



# HERMETIC VACUUM PACKAGING

## Metallic packages with HTCC inserts

Our metallic packages are especially designed for high-end applications. Some elements, such as the window, can be customized on demand. Packages are offered in short series, and the technology could also be transferred.

We offer a number of hermetic vacuum packaging technologies for MEMS devices based on metallic and ceramic headers with cavity pressure level less than 5 mTorr. We have the equipment and expertise to handle the entire microsystem development cycle, from the simulation, design, and fabrication of devices through to their packaging and characterization. Processes are performed in state-of-the-art semi-automated vacuum furnaces and systems that allow for activation of nonevaporable getters.

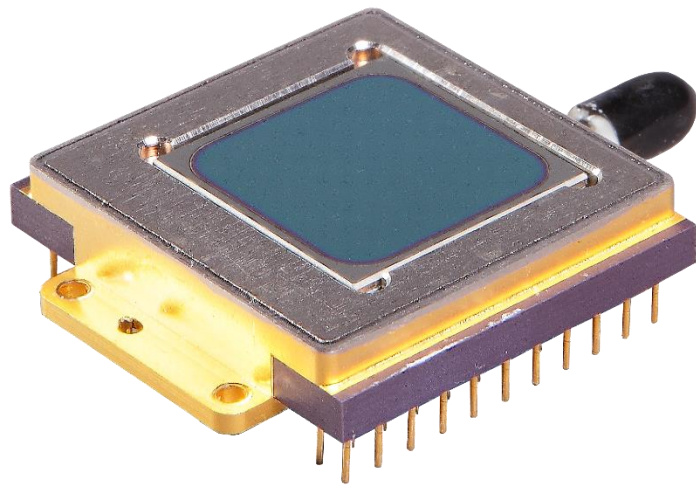
### APPLICATIONS

- Terahertz imaging
- Spectroscopy
- Broadband infrared
- Defense and security
- Space

### BENEFITS

- Designed and optimized for temperature-sensitive FPAs
- Long-term vacuum
- Integrated pressure sensors
- High reliability
- Very large field of view

### METALLIC PACKAGE



**R&D CONTRACTS – PROTOTYPING – PREPRODUCTION**  
**SHORT-RUN PRODUCTION – TECHNOLOGY TRANSFERS**



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### TYPICAL SPECIFICATIONS

CHARACTERISTICS	SPECIFICATION
Package	Metallic package with HTCC inserts
Footprint	36.00 x 32.00 mm <sup>2</sup>
Number of pins	44
Window	HRFZ-Si, germanium or several other materials (Antireflection coating on request)
Thermoelectric cooler	TEC integrated
Getter	SAES st172 refireable getter
Pressure	Below 5 mTorr
Package reliability	Shock: MIL-STD-810 method 516 Vibration: MIL-STD-810 method 514 Thermal cycling: <ul style="list-style-type: none"><li>• MIL-STD-810 method 501 (25°C to 60°C)</li><li>• MIL-STD-810 method 502 (-40°C to 25°C)</li></ul>

**INO is a world-class center of expertise in industrial applications for optics and photonics, and a leading technology developer and provider of MEMS and MOEMS technologies**

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