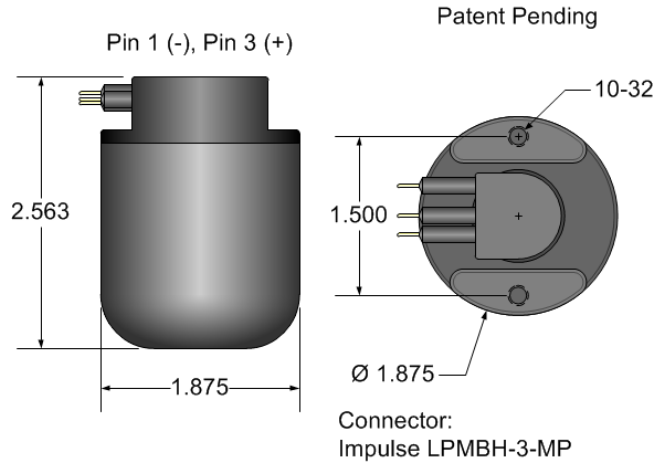


Model BT-1RCL

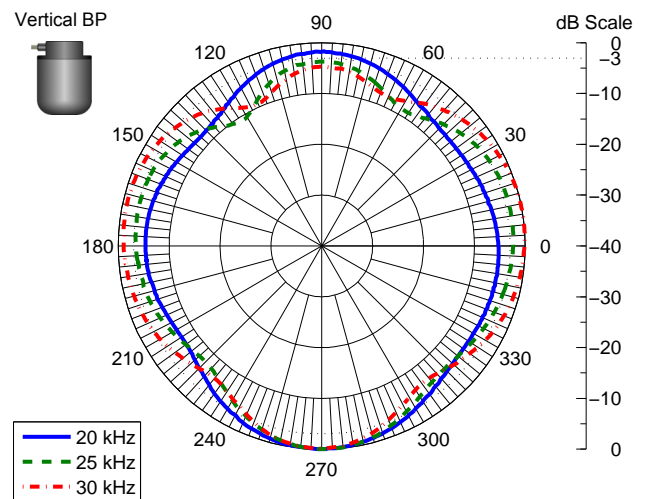
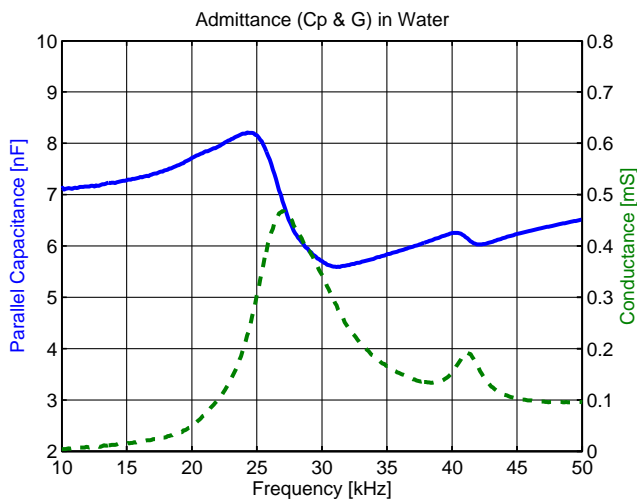
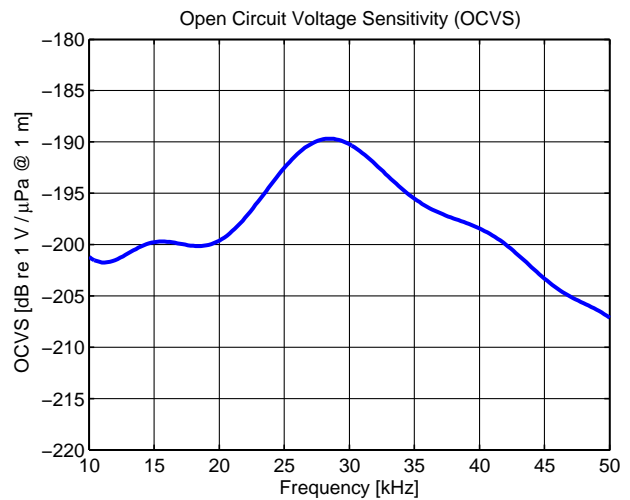
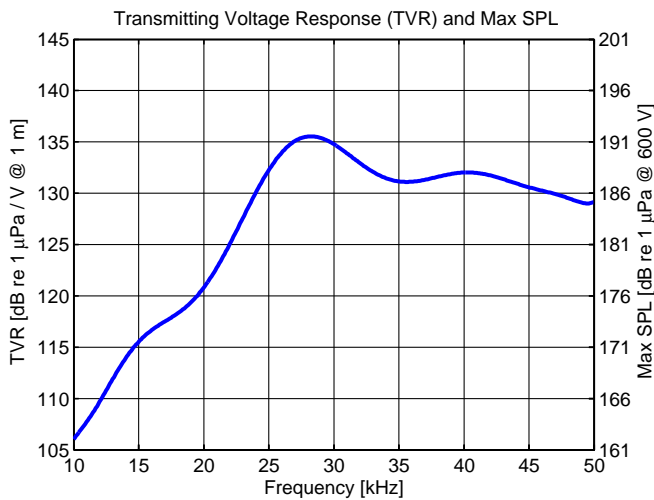
BTech's Model BT-1RCL transducer has a broader beam pattern (with higher endfire response) than the BT-2RCL, intended for acoustic communications (AComms).

