

PRINTED ELECTRONICS MANUFACTURING > FROM MOLEX

Printed Electronics (PE) deliver multiple advantages that can significantly improve product designs for a multitude of industries and applications, including medical, pharmaceutical, white goods, the Internet of Things (IoT), wearables, LED lighting and transportation.

INTRODUCTION

Many design engineers are well-acquainted with these challenges:

- Reducing weight
- Improving form factor design
- Reducing and integrating assemblies

Using detailed process-level systems, tools and capabilities that are second to none, Molex PE engineers apply their broad range of skills to advance customer programs from concept to commercialization, helping customers realize their design vision.

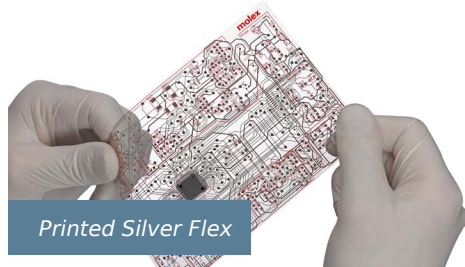
Printing

Molex - an industry leader in print manufacturing capabilities.

Molex can print a minimum trace width of 0.005" which reduces the circuit's overall footprint and minimizes the amount of ink used. This can result in significant cost savings.

For customers with large applications, Molex offers printed circuits up to 1.0m in length. Being able to supply a continuous, 1.0m circuit is a unique capability that removes the need to design in and source additional connectors.

Lastly, Molex can manufacture products in both roll-to-roll and sheet-based forms. For the customer, this means more options for higher volumes and lower costs.

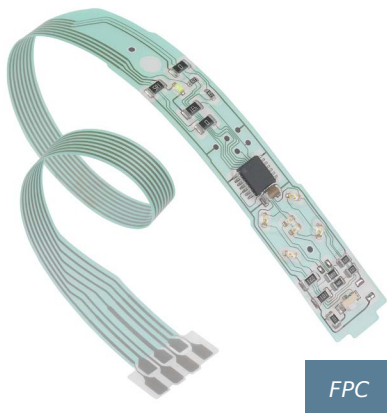


Component Integration

Molex engineers can integrate an array of components onto a PE substrate.

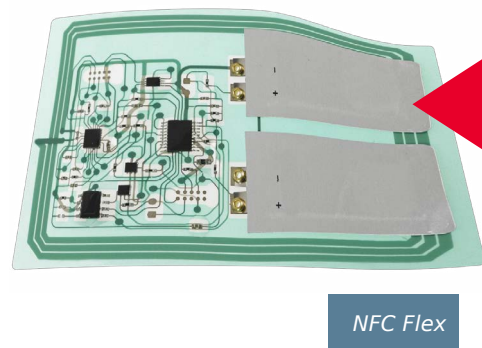
Wireless Connectivity and Displays

Wireless connectivity components such as RFID (active and passive), NFC and Bluetooth are also possible on PE, eliminating the need for PCB substrates. Likewise, when product designs include electronic displays, Molex can integrate OLED, electroluminescent and electrophoretic technologies within the PE circuit, reducing product footprint and the need for additional components.



Battery Power and More

In addition, customers can expand their products' application by using power sources Molex integrates into a circuit. These sources include a variety of batteries such as thin film, single use, coin cell and rechargables. Molex also uses energy harvesting devices as excellent power sources.



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Assembly

To ensure our customers high-quality, reliable products, Molex adheres to several well-known manufacturing and quality standards, such as ISO 9001 and ISO 13485. Our commitment to quality and reliability is evident throughout the various assembly capabilities Molex engineers use in manufacturing:

- Surface mount technology (SMT) lines
- Attachments via solder and epoxy
- Component encapsulation
- Conformal coat
- Overmolding
- Electromechanical integration
- Converting (e.g., applying graphics and adhesives, diecutting)
- Functional testing
- Product-specific packaging

APPLICATIONS

Automotive

Safety and Driver Assist
Body Electronics
Comfort and Infotainment
Connected Mobility

Consumer

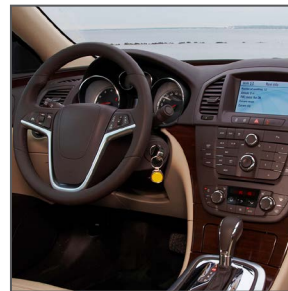
Wearables
Personal Care
Fitness

Home Appliance

Major Appliance

Medical

Medical Devices
Patient Monitoring
Diagnostic
Therapeutic



Automotive



Medical



Home Appliance

THE MOLEX ADVANTAGE >

At Molex, we are driven to help customers implement innovative PE designs that are transforming the way we live, work and play. We thrive on bringing those designs to life with our manufacturing capabilities, processes, tools and experienced personnel. Our engineers tout a combination of academic credentials, industry-specific training and experience in a multitude of applications. Molex engineers take on challenging new projects with customers that provide transformational opportunities for industry breakthroughs. Contact us today and let's make something great together.

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www.molex.com/capabilities/pem.html

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