SLAM GNSS RECEIVER



RTK + SLAM Technology
Full GNSS-RTK receiver function, obtain absolute coordinates in satellite signal-blocked area.

Easy Scanning
No operational restrictions
Advanced SLAM algorithms

20° Laser Tilt
Optimal scanning angle
Point cloud thickness < 1cm
Relative accuracy 1cm

Hot-swappable Battery Design
Convenient to change without pausing your work.

STEC

GNSS SYSTEM

LiDAR SYSTEM

IMAGING SYSTEM



Full Performance of RTK, NTRIP, Static, PPK

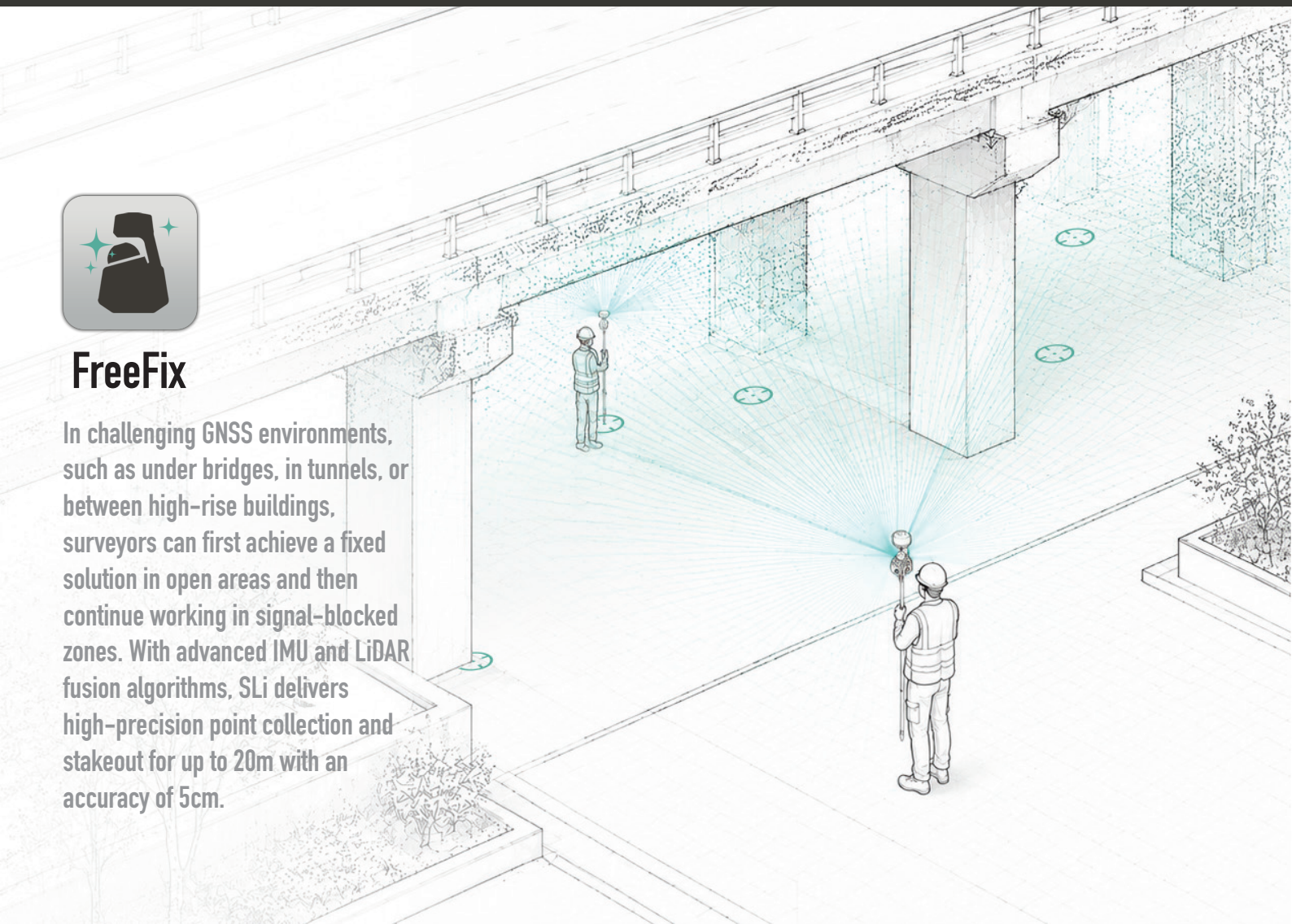
1,808 channels
All Constellations
Anti-interference
ZENITH Algorithm

Enhanced Laser Scanning

200,000 pts/s
70m Scanning Range
H360° V59° Field of View
1cm Relative Accuracy

Powerful Imaging

4 imaging sensors
Visual Positioning
RGB rendering for 3D point cloud
fusionAR Stake out



FreeFix

In challenging GNSS environments, such as under bridges, in tunnels, or between high-rise buildings, surveyors can first achieve a fixed solution in open areas and then continue working in signal-blocked zones. With advanced IMU and LiDAR fusion algorithms, SLi delivers high-precision point collection and stakeout for up to 20m with an accuracy of 5cm.

