



Bill of Materials for the LV8310HGR2G12VGEVK Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
U1	1	Motor driver IC	-	-	TSSOP16	ON Semiconductor	LV8310HGR2G	No	Yes
T1-2	2	Power MOS FET (P-Nch)	-	-	SOIC8	ON Semiconductor	FW4604	Yes	Yes
T3	1	NPN Transistor			SOT-23	ON Semiconductor	MMBTA05LT1G	Yes	Yes
T4-5	2	NCH MOSFET		No Installed	MCPH3	ON Semiconductor	MCH3486-TL-W	Yes	Yes
T6-7	2	NPN Transistor			SOT-23	ON Semiconductor	BC846ALT1G	Yes	Yes
D1	1	Schottky diode			SMA	ON Semiconductor	MBRA340T3G	Yes	Yes
D2	1	ZENER-DIODE	12V	No Installed	SOD-323	ON Semiconductor	MM3Z12VT1G	Yes	Yes
C1	1	Capacitor	10u, 50V	±10%	3216 BIG	MURATA	GRM31CB31H475K	Yes	Yes
C2	1	Capacitor	0.1u, 50V	±10%	2012 BIG	MURATA	GRM21BR11H104K	Yes	Yes
C3 C5	2	Capacitor	1u, 25V	±10%	1608 BIG	MURATA	GRM188B31E105K	Yes	Yes
C4	1	Capacitor	0.01u, 50V	±10%	1608 BIG	MURATA	GRM188B11H103K	Yes	Yes
C6-9	4	Capacitor	1000p, 50V	No Installed	1608 BIG	MURATA	GRM188B11H102K	Yes	Yes
J1-2	1	Pin Socket 20			Pitch 2.54mm	Useconn	FH-2x20SG	Yes	Yes
J3	1	Motor connector			Pitch 2.54mm	HIROSE Electronics	DF1-6P-2.5DSA(05)	Yes	Yes
J4	1	Power supply connector			Pitch 2.54mm	Tyco Electronics	282834-2	Yes	Yes
R1	1	Resistor	2.2k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R2	1	Resistor	10k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R3-4	2	Resistor	51m, 0.5W	±1%	3216 BIG	Rohm	UCR18EVHFSR051	Yes	Yes
R5 R7	2	Resistor	100, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R6 R8	2	Resistor	100, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R9 R11	2	Resistor	100k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R10 R12	2	Resistor	100k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R13-14	2	Resistor	2.2k, 0.1W	No Installed	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R15-16	4	Resistor	10k, 0.1W	No Installed	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R17	1	Resistor	3.9k, 0.1W	No Installed	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R18 R23	2	Resistor	1k, 0.1W	No Installed	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R19-22	4	Resistor	10k, 0.1W	No Installed	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R24	1	Resistor	0, 0.5W	±5%	3225 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R25	1	Resistor	5.1k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
R26-27	2	Resistor	100k, 0.1W	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes
RO1	1	Solder JP			4030			Yes	
RSW12 RSW22 RSW31 RSW42	4	Resistor for SW	0	±5%	1608 BIG	KOA	RK73B1JTxxxJ	Yes	Yes

Mother Board	1							Yes	Yes
		Terminal Pin ST-1-3			0.8mm	MAC8	ST-1-3		