Product Profile PCF7936AS

Security Transponder, HITAG 2

Features

- Programmable Security Transponder
- 64/32 bit mutual authentication
- 32 bit unique device dentification number
- 48 bit Secret Key
- Fast authentication, 39 ms
- 128 bit non-volatile user memory (EEPROM)
- EEPROM access in plain or cipher mode
- EEPROM read/write protection capabilities
- Read Only modes for downward compatibility
- Excellent device sensitivity in read and write mode, 35 µT
- 20 year EEPROM data retention
- Leadless stick shaped plastic package

General Description

The PCF7936, HITAG 2 is a programmable Security Transponder employing mutual authentication ideally suited for contactless authentication and memory access between a basestation and the transponder.

The transponder meets the security and performance requirements of modern vehicle immobiliser applications. Excellent device sensitivity (large distance) and short authentication time ensure easy application and outstanding system performance.

The transponder provides 256 bit of non-volatile memory (EEPROM) from which 128 bit are reserved for user data storage. User data and configuration data may be exchanged in cipher mode for advanced pre-personalisation techniques. Memory access flags support read and/or write protection of data.

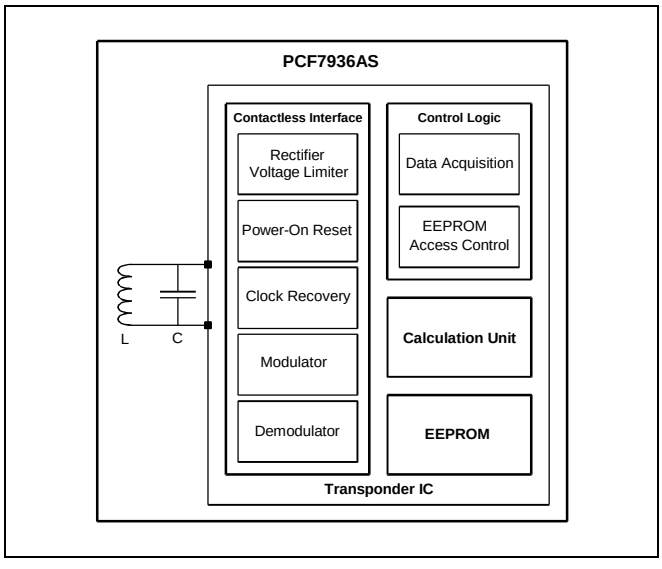
The device performs a fast mutual authentication algorithm, employing a Random Number, Secret Key and Passwords. In addition the HITAG 2 features a factory programmed 32 bit unique identification number to enable unambiguously device identification.

The HITAG 2 features two Read Only modes for downward compatibility with common Read Only systems.

The transponder power supply and system clock is derived from the magnetic component of the RF field generated by the basestation. Due to low power consumption the HITAG 2 provides excellent sensitivity in read and write mode.

The transponder is assembled in a small leadless stick shaped plastic package.

Block Diagram



Stick Package Outline