



Bill of Materials for the NCV7381GEVK

NCV7381GEVK kit includes

Description	Quantity	Value
NCV73810V2GEVB Evaluation Board	2	-
FlexRay Bus Cable	2	2 x D-SUB9 female connectors, 16in length

Bill of Materials for the NCV73810V2GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
BB2	1	Bread board on PCB (16 holes)	BREADBOARD 4X4	-	-	-	-	Yes	Yes
C1, C78, C88	3	Capacitor SMD	47NF 0805 50V X7R	10%	CAP0805	PHYCOMP	2238 580 15645	Yes	Yes
C100, C101	2	Capacitor SMD	22PF 0603 50V NP0	5%	CAP0603	KEMET	C0603C220J5GAC	Yes	Yes
C2	1	Capacitor SMD	100UF/50V ELKO	20%	NICHICON UD 8X10	NICHICON	UUD1H101MNL1GS	Yes	Yes
C20, C30	2	Capacitor SMD	1.0UF/50V ELKO	20%	NICHICON UD 4X6	NICHICON	UWX1H010MCL1GB	Yes	Yes
C21, C31, C61, C64, C65, C70, C71, C80, C81, C102, C112, C114, CD1A, CD1B, CD1C, CD1D, CD1G, CD1H, CD4, CD6B, CD7A, CD7B, CD7C, CD8A, CD8B, CD8C	26	Capacitor SMD	100NF_0603_50V_X7R	10%	CAP0603	KEMET	C0603C104K5RAC	Yes	Yes
C22, CD1T	2	Capacitor SMD	10UF/16V TANTAL	10%	SMC	AVX	TAJC106K016R	Yes	Yes
C32	1	Capacitor SMD	22UF/16V TANTAL	10%	SMC	AVX	TAJC226K016R	Yes	Yes
C60	1	Capacitor SMD	10NF 0603 50V X7R	10%	CAP0603	EPCOS	B37931K5103K60	Yes	Yes
C62, C63	2	Capacitor SMD	100PF 0603 50V NP0	5%	CAP0603	KEMET	C0603C101J5GAC	Yes	Yes
C75, C76, C85, C86	4	Capacitor SMD	100PF 0805 50V NP0	5%	CAP0805	PHYCOMP	2238 861 15101	Yes	Yes
C77, C87	2	Capacitor SMD	12PF 0805 50V NP0	5%	CAP0805	KEMET	C0805C120J5GAC	Yes	Yes
C77x, C87x	2	Capacitor SMD	4.7NF 0805 50V X7R	10%	CAP0805	PHYCOMP	2238 580 15632	Yes	Yes
CD1E, CD1F	2	Capacitor SMD	220NF 0603 25V X7R	10%	CAP0603	EPCOS	B37931K0224K60	Yes	Yes
CD6A, CD6C	2	Capacitor SMD	4.7UF/16V TANTAL	10%	SMB	AVX	TAJB475K016R	Yes	Yes
D1, D78, D88	3	36V/600W BIDIRECTIONAL TVS DIODE	1SMB36CA	-	SMB	ON SEMICONDUCTOR	1SMB36CAT3G	Yes	Yes
D130, D131, D132	3	LED DIODE RED	HSMH-C191	-	D0603	AVAGO TECHNOLOGIES	HSMH-C191	Yes	Yes
D2	1	3A/200V ULTRAFAST RECTIFIER	MURS320	-	SMC	ON SEMICONDUCTOR	MURS320T3G	Yes	Yes
D20, D21, D30, D31	4	DUAL DIODE SCHOTTKY 70V/70mA	BAS70-05	-	SOT23	PHILIPS	BAS70-05	Yes	Yes
D60, D101, D102, D103, D104, D105, D106, D107, D108	9	LED DIODE GREEN	HSMG-C191	-	D0603	AVAGO TECHNOLOGIES	HSMG-C191	Yes	Yes
D77, D87	2	DUAL LINE FLEXRAY BUS PROTECTOR	NUP2115L	-	SOT23	ON SEMICONDUCTOR	NUP2115LT1G	No	Yes
D79, D89	2	2A/200V ULTRAFAST RECTIFIER	MURS220	-	SMB	ON SEMICONDUCTOR	MURS220T3G	Yes	Yes
GND1	1	SCOPEGND	SCOPEGND	-	-	-	-	-	-
H40, H41	2	HEADER 0.1" VERT 2 pins TIN plated	HEADER 1X2 LOCK	-	HEADER MC34631	MULTICOMP	MC34629	Yes	Yes
HWA, HWB	2	HEADER 1 ROW 2 PINS	HEADER 1X2	-	X2APH	TE CONNECTIVITY	5-826629-0	Yes	Yes
J1	1	DC POWER SOCKET, 2.1MM, 5A, 12V	POWER CON DC10A	-	DC10A CLIFF	CLIFF ELECTRONIC COMP.	DC10A+DCPP1	Yes	Yes
J10	1	HEADER 2 ROWS 3 PINS	HEADER 2X3	-	X6ABPH	TE CONNECTIVITY	826632-3	Yes	Yes
J11	1	HEADER 2 ROWS 2 PINS	HEADER 2X2	-	X4ABPH	TE CONNECTIVITY	826632-2	Yes	Yes
J12	1	HEADER 2 ROWS 5 PINS	HEADER 2X4	-	X8ABPH	TE CONNECTIVITY	826632-5	Yes	Yes
J2	1	HEADER 1 ROW 2 PINS	HEADER 1X2	-	X2APH	TE CONNECTIVITY	5-826629-0	Yes	Yes
J20, J30, J40	3	HEADER 1 ROW 2 PINS	JUMPER2 TH	-	X2APH	TE CONNECTIVITY	5-826629-0	Yes	Yes
J23	1	HEADER 1 ROW 3 PINS	JUMPER3 TH	-	X3APH	TE CONNECTIVITY	5-826629-0	Yes	Yes
J32, J33, J52, J70, J71, J80, J81	7	SMD Strap Jumper	JUMPER2 STRAP	-	-	-	-	Yes	Yes
J60	1	USB PANEL SOCKET PCB TYPE B	USB-B SOCKET	-	USB-B SOCKET	LUMBERG	2411 02	Yes	Yes
J72, J82	2	D-CONNECTOR 9 PINS MALE	DB9MR	-	DB9MR	ITW MCMURDO	SDEX9PNTD	Yes	Yes

