

MODEL : NSD10-48D12

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1: 75 mVp-p (Max) V2: 75 mVp-p (Max)	I/P: 48VDC O/P:FULL LOAD Ta:25°C	V1: 20 mVp-p (Max) V2: 20 mVp-p (Max)	P
2	OUTPUT VOLTAGE TOLERANCE	V1: 2 %- -2 % (Max) V2: 2 %- -2 % (Max)	I/P: 22VDC / 72VDC O/P:FULL/ MIN LOAD Ta:25°C	V1: 1.2 %- -1.2 % V2: 1.2 %- -1.2 %	P
3	LINE REGULATION	V1: 1%- -1 % (Max) V2: 1%- -1% (Max)	I/P: 22VDC ~ 72VDC O/P:FULL LOAD Ta:25°C	V1: 0 %- 0 % V2: 0.05 %- -0.05 %	P
4	LOAD REGULATION	V1: 2 %- -2 % (Max) V2: 2 %- -2 % (Max)	I/P: 48VDC O/P:FULL -MIN LOAD Ta:25°C	V1: 0.05 %- -0.05 % V2: 0.05 %- -0.05 %	P
5	CROSS REGULATION	V1: 2 %- -2 % (Max) V2: 2 %- -2 % (Max)	I/P: 48V VDC O/P: Testing O/P 60%LOAD Other O/P 40%LOAD Change Ta:25°C	V1: 0.83 %- -0.83 % V2: 0.83 %- -0.83 %	P
6	OVER/UNDERSHOOT TEST	< ±5%	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	TEST: < 5 %	P
7	DYNAMIC LOAD	V1: 1200 mVp-p	I/P: 48VDC O/P:FULL /Min LOAD 90%DUTY/1KHZ Ta:25°C	156 mVp-p	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	22VDC~ 72 VDC	I/P:TESTING O/P:FULL LOAD Ta:25°C	14.5 V~ 72 V	P
			I/P: LOW-LINE-0.2V= 21.8 V HIGH-LINE+5%= 75.6 V O/P:FULL/MIN LOAD ON: 30 Sec . OFF: 30 Sec 10MIN (AC POWER ON/OFF NO DAMAGE)	TEST: OK	
2	EFFICIENCY	77 % (TYP)	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	78.5 %	P
3	INPUT CURRENT	48 VDC/ 0.4A(TYP)	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	I = 0.27 A	P
4	SHUTDOWN IDLE CURRENT	20 mA / 48VDC	I/P: 48 VDC O/P:FULL LOAD Ta:25°C	18.6 mA / 48VDC	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	Above 105%	I/P: 48VDC O/P: TESTING Ta: 25°C	157% / 48V Over power Limiting, recovers automatically after fault condition is removed	P
2	OVER VOLTAGE PROTECTION	CH1: 13.8 V~ 18V CH2: -13.8 V~ -18V	I/P: DC SOURCE O/P: MIN LOAD Ta: 25°C	14.8V / CH1 / 0.32A 14.8V / CH2 / 0.32A Recovers automatically after fault condition is removed	P
4	SHORT PROTECTION	SHORT EVERY OUTPUT 60 SECOND NO DAMAGE	I/P: 72 VDC O/P: FULL LOAD Ta: 25°C	NO DAMAGE Constant Current Limiting	P

CONTROL FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	REMOTE CONTROL	Logic "1" OPEN : ON Logic "0" GON : OFF	I/P: 48VDC O/P: FULL LOAD Ta: 25°C	Logic "1" : POWER ON Logic "0" : POWER OFF	P



E.M.C TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RADIATION	EN55022 CLASS B	I/P: 48VDC O/P: FULL LOAD Ta: 25°C	PASS Test by certified Lab	P
2	E.S.D	EN61000-4-2 LIGHT INDUSTRY AIR: 8KV / Contact: 4KV	I/P: 48 VDC O/P: FULL LOAD Ta: 25°C	CRITERIA A	P
3	E.F.T	EN61000-4-4 LIGHT INDUSTRY INPUT: 1KV	I/P: 48 VDC O/P: FULL LOAD Ta: 25°C	CRITERIA A	P
7	Test by certified Lab & Test Report Prepare				

M.T.B.F & LIFE CYCLE CALCULATION

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 1878.5K HRS			P

COMPONENT STRESS TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	Power Transistor (D to S) or (C to E) Peak Voltage	Q2 Rated IRFR220N 5A/200V	I/P: High-Line +3V = 75 V O/P: (1) Full Load Turn on (2) Output Short Ta: 25°C	(1) 178 V (2) 192 V	P
2	Diode Peak Voltage	D100 Rated EC11FS2-TE12L 1A/200V D200 Rated EC11FS2-TE12L 1A/200V	I/P: High-Line +3V = 75 V O/P: (1) Full Load Turn on (2) Output Short Ta: 25°C	(1) 188 V (2) 60 V (1) 185 V (2) 67 V	P
3	Input Capacitor Voltage	C5 Rated : 474 / 100V	I/P: High-Line +3V = 75 V O/P: (1) Full Load Turn on /Off (2) Min load Turn on /Off (3) Full Load /Min load Change Ta: 25°C	(1) 74.7 V (2) 74.81 V (3) 74.81 V	P
4	Control IC Voltage Test	U1 Rated TL3843D : 20 V	I/P: High-Line +3V = 75 V O/P: (1) Full Load Turn on /Off (2) Min load Turn on /Off (3) Full Load /Min load Change Ta: 25°C	(1) 15.8 V (2) 10.52 V (3) 15.8 V	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2007/1/11	RD SAMPLE	PASS	VINCENT TSENG	MAX LIN
2007/3/5	PRODUCT SAMPLE W0702A48	PASS	VINCENT TSENG	MAX LIN

2003/12/12 A50-F023

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