

S5 Technical Features

RECEIVER

Satellite Tracked	GPS: L1
	GLONASS: L1
	BEIDOU: B1
	QZSS: L1
	SBAS: L1
Channels	372
Position Rate	Up to 20 Hz
Signal Reacquisition	< 1 sec
RTK Initialization	Typically > 10 min
Hot Start	Typically < 15 sec
Initialization Reliability	> 99.9 %

POSITIONING¹

HIGH PRECISION STATIC SURVEYING - EXTERNAL ANTENNA	
Horizontal	5 mm + 1 ppm RMS
Vertical	10 mm + 1 ppm RMS
CODE DIFFERENTIAL POSITIONING	
Horizontal	0.4 m RMS
SBAS POSITIONING ²	
Horizontal	0.60 m RMS
REAL TIME KINEMATIC ³ - EXTERNAL ANTENNA	
Fixed RTK Horizontal	10 mm + 1 ppm RMS
Fixed RTK Vertical	20 mm + 1.5 ppm RMS

INTEGRATED GNSS ANTENNA

Three constellation antenna with internal multipath suppressive board

HARDWARE

Processor	AM355X
RAM	512 MB
Flash Memory	4 GB
Operation System	Linux

Specifications are subject to change without notice.

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

INTERNAL MODEM

Band	GSM/GPRS/EDGE: 850/900/1800/1900 MHz WCDMA/HSDPA: 800/850/900/1900/2100 MHz
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COMMUNICATION

I/O Connectors	Multifunction cable with USB interface for PC connection Connector for external antenna
Bluetooth	2.1+EDR
Wi-Fi	802.11 a/b
Reference outputs	RTCM 2.1, 2.3, 3.0, 3.1 CMR, CMR+, RTCA

POWER SUPPLY

Battery	Rechargeable 3.7 V – 6800 mAh
Working Time	Up to 8 hours (SBAS or Post Proces.) Up to 6 hours (DGPS/RTK with GSM)
Charge Time	Typically 6 hours

PHYSICAL SPECIFICATION

Dimensions	119 mm x 86 mm x 32 mm
Weight	290 gr
Operating Temperature	-30°C to 65°C (-22°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 1.2 m pole drop on concrete floor with no damage

STANDARD ACCESSORIES

2 pin adapter, 5.35 V/2A, USB cable, Soft bag

OPTIONAL ACCESSORIES

Carbon fiber pole, Telescopic pole, External antenna L1, External antenna cable (1.6 m, 2 m, 5 m), Carrying case
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