



Test Report: LCM-60DA

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 O/P : FULL LOAD Ta : 25°C	500mA : 121 mVp-p (Max) 600mA : 179 mVp-p (Max) 700mA : 241 mVp-p (Max) 900mA : 122 mVp-p (Max) 1050mA : 56 mVp-p (Max) 1400mA : 29 mVp-p (Max)	P
2	NO LOAD O/P VOLTAGE	500mA : 90V~95V 600mA : 90V~95V 700mA : 90V~95V 900mA : 67V~73V 1050mA : 67V~73V 1400mA : 67V~73V	I/P : 230 VAC O/P : MIN LOAD Ta : 25°C	500mA : 93.11 V/230 VAC 600mA : 93.12 V/230 VAC 700mA : 93.12 V/230 VAC 900mA : 69.58 V/230 VAC 1050mA : 69.56 V/230 VAC 1400mA : 69.56 V/230 VAC	P
3	RIPPLE CURRENT	±5%	I/P : 230VAC O/P : LED LOAD Ta : 25°C	500mA : ±2.1 % 600mA : ±2 % 700mA : ±2 % 900mA : ±2.6 % 1050mA : ±1.6 % 1400 mA : ±1.7 %	P
4	CURRENT ACCURACY	±5%	I/P : 230VAC O/P : FULL LOAD Ta : 25°C	500mA : ± 0.14 % 600mA : ± 0.15 % 700mA : ± 0.15 % 900mA : ± 0.2 % 1050mA : ± 0.01 % 1400 mA : ± 0.3 %	P
5	SET UP TIME	230VAC : 500 ms (Max)	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	230VAC/ 382 ms	P
6	RISE TIME	230VAC : 80 ms (Max)	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	230VAC/ 15 ms	P
7	HOLD UP TIME	230VAC : 16 ms (TYP)	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	230VAC/ 21 ms	P
8	OVER/UNDERSHOOT TEST	< ±5%	I/P : 230 VAC O/P : FULL LOAD 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 O/P : FULL LOAD Ta : 25°C	163 V~295V	P
			I/P : LOW-LINE-3V= 177 V (PLEASE CHECK DERATING CURVE) HIGH-LINE+10V=305 V O/P : FULL/MIN LOAD ON : 30 Sec . OFF : 30 Sec 10MIN (AC POWER ON/OFF NO DAMAGE)	TEST : OK	
2	INPUT FREQUENCY RANGE	47HZ ~63 HZ NO DAMAGE OSC	I/P : 200 VAC ~ 295 VAC O/P : FULL~MIN LOAD Ta : 25°C	TEST : OK	P
3	POWER FACTOR	0.975 / 230 VAC(TYP) 0.96 / 277 VAC(TYP)	I/P : 230 VAC I/P : 277 VAC O/P : FULL LOAD Ta : 25°C	PF= 0.9915 / 230 VAC PF= 0.9753 / 277 VAC	P
4	EFFICIENCY	92 % (TYP)	I/P : 230 VAC O/P : LEDH:67V/900mV Ta : 25°C	92.45 %	P
5	INPUT CURRENT	230V/ 0.32 A (TYP) 277V/ 0.27 A (TYP)	I/P : 230 VAC I/P : 277 VAC O/P : FULL LOAD Ta : 25°C	I = 0.2873 A/ 230 VAC I = 0.2447 A/ 277 VAC	P
6	INRUSH CURRENT	230V/ 20 A (TYP) (twidth=270us measured at 50% Ipeak) COLD START	I/P : 230 VAC O/P : FULL LOAD Ta : 25°C	I = 19.2 A/ 230 VAC T50= 263 us	P
7	LEAKAGE CURRENT	< 0.5 mA / 240 VAC	I/P : 240 VAC O/P : Min LOAD Ta : 25°C	L-FG : 0.003 mA N-FG : 0.002 mA	P
8	NO LOAD CONSUMPTION	< 0.5 W	I/P : 180VAC I/P : 230VAC I/P : 277VAC O/P : NO LOAD Ta : 25°C	< 0.422 W < 0.446 W < 0.487 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 O/P : 75% LOAD I/P : 277 VAC O/P : 75%LOAD Ta : 25°C	THD : 10.11 /230VAC THD : 13.64 /277VAC	P

