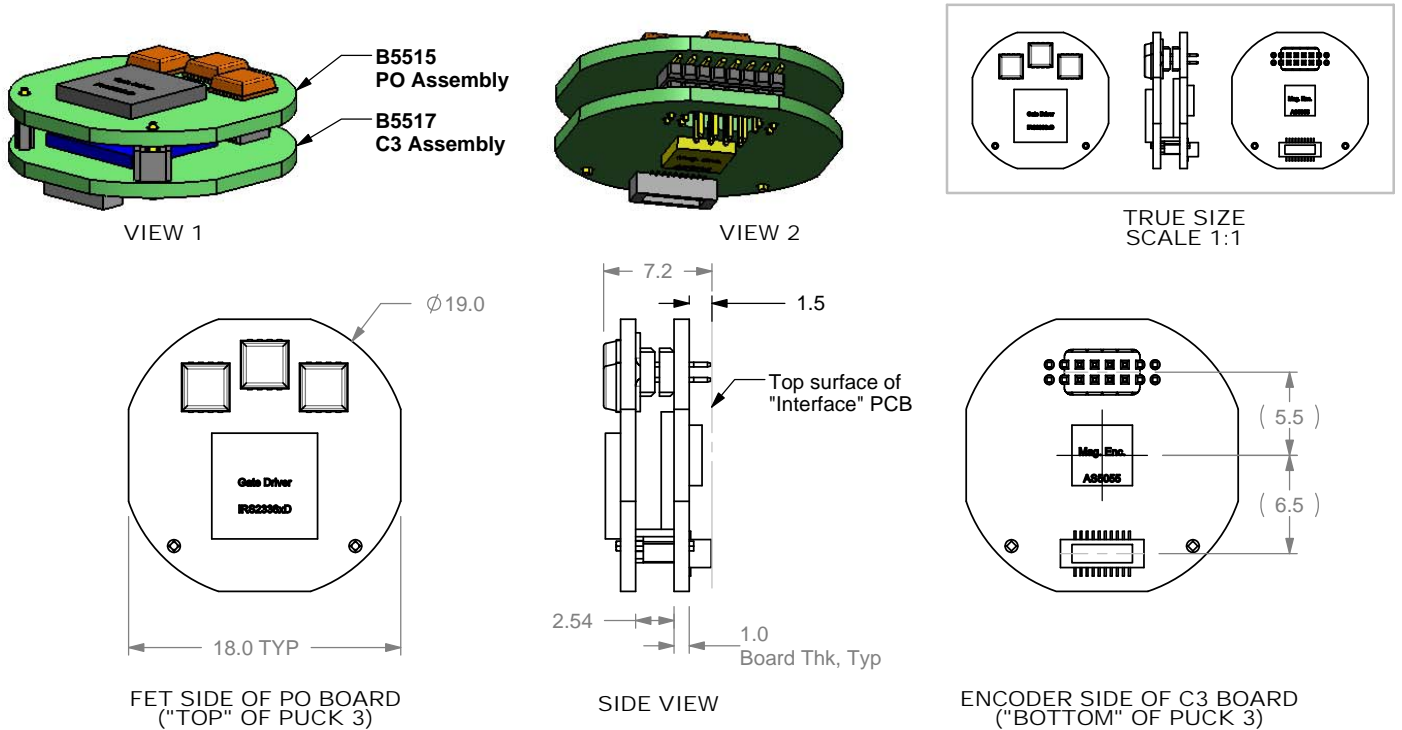


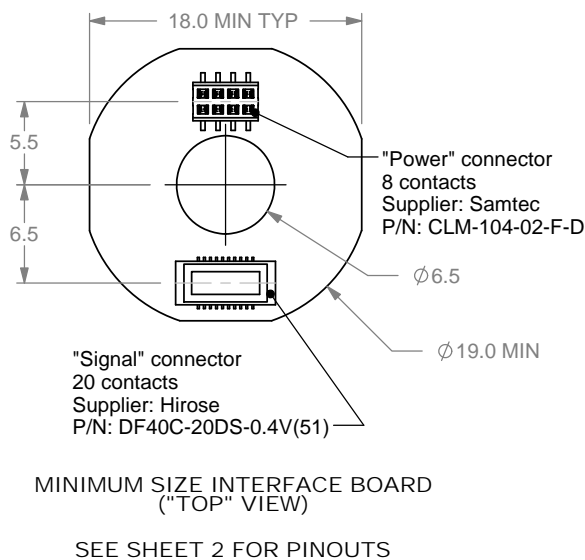
This page contains mechanical interface specifications for Barrett Technology's Puck 3 module. The Interface Board should be designed by the customer using the guidelines shown below. A  $\phi 6.0$  mm magnet with a radial N-S field should be attached to the rotating shaft of the motor at the distance specified. Contact Barrett for additional design assistance.

