



Alibaba Invested
Company

StellarLaser GeoSync RTK RECEIVER

X5



Overall Features

Worldwide NRTK/SSR Service(Full constellations)

Spatix: Product introduction

A global satellite-ground integrated space-time service that can provide 7x24 hours of high-precision positioning services worldwide.

Ground-based augmentation service

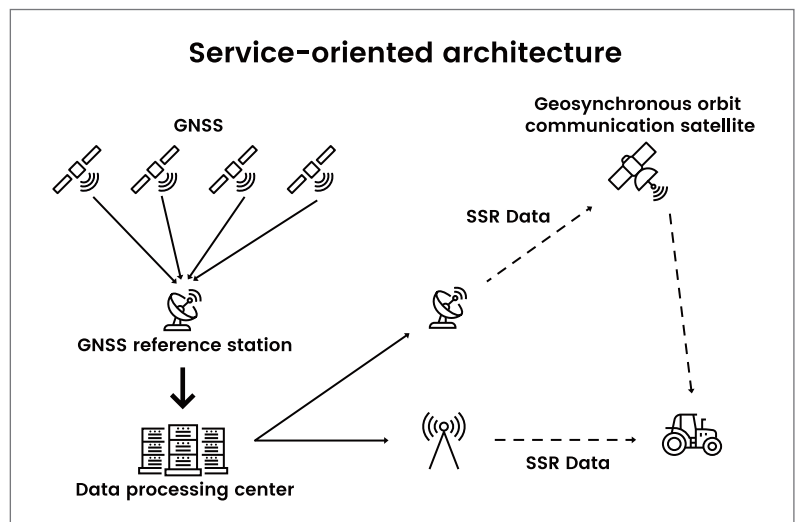
Broadcast OSR data through the ground network, centimeter-level positioning, covers major countries in Europe, Asia and Africa.

Satellite-based augmentation service

Broadcast SSR data through the satellite L-band, centimeter-level positioning, covers major countries in Europe, Asia and Africa.

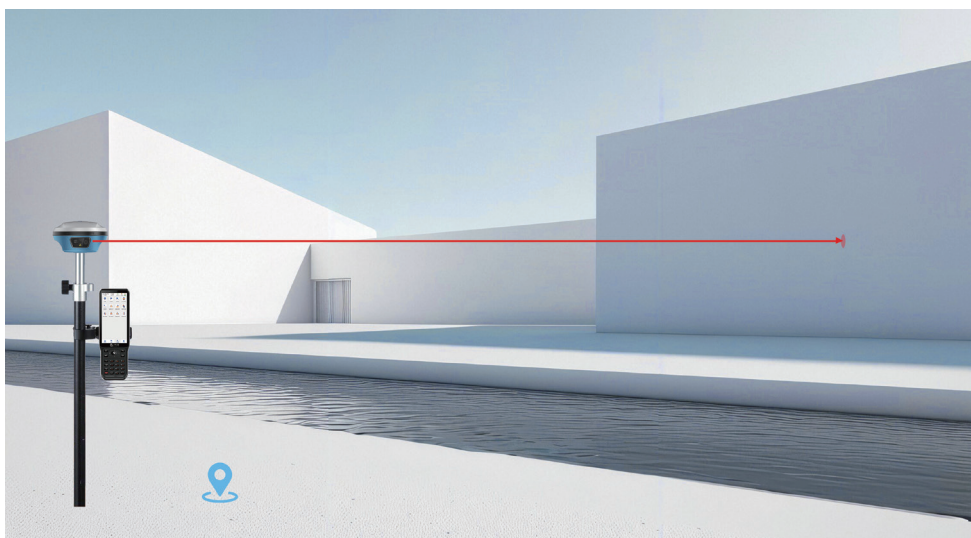
Network-based PPP service

Broadcast SSR data through the ground network, centimeter-level positioning, covers the world.



Contactless Hybrid Measurement

1. Non-contact measurement with laser targeting.
2. High-power laser ensures 50m effective range.
3. Industry-leading long-focus imaging for precise targeting of small objects at distance.
4. Accuracy up to 2cm.



