



# ADAT3XF DS Die Sorter

**Application**

- High Speed Diesorter
- Wafer to Reel/Tape UCSP, WLCSP

**Key Feature**

- up to 60000 UPH
- Support 8" 12" wafer on Frame Film Carrier
- 8-12 mm tapewidth
- Sidewall inspection
- Min diesize 0.2x 0.4 [mm]
- Max diesize 5 x5 [mm]
- Automatic wafer change and Expander
- High throughput at high-volume manufac
- APR Auto-Product-Replace
- In tape inspection
- Automatic Reel Changer (option)
- Full die traceability (tape - wafer)
- Auto recipe download (MES interface)
- SECS/GEM interface with E142



**System accuracy**

<b>Small die (&lt;1mm)</b>	
XY	$1\sigma xy \leq 5\ \mu m$
Rotation	$1\sigma \phi < 1^\circ$
<b>Large die (&gt;1mm)</b>	
XY	$1\sigma xy \leq 5\ \mu m$
Rotation	$1\sigma \phi < 0.3^\circ$

## Inspection Categories

<b>Program Mode:</b>	Fast programming for common reject criteria			
<b>Reject treatment:</b>	Strip/Tape map (E142) and reject bin			
<b>Inspection View:</b>	5 cam: (1) pre pick (2) back & sidewal (3) front/bump (4) Postbond (5) Post Seal			
<b>Inspection items:</b>	<b>DieTop related:</b> - top Chipping , backside Chipping - Damaged - Diesize/Die ratio - Scratch - Cracked die - Discoloration - Bump inspections (size/connected/missing)	<b>Glue related:</b> - NA - NA	<b>Backside related:</b> - Die alignment (position, size, and rotation) - Backside chipping	<b>Surface inspection:</b> - Punch through inspection - Laser mark inspection - Pin A1

## Imaging System

Camera	
Number of camera	5
Resolution / FOV GLUE	NA
Resolution / FOV PICK UP & BACKSIDE	5.0Mp camera (2.3µm/pixel), FOV 5.6 x 4.7 mm
Resolution / FOV Post BOND	5.0Mp camera (4.6µm/pixel), FOV 11.3 x 9.4 mm
Resolution / FOV SIDEWALL	12.3Mp camera (2.3µm/pixel), FOV 9.4 x 6.9 mm
Resolution / FOV Die ON FLIP	5.0Mp camera (2.3µm/pixel), FOV 5.6 x 4.7 mm
Resolution / FOV POST SEAL INPSECTION	1.3 Mp (3.7µm/pixel) FOV 9.7 mm
POSTSEAL INSPECTION	Seal-line/index hole/ Empty/ tilted/ body outline/ Product code/ marking,Chipping
Min object detection	10µm
Lighting	Red Ring + Coaxia + Back panel light

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