

PRODUCT DATASHEET

HF NFC Wet Inlay – $\Phi 25$ mm

ISO/IEC 14443 Type A | NFC Forum Type 2

Brand / OEM:

Soochak Bharat Technologies Private Limited

1. Product Overview

Soochak Bharat HF NFC Wet Inlay ($\Phi 25$ mm) is a high-performance passive NFC inlay designed for secure identification, authentication, and smart labeling applications. Operating at **13.56 MHz**, it is fully compliant with **ISO/IEC 14443 Type A** and **NFC Forum Type 2 Tag** standards, ensuring broad compatibility with smartphones, NFC readers, and access control systems.

2. Mechanical Specifications

Parameter	Specification
Label Diameter	$\Phi 25 \pm 0.5$ mm
Inlay Size	$\Phi 22 \pm 0.20$ mm
Antenna Size	$\Phi 22$ mm
Label Pitch	28.787 ± 0.5 mm

SOOCHAK BHARAT TECHNOLOGIES PRIVATE LIMITED

Plot No 156, Khasra No 306, Vandana Enclave, Khoda Colony, Ghaziabad, Uttar Pradesh, 201309

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Label Gap	3.787 ± 0.5 mm
Liner Width	35 ± 1.0 mm
Core ID	3 inch (76.2 ± 0.5 mm)
Roll Outer Diameter	≤ 189 mm

3. Electrical & IC Specifications

Item	Details
NFC IC	Feiju F8213
Operating Frequency	13.56 MHz
Protocol	ISO/IEC 14443 Type A
NFC Type	NFC Forum Type 2 Tag
Operating Mode	Passive (No Battery)
UID	7 Bytes (Read-Only)

Total Memory	180 Bytes
User Memory	144 Bytes (Read/Write)
Password Memory	4 Bytes (Write-Only)
Data Retention	10 Years
Endurance	100,000 Write Cycles
ESD Protection	Up to 2000 V (HBM)

4. Material & Construction

- **Base Material:** PET (38 μm)
- **Antenna:** Etched Aluminum (10 μm)
- **Structure:** PET + Etched Aluminum Layers
- **Adhesive:** Industrial-grade wet inlay adhesive

5. Environmental Conditions

Condition	Range
Label Application	10°C to 40°C, 20–80% RH

Operating Temperature -20°C to $+50^{\circ}\text{C}$

Storage Life 1 Year (sealed, vacuum packed)

Environmental performance may vary depending on the surface material and adhesive interaction .

6. Packaging Details

Item	Specification
Packaging Format	Roll
Quantity per Roll	5,000 \pm 2 pcs
Packing Method	Vacuum-sealed ESD bag
Carton Packing	12 Rolls per Carton
Core Size	3 inch

7. Typical Applications

- NFC Smart Labels
- Product Authentication & Anti-Counterfeiting
- Asset Tracking
- Access Control & Identification

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- Smart Packaging
 - Inventory & Supply Chain Management
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8. Handling & Safety Instructions

- Do **not bend or fold** the inlay
 - Keep away from water and mechanical impact
 - Store in sealed packaging away from direct sunlight
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9. Compliance & Standards

- ISO/IEC 14443 Type A
 - NFC Forum Type 2
 - RoHS Compliant (on request)
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Manufacturer / OEM

Soochak Bharat Technologies Private Limited
Smart Identification & RFID Solutions