



Bill of Materials for the NCV7546 Evaluation Board

Designator	QTY	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	RoHS
Cout1, Cout2, Cout3, Cout4, Cout5, Cout6, C45, C47, C49	9	Ceramic Capacitor SMD	10NF, 50V, X7R	10%	0603	AVX	08051C103KAZ2A	Yes	Yes
C40, C41, C42 C50, Cbat, Cbatp, Cd2a, Cd4a, Cd4b, Cd4f, Cd4g, Cd5, Cd31, Cd32, Cpot1, Cpot2, Cs, Csf, Cvcv	19	Ceramic Capacitor SMD	100NF, 50V, X7R	10%	0603	WURTH ELEKTRONIK	885012206095	Yes	Yes
Cp	1	Ceramic Capacitor SMD	1.0UF, 16V, X7R	10%	1206	AVX	1206YC105KA800J	Yes	Yes
Cp1, Cp2	2	Ceramic Capacitor SMD	470NF, 50V, X7R	10%	0805	AVX	08055C474K4Z2A	Yes	Yes
C43, C44	2	Ceramic Capacitor SMD	12PF, 50V, NP0	5%	0603	KEMET	C0603C120J5GAC	Yes	Yes
Cd2b	1	Ceramic Capacitor SMD	10UF, 16V, X7R	10%	1206	AVX	1206YC106KAT2A	Yes	Yes
Cd4c, Cd4d, Cd4e, Cusb, Cusb2	5	Ceramic Capacitor SMD	2.2UF, 10V, X7R	10%	0603	MURATA	GRM188R71A225KE15D	Yes	Yes
C411, C41n	2	Ceramic Capacitor SMD	220PF, 50V, X7R	10%	0603	PHYCOMP	2238 586 15614	Yes	Yes
Cbuf1, Cbuf2, Cbuf3, Cbuf4	4	Aluminum Capacitor SMD	330UF, 35V, Low ESR	20%	10x10mm	WURTH ELEKTRONIK	865080507015	Yes	Yes
Rwd	1	Resistor SMD	100R	1%	0603	TE CONNECTIVITY	CRGH0603F100R	Yes	Yes
R51, R52, Rrx1, Rtx1	4	Resistor SMD	39K	1%	0603	YAGEO (PHYCOMP)	RC0603FR-0739KL	Yes	Yes
R411, R412, R413, R42, R44, R45, R46, R47, R48, R49, Rfd, Rrx1_pu, Rsw1, Rsw2	14	Resistor SMD	10K	1%	0603	YAGEO (PHYCOMP)	RC0603FR-0710KL	Yes	Yes
R410, Rbleed	2	Resistor SMD	150K	1%	0603	VISHAY	CRCW0603150KFKEA	Yes	Yes
RGH1, RGH2, RGH3, RGH4, RGH5, RGH6, RGL1, RGL2, RGL3, RGL4, RGL5, RGL6, RHB1, RHB2, RHB3, RHB4, RHB5, RHB6, S_CSB, S_FSM, S_PWM1, S_PWM2, S_PWM3, S_PWM4, S_RSTB, S_SCLK, S_SI, S_SO, S_VCC, S_Vsen1, S_Vsen2	31	Resistor SMD	0.0R	-	0603	YAGEO	RC0603R-070RL	Yes	Yes
R53, Rpot	2	Resistor SMD	5.1K	1%	0603	PANASONIC	ERJ-3EKF5101V	Yes	Yes
Rsen1, Rsen2	2	Power Resistor SMD	0.002R, 2W	1%	2512	WELWYN	LRMAT2512-R002FT4	Yes	Yes
Rd1, Rd2, Rd3, Rd3	4	Resistor Array SMD	100R	5%	CRA3A4E	PHYCOMP	235003510101	Yes	Yes
R41, R43	2	Resistor Array SMD	1K	5%	CRA3A4E	PHYCOMP	235003510102	Yes	Yes
Pot1, Pot2	2	Potentiometer + Knob	10K	-	3310Y	BOURNS + ELMA	3310Y-001-103L + 021-1220	Yes	Yes
Ls	1	Power Inductor	2.2uH/9.5A	30%	10x10mm	WURTH ELEKTRONIK	7447714022	Yes	Yes
Lusb, Lvdda	2	Ferrite bead	0.25R, 500mA	-	0805	TAIYO YUDEN	BK2125HM601-T	Yes	Yes
U1	1	SPI controlled six channel H-bridge pre-driver	NCV7546	-	QFN40 6x6	onsemi	NCV7546MWTXG	No	Yes
