

The World's First RTK Receiver for Every Mobile Device

The Arrow 200° is the world's first GNSS receiver able to provide 1 cm real-time accuracy on your Android, iOS, and Windows mobile device. Yes, you can enjoy 1 cm accuracy on your iPhone or Samsung Galaxy running Esri Collector for ArcGIS, Survey123, or whatever field data collection software you prefer.

Designed for use with a broad range of mobile devices, from smartphones to tablets and notebook computers, the Arrow 200 incorporates rock-solid, wireless Bluetooth technology that works smoothly with Android, iOS, and Windows devices, making it obsolete-proof and portable across platforms.

Use the Mobile GIS Software of Your Choice

Seems like a new mobile GIS software is being offered each week? With the Arrow 200 you will not be tied to legacy GNSS receiver hardware or GIS software, it will grow with you. The Arrow 200 feeds 1 cm RTK accuracy to every app on your Android or iOS device, even Google or Apple maps! Esri Collector for ArcGIS, Survey123, QuickCapture, AmigoCloud, Mapit, Futura, iCMTGIS PRO, it works seamlessly with all of them and many more mapping apps.

Uses All Four Global Constellations

The Arrow 200 incorporates premium features that place it among the highest performing receivers in the world. It takes advantage of all existing satellite constellations: GPS, GLONASS, Galileo, BeiDou, and free SBAS corrections, to deliver top-notch, 1 cm RTK performance anywhere in the world when connected to an RTK network or base station.

ARROW 200®

ARROW Series®

for 1-3cm Accuracy with RTK

Key Features:

- Supports existing GNSS (GPS, GLONASS, Galileo, BeiDou)
- Dual-Frequency support
- 100% Android, iOS, Windows compatibility
- 1 cm RTK real-time accuracy
- Supports all mobile GIS software



The Ultimate in Worldwide High-Precision GNSS Technology

The Arrow 200 provides the ultimate in flexibility. Using your smartphone, tablet, or notebook computer, it can deliver 1 cm real-time accuracy when connected to an RTK network or RTK base.



Specifications

GPS Sensor _

Receiver Type: GNSS dual-frequency RTK with carrier phase

Signals Received: GPS, GLONASS, Galileo, BeiDou Channels: 372-channel, parallel tracking

Number of Tracked Satellites: 12 GPS (15 when no SBAS)

12 GLONASS 15 Galileo 22 BeiDou

SBAS Support: 3-channel, parallel tracking

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

Update Rate: 1 Hz Default, optional 10 Hz and 20 Hz

RTK Accuracy: 1 cm¹ + 1 ppm Horizontal

2 cm¹ + 1 ppm Vertical <30 cm HRMS¹

SBAS Accuracy: <30 cm HRMS¹
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 m (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 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

GNSS Status LEDs: Power, GNSS, DGNSS, DIFF, Bluetooth

Battery Status LED: 5 LED Indicator

Timing Output: 1PPS, CMOS, active high, rising edge sync.

10 k Ω , 10 pF load (with optional serial port)

Event Marker Input: CMOS, active low, falling edge sync.

10 k Ω , 10 pF load (with optional serial port)

Power

Battery Type: Field replaceable, rechargeable Lithium-lon pack.

Rechargeable inside unit or separately

Battery Life: Battery operating time 9+ hours³
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



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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

Antenna Connector: SMA Female

Antenna -

GPS Freq Range: 1525 - 1606 MHz, 1164 - 1254 MHz

Impedance: 50 Ohms

Gain (no cable): 30 dB ±2dB

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)

12VDC Power Supply

USB Cable Ante

Multi-Frequency GNSS Antenna

Pole Bracket and Clamp
Hard Shell Carrying Case

Antenna Cable

Antenna Mounting Plate

Field Activated Options -

10Hz, 20Hz Output Rates

NOTES

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

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