Overall Features

Dual-camera AR Stakeout

A dual-camera AR visualization solution for precise point Stakeout:

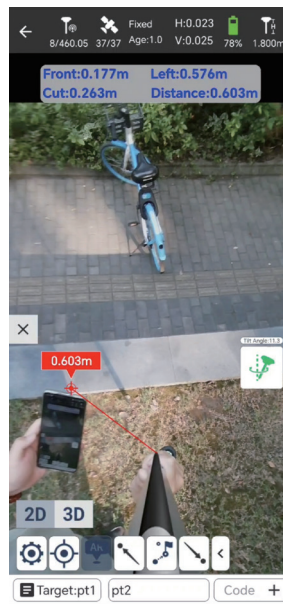
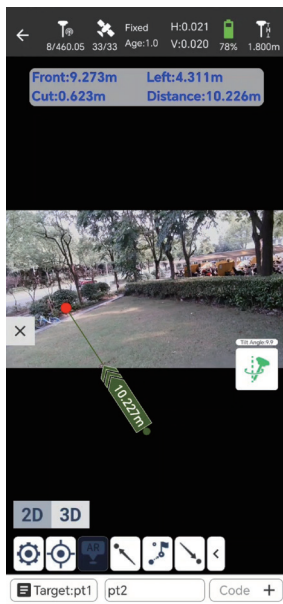
Long-range orientation

Uses a front-facing camera to determine initial positioning and alignment.

Close-range precision

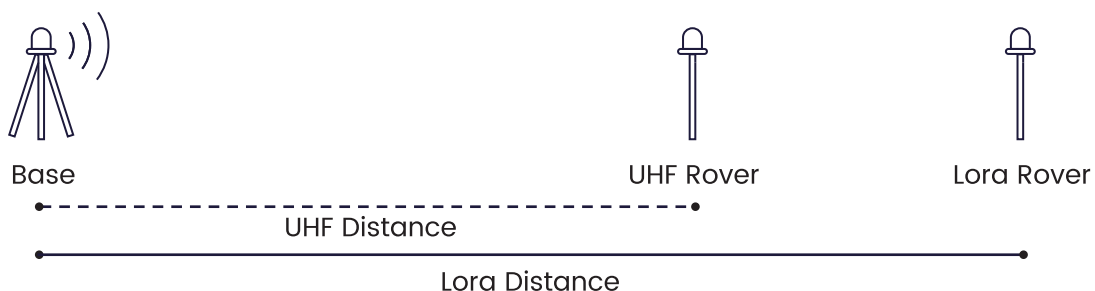
Switches to a bottom camera for centimeter-level accuracy in final point placement.

Eliminates the need for manual north-seeking or instrument collimation, streamlining workflows with real-time 3D AR guidance.



LoRa-Enabled Extended Communication

Supports LoRa long-range communication protocols, extending operational range by **150%** compared to traditional radios. Maintains compatibility with standard radio protocols for seamless integration with existing GNSS equipment and field networks.



Handheld Data Controller & APP Features

HC6

HC6 is an industrial-grade rugged handbook specially designed for the surveying and mapping field.



Thin and large screen
thinnest to 1.5cm only



Powerful performance
8-core processor



Full keyboard quick input
of industrial codes



Reliable quality industrial
tri-proofing feature and
low-tem-perature battery

MetriX APP



More than 2,000 kinds of
coordinate projections worldwide



Multiple measurement methods
and commonly used tools



Supports CAD and operations
with drawings



Supports industry applications
such as roads and photovoltaics



Product Specification

GNSS^①

Satellite system

GPS	L1C, L1C/A, L2P, L2C, L5
BDS	B1I, B1C, B2a, B2b, B2I, B3I
GLONASS	L1C/A, L2C/A
Galileo	E1C/A, E5a, E5b, E5AltBoC, E6C
QZSS	L1C, L1C/A, L2C, L5
SBAS	L1C/A, L5
IRNSS	L5
MSS L-Band Channels	QXWZ XStar 1520

