



Bill of Materials for the NCN512010GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1, C2	2	Multilayer Ceramic, COG, 10pF, 50V, +/- 0.5pF, 0402	10pF 50V	0.5pF	0402	TDK	C1005COG1H100D	Yes	Yes
C3, C4, C11	3	Multilayer Ceramic, X7R, 100nF, 10V, +/- 10%, 0402	100nF 10V	10%	0402	TDK	C1005X7R1A104K	Yes	Yes
C6	1	Multilayer Ceramic, X7R, 47nF, 50V, +/- 20%, 0603	47nF 50V	20%	0603	TDK	C1608X7R1H473M	Yes	Yes
C7	0	DNP	DNP	DNP	DNP	DNP	DNP	Yes	Yes
C8	1	Multilayer Ceramic, COG, 4.7nF, 25V, +/- 5%, 0603	4.7nF 25V	5%	0603	TDK	C1608C0G1E472J	Yes	Yes
C9	1	SMD Electrolytic Capacitor, 100uF, 35V, +/- 20%, 8x10	100uF 35V	20%	8 x 10	Panasonic	EEEFK1V101P	Yes	Yes
C10	1	Multilayer Ceramic, X7R, 1uF, 35V, +/-10%, 0603	1uF 35V	10%	0603	TDK	C1608X7R1V105K	Yes	Yes
C12, C13	2	Multilayer Ceramic, X7R, 10uF, 25V, +/- 20%, 1206	10uF 25V	20%	1206	TDK	C3216X7R1E106M	Yes	Yes
D1	1	1A Schottky Rectifier	-	-	SMA	ON Semiconductor	SS16T3G	No	Yes
D3	0	DNP	DNP	DNP	DNP	DNP	DNP	Yes	Yes
D4	1	400 Watt SMA Transient Voltage Suppressor, 40 V Bidirectional	-	-	SMA	ON Semiconductor	1SMA40CAT3G	No	Yes
J2	1	WR-PHD Angled Pin Header, Dual Row, 24 Pins, 2.54mm Pitch	-	-	2.54mm pitch	Würth Elektronik	613 024 210 21	Yes	Yes
J3	0	DNP	DNP	DNP	DNP	DNP	DNP	Yes	Yes
J4	1	EIB (KNX) Bus Coupler Unit Pins, 8.5mm Length	-	-	5.75mm pitch	Ettinger	13.14.125	Yes	Yes
L1, L2	2	WE-PD2SR SMD Shielded Power Inductor, 220uH	220uH	-	7.5x8,0	Würth Elektronik	744 787 221	Yes	Yes
R1	1	Shorting Link, Pitch 10.16mm, Height 9mm, Not-Isolated	-	-	-	Harwin	D3082-05	Yes	Yes
R2	1	Thick Film Resistor, 0 Ohm, 100mW, +/- 5%, 0603	0 Ohm 100mW	5%	0603	Yageo	RC0603JR-070RL	Yes	Yes
R3, R4, R6	0	DNP	DNP	DNP	DNP	DNP	DNP	Yes	Yes
R5	1	Thick Film Resistor, 22 Ohm, 1W, +/- 5%, 2512	22 Ohm 1W	5%	2512	Yageo	RC2512JK-0722RL	Yes	Yes
R7	1	Thick Film Resistor, 33k Ohm, 100mW, +/- 5%, 0603	33k Ohm 100mW	5%	0603	Yageo	RC0603JR-0733KL	Yes	Yes
R8, R9	2	Thick Film Resistor, 1 Ohm, 100mW, +/- 1%, 0603	1 Ohm 100mW	1%	0603	Yageo	RC0603FR-071RL	Yes	Yes
R10	1	Thick Film Resistor, 180k Ohm, 100mW, +/- 5%, 0603	180k Ohm 100mW	5%	0603	Yageo	RC0603JR-07180KL	Yes	Yes
U1	1	NCN5120, ON Semiconductor KNX Transceiver	-	-	NQFP-40	ON Semiconductor	NCN5120MNxxG	No	Yes
X1	1	16 MHz Crystal, SMD, 4 Pins	-	-	3,2 x 2,5 mm	Epson Toyocom	FA-238, 16MHZ, 50PPM, 10PF	Yes	Yes