------------|---------------------------------------|
| | 2m |
| 9kHz - 70kHz | 88 |
| 70kHz - 150kHz | 88 - 58* |
| 150kHz - 2.2MHz | 58 - 26* |
| 2.2MHz - 3.0MHz | 58 |
| 3.0MHz - 30MHz | 22 |

1. At the transition frequency the lower limit applies.
2. * Decreasing linearly with logarithm of the frequency.

4.4. EUT Configuration on Measurement

The configuration of the EUT is same as Section 3.4.

4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT as shown in Section 4.1.
- 4.5.2. Turn on the power of all equipments.
- 4.5.3. Let the EUT work in test mode (On) and measure it.

4.6. Test Procedure

The EUT is placed on a wood table in the center of a loop antenna. The induced current in the loop antenna is measured by means of a current probe and the test receiver. Three field components are checked by means of a coaxial switch.

The frequency range from 9 kHz to 30MHz is investigated. The receiver is measured with the quasi-peak detector. For frequency band 9 kHz to 150 kHz, the bandwidth of the field strength meter (R&S test receiver ESCS30) is set at 200Hz. For frequency band 150 kHz to 30MHz, the bandwidth is set at 9 kHz.

The scanning waveforms are put in Appendix II.

4.7. Test Results

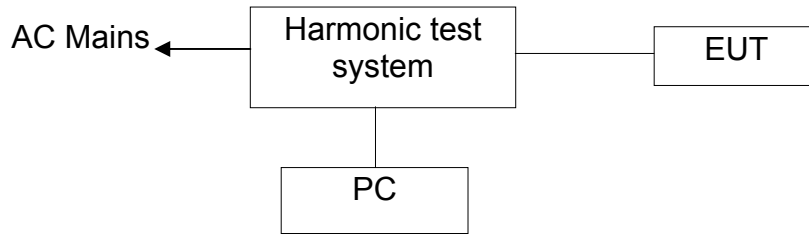
PASS.

The frequency range from 9 kHz to 30MHz is investigated.

Since the peak values are too low against the limit, the Quasi-peak values are omitted.

5. HARMONIC CURRENT MEASUREMENT

5.1. Block Diagram of Test Setup



(EUT: LED Traffic Light)

5.2. Measuring Standard

EN 61000-3-2: 2006 (Class C)

5.3. Operating Condition of EUT

Same as Section 4.5 except the test setup replaced by Section 5.1.

5.4. Test Results

PASS.

Please refer to the following page.

California Instruments
San Diego, California

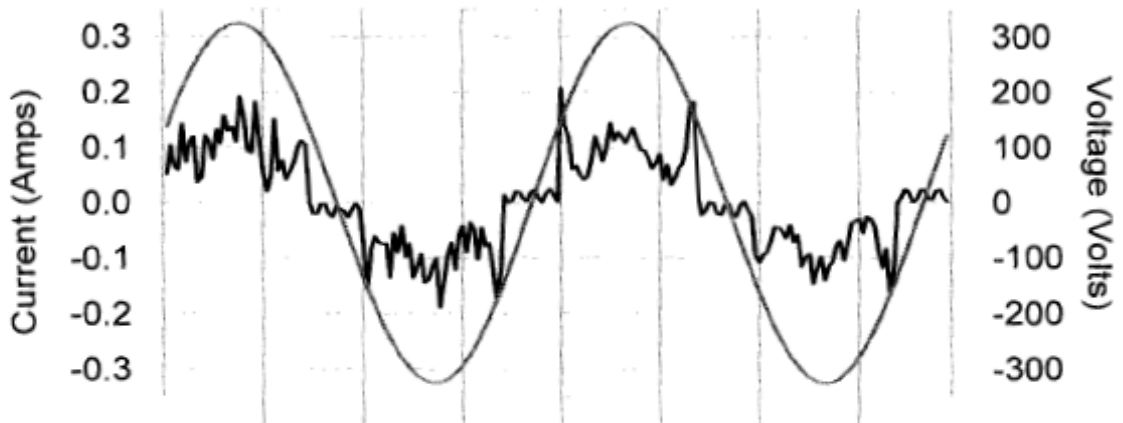
6/18/2008
5:23:48 PM

Harmonics – Class-C per A-14(Run time)

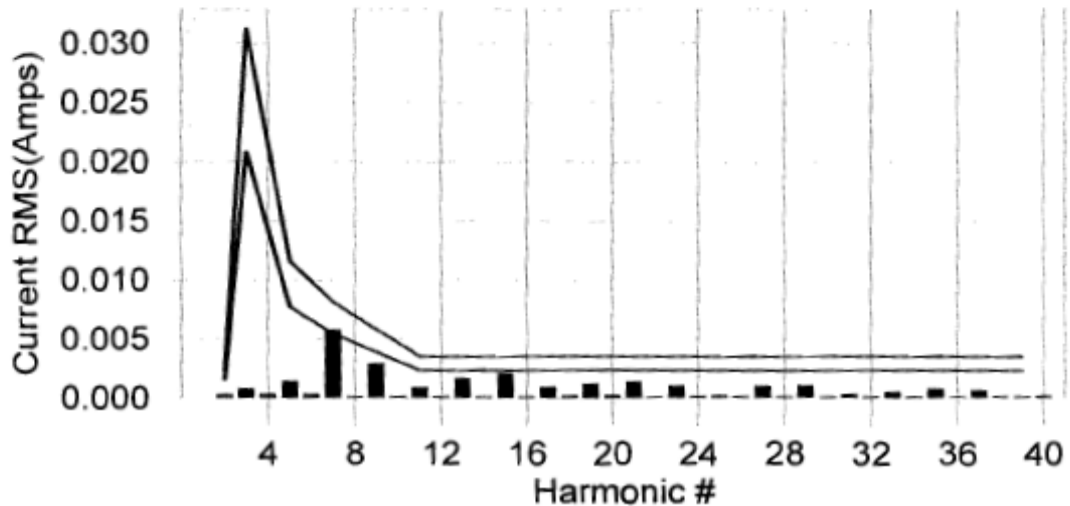
EUT: LED Traffic Light M/N:CLJD300C-R/Y/G Tested by: Star
Test category: Class-C per A-14 (European limits) Test Margin: 100
Test date: 2008-6-18 Start time: 17:08:51 End time: 17:10:41
Test duration (min): 0.01 Data file name: H-000414.cts_data
Comment: On Sample No.:082305 Report No.:ATE20081112
Customer: Chevy

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class C limit line European Limits



Test result: Pass Worst harmonic was #7 with 71,27% of the limit.

California Instruments
San Diego, California

6/18/2008
5:23:48 PM

Current Test Result Summary (Run time)

EUT: LED Traffic Light M/N:CLJD300C-R/Y/G Tested by: Star
 Test category: Class-C per A-14 (European limits) Test Margin: 100
 Test date: 2008-6-18 Start time: 17:08:51 End time: 17:10:41
 Test duration (min): 0.01 Data file name: H-000414.cts_data
 Comment: On Sample No.:082305 Report No.:ATE20081112
 Customer: Chevy

Test Result: Pass Source qualification: Normal
 THC(A): 0.01 I-THD(pk%): 10.29 POHC(A): 0.002 POHC Limit(A): 0.007

Highest parameter values during test:

V_RMS (Volts): 229.83 Frequency(Hz): 50.00
 I_Peak (Amps): 0.242 I_RMS (Amps): 0.086
 I_Fund (Amps): 0.078 Crest Factor: 2.820
 Power (Watts): 18 Power Factor: 0.900

