



# Test Report : SMA01M-15

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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	+0.05%	P
2	RIPPLE & NOISE	100mVp-p (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	40 mV	P
3	LINE REGULATION	-12%~+12% (Max)	I/P:10.8VDC~13.2VDC O/P:FULL LOAD Ta:25°C	-10.78% ~ +9.72%	P
4	LOAD REGULATION	-8.0%~+8.0% (Max)	I/P:12VDC O/P:MIN-FULL LOAD Ta:25°C	-1.39% ~ +1.08%	P

### INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	79% (Typ)	I/P:12VDC O/P:FULL LOAD Ta:25°C	79.80%	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	105 mA / FULL LOAD 14 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	SPECICATION	TEST CONDITION	RESULT	VERDICT										
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 6HRS I/P:12VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 16HRS I/P:12VDC O/P:FULL LOAD Ta=85°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>CASE</td> <td>CENTER</td> <td>52.5°C</td> <td>109.9°C</td> </tr> </tbody> </table>				NO	Position	P/N	1	2	1	CASE	CENTER	52.5°C	109.9°C
NO	Position	P/N	1	2											
1	CASE	CENTER	52.5°C	109.9°C											
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 3 HOURS	I/P:12VDC O/P: 100% LOAD Ta= -40°C	TEST : OK	P										

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