

Stepper Motor Eval Board - B.O.M.

ROHM Stepper Motor Driver Eval Board

Bill of Materials Last Updated: 6/20/2014

Item	Quantity	Reference	Package	Note	Value	Manufacturer	Manufacturer's Part No.	Digi-Key Part No. (with Hyperlinks)
1	10	C2,C5,C9,C11,C14,C15,C18,C20,C23,C24	SMD 0805 (2012 Metric)	Decoupling caps (100v)	0.1μF	TDK Corporation	C2012X7R2A104K	445-1418-1-ND
2	1	C1	Surface Mount "Cans"- (2-pads)	Vreg Input Aluminum Electrolytic Cap (50V) 20%	33μF	Panasonic	EEE-1HA330XP	PCE3925CT-ND
3	2	C3,C6	SMD 0805 (2012 Metric)	bypass caps	0.01μF	TDK Corporation	C2012X7R2E103K	445-2280-1-ND
4	2	C4, C25	SMD 0805 (2012 Metric)	filter cap	4.7μF	TDK Corporation	C2012Y5V1A475Z/1.25	445-1370-1-ND
5	2	C7,C16	Surface Mount "Cans"- (2-pads)	filter caps - Aluminum Electrolytic Cap (50V) 20%	100μF, 50V	Panasonic	EEE-FK1H101P	PCE3809CT-ND
6	2	C8,C17	SMD 0805 (2012 Metric)	filter caps - Cer 1uF 100V 10% X7R 1206	1.0μF	Taiyo Yuden	HMK316B7105KL-T	587-1777-1-ND
7	6	C10,C12,C13,C19,C21,C22	SMD 0805 (2012 Metric)	bypass caps	0.001μF	TDK Corporation	C2012X7R2A102K	45-1337-6-ND
8	3	LED1, LED3, LED4	SMD 0805 (2012 Metric)	MODE ("STEP; SINGLE; CONTINUOUS") LED Indicators	ORANGE LEDs	ROHM	SML-210DTT86	511-1284-6-ND
	4	LED6, LED7, LED8, LED9	SMD 0805 (2012 Metric)	STEP ("FULL; HALF-A; HALF-B; QUARTER") LED Indicators	YELLOW LEDs	ROHM	SML-210YTT86	511-1290-6-ND
	2	LED10, LED11	SMD 0805 (2012 Metric)	POWER ("CLK-PWR; PAR-PWR") LED Indicators	RED LEDs	ROHM	SML-210VTT86	511-1289-6-ND
9	2	LED2, LED5	Surface Mount - (4-pads)	Bi-Color LED's	Red/Green Bi-Color LED	ROHM	SML-521MUWT86	511-1317-6-ND
10	1	E1	Through-hole (5-pins + 3 mounting tabs)	Encoder with Push Button	Encoder with Push Button	Grayhill	62P22-L6	GH7296-ND
11	1	J3	SMD micro USB	micro USB for Power Source	microUSB	Hirose Electric Co Ltd	ZX62R-B-5P	H11574CT-ND
12	2	J2, J7	Through-hole (6-pin)	16A, 300V Output Screw Terminal Blocks (1x6)	1x6 pins	FCI	20020316-G061B01LF	609-3931-ND
13	2	J4, J5	Through-hole (4-pin)	Pwr Source Selector (1x4)	1x4 pins	Molex Inc	901200124	WM8074-ND
14	2	J1, J6	Through-hole (10-pin)	External Input Headers (5x2)	5x2 pins (gold)	Samtec Inc	TSW-150-07-L-D	SAM1030-50-ND
15	1	J8	Through-hole (14-pin)	14-Pin Debugger Header (7x2)	7x2 pins (gold)	Samtec Inc	TSW-150-07-L-D	SAM1030-50-ND
16	4	POT1,POT2,POT3,POT4	Through-hole (3-pin)	21-Turn 10K Trimmer Pot. (Through-hole)	10kΩ potentiometers	Vishay Sfernice	T93YB103KT20	T93YB-10K-ND
17	1	R1	SMD 0805 (2012 Metric)	RES 91.0 OHM 1/8W 1% 0805 SMD	91Ω	ROHM	MCR10EZPF91R0	RHM91.0CRCT-ND
18	9	R2,R3,R4,R5,R8,R18,R59,R60,R61	SMD 0805 (2012 Metric)	RES 10.0K OHM 1/8W 1% 0805 SMD	10kΩ	ROHM	MCR10EZPF1002	RHM10.0KCRCT-ND
19	15	R6,R7,R9,R10,R11,R12,R13,R14,R15,R16,R17,R28,R47, R57, R58	SMD 0805 (2012 Metric)	RES 1.00K OHM 1/8W 1% 0805 SMD	1kΩ	ROHM	MCR10EZPF1001	RHM1.00KCRCT-ND
20	4	R19,R27,R38,R46	SMD 0805 (2012 Metric)	0-Ohm jumper resistors	0Ω	ROHM	MCR10EZPJ000	RHM0.0ARCT-ND
21	24	R20,R21,R22,R23,R24,R25,R31,R32,R33,R34,R35,R36,R39,R40,R41,R42,R43, R44,R50,R51,R52,R53,R54,R55	SMD 0805 (2012 Metric) (Wide)	RES 1.20 OHM 1/2W 1% 2012 WIDE	1.2Ω	ROHM	LTR10EVHFL1R20	RHM1.20BSCT-ND
22	4	R26,R37,R45,R56	SMD 0805 (2012 Metric)	RES 4.70K OHM 1/8W 1% 0805 SMD	4.7kΩ	ROHM	MCR10EZPF4701	RHM4.70KCRCT-ND
23	2	R29,R48	SMD 0805 (2012 Metric)	RES 39.0K OHM 1/8W 1% 0805 SMD	39kΩ	ROHM	MCR10EZHF3902	RHM39.0KCT-ND
24	2	R30,R49	SMD 0805 (2012 Metric)	RES 3.48K OHM 1/8W 1% 0805 SMD	3.48kΩ	ROHM	TRR10EZPF3481	RHM3.48KCRCT-ND
25	1	S1	Surface Mount (2-pad)	Micro's Reset Button	Momentary Push-Button (NO)	E-Switch	TL3302AF180QG	EG2528DKR-ND
26	1	S2	Through-hole (6-pin)	Stepper Driver PowerSave Toggle Switch	DPDT Switch	NKK Switches	G22AP	G22AP-ND
27	1	TP19	Through-hole (1-pin)	Test Point, RED Keystone 5010	Reg_+3.3V	Keystone	5010	5010K-ND
28	1	TP20	Through-hole (1-pin)	Test Point, ORANGE Keystone 5013	Ext_+3.3V_C	Keystone	5013	5013K-ND
29	1	TP21	Through-hole (1-pin)	Test Point, YELLOW Keystone 5014	Ext_+3.3V_P	Keystone	5014	5014K-ND
30	1	TP22	Through-hole (1-pin)	Test Point, BLUE Keystone 5127	VCC_C	Keystone	5027	5127K-ND
31	1	TP23	Through-hole (1-pin)	Test Point, GREY Keystone 5128	VCC_P	Keystone	5028	5128K-ND
32	1	TP24	Through-hole (1-pin)	Test Point, BLACK Keystone 5011	GND	Keystone	5011	5011K-ND
33	1	TP25	Through-hole (1-pin)	Test Point, BLACK Keystone 5011	GND	Keystone	5011	5011K-ND
34	1	TP33	Through-hole (1-pin)	Test Point, WHITE Keystone 5012	Clk_VREF	Keystone	5012	5012K-ND
35	1	TP41	Through-hole (1-pin)	Test Point, WHITE Keystone 5012	Par_VREF	Keystone	5012	5012K-ND
36	1	TP42	Through-hole (1-pin)	Test Point, BROWN Keystone 5125	Par_CR	Keystone	5025	5125K-ND
37	1	TP34	Through-hole (1-pin)	Test Point, BROWN Keystone 5125	Clk_CR	Keystone	5025	5125K-ND
38	1	TP35	Through-hole (1-pin)	Test Point, GREEN Keystone 5126	Clk_MTH	Keystone	5026	5126K-ND
39	1	TP43	Through-hole (1-pin)	Test Point, GREEN Keystone 5126	Par_MTH	Keystone	5026	5126K-ND
40	1	TP32	Through-hole (1-pin)	Test Point, PURPLE Keystone 5129	Clk_PS	Keystone	5029	5129K-ND
41	1	TP40	Through-hole (1-pin)	Test Point, PURPLE Keystone 5129	Par_PS	Keystone	5029	5129K-ND
42	1	U1	Surface Mount - TSSOP (20-pin)	Octal Buffer IC BUFF/DVR TRI-ST 8BIT 20SSOP	74LVCS41A	Texas Instruments	SN74LVCS41ADBR	296-8518-1-ND
43	6	TV1, TV2, TV3, TV4, TV5, TV6	Surface Mount - VMD2 (2 Pads)	ZENER ESD Protection Diodes - 10W VMD2	5.78V 100mW	ROHM	RSB6.8GT2R	RSB6.8GT2RCT-ND
44	1	D1	Surface Mount - 123SOD (2-pads)	Schottkey Diode Input Protection - 20V 3A 123-SOD	20V 3A	ROHM	RB051M-2YTR	RB051M-2YCT-ND
45	1	U2	Surface Mount - HRP5 (5-pins plus tab)	3.3v LDO Reg (USB 5V to 3.3v, etc)	3.3V Reg	ROHM	BD3570HPF	ROHM-SAMPLES
46	1	U3	Surface Mount - SSOP-16 (16-pin)	5V, 8-Bit, 16-pin LAPIS Micro	8-Bit Microcontroller	ROHM	ML610Q102	ROHM-SAMPLES
47	1	U4	Surface Mount - SSOP-B20 (20-pin)	12-Ch. LED Driver	LED Driver	ROHM	BD8377EFV	ROHM-SAMPLES
48	1	U5	Surface Mount - HTSSOP-B28 (28-pin + thermal pad)	Clock-In Stepper Motor Driver (28V 2.0A 28-HTSSOP)	Stepper Motor Driver (CLK)	ROHM	BD63720EFV	ROHM-SAMPLES
49	1	U6	Surface Mount - HTSSOP-B28 (28-pin + thermal pad)	Parallel-In Stepper Motor Driver	Stepper Motor Driver (PAR)	ROHM	BD63876EFV	ROHM-SAMPLES