



Test Report : GS18x24

18W AC/DC Green Adaptor

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

■ SAFETY TEST

Safety Test

E.M.C Test

■ RELIABILITY TEST

Environment Test

Other Test

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	180mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	28 mVp-p	P
2	VOLTAGE TOLERANCE	-2% ~ +2% (Max)	I/P:90VAC~264VAC O/P:FULL-MIN. LOAD Ta:25°C	- 0 % ~ + 0.84 %	P
3	LINE REGULATION	-1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	- 0.05 % ~ + 0 %	P
4	LOAD REGULATION	-2% ~ +2% (Max)	I/P:230VAC O/P:FULL - MIN LOAD Ta:25°C	- 0.17 % ~ + 0.21 %	P
5	SET UP TIME	500 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	224 mS	P
6	RISE TIME	30 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	9.3 mS	P
7	HOLD UP TIME	15 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	25.9 mS	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE RANGE	100VAC ~ 240VAC (Typ)	I/P:TESTING O/P:FULL LOAD Ta:25°C	45V ~ 264V	P
2	FREQUENCY RANGE	50HZ - 60HZ (Typ) NO DAMAGE OSC	I/P: 100VAC ~ 240VAC O/P:FULL-MIN LOAD Ta:25°C	TEST: OK	P
3	EFFICIENCY	86% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	87.6 %	P
4	AVERAGE EFFICIENCY	80.29% (LEVEL V)	I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C	88.28 % (115VAC) 86.84 % (230VAC)	P
5	AC CURRENT	0.5A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.35 A	P
6	NO LOAD POWER CONSUMPTION	< 0.3W	I/P:230VAC O/P: NO LOAD Ta:25°C	0.18 W	P

7	INRUSH CURRENT	< 45A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	34.5 A	P
8	LEAKAGE CURRENT	< 0.75mA FOR CLASS I < 0.25mA FOR CLASS II	I/P:240VAC O/P:Min LOAD Ta:25°C	L-FG: 0.02 mA N-FG: 0.02 mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	110~150% (Typ)	I/P:230VAC O/P:TESTING Ta:25°C	145 % HICCUP MODE RESET AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	CLAMP BY ZENER DIODE 105 - 135%	I/P:230VAC O/P:MIN LOAD Ta:25°C	CLAMP BY ZENER DIODE 125 % (30V)	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD Ta:25°C	NO DAMAGE HICCUP MODE RESET AUTO RECOVER	P

■ SAFETY & E.M.C TEST

SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:4242VDC/min	I/P-O/P:4242VDC/min Ta:25°C	I/P-O/P:0.5uA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500VDC Ta:25°C	I/P-O/P:>100MΩ NO DAMAGE	P

E.M.C TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	HARMONIC	IEC61000-3-2 CLASS A	I/P:230VAC / 50HZ O/P:FULL LOAD Ta:25°C	PASS	P
2	CONDUCTION	EN55022 CLASS B	I/P:230VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS	P
3	RADIATION	EN55022 CLASS B	I/P:230VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS	P
4	E.S.D	IEC61000-4-2 LIGHT INDUSTRY AIR:8KV / Contact:4KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P

5	E.F.T	IEC61000-4-4 LIGHT INDUSTRY INPUT: 1KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	SURGE	IEC61000-4-5 LIGHT INDUSTRY L-N :1KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
7	Test by certified Lab Test Report Prepare				P

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT																																													
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 3HRS I/P:115VAC O/P:100% LOAD Ta=21.9°C 2. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=21.9°C			P																																													
		<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>P/N</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>C40</td> <td>CapXon 47uF/25V 5*11 KF 105°C</td> <td>49.6 °C</td> <td>51.6 °C</td> </tr> <tr> <td>2</td> <td>Q1</td> <td>2SK4110</td> <td>58.7 °C</td> <td>64.5 °C</td> </tr> <tr> <td>3</td> <td>I/P C5</td> <td>CapXon 47uF/400V 16*25 KM 105°C</td> <td>49.8 °C</td> <td>46.8 °C</td> </tr> <tr> <td>4</td> <td>BD1</td> <td>MD KBP 206</td> <td>55.6 °C</td> <td>49.0 °C</td> </tr> <tr> <td>5</td> <td>C105</td> <td>CapXon 330uF/35V 10*16 KF 105°C</td> <td>46.6 °C</td> <td>48.4 °C</td> </tr> <tr> <td>6</td> <td>D100</td> <td>URF1020C</td> <td>51.5 °C</td> <td>53.3 °C</td> </tr> <tr> <td>7</td> <td>T1</td> <td>TF1466-R1 EF-25</td> <td>57.2 °C</td> <td>60.1 °C</td> </tr> <tr> <td>8</td> <td>CASE</td> <td>CENTER</td> <td>38.4 °C</td> <td>38.5 °C</td> </tr> </tbody> </table>				NO	Position	P/N	1	2	1	C40	CapXon 47uF/25V 5*11 KF 105°C	49.6 °C	51.6 °C	2	Q1	2SK4110	58.7 °C	64.5 °C	3	I/P C5	CapXon 47uF/400V 16*25 KM 105°C	49.8 °C	46.8 °C	4	BD1	MD KBP 206	55.6 °C	49.0 °C	5	C105	CapXon 330uF/35V 10*16 KF 105°C	46.6 °C	48.4 °C	6	D100	URF1020C	51.5 °C	53.3 °C	7	T1	TF1466-R1 EF-25	57.2 °C	60.1 °C	8	CASE	CENTER	38.4 °C	38.5 °C
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2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P : 230VAC O/P : 100% LOAD Ta= 0°C	TEST : OK	P																																													

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C105 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=252813HRS I/P:115 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=286408HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 STRESS ANALYSIS PREDICTION TOTAL FAILURE RATE: 1.43 M.T.B.F: 698912HRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2011.03.23	STOCK R110208791	PASS	T.K.CHENG	VINCENT