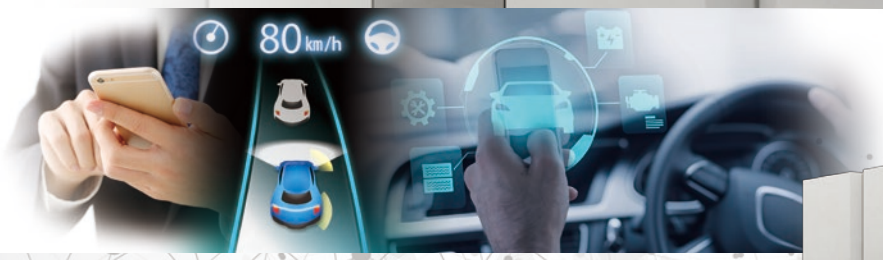
NEW

OMRON

High-speed automated X-ray CT inspection system

VT-X750



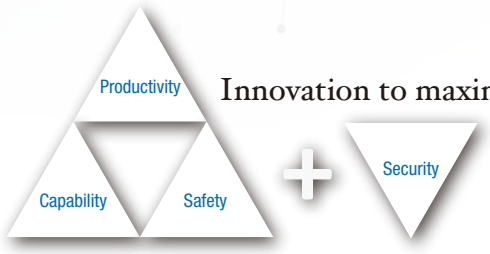
VT-X750

In-line Full Inspection System

Best quality @min.Q-cost

VT-X750

Best Quality at the Minimum Q-cost.



Innovation to maximize ROI.

Productivity

In-line full inspection coverage

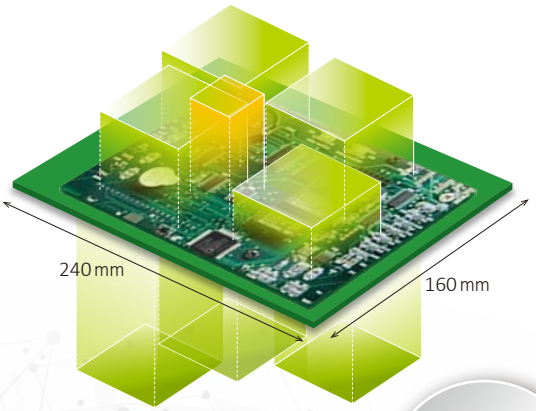
The VT-X750 improves upon previous Omron 3D-CT technology making it the fastest X-Ray inspection system to date *1.
The automated inspection logic has been improved for many parts such as IC heal fillets, stacked devices (PoP), through hole components, press-fit connectors, and other bottom terminated parts.
Increasing automated inspection speed and expanding inspection logic enables full, in-line inspection coverage by 3D-CT method.

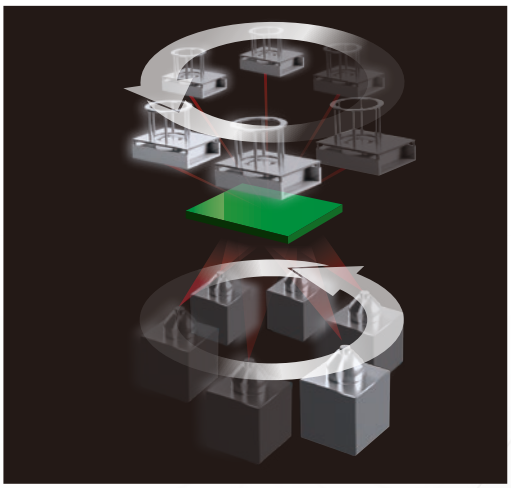
*1. By an internal investigation in October, 2017.