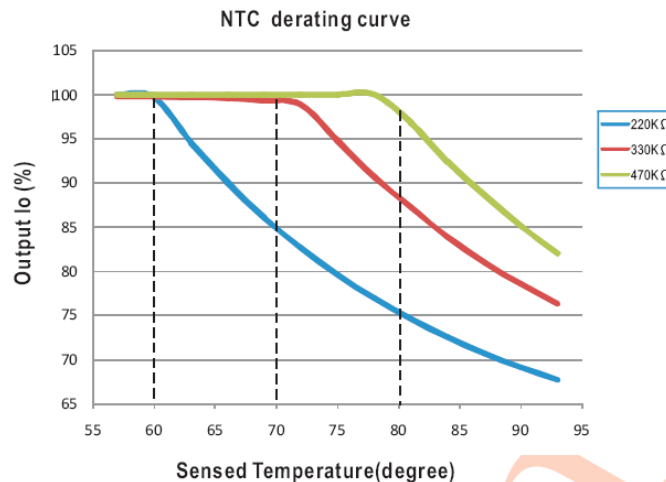
PROTECTION FUNCTION TEST

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

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

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT																																																		
1	AUXILIARY POWER	12V @ 50mA for driving fan; Tolerance $\pm 5\%$	I/P : 230 VAC O/P : FULL LOAD Ta : 25℃	11.981 V/230V	P																																																		
2	DIP Switch Table	LCM-60DA is a multiple-stage output current supply, selection of output current through DIP switch as table below. <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> TEST : OK			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	SPECIFICATION: LCM-60DA have the built-in temperature compensation function ($T \uparrow$, $I_o \downarrow$). By connecting a temperature sensor (NTC resistor) between the NTC +/- terminal of LCM-60DA and the detecting point on the lighting system or the surrounding environment, output current of LCM-60DA could be correspondingly changed to ensure the long life of LED. 1.LCM-60DA 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 2. <table><tr><th>NTC resistance</th><th>Output Current</th></tr><tr><td>220K</td><td>< 60℃, 100% of the rated current (corresponds to the setting current level) >60℃, 100% of the rated current (corresponds to the setting current level)</td></tr><tr><td>330K</td><td>< 70℃, 100% of the rated current (corresponds to the setting current level) > 70℃, output current begin to reduce, details please refer to the curve.</td></tr><tr><td>470K</td><td>< 80℃, output current begin to reduce, details please refer to the curve. > 80℃, output current begin to reduce, details please refer to the curve.</td></tr></table> Notes: 1. MW does not offer the NTC resistor and all the data above are measured by using THINKING TTC03 series. 2. If other brands of NTC resistor is applied,please check the temperature curve first. 3. Synchronization function of the power supply will be invalid when the "temperature compensation" function is in use TEST CONDITION : I/P : 230 VAC RESULT:OK			NTC resistance	Output Current	220K	< 60℃, 100% of the rated current (corresponds to the setting current level) >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) > 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. > 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) >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) > 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. > 80℃, output current begin to reduce, details please refer to the curve.																																																						



4 Dimming function

SPECIFICATION:

a. PUSH dim(primary side)

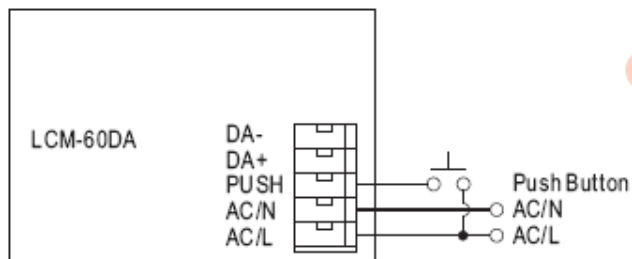
Ignore	To avoid reaction on AC spike	<0.05 sec.
Short push	Push to turn ON-OFF	0.1~1 sec.
Long push	Dimming up or down	1.5~10 sec.
Reset push	Setting light to 100%	>11 sec.

