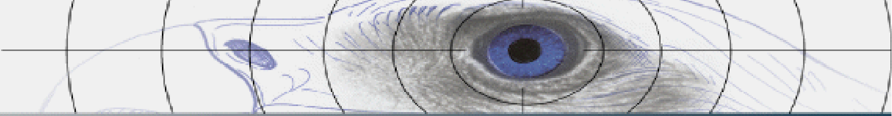
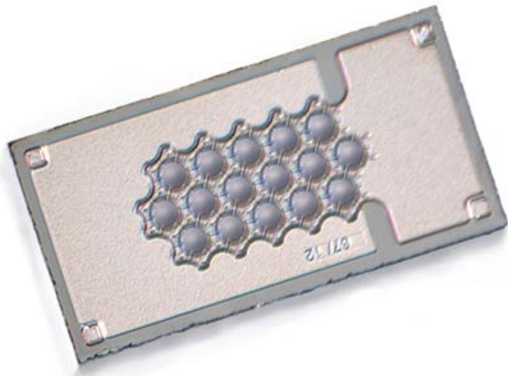


Sample-Die-E1.3N/LCC3.0SQ
Sample-Die-E8.0T/LCC3.0SQ



Features

- Surface micromachined capacitive absolute pressure sensor fabricated on non-conductive fused silica
- Very small die size (0.6x1.2 mm², height 0.48 mm)
- 0.5 to 1.3 (E1.3N)/1.2 to 8.0 (E8.0T) measuring range
- Very high input resistance >300 MΩ
- Overpressure >9 bar causes no damage
- Floating capacitance
- Large bond pads for conductive adhesive mount
- Membrane counter electrode with dielectric insulation

General Description

One sensor die is wire bonded into a ceramic LCC package. **No adhesive is used as die attach. The sensors are only mechanically fixed by bond wires** in order to eliminate all influences of the package on its characteristics.

A dimensional drawing of the package outline is given by figure 1.

Recommended Operation

Detailed information about the sensors can be found in the datasheets of E1.3N and E8.0T. The package pin-out is given in table 1. The sensor terminals C(+) and C(-) correspond to the similar identifiers of the datasheets.

All pressure data contained in the datasheets was acquired with an Agilent 4285A at 1 MHz, no bias and an AC level of 1V.

Table 1: LCC3.0SQ package pin description.

Pin-No.	Name	Notes
1	shielding	connected to package cavity metallization (can be optionally connected to GND)
2	C(+)	sensor (positive voltage)
3	shielding	connected to package cavity metallization (can be optionally connected to GND)
4	shielding	connected to package cavity metallization (can be optionally connected to GND)
5	C(-)	sensor (negative voltage)
6	shielding	connected to package cavity metallization (can be optionally connected to GND)

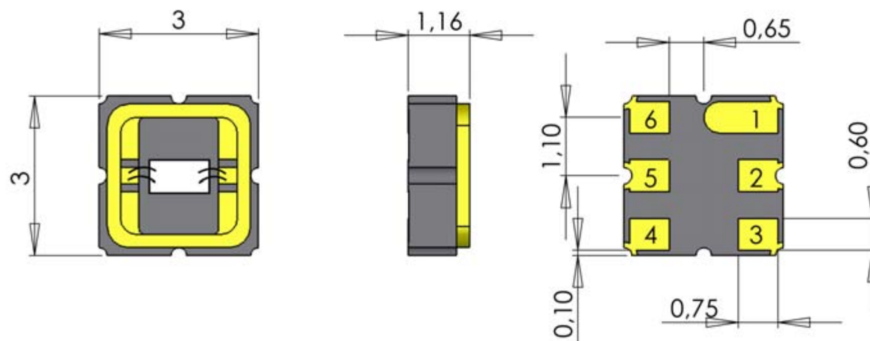


Fig. 1: Dimensional drawing of the LCC3.0SQ package with one bonded sensor sample (dimensions given in mm).

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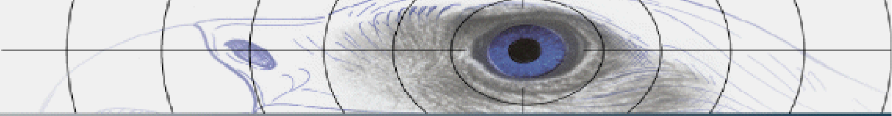

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