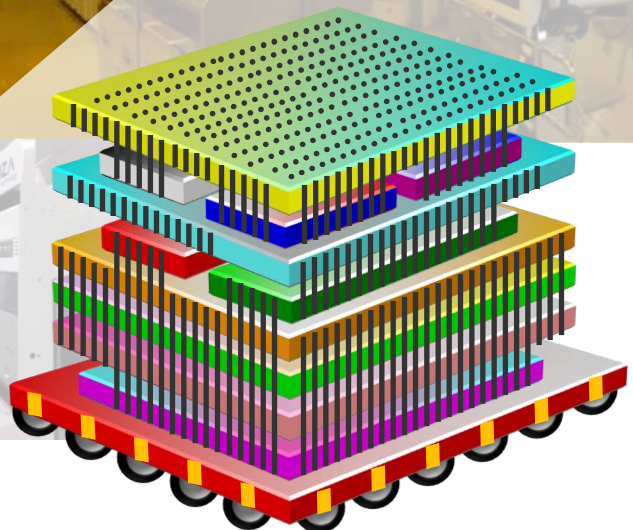
GINTI

Global INTegration Initiative

From Chip Level to 12-Inch Level

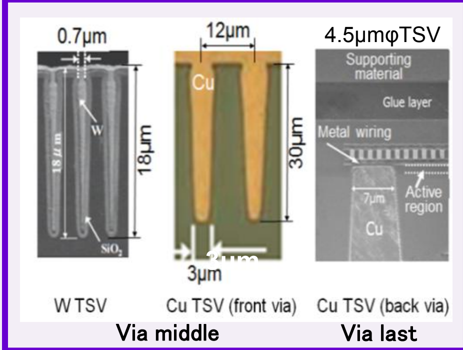


3D Super Chip

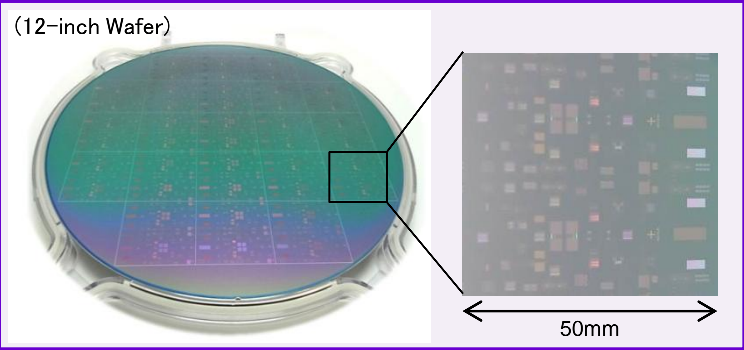
GINTI Technology

【One-Stop Solution from Concept, Design, Fabrication & Testing】

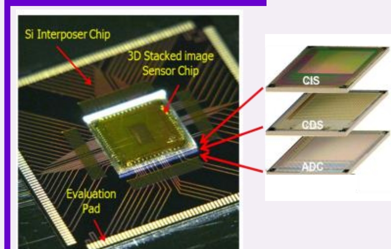
TSV Process



2.5D Interposer



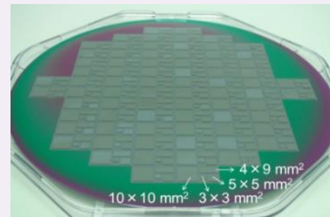
3D-ICs



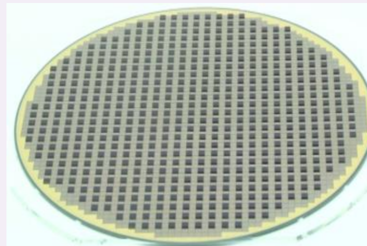
3D Stacked Imager Sensor

X-Ray CT Image

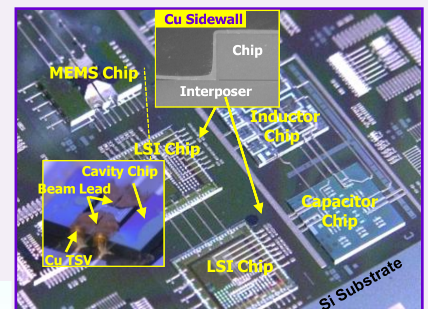
Self-assembled 3D Stack Chip



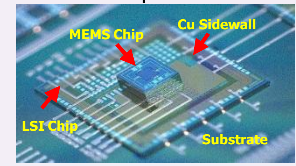
Hetero-sized Chips on Wafer



Homo-sized Chips on Wafer



Hetero-Integrated LSI-MEMS Multi-Chip Module



Vertically Stacked MEMS on LSI Chip

【3D IC Prototyping･Pilot Production Service】

- State-of-the-art technologies
  - resident engineering expertise in design, process / integration technology and packaging / assembly
  - 200mm and 300mm 3D process engineering lines and advanced technology platforms
    - design / layout / mask making
    - wafer / chip thinning
    - forming TSV on chip / wafer (front side / backside TSV)
    - Cu rerouting
    - forming u-bumps on chip / wafer
    - chip / wafer stacking
  - Complete material and failure analysis, and reliability testing
- 3D stacking LSIs prototype manufacturing service
  - lower cost, shorten TAT prototyping of proof of concepts using commercial/customized 2D chips
  - die-level 3D hetero-integration with backside TSV technology
- Support your small-volume, special customized 3D productions
  - base-line process set-up for the pilot production
  - facilitate your product development
- Development innovative 3D stacking technologies for creative 3D products and applications
- Supply IP and special customized TEG wafers for process-induced reliability characterization

200mm/300mm TSV Fab Process Modules

Edge Trimming Dicing Saw

Temporary Bonder

Wafer Grinder Polisher

Si Deep RIE

Developer

i-Line Stepper with IR Align

Asher

TSV Liner-CVD

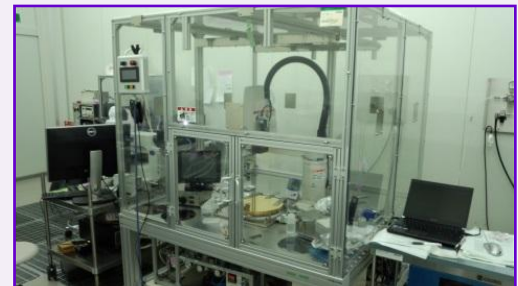
High-Aspect-Ratio Sputter

Electroplating System

Wafer Debonder

Metal Etcher

CtW / WtW Aligner and Bonder


Self-Assembly System

Self-Assembly Multichip Bonder

Evaporator for Metal Bump

CtC / CtW Flip-Chip Bonder

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