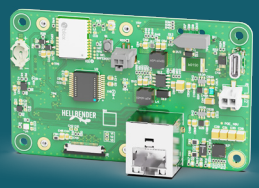
# BEARING BOARD

## POSITIONING AND TIMING BOARD

HELLBENDER

The Hellbender Bearing board is a fully programmable positioning and orientation module. It fuses RTK GNSS, IMU, and magnetometer data into a single-antenna POSE solution, with PPS output and NTP/PTP master clock capability, powered by an onboard CM4.



## SPECIFICATIONS

| | |
|---|---|
| Dimensions | 95mm x 58mm |
| Power Input | 10 - 36 VDC<br>PoE+ |
| Compute | Raspberry Pi CM4 SOM Quad Core Cortex-A72 @ 1.5GHz, 4GB RAM, 16GB eMMC |
| Networking | 1GbE PoE+ |
| Communications | 1x USB-C 2.0<br>1x MIPI-CSI<br>1x PPS Output |
| Mechanical Interface | 4x M3 Mounting Holes |
| Sensors & Accessories | 1x RTK GNSS RX<br>2x IMU (3-axis & 6-axis)<br>1x Magnetometer<br>1x Environmental Sensor<br>1x Rechargeable coin cell battery (3V) for RTK GNSS Module |
| Wireless Network | 2.4 GHz and 5.0 GHz IEEE 802.11 b/g/n/ac WiFi<br>Bluetooth 5.0 and BLE |
| Environment | Recommended operating temperature -30 to 60°C |
| Software | Default Linux-based OS |