Si Integrated Heat Spreaders for fcCSP Packages

Si is an effective alternative to Cu as a heat spreader material.

- As a result of robust thermal conductivity and ease of processing, Si is an effective alternative to Cu as a heat spreader material.
- Si Integrated Heat Spreaders (IHS) can be embedded inside the mold, while exposing its top surface to an external heat sink.

Example constructions include:

- Embedded and Exposed Si IHS in a Single-die fcCSP
- Embedded and Exposed Si IHS in a Side-by-Side Hybrid Structure
- Dual Si IHS in a Hybrid Structure
- Embedded and Exposed Si IHS in a Stacked Hybrid Structure

Key

- Si Integrated Heat Spreader (IHS)
- Thermal Interface Material (TIM)
- Active Si (Flip Chip or Wirebond)
- Wirebond Die Attach Material
- Flip Chip Die Bump
- Wirebond Bondfinger
- Substrate
- Solder Ball
- Wirebond

Visit amkor.com or email sales@amkor.com for more information.