



SDi **Pro**

Uphold the legacy. Beyond the legacy.

SDi Pro is pushing the boundaries of visual + laser GNSS receiver, with an unimaginable experience in multi dimensions: longer distance, faster initialization, more accurate on further points, more stable in different motions, and clearer camera.

STEC

TURNS UNACCESSIBLE ACCESSIBLE.

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 Series is born to solve these difficulties.



RED LASER

- + Shorter wavelength than green
- + More precise in long distance
- + 2mm accuracy

AGC

- + AUTO GAIN CONTROL System inherited from total station
- + Process reflected light either too weak or too strong

Positioning Accuracy

2cm
within
10m

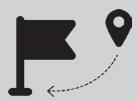
3cm
within
20m

Laser Distance Measure

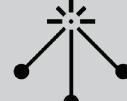
150m
average
200m
optimal



LaserFix



Laser Stake Out



Intersection



Real-time
Result



ULTIMATE IMAGING SENSOR



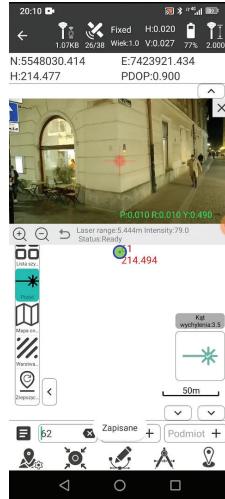
Dual cameras on the receiver immensely improve the accuracy and directivity during AR stake out. And this is the Generation 2 of STEC fusionAR.

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.



The 3.0 version of EZtilt adopts the IMU unit of industry's highest standard.

40% faster to optimize the accuracy factor during LaserFix. Longer duration of constant IMU accuracy even without movement.

EZtilt^{3.0}

SLINK
Ultra

S-LINK Ultra UHF Rx/Tx radio achieves a perfect balance between power consumption and efficiency. With the upward and fast-plug design of radio antenna, SDi Pro provides a super long and stable datalink range increased by 20%.



SDi Pro 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



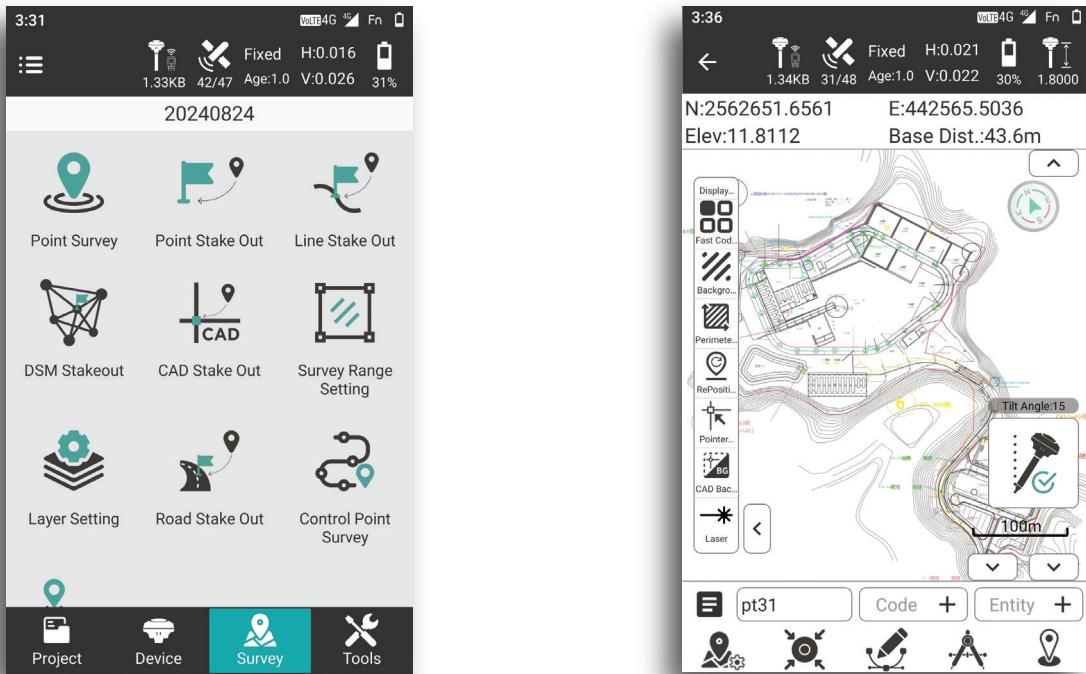
Complied with the harshest standard of IP68 water and dust proof industry, SDi Pro can survive in water at 1m depth for at least 1 hour even in power-on status.



