



# Test Report : DCWN06A-12

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6W 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

Other

**DESIGN VERIFY TEST**
**OUTPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE ACCURACY	-1.5 % ~ +1.5 % (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	V1: -0.18 % V2: +0.19%	P
2	RIPPLE & NOISE	50 mVp-p (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	V1: 16mV V2: 21mV	P
3	LINE REGULATION	-0.5% ~ +0.5% (Max)	I/P:9VDC-18VDC O/P:FULL LOAD Ta:25°C	V1: -0.00% ~ +0.01% V2: -0.04% ~ +0.01%	P
4	LOAD REGULATION	-1.0% ~ +1.0% (Max)	I/P:12VDC O/P:25% LOAD-FULL LOAD Ta:25°C	V1: -0.03% ~ +0.01% V2: -0.05% ~ +0.01%	P

**INPUT FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	9 VDC ~18 VDC	I/P:TESTING O/P:FULL LOAD Ta:25°C	8.12VDC ~18.0 VDC	P
2	EFFICIENCY	83 % (Typ)	I/P:12VDC O/P:FULL LOAD Ta:25°C	83.7%	P
3	DC CURRENT	600 mA / FULL LOAD (Max) 12 mA / NO LOAD (Max)	I/P:12VDC O/P:NO / FULL LOAD Ta:25°C	596.8 mA / FULL LOAD 8.8 mA / NO LOAD	P

**PROTECTION FUNCTION TEST**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	SHORT PROTECTION	CONTINUOUS	I/P:18VDC O/P:FULL LOAD Ta:25°C	HICCUP MODE AUTO-RECOVER	P
2	OVER LOAD PROTECTION	120% ~250%	I/P:12VDC O/P:TESTING Ta:25°C	167.3% HICCUP MODE AUTO-RECOVER	P
3	Under Voltage Lockout	Power Up 8.8Vdc Power Down 8Vdc	I/P:12VDC O/P:NO LOAD Ta:25°C	Power Up 8.59 Vdc Power Down 8.12Vdc	P

## SAFETY TEST

### SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:3K VDC/min	I/P-O/P:3K VDC/min Ta:25°C	I/P-O/P: 0.002 mA 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 : 8HRS I/P:12VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 8HRS I/P:12VDC O/P:FULL LOAD Ta=80°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>51.3°C</td> <td>106.8°C</td> </tr> </tbody> </table>		NO	Position	1	2	1	CASE	51.3°C	106.8°C		
NO	Position	1	2										
1	CASE	51.3°C	106.8°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 TOTAL FAILURE RATE : 0.622 M.T.B.F : 1607325HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	VINCENT ZENG