| Harm# | Harms(avg) | 100%Limit | %of Limit | Harms(max) | 150%Limit | %of Limit | Status |
|-------|------------|-----------|-----------|------------|-----------|-----------|--------|
| 2 | 0.000 | 0.002 | 10.7 | 0.000 | 0.002 | 12.49 | Pass |
| 3 | 0.001 | 0.021 | 2.6 | 0.001 | 0.031 | 2.51 | Pass |
| 4 | 0.000 | | | | | | |
| 5 | 0.001 | 0.008 | 13.3 | 0.001 | 0.012 | 12.59 | Pass |
| 6 | 0.000 | | | | | | |
| 7 | 0.004 | 0.005 | 74.4 | 0.006 | 0.008 | 71.27 | Pass |
| 8 | 0.000 | | | | | | |
| 9 | 0.002 | 0.004 | 54.4 | 0.003 | 0.006 | 50.47 | Pass |
| 10 | 0.000 | | | | | | |
| 11 | 0.001 | 0.002 | 27.7 | 0.001 | 0.003 | 26.58 | Pass |
| 12 | 0.000 | | | | | | |
| 13 | 0.001 | 0.002 | 51.0 | 0.002 | 0.003 | 48.00 | Pass |
| 14 | 0.000 | | | | | | |
| 15 | 0.002 | 0.002 | 64.5 | 0.002 | 0.003 | 60.60 | Pass |
| 16 | 0.000 | | | | | | |
| 17 | 0.001 | 0.002 | 28.4 | 0.001 | 0.003 | 26.90 | Pass |
| 18 | 0.000 | | | | | | |
| 19 | 0.001 | 0.002 | 36.1 | 0.001 | 0.003 | 35.37 | Pass |
| 20 | 0.000 | | | | | | |
| 21 | 0.001 | 0.002 | 44.5 | 0.001 | 0.003 | 40.78 | Pass |
| 22 | 0.000 | | | | | | |
| 23 | 0.001 | 0.002 | 32.5 | 0.001 | 0.003 | 30.26 | Pass |
| 24 | 0.000 | | | | | | |
| 25 | 0.000 | 0.002 | 5.4 | 0.000 | 0.003 | 6.03 | Pass |
| 26 | 0.000 | | | | | | |
| 27 | 0.001 | 0.002 | 33.5 | 0.001 | 0.003 | 29.94 | Pass |
| 28 | 0.000 | | | | | | |
| 29 | 0.001 | 0.002 | 32.7 | 0.001 | 0.003 | 31.70 | Pass |
| 30 | 0.000 | | | | | | |
| 31 | 0.000 | 0.002 | 10.1 | 0.000 | 0.003 | 9.58 | Pass |
| 32 | 0.000 | | | | | | |
| 33 | 0.000 | 0.002 | 16.0 | 0.000 | 0.003 | 14.31 | Pass |
| 34 | 0.000 | | | | | | |
| 35 | 0.001 | 0.002 | 24.1 | 0.001 | 0.003 | 23.32 | Pass |
| 36 | 0.000 | | | | | | |
| 37 | 0.000 | 0.002 | 20.2 | 0.001 | 0.003 | 19.35 | Pass |
| 38 | 0.000 | | | | | | |
| 39 | 0.000 | 0.002 | 4.5 | 0.000 | 0.003 | 3.71 | Pass |
| 40 | 0.000 | | | | | | |

Note: Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

Voltage Source Verification Data (Run time)

EUT: LED Traffic Light M/N:CLJD300C-R/Y/G Tested by: Star
 Test category: Class-C per A-14 (European limits) Test Margin: 100
 Test date: 2008-6-18 Start time: 17:08:51 End time: 17:10:41
 Test duration (min): 0.01 Data file name: H-000414.cts_data
 Comment: On Sample No.:082305 Report No.:ATE20081112
 Customer: Chevy

Test Result: Pass Source qualification: Normal

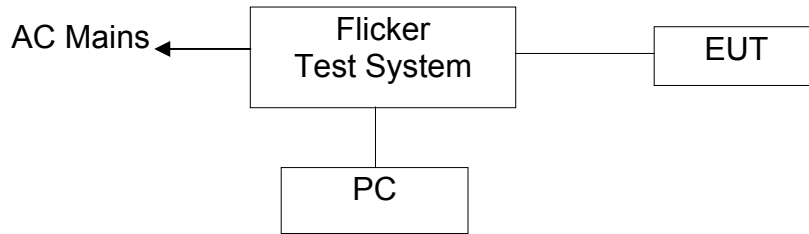
Highest parameter values during test:

| | |
|------------------------|----------------------|
| Voltage (Vrms): 229.83 | Frequency(Hz): 50.00 |
| I_Peak (Amps): 0.242 | I_RMS (Amps): 0.086 |
| I_Fund (Amps): 0.078 | Crest Factor: 2.820 |
| Power (Watts): 18 | Power Factor: 0.900 |

| Harm# | Harmonics V-rms | Limit V-rms | % of Limit | Status |
|-------|-----------------|-------------|------------|--------|
| 2 | 0.035 | 0.460 | 7.61 | OK |
| 3 | 0.273 | 2.068 | 13.20 | OK |
| 4 | 0.010 | 0.460 | 2.25 | OK |
| 5 | 0.035 | 0.919 | 3.85 | OK |
| 6 | 0.012 | 0.460 | 2.58 | OK |
| 7 | 0.014 | 0.689 | 2.01 | OK |
| 8 | 0.009 | 0.460 | 1.95 | OK |
| 9 | 0.009 | 0.460 | 1.93 | OK |
| 10 | 0.008 | 0.460 | 1.79 | OK |
| 11 | 0.007 | 0.230 | 2.83 | OK |
| 12 | 0.004 | 0.230 | 1.86 | OK |
| 13 | 0.008 | 0.230 | 3.48 | OK |
| 14 | 0.005 | 0.230 | 1.96 | OK |
| 15 | 0.003 | 0.230 | 1.34 | OK |
| 16 | 0.006 | 0.230 | 2.47 | OK |
| 17 | 0.007 | 0.230 | 3.08 | OK |
| 18 | 0.007 | 0.230 | 2.86 | OK |
| 19 | 0.002 | 0.230 | 0.87 | OK |
| 20 | 0.007 | 0.230 | 2.89 | OK |
| 21 | 0.004 | 0.230 | 1.79 | OK |
| 22 | 0.003 | 0.230 | 1.35 | OK |
| 23 | 0.003 | 0.230 | 1.33 | OK |
| 24 | 0.001 | 0.230 | 0.58 | OK |
| 25 | 0.003 | 0.230 | 1.37 | OK |
| 26 | 0.003 | 0.230 | 1.45 | OK |
| 27 | 0.003 | 0.230 | 1.13 | OK |
| 28 | 0.004 | 0.230 | 1.56 | OK |
| 29 | 0.002 | 0.230 | 1.04 | OK |
| 30 | 0.003 | 0.230 | 1.10 | OK |
| 31 | 0.001 | 0.230 | 0.51 | OK |
| 32 | 0.002 | 0.230 | 0.87 | OK |
| 33 | 0.003 | 0.230 | 1.21 | OK |
| 34 | 0.002 | 0.230 | 0.72 | OK |
| 35 | 0.003 | 0.230 | 1.11 | OK |
| 36 | 0.001 | 0.230 | 0.43 | OK |
| 37 | 0.002 | 0.230 | 1.05 | OK |
| 38 | 0.002 | 0.230 | 0.69 | OK |
| 39 | 0.001 | 0.230 | 0.64 | OK |
| 40 | 0.001 | 0.230 | 0.41 | OK |

6. VOLTAGE FLUCTUATIONS & FLICKER MEASUREMENT

6.1. Block Diagram of Test Setup



(EUT: LED Traffic Light)

6.2. Measuring Standard

EN 61000-3-3:1995+A1: 2001+ A2: 2005

6.3. Operating Condition of EUT

6.3.1. Setup the EUT as shown in Section 6.1.

6.3.2. Turn on the power of all equipments.

6.3.3. Let the EUT work in test mode (On) and measure it.

6.4. Test Results

PASS.

Please refer to the following page.

California Instruments
San Diego, California

6/18/2008
2:06:42 PM

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

EUT: LED Traffic Light M/N:CLJD300C-R/Y/G Tested by: Star
 Test category: All parameters (European limits) Test Margin: 100
 Test date: 2008-6-18 Start time: 13:55:21 End time: 14:05:34
 Test duration (min): 10 Data file name: F-000408.cts_data
 Comment: On/Off Report No.:ATE20081112
 Customer: Chevy Sample No.:082305

Test Result: Pass Status: Test Completed



Time is too short for Plt plot

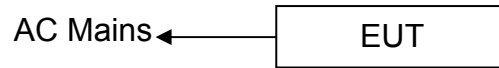
Parameter values recorded during the test:

| | | | |
|---------------------------------|--------|------------------|-----------------|
| Vrms at the end of test (Volt): | 229.76 | | |
| Highest dt (%): | -0.14 | Test limit (%): | 3.30 Pass |
| Time(mS) > dt: | 0.0 | Test limit (mS): | 500.0 Pass |
| Highest dc (%): | 0.00 | Test limit (%): | 3.30 Pass |
| Highest dmax (%): | 0.09 | Test limit (%): | 4.00 Pass |
| Highest Pst (10 min. period): | 0.004 | Test limit: | 1.000 Pass |
| Highest Plt (2 hr. period): | 0.002 | Test limit: | 0.650 Pass |

7. ELECTROSTATIC DISCHARGE TEST

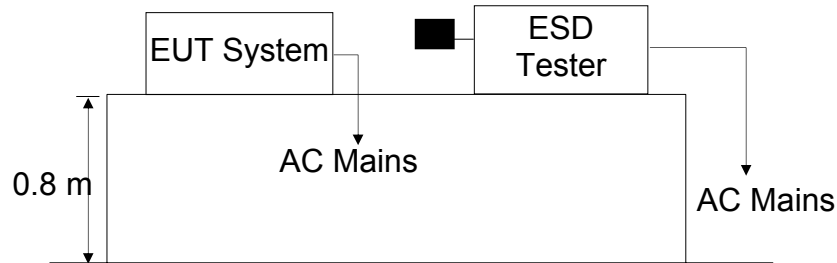
7.1. Block Diagram of Test Setup

7.1.1. Block Diagram of the EUT



(EUT: LED Traffic Light)

7.1.2. Block Diagram of ESD Test Setup



(EUT: LED Traffic Light)

7.2. Test Standard

EN 61547: 1995 + A1: 2000

(IEC61000-4-2: 2001

Severity Level: Air Discharge: Level 3, $\pm 8\text{kV}$, Contact Discharge: Level 2, $\pm 4\text{kV}$)

7.3. Severity Levels and Performance Criterion

7.3.1. Severity level

| Level | Test Voltage Contact Discharge (kV) | Test Voltage Air Discharge (kV) |
|-------|--|------------------------------------|
| 1. | ± 2 | ± 2 |
| 2. | ± 4 | ± 4 |
| 3. | ± 6 | ± 8 |
| 4. | ± 8 | ± 15 |
| X | Special | Special |

7.3.2. Performance criterion: **B**

7.4.EUT Configuration

Model No. : CLJD300C-R/Y/G
Serial No. : N/A
Manufacturer : Chevy Light Co., Ltd.

