DBI® Ultra Die-to-Wafer Hybrid Bonding
The ultimate 2.5D & 3D integration technology for high performance computing

High Bandwidth  High Capacity  Thin Profile
Low Power  Low Cost

Ultimate Integration Flexibility
Accommodates various die sizes, wafer sizes, process technology nodes, etc.

Enabling 3D Stacked Memory Solutions
4, 8, 12, 16 or more high HBM2, HBM3 & beyond

Enabling Next Generation High Permanence Computing
2.5D Integration with DBI Ultra

4, 8, 12 or 16 High HBM Stack

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3025 Orchard Parkway, San Jose, CA 95134
DBI® Ultra
Die-to-Wafer Hybrid Bonding

Process Flow

Die Preparation

WAFER 1

Metal Bond Pad
Silicon Wafer

Chemical Mechanical Polishing

Tape Frame

Diced Wafer

Plasma

Die Activation

WAFER 2

Metal Bond Pad
Silicon Wafer

Chemical Mechanical Polishing

Diced Wafer

Plasma

WFAER SURFACE PREPARATION

CLEANING

Wafer Activation

ROOM TEMPERATURE DIE-TO-WAFER BONDING

Die Pick

Flip, Align & Bond

Interconnect

LOW TEMPERATURE BATCH ANNEAL

Repeat