

### **LVNET** ABACUS



# / MOLEX NEW PRODUCT INTRODUCTIONS

Discover the latest innovative product releases

molex

#### **INVINET** ABACUS



#### **Discover Molex**

We make a connected world possible by working together as a global team to enable technology that transforms the future and improves people's lives.

Our customers rely on Molex to deliver breakthrough connectivity at scale – we help them master change and create the most important advances through powerful innovation, engineering excellence, and world-class manufacturing capabilities.

#### Discover Avnet Abacus

Avnet Abacus is a leading European distributor specialising in interconnect, passive, electromechanical, power supply, energy storage, wireless, and sensor products. With a strong presence in the market, we have established ourselves as a reliable and trusted partner for manufacturers, designers, and engineers across various industries. Avnet Abacus is more than just an electronic component distributor. In the ever-evolving landscape of technology, we are your trusted partner, providing comprehensive solutions that enable innovation and drive success. With our vast product portfolio, deep industry experience, and unrelenting commitment to customer satisfaction, we are here to transform your ideas into reality.

#### **New Product Introductions**

In this overview you will find a summary of each NPI package released in the first half of 2024 including new additions to the Molex portfolio as well as extensions to established product ranges. The links on each product page will take you to resources on molex.com. including datasheets, videos and more.



### /\VNET abacus

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INNOVATION (New to Molex, or new to market), ENHANCEMENT (New variations of an existing product range), EXTENSION (Additions to complete an existing range)



### RELEASE SPOTLIGHT

#### **HyperQube Connectors**

#### What makes this product different from the competition?

HyperQube 6.00mm board mount receptacles attach to either printed circuit boards or busbars and deliver 120.0A. The board mount receptacles require only 120.0A and require only a 12.30mm by 15.40mm PCB footprint, yielding an industry-leading power density rating of 63.4A per 1cm2 of PCB real estate. The HyperQube connector's side-exit design eliminates cable-bend radius issues, making theseconnectors ideally suited for low-profile applications.

#### What is the Molex advantage?

Molex understands the importance of space optimization and secure mating with robust connections in today's complex designs. Our HyperQube 6.00mm High-Voltage and High-Current Connectors meet rigorous industry standards and provide safe, reliable power through an ultra-small PCB footprint.

### HYPERQUBE CONNECTORS

Series 220717, 220718, 220719

The HyperQube High-Voltage, High-Current product family is an innovative, high-performance connector system designed with our proven COEUR socket technology. This technology ensures a large conductive surface area to minimize heat generation and deliver high-current-carrying capacity to meet the demands of space-constrained applications. HyperQube Interconnects meet rigorous industry standards and offer enhanced features for overall efficiency. Realize secure connections, simplified installations and optimized performance with high-power HyperQube connectors.



#### Features and Advantages

#### Achieves space savings in a compact design

The mated height (19.50mm), mated length (43.70mm) and width (17.70mm) are ideal for space-constrained applications.

#### Offers time savings with accurate mating

Plug housings and printed circuit board (PCB) receptacles are available in three colors to guide operators during system integration to ensure proper mating when multiple cable assemblies are used in an application.

#### Provides high-power density

With a current rating of 120.0A and a PCB footprint of 12.30 by 15.40mm, the HyperQube connector's power density rating is 63.4A per 1 cm2 of PCB real estate.

#### Delivers robust electrical performance

With Molex COEUR socket technology, there is low contact resistance minimizing heat generation at the contact interface, allowing for high-current loads.

#### Affords design flexibility

The PCB receptacle's external thread design enables the connectors to be attached to either PCB or busbars.

A wide range of crimp contacts (2, 4 and 6 AWG) are available, meeting current-carrying requirements for applications.

## Ensures receptacles are correctly placed and properly oriented on the PCB or busbar, eliminating manufacturing issues

The polarizing pegs' sizes and locations are unique for each PCB receptacle color option. This mechanical-keying scheme ensures PCB receptacles are properly located.

#### Applications by Industry

#### Industrial Automation

- Motors

#### **Data Centers**

- Servers
- Switches

#### **Energy Storage**

- Inverters

## /ULTRAWIZE WIRE-TO-BOARD, HIGH-CURRENT POWER CONNECTORS AND CABLE ASSEMBLIES

Series 218567, 226269, 226270, 226271

Achieve superior power distribution with UltraWize Power Connectors and Cable Assemblies, specifically engineered for demanding data center applications. These products utilize proven COEUR socket technology which incorporates conical sockets to ensure a large conductive surface area. This reduces contact resistance and voltage drop to minimize heat generation and deliver highcurrent carrying capacity for UltraWize products.

Additionally, the cable-side exit configuration uses minimal space and further enhances efficiency and design flexibility. UltraWize Power Connectors and Cable Assemblies provide reliable, robust and space-saving power distribution in data center environments.



#### Features and Advantages

#### Minimizes stack height

The cable side-exit design eliminates the need to accommodate the cable-bend radius.

#### Enhances electrical performance

The COEUR socket technology design contains a large conductive surface area, minimizing voltage drop and contact resistance.

### Reduces processing costs and increases speed to market

SMT reflow-capable headers in pick-and-place packaging allow the header to be run through a reflow oven with no postprocessing required.

### Reduces mis-mating in production and allows for fewer defects

The connectors are mechanically keyed and have locating pegs to ensure correct mating.

#### Minimizes PCB footprint requirements

The staggered pin design reduces the space required on the PCB and allows more room for additional components.

#### Secures mating of the connector

A positive lock helps prevent the connector from accidentally unmating.

#### Applications by Industry

Power for Data Center

- Servers (GPU)
- Switches

### CARDINAL TEST HIGH-FREQUENCY (HF) CABLE ASSEMBLIES

**Series 73239** 

Ideal for test and measurement applications, the Cardinal Test HF Cable Assemblies provide frequencies up to 110 GHz using 1.0mm connectors and provide design flexibility with 2.4mm, 3.5mm and 1.85mm Plug and Jack options available.

The phase-stable cable assemblies provide standard and ruggedized configurations for a robust solution for use in telecommunications and network applications, such as network systems, testing and instrumentation, wireless communications, and automated test equipment.



#### Features and Advantages

Offers high-durability options with assemblies that are both highly flexible and pinch resistant

Through availability of standard and armored assemblies.

Includes assemblies up to 110 GHz and a multitude of adapters and ensures a solution for all test and measurement applications

With high-frequency options.

Delivers low density and a low dielectric constant with a velocity of propagation up to 80%

Due to low attenuation.

Provides one of the lowest possible VSWRs along the transmission path and for the assembly as a whole As a result of impedance tolerance of +1%

#### Applications by Industry

Telecommunications/ Networking

- Network systems
- Testing and instrumentation
- Automated test equipment
- Wireless communications
- 5G applications
- High-speed data transmission
- Internet of Things
- Smart agriculture applications

### NEXTSTREAM CONNECTOR SYSTEM

Series 220385, 220750, 220751, 224863, 225350, 225351, 225352, 225557, 300771

The NextStream Connector System offers next-generation data rates of up to 64 Gbps PAM-4, meeting the PCIe Generation 6 standard and enabling data centers to upgrade and meet the demands of data-intensive applications like AI, NVMe-EDSFF storage, CXL, UPI systems and high-performance computing.

With market trends leading to higher data transmission rates, and the release of PCle Generation 6, the NextStream Connector System meets the PCle standard and provides up to a 64 Gbps data rate. The NextStream system has been defined by the SFF Committee as standard SFF-TA-1035 for next-generation high-speed cable connector systems. It is upgradable to PCle Generation 7 and backward compatible with PCle Generation 4 and 5 and the SAS-4 standard.

The NextStream system's paddle card protection design ensures excellent SI quality, with reliable performance ensured by material selection, contact distance and a mechanical design optimized for high-volume production processes.



#### Features and Advantages

### Delivers upgradable high-speed performance to future-proof systems

With a 64 Gbps PAM-4 transmission rate for high-speed, low-latency data-intensive applications with ACC redriver cable capability, and future upgradability to PCIe Generation 7 with 128 Gbps PAM-4 data rates.

### Fulfills system needs by supporting standardized applications and protocols

Including PCIe Gen 6, NVMe-EDSFF, CXL, UPI 2.0 and OCP DC-MHS, plus customized interfaces as needed.

### Offers high performance in space-constrained applications

With an optimized mating height as low as 11.90mm for PCle Gen 6 speeds in a miniaturized package.

### Simplifies installation for operators and helps eliminate mis-mating errors

Using anti-slant, anti-reverse and guiding/stopping features as well as Poka-Yoke to make installation faster and easier.

### Improves signal loss performance and system gain over longer cable

Distances and thinner cable using an industry-first internal active re-driver channel.

#### Applications by Industry

Servers and Storage

- Cloud computing
- Hyperscale data centers
- Al infrastructure
- Switches
- Servers
- Storage devices
- Just a bunch of memory (JBOM) systems

#### Networking

- Chassis applications
- Interposer cards
- Routers
- Just a bunch of disks (JBOD) systems

#### Consumer

- Connected home systems



### RELEASE SPOTLIGHT

#### **MX150 Mid-Voltage Connectors**

#### What makes this product different from the competition?

The MX150 Mid-Voltage Connector stands out among other 1.50mm terminal mid-voltage connectors for its exceptional features and capabilities. It distinguishes itself by sharing a proven form factor with field-proven low-voltage connectors while also providing an impressive 48V capability and a remarkable current capacity of up to 22.0A.

#### What is the Molex advantage?

MX150 is the only automotive connector of its type that combines a versatile low-voltage options and a rugged, sealed connector design with a range of mid-voltage capable connectors (MX150 Mid-Voltage) that supports 48V applications and applications up to 60V. When upgrading from 12V to 48V wiring, MX150 Mid-Voltage Connectors enable manufacturers to reduce engineering and design costs by utilizing the proven and robust MX150 form factor. This permits the transition to higher-voltage 48V wiring architecture, with its reduction in copper usage and weight through the use of smaller wire sizes, while minimizing the need for additional engineering time and costs.

### / MX150 MID-VOLTAGE CONNECTORS

Series 33482, 300361, 300363

MX150 Mid-Voltage Connectors have been designed to meet the growing demand within the automotive industry for 48-volt electrical systems. The introduction of Mid-Voltage solution enables customers to upgrade their automotive electrical systems confidently with a mid-voltage product. Based on the proven MX150 design, these connectors provide a reliable and field-tested solution for mid-voltage connectivity requirements within the transportation industry.



#### Features and Advantages

Enables use with upgraded 48V wiring for applications such as lighting, power windows or wiper motors

Adding capability to upgrade existing 12V automotive wiring to 48V without changing connector type

Permits straightforward upgrade from existing MX150 connectors and reduces engineering costs when upgrading to 48V wiring

By using the same package size and housing design as proven MX150 connectors

Helps eliminate accidental disconnection between connectors

With connector position assurance (CPA) options that are available

#### Applications by Industry

#### Automotive

- Electric motor generators
- E-chargers
- Inverters
- Battery controllers
- Power distribution boxes
- AC/DC converters
- Braking system components
- Water pumps
- Lighting

#### Commercial Vehicles

- Golf carts
- Jet skis
- Electric outboard motors
- Forklifts
- Lawn mowers
- Electric scooters
- Motorized wheelchairs

#### **Electrical and Power**

- Solar energy storage systems (commercial and residential)
- Portable power stations
- Home generators
- Rechargeable battery applications

### QSFP-DD 16F CABLE ASSEMBLIES

#### **Series 106283**

QSFP-DD 16F Cable Assemblies are designed to unleash 16-fiber high-speed capabilities tailored for the future of data centers, networking and a wide array of transceiver applications. These cable assemblies come equipped with jumpers and breakouts, empowering 16F systems to achieve groundbreaking performance with data rates of 400G, 800G and 1TB+.



#### Features and Advantages

### Delivers 16-fiber connectivity for high data-rate applications

Design permits use with transceivers in 400G, 800G and 1TB+ applications

Helps ensure reliability and simplified installation with industry-standard MTP and LC connectors

MTP-to-MTP jumpers and MTP-to-LC breakouts are

MTP-to-MTP jumpers and MTP-to-LC breakouts are available

Supports high-speed QSFP-DD data transmission rates 16F design transmits up to 28 Gbps NRZ or 56 Gbps PAM-4, with 800 Gbps or higher aggregate

Provides quick and reliable connection

Cable assemblies are fitted with push-pull MTP connector housings

Cable options include single-mode and multi-mode OM3 or OM4 cable, MTP-to-MTP jumpers and breakouts, and various cable lengths

Offers improved return loss performance with angle-polished connectors (APCs)

SM and MM cable assemblies are available with APCs, while multi-mode cables are also available with ultrapolished connectors (UPCs)

#### Applications by Industry

#### Server and Storage

- 400G/800G/1TB+ systems
- Servers
- Switches
- Routers

#### Telecommunications

- Optical transceivers
- Cable distribution and management
- Cloud computing

### HDMI 2.1 CONNECTORS

#### **Series 208658**

QSFP-DD 16F Cable Assemblies are designed to unleash 16-fiber high-speed capabilities tailored for the future of data centers, networking and a wide array of transceiver applications. These cable assemblies come equipped with jumpers and breakouts, empowering 16F systems to achieve groundbreaking performance with data rates of 400G, 800G and 1TB+.



