NXP ICODE SLIX
Product family, HF- RFID

The next generation of HF RFID performance

The ICODE SLIX product Family offers full backward-compatibility with ICODE SLI, improved read range by >20%, significantly increased stacking capability, and includes industry-first features.

Key features

▸ Market-leading RF performance
▸ Full backwards compatibility with installed SLI solutions
▸ High reliability of communication
▸ 50 Years Data Retention
▸ All SLIX products are available in standard and high-capacitance (HC) variants
▸ Optional 32-bit password protection
▸ EAS, AFI features
▸ User memory: 256 to 1280 bit
▸ RF interface: ISO15693, ISO 18000-3.1
▸ Anti-collision performance: 60 tag/s
▸ Package options: sawn wafer, FCS, SOT1122 package

Applications

▸ Libraries
▸ Healthcare
▸ Document tracking
▸ Pharmaceuticals
▸ Factory automation
▸ Casino gaming
▸ Product authentication

NXP's industry-leading ICODE is the first choice for high-frequency (HF) smart tag and label solutions. The new ICODE SLIX series takes RFID performance to the next level, and offers industry-first features.

ICODE SLIX provides up to 20% higher read range compared to existing ICODE SLI products. The increased read range offers end user benefits in applications where operating distance plays an important role. For example, the longer read range lets libraries offer broader gates that improve customer convenience when passing through it. It furthermore opens up new use cases for industrial applications, that were up to now hampered by read range limitations. With the 50 years data retention the SLIX fulfills requests for applications where long term archive storage is required (e.g. documents , University Library).

For applications where existing performance was sufficient, the SLIX family offers the opportunity to reduce label antenna size and decrease label or transponder cost, without compromising the performance.

All members of ICODE SLIX family are available in standard as well as high-capacitance (HC) versions. High capacitance versions are typically used for very small tag/label designs.

ICODE SLIX ICs provide a unique set of value-added custom commands, including 32-bit password protection for the Electronic Article Surveillance (EAS) mode and for the standardized Application Family Identifier (AFI).

The use of the password protection is optional, which ensures compatibility for existing installations. For new installations, the password enables additional security, as EAS and AFI status can only be changed by an authorized party.

The ICODE SLIX ICs work in existing ICODE SLI environments and are compatible with all existing ICODE SLI commands. No reader updates are required for existing applications and NXP's unique programmed UID is in line with the existing ICODE

SLI scheme. The new ICs comply with industry standards (ISO 15693 and 18000-3.1), including emerging NFC mobile phone applications, and can be used globally because they conform to worldwide harmonized RF regulations in the ISM band.

More than 1 billion shipped

NXP has successfully shipped more than 1 billion ICODE ICs. As the most popular RFID chip on the market, NXP's ICODE interface platform has become the first choice for HF smart tag and label solutions. As a result, the technology is regularly used around the world in more than 3,000 libraries to keep track of books and other library media. ICODE-powered tags and labels also effectively identify patients, track medical devices and tag blood samples within hospitals, and support the tracking and tracing of components within factory automation environments. The new ICODE SLIX series is expected to bring added performance to product authentication and document tracking applications, too.

Selection guide

Product Features	ICODE SLIX	ICODE SLIX-L	ICODE SLIX-S
Memory			
User mem Size [bit]	896	256	1280
Write Endurance [cycles]	100000	100000	100000
Data Retention [yrs]	50	50	50
Mem Organisation	blocks á 32 bit	blocks á 32 bit	blocks á 32 bit
RF Interface			
According to	ISO 15693	ISO 15693	ISO 15693
	ISO 18000-3	ISO 18000-3	ISO 18000-3
Frequency	13,56 MHz	13,56 MHz	13,56 MHz
Baudrate [kbit/s]	up to 53	up to 53	up to 53
Internal Resonance Capacitance [pF]	23,5 pF +/-5%	23,5 pF +/-5%	23,5 pF +/-5%
	97 pF +/- 5%	97 pF +/- 5%	97 pF +/- 5%
Security			
Unique ID [byte]	8	8	8
Write Protection	Block	Block	Block
Access Keys			32 bit (pagewise)
Access Conditions	plain	plain	Plain, Password
Special Features			
EAS	Yes (plain, pwd)	Yes (plain, pwd)	Yes (plain, pwd)
AFI	Yes (plain, pwd)	Yes (plain, pwd)	Yes (plain, pwd)
Selective EAS	No	Yes	Yes