



# Test Report : MDD01M-12N

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1W SIP Package DC-DC Medical Grade Unregulated Converter

## ■ DESIGN VERIFY TEST

Output Function Test

Input 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	VOLTAGE ACCURACY	-5%~+5%	I/P:12VDC O/P:FULL LOAD Ta:25°C	-1.85% -1.88%	P
2	RIPPLE & NOISE	100 mVp-p	I/P:12VDC O/P:FULL LOAD Ta:25°C	22mV 20mV	P
3	LINE REGULATION	-12% ~ +12%	I/P:4.10.8VDC~13.2VDC O/P:FULL LOAD Ta:25°C	-11.47% ~ +9.22% -11.42% ~ +9.26%	P
4	LOAD REGULATION	-10% ~ +10%	I/P:12VDC O/P:MINI LOAD~FULL LOAD Ta:25°C	-1.21% ~ +1.33% -1.20% ~ +1.35%	P

**INPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	80%	I/P:12VDC O/P:FULL LOAD Ta:25°C	80.03%	P
2	DC CURRENT	104 mA / FULL LOAD 18 mA / NO LOAD	I/P:12VDC O/P:NO / FULL LOAD Ta:25°C	102.99mA / FULL LOAD 16.65mA / NO LOAD	P

**SAFETY TEST**
**SAFETY TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:6000 VDC/min	I/P-O/P:6000 VDC/min Ta:25°C	I/P-O/P: 0.002mA 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 : 8 HRS I/P:12VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 8 HRS I/P:12VDC O/P:FULL LOAD Ta=90°C	<table border="1" data-bbox="667 595 1161 689"> <thead> <tr> <th>NO</th> <th>Position</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CASE</td> <td>39.8°C</td> <td>102.5°C</td> </tr> </tbody> </table>	NO	Position	1	2	1	CASE	39.8°C	102.5°C		P
NO	Position	1	2										
1	CASE	39.8°C	102.5°C										
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P:12VDC O/P: FULL LOAD Ta= -40°C	TEST : OK	P								

### OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	MTBF	MIL-HDBK-217F,GB,25°C,Full Load TOTAL FAILURE RATE : 0.0666 M.T.B.F : 15,000K HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG