



# HMS-621 CHIRPceiver Litt™

## Single Channel CHIRP Sub-bottom Profiler



Sub-bottom profiling applications in diverse sediments in shallow water environments require compact tools as well as multiple frequency bands to support diverse survey requirements. The HMS-621 CHIRPceiver Litt™ and transducer arrays fill this wide range of survey needs. The user selectable frequency bands supported by the HMS-621 include standard LF (1KHz-10KHz), and HF (8KHz-23KHz). It can be easily configured for up to 50KHz with a standard single channel user configurable transceiver. CW frequencies can also be programmed within the respective band. The transducer and hydrophone arrays are configured to perform both the transmit and the receive functions of the system.

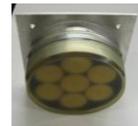
The HMS-621 CHIRPceiver Litt uses a flexible Graphical User Interface connected via Ethernet that allows the user to set CHIRP or CW modes of operation, Start and Stop frequencies, and Pulse Lengths and Power Level for the output pulses. The receiver controls allow for Gain and Attenuation as well as Diagnostic modes. All sonar data is logged in SEG Y format using industry standard acquisition software such as Chesapeake SonarWiz.

### FEATURES/BENEFITS

- CHIRP acoustic pulses in standard LF band (1KHz-10KHz), and HF (8KHz-23KHz) bands provide bottom penetration through many sediment types
- Flexible transducer array options for a variety of vessel configurations
- Industry Standard Ethernet Interface for Data and Control
- Universal input power supply operates from 85 to 240 VAC
- 24VDC Operation with inverter (8-10 Hours with (2) 12V Batteries)
- Single-Channel True 24-bit A/D Range
- Seabed Classification
- Industry standard SEG Y output
- Includes FSI acquisition software
- Compatible with software acquisition software (Hypack, Chesapeake, SwanPro, others)



LF 3.5kHz Tonpiz



HF Conical Array



HF Pipe Liner Side Mount



# SPECIFICATIONS

## HMS-621 CHIRPceiver Litt™ System

Single Channel Chirp Frequency (User Selectable)

### Low Frequency Band

Transmitter and transducer: Array sizes from 1 to 4 Low Frequency 3.5 KHz Transducers

Power output: 1.5 kw, 15% duty cycle at 3.5 kHz for  
212 dB re 1  $\mu$ Pa @ 1 m nominal,

Frequency range: Sweeps in the 1kHz to 10kHz band

Transducer radiation: 45° Conical (for a 2x2 4-element array)

### High Frequency Band

Transmitter transducer: One 7-element high frequency transducer

Power output: 1 kw, 15% duty cycle at 15 kHz for  
214 dB re 1  $\mu$ Pa @ 1 m nominal,

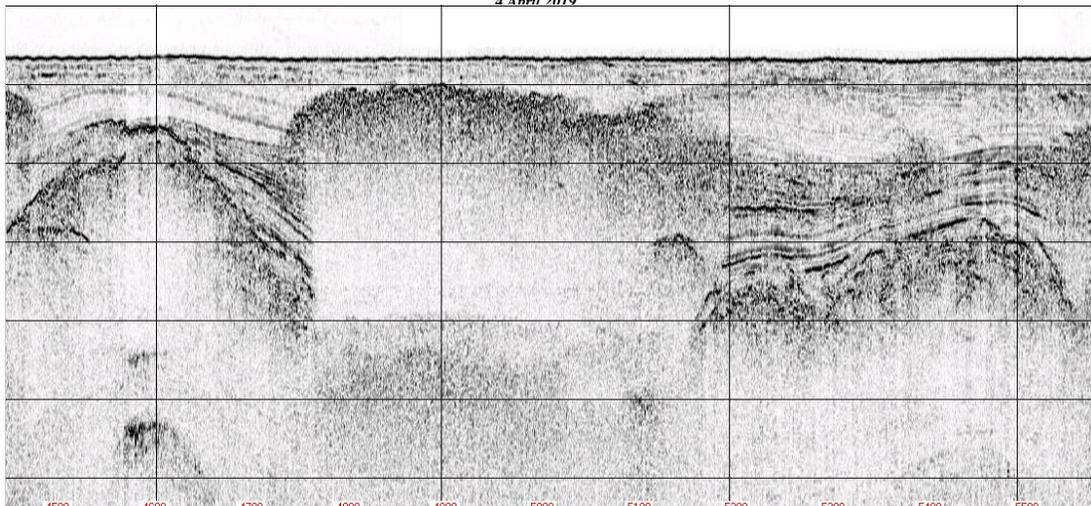
Frequency range: Sweeps in the 8kHz to 23kHz band

Transducer radiation: Conical Array: 20°  
Pipeliner Array: 120 ° along track, 9° across track

### HMS-621 Software Controls

Control:	<b>Software control through system Ethernet port</b>
Trigger:	Internal or External
Frequency:	LF (1KHz-10KHz), HF (8KHz-23KHz) CHIRP and CW
Pulse Length:	User Programmable for CHIRP and CW modes (15% duty cycle)
Transmit Power Control:	Full power down to -21dB in 3 dB minimum increments
User Programmable gain:	42 dB in 3 dB increments
User Prgramable attenuation:	-42 dB in 3 dB increments

*Specifications Subject to Change Without Notice  
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