8 FOV's

Components

BGA × **2**
LGA ×**2**
QFP × **4**
Connector × **2**
Chip, etc. × **1,500**





Inspection speed

VT-X700 70.9 seconds ▶ VT-X750 **34.8** seconds *

Inspection speed **2** times or more

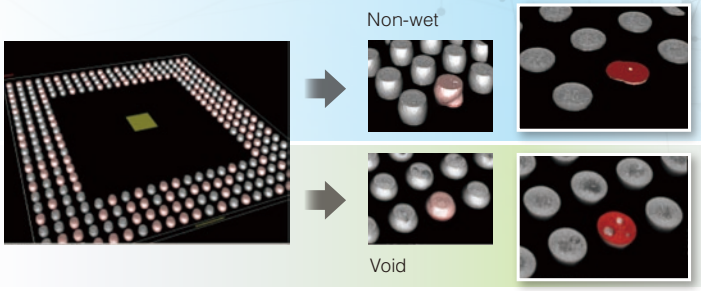
* Exclude load and unload

Capability

Visualize solder joint strength

OMRON's unique 3D-CT reconstruction algorithms provide excellent solder shape recognition and defect detection.
Quantitative analysis allows for an automated inspection process which minimizes the risk of escapes while providing fast and repeatable operation.

Visualize solder joint strength



BGA, 3D rendering image

Design constraint free

Dense and dual sided board design can provide challenges for X-Ray inspection.
However, Omron's 3D-CT technology can overcome such design restraints.

Safety

Reduce radiation exposure

• High speed imaging technology

The VT-X750 provides the shortest X-ray exposure time without sacrificing inspection image quality.

• X-ray source at the bottom

By locating the X-ray source under the board, both exposure and dosage is physically reduced to the more important devices mounted on the top.

• Low energy-cut filter

Standard equipped filter reduces X-ray exposure further minimizing damage concerns to memory products.

Operation safety

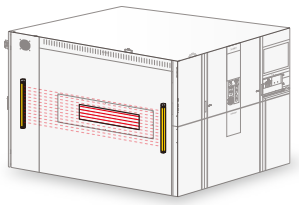
• Ultratrace leakage dose

Exposure dosage to operator is less than 0.18 mSv *2 per a year. This is less than one-tenth compared with that from natural environment.

**2. Teaching operation for one hour per day.0.5μSv/h x 1h/day x 365days = 0.183mSv*

• OMRON's safety components

The VT-X750 complies with CE, SEMI S2/S8 and other safety standards by utilizing OMRON's latest generation of safety controller and light curtain products.



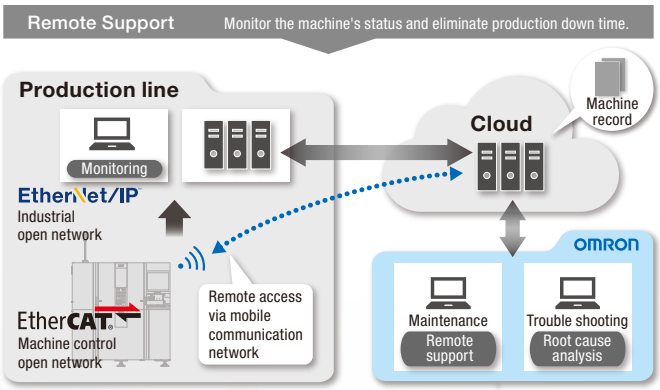
• X-ray shielding box, made in Japan

The machine shielding quality is ensured through three surveys (twice at the factory in Japan and once on site).

Security

Zero down time

To achieve "Zero down time" during the SMT production process, OMRON supports machine operation globally by preventative maintenance, emergency support and machine monitor with remote access.



IoT Solution on SMT

Achieve zero-defect SMT line using Q-up Auto

Visualize the SMT line process quality by linking production equipment status to inspection results.

Visualize the process quality

Analyze defect trends throughout the production process.

Warning detection

Monitor process variations and visualize result data.

