Test Report : DCWN06W8-12

6W DIP Package 8:1 wide Input DC-DC 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 %	I/P:48VDC O/P:FULL LOAD Ta:25℃	V1: -0.07% V2:-0.07%	P
2	RIPPLE & NOISE	100 mVp-p	I/P:48VDC O/P:FULL LOAD Ta:25℃	V1: 11 mV V2: 15 mV	P
3	LINE REGULATION	-0.5% ~ +0.5 %	I/P:9VDC~75VDC O/P:FULL LOAD Ta:25℃	V1: +0.08% ~ -0.03% V2: -0.05% ~ +0.04%	P
4	LOAD REGULATION	-1.0% ~ +1.0%	I/P:48VDC O/P:0% LOAD~FULL LOAD Ta:25℃	V1: +0.01% ~ -0.05% V2: -0.01% ~ +0.06%	P
5	CROSS REGULATION	-5% ~ +5.0%	I/P:48VDC O/P:25%~FULL LOAD Ta:25℃	V1: +0.96% V2: +0.81%	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	85%	I/P:48VDC O/P:FULL LOAD Ta:25℃	85.90%	P
2	DC CURRENT	147 mA / FULL LOAD 9 mA / NO LOAD	I/P:48VDC O/P:NO / FULL LOAD Ta:25℃	144.4 mA / FULL LOAD 3.3 mA / NO LOAD	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	SHORT PROTECTION	CONTINUOUS	I/P:75VDC O/P:FULL LOAD Ta:25℃	CONTINUOUS, AUTOMATIC RECOVERY	P
2	OVER LOAD PROTECTION	110~230%	I/P:48VDC O/P:TESTING Ta:25℃	138.6% HICCUP MODE AUTO-RECOVER	P
3	CASE TEMPERATURE	+115℃ max	I/P:48VDC O/P:TESTING Ta: TESTING	OK AUTOMATIC RECOVERY	P
4	OVER VOLTAGE PROTECTION	YES	I/P: 48VDC O/P: MIN LOAD Ta:25℃	PROTECTION TYPE： CLAMP ZEBER DIODES	P
5	UNDER VOLTAGE LOCKOUT	START-UP 8.8V SHUTDOWN OLTAGE 8.0V(Type)	I/P:TESTING O/P:FULL LOAD Ta:25℃	8.14 VDC 7.58 VDC	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℃	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℃	I/P-O/P>100MΩ NO DAMAGE	P

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN：4HRS I/P:48VDC O/P:FULL LOAD Ta=25℃ 2. HIGH AMBIENT BURN-IN ：4HRS I/P:48VDC O/P:FULL LOAD Ta=85℃ 3. HIGH AMBIENT BURN-IN ：4HRS I/P:48VDC O/P:50% LOAD Ta=95℃		
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 4 HOURS	I/P:48VDC O/P: FULL LOAD Ta= -40℃	TEST：OK

NO	Position	1	2	3
1	CASE	52.1℃	104.2℃	105.4℃

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	MTBF	MIL-HDBK-217F,GB,25℃ TOTAL FAILURE RATE：2.5 M.T.B.F： 400KHRS		

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG