

# Anti-Metal Backing Flexible Magnetic Sheets for Near Field Communication (NFC) & Wireless Charging (SL-NFC-40)

## FEATURES:

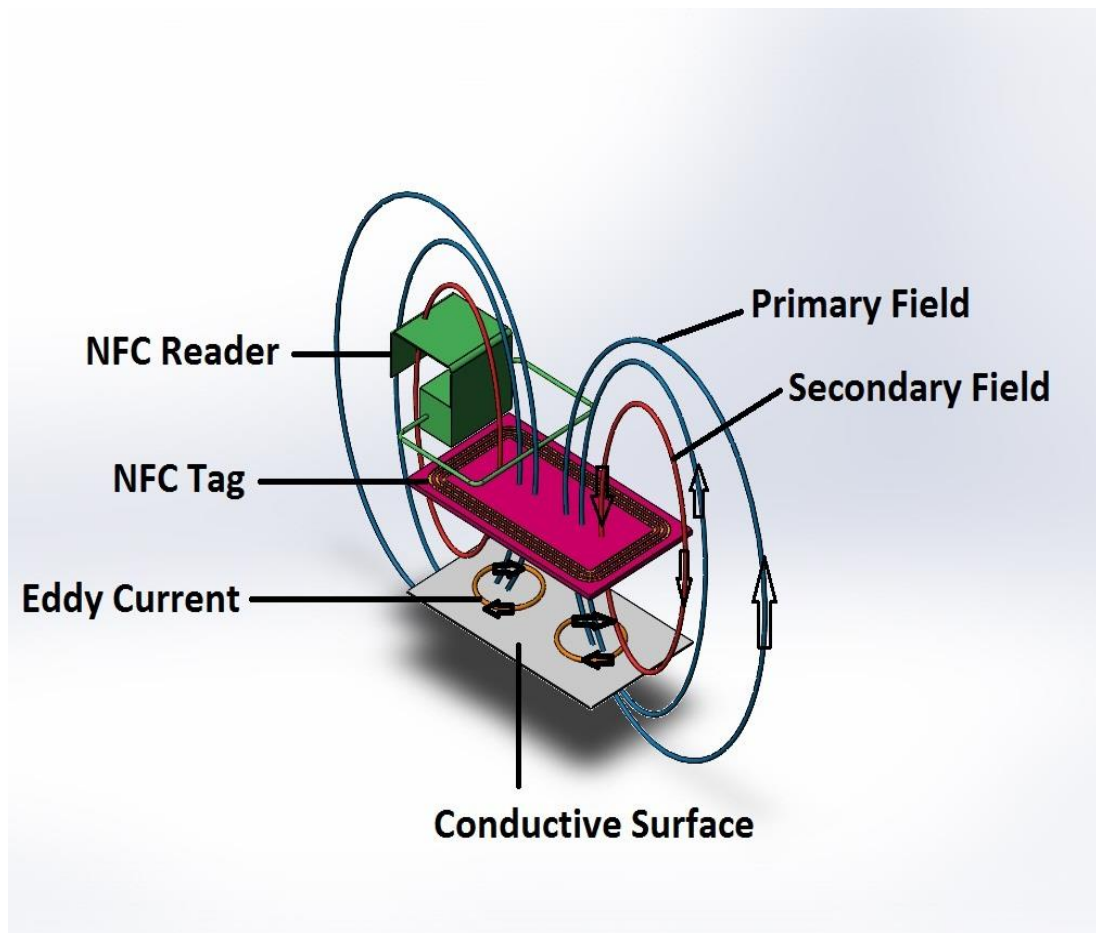
- ❖ Flexible magnetic sheets operating at frequency  $\leq 13.56$  MHz also at 400 KHz NFC, RFID application & wireless charging application
- ❖ Made by thin, high permeability magnetic materials with PET film and adhesive tape
- ❖ Standard magnetic layer thickness 0.3mm
- ❖ Custom size or thickness available upon request

