



# Test Report: LCM-60

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60W Multiple-Stage Output Current LED Power Supply

## ■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Control Function Test

Component Stress Test

## ■ SAFETY & E.M.C. TEST

Safety Test

E.M.C. Test

## ■ RELIABILITY TEST

ENVIRONMENT TEST

## DESIGN VERIFY TEST

### OUTPUT FUNCTION TEST

| NO | TEST ITEM            | SPECIFICATION                                                                                                    | TEST CONDITION                                | RESULT                                                                                                                                                               | VERDICT |
|----|----------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1  | RIPPLE & NOISE       | V1 : 700 mVp-p (Max )                                                                                            | I/P : 230VAC<br>O/P : FULL LOAD<br>Ta : 25°C  | 500mA : 121 mVp-p (Max )<br>600mA : 179 mVp-p (Max )<br>700mA : 241 mVp-p (Max )<br>900mA : 122 mVp-p (Max )<br>1050mA : 56 mVp-p (Max )<br>1400mA : 29 mVp-p (Max ) | P       |
| 2  | NO LOAD O/P VOLTAGE  | 500mA : 90V~95V<br>600mA : 90V~95V<br>700mA : 90V~95V<br>900mA : 67V~73V<br>1050mA : 67V~73V<br>1400mA : 67V~73V | I/P : 230 VAC<br>O/P : MIN LOAD<br>Ta : 25°C  | 500mA : 93.11 V/230 VAC<br>600mA : 93.12 V/230 VAC<br>700mA : 93.12 V/230 VAC<br>900mA : 69.58 V/230 VAC<br>1050mA : 69.56 V/230 VAC<br>1400mA : 69.56 V/230 VAC     | P       |
| 3  | RIPPLE CURRENT       | ±5%                                                                                                              | I/P : 230VAC<br>O/P : LED LOAD<br>Ta : 25°C   | 500mA : ±2.1 %<br>600mA : ±2 %<br>700mA : ±2 %<br>900mA : ±2.6 %<br>1050mA : ±1.6 %<br>1400 mA : ±1.7 %                                                              | P       |
| 4  | CURRENT ACCURACY     | ±5%                                                                                                              | I/P : 230VAC<br>O/P : FULL LOAD<br>Ta : 25°C  | 500mA : ± 0.14 %<br>600mA : ± 0.15 %<br>700mA : ± 0.15 %<br>900mA : ± 0.2 %<br>1050mA : ± 0.01 %<br>1400 mA : ± 0.3 %                                                | P       |
| 5  | SET UP TIME          | 230VAC : 500 ms (Max)                                                                                            | I/P : 230 VAC<br>O/P : FULL LOAD<br>Ta : 25°C | 230VAC/ 382 ms                                                                                                                                                       | P       |
| 6  | RISE TIME            | 230VAC : 80 ms (Max)                                                                                             | I/P : 230 VAC<br>O/P : FULL LOAD<br>Ta : 25°C | 230VAC/ 15 ms                                                                                                                                                        | P       |
| 7  | HOLD UP TIME         | 230VAC : 16 ms (TYP)                                                                                             | I/P : 230 VAC<br>O/P : FULL LOAD<br>Ta : 25°C | 230VAC/ 21 ms                                                                                                                                                        | P       |
| 8  | OVER/UNDERSHOOT TEST | < ±5%                                                                                                            | I/P : 230 VAC<br>O/P : FULL LOAD<br>Ta : 25°C | TEST : <5 %                                                                                                                                                          | P       |

