

## PCB Assembly Guide

### Ordering:

- Board files are saved in the gerber format, in a zipped folder called P16104\_Mainboard\_Files.zip
- Supply this folder to any available PCB manufacturer, confirm drills are visible and that said company's DFM check is successful.

### Assembly:

- If necessary (residue on PCB, i.e fingerprints) clean PCB's with isopropyl alcohol before assembly
- Apply solder paste to all microcontroller related pads. This includes all passive components necessary for operation as well as any required power electronics
- In conjunction with the BOM, apply all required components to the board with the proper orientation, reference designations are printed on the silkscreen of the PCB and are to be used as a guide.
- Using a hot air reflow station, run station until solder has been confirmed to have reflowed around applied components
- Test microcontroller area for operation, i.e. upload a blink sketch to confirm successful assembly
- If this is successful, finish populating the rest of the PCB.
- As with the MCU area, apply solder paste to all pads, place components based off reference designation and reflow board until all components soldered.
- Clean board using a flux remover if necessary.