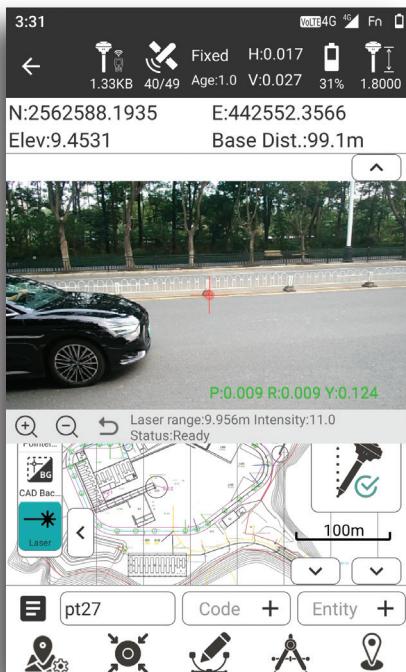


STEC Field Master

Professional Android app with user-friendly interface.

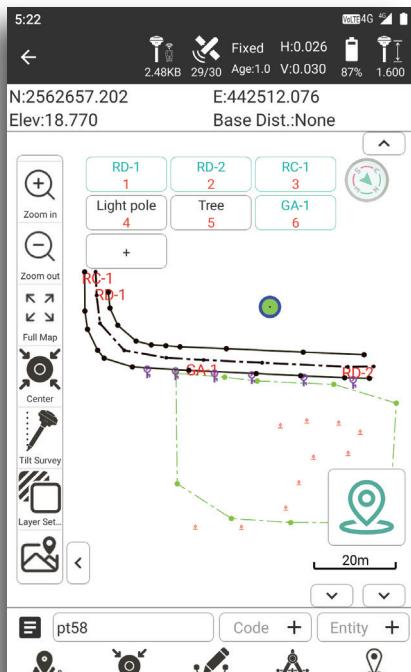


Clear Structure & Abundant Programs



Exclusive Function & Compatibility for LaserFix

Sharp CAD & Satellite Map Display



Use Quick Code to Collect Points or Lines

SPECIFICATIONS

SATELLITE PERFORMANCE

Channels	1,408 1,808 (upgradable)
GPS	L1C/A, L2C, L2P(Y), L5
GLONASS	L1, L2
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	1-20Hz

ACCURACY

Code Differential	H: 0.40m (RMS) V: 0.80m (RMS)
Static	H: 2.5mm±0.5ppm (RMS) V: 3.5mm±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)

IMU MEASUREMENT

Tilt Angle	120°
Accuracy	2cm within 60°

LASER MEASUREMENT

Type	Class 3, red
Range	0.7-150m / 200m (optimal condition)
Distance Accuracy	2mm
Frequency	Normal mode: 10Hz Rapid mode: 20Hz
LaserFix	≤2cm within 10m ≤3cm within 20m

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
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, NMEA 0183, PJK plane coord., binary code, Trimble GSOF
Static Data Format	DAT, RINEX 2.x, RINEX 3.x, BINEX
GPS Output Format	VRS, FKP, MAC

COMMUNICATION

I/O	Type-C (Fast Charge+Ethernet)
Antenna Port	Upward fast-plug TNC
UHF Radio	2W Tx/Rx, 410-470MHz
Protocol	S-LINK Ultra, TrimTalk, Satel, etc.
WiFi	2.4G*/5G*, 802.11 a/b/g/n/ac
Bluetooth	Hotspot/Data Link
NFC	Bluetooth 2.1 + EDR and Bluetooth 5.0 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	91mm(H), 131mm (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

*Note:
2.4 GHz Band:
P(e.i.r.p) max: 20 dBm
Nominal channel bandwidth: 20 MHz, Wi-Fi Standard: 802.11a/n/ac
Operating Frequency Range: 2400 MHz- 2483.5 MHz
Number of channels: 13 channels (1 to 13)
5 GHz Band:
P(e.i.r.p) max: 20 dBm
Nominal channel bandwidth: 20 MHz, Wi-Fi Standard: 802.11a/n/ac
Operating Frequency Range: 5150 MHz- 5250 MHz, 5725 MHz- 5850 MHz
Number of channels: 9 channels (36, 40, 44, 48 and 149, 153, 157, 161, 165)
NFC:
Receive only.



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