## INPUT FUNCTION TEST

| NO | TEST ITEM                 | SPECIFICATION                                                                         | TEST CONDITION                                                                                                                                                                  | RESULT                                         | VERDICT |
|----|---------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------|
| 1  | INPUT VOLTAGE RANGE       | 180VAC~295 VAC                                                                        | I/P : TESTING<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                   | 163 V~295V                                     | P       |
|    |                           |                                                                                       | I/P :<br>LOW-LINE-3V= 177 V<br>(PLEASE CHECK DERATING CURVE)<br>HIGH-LINE+10V=305 V<br>O/P : FULL/MIN LOAD<br>ON : 30 Sec . OFF : 30 Sec 10MIN<br>( AC POWER ON/OFF NO DAMAGE ) | TEST : OK                                      |         |
| 2  | INPUT FREQUENCY RANGE     | 47HZ ~63 HZ<br>NO DAMAGE OSC                                                          | I/P : 200 VAC ~ 295 VAC<br>O/P : FULL~MIN LOAD<br>Ta : 25°C                                                                                                                     | TEST : OK                                      | P       |
| 3  | POWER FACTOR              | 0.975 / 230 VAC(TYP)<br>0.96 / 277 VAC(TYP)                                           | I/P : 230 VAC<br>I/P : 277 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                  | PF= 0.9915 / 230 VAC<br>PF= 0.9753 / 277 VAC   | P       |
| 4  | EFFICIENCY                | 92 % (TYP)                                                                            | I/P : 230 VAC<br>O/P : LEDH:67V/900mV<br>Ta : 25°C                                                                                                                              | 92.45 %                                        | P       |
| 5  | INPUT CURRENT             | 230V/ 0.32 A (TYP)<br>277V/ 0.27 A (TYP)                                              | I/P : 230 VAC<br>I/P : 277 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                  | I = 0.2873 A/ 230 VAC<br>I = 0.2447 A/ 277 VAC | P       |
| 6  | INRUSH CURRENT            | 230V/ 20 A (TYP)<br><br>(twidth=270us measured at 50% Ipeak)<br>COLD START            | I/P : 230 VAC<br>O/P : FULL LOAD<br>Ta : 25°C                                                                                                                                   | I = 19.2 A/ 230 VAC<br>T50= 263 us             | P       |
| 7  | LEAKAGE CURRENT           | < 0.5 mA / 240 VAC                                                                    | I/P : 240 VAC<br>O/P : Min LOAD<br>Ta : 25°C                                                                                                                                    | L-FG : 0.003 mA<br>N-FG : 0.002 mA             | P       |
| 8  | NO LOAD CONSUMPTION       | < 1 W                                                                                 | I/P : 180VAC<br>I/P : 230VAC<br>I/P : 277VAC<br>O/P : NO LOAD<br>Ta : 25°C                                                                                                      | < 0.932 W<br>< 0.939 W<br>< 0.966 W            | P       |
| 9  | TOTAL HARMONIC DISTORTION | Total harmonic distortion will be lower than 20% when output loading is 75% or higher | I/P : 230 VAC<br>O/P : 75% LOAD<br><br>I/P : 277 VAC<br>O/P : 75%LOAD<br>Ta : 25°C                                                                                              | THD : 10.11 /230VAC<br><br>THD : 13.64 /277VAC | P       |

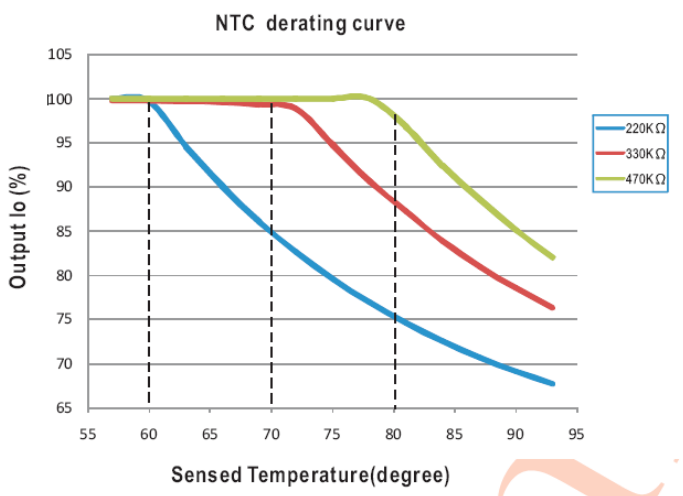
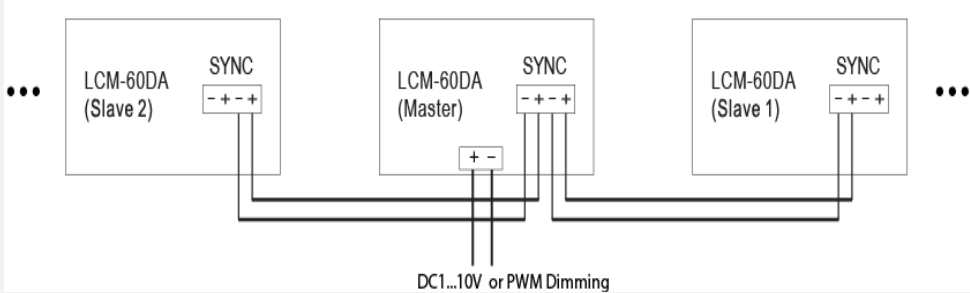
## PROTECTION FUNCTION TEST

| NO | TEST ITEM               | SPECIFICATION       | TEST CONDITION                                                | RESULT                                                        | VERDICT |
|----|-------------------------|---------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------|
| 1  | OVER VOLTAGE PROTECTION | CH1 : 105 V ~ 125 V | I/P : 230 VAC<br>I/P : 180 VAC<br>O/P : MIN LOAD<br>Ta : 25°C | 117.25V/ 230 VAC<br>116.15V/ 180VAC<br>Shut down Re- power ON | P       |

|   |                             |                                        |                                               |                                        |   |
|---|-----------------------------|----------------------------------------|-----------------------------------------------|----------------------------------------|---|
| 2 | OVER TEMPERATURE PROTECTION | Shut down Re-power ON                  | I/P : 230 VAC<br>O/P : FULL LOAD              | O.T.P. Active<br>Shut down Re-power ON | P |
| 3 | SHORT PROTECTION            | SHORT EVERY OUTPUT<br>1 HOUR NO DAMAGE | I/P : 295 VAC<br>O/P : FULL LOAD<br>Ta : 25°C | NO DAMAGE<br>Constant Current Limiting | P |