#### Features and Advantages

### Supports 8K resolution display with data rates up to 48 Gbps

Provides stable mating force due to out-shell Friction Lock

#### Delivers high durability

As a result of mating cycles 10,000 times

Offers stable coplanarity terminal for SMT process 16F design transmits up to 28 Gbps NRZ or 56 Gbps PAM-4, with 800 Gbps or higher aggregate

Provides strong connection and suitable for thicker PCBs

Due to long lead design

Meets a variety of user application requirements Due to compatibility with HDMI v1.4 and v2.1

Provides EMI/RFI protection With fully shielded design

#### Applications by Industry

#### **Mobile Devices**

- High-end televisions
- Meeting displays
- Graphic cards
- PCs/laptops
- Set-top box peripherals
- Gaming devices
- Projectors
- Printers

#### Industrial Automation

- Infrastructures
- Advertisements
- Conferences
- Automation
- Equipments

#### MedTech

- Medical display sensors

#### Networking

- Security devices
- Power for Data Center
- Data Center
- Servers

### / NANO-FIT WTB, WTW CONNECTORS - ADDING BMI AND GOLD FLASH TERMINALS

Series 105300, 201447, 219268, 219637, 224556

Available in wire-to-board and wire-to-wire configurations, Nano-Fit Power Connectors deliver fully protected header terminals in a compact size and provide many feature options to ensure proper installation and excellent reliability in tight spaces. Blind-mating interface (BMI) options are now available in both wire-to-board and wire-to-wire configurations. BMI is a self-aligning interface that enables the operator to mate connectors in hard-to-reach areas such as drawers or fan assembly trays, and connectors that require mating and un-mating without a visual. Doing so can cause damage to the connector and/or terminal and consume valuable labor time. In addition, Molex has also released Nano-Fit gold flash terminals. The gold flash plated terminals have a reduced mating force of 50% vs the standard tin-plated terminal. This improves the ergonomics through lower connector mating force, which reduces operator fatigue during assembly. The gold plating also improves corrosion resistance.



#### Features and Advantages

Prevents damage to the connector or terminals by avoiding misalignment; decreases assembly time and mis-mating errors

With blind-mate interface (BMI) connector design

Provides a small package that eases space constraints; allows up to 69% more space in the x-axis than competing connectors

Smallest fully isolated header in the market

Reduces operator fatigue

Due to its ultra-low mate force terminal

Reduces backout by ensuring terminals are fully seated in housing

When using the TPA retainer option

Helps to prevent risk of cross-mating; enables faster assembly with visual indication of proper mating With multiple mechanical keying and color-coded options Offers redundant, secondary current paths for long term performance and reliability

Because there are 4-point contact, multi-layer boards on the terminal interface

Ensures mated connector assemblies will not accidentally disengage

As these connectors have positive-lock housing with an anti-snag design

#### Applications by Industry

Consumer

- Copiers
- Small appliances
- 3D printers
- Home appliances
- Vacuum cleaners

#### Automotive

- Non-critical applications
- Telemetrics Infotainment systems Consoles
- Equipment for USCAR-2 rated designs

### NEARSTACK HD CONNECTOR SYSTEM

Series 215980, 216000, 221028

The NearStack HD Connector System is a low-profile, high-density cable solution with a 64 Gbps PAM-4 data transfer rate that meets PCIe Gen-6 standards for internal cable applications and helps users support artificial intelligence (AI) and machine learning applications.



#### Features and Advantages

Maximizes real estate in high-density applications With a low-profile connector that optimizes PCB real estate for space-constrained applications

### Enhances signal integrity (SI) with direct-to-contact termination

Featuring twinax wires welded directly to the signal contact wafers within the connector, which improves SI and delivers best-in-class crosstalk performance

### Simplifies assembly and makes the connector more durable

With direct-to-contact termination that eliminates the need for a paddle card interface

#### Improves thermal performance

Using small 34 AWG twinax cable that allows for better airflow, improving thermal management

#### Offers greater design flexibility

With 34 AWG twinax cable that afford easier cable routing compared to 30 AWG

### Enables PCIe Gen-6 performance for AI and machine learning capabilities

With data rates of up to 64 Gbps PAM-4 that meet PCIe Gen-6 specifications and permit data centers to achieve next-generation performance

#### Applications by Industry

Server and Storage

- Data centers
- Storage devices
- Servers and machine learning AI infrastructure

#### Telecommunications

- Al systems
- Networking devices
- High-performance computing Device control unitsServers

### / MICRO-FIT+ PCIE 5.0 CONNECTORS

#### **Series 73239**

Our new Micro-Fit+ PCle 5.0 Connectors offer full PCle CEM specification compliance in a compact, space-saving design with hybrid power and signal integration.

The Micro-Fit+ PCle 12V-2x6 Auxiliary Connector System is a CEM (card electromechanical) hybrid solution supporting next-gen PCle 5.0 and 6.0 applications. This connector and cable offering conforms to CEM specifications, integrating 12x9.5A-capable power pins and 4x sideband signal pins in a compact, space-saving design. The latest product family enhancement is 675W add-in card ready; engineered to dependably handle high power for advanced computing and data processing applications.



#### Features and Advantages

#### Supports ampere interrupting capacities (AICs) up to 675W

With 9.5A per pin; hybrid 12-power + 4-signal pin design utilizes high-current alloy for power pins.

#### Complies with industry standards

Due to conformance with PCIe CEM 5.0/6.0 specifications and Molex engineered reliability.

#### Resists potential damage during operation

Because of fully isolated terminals.

#### Prevents accidental mis-mating

Because of fully polarized housing.

Secures terminals in the housing for added reliability Due to strong retention force.

### Aligns with key safety, health and environmental regulations

Due to the lead-free and RoHS-compliant design.

### Ensures secure mating and retention for dependable performance and safety

Due to positive locking on the housing and low thumb latch operation.

