

RESOLUTE POLAR

The world's best geodetic grade receiver specifically designed for polar environments

With built in micro heaters and Iridium telemetry, the Resolute Polar is designed to withstand the harshest conditions of the polar region. The low power of the Resolute and embedded data handling algorithms ensure the Resolute survives the dark and cold days of the polar winter.

FEATURES

- L1, L2, L5, All constellations
- Less than 1.2 Watts Typical
- Included Iridium RUDICS and SBD
- 1 x 8 GB and 1 x 4 GB SLC microSD Cards
- Ethernet Interface
- Compressed Data Formats
- Small 6"x 6"x 3" Form Factor
- -55° C to +60° C
- Compatible with XeosOnline™ Tunnel



TELEMETRY OPTIONS



Iridium



Cellular
OPTIONAL



Ethernet

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GNSS Technology		Connectors	
GNSS Signals	GPS: L1C, L1P(Y), L2C, L2P(Y) L5 • GLONASS: L1, L2, L3 • Galileo: E1, E5a, E5b, AltBoc • BeiDou: B1, B2 1 • SBAS: EGNOS, WAAS, GAGAN, MSAS, SDCM (L1, L5) • IRNSS: L51 • QZSS: L1, L2, L5 (Some signals optional)	Power, Ethernet	Souriau Circular MIL Spec 12E 10P Female
Number of Channels	448 hardware channels	GNSS Antenna	Type N female
Sample Rate	Up to 20 Hz (100Hz Option)	Serial 232, 485, SDI 12	Souriau Circular MIL Spec 12E 14P Female
Time to first fix	< 20 s warm; < 45 s cold; < 1 s Re-acquisition	USB	USB Mini B
C/No Threshold	Tracking: 20 dB-Hz; Acquisition: 33 dB-Hz	900 MHz Radio	TNC female (optional)
RTK Accuracy	Horizontal: 0.6cm + 0.5 ppm Vertical: 1 cm + 1 ppm (optional)	Iridium	TNC female (optional)
Smoothed & Filtered Positions	Horizontal: < 1mm, Vertical: 1 mm	Cellular	TNC female (optional)
Velocity Accuracy	3 cm/s	Grounding	Grounding Stud (2 BA Thread)
Latency	<10ms		
Feature Rich GNSS	Lock + for robust tracking during high vibrations, APME+ multipath mitigation, Iono+ advanced ionospheric disturbance protection		
Electrical and Mechanical		General	
Power Supply	11-28V DC	Interface	Button, Status LEDs, Programmatic Commands, Web Interface, XeosOnline™
Power Consumption	1.2 W Typical (12V)	Data Logging	Dual 4GB Removable SD Card. 4 Parallel Logging Sessions (GNSS) SBF (Convertible to NMEA 0183, v2.3, v3.01, v4.0; RINEX v2.x, 3.x), External Digital Sensors (independent sessions)
Operating Temperature	-40 °C to +60 °C (-55 °C optional)	Data Streaming	RS 232, 485, 900Mhz Radio, Iridium RUDICS, Iridium SBD, Cellular LTE, Cellular SMS (some optional)
Dimensions and Weight	6"x6"x3", 2.8lbs		
Drop	1 m onto a hard surface		
Feature	Resolute Reference	Resolute Pin	Resolute Polar
Standard Update Rate	Up to 20Hz	Up to 20Hz	Up to 20Hz
On-Board Storage	1 x 8 GB or 1 x 4 GB Micro SD	1 x 8 GB or 1 x 4 GB Micro SD	1 x 8 GB or 1 x 4 GB Micro SD
Operating Temperature	-40 °C to +60 °C	-40 °C to +60 °C	-55 °C to +60 °C
GPS L1, L2, L5; Glonass G1, G2, G3	✓	✓	✓
All Signals	○	○	○
RINEX v2.x, 3.x	✓	✗	✓
SBF	✓	✓	✓
RTK (RTCM v2.x, 3.x CMRv2.0 and CMR +)	○	✓	○
Position Monitoring	✓	✓	✓
900 MHz Radio	✗	✓	✗
Cellular LTE Modem	○	○	○
Iridium SBD (9523)	○	○	✓
Iridium RUDICS (9523)	○	○	✓
External Sensor Logging	○	○	○
192 KB RAM	✓	✓	✓
2 MB External RAM	○	○	○
2MB Flash Memory	○	○	✓

✓ = Included ○ = Optional ✗ = Not Included