

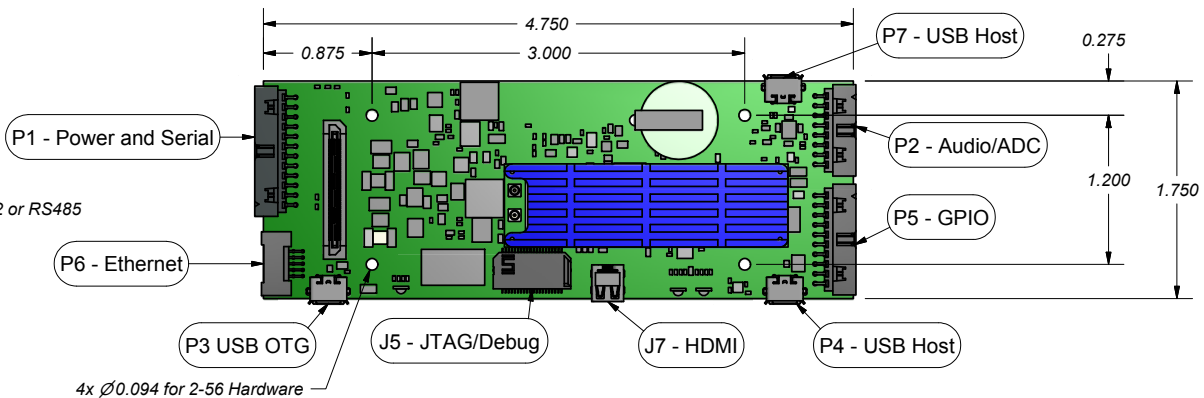
Specifications:

Weight: 1.4 oz / 40 g
 Operating Temperature: -20C to +70C

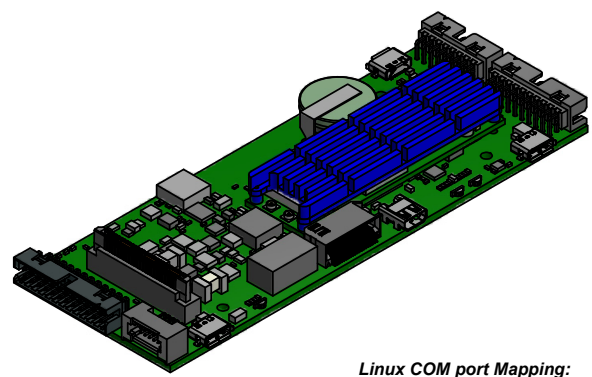
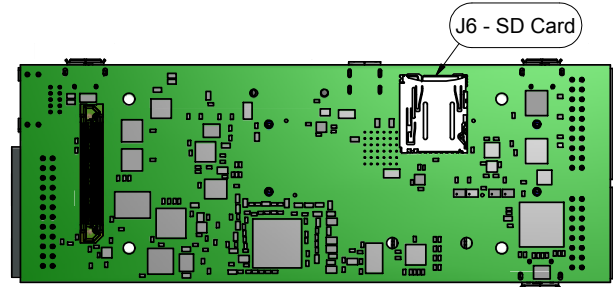
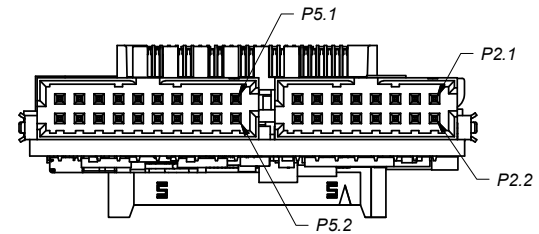
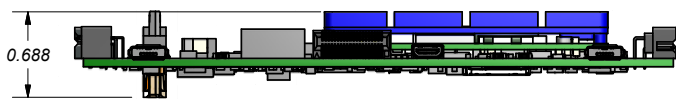
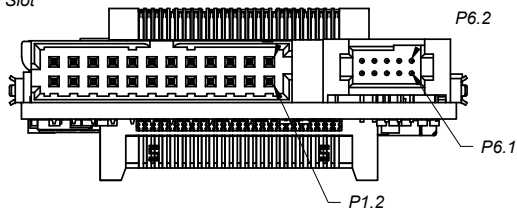
Successful testing to -40C at WHOI has been performed.

