Texas Instruments

Bill of Materials

TI DESIGNS

TIDA-00293

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	1	U2	MSP430	64 Pin MicroController	TI	MSP430F2410TRGC		VQFN EP	
2	2	U1,U4	DRV8825	Stepper Controller	TI	DRV8825PWPR		28-Pin HTSSOP	
3	2	C1,C25	0.01 µF	Capacitor	Kemet	C0402C103K4RACTU		0402	
4	16	C2,C4,C7-8,C12-14,C16-19,C21-24,C26	0.1 µF	Capacitor	Kemet	C0402C104K4RACTU		0402	
5	2	C29,C30	0.47 µF	Capacitor	Kemet	C0402C474K9PACTU		0402	
6	6	R9-10,R17-18,R53,R55	0 Ω	Thick Film Chip Resistor Dummy	Vishay	CRCW04020000Z0EDHP		0402	
7	0	R54							Do not install
8	4	R4-5,R33-34	0.2 Ω	Current Sense Resistor	Bourns	CRM2512-JX-R200ELF		2512	
9	5	C5-6,C9,C15,C20	10 µF	6.3V Tantalum capacitor	Kemet	T491A106M006AT		1206	
10	1	J5		14 pin Header	FCI	67996-414HLF			
11	1	Y1		Crystal Oscillator	NDK	NX3225SA-16.000MHZ-STD-CSR-1		4-SMD	
12	2	J1,J10	Power Terminals	2 Pin Terminal	Phoenix Contact	MPT 0.5/2-2.54			
13	1	E1, E2		2 pin Shunt					
14	2	C10-11	20 pF	Capacitor	AVX	04023U200JAT2A		0402	
15	1	C3	2200 pF	Ceramic Capacitor	Kemet	C0402C222K4RACTU		0402	
16	8	R6-7,R29-32,R35-36	22 KΩ	1% Thick Film Resistor	KOA Speer	RK73H1ETTP2202F		0402	
17	2	R1,R37	5.36 KΩ	1% Thick Film Resistor	KOA Speer	RK73H1ETTP5361F		0402	
18	4	R25-28	330 Ω	Thick Film Resistor	KOA Speer	RK73H1ETTP3300F		0402	
19	16	R11-16, R19-24,R40-41,R48-49	220 Ω	Thick Film Resistor	KOA Speer	RK73H1ETTP2200F		0402	
20	4	J2,J6,J7,J13		4 Pin Terminal	Phoenix Contact	MPT 0.5/4-2.54			
21	1	J4		4 Pin Male Connector	Molex	22-23-2041			
22	2	C27, C28		Capacitor	Kemet	T495D475M050ATE300		7343-31	
23	2	J8-9		23 Position Dual Row Connector	Major League	SSHQ-123-D-08-GT-LF			
24	1	R8	47 KΩ	1% Thick Film Resistor	KOA Speer	RK73H1ETTP4702F		0402	
25	2	R3,R39	4.02 KΩ	1% Thick Film Resistor	KOA Speer	RK73H1ETTP4021F		0402	
26	7	R42-47,R50	5.6 KΩ	1% Thick Film Resistor	KOA Speer	RK73H1ETTP5601F		0402	
27	2	R2,R38	16.5 KΩ	1% Thick Film Resistor	KOA Speer	RK73H1ETTP1652F		0402	
28	2	R51, R52	1.37 KΩ	1% Thick Film Resistor	KOA Speer	RK73H1ETTP1371F		0402	
29	1	U5		EEPROM	ON Semiconductor	CAT24C256WI-G		8-Pin SOIC	
30	4	Q1-4		HEXFET	International Rectifier	IRLML2803TRPBF			
31	1	U3		Opto Coupler	Vishay	TCMT4100T0		16-Pin SOP	
32	4	D1-4		Green LED	Lite-On	LTST-C190GKT		SMD	
33	1	SW1		2 position Switch	CTS	219-2MST			
34	2	J11		5 Position Dual Row Connector	Major League	SSHQ-105-D-08-GT-LF			

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