

## RTK0EMX270C02000BJ BOM LIST

Product Name: Evaluation System for Stepping Motor with Resolver

Board Name : CPU card (RTK0EMX270C02000BJ)

Schematic No : R12TU0082

Date : 2019/11/29

No.	Reference	Description	Manufacturer	PartNumber	Qty
1	CNB,CNA	CONN HEADR FEMALE 20POS .1 DL AU	Sullins Connector Solutions	SFH11-PBPC-D10-ST-BK	2
2	CN3	CONN HEADER 2.54MM 2P	HONDA	FFC-2AMEP1	1
3	CNF	CONN HEADER FEMALE 4POS .1 TIN	Sullins Connector Solutions	PPTC041LFBN-RC	1
4	CN10	TERM BLOCK HDR 10POS 90DEG 3.5MM	Molex	39502-1010	1
5	C5,C6,C81,C87,C17,C20,C23,C26,C27,C118,C119,C120,C121	Chip capacitor (0603)	MURATA	GRM033R71E103KE14D	13
6	C7,C8	Chip capacitor (0603)	MURATA	GRM0335C1E8R0CA01D	2
7	C9,C28	Chip capacitor (2012)	MURATA	GRM21BR61H475KE51L	2
8	C29,C34,C35,C36,C37,C38,C43,C33,C42,C44,C48,C52,C55,C58,C64,C65,C66,C67,C68,C69	Chip capacitor (0603)	MURATA	GRM033R61A104KE15D	20
9	C14,C56	Chip capacitor (1005)	MURATA	GRM155B31E105KA12D	2
10	C15,C18,C21,C24,C93	Chip capacitor (2012)	MURATA	GRM21BC81C106KE15L	5
11	C30,C31,C32	Chip capacitor (0603)	MURATA	GRM033R71E102KA01D	3
12	C39,C40,C41,C59,C60,C61	Chip capacitor (0603)	MURATA	GRM0335C1E471JA01D	6
13	C49	Chip capacitor (1608)	Murata	GCM188L81H104KA57D	1
14	C57	Chip capacitor (0603)	MURATA	GRM033R61C473ME84D	1
15	C82,C89	Chip capacitor (1608)	MURATA	GRM1885C1H332JA01D	2
16	C84,C91	Chip capacitor (1608)	MURATA	GCM1885C2A331JA16D	2
17	C97	Chip capacitor (1608)	MURATA	GCM1885C2A681JA16D	1

R12TU0084EJ0100



© 2019 Renesas Electronics Corporation. All rights reserved.

## RTK0EMX270C02000BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
18	C100	Chip capacitor (3216)	MURATA	GRM31CR61A107ME05L	1
19	C103	Chip capacitor (1608)	MURATA	GCM1885C2A820FA16D	1
20	C104	Chip capacitor (1608)	MURATA	GCM1885C2A331FA16D	1
21	D1	DIODE	NEXPERIA	PMEG2005EH, 115	1
22	D2,D3	DIODE_Dual_Series	DIODES	AZ23C16-7-F	2
23	FP1	Chip resistor (1608)	KOA	RK73H1JTDD4702F	1
24	FP2	Chip capacitor (1608,1%,C0G)	KEMET	C0603C332F3GECTU	1
25	FP4,R7,R118,R169,R171,R207,R208,R209,R210,R247,R255,R274,R278,R304,R319,R322,R325,R327,R328,R330,R344,R348,R349,R353,R356,R357,R358,R359,R366,R367	チップ抵抗(1608)	KOA	RK73Z1JTDD	30
26	FP5	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTDD4701F	1
27	FP7	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTDD6801F	1
28	FP8,FP11,FP12,FP16	Chip capacitor (1608,1%,C0G)	murata	GCM1885C2A221FA16D	4
29	FP14	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTDD1502F	1
30	FP18,R329	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTDD1003F	2
31	LED1,LED2	LED	Rohm	SML-D12D8WT86	2
32	LED3	LED	Rohm	SML-D12P8WT86	1
33	Q1	Pch MOSFET	Rohm	RZF020P01TL	1
34	R8,R53,R59,R202,R250,R251,R252	Chip resistor (0603)	KOA	RK73B1HTTC472J	7

R12TU0084EJ0100



© 2019 Renesas Electronics Corporation. All rights reserved.

