

Specifications:

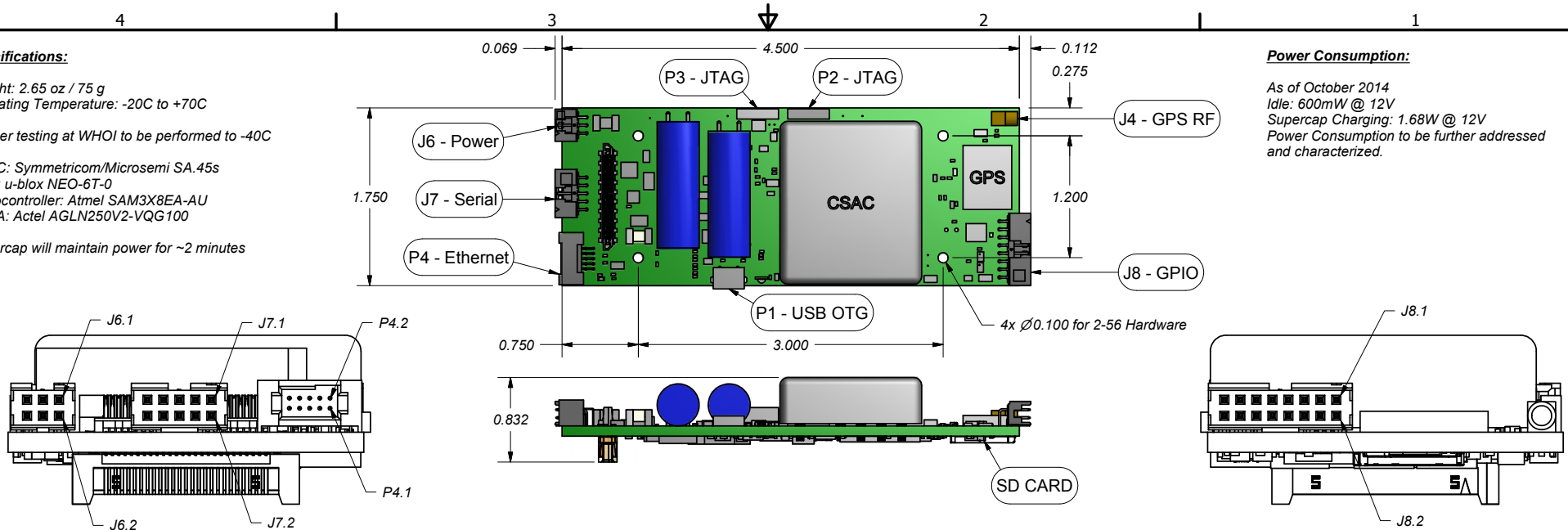
Weight: 2.65 oz / 75 g
 Operating Temperature: -20C to +70C
 Further testing at WHOI to be performed to -40C

CSAC: Symmetricom/Microsemi SA.45s
 GPS: u-blox NEO-6T-0
 Microcontroller: Atmel SAM3X8EA-AU
 FPGA: Actel AGLN250V2-VQG100

Supercap will maintain power for ~2 minutes

Power Consumption:

As of October 2014
 Idle: 600mW @ 12V
 Supercap Charging: 1.68W @ 12V
 Power Consumption to be further addressed and characterized.



J8: 3.3V GPIO (5V Tolerant)

FCI 98464-G61-16LF

- Pin 1 GPIO 1 (GPS PPS Input)*
- Pin 2 GPIO 2
- Pin 3 GPIO 3
- Pin 4 GPIO 4
- Pin 5 GPIO 5
- Pin 6 GPIO 6
- Pin 7 GPIO 7
- Pin 8 GPIO 8*
- Pin 9 Edge PPS (output)
- Pin 10 I2C #ALERT (I/O)
- Pin 11 #SHUTDOWN (input)
- Pin 12 I2C SCL (output)
- Pin 13 Edge 3.3V (input)
- Pin 14 I2C SDA (I/O)
- Pin 15 GND
- Pin 16 GND

J7: RS232 Serial

FCI 98464-G61-10LF

- Pin 1 COM1 TX (output)
- Pin 2 PPS OUT (RS232 Level)
- Pin 3 COM1 RX (input)
- Pin 4 GND
- Pin 5 COM2 TX (output)
- Pin 6 COM3 TX (output)
- Pin 7 COM2 RX (input)
- Pin 8 COM3 RX (input)
- Pin 9 GND
- Pin 10 GND

J6: Power

FCI 98464-G61-06LF

- Pin 1 GND
- Pin 2 VIN (3.2V-33V)
- Pin 3 GND
- Pin 4 VIN (3.2V-33V)
- Pin 5 GND
- Pin 6 VIN (3.2V-33V)

Mating Connector Info:

- J4 -- MMCX PLUG 50 Ohm
 - J6 -- 90311-006LF
 - J7 -- 90311-010LF
 - J8 -- 90311-016LF
 - P4 -- WHOI Cable 231018b-xx where xx is length
- If using other note that mating Samtec part has **pin numbering reversed** from P4 on board.

Note: The mating connectors listed do not have a Pin 1 indicator that matches the connectors on the Micromodem. The FCI 10068573 series does have the correct Pin 1 indicator to match the Micromodem but availability of this series has been limited if at all. Please take the necessary precautions to make sure any wiring that interfaces the Micromodem matches the pinout of the connectors installed on the Micromodem board.

- Unless Otherwise Noted:
- Tolerances:

Decimal	Angular
.XX ± 0.01	± 1 Deg
.XXX ± 0.005	
 - Dimensions are in Inches
 - Break All Sharp Edges
 - Surface Finishes Critical for O-Ring Surfaces
 - Material: Generic
 - Finish:



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Drawing Title: Precision Time and Position Board			
Designer: Keenan Ball	10/24/2014	Size: B	Rev: A
Engineer: Keenan Ball	10/24/2014	Cage Code: 88846	Drawing Number: 205103-ASM
Sheet 1 of 1			

* Function dependent on installed FPGA image at time of this writing.