XBASE

GNSS RECEIVER

Built for Distance, Built for Base



STRONG GNSS PERFORMANCE

Powered by a 1408-channel GNSS engine, Xbase supports full-constellation tracking for reliable positioning. Its advanced anti-interference algorithms secure reliable positioning even in complex environments, ensuring uninterrupted base station correction data. Designed for continuous RTK service, Xbase delivers the stable and consistent performance professionals can depend on.

SUPERIOR BASE STATION DESIGN

Purpose-built as a base station, Xbase integrates top-mounted radio antenna design and a built-in 5-watt radio modem, extending the working range up to 25km in ideal conditions without external radios. Compatible with mainstream radio protocols and supporting internal GSM mode, Xbase works seamlessly as both radio base and network base, adapting to your workflow with ease.

RUGGED & USER-ORIENTED DESIGN

Built for the field, Xbase combines IP68 protection, a magnesium-aluminum housing with heat-dissipating fins, and solid drop resistance. Its 13200mAh battery powers all-day operation, while the 1.1" front display enables quick setup and monitoring. Plus, with flexible connections via WiFi webpage, Bluetooth, USB and RS232, Xbase delivers a durable, efficient and user-friendly base experience.

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SATELLITES TRACKING

Channels	1408
BDS	B1I, B2I, B3I, B1C, B2a, B2b
GPS	L1C/A, L1C, L2C, L2P(Y), L5
GLONASS	G1, G2, G3
Galileo	E1, E5a, E5b, E6
QZSS	L1C/A, L1C, L2C, L5
NaviC	L5
SBAS	WAAS, EGNOS, SDCM, BDSBAS, GAGAN
L-Band	Support
Cold start	<30s
RTK Initialization Time	<5s (typical)
RTK initialization reliability	>99.9%
Re-acquisition	<1s

ACCURACY

Standalone	1.5m Horizontally 2.5m Vertically
DGPS	0.4m Horizontally 0.8m Vertically
Static post-processing	2.5mm+0.5ppm Horizontally 5mm+0.5ppm Vertically
RTK	8mm+1ppm Horizontally 15mm+1ppm Vertically
PPP	5cm Horizontally 10cm Vertically
SBAS	< 1.0 m 3D RMS
Time Accuracy	20ns
Tilt Surveying (optional)	<±2.5cm, within 60° tilt range

DATA FORMAT

Data output format	- NMEA-0183 - RINEX 3.02/3.04 - Binary format *.xyz
Data update rate	1～10Hz selectable
Correction data format	RTCM 3.2/3.0/2.3
Supported protocols	Ntrip Server, Ntrip Caster, TCP, UDP

USER INTERACTION

Indicators	2 LEDs indicating satellite tracking and correction data transmission
Button	2 buttons for power and function
Display	1.1" OLED display
WebUI	Access via Wi-Fi

COMMUNICATION

UHF modem	- Frequency range: 410-470MHz - Protocol: TRIMATLK, SATEL, TRANSEOT, TRIMMARK3, CSS, etc. - Channel spacing: 25KHz - Transmit power: 2W~5W selectable
Bluetooth	BT4.0 dual mode
NFC	Support
Interface	- 1 7-pin lemo port for RS232 transmission and power supply - 1 SMB connector for UHF antenna - 1 Type-C USB port for static data downloading & firmware upgrading - 1 SIM card slot for 4G
4G	FDD-LTE B1/B3/B5/B7/B8 TDD-LTE B38/B39/B40/B41 TDSCDMA B34/B39 WCDMA B1/B2/B5/B8 GSM B2/B3/B5/B8 CDMA1x/CDMA2000 BC0/BC1
WiFi	IEEE 802.11 b/g/n (2.4 GHz default, 5 GHz 802.11 a/b/g/n/ac firmware upgradeable)

ELECTRICAL

Power consumption	12W[1]
Battery	13200 mAh, over 7-8 hours working time in radio base mode
Input voltage	DC 9~24V

PHYSICAL

Size	Φ145mm × 93mm
Weight	1204g
Storage	8GB[2]
Housing material	Magnesium-aluminum alloy

ENVIRONMENTAL

Working temperature	-30 ℃ to + 65 ℃
Storage temperature	-55 ℃ to + 85 ℃
Humidity	100% non-condensing
Waterproof & dustproof	IP68
Drop	Designed to survive a 2m drop onto concrete

1. The power consumption of Xbase varies with user settings.
2. Storage can be expanded to 32GB according to user demands.

All specifications are subject to change without notice.

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