



Materials Systems Inc.

Piezocomposite Transducer Specification Form

Please complete the applicable sections of this form to facilitate Materials Systems' response to your transducer requirement. To enhance our customer support, it is important to complete the Customer Information, Application Description and Production Requirements sections of this form. Please complete only the sections that describe your requirement, leaving non-applicable sections blank.

Customer Information

Company _____ Contact Name _____

Phone # _____ FAX # _____

Application Description

Application: _____

Transducer Type: _____ Single Element _____ Array _____ Shaded Array
_____ Projector _____ Hydrophone

Transmit/Receive _____ Transmit _____ Receive _____

Frequency Range: _____ kHz to _____ kHz

Beam Pattern Shape: _____ Omnidirectional _____ Conical _____ Elliptical _____ Other

Sidelobe Levels _____ dB down from mainlobe @ _____ kHz
-3 dB Beamwidth, Vertical (deg) _____ @ _____ kHz

Sidelobe Levels _____ dB down from mainlobe @ _____ kHz
-3 dB Beamwidth, Horizontal (deg) _____ @ _____ kHz

Environmental Specification

Operating Media: _____ Air _____ Water _____ Direct Contact _____ Corrosive Liquid
_____ High Pressure _____ High Temperature _____ Other (Describe)

Operating Depth _____ Pressure Range _____ Temperature Range _____

Period of use in intended environment _____

Hydrophone Specification

RVS: _____ dB re V/ μ Pa with _____ length of cable

Bandwidth flatness: +/- _____ dB

Preamp. required? _____

Preamp. Specifications: Gain _____ Roll-off Frequency _____ Supply Voltage _____



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Projector Specification

Resonance Frequency: _____ kHz Anti-Resonance Frequency: _____ kHz
Tolerance +/- _____ % Bandwidth _____ %

SPL: _____ dB re $\mu\text{Pa.m}$ or Input Power: _____ watts Drive Voltage Range: _____ Volts

Operational Conditions: CW or Pulsed If Pulsed, Duty Cycle _____ %
Pulse Length _____ ms

TVR: _____ dB re $\mu\text{Pa.m/V}$ Mechanical Q: _____ (re 1/2 G frequencies)

Tuning or Matching? Y/N Impedance _____ Phase (deg) _____

Mechanical Requirements

Size Restrictions: _____

Weight Restrictions: _____

Cable Type: _____ Cable Length: _____ Connector Type: _____

Packaging: _____ Water Proof Encapsulation _____ Metal Housing _____ Plastic Housing
_____ Unencapsulated _____ Special Housing (Supplied Drawings)

Dimensional Tolerances +/- _____

Electrical Requirements

Device Capacitance _____ nF Dissipation _____ Electrical Isolation _____ Ω

Electrical Impedance _____ Ω Tolerances +/- _____ %

Production Requirements

Prototype Application ? _____ Production Application ? _____

Quantities Required _____ Delivery Schedule _____

Additional
Information _____