#### Applications by Industry

#### Consumer

- Copiers
- Freezers
- Pinball and slot machines
- 3D printers
- Refrigerators
- Vending machines
- Video poker and pachinko equipment
- Washing machines

#### Medical

- Diagnostic equipment
- Patient monitors

#### Sustainable Energy

- Solar power

#### Telecommunications/Networking

- Routers and switches
- Servers
- High-speed compute and storage systems
- Graphics and gaming systems
- Internet of Things (IoT)
- Data centers
- High-performance computing equipment
- Smart agriculture applications

### / MX150 PASS-THROUGH SEALED CONNECTORS

#### **Series 300081**

MX150 Pass-Through Sealed Connectors enable the next generation of high-performance electric motors by using the rugged and proven MX150 connector design to provide an oil-resistant connection for signal wiring to the inside of oilcooled motors.



#### Features and Advantages

electrical performance.

### Enables reliable connection to the inside of oil-cooled electric motors

Using an IP6K9K-rated seal that is oil-resistant for use in next-generation, high-performance, oil-cooled motors.

### Provides a stackable connector design for 2 by 6 connectivity

Simplifying assembly in Negative Temperature Coefficient (NTC) thermistor and rotary transformer assembly applications.

### Offers a redundant sealing system to prevent oil or moisture ingress

By using an available two-ring seal option and terminal potting to provide extra sealing protection.

#### Delivers rugged and reliable operation in harsh environments subject to vibration and shock By utilizing the field-proven MX150 form factor and Silverplated terminals for more robust, vibration-resistant

Helps ensure quick and accurate mating operations By offering polarization and four keying options in different housing colors for error-free assembly.

#### **Applications by Industry**

#### Automotive

- Oil-electric motors
- Resolver/transformer sensors
- Negative temperature coefficient (NTC) temperature sensors

### / INDUSTRIAL ETHERNET SWITCHES

#### **Series 112036**

Managed, unmanaged and Power-over-Ethernet (PoE) IP20- and IP67-rated Industrial Ethernet Switches are robust and versatile, helping enable industrial automation and monitoring in challenging conditions subject to extreme temperatures, dust and moisture.

ADDING: IP20 Managed Ethernet Switches offer customers fast, robust and versatile network integration. IP20 Unmanaged Power-over-Ethernet (PoE) Switches combine power and network communication functions into a single rugged unit for surveillance and other industrial applications.



#### Features and Advantages

#### IP20 and IP67 Unmanaged Ethernet Switches

Compatible with EtherNet/IP and PROFINET industrial network protocols, Unmanaged Ethernet Switches enable fast and simple "plug and play" network upgrades and are available in IP67-ratedhousings for on-machine mounting that's resistant to dust, lowpressure wash or water submersion.

#### IP20 Managed Ethernet Switches

For complex applications requiring specific functions, IP20 Managed Ethernet Switches deliver a high degree of control, with extensive customization and monitoring options available to help optimize production line performance and network flexibility.

IP20 Unmanaged Power-over-Ethernet (PoE) Switches Simplyifying network design for camera and other monitoring applications, combining power and communication functions into a single unit that offers Power Boost for low-voltage supply and up to 30W of power per port to support PoE+-compliant devices.

#### Applications by Industry

Industrial Automation

- Automotive production lines
- Semiconductors
- Material handling systems
- Water and wastewater treatment plants
- Pulp and paper manufacturing equipment
- Food and beverage lines
- Mining and metals sites
- Agricultural systems
- Machine builders
- Robot cell control systems
- Packaging line control systems
- Substation control devices

### BRAD M12 POWER L-CODE FIELD ATTACHABLE

#### **Series 120503**

Providing the power required for Industry 4.0 electric propulsion while being both compact and reliable, the Brad M12 Power L-Code Connector System meets PROFIBUS and PROFINET International (PI) standards for PROFINET systems.

The Brad M12 L-code Field Attachable allows a customer the flexibility to use any matable cable, thereby allowing a customer to select the best cable as per their requirement, in addition to a convenient installation process.



#### Features and Advantages

### Delivers 16.0A output of current against 10.0A from Mini-Change

The enhanced design and improved insulation of the Brad M12 L-Code Connector System helps deliver a high output current.

#### Helps customers use any mateable cable

The Brad M12 L-code Field Attachable allows a customer the flexibility to use any mateable cable, thereby allowing a customer to select the best cable as per their requirement, in addition to a convenient installation process.

### Provides a sealed connection to withstand harsh and wet industrial environments

The Brad M12 L-Code Field Attachable helps withstand harsh and wet industrial environments because of the sealed connection that is provided by the IP67-sealed interface.

### Enhances operator safety by eliminating the chance of electrical shock from exposed pins

The pins in the Field Attachable are enclosed in the contact carrier that eliminates the chance of any electrical shock.

#### Applications by Industry

#### Industrial Automation

- Power supplies of decentralized I/O boxes
- Field-bus-controlled I/O boxes
- Small server/DC motors and drives
- Machine and line builders
- Automotive plants
- DC applications in low-voltage areas
- Feeder and distribution

### OFF-THE-SHELF (OTS) MINI50 CABLE ASSEMBLIES

Series 224050, 224051

Mini50 Cable Assemblies deliver 50% space savings over traditional USCAR 0.64mm connector systems. Tested to full USCAR specifications to enhance design flexibility and fit more signals into transportation vehicle interiors.

Available in 3 lengths (150, 300 & 600mm), 3 circuit sizes (2,4,8ckt) and female-female or female-pigtail configurations.



#### Features and Advantages

Available in multiple cable lengths Offered in 2, 4, 8 circuits

Meets 2011/65/EU RoHS Compliance
Decreases engineering time and resources

Pin-to-pin mapping from receptacle to PCB header Provides ready-to-use, plug-and-play connections

#### Applications by Industry

#### Consumer

- Home entertainment systems Home appliances
- Home security systems Portable devices
- Gaming consoles
- Mobile devices

#### Commercial Vehicle

- Aviation
- Drones
- Commercial aircraft cabins

#### Industrial Automation

- Process controls
- Industrial motors

#### MedTech

- Patient monitors
- Diagnostic equipment

### BRAD M12 ULTRA-LOCK 2.0 SHIELDED CORDSETS

Series 120406, 120466

Brad M12 Ultra-Lock 2.0 cordsets and receptacles meet the IEC 61076-2-010 standard and provide shielded and unshielded options in an easy-to assemble interface, delivering increased productivity and cost savings while surpassing the performance and reliability of traditional threaded connectors.

