



Bill of Materials for the NCV7691GEVK Evaluation Kit

NCV7691 Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
U1, U2, U3	3	NCV7691 Current Controller	---	---	SOIC-8	ON Semiconductor	NCV7691D1R2G	No	Yes
U4	1	8-Bit Serial-Input/Paral- lel-Output Shift Register	---	---	SOIC-14	ON Semiconductor	MC74HC164ADR2G	Yes	Yes
U8	1	Timer	---	---	SOIC-8	ON Semiconductor	NCV1455BDR2G	Yes	Yes
U9	1	Dual 4-Input NAND Gate	---	---	SOIC-14	ON Semiconductor	MC74HC20ADR2G	Yes	Yes
U10	1	Very Low Iq Low Dropout Linear Regulator	---	---	DPAK	ON Semiconductor	NCV8664DT50RKG	Yes	Yes
Q1	1	Small Signal MOSFET	---	---	SC-70 / SOT-323	ON Semiconductor	2N7002WT1G	Yes	Yes
Q2, Q3, Q4	3	NPN Silicon Epitaxial Transistor	---	---	SOT-223	ON Semiconductor	BCP56-10T1G	No	Yes
Q5	1	Single P. Channel Power MOSFET	---	---	SOT-23-3	ON Semiconductor	BVSS84LT1G	Yes	Yes
R1, R2	2	10K Timer Resistor	10K	1%	0805	Vishay/Dale	CRCW080510K0FKEA	Yes	Yes
R4, R5, R6	3	10K Short Circuit Inter- face Resistor	10K	1%	0805	Vishay/Dale	CRCW080510K0FKEA	Yes	Yes
R13	1	1K Open-circuit LED drive resistor	1K	1%	0805	Vishay/Dale	CRCW08051K00FKEA	Yes	Yes
R3, R7, R8	3	8.2 ohm LED array programming resistors	15	1%	0805	Vishay/Dale	CRCW08058R20FKEA	Yes	Yes
R9	1	1 ohm Shift register pull-up	1	1%	0805	Vishay/Dale	CRCW08051R00FKEA	Yes	Yes
R10, R11, R12	3	68 ohm resistor	68	1%	0805	Various	Various	Yes	Yes
R14, R15, R16	3	High Current programming resistor	1.2	1%	1206	Various	Various	Yes	Yes
R17	1	620 ohm 5 V LED drive resistor	620	1%	0805	Vishay/Dale	CRCW0805620RFKEA	Yes	Yes
C1	1	Regulator Output Capacitor	10 uF, 10 V	10%	1206	Murata Electronics North America	GRM31CR61A106KA01L	Yes	Yes
C2	1	Timer Capacitor	10 uF, 10 V	10%	1206	Murata Electronics North America	GRM31CR61A106KA01L	Yes	Yes
C3	1	Supply Line Filter Capacitor	0.1 uF, 50 V	10%	0805	Murata Electronics North America	GRM21BR71H104KA01L	Yes	Yes

C4	1	Timer Control Voltage Capacitor	0.01 uF, 50 V	10%	0805	Murata Electronics North America	GRM216R71H103KA01D	Yes	Yes
C5	1	Fault Timer Capacitor	0.1 uF, 50 V	10%	0805	Murata Electronics North America	GRM21BR71H104KA01L	Yes	Yes
C6	1	Power Supply Input Filter Capacitor	0.1 uF, 50 V	10%	0805	Murata Electronics North America	GRM21BR71H104KA01L	Yes	Yes
C7	1	Extended Timer Capacitor	33 uF	20%	1206	TDK Corporation	C3216X5R1A336M160AB	Yes	Yes
D1	1	5 V LED Indicator	---	---	0805	Lite-On Inc	LTST-C171GKT	Yes	Yes
J1, J2, J3	3	On-Board / Off-Board Jumper	---	---	JP3	Molex Connector Corporation	22-28-4033	Yes	Yes
J4	1	LED Array Socket	---	---	DIP20	3M	4820-3000-CP	Yes	Yes
---	1	LED Array	---	---	DIP20	Avago	HDSP-4840	Yes	Yes
J5, J8, J9, J10	4	Open Circuit Jumper	---	---	JMP	Molex Connector Corporation	22-28-4023	Yes	Yes
J6	1	10-pin Edge Connector	---	---	EDGECONN10	Sullins Connector Solutions	EBC05DRAS	Yes	Yes
J7	1	Supply Input Terminal	---	---	MKDSN2	Phoenix Contact	1729128	Yes	Yes
SW1	1	Bright / Dim Switch	---	---	DIP6	Grayhill Inc	78G01ST	Yes	Yes
TP1-TP8	8	Test Point	---	---	TP	Keystone Electronics	5010	Yes	Yes

Load Boards

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
---	4	Unpopulated Load Board	---	---	---	---	---	---	Yes