

Mek to showcase high performance advanced AOI and 5D SPI for total process inspection coverage at IPC APEX EXPO, Booth #1507



AOI designer and manufacturer Mek (Marantz Electronics Ltd) will showcase its leading line-up of AOI and SPI systems at this year's IPC APEX, including the [SpectorBOX "Bottom-Up" Modular AOI system](#)

specially engineered for wave and selective solder THT and SMT manufacturing.

The Mek team will be on hand at Booth 1507 to deliver live demonstrations of the [SpectorBOX bottom up modular AOI system](#) which is designed to accommodate solder frames on return and/or feed conveyors. SpectorBOX offers bottom side, top side or simultaneous dual side inspection, replacing traditional board flipping alternatives in less space and at lower cost. With its totally new mechanical platform, it is the only modular AOI in the market that can be equipped with up to 18 cameras, including an optional Z-axis moveable head to precisely position and focus for varying PCB distance and warpage. With its general purpose I/O, SpectorBOX can be simply interfaced with existing or new conveyor systems.

Also on display will be [PowerSpector AOI with FDAz inspection head](#). The FDAz inspection head enables [9 Camera AOI](#) featuring [Tilt- Shift & Telecentric optics](#) with [automatic Z-axis](#). 8 Side cameras in 10µ resolution with Tilt-Shift optics technology ... familiar in architectural photography... reduce image distortion to enable the best capture possible. A moveable head in Z-Axis brings objects into optimal focus and

position, independent of PCB thickness or warping. In combination with the HD 18.75 μ or 10 μ resolution top camera with Telecentric optics and unique multiplexed 8x CameraLink side camera technology, unprecedented defect visibility is achieved.

The [Mek 5D PowerSpector Automatic Solder Paste Inspection system](#) employs patented advanced sensor technology with simultaneous [3D and 2D inspection](#) to inspect solder paste depositions on PCBs post screen print for insufficient solder, excessive solder, shape deformity, shift of deposition and bridging. SPI process tolerances are lowered to unmatched levels and SPI capabilities extended beyond any offered by 3D alone. True area, shape, volume, offset and height measurements are provided in combination, providing genuine process control and a perfect tool with which to adjust printer settings before a problem spreads throughout an entire production run.

Mek's total process control system, the [Catch System](#) will also feature at IPC APEX. This software suite provides a closed loop process monitoring and quality control system uniquely optimised for each user's workflow and internal organization.

We look forward to welcoming visitors to our booth #1507.

Find out more at www.mek-europe.com

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About MEK (Marantz Electronics Ltd)

A former division of Marantz well known for its high quality Audio/Video products, MEK Japan (Marantz Electronics Kabushiki Kaisha), developed its first AOI system in 1994. Developed to inspect PCB assemblies for correct component placement and soldering, the company's original AOI system was designed for use in Marantz factories. Proving to be a highly successful, cost-effective alternative to traditional human inspection, MEK developed its first generation commercial system in 1996. With a steadily growing installed base, MEK Japan and its European/American headquarters, MEK, have sold over 5000 units worldwide to date. Now well established as a leading force in AOI technologies, the company recently launched a 5D post-print SPI system which combines 3D and 2D image processing methodologies to deliver unprecedented defect detection. In 2014 the company opened US offices in Las Vegas.