ADDING: Shielded cordsets compliant with IEC 61076-2-010 for use in harsh environments subject to weld slag, cutting oil or wide temperature ranges, including high-pressure washdowns of food and beverage equipment. This enables the use of push-pull Ultra-Lock connectors in these applications.



#### Features and Advantages

### Enables simple and fast connections that cannot be either too tight or too loose

With an operator-independent connection that features reliable, fieldproven push-pull technology

### Affords push-click operation and delivers proven protection against water and dust

With an IP67 or IP69k protection rating depending on cable type

Allows customers to easily change between Ultra-Lock and traditional D-code threaded connection styles as needed

Due to the universal, industry-standard M12 interface

### Offers a durable and cost-effective connectivity solution

That features a robust spring carrier and housing with shielded and unshielded options

### Delivers rugged, high-flex and high-torsion performance over a wide temperature range

With PUR, PVC or weld-slag, oil resistantt (WSOR) TPE cable to withstand multiple harsh-environment conditions including exposure to welding and cutting oil

#### Applications by Industry

#### Industrial Automation

- Machine and line builders
- Machine tools/machining centers Automotive
- production equipment Manufacturing robots
- Special-purpose manufacturing machinery
- Sensor and actuator connections
- Multiple-I/O applications
- Difficult-to-access areas
- Safety areas
- Food and beverage line equipment
- Automation controls
- Material handling equipment
- Petrochemical complexes
- Telematics units
- Telecommunications base stations

### BRAD MINI-CHANGE H-CONNECTORS

#### **Series 130035**

Delivering optimum conductivity in a compact, rugged and field-proven quick-connect design, Brad Mini-Change Connectors offer the broadest selection of miniature sealed connectors available in the industrial market.

ADDING: h-connectors to facilitate better organization of cable routing, ease stress on connectors and reduce requirements for cable lengths in industrial applications needing compact quick-change power connections.



#### Features and Advantages

#### Ensures optimum electrical conductivity

Using the patented Quad Beam socket contact with Stainless Steel sleeve to maintain consistent pressure on the male pin

### Maintains low resistance through many mating/unmating cycles

With Gold over Nickel-plated contacts that provide highperformance, longlasting electrical conductivity

### Prevents entry of water during temporary submersion at a limited depth

Due to an IP67-rated seal

#### Eases alignment and mating of connector

With a molded key indicator that helps guarantee correct mating

#### Offers robust performance in harsh conditions

With integral strain relief providing 100 pounds minimum of cable strain relief and radiating stress in side-loaded conditions

#### Reduces cable stress and improves routing flexibility

With tee- and h-connectors that enable direct and efficient cable routing, reduce bending stress, permit shorter cable runs, and facilitate use in space-constrained applications

#### **Applications by Industry**

#### Industrial Automation

- Conveyor belts
- Safety switches
- Auxiliary power for sensors/cameras
- Safety devices
- I/O applications

#### **Electrical and Power**

- Power distribution equipment
- Sensors
- Relays

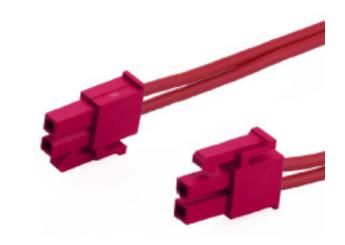
#### Telecommunications

- Multiple-component power distribution
- Fans
- Sensors

### OFF-THE-SHELF (OTS) MINI-FIT VERSA COLOR CABLE ASSEMBLIES

Series 226196, 226245

Mini-Fit Versa Color Cable Assemblies offer various color options and lengths in 2,4,6 and 8 circuit sizes for adaptable use, accurate mating and ease of assembly. UL 94V-0 Glow Wire combination resin helps reduce costs while allowing customers to meet European electrical standards.



#### Features and Advantages

Mini-Fit Versa Color Cable Assemblies offer several color options and circuit sizes for adaptable use, accurate mating and ease of assembly UL 94V-0 Glow Wire combination resin helps reduce

UL 94V-0 Glow Wire combination resin helps reduce expense while allowing customers to meet European electrical standards

Cable assemblies available in red and blue Available in multiple cable lengths 150, 300, 600mm Offered in 2, 4, 6, 8 circuits

Meets 2011/65/EU RoHS Compliance
Decreases engineering time and resources

Pin-to-pin mapping from receptacle to PCB header Provides ready-to-use, plug-and-play connections

#### Applications by Industry

#### Consumer

- Home entertainment systems Home appliances
- Home security systems Portable devices
- Gaming consoles
- Mobile devices

#### Commercial Vehicle

- Aviation
- Drones
- Commercial aircraft cabins

#### Industrial Automation

- Process controls
- Industrial motors

#### MedTech

- Patient monitors
- Diagnostic equipment

## PREMO-FLEX SUPERIOR RETENTION FLAT FLEXIBLE CABLE (FFC) JUMPERS - ADDING 0.40MM PITCH

#### **Series 15025**

Premo-Flex Superior Retention Flat Flexible Cable (FFC) Jumpers enable flexible, high-circuit count connectivity in space-constrained applications subject to shock and vibration.

ADDING: Premo-Flex Superior Retention Flat Flexible Cable (FFC) Jumpers with 0.40mm pitch, 80 or 120 circuits and latching ears that provide secure connectivity in applications subject to high shock or vibration.



#### Features and Advantages

#### Enables reliable connections in high-vibration and highshock environments

Cables are available with latching ears that latch robustly to the connector to prevent accidental disconnection

#### Offers design flexibility with a wide range of Molex Easy-On connectors

Zero-insertion force (ZIF), non-ZIF and low-insertion force (LIF) FFC connectors are available

#### Permits use in a variety of applications

Due to an IP67-rated seal

Product offerings include Gold- or Tinplated contacts and a wide range of cable length, current capacity and flex life cycle options for design flexibility

### Speeds time to market with numerous off-the-shelf options

Custom and off-the-shelf solutions are available to match customers' performance and scheduling needs

#### Applications by Industry

#### Automotive

- Vehicle infotainment systems LCD displays
- GPS devices
- Virtual cockpits

#### Medical

- Handheld ultrasound devices Insulin pumps
- Medical monitoring devices

#### Consumer

- Handheld gaming devices

### OFF-THE-SHELF (OTS) MINI-FIT VERSA COLOR PRE-CRIMPED LEADS

#### **Series 226197**

Molex's range of pre-crimped leads offers a simple, cost-effective solution for prototyping, pre-production and mass production requirements.

