WHAT'S TRENDING

Connecting Devices to the Internet of Things

IoT is a multibillion-dollar market. Are your devices ready?

SITUATION

Global players are investing heavily to build out their internet of things (IoT) ecosystems, so it's essential that device manufacturers continue to design new IoT-enabled products to meet this demand.

When designing for the IoT, determining where to start can be a daunting task — few companies understand every standard and all the available communication protocols.

At the heart of the IoT are complex, connected and modularized products that require a significant increase in the number of internal systems that will drive the use of multiple printed circuit board (PCB), wire-to-board and flex assemblies. Those assemblies demand connectors with improved signal integrity for speed, a profile designed for space-savings and superior robustness in tight spaces.

Do you know enough about the latest IoT-enabled interconnectors to address these challenges?

TREND 1:
More Features Need More Power

- Feature-rich devices require more power in the same space, demanding low-to-mid power connections.
- More applications will have low volt motors, lighting and power supplies that will require low-power connection points.
- The demand for space savings with increased internal density will drive shifts in how power is supplied to the board.
- Devices will intelligently use power based on how the system is performing, requiring signal wire-to-board connectors that increase power efficiency.

TREND 2:
Real-Time Information Requires Faster Connections

- Sensors are processing and interpreting more information at higher processing speeds that require high-SI-performing connectors.
- Higher resolution displays require increased EMI and SI performance.
- Antenna bands have evolved to drive more information at higher processing speeds, requiring more active and passive components.

TREND 3:
Space Constraints Require Profile Flexibility

- The inside profile of IoT applications is becoming more space constrained. Increased modularity limits the space for the connector and other components, requiring more profile and orientation micro connector options.
- Having multiple profile and orientation micro connector options gives designers flexibility to address space, location and connector entry point challenges.

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WHAT'S TRENDING

The Right Connector for Seamless IoT Integration

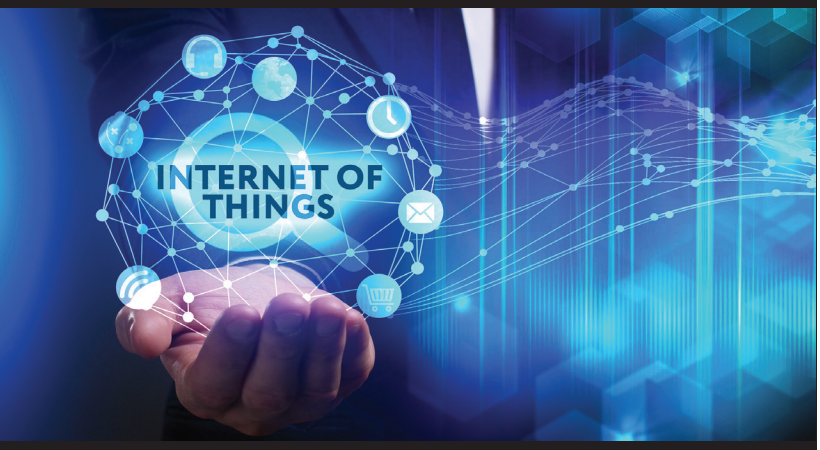
5G wireless network technology will drive more of everything. More smart devices. More communication between those devices. More data and decisions based on that data.

5G will also influence how we work and how we live. Even something as simple as a toothbrush is part of this technology revolution, evolving from its humble origins of bone and hog's hair to a device so smart it can tell if you're vitamin deficient — and then order those vitamins for next-day delivery.

Smart toothbrushes are just one example of the millions of devices that will require modularity — active chips, memory modules and connection points. These dense and complex new applications will require exceptional signal integrity built into the board-to-board, wire-to-board and flex-to-PCB connection points to accommodate higher speeds at an ultra-low-profile setting.

And it will require a partner that understands connectors — products tested in established consumer and industrial markets, with a proven track record for performance and the ability to handle the thousands of devices that will connect simultaneously.

Molex has the engineering resources and industry experts on the front lines of IoT development to help you capture and process data so every activity is more productive. Learn more about preparing for 5G technology.



Contact Mouser for more information on these Molex solutions:

- Pico-Lock Wire-to-Board Connectors
- Micro-Lock Plus Wire-to-Board Connectors
- Pico-Clasp Wire-to-Board Connectors
- Pico-EZmate Wire-to-Board Connectors

SOLUTION:
Pico-Lock Wire-to-Board Connectors

- Side positive locking system for high retention force and max space savings
- Ultra-low-profile right-angle design
- Up to 3.5A per circuit design

SOLUTION:
Micro-Lock Plus Wire-to-Board Connectors

- Design flexibility with multiple pitches, mating orientations, dual-and single-row options
- Robust low-profile mechanical locking system for optimal retention force

SOLUTION:
Pico-Clasp Wire-to-Board Connectors

- Design flexibility with multiple pitches, mating orientations, dual-and single-row options
- Robust low-profile mechanical locking system for optimal retention force

SOLUTION:
Pico-EZmate Wire-to-Board Connectors

- Top entry design for ease of use
- Ultra-low profile height (1.20mm) provides vertical space savings
- Polarizing key prevents mismating

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