

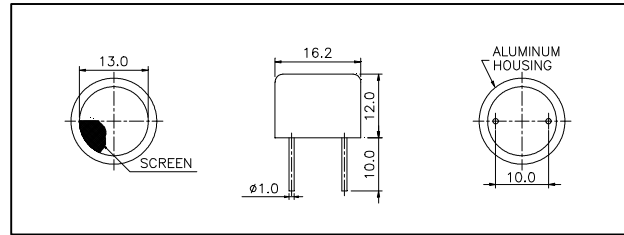
PROWAVE

Air Ultrasonic Ceramic Transducers

400ST/R160



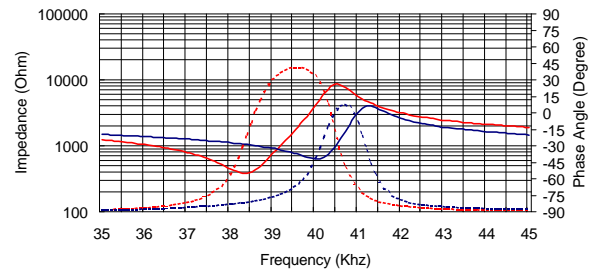
Dimensions: dimensions are in mm



Impedance/Phase Angle vs. Frequency

Tested under 1Vrms Oscillation Level

400SR160 Impedance ——— (Red solid line)
 400SR160 Phase ——— (Blue solid line)
 400ST160 Impedance ····· (Red dotted line)
 400ST160 Phase ····· (Blue dotted line)

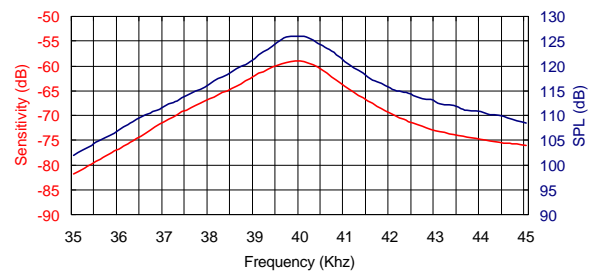


Specification

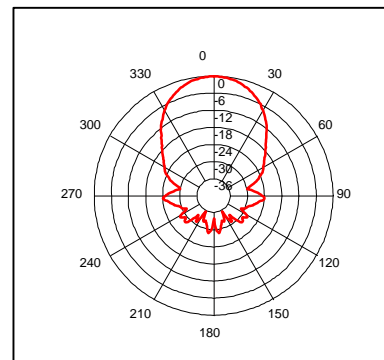
400ST160	Transmitter
400SR160	Receiver
Center Frequency	40.0±1.0Khz
Bandwidth (-6dB)	400ST160 2.0Khz 400SR160 2.5Khz
Transmitting Sound Pressure Level	120dB min.
at 40.0Khz; 0dB re 0.0002μbar per 10Vrms at 30cm	
Receiving Sensitivity	-65dB min.
at 40.0Khz 0dB = 1 volt/μbar	
Capacitance at 1Khz	±20% 2400 pF
Max. Driving Voltage (cont.)	20Vrms
Total Beam Angle	-6dB 55° typical
Operation Temperature	-30 to 80°C
Storage Temperature	-40 to 85°C

Sensitivity/Sound Pressure Level

Tested under 10Vrms @30cm



Beam Angle: Tested at 40.0Khz frequency



All specification taken typical at 25°C
Closer frequency tolerance can be supplied upon request.

