



Product Profile

PCF7936

Security Transponder, HITAG 2

Features

- Programmable Security Transponder
- 64/32 bit mutual authentication
- 32 bit unique device identification 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 μ T
- 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.

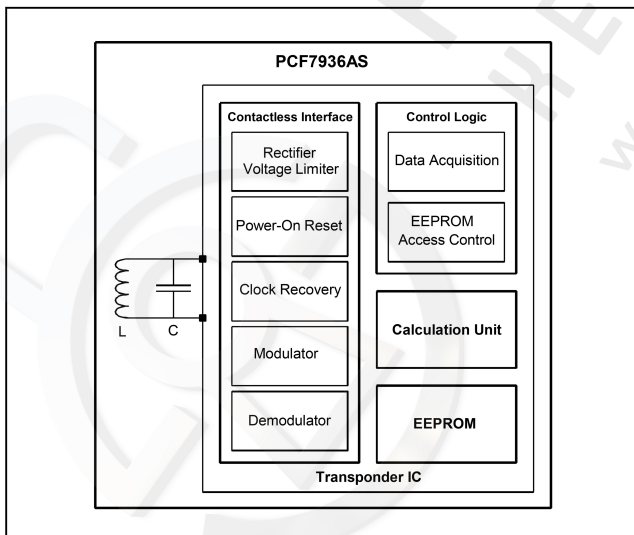
The device performs a fast mutual authentication algorithm, employing a Random Number, Secret Key and Passwords. In addition the HITAG 2 features a factory programmed 32 bit unique identification number to enable unambiguously device identification.

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

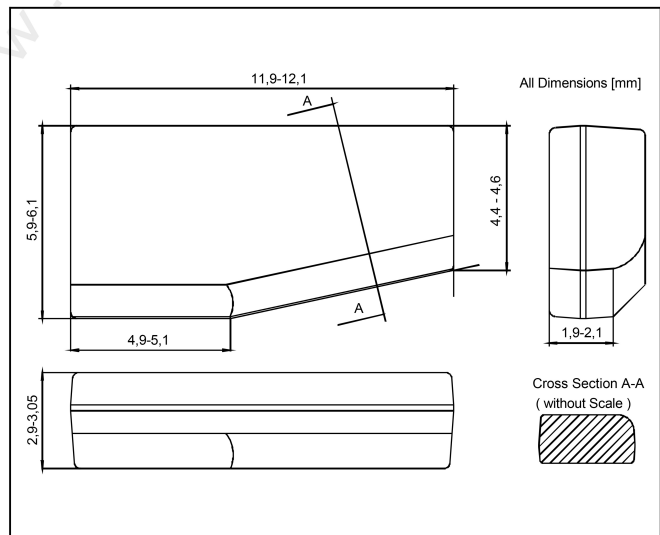
The transponder power supply and system clock is derived from the magnetic component of the RF field generated by the basestation. Due to low power consumption the HITAG 2 provides excellent sensitivity in read and write mode.

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

Block Diagram



Stick Package Outline



Transponders

Immobilization

Philips Semiconductors' transponders meet the security and performance requirements of modern vehicle immobilizer applications. Excellent device sensitivity (large distance) and short authentication time ensure easy application and outstanding system performance.

Products

The following transponders have been specifically designed for car immobilizers where (re)programming of the identification code or storage of additional data is required.

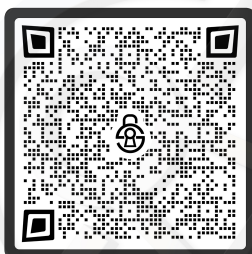
The PCF7936 (HITAG 2) is a programmable security transponder employing mutual authentication with encrypted data transmission. It is ideally suited for vehicle immobilizer applications which require encrypted data transmission between the basestation and the transponder.

The PCF7931AS (read only) and PCF7930AS (read/write) are immobilizer transponder sticks which transmit data bi-directionally, in half-duplex mode, between the basestation and the transponder.

The PCF7935 (SECT) is a programmable security transponder employing challenge/response authentication and is ideally suited for vehicle immobilizer applications, where encrypted data transmission between basestation and transponder is required.

Product overview

Features	PCF7930AS	PCF7931AS	PCF7935AS	PCF7936AS
Data periodically read out in read only mode	Yes	Yes	Yes	Yes
Non-volatile user memory	768 bit	—	768 bit	128 bit
Operating frequency	125 kHz	125 kHz	125 kHz	125 kHz
Programmable read only operation	Yes	Yes	Yes	Yes
Programmable security transponder	—	—	Yes	Yes
64/32 bit mutual authentication	—	—	—	Yes
48/48 bit challenge/response authentication	—	—	Yes	—
32-bit unique device identification number	Yes	Yes	Yes	Yes
Secret key	—	—	128 bit	48 bit
Fast authentication	—	—	—	39 ms
EEPROM read/write protection capabilities	Yes	Yes	Yes	Yes
Read only modes for downwards compatibility	Yes	Yes	Yes	Yes
Data retention	20 years	20 years	20 years	20 years
Extended temperature range	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Leadless stick plastic package	SOT385	SOT385	SOT385	SOT385



SCAN ME

 AL NAJM AL THAHABI KEYS & LOCKS TR.

www.gskeyae.com

 ORDER NOW