



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

The Arrow Gold® is the first high-accuracy Bluetooth® GNSS receiver to implement all four global GNSS constellations (GPS, GLONASS, Galileo, BeiDou), multi-frequency, and satellite-based RTK augmentation on iOS, Android, and Windows. Moreover, the new Arrow Gold+™ adds full-band support for all GNSS signals including Galileo's new, free High-Accuracy Service (HAS). Both the Arrow Gold® and Arrow Gold+™ receivers work with all apps that run on iOS, Android, and Windows.

RTK in Poor Cell Coverage Areas

There is nothing more frustrating than losing RTK network connection while working in areas with spotty cell coverage. SafeRTK® is the answer. SafeRTK® is a proprietary feature included exclusively with the Arrow Gold® and Arrow Gold+™ receivers. When cellular connection to your RTK network drops, SafeRTK® takes over within a few seconds and allows you to maintain RTK-level accuracy for up to 20 minutes. So you can stay productive, until the Arrow Gold® automatically reconnects to the RTK network as coverage returns. This enables uninterrupted RTK accuracy in spotty areas.

No RTK Network? Arrow Gold® Supports Low-Cost Global Corrections

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

Arrow Gold®
Arrow Gold+™

Arrow Series®
for 1cm RTK Accuracy,
with SafeRTK®

Arrow Gold® Key Features:

- Supports GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS (L5)
- Triple-Frequency support 1 cm RTK real-time accuracy
- Long-range RTK baselines up to 50 km (31 mi)
- SafeRTK® for poor cell coverage areas
- 4 cm worldwide satellite correction service (Atlas®)
- 100% iOS, Android, and Windows compatible

Arrow Gold+™ Key Features:

- All Arrow Gold® key features
- All frequencies, all signals
- Supports free Galileo High-Accuracy Service
- Multi-device Bluetooth® connectivity
- 11-hour battery autonomy on a single charge



Multiplexing with the Arrow Gold+™

The Arrow Gold+™ has the functionality of the Eos Bridge™ Bluetooth® connector built in. Connect your Arrow Gold+™ to any third-party sensor (e.g., laser rangefinder), and the Arrow Gold+™ will stream the content of that sensor to your iOS or other mobile device via the receiver's own location datastream.

Ultimate Flexibility in Mobile Accuracy

iOS, Android, and Windows compatibility is our expertise. Eos Positioning Systems offers GNSS hardware with some of the most innovative, advanced connectivity on the market, supporting connection to popular apps like Esri's ArcGIS apps, and other mobile GIS apps, on any consumer device.

Specifications

GPS Sensor

Receiver Type:	GNSS multi-frequency RTK with carrier phase
GNSS Signals Received:	GPS: L1CA, L1P, L1C, L2P, L2C, L5 GLONASS: G1, G2, G3* , P1, P2 Galileo: E1BC, E5a, E5b, E6* BeiDou: B1i, B2i, B3i* , B10C* , B2A* , B2B* , ACEBOC* QZSS: L1CA, L1C, L2C, L5, LEX* IRNSS: L5*
SBAS Support:	3-channel, parallel tracking WAAS/EGNOS/MSAS/GAGAN/SouthPAN
L-Band (Atlas®):	1
Update Rate:	1 Hz Default, Optional 10 Hz, 20 Hz, and 50 Hz
RTK Accuracy:	8mm ¹ + 1 ppm Horizontal 1.5 cm ¹ + 1 ppm Vertical
SBAS Accuracy:	< 30 cm HRMS ¹ , < 60 cm 2dRMS
Atlas® Accuracy (RMS):	H10: 4 cm H30: 15 cm Atlas® Basic: 30 cm
Autonomous Accuracy:	1.2 meters HRMS ¹
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
Bluetooth® Transmission:	Class 1, 300 m typical range ² , up to 1 km
Frequency:	2.400 - 2.485 GHz
Fully Bluetooth® Pre-Qualified:	Bluetooth® 2.1 + EDR
Supported Bluetooth® Profiles:	SPP, iAP, Multi-point*
Data I/O formats:	NMEA 0183, RTCM SC-104, Binary
Output Datum:	Autonomous: WGS-84 SBAS & Atlas®: ITRF (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: (with optional serial port)	1PPS, CMOS, active high, rising edge sync, 10 kΩ, 10 pF load
Event Marker Input: (with optional serial port)	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:	7+ hrs ³ , 11+ hrs^{3*}
Charging Time:	4 hours (vehicle charger available)



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Environmental

Operating Temperature:	-40°C to +85°C (-40°F to +185°F) ³
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 lb)
Data Connectors:	Mini USB Type B Receptacle
Arrow Antenna Port:	SMA Female

Antenna

	Arrow Gold®	Arrow Gold+™
Impedance:	50 Ohms	50 Ohms*
Gain (no cable):	27 dB (± 2 dB)	28 dB (± 2 dB)*
LNA Noise Figure @25°C:	2.5 dB typ.	1.8 dB typ.*
Voltage:	+2.5 to +16 VDC	+3 to 16 VDC*
Dimensions mm:	68 Diam. x 20 H	127 Diam. x 55 H*
Dimensions in:	2.7 Diam. x 0.8 H	5.0 Diam. x 2.1 H*
Weight:	170 g (0.37 lbs)	217 g (0.48 lbs)*
RF Connector:	SMA female	
Operating Temperature:	-40°C to +85°C (-40°F to + 185°F)	
Humidity:	Waterproof	

Standard Accessories

Li-Ion Battery Pack (Field Replaceable)	Pole Bracket and Clamp
12VDC Power Supply	Hard Shell Carrying Case
USB Cable	Antenna Cable
GNSS Antenna	Antenna Mounting Plate

Field Activated Options

10 Hz, 20 Hz, 50Hz Output Rates
Atlas® satellite correction services

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 50 km
2. Transmission in free space
3. Lithium-Ion battery performance degrades below -20°C (-4°F)
+ indicates item applies only to Arrow Gold+™

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