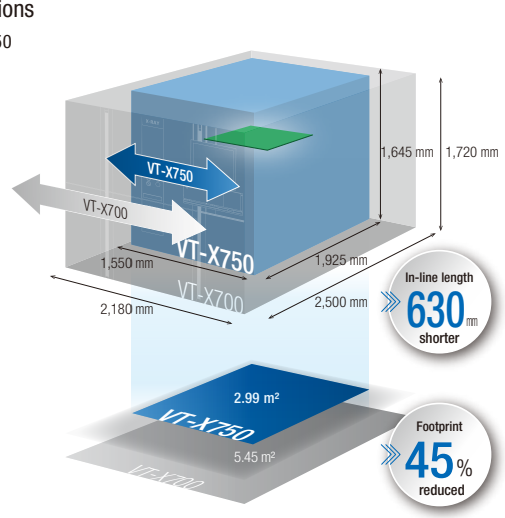
Specifications

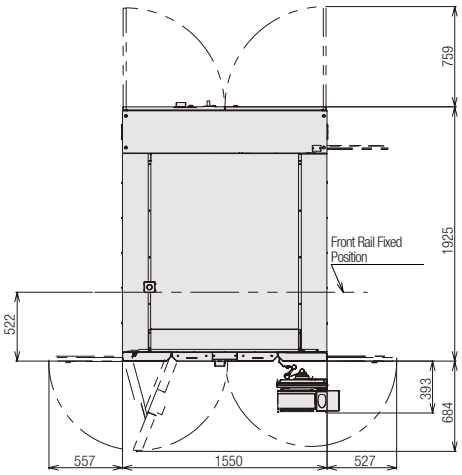
■ Hardware configuration / Function

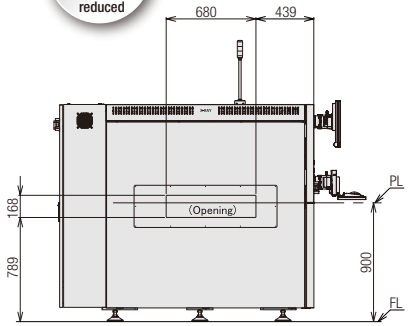
Item		Description
Model		VT-X750
Inspection object		BGA/CSP, inserted components, SOP, QFP, transistors, R/C chips, bottom-side terminal components, QFN, Power devices
Inspection items		Void, open, non-wet, solder amount, shifting, foreign object, bridging, lead presence, etc. (selectable to applications)
Imaging system	Method	3D-slice imaging by using parallel CT
	Resolution	6, 8, 10, 15, 20, 25 or 30 µm/pixel (selectable in the inspection program)
	X-ray source	Micro-focus closed tube (130 kV)
	X-ray detector	Flat panel detector
PCBA	Size	50 x 50 to 610 x 515 mm (2 x 2 to 24 x 20 inch) , Thickness: 0.4 to 5.0 mm
	Weight	Less than 4.0 kg (with component mounted)
	Component clearance	Top: Less than 50 mm, Bottom: Less than 40 mm
	Warpage	Less than 2.0 mm
Main body	Footprint	1,550(W) x 1,925(D) x 1,645(H) mm
	Weight	Approx. 2,970 kg
	Conveyor height	900 ±15 mm
	Power supply	Single phase, 200 to 240 VAC, 50/60 Hz
	Rated power	2.4 kVA
	X-ray leakage	Less than 0.5 µSv/h
	Air supply	0.4 to 0.6 Mpa
	Safety standard	CE, SEMI, NFPA, FDA

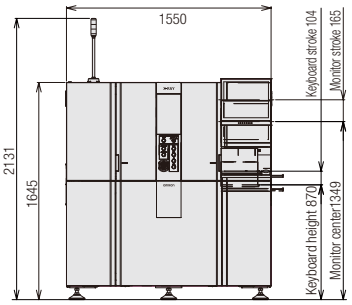
Dimensions

■ VT-X750









[Unit : mm]

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- **This document provides information mainly for selecting suitable models. Please read the Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.**
- **This product may cause interference if used in residential areas.**

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