

## Bill of Materials for the LV8968BBGEVB Evaluation Board



Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
U1	1	Multi-purpose			SQFP48K	ON Semiconductor	LV8968BB	No	Yes
U2	1	Timer			SOIC-8	ON Semiconductor	NCV1455BDR2G	No	Yes
U3	1	Comparator			SOIC-8	ON Semiconductor	NCV2903DR2G	No	Yes
U4-5	2	Dual operational amplifier			SOIC-8	ON Semiconductor	NCV33202VDR2G	No	Yes
U6	1	Voltage Regulator			SOT-223	ON Semiconductor	NCV317MBSTT3G	No	Yes
U7	1	Dual operational amplifier			SOIC-8	ON Semiconductor	NCV33202VDR2G	No	Yes
J1	1	Motor winding connector			Pitch 6.35mm	ON-SHORE	OSTT7030150	Yes	Yes
J2	1	Power supply connector			Pitch 6.35mm	ON-SHORE	OSTT7020150	Yes	Yes
J3	1	AC-DC adapter connector				Singatron	2DC-0415D200	Yes	Yes
J4	1	EXT MCU connector			Pitch 2.54mm	Useconn	PH-2x25SG	Yes	Yes
J5	1	DUE POWER connector			Pitch 2.54mm	Useconn	PH-1x40SG	Yes	Yes
J6	1	DUE ADCL connector			Pitch 2.54mm	Useconn	PH-1x40SG	Yes	Yes
J7	1	DUE PWMH connector			Pitch 2.54mm	Useconn	PH-1x40SG	Yes	Yes
J8	1	SPI header			Pitch 2.54mm	Amphenol FCI	95290-303ALF	Yes	Yes
JP1-2	2	Jumper SW			Pitch 2.54mm	Useconn	PH-1x40SG	Yes	Yes
T1-7	7	N-ch power MOSFETs			DPAK	ON Semiconductor	NVD5C446NT4G	No	Yes
T8	1	NPN TRANSISTOR			SOT-23	ON Semiconductor	BC846ALT1G	No	Yes
D1-3	3	Diode			SOD-323	ON Semiconductor	MMDL6050T1G	No	Yes
D4-9	6	Diode			SOD-323	ON Semiconductor	MMDL6050T1G	No	Yes
D10	1	Schottky diode			SMC	ON Semiconductor	MBRS540PT3G	No	Yes
D11 D16-17	3	Diode			SOD-323	ON Semiconductor	MMDL6050T1G	No	Yes
D12-13	2	Dual diode			SOT-23	ON Semiconductor	BAV74LT1G	No	Yes
D14	1	ZENER-DIODE	18V		SOT-23	ON Semiconductor	BZX84B18LT1G	No	Yes
D15	1	Diode			SOD-123	ON Semiconductor	SMMSD914T1G	No	Yes
D18	1	ZENER-DIODE	39V		SOD-323	ON Semiconductor	MM3Z39VT1G	No	Yes
SW1	1	Switch for WAKE			Pitch 2.54mm	WURTH	45031014042	Yes	Yes
SW2-3	2	Push button switch			6.5x6.2mm	Omron	B3SL-1002P	Yes	Yes
VR1	1	Potentiometer			10x10mm	SUNTAN	TSR-3386K502R	Yes	Yes
_DIAG	1	LED	RED		1608 BIG	STANLEY	FR1111C-TR	Yes	Yes
_VCC_VS_7V5	3	LED	GREEN		1608 BIG	STANLEY	YBG1111C-TR	Yes	Yes
C1	1	Electrolytic CAP.	1000u, 50V	±20%	Pitch 7.5mm	RUBYCON	50RX301000M16X31.5	Yes	Yes
C2-5 C17 C33-36	13	Capacitor	0.1u, 100V	±10%	1608 BIG	MURATA	GRM188R72A104K	Yes	Yes

C6-11 C32	7	Capacitor	1000p, 50V	±5%	1608 BIG	MURATA	GRM1882C1H102J	Yes	Yes
C12-14	3	Capacitor	1u, 25V	±10%	1608 BIG	MURATA	GRM188B31E105K	Yes	Yes
C15-16 C18 C21	5	Capacitor	4.7u, 50V	±10%	3216 BIG	MURATA	GRM31CB31H475K	Yes	Yes
C19-20	2	Capacitor	0.01u, 50V	±10%	1608 BIG	MURATA	GRM188B11H103K	Yes	Yes
C22 C41-42	3	Capacitor	220p, 100V	±10%	1608 BIG	MURATA	GRM188R72A104K	Yes	Yes
C23-31	9	Capacitor	TBD, 50V	±5%	1608 BIG	MURATA		Yes	Yes
C37 C46	2	Capacitor	1u, 25V	±10%	1608 BIG	MURATA	GRM188B31E105K	Yes	Yes
C39-40 C44 C49	4	Capacitor	TBD, 50V	±10%	1608 BIG	MURATA		Yes	Yes
C48	1	Capacitor	1u, 50V	±10%	2012 BIG	MURATA	GRM21BR71H105K	Yes	Yes
R1-6 R62 R72	8	Resistor	100k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R7-12 R23-24 R33	10	Resistor	100, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R13-15 R17-19	6	Resistor	100/0, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R16 R25 R77-81	7	Resistor	0, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R20-22	3	Current sense resistors	10m, 1W	±1%		SUSUMU	KRL3264-C-R010-F-T1	Yes	Yes
R26 R34 R50-52	13	Resistor	1k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R27	1	Resistor	51k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R28	1	Resistor	20k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R29-30 R32 R74-	5	Resistor	10k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R31 R73	2	Resistor	2.2k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R35-43	9	Resistor	TBD, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R44-45 R49	3	Resistor	1M, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R46	1	Resistor	16k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R47-48	2	Resistor	4.3k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R53-54 R58-59	6	Resistor	15k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R60	1	Resistor	18k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R69-70	2	Resistor	5.1k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R71	1	Resistor	27k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R82 R84 R86	3	Resistor	0/OP, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R83 R85	2	Resistor	OP/0, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
RA1-3	3	Resistor Array	33Ω	±5%		Bourns	CAY16-330J4LF	Yes	Yes
RO1	1	Solder JP			4030				Yes
RO2-3	2	Solder JP	0Ω		4030				Yes