SensComp
The Electrostatic
Ultrasonic Sensor Experts.

SensComp, Inc.
36704 Commerce Rd.
Livonia, MI 48150 USA
Telephone: (734) 953-4783
Fax: (734) 953-4518
www.senscomp.com

K Series 40KT08 and 40KR08

SensComp's 'K' Series Closed Face Piezoelectric Ultrasonic Sensors – 40KT08 and 40KR08

Features

Closed Face Construction

Environmentally Rugged Nickel Plated Steel Housing

Hermetic Sealed Construction Protects Against Water, Heat, Humidity and Other Elements

Specifically Intended for Operation in Air at Ultrasonic Frequencies

Part No.

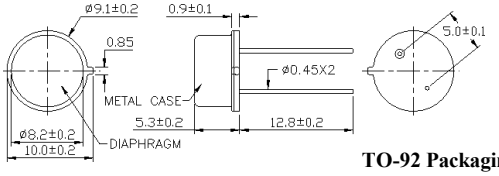
*PID# 618899LF – K Series 40KT08

*PID# 618900LF – K Series 40KR08

*RoHS Compliant

Specifications

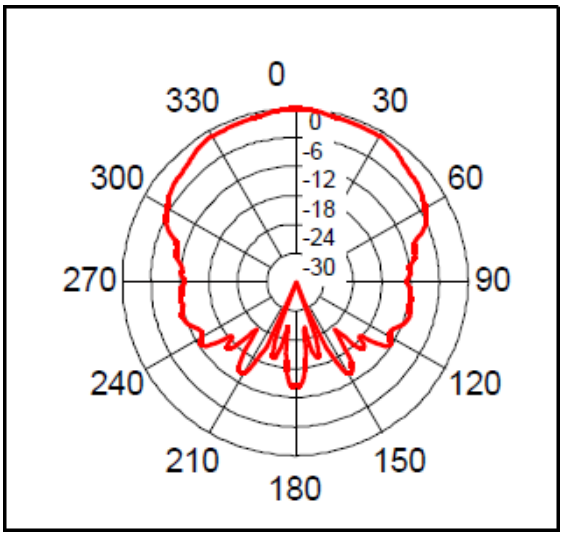
40KT08 ..... Transmitter
40KR08 ..... Receiver
Center Frequency ..... 40.0 ± 3.0 kHz
Bandwidth (-6 dB) 40KT08 ..... 1.5 kHz
40KR08 ..... 2.0 kHz
Transmitting Sound Pressure Level ..... 100 dB min
at 40.0 kHz; 0dB re 0.0002 µbar
Per 10 Vrms at 30 cm
Receiving Sensitivity ..... -80 dB min
at 40.0 kHz; 0dB = 1 volt/ µbar
Capacitance at 1 kHz ± 20% ..... 1700 pf
Maximum Driving Voltage (cont.) ..... 15 Vrms
Total Beam Angle (-6 dB) ..... 125° typical
Operating Temperature ..... -30° to 80° C
Storage Temperature ..... -40° to 85° C
All Specifications taken typical at 25° C
Dimensions: dimensions are in mm



