

News Release

FOR IMMEDIATE RELEASE

Launch of the FT150 Series Fluorescent X-Ray Coating Thickness Gauge - Fast, easy, and safe plating thickness measurement for small electronic components -

TOKYO, January 14, 2015 — Hitachi High-Tech Science Corporation (Hitachi High-Tech Science, President: Toshiyuki Ikeda) announced the release of the FT150 series (FT150/ FT150h/ FT150L) of X-ray coating thickness gauges for measuring plating thickness and composition at micro spots of less than 100 micrometers in diameter.



FT150/FT150h



FT150L

Advances in mobile electronic devices such as smartphone and tablet PCs, as well as in automotive electronic components have resulted in the miniaturization of semiconductors, passive components, and electronic components. In order to secure performance and quality, as well as to reduce costs of these components, high accuracy and efficient measurement of plating thickness and composition at micro spots of less than 100 micrometers in diameter is required.

Equipped with a polycapillary* optics that focuses X-rays, the FT150 series can rapidly measure plating thickness at micro spots. The improved X-ray detection mechanism achieves a measurement speed twice that of the conventional instrument (FT9500X) to measure the thickness of Au/Pd/Ni/Cu (gold/palladium/nickel/copper) multi-layer plating used in printed circuit boards or connectors. The newly developed polycapillary of the FT150h allows it to measure the plating thickness of electrodes on extremely small passive components. As with our conventional instruments, a closed housing greatly minimizes the risk of X-ray leakage, ensuring the safety of operators. In addition, samples can be easily set via a newly designed wide door and large sample observation window. Furthermore, new operation software that improves operability with newly designed icons and a graphical user interface, and an automatic data recording function helps reduce operator workload. The FT150 series achieves rapid measurement with high accuracy, resulting in higher efficiency and reduced inspection costs.

Since we released the first fluorescent X-ray coating thickness gauge in 1971 in Japan, our products have garnered praise from users worldwide.

Notes

* Polycapillary: An optical element that works like a convex lens to focus X-rays onto a micro spot and is composed of several thousands of glass capillary tubes.

Main Features

1) High speed measurement

The improved X-ray detection mechanism achieves a measurement throughput twice that of conventional instruments to measure thickness of the Au/Pd/Ni/Cu (gold/palladium/nickel/copper) multi-layer plating used for printed circuit boards or connectors.

2) Capable of measuring the plating thickness of microchip components (FT150h)

Equipped with a newly developed polycapillary, the FT150h can measure the plating thickness of electrodes of small passive components (such as chip electric capacitors or resistors).

3) Safe and easy to use

The closed housing minimizes the risk of X-ray leakage, ensuring safety. A newly designed door mechanism with a wide opening width offers unparalleled ease of use. The FT150L can accept large printed circuit boards of 600 mm x 600 mm in size.

Main Specifications

	FT150/ FT150h	FT150L
X-ray Generating System	Polycapillary	
Detector	Silicon drift detector (Vortex)	
Stage Travel	400(X):300(Y):100(Z)mm	300(X):300(Y):100(Z)mm
Stage Size	420(X):320(Y)mm	620(X):620(Y)mm
Stage Load	10 kg (when balanced load is applied)	
Dimensions	930(W)×900(D)×710 (H)mm	1030(W)×1200(D)×710 (H)mm

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