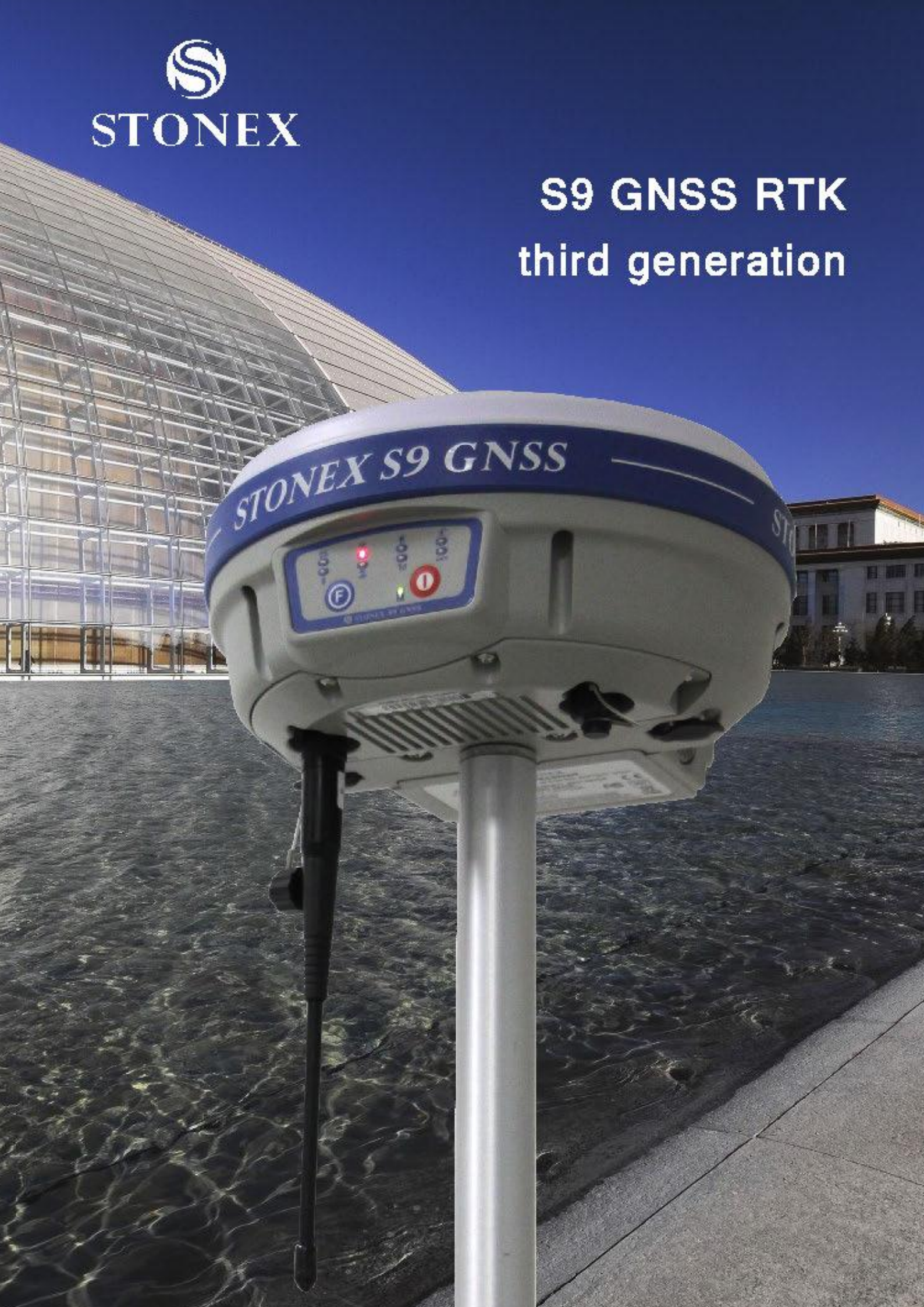
STONEX

S9 GNSS RTK
third generation



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Technical Data

Technical features	S9 GNSS third generation
GNSS board	Trimble BD970
Channels	220
Satellite tracked	GPS: Simultaneous L1 C/A, L2E, L2C, L5.
	GLONASS: Simultaneous L1 C/A, L1P, L2 C/A (GLONASS M Only), L2P
	SBAS: Simultaneous L1 C/A, L5
	GIOVE-A (reserved): Simultaneous L1 BOC, E5A, E5B, E5AltBOC1.
	GIOVE-B (reserved): Simultaneous L1 CBOC, E5A, E5B, E5AltBOC1.
	COMPASS: (reserved): B1 (QPSK), B1-MBOC (6,1, 1/11), B1-2 (QPSK), B2 (QPSK), B2-BOC (10,5), B3 (QPSK), B3BOC (15,2,5), L5 (QPSK).
	Very low noise GNSS carrier phase measurements with < 1 mm precision in a 1 Hz bandwidht.
Position rate	Up to 20 Hz
Signal recapture	< 1 sec
RTK signal initialization	typically < 10 sec
Initial capture time	typically < 15 sec
Internal memory	256 Mb
Micro SD Card	4 Gb Internal Memory (Over 60 days of raw static data storage with recording sample every 1 second)
Accuracy specifications	
Static horizontal accuracy	3mm ± 0.5ppm (RMS)
Static vertical accuracy	3mm ± 0.8ppm (RMS)
Fixed RTK horizontal accuracy	1cm ± 1ppm (RMS)
Fixed RTK vertical accuracy	2cm ± 1ppm (RMS)
Code differential positioning accuracy	0,45m (CEP)
Stand Alone RTK positioning accuracy	1,5m (CEP)
SBAS positioning accuracy	typically < 5m (3D RMS)
Communication	
Connectors I/O	7-pins Lemo and 5-pins Lemo interfaces
	Multicable with USB interface for connecting with PC
Bluetooth device	2,4 Ghz class II: maximum range is 50m
Reference outputs	CMR, CMR+, RTCM 2,3, RTCM 3,0 RTCM3.1
Navigation outputs	ASCII (NMEA-0183 GSV), AVR, RMC, HDT, VGK, VHD, ROT, GGK, GSA, ZDA, VTG, GST, PJT, PJK, BPQ, GLL, GRS, GBS, GSOF.

Internal Radio	MSD TRM 450
Frequency range	410 - 470 MHz
Channel spacing	25 Khz
Emitting power	0,5 W
Maximum range	About 3-4 Km (urban environment)
GPRS/GSM module	**Telit_GC864-QUAD_V2**
Band	Quad-Band GSM 850/900/1800/1900 MHz
	GPRS Multislot class 12
	GSM release 99
	EDGE (E-GPRS) Multislot class 10
Output power	Class 4 (2 W) for EGSM850, Class 4 (2 W) for EGSM900, Class 1 (1 W) for GSM1800, Class 1 (1 W) for GSM1900
Power supply	
Battery	2500mAh high capacity Lithium battery, Voltage 7,2 V
Voltage	9 to 15V DC external power input with over-voltage
Working time in static mode (GPS+Glonass)	7 hours
Working time in GSM RTK with cable connection (GPS+Glonass)	6.5 hours
Working time in GSM RTK with Bluetooth connection (GPS+Glonass)	around 4 hours
Charge time	typically 7 hours
Power consumption	< 3,8 W
Remaining time battery light blinking	1 hour
Physical specification	
Weight	1,2 Kg with internal battery, radio standard UHF antenna
Operating temperature	-30°C to 60°C (-22°F to 140°F) (internal radio TX 50°C)
Storage temperature	-40°C to 80°C (-40 °F to 176 °F)
Waterproof/Dustproof	IP67 .Protected from temporary immersion to depht of 1 meter and from 100% humidity.
Shock resistance	Designed to survive a 2m pole drop on concrete
Vibration	Vibration resistance
Winter Graded	Operating at -40°C (-40°F)

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