Features:

- Micromodem 2 Compatible Mating Connectors**
 (4) RS232 Serial Ports, (1) Serial Port Configurable for RS232 or RS485
 10/100 Base T Ethernet, WiFi and Bluetooth
 (2) USB Host Ports and (1) USB OTG Port
 (1) Mini-HDMI Video Connection
 (8) GPIO
 (6) ADC Inputs (0-2.5V)
 (2) Audio Inputs and (2) Audio Outputs
 (1) External I2C Interface
 Real Time Clock with External Hibernate and Wake
 Support for External PPS
 (1) Micro-SD Slot



P1.1 4x Ø0.094 for 2-56 Hardware




Power Consumption:

Assumes Gumstix Overo FE Com Installed
 Idle (All Sub-systems ON): 3.5W @ 12V
 Idle (All Sub-systems OFF, Gumstix ON): 1.8W @ 12V
 Hibernate: 550uW @ 12V

Linux COM port Mapping:

- COM1: Linux Console (115200, 8, N, 1, RS232, No Flow Control)
 COM2: /dev/ttyO1 (letter "O" not zero)
 COM3: /dev/ttyO0 (letter "O" not zero)
 COM4: /dev/eser0
 COM5: /dev/eser1
 Ethernet: /sbin/ifconfig eth0
 Root filesystem is on the Gumstix Overo's SD card

Unless Otherwise Noted: 1. Tolerances: <u>Decimal</u> <u>Angular</u> .XX ± 0.01 ± 1 Deg .XXX ± 0.005 2. Dimensions are in Inches 3. Break All Sharp Edges 4. Surface Finishes Critical for O-Ring Surfaces 5. Material: 6. Finish:		 Woods Hole Oceanographic Institution Acoustic Communications Group 86 Water Street, Dept. 4 MS 18, Woods Hole, MA 02543		Drawing Title: Gumstix Overo Interface Board with Overo FE Com	
Designer: Keenan Ball Engineer: Keenan Ball	10/27/2014 10/27/2014			Size: B Cage Code: 88846	Drawing Number: 205049-ASM
				Sheet 1 of 2	

P2 - Analog and ADC

Molex Milli-Grid 87833-2020

- 1 nc
- 2 nc
- 3 Audio Right (input)
- 4 GND
- 5 Audio Left (input)
- 6 GND
- 7 Audio Right (output)
- 8 GND
- 9 Audio Left (output)
- 10 ADC 2 (0-2.5V)
- 11 ADC 3 (0-2.5V)
- 12 ADC 4 (0-2.5V)
- 13 ADC 5 (0-2.5V)
- 14 ADC 6 (0-2.5V)
- 15 ADC 7 (0-2.5V)
- 16 GND

P5 - GPIO

Molex Milli-Grid 87833-1620

- 1 GND
- 2 5V (output, 600mA MAX)
- 3 I2C SCL (output)
- 4 I2C SDA (I/O)
- 5 EXTPPS (input)
- 6 reserved do not connect
- 7 EXTWAKE (input, active low)
- 8 GND
- 9 GPIO 1 (3.3V, 5V Tolerant)
- 10 GPIO 2 (3.3V, 5V Tolerant)
- 11 GPIO 3 (3.3V, 5V Tolerant)
- 12 GPIO 4 (3.3V, 5V Tolerant)
- 13 GND
- 14 GPIO 5 (3.3V, 5V Tolerant)
- 15 GPIO 6 (3.3V, 5V Tolerant)
- 16 GPIO 7 (3.3V, 5V Tolerant)
- 17 GPIO 8 (3.3V, 5V Tolerant)
- 18 GND
- 19 GND
- 20 3.3V (output, 100mA MAX)

P1 - Power and Serial I/O

Molex Milli-Grid 87833-2420

- 1 GND
- 2 Edge Power (3.2VDC - 33VDC)
- 3 COM 1 RX / RS485 RX+
- 4 COM 1 /CTS / RS485 RX-
- 5 COM 1 TX / RS485 TX-
- 6 COM 1 /RTS / RS485 TX+
- 7 GND
- 8 GND
- 9 COM 2 RX
- 10 COM 2 /CTS
- 11 COM 2 TX
- 12 COM 2 /RTS
- 13 COM 3 RX
- 14 GND
- 15 COM 3 TX
- 16 GND
- 17 COM 4 RX
- 18 COM 5 CD
- 19 COM 4 TX
- 20 COM 5 DTR
- 21 COM 5 RX
- 22 COM 5 CTS
- 23 COM 5 TX
- 24 COM 5 RTS

P6 - Ethernet

Samtec TFM-105-01-L-D-RE1-WT

- Mating Cable WHOI 231018b-xx where xx is length
If using other note that mating Samtec part has
pin numbering reversed from P4 on board.
- 1 ETH TX+
 - 2 ETH TX-
 - 3 ETH RX+
 - 4 nc
 - 5 nc
 - 6 ETH RX-
 - 7 nc
 - 8 nc
 - 9 nc
 - 10 nc

J7 - HDMI Display

Samtec Mini HDMI

P3 - USB OTG

Micro USB AB

P4 - USB Host

Micro USB AB

P7 - USB Host

Micro USB AB

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Designer: Keenan Ball	10/27/2014
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