

Bill of Materials

Project Number: P234
Project Revision: 0.6
Project File Name: BAS_DevKIT_PyPcb
Assembly Variant: None
Report Date: 22/04/22

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| Part Number | GTS | Designator | Description | Manufacturer Part Number | Footprint | Layer | Quantity |
|-------------|-----|--|--|--------------------------|------------------|-------------|----------|
| CA0001 | | C118, C119, C113, C114, C117, C118, C119, C120, C203, C404, C405 | 10µf 16V 10% XSR | CIRG018R41C10M4E1SL | C0805 | Top | 11 |
| CA0002 | | C207, C213 | 4.7µf 16V 10% XSR | C1608B081C470M08AC | C0603 | Bottom | 2 |
| CA0003 | | C115, C116, C204, C205, C206, C207, C208, C209, C210, C211, C212, C213, C214, C215, C228, C234, C406, C407, C508 | 1µf 16V 10% XSR | C1608B081C100M08AA | C0603 | Top, Bottom | 19 |
| CA0005 | | C122, C123, C124, C125, C126, C127 | 10µf 35V 10% XSR | C0812K081V10M125AC | C0805 | Top | 6 |
| CA0007 | | C503 | 47µf 16V 20% XSR | EMK325AB474MURAP | C1210 | Top | 1 |
| CA0008 | | C504, C508, C509 | 1µf 16V 20% XSR | GRMT08R4C100MAA0D | C0603 | Top | 3 |
| CA0009 | | C106, C111, C229, C235 | 2.2µf 35V 10% XSR | C1608B081V220M08AC | C0603 | Top, Bottom | 4 |
| CA0010 | | C506, C507 | 100nf 16V 10% XSR | COM15B07C100RA55D | C0402 | Top | 2 |
| CA0011 | | C502 | 100µf 16V 20% 15mΩ 4800mA | 160VPC100M | SL_B8 | Top | 1 |
| CA0012 | | C201, C401, C402, C501 | 330µf 16V 20% 16mΩ 4100mA | 160VPC330M0X | 1C_E7 | Top | 4 |
| CA0013 | | C217 | 10nf 16V 10% X7R | GR110B07C100RE01D | C0402 | Bottom | 1 |
| CA0024 | | C101, C102, C103, C104 | 10µf 6.3V 10% X7R | GRM03R1T106KA12 | C1210 | Top | 4 |
| CA0025 | | C105, C106 | 10µf 25V 10% XSR | CL31A106AANN06E | C1206 | Top | 2 |
| CA0027 | | C225, C231 | 1µf 100V 15% X7R | GRM03R12A100KA01 | C1210 | Bottom | 2 |
| CA0028 | | C224, C226, C230, C232 | 100nf 100V 15% X7R | GRM03R072A100KA01 | C1210 | Bottom | 4 |
| CA0029 | | C107, C128, C218, C219, C220, C221, C222, C223 | 100nf 50V 10% X7R | CGA2B3K7R101H04050BB | C0402 | Top | 8 |
| CA0030 | | C130 | 1.2nf 50V 10% X7R | COM15B07H120KA37D | C0402 | Top | 1 |
| CA0031 | | C121, C129 | 1nf 50V 1% DCC | GR1125C07H100FA0D | C0402 | Top | 2 |
| CA0044 | | C202, C216, C236, C237 | 47µf 35V 20% 1.43mA | 840010572005 | RL_5_2_11 | Top | 4 |
| CO0007 | | C0502 | HDMI | 1002944 | HDMI | Top | 1 |
| CO0012 | | J501, J502, J503, J504, J505, J506 | Header 1xCP | 880090360108U | 12CP_1.54mm | Top | 6 |
| CO0015 | | J101 | DC Jack 36V Ø10A | PL3028A | PL3028A | Top | 1 |
| CO0016 | | CO101 | SD300G-UR | 457180002 | SD3000G | Top | 1 |
| CO0021 | | CO301, CO302, CO303 | USB C connector Receptacle | USB4070.30-C | USB4070.30-C | Top | 3 |
| CO0026 | | CO501 | USB C connector | USB4050.03-1.A | USB4050.03-1.A | Top | 1 |
| CO0027 | | CO503 | µSD-Card holder | 4V907100B11 | 4-V907FL-11 | Top | 1 |
| CR0006 | | K201 | 25MHz 3.3V 50PPM | ASL-25.000MHz-GL-1 | ASL-XX | Bottom | 1 |
| DI0001 | | D207, D502, D503, D504, D505, D506 | Led Green | LP-2012GCK | led0805 | Top | 6 |
| DI0002 | | D201, D202, D203, D501 | USB 2 TVS Diode | PTD2US08300R7R | SOT-3 | Top | 4 |
| DI0007 | | D204, D205, D206 | USB 3 TVS Diode | PUS08FA22 | SOT-1126-1 | Top | 3 |
| DI0008 | | D101 | Zener Diode 36V 200mW | RT075C45 | SOD-323 | Top | 1 |
| F0004 | | F101 | 32V/10A | C191D | F1206 | Top | 1 |
| F0005 | | F103 | 65V/2A | EF-1206SA020M-2 | F1206 | Top | 1 |
| F0006 | | F104 | 65V/2A | EF-1206SA030M-2 | F1206 | Top | 1 |
| F0007 | | F105 | 65V/0.5A | EF-1206SA005M-2 | F1206 | Top | 1 |
| IC0007 | | IC104 | DC-DC 12Vin-3.3Vout/2A | HEZ071203A-F | HEZ071203A-X | Top | 1 |