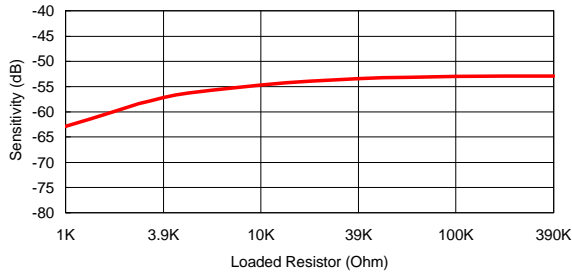
Models available:

1	400ST/R160	Aluminum Housing
2	400ST/R16B	Black Al. Housing
2	400ST/R10P	Plastic Housing
3	400ST/R16F	Al. Housing w/Solid Grid

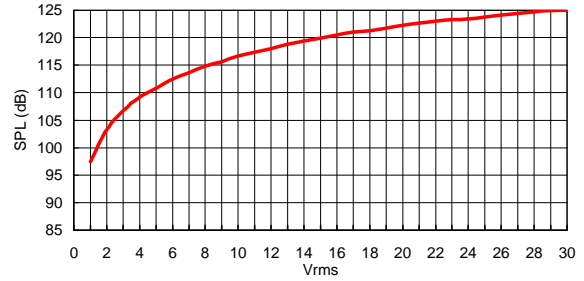
400SR160 Receiver

400ST160 Transmitter

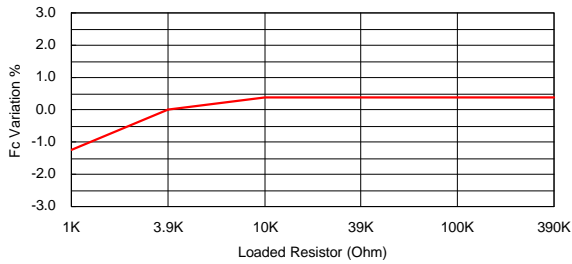
Sensitivity Variation vs. Loaded Resistor



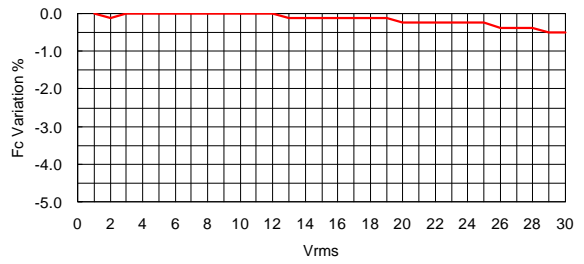
SPL Variation vs. Driving Voltage



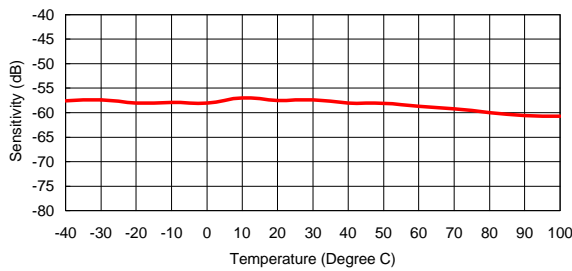
Center Frequency Shift vs. Loaded Resistor



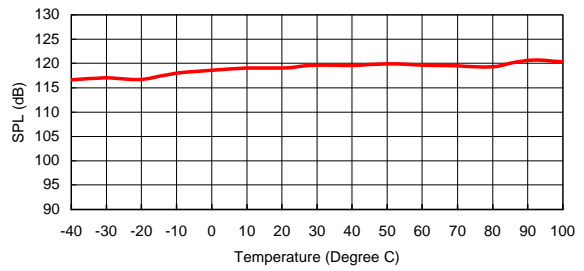
Center Frequency Shift vs. Driving Voltage



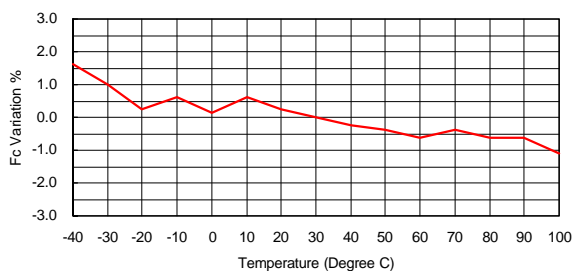
Sensitivity Variation vs. Temperature



SPL Variation vs. Temperature



Center Frequency Shift vs. Temperature



Center Frequency Shift vs. Temperature

