

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 FMALE 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 |

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| 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 |

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| 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 |

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| 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 |

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| 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 | RK73B1JTDD103J | 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 | - | - | - |

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| 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) | - | - | - |

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|-----|-----------|----------------------------|--------------|------------|-----|
| 90 | U5,U10 | RS-422/RS-485 Interface IC | - | - | - |
| 91 | U18 | Transmitters | - | - | - |
| 92 | U22 | CONN HEADER 2.54MM 3P(DNF) | - | - | - |

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