7.5.Operating Condition of EUT

Same as Section 4.5 except the test setup replaced by Section 7.1.

7.6.Test Procedure

7.6.1.Air Discharge:

This test is done on a non-conductive surfaces. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed

7.6.2.Contact Discharge:

All the procedure shall be same as Section 7.6.1 except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

7.6.3.Indirect discharge for horizontal coupling plane:

At least 20 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

7.6.4.Indirect discharge for vertical coupling plane:

At least 20 single discharge shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m * 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

7.7.Test Results

PASS.

Please refer to the following page.

Electrostatic Discharge Test Results

Accurate Technology Co., Ltd.

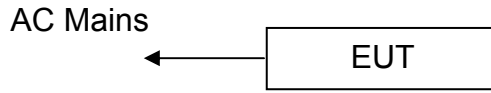
| Applicant : Chevy Light Co., Ltd. | Test Date : June 27, 2008 | |
|---|--|--------|
| EUT : LED Traffic Light | Temperature : 25°C | |
| M/N : CLJD300C-R/Y/G | Humidity : 53% | |
| Test Mode : On | Power Supply: AC 230V/50Hz | |
| Air Discharge: $\pm 8kV$ | | |
| Contact Discharge: $\pm 4kV$ # For each point positive 10 times and negative 10 times discharge | | |
| Location | Kind A-Air Discharge C-Contact Discharge | Result |
| All non-conductive enclosure | $\pm 8.0kV$ A | PASS |
| All conductive enclosure | $\pm 4.0kV$ C | PASS |
| HCP | C | PASS |
| VCP of the front | C | PASS |
| VCP of the rear | C | PASS |
| VCP of the left | C | PASS |
| VCP of the right | C | PASS |
| | | |
| | | |
| | | |
| | | |
| Note: | Test Equipment : ESD Tester (HAEFELY, PESD1610) | |

Discharge should be considered on Contact and Air and Horizontal Coupling Plane (HCP) and Vertical Coupling Plane (VCP).

8. RF FIELD STRENGTH SUSCEPTIBILITY TEST

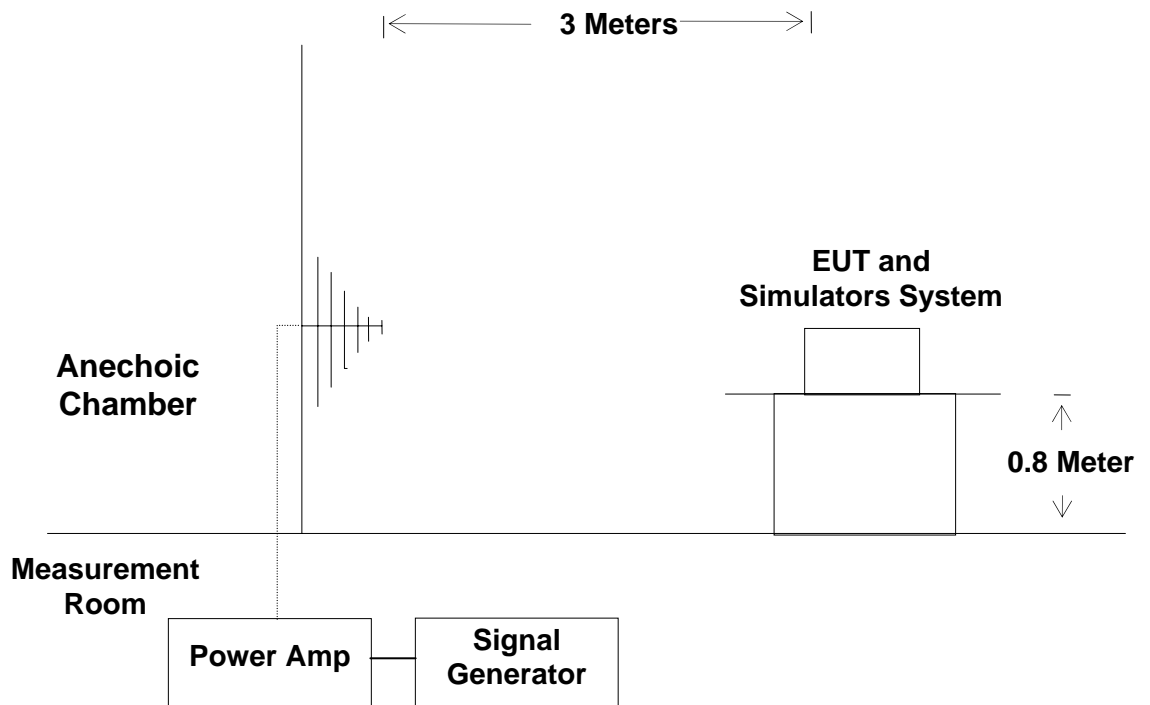
8.1. Block Diagram of Test Setup

8.1.1. Block Diagram of the EUT and the simulators



(EUT: LED Traffic Light)

8.1.2. R/S Test Setup



(EUT: LED Traffic Light)

8.2. Test Standard

EN 61547: 1995 + A1: 2000
(IEC61000-4-3: 2006, Severity Level: 2, 3V / m)

8.3. Severity Levels and Performance Criterion

8.3.1. Severity level

| Level | Field Strength V/m |
|-------|--------------------|
| 1. | 1 |
| 2. | 3 |
| 3. | 10 |
| X | Special |

8.3.2. Performance criterion: **A**

8.4. EUT Configuration

The configuration of EUT is listed in Section 7.4.

8.5. Operating Condition of EUT

Same as Section 4.5 except the test setup replaced by Section 8.1.

8.6. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. EUT is set 3 meter away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarizations of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD camera is used to monitor EUT screen. All the scanning conditions are as follows:

| Condition of Test | Remarks |
|---------------------------|--------------------------|
| 1. Fielded Strength | 3 V/m (Severity Level 2) |
| 2. Radiated Signal | Unmodulated |
| 3. Scanning Frequency | 80 - 1000 MHz |
| 4. Dwell time of radiated | 0.0015 decade/s |
| 5. Waiting Time | 1 Sec. |

8.7. Test Results

PASS.

Please refer to the following page.

RF Field Strength Susceptibility Test Results

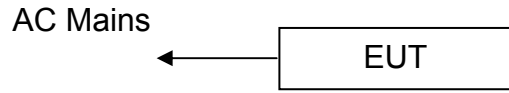
Accurate Technology Co., Ltd.

| Applicant: <u>Chevy Light Co., Ltd.</u> Product: <u>LED Traffic Light</u> M/N: <u>CLJD300C-R/Y/G</u> Field Strength: <u>3 V/m</u> Frequency Range: <u>80 MHz to 1000 MHz</u> | Test Date: <u>June 27, 2008</u> Temperature: <u>24 °C</u> Humidity: <u>51%</u> Criterion: <u>A</u> Power Supply: <u>AC 230V/ 50Hz</u> | | | | | | | | | | | | | | | |
|--|--|----------|------------|----------|-------|------|------|-------|------|------|------|------|------|------|------|------|
| Modulation: <input checked="" type="checkbox"/> AM <input type="checkbox"/> Pulse <input type="checkbox"/> none 1 kHz 80% | | | | | | | | | | | | | | | | |
| Test Mode: on | | | | | | | | | | | | | | | | |
| Frequency Range : 80-1000MHZ | | | | | | | | | | | | | | | | |
| Steps | 1 % | | | | | | | | | | | | | | | |
| | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%; text-align: center;">Horizontal</th> <th style="width: 35%; text-align: center;">Vertical</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Front</td> <td style="text-align: center;">PASS</td> <td style="text-align: center;">PASS</td> </tr> <tr> <td style="text-align: center;">Right</td> <td style="text-align: center;">PASS</td> <td style="text-align: center;">PASS</td> </tr> <tr> <td style="text-align: center;">Rear</td> <td style="text-align: center;">PASS</td> <td style="text-align: center;">PASS</td> </tr> <tr> <td style="text-align: center;">Left</td> <td style="text-align: center;">PASS</td> <td style="text-align: center;">PASS</td> </tr> </tbody> </table> | | Horizontal | Vertical | Front | PASS | PASS | Right | PASS | PASS | Rear | PASS | PASS | Left | PASS | PASS |
| | Horizontal | Vertical | | | | | | | | | | | | | | |
| Front | PASS | PASS | | | | | | | | | | | | | | |
| Right | PASS | PASS | | | | | | | | | | | | | | |
| Rear | PASS | PASS | | | | | | | | | | | | | | |
| Left | PASS | PASS | | | | | | | | | | | | | | |
| Test Equipment : 1. Signal Generator : SMT03 (Rohde & Schwarz) 2. Power Amplifier : 150W1000 (A&R) 3. Bilog Antenna : CBL6111C (Chase) | | | | | | | | | | | | | | | | |
| Note: | | | | | | | | | | | | | | | | |

