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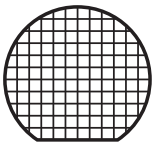
SRTAG2K-D

NFC Forum Type 4 Tag IC with 2-Kbit EEPROM and RF Session digital output

Data brief

UFDFPN8 (MC)



Wafer (SB12I)

Features

Contactless interface

- NFC Forum Type 4 Tag
- ISO/IEC 14443 Type A
- 106 Kbps data rate
- Internal tuning capacitance: 25 pF

Memory

- 256-byte (2-kbit) EEPROM
- Support of NDEF data structure
- Data retention: 200 years
- Endurance: 1 million erase-write cycles
- Read up to 246 bytes in a single command
- Write up to 246 bytes in a single command
- 7 bytes unique identifier (UID)
- 128 bits passwords protection

Package

- UFDFPN8 ECOPACK®2

Digital pad

- RF Session output

Description

The SRTAG2K-D device is a dynamic NFC/RFID tag IC. It embeds an EEPROM memory. It can be operated from a 13.56 MHz RFID reader or an NFC phone.

The RF protocol is compatible with ISO/IEC 14443 Type A and NFC Forum Type 4 Tag.

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1 Functional description

The SRTAG2K-D device is a dynamic NFC/RFID tag that can be accessed from the RF interface. The RF interface is based on the ISO/IEC 14443 Type A standard. The SRTAG2K-D is compatible with the NFC Forum Type 4 Tag specifications and supports all corresponding commands.

Figure 1 displays the block diagram of the SRTAG2K-D device.

Figure 1. SRTAG2K-D block diagram

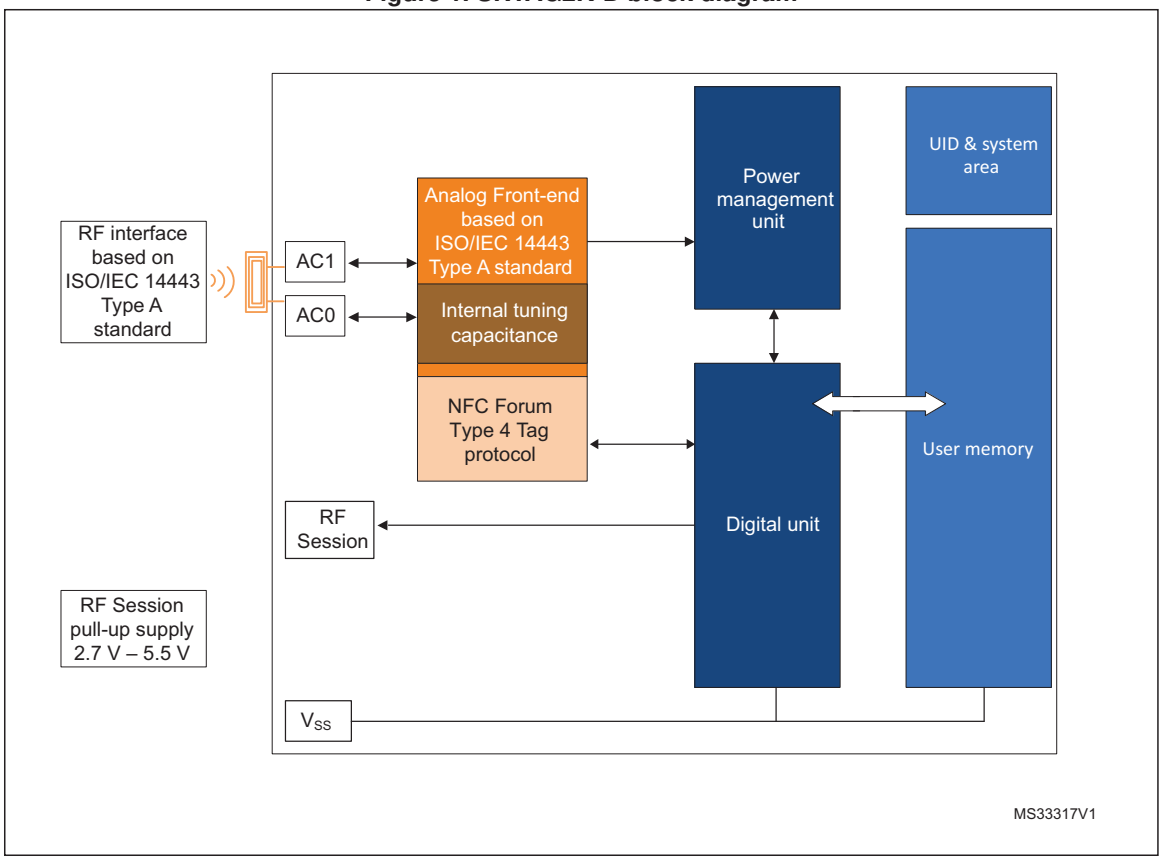
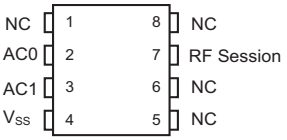


Table 1. Signal names

Signal name	Function	Direction
AC0, AC1	Antenna coils	-
VSS	Ground	-
RF Session	Interrupt output (1)	Open drain output

1. An external pull-up > 4.7 kΩ is required.

Figure 2. 8-pin package connections



1. See Package mechanical data section for package dimensions, and how to identify pin 1.

1.1 Functional modes

The SRTAG2K-D has just one functional mode available (see *Table 2*).

Table 2. Functional mode

Mode	Supply source	Comments
Tag mode	RF field only	The RF interface is connected

1.1.1 Tag mode

The SRTAG2K-D is supplied by the RF field and can communicate with an RF host (RFID reader or an NFC phone). The User memory can only be accessed by the RF commands.

2 Part numbering

Table 3. Ordering information scheme for packaged devices

Example: SRTAG 2K -D MC 6 T /2

Device type

SRTAG = Short range tag

Memory size

2K = memory size in Kbits

Device feature

D = digital output

Package

MC = UFDFPN8

SB12I = 120 µm ± 15 µm bumped and sawn inkless wafer on 8-inch frame

Device grade

6 = industrial: device tested with standard test flow over –40 to 85 °C

(No parameter for SB12I)

Option

T = Tape and reel packing

(No parameter for SB12I)

Capacitance

/2 = 25 pF

3 Revision history

Table 4. Document revision history

Date	Revision	Changes
14-Feb-2014	1	Initial release.

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