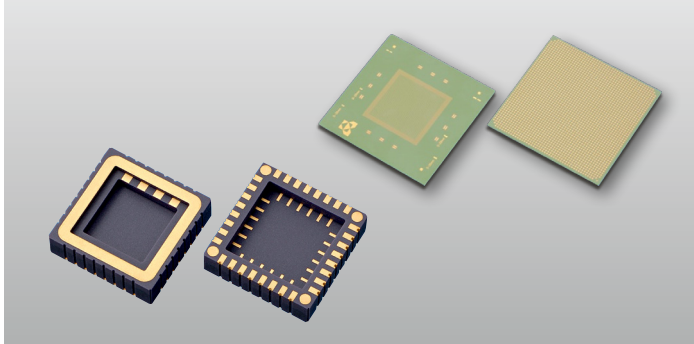


ELECTRONIC PACKAGES

CERAMIC PACKAGES FOR HIGH ACCURATE AUTOMOTIVE SENSORS

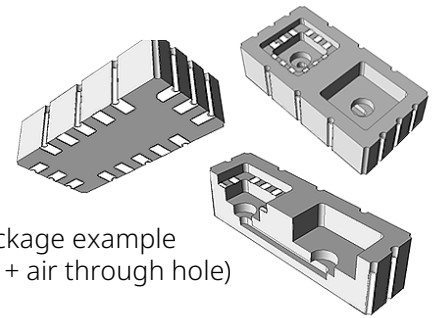


APPLICATIONS

- ▶ Sensors for Advanced Driver Assistance Systems (ADAS)
- ▶ Electronic Stability Control (ESC)
- ▶ Tire Pressure Monitoring System (TPMS)
- ▶ Roll Over Sensor
- ▶ Pressure Sensor

FEATURES

- ▶ Small size: from 1 mm², low profile: 0.7 mm
- ▶ Solder filler suitable for Automated Optical Inspection
- ▶ Hermetic sealing options (e.g. seam welding)
- ▶ High rigidity: High Accuracy Sensor



Ceramic package example
(Dual cavity + air through hole)

TECHNICAL ADVANTAGE OF CERAMICS

- ▶ Thinner ceramic layers for low profile and rigid substrate
- ▶ Cavity structure for easy assembly (W/B, sealing)
- ▶ Fine design rule for dense bonding pads

MATERIAL PROPERTIES

- ▶ High young's modulus of elasticity (anti-deformation)
- ▶ Low coefficient of thermal expansion (CTE)
- ▶ High 2nd level reliability
 - support of sensitive MEMS
 - Various design options (e.g. channel structure)

