

## RTK0EM0000B10020BJ BOM LIST

Board Name : Inverter board (RTK0EM0000B10020BJ)

Schematic No : R12TU0072

Date : 2021/8/23

| No. | Reference                                      | Description *1                   | Manufacturer                | PartNumber           | Qty |
|-----|--|----------------------------------|-----------------------------|----------------------|-----|
| 1   | CNB,CNA  | CONN HEADER 2.54MM 20POS GOLD    | Sullins Connector Solutions | SBH11-PBPC-D10-ST-BK | 2   |
| 2   | CN1  | 5.08MM TOP ENTRY MSC 3P_GY       | Phoenix Contact             | 1729131              | 1   |
| 3   | CN2  | TERM BLOCK HDR 5POS 90DEG 5.08MM | Phoenix Contact             | 1757271              | 1   |
| 4   | CN3  | CONN HEADER XH TOP 4POS 2.5MM    | JST                         | B4B-XH-A             | 1   |
| 5   | CNF  | CONN HEADER .100 SNGL STR 4POS   | Sullins Connector Solutions | PREC004SAAN-RC       | 1   |
| 6   | C1,C2  | Chip capacitor(1005)             | MURATA                      | GCM155R72A332JA37D   | 2   |
| 7   | C3,C4  | Capacitor                        | Nippon chemi-con            | EKZN800ELL681ML25S   | 2   |
| 8   | C5,C26   | Chip capacitor(2012)             | MURATA                      | GCM21BC72A105KE36L   | 2   |
| 9   | C7,C10,C18,C22,C24,C41,<br>C44,C47,C54,C56,C60 | Chip capacitor(0603)             | MURATA                      | GRM033R61A104KE15D   | 11  |
| 10  | C8,C20,C43,C49                                 | Chip capacitor(1608)             | MURATA                      | GCJ188R72A104KA01D   | 4   |
| 11  | C9   | Chip capacitor(3216)             | MURATA                      | GCM32DC72A475KE02L   | 1   |
| 12  | C11  | Chip capacitor(0603)             | MURATA                      | GRM033R71E102KA01D   | 1   |
| 13  | C23,C46,C55,C42                                | Chip capacitor(2012)             | MURATA                      | GRM21BR61E106MA73L   | 4   |
| 14  | C38,C59,C61                                    | Chip capacitor(1005)             | MURATA                      | GRM155C81E105KE11D   | 3   |
| 15  | C27  | Chip capacitor                   | PANASONIC                   | EEE-FK1K470P         | 1   |
| 16  | C28,C31  | Chip capacitor(0603)             | MURATA                      | GRM033R71E103KE14D   | 2   |
| 17  | C34  | Chip capacitor(0603)             | MURATA                      | GRM033R71E471KA01D   | 1   |
| 18  | C37  | Chip capacitor                   | Panasonic                   | EEE-1VA101XP         | 1   |

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| 19  | C40   | Chip capacitor(2012) | MURATA           | GCM219R71H334KA55D   | 1   |
| 20  | C102,C103,C104  | Chip capacitor(1608) | MURATA           | GRM1885C1H101JA01J   | 3   |
| 21  | D1  | DIODE_Dual_Series    | ON Semiconductor | VF20100C-M3/4W       | 1   |
| 22  | D2,D9,D16,D22,D24   | DIODE_Dual_Series    | toshiba          | 1SS302A,LF           | 5   |
| 23  | D8,D10,D15,D18,D20,D21,D11,<br>D13,D14                    | DIODE                | Rohm             | RF05VAM1STR          | 9   |
| 24  | D12   | DIODE                | Rohm             | RB160MM-60TR         | 1   |
| 25  | D23,D25   | DIODE                | toshiba          | 1SS387,L3F           | 2   |
| 26  | F1  | Fuse                 | Bourns           | SF-2410FP1000W-2     | 1   |
| 27  | HS1   | Heatsink             | ABL Components   | PPD0380P             | 1   |
| 28  | J1  | DC jack              | Kycon            | KLDX-SMT2-0202-ATR   | 1   |
| 29  | LED1,LED2,LED3  | LED                  | Rohm             | SML-D12D8WT86        | 3   |
| 30  | LED4  | LED                  | Rohm             | SML-D12P8WT86        | 1   |
| 31  | L1  | Inductor             | TDK              | SLF12555T-681MR43-PF | 1   |
| 32  | Q3,Q4,Q5,Q6,Q7,Q8   | Nch MOSFET           | Renesas          | RJK1054DPB-00#J5     | 6   |
| 33  | R1,R27,R67,R102,R61,R96,R110                              | Chip resistor(6432)  | Panasonic        | ERJ-M1WSF10MU        | 7   |
| 34  | R2,R32,R34,R44,R69,R72,R81,<br>R92,R101,R105,R159,R162,R9 | Chip resistor(1608)  | KOA              | RK73H1JTDD1002F      | 13  |
| 35  | R4,R40,R77,R108,R160,R163                                 | Chip resistor(1608)  | KOA              | RK73H1JTDD4700F      | 6   |
| 36  | R5  | Chip resistor(1608)  | KOA              | RK73H1JTDD3302F      | 1   |
| 37  | R6,R28,R64,R112,R113,R114                                 | Chip resistor(1608)  | KOA              | RK73H1JTDD4701F      | 6   |
| 38  | R14   | Chip resistor(1608)  | KOA              | RK73H1JTDD2202F      | 1   |
| 39  | R25   | Chip resistor(2012)  | KOA              | RK73Z2ATTD           | 1   |
| 40  | R26,R41,R66,R74,R88,R98,R164,<br>R165                     | Chip resistor(1608)  | KOA              | RK73B1JTDD101J       | 8   |

