

## **Y-CCC Car Computing Connector of the Future**

**The transformation in the automotive sector is progressing inexorably and thus the demands on the supplier industry are becoming increasingly complex, especially in electromechanics.**

One of the greatest challenges is the significant growth of data streams within the vehicle. This will require new solutions and concepts in the near future, also from electromechanics and especially from the next connector generations.

The second major challenge is the required power that a system of the future must be able to transmit. Continuous loads of up to 20A and peaks >40A are not uncommon and clearly show the growing user profile. The "hot-plug" and "always-on" requirements have also been part of OEMs' specifications for some time.

Yamaichi Electronics, in close cooperation with a large German OEM, has already developed an interface for this, which maps the above-mentioned user profiles. The interface is called Y-CCC. This stands for Yamaichi-Car-Computer-Connector.

With this hybrid connector, it is possible to accommodate the requirements for power, signals and high-speed data in one receptacle size and to transmit them accordingly. In order to meet the high demands of the automotive industry (vibration / shock etc.), the materials and the design were laid out and internally tested according to the common automotive standards such as LV214 and VDA.

The zinc die-cast connector housing can be taken as an example. It offers an optimal compromise in terms of electrical shielding properties (signal integrity) and the required vibration resistance.

The current configuration of the Y-CCC connector system is as follows:

- 56 signal contacts
- 48 differential pairs for high-speed transmission up to PCIe 4.0
- 8 power contacts up to 20A
- TH reflow solder version
- Screw mounting of the backplane connector

Yamaichi Electronics is pleased to be able to offer this interface to the automotive industry today. Well aware that this is probably not the last iteration stage, Yamaichi would like to offer all interested parties the already available connector system, which can also be adapted together to further requirement profiles.

#### **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 itself on the world market 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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