.Maximum number of drivers up to 10 pcs.

.Maximum length of the cable, from push button to last driver is 15 meter.

.Factory setting at 100%.

.When the light is lower than 10% it will always dim up, or when the light output is higher than 90% it will always dim down.



Warning: The pushbutton can only be connected in between the PUSH terminal of LCM-60DA and AC/L (brown or black color). It would cause short circuit if it is connected to AC/N.

b. DALI interface(primary side)

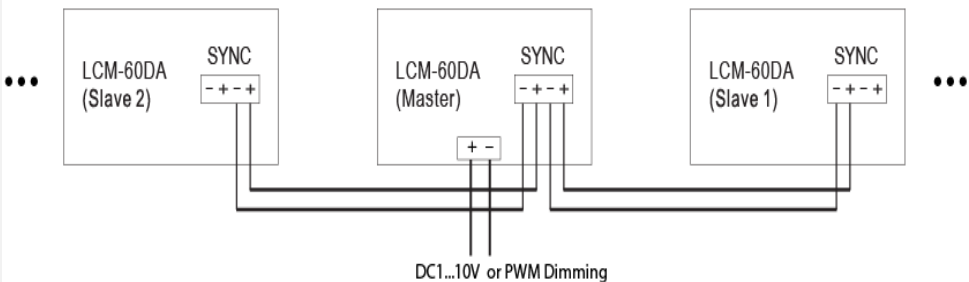
.DALI protocol including 16 groups and 64 addresses.

.First step is fixed at 6% light output.

TEST CONDITION : I/P : 230 VAC FULL LOAD

RESULT:OK

P

5	SYNCHRONIZATION OPERATION	SPECIFICATION: • 10 drivers(max.) synchronization (1 master + 9 slaves) • Maximum length of the cable from first driver to last driver is 15 meter.  TEST CONDITION : I/P : 230 VAC FULL LOAD RESULT:OK	P
---	---------------------------	--	---

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor (D to S) or (C to E) Peak Voltage	U2 Rated LC700HG:550V/5.2A	I/P : High-Line +3V = 298 V O/P : (1)Full Load Turn on (2) Output Short (3)Full load continue Ta : 25℃	(1) 435 V (2) 427 V (3) 439 V	P
2	Diode Peak Voltage	D100 Rated STTH1003SB:300V/10A	I/P : High-Line +3V = 298 V O/P : (1)Full Load Turn on (2)Output Short (3)Full load continue Ta : 25℃	(1) 87.8 V (2) 15.5 V (3) 87.8 V	P
3	Input Capacitor Voltage	C5 Rated: 22u/450V 105℃ 12.5*20 CST SURGE VOLTAGE: 495V	I/P : High-Line +3V = 298 V O/P : (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change Ta : 25℃	(1) 439 V (2) 435 V (3) 459 V	P
4	Control IC Voltage Test	U2 Rated LC700HG 11.4V ~15V	I/P : High-Line +3V = 298 V O/P : (1)Full Load Turn on /Off (2) Min load Turn on /Off (3)Full Load /Min load Change Ta : 25℃	(1) 13.5 V (2) 13.3 V (3) 13.3 V	P
5	Power Transistor (D to S) or (C to E) Peak Voltage	Q1 RatedI IPD60R600E6 7.3A/650V	I/P : High-Line +3V = 298 V O/P : (1)Full Load Turn on (2) Output Short (3)Full load continue Ta : 25℃	(1) 439 V (2) 459 V (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 Ta : 25°C	I/P-O/P : 2.2 mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P : 500VDC>100MΩ	I/P-O/P : 500 VDC Ta : 25°C /70%RH	I/P-O/P : 30 GΩ NO DAMAGE	P