Specifications (Nominal):

- Resonance Frequency (f_r): 28 kHz
- Coupling Coefficient (k_{eff}): 0.33
- TVR at f_r : 135 dB re 1 μ Pa/V
- SPL (max) at f_r (@ 1 m): 191 dB re 1 μ Pa
- OCVS at f_r : -190 dB re 1 V/ μ Pa
- Horizontal Beam Pattern: Omnidirectional
- Vertical Beam Pattern: Near-omni (see plot)
- Depth (max): 700 m
- Voltage (max): 600 Vrms
- Weight (in air, in water): 161 g (a), 48 g (w)



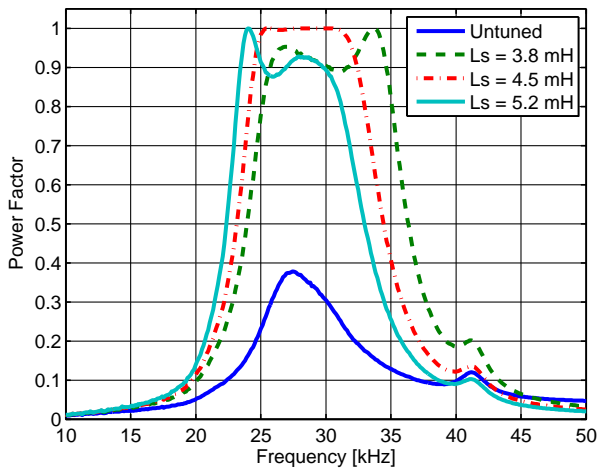
Performance Curves (Nominal):



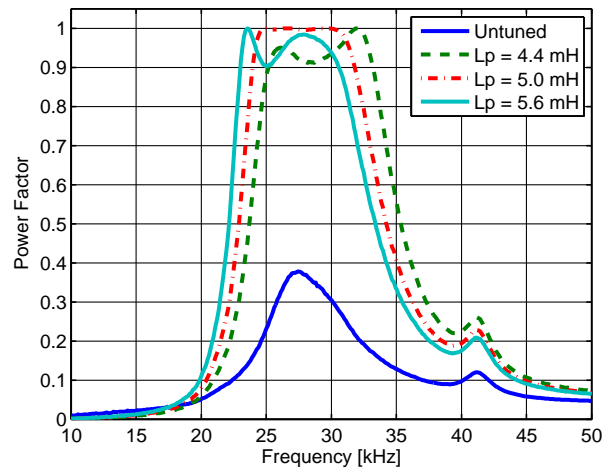
Model BT-1RCL

Tuned Performance Curves (Nominal):