## Puck 3 Mechanical Specifications

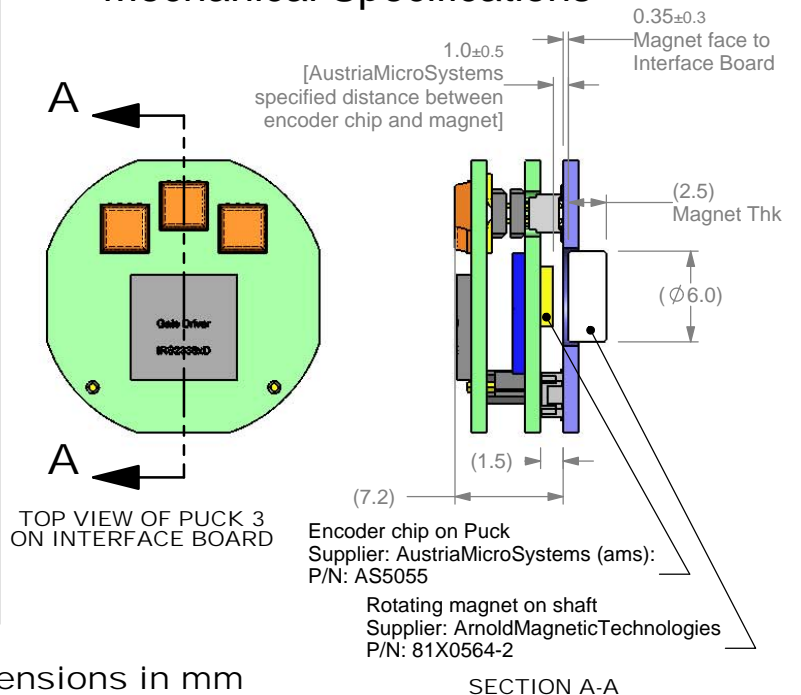
(not all components are shown)



### Interface Board Mechanical Design Guidelines



### Puck + Interface Board Mechanical Specifications



All dimensions in mm  
 Scale: 2x

This page contains electrical interface specifications for Barrett Technology's Puck 3 module. The Interface Board should be designed by the customer using the guidelines shown below. PINOUTS ARE PRELIMINARY and are subject to change. Contact Barrett for additional design assistance.

## Interface Board Electrical Design Guidelines

Starred (\*) and **bold** contact numbers are mandatory connections

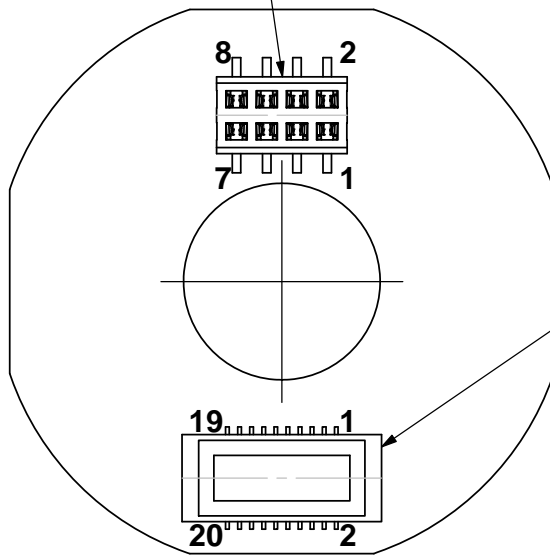
### Power connector on Interface Board

| <i>(Factory Use Only)</i> | Contact   | Function        | Notes                       |
|---------------------------|-----------|-----------------|-----------------------------|
| 5                         | <b>1*</b> | <b>MotorV+</b>  |                             |
| 6                         | 2         | 5V_Out          |                             |
| 7                         | <b>3*</b> | <b>MotorGnd</b> |                             |
| 8                         | <b>4*</b> | <b>PhaseC</b>   |                             |
| 9                         | 5         | 12V_Gnd         | depends on system grounding |
| 10                        | <b>6*</b> | <b>PhaseB</b>   |                             |
| 11                        | <b>7*</b> | <b>12V_In</b>   |                             |
| 12                        | <b>8*</b> | <b>PhaseA</b>   |                             |

### Signal connector on Interface Board

| Contact   | Primary Function | Secondary Function | Notes                  |
|-----------|------------------|--------------------|------------------------|
| <b>1*</b> | <b>CAN_Lo</b>    | Xcvr_B             |                        |
| <b>2*</b> | <b>CAN_Hi</b>    | Xcvr_A             |                        |
| 3         | ~Reset           |                    | Factory-use only       |
| 4         | I2C_Data         |                    |                        |
| 5         | SPI_MOSI         |                    |                        |
| 6         | I2C_Clock        |                    |                        |
| 7         | SPI_MISO         |                    |                        |
| 8         | ADC1             | DAC1_OUT           |                        |
| 9         | SPI_Clock        |                    |                        |
| 10        | QuadIcx          | JTAG_TMS           |                        |
| 11        | Gnd              |                    |                        |
| 12        | 3.3V_Out         |                    | current limit spec TBD |
| 13        | QuadA            | DI/O3              |                        |
| 14        | DI/O2            |                    |                        |
| 15        | HallB            | JTAG_TDI           |                        |
| 16        | DI/O1            |                    |                        |
| 17        | HallC            | JTAG_TDO           |                        |
| 18        | QuadB            | DI/O4              |                        |
| 19        | HallA            | JTAG_TCLK          |                        |
| 20        | ADC2             | DAC0_OUT           |                        |

"Power" connector  
Supplier: Samtec  
P/N: CLM-104-02-F-D



"Signal" connector  
Supplier: Hirose  
P/N: DF40C-20DS-0.4V(51)

MINIMUM SIZE INTERFACE BOARD  
("TOP" VIEW)  
Scale: 4x

SEE SHEET 1 FOR DIMENSIONS