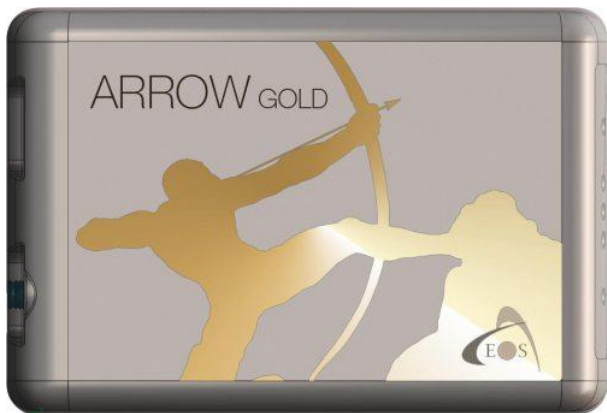


# Arrow Gold Key Features



- Supports **GPS, GLONASS, Galileo, BeiDou, QZSS**.
- Triple-Frequency **L1/L2/L5**.
- **1cm RTK** real-time accuracy.
- Long-range RTK Baselines **up to 50 km**.
- **SafeRTK™** for poor cell coverage areas.
- World-wide satellite correction service.
- 100% **iOS, Android, Windows compatibility**.

## 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

**BeiDou:** B1, B2, B3 (without L5)

**Galileo:** E1BC, E5a, E5b

**QZSS:** L1CA, L2C, L5, L1C

**Channels:** 372 total, parallel tracking

**Number of tracked satellites:** 12 GPS (15 when no SBAS), 12 GLONASS, 14 BeiDou, 12 Galileo, 4 QZSS

**SBAS Support:** 3 Satellite parallel tracking

WAAS/EGNOS/MSAS/GAGAN (with SBAS ranging)

**L-Band (Atlas):** 1

**Update rate:** 1Hz Default, optional 10Hz and 20Hz

**RTK Accuracy:**  $1\text{cm}^1 + 1\text{ppm}$  Horizontal

**SBAS Accuracy:**  $<30\text{cm}$  HRMS<sup>1</sup>

**Cold start:**  $< 60$  sec typical (no almanac or time)

**Reacquisition:**  $< 1$  sec

**Max speed:** 1,850 kph / 999 knots / 1,150 mph

**Max altitude:** 18,288 meters / 60,000 ft

## Communication

**Port:** Bluetooth, USB 2.0

**Bluetooth Transmission:** Class 1, 300m typical range<sup>2</sup>, up to 1km

**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 104, Binary

**Output datum:**

– **Autonomous:** WGS-84 (G1674) Epoch 2005.0

– **SBAS:** 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 k $\Omega$ , (with optional serial port) 10 pF load

**Event Marker Input:** CMOS, active low, falling edge sync, 10k $\Omega$ , (with optional serial port) 10 pF load

## Power

**Battery type:** Field replaceable, rechargeable Lithium-Ion pack.

**Battery life:** 8.5 hrs<sup>3</sup> (Atlas™ OFF) – 7+ hrs<sup>3</sup> (Atlas™ ON)

**Charging time:** 4 hours (vehicle charger available)

## Environmental

**Operating Temperature:** -40°C to +85°C (-40°F to +185°F)<sup>3</sup>

**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:** 30cm, 30 minutes

**Dimensions:** 12.5 x 8.4 x 4.2 cm (4.92 x 3.3 x 1.65 in.)

**Weight:** 372g (0.82 lbs)

**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):** 30dB  $\pm$ 2dB

**Noise Figure:** 2.5dB Max at 25°C

**Voltage:** +2.5 to +16 VDC

**Connector:** SMA female

**Dimensions:** 22 mm H x 69 mm D (0.87 in H x 2.72 in D)

**Weight:** 180 g (0.397 lb)

**Temperature:** -40°C to +85°C (-40°F to + 185°F)

**Humidity:** Waterproof

## Field Activated Options

10Hz, 20Hz 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)