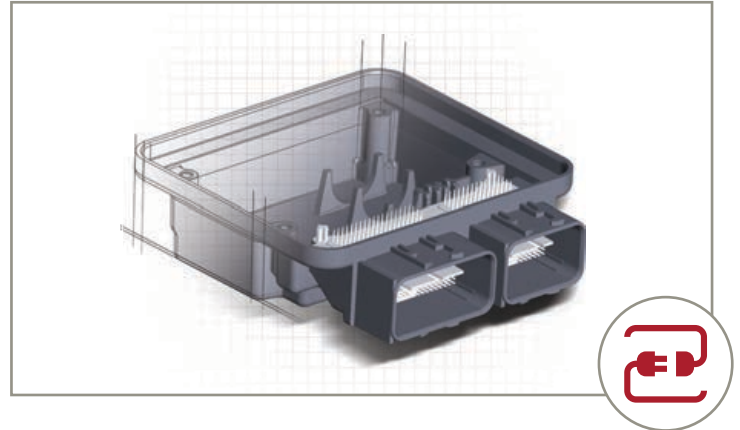


# Customized Connectors

## Design & Development of Interconnect Solutions



As a multi-technological customized applications specialist, Interplex has a wide and comprehensive range of customized connectors for various end applications. Our relentless focus on innovative technology is at the heart of our robust solutions that support growth in the automotive industry and autonomous driving.

Technology and innovation define us. Customization sets us apart.  
We'll deliver **Any solution, Anywhere™**.

Our global design team across the USA, Europe and Asia will work with you to transform your mission-critical solutions into a reality. Our production facilities across 13 countries enables us to deliver the highest quality solutions to you in the shortest turnover time, all while maintaining the cost-effectiveness that you need to succeed.

## Product Customized Solutions & Capabilities

### Automotive Powertrain

- Busbar connectivity
- Sensor connectors
- Engine ECU modules

### Automotive Electrification

- High-voltage molded lead frames
- Battery busbar interconnects
- Battery ECU modules

### Autonomous Driving

- Lidar/radar interconnects
- Camera module support
- Autonomous ECU modules
- High pin count interconnects

### Sensor Solutions

- Wide range of sensor applications
- Expertise in insert molding with interconnect solutions
- Embedded passive components in busbar interconnects

### Design Validation

- Dedicated global customer support across 3 time zones
- Design support and test labs in USA, Germany and China

### High Density and Expandable

- Expandable to high pin count
- Integrated hybrid connector pin fields
- Robust premold and overmold
- High precision interconnect design

### IndiCoat™ Plating Technology

- Whisker mitigation chemistry
- Various undercoat barrier layers and/or specific topcoats depending on end application

### BusMate™

- Power busbar connector system
- Excellent ampacity-size ratio
- Customizable and scalable

### Press-Fit Technology

- Pluggable, repeatable, reliable solderless interconnect
- Compliant high normal force technology; accommodates coefficient of thermal expansion mismatch

## CONNECTOR HEADERS



### Connector Headers

Interplex's connector headers provide good mating retention for reliable connections in a large variety of end applications and sub-systems.

We can support you every step of the way with numerous pin count and pitch options, current carrying capacities, pin orientations (vertical/right angles) and wire sizes.

### Applications

- Singular pin
- High pin count
- High density
- High precision
- Expandable connector

## SENSORS



### Sensor Connectors

Interplex's sensor connectors are designed and built to enable sensor solutions in various domains and end applications such as powertrain, safety and steering.

Interplex specializes in developing and producing sensor connectors that support the industry trend of increased sensor content in cars. Being vertically integrated, we are well equipped to turn your sensor connectors into a reality.

### Applications

- Acceleration
- Air/Fluid Flow
- Angle
- Battery
- Impact
- Position
- Pressure
- Temperature

## PCB INTERFACE



### Press-Fit Technology

Interplex's Press-Fit technology establishes solderless electro-mechanical connections with plated-through holes on printed circuit boards.

We offer a wide spectrum of options: Choose from different materials, plating options, and designs (hybrid MiniPLX™/eye-of-the-needle).

### Applications

- Direct insert terminals
- Customized connectors
- Custom molded modules
- Power lead frames

### BusMate™

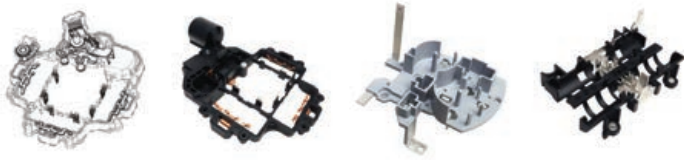
Interplex's BusMate™ power busbar connector minimizes PCB real estate usage with its compact footprint, while delivering excellent electrical interface characteristics.

This solderless and pluggable technology allows the connection of busbars to a variety of small PCBs, giving engineers a reliable and assembly-friendly solution for new power designs.

