



CHIRP PORTABLE SERIES



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Knudsen CHIRP Systems are the next benchmark in scientific sub-bottom profiling echosounders. The CHIRP portable system, a blackbox system which interfaces to your computer via a USB connection, incorporates the latest in digital signal processing technology and includes Knudsen SounderSuite Windows application software and chirp and correlation processing algorithms to enhance sub-bottom capability. The unit, housed in a rugged, light weight splashproof case is ideal for easy transport to changing project locations, and installation on open survey launch platforms.

Available in a 2 or 4 channel configuration, the versatile system is particularly well suited to multiple survey roles and includes a wide range of both bathymetry and sidescan frequencies for both shallow and deeper depths.



Technical Specifications: *(subject to change without notice):*

Available Channels

- Chirp 3210: 1 channel
- Chirp 3212: 2 channels
- Chirp 3214: up to 4 channels

Frequency

- All channels: 3.5kHz - 210kHz

Output Power

- Up to 2kW on Channels 1 and 2
- Up to 1kW on Channels 3 and 4

Input Power

- 18 - 30 VDC

Pulse Length

- Up to 64ms

Gain

- Manual, automatic (AGC), and time varied (TVG)
- 96db range of programmable analog gain

Ranges

- 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000

Phasing

- Manual and automatic (up to 50% overlaps)

Units

- Meters, Feet, or Fathoms

Resolution

- 1cm (0-99.99), 1dm (100-999.9), 1m (>1000)
- 1/100ft (0-99.99), 1/10ft (100-999.9), 1ft (>1000)
- 1/100fm (0-99.99), 1/10fm (100-999.9), 1fm (>1000)

Sound Velocity

- 1300 - 1800 m/s Resolution 1m/s
- 4265 - 5906 ft/s Resolution 1ft/s
- 710 - 984 fm/s Resolution 1 fm/s

Draft

- 0-100m Resolution 1cm
- 0-328ft Resolution 0.01ft
- 0-54fm Resolution 0.01fm

Interface

- USB 2.0 Full Speed (12Mbps)

Output Data

- Full resolution envelope data in KEB binary format and XTF (for sidescan only)
- Industry standard SEG-Y in 16-bit fixed point in user selected raw, filtered, or envelope detected form
- User configurable ASCII digital depth strings

Dimensions

- 488 mm (19.2") x 386mm(15.2") x 185mm (7.3")

Weight

- Chirp 3210: 11kg (24lbs)
- Chirp 3212: 12kg (26lbs)
- Chirp 3214: 14kg (30lbs)

Installation

- Splashproof case

Operating Temperature

- 0 - 50 °C

Additional Features

- Frequency agility on all channels
- Chirp and correlation processing
- Transmit signal generation control
- Advanced digital filter control
- Built-in drivers for all popular GPS
- Built-in test signal generator
- Compatible with industry standard dataloggers and processing software (Hypack, QINSy, SonarWiz)
- Heave compensated echogram

Options

- Sidescan option
- Network option for multiple PC operation
- Remote Display Indicators
- EchoSim Sonar Signal Simulator

SounderSuite Software (included)

- Compatible with Windows Vista or higher
- Easy to use Graphical User Interface (GUI)
- Postsurvey Display and Printing Software
- Large Digitized Depth Display
- Print to standard Windows printers and select thermal printers