Test Report : SKMW15F-05

15W 1"x1" Package DC-DC Regulated Converter

■ DESIGN VERIFY TEST

Output Function Test
Input Function Test
Protection Function Test
Control Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Environment Test

■ DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	VOLTAGE ACCURACY	-2.0% ~ +2.0 % (Max)	I/P:24VDC O/P:FULL LOAD Ta:25℃	4.9727 -0.55%
2	RIPPLE & NOISE	50 mVp-p (Max)	I/P:24VDC O/P:FULL LOAD Ta:25℃	7Mv
3	LINE REGULATION	-0.5% ~ +0.5% (Max)	I/P:9VDC~36VDC O/P:FULL LOAD Ta:25℃	4.9735 4.9727 4.9734 +0.02% ~ +0.01%
4	LOAD REGULATION	-0.5% ~ +0.5% (Max)	I/P:24VDC O/P:10% LOAD~FULL LOAD Ta:25℃	4.9727 4.9764 4.9762 -0.04% ~ +0.03%

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	INPUT VOLTAGE RANGE	9 VDC ~36 VDC	I/P:TESTING O/P:FULL LOAD Ta:25℃	8.4VDC ~36.0 VDC
2	EFFICIENCY	85% (Typ)	I/P:24VDC O/P:FULL LOAD Ta:25℃	86.59%
3	DC CURRENT	730 mA / FULL LOAD (Max) 80 mA / NO LOAD (Max)	I/P:24VDC O/P:NO / FULL LOAD Ta:25℃	706 mA / FULL LOAD 48 mA / NO LOAD

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	SHORT PROTECTION	CONTINUOUS	I/P:36VDC O/P:FULL LOAD Ta:25℃	HICCUP MODE AUTO-RECOVER
2	OVER LOAD PROTECTION	110% ~ 220% (Typ)	I/P:24VDC O/P:TESTING Ta:25℃	197.3% HICCUP MODE AUTO-RECOVER

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	REMOTE CONTROL	Power on : R.C. ~ - Vin>2.5V or open circuit Power off : R.C. ~ - Vin <0.8Vdc or short	I/P:24VDC O/P:FULL LOAD Ta:25℃	Power on : R.C>2.5Vdc or Open Power off : R.C<0.8Vdc or short
2	TRIM	-10%~ +10% (Typ) Trim ~ +Vout Trim DOWN Trim ~ -Vout Trim UP Using 500K ohms VR	I/P:24VDC O/P:FULL LOAD Ta:25℃	Trim DOWN -10.74% Trim UP +13.84%

■ SAFETY TEST

SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P:3.0K VDC/min	I/P-O/P:3.0K VDC/min Ta:25℃	I/P-O/P: 0.002mA NO DAMAGE
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500 VDC Ta:25℃	I/P-O/P>100MΩ NO DAMAGE

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN：8HRS I/P:24VDC O/P:FULL LOAD Ta=25℃ 2. HIGH AMBIENT BURN-IN ：8HRS I/P:24VDC O/P:FULL LOAD Ta=71℃ 3. HIGH AMBIENT BURN-IN ：8HRS I/P:24VDC O/P:55% LOAD Ta=85℃		
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 4 HOURS	I/P:24VDC O/P: FULL LOAD Ta= -40℃	TEST：OK

NO	Position	1	2	3
1	CASE	59.7℃	102.3℃	106.2℃

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	MTBF	MIL-HDBK-217F,GB,25℃ TOTAL FAILURE RATE：4.49761 M.T.B.F：222,340.46 HRS		

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG