# GPS/GNSS handheld receiver: GIS & SURVEY in one SOLUTION

The new STONEX S7 series GPS/GNSS receivers combine the modern positioning technology and versatility of a powerful handheld, perfect for collecting geographic data and operate fast and accurate measurements. The S7 handheld is compact, ergonomic and small size and weight: 234 mm x 99 mm and less than 900g. S7 are powered by a Marvell Xscale PXA-310 806MHz processor, and Windows Mobile 6.5 Professional operating system. To increase performance and to load the job data is available an SD card slot for external memory (internal 4 GB is included). All the S7 integrate a GSM/GPRS modem, that provides fast and efficient internet connection directly on the field, and Wi-Fi and Bluetooth technology, that allow the user to transfer data quickly and conveniently on long distances. Thanks to the internal modem

there is also the possibility to improve the accuracy of data, connecting to real time differential correction network provider. The two different available models can cover all the different survey applications, from GIS to high accuracy surveying. STONEX S7-D is an handheld GNSS receiver (L1, GPS, GLONASS, SBAS), designed to collect data in a quick and accurate way, as well as efficiently inspect and stake out assets.

STONEX S7-G is a real revolution in the world of GNSS receivers (L1, L2, GPS, GLONASS, SBAS): all in one hand with centimetric accuracy.

Both receivers can be equipped with GeoGis, a software application developed by Stonex.

**KEY FEATURES** 



Internal GNSS antenna for centimetric
accuracy in RTK environment,
a real topographic Rover ALL in one hard

Wi-Fi, Bluetooth, GPRS modem, 5 MP camera, voice call and MMS, Mini waterproof USB connector



See more @ http://www.stonexpositioning.com/index.php/en/prodotti/gps

## **FLEXIBLE**

Choose your \$7 for GIS and/or high accuracy surveying jobs, with integrated STONEX software

#### UNIQUE

rernal GNSS antenna for centimetric accuracy in RTK environment, a real topographic Rover ALL in one hand

#### **POWERFUL**

Up to 120 channels GNSS receiver for RTK centimetric surveying, ALL in one hand

#### COMPLETE

Wi-Fi, Bluetooth, GPRS modem, 5 megapixel camera, voice call and MMS, Mini waterproof USB connector, all included as standard, no options for STONEX S7

### **EASY TO USE**

High performance touch screen 3.7" high resolution 640x480 pixel display, sunlight-optimized

# TECHNICAL FEATURES S7 D/G SERIES



Contain Abstract			
System Abstract	1.T. 1.C.		
Sunlight-readable 3.7" Polarized TouchScreen			
Built-in GSM Mobile Station Modem			
Wi-Fi and Bluetooth Wireless Technology			
5 Megapixel Autofocus Camera, Windows Mobile 6.5 Professional			
Battery (Rechargeable Lithium)			
Battery Capacity	11.1V × 2500mAh		
Working Hours	8 hours (normal use)		
Size and Weight			
Size	234 × 99 × 56 mm (L*W*D)		
Weight	S7 G: 895g (battery included)		
	S7 D: 850g (battery included)		
Environment			
Humidity	5%~95% RH (non-condensing)		
Operating Temperature	-20°C to +60°C		
Storage Temperature	-30°C to +70°C		
Waterproof/Dustproof	IP65		
Camera			
Static Mode	AF 5MP		
Image Format	JPG (2048×1536)		
Video Mode and File Format	QVGA Resolution - WMV		
Display			
Model	TFT colors, LED backlight		
Resolution and Size	640 × 480 - 3.7" (diagonal)		
Cellular Mobile and Wireless System			
GPRS	850/900/1800/1900MHz		
Wi-Fi	802 11b/g		
Bluetooth	Version 2.1 + EDR		

Allow to the Market to		
Mechanical Shock		
Drop Test	1.2 m on concrete	
Interface and Input		
Integrated Speaker and Microphone		
Soft Keyboard Numbers and Characters Input, SIM Socket		
External Power Supply Connector, SDHC card socket		
Buttons and Control		
Navigation Button, Power Button, Confirm Button		
F1 - F4 (customized function buttons), Windows Button		
Data Communication		
Voice Call and MMS, Mini Waterproof USB Connector		
802.11b/g Wireless LAN, Built-in GPRS/GSM Comm. module		
EDGE Support, Standard Bluetooth, Voice Call and MMS		
Hardware		
Processor	Marvell PXA-310 806 MHz Xscale CPU	
RAM	256MB	
Flash Memory	256MB + 4GB	
External Storage	SDHC 4GB included (max. 16 GB)	
Operation System	Windows Mobile 6.5 Professional	
Input/Output		
NMEA 0183 Support	Available	
RTCM/CMR Support	RTCM 2.1, 2.3, 3.0, 3.1,3.2, CMR, CMR+,RTCA	
Standard Accessories		
Soft Bag, Charger Adapter, USB Cable, Rear Hand-strap, Battery		
Stylus Pen with String, CD and Manual, Screen Protector, Car adapter		
Optional Accessories		
Telescopic pole, Backpack kit for external antenna		
External antenna (GPS, GLONASS, L1-L2)		

External antenna cable (2m or 5m), Holder for pole, Carrying case

Serie	S7 D	S7 G
Receiver	120 Channels <sup>1</sup>	120 Channels <sup>1</sup>
System	GPS (L1 C/A, L1); GLONASS (L1 C/A, L1), GALILEO (E1 test), COMPASS (L1), SBAS	GPS (L1 C/A, L1, L2, L2C), GLONASS (L1 C/A, L1, L2), GALILEO (E1 test), COMPASS, SBAS
Update Rate	5Hz <sup>2</sup>	5Hz <sup>2</sup>
Initialization time	<10s	<10s
Time to First Fix	<50s (Cold Start) <sup>3</sup>	<50s (Cold Start) <sup>3</sup>
	<35s (Hot Start) <sup>4</sup>	<35s (Hot Start) <sup>4</sup>
NMEA 0183 Support	Available	Available
RTCM/CMR Support	RTCM 2.1, 2.3, 3.0, 3.1, 3.2, CMR, CMR+,RTCA	RTCM 2.1, 2.3, 3.0, 3.1,3.2, CMR, CMR+,RTCA
Accuracy⁵	S7 D - GNSS	S7 G - GNSS
Positioning Accuracy	Sub-meter/decimeter	Centimeter
Accuracy internal antenna	Decimeter	RTK hor: 2cm+1ppm; RTK vert: 3cm+2 ppm
Accuracy external antenna	Decimeter	RTK hor: 1cm+1ppm; RTK vert: 2cm+1.5ppm
Postprocessed	<0.5m + 1ppm	5mm + 1ppm (horizontal)
Autonomous	1.5m (RMS)	1.2m (RMS)
SBAS	0.6m (RMS) <sup>6</sup>	0.6m (RMS) <sup>7</sup>
DGPS	0.5m (RMS)	0.4m (RMS)

#### Specifications subject to change without notice

Parallel tracking (10-channel when tracking SBAS).<sup>2</sup> Standard configuration for handheld use.<sup>3</sup> No almanac or ephemerides and no approximate position or time.<sup>4</sup> Almanac and recent ephemerides saved, approximate position and time entered. Performance specifications subject to GPS system characteristics, lonospheric and tropospheric conditions, satellite geometry, baseline length, multipath effects and the presence of intentional or unintentional interference sources.  $^6$ GPS only. Clock aligned to GPS system time.  $^7$ GPS only.









