

TC2178

Dual-Frequency Transducer

TC2178

Model TC2178 is an optimized and hydrodynamic 33 kHz and 200 kHz dual frequency transducer ideal for navigation and hydrographic echosounder systems.

The transducer has excellent piezoceramic elements which will ensure the highest reliability and quality in echosounding.



TECHNICAL SPECIFICATIONS

Resonant Frequency:	33 kHz ±2kHz
	200kHz ±5kHz
Transmitting sensitivity:	168dB ±3dB at 33kHz (re 1µPa/V at 1m)
	174dB ±3dB at 200kHz (re 1µPa/V at 1m)
Receiving Sensitivity:	-177dB ±3dB at 33kHz (re 1V/µPa)
	-187dB ±3dB at 200kHz (re 1V/µPa)
Impedance:	80 ohm ±24ohm at 33kHz and 200kHz
Beam width:	22°±2° at 33kHz
	9.5°±1° at 200kHz
Beam shape:	Conical
Max input power:	1000 W at 33kHz (at 1% duty cycle)
	450 W at 200kHz (at 1% duty cycle)
Operating depth:	30 m
Survival depth:	50 m
Operating temperature range:	-2°C to +35°C
Storage temperature range:	-30°C to +50°C
Weight in air, with cable:	9.7kg
Housing:	PVC
Cable (length and type):	18m FALMAT Type FM088095-7, 4x1 (2 x twisted pair) PUR Jacket,
	WATER BLOCK, Kevlar Braid 800lbs breaking strength (O.D. 11mm) - pigtail

FEATURES

- Hydrodynamic shape
- Narrow beams
- High acoustical performance
- Compact design
- Electrical compatible with most 33 kHz and 200 kHz echosounders.
- Can be mounted directly on outboard rig.

