



# Test Report : SPU03N-12

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3W DC-DC Unregulated Single Output 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	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE ACCURACY	-2 % ~ +2 % (Max)	I/P:24VDC O/P:FULL LOAD Ta:25°C	-0.21 %	P
2	RIPPLE & NOISE	50 mVp-p (Max)	I/P:24VDC O/P:FULL LOAD Ta:25°C	15 mV	P
3	LINE REGULATION	-12 % ~ +12 % (Max)	I/P:21.6VDC~26.4VDC O/P:FULL LOAD Ta:25°C	-10.5 % ~ +10.5 %	P
4	LOAD REGULATION	-8 % ~ +8 % (Max)	I/P:24VDC O/P:MIN-FULL LOAD Ta:25°C	-1.21 % ~ +0.88 %	P

**INPUT FUNCTION TEST**

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	86 % (Typ)	I/P:24VDC O/P:FULL LOAD Ta:25°C	86.62 %	P
2	DC CURRENT	150 mA / FULL LOAD (Max) 15 mA / NO LOAD (Max)	I/P:24VDC O/P:NO / FULL LOAD Ta:25°C	144 mA / FULL LOAD 12 mA / NO LOAD	P

**PROTECTION FUNCTION TEST**

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	Momentary	I/P:24VDC O/P:TESTING Ta:25°C	BROKEN	P
2	SHORT PROTECTION	Momentary	I/P:26.4VDC O/P:FULL LOAD Ta:25°C	BROKEN	P

**SAFETY TEST**
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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°C	I/P-O/P: 0.02mA 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	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 13 HOURS	I/P:24VDC O/P: FULL LOAD Ta= -40°C	TEST : OK	P

TEST RESULT	TESTER	APPROVAL
PASS	PETER	VINCENT ZENG