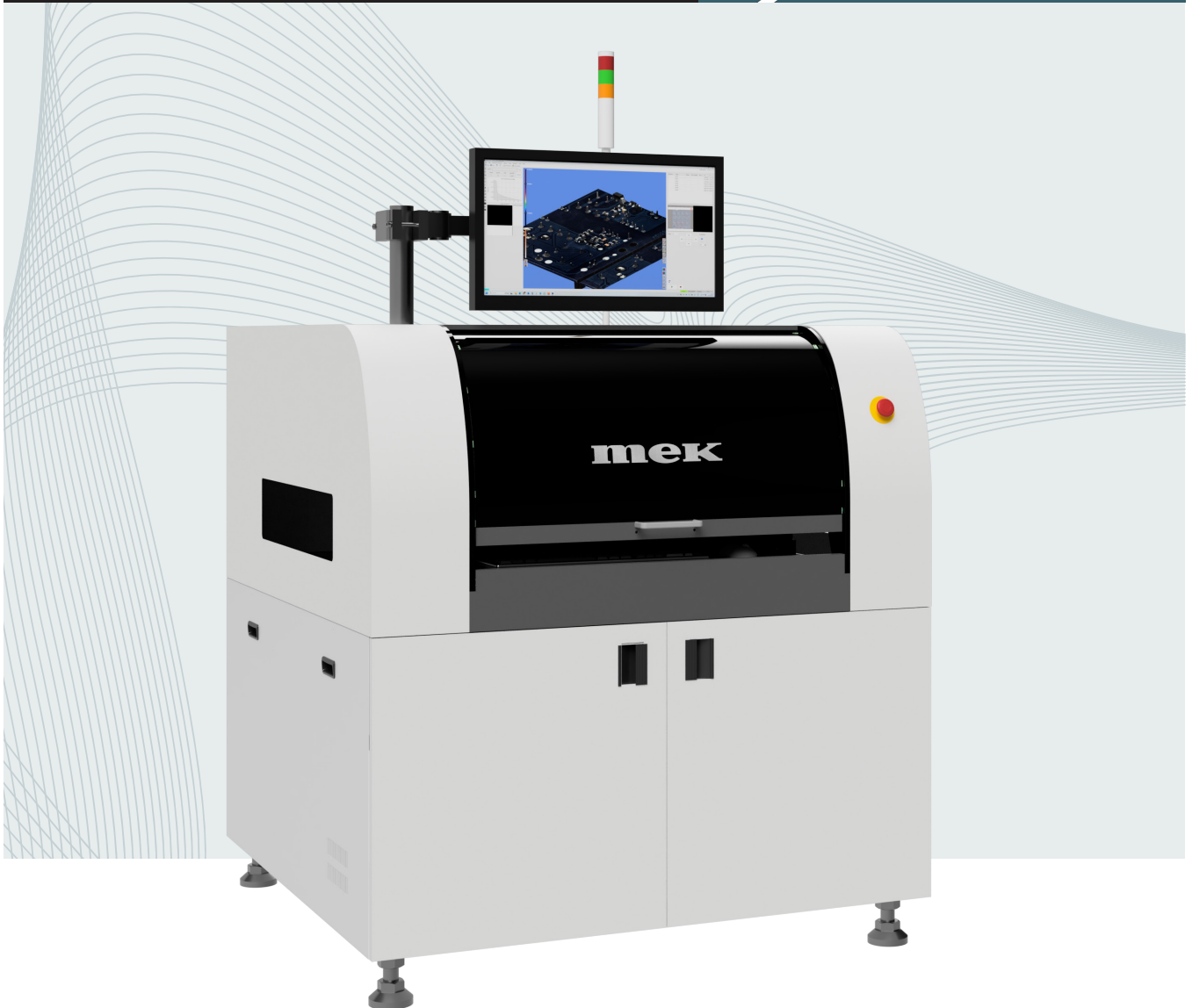




Mek ISO-Spector X1

Bottom-Up Full 3D AOI System For THT
Solder Joints And Pins

Bottom-Up Full 3D AOI System For THT Solder Joints And Pins



Benefits

→ **Full 3D Measurement Optimized For THT Solder Joints Post Wave And Selective Soldering**

Volumetric data for detection of soldering defects, pin height measurement, annular ring coverage and detection of "blow" holes

