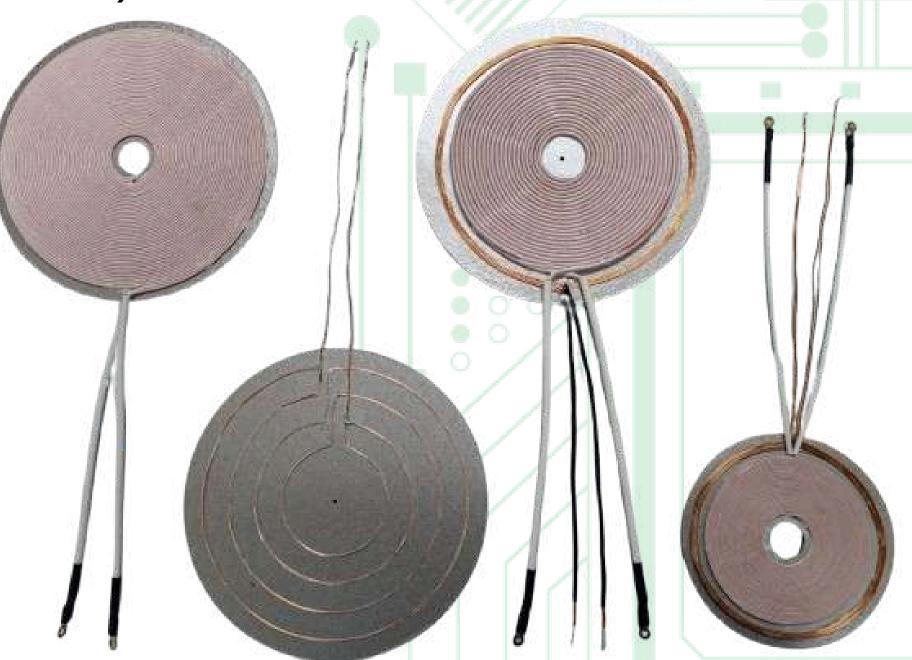


# PIONEERING THE KI CORDLESS KITCHEN STANDARD

Power Transmitter Coil (PTx) (Concealed)

Power Transmitter Coil (PRx)
OD: 180mm with NFC Antenna



Power Transmitter (PTx)
NFC Antenna

Power Transmitter Coil (PRx)
OD: 120mm with NFC Antenna

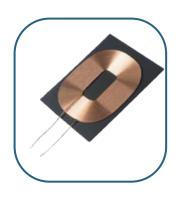
### Introduction

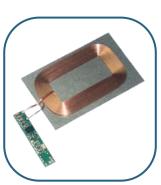
The Wireless Power Consortium (WPC) has unveiled the groundbreaking Ki Cordless Kitchen standard, revolutionizing how we power kitchen appliances.

As an active member of the WPC, Superworld Electronics is proud to be at the forefront of this innovation.

Join us at the Munich Trade Show as we showcase technology that transforms kitchens into safer, smarter, and more efficient spaces.



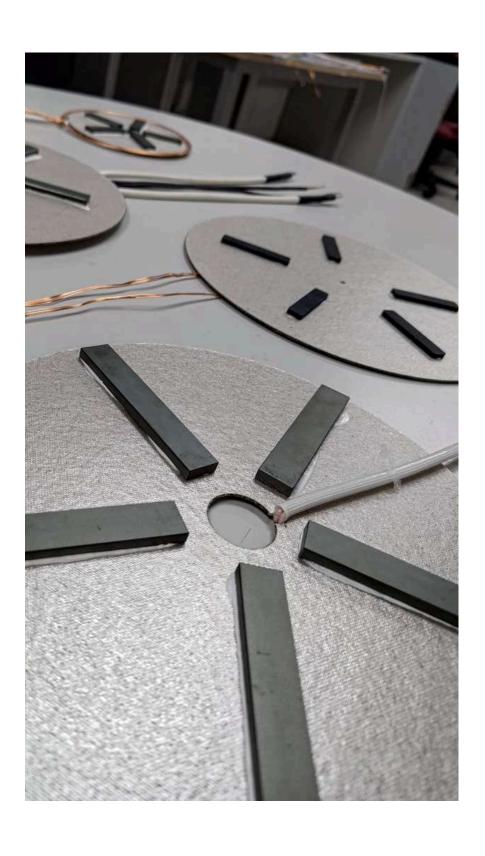






# The Ki Cordless Kitchen: A Leap Forward

Say goodbye to cluttered countertops and tangled cords.
The Ki Cordless Kitchen standard is transforming kitchens by:



# Wireless Power for Appliances

Power kettles, mixers, and blenders without cords.