## CONTROL FUNCTION TEST

| NO                     | TEST ITEM                                                                                                                                                 | SPECIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TEST CONDITION                               | RESULT        | VERDICT        |                |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
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| 1                      | AUXILIARY POWER                                                                                                                                           | 12V @ 50mA for driving fan;<br>Tolerance <u>  </u> +5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | I/P : 230 VAC<br>O/P : FULL LOAD<br>Ta : 25℃ | 11.981 V/230V | P              |                |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 2                      | DIP Switch Table                                                                                                                                          | <div>LCM-60 is a multiple-stage output current supply, selection of output current through DIP switch as table below.</div> <table><tr><th>Io \ DIP S.W.</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th></tr><tr><td>500mA</td><td>----</td><td>----</td><td>----</td><td>----</td><td>----</td><td>----</td></tr><tr><td>600mA</td><td>ON</td><td>----</td><td>----</td><td>----</td><td>----</td><td>----</td></tr><tr><td>700mA(Factory Setting)</td><td>ON</td><td>ON</td><td>----</td><td>----</td><td>----</td><td>----</td></tr><tr><td>900mA</td><td>ON</td><td>ON</td><td>ON</td><td>----</td><td>----</td><td>ON</td></tr><tr><td>1050mA</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>----</td><td>ON</td></tr><tr><td>1400mA</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td></tr></table> <div>TEST : OK</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |               | Io \ DIP S.W.  | 1              | 2    | 3                                                                                                                                                         | 4    | 5                                                                                                                                                        | 6    | 500mA                                                                                                                                                  | ---- | ---- | ---- | ---- | ---- | ---- | 600mA | ON | ---- | ---- | ---- | ---- | ---- | 700mA(Factory Setting) | ON | ON | ---- | ---- | ---- | ---- | 900mA | ON | ON | ON | ---- | ---- | ON | 1050mA | ON | ON | ON | ON | ---- | ON | 1400mA | ON | ON | ON | ON | ON | ON |  | P |
| Io \ DIP S.W.          | 1                                                                                                                                                         | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3                                            | 4             | 5              | 6              |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 500mA                  | ----                                                                                                                                                      | ----                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ----                                         | ----          | ----           | ----           |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 600mA                  | ON                                                                                                                                                        | ----                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ----                                         | ----          | ----           | ----           |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 700mA(Factory Setting) | ON                                                                                                                                                        | ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ----                                         | ----          | ----           | ----           |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 900mA                  | ON                                                                                                                                                        | ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ON                                           | ----          | ----           | ON             |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 1050mA                 | ON                                                                                                                                                        | ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ON                                           | ON            | ----           | ON             |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 1400mA                 | ON                                                                                                                                                        | ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ON                                           | ON            | ON             | ON             |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 3                      | TEMP. COMPENSATION                                                                                                                                        | <div><b>SPECIFICATION:</b><br/>LCM-60 have the built-in temperature compensation function (T↑ , Io↓ ). By connecting a temperature sensor ( NTC resistor) between the NTC +/- terminal of LCM-60 and the detecting point on the lighting system or the surrounding environment, output current of LCM-60 could be correspondingly changed to ensure the long life of LED.<br/>1.LCM-60 can still be operated well when the NTC resistor is not connected and the value of output current will be the current level that you set<br/>2.</div> <table><tr><th>NTC resistance</th><th>Output Current</th></tr><tr><td>220K</td><td>&lt; 60℃, 100% of the rated current (corresponds to the setting current level)<br/>&gt;60℃, 100% of the rated current (corresponds to the setting current level)</td></tr><tr><td>330K</td><td>&lt; 70℃, 100% of the rated current (corresponds to the setting current level)<br/>&gt; 70℃, output current begin to reduce, details please refer to the curve.</td></tr><tr><td>470K</td><td>&lt; 80℃, output current begin to reduce, details please refer to the curve.<br/>&gt; 80℃, output current begin to reduce, details please refer to the curve.</td></tr></table> <div>Notes:<br/>1. MW does not offer the NTC resistor and all the data above are measured by using THINKING TTC03 series.<br/>2. If other brands of NTC resistor is applied,please check the temperature curve first.<br/>3. Synchronization function of the power supply will be invalid when the "temperature compensation" function is in use.</div> <div><b>TEST CONDITION</b> : I/P : 230 VAC<br/><b>RESULT:OK</b></div> |                                              |               | NTC resistance | Output Current | 220K | < 60℃, 100% of the rated current (corresponds to the setting current level)<br>>60℃, 100% of the rated current (corresponds to the setting current level) | 330K | < 70℃, 100% of the rated current (corresponds to the setting current level)<br>> 70℃, output current begin to reduce, details please refer to the curve. | 470K | < 80℃, output current begin to reduce, details please refer to the curve.<br>> 80℃, output current begin to reduce, details please refer to the curve. |      | P    |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| NTC resistance         | Output Current                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |               |                |                |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 220K                   | < 60℃, 100% of the rated current (corresponds to the setting current level)<br>>60℃, 100% of the rated current (corresponds to the setting current level) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |               |                |                |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 330K                   | < 70℃, 100% of the rated current (corresponds to the setting current level)<br>> 70℃, output current begin to reduce, details please refer to the curve.  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |               |                |                |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |
| 470K                   | < 80℃, output current begin to reduce, details please refer to the curve.<br>> 80℃, output current begin to reduce, details please refer to the curve.    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |               |                |                |      |                                                                                                                                                           |      |                                                                                                                                                          |      |                                                                                                                                                        |      |      |      |      |      |      |       |    |      |      |      |      |      |                        |    |    |      |      |      |      |       |    |    |    |      |      |    |        |    |    |    |    |      |    |        |    |    |    |    |    |    |  |   |

