

S950 TECHNICAL FEATURES

RECEIVER	
Satellite signals tracked	GPS: L1 C/A, L2P, L2C, L5
	GLONASS: L1, L2, L3
	BEIDOU: B1I, B2I, B3I, B1C, B2a, B2b
	GALILEO: E1, E5a, E5b, E6
	QZSS: L1, L2, L5, L6
PPP	IRNSS: L5
	SBAS
Channels	B2b PPP, HAS
Position Rate	1408
Signal Reacquisition	Up to 50 Hz
RTK Signal Initialization	< 1 s
Hot Start	< 5 seconds
Initialization Reliability	Typically < 15 s
Internal Memory	> 99.9 %
IMU rate	64 GB
Tilt range	200 MHz
RTK + IMU	IMU ±60°
	5 mm + 0.3 mm/°

POSITIONING ¹	
HIGH PRECISION STATIC SURVEYING	
Horizontal	2.5 mm + 0.5 ppm RMS
Vertical	3.5 mm + 0.5 ppm RMS
REAL TIME KINEMATIC (< 30 Km) – NETWORK RTK ²	
Fixed RTK Horizontal	8 mm + 1 ppm RMS
Fixed RTK Vertical	15 mm + 1 ppm RMS
PPP Accuracy	< 20 cm RMS
SBAS Accuracy ³	< 60 cm RMS

INTEGRATED GNSS ANTENNA	
High accuracy multi-constellation antenna, zero phase center, with internal multipath suppressive board	

INTERNAL RADIO	
Type	Tx – Rx 2 W
Frequency Range	420 - 470 MHz
Channel Spacing	12.5 KHz / 25 KHz
Range ⁴	3-4 Km in urban environment Up to 10 Km with optimal conditions

INTERNAL MODEM	
Band	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/ B19/B20/B25/B26/B28 LTE TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8 Nano SIM card

1. Accuracy and reliability are generally subject to satellite geometry (DOPs), multipath, atmospheric conditions, and obstructions. In static mode, they are also subject to occupation times: the longer the baseline, the longer the occupation time must be.
2. Network RTK precision depends on the network's performance and is referenced to the closest physical base station.
3. Depends on SBAS system performance.
4. Varies with the operating environment and with electromagnetic pollution.

Illustrations, descriptions and technical specifications are not binding and may change

STONEX AUTHORIZED DEALER

BELOW CAMERA	
Resolution	5 MP
Image frame rate	20 frame/s
Field of view	76°

REAR CAMERA	
Resolution	2 MP
Image frame rate	20 frame/s
Field of view	52°

LASER	
Colour	Green
Precision	2 mm
RTK + Laser accuracy	2.5 cm -5 m / 4 cm -10 m
Range	30 m

COMMUNICATION	
I/O Connectors	Type-C for charging and data transfer
Bluetooth	2.1 + EDR, V5.2
Wi-Fi	802.11 a/ac/b/g/n
Web UI	To upgrade the software, manage the status and settings, and download data. Smartphone, tablet, or other electronic device with Wi-Fi capability can be used.
Reference outputs	RTCM 3.x
Navigation outputs	NMEA 0183

POWER SUPPLY	
Battery	Built-in battery, 7000 mAh
Power	12V DC
Working Time	Up to 12 hours
Charge Time	Typically 4 hours

PHYSICAL SPECIFICATION	
Dimensions	Ø 142 x 59 mm
Weight	810 g
Operating Temperature	-40°C to 65°C (-40°F to 149°F)
Storage Temperature	-40°C to 80°C (-40°F to 176°F)
Waterproof/Dustproof	IP67
Shock Resistance	Designed to endure to a 2 m pole drop on hardwood floor with no damage
Humidity	100% non-condensing



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S950 GNSS Receiver

Dual camera and
Laser distance meter



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