

Technical features S7 S/D/G series

System Abstract	
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 Pro	
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 S/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
Static Mode	AF 5MP
Screen	
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

Mechanical Shock	
Drop Test	1.5m 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	
CDGE Support, Standard Bluetooth, Voice Call and MMS	
Hardware	
Processor	Marvell PXA-310 806 MHz Xscale CPU
RAM and	256MB
Flash Memory	256MB
External Storage	SDHC 4Gb included (max. 16 GB)
Operation System	Windows Mobile 6.5
Input/Output	
NMEA 0183 Support	Available
RTCM/CMR Support	RTCM 2.1, 2.3, 3.0, 3.1, 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	

Series	S7 S	S7 D	S7 G
Receiver	12 Channels ¹	14 Channels	120 Channels
System	GPS (L1 C/A, L1 carrier phase smoothing), SBAS	GPS (L1 C/A, L1); GLONASS (L1 C/A, L1)	GPS (L1 C/A, L1, L2, L2C), GLONASS (L1 C/A, L1, L2), GALILEO (E1 test), COMPASS, SBAS
Update Rate	1Hz ²	1Hz ²	1Hz ²
Initialization time	< 15s	< 15s	<10s
Time to First Fix	< 60s (Cold Start) ³ < 35s (Hot Start) ⁴	<60s (Cold Start) ³ <35s (Hot Start) ⁴	<50s (Cold Start) ³ <35s (Hot Start) ⁴
NMEA 0183 Support	Available	Available	Available
RTCM/CMR Support	RTCM SC-104 v2.x	RTCM 2.1, 2.3, 3.0, 3.1, CMR, CMR+,RTCA	RTCM 2.1, 2.3, 3.0, 3.1, CMR, CMR+,RTCA
Accuracy ⁵	S7 S - GPS	S7 D - GNSS	S7 G - GNSS
Positioning Accuracy	Sub-meter/decimeter	Sub-meter/decimeter	Centimeter
Accuracy internal antenna	Decimeter	Decimeter	RTK hor: 2cm+1ppm; RTK vert: 3cm+2 ppm
Accuracy external antenna	Decimeter	Decimeter	RTK hor: 1cm+1ppm; RTK vert: 2cm+1.5ppm
Postprocessed	<0.5m + 1ppm	<0.5m + 1ppm	5mm + 1ppm (horizontal)
Autonomous	2.5m (RMS)	1.5m (RMS)	1.2m (RMS)
SBAS	0.6m (RMS)	0.6m (RMS) ⁶	0.6m (RMS) ⁷
DGPS	0.5m (RMS)	0.5m (RMS)	0.4m (RMS)

Specifications subject to change without notice

¹ Parallel tracking (10-channel when tracking SBAS). ² Standard configuration for handheld use. ³ No almanac or ephemerides and no approximate position or time. ⁴ Almanac and recent ephemerides saved, approximate position and time entered. ⁵ Performance specifications subject to GPS system characteristics, ionospheric 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.



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