

SPECIFICATIONS

GNSS Performance	
Channels	1598
GPS	L1C/A, L1C, L2C, L2P, L5
GLONASS	L1C/A, L1P,L2C/A, L2P, L3
BeiDou	B1, B2, B3
Galileo	E1, E5A, E5B, E6, Alt-BOC
QZSS	L1C/A, L5, L1C, L2C, L6
SBAS (WAAS/MSAS/EGNOS/GAGAN)	L1C/A, L5
IRNSS	NavIC L5
L-Band	B2b

Positioning Accuracy	
Code Differential	Horizontal: ±0.25m+1ppm
GNSS Positioning	Vertical: ±0.50+1ppm
SBAS Positioning	Typically<5m 3DRMS
High Precision Static	Horizontal: ±2.5mm+0.1ppm Vertical: ±3mm+0.4ppm
Fast Static and Static	Horizontal: ±2.5mm+0.5ppm Vertical: ±5mm+0.5ppm
Post Processing	Horizontal: ±8mm+1ppm
Kinematic (PPK)	Vertical: ±15mm+1ppm
Real Time Kinematic (RTK)	Horizontal: ±8mm+0.5ppm Vertical: ±15mm+0.5ppm
Network RTK (VRS, FKP, MAC)	Horizontal: ±8mm+0.5ppm Vertical: ±15mm+0.5ppm
RTK Initialization	Time 2-4s, reliability >99.99%
Positioning Rate	1Hz-20Hz
Inertial Measurement	Tilt Angle: up to 60 degrees,calibration free Accuracy: down to 2cm (Typically less than 10mm+0.7mm/°tilt)

Data Formats	
Positioning Data	NMEA 0183, PSIC, PJK, Binary Code
Differential Correction	RTCM 2.1/2.2/2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2 MSM,CMR,CMR+, STH,
Static	Rinex 2, Rinex 3
Network	Supported VRS, FKP, MAC, Ntrip

Operation Mode	
Rover	Rover Network\ Rover Bluetooth
Static	Static\ PPK

Operation Mode	
Base	Base Internal Radio\ Base Network\ Base External Radio\ Base WIFI
Rover	Rover UHF\ Rover Network\ Rover Bluetooth
Static	Static\ PPK
Simultaneous Tracking	1598 GNSS channels able to track more than 300 satellites simultaneously on two frequencies.
RTK Range (OTF)	Reliable long range up to 80km

UHF Radio Characteristics	
TX/RX	2W 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	156mm*78mm
Weight	1.3kg (dual batteries included)
Data Storage	16GB SSD internal storage(upgradeable) Support external USB storage (up to 128 GB) Automatic cycle storage Changeable record interval Up to 20Hz raw data collection

Communication	4 Indicator lights+one Button 1 Type-C USB port 1 T5-PIN LEMO external power port 1 OTG support 1 Rs232 port support 1 Micro SIM card slot Linux OS WEB UI WIFI: 802.11 b/g/n standard Bluetooth: V2.1 and V4.2 + EDR, Class 2 Network:4G LTE\ 3G WCDMA\ 2G GSM NFC Supported USB, FTP, HTTP data communication
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Voice Guide	Intelligent voice technology provides status indication and operation guide Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define
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Environment	
Environment	Operating: -45°C to +65°C Storage: -45°C to +80°C
Humidity	100% non-condensing
Ingress Protection	IP68 waterproof, sealed against sand and dust
Shock	Survive 2m pole drop on concrete

Power	
Battery	7.2V, 3400mAh removable battery, two pcs, hot swappable
Battery Life	Base up to 10 hours Rover up to 15 - 20 hours Static up to 20 hours
USB recharge	Power Bank Supported

SOUTH
Target your success

S7

The Power to Be Your Best



- * 1598 GNSS channels, best-in-class signal tracking capability
- * GPS + GLONASS + BDS + GALILEO + QZSS
- * Centimeter level correction data through L-band
- * Internal radio mode up to 8-10 km working range
- * Inertial Measurement up to 60° tilt angle down to 2cm accuracy
- * Dual battery hot-swappable, Up to 20 hours working

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