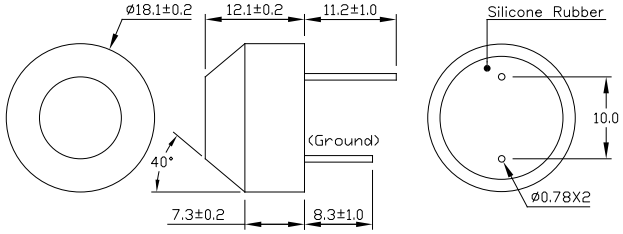
Air Ultrasonic Ceramic Transducers 400EP18A

Dimensions dimensions are in mm



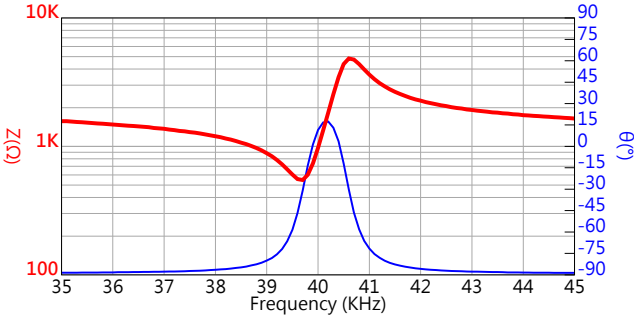
Specification

400EP18A	Transceiver
Center Frequency	40.0±1.0KHz
Bandwidth (-6dB Figure Of Merit)	1.5KHz
Transmitting Sound Pressure Level at resonant frequency; 0dB re 0.0002µbar per 10Vrms at 30cm	108dB min.
Receiving Sensitivity at resonant frequency 0dB = 1 volt/µbar	-75dB min.
Nominal Impedance (Ohm)	750
Ringing	1.2 ms max.
Capacitance at 1KHz ±20%	2600 pF
Temperature Compensated Type	5200 pF
Max. Driving Voltage (Cont.)	20Vrms
20 bursts, 25ms repetition rate	100Vp-p
Total Beam Angle (-6dB)	85° typical
Operation Temperature	-30°C to 70°C
Storage Temperature	-40°C to 80°C

All specification taken typical at 25°C
Both lead pins and lead wires output are available.
Temperature compensated type is available upon request.

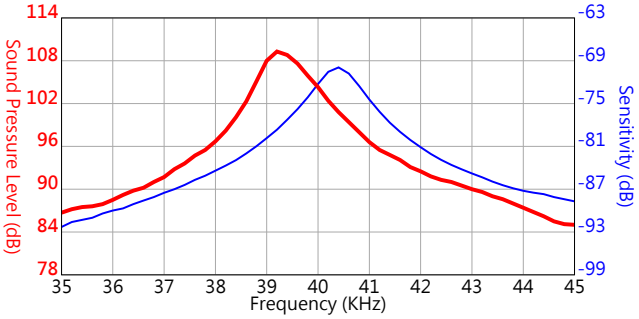
Impedance/Phase Angle vs. Frequency

Tested under 1Vrms Oscillation Level

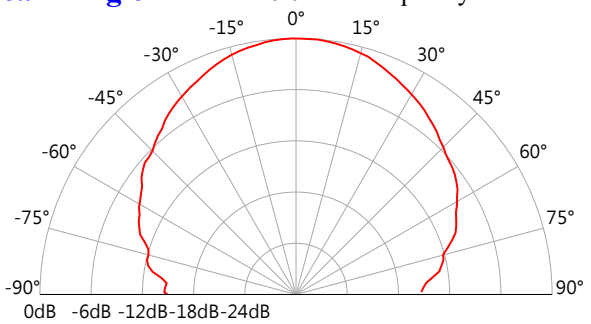


Sound Pressure Level / Sensitivity

Tested under 10Vrms @30cm



Beam Angle Tested at 40.0KHz Frequency



Models available

1	400EP18A	Aluminum Housing

S. Square Enterprise Company Limited
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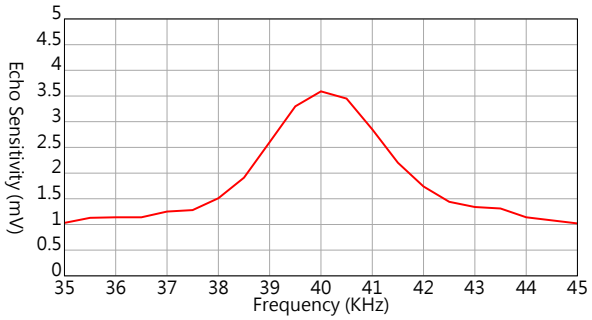
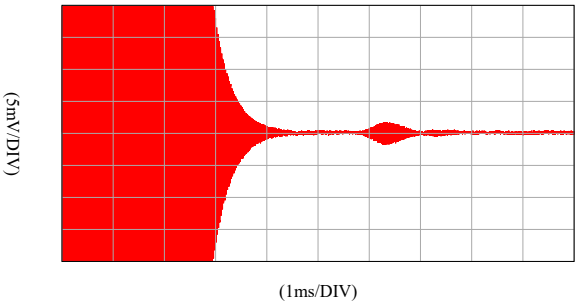
Echo Sensitivity vs. Frequency

