



Test Report : SCWN03B-12

3W DIP Package DC-DC Regulated Converter

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection 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 | -1.5 % ~ +1.5 % (Max) | I/P:24VDC O/P:FULL LOAD Ta:25°C | -0.44 % | P |
| 2 | RIPPLE & NOISE | 50 mVp-p (Max) | I/P:24VDC O/P:FULL LOAD Ta:25°C | 23.2 mV | P |
| 3 | LINE REGULATION | -0.5% ~ +0.5% (Max) | I/P:18VDC~36VDC O/P:FULL LOAD Ta:25°C | -0.02% ~ +0.02% | P |
| 4 | LOAD REGULATION | -0.5% ~ +0.5% (Max) | I/P:24VDC O/P:10% LOAD-FULL LOAD Ta:25°C | -0.01 % ~ +0.01 % | P |

INPUT FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|------------|--|--|--------------------------------------|---------|
| 1 | EFFICIENCY | 86 % (Typ) | I/P:24VDC O/P:FULL LOAD Ta:25°C | 86.7 % | P |
| 2 | DC CURRENT | 145 mA / FULL LOAD (Max) 7.5 mA / NO LOAD (Max) | I/P:24VDC O/P:NO / FULL LOAD Ta:25°C | 144 mA / FULL LOAD 4 mA / NO LOAD | P |

PROTECTION FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|--------------------------------|--|---|------------------------------------|---------|
| 1 | OVER LOAD PROTECTION | 120%~250 % LOAD (Typ) | I/P:24VDC O/P:TESTING Ta:25°C | 178 % | P |
| 2 | INPUT UNDER VOLTAGE PROTECTION | POWER DOWN 16V (Typ) POWER UP 17V (Typ) | I/P:TESTING O/P: 10% LOAD Ta:25°C | POWER DOWN:15.9V POWER UP:16.6V | P |
| 3 | SHORT PROTECTION | CONTINUOUS | I/P:36VDC O/P:FULL LOAD Ta:25°C | NO DAMAGE OK | P |

SAFETY TEST

SAFETY TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|----------------------|----------------------|---------------------------------|-------------------------------|---------|
| 1 | WITHSTAND VOLTAGE | I/P-O/P:3000 VDC/min | I/P-O/P:3000 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 : 12HRS I/P:24VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 12HRS I/P:24VDC O/P:FULL LOAD Ta=85°C | | | P | | | | | | | | |
| | | <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>35.6°C</td> <td>87.2°C</td> </tr> </tbody> </table> | | | | NO | Position | 1 | 2 | 1 | CASE | 35.6°C | 87.2°C |
| NO | Position | 1 | 2 | | | | | | | | | | |
| 1 | CASE | 35.6°C | 87.2°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 TOTAL FAILURE RATE : 0.404 M.T.B.F : 2,474,479 HRS | | | P |

| TEST RESULT | TESTER | APPROVAL |
|-------------|------------|--------------|
| PASS | ALROY WANG | VINCENT ZENG |