

Technical Datasheet

IcoPack™ hermetic wafer level packaging (WLP):

- Platform for electrical via interconnections through glass (TGV – Through Glass Via).
- Hermetic packaging of MEMS on wafer-level.
- Metal joint encapsulation of MEMS possible.

Advantages of the glass-based IcoPack™ over standard through silicon via TSV packaging:

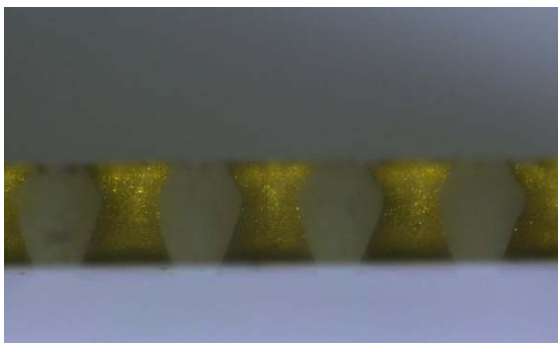
- Excellent dielectric characteristics of glass.
- Minor dielectric losses.
- Availability of different glass types with application-tailored physical and chemical properties.
- Optical transparency.

Applications of IcoPack™:

- Sensors: gyroscopes, accelerometers, pressure transducers, flux, vibration, RF, etc.
- Sensors for chemically challenging environments: conductivity, temperature, etc.
- Sensors for biomedical environments: conductivity, temperature, etc.
- RF devices: switches, oscillators, filters, etc.
- Optical MEMS: mirrors, optics, optical switches, spectrometers, etc.
- Microfluidic devices: inkjet heads, microprobes, actuators, valves, pumps, etc.

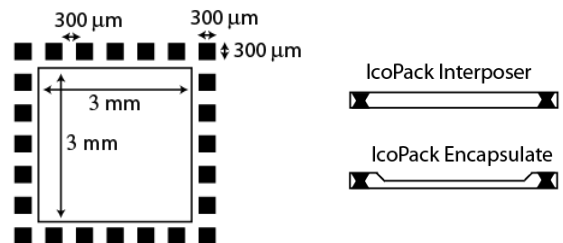
Main characteristics:

- Glass wafers or square sheets with diameters or widths of 100 mm or 150 mm.
- Materials: B33, D263, Quartz, etc.
- Minimum glass thickness: 150 µm.
- Minimum via pitch: 350 µm.
- Minimum via diameter: 200 µm.
- Conductor materials: Gold.
- Hermeticity: $\leq 10^{-8}$ mbar/sec.
- Temperature range: <450 °C.
- Standard designs: 4; 8, and 24 pins /cell.
- Custom designs on request.



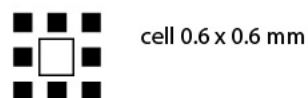
IcoPack™ 24:

- Pitch 600 µm.
- 3 x 3 mm IcoPack interposer cell.
- Optional IcoPack Encapsulate cavity.



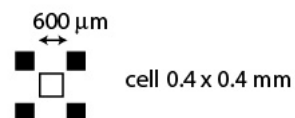
IcoPack™ 8:

- Pitch 600 µm.
- 0.6 x 0.6 mm IcoPack interposer cell.
- Optional IcoPack Encapsulate cavity.



IcoPack™ 4:

- Pitch 900 µm.
- 0.4 x 0.4 mm IcoPack interposer cell.
- Optional IcoPack Encapsulate cavity.



Contact information

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