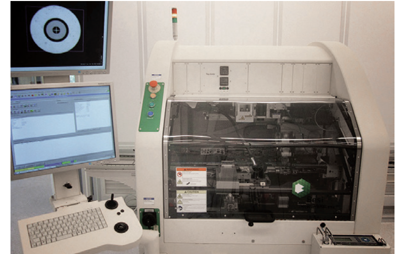
SMART
MICROSYSTEMS™

DIE ATTACH

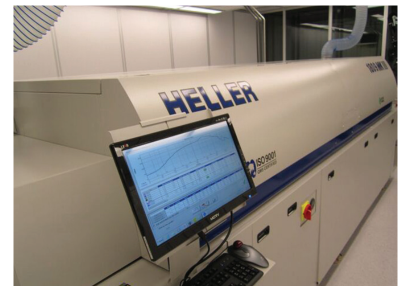
Die attach is a critical step in the packaging of microsystems and MEMS sensors that can impact other packaging and assembly processes. For example, accuracy and repeatability requirements for die placement and die height can affect other package assembly processes such as wire bonding as well as the adhesive and encapsulation materials used. The die attach capabilities and expertise at SMART Microsystems support the process development, testing, and manufacturing of sub-assemblies designed by our customers allowing them to quickly realize a microelectronic package assembly solution for their products. For additional information you can visit our website, or you can call or send us an email to discuss your die attach needs.



Datacon Die Attach System

DIE ATTACH

- Epoxy die attach, flip chip, sintering, eutectic attach, multi-chip module
- X/Y placement accuracy: ±7µm @ 3 sigma
- Theta placement accuracy: ±0.15° @ 3 sigma
- Die thickness down to 20µm
- Speed: up to 7,000 units per hour
- Integrated dispense
- Material presentations: grip ring and film frame (for wafers up to 300mm), waffle pack, Gel-Pak
- Substrates: FR4, ceramic, BGA, flex, boat, lead-frame, waffle pack, Gel-Pak, JEDEC tray



Heller Solder Reflow Oven

SOLDER REFLOW

- Accommodates 18" wide boards and substrates and maximum clearance of 2.2"
- Tunnel length of 105" includes 9 heating zones each with independently controlled top and bottom heaters
- Maximum temperature 450 °C with PID temperature control ± 1°C per zone and ± 3° cross-belt temperature tolerance
- Internal controlled cooling zone 30" length includes 3 cooling zones with top and bottom cooling
- Balanced flow of air or nitrogen capable of producing controlled atmospheres less than 25 ppm O^2
- CPK & SPC data and alarm logging with timed download and profile printout capability

SST 5100 Vacuum Solder Reflow

VACUUM SOLDER REFLOW

- Flux-less and void-free soldering
- Hermetic package sealing
- Controlled cooling in N2 gas
- Automatic control of vacuum and gas backfill pressure
- Vacuum minimum 50mTorr
- Chamber gas pressure maximum 40psig
- Operating temperature range of 100 to 500°C
- Uniform heat distribution supplied by single sheet graphite heating element
- Automatic control of heating and cooling ramp rates
- Formic acid capable
- 12.0x12.0 inch thermal working area

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ISO9001:2015
CERTIFIED

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