|         |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |       |        |       |       |       |       |        |    |    |     |      |       |       |       |       |        |       |       |     |     |        |         |     |     |     |     |     |     |     |     |     |      |      |     |       |       |       |       |       |       |       |       |       |   |
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|         |                           | <div>NTC derating curve</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |       |        |       |       |       |       |        |    |    |     |      |       |       |       |       |        |       |       |     |     |        |         |     |     |     |     |     |     |     |     |     |      |      |     |       |       |       |       |       |       |       |       |       |   |
| 4       | Dimming function          | <div><p>.Built-in 2 in 1 dimming function, output constant current level can be adjusted through output terminal by 0 ~ 10Vdc or 10V PWM signal between DIM+ and DIM-.</p><p>.Please DO NOT connect "DIM-" to "-V".</p><p>.0 ~ 10V dimming function for output current adjustment (Typical)</p><table><tr><td>Current</td><td>1V</td><td>2V</td><td>3V</td><td>4V</td><td>5V</td><td>6V</td><td>7V</td><td>8V</td><td>9V</td><td>10V</td></tr><tr><td>1.4A</td><td>10.9%</td><td>20.7%</td><td>30.2%</td><td>40.2%</td><td>50.11%</td><td>60.5%</td><td>70.2%</td><td>80%</td><td>90%</td><td>100.1%</td></tr></table><p>.10V PWM signal for output current adjustment (Typical): Frequency range :100Hz ~ 3KHz</p><table><tr><td>Current</td><td>10%</td><td>20%</td><td>30%</td><td>40%</td><td>50%</td><td>60%</td><td>70%</td><td>80%</td><td>90%</td><td>100%</td></tr><tr><td>1.4A</td><td>11%</td><td>20.8%</td><td>30.7%</td><td>40.5%</td><td>50.4%</td><td>60.2%</td><td>70.1%</td><td>79.9%</td><td>89.8%</td><td>99.1%</td></tr></table></div> | Current | 1V    | 2V     | 3V    | 4V    | 5V    | 6V    | 7V     | 8V | 9V | 10V | 1.4A | 10.9% | 20.7% | 30.2% | 40.2% | 50.11% | 60.5% | 70.2% | 80% | 90% | 100.1% | Current | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 1.4A | 11% | 20.8% | 30.7% | 40.5% | 50.4% | 60.2% | 70.1% | 79.9% | 89.8% | 99.1% | P |
| Current | 1V                        | 2V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3V      | 4V    | 5V     | 6V    | 7V    | 8V    | 9V    | 10V    |    |    |     |      |       |       |       |       |        |       |       |     |     |        |         |     |     |     |     |     |     |     |     |     |      |      |     |       |       |       |       |       |       |       |       |       |   |
| 1.4A    | 10.9%                     | 20.7%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30.2%   | 40.2% | 50.11% | 60.5% | 70.2% | 80%   | 90%   | 100.1% |    |    |     |      |       |       |       |       |        |       |       |     |     |        |         |     |     |     |     |     |     |     |     |     |      |      |     |       |       |       |       |       |       |       |       |       |   |
| Current | 10%                       | 20%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 30%     | 40%   | 50%    | 60%   | 70%   | 80%   | 90%   | 100%   |    |    |     |      |       |       |       |       |        |       |       |     |     |        |         |     |     |     |     |     |     |     |     |     |      |      |     |       |       |       |       |       |       |       |       |       |   |
| 1.4A    | 11%                       | 20.8%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30.7%   | 40.5% | 50.4%  | 60.2% | 70.1% | 79.9% | 89.8% | 99.1%  |    |    |     |      |       |       |       |       |        |       |       |     |     |        |         |     |     |     |     |     |     |     |     |     |      |      |     |       |       |       |       |       |       |       |       |       |   |
| 5       | SYNCHRONIZATION OPERATION | <div><div>SPECIFICATION:</div><ul style="list-style-type: none"><li>• 10 drivers(max.) synchronization (1 master + 9 slaves)</li><li>• Maximum length of the cable from first driver to last driver is 15 meter.</li></ul><div></div><div>TEST CONDITION : I/P : 230 VAC FULL LOAD</div><div>RESULT:OK</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | P       |       |        |       |       |       |       |        |    |    |     |      |       |       |       |       |        |       |       |     |     |        |         |     |     |     |     |     |     |     |     |     |      |      |     |       |       |       |       |       |       |       |       |       |   |