9. ELECTRICAL FAST TRANSIENT/BURST TEST

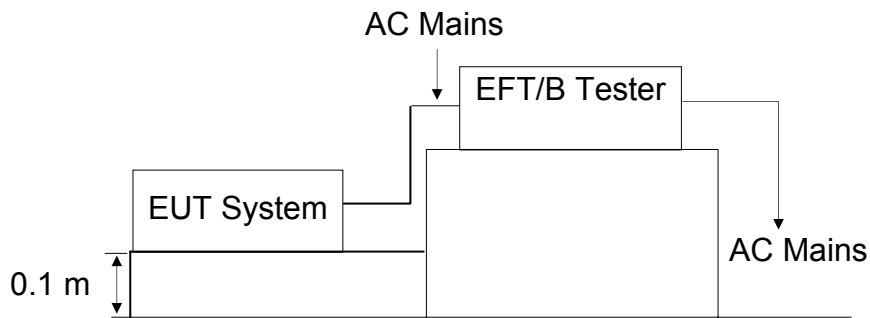
9.1. Block Diagram of Test Setup

9.1.1. Block Diagram of the EUT



(EUT: LED Traffic Light)

9.1.2. For AC Mains



(EUT: LED Traffic Light)

9.2. Test Standard

EN 61547: 1995 + A1: 2000

(IEC61000-4-4: 2004 Severity Level, Level 2: 1kV)

9.3. Severity Levels and Performance Criterion

9.3.1. Severity level

| Open Circuit Output Test Voltage $\pm 10\%$ | | |
|---|-----------------|---|
| Level | On Rating Lines | On I/O (Input/Output) Signal data and control lines |
| 1. | 0.5 kV | 0.25 kV |
| 2. | 1 kV | 0.5 kV |
| 3. | 2 kV | 1 kV |
| 4. | 4 kV | 2 kV |
| X | Special | Special |

9.3.2. Performance criterion: **B**

9.4.EUT Configuration

The configuration of EUT is listed in Section 7.4.

9.5.Operating Condition of EUT

Same as Section 4.5 except the test setup replaced by Section 9.1.

9.6.Test Procedure

The EUT is put on the table which is 0.8 meter high above the ground. This reference ground plane shall project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane beneath the EUT, shall be more than 0.5m.

9.6.1.For input and output AC power ports:

The EUT is connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 2 mins.

9.6.2.For signal lines and control lines ports:

It's unnecessary to test.

9.6.3.For DC line ports:

It's unnecessary to test.

9.7.Test Result

PASS.

Please refer to the following page.

Electrical Fast Transient/Burst Test Results

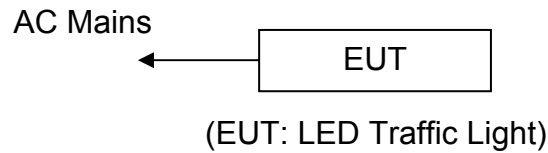
Accurate Technology Co., Ltd.

| | | | |
|---|--------------------|---|---|
| Standard : | IEC61000-4-4: 2004 | | Result : <input checked="" type="checkbox"/> PASS / <input type="checkbox"/> FAIL |
| Applicant : <u>Chevy Light Co., Ltd.</u> | | | |
| EUT : <u>LED Traffic Light</u> | | | |
| M/N : <u>CLJD300C-R/Y/G</u> | | | |
| Input Voltage : <u>AC 230V/ 50Hz</u> | | | |
| Criterion : B | | | |
| Ambient Condition : <u>25 °C</u> <u>53% RH</u> | | | |
| Operation Modes : On | | | |
| Line : <input checked="" type="checkbox"/> AC Mains | | Line : <input type="checkbox"/> output line <input type="checkbox"/> DC line | |
| Coupling : <input checked="" type="checkbox"/> Direct | | Coupling : <input type="checkbox"/> Capacitive | |
| Test Time : 120s | | | |
| Line | Test Voltage | Result(+) | Result(-) |
| L | 1kV | PASS | PASS |
| N | 1kV | PASS | PASS |
| PE | | | |
| L、N | 1kV | PASS | PASS |
| L、PE | | | |
| N、PE | | | |
| L、N、PE | | | |
| DC line | | | |
| Note: | | | |
| Test Equipment | | Burst Tester Model : EMC PRO System: PRO-BASE (Thermo) Capacitive Clamp: PRO-CCL (Thermo) | |

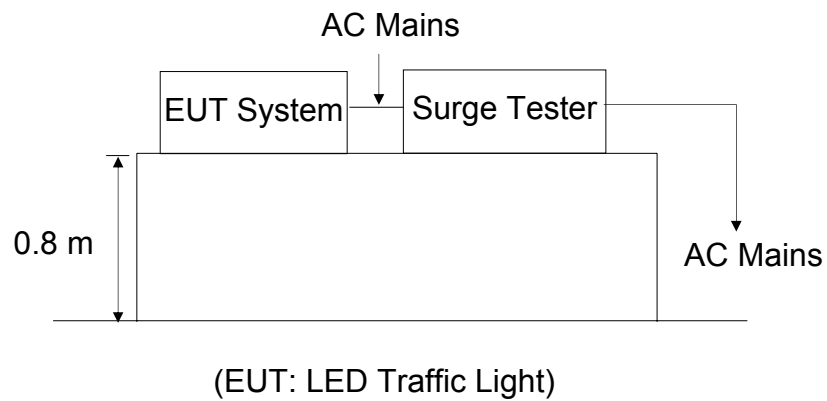
10.SURGE IMMUNITY TEST

10.1.Block Diagram of Test Setup

10.1.1.Block Diagram of the EUT



10.1.2.Block Diagram of the Surge Test Setup



10.2.Test Standard

EN 61547: 1995 + A1: 2000
 (IEC61000-4-5: 2005, Severity Level: Level 1, 0.5kV)

10.3.Severity Levels and Performance Criterion

10.3.1.Severity level

| Severity Level | Open-Circuit Test Voltage kV |
|----------------|---------------------------------|
| 1 | 0.5 |
| 2 | 1.0 |
| 3 | 2.0 |
| 4 | 4.0 |
| * | Special |

10.3.2. Performance criterion: **C**

10.4.EUT Configuration

The configuration of EUT is listed in Section 7.4.

10.5.Operating Condition of EUT

Same as Section 4.5 except the test setup replaced by Section 10.1.

10.6.Test Procedure

- 1) Set up the EUT and test generator as shown on Section 10.1.2.
- 2) For line to line coupling mode, provide a 0.5kV 1.2/50 μ s voltage surge (at open-circuit condition) and 8/20 μ s current surge to EUT selected points.
- 3) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
- 4) Different phase angles are done individually.
- 5) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

10.7.Test Result

PASS.

Please refer to the following page.