## RTK0EMX270C02000BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
35	R9,R15,R16,R17,R18,R20,R21,R35, R37,R38,R39,R44,R54,R55,R61,R 62,R63,R64,R68,R69,R72,R74,R76 R78,R79,R80,R81,R82,R84,R85,R 87,R88,R89,R101,R102,R105,R108 R109,R112,R116,R123,R125,R128 R129,R130,R131,R133,R134,R135 R136,R140,R161,R162,R192,R194 R196,R197,R199,R201,R203,R205 R206,R257,R259,R261,R263,R265 R267,R269,R270,R271,R273,R277 R279,R286,R288,R297,R361,R363 R365,R334,R341,R342,R26,R32,R 47,R90,R92,R96	Chip resistor (0603)	KOA	RK73Z1HTTC	89
36	R66,R75,R83,R139,R184	Chip resistor (0603)	KOA	RK73B1HTTC220J	5
37	R22,R71	Chip resistor (0603)	KOA	RK73B1HTTC104J	2
38	R73,R170,R173,R175,R177,R179, R180,R181,R189,R190,R191	Chip resistor (0603)	KOA	RK73B1HTTC102J	11
39	R141,R186,R228,R362	Chip resistor (0603)	KOA	RK73B1HTTC103J	4
40	R145,R148	Chip resistor (0603)	KOA	RK73B1HTTC101J	2
41	R28,R31,R231	Chip resistor (1608)	KOA	RK73B1JTTC101J	3
42	R157,R159,R160,R340	Chip resistor (1608)	KOA	RK73B 1 JTTC1R0J	4
43	R158	Chip resistor (1608)	KOA	RK73B 1 JTTC100J	1
44	R165,R178,R326,R332	Chip resistor (1608)	KOA	RK73H1JTTC4703F	4
45	R166,R167,R168	Chip resistor (1608)	KOA	RK73B1HTTC202J	3

R12TU0084EJ0100



© 2019 Renesas Electronics Corporation. All rights reserved.

## RTK0EMX270C02000BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
46	R182,R183,R185	Chip resistor (0603)	KOA	RK73B1HTTC152J	3
47	R187,R188,R195,R200,R211,R212	Chip resistor (1608)	KOA	RK73B1JTTC471J	6
48	R193,R198,R204,R260,R266,R272	Chip resistor (0603)	KOA	RK73B1HTTC331J	6
49	R242	Chip resistor (1608)	KOA	RK73B1JTTC106J	1
50	R253,R254,R258,R275,R276,R280, R281,R282,R283	Chip resistor (0603)	KOA	RK73B1HTTC473J	9
51	R256,R262	Chip resistor (0603)	KOA	RK73B1HTTC300J	2
52	R317,R320	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTTC3901F	2
53	R318,R324	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTTC2002F	2
54	R323	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTTC2001F	1
55	R331,R335,R336,R337	Chip resistor (1608,0.1%)	Panasonic	ERA-3AEB510V	4
56	R333	Chip resistor (0603,100ppm)	KOA	RK73B1HTTC4R7J	1
57	R345	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTTC4302F	1
58	R346	Chip resistor (1608,1%,100ppm)	KOA	RK73H1JTTC6202F	1
59	SW1	switch	Panasonic	EVQ-5PN04K	1
60	U1	Opamp	Renesas	ISL28248FUZ-T7	1
61	U2	RX24T	Renesas	R5F524TEADFP#31	1
62	U3,U4,U6,U15	Schmitt Trigger Buffer	Texas Instruments	SN74LVC3G17DCUR	4
63	U7,U8	Buffers and Drivers	Texas Instruments	SN74LS07DBR	2
64	U9	RS-422/RS-485 Interface IC	Renesas	ISL3156EIUZ-T7A	1
65	U11	AND Gate	Diodes	74AHCT1G08SE-7	1
66	U12	Inverter	Texas Instruments	SN74HC04PWR	1
67	U13	CAN Driver	Renesas	R2A25416SP#W0	1
68	U14	D Flip Flops	Texas Instruments	SN74HC74PWR	1
69	U16	4-BIT SYNCHRONOUS UP/DOWN COUNTERS	Texas Instruments	SN74HC193PW	1

R12TU0084EJ0100



© 2019 Renesas Electronics Corporation. All rights reserved.