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| 41  | R35,R39,R45,R54,R75,R76,R86,<br>R106,R107,R118,R120,R123,<br>R125,R126,R127,R129,R130,<br>R131,R132,R133,R134,R136,R137,<br>R138,R139,R128,R135 | Chip resistor(0603)      | KOA                   | RK73Z1HTTC         | 29  |
| 42  | R33,R43,R68,R79,R91,R100,R60  | Chip resistor(1608)      | KOA                   | RK73Z1JTDD         | 7   |
| 43  | R38,R73,R95   | Chip resistor(1608)      | KOA                   | RK73B1JTDD4R7J     | 3   |
| 44  | R55   | Chip resistor(1608)      | KOA                   | RK73B1JTDD474J     | 1   |
| 45  | R56   | Chip resistor(1608)      | KOA                   | RK73H1JTDD4702F    | 1   |
| 46  | R57   | Chip resistor(1608)      | KOA                   | RK73B1JTDD102J     | 1   |
| 47  | R58   | Chip resistor(1608,1/4W) | KOA                   | RK73B1JTDD1R0J     | 1   |
| 48  | R63   | Chip resistor(1608)      | KOA                   | RK73H1JTDD2402F    | 1   |
| 49  | R65   | Chip resistor(1608)      | KOA                   | RK73H1JTDD2701F    | 1   |
| 50  | R161  | Chip resistor(1608)      | KOA                   | RK73B1JTDD202J     | 1   |
| 51  | R53,R62,R90,R97,R109,R111,R197  | Chip resistor(1608)      | KOA                   | RK73Z1JTDD         | 7   |
| 52  | SW2   | switch                   | Panasonic             | EVQ-5PN04K         | 1   |
| 53  | SW1   | Toggle switch            | Nidec Copal           | ATE1D-2M3-10-Z     | 1   |
| 54  | U1  | Current detection amp    | Maxim Integrated      | MAX4080TAUA+       | 1   |
| 55  | U2  | Comparator               | STMicroelectronics    | TS332IQ2T          | 1   |
| 56  | U5,U9,U11   | Current detection amp    | Analog Devices        | AD8418ABRMZ        | 3   |
| 57  | U6  | Gate driver              | Renesas               | HIP4086ABZT        | 1   |
| 58  | U7  | Switching regulator      | Texas Instruments     | LM5017MRX          | 1   |
| 59  | U8  | 5V regulator             | STMicroelectronics    | L78M05CDT-TR       | 1   |
| 60  | VR1   | Potentiometer            | Tokyo Cosmos Electric | GF063P1KB103       | 1   |
| 61  | C25,C29,C32,C33,C39   | Chip capacitor(1608)     | murata                | GCM188R71E105KA64D | 5   |

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| 62  | R198,R199,R200 | Chip resistor(1005)  | KOA          | RK73H1ETTP1000F | 3   |
| 63  | C105,C106,C107 | Chip capacitor(1005) | Taiyo Yuden  | UMK105B7102KVHF | 3   |

**Unmounted**

|    |   |                                    |   |   |   |
|----|---|------------------------------------|---|---|---|
| 64 | CNE   | CN_PinHeader-50pin                 | - | - | - |
| 65 | C6  | Chip capacitor(1608,80V)           | - | - | - |
| 66 | C14,C16,C35,C36,C52,C53,C57,<br>C58,C84,C85,C86,C87   | Chip capacitor                     | - | - | - |
| 67 | C15,C19,C45,C48,C21,C50   | Chip capacitor(25V)                | - | - | - |
| 68 | R10,R11,C12,C13,C17,R29,C30,<br>R46,R47,R48,R49,R51,C51,R59,<br>R87,C88,C89,C90,C91,C92,C93,<br>C94,C95,C96,C97,C98,C99,R193,<br>R194,R195,R196 | Chip capacitor/Chip resistor(1608) | - | - | - |
| 69 | D3,D4,D5,D7,D17,D19   | DIODE                              | - | - | - |
| 70 | D6  | DIODE_Dual_Series                  | - | - | - |
| 71 | Q1,Q2   | Nch MOSFET                         | - | - | - |
| 72 | R3,R7,R13,R15,R20,R21,R36,R37,<br>R52,R89,R93,R94   | Chip resistor(1608)                | - | - | - |
| 73 | R8,R12,R22,R190,R191,R192   | Chip resistor                      | - | - | - |

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| 74  | R16,R17,R18,R19,R30,R31,R70,<br>R71,R78,R80,R82,R83,R103,R104,<br>R115,R116,R117,R119,R121,R122,<br>R124,R144,R147,R148,R151,R152,<br>R154,R155,R156,R157,R158,R23,<br>R24,R84,R85,R140,R141,R142,<br>R143,R145,R146,R149,R150,R153 | Chip resistor(0603)   | -            | -          | -   |
| 75  | R42,R99   | Chip resistor(6432)   | -            | -          | -   |
| 76  | R50   | Chip resistor(1W)     | -            | -          | -   |
| 77  | U3  | Current detection amp | -            | -          | -   |
| 78  | U4,U10  | Gate driver           | -            | -          | -   |
| 79  | U15   | 3.3V regulator        | -            | -          | -   |

\*1 Chip size unit : mm