



Test Report : GS18x15

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

Other Test

DESIGN VERIFY TEST
OUTPUT FUNCTION TEST

| NO | TEST ITEM | SPECIFICATION | TEST CONDITION | RESULT | VERDICT |
|----|-------------------|-----------------|---|---------------------|---------|
| 1 | RIPPLE & NOISE | 100mVp-p (Max) | I/P:230VAC O/P:FULL LOAD Ta:25°C | 22 mVp-p | P |
| 2 | VOLTAGE TOLERANCE | -3% - +3% (Max) | I/P:90VAC~264VAC O/P:FULL-MIN. LOAD Ta:25°C | - 0 % ~ + 1.21 % | P |
| 3 | LINE REGULATION | -1% - +1% (Max) | I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C | - 0.01 % ~ + 0 % | P |
| 4 | LOAD REGULATION | -3% - +3% (Max) | I/P:230VAC O/P:FULL - MIN LOAD Ta:25°C | - 0.43 % ~ + 0.45 % | P |
| 5 | SET UP TIME | 500 mS (Max) | I/P:230VAC O/P:FULL LOAD Ta:25°C | 260 mS | P |
| 6 | RISE TIME | 30 mS (Max) | I/P:230VAC O/P:FULL LOAD Ta:25°C | 6.2 mS | P |
| 7 | HOLD UP TIME | 15 mS (Min) | I/P:115VAC O/P:FULL LOAD Ta:25°C | 24.3 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 | 62V ~ 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 | 85% (Typ) | I/P:230VAC O/P:FULL LOAD Ta:25°C | 86.1 % | P |
| 4 | AVERAGE EFFICIENCY | 80.29% (LEVEL V) | I/P:115/230VAC O/P:25%、50%、75%、100% LOAD Ta:25°C | 85.83 % (115VAC) 83.75 % (230VAC) | P |
| 5 | AC CURRENT | 0.5A (Max) | I/P: 100VAC O/P:FULL LOAD Ta:25°C | 0.34 A | P |
| 6 | NO LOAD POWER CONSUMPTION | < 0.3W | I/P:230VAC O/P: NO LOAD Ta:25°C | 0.14 W | P |

| | | | | | |
|---|-----------------|---|--|--------------------------------|---|
| 7 | INRUSH CURRENT | < 45A COLD START | I/P:230VAC O/P:FULL LOAD Ta:25°C | 36.1 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 | 128 % 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 120 % (18V) | 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: 0.2 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:>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

OTHER

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|-----------|---|----------------|--------|---------|
| 1 | 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 |
|------------|---------------------|-------------|-----------|----------|
| 2011.03.31 | STOCK R110331240 | PASS | T.K.CHENG | VINCENT |