Surge Immunity Test Results

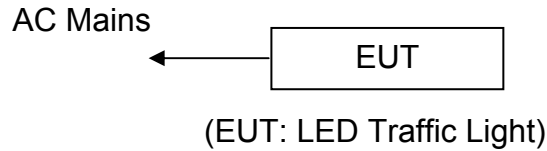
Accurate Technology Co., Ltd.

| Applicant : Chevy Light Co., Ltd. EUT : <u>LED Traffic Light</u> M/N : <u>CLJD300C-R/Y/G</u> Power Supply : <u>AC 230V/ 50Hz</u> Criterion : <u>C</u> | | | | Test Date : <u>June 27, 2008</u> Temperature : <u>25 °C</u> Humidity : <u>53%</u> Test Engineer : <u>Feng</u> Test Mode: <u>On</u> | |
|---|----------|------------------|--------------|--|--------|
| Location | Polarity | Phase Angle | No. of Pulse | Pulse Voltage (kV) | Result |
| L-N | + | 0 ⁰ | 5 | 0.5 | PASS |
| | + | 90 ⁰ | 5 | 0.5 | PASS |
| | + | 180 ⁰ | 5 | 0.5 | PASS |
| | + | 270 ⁰ | 5 | 0.5 | PASS |
| | - | 0 ⁰ | 5 | 0.5 | PASS |
| | - | 90 ⁰ | 5 | 0.5 | PASS |
| | - | 180 ⁰ | 5 | 0.5 | PASS |
| | - | 270 ⁰ | 5 | 0.5 | PASS |
| L-PE | + | 0 ⁰ | 5 | | |
| | + | 90 ⁰ | 5 | | |
| | + | 180 ⁰ | 5 | | |
| | + | 270 ⁰ | 5 | | |
| | - | 0 ⁰ | 5 | | |
| | - | 90 ⁰ | 5 | | |
| | - | 180 ⁰ | 5 | | |
| | - | 270 ⁰ | 5 | | |
| N-PE | + | 0 ⁰ | 5 | | |
| | + | 90 ⁰ | 5 | | |
| | + | 180 ⁰ | 5 | | |
| | + | 270 ⁰ | 5 | | |
| | - | 0 ⁰ | 5 | | |
| | - | 90 ⁰ | 5 | | |
| | - | 180 ⁰ | 5 | | |
| | - | 270 ⁰ | 5 | | |
| Remark: | | | | Test Equipment: EMCPRO System: PRO-BASE (Thermo) | |

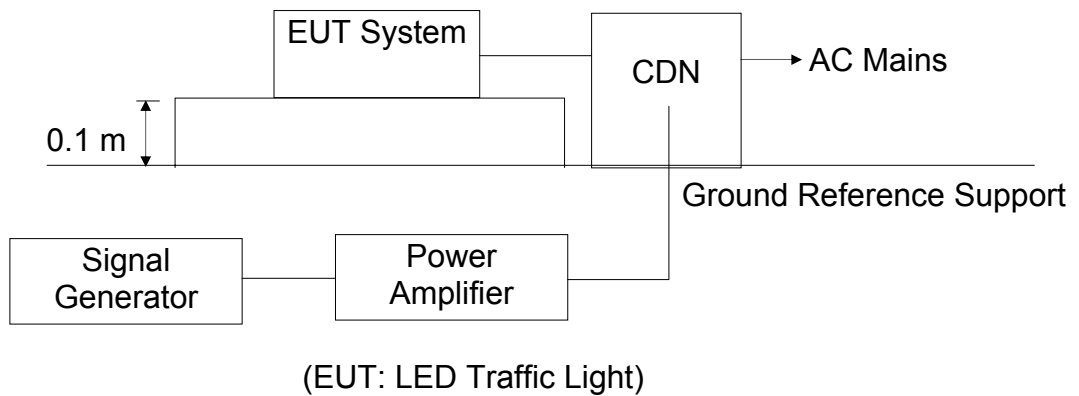
11.INJECTED CURRENTS SUSCEPTIBILITY TEST

11.1.Block Diagram of Test Setup

11.1.1.Block Diagram of the EUT



11.1.2.Block Diagram of AC Mains



11.2.Test Standard

EN 61547: 1995 + A1: 2000(IEC61000-4-6: 2006,
Severity Level: 3V (rms), 0.15MHz - 80MHz)

11.3.Severity Levels and Performance Criterion

11.3.1.Severity level

| Level | Field Strength V |
|-------|------------------|
| 1. | 1 |
| 2. | 3 |
| 3. | 10 |
| X | Special |

11.3.2.Performance criterion: A

11.4.EUT Configuration

The configuration of EUT is listed in Section 7.4.

11.5.Operating Condition of EUT

Same as Section 4.5 except the test setup replaced by Section 11.1.

11.6.Test Procedure

- 1) Set up the EUT, CDN and test generators as shown on Section 11.1.
- 2) Let the EUT work in test mode and measure it.
- 3) The EUT are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
- 4) The disturbance signal described below is injected to EUT through CDN.
- 5) The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 6) The frequency range is swept from 150 kHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1 kHz sine wave.
- 7) The rate of sweep shall not exceed 1.5×10^{-3} decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the Fengt and thereafter 1% of the preceding frequency value.
- 8) Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

11.7.Test Results

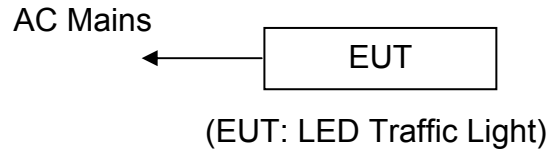
PASS.

Please refer to the following page.

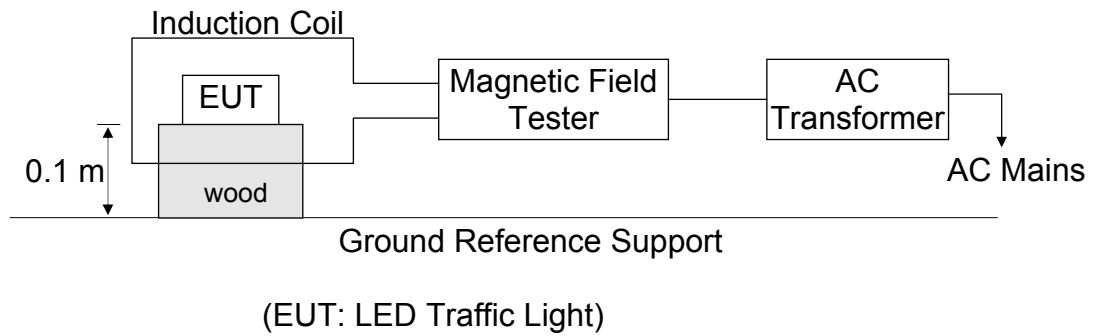
12.MAGNETIC FIELD IMMUNITY TEST

12.1.Block Diagram of Test Setup

12.1.1.Block Diagram of the EUT



12.1.2.Block Diagram of Test Setup



12.2.Test Standard

EN 61547: 1995 + A1:2000
 (IEC61000-4-8: 2001, Severity Level 2: 3A/m)

12.3.Severity Levels and Performance Criterion

12.3.1.Severity level

| Level | Magnetic Field Strength A/m |
|-------|-----------------------------|
| 1. | 1 |
| 2. | 3 |
| 3. | 10 |
| 4. | 30 |
| 5. | 100 |
| X | Special |

12.3.2.Performance criterion: A

12.4.EUT Configuration

The configuration of EUT is listed in Section 7.4.

12.5.Operating Condition of EUT

Same as Section 4.5 except the test setup replaced by Section 12.1.

12.6.Test Procedure

- 1) Set up the EUT system as shown on Section 12.1.2.
- 2) The Induction coil is set up in horizontal or vertical.
- 3) Let the EUT work in test mode and measure it.

12.7.Test Results

PASS.

Please refer to the following page.

Magnetic Field Immunity Test Results

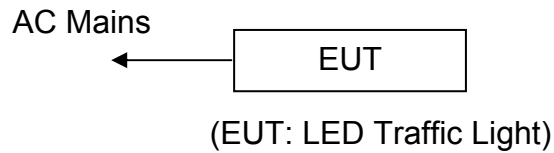
Accurate Technology Co., Ltd.

| Applicant : <u>Chevy Light Co., Ltd.</u> EUT : <u>LED Traffic Light</u> M/N : <u>CLJD300C-R/Y/G</u> Power Supply : <u>AC 230V/ 50Hz</u> | | | Test Date : <u>June 27, 2008</u> Temperature : <u>25 °C</u> Humidity : <u>53%</u> Test Engineer: <u>Feng</u> | |
|--|------------------|--|---|--------|
| Test Mode: On | | | | |
| Test Level | Testing Duration | Coil Orientation | Criterion | Result |
| 3A/M | 5 mins | Horizontal | A | PASS |
| 3A/M | 5 mins | Vertical | A | PASS |
| Remark: | | Test Equipment: Magnetic Field Tester MAG100 AC Transformer TDGC2J-5 | | |

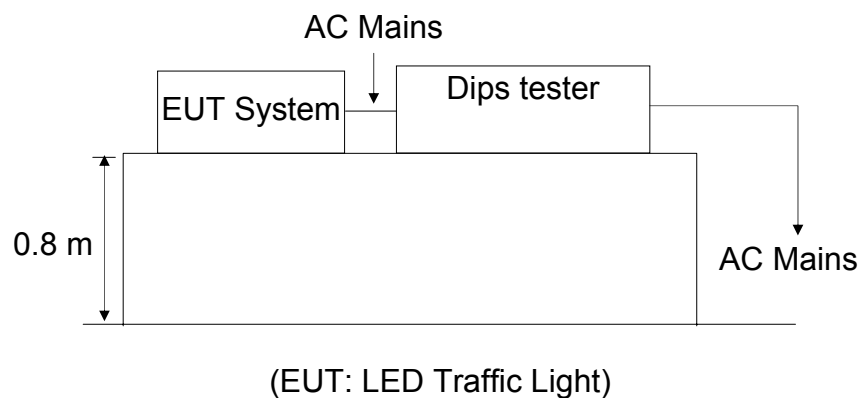
13.VOLTAGE DIPS AND INTERRUPTIONS TEST

13.1.Block Diagram of Test Setup

13.1.1.Block Diagram of the EUT



13.1.2.Dips Test Setup



13.2.Test Standard

EN 61547: 1995 + A1: 2000 (IEC61000-4-11: 2004)

13.3.Severity Levels and Performance Criterion

13.3.1.Severity level

| Test Level $\%U_T$ | Voltage dip and short interruptions $\%U_T$ | Duration (in period) |
|-----------------------|---|-------------------------|
| 0 | 100 | 0.5 |
| 40 | 60 | 1 |
| 70 | 30 | 5 |
| | | 10 |
| | | 25 |
| | | 50 |
| | | * |

13.3.2.Performance criterion: **B&C**

13.4.EUT Configuration

The configuration of EUT is listed in Section 7.4.

