



VisionPro Merlin

Offline Automated Optical Inspection



Accurate and Reliable Automated Optical Inspection



Unsurpassed
Price-to-Performance



Lowest False Calls
Best-in-Class Accuracy



Simple to Program
Auto-Optimization



OnBoard Real-Time
SPC Analytics



World-Class
Customer Support



Industry Leading
3-Year Warranty





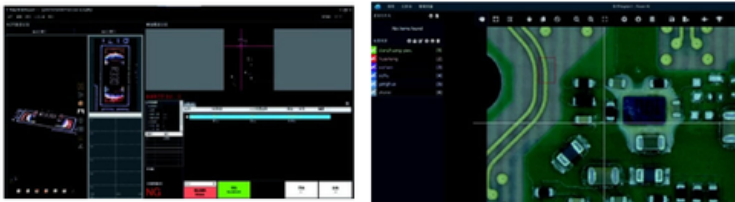
Features & Specifications

Product Overview

The VisionPro Merlin® by Prey is a high precision offline AOI system designed for accuracy and reliability at a price point that is unmatched within the industry. Featuring a 12MP camera with sub 10um X-Y pixel resolution, built in barcode reader, offline programming and defect review station, optional laser sensor for component and lead height validation (3D), conformal coating inspection and a 3D SPI sensor to help manage proper solder print deposition. The Merlin ensures comprehensive defect detection with its best-in class performance standard.

Defect Review Station

Board defects are captured by the Merlin and passed through to a remote workstation to allow operators to review and classify each defect for proper corrective actions and full traceability. Multiple workstations can be installed for increased throughput of the review process.



Advanced Statistical Analysis

The Merlin Detech2® software includes on-board SPC analytics, providing a powerful tool to help technicians quickly detect and correct defects found within the PCBA manufacturing process. Data is collected, calculated, and charted in real-time for critical process analysis.



Why Choose ASC

Established in 1992, ASC is the longest-standing independent SPI equipment manufacturer globally, providing cost-effective AOI/SPI/AXI solutions with unmatched customer service.

- Over 2700 successful machine installations worldwide
- Tailored solutions for maximum return on investment
- Commitment to 100% customer satisfaction
- Industry leading 3-year warranty

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System Overview

Software Package	Detech 2
Minimum Component Size	01005 and Above
Operating System	Windows 11 Pro
Communication	Ethernet / SMTA
Electrical Requirements	100-240 VAC, 50-60 Hz, 2 Amps
Ambient Operating Temperature	5° - 38° C (40° - 100° F)
Ambient Operating Humidity	<90%W non-condensing
System Weight (un-crated)	410 Kg (900 lbs)
System Weight (crated)	522 Kg (1150 lbs)
Defect Detection Capabilities	Presence/Absence, Polarity, Offset, OCV / OCR, Billboarding, Tombstone, lifted leads, Missing Solder, Bridging
SPC Charting/Data Reports:	Fully Integrated Real-Time SPC Custom User Defined Reports

Vision System

Camera Technology	12MP CCD Camera
Lens Technology	Telecentric
X-Y Pixel Resolution	8 um (0.31 mils)
Field of View (FOV)	45 mm x 30 mm (1.77 x 1.18 in)
Illumination	RGBW+ (UV)

Inspection Performance

Standard PCB Size	510 mm x 408 mm (20.0 x 16.0 in)
Minimum PCB Size	50 mm x 50 mm (2.0 x 2.0 in)
Maximum PCB Size (Optional)	609 mm x 508 mm (20 x 24.0 in.)
PCB Thickness	0.6 mm - 8 mm (.023 x .31 in)
Top / Bottom Clearance	45 mm / 40 mm
Board Weight	3 Kg (6.61 lbs)

Options

Offline Workstations, Laser Sensor, Conformal Coating (UV), 3D SPI Sensor



System Dimensions: H: 1680 mm (66") W: 973 mm (38") L: 1191 mm (46")

