

APPLICATION EXAMPLE

2K trilinear line scan cameras for wood inspection:

In today's competitive market, ensuring the reliability and safety of wood products is essential. This can be achieved by maintaining strict quality control standards and continuously improving the accuracy of defect detection.

Wood inspection relies on advanced imaging to detect defects like cracks, knots, and grain irregularities. JAI's new 2K resolution trilinear cameras equipped with high-definition imaging and features like resume scanning to prevent frame loss during production stops, are ideal for wood inspection applications.

Color and Grain Pattern Inspection:

Analyzing color consistency and grain patterns helps manufacturers detect defects, ensure uniformity, and enhance wood products' visual appeal—crucial for industries where appearance and functionality are equally important such as furniture, flooring, and cabinetry.

Knots and Defects Detection:

Identifying knots and defects ensures structural integrity and aesthetic quality in wood products. By detecting these imperfections early, manufacturers can prevent weaknesses, enhance appearance, and optimize material use, leading to superior, long-lasting results.

Surface Smoothness & Insect Damage Assessment:

Advanced technology allows for precise inspection of wood surfaces and detection of hidden issues, such as insect damage. Identifying these problems early in the process prevents costly repairs and ensures the durability and quality of the final product.

The new compact JAI Sweep 2K CMOS line scan cameras:

JAI's new camera models offer 2K resolution, 7 μ m square pixels and the flexibility of choosing between 5GigE and CXP interfaces.

This integration of technologies makes the new cameras highly suitable for inspection systems in wood processing and can play a significant role in enhancing automated optical quality verification during critical phases of the wood production process.



SW-2005TL-CXP/5GE – Trilinear color models:

- 2K resolution (3 x 2048 pixels in R-G-B lines).
- 44 kHz scan rate (44,000 lines/s)
- 7 μ m square pixels.
- CoaXPress 2.0 with CXP-6 speed and 5GBASE-T interfaces

SW-2005M-CXP/5GE – Mono models:

- 2K resolution (1 x 2048 pixels in a line).
- 172 kHz scan rate (172,000 lines/s)
- 7 μ m square pixels.
- CoaXPress 2.0 with CXP-6 speed and 5GBASE-T interfaces.

APAC

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See the possibilities