

X20⁺ / X20i GPS



KEY FEATURES

- **Cost-effective - Professional L1 GPS survey technology in an inexpensive package**
- **Fool Proof - 'Single Button' operation for automatic static recording**
- **Easy Data Download - High-speed USB port compatible with all operation systems**
- **Compact and Rugged - Small, lightweight and cable-free for easy field operation**
- **Upgradable - The iOS bluetooth upgrade enables all iOS apps to collect reliable half meter real-time GPS positions**

The CHC X20⁺ / X20i L1 GPS receiver is powered by a high precision L1 GPS engine with the most trusted L1 tracking technology. Static surveys are reliably completed with short occupation times at a fraction of the cost compared to RTK systems.

Affordable and Reliable

The X20⁺ / X20i GPS system is affordable and offers precise accuracy. The high-accuracy surveys benefit from having extra simultaneous receivers in adjustments and precision mapping applications have the advantage of added survey accuracy from additional baselines.

Static Surveys - Easy to use

Position the X20⁺ / X20i, turn it on, and data records instantly. Collection continues until the receiver is turned off. Plug & Play USB support makes copying log files as simple as dragging your mouse.

Compact and Lightweight

X20 / X20i weighs less than 0.8 kg (1.76 lb), with a full battery, and measures 17.5 cm (6.9) in diameter. Its ergonomic design is easy to deploy in large numbers, allowing even sizable projects to be completed in a single day without fatigue.

Expandable

Add on an X90-OPUS or X900s-OPUS to extend your projects cm level baselines to hundreds of kilometers! Upgrade the unit with our iOS enabled bluetooth transceiver to wirelessly collect submeter positions in real-time or cm post processed.

Technical Specifications

GNSS characteristic

- 12 channels: GPS L1 C/A code, L1 full carrier, SBAS, DGPS
- Extremely low noise and low multi-path error
- Optimized for low-elevation satellite tracking

Performance specifications ⁽¹⁾

- Post Processing Static
 - Horizontal: 5 mm + 1 ppm RMS
 - Vertical: 10 mm + 2 ppm RMS
- Real-Time SBAS
 - Horizontal < 30cm RMS
- Real-Time DGPS (RTCM2)
 - Horizontal: 30 cm + 2 ppm RMS

Communications

- 1x RS232 serial port
- 1x high speed USB
- Protocols:
 - RINEX and HCN outputs for GPS raw data
 - NMEA GGA, GSV, RMC, GLL, VTG, ZDA, GST, GRS, GSA
 - iOS location services (X20i)
- Data Storage:
 - 4 GB internal memory
 - GPS device mounts as a USB memory drive
- iOS bluetooth (optional) ⁽²⁾

Physical

- Size (HxD): 65.5 x 175 mm (2.6 x 6.9 in)
- Weight: 0.8 kg with battery (1.74 lb)
- Working Temperature: -30 °C to +60 °C (-22 °F to 140 °F)
- Storage Temperature: -40 °C to +70°C (-40 °F to 158 °F)
- Humidity: 100% condensation
- Dust & Water: IP67 (total dust protection; temporary immersion to depth of 1 m; floats)
- Shock: survives repeated 2m drops to concrete

Electrical

- Power consumption: 1.8 W
- Battery capacity: 2600 mAh
- Operating time (internal battery): 8 hours
- External power input: 9-18 VDC

Software

- Optional CHC CGO post processing software
- RINEX converter
- Hcconfig
- TerraGo Edge (X20i)
- All location aware iOS applications (X20i)
- All android applications supporting SPP and NMEA

⁽¹⁾ Accuracy and reliability specifications may be affected by multipath, satellite geometry and atmospheric conditions. Performances assume minimum of 5 satellites. Follow-up of recommended survey practices and baseline length < 10 km (static).

⁽²⁾ CHC BT chip takes over the iPhone & iPad location services allowing all iOS apps to capture half-meter or better positions.

Specifications are subject to change without notice.



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