Backplane

Technical Datasheet

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1 Introduction

The backplane is a four layer board that connects most of the electrical components together and passes signals between them. Physically, the board is approximately 20cm long and 10cm wide, sitting about 3.5 inches above the bottom of the electronics hulls, and consists of a 16V plane, a GND plane, and two internal signal planes. There are four major connectors for the fours plug-in daughterboards, which allow for flexibility and modularity, each with eighty signal pins and two full-power blades. There are two I^2C lines, two SPI lines, and two serial RX/TX lines that run between the CPU and all the daughterboards, as well as USB connections between the CPU and the individual daughterboards.