THT Solder Inspection

Following the winning philosophy which characterized its business in testing over three decades, based on the constant and rapid innovation of its testing solutions, Seica introduces the **Dragonfly THT Next Series**. This is the **new generation of systems** featuring a renovated and sleek look thanks to the premium materials of the chassis and innovative worth discovering performances.

The automatic inspection **Dragonfly THT Next Series** ensures a quick and complete examination of all joints that may be brazed, soldered or even press fitted together.

The combination of multi-colored LED lighting and color scan camera offers a deep inspection of the solder joint meniscus and the shorts detection, while the full scan acquisition of the PCB surface and not only of the components allows the solder balls detection.

Compared to manual inspection, the results of **Dragonfly THT Next Series** are operator free, but always act objectives and reproducible. The inspection allows rapid feedback of process faults (closed-loop).

The test results are displayed for documented repair of the module on the appropriate repair stations. This results in time and cost savings as well as a significant increase in quality.
The process of PCB assembly has undergone a fundamental change in recent years. The conventional through-hole mounting technology has been increasingly replaced by the SMD technology, however the electronics industry cannot completely eliminate THT technology.

In particular, components that are exposed to high mechanical loads, such as relays, coils, capacitors and power strips are soldered with modern selective soldering or the established scale wave soldering methods.

The first-pass yield of soldering is typically much lower than in the reflow process. Typical errors are, for example, open solder joints, solder bridges and solder bumps. High quality and reliability standards require test and inspection tools that not only provide all the information for a repair facility, but also allow an optimization of the process.

Even with large-scale tests and changing products, a check within the production cycle must take place in order to achieve a high productivity.

**Industry 4.0**

Information, and the technology needed to collect and analyze data to obtain it, is key to the successful digitalization of the manufacturing process, which is at the heart of the Industry 4.0 concept.

The **DRAGONFLY THT NEXT** Series line has all of the capabilities needed for implementation in any Factory 4.0 scenario, providing the possibility to plug in any proprietary or third party information system to achieve the desired goals.

All the **DRAGONFLY THT NEXT** Series testers feature the Industrial Monitoring solution “4.0 ready” by Seica, to monitor current absorption, supply voltage, temperature, light indicators and other parameters useful to indicate the correct operation, to ensure predictive maintenance and make the systems compatible with the new standards of the fourth industrial revolution ongoing nowadays.
QUALITY THROUGH PROCESS CONTROL

RELIABLE FAULT DETECTION
- Solder bridges, solder splashes
- Stray solder balls up to 100µm (fully covered)
- Open solder joints, missing pins, crooked connector
- Identification of DMC / barcode on the review page without additional Reader

HIGH INSPECTION DEPTH AND LARGE TEST FACILITY
- High-resolution color scanner
- Multi-color LED lighting
- 24Bit Color, 14,040 x 20,400 Pixel per Scan
- Board size: small ver. 300mm x 400mm, large ver. 420mm x 540mm
- High speed: 25mm/Second
- Entire surface in parallax view
- Twin system for simultaneous inspection of both sides of PCB’s TOP/BOTTOM

CLEAR OPERATION
- Display the error position and representation of error and comparison image
- Software (GUI) identical in the test system and repair stations
- Fault is assigned by pressing a button statistics
- Easy to use and train

STATISTICS AND PROCESS CONTROL
- Traceability by evaluating barcode / 2D code / RFID
- Cost savings because of quick process optimization
- Intuitive inspection plan
- Graphical interface
- Powerful and flexible vision test algorithms
- MLD1200: fixed optical system, only mirrors and illumination are moving, almost no wear.
- Low maintenance.
- MTBF = 1,300,000 Scans
- One-Pass-Scan: complete test of the board in one pass scan.
- Timing depend on board size between 6 and 25 sec.

Seica reserves the right to change any technical specification without notice

GLOBAL SUPPORT NETWORK

Thanks to the global extension of Seica and its subsidiaries, Seica can ensure local service support wherever the customer needs it, in addition to 24-hour telephone assistance.

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