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MICRO LED TECHNOLOGY

O Rohinni Adopts CyberOptics MRS-Enabled SQ3000 Multi-Function system for Inspection and Metrology of Rohinni's Micro LED Technology

Rohinni combines vision, execution and micron-scale electronics to make impossible products possible. Using its patented device-placement technologies, Rohinni, together with its joint venture partners, enables bringing innovative products to market in high volumes, and at greatly reduced cost.



Example of micro/mini LED solutions. Source: Rohinni

Challenge

Micro LEDs developed using Rohinni's technology can be deployed in consumer electronics devices, automotive applications and outdoor signage, among other applications. The disruptive technology enables products that are brighter, thinner, lighter and more dynamic that those currently on the market, with lower power consumption than LCD or OLED.

Rohinni needed an inspection and metrology solution for six critical in-line production process locations including incoming quality inspection of the flexible circuits, solder paste inspection, pre and post reflow AOI, coordinate measurements post placement of the LED die and final test.

Solution

CyberOptics SQ3000 Multi-Function system for Automated Optical Inspection (AOI), Solder Paste Inspection (SPI) and Coordinate Measurements (CMM) was extensively evaluated and adopted to address all six production process locations.

"We are pleased to be chosen for the inspection and metrology of Rohinni's disruptive micro LED technology," said Dr. Subodh Kulkarni, President and CEO, CyberOptics. "The innovation behind this flexible and thin lighting technology is extraordinary."

The 3D SQ3000 all-in-one system can identify critical defects and measure critical parameters, providing a superior process control solution to improve yields, quality and operational efficiencies in manufacturing facilities. In addition to AOI and SPI, highly accurate coordinate measurements can be attained faster than a traditional Coordinate Measurement Machine (CMM) – in seconds, not hours. The world's first high speed, in-line CMM includes an extensive software suite for metrology grade measurement on all critical points.



Micro/mini LEDs. Source: Rohinni

Benefit Summary

"We are happy to use the SQ3000 in our line solution to inspect various process steps because of its higher speed, higher resolution and higher accuracy with the in-line CMM capability," said Matthew Gerber, CEO, Rohinni. "The unmatched performance and versatility of the system make it the perfect solution for our challenging application needs and stringent quality requirements."

About Rohinni

Rohinni combines vision, execution and micron-scale electronics to make impossible products possible. Using its patented device-placement technologies, Rohinni, together with its joint venture partners, enables bringing innovative products to market in high volumes, and at greatly reduced cost. OEMs in markets ranging from consumer to automotive to outdoor signage can incorporate Rohinni's disruptive technology, yielding products that are brighter, thinner, lighter, lower power and more dynamic than those currently on the market. Rohinni has broad patent coverage for mini and micro LED-based technology, robotic placement equipment and manufacturing processes. The company has more than 90 patent assets in varying stages of prosecution. Investors include Future Shape Principal Tony Fadell, the inventor of the iPod, co-inventor of the iPhone, and founder and former CEO of Nest. For more information, visit www.rohinni.com

About CyberOptics

CyberOptics Corporation is a leading global developer and manufacturer of high-precision 3D sensing technology solutions. CyberOptics' sensors are used for inspection and metrology in the SMT and semiconductor capital equipment markets to significantly improve yields and productivity. By leveraging its leading edge technologies, the Company has strategically established itself as a global leader in high precision 3D sensors, allowing CyberOptics to further increase its penetration of key vertical markets. Headquartered in Minneapolis, Minnesota, CyberOptics conducts worldwide operations through its facilities in North America, Asia and Europe. Discover more at www.cyberoptics.com

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