13.5.Operating Condition of EUT

Same as Section 4.5 except the test setup replaced by Section 13.1.

13.6.Test Procedure

- 1) Set up the EUT and test generator as shown on Section 13.1.2.
- 2) The interruption is introduced at selected phase angles with specified duration.
- 3) Record any degradation of performance.

13.7.Test Result

PASS.

Please refer to the following page.

Voltage Dips And Interruptions Test Results

Accurate Technology Co., Ltd.

| Applicant : <u>Chevy Light Co., Ltd.</u> EUT : <u>LED Traffic Light</u> M/N : <u>CLJD300C-R/Y/G</u> Power Supply : <u>AC 230V/ 50Hz</u> | | | Test Date : <u>June 27, 2008</u> Temperature : <u>25 °C</u> Humidity : <u>53%</u> Test Engineer : <u>Feng</u> | |
|--|------------------------------------|----------------------|--|--------|
| Test Mode : On | | | | |
| Test Level | Voltage Dips & Short Interruptions | Duration (in period) | Criterion | Result |
| % U _T | % U _T | | <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D | |
| 70 | 30 | 10P | C | PASS |
| 0 | 100 | 0.5P | B | PASS |
| Remark: U _T is the rated voltage for the equipment. | | | Test Equipment : EMC PRO System: PRO-BASE (Thermo) | |

14.PHOTOGRAPH

14.1.Photos of Conducted Emission Measurement



14.2. Photo of Harmonic / Flicker Measurement



14.3. Photo of Electrostatic Discharge Test



14.4. Photos of RF Field Strength Susceptibility Test



14.5. Photo of Electrical Fast Transient /Burst Test



14.6.Photo of Surge Test



14.7.Photo of Magnetic Field Immunity Test



14.8. Photo of Voltage Dips and Interruption Immunity Test



APPENDIX I

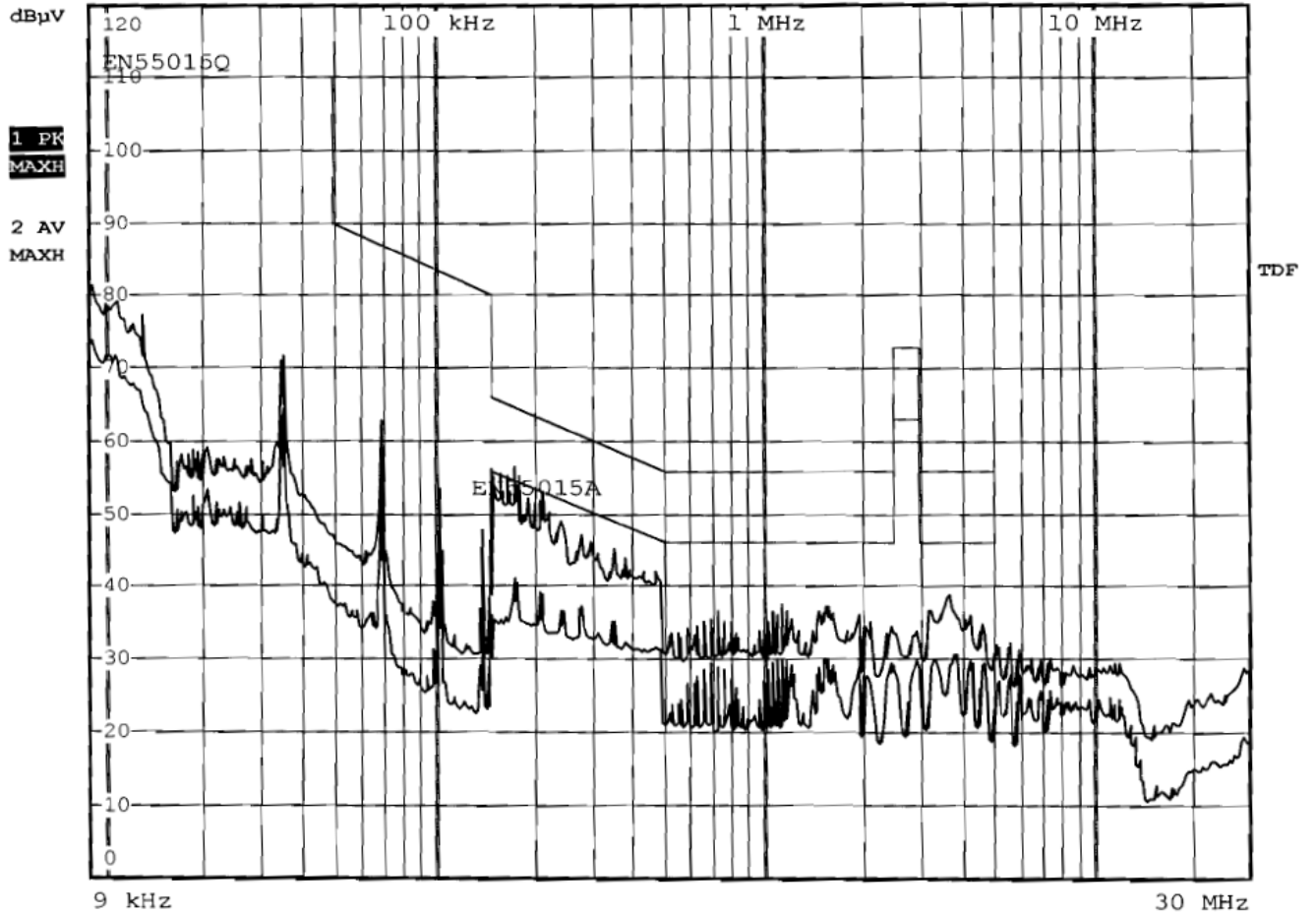


Standard:EN55015

RBW 200 Hz

MT 500 ms

Att 10 dB AUTO PREAMP OFF



Comment B: Manuf:Chevy Eut:LED Traffic Light M/N:CLJD300C-R/Y/G Memo:ON
Power:L 230V/50Hz Sample No.:082305
Date: 27.JUN.2008 16:57:37

