



# Test Report : DKMW06F-05

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6W 1"x1" 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	-1.0% ~ +1.0 %	I/P:24VDC O/P:FULL LOAD Ta:25°C	V1 -0.08% V2 -0.06%	P
2	RIPPLE & NOISE	85 mVp-p (Max)	I/P:24VDC O/P:FULL LOAD Ta:25°C	V1 30mV V2 40mV	P
3	LINE REGULATION	-0.5% ~ +0.5%	I/P:9VDC~36VDC O/P:FULL LOAD Ta:25°C	V1 +0.00% ~ +0.01% V2 +0.00% ~ +0.02%	P
4	LOAD REGULATION	V1 -1.0% ~ +1.0% V2 -1.5% ~ +1.5%	I/P:24VDC O/P:10% LOAD~FULL LOAD Ta:25°C	V1 +0.03% ~ -0.03% V2 -0.01% ~ +0.07%	P

### INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	9 VDC ~36 VDC	I/P:TESTING O/P:FULL LOAD Ta:25°C	6.74 VDC ~ 36.0 VDC	P
2	EFFICIENCY	81% (Typ)	I/P:24VDC O/P:FULL LOAD Ta:25°C	83.89%	P
3	DC CURRENT	309 mA / FULL LOAD 7 mA / NO LOAD	I/P:24VDC O/P:NO / FULL LOAD Ta:25°C	302 mA / FULL LOAD 7.0 mA / NO LOAD	P

### PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	SHORT PROTECTION	CONTINUOUS	I/P:36VDC O/P:FULL LOAD Ta:25°C	HICCUP MODE AUTO-RECOVER	P
2	OVER LOAD PROTECTION	110% ~ 190%	I/P:24VDC O/P:TESTING Ta:25°C	176.2% HICCUP MODE AUTO-RECOVER	P

## SAFETY TEST

### SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:1.5K VDC/min	I/P-O/P:1.5K 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 : 8HRS I/P:24VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 8HRS I/P:24VDC O/P:FULL LOAD Ta=71°C 3. HIGH AMBIENT BURN-IN : 8HRS I/P:24VDC O/P:60% LOAD Ta=85°C			P									
		<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CASE</td> <td>47.5°C</td> <td>89.5°C</td> <td>91.4°C</td> </tr> </tbody> </table>	NO	Position		1	2	3	1	CASE	47.5°C	89.5°C	91.4°C	
NO	Position	1	2	3										
1	CASE	47.5°C	89.5°C	91.4°C										
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 4 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 TOTAL FAILURE RATE : 0.622928 M.T.B.F : 1605.322K HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG