

TR7700QE-S SERIES



- Ultra High Precision Stop-and-Go 3D AOI
- Inspection of Wire Bonding and Die Bonding Defects
- Flexible Smart Programming

**AUTOMATED
OPTICAL INSPECTION**

Optical & Imaging System

Top View Camera	12 MP camera
Lighting	Multi-phase true color LED
3D Projection	Quad Digital Fringe Projectors
Optical Resolution	5.5 μ m
3D Height Range	4 mm
Imaging Method	Stop-and-Go

Imaging/Inspection Speed*

3D Inspection	4.1 cm ² /sec
2D Inspection	10.3 cm ² /sec

*Depending on component distribution

Pre-/Post-Reflow Inspection Functions

Component	Missing, Tombstoning, Billboarding, Polarity, Rotation, Shift, Wrong Marking (OCV), Defective, Upside Down, Extra Component, Foreign Material, Lifted Component
Solder Joint	Solder Fillet Height, Solder Volume %, Excess Solder, Insufficient Solder, Bridging, Through-hole Pins, Lifted Lead, Golden Finger Scratch/ Contamination
Die Bonding	Missing Die, Die Reverse, Die Shift, Die Rotation, Die Tilt, Die Chipping, Die Crack, Scratch Die, Contamination, Excess Epoxy, Insufficient Epoxy, Epoxy on Product
Wire Bonding	Wire Broken, Wire Short, Wire Sweep/Sink, Missing/Excess Wire, Ball Bond Diameter, Stitch Width, Stitch Coverage over Ball, Ball Bond Cannot Touch Pad Edge, Bond on Contamination/FM, Bump/Ball/Stitch Lifting, Neck Broken

X-Y-Z Table & Control

X Axis	Ball screw + AC servo with motion controller (Linear motor optional)
Y Axis	Dual driven ball screw + AC servo with motion controller
Z Axis	Ball screw + AC servo with motion controller
X-Y-Z Axis Resolution	1 μ m

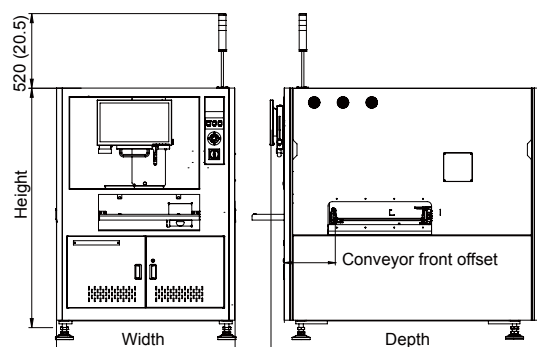
PCB & Conveyor System

Min. PCB Size	50 x 50 mm (1.97 x 1.97 in.)
Max. PCB Size	330 x 330 mm* (2.99 x 1.99 in.)
PCB Thickness	0.6 - 5 mm (24 - 196 mils)
PCB Transport Height	880 - 920 mm (34.65 - 36.22 in.)
Max. PCB Weight	3 kg (6.61 lbs)
PCB Carrier/Fixing	Step motor driven
Clearance	
Top	25 mm (0.98 in.)
Bottom	40 mm (1.57 in.) [100 mm (3.94 in.)**]
Edge	3 mm (0.12 in.) [5 mm (0.2 in.)**]

*Depending on component distribution, the available PCB size could be different

**Optional

Dimensions



Width	1100 mm (43.3)
Depth	1730 mm (68.1)
Height	1750 mm (68.9)
Conveyor front offset	355 mm (14)
Weight	920 kg (2028 lbs)
Power Requirement	200 - 240 VAC, single phase, 50/60 Hz, 3 kVA
Air Requirement	72 psi - 87 psi (5 - 6 bar)*

* Requires compressed air only if compressed air type stopper set is installed

Unit : mm (in.)

Options

Barcode Scanner, Repair Station, Offline Editor, OCR, Yield Management System (YMS 4.0), Support Pin, 3D Laser Module

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TRI 德律 TRI INNOVATION

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