

Custom Connector Solutions for Industrial and Automotive Applications

Fully integrated manufacturing and engineering capabilities at Amphenol



R&D Engineering capability



Stamping and Plating capability



Molding and Assembly



Cable Assembly



Engineering



Plating



Stamping



Molding



Assembly

Amphenol can support your custom connector requirements with value added solutions to meet your needs with minimal turnaround time and competitive pricing.

From ECU connectors and sensor housings in automotive applications to circlip assemblies, board-to-board headers, interface modules and plug-in splitters in Industrial applications, our diverse range of standard products are complemented by an advanced engineering team ready to partner with you on your custom connector solutions.

Integrated engineering and manufacturing support – from R&D, stamping, plating, moulding and assembly all in one site, tailor make your connector solutions at ease with Amphenol.

Amphenol specializes in developing customized industrial and automotive connector solution tailor made to meet your needs



Mechanical Simulation

- Ansys release and Abaqus FEA
- Review of stress & strain distribution, normal force, mating & unmating force analysis
- Optimization of stress & strain distribution more evenly to prevent any permanent yield of material in product
- Achieve the force requirement



Signal Integrity Simulation

- Frequency domain (FD)
- Time domain (TD)
- Statistical domain
- To provide S-Parameter or SPICE/HSPICE model of connector for use in high-speed electric channel



Mold Flow Simulation

- Simulate how parts are filled early in the design process to reduce molding defects, retooling, and redesign.
- Simulate the warpage of the manufactured part to help ensure the end product's fit and function.
- Advanced cooling techniques and layouts, such as conformal cooling, as well as transient heat calculations.



Rapid Prototyping

- 3D printing station
- Dedicated mold base & tool frame
- Captive tool room for quick support on tooling
- Simulation capability with required contact pressure



Thermal Simulation

- Multi-physics for thermal dynamics simulation
- Review of thermal distribution in design
- Optimization of the design to reduce the high temperature location
- Create current rating curve in design stage



Manufacturing IATF 16949

- Put quality first by introducing IATF 16949 into your business. The international quality management standard for the automotive industry is recognized across the globe – design, manufacturing and servicing quality automotive products.



Document PPAP Level 3

Production part approval process (PPAP) is used in the automotive supply chain for establishing confidence in component suppliers and their production processes. Actual measurements of the parts produced are taken and are used to complete the various test sheets of PPAP.



Partner with Amphenol for your next generation customized design

Custom Connector (Plug-in Splitter) in Power Distribution Module



Board to Board Headers in Industrial Automation Controllers



Circlip Assembly in Servo Motors



Interface Module in Distributed Control Systems



Sensor Housing and ECU Connectors in Automotive Systems



Amphenol

COMMUNICATIONS SOLUTIONS

Over
2,000
Engineers

Globally to work with you on your design

