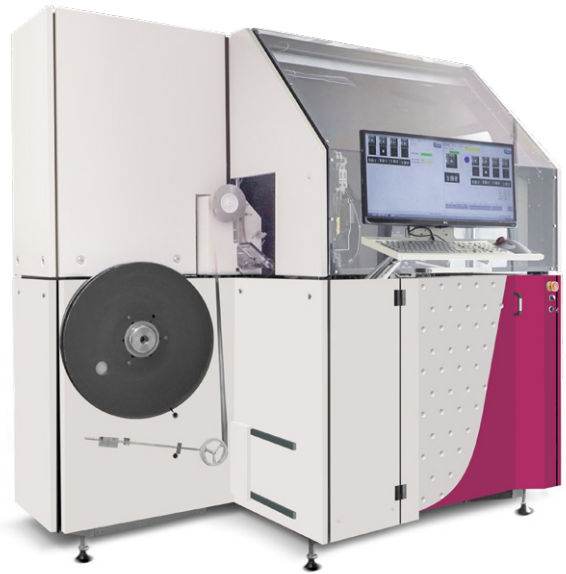


ADAT3 XF DBRE - REEL-TO-REEL EUTECTIC DIE BONDER

For a fully automated, hands-off operation to increase your uptime and output

The Reel-to-Reel Eutectic Die Bonder supports all wafer map formats and is designed with high-definition optics for small-to-medium discrete products at extreme speed. With die alignment, backside chipping, die size measurement, and optional sidewall inspection for flat collets, the ADAT3 XF DBRE guarantees to enhance your production, product quality, and total cost of ownership.



Key features

Post-attach inspection

- Die present
- Lead frame alignment XY
- Black die detection
- Surface inspection as a roadmap element

Wafer handling

- Auto wafer change
- Wafer expansion
- Auto barcode reader
- Extensive wafer mapping and wafer alignment functionality

Automation

- Wafer map formats: Market standards. Full wafer map
- Wafer map alignment: Start and reference die functionality.
- Auto equipment setup: via Semiconductor Equipment Communication Standard (SECS) / Generic Equipment Model (GEM)
- Traceability: ID input by barcode scanning

Connectivity

- Connectivity via Semiconductor Equipment Communication Standard (SECS) / Generic Equipment Model (GEM) for automated set-up and die traceability
- Automatic FFC wafer change for hands-off operation (AEC-Q101 compliant)
- Flexible platform for all applications
- Fits in XF (Extended Flexibility) platform architecture Reel-to-Reel lines
- Convertible to other XF (Extended Flexibility) applications for leaded and leadless to cater for product mix flexibility
- Optional lead frame, anti-tarnish, outgassing module

Specifications

Speed

- 48,000 dies per hour with roadmap to 60,000 dies per hour for small dies ($\leq 0.4 \times 0.4$ mm)

Product size

- 200 x 200 μ m to 5 x 5 mm

Lead frame size

- Up to 32 mm wide

System accuracy

- Small die ($\leq 0.4 \times 0.4$ mm)
- XY: $1 \sigma_{xy} \leq 10 \mu$ m
- Rotation: $1 \sigma_{\phi} < 1^\circ$

Wafer handling

- Wafer diameter: 8 inches, 6 inches on 8 inches Film Frame Carrier (FFC)
- Wafer frame: Steel Film Frame Carrier (FFC) 8 inches or 12 inches
- Foil tension: 8 inches, 1 - 10 mm
- Wafer cassette: up to 25 slots

Die handling

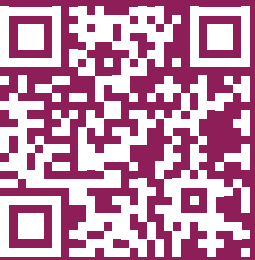
- Process Temperature: maximum 470 °C
- Pickup force: 0.4 - 1.5 N ± 0.1 N, Ultra-low (programmable) pickup force (20 grams)
- Bond force: 0.2 - 1.5 N ± 0.1 N
- Mixed gas: customer-specific
- Collet: pyramidal, flat
- Ejector tool: single needle

Machine dimensions

- Machine length, width, height: 2050 x 1250 x 2200 mm³
- Net weight: 1850 kg



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