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i70

SMART GNSS RECEIVER

SURVEYING & ENGINEERING

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ROBUST & RELIABLE GNSS RTK PERFORMANCES

Leveraging advanced GNSS technologies, the i70 GNSS is a smart antenna receiver offering proven and outstanding performances and reliability. It makes it one of the preferred choices of land surveying and construction professionals.

The i70 GNSS benefits from a compact and rugged design with integrated 3.75G network modem, UHF Radio, Wi-Fi and Bluetooth. Its high-resolution LCD display shows the receiver status at a glance to always keep control of your survey operation.

GNSS MULTI-CONSTELLATION

Combining GPS, Glonass, Galileo and BeiDou positioning systems.
Powered by a 220-channel GNSS core engine, the i70 GNSS provides survey-grade accuracy to any surveying and construction project.

EASY CONFIGURATION AT YOUR FINGERTIPS

With two control buttons and LED status.
The 128 x 64 dpi LCD display gives entire control to the i70 GNSS. Whatever your survey requirements, the various work survey modes -UHF, NTRIP, GNSS data recording can be activated directly in the field.

EXTENDED INTERNET CONNECTIVITY

Built-in 3.75G industrial network modem.
The i70 GNSS network modem is not only limited to the reception of RTK corrections but can be turned into a Wi-Fi hotspot. It provides internet access to your controller and enable transfer of your jobs back and forth between field and office.

INTEGRATED UHF RADIO FOR MORE PRODUCTIVITY

Up to 5 km radio coverage.
The enhanced internal UHF radio can be tuned from 410 MHz to 470 MHz and provides up to 5 km coverage. Your topographic project is achieved faster without the need to relocate your base station.

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HIGHLY
VERSATILE
GNSS

MULTIPLE SURVEY MODES

SPECIFICATIONS

GNSS Characteristics [1]	
Channels	220
GPS	L1 C/A, L2C, L2E, L5
GLONASS	L1 C/A, L1P,L2 C/A, L2P
Galileo	L1 BOC, E5A, E5B, E5AltBOC
BeiDou	B1, B2
SBAS	L1 C/A, L5
QZSS	L1 C/A, L1 SAIF, L2C, L5

GNSS Accuracies [2]	
Real time kinematics(RTK)	Horizontal: 8 mm + 1 ppm RMS Vertical: 15 mm + 1 ppm RMS InitializationTime: < 5 s InitializationReliability:> 99.9%
High-precision Static	Horizontal: 3.0 mm + 0.1 ppm RMS Vertical: 3.0 mm + 0.4 ppm RMS
Code differential	Horizontal: 0.25 m + 1 ppm RMS Vertical: 0.5 m + 1 ppm RMS
SBAS	Horizontal: 0.5 m RMS Vertical: 0.85 m RMS

Hardware	
Size (H × W)	135 mm × 116 mm(5.3 in x 4.6 in)
Weight	1.1 kg (2.4 lb)
Environment	Operating: -40°C to + 65°C (-40°F to +149°F) Storage: -40°C to +85°C (-40°F to +185°F)
Humidity	100% condensation
Ingress protection	IP67waterproof and dustproof, protected from temporary immersionto depth of 1 m
Shock	Survive a 2-meter pole drop
LCD	128 x 64 dpi sunlight readable with function and power buttons
Tilt sensor	E-Bubble leveling

Certifications and Calibrations
CE Mark; C-Tick; Bluetooth EPL; IGS & NGS Antenna Calibration; MIL-STD-810G, Method 514.7; FCC

Communications and Data Recording	
Network modem	Integrated 3.75G modem HSPA+ 21 Mbps (download), 5.76 Mbps (upload) WCDMA850/900/1700/1900/2100 EDGE/GPRS/GSM850/900/1800/1900
Wi-Fi	b/g/n, access point mode
Bluetooth ®	V4.1
Ports	1 x 7-pin LEMOport (external power and RS-232) 1 x USB 2.0 port (data download, firmware update) 1 x UHF antenna port (TNC female)
UHF radio	Standard Rx/Tx: 410-470 MHz Transmit Power: 0.5 W to 2 W Protocol: CHC, Transparent, TT450 Range: 5 km optimal conditions **FCC Certified Rx/Tx: 403-473 MHz** Transmit power: 0.1 W to 1 W Protocols Trimble, Satel, Pacific Crest Range: 5 km optimal conditions
Data formats	CMR, CMR+, SCMRX input and output RTCM2.x, RTCM3.x input and output NMEA0183 output HCN, HRC and RINEX static formats NTRIP Client. NTRIP Caster
Data storage	32 GB high-speed memory

Electrical	
Power consumption	3.8 W (depending on receiver configuration)
Li-ion Battery capacity	2 × 3400 mAh, 7.4 V
Operating time on internal battery [3]	UHF Tx/Tx (0.5 W): Up to 6 h Cellular Rx only: Up to 9 h Static: Up to 10 h
External power Input	9 V DC to 36 V DC

*All specifications are subject to change without notice.
(1) Subject to availability of BDS ICD and Galileo commercial service definition. GLONASS L3, BDS B3 and Galileo E6 will be provided through future firmware upgrade. (2) Accuracy and reliability are determined under clear unobstructed conditions, multipath, satellite geometry and atmospheric conditions. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices. (3) Battery life may vary depending on operating temperature.