1k bit Read/Write ISO15693 Standard Compliant Smart Contactless Device

General Description

The EM4233SLIC is a long range passive CMOS integrated circuit intended for use in applications requiring a contactless read/write memory offering un-surpassed reading range performances.

The configurable 1k bit EEPROM memory included in the chip is organized in 32 words of 32 bits.

The enhanced 32 bit password security feature permits a flexible administration of the memory access rights which makes it the right solution for advanced theft protection.

This latest generation of EEPROM memory offers data retention of 60 years enabling solutions for long-term asset management applications like archives or long live books.

The on-chip EAS (Electronic Article Surveillance) and the AFI (Application Field Identifier) features make the device compliant with all world wide library standards and infrastructures.

The IC supports all the ISO15693 Mandatory commands and many of the optional commands. Its command set is completed by unique custom commands which give to the EM4233SLIC customers a higher degree of differentiation in terms of security, flexibility and data protection.

Each EM4233SLIC contains a 64 bit unique serial number programmed at factory level which cannot be altered and guaranties the uniqueness of each device.

Features

- ISO15693 / ISO18000-3 standard compliant
- Long range, low power vicinity transponder IC
- 64-bit ISO15693 Unique Identifier (UID)
- 1k bit user's free EEPROM (32 blocks of 32 bits)
- 60 years memory data retention
- 32 bit password security to protect chip memory data and functionality
- Optional Password Protected Application Field Identifier
- Smart and flexible Electronic Article Surveillance feature
- Password protected Destroy function to deactivate forever the label
- Password Protected Privacy mode
- Data Storage Format Identifier (DSFID)
- EEPROM blocks/pages Locking mechanisms
- Support all mandatory and most of optional ISO/IEC 15693 commands and a complete set of custom commands
- Fast read custom command for long data transactions
- On-chip resonant capacitor options: 23.5pF and 97pF
- -40 to +85°C temperature range
- Bonding pads optimized for flip-chip assembly

Applications

- Library management
- Archives and collections
- Long-term asset management
- Pharmaceutical

Block Diagram

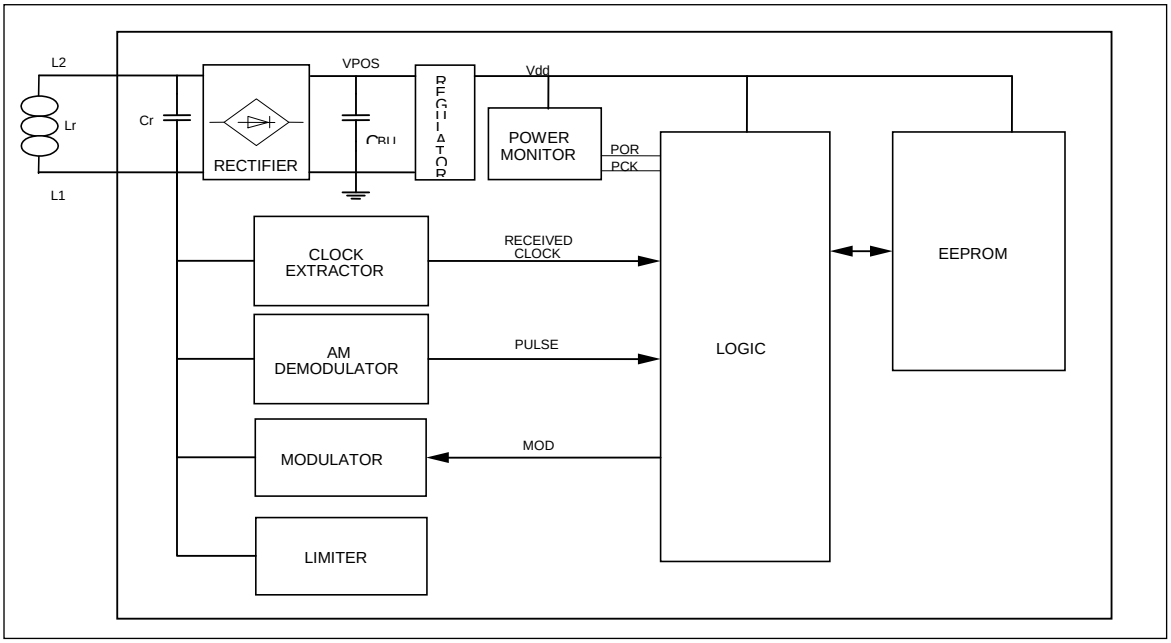

Figure 1

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