## COMPONENT STRESS TEST

| NO | TEST ITEM                                              | SPECIFICATION                                                  | TEST CONDITION                                                                                                                               | RESULT                                 | VERDICT |
|----|--------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------|
| 1  | Power Transistor<br>( D to S) or (C to E) Peak Voltage | U2 Rated<br>LC700HG:550V/5.2A                                  | I/P : High-Line +3V = 298 V<br>O/P : (1)Full Load Turn on<br>(2) Output Short<br>(3)Full load continue<br>Ta : 25°C                          | (1) 435 V<br>(2) 427 V<br>(3) 439 V    | P       |
| 2  | Diode Peak Voltage                                     | D100 Rated<br>STTH1003SB:300V/10A                              | I/P : High-Line +3V = 298 V<br>O/P : (1)Full Load Turn on<br>(2)Output Short<br>(3)Full load continue<br>Ta : 25°C                           | (1) 87.8 V<br>(2) 15.5 V<br>(3) 87.8 V | P       |
| 3  | Input Capacitor Voltage                                | C5 Rated:<br>22u/450V 105°C 12.5*20 CST<br>SURGE VOLTAGE: 495V | I/P : High-Line +3V = 298 V<br>O/P : (1)Full Load Turn on /Off<br>(2) Min load Turn on /Off<br>(3)Full Load /Min load<br>Change<br>Ta : 25°C | (1) 439 V<br>(2) 435 V<br>(3) 459 V    | P       |
| 4  | Control IC Voltage Test                                | U2 Rated<br>LC700HG 11.4V ~15V                                 | I/P : High-Line +3V = 298 V<br>O/P : (1)Full Load Turn on /Off<br>(2) Min load Turn on /Off<br>(3)Full Load /Min load<br>Change<br>Ta : 25°C | (1) 13.5 V<br>(2) 13.3 V<br>(3) 13.3 V | P       |
| 5  | Power Transistor<br>( D to S) or (C to E) Peak Voltage | Q1 RatedI<br>IPD60R600E6 7.3A/650V                             | I/P : High-Line +3V = 298 V<br>O/P : (1)Full Load Turn on<br>(2) Output Short<br>(3)Full load continue<br>Ta : 25°C                          | (1) 439 V<br>(2) 459 V<br>(3) 439 V    | P       |

## ■ SAFETY & E.M.C. TEST

### SAFETY TEST

| NO | TEST ITEM            | SPECIFICATION           | TEST CONDITION                        | RESULT                            | VERDICT |
|----|----------------------|-------------------------|---------------------------------------|-----------------------------------|---------|
| 1  | WITHSTAND VOLTAGE    | I/P-O/P : 3.75 KVAC/min | I/P-O/P : 4 KVAC/min<br>Ta : 25°C     | I/P-O/P : 2.2 mA<br><br>NO DAMAGE | P       |
| 2  | ISOLATION RESISTANCE | I/P-O/P : 500VDC>100MΩ  | I/P-O/P : 500 VDC<br>Ta : 25°C /70%RH | I/P-O/P : 30 GΩ<br><br>NO DAMAGE  | P       |

### E.M.C TEST

| NO | TEST ITEM                                   | SPECIFICATION                                               | TEST CONDITION                                           | RESULT                        | VERDICT |
|----|---------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------|-------------------------------|---------|
| 1  | HARMONIC                                    | EN61000-3-2<br>CLASS C                                      | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | PASS                          | P       |
| 2  | CONDUCTION                                  | EN55015<br>CLASS B                                          | I/P : 230 VAC (50HZ)<br>O/P : FULL/50% LOAD<br>Ta : 25°C | PASS<br>Test by certified Lab | P       |
| 3  | RADIATION                                   | EN55015<br>CLASS B                                          | I/P : 230 VAC (50HZ)<br>O/P : FULL LOAD<br>Ta : 25°C     | PASS<br>Test by certified Lab | P       |
| 4  | E.S.D                                       | EN61000-4-2<br>LIGHT INDUSTRY<br>AIR : 8KV / Contact : 4KV  | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A                    | P       |
| 5  | E.F.T                                       | EN61000-4-4<br>LIGHT INDUSTRY<br>INPUT : 1KV                | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A                    | P       |
| 6  | SURGE                                       | IEC61000-4-5<br>LIGHT INDUSTRY<br>L-N : 1KV<br>L,N-PE : 2KV | I/P : 230 VAC/50HZ<br>O/P : FULL LOAD<br>Ta : 25°C       | CRITERIA A                    | P       |
| 7  | Test by certified Lab & Test Report Prepare |                                                             |                                                          |                               |         |