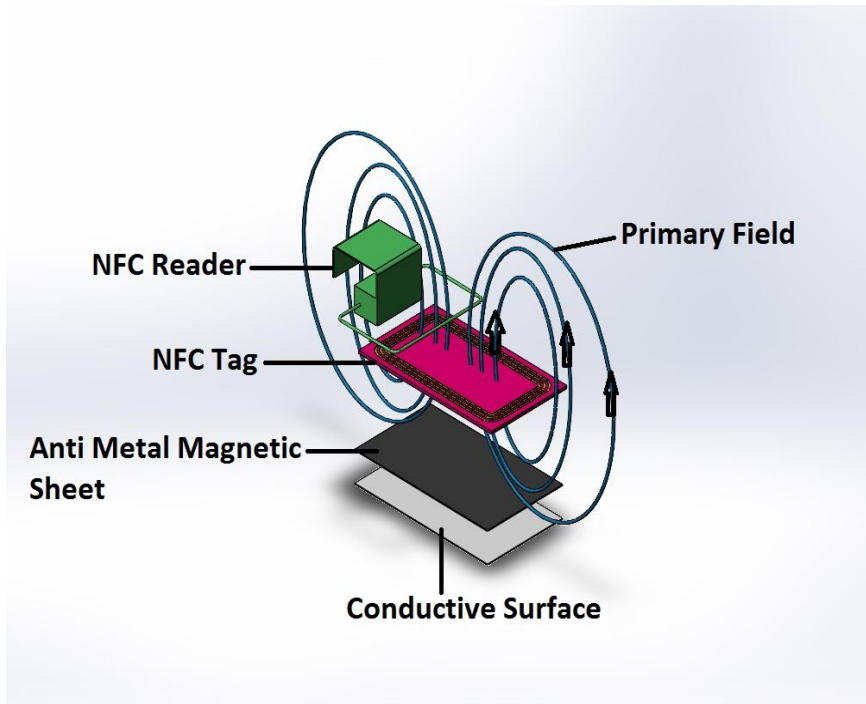
## MATERIAL SPECIFICATIONS:

Property	
Real Permeability, $\mu'$ @13.56MHz, or at lower frequencies	Typically 40
Imaginary Permeability, $\mu''$ @13.56MHz, or at lower frequencies	Typically $< 2$
Operating Temperature, °C	-40 °C ~ +85 °C

## THE PROBLEM:

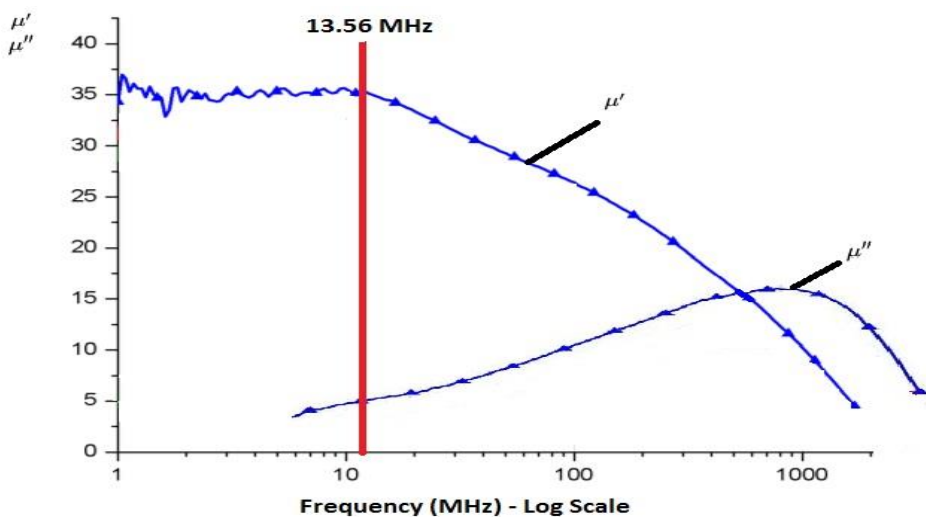
- ❖ Conventional NFC Tags don't work when applied to metal surfaces, by placing a NFC tag on a metal surface, the efficiency of data transmission is greatly suppressed due to the generation of eddy currents within the metal surface.
- ❖ The reason NFC Tags don't work on metal is that the metal surface behind the tag acts as a ground plane and reduces the performance of the tag's antenna, effectively stopping it creating the current needed to power the chip.
- ❖ To increase the efficiency and range while minimizing the losses due to eddy currents, a soft magnetic sheet can be inserted between the metal case and the antenna. On-metal (or Anti-metal) NFC Tags are specially manufactured with a layer made of Highly Permeable magnetic sheet, so that they can work also if stucked directly to a metal surface.



