

# AIRACE

PORTABILITY. PRECISION. RELIABILITY.



## FX6i

**The Next Generation GNSS RTK Receiver  
With Tilt Compensation**



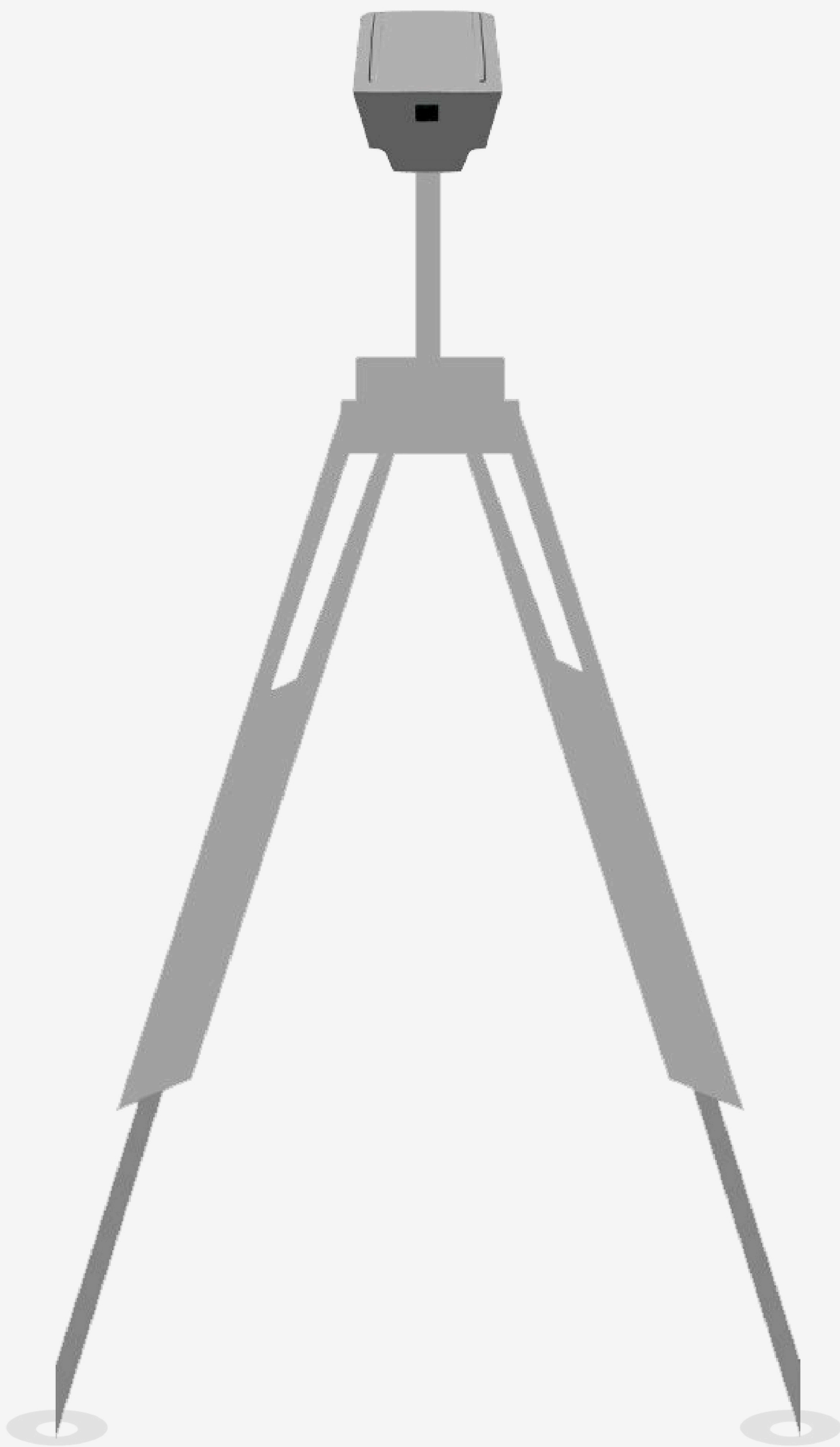
[www.airace.in](http://www.airace.in)

**Designed by Airace in India**



# The only RTK receiver you will ever need

## Delivering high-precision positioning, data collection, and data processing services to a diverse range of industries.



### Portable and lightweight

Designed with lightweight and compact features, making them highly portable and easy to use without the need for bulky and cumbersome equipment.