## RELIABILITY TEST

### ENVIRONMENT TEST

| NO | TEST ITEM                                                         | SPECIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | TEST CONDITION                                                     | RESULT                     | VERDICT |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
|----|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------|---------|----------|-------------|-----------------------------|----------------------------|---|-----|-----------------------|--------|--------|---|-----|-----------------------|--------|--------|---|-----|---------------------------|--------|--------|---|-----|--------|--------|--------|---|-----|-------------------------|--------|--------|---|----|----------|--------|--------|---|----|--------|--------|--------|---|-----|-------------------------|--------|--------|---|----|----------------------------|--------|--------|----|-----|---------------------------|--------|---------|----|----|-------------------|--------|---------|----|-----|--------------------------|--------|---------|----|-----|---------------------------|--------|--------|----|-----|-------------------------------|--------|---------|----|------|-----------------------------|--------|--------|----|----|--------|--------|---------|----|------|---------------------------|--------|--------|----|------|-----------------------------|--------|--------|----|-------|--------|--------|--------|----|----|---------------------------------|--------|--------|----|----|-----------------------------|--------|--------|----|------|---------------------------------|--------|---------|----|------|-----------------------------|--------|--------|---|
| 1  | TEMPERATURE RISE TEST                                             | <div>MODEL : LCM-60                      DIP switch : 1400mA</div> <div>1. ROOM AMBIENT    BURN-IN : 13 HRS</div> <div>I/P : 230VAC    O/P : FULL LOAD    Ta= 26.7 °C</div> <div>2. HIGH AMBIENT    BURN-IN : 6 HRS</div> <div>I/P : 230VAC    O/P : FULL LOAD    Ta=48.36 °C</div> <table><thead><tr><th>NO</th><th>Position</th><th>PART NUMBER</th><th>ROOM AMBIENT<br/>Ta= 26.7 °C</th><th>HIGH AMBIENT<br/>Ta= 48.3°C</th></tr></thead><tbody><tr><td>1</td><td>C11</td><td>224/450V 10% P=10 MMX</td><td>81.3°C</td><td>96.6°C</td></tr><tr><td>2</td><td>C12</td><td>224/450V 10% P=10 MMX</td><td>81.9°C</td><td>97.4°C</td></tr><tr><td>3</td><td>RG1</td><td>PS78L12A 0.1A/12V 1% TO92</td><td>81.5°C</td><td>97.5°C</td></tr><tr><td>4</td><td>LF2</td><td>TR1066</td><td>71.7°C</td><td>87.0°C</td></tr><tr><td>5</td><td>BD1</td><td>4A/800V SILICON UD4KB80</td><td>81.9°C</td><td>97.0°C</td></tr><tr><td>6</td><td>L1</td><td>TR991-R1</td><td>70.8°C</td><td>85.9°C</td></tr><tr><td>7</td><td>L2</td><td>TF2531</td><td>79.0°C</td><td>94.6°C</td></tr><tr><td>8</td><td>C60</td><td>10u/50V UL10Kh 5*11 YXM</td><td>73.8°C</td><td>90.3°C</td></tr><tr><td>9</td><td>C5</td><td>22u/450V 105°C 12.5*20 CST</td><td>79.0°C</td><td>95.8°C</td></tr><tr><td>10</td><td>C61</td><td>100u/35V UL6Kh 6.3*11 ZLH</td><td>84.1°C</td><td>100.0°C</td></tr><tr><td>11</td><td>U2</td><td>LCS700HG eSIP-16C</td><td>89.3°C</td><td>109.7°C</td></tr><tr><td>12</td><td>D91</td><td>BYV26EGP 1A/1KV DO-204AC</td><td>85.0°C</td><td>104.1°C</td></tr><tr><td>13</td><td>C36</td><td>33u/50V UL10Kh 6.3*11 YXM</td><td>75.1°C</td><td>93.7°C</td></tr><tr><td>14</td><td>C92</td><td>123/1.6KV 5% P=15 R74 (125°C)</td><td>88.3°C</td><td>105.8°C</td></tr><tr><td>15</td><td>RTH2</td><td>100KΩ 3Φ TTC3A104F4193EY 1%</td><td>79.6°C</td><td>98.7°C</td></tr><tr><td>16</td><td>T1</td><td>TF2529</td><td>93.0°C</td><td>109.6°C</td></tr><tr><td>17</td><td>C203</td><td>220u/35V UL8Kh 8*11.5 ZLH</td><td>74.5°C</td><td>89.9°C</td></tr><tr><td>18</td><td>C105</td><td>150u/160V 105°C 12.5*25 KXJ</td><td>63.1°C</td><td>78.8°C</td></tr><tr><td>19</td><td>LF100</td><td>TR1065</td><td>64.0°C</td><td>79.7°C</td></tr><tr><td>20</td><td>Q1</td><td>FET IPD60R600E6 7.3A/650V TO252</td><td>76.5°C</td><td>91.5°C</td></tr><tr><td>21</td><td>D8</td><td>SFRD NSF03B60 3A/600V t=2.1</td><td>81.7°C</td><td>96.9°C</td></tr><tr><td>22</td><td>D100</td><td>TANDEM STTH1003SB 10A/300V DPAK</td><td>99.3°C</td><td>114.5°C</td></tr><tr><td>23</td><td>U905</td><td>PIC16F1827-E/SS(SSOP)(Tap.)</td><td>70.4°C</td><td>86.5°C</td></tr></tbody></table> |                                                                    |                            | NO      | Position | PART NUMBER | ROOM AMBIENT<br>Ta= 26.7 °C | HIGH AMBIENT<br>Ta= 48.3°C | 1 | C11 | 224/450V 10% P=10 MMX | 81.3°C | 96.6°C | 2 | C12 | 224/450V 10% P=10 MMX | 81.9°C | 97.4°C | 3 | RG1 | PS78L12A 0.1A/12V 1% TO92 | 81.5°C | 97.5°C | 4 | LF2 | TR1066 | 71.7°C | 87.0°C | 5 | BD1 | 4A/800V SILICON UD4KB80 | 81.9°C | 97.0°C | 6 | L1 | TR991-R1 | 70.8°C | 85.9°C | 7 | L2 | TF2531 | 79.0°C | 94.6°C | 8 | C60 | 10u/50V UL10Kh 5*11 YXM | 73.8°C | 90.3°C | 9 | C5 | 22u/450V 105°C 12.5*20 CST | 79.0°C | 95.8°C | 10 | C61 | 100u/35V UL6Kh 6.3*11 ZLH | 84.1°C | 100.0°C | 11 | U2 | LCS700HG eSIP-16C | 89.3°C | 109.7°C | 12 | D91 | BYV26EGP 1A/1KV DO-204AC | 85.0°C | 104.1°C | 13 | C36 | 33u/50V UL10Kh 6.3*11 YXM | 75.1°C | 93.7°C | 14 | C92 | 123/1.6KV 5% P=15 R74 (125°C) | 88.3°C | 105.8°C | 15 | RTH2 | 100KΩ 3Φ TTC3A104F4193EY 1% | 79.6°C | 98.7°C | 16 | T1 | TF2529 | 93.0°C | 109.6°C | 17 | C203 | 220u/35V UL8Kh 8*11.5 ZLH | 74.5°C | 89.9°C | 18 | C105 | 150u/160V 105°C 12.5*25 KXJ | 63.1°C | 78.8°C | 19 | LF100 | TR1065 | 64.0°C | 79.7°C | 20 | Q1 | FET IPD60R600E6 7.3A/650V TO252 | 76.5°C | 91.5°C | 21 | D8 | SFRD NSF03B60 3A/600V t=2.1 | 81.7°C | 96.9°C | 22 | D100 | TANDEM STTH1003SB 10A/300V DPAK | 99.3°C | 114.5°C | 23 | U905 | PIC16F1827-E/SS(SSOP)(Tap.) | 70.4°C | 86.5°C | P |
| NO | Position                                                          | PART NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ROOM AMBIENT<br>Ta= 26.7 °C                                        | HIGH AMBIENT<br>Ta= 48.3°C |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 1  | C11                                                               | 224/450V 10% P=10 MMX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 81.3°C                                                             | 96.6°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 2  | C12                                                               | 224/450V 10% P=10 MMX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 81.9°C                                                             | 97.4°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 3  | RG1                                                               | PS78L12A 0.1A/12V 1% TO92                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 81.5°C                                                             | 97.5°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 4  | LF2                                                               | TR1066                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 71.7°C                                                             | 87.0°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 5  | BD1                                                               | 4A/800V SILICON UD4KB80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 81.9°C                                                             | 97.0°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 