

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 VModulation: 10% ASK

- Data transfer to card: design capability up to 424 KBit/second
- Data transfer to reader: design capability up to 424 KBit/second
- DC subcarrier output level
- Quartz oscillator 13.56 MHz ± 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 (design capability) and 424 KBit/second (design capability)
- Programmable data transfer from card to reader
- 106 KBit/second, 212 KBit/second (design capability) and 424 KBit/second (design capability)
- 8 bit parallel interface for MCU

FUNCTION: MCU FOR CONTACTLESS SMARTCARD READER

■ GENERAL DESCRIPTION

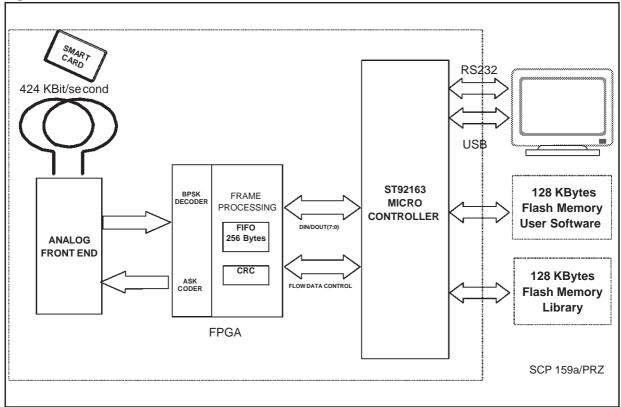
- the ST92163 is a 8/16 bit MCU

■ 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.

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Figure 1 Contactless Reader Architecture



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