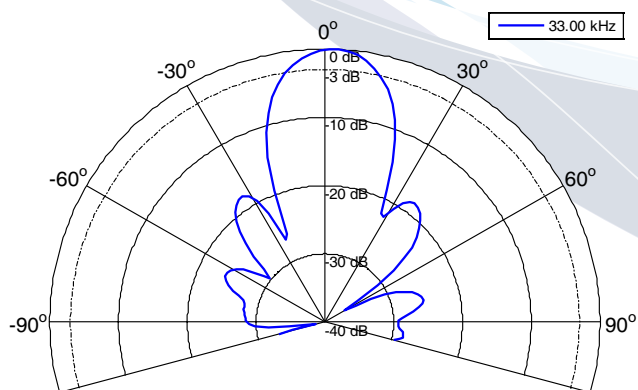


Transducer TC2178

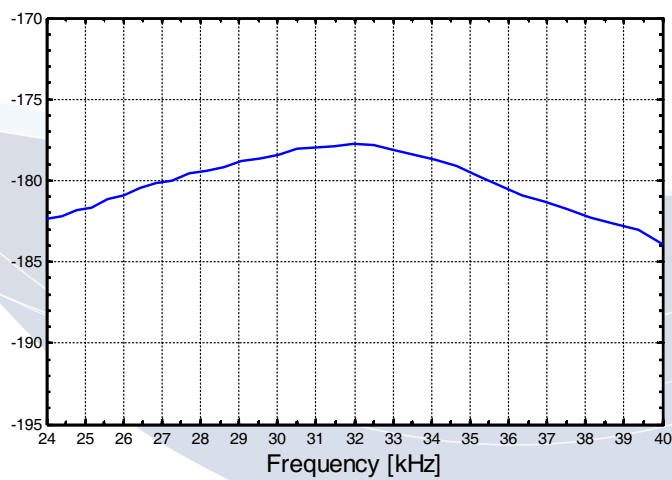
Dual-Frequency Transducer

Typical graphs 33kHz

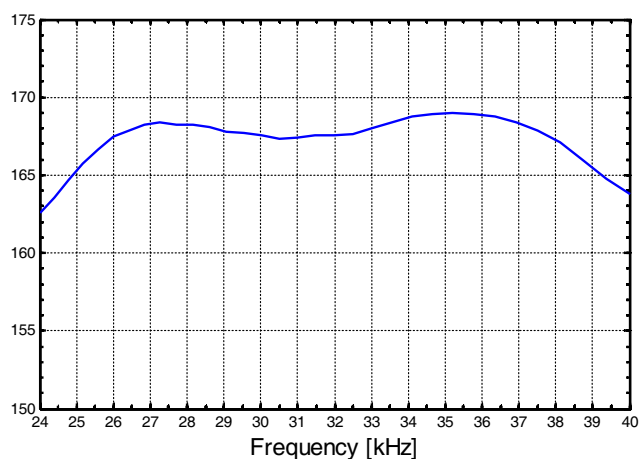
Horizontal Directivity Pattern



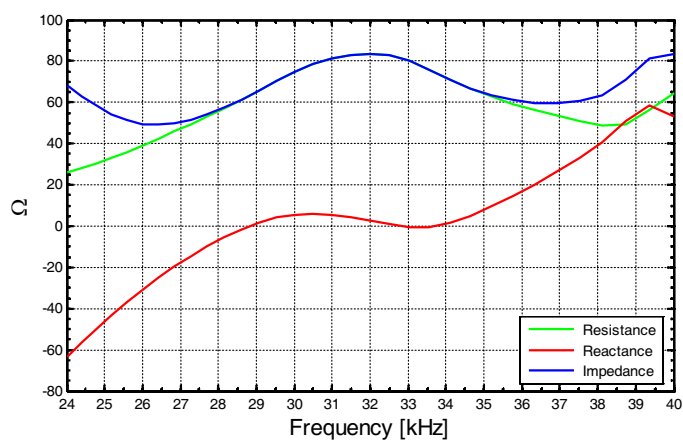
Receiving Sensitivity [dB re 1V/ μ Pa @ 1m]



Transmitting Sensitivity [dB re 1 μ Pa/V @ 1m]



Impedance



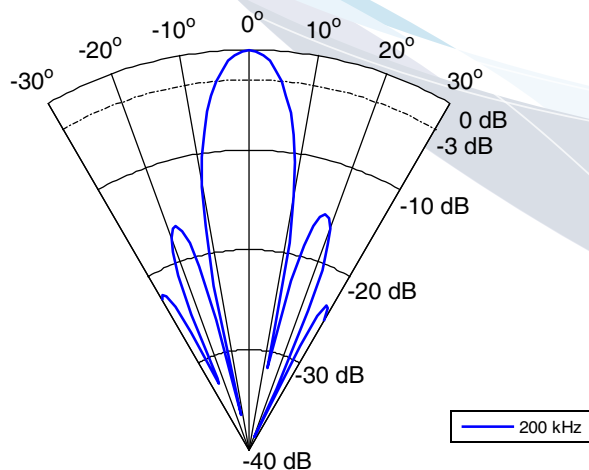
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RESON
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Transducer TC2178

