



# Test Report : MDD02N-05N

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2W 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:24VDC O/P:FULL LOAD Ta:25°C	+0.05% +0.16%	P
2	RIPPLE & NOISE	100 mVp-p	I/P:24VDC O/P:FULL LOAD Ta:25°C	28mV 25mV	P
3	LINE REGULATION	-15% ~ +15%	I/P:21.6VDC~26.4VDC O/P:FULL LOAD Ta:25°C	-10.99% ~ +10.77% -11.00% ~ +10.80%	P
4	LOAD REGULATION	-10% ~ +10%	I/P:24VDC O/P:MINI LOAD~FULL LOAD Ta:25°C	-2.91% ~ +2.85% -2.87% ~ +2.81%	P

**INPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	83%	I/P:24VDC O/P:FULL LOAD Ta:25°C	83.12%	P
2	DC CURRENT	102 mA / FULL LOAD 11 mA / NO LOAD	I/P:24VDC O/P:NO / FULL LOAD Ta:25°C	99.9mA / FULL LOAD 10mA / 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:24VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 8 HRS I/P:24VDC 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>41.2°C</td> <td>103.5°C</td> </tr> </tbody> </table>	NO	Position	1	2	1	CASE	41.2°C	103.5°C		P
NO	Position	1	2										
1	CASE	41.2°C	103.5°C										
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P:24VDC 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 : 0.775193 M.T.B.F : 12,900K HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG