

RTK0EM0000B11020BJ BOM LIST

Product Name: Evaluation System for Stepping Motor with Resolver

Board Name : Inverter board (RTK0EM0000B11020BJ)

Schematic No : R12TU0083

Date : 2024/12/14

No.	Reference	Description	Manufacturer	PartNumber	Qty
1	CNB,CNA	CONN HEADER 2.54MM 20POS GOLD	Sullins Connector Solutions	SBH11-PBPC-D10-ST-BK	2
2	CNE	CN_PinHeader-50pin	-	-	0
3	CN1	5.08MM TOP ENTRY MSC 3P_GY	Phoenix Contact	1729131	1
4	CN2	TERM BLOCK HDR 5POS 90DEG 5.08MM	Phoenix Contact	1757271	1
5	CN3	CONN HEADER XH TOP 4POS 2.5MM	JST	B4B-XH-A	1
6	CNF	CONN HEADER .100 SNGL STR 4POS	Sullins Connector Solutions	PREC004SAAN-RC	1
7	CN5	CONN HEADER XH TOP 5POS 2.5MM	JST	B5B-XH-A	0
8	CN4	CONN RECEPT MINI USB2.0 5POS	Hirose Electric Co Ltd	UX60-MB-5ST	1
9	C1,C2	Capacitor	MURATA	GCM155R72A332JA37D	2
10	C3,C4	Capacitor	Nihon chemicon	EKZN800ELL681ML25S	2
11	C5,C26	Capacitor	MURATA	GCM21BC72A105KE36L	2
12	C6,C8,C17,C20,C43,C49	Capacitor	MURATA	GCJ188R72A104KA01D	6
13	C7,C10,C14,C18,C22,C24,C41,C44,C47,C54,C56,C60,C63,C66,C67,C68,C72,C75,C76,C77,C78,C79,C80,C81,C82,C83,C100,C101	Capacitor	MURATA	GRM033R61A104KE15D	28
14	C9	Capacitor	MURATA	GCM32DC72A475KE02L	1
15	C11,C35,C36,C52,C53,C57,C58	Capacitor	MURATA	GRM033R71E102KA01D	7

R12TU0085EJ0100



© 2024 Renesas Electronics Corporation. All rights reserved.

RTK0EM0000B11020BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
16	R29,C30,R46,R47,R48,R49,R51,C51,R57,R59,R60,C69,C70,R87,C88,C89,C90,C91,C92,C93,C94,C95,C96,C97,C98,C99,R176,R193,R194,R195,R196	Land pattern	-	-	0
17	C38,C59,C61,C62	Capacitor	MURATA	GRM155C81E105KE11D	4
18	C25,C29,C32,C33,C84,C85,C86,C87	Capacitor	-	-	0
19	C34	Capacitor	-	-	0
20	C21,C50	Capacitor	MURATA	GRT31CC81H155KE01L	2
21	C16,C23,C46,C55,C42	Capacitor	MURATA	GRM21BR61E106MA73L	5
22	C27	Capacitor	PANASONIC	EEE-FK1K470P	1
23	C28,C31	Capacitor	MURATA	GRM033R71E103KE14D	2
24	C37	Capacitor	Panasonic	EEE-1VA101XP	1
25	C40	Capacitor	MURATA	GCM219R71H334KA55D	1
26	C64,C65	Capacitor	MURATA	GRM0335C1E220JA01D	2
27	C73	Capacitor	MURATA	GRM033R61A103KA01D	1
28	C102,C103,C104	Capacitor	MURATA	GRM1885C1H101JA01J	3
29	D1	Diode	Vishay	VF20100C-M3/4W	1
30	D2,D6,D9,D16,D22,D24	Diode	toshiba	1SS302A,LF	6
31	D3,D4,D5,D7,D8,D10,D15,D17,D18,D19,D20,D21	Diode	Rohm	RF05VAM1STR	12
32	D11,D13,D14	Diode	Rohm	RF05VAM1S(DNF)	0
33	D12	Diode	Rohm	RB160MM-60TR	1
34	D23,D25,D26	Diode	toshiba	1SS387,L3F	3

R12TU0085EJ0100



© 2024 Renesas Electronics Corporation. All rights reserved.

RTK0EM0000B11020BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
35	D27	Zener	Rohm	FTZU6.2ET148	1
36	D28	Zener	Rohm	UDZVTE-176.8B	1
37	F1	Fuse	Bourns	SF-2410FP800W-2	1
38	HS1	Heatsink	AAVID	SW38-2G	1
39	JP1	CONN HEADER 2.54MM 2P	HONDA	FFC-2AMEP1	1
40	J1	DC jack	Kycon	KLDX-SMT2-0202-ATR	1
41	LED1,LED2,LED3	LED	Rohm	SML-D12D8WT86	3
42	LED4,LED5	LED	Rohm	SML-D12P8WT86	2
43	L1	Inductor	TDK	SLF12555T-681MR43-PF	1
44	Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8	Nch MOSFET	Renesas	RJK1054DPB-00#J5	8
45	R1	Resistor	KOA	UR73D3ATTE20L0F	1
46	R2,R8,R12,R22,R32,R34,R44,R69, R72,R81,R92,R101,R105,R159,R1 62	Resistor	KOA	RK73H1JTDD1002F	15
47	R3,R15,R26,R41,R66,R74, R88,R98	Resistor	Panasonic	ERJ-PA3J101V	8
48	R4,R20,R40,R77,R108,R160,R163, R167	Resistor	KOA	RK73H1JTDD4700F	8
49	R5	Resistor	KOA	RK73H1JTDD3302F	1
50	R6,R28,R64,R112,R113,R114,R16 9,R170,R171,R173,R174,R175,R17 8,R179,R180,R181,R182,R183,R18 8,R189	Resistor	KOA	RK73H1JTDD4701F	20
51	R7,R21,R33,R43,R68,R79,R91,R10 0	Resistor	KOA	RK73B1JTDD150J	8

R12TU0085EJ0100



© 2024 Renesas Electronics Corporation. All rights reserved.

