

Gender-Neutral Connectors

Is this trend justified?

“Gender-free” PCB connector systems are already well-established on the market and offer an array of advantages. For example, production costs can be reduced when both sides of the connector system have identical geometries, while high-speed properties are improved by the use of a single contact point. However, ept’s decision to develop this type of connector system is based on more than just these two advantages.



Figure 1: A cross-section of the Zero8 connector shows the gender-neutral contact system.

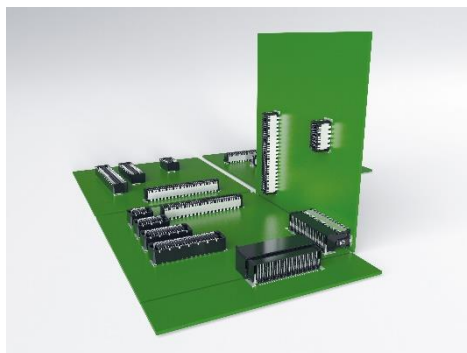


Figure 2: The Zero8 connectors make a wide range of PCB configurations possible.

The basic idea for this new connection concept underpinning the Zero8 product family was based on customer inquiries and the high priority placed on customer demands. The hardware developers were focused on high-frequency properties, scalability for all heights and types, and ensuring a highly compact design, but their primary aim in this case was to engineer a product that was extremely robust. This would be reflected in all different levels of the product: The new connector system had to be highly resistant to environmental conditions such as cyclical temperature changes and corrosive gases as well as shock and vibrations. On top of that, developers identified high tolerance compensation – both during installation and operation – as a top priority. This renders it nearly

impossible to damage the connector, whether during operation or as a result of improper handling.

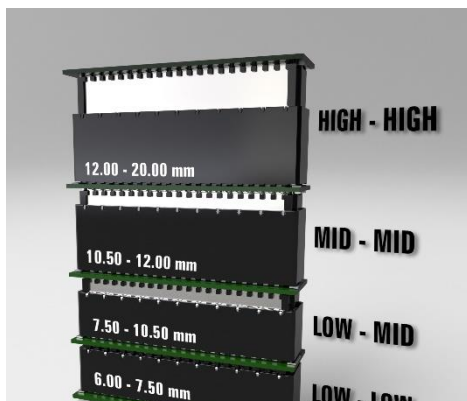


Figure 3: Different heights make it possible to flexibly use the connectors in various device combinations.

The secret behind this product family’s robustness can be found within the concept using double-sided contacts, called ScaleX technology. It ensures the long-term stability of the electromechanical connection, even when it is subjected to strains such as shocks or vibration. At the same time, the concept allows a high tolerance for connectors that are positioned differently for reasons related to the assembly. In addition, the geometry of the insulator housing reliably prevents the connectors from being connected incorrectly.

This connection concept is scalable for all heights and types, meaning that users only need to test and approve their connector system once. After that, they can select any variations they need for use in all types of combinations with different devices. This saves an enormous amount of time and money in the approval process.

“Gender-free” connection systems can already be found on the market. However, the best-known systems were not developed to be particularly robust but instead to reduce manufacturing costs (by producing identical contacts) or to optimize high-speed properties (by reducing connections to a single contact point). In contrast, the double-sided ScaleX contact system is the most advanced system on

Press Contact

ept GmbH • Irina Lew • Bergwerkstrasse 50 • 86971 Peiting, Germany • (+49-8861) 250-1340 • irina.lew@ept.de

the market when it comes to robustness and miniaturization. **Contact Alcom for free samples of allZero8 variants from ept.**



Press Contact

ept GmbH • Irina Lew • Bergwerkstrasse 50 • 86971 Peiting, Germany • (+49-8861) 250-1340 • irina.lew@ept.de



Singel 3 | B-2550 Kontich | Belgium | Tel. +32 (0)3 458 30 33 | info@alcom.be | www.alcom.be
Rivium 1e straat 52 | 2909 LE Capelle aan den IJssel | The Netherlands | Tel. +31 (0)10 288 25 00 | info@alcom.nl | www.alcom.nl