#### Improved Visual Appeal

Create a cleaner, modern kitchen design.

#### **Improved Safety:**

Eliminate hazards associated with power cords.

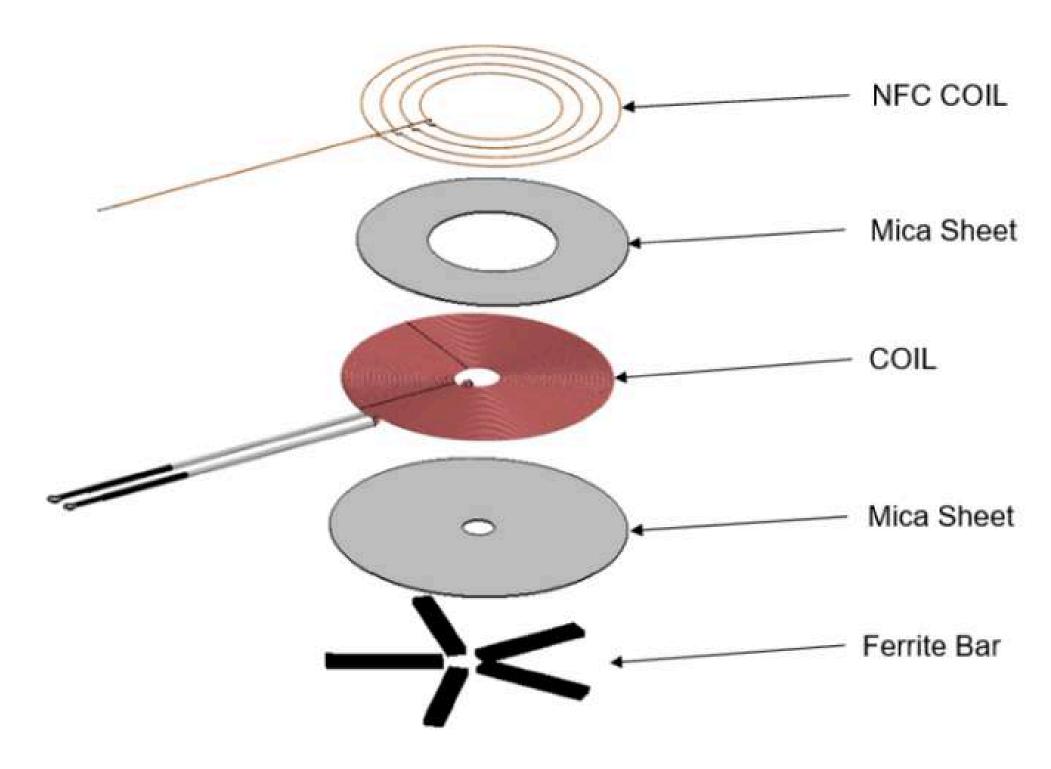
#### **Smart Home Alignment:**

Ideally suited for smart home design.



# Unveiling the Technology Behind Ki

The Ki Cordless Kitchen system integrates wireless power transmitters into kitchen surfaces, enabling seamless power transfer to appliances. Each component plays a crucial role in this innovative technology.





# Breaking Down the Layers

#### **NFC Coil**

- Enables smart communication between the power transmitter and the appliance.
- Ensures only compatible devices receive power.
- Allows future features like appliance recognition and real-time power optimization.

#### Mica Sheets

- Provide thermal and electrical insulation.
- Protect the system from heat and electrical interference.
- Ensure safe and reliable operation.