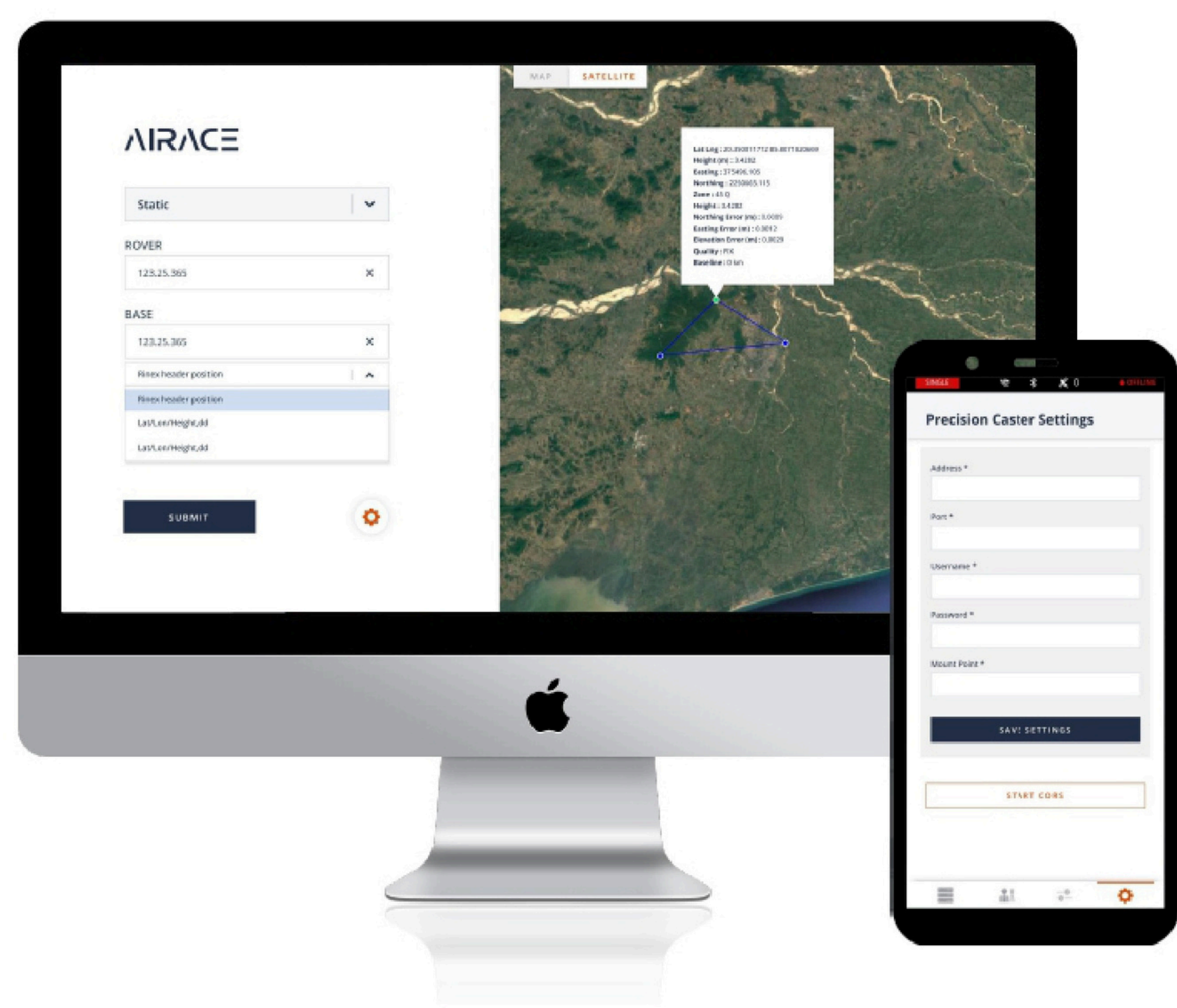
### Millimetre accurate data

Intelligent processing techniques include factors such as signal quality, atmospheric interference, and satellite geometry to provide highly accurate and reliable positioning information.

### Anyone on the team can use RTK

The interface is designed to be intuitive and easy to navigate with clear and concise instructions.





## AIRACE ONE (MOBILE APPLICATION)

With **Airace One**, quickly set up the GNSS receiver and start collecting points or stake them out.

- Support multiple coordinate systems.
- Record millimetre-precise coordinates for each point.
- Export and import data in the CSV, DXF, and shapefile formats used by CAD, GIS, and other professional software.
- Share collected data using mail, or smart messaging system from your phone.
- COGO (Coordinate Geometry) functions and essential surveyor tools for smooth workflow.

## AIRACE GEOSTUDIO

**Airace Geostudio** is all-in-one desktop application for PPK, Static, Network baseline processing.

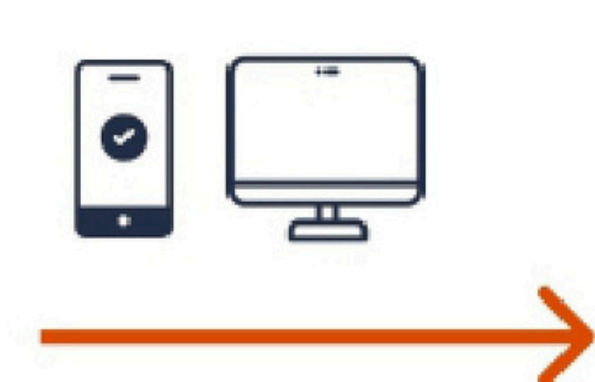
- Support multiple co-ordinate system.
- Support multiple Geoid models.
- Enable seamless processing of Rinex files.
- Export data in CSV, PDF, SHP, KML and DXF.

