

Bill of Materials for the NCP1271 (19 V 3 A) Adapter Evaluation Board



1.23.2007

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
T1	1	Common Mode Line Choke	3 A, 508 µH	N/A	N/A	Coilcraft	E3506-AL	Yes	Yes
T2	1	Custom Transformer 180µH Primary inductance, turn ratio = 30:6:5, 2.5µH max leakage	180 µH, 30:6:5	10%	N/A	Cooper/ Coiltronics	CTX22-17179	Yes	Yes
IC1	1	65kHz Flyback PWM Controller, SO-7	N/A	N/A	SO-7	ON Semiconductor	NCP1271D65R2	No	Yes
IC3	1	Opto coupler	CTR 50-600%	N/A	SMD-4	Vishay	SFH615AA-X007	Yes	Yes
IC4	1	Voltage Reference	2.5 V	1%	SO-8	ON Semiconductor	TL431AIDG	No	Yes
D1 - D4	4	Standard Diode	3 A, 600 V	N/A	Axial	ON Semiconductor	1N5406G	No	Yes
D5	1	Switching Diode	100 V	N/A	SOD-123	ON Semiconductor	MMSD914T1G	No	Yes
D6	1	Standard Diode	1 A, 600 V	N/A	SMA	ON Semiconductor	MRA4005T3G	No	Yes
D7	1	Ultrafast Diode	1 A, 600 V	N/A	SMB	ON Semiconductor	MURS160T3G	No	Yes
D8	1	3A 100V Schottky diode, axial 267- 05	3 A, 100 V	N/A	Axial	ON Semiconductor	MBR3100G	No	Yes
D10	1	18V Zener Diode	18 V, 14 mA	5%	Axial	ON Semiconductor	MZP4746ARLG	No	Yes
Q1	1	N-Channel Mosfet	6 A, 800 V	N/A	TO-220AB	Infineon	SPP06N80C3	Yes	Yes
R1	1	Leaded Resistor	100 kΩ, 2 W	5%	Axial	Digi-key	P100KW-2BK	Yes	Yes
R2	1	Leaded Resistor	10 Ω, 1/4 W	5%	Axial	Yageo	CFR-25JB-5210R	Yes	Yes
R5	1	Ceramic Chip Resistor	30.1 kΩ, 1/4 W	1%	1206	Vishay	CRCW12063012FE3	Yes	Yes
R6	1	Ceramic Chip Resistor	10 Ω, 1/4 W	1%	1206	Vishay	CRCW120610R0FE3	Yes	Yes
R7	1	Ceramic Chip Resistor	511 Ω, 1/4 W	1%	1206	Vishay	CRCW12065110FE3	Yes	Yes
R8	1	Ceramic Chip Resistor	0.25 Ω, 1 W	1%	2512	Vishay	WSL2512R2500FEA	Yes	Yes
R9,R10	2	Ceramic Chip Resistor	1.69 kΩ, 1/4 W	1%	1206	Vishay	CRCW12061691FE3	Yes	Yes
R11	1	Ceramic Chip Resistor	15.8 kΩ, 1/4 W	1%	1206	Vishay	CRCW12061582FE3	Yes	Yes
R12	1	Ceramic Chip Resistor	2.37 kΩ, 1/4 W	1%	1206	Vishay	CRCW12062371FE3	Yes	Yes
C1-C2	2	Ceramic X2 Capacitor	0.1 µF, 275 V	10%	N/A	Evov Rifa	PHE840MA6100MA04	Yes	Yes
C3	1	Electrolytic Capacitor	82 µF, 400 V	20%	N/A	Panasonic	ECOS2GP820BA, or EETED2G820BA	Yes	Yes
C4, C13	2	Electrolytic Capacitor	100 µF, 25 V	20%	N/A	Panasonic	ECA1EM101	Yes	Yes
C5	1	Polyester Film Capacitor	10 nF, 630 V	10%	N/A	Newark	DME6S1K	Yes	Yes
C6-C7	2	Ceramic Chip Capacitor	1.2 nF, 25 V	10%	1206	Vishay	VJ1206Y122KXXA	Yes	Yes
C8-C10	3	Electrolytic Capacitor	2200 µF, 25 V	20%	N/A	Rubycon	025YXG2200M12.5X30	Yes	Yes
C11	1	Ceramic Y2 Capacitor	1 nF, 1 kV	20%	N/A	Evov Rifa	ERO610RJ4100M	Yes	Yes
C12	1	Ceramic Chip Capacitor	0.15 µF, 25 V	10%	1206	Vishay	VJ1206Y154KXXA	Yes	Yes
Fuse	1	Time Delay Fuse	2 A, 250 V	N/A	N/A	Cooper	1025TD2-R	Yes	Yes
Heatsink	1	Heatsink for TO-220 Package	11.2°C/W	N/A	N/A	Aavid	590302B03600	Yes	N/A
Heatsink Insulation	1	Mica Insulation for TO-220 Package	N/A	N/A	N/A	Keystone	4672	Yes	N/A
Heatsink Washer	1	Nylon #4 Shoulder Washer	N/A	N/A	N/A	Keystone	3049	Yes	Yes
AC Connector	1	IEC60320 C8 Connector	2.5 A 250Vac 770W	N/A	N/A	Qualtek	770W-X2/10	Yes	Yes
DC Connector	1	3-terminal 3.96mm pitch male header	N/A	N/A	N/A	Molex	26-60-4030 or 009652038	Yes	Yes
Standoff	4	Standoff M/F Hex 4-40 Nyl 0.750"	N/A	N/A	N/A	Digi-key	4804K	Yes	N/A
Accessories	1	4-40 1/4 inch screw	N/A	N/A	N/A	Newark	30F698	Yes	N/A
Accessories	5	4-40 screw nuts	N/A	N/A	N/A	Newark	31F2106	Yes	N/A