### Applications

- Hybrid vehicle power systems
- Electric power steering
- Busbar systems for motors and pumps
- Power mechatronics
- Charging systems

## POWER SOLUTIONS



### Power Lead Frames

Interplex's power lead frames are designed to specific customer and end application requirements, and can incorporate interconnect systems within a single lead frame assembly.

### Busbars

Busbars are the backbones for power applications across industries and a mainstay in electrical power distribution, conversion and management devices. They provide critical interfaces between power modules and the external systems these modules drive.

Interplex's busbars are excellent for power intensive applications and are customizable to suit your current transmission requirements and performance specifications.

### **Applications**

- Converters
- Inverters
- Electric Power Steering
- Fuse and Relay Boxes
- Engine ECU
- Power ECU

## AUTONOMOUS DRIVING



### Autonomous Driving Enablers

Autonomous vehicles evaluate and react to their environment by employing numerous sensor technologies such as cameras, lidar, radar and GPS sonar, odometry and inertial measurement units.

Interplex is skilled in developing and producing camera brackets, lidar and radar module enclosures with connector pins and PCB interconnect solutions that link to Autonomous Control Units. Our customized solutions pave the way to enhanced safety, efficiency, and comfort in level 5 autonomous driving.

### **Applications**

- Lidar
- Radar
- Camera

## MOTOR SOLUTIONS



### Motor Connectors

Interplex's full suite of capabilities enable us to customize a myriad of motor connectors across multiple automotive sub-systems for different end applications. From wire terminating solutions to enabling complex busbar connectivity, we've got you covered.

### **Applications**

- Voltage Regulator Brush
- Windshield Wiper Motor
- Power Window Brush

## ECU MODULES



### ECU Connectors

Electronic Control Unit (ECU) connectors are integral in controlling embedded automotive systems for a multitude of end applications.

Interplex's ECU connectors are designed to withstand harsh environments in numerous locations throughout the car such as fuel injection and engine systems, braking (ABS) and acceleration systems, power steering and towing modules.

### **Applications**

- Brake ECU
- Engine ECU
- Steering ECU
- Trailer Tow ECU

# PRODUCT CUSTOMIZED SOLUTIONS



	INTERPLEX TECHNOLOGY				INTERPLEX MANUFACTURING					VALUE-ADDED PROCESSES		
	Press-Fit	BusMate™ Interconnect	Biscuit Connector	IDC	Stamping	Insert Molding	Molded Lead Frame	Over-molding	Plating	Welding / Soldering	Assembly	Testing
<b>INFOTAINMENT</b>												
Entertainment Systems	■		■	■	■	■			■	■	■	■
<b>PASSENGER COMFORT &amp; ACCESS</b>												
Air-conditioning System	■				■	■			■			
Door Handle & Lock	■				■	■			■		■	
Light Control ECU	■				■	■			■			
Power Running Board	■		■		■	■			■			
Power Window	■		■		■	■		■	■		■	■
Windshield Wiper System	■			■	■	■		■	■	■	■	■
<b>POWERTRAIN</b>												
Battery	■	■			■	■	■	■	■	■	■	■
Engine Cam Drive Mechanism	■				■	■			■			
Engine Cooling System	■				■	■			■			
Engine Intake Manifold	■				■	■			■		■	
Exhaust System	■				■	■			■		■	
Fuel Injection System	■				■	■			■		■	
Fuse & Relay Box	■				■	■			■		■	
Motor	■			■	■	■		■	■	■	■	■
Powertrain Control Module	■	■		■	■	■			■		■	
Start Stop System	■				■	■			■			
Transmission	■			■	■	■			■			
<b>SAFETY</b>												
Airbag System	■				■	■			■		■	■
Brake Booster	■				■	■			■		■	■
Electronic Stability Program (ESP)	■		■	■	■	■		■	■	■	■	■
Headlight	■				■	■			■		■	
Light Control ECU	■		■		■	■			■		■	
On-board Diagnostics Hardware	■		■		■	■			■			
Powertrain Control Module	■		■		■	■			■			
Radar Systems	■				■	■			■			
Tire Pressure Monitoring System	■				■	■			■			
<b>STEERING</b>												
Electric Power Steering	■	■	■	■	■	■	■		■	■		

## CUSTOMIZED APPLICATIONS SOLUTIONS SPECIALIST

Interplex is trusted by industry leaders around the world for our top-notch customized application solutions. We work closely with our customers to understand their end applications in order to design, engineer and deliver these solutions to their exacting specifications.

## 60 YEARS OF INDUSTRY LEADERSHIP



### GROUP REVENUE

~US\$1 Billion



### STAFF STRENGTH

13,100



### FOOTPRINT

HQ in Singapore  
30+ manufacturing sites  
in 13 countries

### PRODUCT DEVELOPMENT

9 locations worldwide

### TECHNOLOGY INNOVATION CENTER

3 locations worldwide



QUALITY = CUSTOMER TRUST = BUSINESS

Numerous quality registrations