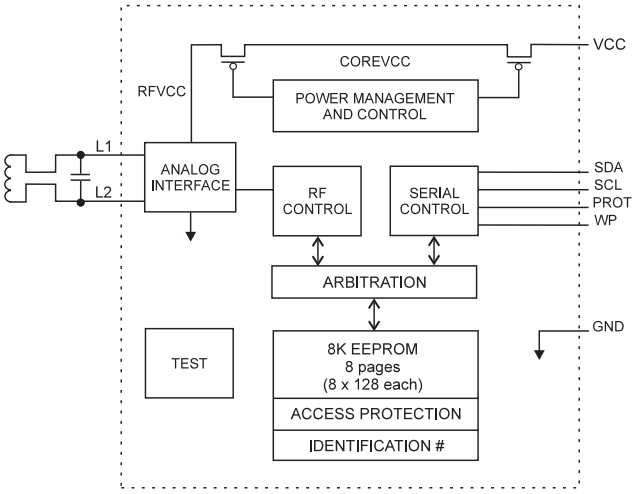
Features

- **Dual-Port Nonvolatile Memory - RFID and Serial**
- **Two-Wire Serial Interface:**
  - **Compatible with AT24C08, and similar products from others**
  - **Supports standard byte and page read/write commands**
  - **Programmable Access Protection to limit reads or writes from either port**
  - **Coil connection detection**
- **RFID Interface:**
  - **125 kHz carrier frequency for long range access**
  - **2-wire connection to external coil antenna and tuning capacitor**
  - **Multi-tag management to handle several tags in the field at once**
  - **11 RFID commands for tag control and memory read/write**
  - **Ultra low power single bit write - 20µA**
- **Highly-Reliable EEPROM Memory**
  - **8K bits (1K bytes)**
  - **Organized as 8 blocks of 128 bytes each**
  - **16-byte page write, 10ms write time**
  - **Additional memory for access protection and ID number**
  - **10 years retention, 100K write cycle endurance**
  - **-40° to +85° operation**
- **Standard 8-lead SOIC package**
- **2.4 to 5.5V Supply Voltage**

Description

The chip functions as Dual Access EEPROM, with both a wired serial port and a wireless RFID port used to access the memory. Access permissions are set from the serial inteface side to isolate blocks of memory from improper access depending on the situation. The RFID interface is designed to be powered solely from the attached coil, permitting remote reads and writes of the device.

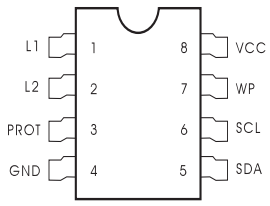
Block Diagram



Pin Configurations

Pin Name	Function
L1	Coil Connection
L2	Coil Connection
PROT	Protection Input
GND	Ground
SDA	Serial Data,Open Drain I/O
SCL	Serial Clock Input
WP	Write Protect Input
Vcc	Supply: 2.4 - 5.5V

8-Pin SOIC



1K x 8 Dual Access EEPROM with RFID and Serial Interfaces

AT24RF08

1072AS - 4/98 - 100

Note: This is a summary document. For more information contact:
Kerry Maletsky at kmaletsky@atmel.com