

BILL OF MATERIALS (NCV7680–NCV3163 Demonstration Board)

Des.	Qty	Description	Val	Tol	Footprint	Manufacturer	Manufact. P/N	Substitution Allowed
C1	1	Timing Capacitor	100 pF	10%	1206	Yageo	CC1206JRNPO9BN101B	Yes
C2, C5	2	Input Capacitor	0.1 μ F	10%	1206	Yageo	CC1206KRX7R9BB104	Yes
C3, 4	2	Electrolytic Capacitor	330 μ F / 50 V	20%	12.5 mm x 13.5 mm	Panasonic	EEV-TG1H331Q	Yes
C6	1	Output Capacitor	1 μ F	10%	1210	Kemet	C1210C105K3RACTU	Yes
C7	1	Debounce Cap	10 nF	10%	805	Yageo	CC0805KRX7R9BB103	Yes
D1, D2	2	Schottky Rectifier	3 A / 40 V	-	SMA	ON Semiconductor	MBRA340T3G	No
D3–66	64	OSRAM TOPLED	Red	-	PLCC–2	OSRAM	LS T67B–S1U1–1–0–30–R18–Z	Yes
J1–11, 13	13	Jumper (100 mil spacing)	-	-	JMP	Molex–Waldom Electronics Corp	22–28–4103	Yes
J12	1	10 SIP Jumper (100 mil spacing)	-	-	SIP10	Molex–Waldom Electronics Corp	22–28–4023	Yes
L1	1	Inductor	33 μ H / 4.5 A	-	15.24 mm x 18.54 mm	Coilcraft	DO5022P–333	Yes
Q1	1	PWM Logic	-	-	SOT23	ON Semiconductor	MMBT3904LT3G	No
R1	1	Output Program Resistor	49.9k for 28 V	1%	1206	Vishay	CRCW120649K9FKEA	Yes
R2	1	Timing Resistor	NU	NU	NU	NU	NU	Yes
R3	1	Output Program Resistor	2.32k	1%	1206	Vishay	CRCW12062K32FKEA	Yes
R4, 7–9, 11	5	Resistor	10k	1%	805	Vishay	CRCW080510K0FKEA	Yes
R5	1	Peak Current Sense Resistor	0.08	1%	2512	Vishay	WSL2512R0800FEB	Yes
R6	1	Pull-up Resistor	10k	1%	1206	Vishay	CRCW120610K0FKEA	Yes
R10	1	Current Program Resistor	4.3k (25 mA)	5%	805	Panasonic – ECG	ERJ–6GEYJ432V	Yes
SW1	1	Power Switch	-	-	C&K_7101	C&K	7101SYCQE	Yes
TP1, 3–8	7	Connector Posts	-	-	TURRET	Vector Electronics	K24C/M	Yes
TP2	1	Test Via	NU	NU	NU	NU	NU	Yes
U1	1	NCV3163	-	-	SOIC16W EPAD	ON Semiconductor	NCV3163PWG	No
U2	1	NTD2955	-	-	DPAK	ON Semiconductor	NTD2955T4G	No
U3	1	NCV7680	-	-	SOIC16W EPAD	ON Semiconductor	NCV7680PDWG	No

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