



Test Report : MDD01L-12N

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:5VDC O/P:FULL LOAD Ta:25°C | -2.31% -2.29% | P |
| 2 | RIPPLE & NOISE | 100 mVp-p | I/P:5VDC O/P:FULL LOAD Ta:25°C | 20mV 22mV | P |
| 3 | LINE REGULATION | -12% ~ +12% | I/P:4.5VDC~5.5VDC O/P:FULL LOAD Ta:25°C | -10.77% ~ +10.36% -10.75% ~ +10.38% | P |
| 4 | LOAD REGULATION | -10% ~ +10% | I/P:5VDC O/P:MINI LOAD~FULL LOAD Ta:25°C | -1.97% ~ +2.20% -1.96% ~ +2.17% | P |

INPUT FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|------------|---------------------------------------|---|--|---------|
| 1 | EFFICIENCY | 81% | I/P:5VDC O/P:FULL LOAD Ta:25°C | 81.46% | P |
| 2 | DC CURRENT | 245 mA / FULL LOAD 31 mA / NO LOAD | I/P:5VDC O/P:NO / FULL LOAD Ta:25°C | 241.5mA / FULL LOAD 29.98mA / 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:5VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 8 HRS I/P:5VDC 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>39.0°C</td> <td>101.8°C</td> </tr> </tbody> </table> | NO | Position | 1 | 2 | 1 | CASE | 39.0°C | 101.8°C | | P |
| NO | Position | 1 | 2 | | | | | | | | | | |
| 1 | CASE | 39.0°C | 101.8°C | | | | | | | | | | |
| 2 | LOW TEMPERATURE TURN ON TEST | TURN ON AFTER 2 HOURS | I/P:5VDC 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 |