TO-92 Packaging

Specifications

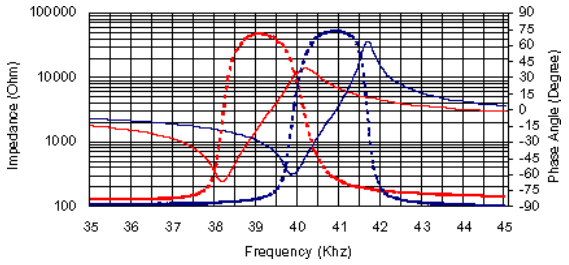
Beam Angle: Tested at 40.0 kHz



40KR08 Impedance
40KR08 Phase
40KT08 Impedance
40KT08 Phase

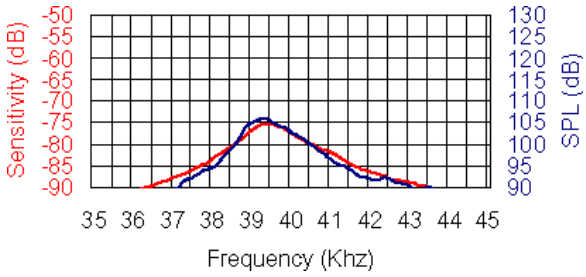
Impedance/Phase Angle vs. Frequency

Tested under 1 Vrms Oscillation Level



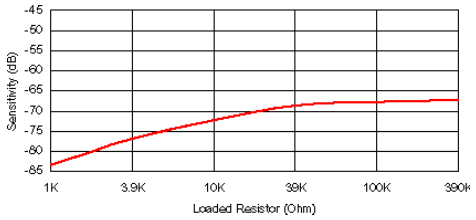
Sensitivity/Sound Pressure Level

Tested under 10 Vrms @ 30 cm

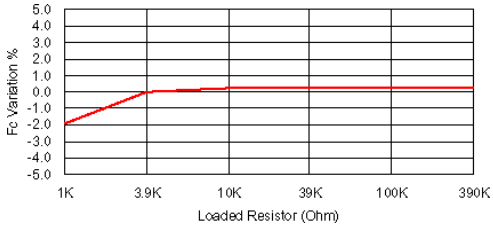


40KR08 Receiver

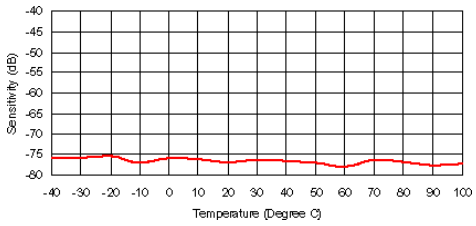
Sensitivity Variation vs. Loaded Resistor



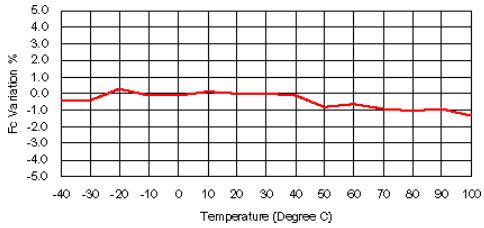
Center Frequency Shift vs. Loaded Resistor



Sensitivity Variation vs. Temperature

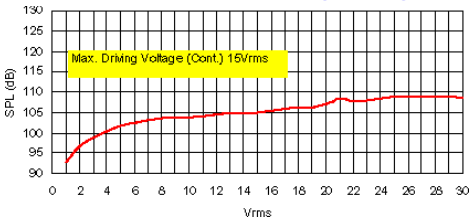


Receiver Center Frequency Shift vs. Temperature

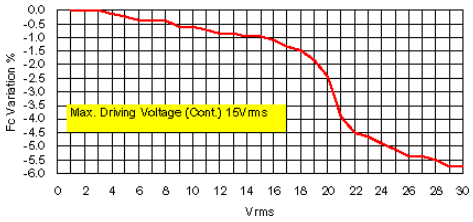


40KT08 Transmitter

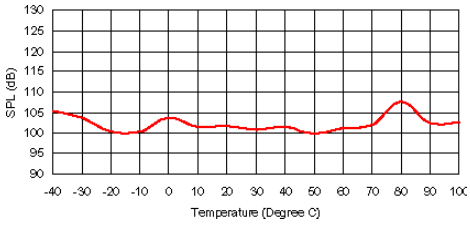
SPL Variation vs. Driving Voltage



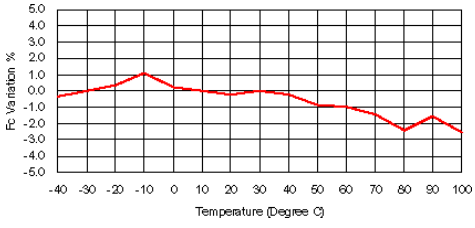
Center Frequency Shift vs. Driving Voltage



SPL Variation vs. Temperature



Transmitter Center Frequency Shift vs. Temperature



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