EM MICROELECTRONIC - MARIN SA

SWATCH GROUP ELECTRONIC SYSTEMS

EM4034

13.56MHz, ISO15693 Standard Compliant Contactless RW Identification Device

General Description

The EM4034 is a CMOS integrated circuit intended for use in contactless Read/Write transponders. The IC is a member of ISO 15693 standard compliant. Passive Read/Write RF Tags operating at 13.56MHz.

The user's configurable 448 bit EEPROM memory contained in the chip is organised in 14 words of 32 bits, each word can be irreversibly locked. The memory contains a unique serial number.

The ISO 15693 anticollision algorithm allows operating more tags in the field simultaneously. IC is completely ISO 15693 compliant since it includes all ISO15693 mandatory features.

Applications

- ❑ Access Control
- ❑ Ticketing
- ❑ Asset management

Features

- ❑ ISO15693 Standard: Fully compliant
- ❑ Support all mandatory and some optional ISO/IEC 15693 features
- ❑ Operating Frequency: 13.56MHz ± 7kHz (ISM, world-wide licence free available)
- ❑ ISO/IEC 15693 anti-collision algorithm allowing more tags in reader field at the same time
- ❑ 64-bit Unique Identifier (UID)
- ❑ 448 bit EEPROM organised in 14 words of 32 bits
- ❑ Lock feature convert EEPROM words in Read Only
- ❑ Secure transfers with Login command
- ❑ Smart Electronic Article Surveillance
- ❑ On chip resonant capacitor
- ❑ No external supply buffer capacitor needed
- ❑ -40 to +65°C temperature range
- ❑ Bonding pads optimised fro flip-chip assembly
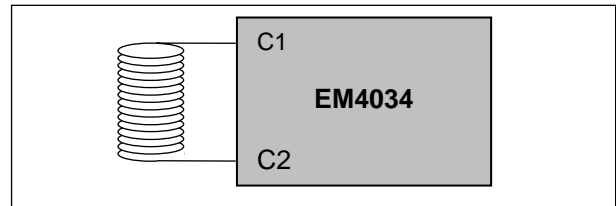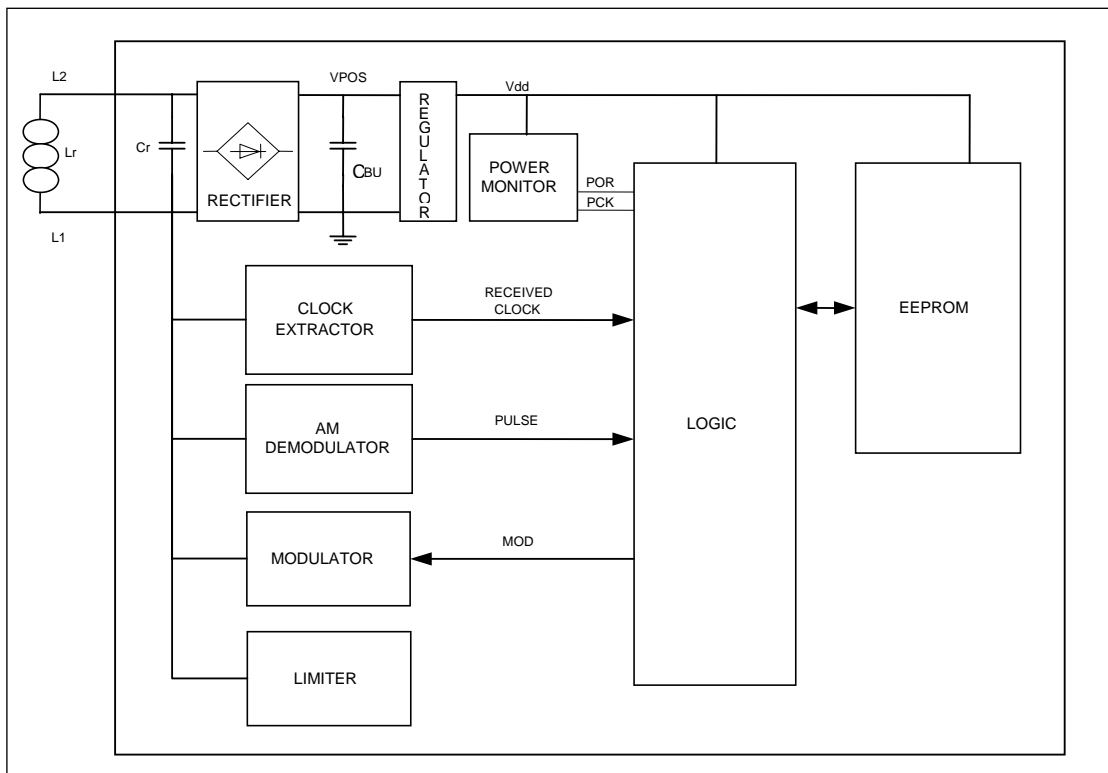
Typical Operating Configuration

Fig. 1

Block Diagram

Fig. 2

www.emmicroelectronic.com

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