



Test Report : DKMW30W8-15

30W 1"x1" 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

Other

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°C	V1: -0.39% V2: -0.46%	P
2	RIPPLE & NOISE	150 mVp-p	I/P:48VDC O/P:FULL LOAD Ta:25°C	V1: 105 mV V2: 71 mV	P
3	LINE REGULATION	-0.5% ~ +0.5%	I/P:9VDC~75VDC O/P:FULL LOAD Ta:25°C	V1: -0.13% ~ -0.05% V2: +0.07% ~ -0.03%	P
4	LOAD REGULATION	-1.0% ~ +1.0%	I/P:48VDC O/P:0% LOAD~FULL LOAD Ta:25°C	V1: +0.00% ~ +0.18% V2: -0.01% ~ -0.15%	P
5	CROSS REGULATION	-5% ~ +5.0%	I/P:48VDC O/P:25%~FULL LOAD Ta:25°C	V1: +1.19% V2: +1.16%	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	88.5%	I/P:48VDC O/P:FULL LOAD Ta:25°C	88.89%	P
2	DC CURRENT	707mA / FULL LOAD 10mA / NO LOAD	I/P:48VDC O/P:NO / FULL LOAD Ta:25°C	697mA / FULL LOAD 7.3 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°C	CONTINUOUS, AUTOMATIC RECOVERY	P
2	OVER LOAD PROTECTION	110~200%	I/P:48VDC O/P:TESTING Ta:25°C	140.95% HICCUP MODE AUTO-RECOVER	P
3	CASE TEMPERATURE	+105°C 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°C	PROTECTION TYPE : CLAMP BY ZENER DIODE	P
5	UNDER VOLTAGE LOCKOUT	START-UP 8.3V(Type) SHUTDOWN OLTAGE 8.0V(Type)	I/P:TESTING O/P:FULL LOAD Ta:25°C	8.19 VDC 7.91 VDC	P

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	REMOTE CONTROL	POWER ON : R.C. ~ -VIN >3.5~75VDC OR OPEN CIRCUIT POWER OFF : R.C. ~ -VIN <1VDC OR SHORT	I/P:48VDC O/P:100% LOAD Ta:25°C	POWER ON : R.C>1.43VDC OR OPEN POWER OFF : R.C.<1.41VDC OR SHORT	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>1000MΩ	I/P-O/P:500 VDC Ta:25°C	I/P-O/P>1000MΩ NO DAMAGE	P

■ RELIABILITY TEST

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	MTBF	MIL-HDBK-217F,GB,25°C TOTAL FAILURE RATE : 0.615384 M.T.B.F : >1,625KHRS		

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG