Test Report : SKA15W8-09

15W 2*1Package 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	-2.0% ~ +2.0% (Max)	I/P:24VDC O/P:FULL LOAD Ta:25℃	-0.13%	P
2	RIPPLE & NOISE	150 mVp-p (Max)	I/P:24VDC O/P:FULL LOAD Ta:25℃	42 mV	P
3	LINE REGULATION	-0.5% ~ +0.5%	I/P:9VDC~75VDC O/P:FULL LOAD Ta:25℃	-0.12% ~ +0.01%	P
4	LOAD REGULATION	-0.5% ~ +0.5%	I/P:24VDC O/P:0% LOAD~FULL LOAD Ta:25℃	-0.07% ~ +0.04%	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	86%	I/P:24VDC O/P:FULL LOAD Ta:25℃	86.37%	P
2	DC CURRENT	720 mA / FULL LOAD 10 mA / NO LOAD	I/P:24VDC O/P:NO / FULL LOAD Ta:25℃	717.6 mA / FULL LOAD 2.5 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℃	8.31 VDC 8.08 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℃	CONTINUOUS, AUTOMATIC RECOVERY	P
2	OVER LOAD PROTECTION	110~230%	I/P:24VDC O/P:TESTING Ta:25℃	200.0% HICCUP MODE AUTO-RECOVER	P
3	CASE TEMPERATURE	+110℃ max	I/P:24VDC O/P:TESTING Ta: TESTING	OK AUTOMATIC RECOVERY	P
4	OVER VOLTAGE PROTECTION	YES	I/P: 24VDC O/P: MIN LOAD Ta:25℃	PROTECTION TYPE： CLAMP TVS DIODES	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>1000MΩ	I/P-O/P:500 VDC Ta:25℃	I/P-O/P>1000MΩ 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:24VDC O/P:FULL LOAD Ta=25℃ 2. HIGH AMBIENT BURN-IN ：4HRS I/P:24VDC O/P:FULL LOAD Ta=80℃ 3. HIGH AMBIENT BURN-IN ：4HRS I/P:24VDC O/P:50% LOAD Ta=90℃		
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	52.4℃	103.6℃	101.3℃

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT
1	MTBF	MIL-HDBK-217F,GB,25℃ TOTAL FAILURE RATE：3.333 M.T.B.F： 300KHRS		

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	PETER CHENG