



# Test Report : GS18x05

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15W 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	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	50mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	28 mVp-p	P
2	VOLTAGE TOLERANCE	-5% - +5% (Max)	I/P:90VAC~264VAC O/P:FULL-MIN. LOAD Ta:25°C	- 0.88 % - + 3.26 %	P
3	LINE REGULATION	-1% - +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	- 0.02 % - + 0 %	P
4	LOAD REGULATION	-5% - +5% (Max)	I/P:230VAC O/P:FULL -MIN LOAD Ta:25°C	- 2.04 % - + 2.04 %	P
5	SET UP TIME	500 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	275.8 mS	P
6	RISE TIME	30 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	2.8 mS	P
7	HOLD UP TIME	15 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	27.3 mS	P

### INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE RANGE	100VAC ~ 240VAC (Typ)	I/P:TESTING O/P:FULL LOAD Ta:25°C	50V ~ 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	79.5% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	80.6 %	P
4	AVERAGE EFFICIENCY	76.41% (LEVEL V)	I/P:115/230VAC O/P:25%、50%、75%、100% LOAD Ta:25°C	82.4 % (115VAC) 80.7 % (230VAC)	P
5	AC CURRENT	0.5A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.32 A	P
6	NO LOAD POWER CONSUMPTION	< 0.3W	I/P:230VAC O/P: NO LOAD Ta:25°C	0.16 W	P

7	INRUSH CURRENT	< 45A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	38.9 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	131 % 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 124 % (6.2V)	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: 0.1 uA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500VDC Ta:25°C	I/P-O/P:>100 MΩ 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 : 4HRS I/P:115VAC O/P:100% LOAD Ta=23.6°C 2. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=24.3°C			P
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=136421HRS I/P:115 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=130864HRS			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
2011.03.10	STOCK R110123181	PASS	T.K.CHENG	VINCENT