



icTalk HF

Calibrated Sound Source

10 kHz to 200 kHz

The icTalk Smart Projector lets you combine tones, sweeps, clicks and pauses to produce simple or complex sounds. The icTalk HF can be used for calibrations, quality assurance at sea, or as a general purpose sound source.

The icTalk HF sets the standard for calibrated projectors with its high performance and ease of use. Use it in stand-alone mode, as a beacon, or connected via cable to a PC.

Applications

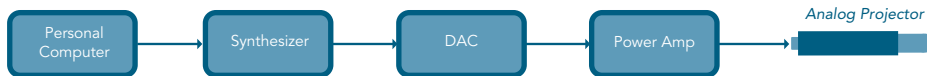
- Underwater Acoustic System Quality Control
- Sea Mammal Sound Simulator
- Calibration Tone or Sweep
- Beacon or Pinger
- Source for Sound Channel Modeling

What makes icTalk different?

It's the only autonomous digital projector available

The hand held icTalk includes a rechargeable battery & PC software for creating a wide range of sounds. The projector can loop continuously when powered, trigger from a magnet, run once, or be controlled by the included PC software Talk Assistant.

Traditional approach



Smart Projector approach



Using the icTalk eliminates the need for synthesizer, DAC and Power Amplifier by combining these inside the instrument along with batteries and a precision timebase to create an autonomous or tethered instrument.



Broadband Smart Projector

- **Compact** and can be carried in one hand
- **Create** custom sounds with the combination of tones, sweeps, pulses, clicks and pauses available
- **Connect** to power via data cable or use shorting plug to use internal battery
- **Calibrate** other sensors with its known output
- **Synchronize** icTalk and icListen Smart Hydrophones

Options

Case Material:

Engineered Plastic - 200 m
Titanium - 3500 m

Harmonic Distortion: 1%

Link: Standard Serial

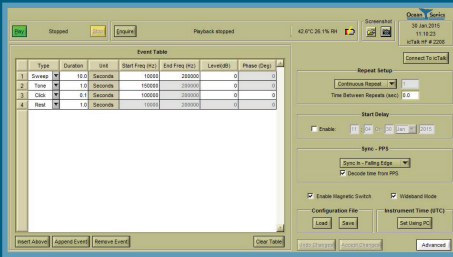
Instrument Sync:

Outputs PPS to align tones accurate to 1µ sec

Peak Output:

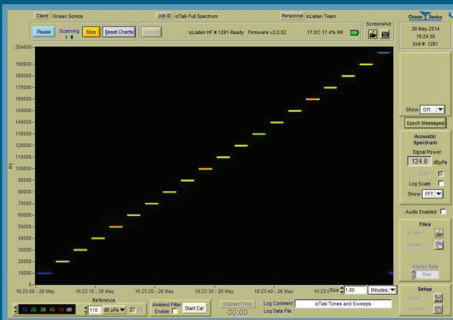
Output is flat (± 3 dB) at 140 dB re Pa at 1 m.
Selectable between 120 and 140 dB.

icTalk Assistant



Screenshot of display with programmed tones and sweeps.

Lucy PC Software



Lucy displaying increasing frequency tone made by icTalk.



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HF	UNITS
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SIGNAL PERFORMANCE

Bandwidth, Standard	30 - 200	kHz
SPL, Standard (+/- 3 dB)	132	dB re μPa @ 1 m
Bandwidth, Extended	10 - 200	kHz
SPL, Extended (+/- 10 dB)	126	dB re μPa @ 1 m
Harmonic Distortion (THD)	1.0	%
Frequency Resolution	1.0	Hz
Attenuation	0 - 20	dB

SOFTWARE / INTERFACE

Communications Interface	RS-422	
Talk Assistant Software Support	Yes	
Continuous Tone	Yes	
Frequency Sweep	Yes	
Ping / Click	Yes	

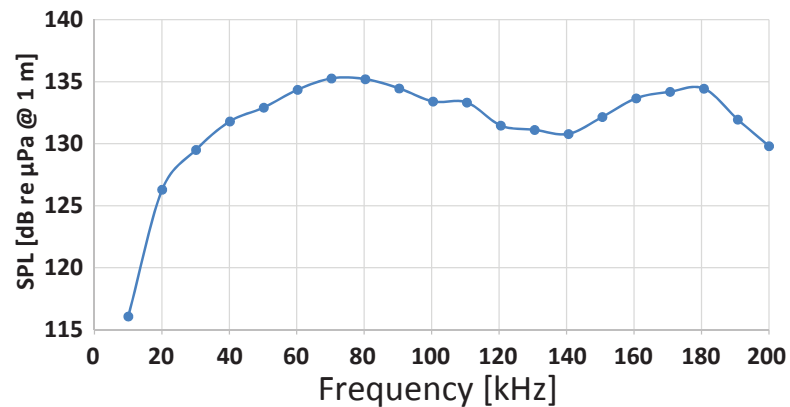
POWER

Internal Battery Life (active)	7	Hours
Internal Battery Life (standby)	36	Hours
Metalic Lithium Equivalent Content	780	mg
Recommended Supply Voltage	18 - 36	V
Supply Voltage Limits	15 - 42	V
External Power (typ)	1.8	W
External Power (charging)	3.8	W

MECHANICAL

Mass (Titanium Case)	0.953	kg
Mass (Plastic Case)	0.437	kg
Volume (Displacement)	320	cm ³
Overall Length, including connector	267	mm
Sensor Element Length	65	mm
Body (Can) Length	165	mm
Element Diameter	22	mm
Body Diameter	48	mm

icTalk Sound Pressure Level



Instrument access methods

- **Talk Assistant** PC software to enquire & setup sound patterns in the instrument, included with the instrument.

