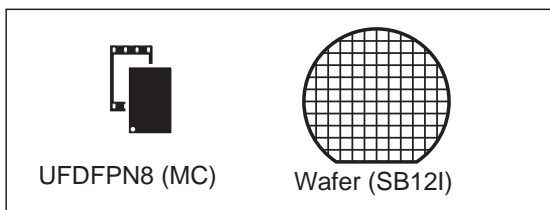

**NFC Forum Type 4 Tag IC with 2-Kbit EEPROM and
RF Session digital output**

Data brief

**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

- UDFPN8 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

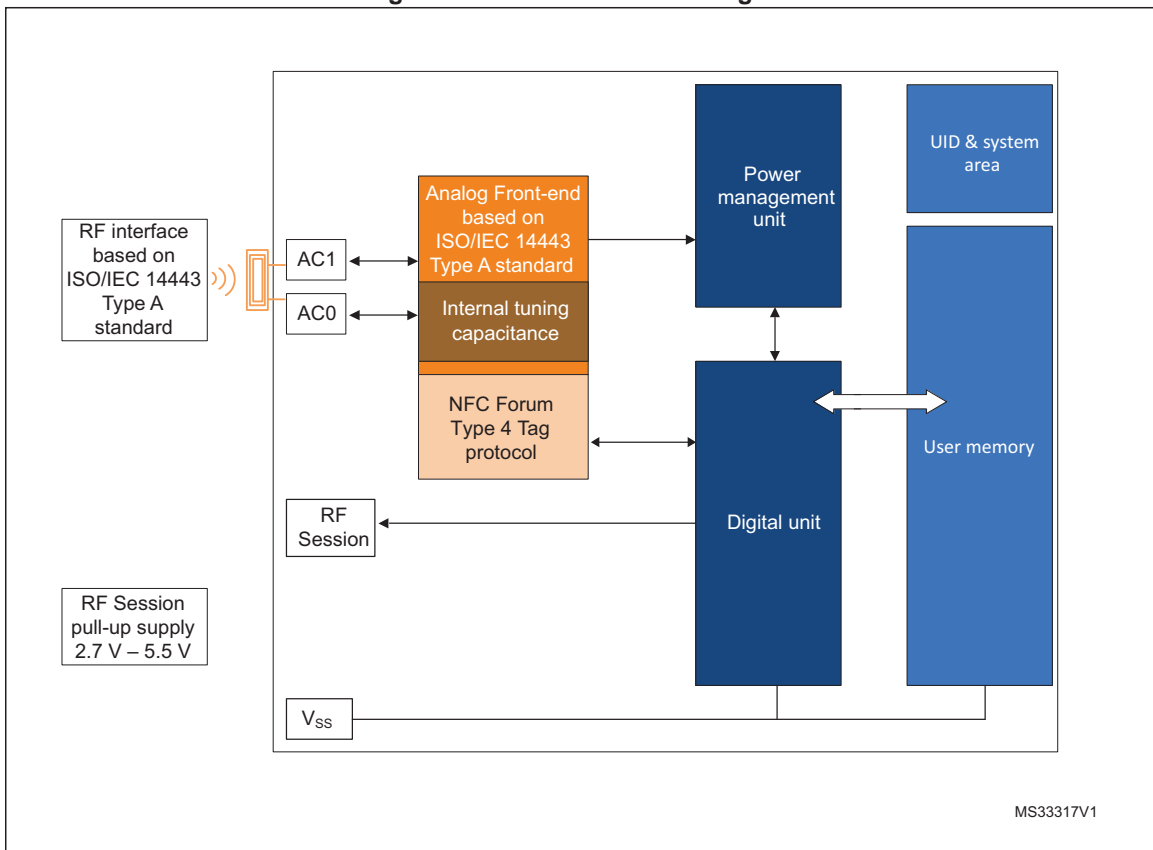
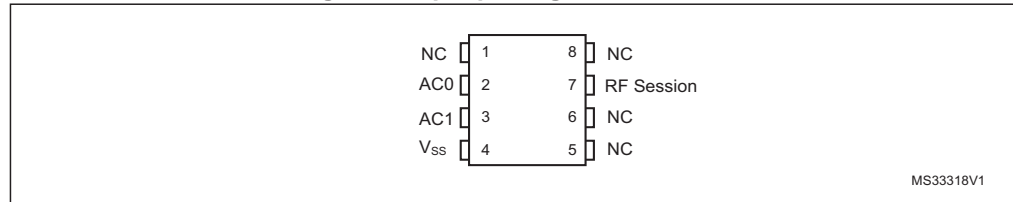


Table 1. Signal names

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 $\mu\text{m} \pm 15 \mu\text{m}$ bumped and sawn inkless wafer on 8-inch frame							
Device grade							
6 = industrial: device tested with standard test flow over -40 to $85 \text{ }^\circ\text{C}$ (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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