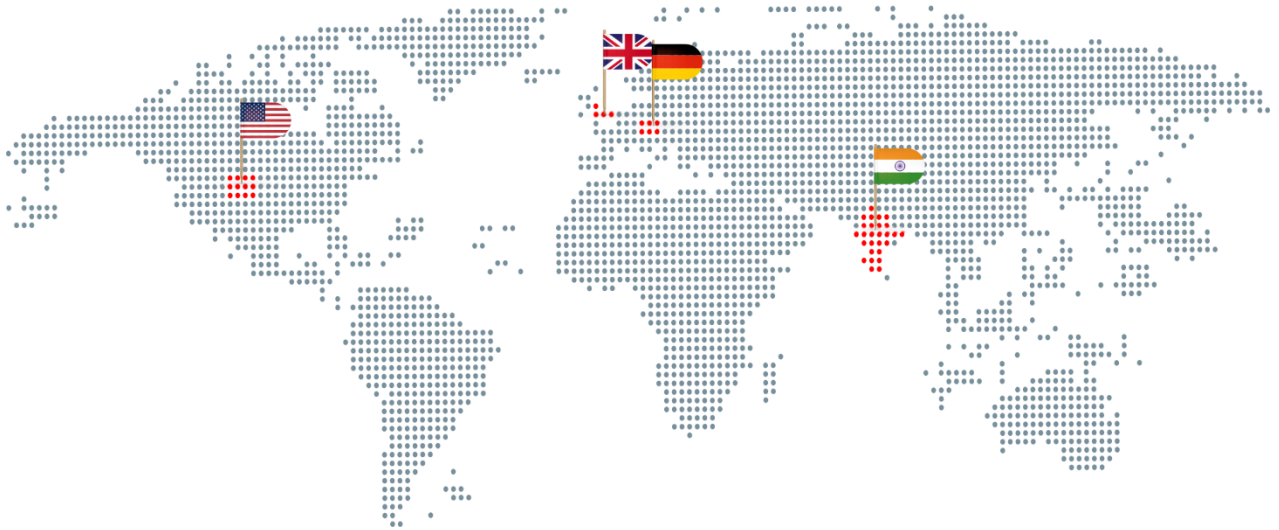


## AREAS OF APPLICATION:

- ❖ NFC antenna for mobile phones
- ❖ NFC antenna for automobile
- ❖ NFC or RFID antenna for security & access control system
- ❖ Wireless charging for mobile phones and battery powered handheld electronic devices
- ❖ NFC or RFID read/write devices, improved read distance
- ❖ EMI suppression for IC or IC circuitry



# GLOBAL PRESENCE



**LASER CUTTING** RF & Microwave  
**MARKING** Medical Devices  
**WELDING** Hi-Tech Software  
 Diamond Processing  
 Renewable Energy  
 Cleaning  
 Scribing / Dicing  
 Automations

**DEFENCE & AEROSPACE**  
**MICRO MACHINING**

## SLTL'S STRENGTH

<p>Experience</p> <p><b>34+</b> Years</p>	<p>Mfg. Plants</p> <p><b>6</b> Laying Over</p> <p><b>54000</b> Sq. mtr.</p>	<p><b>10%</b></p> <p>Yearly R&amp;D</p>	<p>Exports</p> <p><b>40+</b></p> <p>Countries</p>
<p><b>15000+</b></p> <p>Systems</p>	<p><b>ISO</b></p> <p>9001-2015</p>	<p><b>26+</b></p> <p>Patents</p>	<p><b>29+</b></p> <p>Awards</p>



**CE** An ISO 9001:2015 Certified Company

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