



Test Report : GS05U-USB

5W AC-DC Industrial Adaptor

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Environment Test

Other test

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	90mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	49mVp-p	P
2	VOLTAGE TOLERANCE	-4% ~ +4% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-2.94% ~ +1.28%	P
3	LINE REGULATION	-1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0% ~ +0.7%	P
4	LOAD REGULATION	-4% ~ +4% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-3.0% ~ +0.01%	P
5	SET UP TIME	1500 mS	I/P:115VAC O/P:FULL LOAD Ta:25°C	11.87 mS	P
6	RISE TIME	20 mS	I/P:115VAC O/P:FULL LOAD Ta:25°C	8.27 mS	P
7	HOLD UP TIME	15 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	19.0 mS	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE RANGE	90VAC ~ 264VAC	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	69% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	72.57%	P
4	AVERAGE EFFICIENCY	68.17% (LEVEL V)	I/P:115/230VAC O/P:25%、50%、75%、100% LOAD Ta:25°C	73.84% (115VAC) 71.56% (230VAC)	P
5	AC CURRENT	0.15A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.135A	P
6	NO LOAD POWER CONSUMPTION	< 0.3W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.03W	P

7	INRUSH CURRENT	35A (Max) COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	34.81A	P
8	LEAKAGE CURRENT	0.25mA (Max)	I/P:240VAC O/P:Min LOAD Ta:25°C	L-FG: 0.02mA N-FG: 0.02mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	105% ~135%	I/P:230VAC O/P:TESTING Ta:25°C	123% HICCUP MODE RESET : AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	105% ~160%)	I/P:230VAC O/P:MIN LOAD Ta:25°C	140% (7V / U1)	P
3	OVER TEMPERATURE PROTECTION	135°C (Typ)	I/P:230VAC O/P:100% LOAD Ta:TESTING	142°C / U1	P
4	SHORT PROTECTION	SHORT OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD Ta:25°C	NO DAMAGE HICCUP MODE RESET AUTO RECOVER	P

■ SAFETY TEST

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:4242 VDC/min	I/P-O/P:4242 VDC/min Ta:25°C	I/P-O/P: 0.3uA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>50MΩ	I/P-O/P:500 VDC Ta:25°C	I/P-O/P>100MΩ NO DAMAGE	P

RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT	
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=25°C 2. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=40°C 3. ROOM AMBIENT BURN-IN : 6HRS I/P:115VAC O/P:100% LOAD Ta=25°C 4. ROOM AMBIENT BURN-IN : 2HRS I/P:115VAC O/P:100% LOAD Ta=40°C				P
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P : 230VAC O/P : 100% LOAD Ta= -20°C	TEST : OK	P	

NO	Position	1	2	3	4
1	I/P C2	56.2°C	70.3°C	55.3°C	67.7°C
2	U1	102.6°C	111.8°C	89.4°C	98.2°C
3	BD1	59.8°C	72.8°C	60.0°C	71.4°C
4	T1	79.9°C	92.3°C	74.4°C	85.8°C
5	O/P C7	67.7°C	81.7°C	64.9°C	78.6°C
6	O/P C8	64.4°C	79.3°C	61.5°C	75.9°C

OTHER

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C7 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:100% LOAD Ta=25°C LIFE TIME= 26538HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME= 10056HRS I/P:115 VAC O/P:100% LOAD Ta=25°C LIFE TIME= 32222HRS			P
2	MTBF	MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 0.886321 M.T.B.F : 1128259HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	PETER CHENG	VINCENT TSENG