EOS
Positioning Systems

ARROW Gold™
ARROW Series™
for 1cm RTK Accuracy, SafeRTK

Key Features:

- Supports GPS, GLONASS, Galileo, BeiDou, QZSS
- Triple-Frequency L1/L2/L5
- 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

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 as well as all planned signals, 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's 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, 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.

ARROW GOLD

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, ArcPad, Survey123, and many other mobile GIS software apps.

Specifications

GPS Sensor

Receiver Type:	GNSS multi-frequency RTK with carrier phase
Signals Received:	GPS: L1CA, L1P, L1C, L2P, L2C, L5
	GLONASS: G1, G2, P1, P2
	Galileo: E1BC, E5a, E5b
	BeiDou: B1, B2, B3 (without L5)
	QZSS: L1CA, L2C, L5, L1C
Channels:	394-channel, parallel tracking
Number of Tracked Satellites:	12 GPS (15 when no SBAS)
	12 GLONASS
	15 BeiDou
	22 Galileo
	4 QZSS
SBAS Support:	3-channel, parallel tracking
	WAAS/EGNOS/MSAS/GAGAN (with SBAS ranging)
L-Band (Atlas):	1
Update Rate:	1 Hz Default, Optional 10 Hz, 20 Hz, and 50 Hz
RTK Accuracy:	1 cm[1] + 1 ppm Horizontal
SBAS Accuracy:	< 30 cm HRMS[1]
Atlas Accuracy:	H10: 4 cm
	H30: 15 cm
	H100: 50 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 (Optional)
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 and iAP
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: (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)

Eos Positioning Systems Inc.
Terrebonne (Quebec), Canada
Tel: (450) 824-3325
www.eos-gnss.com | info@eos-gnss.com

Positioning Systems

Battery Autonomy:	8.5 hrs[3] (Atlas™ OFF) - 7+ hrs[3] (Atlas™ ON)
Charging Time:	4 hours (vehicle charger available)

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
Antenna Connector:	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)
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
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 50 km
2. Transmission in free space
3. Lithium-Ion battery performance degrades below -20°C (-4°F)

Made in Canada

Authorized Distributor