

PR9000 UHF RFID Reader SoC

The PR9000 is the true single SoC solution for UHF RFID reader which integrates high performance 900MHz radio, baseband processor, industry standard enhanced 80C52 MCU, memory(128k Flash & 16k SRAM) and many other powerful features with fully compliant ISO 18000-6C/EPC™ Global Gen II reader protocol S/W into single die.

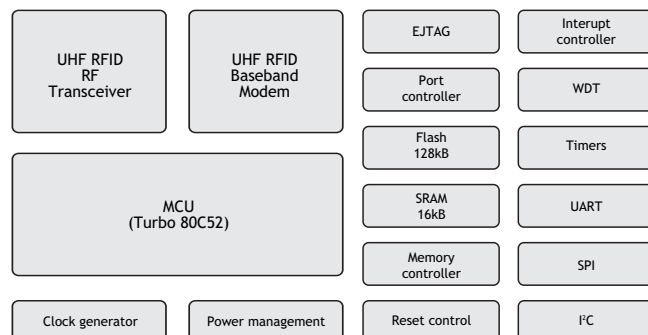
The PR9000 reduces size, cost and power consumption of RFID reader, which opens up mass market in various applications from mobile handset to fixed reader for large-scale deployment in warehouse.

Main Features

- 8-bit turbo 80C52 processor
- 128kbytes embedded flash memory
- High performance UHF RFID RF Transceiver
- ISO 18000-6C/EPC™ Gen II modem
- ISO 18000-6C/EPC™ Gen II protocol S/W
- RoHS compliant

Key Benefits

- Applicable to mobile phones, handheld readers
- High performance in tag reading quality with its H/W & S/W
- Highly-Integrated : RF, modem, MCU, flash memory
- Low power consumption & small size for mobile devices
- Supporting 18000-6C/EPC™ Gen II



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Specifications

High-level Integration

- Embedded flash memory
- On-chip voltage regulator
- UHF RFID reader function with external PA

80C52 MCU

- 8bit turbo 80C52 architecture
- 128kbytes embedded flash memory
- 16kbytes SRAM
- WDT /Timers /Counters
- 18 GPIOs include
 - Two full duplex UART
 - SPI master/slave
 - I²C master/slave
- Power control

- On-chip 32kHz oscillator

RFID Reader Protocol SW

- Fully compliant with ISO 18000-6C/EPC Global Gen II
- UART interface

RF Transceiver

- Frequency range : 860MHz ~ 960MHz
- Direct conversion architecture
- Extended tag read range with highly linear down conversion mixer
- Tunable IF channel filter
- Low phase noise VCO

Modem

- Support all data-rates
- Modulation : DSB-ASK, PR-ASK
- FMO, Miller decoding

Power and Package

- 48pin 7mm x 7mm MLF
- Current consumption in tag read mode
- Operating voltage : 3.3V single supply voltage

Applications

- Handheld RFID Reader
- Embedded RFID Reader(Mobile Phone)



PHYCHIPS Inc is...

Young & dynamic company and leading a RFIC industry with advanced technology and product. We provide state-of-the-art RF Component to manufactures of RFID Reader, GPS Receiver and DSRC Transceiver etc. Our proven CMOS RF Technology enables us to provide our product in reduced material cost, smaller footprint and higher performance.

PHYCHIPS

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