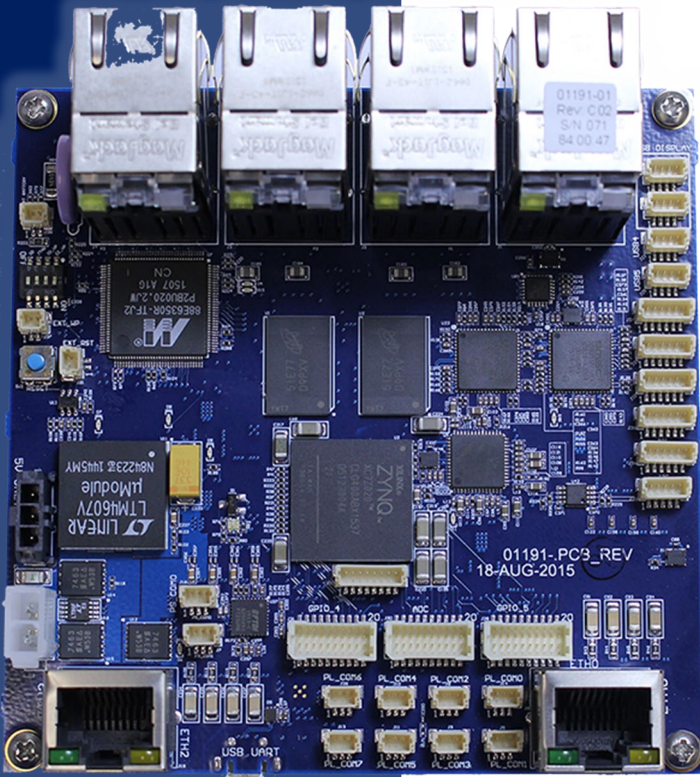


## E2S2

### ETHERNET TO SERIAL ADAPTER – CENTRAL SYSTEM CONTROL

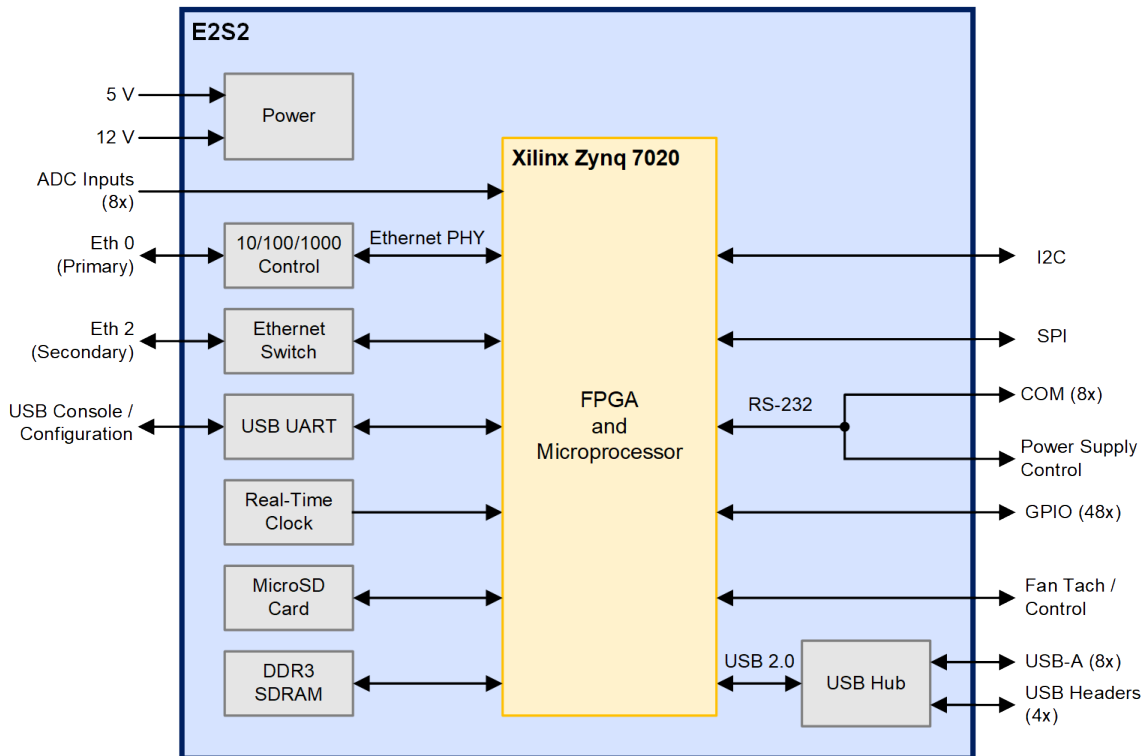


- Managed or unmanaged 6-port Ethernet switch
  - Includes distributed switch architecture (DSA) capabilities to allow the host to control each port individually
- Command and control via 10/100/1000 Ethernet or web API
- Up to 9 RS-232 serial ports
- USB host with integrated 12-port hub, including 2 ports with standby power
- Includes 48 GPIO pins with High, Low, Rising Edge, Falling Edge, Double Edge, or tachometer input modes and High, Low, and 12.5 kHz PWM output modes
- ADC with eight channels
- Dedicated I<sup>2</sup>C and SPI buses for off-board communications
- Two input power options:
  - 5V, 3-pin, Micro-Fit connector
  - 6 V to 36 V, 2-pin Mini-Fit connector
- Supports encryption keys on the FPGA

**RINCON RESEARCH CORPORATION'S E2S2** is a second generation, bidirectional, Ethernet-to-serial converter card with USB, RS-232, I<sup>2</sup>C, and GPIO capability. It enables a single Ethernet control port for a chassis or other complex system. E2S2 is a flexible system supervisor and system controller. It ties together a variety of system components for remote management, including fans, USB devices, Ethernet devices, analog sensors, and digital sensors.

# E2S2

# BLOCK DIAGRAM



## SPECIFICATIONS

- Power Connectors:
  - 3-pin Micro-Fit, 5V
  - 2-pin Mini-Fit, 6V to 36V
- Board Power: 5 W, typ. Capable of supplying full power to all USB ports, an additional 30 W
- USB 2.0, 8 USB type-A connectors, 4 JST connectors
- RS-232: 9 JST 3-wire connectors
- SPI: MOSI/MISO/CS, 1 MHz
- I<sup>2</sup>C: SCLK/SDATA, 400 kHz
- GPIO: Up to 48 GPIO pins
- ADC: 12 bits, 8 channels, 125 kSPS, 0 V to 1 V voltage limit
- Command and Control: 10/100/1000 Ethernet, RJ45
- Ethernet Switch: 5 ports 10/100/1000 Ethernet, RJ45
- Dimensions: 3.876" x 3.876" (9.85 cm x 9.85 cm)
- Weight: 4.89 oz

### ADDRESS

101 N. Wilmot Rd., Ste. 101  
Tucson, AZ 85711

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VERSION 1.0.

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