

| Category | Subcategory | Part | Site | Part # | Comment (if any) | # Needed | # to Buy | Date PR submitted | PR # | Status |
|-------------------|-------------------------------------|-------------------------------------|-------------------|---|--|----------|----------|-------------------|---------|---------------------|
| Interlock chassis | Power supplies and distribution | 3.3 V power supply | Digi-key | CUI Inc. - PYB10-Q24-S3-DIN | Power supply for I2C communication | 1 | 2 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | 3.3 V decoupling capacitors | Digi-key | United Chemi-Con - KTD500B106M55A0T00 | 10-uF decoupling capacitors recommended by 3.3 V power supply manufacturer | 2 | 3 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | 24 V power supply | Digi-key | Mean Well - GST120A24-R7B | Power supply for sbRIO | 1 | 1 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Power feedthrough | Digi-key | Kycon - KP1X-PM-45-5 | Chassis connection for 24 V power | 1 | 2 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Power cable | Digi-key | Qualtek - 312127-01 | Cable from outlet to power supply brick | 1 | 1 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | 24V distribution blocks | Digi-key | Phoenix Contact - 3046786 (red) | Two-level power distribution terminals inside chassis | 6 | 10 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | 3.3 V distribution blocks | Digi-key | Phoenix Contact - 3035467 (yellow) | Two-level power distribution terminals inside chassis | 6 | 10 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Distribution block endplates | Digi-key | Phoenix Contact - 3047316 | End plates/partitions for terminal blocks | 4 | 6 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Distribution block end clamps | Digi-key | Phoenix Contact - 0800886 | Helps clamp terminal blocks onto the DIN rail | 2 | 4 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Distribution block jumpers (4 pins) | Digi-key | Phoenix Contact - 3030255 | Jumpers for tying together distribution blocks | 6 | 10 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Distribution block labels | Digi-key | Phoenix Contact - 1051016-0001 | 1 - 10 labels for terminal blocks | 4 | 10 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | Chassis hardware | chassis | | TBD | Base chassis cost from manufacturer | 1 | 1 | | | |
| | | chassis fabrication | | TBD | Cost to machine chassis for interlock system | 1 | | | | |
| | | chassis rackmount slides | | TBD | Rails to slide chassis in and out of rack for easier maintenance | 1 | 1 | | | |
| | | 18 mm standoffs | McMaster | McMaster - 94868A724 | standoffs between sbRIO and chassis, F-F | 2 | 4 | | | |
| | | 16 mm standoffs | McMaster | McMaster - 92080A012 | standoffs between sbRIO and heat spreader, F-F | 5 | 10 | | | |
| | | 30 mm standoffs | McMaster | McMaster - 94868A729 | standoffs for between RMC and bottom of chassis, F-F | 10 | 15 | | | |
| | | 7/16-inch standoffs | McMaster | McMaster - 91115A512 | standoffs for backplane PCB 7/16" | | | | | |
| | | M3 screws - chassis bottom | McMaster | McMaster - 91698A302 | Screws for fastening standoffs to chassis, pack of 50 | 2 | 2 | | | |
| | | M3 screws - PCBs | McMaster | McMaster - 92000A116 | Screws for fastening PCBs to standoffs, pack of 100 | 1 | 1 | | | |
| | | M2.5 screws | McMaster | McMaster - 90485A431 | Screws to attach power feedthrough to chassis, pack of 100 | 1 | 1 | | | |
| | External connections and indicators | #4-40 screws | McMaster | McMaster - 96640A056 | fastening feedthroughs to chassis and general use, pack of 100 | 1 | 1 | | | |
| | | #4-40 nuts | McMaster | McMaster - 90591A250 | fastening feedthroughs to chassis and general use, pack of 100 | 1 | 1 | | | |
| | | Ethernet feedthrough | Digi-key | Switchcraft Inc. - EHRJ45D6ASB440 | RJ45 disconnects feedthrough for network connection | 1 | 2 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Gas sensors feedthrough | Newark | L-com - USB4T | 4-pin USB-A panel mount connector - terminal block | 4 | 10 | | | |
| | | Expansion Chassis USB connection | Digi-key | Switchcraft Inc. - EHUS8BABX | USB-A to USB-A feedthrough for locally connecting to expansion chassis | 1 | 2 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | 3.3 V LED (green) | Digi-key | APEM Inc. - Q8F7BXXG02E | status LEDs for chassis 3.3 V power supply | 1 | 4 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Override LED (red) | Digi-key | APEM Inc. - Q8F7BXXR02E | Status LED for chassis 24 V power supply | 1 | 2 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | 24 V LED (green) | Digi-key | APEM Inc. - Q8F3BXXG24E | Status LED for local readback of chassis interlock override status | 1 | 2 | 2021-08-03 | 405110P | BACKORDERED |