#### **Power Transfer Coil**

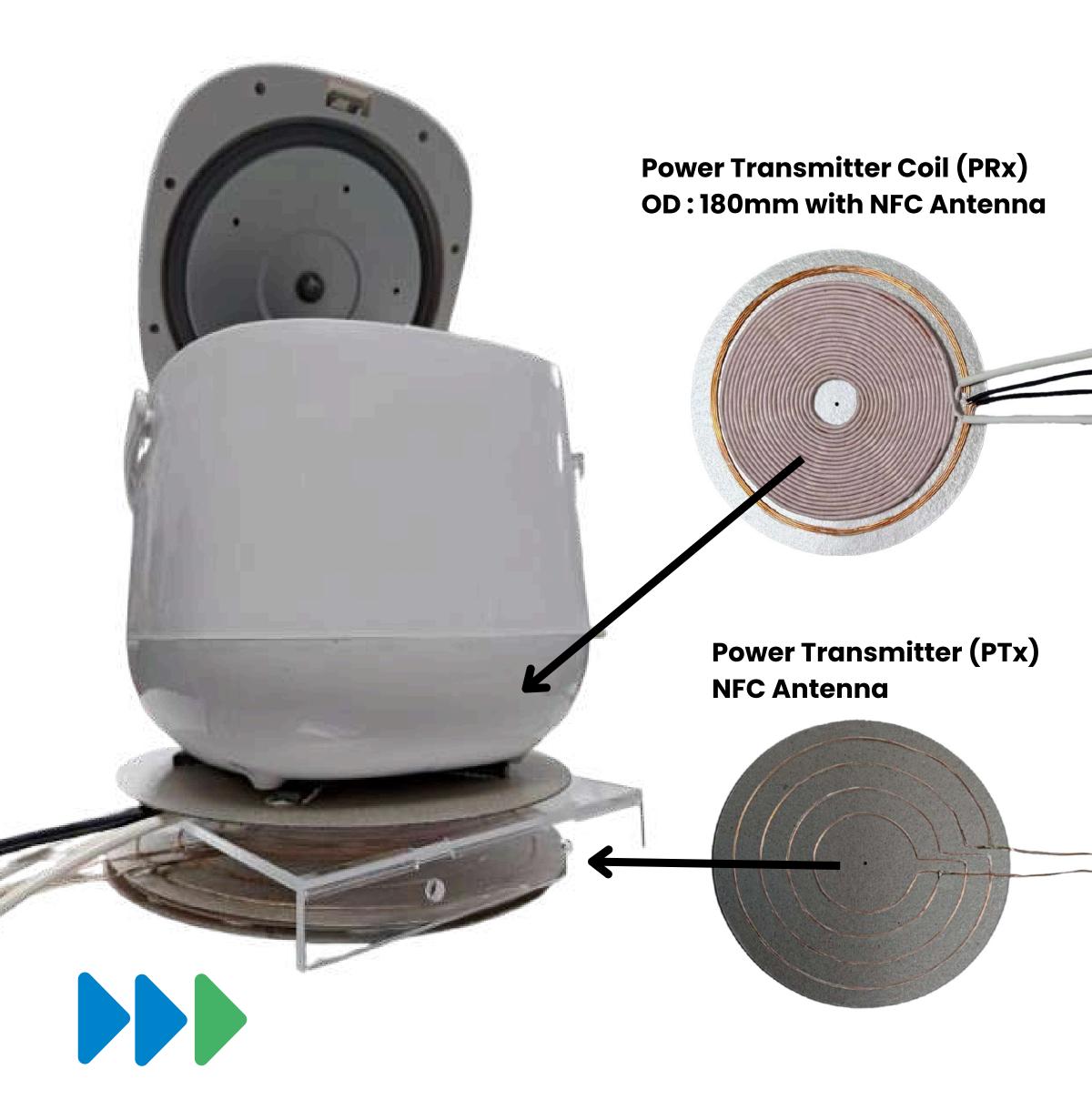
- Generates the magnetic field necessary for wireless power transfer.
- Crucial for system efficiency and reliability.

#### **Ferrite Bar**

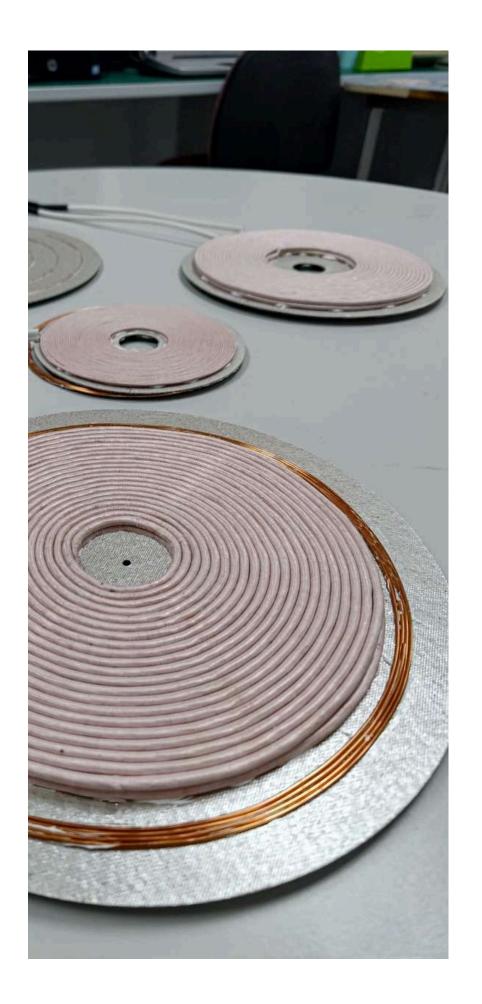
- Enhances magnetic induction efficiency.
- Guides magnetic flux between the transmitter and appliance.
- Reduces energy losses for optimal performance.



