

# Bill of Materials for the NCP1027 ATX Evaluation Board

ON Semiconductor



Feb-06

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	RoHS Compliant
U1	1	High Voltage Switcher	NA	NA	PDIP 8	ON Semiconductor	NCP1027P065G	No	Yes
U2	1	Adjustable Shunt Regulator	2.5V-36V, 1mA-100mA	2%	TO-92	ON Semiconductor	TL431CLPRPG	No	Yes
U3	1	Optocoupler	70 V, 60 mA	NA	DIP-4	Vishay Semiconductors	SFH615A	No	Yes
B1	1	Single-Phase Bridge Rectifier	800 V, 1 A	NA	DFM	Vishay General	DF08ME3	Yes	Yes
C1,C2	2	Electrolytic Capacitor	1200 $\mu$ F, 16 V	20%	Radial	Panasonic	EEU-FC1C122	Yes	Yes
C10	1	Electrolytic Capacitor	47 $\mu$ F, 400 V	20%	Radial	Panasonic	ECA2GHG470	Yes	Yes
C11	1	Ceramic ac Capacitor, Class Y1	2.2 nF, 500 Vac, 50Hz	20%	Leaded spacing = 12.5 mm	Vishay Draloric	WKP222MCPR	No	Yes
C12	1	Capacitor, Class X2	220 nF, 275 Vac	20%	Leaded spacing = 15 mm	Evox Rifa	PHE840MX6220M	No	Yes
C13	1	Electrolytic Capacitor	1 $\mu$ F, 50 V	20%	Radial	Panasonic	EEUFC1H1R0	Yes	Yes
C3	1	Electrolytic Capacitor	220 $\mu$ F, 16 V	20%	Radial	Panasonic	EEUFC1C221	Yes	Yes
C4	1	Multilayer Ceramic Capacitor, X7R	100 nF, 50 V	10%	1206	Epcos	B37872K5104K060	Yes	Yes
C5	1	Metallized Polyester Film Capacitor	10 nF, 630 V	10%	Lead spacing = 10 mm	Vishay Roederstein	MKT1822310635	Yes	Yes
C6	1	Multilayer Ceramic Capacitor, X7R	10 nF, 50 V	10%	1206	Epcos	B37872K5103K060	Yes	Yes
C7	1	Minature Aluminum Electrolytic Capacitor	10 $\mu$ F, 63 V	20%	Radial	Panasonic	ECA1JM100	Yes	Yes
C8	1	Electrolytic Capacitor	100 $\mu$ F, 10 V	20%	Radial	Panasonic	EEUFC1A101	Yes	Yes
C9	1	Multilayer Ceramic Capacitor, X7R	1nF, 50 V	10%	1206	Epcos	B37872K5102K060	Yes	Yes
D1	1	Schottky Barrier Rectifier	35 V, 8 A	NA	DPAK-4	ON Semiconductor	MBRD835LG	No	Yes
D2,D4	2	Fast-Recovery Rectifier	600 V, 1 A	NA	Axial	ON Semiconductor	1N4937G	No	Yes
H1	1	PCB Connector	NA	NA	NA	Multicomp	JR-201S	Yes	Yes
H2	1	PCB Connector	NA	NA	NA	Weidmuller	1760510000	Yes	Yes
L1	1	Inductor	2.2 $\mu$ H, 6 A	20%	7.8 mm x 9.5 mm	Würth Elektronik	744772022	Yes	Yes
L2	1	Common Mode Inductor	27 mH, 0.8 A	NA	22.5 mm x 21.5 mm	Schaffner	RN114-0.8/02	Yes	Yes
R1	1	Axial Lead Carbon Film Resistor	10 k $\Omega$ , 1/4 W	5%	Axial	Panasonic	ERD-S2TJ103V	Yes	Yes
R10	1	Metal Film Resistor	2.8 M $\Omega$ , 1/4 W	5%	Axial	Vishay Dale	CCF072M80JKE36	Yes	Yes
R11	1	Axial Lead Carbon Film Resistor	2.2 M $\Omega$ , 1/4 W	5%	Axial	Panasonic	ERD-S2TJ225V	Yes	Yes
R13	1	Axial Lead Carbon Film Resistor	47 k $\Omega$ , 1/4 W	5%	Axial	Panasonic	ERD-S2TJ473V	Yes	Yes
R14	1	Axial Lead Carbon Film Resistor	560 k $\Omega$ , 1/4 W	5%	Axial	Panasonic	ERD-S2TJ564V	Yes	Yes
R2	1	SMD Resistor	10 k $\Omega$ , 1/4 W	5%	1206	Vishay Dale	CRCW120610K0JNEA	Yes	Yes
R3	1	SMD Resistor	100 $\Omega$ , 1/4 W	5%	1206	Vishay Dale	CRCW1206100RJNEA	Yes	Yes
R4	1	Axial Lead Carbon Film Resistor	680 $\Omega$ , 1/4 W	5%	Axial	Panasonic	ERD-S2TJ681V	Yes	Yes
R5	1	Axial Lead Carbon Film Resistor	47 $\Omega$ , 1/4 W	5%	Axial	Panasonic	ERD-S2TJ470V	Yes	Yes
R6	1	Power Metal Film Resistor	150 k $\Omega$ , 1W	5%	Axial	Vishay BC Components	PR01000201503JAC00	Yes	Yes
R7	1	Axial Lead Carbon Film Resistor	1 k $\Omega$ , 1/4 W	5%	Axial	Panasonic	ERD-S2TJ102V	Yes	Yes
R8	1	SMD Resistor	78 k $\Omega$ , 1/4 W	5%	1206	Vishay Dale	CRCW120678KJNEA	Yes	Yes
R9	1	SMD Resistor	27 k $\Omega$ , 1/4W	5%	1206	Vishay Dale	CRCW120627KJNEA	Yes	Yes
T1	1	Transformer	3.4 mH	NA	1.1" x 1.1" x 0.95"	Coilcraft	DA2077-AL	No	Yes