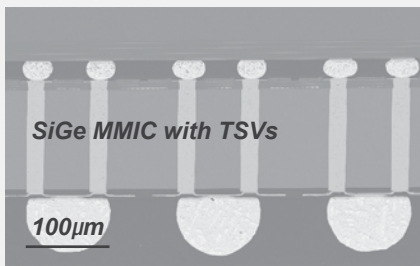
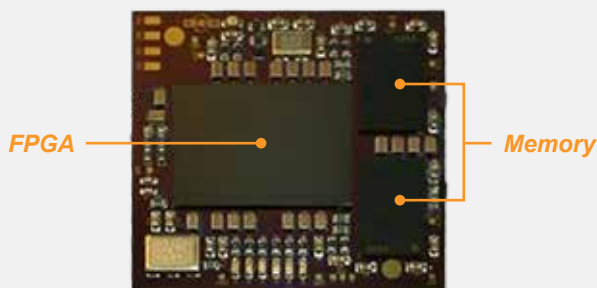


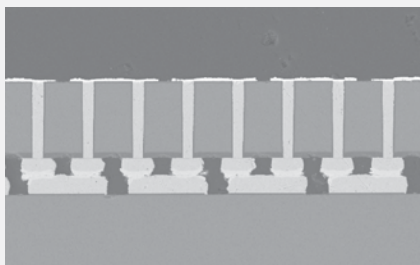
Micross Advanced Interconnect Technology (AIT) is a leader in 3D integration technology, having developed a broad range of 3D process capabilities and achieved successful demonstrations of 3D-integrated IC stacks for IR focal plane arrays and silicon interposer for embedded computing modules.



3D Heterogeneous Integration with TSV, Repassivation, Redistribution, Bumping & Assembly



Embedded Computing Module Built with Si Interposer



High Density TSV Test Chip Bonded to Fanout Substrate

2.5 AND 3D INTEGRATION

Micross has been conducting research and development in 3D integration since 1999, building on decades of experience in the development of advanced microfabrication and packaging technologies.

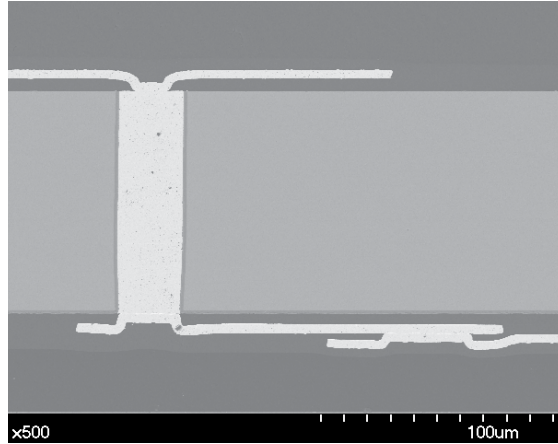
Micross works with a wide variety of clients and partners, bringing integrated process, design, testing and analysis capabilities to projects involving custom application-driven development. Offering access to our 2.5D/3D technology platform through joint development projects, prototyping services and small volume production.

Our 2.5D/3D integration technology platform is based on several enabling process modules, which include:

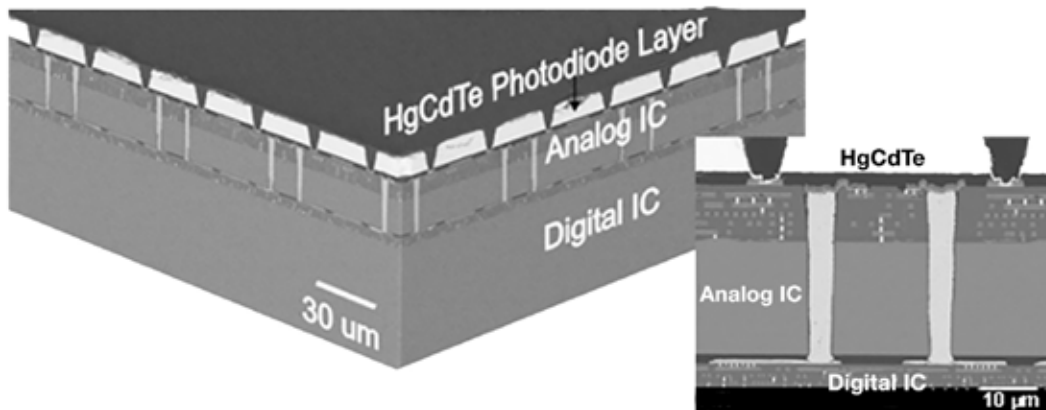
- Through-Silicon Via (TSV) Interconnects
 - High Density 3D IC Applications, Filled 2-10 µm Diameter, Up to 8:1 Aspect Ratio and 10-50 µm Pitch
 - Lower Density 2.5D/3D Package Architectures, 10-50 µm Diameter, Aspect Ratio of 4:1 to 6:1 and 50-500 µm Pitch; Vias can be Filled or Barrel Coated
- Wafer Thinning (to < 20 µm Si Thickness) and Processing On Temporary Carrier Wafer
- Flip-Chip and High-Density Metal-Metal Bonding, <10µm Pitch
- Large-Area Multi-Level Metal Routing with Standard RDL (Down to 10µm L/S) or Dual Damascene Process (Down to 6µm L/S)

Clients can take advantage of the 2.5D/3D integration technology platform to realize more highly integrated microsystems with increased functionality, short interconnect length and decreased size, weight and power (SWaP). From design and fabrication of custom test vehicles to application of 3D integration processes modules on fully functional IC wafers, Micross can provide a variety of integration solutions to meet specific project needs.

2.5/3D Heterogeneous Integration



x-SEM of a 100µm Thickness Si Interposer with Cu-Filled TSVs



3D Assembly of Digital, Analog, and HgCdTe Detector Device Layers with TSVs Connecting the Digital and Analog Devices

About Micross

Micross is the most complete provider of advanced microelectronic services and component, die and wafer solutions. With the broadest authorized access to die & wafer suppliers, an extensive portfolio of hi-rel power, RF, optoelectronics, memory, data bus, logic, and SMD/5962 qualified products, and the most comprehensive advanced packaging, assembly, modification, upscreening, and test capabilities, Micross is uniquely positioned to provide unparalleled high-reliability solutions, from bare die, to fully packaged devices including hermetic ICs/MCMs, PEMs, ASICs, FPGAs, and PCBs, to complete program life-cycle sustainment. For more than 45 years, Micross has been a trusted source for the aerospace, defense, space, medical, energy, communications, and industrial markets.



Need Information?

- Quote Request: micross.com/quotes
- General Requests: micross.com/info
- Technical Support: micross.com/tech-support