Mini-Fit Versa Color Pre-Crimped Leads are offered in female-to-female, female-to-pigtail, male-to-male and male-to-pigtail configurations in lengths of 150, 300 and 450mm.



#### Features and Advantages

#### Speed

Pre-crimped and full test cable decreases time to market

#### Variety

Pre-crimped leads are available in multiple lengths, making them ideal for all prototype and pre-production requirements

#### Versatility

Leads crimped on both ends for use with wire-to-wire and wire to-board applications

#### Quality

UL-listed cable assures high-quality approved materials

#### Choice

Pre-crimped leads are available for most popular Molex product families, helping customers choose the right connector before investing in tooling

#### Applications by Industry

#### Consumer

- Home entertainment systems
- Home appliances
- Home security systems
- Portable devices
- Gaming consoles
- Mobile devices

#### Commercial Vehicle

- Aviation
- Drones
- Commercial aircraft cabins

#### Industrial Automation

- Process controls
- Industrial motors

#### MedTech

- Patient monitors
- Diagnostic equipment

### OFF-THE-SHELF (OTS) ONEBLADE PRE-CRIMPED LEADS

Series 219674, 219675

Molex's range of pre-crimped leads offers a simple and cost-effective solution for pre-production, prototyping and mass production requirements; these leads are available for the most popular Molex connector families.

The modular OneBlade 1.00mm-Pitch Wire-to-Board Connector System with friction lock and spacious pick-and-place area combines design simplicity with speed and ease of assembly.



#### Features and Advantages

#### Available options:

- 150, 300 and 450mm lengths
- Red/Black
- Female-to-Female and Female-to-Pigtail
- 28 and 30 AWG
- UL 10125

#### Applications by Industry

- Home entertainment systems
- Home appliances
- Home security systems
- Portable devices
- Gaming consoles
- Mobile devices

### OFF-THE-SHELF (OTS) ZERO-HACHI CABLE ASSEMBLIES

Series 226202, 226392

Designed with the largest wire gauge that connectors can accommodate to meet any prototype requirement on the market. Discrete Cables reduce engineering (mechanical and electrical) and purchasing time needed to qualify a cable. In addition, they are cri mped in an automated press eliminating the risk of poor crimping during prototyping. These cables are great for prototyping all the way into mass production.

New Zero-Hachi Cable Assemblies are specifically engineered to address the challenges of shrinking electronic device space availability across industries. The space-saving low profile height and extensive circuit size range combine with an innovative dualpoint contact feature to enhance design flexibility and boost reliability.



#### Features and Advantages

#### Available options:

- 0.8mm pitch
- 2,4,6,8 circuits
- 150,300 and 600mm lengths
- Female-to-Female and Female-to-Pigtail
- 28 AWG
- UL10064

#### Applications by Industry

- Home entertainment systems
- Home appliances
- Home security systems
- Portable devices
- Gaming consoles
- Mobile devices

### OFF-THE-SHELF (OTS) MICRO-FIT+ VERSA COLOR CABLE ASSEMBLIES

Series 226199, 226263

OTS Discrete Wire Cable Assemblies were designed with the largest wire gauge that connectors can accommodate to meet any prototype requirement on the market. Discrete Cables reduce engineering (mechanical and electrical) and purchasing time needed to qualify a cable. In addition, they are crimped in an automated press eliminating the risk of poor crimping during prototyping. These cables are great for prototyping all the way into mass production.

Introducing Micro-Fit+ Versa Color Cable Assemblies available in black and natural, 150, 300 & 600mm lengths and female-female or female-pigtail options.



#### Features and Advantages

#### Available options:

- 150, 300 and 450mm lengths
- Natural/Black
- Female-to-Female and Female-to-Pigtail
- 28 and 30 AWG
- UL1061

#### Applications by Industry

- Home entertainment systems
- Home appliances
- Home security systems
- Portable devices
- Gaming consoles
- Mobile devices

### PREMO-FLEX FFC INTERMATEABLE WITH HIROSE FH28, FH52 AND TF31

Series 17328, 17352, 17331

Premo-Flex Intermateable Flat-Flexible Cable (FFC) Jumpers provide customers using Hirose connectors with a robust, high-retention cable solution. Off-the-shelf FFC jumpers offer fast time to market and simplified design work, while an extensive range of custom options enables designers to meet application-specific requirements.

Premo-Flex FFC Jumpers compatible with Hirose FH28, FH52 and TF31 connectors are now available, including off-the-shelf jumpers and custom options including folding, EMI shielding and various jumper lengths.



#### Features and Advantages

### Enable secure connectivity in high-vibration and high-shock environments

Cables are available with notches or ears for robust latching to help prevent accidental disconnection.

### Delivers design flexibility with intermateable connector options

Premo-Flex FFC Jumpers intermateable with Hirose FH28, TF31, or FH52 zero-insertion force (ZIF) connectors are available.

#### Supports use in a variety of applications

Product offerings include Gold-plated contacts and a wide range of cable lengths, current capacity and flex life cycle options for design flexibility.

Includes off-the-shelf options for faster time to market Off-the-shelf solutions are available to match customer performance and scheduling requirements

#### Applications by Industry

#### Automotive

- Vehicle infotainment systems
- Automotive LCD displays
- Virtual cockpits

- GPS devices
- Handheld gamin devices
- Medical
- Insulin pumps
- Medical monitoring devices
- Handheld ultrasound devices

### / MEGA-FIT TEST PLUGS

Series 224744, 224862

Compact Mega-Fit Connectors overcome design engineers' challenges by offering solution-focused features. Enhanced with test plugs, these connectors are protected from damage during testing, allowing for time and cost efficiencies. Mega-Fit Power Connectors also meet the demand for greater power in a small package for excellent reliability and space savings.

Adding a new test plug header option to Mega-Fit connectors with built-in pogo pin technology to help prevent connector damage during testing. This feature allows customers to conduct more time-efficient testing of electrical connections to determine precise measurements, verify functionality and ensure performance integrity. Mega-Fit connectors with test plugs provide easy access points that help engineers safely gauge parameters such as voltage, current, resistance and continuity with less risk of short circuits and terminal impairment. As a result, engineers and technicians can accurately and effectively verify that electrical components are working properly before full-scale production.



#### Features and Advantages

#### Prevents damage to standard connectors

The built-in pogo pin technology with a spring-loaded mechanism, absorbs shock and vibration to help reduce connector wear and tear.