→ **Max. PCB Size 550mm x 550mm (21.7" x 21.7")**

Large PCB sizes or pallets are supported. The optics move in X,Y and Z directions to cover the inspection area

→ **High Clearance Between PCB Surface And The Optics**

100mm (3.9") THT solder side clearance for a no exceptions inspection

→ **Compatible With Mek Catch System For MES Gateways, Repair, Real Time Monitoring And SPC**

Catch System is compatible with Windows 11 and is a complete suite for data collection, display and statistics

→ **Reflection Free Measurement**

Colour and glare optimized. Unwanted reflections from shiny surfaces are removed

→ **High Speed Measurement**

Using modern processor and storage power for parallel imaging, calculation and data transmission

→ **Windows® 11 Based Software**

Ensuring high security data protection, demanded by modern IT departments

→ **Large Field Of View (FoV)**

60mm x 60mm (2.4" x 2.4") FoV ensures measurement of larger objects and high speed inspection

→ **Z-Axis Moving Optical Unit**

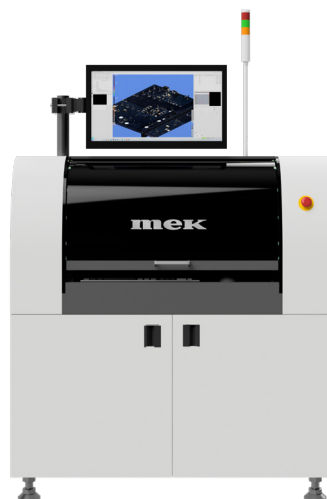
Focus and position optimally for varying PCB and component distances or warpage

→ **Compatible With Mek EZPro**

EZPro is the software tool developed by Mek for ultra fast automatic programming of full measurement recipes

→ **Motorised Automatic Conveyor Width Adjustment**

Automatically sets width with the inspection program





Specifications ISO-Spector X1 550BL

Characteristics	
Product Type	Full 3D THT AOI
Application	Bottom Side
Camera Movement	X,Y and Z
PCB Movement	Stationary
Inspection Capabilities	Solder Volume, Solder Shape, THT Pin Height, Bridge, Components Height, Coplanarity, Presence, polarity, Shape, Offset, Text
Image Processing	3D Volume Measurement, Spectral Histogram Analysis, Custom Algorithms
Camera/Lens Type	CMOS Camera with High Resolution Lens
Lighting System	3D Dedicated Lighting, RGB LED's
System Specifications	
Camera Resolution	10Mp
Lens Resolution	19µm (optional 8µm)
XYZ Repeatability	1µm
Top Clearance	200mm (7.9")
Bot Clearance (Bottom-Up Application)	100mm (3.9")
Max. PCB Size	550mm x 550mm (21.7" x 21.7")
Z-Axis Stroke	60mm (2.4")
Inspection Speed Typical	0.6 sec per FoV
Electrical Requirements	200-240 VAC /1000W
Interfacing	
Control PC Type	Windows® 11 Pro
Data Interface	Ethernet
Repair/Monitor/SPC System/MES-interface	CSV Centroid File (Placement File)
Repair/Monitor/SPC System/MES-interface	Mek Catch System (Windows 7/8/10/11) (Option)
3rd Party Interfacing (MES) & Data Storage	Enterprise SQL DB/XML Files/Socket (Catch System Option)
General	
Operating Temperature	15-30 deg. C(60-90 deg. F)
Operating Humidity	15-80 % RH
External Size Main Unit	W1220 x D1203 x H1300 mm (48" x 47.4" x 51.2")
Weight	600kg (1323lbs)

Mek Americas LLC

8275 S Eastern Ave, suite 200
Las Vegas, NV 89123
T +1 702 660 6112
info@marantz-electronics.com
www.marantz-electronics.com

Marantz Electronics Ltd.

4F North Square I, Yokohama Business Park,
134 Goudo-cho, Hodogayaku, Yokohama,
Kanagawa Japan 240-0005
T +81-45-340-5566
info@marantz-mek.co.jp,
www.model22x.com

Mek Europe BV

Polluxstraat 2b
5047 RB Tilburg, Netherlands
T +31 40 7114111
info@mek-europe.com
www.mek-europe.com

Mek Europe reserves the right to change
the design and specifications without
notice. © Mek Europe BV, Nov 2025

mek[®]
marantz electronics ltd

because inspection matters