

my-d[®] vicinity

SRF 55Vo2P

SRF 55Vo2P HC

SRF 55V10P

SRF 55Vo2S

SRF 55V10S

INTELLIGENT 10 kbit / 2.5 kbit EEPROM with contactless interface available as plain (SRF 55VxxP) and secure (SRF 55VxxS) variant.

my-d[®] products are designed to meet the increased demand of security and flexibility. The family of contactless memory my-d[®] chips supplies the user with different memory sizes and, additionally, incorporates security features fulfilling the requirements of variable applications.

my-d[®] is the smart way to exploit the potential of RFID technology.

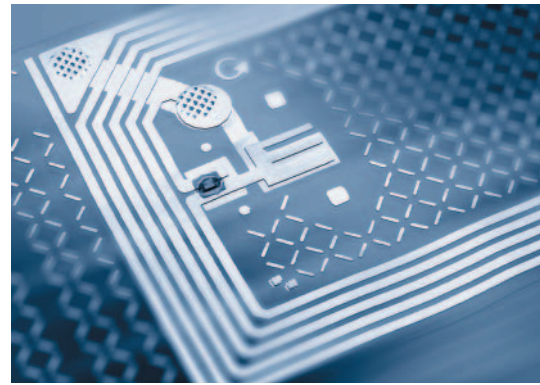
Application Segments

- Libraries
- Inventory Control
- Laundry
- Ticketing
- Brand protection

Features

- Contactless air interface complying with ISO/IEC 18000-3 mode 1 (ISO/IEC 15693)
 - Contactless transmission of data and supply energy
 - Operating frequency 13.56 MHz; data rate up to 26.69 kbit/s
 - Anticollision with identification of up to 30 tags/sec
 - Read /write distance up to 150 cm depending on reader/antenna configuration
- 10 kbit / 2.5 kbit EEPROM for SRF 55V10 / SRF 55Vo2
 - Block organization of memory:
 - ISO mode: up to 248 / 56 blocks of user memory (block size 4 bytes)
 - Custom mode: up to 128 / 32 pages of user memory (page size 8 bytes)
 - Individual locking of blocks / pages (read only)
 - EEPROM updating time per block less than 4 ms
 - Endurance > 100,000 erase/write cycles¹⁾
 - Data retention > 10 years¹⁾

1) Values are temperature dependent



- Unique chip identification number
- Supports AFI functionality
- Value Counters: up to 65536 (value range from 0 to 2¹⁶-1)
 - Each page configurable as a Counter
 - Support of Anti-Tearing
- Ambient temperature
 - -25 ... +70°C for chip
- High capacitance (97 pF) version
 - SRF 55Vo2P HC for small antenna sizes

Additional Security Features of SRF 55VxxS

- my-d[®] custom mode with enhanced security feature
- Configurable number of sectors (1 to 15) & sector size (1 to 128 pages)
- State-of-the-art challenge and response security algorithm (mutual authentication)
 - Selective memory access control of up to 14 sectors secured by authentication
 - 2-way mutual authentication with 64-bit key length
 - 2 keys per sector allow hierarchical key management
 - Multi-level security structure possible
 - 32-bit message authentication code (MAC) verifying data access
 - Transport Key at chip delivery

