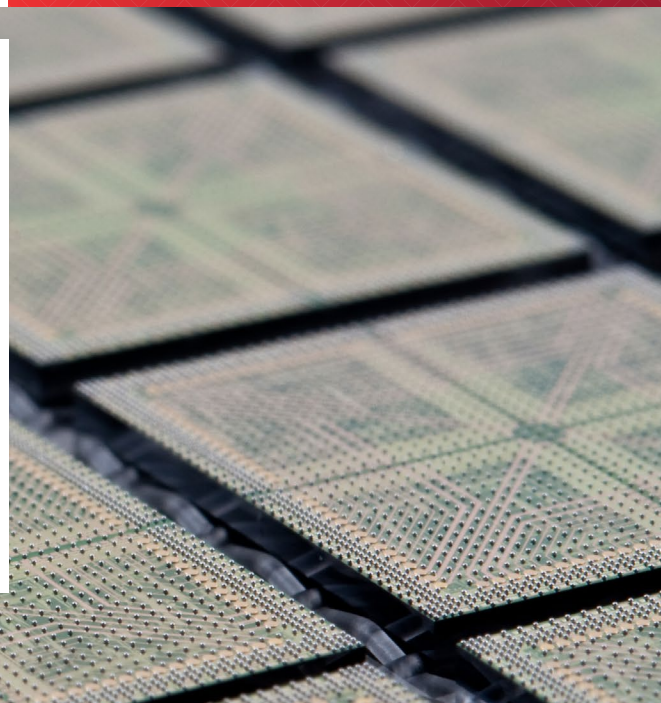


Flip Chip Packaging and Advanced Assembly Services

QP Technologies specializes in advanced IC assembly and prototyping services for fabless semiconductor companies, enabling faster time to market for new devices. The unique assembly requirements for flip chip, chip-on-board, stacked die, multichip modules, system-in-package, BGA and MEMS devices are addressed by QP Technologies' flexible processes and equipment, delivering prototypes to specification and on schedule.



Capabilities:

- Rapid prototyping of BGA, μ BGA, area array and CSP packaging
- Flip chip assembly
- Chip-on-board assembly
- Precision die attach
- Low-temperature die attach
- Ultra-fine pitch wire bonding
- Faster time to market
- Flexibility to accommodate custom assembly projects

Custom Solutions to Meet Your Quick-Turn Prototype Needs

QP Technologies offers the following advanced IC package assembly options:

- Flip chip assembly
- Complete laminate substrate services including design, fabrication, assembly and BGA sphere attach
- Chip-on-board (COB) and chip-on-flex assembly
- System-in-package (SiP) and multichip module (MCM) assembly
- MEMS packaging and assembly
- BGA packaging and assembly
- Wafer-level packaging (WLP)
- Stacked die assembly
- Ultra-fine-pitch wire bonding down to 35 μ m
- Complete wafer preparation services including wafer backgrinding, dicing, bumping, pick and place and inspection
- Die and wafer bumping
- Encapsulation options to JEDEC standard