

AIRACE

Technologies Private Limited

PORTABILITY. PRECISION. RELIABILITY



FX6i

**The Next Generation GNSS RTK Receiver
With Tilt Compensation & Laser.**

www.airace.in

Deasigned by Airace in India

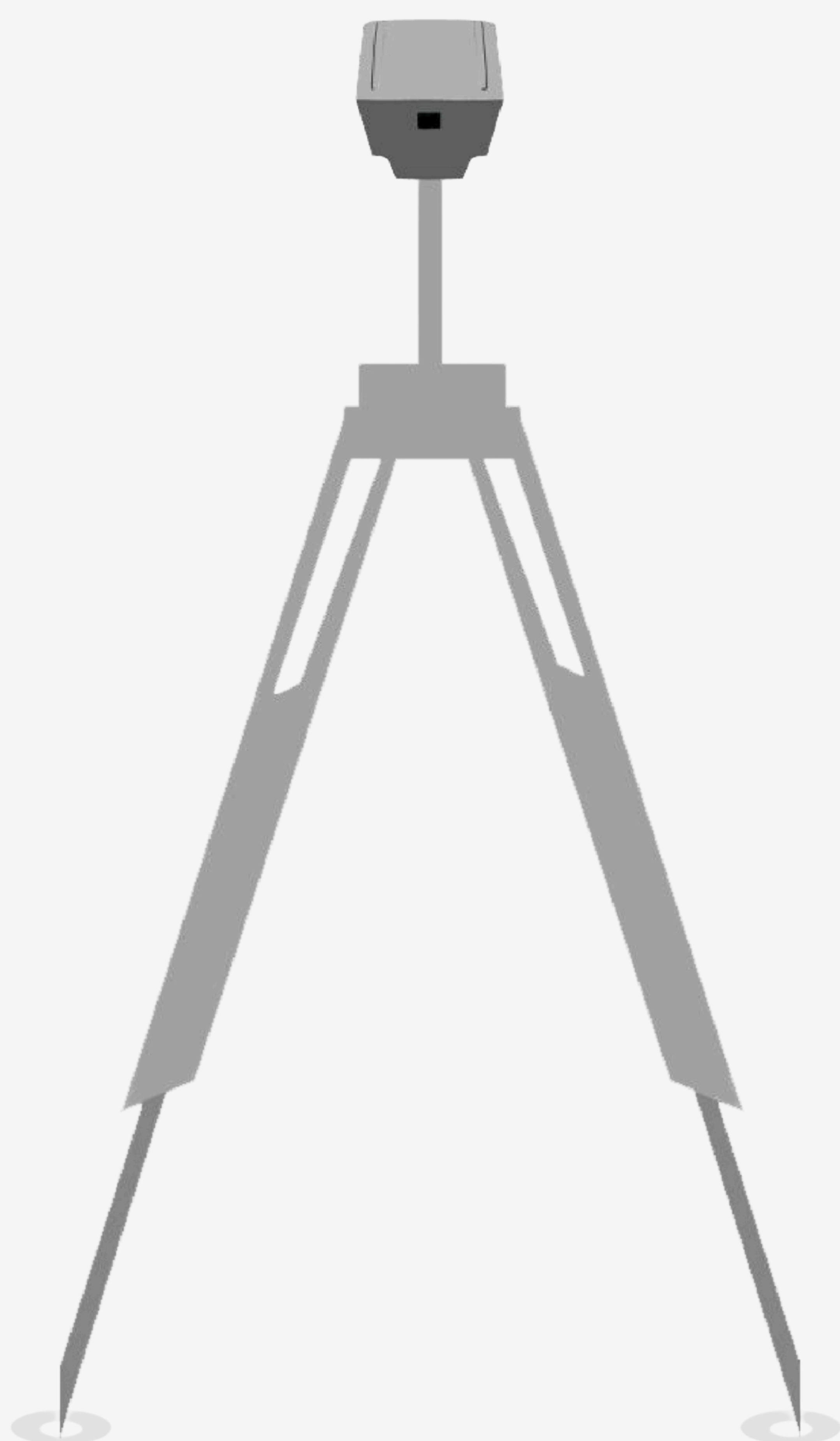
The only RTK receiver you will ever need