www.infineon.com/rfid

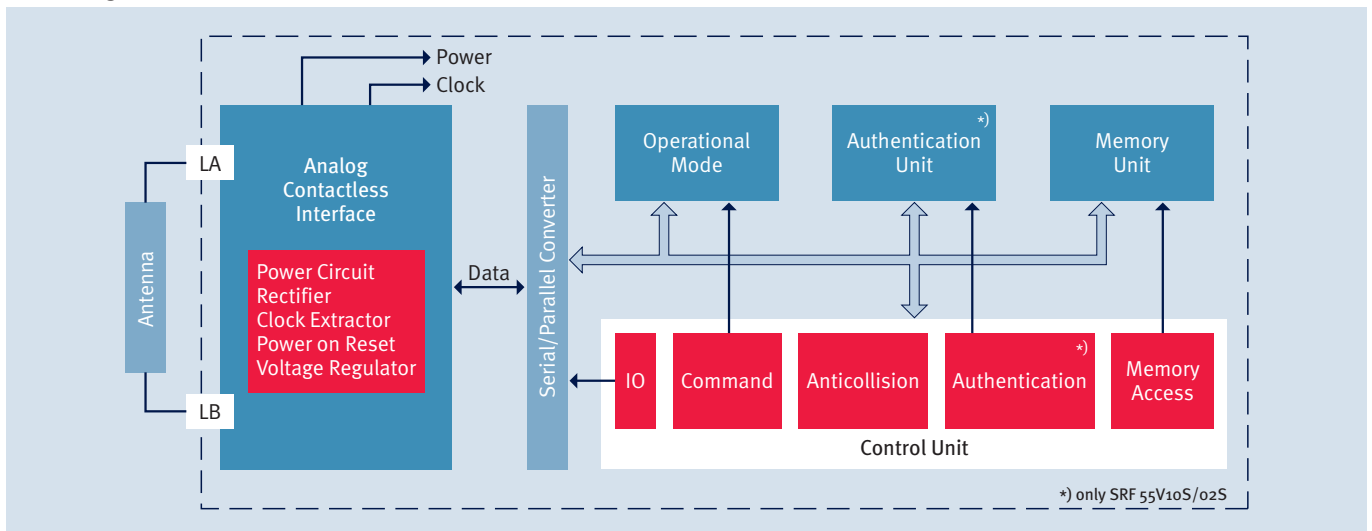
Chip Card & Security ICs



Never stop thinking

Product Brief

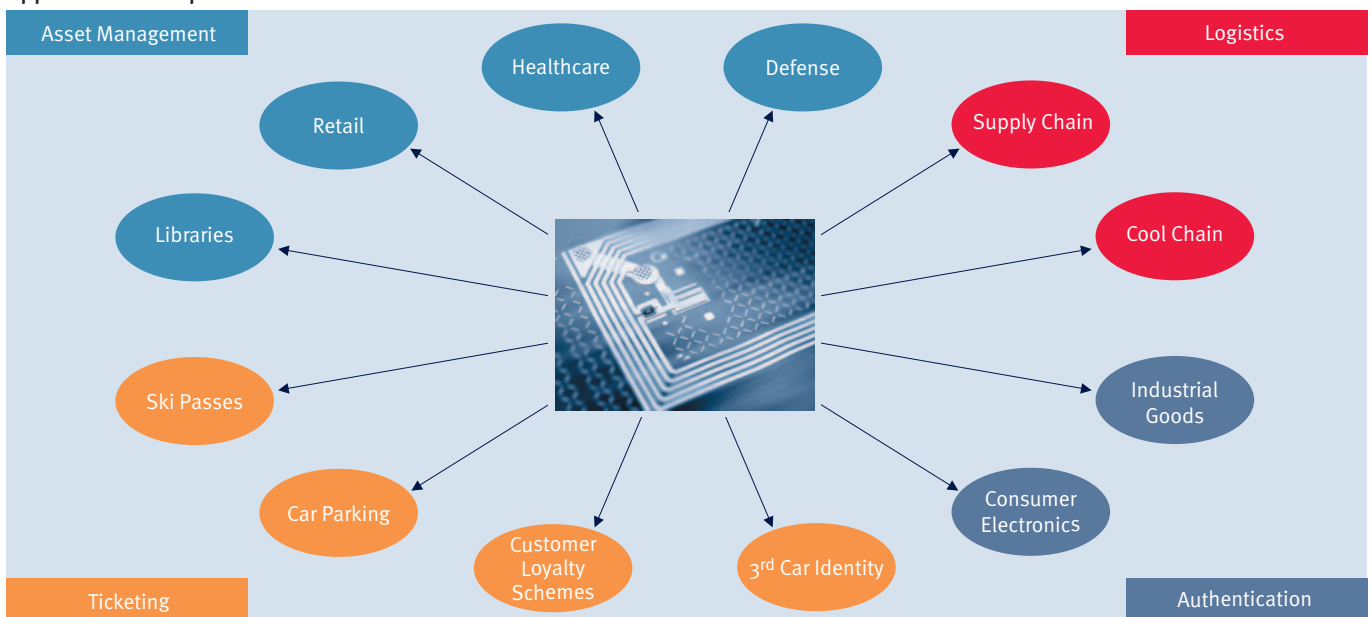
Block Diagram



Product Summary

Type	Sales Code	Package
SRF 55Vxx_C	On request	Wafer sawn / unsawn
SRF 55Vxx_NB	On request	NiAu Bumps
SRF 55Vxx_MFCC1	On request	Module MFCC1
SRF 55Vxx_MCC2	On request	Module MCC2
SRF 55Vo2P_HC_C	On request	Wafer sawn / unsawn
SRF 55Vo2P_HC_NB	On request	NiAu Bumps

Application Examples



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