ST25DV-I2C SERIES

Dynamic NFC tags
NFC Forum Type 5 with optimized I2C

ST25

Cost-effective NFC Forum Type 5 dynamic tags with quick firmware upgrade and write times as good as conventional EEPROM

The ST25D family of dynamic NFC tags (ST25DV04KC, ST25DV16KC and ST25DV64KC) are ISO 15693 compliant NFC Forum Type 5 tags offering a wide range of features, including advanced I2C capabilities such as fast write.

The high-reliability EEPROM memory bank can be accessed either via low-power I2C interface or RF interface. An additional 256-Byte Fast Transfer Mode buffer enables rapid data transfer between the RF and I2C port. Other features include energy harvesting capability, RF status function, and 64-bit data password protection.

KEY FEATURES & BENEFITS

- ISO 15693 NFC Forum Type 5
- I2C: 1MHz from 1.8 to 5.5V
- 4-, 16- and 64-kbit user EEPROM
- 256-Byte Fast Transfer Mode buffer
- 16-Byte page size for I2C write
- 64-bit unique identifier
- 64-bit passwords protection
- Energy harvesting
- Configurable Output signal (GPO)
- RF Field detect
- Configurable I2C address
- Several RF & I2C interrupts
- Low-power mode
- Industrial temperature range up to 125°C
- EEPROM endurance 1 million write cycles
- EEPROM data retention of 40 years

KEY BENEFITS

- Quick firmware upgrade
- Enables battery-less designs
- Improved user experience
- High-reliability EEPROM
- Flexible password protection scheme
- Simple and cost-effective
- Easy device calibration and product activation

MAIN APPLICATIONS

- Lighting & Metering
- Industrial and Medical equipment
- Smart home
- Consumer electronics
- ESL (Electronic Shelf Label)
- Asset tracking and logistics

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Device summary

Part number	RF Interface	Serial Interface	Memory size	Clock Frequency (MHz)	Data protection	Supply (V)	Package	Energy Harvesting Output
ST25DV04KC	ISO 15693 NFC Forum Type 5	I2C	4-Kbit	1	64-bit passwords	1.8 to 5.5	SO8, TSSOP8, FPN8, FPN12, WLCSP	Yes
ST25DV16KC	ISO 15693 NFC Forum Type 5	I2C	16-Kbit	1	64-bit passwords	1.8 to 5.5	SO8, TSSOP8, FPN12	Yes
ST25DV64KC	ISO 15693 NFC Forum Type 5	I2C	64-Kbit	1	64-bit passwords	1.8 to 5.5	SO8, TSSOP8, FPN12	Yes

Evaluation kits

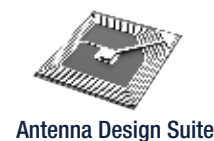ST25DV64KC-DISCO discovery kit

X-NUCLEO-NFC07A1 expansion board

ANT7-T-25DV64KC reference board

Eco-System

Support eco-system

 e2e community

 PC SW tools

 ST25 NFC Tap app

 Documentation

 Antenna Design Suite

life.augmented

Order code: FLST25DVI2CEVO0921

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