ERNI CONNECTORS ARE IDEAL FOR INTERNET OF THINGS

Our Client is the Leader in Embedded Computer Systems

ERNI has steadily provided connectors to one of the leading enterprises in industrial embedded computers for more than 10 years. As one of the pioneer members of the international PC/104 and PICMG organizations, our client's in-depth knowledge and years of extensive research and development in these small, computerized devices and systems have earned the company a renowned reputation in China and in Europe for their highly reliable products.

Embedded computers are designed to perform a dedicated set of controlled software tasks and later built into a larger computer system. These are widely used in a myriad of industries - such as industrial automation, vehicle-mounted computer, smart transportation, medical equipment, security systems and more.

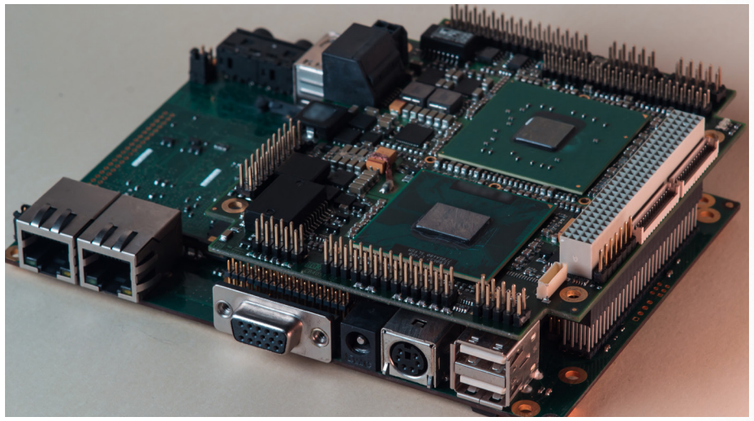
As our Client is committed to providing first-class quality products to industry movers, they worked closely with ERNI in striving towards their goal. At ERNI, our dedicated teams support the client at every stage of their product development, forging a strong business relationship over the years through our Client's well-placed trust ERNI and reliance on us for our high-quality electronic connectors.

For confidentiality reasons, we are unable to disclose our Client's name in this success story.

Application: Industrial Embedded Computer System

The stability of embedded computing systems is paramount to the appropriate functioning of smart transportation, medical, and communication applications for example. These systems generally cannot be accessed and programmed by users - they have to work efficiently and reliably for extended periods of time without any kind of human intervention. Therefore, the transmission of reliable data within the embedded system is critical as data loss could lead to a serious failure or an incomplete set of tasks being carried out.

Prior to using ERNI, one of the key challenges faced by the Client was the reliability of the connector from other component brands. The previous connector's design could not provide a stable data transmission, and the material was not robust enough to withstand extreme temperatures, vibrations or against corrosions in harsh environments.

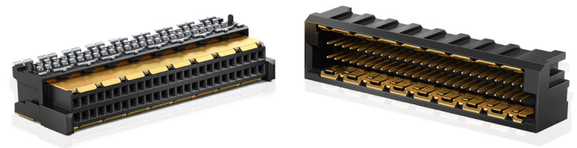


The **key requirements** our Client needed for their application are:

- The need to meet Mean Time Between Failure (MTBF) of time > 200,000 hours.
- The working temperature to ranges from -25 °C to -75°C even for use in harsh environment. The need for corrosion resistance, shock vibration, and high data transmission rate.
- The EMC shielding and Low-Voltage Differential Signaling (LVDS) connectors.

Solution

The MicroSpeed 1.0 mm connectors fulfilled our Client's requirements on high data transmission rates up to 25 Gbit/s. The dual-beam female contact ensures a safe and reliable connection in rough environments and guarantees a wipe length of 1.5 mm. The MicroSpeed connectors are suitable for application in telecommunication, high-end computing, medical technology, and industrial automation with high data volumes and high-speed transmission.



Other key features:

- MicroFlex FPC solution for high-speed connections using multi-layer rigid-flexible boards FPC.
- The variants blind-mate features are decisive for industrial environments.
- EMC enhanced shielding significantly reduced coupling inductance which is the decisive parameter for electromagnetic compatibility.

Browse our MicroSpeed connectors at **www.erni.com/microspeed.**

At ERNI, we support our clients through their entire developmental journey - from the prototype design to their finished product. Our class-leading experience and vast knowledge in the telecommunications and data communication technology industry gives us a competitive edge over other manufacturers. It is no coincidence that our clients hold ERNI in high regard as an innovative leader and supplier of high-quality electronic connectors worldwide.

Contact us today at **info.eah@erni.com** if you wish to learn how ERNI can help you!