| | | BNC feedthroughs | Digi-key | Amphenol RF - 031-10-RFXG1 | Ports for connecting interlock cable to chassis | 1 | 2 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | BNC connectors | | | | 1 | 2 | | | |
| | Other | LEMO connectors | Digi-key | LEMO 00-series - FFA.00.250.NTAC29 | Connectors for interlock cable | 1 | 2 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | USB flash drive | CDW | CDW - SanDisk Cruiser Fit - USB flash drive - 32 GB | USB drive for sbRIO configuration files | 1 | 1 | 2021-08-03 | 405111P | At S&R (2021-08-06) |
| | | RMC-to-backplane connector | Digi-key | Amphenol ICC - 71600-034LF | connects RMC to backplane PCB | 12 | 18 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | RMC-to-backplane cables | Digi-key | 3M - 3365/34 3005F | 34 conductor ribbon cable - 10 ft | 1 | 1 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Thermal paste | Digi-key | Parker Chomerics - 65-00-GE45-0010 | For between sbRIO heat spreader and chassis for better thermal contact. | 2 | 2 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | DIN rail | Digi-key | Phoenix Contact - 0801733 (~6.5ft) | For mounting items inside chassis and in rack | 1 | 1 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Rack mount screws | Digi-key | Hammond Manufacturing - SCREW1032-100 (100 pack) | For mounting chassis in rack | 1 | 1 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Cable mounts | Digi-key | Panduit Corp - ABM1M-A-M | adhesive pads for cable organization | 100 | 100 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | Cable ties | Digi-key | Belden Inc. - DT-04-18-9-C | cable ties for affixing cables to mount points | 100 | 100 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | connectors | | TBD | | ? | | | | |
| | | cables | | TBD | | ? | | | | |
| RMC | - | fabrication | | TBD | Fabrication of PCB, 3 week time | 1 | 5 | | | |
| | | parts | | TBD | Parts for PCB | 1 | 5 | | | |
| | | assembly | | TBD | Final population of PCB, 7 day time | 1 | 5 | | | |
| Backplane PCB | - | fabrication | | TBD | Fabrication of PCB | 1 | 2 | | | |
| | | parts | | TBD | Parts for PCB | 1 | 2 | | | |
| | | assembly | | TBD | Final population of PCB | 1 | 2 | | | |
| SHT35 PCBs | - | fabrication | Advanced Circuits | n/a | Fabrication of PCB, 3 weeks | 24 | 50 | | | |
| | | parts | Advanced Circuits | n/a | Parts for PCB | 24 | 50 | | | |
| | | assembly | Advanced Circuits | n/a | Final population of PCB, 7 days | 24 | 50 | | | |
| Cables/connectors | - | interior I2C cabling | Amazon | Amazon - BUS0HE flat Cat 7 Ethernet Cable 100 FT | Flat CAT7 cables for use inside detector | 15 | 15 | | | |
| | | Molex mating connector | | Molex - 5013300800 | Mating connector for Pico-clasp connector on SHT35 PCBs | 24 | 100 | 2021-07-26 | 404854P | At S&R (2021-07-30) |
| | | Molex pins | | Molex - 5013340100 | Pins for Pico-clasp mating connector | 192 | 1000 | 2021-07-26 | 404854P | At S&R (2021-07-30) |
| | | exterior I2C cabling | | 85-700-120 GY (ShowMcCables) - 1000 ft | Bulk cabling for I2C signals outside of detector | 3 | 3 | | | |
| | | N2 vol feedthroughs | RHSeals | RHSeals 6-port feedthrough | hermetic feedthroughs to pass I2C cables into N2 volume | 2 | 2 | 2021-08-10 | 405380 | PR submitted |
| | | Patch panel connector | Digi-key | Switchcraft Inc. - EHRJ45D6ASB440 | RJ45 disconnects for external patch panel at detector | 12 | 18 | 2021-08-03 | 405110P | At S&R (2021-08-09) |
| | | RJ45 connectors | | | RJ45 connectors for I2C cabling | 50 | 150 | | | |
| | | Gas sensors connectors, F | | TE Connectivity AMP Connectors - 5-747905-2 | Female DB9 connectors | 15 | 25 | | | |
| | | Gas sensors - Dsub backshell | | TE Connectivity AMP Connectors - 1991253-9 | Backshells for gas system sensors DB9 connectors | 30 | 50 | | | |
| | | Gas sensors connectors, USB | Digi-key | TE Connectivity - 2040305-1 | Latching USB-A 2.0 connector with backshell | 10 | 15 | | | |
| UPS | - | UPS | CDW | CDW - APC Smart-UPS 2200VA (SMT2200RM2UC) | Uninterrupted Power Supply sized for interlock system | 1 | 1 | 2021-08-03 | 405111P | At S&R (2021-08-06) |
| | | UPS monitoring relays | CDW | CDW - APC Dry Contact I/O SmartSlot Card UPS (AP9613) | UPS add on module for external monitoring with sbRIO | 1 | 1 | 2021-08-03 | 405111P | At S&R (2021-08-06) |

Cell Shading Color Code

| |
|--|
| Discussion needed |
| Price and/or parts to be determined |
| PR submitted |
| Item received, inventoried, and stored |
| Use of part not finalized |