# Why Ki Wireless Coils Kitchen Stands Out



### Why Ki Wireless Kitchen Stands Out



#### Wireless Power Transfer

- Eliminates the need for power cords.
- Enhances kitchen design and functionality.

# NFC Smart Communication

- Enables two-way communication for optimized energy use.
- Facilitates future smart appliance features.

#### **High Power Capacity**

- Transfers up to 2.2 kW of power.
- Suitable for high-performance kitchen appliances.



# Superworld Electronics Contribution

At Superworld Electronics, we're more than suppliers — we're partners in innovation.

#### **Active WPC Membership**

- Contributing to the development and implementation of the Ki standard.
- Collaborating with industry leaders to shape the future of wireless power.

#### **Advanced Magnetic Components**

- Supplying NFC coils, power transfer coils, and ferrite cores.
- Ensuring high efficiency and reliability in every product.

#### Insulation and Safety

- Providing mica sheets for superior thermal and electrical insulation.
- Meeting and exceeding global safety standards.

#### Optimized Power Transfer Design

- Utilizing advanced design capabilities.
- Maximizing wireless charging power and efficiency.
- Designing systems to meet diverse power needs worldwide.
- Offering versatility for manufacturers and consumers.



# Superworld Electronics Advantages in Coil Development

#### Advanced Simulation with Ansys Software

- Rapid development of optimized coil designs.
- Reducing design time and costs.

#### State-of-the-Art Testing Equipment

- Ensuring products meet design requirements and industry specifications.
- Guaranteeing quality and performance.

#### **Engineering Support and Expertise**

- Offering comprehensive design and technical assistance.
- Partnering with clients to achieve innovative solutions.

#### Commitment to Continuous Improvement

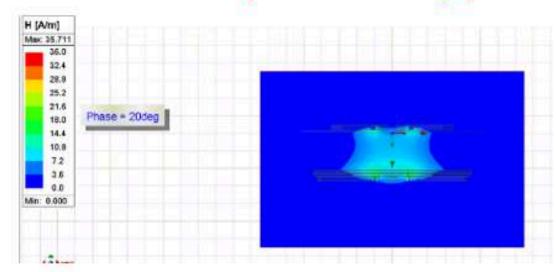
- Focused on R&D to refine designs.
- Staying updated with the latest technological advancements.



# Superworld Electronics key competencies in Coil Development

Ki Transmitter Coil (210mm OD Design) &

Ki Receiver Coil (120mm OD Design)



CplCoef(Winding1,Winding2) Setup1: LastAdaptive

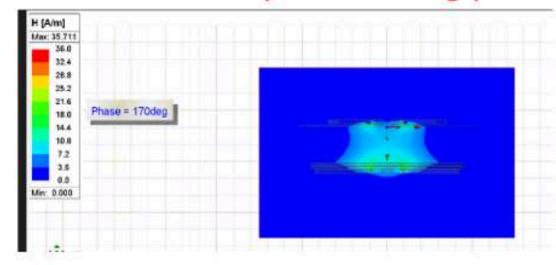
0.279147

Coupling Coefficient for the transmitter coil and receiver coil with 43mm distance range

Ki Transmitter Coil (210mm OD Design)

8

Ki Receiver Coil (180mm OD Design)





Matrix1.CplCoef(Winding2,Winding1) Setup1: LastAdaptive

0.379641

Coupling Coefficient for the transmitter coil and receiver coil with 43mm distance range



#### **ABOUT US**

#### **HEADQUARTERS**

• Singapore

#### SALES & ENGINEERING SUPPORT

- Asia
- Europe
- North America

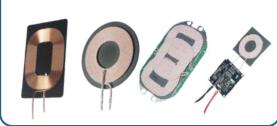
#### DESIGN & MANUFACTURING

- Singapore
- Malaysia
- China
- Taiwan
- Thailand

### PRODUCT



#### WIRELESS POWER TRANSFER





#### **TRANSFORMERS**







https://www.superworld.com.sg/