6  | L1                                                                | TR991-R1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 70.8°C                                                             | 85.9°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 7  | L2                                                                | TF2531                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 79.0°C                                                             | 94.6°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 8  | C60                                                               | 10u/50V UL10Kh 5*11 YXM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 73.8°C                                                             | 90.3°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 9  | C5                                                                | 22u/450V 105°C 12.5*20 CST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 79.0°C                                                             | 95.8°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 10 | C61                                                               | 100u/35V UL6Kh 6.3*11 ZLH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 84.1°C                                                             | 100.0°C                    |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 11 | U2                                                                | LCS700HG eSIP-16C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 89.3°C                                                             | 109.7°C                    |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 12 | D91                                                               | BYV26EGP 1A/1KV DO-204AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 85.0°C                                                             | 104.1°C                    |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 13 | C36                                                               | 33u/50V UL10Kh 6.3*11 YXM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 75.1°C                                                             | 93.7°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 14 | C92                                                               | 123/1.6KV 5% P=15 R74 (125°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 88.3°C                                                             | 105.8°C                    |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 15 | RTH2                                                              | 100KΩ 3Φ TTC3A104F4193EY 1%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 79.6°C                                                             | 98.7°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 16 | T1                                                                | TF2529                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 93.0°C                                                             | 109.6°C                    |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 17 | C203                                                              | 220u/35V UL8Kh 8*11.5 ZLH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 74.5°C                                                             | 89.9°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 18 | C105                                                              | 150u/160V 105°C 12.5*25 KXJ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 63.1°C                                                             | 78.8°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 19 | LF100                                                             | TR1065                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 64.0°C                                                             | 79.7°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 20 | Q1                                                                | FET IPD60R600E6 7.3A/650V TO252                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 76.5°C                                                             | 91.5°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 21 | D8                                                                | SFRD NSF03B60 3A/600V t=2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 81.7°C                                                             | 96.9°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 22 | D100                                                              | TANDEM STTH1003SB 10A/300V DPAK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 99.3°C                                                             | 114.5°C                    |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 23 | U905                                                              | PIC16F1827-E/SS(SSOP)(Tap.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 70.4°C                                                             | 86.5°C                     |         |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 2  | LOW TEMPERATURE<br>TURN ON TEST                                   | TURN ON AFTER 2 HOUR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | I/P : 230VAC/100VAC<br>O/P : 100 % LOAD<br>Ta= -35°C               | TEST : OK                  | P       |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 3  | HIGH HUMIDITY<br>HIGH TEMPERATURE<br>HIGH VOLTAGE<br>TURN ON TEST | AFTER 12 HOURS<br>IN CHAMBER ON<br>CONTROL 40 °C<br>NO DAMAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I/P : 305 VAC<br>O/P : FULL LOAD<br>Ta= 40 °C<br>HUMIDITY= 95 %R.H | TEST : OK                  | P       |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |
| 4  | TEMPERATURE<br>COEFFICIENT                                        | ± 0.03 %/°C(0~50°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | I/P : 230 VAC<br>O/P : FULL LOAD                                   | ± 0.002 %/°C(0~50°C)       | P       |          |             |                             |                            |   |     |                       |        |        |   |     |                       |        |        |   |     |                           |        |        |   |     |        |        |        |   |     |                         |        |        |   |    |          |        |        |   |    |        |        |        |   |     |                         |        |        |   |    |                            |        |        |    |     |                           |        |         |    |    |                   |        |         |    |     |                          |        |         |    |     |                           |        |        |    |     |                               |        |         |    |      |                             |        |        |    |    |        |        |         |    |      |                           |        |        |    |      |                             |        |        |    |       |        |        |        |    |    |                                 |        |        |    |    |                             |        |        |    |      |                                 |        |         |    |      |                             |        |        |   |



