

## Universal IC Test Socket Series for Different Package Types

**Yamaichi Electronics introduces the test solution socket series IC561, IC564 and NP584. The test sockets are suitable for different package types and thus a versatile, flexible and universal solution.**

The miniaturization and integration process of state-of-the art IC components is leading the major electronics manufacturers to use many different package solutions. For the multitude of different package types there is often no standard solution available. Therefore components manufacturers are forced to look for custom solutions in order to test their devices.

To solve this problem Yamaichi Electronics has developed a new set of universal test sockets as reliable as custom ones. The test sockets are extraordinarily versatile, making them usable for different package types having different dimensions, height and pitches. They simply offer a “semi-custom” solution at standard prices. They are a universal solution applicable to all **QFN** (Quad Flat Non-Leaded), **SON** (Small Outline Non-Leaded), **BGA** (Ball Grid Array), **CSP** (Chip Scale Package), and **LGA** (Land Grid Array) packages.

The clam shell type series **IC561**, together with its smaller “twin sister” **IC564**, and in parallel the open top version **NP584**, are made of different pre-processed parts designed to be easily assembled. Before the assembly these parts are modified (milling process)

according to the specific package the socket will be housing. This gives the sockets a semi-custom feature.

The **IC561** series is available for packages with dimensions ranging from 2.0 up to 18.0 mm, with height ranging from 0.25 to 1.3 mm, and with regular, irregular or even staggered pitch type of 0.25 mm or higher. The IC561 has an outline of 38.0 x 35.0 mm.

When smaller dimensions are needed, the **IC564** series is designed for reduced dimensions of maximum 20.0 x 27.8 mm. This series is available for packages ranging from 2.0 to 10.0 mm<sup>2</sup>, with height ranging from 0.25 up to 1.30 mm, with regular, irregular or even staggered pitch of 0.25 mm or higher.

The lid is designed to push the package onto the contacts due to a spring-loaded system fitting different package heights. A custom-sized hole in the centre of the lid can convey an airflow directly onto the package. For the IC561 series, it is also possible to mount onto or to integrate into the lid a cooling element simply by implementing few lid structure changes. This gives the customer the option of either active or passive Thermal Management Control (TMC).

The **NP584** series is similar to the IC564 series, but designed for customers oriented to an open top solution. This concept is an extraordinary feature keeping the production costs near standard solution level and giving the advantage of a semi-custom socket. The NP584 series has 3 different form factors. They allow a wider package range for Open Top solutions, from 2.0 x 2.0 mm up to 20.0 x 20.0 mm according to the form factor.

The **contact pin** used for all the IC561, IC564 and NP584 series is an extraordinarily reliable and simple probe pin, made of two single parts, one inserted into the other. It has all the benefits of a Compression Mount Technology (CMT) solution and is available in two versions depending on the contact type (pad or ball) of the package. This type of pin ensures high performance both electrical and mechanical in a wide OTR (Operating Temperature Range): -40°C to + 150°C. Versions with **low inductance** features are also available.

#### **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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