

Maximum Flexibility when Testing Electronic Assemblies with new Test Fixture Y-ETI

Munich, November 2019 – The contacting of highly complex and tiny subassemblies is increasingly becoming a challenge. This is where Yamaichi Electronics steps in with its new test fixture Y-ETI. Thanks to its modular design it allows contacting of standard low-signal-quality applications to high-performance embedded solutions.

Ever smaller embedded assemblies with increasing packing density must have 100% secure functionality. Such a hardware cannot always be completely tested without external contacting, and one must resort to high-precision contact units.

Modular design for maximum flexibility

This is where Yamaichi comes in with its new test fixture Y-ETI. The Y-ETI provides the user with many new options for contacting and testing electrical assemblies - thanks to the modularity and flexibility of the design, everything is possible with only one test fixture.

The first variant of this robust and easy-to-use test fixture has a base of approx. 566 x 463 mm with a height of approx. 197 mm. Thus, the available work surface, i.e. the maximum size of a DUT (single assembly or multiple applications) is limited to approx. 270 x 270 mm. A total of up to 1020 connections are available, which can process up to 12.5Gbps signals in the standard version. The necessary impedance and signal runtime adjustment is ensured on the TAB (Test Application Board).

The main components of the test fixture consist of the basic box, the contact units and the extension box. The novel lever mechanism enables simple operation and horizontal or parallel contacting of the test sample, regardless of whether it has to be contacted only from one side or from the top and bottom in the sandwich method.

The connection to the respective test system environment is established through the extension box, which is docked to the back of the adapter through standard pylon interface blocks with 6 x 170 pins footprint. In contrast to most conventional test adapters, the extension box has the advantage that the Y-ETI is not bound to a test system.

Fine pitch or larger - the basic adapter remains the same

By selecting the possible contact unit - either through a cassette or the Test Application Board (TAB) - the smallest possible test pitch is selected. As a rule, in case of assemblies with a larger test pitch and uncritical signals, the conventional cassette is used. The signal wiring is done using standard ICT pins and a wire-wrap cable routing terminating on the back of the cassette on the standard 170-pin pylon interface blocks.

For applications with higher signal quality and Fine Pitch requirements, the Test Application Board (TAB) replaces the removable cassette. By using up to 0.2mm thin spring contacts, which are integrated in high-performance plastics, structures up to 0.25 mm test pad spacing can be realised. Yamaichi's fine pitch spring contact portfolio covers a wide range of requirements.

Y-ETI at a glance

In conclusion, the Y-ETI is the ideal solution for contacting a wide variety of electrical components. Whether it is high-performance signal quality, narrow test pitch, single or double-sided contacting - the modular and very flexible, yet robust and easy-to-use structure provides the user with all options using cassette or TAB contacting.

Once set up, the Y-ETI is not bound to a test system configuration, but can be easily adapted to other environment interfaces with little effort.

About Yamaichi Electronics

Yamaichi Electronics is a market leader for Test & Burn-In sockets, connectors and connection systems. Their reliability and functional dependability are essential for the success of the overall project. Yamaichi Electronics established themselves on the world market very quickly as a manufacturer of high quality, reliable components for demanding applications in various markets and applications: semiconductor, industrial automation, automotive, data networking, measurement & testing, medical, mobile computing, embedded computing, and others.

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