Static accuracy	Horizontal: $\pm (2.5+0.5 \times 10^{-6}D)$ mm Vertical: $\pm (5+0.5 \times 10^{-6}D)$ mm
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RTK accuracy	Horizontal: $\pm (8+1 \times 10^{-6}D)$ mm Vertical: $\pm (15+1 \times 10^{-6}D)$ mm
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XStar accuracy	Horizontal: ± 2.5 cm Vertical: ± 10 cm
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Initialization reliability	99.9%
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Spatix Service^②

NOSR	Time initialization < 5s
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NSSR	Time initialization < 6min
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LSSR	L-band, Time initialization < 8min
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Laser Long-Distance Measurement

Operation Method	Image-assisted laser focusing, with long focal length supporting target point zoom
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Effective Range	0.1m~50m
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Ranging Accuracy	± 1 mm
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Ranging Resolution	1mm
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Measurement Accuracy	± 2 cm@5m, ± 3 cm@10m, ± 5 cm@20m, CEP95
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Eye Safety Level	CLASS 2 (IEC60825-1:2014)
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Wireless Communication

Bluetooth/Wi-Fi	Supported
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Radio mode	Built-in Rx/Tx radio
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Radio type	Lora
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Radio frequency band	410 MHz - 470 MHz
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Radio protocol	Satel/PCC-4FSK/PCC-GMSK/TrimTalk-450s/ South-9600/HITARGET-9600/ HATARGET=19200/TrimMark-III/ South-19200/TrimTalk-4800/GEOTALK/ GEOMARK/HZSZ/Satel-ADL/PCCFST/ PCCFST-ADL/PCCEOT_SATEL/LORALINK/ LORA-TRANSPARENT
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Number of Lenses	Supported
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GNSS + IMU^③

Tilt slope	0~60°
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Tilt compensation accuracy	8mm+0.3mm/°tilt (accuracy < 2 cm within 30°)
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IMU Rate	200Hz
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User Interaction

Operating System	Linux
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Buttons	Power switch
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Indicators	Battery, satellite/signal integrated
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Web UI	Support PC and mobile web pages
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Image Stakeout

Number of Lenses	2
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Stakeout Accuracy	10mm+(10mm/m) *Distance(m)
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Front Lens Field of View	83.4°
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Front Sensor Pixel	200W
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Front Camera Focal Length	5m
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Front Sensor Resolution	1920*1080
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Bottom Lens Field of View	83.4°
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Bottom Sensor Pixels	200W
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Bottom Camera Focal Length	2m
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Bottom Sensor Resolution	1920*1080
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Physical

Size	Φ143 mm × 82 mm (with bottom nuts)
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Material	Magnesium aluminum alloy
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Ports	1 Type-C, 1 TNC, 1 SIM
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Electrical

Battery	3.6V 13600mAh lithium-ion battery
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Battery life	Internal Radio/ 4G RTK Rover: up to 14 h Lora RTK Base: up to 8 h Static: up to 15 h
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External power supply	5V DC
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Environmental

Operating temperature	-40°C~+65°C
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Storage temperature	-45°C~+70°C
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Waterproof and dustproof	IP68
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Fall-resistance	Resistant to fall from a height of 2m
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Handheld Data Controller

Operating System	Android 9
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CPU	8-core 2.0 GHz processor
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Memory	3GB RAM + 32GB ROM
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Network	4G Full Netcom
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LCD	5-inch multi-touch capacitive screen
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Battery	5200 mAh removable battery
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Camera	13 Million Auto Focus Camera
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Waterproof and dustproof	IP67
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- ① Measurements were obtained in an open area with satisfactory distribution of satellites and inactive ionosphere and without radio interference, in strict compliance with the observation and data processing procedures for this kind of devices.
- ② For coverage of service, please visit our official website. You may choose the available term of service when purchasing the product.
- ③ Strong vibration may affect the accuracy of IMU.