RTK0EM0000B11020BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
52	R9	Resistor	KOA	RK73B1JTTD102J	1
53	R13,R38,R73,R95	Resistor	KOA	RK73B1JTTD4R7J	4
54	R14	Resistor	KOA	RK73H1JTTD2202F	1
55	R17,R18,R78,R83,R144,R147,R148,R151,R152,R154,R155,R156,R157,R158,R140,R141,R142,R143,R145,R146,R149,R150,R153,R23,R24,R84,R85,R103,R104,R116,R119,R121,R122,R124,R35,R39,R75,R76	Resistor	-	-	0
56	R45,R54,R86,R125,R126,R127,R129,R130,R131,R132,R133,R134,R136,R137,R138,R139,R16,R19,R80,R82,R106,R107,R115,R117,R118,R120,R123,R128,R135,R30,R31,R70,R71	Resistor	KOA	RK73Z1HTTC	33
57	R25	Resistor	KOA	RK73Z2ATTD	1
58	R27,R50,R61,R67,R96,R102,R110	Resistor	KOA	UR73D3ATTE25L0F	7
59	R36,R93	Resistor	KOA	RK73B1JTTD332J	2
60	R37,R94,R172,R177,R187,R197	Resistor	KOA	RK73Z1JTTD	6
61	R42,R99	Resistor	panasonic	ERJ-M1WTF1M5U	0
62	R52,R89	Resistor	KOA	RK73B1JTTD102J	0
63	R10,R11,R53,R62,R90,R97,R109,R111	Resistor	KOA	RK73H1JTTD1000F	8
64	R164,R165,R168	Resistor	KOA	RK73B1JTTD101J	3

R12TU0085EJ0100



© 2024 Renesas Electronics Corporation. All rights reserved.

RTK0EM0000B11020BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
65	R55	Resistor	KOA	RK73B1JTDD474J	1
66	R56,R166	Resistor	KOA	RK73H1JTDD4702F	2
67	R58	Resistor	KOA	RK73B1JTDD1R0J	1
68	R63	Resistor	KOA	RK73H1JTDD2402F	1
69	R65	Resistor	KOA	RK73H1JTDD2701F	1
70	R161	Resistor	KOA	RK73B1JTDD202J	1
71	R184	Resistor	KOA	RK73B1JTDD152J	1
72	R185,R186	Resistor	KOA	RK73B1JTDD220J	2
73	R190,R191,R192	Resistor	-	-	0
74	SW2,SW3	switch	Panasonic	EVQ-5PN04K	2
75	SW1	Toggle switch	Nidec Copal	ATE1D-2M3-10-Z	1
76	TP1,TP2,TP3,TP6,TP8,TP9,TP11, TP13,TP14,TP15,TP16,TP19,TP2 1,TP22,TP25,TP27,TP29,TP31,TP 33,TP34,TP35,TP36,TP38,TP39	T/H	-	-	0
77	TP4,TP5,TP7,TP10,TP12,TP17,TP	Test pad	-	-	0
78	U1	Current detection amp	Maxim Integrated	MAX4080TAUA+	1
79	U2	Comparator	STMicroelectronics	TS332IQ2T	1
80	U3,U11	Current detection amp	Analog Devices	AD8418ABRMZ(DNF)	0
81	U4,U10	Gate driver	Renesas	HIP4082IBZT	2
82	U5,U9	Current detection amp	Analog Devices	AD8418ABRMZ	2
83	U6	Gate driver	Renesas	HIP4086ABZ(DNF)	0
84	U7	Switching regulator	Texas Instruments	LM5017MRX	1
85	U8	5V regulator	STMicroelectronics	L78M05CDT-TR	1
86	U12	RX621	Renesas	R5F56216BDFB#V0	1

R12TU0085EJ0100



© 2024 Renesas Electronics Corporation. All rights reserved.

RTK0EM0000B11020BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
87	U13	Digital Isolator	Silicon Labs	SI8622EC-B-IS	1
88	U14	3.3V regulator	Renesas	ISL9001AIRNZ-T	1
89	U15	3.3V regulator	Renesas	ISL9001AIRNZ(DNF)	0
90	VR1	Variable resistor	Tokyo cosmos	GF063P1KB103	1
91	Y1	Crystal	Abracon	ABLS-12.000MHZ-B2-T	1
92	Y2	Crystal	SEIKO EPSON	SG-8002DC8.0000MHzPCB	1
93	C12,C13	Capacitor	MURATA	GCJ188R71H102KA01D	2
94	C15,C19,C39,C45,C48,C71,C74	Capacitor	MURATA	GCM188R71E105KA64D	7

R12TU0085EJ0100



© 2024 Renesas Electronics Corporation. All rights reserved.