| IC0009 | | IC502 | Buffer IC | SN74VHC1G070BEVT | SOT-23-5 | Top | 1 |
| IC0011 | | IC501 | RTV14250V | RTV14250V | SOT-23 | Top | 1 |
| IC0014 | | IC201 | USB Interface, USB-Hub controller, USB 3.0 | U98H148-1000029 | SOP-44 | Top | 1 |
| IC0022 | | IC103 | DC-DC 12Vin-5Vout/2A | HEZ071203A-G | HEZ071203A-X | Top | 1 |
| IC0023 | | IC105 | DC-DC 4.8Vin-1.26Vout/0.6A | TPS6A780P1 | TPS6A78x | Top | 1 |
| IC0024 | | IC101 | DC-DC 36Vin-12Vout/2A | MP4814-1.2 | MP4814 | Top | 1 |
| IC0028 | | IC203, IC204 | USB Type-C Power Delivery Controller | RTV14207E-12 | SOT-16 | Bottom | 2 |
| IC0029 | | IC503 | RTV142 High-side power switch | RTV142GLB | SOT-23-5 | Top | 1 |
| IC0031 | | IC102 | 3.8V TO 40V INPUT, 5A LOW ID SYNCHRONOUS BUCK WITH 2.5A/1A | AP44070P-13 | SO-8-P | Top | 1 |
| IN0004 | | L101 | 2.2µH 2A | MR45H0904004000G1 | MR45H09 | Top | 1 |
| IN0005 | | L102 | 3.3µH 5A 20% 21mΩ | SRW045TA-202P | SRW045TA | Top | 1 |
| ME0002 | | H1, H2, H3, H4 | Mounting Hole-M | | HOLE_M4 | Top | 4 |
| ME0004 | | Logo GTS | Logo GTS 1 | | Logo_GTS_1 | Top | 1 |
| ME0006 | | Logo F&L&D | Logo F&L&D 2 | | Logo_F&L&D_2 | Top | 1 |
| ME0011 | | Fid1, Fid3, Fid5, Fid8 | Fiducial Round 1mm | | FidR_1.0mm | Top, Bottom | 4 |
| ME0012 | | Fid2, Fid4, Fid6, Fid7 | Fiducial Square 1mm | | FidS_1.0mm | Top, Bottom | 4 |
| MC0011 | | MC007 | Outline of CMA | RPI_CMA | RPI_CMA_Layout | Top | 1 |
| MC0012 | | MC001 | RPI CMA Pin 1-100 | DF40K4C1.D, 10005-6.4V | CMA_001-100 | Top | 1 |
| MC0013 | | MC002 | RPI CMA Pin 101-200 | DF40K4C1.D, 10005-6.4V | CMA_101-200 | Top | 1 |
| MC0014 | | MC003, MC004, MC005, MC006 | RPI CMA Mounting Studs | R774K30151R | CMA-M | Top | 4 |
| MC0015 | | MC006 | Outline of ZeroW | RPI_ZeroW | RPI_ZeroW_Layout | Top | 1 |
| MC0016 | | MC002, MC003, MC004, MC005 | RPI ZeroW Mounting Studs | R774K30151R | CMA-M | Top | 4 |
| MC0017 | | MC001 | RPI ZeroW Header 1-40 | PR0000230A26B | RPI_ZeroW_Pins | Top | 1 |
| RS0001 | | R211, R501, R505, R506, R507, R509 | 150Ω 1% 100mW | MC3904AT150P7TL | R0603 | Top | 6 |
| RS0002 | | R201, R204, R207, R208 | 4.7KΩ 1% 100mW | WR06K4701F1TL | R0603 | Bottom | 4 |
| RS0003 | | R101, R103, R202, R203, R214, R216, R217, R218, R219, R504 | 10KΩ 5% 100mW | WR06K103 JTL | R0603 | Top, Bottom | 10 |
| RS0007 | | R102, R104 | 100Ω 1% 100mW | WR06K100P1L | R0603 | Top | 2 |
| RS0011 | | R512 | 10KΩ 1% 62.5mW | WR06K100P1L | R0602 | Top | 1 |
| RS0014 | | R212, R213 | 10KΩ 1% 100mW | R040K08P-AT100K | R0403 | Top | 2 |
| RS0015 | | R105, R215, R508 | 12KΩ 1% 62.5mW | R040K08P-1330K | R0402 | Top | 3 |
| RS0020 | | R502, R503 | 2.2KΩ 5% 62.5mW | MC3904A22 JTL | R0402 | Top | 2 |
| RS0032 | | R205, R206 | 10mΩ 1% 100mW 100PPM | R040K08P-100M | R0403 | Bottom | 2 |
| RS0033 | | R513 | 2KΩ 1% 62.5mW 100PPM | MC3904A20P1TL | R0402 | Top | 1 |
| RS0034 | | R106 | 20KΩ 1% 100mW 100PPM | ESU-S02P-200K | R0402 | Top | 1 |
| RS0035 | | R107 | 2.2KΩ 1% 62.5mW 100PPM | CRG02040P-2K2 | R0402 | Top | 1 |
| RS0037 | | R511 | 1KΩ 5% 62.5mW 100PPM | R040K08P-1K1K | R0402 | Top | 1 |
| RS0038 | | R209, R210 | 5.1KΩ 1% 62.5mW 100PPM | MC3904A20P1TL | R0402 | Top | 1 |
| SW0001 | | SW001, SW002 | Miniature Slide Switch | 05102011MC20Z01 | 0510 Series | Top | 2 |
| TR0002 | | TR002, TR003 | 40V/11mΩ-Mosfet N 10A | RD3C100G07B | HSM1-8 | Bottom | 2 |
| TR0007 | | TR001 | 28V-PNP-E | 2N2713M07A | SOT-223 | Top | 1 |
| TR0008 | | TR001 | 30V, N-channel Trench MOSFET | PM20J08L | SOT-23 | Top | 1 |

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| Approved | Notes |
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