## RTK0EMX270C02000BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
70	U17	EXOR Gate	Diodes	74AHCT1G86SE-7	1
71	U21	RDC	Renesas	RAA3064002GFP	1
72	X1	Crystal	KYOCERA	CX3225GB20000D0HPQCC	1
73	R240,R241	Chip resistor (1608)	KOA	RK73B1JTTD103J	2
74	C10,C11,C12,C13,C16,C19,C22,C25,C86,C92,C98,C101	Chip capacitor (1005)	Murata	GCM155R71C104KA55D	12
75	C95	Chip capacitor (1608)	Murata	GCM188R72A103KA37D	1
76	C3,C4	Chip capacitor (1608)	TDK	TMK107B7223KAHT	2

**Unmounted**

77	CNC	CONN HEADER 2.54MM 36POS	-	-	-
78	CN1	CONN HEADER XH TOP 5POS 2.5MM	-	-	-
79	CN2,CN11,CN13,CN15	CONN TERM BLOCK 2.54MM 8POS	-	-	-
80	CN4,CN7,CN9	CONN HEADER XH SIDE 3POS 2.5MM	-	-	-
81	CN5	CONN HEADER 2.54MM 2POS	-	-	-
82	CN6	TERM BLOCK HDR 8POS 90DEG 3.5MM	-	-	-
83	CN8	CONN HEADER XH TOP 4POS 2.5MM	-	-	-
84	CN12	CONN TERM BLK 5POS 2.5MM GRN	-	-	-
85	CN14	CONN TERM BLOCK 3POS 2.5MM	-	-	-
86	C1,C2	Chip capacitor	-	-	-

R12TU0084EJ0100



© 2019 Renesas Electronics Corporation. All rights reserved.

## RTK0EMX270C02000BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
87	R1,R5,FP6,FP13,C45,C46,C50,C53,C54,C62,C63,C106,C107,C108,C109,C112,C114,C116,C117,C122,C123,R127,R214,R215,R226,R227,R229,R232,R233,R248,R230,R249,R290,R291,R351,R354,R355,R364,C99,C94,R216,R217,R222,R223,R224,R235,R243,R244,R245,R289,R292,R300,R301,R302	Chip capacitor / Chip resistor (1608)	-	-	-
88	FP3,FP9,FP10,FP15,FP17,C110,C111,C113,C115,C47,C51	Chip capacitor	-	-	-
89	R3,R4,R10,R11,R12,R13,R14,R19,R23,R24,R25,R27,R34,R36,R40,R41,R42,R43,R45,R46,R48,R49,R50,R52,R56,R57,R58,R60,R65,R67,R70,R86,R91,R93,R95,R99,R100,R103,R104,R106,R107,R110,R111,R114,R115,R119,R120,R121,R122,R124,R126,R132,R137,R142,R143,R144,R149,R150,R151,R152,R153,R154,R155,R156,R163,R164,R264,R268,R284,R285,R293,R294,R368,R146,R338,R339,R343,R347,R350,R352,R360,R29,R33,R77,R51,R113,R117,R94,R98	Chip resistor (0603)	-	-	-

R12TU0084EJ0100



© 2019 Renesas Electronics Corporation. All rights reserved.

RTK0EMX270C02000BJ BOM LIST

No.	Reference	Description	Manufacturer	PartNumber	Qty
90	U5,U10	RS-422/RS-485 Interface IC	-	-	-
91	U18	Transmitters	-	-	-
92	U22	CONN HEADER 2.54MM 3P(DNF)	-	-	-

R12TU0084EJ0100



© 2019 Renesas Electronics Corporation. All rights reserved.