



Bill of Materials for the NCV12711SSRGEVB Evaluation Board

Designator (Main Board)	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1	1	Ceramic capacitor	10 nF/100 V	20%	0805	Generic		Yes	Yes
C2	1	Ceramic capacitor	22 pF/10 V	20%	0805	Generic		Yes	Yes
C3	1	Ceramic capacitor	4.7 μF/50 V	10%	1206	TDK	CGA5L3X7R1H475K160AB	Yes	Yes
C4	1	Ceramic capacitor	10 nF/10 V	10%	0805	Generic		Yes	Yes
C5, C13, C14	3	Electrolytic Capacitor	330 μF/ 16 V	20%	TH	Rubycon	16ZLG330MEFC8X11.5	Yes	Yes
C6	1	Ceramic capacitor	22 nF/10 V	10%	0805	Generic		Yes	Yes
C7, C8, C18	3	Ceramic capacitor	0.1 μF/50 V	10%	0805	Generic		Yes	Yes
C9	1	Electrolytic Capacitor	100 μF/50 V	20%	TH	Rubycon	50ZL100MEFC8X11.5	Yes	Yes
C10, C11	2	Ceramic capacitor	2.2 μF/100 V	10%	1210	Kemet	C1210C225M1RACTU	Yes	Yes
C12	1	Electrolytic Capacitor	4.7 μF/25 V	20%	TH	Generic		Yes	Yes
C15	0	Ceramic capacitor	NU	-	-	0805	Generic	Yes	Yes
C16	1	Ceramic capacitor	1 nF/16 V	10%	0805	Generic		Yes	Yes
C17	1	Ceramic capacitor	470 pF/100 V	10%	0805	Generic		Yes	Yes
C19	1	Ceramic capacitor	3.3 nF/630 V	10%	1206	Kemet	C1206C332KBRACU	Yes	Yes
D1	1	HV diode	1N4937	-	DO-41	onsemi	1N4937G	Yes	Yes
D2	1	power diode	FSV10120V	-	TO-277	onsemi	FSV10120V	Yes	Yes
D3	1	signal diode	MMSD914	-	SOD-123	onsemi		Yes	Yes
D4	1	signal diode	BAV21	-	SOD-123	onsemi		Yes	Yes
D5	0	Zener diode 12 V	NU	-	SOD-123	onsemi	MMSZ4699T1G	Yes	Yes
J1a, J2a	2	Banana plug	-	-	-	multicomp	24.243.1	Yes	Yes
J1b, J2b	2	Banana plug	-	-	-	multicomp	24.243.2	Yes	Yes
L3	1	Inductor	1.5 μH	30%	-	Coilcraft	MSS1038-152NL	Yes	Yes
R1	1	Resistor	18 kΩ	1%	2512	Generic		Yes	Yes
R2, R13	2	Resistor	40 mΩ	1%	2512	Vishay	WSL2512R0400FEA	Yes	Yes
R3	1	Resistor	845 Ω	1%	0805	Generic		Yes	Yes
R4	1	Resistor	1.5 kΩ	1%	0805	Generic		Yes	Yes
R5	1	Resistor	68 kΩ	1%	0805	Generic		Yes	Yes
R6, R11, R17	3	Resistor	10 kΩ	1%	0805	Generic		Yes	Yes
R7	1	Resistor	133 kΩ	1%	0805	Generic		Yes	Yes
R8, R18, R19	0	Resistor	NU	1%	0805	Generic		Yes	Yes
R9	1	Resistor	560 Ω	1%	0805	Generic		Yes	Yes
R10, R16	2	Resistor	10 Ω	1%	0805	Generic		Yes	Yes
R12, R14	2	Resistor	100 Ω / 0.5 W	1%	0805	Generic		Yes	Yes
R15	1	Resistor	38 kΩ	1%	0805	Generic		Yes	Yes
R20	1	Resistor	2.2 Ω	1%	0805	Generic		Yes	Yes
R21, R100	2	Resistor	0 Ω	1%	0805	Generic		Yes	Yes
R22	1	Resistor	1 Ω	1%	0805	Generic		Yes	Yes
R23	1	Resistor	33 Ω	1%	0805	Generic		Yes	Yes
SW1	1	PCB Switch	-	-	-	multicomp	MCNDS-02V	Yes	Yes
T1	1	Transformer	ZA9654-AE	-	-	Coilcraft	ZA9654-AE	No	Yes
Q1	1	N-channel MOSFET	FDMS86103L	-	PQFN-8	onsemi	FDMS86103L	Yes	Yes
U1	1	PWM Controller	NCV12711	-	MSOP-10	onsemi	NCV12711A	No	Yes
U2	0	Optocoupler	NU	-	SSOP-4	Renesas	PS2801C-1	Yes	Yes
U3	1	Optocoupler	PS2801C-1	-	SSOP-4	Renesas	PS2801C-1	Yes	Yes
U4	1	shunt regulator	NCP431	-	SOT-23	onsemi	NCP431	No	Yes

Notes: Ceramic capacitor are X7R type unless stated otherwise
TH = through hole part