J73, J83	2	HEADER 2 ROWS 5 PINS	HEADER 2X5	-	X10ABPH	TE CONNECTIVITY	826632-5	Yes	Yes
L60, L113	2	WIREWOUND INDUCTOR 4.7uH/240mA	LB2518T4R7 4.7UH	-	L1007	TAIYO YUDEN	LB2518T4R7	Yes	Yes
L70, L80	2	CM CHOKE COIL 100uH	DLW43SH101XK2	-	DLW43S	MURATA	DLW43SH101XK2	Yes	Yes
O1, O2	2	DUAL OPTOCOUPLER, LOGIC GATE	ACPL074L	-	SOIC8	AVAGO TECHNOLOGIES	ACPL-074L-000E	Yes	Yes
R104, R120, R121	3	RESISTOR ARRAY SMD	10K 1206 0.063W 5%	5%	CRA3A4E	PHYCOMP	235003510103	Yes	Yes
R113	1	RESISTOR SMD	10R 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 10R	Yes	Yes
R122	1	RESISTOR ARRAY SMD	100K 1206 0.063W 5%	5%	CRA3A4E	PHYCOMP	235003510104	Yes	Yes
R130, R131, R132	3	RESISTOR SMD	1.0K 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 1K	Yes	Yes
R143, R144	2	RESISTOR ARRAY SMD	1K 1206 0.063W 5%	5%	CRA3A4E	PHYCOMP	235003510102	Yes	Yes
R20, R31	2	RESISTOR SMD	100K 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 100K	Yes	Yes
R40	1	RESISTOR SMD	120R 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 120R	Yes	Yes
R60	1	RESISTOR SMD	820R 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 820R	Yes	Yes
R62, R63	2	RESISTOR SMD	220R 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 220R	Yes	Yes
R70, R71, R80, R81	4	RESISTOR SMD	24R 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 24R	Yes	Yes
R70x, R71x, R80x, R81x	4	RESISTOR SMD	47R 1206 0.25W 2%	2%	R1206	WELWYN	WCR 1206 47R 2%	Yes	Yes
R72, R82	2	RESISTOR SMD	47R 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 47R	Yes	Yes
R73, R74, R83, R84	4	RESISTOR SMD	0.0R 0805 0.1W	1%	R0805	MULTICOMP	MC 0.1W 0805 0R	Yes	Yes
R75, R85	2	RESISTOR SMD	33K 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 33K	Yes	Yes
R76, R86	2	RESISTOR SMD	3.3K 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 3K3	Yes	Yes
R77, R87, R103, R108, R112	5	RESISTOR SMD	10K 0805 0.1W 1%	1%	R0805	MULTICOMP	MC 0.1W 0805 1% 10K	Yes	Yes
SW10, SW11, SW70, SW80	4	SWITCH SPNO SMD	SW-PB SMD	-	PB300	TE CONNECTIVITY	FSM2JSMA	Yes	Yes
SW12	1	SWITCH, HALF-PITCH SMD DIP, 8 way	SWDIP-8-SMD	-	DIL16 SMD	OMRON	A6H8101	Yes	Yes
TP_BM_A, TP_BM_B, TP_BP_A, TP_BP_B, TP_INH1_A, TP_INH1_B, TP_INH2_A, TP_INH2_B	8	TEST PIN	TP S200 H1.0 BLACK	-	-	VERO	20-2137	Yes	Yes
U1	1	16-bit MCU, 2ch FlexRay CC	MC9S12XF512MLM	-	LQFP112	Freescale Semiconductor	MC9S12XF512-112LQFP	No	Yes
U2, U3	2	400 mA Low-Drop Voltage Regulator	NCV4276DT50	-	DPAK5	ON SEMICONDUCTOR	NCV4276DT50	Yes	Yes
U4	1	High Speed Low Power CAN Transceiver	NCV7340D12	-	SOIC8	ON SEMICONDUCTOR	NCV7340D12	Yes	Yes
U6	1	USB UART IC	FT232RL	-	SSOP28	FTDI	FT232RL	No	Yes
U7, U8	2	Single-channel FlexRay Bus Driver	NCV7381	-	SSOP16	ON SEMICONDUCTOR	NCV7381	No	Yes
X1	1	CRYSTAL 8MHz, SMD	CMAC12SMX-B 8.0MHZ	-	CMAC 12SMX-B	CMAC	12SMX (B)	Yes	Yes