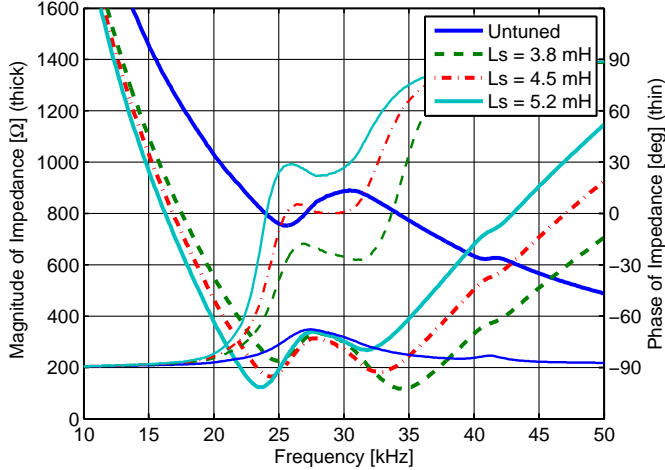
Power Factor (Untuned and Series Tuned) in Water



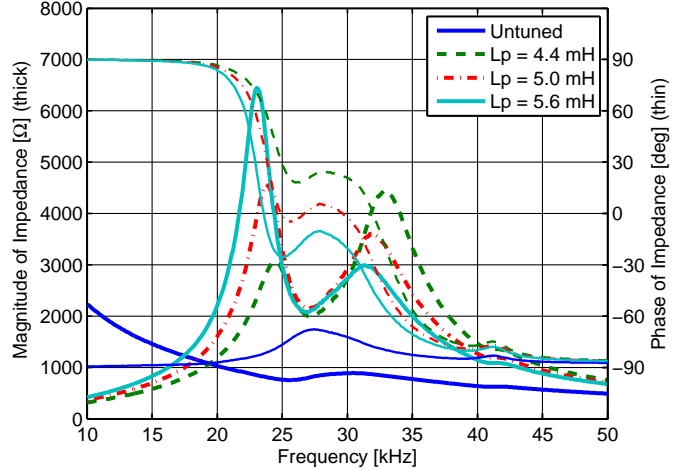
Power Factor (Untuned and Parallel Tuned) in Water



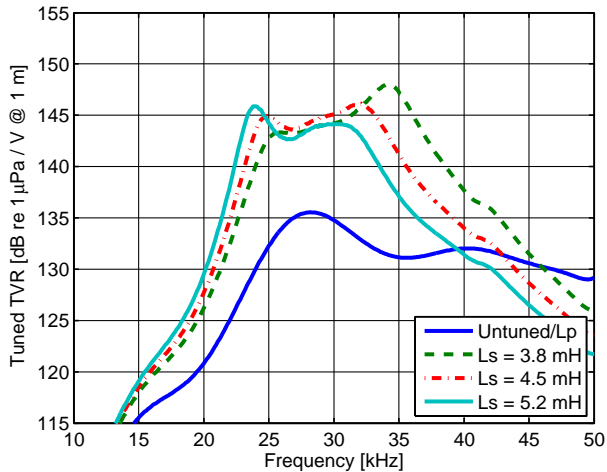
Series Tuned Impedance (Z_m & Z_p) in Water



Parallel Tuned Impedance (Z_m & Z_p) in Water



Tuned TVR



Tuning and Matching is required for highly effective power delivery to the transducer. The impact on system performance for several values of series and parallel inductive tuning elements are provided.

BTech has extensive modeling capabilities to optimize any system configuration for greater bandwidth and efficiency.

Contact us for customizable features, such as connector style, increased depth rating, and more...