

## Product Overview

### N24RF16E: Dual Interface RFID 16 Kb EEPROM Tag ISO 15693 RF, I<sup>2</sup>C Bus, Energy Harvesting

For complete documentation, see the data sheet.

The N24RF16E is a RFID/NFC tag with a 16 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 16 Kb EEPROM array is internally organized as 512 x 32 bits in RF mode and as 2048 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	Pricing (\$/Unit)	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
N24RF16EDTPT3G	1.2	Pb-free Halide free	Active	Serial	16 kb	2048 x 8	I2C	1000	400	1.8	5.5	$\frac{10}{100}$	0.4	-40	105	TSSOP-8
N24RF16EDWPT3G	1.1333	Pb-free Halide free	Active	Serial	16 kb	2048 x 8	I2C	1000	400	1.8	5.5	$\frac{10}{100}$	0.4	-40	105	SOIC-8

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Created on: 7/10/2020