## AIRACE ONEHUB

**Airace Onehub** provides complete ground to cloud synergy.

- Image digitization, CAD tools, and major GIS functionalities.
- Remote fleet management.
- Real time monitoring of survey operations.
- Remote data import, export and sharing functionalities.

DOWNLOAD OUR APPLICATIONS



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### MULTI CONSTELLATION SUPPORT

The product is equipped with satellite signal support for GPS, GLONASS, BeiDou, Galileo, QZSS, SBAS & NAVIC systems, ensuring reliable and accurate positioning capabilities.



### PPP COMPATIBILITY

With compatibility for Precise Point Positioning (PPP) services, the product allows users to obtain precise points anywhere on Earth, even in remote locations.



### RINEX FILE PROCESSING

The Airace Geo Studio software enables seamless processing of Rinex files, allowing users to obtain positions with absolute accuracy, further enhancing data analysis and surveying capabilities.



### LONG BATTERY LIFE

The product is equipped with a large 6500mAh battery that provides backup power for over 20 hours of continuous operation, ensuring extended usage without frequent recharging.



### EFFICIENT WIRELESS COMMUNICATION

Featuring a powerful yet energy-efficient Wi-Fi and Bluetooth module, the product enables bi-directional communication between the receiver and a smartphone. This facilitates easy data transfer, configuration, and control of the device.



### CONVENIENT CHARGING OPTIONS

The product can be conveniently charged using a regular phone USB charger or any power bank, allowing for easy charging on the go without the need for specialized equipment.



### LoRa RADIO

The device is equipped with 2 Watt LoRa radio modem that provides long radio RTK as compared to traditional UHF radio at fraction of power. Communication distance from Base to Rover is upto 8km in typical conditions and can go upto 12km in optimal conditions.



# PRODUCT SPECIFICATION

## Receiver Specification

SIGNAL TRACKING	GPS GLONASS BEIDOU GALILEO SBAS QZSS NAVIC
SIGNAL RECEIVED	GPS L1c/a, L1C,L5,L2c GLONASS L1, L2 GALILEO E1, E5a, E5b, E6 BDS B1C, B2a, B2b, B2I, B3I QZSS L1c/a, L1c, L5, L2c NAVIC L5 SBAS WAAS, EGNOS, BDSBAS, MSAS, GAGAN, SDCM L-BAND
NUMBER OF CHANNELS:	672+ channels
UPDATE RATE:	Up to 20 Hz
MEMORY:	Internal memory of 32 GB
RTK BASELINE:	Up to 70KM
PPK BASELINE:	Up to 70KM
PPP POSITIONING:	Any point on Earth
IMU POSITIONING:	9 DOF, Calibration Free (0° - 60° tilt compensation RTK Mode)

## Positioning Performance

STATIC (PHASE) LONG OBSERVATION	3 mm + 0.5 ppm (horizontal) 6 mm + 0.5 ppm (vertical)
RAPID STATIC	3 mm + 0.5 ppm (horizontal) 5 mm + 0.5 ppm (vertical)
PPK	5 mm + 1 ppm (horizontal) 7 mm + 1 ppm (vertical)
CODE BASED DIFFERENTIAL GNSS POSITIONING	0.25 m + 1 ppm RMS (horizontal) 0.40 mm + 1 ppm RMS (vertical) SBAS: typically <2m 3DRMS
RTK (NETWORK & RADIO)	8 mm + 1 ppm (horizontal) 10 mm + 1 ppm (vertical)

## Communication

BLUETOOTH:	Bluetooth 5.0 for wireless connectivity
WI-FI:	Built-in Wi-Fi 2.4G, 802.11 b/g/n for network communication & data transfer
NETWORK COMMUNICATION:	Internal 4G TDD-LTE/ FDD-LTE/ WCDMA/ GPRS/ GSM (900MHz & 1800 MHz), WCDMA 2100MHZ/900MHZ, LTE BAND 1,3,7,8,20
TYPE C:	USB Type C port for charging & data transfer
NMEA OUTPUT:	NMEA-0183 output for compatibility with external devices over Bluetooth
OPERATING SYSTEM:	free RTOS
STARTUP TIME:	5 SECONDS

## Power Supply

RECHARGEABLE BATTERY:	Lithium-ion battery 7500 mAh (included)
OPERATING PERIOD:	Rover Mode - 20 hours Base Mode - 12 hours
CHARGING TIME:	Typically 4 hrs

## Physical Specification

DIMENSIONS:	142 mm (H) X 110 mm (W) X 110 mm (L)
WEIGHT	479 grams
OPERATING TEMPERATURE	-20°C to 60°C
STORAGE TEMPERATURE	-40°C to 85°C
WATER/DUST PROOF	IP67 rated (waterproof and dustproof)
HUMIDITY	5% to 95% non-condensing

## Data Format

INPUT	RTCM 2.X, RTCM 3.O, RTCM 3.1, RTCM 3.2, VRS, NTRIP
OUTPUT	NMEA 0183, LLH/XYZ
DATA LOGGING	RINEX, NMEA

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