

# PRODUCT DATASHEET

## HF NFC ON-METAL TAGS

ISO/IEC 14443 | 13.56 MHz

**Brand / OEM:**

Soochak Bharat Technologies Private Limited

### 1. Product Overview

Soochak Bharat **NFC On-Metal Tags** are specially engineered contactless tags designed to operate reliably when mounted directly on **metallic surfaces**.

Using an integrated **anti-metal (ferrite) layer**, these tags eliminate detuning effects caused by metal, ensuring stable read performance for **asset tracking, industrial identification, maintenance logs, and smart labeling** applications.

### 2. Key Features

- Optimized for direct mounting on metal surfaces
- Stable performance on steel, aluminum, and machinery
- Durable industrial-grade housing
- Waterproof and chemical resistant options
- Compatible with NFC-enabled smartphones and readers

### 3. Electrical & IC Specifications

Item	Specification
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NFC IC	NTAG213 / NTAG215 / NTAG216 / Feiju F8213 (Optional)
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#### SOOCHAK BHARAT TECHNOLOGIES PRIVATE LIMITED

Frequency	<b>13.56 MHz</b>
Protocol	ISO/IEC 14443 Type A
NFC Type	NFC Forum Type 2
Operating Mode	Passive (Battery-free)
UID	7 Bytes (Read-Only)
User Memory	144 / 504 / 888 Bytes (Chip dependent)
Data Retention	10 Years
Write Endurance	≥100,000 Cycles
Read Range	Up to 1–4 cm on metal (Reader dependent)

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## 4. Mechanical & Material Specifications

Parameter	Specification
Tag Type	On-Metal NFC Tag

Housing Material ABS / PPS / Epoxy

Anti-Metal Layer Ferrite Sheet

Mounting Options Adhesive / Screw / Rivet

Color Black / White (Custom available)

Shape Round / Square / Rectangular

Thickness 1.5 – 5 mm (Model dependent)

Protection Rating IP65 / IP67 / IP68 (Model dependent)

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## 5. Environmental Specifications

Condition	Range
Operating Temperature	-25°C to +70°C
Storage Temperature	-30°C to +80°C
Humidity	20% to 95% RH

Chemical Resistance      Oil, grease, mild solvents

Shock & Vibration      Industrial grade

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## 6. Adhesive & Mounting

- High-bond industrial adhesive (3M™ or equivalent)
  - Optional screw / rivet mounting for heavy machinery
  - Works on steel, aluminum, iron, and painted metal surfaces
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## 7. Personalization & Customization

- Laser engraving (Logo, Serial No.)
  - Printed text & graphics
  - UID / Data pre-encoding
  - QR Code / Barcode (Optional)
  - Custom size & form factor
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## 8. Applications

- Industrial Asset Tracking
  - Machine & Tool Identification
  - Maintenance & Inspection Logs
  - IT Asset Management
  - Equipment Calibration Tracking
  - Smart Manufacturing (Industry 4.0)
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## 9. Compliance & Standards

- ISO/IEC 14443 Type A

- NFC Forum Compliant
  - RoHS & REACH Compliant
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## 10. Packaging Details

Item	Specification
Packing	Individual / Bulk Packing
Quantity	As per customer requirement
Shelf Life	2 Years

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## 11. Handling & Installation Guidelines

- Clean metal surface before mounting
  - Apply firm pressure for adhesive bonding
  - Avoid installation on curved surfaces beyond specification
  - Do not bend or crack the tag housing
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### Manufacturer / OEM

**Soochak Bharat Technologies Private Limited**  
*Industrial NFC • On-Metal RFID • Smart Identification Solutions*