Stacked 3D-IC technology using μ-bumps

3D stacking technology with 2.5μm x 2.5μm Au (Gold) bump connections with adhesive injection. This technology is applicable image sensor and X-ray detector, IR detector and element particle detector with high frame rate and high resolution.

- **Min. bump pitch**: 5 μm
- **Bump size**: 2.5 μm x 2.5 μm
- **Min. pad opening size**: 3.0 μm x 3.0 μm
- **Bump height**: 1.7 μm
- **Highest process Temperature**: 200°C

### Demonstration chip

- Bond Pad
- Back gate electrode
- Metal interconnect
- Bump junction
- Buried p-well
- n^+
- p^+
- Si sensor (high resistivity Substrate)
- Charged Particle

### 5μm pitch Au cone bump connection

- TEG view
- Gold cone bump

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