

CHIP DATA SHEET · MADE BY NXP

Standard chip

The Standard chip is the NXP NTAG213. It authenticates the tag and is the right choice for most deployments: access, content and campaigns.

CHIP
NXP NTAG213

USER MEMORY
144 bytes

Specification

CHIP	NXP NTAG213
STANDARD	NFC Forum Type 2 Tag; ISO/IEC 14443 Type A
FREQUENCY	13.56 MHz
DATA RATE	106 kbit/s
MEMORY	180 bytes total; 144 bytes user memory
UNIQUE ID	7-byte UID, programmed by the chip maker
OPERATING DISTANCE	Up to 100 mm, depending on the antenna and the phone
DATA RETENTION	10 years
WRITE ENDURANCE	100,000 cycles
AMBIENT TEMPERATURE	-25 °C to 70 °C (chip)

Security features

- ECC-based originality signature: proves the chip is a genuine NXP part.
- 7-byte UID, unique to each chip, which carries the tag's UXID in the DEPARTMNT system.
- UID and tap counter can be mirrored into the link, so each tap can be checked.
- 32-bit password protection against unauthorised writes.
- Pages can be locked read-only, so the link cannot be overwritten.

In DEPARTMNT tags

- Every standard format takes the Standard chip.
- Pre-programmed: the tag carries its UXID and its link, never personal data.
- Read range depends on the format: from 21 to 25 mm on metal, up to 61 to 70 mm on a PVC card.
- A lost or damaged tag can be disabled remotely in Core.

Chip specifications summarised from the NXP NTAG213/215/216 product data sheet, Rev. 3.2, 2 June 2015. NXP and NTAG are trademarks of NXP B.V. Read ranges are for DEPARTMNT formats and vary with the phone.