



Test Report : DPBW06F-15

6W SIP Package DC-DC Regulated Converter

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Control 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 | V1 -0.39 % V2 -0.42 % | P |
| 2 | RIPPLE & NOISE | 100 mVp-p (Max) | I/P:24VDC O/P:FULL LOAD Ta:25°C | V1 86 mV V2 89 mV | P |
| 3 | LINE REGULATION | -0.2% ~ +0.2% (Max) | I/P:9VDC-36VDC O/P:FULL LOAD Ta:25°C | V1 -0.007% ~ +0.007% V2 -0.020% ~ +0.001% | P |
| 4 | LOAD REGULATION | -1% ~ +1% (Max) | I/P:24VDC O/P:NO LOAD-FULL LOAD Ta:25°C | V1 -0.19 % ~ +0.19 % V2 -0.17 % ~ +0.17 % | P |

INPUT FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|------------|--------------------------------------------------|--------------------------------------------|--------------------------------------|---------|
| 1 | EFFICIENCY | 88 % (Typ) | I/P:24VDC O/P:FULL LOAD Ta:25°C | 88 % | P |
| 2 | DC CURRENT | 288 mA / FULL LOAD (Max) 7 mA / NO LOAD (Max) | I/P:24VDC O/P:NO / FULL LOAD Ta:25°C | 280 mA / FULL LOAD 7 mA / NO LOAD | P |

PROTECTION FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|----------------------|-------------|---------------------------------------|-----------------|---------|
| 1 | OVER LOAD PROTECTION | YES | I/P:24VDC O/P:TESTING Ta:25°C | 178 % | P |
| 2 | SHORT PROTECTION | CONTINUOUS | I/P:36VDC O/P:FULL LOAD Ta:25°C | NO DAMAGE OK | P |

CONTROL FUNCTION TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|----------------|--------------------------------------------------------------------------|--------------------------------------|--------|---------|
| 1 | REMOTE CONTROL | Power on : R.C = High Impedance or open Power off : R.C = 2~4mA | I/P:24VDC O/P:10% LOAD Ta:25°C | PASS | P |

■ SAFETY TEST

SAFETY TEST

| NO | TEST ITEM | SPECICATION | TEST CONDITION | RESULT | VERDICT |
|----|----------------------|----------------------|---------------------------------|-------------------------------|---------|
| 1 | WITHSTAND VOLTAGE | I/P-O/P:1500 VDC/min | I/P-O/P:1500 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=61°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>41.5°C</td> <td>75.0°C</td> </tr> </tbody> </table> | | NO | Position | 1 | 2 | 1 | CASE | 41.5°C | 75.0°C | | |
| NO | Position | 1 | 2 | | | | | | | | | | |
| 1 | CASE | 41.5°C | 75.0°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 : 0.555 M.T.B.F : 1,801,829 HRS | | | P |

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