CHCNAV

Make your work more efficient

Model • i80

Surveying & Engineering

Features:

- Lightweight - only 1.22kg with batteries
- 220 Multi-constellation Receiver
- Sunlight readable LCD
- TILT compensation • E bubble
- Internal TRx UHF
- Built-in Bluetooth & WiFi
- 32Gb internal memory
- Can be used without a data recorder
- Hot swappable batteries
- 3.75G network modem
- Field tested in Australia

BUILT TOUGH

IP67 - 2m Pole fall onto concrete

Australia's Fully Featured
RTK GPS Solution
Base &/or Rover System

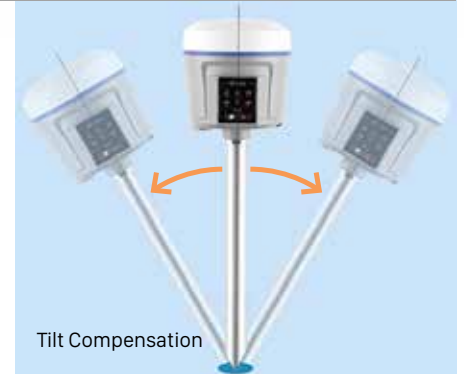Cast Magnesium Housing

GPS • GLONASS • Galileo • BeiDou • QZSS • SBAS

Software

Choose **Carlson SurvCE-GPS**
OR
Carlson SurvPC-GPS (larger screens) Tablets
OR
LandStar (Android)

Tilt Compensation

Convenient hot swappable batteries

Rover kit in waterproof field case

Ask about our Special $ CORS ready Rover Package

GNSS Characteristics

- 220 channels with all in view simultaneously tracked satellite signals
    - GPS: L1C/A, L2C, L2E, L5
    - GLONASS: L1C/A, L1P, L2C/A, L2P, L3
    - Galileo: E1, E5A, E5B
    - BDS: B1, B2
    - SBAS: L1C/A, L5 (QZSS, WAAS, EGNOS, GAGAN)

GNSS Accuracies [1]

- Real Time Kinematic (RTK):
    - Horizontal: 8 mm + 1 ppm RMS
    - Vertical: 15 mm + 1 ppm RMS
    - Initialization Time: < 5 s
    - Initialization Reliability: > 99.9%
- Network RTK:
    - Horizontal: 8 mm + 0.5 ppm RMS
    - Vertical: 15 mm + 0.5 ppm RMS
    - Initialization Time: < 10 s
    - Initialization Reliability: > 99.9%
- Post-processed Kinematic (PPK):
    - Horizontal: 8 mm + 1 ppm RMS
    - Vertical: 15 mm + 1 ppm RMS
- High-precision Static:
    - Horizontal: 2.5 mm + 0.1 ppm RMS
    - Vertical: 3.5 mm + 0.4 ppm RMS
    - Baseline Length: 300km
- SBAS: 0.5 m RMS

Hardware

- Size (H × W): 14 cm × 12.4 cm (5.5 in x 4.9 in)
- Weight: 1.02 kg (2.2 lb)
            1.22 kg (2.7 lb) with batteries
- Environment:
    - Operating: -40°C to +75°C (-40°F to +167°F)
    - Storage: -55°C to +85°C (-67°F to +185°F)
- Humidity: 100% condensation
- Dust and Water Proof: IP67
- Shock and Vibration: 2 m (6.56 ft) fall onto concrete
- LCD: 128 x 64 dpi sunlight readable with function/accept buttons

Certifications and Calibrations

- FCC Part 15 (class B Device), FCC Part 22, 24, 90; CE Mark; C-Tick; Bluetooth EPL; IGS & NGS Antenna Calibration; MIL-STD-810G.

"We own three i80 CHC GNSS units and use Archer 2 hand controllers with SurvCE software and the ease of use and virtually an instant Fix plus the ability to continue work under dense trees and close to buildings, outperforms our other brands of RTK GPS. I highly recommend any surveyor to purchase the i80."

MICK FRIEDMAN
Surveyor , Gold Coast QLD   2017

Communications and Data Recording

- Serial: 2 x 7-pin LEMO port (external power, USB data download, USB update, RS-232)
- Network Modem: Internally integrated 3.75G modem
    - HSPA+ 21 Mbps (download), 5.76 Mbps (upload)
    - WCDMA 850/900/1700/1900/2100
    - EDGE/GPRS/GSM 850/900/1800/1900
- Bluetooth®: Internally integrated multimode system compatible with Android, Windows Mobile and Windows desktop operating systems
- Wi-Fi: 802.11 b/g/n, access point mode
- UHF Radios[2]: Protected TNC Female
    - Standard Internal Rx/Tx: 410 MHz to 470 MHz
      Transmit power: 0.5 W to 2 W
      Protocol: CHC, Trimble, Pacific Crest
      Range: 5 km optimal conditions
    - FCC Certified Internal Rx/Tx: 403 MHz to 473 MHz
      Transmit power: 0.1 W to 1 W
      Protocols Trimble, Satel, Pacific Crest
      Range: 5 km optimal conditions
- Protocols:
    - CMR, CMR+, SCMRX input and output
    - RTCM 2.x, RTCM 3.x input and output
    - NMEA 0183 output
    - HCN, HRC and RINEX static formats
    - NTRIP Client, NTRIP Caster
- Data Storage
    - 32 GB high-speed memory

Electrical

- Power Consumption: 3.2 W (depending on user settings)
- Li-ion Battery Capacity: 2 × 3400 mAh, 7.4 V
- Operating Time[3]:
    - RTK UHF Base: 6 h
    - RTK Rover: 10 h
    - Static: 12 h
- External Power: 12 V DC to 36 V DC

E&OE   Subject to change

i80 RTK GPS

Data Controllers – You Choose:
Use your own* or pick one of ours

*must be compatible with SurvCE etc.

www.junipersys.com

Others to choose from – Call for detail specifications

DL6 NEW GENERATION DATA LINK

- Six adjustable transmit power options from 5W to 28W
- Supports multiple protocols
- Rugged design
- Easy & quick set-up

General Specification
- Communication:
    – 1 x RS232 serial port, up to 115200 bps
- User interface: 1 digital display, 3 button, 4 status indicator

Power
- External Power: 9 V DC to 16 V DC

Modem Specifications
- Link Rate
    – 4800 bps
    – 9600 bps
    – 19200 bps
- Modulation: GMSK
- Link Protocol: CHC, Transparent, TT450S

Radio Specifications
- Frequency Bands: 410 MHz to 470 MHz
- Transmit Power
    – Low: 5 W/10 W/15 W
    – High: 20 W/25 W/28 W
- Type Certification: FCC, CE

Physical
- Size (L x W x H): 180 mm x 140 mm x 6.50 mm
    (7.1 in x 5.5 in x 2.6 in)
- Weight: 1.5 kg (52.9 oz)
- Environment
    – Operating: –30°C to +65°C (–22 °F to +149°F)
    – Storage: –55°C to +75°C (–67 °F to +167°F)
- Dust and Water Proof: IP67
- Serial: 1 x 5-pin LEMO port (external power, RS-232)
- Mount: Tripod bracket

Antenna
- External: 50 Ohm, TNC female connector

Australian Distributor

UAS SURVEY GEAR

CASA Approved - UAV Operators
Certificate 1-10DN09-01

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