



# Test Report : MDS02M-03N

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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:12VDC O/P:FULL LOAD Ta:25°C	-3.48%	P
2	RIPPLE & NOISE	100 mVp-p	I/P:12VDC O/P:FULL LOAD Ta:25°C	32mV	P
3	LINE REGULATION	-15% ~ +15%	I/P:10.8VDC~13.2VDC O/P:FULL LOAD Ta:25°C	-11.12% ~ +11.22%	P
4	LOAD REGULATION	-10% ~ +10%	I/P:12VDC O/P:MINI LOAD~FULL LOAD Ta:25°C	-5.53% ~ +5.34%	P

### INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	75%	I/P:12VDC O/P:FULL LOAD Ta:25°C	75.15%	P
2	DC CURRENT	215 mA / FULL LOAD 28 mA / NO LOAD	I/P:12VDC O/P:NO / FULL LOAD Ta:25°C	212.4mA / FULL LOAD 26mA / 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"> <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>45.8°C</td> <td>106.5°C</td> </tr> </tbody> </table>	NO	Position	1	2	1	CASE	45.8°C	106.5°C		P
NO	Position	1	2										
1	CASE	45.8°C	106.5°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 : 0.775193 M.T.B.F : 12,900K HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG