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 ± 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