



Test Report : DPAN02W8-12

2W SIP Package 8:1 Ultra-Wide Input 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:48VDC O/P:FULL LOAD Ta:25°C	V1: -1.03% V2: -0.97%	P
2	RIPPLE & NOISE	75 mVp-p (Max)	I/P:48VDC O/P:FULL LOAD Ta:25°C	V1: 7mV V2: 7mV	P
3	LINE REGULATION	-0.5% ~ +0.5 %	I/P:9VDC~75VDC O/P:FULL LOAD Ta:25°C	V1: +0.07% ~ +0.07% V2: +0.08% ~ +0.05%	P
4	LOAD REGULATION	-1.0% ~ +1.0%	I/P:48VDC O/P:0% LOAD~FULL LOAD Ta:25°C	V1: +0.03% ~ -0.01% V2: +0.01% ~ -0.02%	P
5	CROSS REGULATION	-5.0% ~ +5.0%	I/P:48VDC O/P:25%~FULL LOAD Ta:25°C	V1: +0.46% V2: +0.46%	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	82%	I/P:48VDC O/P:FULL LOAD Ta:25°C	82.56%	P
2	DC CURRENT	51 mA / FULL LOAD 12 mA / NO LOAD	I/P:48VDC O/P:NO / FULL LOAD Ta:25°C	49.5 mA / FULL LOAD 3.1 mA / NO LOAD	P
3	UNDER VOLTAGE LOCKOUT	START-UP 8.8V SHUTDOWN VOLTAGE 8.0V	I/P:TESTING O/P:FULL LOAD Ta:25°C	8.17VDC 7.52 VDC	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°C	CONTINUOUS, AUTOMATIC RECOVERY	P
2	OVER LOAD PROTECTION	110~230%	I/P:48VDC O/P:TESTING Ta:25°C	136.36% HICCUP MODE AUTO-RECOVER	P
3	CASE TEMPERATURE	+110°C max	I/P:48VDC O/P:TESTING Ta: TESTING	OK AUTOMATIC RECOVERY	P

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	REMOTE CONTROL	Power on : R.C <R.C. ~ -Vin < 1.2Vdc or open Power off : R.C. ~ -Vin > 5.5 ~ 15Vdc	I/P: 48VDC O/P: 100% LOAD Ta: 25°C	Power on : R.C < 2.68Vdc or Open Power off : R.C > 2.71Vdc or Short	P

■ SAFETY TEST

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	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 > 1000MΩ	I/P-O/P: 500 VDC Ta: 25°C	I/P-O/P > 1000MΩ NO DAMAGE	P

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT										
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 4HRS I/P: 48VDC O/P: FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 4HRS I/P: 48VDC O/P: FULL LOAD Ta=85°C 3. HIGH AMBIENT BURN-IN : 4HRS I/P: 48VDC O/P: 60% LOAD Ta=95°C	<table border="1"> <tr> <th>NO</th><th>Position</th><th>1</th><th>2</th><th>3</th></tr> <tr> <td>1</td><td>CASE</td><td>47.8°C</td><td>104.0°C</td><td>109.0°C</td></tr> </table>	NO	Position	1	2	3	1	CASE	47.8°C	104.0°C	109.0°C	
NO	Position	1	2	3										
1	CASE	47.8°C	104.0°C	109.0°C										
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 4 HOURS	I/P: 48VDC O/P: FULL LOAD Ta= -40°C	TEST : OK										

OTHER

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	MTBF	MIL-HDBK-217F, GB, 25°C TOTAL FAILURE RATE : 0.54054 M.T.B.F : 1,850KHRS		

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG