STONEX

S9 GNSS RTK L1L2

S9 GNSS RTK LIL2

Technical Data

STONEX

Technical features	S9 GNSS RTK LIL2
RTK device	Trimble BD970
Channels	220
Satellite tracked	GPS: Simultaneous L1 C/A, L2E, L2C, L5.
	GLONASS: Simultaneous L1 C/A, L1 P, L2 C/A (GLONASS M Only), L2 P.
	SBAS: Simultaneous L1 C/A, L5.
	GIOVE-A: Simultaneous L1 BOC, E5A, E5B, E5AltBOC1.
	GIOVE-B: 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 bandwidth.
Position rate	up to 50 Hz
Signal recapture	< 1 sec
• RTK signal initialization	typically < 10 sec
• Initial capture time	typically < 15 sec
Internal memory	64 MB
Accuracy specificatons	
Static horizontal accuracy	3mm ± 1ppm (RMS)
Static vertical accuracy	5mm ± 1ppm (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	9-pins serial port (baud rate up to 115.200kbps) and 5-pins LEMO interfaces.
	Multicable with USB interface for connecting with PC
	Controller cable for supporting mobile phone GPRS connections
Bluetooth device	2.4 GHz class II: maximum range is 50m
Serial protocols	Reference outputs: CMR, CMR+, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1.
	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	only receiving
Frequency range	450-470 MHz
Channel spacing	6.25 Khz
GPRS/GSM module	Siemens MC75
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
Maximum range	70km
Power supply	
	Adopt 2500mAh high capacity Lithium battery, Voltage 7.2 V
	9 to a 15V DC external power input with over-voltage
Working time in static mode	typically 6 hours
Working time in RTK rover mode	typically 4 hours
Charge Time	typically 7 hours
Power consumption	< 3.8 W
Remaining time with battery light blinking	1 hour
Physical specification	
Weight	1.2 Kg with internal battery, radio standard UHF antenna
Operational temperature	-25°C to 60°C (-13°F to 140°F)
Storage temperature	-55°C to 85°C (-67°F to 185°F)
Waterproof	protected from temporary immersion to depth of 1 meter and from 100% humidity
Shock resistance	designed to survive a 2m pole drop on concrete
Dustproof, Vibration resistance	

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