



automated optical inspection



Advanced AOI systems for silicon wafers, MEMs, TSV, PCB, PBGA, CSP, Substrates for solder & gold bump inspect, post-diced inspect, probe mark defects, wafer scratches, debri, contamination, deposition defects, CMP, photo etch, wafer edge inspection, discoloration, shape violation, high-speed macro inspection.

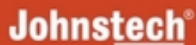
back-end assembly



Mechanical Molding Press
Trim CAM Press
Stand-alone Strip Test System
Solder Ball Attach System

Tape & Reel System
Form CAM Press
Auto Mold System
Manual Mold System

Laser Marking - Strip
Universal Saw & Pick Place
PBGA Singulation



test sockets

High-Performance Test Sockets for production and characterization testing at DC to 40GHz. Package types include QFN, QFP, SOIC, TSSOP, etc. Center Body Grounding, Lead-Free Solutions, Manual and Automated Handler Test, Easy to maintain, High throughput, Superior Contact Resistance.



solder balls, solder paste

Advanced Lead Free Solder Balls, that are void less, oxidation free, smooth surface. We also offer Advanced Raw Solder Paste also void less and oxidation free. Solder applications include Flip Chip, Bumped Wafers, PCB, Solder Plated Lead Frames, etc.



real time x-ray

2D X-Ray, 3D Computed Tomography X-Ray inspection of BGA, CSP, QFP, QFN, Voiding Calculation, Wire Sweep, Printed Circuit Boards, and other applications.



die bonders & wafer sorters

Wafer Sorter, Wafer Chuck, SiP Bonder, SiP Mounter, High Sensitivity Gas Analyser. Flexible Die Bonders for SiP assembly with 300mm wafer handling capability. Patented "Wafer Pick" design for high-speed, thin wafers down to 50 microns without breakage. Wafer Sorters for 300mm wafer applicable to clean carrier, wafer-by-wafer control, and full automatic carrier system.



tem sample preparation

Leader in SEM, TEM ad STEM sample preparation, eliminating conventional (manual) sample preparation that is imprecise & involves many time consuming steps, and high maintenance. SELA automated sample prep tools reduce sample preparation processing times from hours to less than ten minutes. Lower cost of ownership. Pristine surface not effected by the artifacts remnant of a typical of polishing process.



photon emission & laser scanning microscopes

SEMICAPS

Photon Emission Microscopes (PEM), Laser Scanning Microscopes (LSM), PEM, OBIC, SCOBIC, TIVA, LIVA, OBRICH SEI and other advanced failure analysis test methods. Optical Digital Imaging systems for SEM, TEM, Augers, and FIB.

probe stations

SIGNATONE

PERFORMANCE. QUALITY. VALUE

Probe Stations, Micro Positioners, Micro Probes, Probe tips, Hot & Cold Chucks, Thermal Chucks, Resistivity Four Point Probes, Dark Boxes, Light Tight Enclosures, UV, Green and Infrared Cutting Lasers, Vibration Tables

SUMICARRIER

Tape & Reel

carrier tape, cover tape, plastic reels

PVC Cover Tape, PET Cover Tape, PC Cover Tape, PS Cover Tape, Carrier Tape
Plastic Shipping Reels.

SUMITOMO

lead frames, substrates

Etched and Stamped Lead Frames, QFN & BCC, Taped BGA, Taped CSP, Multiple plating options, Multi-Strand Production Capability.

WEB Technology, Inc.

back-end assembly

Gross Leak Testers (Bubble Testers), Gross and Fine Leak Preconditioning, Centrifuges and Centrifuge Fixtures, Component Testers, Automated Burn-In Board Loaders, Test Handlers, Custom Design Solutions