

L Series 40LT16 and 40LR16

SensComp's 'L' Series Open Face Piezoelectric Ultrasonic Sensors – 40LT16 and 40LR16

Features

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

Part No.

- *PID# 621126LF – 40LT16
- *PID# 621128LF – 40LR16
- *RoHS Compliant

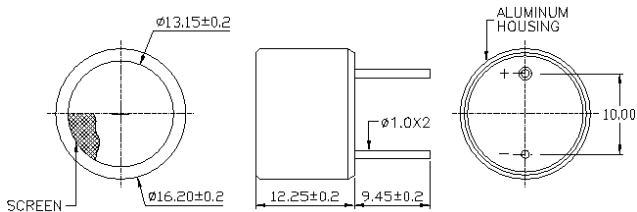
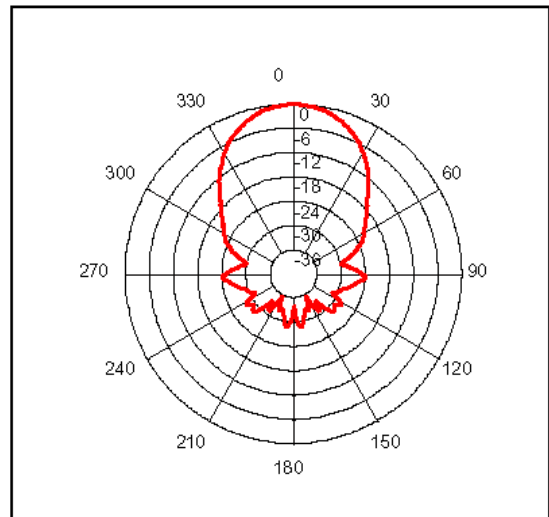
Specifications

- 40LT16**..... Transmitter
- 40LR16** Receiver
- Center Frequency**..... 40.0 ± 1.0 kHz
- Bandwidth (-6 dB)** 40LT16..... 2.0 kHz
40LR16 2.5 kHz
- Transmitting Sound Pressure Level**..... 120 dB min
at 40.0 kHz; 0dB re 0.0002 µbar
Per 10 Vrms at 30 cm
- Receiving Sensitivity**..... -65 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)**..... 55° 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



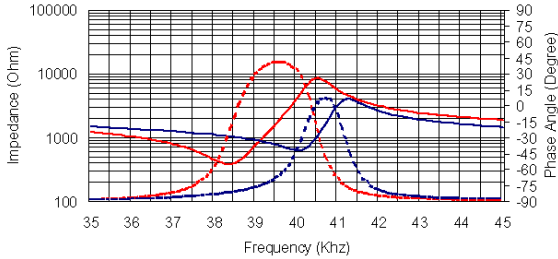
Beam Angle: Tested at 40.0 kHz



40LR16 Impedance ————
 40LR16 Phase - - - - -
 40LT16 Impedance ————
 40LT16 Phase - - - - -

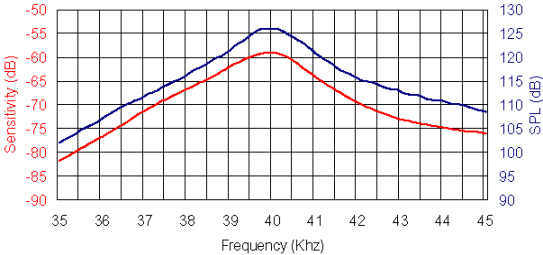
Impedance/Phase Angle vs. Frequency

Tested under 1 Vrms Oscillation Level



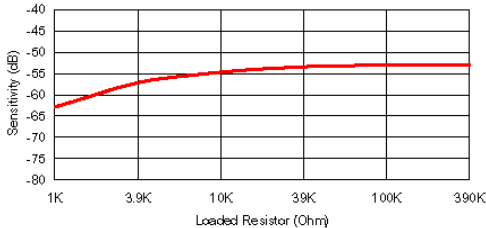
Sensitivity/Sound Pressure Level

Tested under 10 Vrms @ 30 cm

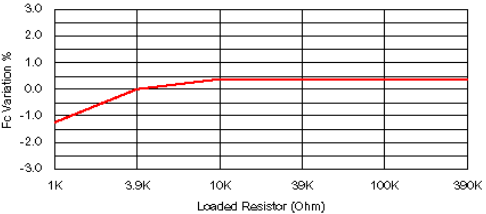


40LR16 Receiver

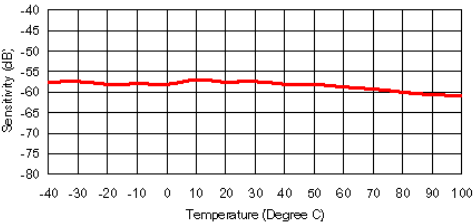
Sensitivity Variation vs. Loaded Resistor



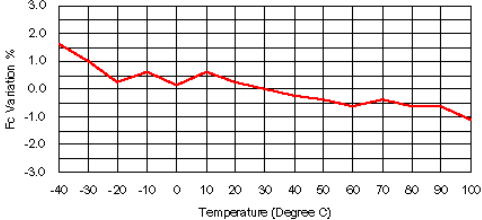
Center Frequency Shift vs. Loaded Resistor



Sensitivity Variation vs. Temperature

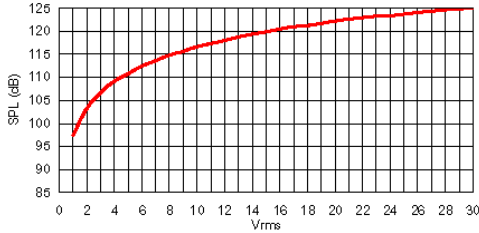


Center Frequency Shift vs. Temperature

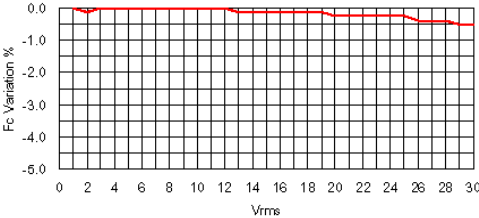


40LT16 Transmitter

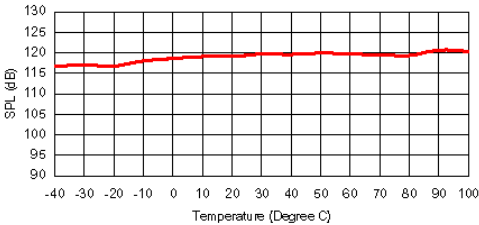
SPL Variation vs. Driving Voltage



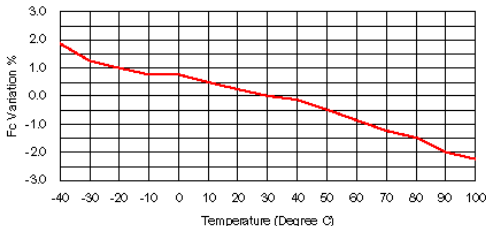
Center Frequency Shift vs. Driving Voltage



SPL Variation vs. Temperature



Center Frequency Shift vs. Temperature



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