



Our Innovation.Your Edge.

## P-SHIELD® Wireless Charging Devices

Although wireless charging seems like a new technological experience, there are hundreds of mobile devices that utilize wireless charging on the market today. Wireless charging technology uses an electromagnetic field and inductive coupling to send energy from one source to another.

### Applications

- Cellular Devices
- Hand-held Electronics Devices
- Consumer Electronics
- Computers
- Wearable Devices
- Electric Vehicles
- Furniture

### Polymer Science Advantages

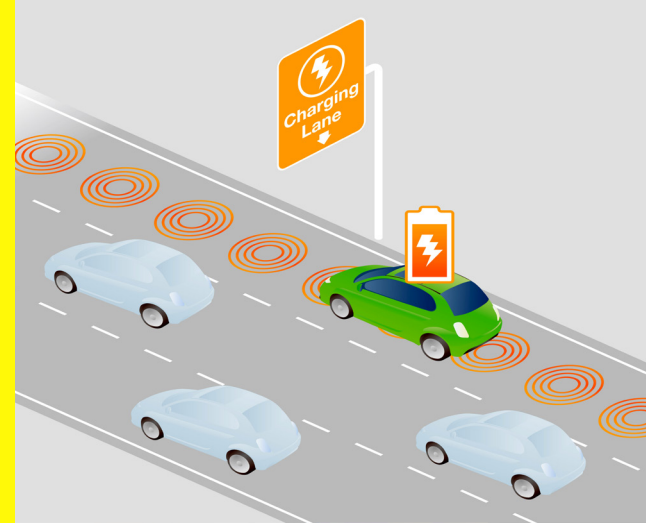
- Lower minimum order quantity
- Customization of width to minimize waste
- Standard and customized construction available
- Short lead times
- Excellent in-house and field technical support
- Eco-friendly facility

### Attributes

- Durability
- Increased Convenience
- Protected Connections
- Safer Than Traditional Charging Methods
- Ability to Charge Multiple Devices Simultaneously

## Custom Solutions...

Our design team works quickly to provide the solutions you need, allowing your project to expeditiously move from conception to production. Our diverse team of engineers and technical staff, along with our state-of-the-art equipment provide the capabilities to develop a quality product consistent with your application requirements.

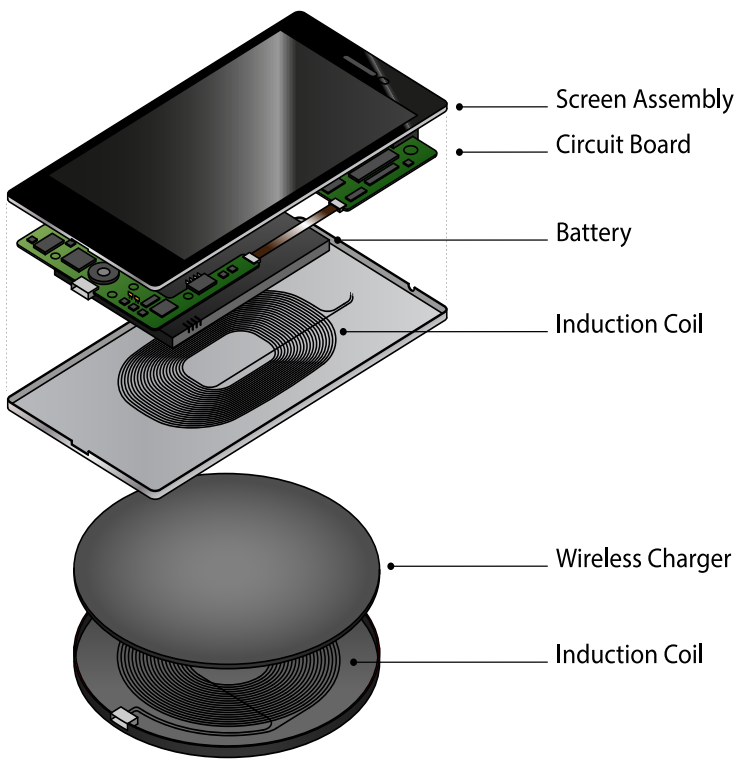


## How it Works

Wireless Charging uses an electromagnetic field to transfer energy between two objects through electromagnetic induction. This can be done with a wireless charger.

Energy is sent through an inductive coupling to an electrical device, which can then use that energy to charge batteries or run the device. Induction chargers use an induction coil to create an alternating electromagnetic field from within a charging base. There is a second induction coil in the device that takes power from the electromagnetic field and converts it back into an electric current to charge the battery. Once the two coils are close enough to one another they form an electrical transformer. The device and the charger can be placed at greater distances when the inductive charging system uses resonant inductive coupling.

Polymer Science, Inc. offers a wide variety of EMI Shielding and Grounding solutions ranging from sputtered films to fabric, foam and foil tapes. Polymer Science, Inc. materials come in a range of thicknesses to suit each individual application specification.



**Polymer Science, Inc.**  
Monticello, IN  
San Francisco, CA

**Suzhou Polymer Science Advanced Materials Co., Ltd.**  
Suzhou, China  
Gyeonggi-do, Korea

**Polymer Science Europe GmbH**  
Bremen, Germany