

## L Series 40LT16 and 40LR16

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

### Features

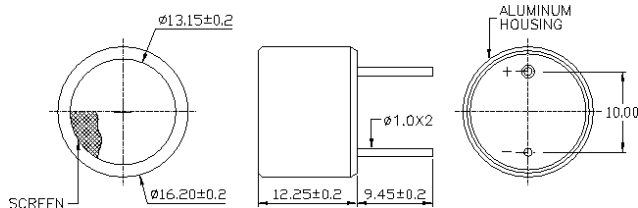
Open Face Construction  
Increased Sensitivity  
Reduced Ringing Characteristics  
Specifically Intended for Operation in Air at Ultrasonic Frequencies

### Part No.

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

### Specifications

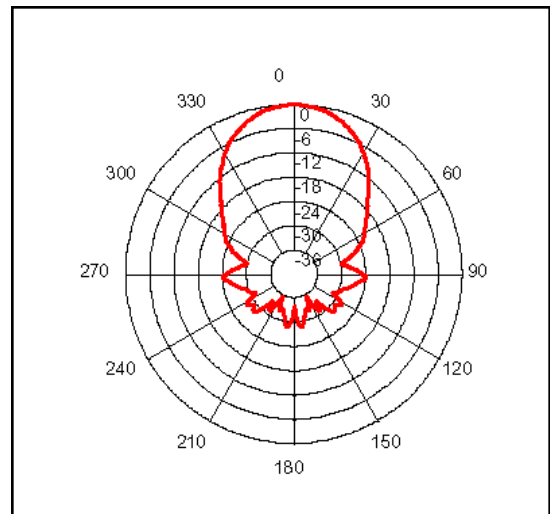
**40LT16**..... Transmitter  
**40LR16** ..... Receiver  
**Center Frequency** .....  $40.0 \pm 1.0$  kHz  
**Bandwidth** (-6 dB) 40LT16 ..... 2.0 kHz  
40LR16 ..... 2.5 kHz  
**Transmitting Sound Pressure Level**..... 120 dB min  
at 40.0 kHz; 0dB re 0.0002  $\mu$ bar  
Per 10 Vrms at 30 cm  
**Receiving Sensitivity** ..... -65 dB min  
at 40.0 kHz; 0dB = 1 volt/  $\mu$ bar  
**Capacitance** at 1 kHz  $\pm 20\%$ ..... 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



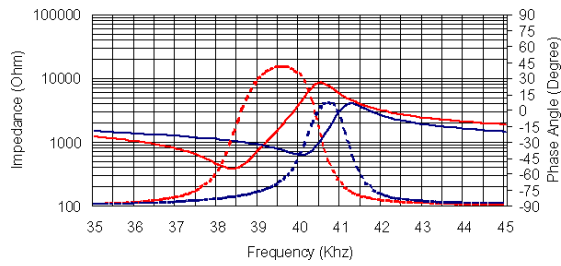
**Beam Angle:** Tested at 40.0 kHz



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

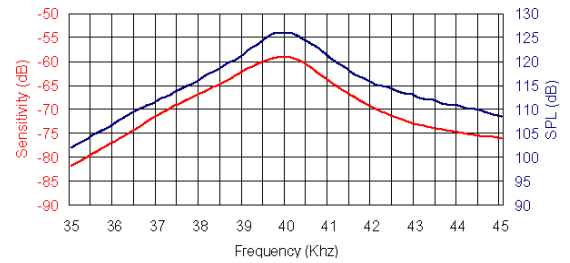
### Impedance/Phase Angle vs. Frequency

Tested under 1 Vrms Oscillation Level



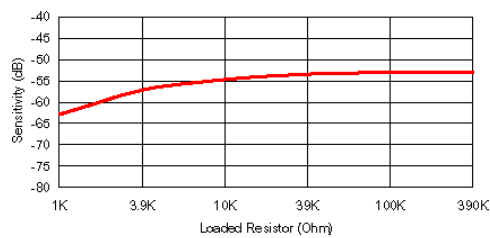
### Sensitivity/Sound Pressure Level

Tested under 10 Vrms @ 30 cm



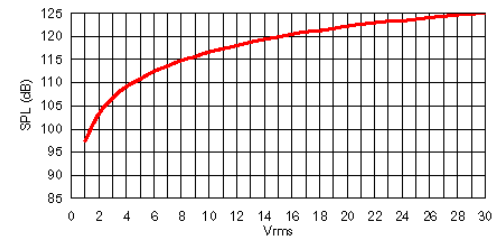
### 40LR16 Receiver

#### Sensitivity Variation vs. Loaded Resistor

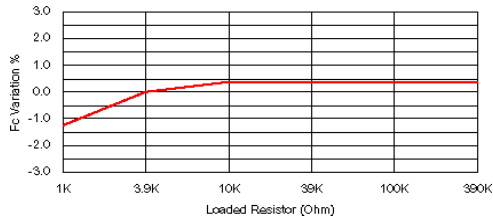


### 40LT16 Transmitter

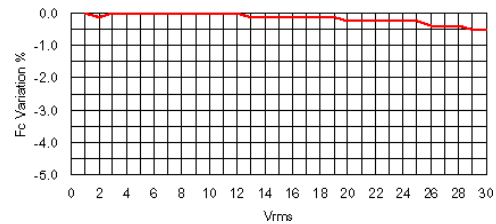
#### SPL Variation vs. Driving Voltage



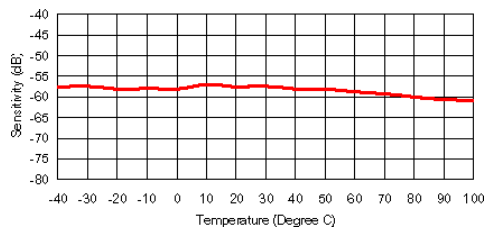
#### Center Frequency Shift vs. Loaded Resistor



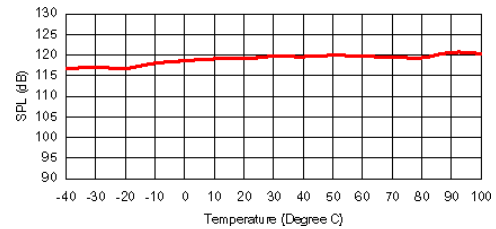
#### Center Frequency Shift vs. Driving Voltage



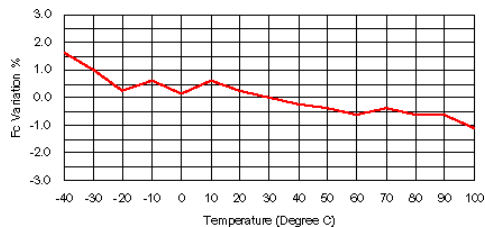
#### Sensitivity Variation vs. Temperature



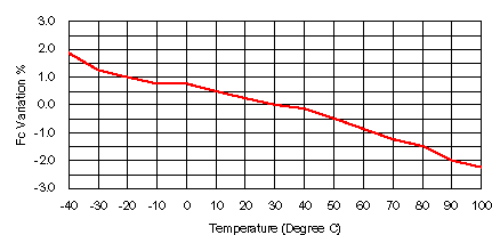
#### SPL Variation vs. Temperature



#### Center Frequency Shift vs. Temperature



#### Center Frequency Shift vs. Temperature



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