



Bill of Materials for the NCP1607BOOST Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
U1	1	NCP1607	NCP1607	-	SOIC-8	ON Semiconductor	NCP1607BDR2G	No	Yes
D1	1	Diode, General Purpose	100 V	-	SOD123	ON Semiconductor	MMSD4148T1G	No	Yes
DAUX	1	Diode, Zener	18 V	-	SOD123	ON Semiconductor	MMSZ4705T1G	No	Yes
DBOOST	1	Diode, Ultrafast	4 A, 600 V	-	Axial	ON Semiconductor	MUR460RLG	No	Yes
BRIDGE	1	Diode, Bridge Rectifier	4A, 600 V	-	KBL	Vishay	KBL06-E4/51	Yes	Yes
DVCC,DDRV	2	Diode, General Purpose	open	-	SOD123	-	-	-	-
F1	1	Fuse, SMD	2 A, 600 V	-	SMD	Littelfuse	0461002.ER	Yes	Yes
LBOOST	1	Inductor, Boost, Nboost:Nzcd = 10:1	400 uH, 10:1	-	Custom	Coilcraft	FA2890-CL	No	Yes
L1	1	Inductor, Radial	180 uH	10%	Through Hole	Coilcraft	PCV-2-184-05L	No	Yes
L2	1	Inductor, Common-Mode Choke	4.7 mH, 2.7 A	-	Through Hole	Panasonic	ELF-20N027A	Yes	Yes
Q1	1	MOSFET, N-Channel	11.6 A, 560 V	-	TO-220	Infineon	SPP12N50C3	Yes	Yes
NTC	1	Thermistor, Inrush Current Limiter	4.7 Ω	20%	Radial	EPCOS	B57238S479M	Yes	Yes
RCOMP1	1	Resistor, SMD	54.9 k Ω	1%	1206	Yageo	RC1206FR-0754K9L	Yes	Yes
R1	1	Resistor, SMD	100 Ω	1%	1206	Yageo	RC1206FR-07100RL	Yes	Yes
RCT	1	Resistor, SMD	0 Ω	1%	1206	Yageo	RC1206FR-070RL	Yes	Yes
RDRV	1	Resistor, SMD	10.0 Ω	1%	1206	Yageo	RC1206FR-0710RL	Yes	Yes
ROUT2A	1	Resistor, SMD	25.5 k Ω	1%	1206	Yageo	RC1206FR-0725K5L	Yes	Yes
RO1A,RO1B	2	Resistor, SMD	2.00 M Ω	1%	1206	Yageo	RC1206FR-072ML	Yes	Yes
RS1	1	Resistor, SMD	0.100 Ω , 1 W	1%	2512	KOA	SR733ATTER100F	Yes	Yes
RS2,RS3	2	Resistor, SMD	open	-	2512	-	-	-	-
ROUT2B	1	Resistor, SMD	open	-	1206	-	-	-	-
RCS	1	Resistor, 1/4 W Axial	510 Ω	5%	Axial	Yageo	CFR-25JB-510R	Yes	Yes
RCTUP1,RCTUP2	2	Resistor, 1/4 W Axial	750 k Ω	5%	Axial	Yageo	CFR-25JB-750K	Yes	Yes
RZCD	1	Resistor, 1/4 W Axial	51 k Ω	5%	Axial	Yageo	CFR-25JB-51K	Yes	Yes
RSTART1,RSTART2	2	Resistor, 1/4 W Axial	330 k Ω	5%	Axial	Yageo	CFR-25JB-330K	Yes	Yes
C1,C2	2	X Capacitor	0.47u	20%	Radial	EPCOS	B32923C3474M	Yes	Yes
CIN	1	X Capacitor	0.1u	20%	Radial	EPCOS	B32921A2104M	Yes	Yes
CVCC	1	Capacitor, Electrolytic	47 uF, 25 V	20%	Radial	Panasonic	EEU-FC1E470	Yes	Yes
CBULK	1	Capacitor, Electrolytic	68 uF, 450 V	20%	Radial	NCC	EKXG451ELL680MMN3S	Yes	Yes
CVCC2,CCOMP	2	Capacitor, Ceramic, SMD	0.1 uF, 25 V	10%	1206	Vishay	VJ1206Y104KXX	Yes	Yes
CCOMP1	1	Capacitor, Ceramic, SMD	0.39 uF, 25 V	10%	1206	Vishay	VJ1206Y394KXX	Yes	Yes
CT1	1	Capacitor, Ceramic, SMD	1.5 nF, 25 V	10%	1206	Vishay	VJ1206Y152KXX	Yes	Yes
CT2	1	Capacitor, Ceramic, SMD	330 pF, 25 V	10%	1206	Vishay	VJ1206Y331KXX	Yes	Yes
C3	1	Capacitor, Ceramic, SMD	22 nF, 25 V	10%	1206	Vishay	VJ1206Y223KXX	Yes	Yes
CZCD,CCS	2	Capacitor, Ceramic, SMD	open	-	1206	-	-	-	-
J1	1	Header	1 Row of 3, 1 Row of 2	-	2.54 mm	3M	929400-01-36	Yes	Yes
J2,J3	2	Connector, 156 mil 3 pin	-	-	156 mil	MOLEX	26-60-4030	Yes	Yes
MECHANICAL	1	Jumper, Shorting	-	-	-	3M	929955-06	Yes	Yes
MECHANICAL	1	Heatsink	-	-	TO220	Aavid	590302B03600	Yes	Yes
MECHANICAL	1	Screw	4-40 1/4" screw	-	-	Building Fasteners	PMSSS 440 0025 PH	Yes	Yes
MECHANICAL	1	Nut	4-40 screw nut	-	-	Building Fasteners	HNSS440	Yes	Yes
MECHANICAL	1	Nylon Washer	Shoulder washer #4	-	-	Keystone	3049	Yes	Yes
MECHANICAL	1	TO220 Thermal Pad	9 mil	-	-	Wakefield	173-9-240P	Yes	Yes
MECHANICAL	4	Standoffs	Hex 4-40, Nylon 0.75"	-	-	Keystone	4804K	Yes	Yes
MECHANICAL	4	Nylon Nut	Hex 4-40	-	-	Building Fasteners	NY HN 440	Yes	Yes