



The icTalk Smart Projector is a calibrated acoustic projector that produces a complex range of tones, sweeps and clicks. The icTalk is an omnidirectional sound source that has a frequency range of 10 to 200 kHz with configurable output patterns and operating modes.

The instrument can be deployed autonomously with a configured output pattern and powered by the internal batteries for more than 5 hours. In a cabled setup, the sound output can be initiated and configured in real-time or set up to output sound continuously.



## All-in-one acoustic projector, icTalk.

**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

### Applications

Calibration Tone or Sweep

Beacon or Pinger

Source for Sound Channel Modeling

Underwater Acoustic

Sea Mammal Sound Simulator

System Quality Control

**Frequency:**  
10 kHz to 200 kHz

**Max Depth:**  
200m /3500m

**Interface:**  
RS422 (19200 bits/  
second)

**Weight:**  
~584g (in air)

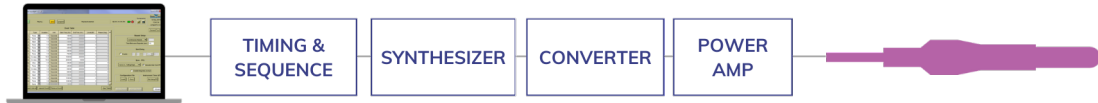
**Dimensions:**  
42 mm dia. by 250 mm  
long



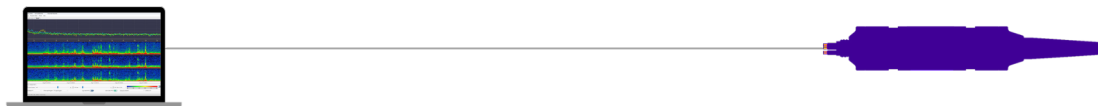
# What makes icTalk different?

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.

## Traditional Approach



## icTalk Approach



MECHANICAL		
Mass (Titanium Case)	0.953	kg
Mass (Plastic Case)	0.437	kg
Volume (Displacement)	32267065	cm <sup>3</sup>
Overall Length, including connector	165	mm
Sensor Element Length	22	mm
Body (Can) Length	48	mm
Element Diameter	22	mm
Body Diameter	48	mm

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
External Power (charging)	3.8	W

SIGNAL PERFORMANCE	HF	UNITS
Bandwidth, Standard	30 - 200	kHZ
SPL, Standard (+/-3 dB)	132	dB re $\mu$ Pa @ 1 m
Bandwidth, Extended	10 - 200	kHz
SPL, Extended (+/- 10 dB)	126	dB re $\mu$ Pa @ 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