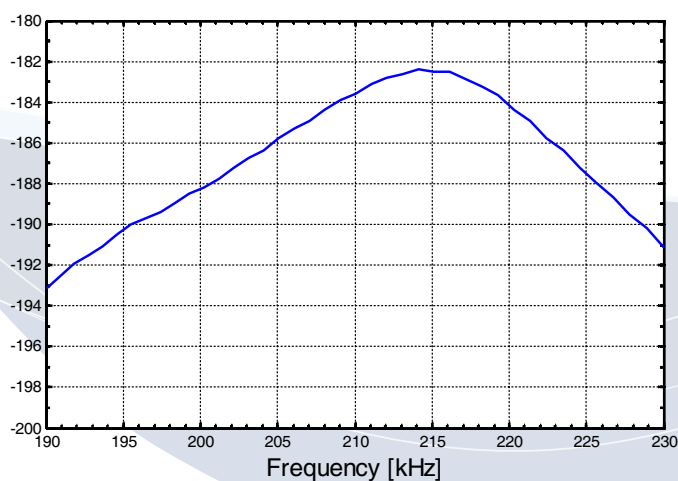
Dual-Frequency Transducer

Typical graphs 200kHz

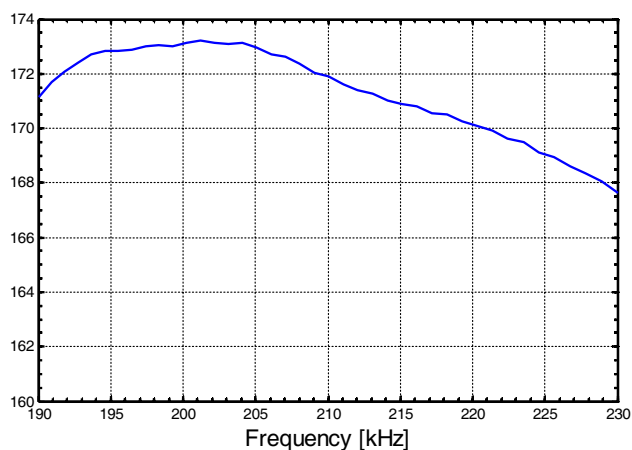
Horizontal Directivity Pattern



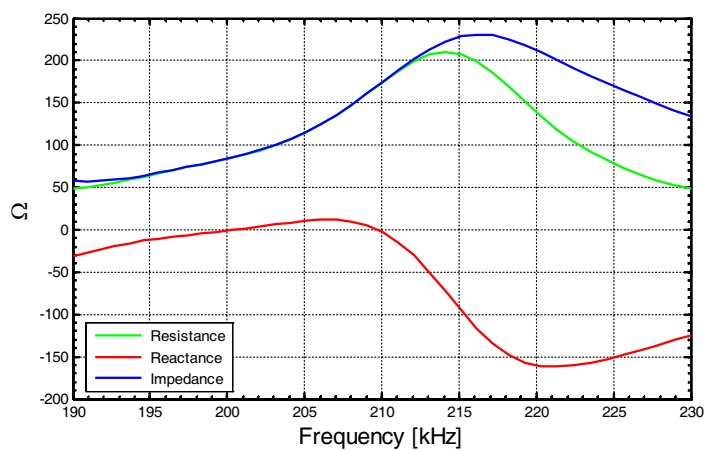
Receiving Sensitivity [dB re 1V/μPa @ 1m]



Transmitting Sensitivity [dB re 1μPa/V @ 1m]



Impedance



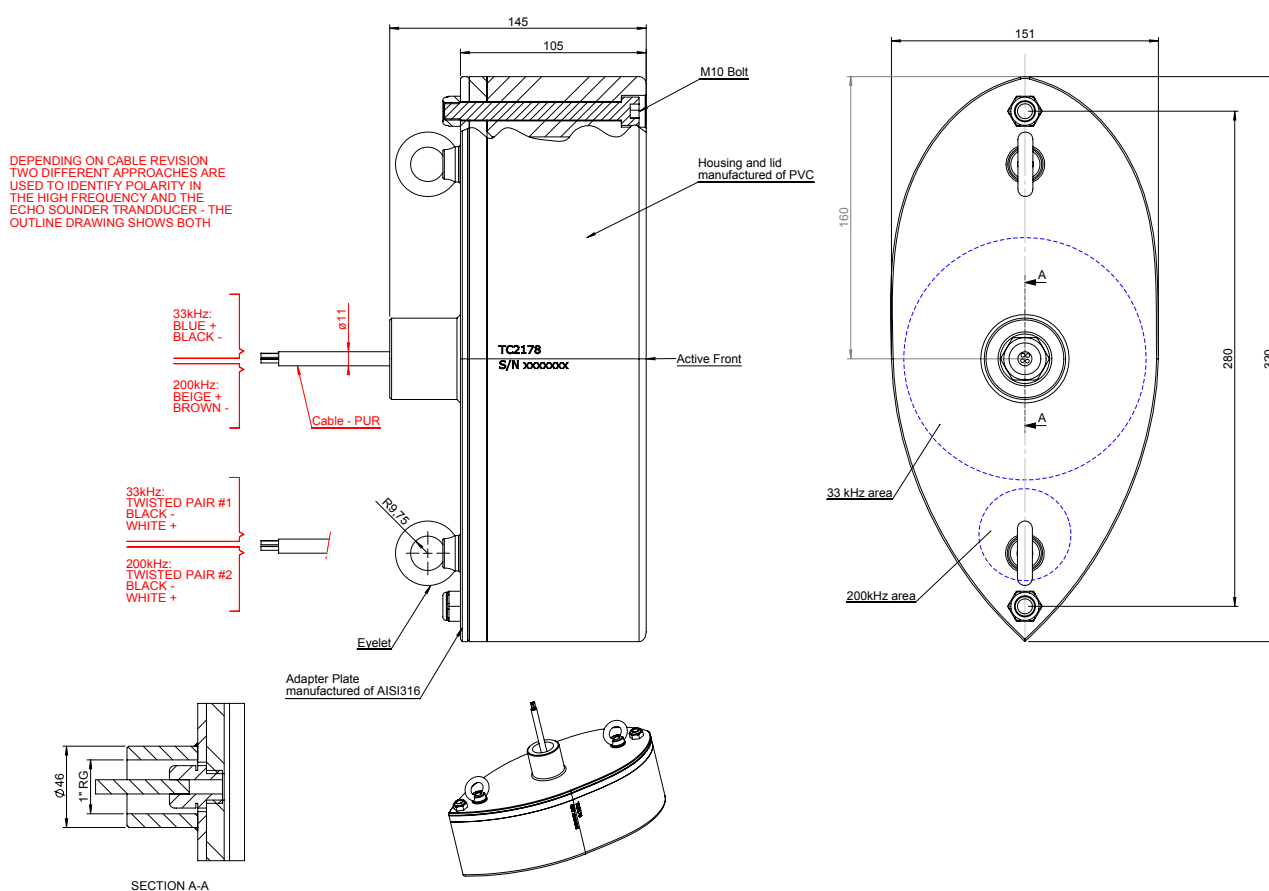
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Transducer TC2178

Dual-Frequency Transducer



Outline Dimensions



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