Infineon
Never stop thinking

PJM® Light – SRF 66V01ST
Intelligent 1280 bit EEPROM
with Contactless Interface compliant to ISO/IEC 18000-3 Mode 2

The PJM® Light is a high performance Radio Frequency Identification (RFID) Chip based on ISO/IEC 18000 3 Mode 2. It is dedicated for object identification applications. Its command set is optimized for fast identification and operation of large tag populations. High data rate commands are enabled through the use of Phase Jitter Modulation (PJM) techniques. This high communication speed combined with eight reply channels in parallel and highly reliable object detection enable performant system setups.

The PJM® Light is unique in it's ability the operation on tags that are closely stacked which includes systems for document management, supply chain management and healthcare applications. For ease of system migration, the PJM® Light is fully compatible with the predecessor product SRF 66V10ST. Applications working with the SRF 66V10ST which are using user memory not exceeding the SRF 66V01ST user memory can switch to the PJM® Light without system modifications.

The PJM Light complies with and is an enhancement of the ISO/IEC 18000-3 Mode 2 standard.

The product is offered as bare die.

Type	Package	User Memory	Words	Ordering Code
SRF 66V01ST C	Die (wafer)	114 bytes	57	On request
SRF 66V01ST NB	NiAu Bumped	114 bytes	57	On request

Features and key benefits

Contactless Interface
- ISO/IEC 18000-3 Mode 2
- Operation frequency: 13.56MHz
- Command rate 424kbit/s
- Reply rate of 106 kbit/s channel hopping over eight channels or 424kbit/s over one channel
- Read/write distance up to 50 cm

Up to 1280 bit EEPROM
- Up to 57 words of user memory (word size 16 bits)
- Page size 4 words
- Unique identification number
- EEPROM programming time ‹ 4ms
- EEPROM endurance › 100.000
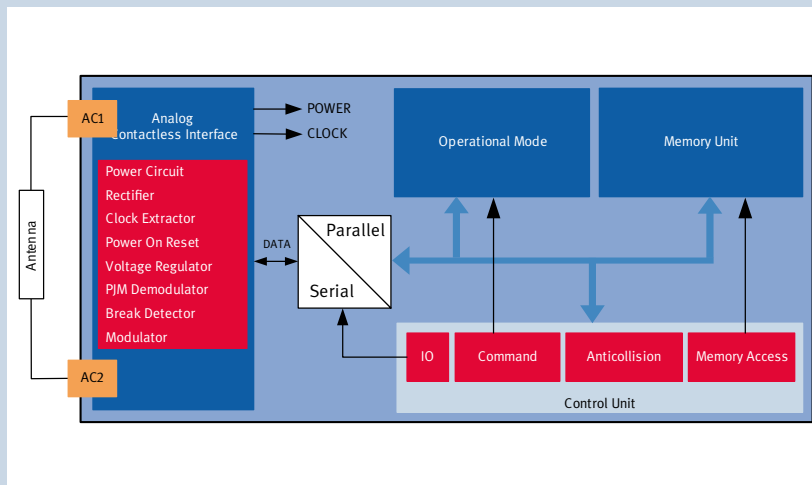- Data retention › 10 years

Functionality
- Zero separation
- Permanent write locking of user memory words
- Optional 48 bit password protection for write access
- Optional scrambling of write data and password over the air interface
- Optimized command set for fast identification and chip operation
- ESD protection minimum 2kV
- Ambient temperature -25ºC to +70ºC (for the chip)

www.infineon.com/rfid

PJM® Light – SRF 66V01ST
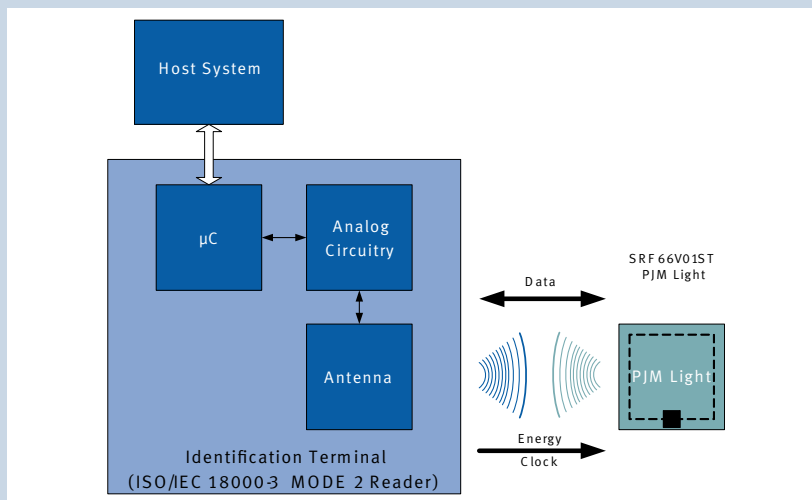## Intelligent 1280 bit EEPROM
with Contactless Interface compliant to ISO/IEC 18000-3 Mode 2

Block Diagram

- Analog circuit
  - Voltage rectifier
  - Voltage regulator
  - System clock
  - Modulator/demodulator
- Operational unit
  - Chip configuration
- Memory unit
  - EEPROM
- Control unit
  - Command detection
  - Command execution
  - Anticollision

Application Example

Typical applications

- Medical devices
- Pharmaceutical auditing
- Document management
- Authenticity proof of documents

How to reach us:
http://www.infineon.com

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