Teledyne Odom Hydrographic

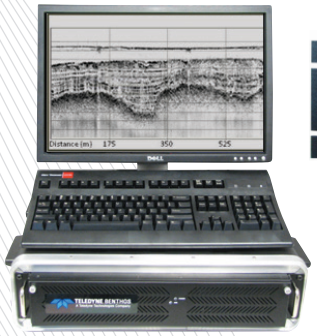
Chirp III

Sub-Bottom Profiler

High-Resolution Chirp Sub-Bottom Profiler System

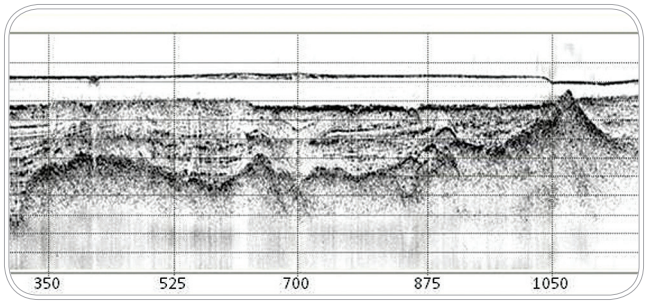
Teledyne Marine is a pioneer in Chirp technology and was the first to bring a commercial Chirp sub-bottom profiling system to the market. Teledyne Odom continues that advancement with the Chirp III sub-bottom profiling system.

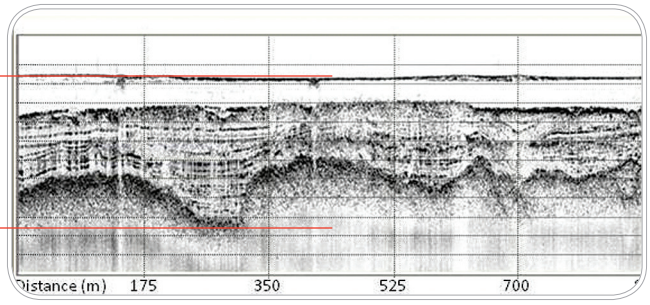
Portable and affordable, the Chirp III is a low cost system ideally suited for many applications. Its versatile system configuration provides the user with various styles of tow vehicles and hull mounted arrays.



Above: Chirp III Transceiver.

Left: Digital Acquisition Computer with Monitor.





40m penetration

PRODUCT FEATURES

System configurations include:

- TTV-170 Series Towfish
- AUV configuration
- Hull mount configuration with Echosounder Mode

Applications

- Offshore hazard surveys
- Pipeline and small object surveys
- Bridge piling scour and environmental surveys
- Mining and dredging
- Wind farm site survey *(see data above)*

Chirp III

Sub-Bottom Profiler

TECHNICAL SPECIFICATIONS

Main Processor	PC based sonar work station
Signal Resolution	16 bit
Data Storage	Stores raw data in SEG-Y format
Operator Software	Windows™ environment
Display	High-resolution LED display
Ping Rate	15 pings/second maximum
Pulse Length	User selectable from 5 msec. to 60 msec. Pulse waveforms stored in memory
Output Power	4 KW each channel max
Transducers	AT-471, Chirp bands 2 to 7 kHz AT-12D7, Chirp bands 10 to 20 kHz
Beam Angle	TTV-170 100° Conical Hull Mount (4x4) Array 25°
Cable	Kevlar electrical umbilical cable
Operating Depth	TTV-170: Shallow water/small vehicle (200m)
Navigation/Annotation	NMEA 0183 interface, event/fix marks, external interrupt
Hard Copy Recorder	Grey scale graphic recorder (optional), can be used with Echosounder Mode
Operator Controls	HW gain (dual channel) 0-42dB/channel; two stage TVG; bottom tracking (dual channel); smoothing; horizontal/vertical zoom; display gain control; repetition rate control; custom FM waveform design
Operator Displays	Bathymetry display; reflectivity and hardness display; signal to noise ratio display; voltage display; custom color palette selection; color rotation; navigation map display
Tow Vehicle Dimensions and Weight	TTV 170: 18 in O.D. x 24 in long; weight in air: 98 lbs., weight in water: 80 lbs

CHIRP III FEATURES

Hardware:

- Simultaneous dual frequency operation allows for a choice of Chirp FM sweeps from 2 kHz to 20 kHz
- Flexible Chirp III acquisition/processing work station allows for versatile configurations including shallow water vehicles, diverse hull mount arrays, and AUV's
- Ethernet output
- High power output -- up to 4KW each

Software:

- Windows operating system
- User defined ping rate
- Automatic bottom tracking
- Interactive horizon picking
- Switch on the fly Chirp/CW pulse
- Simultaneous dual channel Chirp
- Hull mounted Echosounder Mode

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TELEDYNE
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Everywhereyoulook™

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