

PRODUCT DATASHEET

HF NFC SMART CARD

ISO/IEC 14443 Type A | 13.56 MHz

Brand / OEM:

Soochak Bharat Technologies Private Limited

1. Product Overview

Soochak Bharat HF NFC Smart Cards are contactless cards operating at **13.56 MHz**, compliant with **ISO/IEC 14443 Type A** and **NFC Forum standards**. These cards are designed for secure identification, access control, attendance systems, cashless payments, and smart authentication applications. They offer excellent durability, fast read/write performance, and wide compatibility with NFC-enabled smartphones and readers.

2. Physical Specifications

Parameter	Specification
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Card Type	Contactless Smart Card
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Standard Size	CR80 (85.60 × 53.98 mm)
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Thickness	0.76 ± 0.08 mm
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Material	PVC / PET / ABS (Optional)
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Color White (Custom colors available)

Weight Approx. 6 g

Surface Finish Glossy / Matte (Optional)

3. Electrical & IC Specifications

Item	Details
NFC IC	Feiju F8213 / Equivalent
Frequency	13.56 MHz
Protocol	ISO/IEC 14443 Type A
NFC Type	NFC Forum Type 2
Operating Mode	Passive (Battery-free)
UID	7 Bytes (Read-Only)
Total Memory	180 Bytes

User Memory 144 Bytes (Read/Write)

Password Protection 4 Bytes (Write-Only)

Data Retention 10 Years

Write Endurance $\geq 100,000$ Cycles

Read Range Up to 5–10 cm (Reader dependent)

4. Card Construction

- **Antenna:** Embedded Copper / Aluminum Coil
- **Chip Mounting:** Ultrasonic / Flip-chip bonding
- **Lamination:** Multi-layer heat-laminated structure
- **Printing Compatibility:** Offset, Digital, Thermal, UV

5. Environmental Specifications

Condition	Range
Operating Temperature	-20°C to +50°C

Storage Temperature -25°C to +60°C

Humidity 20% to 80% RH

Durability Resistant to bending, wear & tear

6. Personalization & Customization (Optional)

- Logo & Graphic Printing
- UID / Data Encoding
- QR Code / Barcode Printing
- Serial Numbering
- Signature Panel
- Magnetic Stripe (Optional)
- Punch Hole / Slot (Optional)

7. Applications

- Access Control Systems
- Employee / Student ID Cards
- Attendance & Time Tracking
- Visitor Management
- Loyalty & Membership Cards
- Cashless Payments (Closed Loop)
- Public Transport & Ticketing

8. Compliance & Standards

- ISO/IEC 14443 Type A
- NFC Forum Compliant

- RoHS Compliant
- REACH Compliant

9. Packaging Details

Item	Specification
Packing	Shrink-wrapped / Box Packing
Quantity	100 / 200 / 500 pcs per box
Bulk Packing	As per customer requirement
Shelf Life	2 Years (Proper storage)

10. Handling Instructions

- Do not punch or drill card without antenna-safe layout
- Avoid exposure to strong magnetic fields
- Do not bend or heat above operating limits

Manufacturer / OEM

Soochak Bharat Technologies Private Limited
Smart Cards • NFC • RFID • Identification Solutions