STEC

SDi

LASER × VISUAL
GNSS RECEIVER

STEC

REDEFINE THE LASER RTK
OF NEXT GENERATION.

ACCESS THE POINT WHICH IS HARD TO REACH.

It's always been a headache when we intend to measure a remote point which is hard to reach, such as points across a river or road with running cars, or points inside the fence or under the building where satellite signal is not optimistic.

LaserFix on SDi is born to solve these difficulties.

Adopting a large signal-receiving sensor and distance measuring technology heritaged from total station, SDi can get the coordinates on the point where you shoot the laser, with an accuracy of less than 2cm within 5m and 3cm within 10m.

AGC

Automatic Gain Control

A survey-grade EDM unit, powered by Automatic Gain Control, can adapts different intensity of light and guarantees a reliable measurement up to 70m.

LaserFix

Assisted by an advanced IMU and unique algorithm, SDi can collect the coordinates where the laser shoots with an accuracy of 2cm in 5m.

Laser Stake Out

Stake out a remote point with laser is one of a kind application that SDi is capable of.

Real-time Result

Slope distance, as well as other information such as reflection intensity and working status, are shown and refreshed in real-time.

VISUALIZE YOUR JOB
IN A MORE DYNAMIC WAY.

STELLAR CAMERAS

Dual stellar cameras enhance the reliability for AR stake out and LaserFix.

fusionAR Gen 2

Dual cameras on the receiver immensely improve the accuracy and directivity during AR stake out. And this is the Generation 2 of STEC fusionAR.

The front camera first shows the direction and distance of the point to stake out. And when it comes closer, it will smoothly shift to the bottom camera to show a more accurate direction until you pin on the right point. All operations only require one click to activate.

Fearless of Dark

Stellar camera has an incomparable performance in dark environment compared with ordinary camera of others.

No matter stake-out, or LaserFix in the dark, we can get clear and bright images and make accurate maneuver.

EXCELLENCE IN MULTI-DIMENSIONS.

120°

The 2.0 version of EZtilt adopts an upgraded IMU unit and improved algorithm especially tailored for LaserFix.

Faster to initialize.
Better accuracy and reliability.
Wider angle you can tilt and get fix.

EZtilt 2.0

S-LINK

S-LINK UHF Rx/Tx radio achieves a perfect balance between power consumption and efficiency. With the upward and fast-plug design of radio antenna, SDi provides a super long and stable datalink range up to 15 km.

SDi is capable to track enormous signals of all constellations with stunningly fast fixing speed even under thick cover of trees or beside tall buildings. Coordinates will be examined twice to ensure an utmost accuracy. PPP and HAS are available.

ZENITH ALGORITHM

IP68

Complied with the harshest standard of IP68 water and dust proof industry, SDi can survive in water at 1m depth for at least 1 hour even in power-on status.

S Pod

IP 67

Type-C Fast Charge

13mpx rear camera

5.5" CORNING Gorilla Glass 3

Google Mobile Service

android 11

GPS BEIDOU GLONASS

4GB RAM 64GB ROM

NFC

8-core | 2.0GHz processor

STEC Field Master

Professional Android app with user-friendly interface.

Clear Structure & Abundant Programs

Sharp CAD & Satellite Map Display

Exclusive Function & Compatibility for LaserFix

Use Quick Code to Collect Points or Lines

SPECIFICATIONS

SATELLITE PERFORMANCE

Channels	1,408 | 1,808 (upgradable)
GPS	L1C/A, L2, L2C, L2P(Y), L5
GLONASS	L1, L2
BEIDOU	B1i, B2i, B3i, B1C, B2a, B2b
GALILEO	E1, E5a, E5b, E6
QZSS	L1, L2, L2C, L5, L6
SBAS	L1, L5
IRNSS	L5
L-Band	B2b-PPP, E6-HAS
Positioning Rate	1–20Hz
Initialization Time	<5s

ACCURACY

Code Differential	H: 0.40m (RMS)
	V: 0.80m (RMS)
Static	H: 2.5mm±0.5ppm (RMS)
	V: 5mm±0.5ppm (RMS)
Real-time Kinematic	H: 8mm±1ppm (RMS)
	V: 15mm±1ppm (RMS)
Network PPK	H: 8mm±0.5ppm (RMS)
	V: 15mm±0.5ppm (RMS)

IMU MEASUREMENT

Tilt Angle	120°
Accuracy	2cm within 60°

LASER MEASUREMENT

Type	Class 2, red
Range	0.7 – 70m
Distance Accuracy	2mm
Frequency	Normal mode: 10Hz
	Rapid mode: 20Hz
LaserFix	≤2cm within 5m
	≤3cm within 10m

CAMERA

Optical Format	1/2.8"
Pixel Size	2.9*2.9μm
Active Pixel Array	1,920*1,080
Sensor	CMOS 1080p HDR imaging sensor

DATA STORAGE

Type & Storage	SSD 8GB
	External USB Pen drive up to 32GB
Data Transfer	Type-C USB Transfer
	Supports FTP/HTTP download
Differential Format	RTCM 2.1, RTCM 2.2, RTCM 2.3, RTCM 2.x, RTCM 3.0, RTCM 3.1, RTCM 3.2, CMR, CMR+, RINEX 2.x, RINEX 3.x, NTRIP, NMEA 0183
GPS Output Format	VRS, FKP, MAC
Network Model	Ntrip fully supportable

COMMUNICATION

I/O	Type-C (OTG+Fast Charge+Ethernet)
Antenna Port	Upward fast-plug TNC
UHF Radio	2W Tx/Rx, 410–470MHz
Protocol	S-LINK, TrimTalk, Satel, etc.
WiFi	802.11b/g/n
	Hotspot/Data Link
Bluetooth	Bluetooth 2.1 + EDR and 4.0
NFC	Available

INTERFACES

Button	1
LED Indicator	Data Link, Satellite, Bluetooth, Power

POWER SUPPLY

Battery	Internal Li-on Battery
	3.6V, 13,600mAh
Operating Time	Static mode 20h
	Rover mode 15h

PHYSICAL

Dimension	86mm(H), 130mm (W)
Weight	890g
Operating Temp.	-40°C to 65°C
Storage Temp.	-40°C to 80°C
Proof	IP68 water and dust proof
	Humidity: 100% non condensing
	2m drop on hard surface
	40G 10ms sawtooth wave