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

FX6i-Laser



FX6i With Laser RTK System



Portable and lightweight

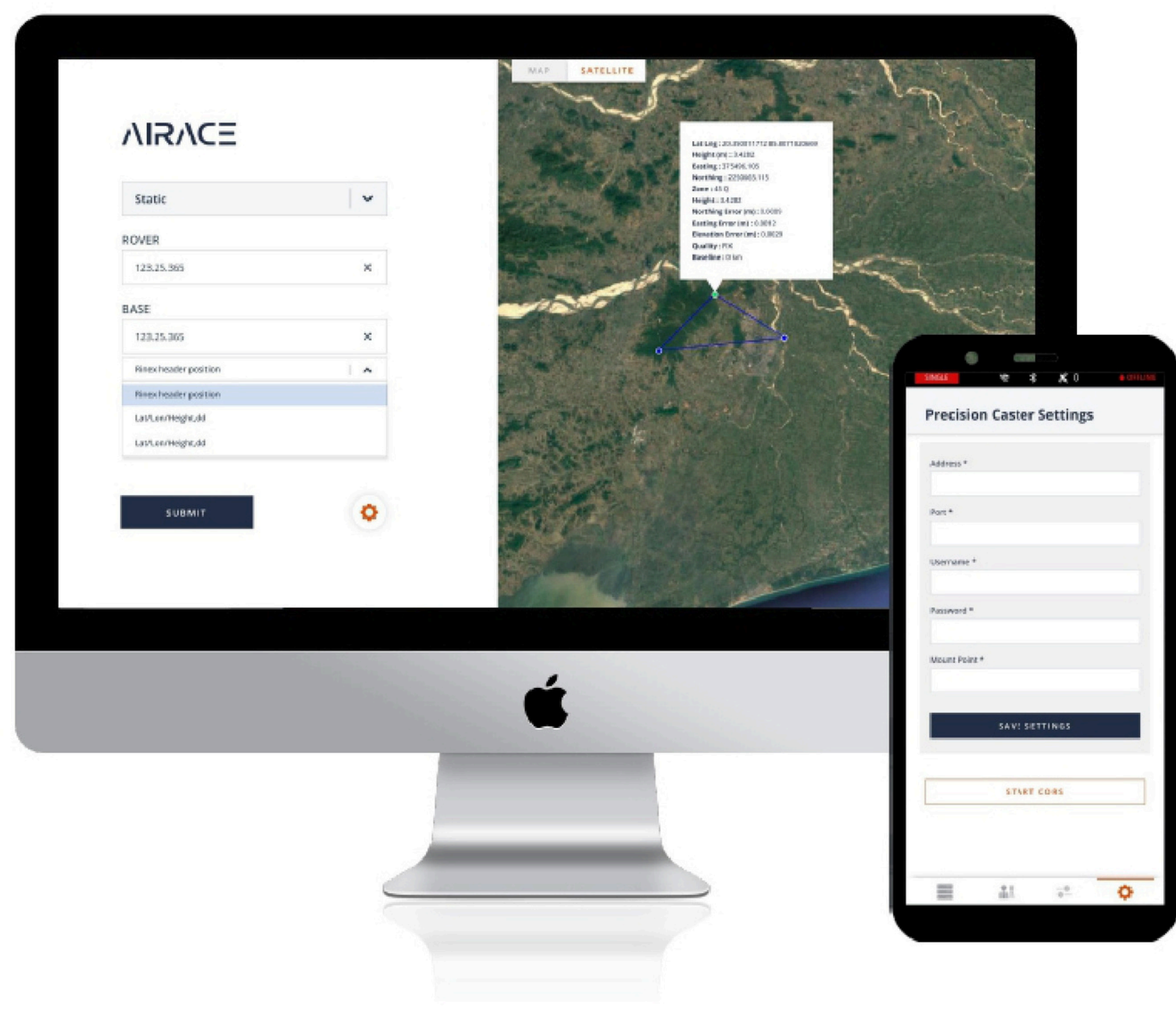
Designed with lightweight and compact features, making them highly portable and easy to use without the need for bulky and cumbersome equipment.

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.

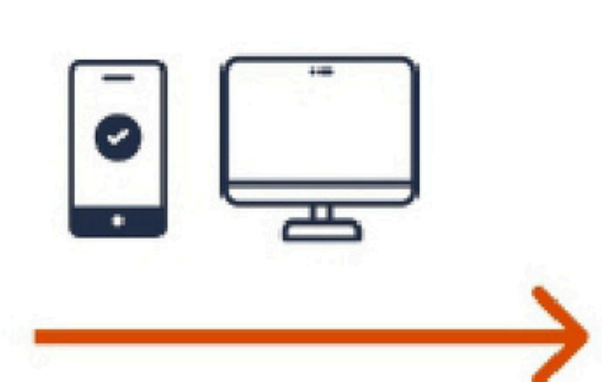
- Support multiple co-ordinate system.
- Support multiple Geoid models.
- Enable seamless processing of Rinex files.
- Export data in CSV, PDF, SHP, KML and DXF.

