



Test Report : SMA01M-12

1W DC-DC Unregulated Single Output Converter

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Environment Test

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE ACCURACY	-2%~+2% (Max)	I/P:12VDC O/P:100% LOAD Ta:25°C	+0.58%	P
2	RIPPLE & NOISE	100mVp-p (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	36 mV	P
3	LINE REGULATION	-12%~+12% (Max)	I/P:10.8VDC~13.2VDC O/P:FULL LOAD Ta:25°C	-10.99% ~ +9.95%	P
4	LOAD REGULATION	-8.0%~+8.0% (Max)	I/P:12VDC O/P:MIN~FULL LOAD Ta:25°C	-1.69% ~ +1.35%	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	80% (Typ)	I/P:12VDC O/P:FULL LOAD Ta:25°C	81.24%	P
2	DC CURRENT	110 mA / FULL LOAD (Max) 15 mA / NO LOAD (Max)	I/P:12VDC O/P:NO / FULL LOAD Ta:25°C	104 mA / FULL LOAD 11 mA / NO LOAD	P

SAFETY TEST

SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:1500 VDC/min	I/P-O/P:1500 VDC/min Ta:25°C	I/P-O/P: 0.02mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	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 : 6HRS I/P:12VDC O/P:FULL LOAD Ta=25℃ 2. HIGH AMBIENT BURN-IN : 16HRS I/P:12VDC O/P:FULL LOAD Ta=85℃ <table><tr><th>NO</th><th>Position</th><th>P/N</th><th>1</th><th>2</th></tr><tr><td>1</td><td>CASE</td><td>CENTER</td><td>51.2℃</td><td>106.7℃</td></tr></table>			NO	Position	P/N	1	2	1	CASE	CENTER	51.2℃	106.7℃	P
NO	Position	P/N	1	2											
1	CASE	CENTER	51.2℃	106.7℃											
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 3 HOURS	I/P:12VDC O/P: 100% LOAD Ta= -40℃	TEST : OK	P										

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2009.9.5	PRODUCT SAMPLE	PASS	PETER	VINCENT ZENG