



## ST16-19RFRDCS910

### CONTACTLESS READER CHIP SET With ST92163MCU

DATA BRIEFING

#### **FUNCTION: ANALOG FRONT END FOR CONTACTLESS SMARTCARD READER**

##### **■ GENERAL DESCRIPTION**

- This is an analog front end dedicated to contactless Smartcards reader chip set.
- This interface complies with ISO 14443-2 Type B: powering, data transfer from reader to card with amplitude modulation, data transfer from card to reader with load modulation.

##### **■ MAIN FEATURES**

- Supply voltage: 12 V
- Modulation: 10% ASK
- Data transfer to card: up to 424 KBit/second
- Data transfer to reader: up to 424 KBit/second
- Quartz oscillator 13.56 MHz  $\pm$  100 ppm

#### **FUNCTION: DECODER AND FRAME FORMATING FOR CONTACTLESS SMARTCARD READERS**

##### **■ GENERAL DESCRIPTION**

- This is an FPGA dedicated to contactless Smartcards reader chip set. This interface complies with ISO 14443-3 Type B

##### **■ MAIN FEATURES**

- Supply voltage: 3.3 V
- Programmable data transfer from reader to card
- 106 KBit/second, 212 KBit/second and 424 KBit/second
- Programmable data transfer from card to reader
- 106 KBit/second, 212 KBit/second and 424 KBit/second
- 8 bit parallel interface for MCU

#### **FUNCTION: MCU FOR CONTACTLESS SMARTCARD READER**

##### **■ GENERAL DESCRIPTION**

- the ST92163 is a 8/16 bit MCU

##### **■ MAIN FEATURES**

- Supply voltage: 4.3 V
- Internal memory 16 K bytes OTP
- 2 K Bytes of RAM
- 24 MHz CPU frequency
- Full speed USB
- SCI up to 315 KBit
- External memory up to 64 KBytes
- Rich instruction set with 14 addressing modes, versatile development tools, including assembler, linker, C compiler, hardware emulators and real time operating system.

Figure 1 Contactless Reader Architecture with ST9