Provides a safer alternative for customer testing The test plugs are specifically designed for testing purposes to help reduce the risk of short circuits.

### Facilitates faster and more efficient testing of electrical connections

The test plug header option with built-in pogo pin technology helps save time while improving signal integrity during testing.

#### Supports cost-effective inventory control

Instead of purchasing high connector sample volumes for testing, customers can instead buy a single test plug with retractable pogo.

#### Provides superior retention

New latch has grip steps to ensure secure mating.

#### Applications by Industry

#### **Appliances**

- Refrigerators
- Washers and dryers
- Heaters
- Heaters and air conditioners
- Lighting fixtures

#### Automotive

- Interior lighting
- Infotainment systems

#### Industrial Automation

- Food and beverage production
- Assembly line equipment
- Heavy equipment and machinery

#### Power for Data Center

- Hubs
- Servers
- Power supplies
- Power distribution systems

### /NANO-FIT TEST PLUGS

#### **Series 225148**

Nano-Fit Power Connectors deliver fully protected header terminals in a compact size, providing numerous design options that help ensure proper installation and excellent reliability, while delivering up to 69% printed circuit board (PCB) space savings for wire-toboard and wire-to-wire applications where space is at a premium.

Adding a new test plug header option with built-in pogo pin technology to help prevent connector damage during testing. This feature allows customers to conduct more time-efficient testing of electrical connections to determine precise measurements, verify functionality and ensure performance integrity. Test plugs provide easy access points that help engineers safely gauge parameters such as voltage, current, resistance and continuity with less risk of short circuits or terminal impairment. As a result, engineers and technicians can accurately and effectively verify that electrical components are working properly before full-scale production.



#### Features and Advantages

#### Prevents damage to standard connectors

Since the retractable pogo pins on Nano-Fit test plug headers are specifically designed for testing purposes, customers don't need to use regular connectors for testing and risk damaging them.

#### Provides a safer alternative for customer testing

Unlike makeshift testing mechanisms, this qualified Molex part is specifically designed for testing purposes to help reduce the risk of short circuits.

#### Supports cost-effective inventory control

Instead of purchasing high connector sample volumes for testing, customers can instead buy a single test plug with retractable pogo pins.

### Facilitates faster and more efficient testing of electrical connections

The test plug header option with built-in pogo pin technology helps save time while improving signal integrity during testing. Prevents connector and terminal damage by avoiding misalignment; decreases assembly time and mis-mating errors. The blind-mate interface (BMI) connector design supports accurate alignment in unseen and hard-to-reach areas.

#### Applications by Industry

Servers & Storage

- Hubs
- Servers
- Power supplies
- Power distribution systems

#### Telecommunications

- 5G networks
- Wireless routers
- Gateways
- Power supplies
- Remote radio

#### MedTech

- Patient care equipment
- Healthcare IT

### /ULTRA-FIT TEST PLUGS

#### **Series 224857**

With their unique keying design, Ultra-Fit Power Connectors offer up to 14.0A with a 3.50mm pitch, delivering high current cap acity for wire-to-board and wire-to-wire applications using the same amount of space as lower-current connectors, while reducing mating force by up to 40% for more efficient assembly.

Adding a new test plug header option with built-in pogo pin technology to help prevent connector damage during testing. This feature allows customers to conduct more time-efficient testing of electrical connections to determine precise measurements, verify functionality and ensure performance integrity.



#### Features and Advantages

#### Prevents damage to standard connectors

Since the retractable pogo pins on Ultra-Fit test plug headers are specifically designed for testing purposes, customers don't need to use regular connectors for testing and risk damaging them.

#### Provides a safer alternative for customer testing

Unlike makeshift testing mechanisms, this qualified Molex part is specifically designed for testing purposes to help reduce the risk of short circuits.

#### Supports cost-effective inventory control

Instead of purchasing high connector sample volumes for testing, customers can instead buy a single test plug with retractable pogo pins.

### Facilitates faster and more efficient testing of electrical connections

The test plug header option with built-in pogo pin technology helps save time while improving signal integrity during testing.

Speeds assembly and allows same-circuit, multiple connector use with virtually no chance of cross-mating Multiple mechanical keying and color-coded options help to visually ensure proper mating.

#### Applications by Industry

#### **Appliances**

- Copiers
- Small appliances
- 3D printers
- Home appliances and lighting fixtures
- Vacuum cleaners
- Heaters and air conditioners

#### Automotive

- Non-critical applications
- Telemetrics
- Infotainment systems
- Consoles
- Equipment for USCAR-2 rated designs

#### Industrial Automation

- Food and beverage production
- Assembly line equipment
- Heavy equipment and machinery
- Automation

molex



### / RELEASE RADAR

#### **MX-DaSH Connectors**

#### How does this solution create value for our customers?

With vehicle package space always at a premium, the MX-DaSH Connector System combines power, ground and high-speed data, all in one convenient connector. High-speed data connections are often made using a singular connector alongside traditional power and signal connections. This highspeed connection must be individually routed in the vehicle, driving up bill of material (BOM) costs and process costs for the manufacturer. By combining these two circuit types into one connector, the electrical designer has more flexibility to package the MX-DaSH connector while lowering overall wiring costs. With wire-to-board connectors designed for automated assembly operations, the MX-DaSH system also helps lower assembly costs.

#### What makes this product different from the competition?

In addition to combining traditional power and signal circuits with high-speed data, Molex's new MX-DaSH Connector System incorporates industry-leading features such as male blade stabilization to protect male blades

from damage during mating. There are also independent secondary lock features for improved terminal retention on both the male and female connector housings.

With vehicle package space always at a premium, the MX-DaSH Connector System combines power, ground and high-speed data, all in one convenient connector. High-speed data connections are often made using a singular connector alongside traditional power and signal connections. This high-speed connection must be individually routed in the vehicle, driving up bill of material (BOM) costs and process costs for the manufacturer. By combining these two circuit types into one connector, the electrical designer has more flexibility to package the MX-DaSH connector while lowering overall wiring costs. With wire-to-board connectors designed for automated assembly operations, the MX-DaSH system also helps lower assembly costs.

### / MX-DASH CONNECTORS

The MX-DaSH (Molex Data-Signal Hybrid) Connector System reduces weight, size and cost requirements; simplifies assembly operations; and supports zonal architecture by combining power circuits, ground circuits and high-speed data connections into one connector that can replace multiple traditional connectors in vehicle applications.





