The World's Most Advanced GNSS receiver for Every Mobile Device

The Arrow Gold® is the first high-accuracy iOS, Android, and Windows Bluetooth® GNSS receiver to implement all four global constellations (GPS, GLONASS, Galileo, Beidou), three frequencies (L1, L2, L5), and satellite-based RTK augmentation. The Arrow Gold works with all apps that run on iOS, Android, and Windows devices. It also supports all planned global satellite constellations, giving it an awesome return on investment that will serve you well into the next decade and beyond.

RTK Everywhere - Even in Poor Cell Coverage Areas

The Arrow Gold offers a new feature called SafeRTK™. There is nothing more frustrating than trying to stay connected to an RTK network in areas with poor cell coverage. This feature is the answer. When the Arrow Gold loses connection to the RTK network, SafeRTK takes over in a few seconds and allows it to maintain RTK-level accuracy for up to 20 minutes (unlimited with Atlas™ subscription), until the Arrow Gold is automatically reconnected to the RTK network. This results in smooth, RTK accuracy even in areas with poor cell coverage.

No RTK Network Access Available? Pioneering Low-Cost Global Satellite

Do you work in an area without an RTK network available? The Arrow Gold features a 4 cm, real-time satellite correction service available anywhere in the world. Using all four constellations and signals, the Arrow Gold offers convergence times as low as 15 minutes anywhere in the world, at a revolutionary price point that works with all iOS, Android, and Windows devices.

Key Features:

- Supports GPS, GLONASS, Galileo, Beidou, QZSS
- Triple-Frequency support
- 1 cm RTK real-time accuracy
- Long-range RTK baselines up to 50 km
- SafeRTK for poor cell coverage areas
- Worldwide satellite correction service
- 100% iOS, Android, and Windows compatibility

The Ultimate Accuracy for Your iOS, Android, or Windows Device

Of course, iOS, Android, and Windows compatibility is our expertise. Eos has the most advanced connectivity with all mobile devices and free software utilities to ensure compatibility with apps like Esri Collector, Survey123, QuickCapture and many other mobile GIS software apps.

For more details, www.eos-gnss.com
GPS Sensor

Receiver Type: GNSS multi-frequency RTK with carrier phase
Signals Received:
- GLONASS: G1, G2, P1, P2
- Galileo: E1BC, E5a, E5b
- BeiDou: B1, B2, B3 (without L5)
- QZSS: L1CA, L1C, L2C, L5
Number of Tracked Satellites:
- 12 GPS (15 when no SBAS)
- 12 GLONASS
- 22 BeiDou
- 15 Galileo
- 4 QZSS
SBAS Support: 3-channel, parallel tracking
L-Band (Atlas): 1
Update Rate: 1 Hz Default, Optional 10 Hz and 20 Hz
RTK Accuracy: 1 cm1 + 1 ppm Horizontal
SBAS Accuracy: < 30 cm HRMS; < 60 cm 2dRMS
Atlas Accuracy (RMS):
- H10: 4 cm
- H30: 15 cm
- H100: 30 cm
Autonomous Accuracy: 1.2 meters HRMS1
Cold Start: < 60 sec typical (no almanac or time)
Reacquisition: < 1 sec
Max Speed: 1,850 kph (1,150 mph / 999 knots)
Max Altitude: 18,288 meters / 60,000 ft

Communication

Port: Bluetooth, USB 2.0, Serial (Optional)
Bluetooth Transmission: Class 1, 300 m typical range2, up to 1 km
Frequency: 2.400 - 2.485 GHz
Fully Bluetooth Pre-Qualified: Bluetooth 2.1 + EDR
Supported Bluetooth Profiles: SPP and aIP
Data I/O formats: NMEA 0183, RTCM SC-104, Binary
Output Datum: Autonomous: WGS-84 (G1674) Epoch 2005.0
SBAS & Atlas: ITRF08 (current year epoch)
RTK: Same as RTK base
Raw Measurement Data:
- Binary and RINEX
Correction I/O Protocol:
- RTCM 2.x, 3.x, CMR, CMR+, proprietary binary
GPS Status LEDs:
- Power, GNSS, DGNSS, DIFF, Bluetooth
Battery Status LED: 5 LED Indicator
Timing Output:
- 1PPS, CMOS, active high, rising edge sync, 10 kΩ, 10 pF load
Event Marker Input:
- CMOS, active low, falling edge sync, 10kΩ, 10 pF load

Power

Battery Type: Field replaceable, rechargeable Lithium-Ion pack (rechargeable inside unit or separately)
Battery Autonomy: 8.5 hrs3 (Atlas™ OFF) - 7+ hrs3 (Atlas™ ON)
Charging Time: 4 hours (vehicle charger available)

Environmental

Operating Temperature: -40°C to +85°C (-40°F to +185°F)
Storage Temperature: -40°C to +85°C (-40°F to +185°F)
Humidity: 95% non-condensing
Compliance: FCC, CE, RoHS and Lead-free

Mechanical

Enclosure Material: Xenoy
Enclosure Rating: Waterproof, IP-67
Immersion: 30 cm, 30 minutes
Dimensions: 12.5 x 8.4 x 4.2 cm (4.92 x 3.3 x 1.65 in.)
Weight: 372 g (0.82 lbs)
Data Connectors:
- Mini USB Type B Receptacle
- SMA Female

Antenna

GPS Freq Range: 1525 - 1606 MHz, 1164 - 1254 MHz
Impedance: 50 Ohms
Gain (no cable): 30 dB (± 2 dB)
LNA Noise Figure: 2.5 dB Max at 25°C
Voltage: +2.5 to +16 VDC
Connector: SMA female
Dimensions: 69 mm diam. x 22 mm (2.72 x 0.87 in.)
Weight: 170 g (0.374 lbs)
Temperature: -40°C to +85°C (-40°F to + 185°F)

Standard Accessories

Li-Ion Battery Pack (Field replaceable) Pole Bracket and Clamp
12VDC Power Supply Hard Shell Carrying Case
USB Cable Antenna Cable
L1/L2/L5, L-Band GNSS Antenna Antenna Mounting Plate

Field Activated Options

10 Hz, 20 Hz Output Rates

NOTES:
1. Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services) and ionospheric activities. Stated accuracies for baseline lengths of up to 50km
2. Transmission in free space
3. Lithium-Ion battery performance degrades below -20°C (-4°F)

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