|    |                             |                                                                                                                                                                                                                                                                                   |                                                               |   |
|----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---|
| 5  | STORAGE TEMPERATURE TEST    | 1. Thermal shock Temperature : -45°C ~ +90°C<br>2. Temperature change rate : 25°C / MIN<br>3. Dwell time low and high temperature : 30 MIN/EACH<br>4. Total test cycle : 5 CYCLE<br>5. Input/Output condition : STATIC                                                            | OK                                                            | P |
| 6  | THERMAL SHOCK TEST          | 1. Thermal shock Temperature : -35°C ~ +55°C<br>2. Temperature change rate : 25°C / MIN<br>3. Dwell time low and high temperature : 30 MIN/EACH<br>4. Total test cycle : 10 CYCLE<br>5. Input/Output condition : 230VAC/Full Load AC ON/OFF TEST<br>turn on 58sec ; turn off 2sec | OK                                                            | P |
| 7  | VIBRATION TEST              | 1 Carton & 1 Set<br>(1) Waveform : Sine Wave<br>(2) Frequency : 10~500Hz<br>(3) Sweep Time : 12min/sweep cycle<br>(4) Acceleration : 3G<br>(5) Test Time : 72min in each axis (X.Y.Z)<br>(6) Ta : 25°C                                                                            | TEST : OK                                                     | P |
| 8  | CAPACITOR LIFE CYCLE        | LCM-60:SUPPOSE C105 IS THE MOST CRITICAL COMPONENT<br>(1) I/P : 230VAC O/P : FULL LOAD Ta= 25 °C LIFE TIME<br>(2) I/P : 230VAC O/P : FULL LOAD Ta= 50 °C LIFE TIME<br>(3) I/P : 230VAC O/P : 75% LOAD Ta= 50 °C LIFE TIME<br>(4) I/P : 230VAC O/P : 50% LOAD Ta= 50 °C LIFE TIME  | (1) 179638HRS<br>(2) 47775HRS<br>(3) 49175HRS<br>(4) 52325HRS | P |
| 9  | MTBF                        | MIL-HDBK-217F NOTICE S2 PARTS COUNT<br>TOTAL FAILURE RATE : 193.6 KHRS                                                                                                                                                                                                            |                                                               | P |
| 10 | DMTBF/Accelerated Life Test | Demonstration Mean Time Between Failure(Expected Life) :<br>30,000 hours @ Tcase 80°C<br>50,000 hours @ Tcase 70°C                                                                                                                                                                |                                                               | P |

| DATE       | SAMPLE                     | TESTER     | REVIEW     | APPROVAL      |
|------------|----------------------------|------------|------------|---------------|
| 2012/11/29 | RD SAMPLE                  | DANIEL GAO | SANFORD SU | VINCENT TSENG |
| 2013/2/22  | PRODUCT SAMPLE<br>W1301A31 | DANIEL GAO | SANFORD SU | VINCENT TSENG |

2009/08/04 A50-F023