



Bill of Materials for the NCP1622GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
J4	1	PC terminal block				Phoenix	MT85A2.5/2-5.08	YES	YES
P1	1	4-mm Red-Connector				Multicomp	23.3200-22	YES	YES
P2	1	4-mm Black-Connector				Multicomp	23.3200-21	YES	YES
EARTH	1	4-mm Yellow-Connector				DELTRON	571-0700	YES	YES
L	1	4-mm Black-Connector				DELTRON	571-0100	YES	YES
N	1	4-mm Blue-Connector				DELTRON	571-0200	YES	YES
S1A:S1B:S2A:S2B	4	JUMPER				HARWIN	D3082F05	YES	YES
S3:S4A:S4B:S4C	4	Wire Strap	stiff insulated wire		0.700" length	Various	Various	YES	YES
JX:VBULK:VIN:VL	4	TEST POINT				keystone	5000	YES	YES
DRV:FB:GND:VC	6	TEST POINT				Various	Various	YES	YES
*	4	Board Supports				TCBS-801	RICHCO	YES	YES
HS1	1	Heatsink with fixation clips to PCB				COLUMBIA-STAVER	TP2075T_120_12_5_NA_SP_03	NO	YES
	1	Heatsink MOSFET clip				COLUMBIA-STAVER	W950	NO	YES
	1	Heatsink diodes bridge clip				COLUMBIA-STAVER	W936R	NO	YES
F1	1	4-A fuse	4A	250V	Through_hole	Multicomp	MCPEP 4A 250V	NO	YES
C1,C2	2	Y Capacitors	1nF	400V	Through_hole	TDK	CD70ZU2GA10ZMYNKA	NO	YES
C4:C3A:C3B:C3C	4	X2 Capacitors	220nF	305Vac	Through_hole	EPCOS	B32922C3224K	NO	YES
C5a ; C5b	2	Filtering capacitor	220nF	400V	Through_hole	EPCOS	B32522-E6224-K000	NO	YES
C6A:C6B	2	Bulk capacitor	68uF	450V	Through_hole	Rubycon	450QXW68M12.5X40	NO	YES
C7	1	Electrolytic Capacitor	22uF	50V	Through_hole	Rubycon	50ML22MEFC	YES	YES
U1	1	DIODES BRIDGE	GBU406	800V/4A	Through_hole	LITE-ON	GBU406	NO	YES
CM1	1	Common Mode Filter	2x3.3mH	5A	Through_hole	Würth Elektronik	750341632	NO	YES
L2	1	Boost Inductor	200uH	6Apk	Through_hole	Würth Elektronik	750370081 (EFD30)	NO	YES
Q1	1	Power MOSFET	IPA50R250CP	550V	TO220_C	Infineon	IPA50R250CP	NO	YES
D1	1	Boost Diode	MUR550	5A, 520V	Axial	ON Semiconductor	MUR550APFG	NO	YES
D2	1	Bypass Diode	1N5406	3A, 600V	Axial	ON Semiconductor	1N5406G	NO	YES
DZ2	1	33-V ZENER DIODE	MMSZ33T1	33V, 0.5W	SOD123	ON Semiconductor	MMSZ33T1G	NO	YES
RTH1	1	Inrush Current Limiter	15W	1.8Amax	Through_hole	EPCOS	B57153S150M	NO	YES
D3_D4	2	Switching Diode	D1N4148	100V	SOD-123	ON Semiconductor	MMSD4148T1G	NO	YES

R1:R2	2	Resistor	1000kΩ	500V	SMD, 1206	Various	Various	YES	YES
R3	1	Resistor	80mΩ	1%, 3W	Through hole	Vishay	LVR03R0800FE12	NO	YES
R4	1	Resistor	10kΩ	5%	SMD, 1206	Various	Various	YES	YES
R5	1	Resistor	2.2Ω	1%	SMD, 1206	Various	Various	YES	YES
R6	1	Resistor	22Ω	1%	SMD, 1206	Various	Various	YES	YES
C13	1	Capacitor	100nF	50V	SMD, 1206	Various	Various	YES	YES
C10	1	Capacitor	220nF	50V	SMD, 1206	Various	Various	YES	YES
C9	1	Capacitor	2.2μF	50V	SMD, 1206	Various	Various	YES	YES
C11:C12	2	Capacitor	NC (**)	50V	SMD, 1206	Various	Various	YES	YES
R8	1	Resistor	680 kΩ	1%	SMD, 1206	Various	Various	YES	YES
R9:R10	2	Resistor	1800 kΩ	1%	SMD, 1206	Various	Various	YES	YES
R27	1	Resistor	0 Ω	5%	2512	Various	Various	YES	YES
R11	1	Resistor	27kΩ	1%	SMD, 1206	Various	Various	YES	YES
C8	1	Capacitor	1nF	50V	SMD, 1206	Various	Various	YES	YES
R22	1	Resistor	NC (**)	1%	SMD, 1206	Various	Various	YES	YES
R23	1	Resistor	NC (**)	1%	SMD, 1206	Various	Various	YES	YES
R24	1	Resistor	NC (**)	1%	SMD, 1206	Various	Various	YES	YES
Q2	1	Switch MOSFET	NC (**)		SOT23	Infineon	BSS127	YES	YES
R30	1	Resistor	NC (**)	1%	SMD, 1206	Various	Various	YES	YES
R21	1	Resistor	0 Ω	1%	SMD, 1206	Various	Various	YES	YES
R31	1	Resistor	NC (**)	1%	SMD, 1206	Various	Various	YES	YES
R32	1	Resistor	NC (**)	5%	SMD, 1206	Various	Various	YES	YES
R33	1	Resistor	NC (**)	5%	SMD, 1206	Various	Various	YES	YES
R42	1	Resistor	NC (**)	10%	SMD, 1206	Various	Various	YES	YES
R41	1	Resistor	0 Ω	1%	SMD, 1206	Various	Various	YES	YES
R40	1	Resistor	47 Ω	1%	SMD, 1206	Various	Various	YES	YES
C30	1	Capacitor	2.2 nF	50V	SMD, 1206	Various	Various	YES	YES
D6	1	Diode	1N4148	100V	SOD-123	ON Semiconductor	MM5D4148T1G	YES	YES
D5 (*)	1	Resistor	0 Ω	1%	SMD, 1206	Various	Various	YES	YES
R39	1	Resistor	300 kΩ	1%	SMD, 1206	Various	Various	YES	YES
R37	1	Resistor	20 kΩ	1%	SMD, 1206	Various	Various	YES	YES
R36	1	Resistor	0 Ω	1%	SMD, 1206	Various	Various	YES	YES
R38	1	Resistor	22 kΩ	1%	SMD, 1206	Various	Various	YES	YES
R34	1	Resistor	0 Ω	1%	SMD, 1206	Various	Various	YES	YES
R12	1	Resistor	22 kΩ	1%	SMD, 1206	Various	Various	YES	YES
R7:RZ	2	Resistor	0 Ω	1%	SMD, 1206	Various	Various	YES	YES
U2	1	PFM Controller	NCP1622		TSOP6	ON Semiconductor	NCP1622AEA	NO	YES