



Bill of Materials for the NCV8851-1GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
CSW1, CB1, C1	3	X7R ceramic SMD Capacitor	.1 μ F 50 V	10%	805	Kemet	C0805C104K5RACTU	Yes	Yes
CC1, CV2	2	X7R ceramic SMD capacitor	820 pF	10%	603	Murata Electronics North America	GRM188R71H821KA01D	Yes	Yes
CC2	1	X7R ceramic SMD capacitor	100 pF	10%	603	Murata Electronics North America	GCM1885C1H101JA16D	Yes	Yes
C1, C12	2	FK electrolytic SMD capacitor	470 μ F 63V	20%	EEV-J16	Panasonic-ECG	EEVFK1J471M	No	Yes
CO1	1	Polymer electrolytic SMD capacitor	330 μ F 10 V	20%	CAP_EIA_D	Sanyo Electronic Components Co.	10TPE330M	No	Yes
CV1	1	X7R ceramic SMD capacitor	2200 pF	10%	603	Panasonic-ECG	ECJ-1VB1H222K	Yes	Yes
C2	1	X7R ceramic SMD capacitor	1 μ F 50 V	10%	1206	Murata Electronics North America	GCM31MR71H105KA55L	Yes	Yes
C3, C6	2	X7R ceramic SMD capacitor	1 μ F 16 V	10%	603	Taiyo Yuden	EMK107BJ105KA-TR	Yes	Yes
DSW1, DB1	2	Schottky SMD rectifier	1 A, 60 V	-	SMA	ON Semiconductor	MBRA160T3G	No	Yes
JO1	1	Vertical PCB mount gold RF connector jack	-	-	SMB_CONN	Emerson Network Power Connectivity Solutions	131-3701-261	Yes	Yes
L1	1	SMD power inductor	15 μ H	20%	SMDL	Würth	7447709150	No	Yes
Q1, Q2	2	N-channel power MOSFET	40 V, 38 A	-	DPAK	ON Semiconductor	NTD5806NT4G	No	Yes
RC1	1	Thick-film SMD resistor	60.4 k Ω	1%	603	Yageo Corporation	RC0603FR-0760K4L	Yes	Yes
RC2	1	Thick-film SMD resistor	4.02 k Ω	1%	603	Yageo Corporation	RC0603FR-074K02L	Yes	Yes
RF0	1	Thick-film SMD resistor	10.7 k Ω	1%	603	Yageo Corporation	RC0603FR-0710K7L	Yes	Yes
RF1	1	Thick-film SMD resistor	56.2 k Ω	1%	603	Yageo Corporation	RC0603FR-0756K2L	Yes	Yes
RN1	1	Thick-film SMD resistor	NP	1%	603	NP	NP	Yes	Yes
RO1	1	Thick-film SMD resistor	51.1 k Ω	1%	603	Yageo Corporation	RC0603FR-0751K1L	Yes	Yes
RSN1, RSN2	2	Thick-film SMD resistor	100 Ω	1%	1206	Yageo Corporation	RC1206FR-07100RL	Yes	Yes
RS1	1	Thick-film SMD current sense resistor	25 m Ω	1%	2512	Vishay/Dale	WSL2512R0250FEA	No	Yes
RV1	1	Thick-film SMD resistor	13.7 k Ω	1%	603	Yageo Corporation	RC0603FR-0713K7L	Yes	Yes
R6	1	Thick-film SMD resistor	4.75 Ω	1%	603	Yageo Corporation	RC0603FR-074R75L	Yes	Yes
TP1	1	Solder terminal turret Ag over Cu	VCC	-	TP090	Mill-Max Manufacturing Corporation	2501-2-00-44-00-00-07-0	Yes	Yes
TP7	1	Solder terminal turret Ag over Cu	VOUT	-	TP090	Mill-Max Manufacturing Corporation	2501-2-00-44-00-00-07-0	Yes	Yes
TP12, TP13	2	Solder terminal turret Ag over Cu	PGND	-	TP090	Mill-Max Manufacturing Corporation	2501-2-00-44-00-00-07-0	Yes	Yes
TP8, TP9	2	0.042" Inboard pin	AGND	-	TP	Vector Electronics	K24C	Yes	Yes
TP10	1	0.042" Inboard pin	EN	-	TP	Vector Electronics	K24C	Yes	Yes
TP11	1	0.042" Inboard pin	SYNC	-	TP	Vector Electronics	K24C	Yes	Yes
U1	1	Automotive synchronous buck controller	-	-	TSSOP20	ON Semiconductor	NCV8851-1DBR2G	No	Yes