



Bill of Materials for the NCV7544VTF55C466GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
Cout1, Cout2, Cout3, Cout4	8	Ceramic Capacitor SMD	10NF, 50V, X7R	10%	0603	AVX	08051C103KAZ2A	Yes	Yes
C41, C42, C49, Cbat, Cbatp, Cd1, Cd2a, Cd31, Cd32, Cd4a, Cd4b, Cd4f, Cd4g, Cpot1, Cpot2, Cvcc	16	Ceramic Capacitor SMD	100NF, 50V, X7R	10%	0603	KEMET	C0603C104K5RAC	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, NPO	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
Cbuf1, Cbuf2, Cbuf3, Cbuf4	4	Aluminum Capacitor SMD	220UF, 50V	-	10x10mm	PANASONIC	EEEFK1H221P	Yes	Yes
Rref, Rwd	2	Resistor SMD	100R	1%	0603	TE CONNECTIVITY	CRGH0603F100R	Yes	Yes
R51, R52	2	Resistor SMD	39K	1%	0603	YAGEO (PHYCOMP)	RC0603FR-0739KL	Yes	Yes
R411, R412, R413, R42, R44, R45, R46, R47, R53, Rfd, Rsw1, Rsw2	12	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, RGL1, RGL2, RGL3, RGL4, RHB1, RGB2, RGB3, RHB4, S_CSB, S_FSM, S_PWM1, S_PWM2, S_RSTB, S_SCLK, S_SI, S_SO, S_VCC, S_Vsen1, S_Vsen2	23	Resistor SMD	0.0R	-	0603	YAGEO	RC0603JR-070RL	Yes	Yes
Rsen1, Rsen2	2	Power Resistor SMD	0.002R, 2W	1%	2512	WELWYN	LRMAT2512-R002FT4	Yes	Yes
Rd1, Rd2, Rd3	5	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/12.1A	20%	PCC-M1040M-LP	Panasonic	ETQP4M2R2KVC	Yes	Yes
Lusb, Lvdda	2	Ferrite bead	0.25R, 500mA	-	0805	TAIYO YUDEN	BK2125HM601-T	Yes	Yes
U1	1	SPI controlled four channel H-bridge pre-driver	NCV7544	-	QFN32 5x5	ON SEMICONDUCTOR	NCV7544MWTXG	No	Yes
U2	1	Low-Drop Voltage Regulator	5.0 V, 100 mA Low Iq	2%	TSOP5	ON SEMICONDUCTOR	NCV4264-2CST50T3G	Yes	Yes
U31, U32	2	Current Sense Amplifier, gain 50	NCV213R	-	SOT23-5	ON SEMICONDUCTOR	NCV213RSQT2G	No	Yes
U4	1	MCU, 32bit, AVR32, 66MHz	AT32UC3C2512C	-	QFN64	ATMEL	AT32UC3C2512C-Z2URCT-ND	Yes	Yes
Dfd	1	Switching Diode SMD	200mA/100V	-	SOD123	ON SEMICONDUCTOR	MMSD4148T1G	Yes	Yes
ZD	1	Zener Diode	15V, 300mW, 20mA	-	SOD323	ON SEMICONDUCTOR	MM3Z15VT1G	Yes	Yes
ESD_USB	1	ESD protection	USB Bus Protection Array	-	SC70-6	ON SEMICONDUCTOR	NUP2114UCMR6T1G	Yes	Yes
TVS2	1	TVS protection	600W 36V, bidirectional	-	SMB	Littelfuse	SMBJ36A	Yes	Yes
Q1H, Q1L, Q2H, Q2L, Q3H, Q3L, Q4H, Q4L	8	Power MOSFET	40V, 50A, 7.2mR, Single N-Channel	-	WDFN-8 / u8-FL	ON SEMICONDUCTOR	NVTF55C466NLTAG	No	Yes
Qrev, Qsw	2	Power MOSFET	40V, 85A, 4.0mR, Single N-Channel	-	WDFN-8 / u8-FL	ON SEMICONDUCTOR	NVTF55C454NLTAG	No	Yes
Qfd, Qwd	2	Transistor NPN	45V, 100mA	-	SOT23-5	ON SEMICONDUCTOR	BC847BLT1G	Yes	Yes
LED5, LED6, LED7, LED8	1	LED SMD	Red	-	0603	AVAGO TECHNOLOGIES	HSM5-C191	Yes	Yes
LED1, LED2, LED3, LED4, LED_USB	1	LED SMD	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	2	SCOPEGND	LINK, SHORTING, 0.4"	-	SCOPEGND	HARWIN	D3082F05	Yes	Yes

HB_OUT1, HB_OUT2, HB_OUT3, HB_OUT4, SC_Vbat, SC_GND	6	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

