

# Electronics

## Electronic Verification

To keep pace with shrinking geometries, machine vision inspection systems can deliver the image resolution and processing performance required for high-speed component and assembly verification in the Electronics industry. These demanding applications involve machine inspection at multiple stages in the manufacturing process, from part selection and assembly to final verification and tracking. Every part, every connection, every assembly and every package needs to be verified to ensure the highest quality product.

## How Easy to Use is Your Current Machine Vision System?

If you are an electronics manufacturer or supplier currently using vision, how long would it take to setup your vision system to verify and validate the following?

- Size, shape and position of stamped connector pins and other stamped components
- Connectors, cables and other assemblies
- Placement and orientation of ICs, keys and other components used in electronic assemblies
- Product identification marks such as matrix tracking codes, pin 1 indicators, model, manufacturing date and lot codes
- Surfaces for cracks, scratches, dents and discoloration
- Part identification and orientation for robotic pick and place
- LCD assembly and operation

## Machine Vision Tools

- Pattern matching tools for locating and identifying parts or features for alignment
- Edge tools for detecting the presence, absence or position of features
- Measurement tools for checking dimensional accuracy
- Barcode (1D and 2D) readers for product identification and tracking
- Print recognition (OCR) tools for product identification, tracking and readability
- Count tools for verifying the number of parts or features
- Surface flaw tools for detecting scratches, cracks and discoloration
- Color tools for verifying the amount and location of colored elements



**Teledyne DALSA-authorized distributors can show you how to start saving time and money with our industrial vision solutions.**

## Typical Electronic Applications



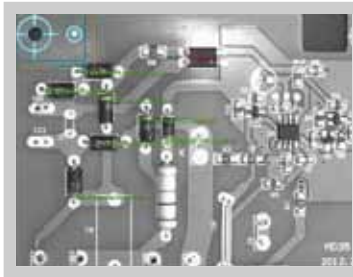
Verify cable assembly



Verify the configuration of a switch assembly



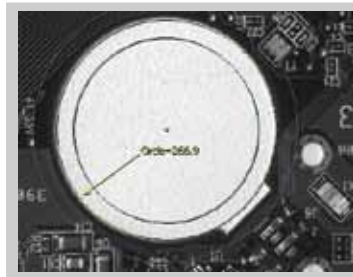
Verify printed directions on consumer connectors



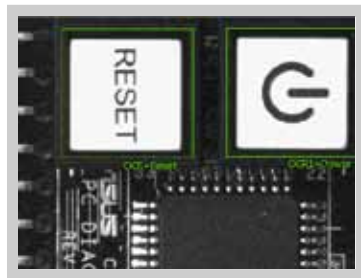
Verify the presence, location and orientation of components



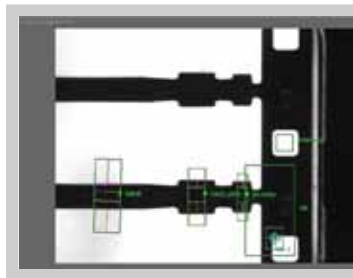
Verify the number of pins and identification markings on an IC



Determine the orientation of a circuit board for pick and place



Verify the keys are in the correct position



Verify stamped connector terminals on a reel

[www.teledynedalsa.com](http://www.teledynedalsa.com)

### Americas

Boston, USA  
+1 978-670-2000  
sales.americas@teledynedalsa.com

### Asia Pacific

Tokyo, Japan  
+81 3-5960-6353  
sales.asia@teledynedalsa.com

Shanghai, China  
+86 21-3368-0027  
sales.asia@teledynedalsa.com

# Get more VISION

Teledyne DALSA offers the very latest in machine vision technology for electronic applications. Designed specifically for industrial environments, the BOA smart camera is an all-in-one vision system that integrates easily into existing production lines, machinery or moving equipment. BOA comes fully loaded with a suite of quick-to-apply vision capabilities and interfacing methods for communicating with the factory enterprise. For high speed, multi-camera inspection, Teledyne DALSA GigE cameras can be combined with a centralized processor to offer a very cost-effective solution.

Teledyne DALSA vision solutions are available with choice of application software to accommodate the differing needs and experience of electronic end users. iInspect software allows experienced users and 1st-time adopters to quickly setup and deploy solutions. iInspect's logical setup is built using the experience and algorithms that have been put to the test over the course of many years. Sherlock provides functionality and customization to tackle the most challenging applications.

We can customize - your contact/logo information here