



Bill of Materials for the LV8136VGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
IC1	1	Motor Pre-Driver	-	-	SSOP30 (275mil)	ON Semiconductor	LV8136V	No	Yes
HIC	1	IPM	-	-	-	ON Semiconductor	STK5C4-330J-E	No	Yes
SW	1	Switch	-	-	-	MIYAMA	MS-611A-A01	Yes	Yes
TP1-TP3	3	Test points	-	-	-	MAC8	ST-1-3	Yes	Yes
D1	1	U:diode for bootstrap circuit	-	-	SMA-2	ON Semiconductor	MURA260T3G	No	Yes
D2	1	V:diode for bootstrap circuit	-	-	SMA-2	ON Semiconductor	MURA260T3G	No	Yes
D3	1	W:diode for bootstrap circuit	-	-	SMA-2	ON Semiconductor	MURA260T3G	No	Yes
Socket	1	Motor connection socket	-	-	-	YAMAICHI	IC-91-1403-G4	Yes	Yes
R1	1	Hall IC GND (Jumper)	0(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1J 0QJ	Yes	Yes
R2	1	Hall IC bias (Jumper)	0(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1J 0QJ	Yes	Yes
R3	1	Input bias	10k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD103J	Yes	Yes
R4	1	Input bias	10k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD103J	Yes	Yes
R5	1	Hall out(pull up)	10k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD103J	Yes	Yes
R6	1	Hall out(pull up)	10k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD103J	Yes	Yes
R7	1	Hall out(pull up)	10k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD103J	Yes	Yes
R8	1	IN1- bias (Jumper)	0(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1J 0QJ	Yes	Yes
R9	1	IN2- bias (Jumper)	0(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1J 0QJ	Yes	Yes
R10	1	IN3- bias (Jumper)	0(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1J 0QJ	Yes	Yes
R13	1	DPL (to GND)	33k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD333J	Yes	Yes
R14	1	ADP2(to GND)	47k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD473J	Yes	Yes
R15	1	ADP1(to GND)	47k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD473J	Yes	Yes
R17	1	FG3 (pull up)	33k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD333J	Yes	Yes
R21	1	PWM	15k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD153J	Yes	Yes
R22	1	TH (pull up)	20k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD203J	Yes	Yes
R23	1	FAULT(pull up)	10k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD103J	Yes	Yes
R24-27	4	RF	0.51(0.25W)	±5%	2012(0805Inch)	ROHM	MCR10EZHZJLR51	Yes	Yes
R28	1	RF (filter)	1k(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD102J	Yes	Yes
R29	1	HB (for current restriction)	33(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD330J	Yes	Yes
R30	1	Resistor	2.2(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1JTDD2R2J	Yes	Yes
J1	1	CTL Jumper	0(0.1W)	±5%	1608(0603Inch)	KOA	RK73B1J 0QJ	Yes	Yes
C4	1	IN1+	6800pF/50V	±5%	1608(0603Inch)	MURATA	GRM188B11H682K	Yes	Yes
C5	1	IN2+	6800pF/50V	±5%	1608(0603Inch)	MURATA	GRM188B11H682K	Yes	Yes
C6	1	IN3+	6800pF/50V	±5%	1608(0603Inch)	MURATA	GRM188B11H682K	Yes	Yes
C7	1	VCC Bypass Capacitor	10uF/25V	±10%	3216(1206Inch)	MURATA	GRM31CB31E106KA	Yes	Yes
C8	1	VCC Bypass Capacitor	0.1uF/25V	±10%	1608(0603Inch)	MURATA	GRM188B11E104K	Yes	Yes
C9	1	CTL Bypass Capacitor	0.1uF/25V	±10%	1608(0603Inch)	MURATA	GRM188B11E104K	Yes	Yes
C10	1	CSD	0.022uF/50V	±10%	1608(0603Inch)	MURATA	GRM188B11H223K	Yes	Yes
C11	1	ADP1 Bypass Capacitor	0.1uF/25V	±10%	1608(0603Inch)	MURATA	GRM188B11E104K	Yes	Yes
C12	1	PWM	2200pF/50V	±5%	1608(0603Inch)	MURATA	GRM188C1H222J	Yes	Yes
C13	1	VREG Bypass capacitor	0.1uF/25V	±10%	1608(0603Inch)	MURATA	GRM188B11E104K	Yes	Yes
C14	1	TH Bypass Capacitor	0.1uF/25V	±10%	1608(0603Inch)	MURATA	GRM188B11E104K	Yes	Yes
C15	1	FAULT Bypass Capacitor	0.1uF/25V	±10%	1608(0603Inch)	MURATA	GRM188B11E104K	Yes	Yes
C16	1	RF (filter)	2200pF/50V	±5%	1608(0603Inch)	MURATA	GRM188C1H222J	Yes	Yes
C18	1	VDD Bypass Capacitor	10uF/25V	±10%	3216(1206Inch)	MURATA	GRM31CB31E106KA	Yes	Yes
C20	1	VM Bypass Capacitor	10uF/450V	-	-	SUNCON	450ME10FC	Yes	Yes
C22	1	U :capacitor for bootstrap circuit	2.2u/25V	±10%	2012(0805Inch)	MURATA	GRM219B31E225KA	Yes	Yes
C23	1	V :capacitor for bootstrap circuit	2.2u/25V	±10%	2012(0805Inch)	MURATA	GRM219B31E225KA	Yes	Yes
C24	1	W :capacitor for bootstrap circuit	2.2u/25V	±10%	2012(0805Inch)	MURATA	GRM219B31E225KA	Yes	Yes