

# 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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# TECHNICAL SPECIFICATIONS



# Resolute Polar

GNSS Technology		Connectors	
<b>GNSS Signals</b>	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)	<b>Power, Ethernet</b>	Souriau Circular MIL Spec 12E 10P Female
<b>Number of Channels</b>	448 hardware channels	<b>GNSS Antenna</b>	Type N female
<b>Sample Rate</b>	Up to 20 Hz (100Hz Option)	<b>Serial 232, 485, SDI 12</b>	Souriau Circular MIL Spec 12E 14P Female
<b>Time to first fix</b>	< 20 s warm; < 45 s cold; < 1 s Re-acquisition	<b>USB</b>	USB Mini B
<b>C/No Threshold</b>	Tracking: 20 dB-Hz; Acquisition: 33 db-Hz	<b>900 MHz Radio</b>	TNC female (optional)
<b>RTK Accuracy</b>	Horizontal: 0.6cm + 0.5 ppm Vertical: 1 cm + 1 ppm (optional)	<b>Iridium</b>	TNC female (optional)
<b>Smoothed &amp; Filtered Positions</b>	Horizontal: < 1mm, Vertical: 1 mm	<b>Cellular</b>	TNC female (optional)
<b>Velocity Accuracy</b>	3 cm/s	<b>Grounding</b>	Grounding Stud (2 BA Thread)
<b>Latency</b>	<10ms	<b>General</b>	
<b>Feature Rich GNSS</b>	Lock + for robust tracking during high vibrations, APME+ multipath mitigation, Iono+ advanced ionospheric disturbance protection	<b>Interface</b>	Button, Status LEDs, Programmatic Commands, Web Interface, XeosOnline™
<b>Electrical and Mechanical</b>		<b>Data Logging</b>	Dual 4 GB 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)
<b>Power Supply</b>	11-28V DC	<b>Data Streaming</b>	RS 232, 485, 900Mhz Radio, Iridium RUDICS, Iridium SBD, Cellular LTE, Cellular SMS (some optional)
<b>Power Consumption</b>	1.2 W Typical (12V)		
<b>Operating Temperature</b>	-40 °C to +60 °C (-55 °C optional)		
<b>Dimensions and Weight</b>	6"x6"x3", 2.8lbs		
<b>Drop</b>	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	0	0	0
RINEX v2.x, 3.x	✓	✗	✓
SBF	✓	✓	✓
RTK (RTCM v2.x, 3.x CMRv2.0 and CMR +)	0	✓	0
Position Monitoring	✓	✓	✓
900 MHz Radio	✗	✓	✗
Cellular LTE Modem	0	0	0
Iridium SBD (9523)	0	0	✓
Iridium RUDICS (9523)	0	0	✓
External Sensor Logging	0	0	0
192 KB RAM	✓	✓	✓
2 MB External RAM	0	0	0
2MB Flash Memory	0	0	✓
✓ = Included    0 = Optional    ✗ = Not Included			