Tested under 50Vp-p, 20 bursts, 100cm



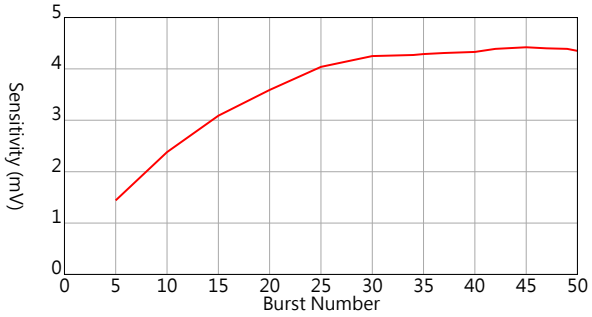
Echo Sensitivity/Ringing

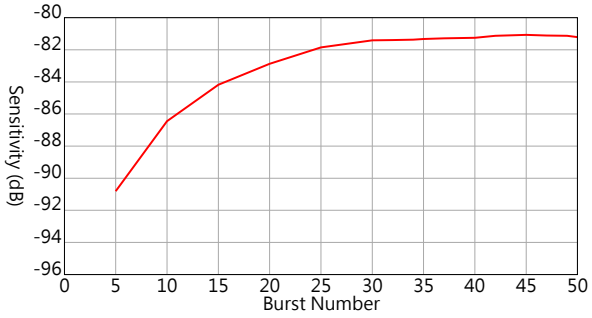
Tested under 50Vp-p, 20 bursts, 100cm, 40KHz



Echo Sensitivity vs. Driving Burst Number

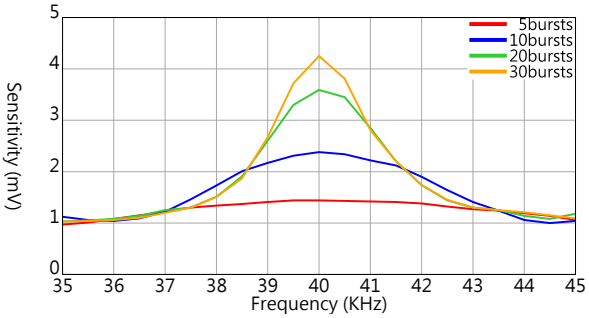
Driving voltage 50Vp-p sine wave, Reflection target distance: 100cm @40KHz

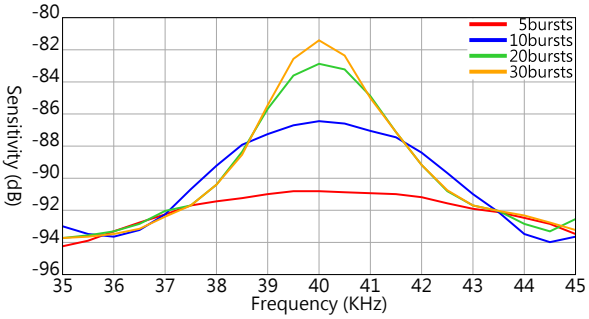




Bandwidth vs. Driving Burst Number

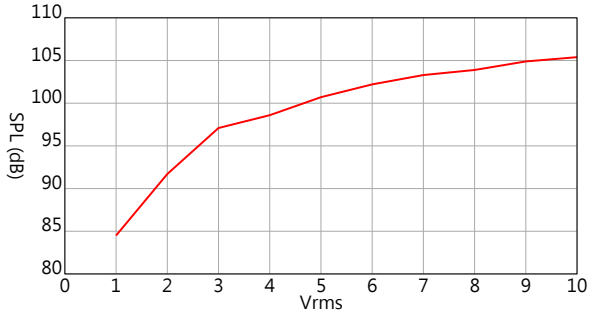
Driving voltage 50Vp-p sine wave, Reflection target distance: 100cm





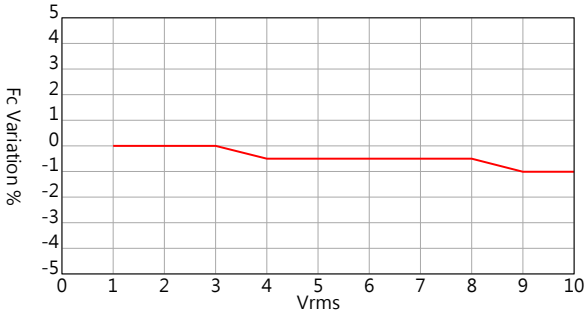
SPL Variation vs. Driving Voltage

Tested under 40KHz , 30cm



Center Frequency Shift vs. Driving Voltage

Tested under 30cm



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