U2	1	Low-Drop Voltage Regulator	5.0 V, 100 mA Low Iq	2%	TSOP5	onsemi	NCV4264-2CST50T3G	Yes	Yes
U31, U32	2	Current Sense Amplifier, gain 50	NCV213R	-	SC70-6	onsemi	NCV213RSQT2G	No	Yes
U4	1	MCU, 32bit, AVR32, 66MHz	AT32UC3C2512C	-	QFN84	ATMEL	AT32UC3C2512C-Z2URCT-ND	Yes	Yes
U5	1	LIN Transceiver	NCV7329	-	DFN8	onsemi	NCV7329MWOR2G	No	Yes
Dfd	1	Switching Diode SMD	200mA/100V	-	SOD123	onsemi	MMSD4148T1G	Yes	Yes
ZD	1	Zener Diode	15V, 300mW, 20mA	-	SOD323	onsemi	MM3Z15VT1G	Yes	Yes
ESD_USB	1	ESD protection	USB Bus Protection Array	-	SC70-6	onsemi	NUP2114UCMR6T1G	Yes	Yes
TVS2	1	TVS protection	600W 36V, bidirectional	-	SMB	Littelfuse	SMBJ36A	Yes	Yes
Q1H, Q1L, Q2H, Q2L, Q3H, Q3L, Q4H, Q4L, Q5H, Q5L, Q6H, Q6L	12	Power MOSFET	40V, 74A, 4.8mR, Single N-Channel	-	WDFN-8 / u8-FL	onsemi	NVTFSSC460NLTAG	No	Yes
Qrev, Qsw	2	Power MOSFET	40V, 85A, 4.0mR, Single N-Channel	-	WDFN-8 / u8-FL	onsemi	NVTFSSC454NLTAG	No	Yes
Qfd, Qwd	2	Transistor NPN	45V, 100mA	-	SOT23-5	onsemi	BC847BLT1G	Yes	Yes
LED5, LED6, LED7, LED8	4	LED SMD Red	WL-SMCW	-	0603	WURTH ELEKTRONIK	150060RS75000	Yes	Yes
LED1, LED2, LED3, LED4, LED_USB	5	LED SMD Green	Green	-	0603	AVAGO TECHNOLOGIES	HSMG-C191	Yes	Yes
Xtal	1	CRYSTAL SMD	20.000MHZ/12PF	30 ppm	3.2X2.5MM	QUANTEK	QC3220.0000F12B12M	Yes	Yes
FT1, FT2, FT3, FT4	4	Rubber feet	SUPPORT FEET	-	SUPPORT FEET	3M	SJ5018BLACK	Yes	Yes
SW_PB, SW_RST	2	Switch	SPNO 4.5x4.5mm	-	SW- PB_SMD_4.5X4.5MM	BOURNS	7914G-001-000	Yes	Yes
SW1, SW2, SW3, SW4	4	Slide Switch	SPDT VERT	-	X3APH-SLIDER	EAO	09-03290-01	Yes	Yes
GND1, GND2, GND3	3	SCOPEGND	LINK, SHORTING, 0.4"	-	SCOPEGND	HARWIN	D3082F05	Yes	Yes
HB_OUT1, HB_OUT2, HB_OUT3, HB_OUT4, HB_OUT5, HB_OUT6, SC_Vbat, SC_GND	8	Power connector	BUSHING M4, 2ROW, 8PIN	-	WURTH_7460307	WURTH ELEKTRONIK	7460307	Yes	Yes
IO	1	SIL Header	16 pins, 2.54mm pitch, right angle	-	X16APH-ANGLE	SAMTEC	TSW-116-08-F-S-RA	Yes	Yes
JTAG	1	DIL Header	10 pins, 1.27mm pitch	-	SHF-105-01-L-D-TH	SHF-105-01-L-D-TH	SAMTEC	Yes	Yes
USB	1	Micro USB Type B	Surface Mount Right Angle; Receptacle	-	Micro_USB_SMD	MOLEX	47346-0001	Yes	Yes
IVN	1	Wire-to-Board connector	6 pins, 2.54mm pitch, Right Angle	-	X8ABPH-ANGLE LOCK	MOLEX	90130-3206	Yes	Yes
TP_BATP, TP_CHP, TP_CPSW, TP_GH1, TP_GH2, TP_GH3, TP_GH4, TP_GH5, TP_GH6, TP_GL1, TP_GL2, TP_GL3, TP_GL4, TP_GL5, TP_GL6, TP_OUT1, TP_OUT2, TP_OUT3, TP_OUT4, TP_OUT5, TP_OUT6, TP_Vbat, TP_VS, TP_Vsen1, TP_Vsen2		Testpin 200 SER. HOLE 1.0	TP S200 H1.0 BLACK	-	TESTPIN2	VERO	20-2137	Yes	Yes