



Bill of Materials for the NCV7535V5C450GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C31, C35	2	Ceramic Capacitor SMD	1.0NF, 50V, X7R	10%	CAP0603	EPCOS	B37931K5102K60	Yes	Yes
C41, C43, C46, C51, Cbat, Cd2a, Cd3, Cd4a, Cp1, Cp2, Cpot1, Cs, Cs2, Cvcc	14	Ceramic Capacitor SMD	100NF, 50V, X7R	10%	CAP0603	KEMET	C0603C104K5RAC	Yes	Yes
C33, C44, C45	2	Ceramic Capacitor SMD	12PF, 50V, NP0	5%	CAP0603	KEMET	C0603C120J5GAC	Yes	Yes
Cd2b, Cd4b, Cd5, Cusb	4	Ceramic Capacitor SMD	10UF, 16V, X7R	10%	CAP1206	AVX	1206YC106KAT2A	Yes	Yes
Cbuf1, Cbuf2, Cbuf3	3	Aluminum Capacitor SMD	220UF, 50V	-	10x10mm	PANASONIC	EEEFK1H221P	Yes	Yes
R41	1	Resistor SMD	5.1R	1%	R0603	MULTICOMP	MC0063W060315R10	Yes	Yes
Rbleed	1	Resistor SMD	100K	1%	R0603	MULTICOMP	MC0063W06031100K		
Rvhd	1	Resistor SMD	10R	1%	R0603	YAGEO	RC0603FR-0710RL	Yes	Yes
R33	1	Resistor SMD	39K	1%	R0603	YAGEO (PHYCOMP)	RC0603FR-0739KL	Yes	Yes
R34	1	Resistor SMD	1M	1%	R0603	MULTICOMP	MC0063W060311M	Yes	Yes
R47, R51, R52, R53, Rcp, Rfd	6	Resistor SMD	10K	5%	R0603	PHYCOMP	232270260103	Yes	Yes
R31, R32, R35, R36, R42, R43, R44, R45, R46, Rd5	10	Resistor SMD	1.0K	1%	R0603	TE CONNECTIVITY	CRGH0603F1K0	Yes	Yes
Rgh1, Rgh2, Rgl1, Rgl2, Rs	5	Resistor SMD	0.0R	-	R0603	YAGEO	RC0603JR-070RL	Yes	Yes
Rsen	1	Power Resistor SMD	0.005R, 2W	1%	R2512	WELWYN	LRMAT2512-R005FT4	Yes	Yes
RD1, RD2, RD3, RD4	4	Resistor Array SMD	100R	5%	CRA3A4E	PHYCOMP	235003510101	Yes	Yes
Pot1	1	Potentiometer + Knob	10K	-	3310Y	BOURNS + ELMA	3310Y-001-103L + 021-1220	Yes	Yes
Lusb	1	Ferrite bead	0.25R, 500mA	-	0805	TAIYO YUDEN	BK2125HM601-T	Yes	Yes
U1	1	SPI controlled H-bridge and Dual-Half-Bridge non-driver	NCV7535	-	TSSOP20	ON SEMICONDUCTOR	NCV7535DBR2G	No	Yes
U2	1	Low-Drop Voltage Regulator	5.0 V, 100 mA Low Iq	2%	TSOP5	ON SEMICONDUCTOR	NCV4264-2ST50T3G	No	Yes
U3	1	OP-AMP Low Power, Rail-to-Rail	NCV20061SN2	-	SOT23-5	ON SEMICONDUCTOR	NCV20061SN2T1G	No	Yes
U4	1	MCU, 8bit, ATMEGA, 20MHZ	ATMEGA328P-AN	-	TQFP-32	ATMEL	ATMEGA328P-AN	No	Yes
U5	1	USB TO UART	FT232RL	-	SSOP28	FTDI	FT232RL	No	Yes
D41	1	Schottky Diode SMD	0.5A/40V	-	SOD123	ON SEMICONDUCTOR	MBR0540T1G	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	Very low capacitance, 2 data lines	-	SOT23-6	ST Microelectronics	USBLC6-2SC6	Yes	Yes
QH1, QH2, QL1, QL2, Qrev	5	Power MOSFET	40V, 102A, 3.3mR, Single N-Channel		S08-FL	ON SEMICONDUCTOR	NVMF55C450NAFT1G	No	Yes
Qfd	1	Transistor NPN	45V, 100mA	-	SOT23-5	ON SEMICONDUCTOR	BC847BLT1G	Yes	Yes
LED_SA	1	LED SMD	Orange	-	0603	AVAGO TECHNOLOGIES	HSMC-C191	Yes	Yes
LED_USB	1	LED SMD	Blue	-	0603	MULTICOMP	OVS-0603	Yes	Yes
LED51	1	LED SMD	Red	-	0603	AVAGO TECHNOLOGIES	HSMS-C191	Yes	Yes
LED52	1	LED SMD	Green	-	0603	AVAGO TECHNOLOGIES	HSMG-C191	Yes	Yes
Xtal	1	CRYSTAL SMD	16.000MHZ/12PF	30 ppm	3.2X5.0MM	Aker	C55-16.000-12-3030-X	Yes	Yes
FT1, FT2, FT3, FT4	4	Rubber feet	SUPPORT FEET	-	SUPPORT FEET	3M	SJ5018BLACK	Yes	Yes
SW_RST	1	Switch	SPNO 4.5x4.5mm	-	SW-PB_SMD_4.5X4.5MM	BOURNS	7914G-001-000	Yes	Yes
SW_CSN, SW_EN, SW_PWM, SW_SA, SW_SCLK, SW_SDI, SW_SDO, SW_VCC, SW_Vsen	9	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
SC_GND, SC_OUT1, SC_OUT2, SC_Vbat	4	Power connector	BUSHING M4, 2ROW, 8PIN	-	WURTH_74603_07	WURTH ELEKTRONIK	7460307	Yes	Yes
H	1	SIL Header	12 pins, 2.54mm pitch, right angle	-	X12APH ANGLE	Molex	90121-0772	Yes	Yes
JAVR	1	DIL Header	10 pins, 2.54mm pitch, Break-out of 2x50 header	-	X6ABPH	826632-3	TYCO ELECTRONICS / AMP	Yes	Yes
USB	1	USB Mini A/B Connector	Surface Mount Right Angle; 5 CONTACTS; Receptacle	-	MUSB-05-F-AB-SM-A	TE CONNECTIVITY	1734328-1		
TP_CHP, TP_GH1, TP_GH2, TP_GL1, TP_GL2, TP_OUT1, TP_OUT2, TP_Rsen, TP_Vbat, TP_VS	10	Testpin 200 SER. HOLE 1.0	TP S200 H1.0 BLACK	-	TESTPIN2	20-2137	VERO	Yes	Yes