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L Series 40LT12 and 40LR12

SensComp's 'L' Series Open Face Piezoelectric Ultrasonic Sensors – 40LT12 and 40LR12

Features

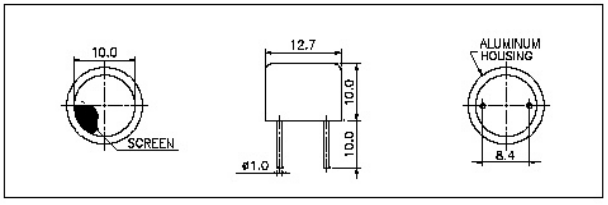
Open Face Construction
Increased Sensitivity
Reduced Ringing Characteristics,
Specifically Intended for Operation in Air at Ultrasonic Frequencies

Part No.

*PID# 621125LF – L Series 40LT12
*PID# 621124LF – L Series 40LR12
*RoHS Compliant

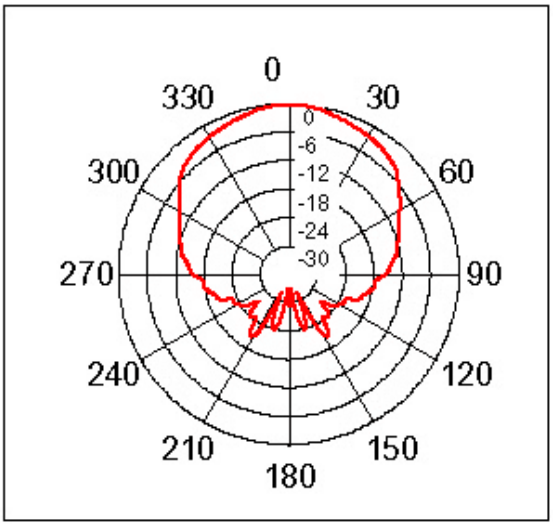
Specifications

40LT12..... Transmitter
40LR12 ..... Receiver
Center Frequency..... 40.0 ± 1.0 kHz
Bandwidth (-6 dB) 40LT12..... 2.0 kHz
40LR12 ..... 2.0 kHz
Transmitting Sound Pressure Level..... 115 dB min
at 40.0 kHz; 0dB re 0.0002 µbar
Per 10 Vrms at 30 cm
Receiving Sensitivity ..... -67 dB min
at 40.0 kHz; 0dB = 1 volt/ µbar
Capacitance at 1 kHz ± 20%..... 2400 pf
Maximum Driving Voltage (cont.) ..... 20 Vrms
Total Beam Angle (-6 dB)..... 85° 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



Specifications

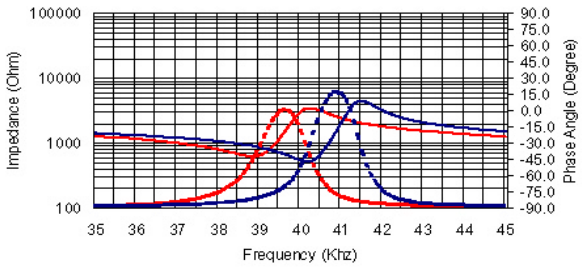
Beam Angle: Tested at 40.0 kHz



40LR12 Impedance
40LR12 Phase
40LT12 Impedance
40LT12 Phase

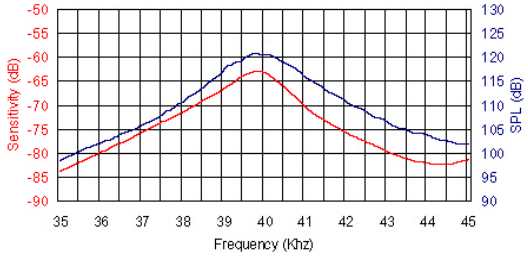
Impedance/Phase Angle vs. Frequency

Tested under 1 Vrms Oscillation Level



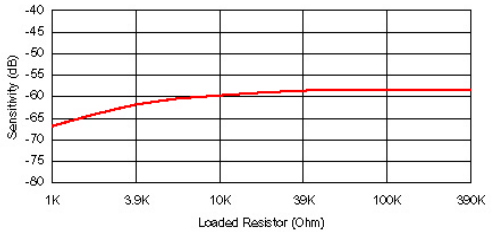
Sensitivity/Sound Pressure Level

Tested under 10 Vrms @ 30 cm

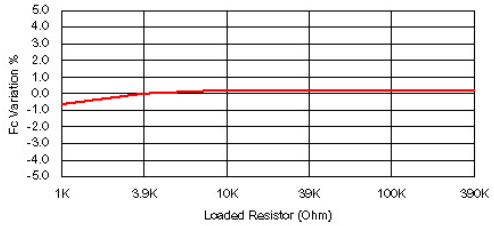


40LR12 Receiver

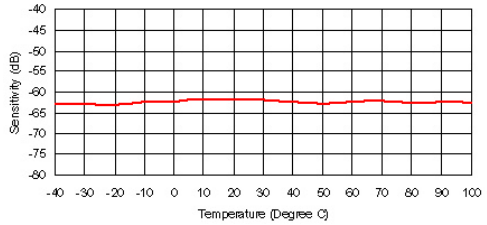
Sensitivity Variation vs. Loaded Resistor



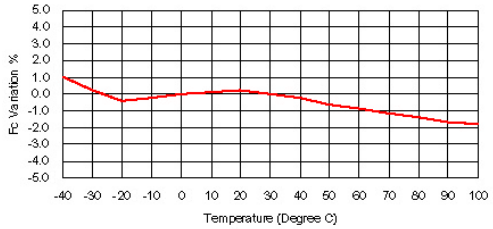
Center Frequency Shift vs. Loaded Resistor



Sensitivity Variation vs. Temperature

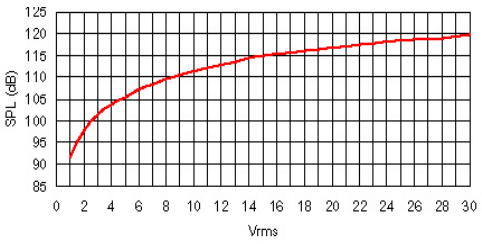


Center Frequency Shift vs. Temperature

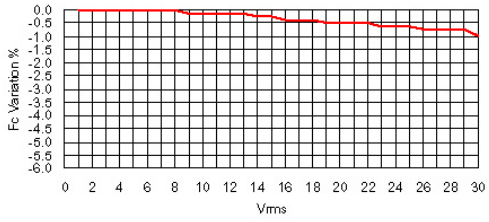


40LT12 Transmitter

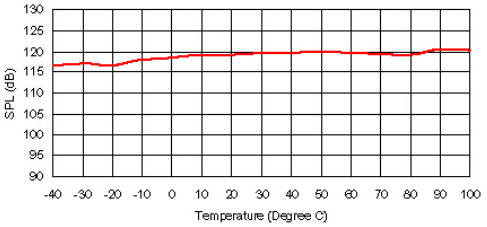
SPL Variation vs. Driving Voltage



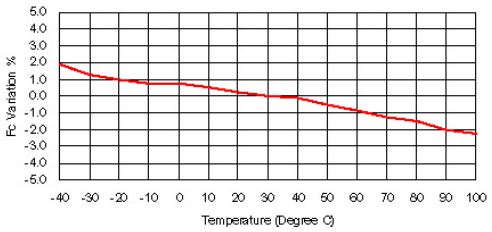
Center Frequency Shift vs. Driving Voltage



SPL Variation vs. Temperature



Center Frequency Shift vs. Temperature



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