

Printed Circuit Solutions for Defense and Aerospace Applications >

More electronics are being designed into defense and aerospace capabilities. At the same time, it is crucial that the equipment used by our military personnel is lightweight, compact and easy to use. Equally important, equipment must be reliable, especially under harsh conditions. In other words, despite shrinking in size and growing in functionality, defense designers have to squeeze more functionality into devices without sacrificing ruggedness.



Molex is a global supplier with locations within the U.S, offering a broad range of engineering and manufacturing capabilities, which enables us to support the challenging technology needs of the defense and aerospace markets.

Molex offers manufacturing in the United States and ensures utmost security on any U.S. defense/aerospace product we design and manufacture. At Molex, we understand defense/aerospace standards and protocols, and we have the capabilities to meet the strict specifications required.

DESIGNS FOR THE UNIQUE NEEDS OF DEFENSE/AEROSPACE APPLICATIONS



- The user interface (UI) is a user's first interaction with any device. Molex engineers apply their experience with the industrial market to design interfaces that are intuitive to use and easily activated, even with thick gloves.



- Molex printed circuits can help make designs smaller and more lightweight. At the same time, they provide reliable connectivity that can withstand the rigors of in-field deployment.

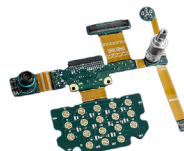


- Smaller and more powerful portable devices can challenge designs' continuous power-draw requirements and capacity envelopes. However, Molex engineers can design UIs that offer low power consumption compared to always-on displays, enabling valuable power resources to be dedicated to high performance and functionality.

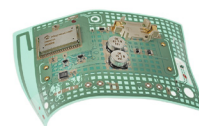
FLEXIBLE INNOVATIONS FOR CUTTING-EDGE SOLUTIONS



- Complex designs often require 3D solutions. Molex thin and flexible circuitry bends, curves and/or folds within small real estate, mitigating the challenges of compact and nonplanar enclosures for electronics and user interfaces.



- Molex flexible circuits can integrate electronics and connections, resulting in improved assembly and fewer components. This, in turn, can help lower overall costs, improve quality and reduce manufacturing time.



- Flexible circuitry can handle high data rates and communication protocols as well as power in compact designs while addressing cooling and airflow management.
- Collaborating with Molex design experts can ensure each part is designed correctly for the application and shorten design cycles.

Printed Circuit Solutions for Defense and Aerospace Applications >

Molex can deliver printed circuitry to meet a broad range of defense/aerospace design needs. From simple circuits to complicated integrated assemblies, we leverage our capabilities to produce the solutions that meet our defense customers' design needs:

DESIGN

Sensor Integration
Wireless Design
Disposable Sensing Solutions
Programming

DEVELOPMENT

Thin Film Sensor Development
Advanced Substrate Development
Advanced Ink Innovation Partnerships
University and Innovation Lab Partnerships

CIRCUIT SOLUTIONS

Conductive Circuits
Silver, Copper and Carbon Dielectrics
Plated Copper
Radio Translucent Inks
Radio Opaque Inks

FLEXIBLE SUBSTRATES

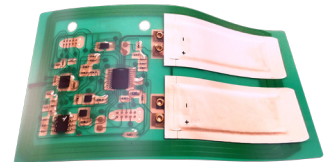
PET (Polyester)
Polyimide
Paper, Fabrics, Non-Woven Fabrics
Stretchable Substrates
Other Substrates
Various Thicknesses (from 2 mil and up)

INTEGRATION

Displays
uControllers
Power Wireless Connectivity
Sensors

MANUFACTURING

SMT Solder / Epoxy Attachment
Component Encapsulation
Adhesives



The Molex Advantage >

With more than 30 years of experience, Molex's UI products feature 100% customizable solutions, leveraging our entire electronics product portfolio and our engineering expertise to be a single-vendor multi-component solution. Additionally, our domestic and global capabilities, along with our local sales presence, offers a reliable supply chain.

Contact us to learn how Molex [User Interface Solutions](#) and [Printed Circuit Solutions](#) can help support your defense/aerospace designs.

molex