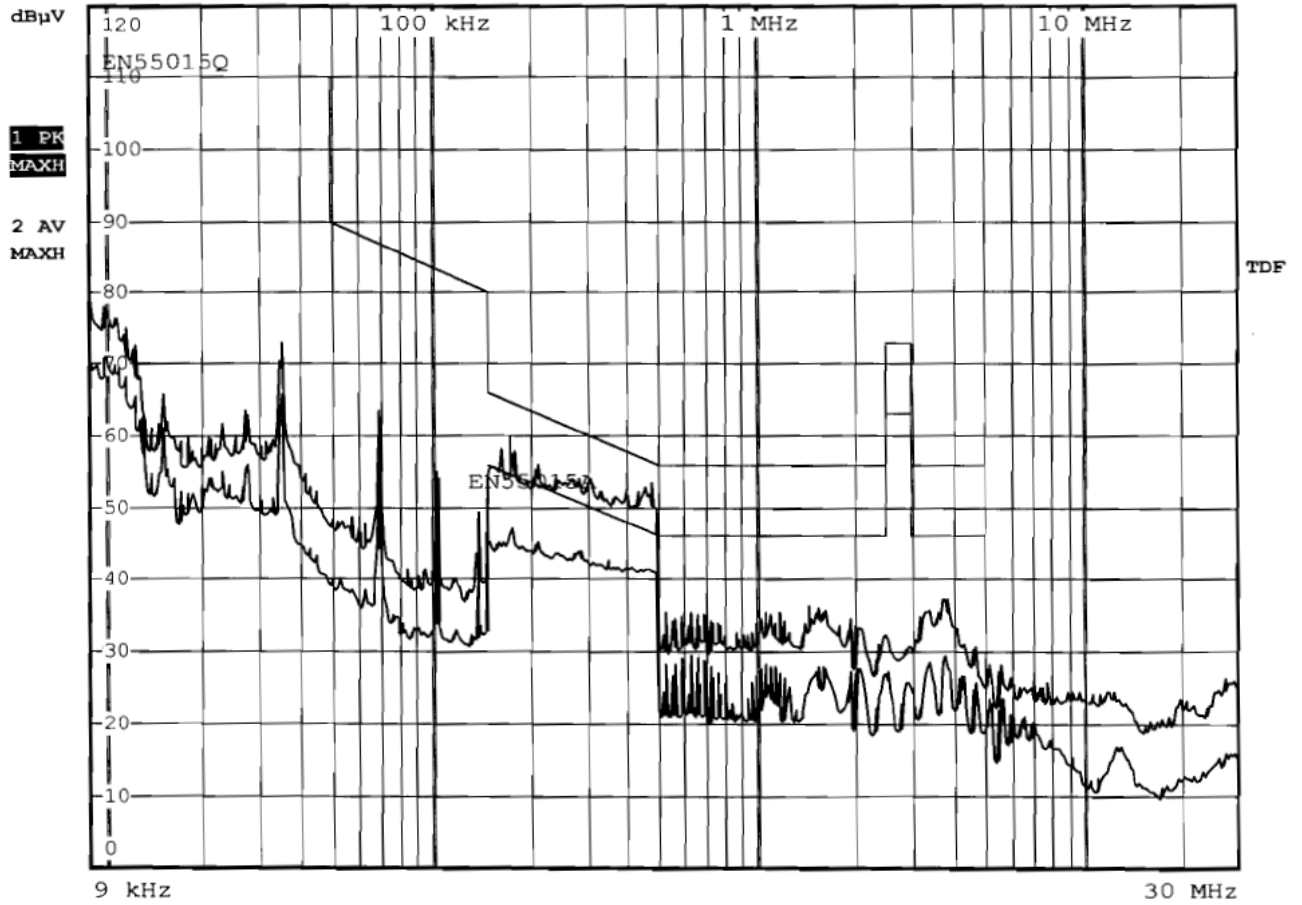


Standard:EN55015

RBW 200 Hz

MT 50 ms

Att 10 dB AUTO PREAMP OFF



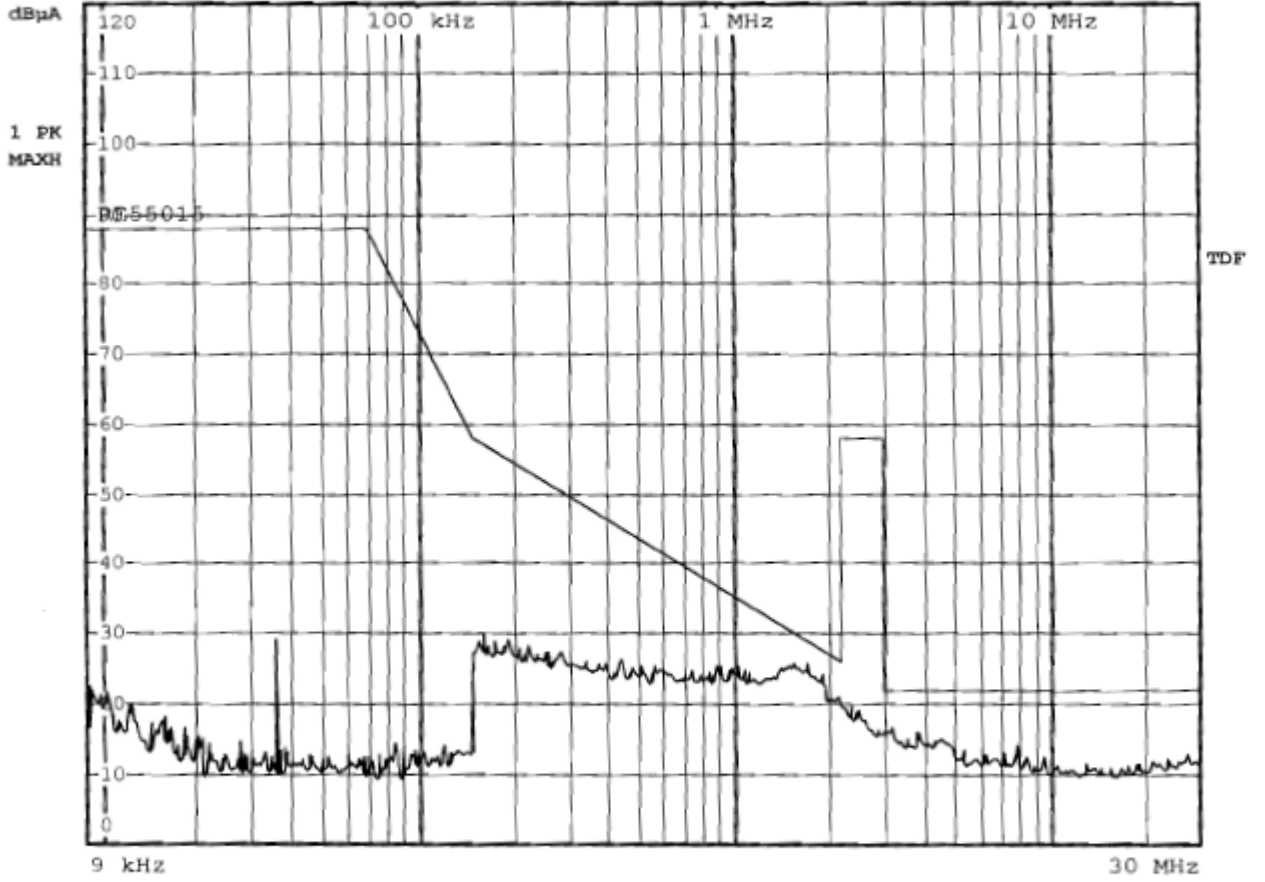
Comment B: Manuf:Chevy Eut:LED Traffic Light M/N:CLJD300C-R/Y/G Memo:ON
Power:N 230V/50Hz Sample No.:082305
Date: 27.JUN.2008 16:52:45

APPENDIX II



RBW 200 Hz
MT 50 ms

Att 10 dB AUTO PREAMP OFF

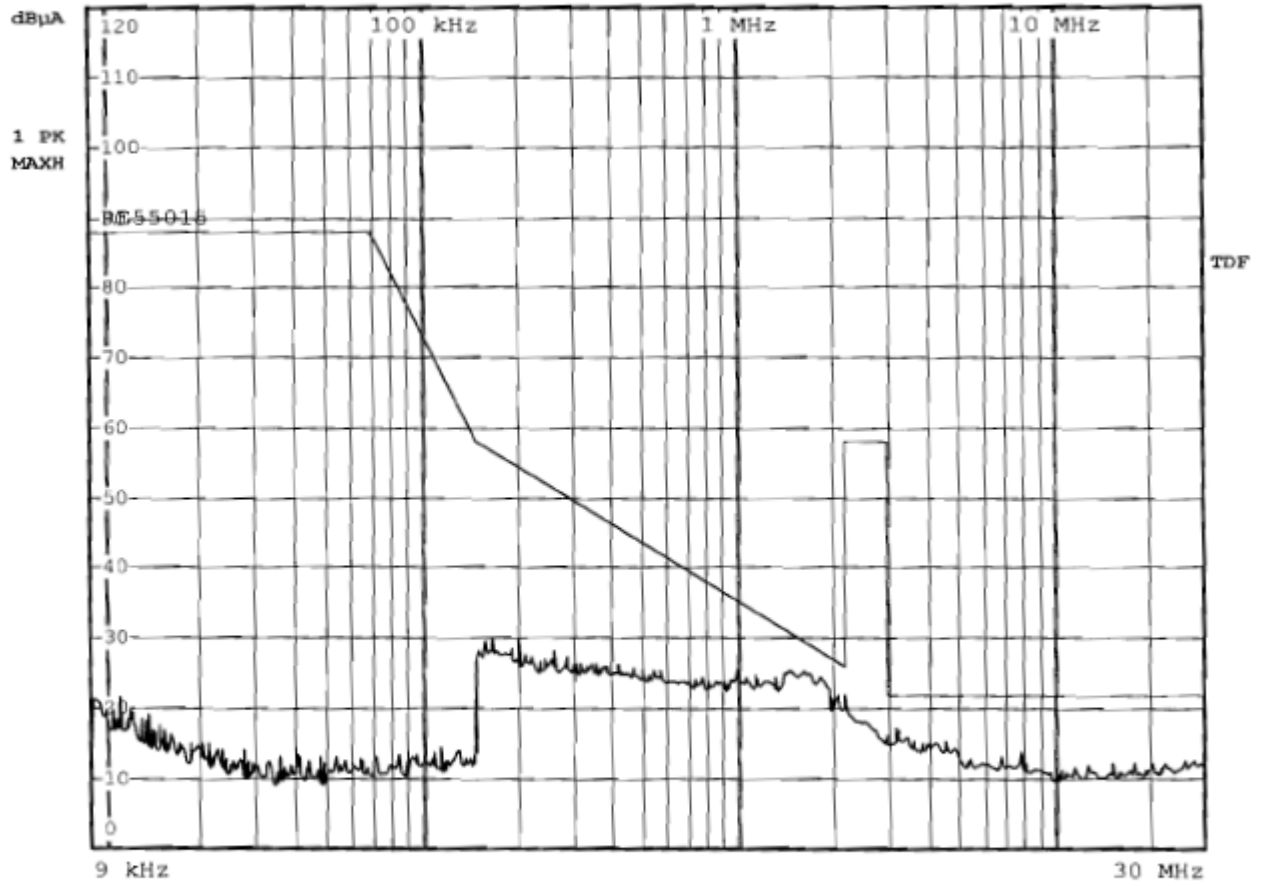


Comment B: Manuf:Chevy EUT:LED Traffic Light M/N:CLJD300C-R/Y/G Memo:On
Power:230V/50Hz X Sample No.:082305
Date: 19.JUN.2008 08:37:47