#### Features and Advantages

### Optimizes wiring harness by combining multiple connectors into one connector

The design incorporates power, signal and data connections using 0.50, 1.20, 1.50, 2.80 and 4.80mm terminals as well as High-SpeedFAKRA Mini (HFM) modules for high-speed data transmission.

Delivers reliable operation in harsh conditions through the available T2/V1/S3-rated sealing and the mat seal The mat seal eliminates the need for individual cable seals, providing reduced package size and reducing the cost of connectors subject to harsh conditions inside or outside the cabin.

Ensures secure mating and reliable connectivity
Features include an available independent secondary lock
(ISL),pin protection plate (PPP) and blade protection.

Eases implementation and incorporation into designs
Using complete assemblies for male and female housings
minimizes assembly operations.

Prevents mis-mating and minimizes assembly errors Six unique keyways are available to ensure proper orientation.

#### Applications by Industry

#### Automotive

- Autonomous driving modules
- Computing modules
- Camera systems
- Gateway/switch modules
- GPS devices
- High-resolution displays (4K displays)
- High-speed cable networking
- Sensor-device connectivity
- Surround-view cameras
- LiDAR devices

#### Commercial Vehicle

- GPS devices
- Infotainment devices





Product Category	Product Name	Product Highlights	Target Market
IHigh-Speed Internal IO	NearStack 100	Enabling speed upgrades in space-constrained telecommunications and data center applications tuned for 100-Ohm impedance, NearStack 100-Ohm Connectors and Cable Assemblies deliver a dense, low-profile, near-ASIC cabled solution for jumper-type and I/O BiPass connections up to 56 Gbps PAM-4.	Networking Server and Storage Telecommunications
Terminal Blocks and Barrier Strips	Lever Activated Terminal Blocks	Easy-to-use, robust, and reliable, Lever Activated Terminal Blocks simplify wire termination, shorten assembly time and help ensure secure power connections. They come in various sizes, configurations and mounting options for use in a wide range of wire-to-board power transmission applications carrying up to 72.0A of current.	Energy and Power Power for Data Center Industrial Automation
Automotive Connectivity	HSAutoLink II Connectors and Cables	Robust HSAutoLink II connectors and cable assemblies deliver data rates up to 13.5 Gbps, supporting high-speed media protocols and meeting bandwidth requirements for advanced in-vehicle infotainment, telematics and camera devices with a portfolio of standardized products and custom capabilities.	Automotive Commercial Vehicles
Wire-to-Board Connectors	Mini-Fit Sigma Low Mating Force	The Mini-Fit Connector Family delivers up to 13.0A, while blind-mating and terminal position assurance options provide a versatile connector system for a wide range of applications. Mini-Fit Sigma Low Mating Force (LMF) offers 36% less mating force vs. similar industry mid power connectors, helping to reduce workplace fatigue injuries.	Automotive Servers and Storage Appliances Industrial Automation Networking



Product Category	Product Name	Product Highlights	Target Market
Power and Signal Cable Assemblies	Micro-Fit 3.0 Offthe- Shelf Cable Assemblies	Micro-Fit 3.0 Cable Assembly delivers a current rating of 6.5 to 8.5A with a 3.00mm pitch in a range of circuits. Adding additional product series to expand design flexibility.	Appliances Automotive MedTech Telecommunications
Power and Signal Cable Assemblies	MX64 Sealed Offthe- Shelf Cable Assemblies	OTS Discrete Wire Cable Assemblies were designed with the largest wire gauge that connectors can accommodate to meet any prototype requirement on the market. Now available with MX64 2.54mm pitch connectors.	Automotive
High-Power Solutions	Sentrality 6.00mm and 8.00mm Right- Angle Pin and Sockets	Sentrality Pin and Socket Interconnects enable co-planar, offset-planar and reverse-planar mating configurations, while providing a +/- 1.00mm self-aligning feature on the socket assemblies to mitigate tolerance stack-up issues. Adding 6.00mm and 8.00mm Right-Angle for increased design flexibility to enable high electrical performance.	Telecommunications Networking Data Centers Industrial Automation
Grounding Straps	90 Degree Bend Grounding Jumper (Flexible Grounding Straps)	Molex Off-the-Shelf Grounding Jumper solutions enable safe management of high-power distribution. These grounding jumpers are available in a variety of configurations, including flat ended and with a 90° bend. The lengths and termination points are customizable to fit many customer applications.	Networking Industrial Automation Commercial Vehicles
Automotive Connectivity	DuraClik Connectors – 13 and 15 Circuits	DuraClik 2.00m-Pitch DMT Connectors provide superior electrical contact reliability, space savings and high PCB retention force capability. Expanding the range to offer greater design flexibility with header options now extending to 13 and 15 circuits.	Automotive EV Commercial Vehicles Consumer
FFC/FPC Connectors	Premo-Flex FFC 90-Ohm 15922 LVDS	Premo-Flex 90-Ohm Low-Voltage Differential Signal (LVDS) Flat-Flexible Cable (FFC) Jumpers support high-speed USB connections through their inclusion of differential pairs for improved signal integrity at speeds ranging from 2 to 10 Gbps.	Consumer Automotive Medical
Wire-to-Board Connectors	VersaBlade Hybrid Wire-to- Wire Connectors	VersaBlade wire-to-wire connectors deliver reliable signal and power transmission at 300V and 15.0A with superior mating reliability, polarization and easy harness assembly.	Appliances Home Energy Storage
Power and Signal Cable Assemblies	Mini-SPOX 2.5 Off-the-Shelf Cable Assemblies	OTS Discrete Wire Cable Assemblies were designed with the largest wire gauge that connectors can accommodate to meet any prototype requirement on the market. Available soon with Mini-SPOX 2.5 connectors.	Appliances Automotive Industrial Automation
Pre-Crimped Leads	MOX Off-the-Shelf Pre-Crimped Leads	Molex's range of pre-crimped leads offers a simple and costeffective solution for pre-production, prototyping and mass production requirements. These leads will soon be available for the MOX connector family.	Appliances Automotive Consumer Commercial Vehicles
High-Power Solutions	EXTreme LPH Low Profile Hybrid Connectors 2P	Designed with power blades parallel to the PC board, EXTreme Low Profile Hybrid (LPH) Connectors are a mixed, high-current power and signal connector system that picks up where traditional connectors leave off. The recent addition of the 2 power RA receptacles/plugs to the LPH family allows customers to explore further configurations in the LPH family.	Power for Data Center Industrial Automation Telecommunications

This is not a definitive list of applications for these products. It represents some of the more common uses.

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