VisionPick

With advanced 3D scanning capabilities and high-resolution camera-based visual positioning, Field Master's VisionPick feature enables you to simply select any point in the captured image and obtain accurate coordinates with ease.

3D SCANNING & MODELING

In handheld mode, SLi transforms into a flexible and powerful SLAM LiDAR scanner, enabling effortless 3D scanning and real-time point cloud visualization in Field Master.

Enhanced by GNSS positioning, every point cloud is accurately georeferenced with high-precision absolute coordinates.



SPECIFICATIONS SLi

SATELLITE PERFORMANCE

Channels	1,808
GPS	L1C, L1C/A, L2C, L2P(Y), L5
GLONASS	L1, L2, L5
BEIDOU	B1i, B2i, B3i, B1C, B2a, B2b
GALILEO	E1, E5a, E5b, E6
QZSS	L1, L2, L5, L6
SBAS	L1, L5
IRNSS	L5
L-Band	B2b-PPP, E6-HAS
Positioning Rate	Up tp 50Hz

ACCURACY

Code Differential	H: 0.40m (RMS)
	V: 0.80m (RMS)
Static	H: 2.5mm±0.5ppm (RMS)
	V: 5.0mm±0.5ppm (RMS)
Real-time Kinematic	H: 8mm±1ppm (RMS)
	V: 15mm±1ppm (RMS)
Network RTK	H: 8mm±0.5ppm (RMS)
	V: 15mm±0.5ppm (RMS)
PPK	H: 3mm±1ppm (RMS)
	V: 5mm±1ppm (RMS)
PPP	H: 10cm (RMS)
	V: 20cm (RMS)

IMU MEASUREMENT

Tilt Angle	120°
Accuracy	10mm ≤ 30°, +0.7mm/° tilt

LASER SCANNER

Laser Type	Class I
Measur Range	40m (R=10%) / 70m (R=80%)
Field of View	H: 360°, V: -7° to 52°
Wavelength	905nm
Frequency	200,000 pts/s
Relative Accuracy	1cm
Absolute Accuracy	3cm

CAMERA	Front	Left & Right	Bottom
Pixel	5 mpx	48 mpx	2 mpx
Focal Length	8m	8m	2m
Resolution	2,500*2,000	8,000*6,000	1,920*1,080
AR Stake out		Accuracy: 2cm	

DATA STORAGE

Type & Storage	SLAM: 512GB; RTK: 64GB
	Supports USB pendrive and SD card up to 1TB
Data Transfer	Type-C USB Transfer
	Supports FTP/HTTP download
Differential Format	RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2, RTCM 3.3, RTCM 3.4
Static Data Format	DAT, RINEX 2.x, RINEX 3.x, BINEX
GPS Output Format	NTRIP, VRS, NMEA 0183

COMMUNICATION

I/O	Type-C USB Transfer
Radio Antenna Port	TNC
UHF Radio	Rx, 410-470MHz
Protocol	S-LINK, S-LINK ULTRA, TrimTalk
WiFi	2.4G/5G, 802.11 a/b/g/n/ac/ax
	Hotspot/Data Link
Bluetooth	Bluetooth 5.0
NFC	Available

INTERFACES

Button	2: Power, Scan
LED Indicator	Data Link, Satellite, Power

POWER SUPPLY

Battery	3x replaceable Li-on battery, Hot-swap
	10.8V, 3400mAh
Operating Time	Rover mode 8h
	Scan mode 2h

PHYSICAL

Dimension	144*105*206 mm
Weight	1.6kg
Operating Temp.	-30°C to 65°C (SLAM: -20°C to 55°C)
Storage Temp.	-40°C to 80°C
Water & Dust Proof	IP64

STEC
GUANGZHOU STAR INFORMATION TECHNOLOGY CO., LTD.
C-201 Yunsheng Science Park, No.11 Middle Guangpu Road, Huangpu District, Guangzhou 510663, China
sales@stecprecision.com support@stecprecision.com