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 10,000mAh battery that provides backup power for over 24 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.

UHF RADIO

The device is equipped with 1 Watt UHF radio modem that provides long range Radio RTK Upto 5kms as compared to traditional radio at fraction of power.

LASER

The Airace FX6i Receiver features an in-built laser distance module designed to overcome the limitations of traditional satellite positioning, particularly in challenging environments, thereby significantly improving accuracy, reliability, and versatility.

PRODUCT SPECIFICATION

Receiver Specification:

SIGNAL TRACKING & SIGNAL RECEIVED	GPS – L1, L1 C/A, L2, L2 C, L2 E, L2 P, L5 GLONASS – L1, L2, L2 C/A, L2 P, L3 BEIDOU – B1, B2,B2a, B2b, , B3 GALILEO – E1, E5 a, E5 b, E5 ab, E6 SBAS WAAS, EGNOS, BDSBAS, MSAS, GAGAN, SDCM QZSS – L1c/a, L1c, L5, L2c,L6 NAVIC – NAVIC L5 L-BAND
NUMBER OF CHANNELS:	672+ channels
UPDATE RATE:	Up to 20 Hz
MEMORY:	Internal memory of 32 GB
RTK & PPK BASELINE:	Up to 100KM
PPP POSITIONING:	Any point on Earth
IMU POSITIONING:	9 DOF, Calibration Free (0° – 60° tilt compensation RTK Mode)+/- 5 mm +0.4mm/°
LASER POSITIONING	≤ 5cm (20m range, ≤ 45° tilt in RTK mode)

Physical Specification :

DIMENSIONS:	119.5 mm (H) X 138.5 mm (W) X 138.5 mm (L)
WEIGHT	479 grams
OPERATING TEMPERATURE	-40°C to 65°C
STORAGE TEMPERATURE	-40°C to 85°C
WATER/DUST PROOF	IP67 rated (waterproof and dustproof)
HUMIDITY	5% to 95% non-condensing
DUST TEST COMPLIANCE	IEC-60529
WATER INTRUSION TEST COMPLIANCE	IEC-60529
VIBRATION/SHOCK TEST COMPLIANCE	MIL-STD-810 F
TESTING LAB	NABL ACCREDITED

Data Format :

RTCM 2.X, RTCM 3.O, RTCM 3.I, RTCM 3.2, VRS, NTRIP
NMEA 0183, LLH/XYZ
RINEX, NMEA

Communication :

BLUETOOTH:	Bluetooth 5.0 for wireless connectivity
WI-FI:	Built-in Wi-Fi 2.4 GHz & 5 GHz, 802.11 b/g/n for network communication & data transfer
NETWORK COMMUNICATION:	4G (Via certified android controller) 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
RADIO RANGE	Upto 5 kms

Power Supply :

RECHARGEABLE BATTERY:	Lithium-ion battery 10,000 mAh (included)
OPERATING PERIOD:	Rover Mode – 24 hours Base Mode – 15 hours
CHARGING TIME:	LESS THAN 4 hrs

Positioning Performance :

HIGH PRECISION STATIC (PHASE) LONG OBSERVATION	3 mm + 0.1 ppm (horizontal) 3.5 mm + 0.4 ppm (vertical)
FAST STATIC/PPK	3 mm + 0.5 ppm (horizontal) 5 mm + 0.5 ppm (vertical)
REAL TIME KINEMATIC (RTK)	6 mm + 0.5 ppm (horizontal) 10 mm + 1 ppm (vertical)
TILT	RTK+5mm+0.4mm/* tilt (up to 60*)RMS
RTK-NETWORK/CORS	6 mm + 0.5 ppm (horizontal) 10 mm + 1 ppm (vertical)
PPP	4 cm+1ppm or better with Network RTK (Horizontal+ Vertical)
LASER RTK	≤ 5cm (20m range, ≤ 45° tilt in RTK mode)
DGPS ACCURACY	25 cm + 1 ppm RMS (horizontal) 40 cm + 1 ppm RMS (vertical) SBAS: typically <2m 3DRMS

CORPORATE OFFICE:

Plot no: 333/1347, Basuaghai,
Saimandir Square, NH-316, Cuttack-Puri Bypass,
Bhubaneswar, Khurdha, Odisha – 751018, India

info@airace.in
www.airace.in
+91 7008306716