RBW 200 Hz
MT 50 ms

Att 10 dB AUTO PREAMP OFF



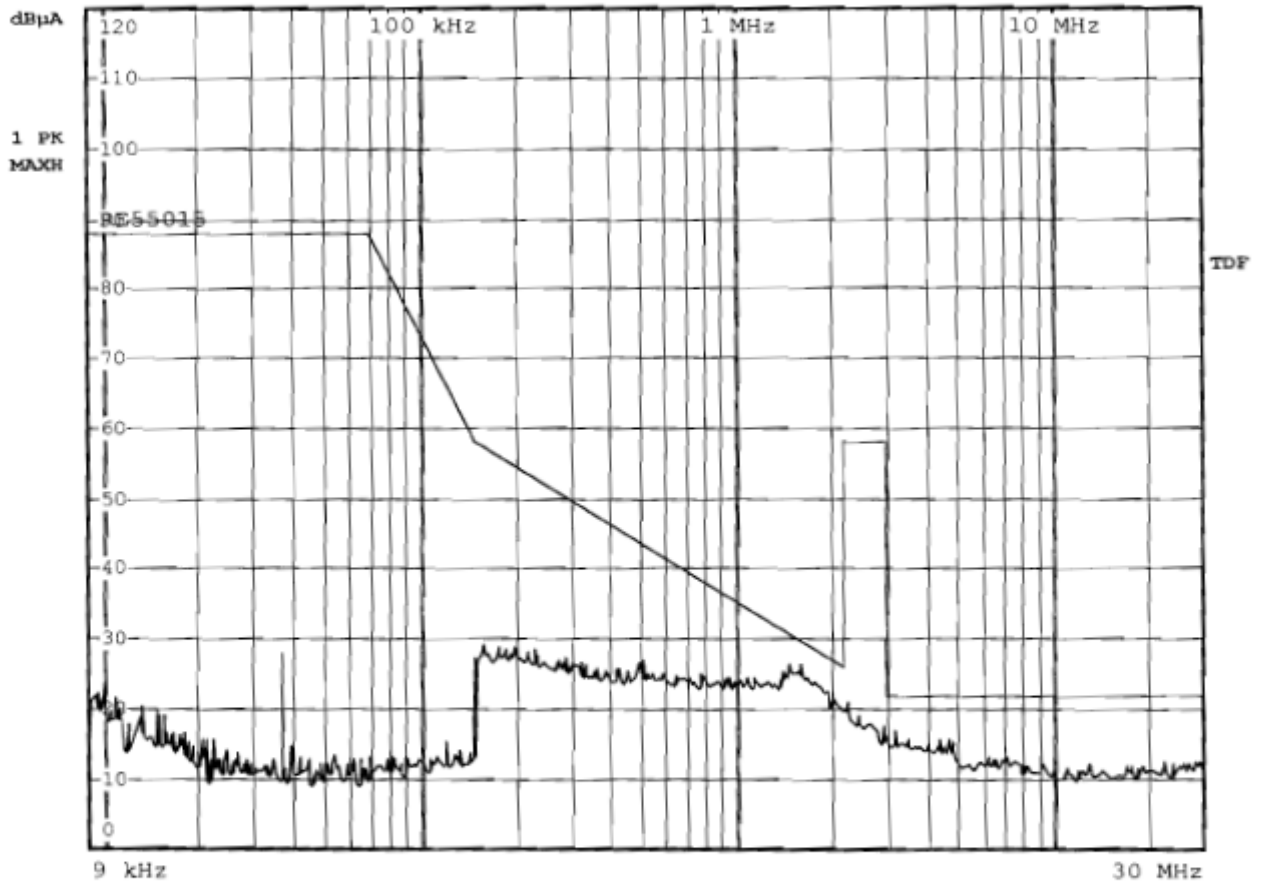
Comment B: Manuf:Chevy EUT:LED Traffic Light M/N:CLJD300C-R/Y/G Memo:On
Power:230V/50Hz Y Sample No.:082305
Date: 19.JUN.2008 08:39:47



RBW 200 Hz

MT 50 ms

Att 10 dB AUTO PREAMP OFF



Comment B: Manuf:Chevy EUT:LED Traffic Light M/N:CLJD300C-R/Y/G Memo:On

Power:230V/50Hz Z Sample No.:082305

Date: 19.JUN.2008 08:35:45

APPENDIX III (Photos of the EUT)

Photo documentation

| | |
|---|--|
| <p><u>Photo 1</u></p> <p>View: CLJD300C-R/Y/G</p> <p><input checked="" type="checkbox"/> front</p> <p><input type="checkbox"/> rear</p> <p><input type="checkbox"/> right side</p> <p><input type="checkbox"/> left side</p> <p><input type="checkbox"/> top</p> <p><input type="checkbox"/> bottom</p> <p><input type="checkbox"/> internal</p> |  |
|---|--|

| | |
|---|--|
| <p><u>Photo 2</u></p> <p>View: CLJD300C-R/Y/G</p> <p><input type="checkbox"/> front</p> <p><input checked="" type="checkbox"/> rear</p> <p><input type="checkbox"/> right side</p> <p><input type="checkbox"/> left side</p> <p><input type="checkbox"/> top</p> <p><input type="checkbox"/> bottom</p> <p><input type="checkbox"/> internal</p> |  |
|---|--|

Photo 3

View:
CLJD300C-R/Y/G

- front
- rear
- right side
- left side
- top
- bottom
- internal



Photo 4

View:
CLJD300C-R/Y/G

- front
- rear
- right side
- left side
- top
- bottom
- internal

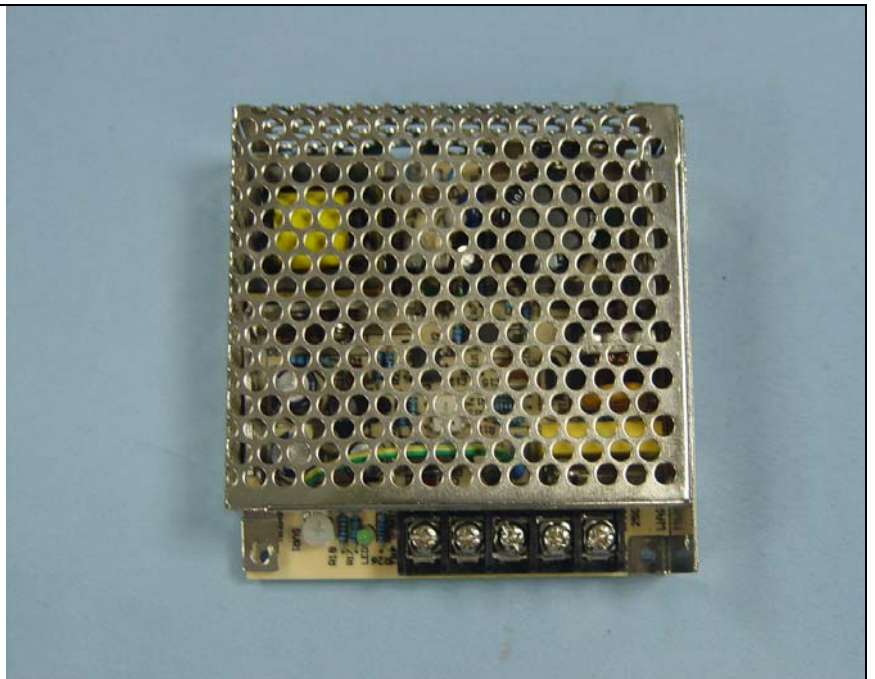


Photo 5

View:
CLJD300C-R/Y/G

- front
- rear
- right side
- left side
- top
- bottom
- internal



Photo 6

View:
CLJD300C-R/Y/G

- front
- rear
- right side
- left side
- top
- bottom
- internal

