

## Product Overview

### N24RF04: Dual Interface RFID 4 Kb EEPROM Tag ISO 15693 RF and I<sup>2</sup>C Bus Compliant

For complete documentation, see the data sheet.

The N24RF04 is a RFID/NFC tag with a 4 Kb EEPROM device, offering both contactless and contact interface. In addition to the ISO/IEC 15693 radio frequency identification (RFID) interface protocol, the device features an I2C interface to communicate with a microcontroller. The I2C contact interface requires an external power supply. The 4 Kb EEPROM array is internally organized as 128 x 32 bits in RF mode and as 512 x 8 bits when accessed from the I2C interface.

### Features

- Contactless Transmission of Data
  - ISO 15693 / ISO 18000-3 Mode1 Compliant
  - Vicinity Range Communication (up to 150 cm)
  - Air Interface Communication at 13.56 MHz (HF)
  - To tag: ASK Modulation with 1.65 Kbit/s or 26.48 Kbit/s Data Rate
  - From Tag: Load Modulation Using Manchester Coding with 423 kHz and 484 kHz Subcarriers in Low (6.6 Kbit/s) or high (26 Kbit/s) Data Rate Mode. Supports the 53 Kbit/s Data Rate with Fast Commands
  - Read & Write 32-bit Block Mode
  - Anti-collision Support
  - 64-bit Unique Identifier (UID)
  - Multiple 32-bit Passwords and Lock Feature for Each User Memory Sector
- For more features, see the data sheet

### Applications

- NFC Tag
- RF Tag
- EEPROM

### Part Electrical Specifications

| Product       | Compliance             | Status | Type   | Density | Organization | Data Transmission Standard | f <sub>cycle</sub> Max (kHz) | t <sub>ACC</sub> Max ns | V <sub>CC</sub> Min (V) | V <sub>CC</sub> Max (V) | I <sub>standby</sub> Max (μA) | I <sub>act</sub> Max (mA) | T Min (°C) | T Max (°C) | Package Type |
|---------------|------------------------|--------|--------|---------|--------------|----------------------------|------------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|---------------------------|------------|------------|--------------|
| N24RF04DTPT3G | Pb-free                | Active | Serial | 4 kb    | 512 x 8      | I2C                        | 1000                         | 400                     | 1.8                     | 5.5                     | 10                            | 0.4                       | -40        | 105        | TSSOP-8      |
|               | Halide free            |        |        |         |              |                            |                              |                         |                         |                         | 100                           |                           |            |            |              |
| N24RF04DWPT3G | Pb-free<br>Halide free | Active | Serial | 4 kb    | 512 x 8      | I2C                        | 1000                         | 400                     | 1.8                     | 5.5                     | 100<br>10                     | 0.4                       | -40        | 105        | SOIC-8       |

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