# SPECIFICATIONS

| GNSS Performance | |
| --- | --- |
| Channels | 1598 |
| GPS | L1C/A, L2P, L1C, L2C, L5 |
| GLONASS | G1, G2, G3 |
| BeiDou | B1I, B2I, B3I, B1C, B2a, B2b |
| Galileo | E1, E5b, E5a, E6, E5AltBoc* |
| QZSS | L1C/A, L5, L1C, L2 |
| SBAS | L1, L5 |
| IRNSS | L5* |
| L-Band* | B2b |

| Positioning Accuracy | |
| --- | --- |
| Code Differential GNSS Positioning | Horizontal: ±0.25m+1ppm Vertical: ±0.50+1ppm |
| SBAS Positioning | Typically<5m 3DRMS |
| High Precition Static | Horizontal: ±3mm+0.1ppm Vertical: ±3.5mm+0.4ppm |
| Fast Static and Static | Horizontal: ±2.5mm+0.5ppm Vertical: ±5mm+0.5ppm |
| Post Processing Kinematic (PPK) | Horizontal: ±8mm+1ppm Vertical: ±15mm+1ppm |
| Real Time Kinematic (RTK) | Horizontal: ±8mm+1ppm Vertical: ±15mm+1ppm |
| Network RTK (VRS, FKP, MAC) | Horizontal: ±8mm+0.5ppm Vertical: ±15mm+0.5ppm |
| RTK Initialization Time | Time 2-8s, reliability >99.99% |
| Positioning Rate | 1Hz-20Hz |
| Inertial Measurement | Supporting walk to activate IMU Tilt Angle: up to 60 degrees Accuracy: down to 2cm (Typically less than 10mm+0.7mm/°tilt) |

| Data Formats | |
| --- | --- |
| Positioning Data | NMEA 0183, PSIC, PJK, Binary Code RTCM 2.1, RTCM 2.3, RTCM 3.0, |
| Differential Correction | RTCM 3.1, RTCM 3.2,CMR,CMR+ |
| Static | STH, Rinex 2, Rinex 3 |
| Network | Supported VRS, FKP, MAC, Ntrip |

| Operation Mode | |
| --- | --- |
| Base | Base Internal Radio\ Base External Radio (wireless Radio)\ Base wifi |
| Rover | Rover UHF\ Rover Bluetooth |
| Static | Static\ PPK |

| UHF Radio Characteristics | |
| --- | --- |
| TX\RX | Transmitting and Receiving |
| Frequency Range | 410-470MHz |
| Protocols | Farlink\Trimtalk\SOUTH(KOLIDA) |
| Channels | 60 channels for Farlink protocol 120 channels for other protocols |

| Hardware | |
| --- | --- |
| Size | 131mmX80mm |
| Weight | 800g |
| Data Storage | 4GB SSD internal storage Support external USB storage (up to 32GB) Automatic cycle storage Changeable record interval Up to 20Hz raw data collection |
| Built-in Camera | 2MP |
| Camera View Angle | 75° |
| Communication | 5 Indicator lights (4 in front panel, one at bottom) 1 Button 1 Type C USB port 1 UHF antenna port SOC OS WEB UI WIFI: 802.11 b/g/n standard Bluetooth 4.2 standard and Bluetooth 2.1+EDR NFC Supported USB, FTP, HTTP data communication |
| Voice Guide | Intelligent voice technology provides status indication and operation guide Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define |
| Environment | Operating: -30℃ to +70℃ Storage: -40℃ to +80℃ |
| Humidity | 100% condensation |
| Ingress Protection | IP68 waterproof, sealed against sand and dust |
| Shock | Survive 2m pole drop on concrete |

| Power | |
| --- | --- |
| Battery | 7.4V, 6800mAh unremovable battery |
| Battery Life | 10-15 hours |
| Fast Charge | 4 hours charge to full power |
| USB recharge | Power Bank for recharging/ Power Bank for external power supply |

## Field Software



K Survey



Field Genius



Surv X



# K6
## See Better, Work better!



- Live-view Stakeout, Helps You to Capture Points Perfectly
- 1598 GNSS Channels, Best-in-class Signal Tracking Capability
- k-Fill, Keep Fixed Solution When Losing Correction Signal
- Farlink Radio with Optimized Working Range
- New IMU Program, Walking to Initialize
- Weights Only 0.8 kg, IP68 Water-Dust Proof Level

# AR GNSS + New IMU,
# More Intelligence, Higher Efficiency!

### Stakeout Intuitively with Live-view Video Display

This new feature combines real-time image display with RTK positioning. K6 captures real-time video through its built-in camera, and users can directly see the points to be setout on the collector screen, which is accurate and intuitive.

### Guide-line Powered by AR

AR technology superimposes a virtual guide-line and distance numbers on the real-time video display. Users do not need to recognize the directions themselves, they only need to follow the guide-line to find the point to be setout, which saves time and effort.

### Simpler and Easier-to-Use Inertial Tilt Measurement

Many GNSS RTK systems require users to perform complex settings and calibration before doing inertial tilt measurement.

After the latest program was applied to K6, users only need to walk a few steps to activate the inertial sensor. This improvement makes measurements simpler and faster.

### 1598 Channels, Capture Satellites As Many As Possible

K6 is capable to track signal from 5 satellite constellations (GPS, Glonass, Beidou, Galileo, QZSS), process signal of up to 21 frequencies.

When compared to traditional GNSS RTK, K6's accuracy is higher, get fixed solution faster, the working performance in forest and city center is better.

## "Farlink" Radio Transmitting and Receiving

When GNSS receiver is using signal of bigger number of satellites, the data amount to send and receive by UHF radio increased greatly. Farlink technology is developed to send large number of data and avoid data loss.

Farlink technology improves the signal-catching sensitivity from -110db to -117db, so K6 can catch the very weak signal from a base station far way.
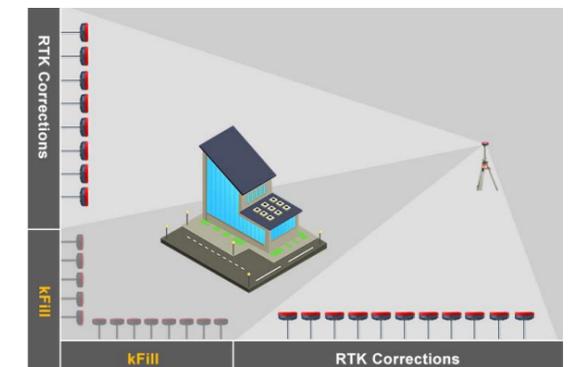
## "kFill" Save RTK/ CORS Signal Loss

KOLIDA kFill technology is able to provide a 5 minutes sustainable high accuracy service during temporary RTK or CORS signal coverage outages.

After RTK and CORS signal recovers, receiver will switch to real-time corrections seamlessly.

## Smaller but More Durable

Thanks to the high-capacity battery and the intelligent power management plan, K6 can work up to 12 hours in RTK radio rover mode, up to 15 hours in static mode. The charging port is Type-C USB, users can choose KOLIDA quick charger or their own smartphone charger to recharge. Power bank also can be used as an external power supply.

## Ultra Light, Comfortable Experience

K6 is an ultra light GNSS receiver that leaves the competition behind. Its total weight is only 0.80 kg including battery, 40% even 50% lighter than a traditional GNSS receiver. The light-weight design reduces surveyor's fatigue, increase their mobility, is especially helpful to work in challenging environment.