



VT-X750 High-Speed 3D-CT X-Ray Inspection System for PCBA

Our Product Introduction

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Basic Information

- Place of Origin: Japan
- Brand Name: OMRON
- Model Number: VT-X750
- Minimum Order Quantity: 1 PCS
- Price: USD+negotiable+pcs
- Packaging Details: 1650*2100*1700mm
- Delivery Time: 1-7 days
- Payment Terms: T/T
- Supply Ability: 1+pcs+per days



Product Specification

- Model: VT-X750
- Inspection Object: BGA/CSP, Inserted Components, SOP, QFP, Transistors, R/C Chips, Bottom-side Terminal Components, QFN, Power Devices, POP, Press-fit CN, Etc
- Inspection Items: Void, Open, Non-wet, Solder Volume, Shifting, Foreign Object, Bridging, Solder Fillet, TH Solder Filling, Solder Ball, Etc. (selectable To Applications)
- Imaging System Method: 3D-slice Imaging By Using Parallel CT
- Imaging System X-ray Source: Micro-fucus Closed Tube
- Imaging System X-ray Detector: Flat Panel Detector
- PCBA Size: 50x50 610x515mm (2x2 To 24x20 Inch), Thickness 0.4 5.0mm (0.4 3.0mm In 3μm Resolution)
- PCBA Weight: Less Than 4.0 Kg, Less Than 8.0 Kg (*option)

High Speed Automated X-Ray CT Inspection System



VT-X750 Case Study

The X750 is designed for non-destructive inspection of 5G infrastructure/modules and in-vehicle electrical components, delivering high-definition, high-quality inspection using full 3D-CT technology. In recent years, the VT-X750 has been extensively used for:

- Solder void and filling inspection of through-hole connectors in power device final assembly (IGBTs, MOSFETs)
- Integrated machine and electric power component inspection
- Applications in aerospace, industrial equipment, and semiconductor industries



P Productivity

In-line Full Inspection Coverage [Omron Patent]

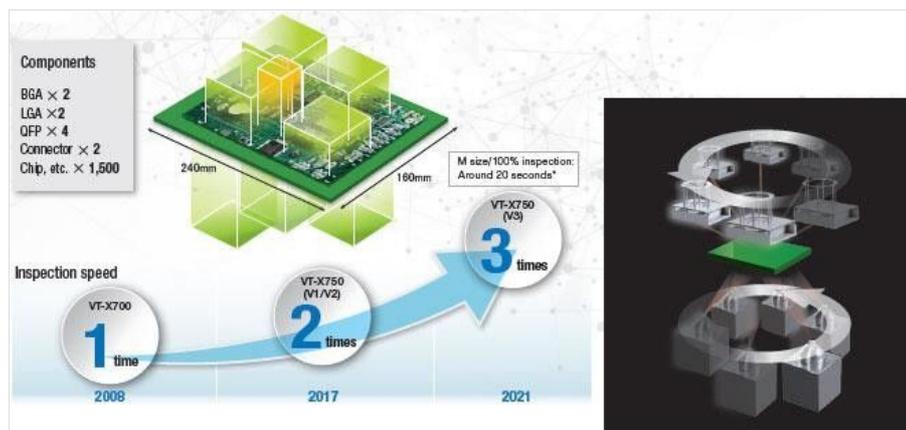
The VT-X750 represents a significant advancement over previous Omron 3D-CT technology, establishing it as the fastest X-Ray inspection system available*.

Key improvements include:

- Enhanced automated inspection logic for various components (IC heal fillets, PoP devices, through-hole components, press-fit connectors)
- Increased inspection speed enabling complete in-line coverage via 3D-CT methodology

* Based on internal investigation conducted October 2021

Time measurement based on full PCB inspection of M-size substrate (excluding load/unload time). Includes 3D inspection of both board sides with 2 BGA components (2000-3000 pins each) or SiP.



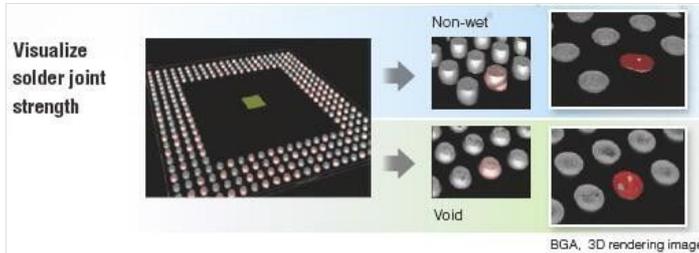
© Capability

Visualize Solder Joint Strength

OMRON's proprietary 3D-CT reconstruction algorithms deliver exceptional solder shape recognition and defect detection capabilities. The quantitative analysis enables:

Automated inspection processes with minimized defect escape risk

Fast, repeatable operation for consistent quality assurance



Design Constraint Free Operation

Omron's 3D-CT technology overcomes the challenges posed by dense and dual-sided board designs, eliminating traditional X-Ray inspection limitations.

AI Dynamic Approach using Omron AI

Advanced Inspection Features

Auto-Judge Criteria Setting [Patent Pending]: Reduces programmer dependency through dynamic analysis using Omron AI with quantitative decision making

Integrated 3D Cross-Sectional Display: Simplifies inspection criteria understanding

Rapid Program Creation [Omron Patent]: AI-assisted new program development with automated generation from CAD data

Accelerated Simulation [Omron Patent]: Determines optimal tact and exposure dosage for each component



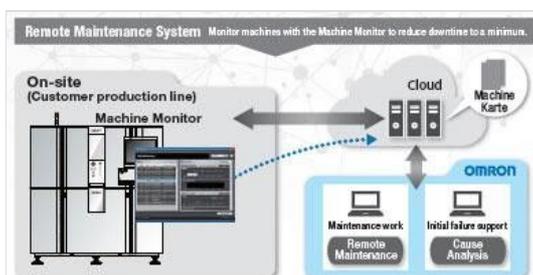
© Safety

Zero Downtime Operation

Omron's global support infrastructure ensures continuous production with comprehensive maintenance services including:

Machine monitoring for predictive maintenance

Remote access for emergency support



Radiation Exposure Reduction

The system incorporates advanced radiation management technologies:

High-speed, low-radiation imaging with standard protective filters

Parts radiation exposure simulator [Omron Patent] for accurate top/bottom side PCB component exposure prediction

