

K Series 40KT08 and 40KR08

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

Features

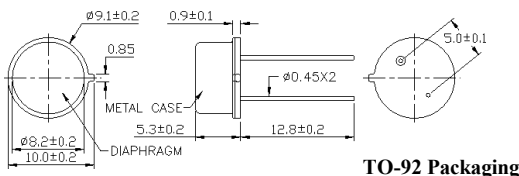
Closed Face Construction
Environmentally Rugged Nickel Plated Steel Housing
Hermetic Sealed Construction Protects Against Water, Heat, Humidity and Other Elements
Specifically Intended for Operation in Air at Ultrasonic Frequencies

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 μ bar
Per 10 Vrms at 30 cm
Receiving Sensitivity -80 dB min
at 40.0 kHz; 0dB = 1 volt/ μ bar
Capacitance at 1 kHz $\pm 20\%$ 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

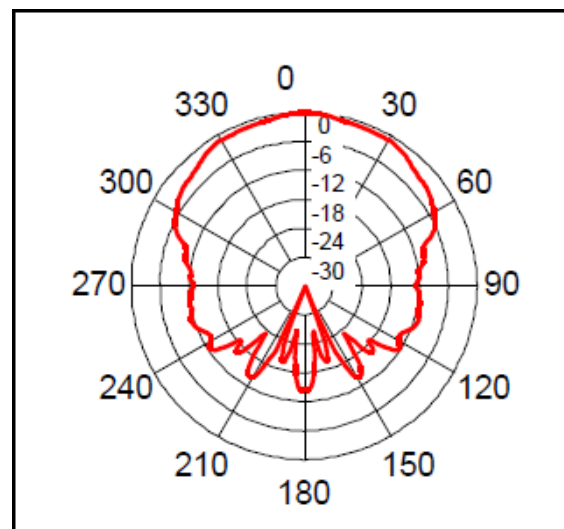


TO-92 Packaging

Specifications

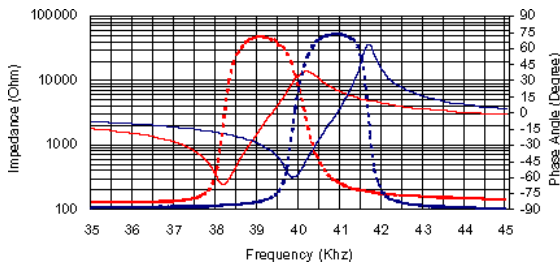


Beam Angle: Tested at 40.0 kHz

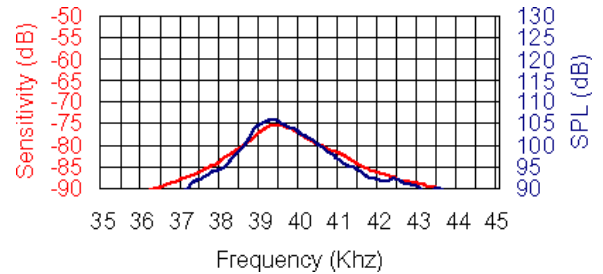


40KR08 Impedance ————
 40KR08 Phase - - - - -
 40KT08 Impedance ————
 40KT08 Phase - - - - -

Impedance/Phase Angle vs. Frequency
 Tested under 1 Vrms Oscillation Level

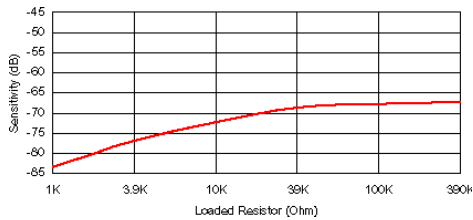


Sensitivity/Sound Pressure Level
 Tested under 10 Vrms @ 30 cm

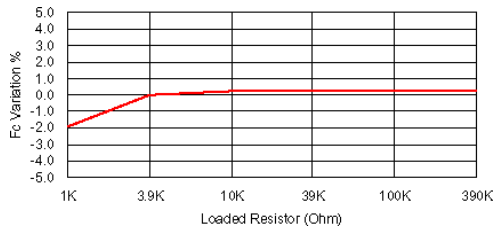


40KR08 Receiver

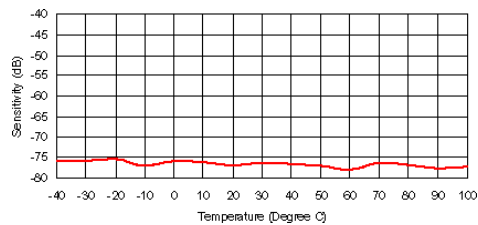
Sensitivity Variation vs. Loaded Resistor



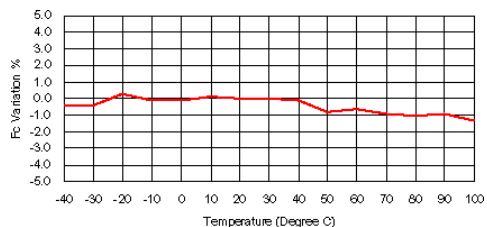
Center Frequency Shift vs. Loaded Resistor



Sensitivity Variation vs. Temperature

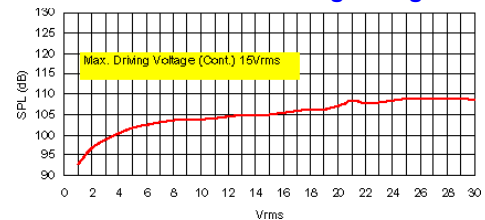


Receiver Center Frequency Shift vs. Temperature

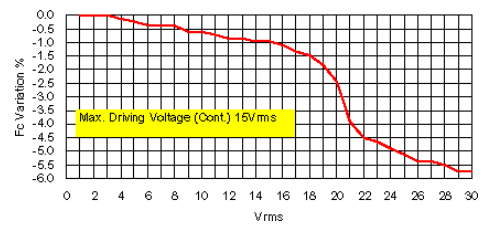


40KT08 Transmitter

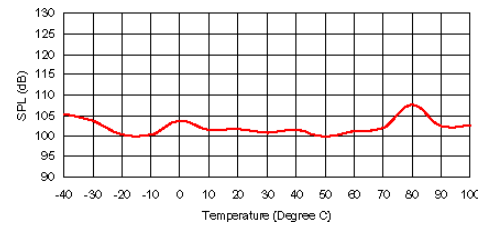
SPL Variation vs. Driving Voltage



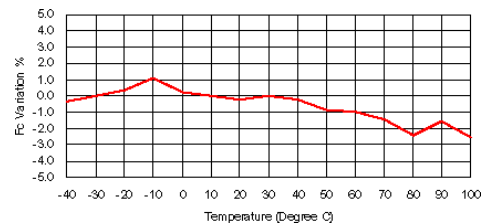
Center Frequency Shift vs. Driving Voltage



SPL Variation vs. Temperature



Transmitter Center Frequency Shift vs. Temperature



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