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	HARMONIC	EN61000-3-2 CLASS C	I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	PASS	P
2	CONDUCTION	EN55015 CLASS B	I/P : 230 VAC (50HZ) O/P : FULL/50% LOAD Ta : 25°C	PASS Test by certified Lab	P
3	RADIATION	EN55015 CLASS B	I/P : 230 VAC (50HZ) O/P : FULL LOAD Ta : 25°C	PASS Test by certified Lab	P
4	E.S.D	EN61000-4-2 LIGHT INDUSTRY AIR : 8KV / Contact : 4KV	I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A	P
5	E.F.T	EN61000-4-4 LIGHT INDUSTRY INPUT : 1KV	I/P : 230 VAC/50HZ O/P : FULL LOAD Ta : 25°C	CRITERIA A	P
6	SURGE	IEC61000-4-5 LIGHT INDUSTRY L-N : 1KV L,N-PE : 2KV	I/P : 230 VAC/50HZ O/P : FULL LOAD 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	MODEL : LCM-60DA DIP switch : 1400mA 1. ROOM AMBIENT BURN-IN : 13 HRS I/P : 230VAC O/P : FULL LOAD Ta= 26.7 °C 2. HIGH AMBIENT BURN-IN : 6 HRS I/P : 230VAC O/P : FULL LOAD Ta=48.36 °C <table><thead><tr><th>NO</th><th>Position</th><th>PART NUMBER</th><th>ROOM AMBIENT Ta= 26.7 °C</th><th>HIGH AMBIENT 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 Ta= 26.7 °C	HIGH AMBIENT 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 Ta= 26.7 °C	HIGH AMBIENT 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 TURN ON TEST	TURN ON AFTER 2 HOUR	I/P : 230VAC/100VAC O/P : 100 % LOAD Ta= -35°C	TEST : OK	P																																																																																																																								
3	HIGH HUMIDITY HIGH TEMPERATURE HIGH VOLTAGE TURN ON TEST	AFTER 12 HOURS IN CHAMBER ON CONTROL 40 °C NO DAMAGE	I/P : 305 VAC O/P : FULL LOAD Ta= 40 °C HUMIDITY= 95 %R.H	TEST : OK	P																																																																																																																								
4	TEMPERATURE COEFFICIENT	± 0.03 %/°C(0-50°C)	I/P : 230 VAC O/P : FULL LOAD	± 0.002 %/°C(0-50°C)	P																																																																																																																								

5	STORAGE TEMPERATURE TEST	1. Thermal shock Temperature : -45°C ~ +90°C 2. Temperature change rate : 25°C / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle : 5 CYCLE 5. Input/Output condition : STATIC	OK	P
6	THERMAL SHOCK TEST	1. Thermal shock Temperature : -35°C ~ +55°C 2. Temperature change rate : 25°C / MIN 3. Dwell time low and high temperature : 30 MIN/EACH 4. Total test cycle : 10 CYCLE 5. Input/Output condition : 230VAC/Full Load AC ON/OFF TEST turn on 58sec ; turn off 2sec	OK	P
7	VIBRATION TEST	1 Carton & 1 Set (1) Waveform : Sine Wave (2) Frequency : 10~500Hz (3) Sweep Time : 12min/sweep cycle (4) Acceleration : 3G (5) Test Time : 72min in each axis (X.Y.Z) (6) Ta : 25°C	TEST : OK	P
8	CAPACITOR LIFE CYCLE	LCM-60DA:SUPPOSE C105 IS THE MOST CRITICAL COMPONENT (1) I/P : 230VAC O/P : FULL LOAD Ta= 25 °C LIFE TIME (2) I/P : 230VAC O/P : FULL LOAD Ta= 50 °C LIFE TIME (3) I/P : 230VAC O/P : 75% LOAD Ta= 50 °C LIFE TIME (4) I/P : 230VAC O/P : 50% LOAD Ta= 50 °C LIFE TIME	(1) 179638HRS (2) 47775HRS (3) 49175HRS (4) 52325HRS	P
9	MTBF	MIL-HDBK-217F NOTICE S2 PARTS COUNT TOTAL FAILURE RATE : 193.6 KHRS		P
10	DMTBF/Accelerated Life Test	Demonstration Mean Time Between Failure(Expected Life) : 30,000 hours @ Tcase 80°C 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 W1301A31	DANIEL GAO	SANFORD SU	VINCENT TSENG

2009/08/04 A50-F023