

Bill of Materials for the LV8121VGEVK Evaluation Board



Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
IC1	1	Motor Driver	-	-	SSOP44K	ON Semiconductor	LV8121V	No	Yes
IC2-3	2	Level Shifter	-	-	TSSOP16	ON Semiconductor	MC14504BDT	No	Yes
IC4	1	3-Pin Regulator	-	-	SOT-223	ON Semiconductor	NCV4264-2ST50T3G	Yes	Yes
Tr.1	1	Clamping Circuit	-	-	PCP	ON Semiconductor	2SC5964	Yes	Yes
Tr.2	1	Bias of Hall sensors	-	-	PCP	ON Semiconductor	2SC5964	Yes	Yes
ZD1	1	5.6V Zener Diode	-	-	SOD-523	ON Semiconductor	MM5Z5V6ST1G	Yes	Yes
CONNECTOR1	1	Motor connection socket	-	-	2.54mm pitch	Phoenix Contact	MPT 0,5/3-2,54	Yes	Yes
CONNECTOR2	1	Motor connection socket	-	-	2.54mm pitch	Phoenix Contact	MPT 0,5/8-2,54	Yes	Yes
R1	1	LIM(pull up)	NC	-	1608(0603Inch)	-	-	Yes	Yes
R2	1	LIM(pull down)	NC	-	1608(0603Inch)	-	-	Yes	Yes
R3	1	Tr.1(pull up)	160kΩ,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD164J	Yes	Yes
R4	1	Tr.1(pull up)	5.1kΩ,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD512J	Yes	Yes
R5	1	Tr.1(pull down)	33kΩ,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD333J	Yes	Yes
R6	1	FG(pull up)	10kΩ,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD103J	Yes	Yes
R7-9	3	RF	0.51Ω,0.25W	±5%	2012(0805Inch)	ROHM	MCR10EZHLR51	Yes	Yes
R10	1	CT	11kΩ,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD113J	Yes	Yes
R11	1	CTL (pull down)	100kΩ,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD104J	Yes	Yes
R12	1	F/R	200Ω,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD201J	Yes	Yes
R13	1	Hall bias	51Ω,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD510J	Yes	Yes
R14	1	Hall bias	510Ω,0.5W	±5%	3225(1210Inch)	Panasonic	ERJP14J511U	Yes	Yes
R15	1	Hall bias	100Ω,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD101J	Yes	Yes
R16	1	Hall bias	100Ω,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD101J	Yes	Yes
R20-24	5	Hall IC application	NC	-	1608(0603Inch)	-	-	Yes	Yes
R25-27	3	Jumper	NC	-	1608(0603Inch)	-	-	Yes	Yes
R28-29	2	Jumper	NC	-	1608(0603Inch)	-	-	Yes	Yes
R30	1	S/S	200Ω,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD201J	Yes	Yes
R31	1	LIM	100kΩ,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD104J	Yes	Yes
R32	1	CTL	27kΩ,0.1W	±5%	1608(0603Inch)	KOA	RK73B1JTTD273J	Yes	Yes
C1	1	HB Bypass Capacitor	0.1μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188R11H104KA93	Yes	Yes
C2	1	VCC Bypass Capacitor	0.1μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188R11H104KA93	Yes	Yes
C3	1	VCC Bypass Capacitor	47μF, 50V	±20%	-	SUN Electronic	50ME47HC	Yes	Yes
C4	1	VCC Bypass Capacitor	0.22μF, 50V	±10%	1608(0603Inch)	MURATA	GCM188R71H224KA49	Yes	Yes
C5	1	CT	56pF, 50V	±5%	1608(0603Inch)	MURATA	GRM1882C1H560JA01	Yes	Yes
C6	1	VREG Bypass Capacitor	0.1μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188R11H104KA93	Yes	Yes

C7	1	CSD	0.047μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188B11H473KA61	Yes	Yes
C8	1	CP	1500pF, 50V	±10%	1608(0603Inch)	MURATA	GRM188B11H152KA01	Yes	Yes
C9	1	VG	0.033μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188B11H333KA61	Yes	Yes
C10	1	PWM	1800pF, 50V	±5%	1608(0603Inch)	MURATA	GRM1882C1H182JA01	Yes	Yes
C11-13	3	IN+ / -	4700pF, 50V	±10%	1608(0603Inch)	MURATA	GRM188B11H472KA01	Yes	Yes
C14-16	3	IN+ / GND	NC	-	1608(0603Inch)	-	-	Yes	Yes
C17	1	CTL	0.1μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188R11H104KA93	Yes	Yes
C18	1	LIM	0.1μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188R11H104KA93	Yes	Yes
C19-22	4	VCC,VDD of MC14504BDT	0.1μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188R11H104KA93	Yes	Yes
C23-24	2	IN,OUT of NCV4264	0.1μF, 50V	±10%	1608(0603Inch)	MURATA	GRM188R11H104KA93	Yes	Yes
Daughter Board	1	Interface board	-	-	-	ON Semiconductor	-	No	Yes
CON A1,A2,B	3	Female Socket	-	-	-	MAC8	PM-61	Yes	Yes
P1-4	4	Terminal Pin	-	-	-	MAC8	ST-1-3	Yes	Yes
USB cable	1	A-MiniB	-	-	-	-	-	Yes	Yes