

HF | NFC - RFID Label

CT - HF RFID Label

- 13.56 MHz – ISO/IEC 14443A and ISO/IEC 15693
- NTAG®, MIFARE®, ICODE® and ST25 chips
- Formats from 10 × 10 mm to ISO card size
- White PET, PVC and paper, blank or printed
- On-metal versions for metallic surfaces



HF | NFC - RFID Label

Every chip, every format, every surface

The CT - HF RFID Label is a family of self-adhesive 13.56 MHz transponder labels for identifying, tracking and connecting products, assets and documents. An antenna inlay on thin PET carries an NXP or ST chip; the label is supplied as dry inlay, wet inlay or converted label in round, square and rectangular formats from 10 × 10 mm up to ISO card size.

Depending on the chip, the labels follow ISO/IEC 14443A or ISO/IEC 15693. NTAG®, ICODE® and ST25 versions are NFC Forum Type 2, 4 or 5 tags readable by NFC smartphones; MIFARE® Classic and DESFire versions serve existing access control and ticketing systems. NTAG DNA chips add AES-128 authentication with dynamic SUN URLs, NTAG 213 TagTamper detects opened seals.

Face materials range from printable white PET and paper to waterproof PVC (IP67) and epoxy-domed versions; on-metal variants with an integrated shielding layer work on metallic surfaces. Every version can be supplied blank or printed, encoded and locked to your specification, and custom shapes, sizes and chips are available on project basis.

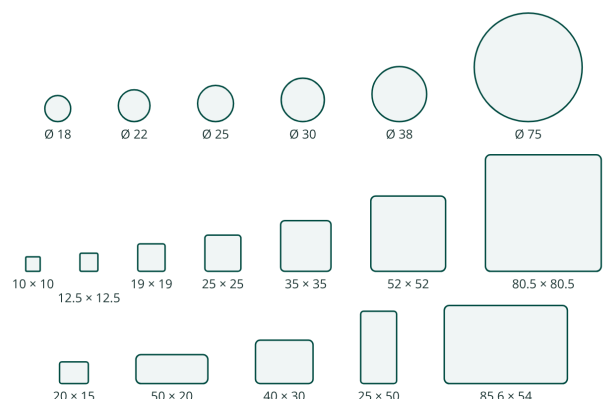
Common Applications

- Product Authentication
- Asset & IT Inventory
- Smart Packaging & Marketing
- Library & Document Management
- Access Control & Ticketing
- Healthcare & Sample Tracking

STANDARD LABEL FORMATS

Die-cut dimensions in mm, shown to a common scale

Further formats and custom shapes on request



TECHNICAL SPECIFICATIONS

Chip & Format Overview

Chip	Standard	NFC Forum	User Memory	Standard Label Sizes (die-cut)
NTAG213	ISO/IEC 14443A	Type 2	144 B	Ø 18 / 20 / 22 / 25 / 28 / 30 / 38 / 75 mm; 10 × 10, 18 × 18, 19 × 19, 20 × 15, 30 × 30, 35 × 35, 50 × 20, 52 × 52, 80.5 × 80.5, 85.6 × 54 mm
NTAG215	ISO/IEC 14443A	Type 2	504 B	Ø 22 / 30 mm
NTAG216	ISO/IEC 14443A	Type 2	888 B	Ø 22 / 30 mm; 20 × 15, 20 × 20, 25 × 25 mm
NTAG213 TagTamper	ISO/IEC 14443A	Type 2	144 B	25 × 50 mm (tamper loop)
NTAG 413 DNA	ISO/IEC 14443-4	Type 4	160 B	19 × 19 mm
NTAG 424 DNA	ISO/IEC 14443-4	Type 4	416 B	Ø 25 mm; 28 × 28 mm
MIFARE Ultralight EV1	ISO/IEC 14443A	Type 2	48 B	Ø 30 / 38 mm
MIFARE Ultralight AES	ISO/IEC 14443A	Type 2	144 B	Ø 25 mm
MIFARE Classic EV1 1K	ISO/IEC 14443A	–	752 B	35 × 35 mm; 40 × 30 mm (epoxy, on-metal)
MIFARE DESFire EV1 2K / 4K	ISO/IEC 14443-4	Type 4	2 / 4 kB	Ø 38 mm
ICODE SLIX / SLIX2	ISO/IEC 15693	Type 5	112 / 316 B	Ø 18 / 25 mm; 12.5 × 12.5, 50 × 50 mm
ICODE 3	ISO/IEC 15693	Type 5	304 B	15 × 15 mm
ST25TN01K	ISO/IEC 14443A	Type 2	156 B	Ø 25 mm; 21 × 11, 40 × 25 mm

RF Interface

Operating Frequency	13.56 MHz
Air Interface	ISO/IEC 14443A / 14443-4 / 15693
NFC Forum Tag Types	Type 2, Type 4, Type 5 (chip dependent)

Environmental

Operating Temperature	–20 °C to +50 °C, 20 – 80 % RH
Water Resistance	PVC and epoxy versions IP67
Data Retention	min. 10 years / 100,000 write cycles

Construction

Antenna Inlay	38 / 50 µm PET substrate
Face Material	White PET, PVC or paper; black PET
Adhesive	Permanent acrylic adhesive
On-Metal Variant	Integrated shielding layer

Delivery & Options

Delivery Formats	Dry inlay, wet inlay, converted label
Reel Core	76.2 mm (3")
Special Versions	Epoxy dome, foam backing, centre hole, tamper loop
Print & Encoding	Custom print, NDEF encoding, locking, numbering