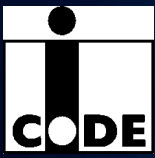




Prevent intentional miss-use of NFC phones in libraries



Protecting the Libraries

SLI

1) Locking fixed library data:
Each block of SLI user memory consists of 32 bits and can be individually locked.
Locking can not be reversed.

10 years chip data retention

Level 1

SLIX

1) Locking fixed library data- as in SLI

2) Password Protected EAS and AFI as used for alarm gates. The according password can be locked

50 years chip data retention

Level 2

SLIX-S

1) Locking fixed library data- as in SLI

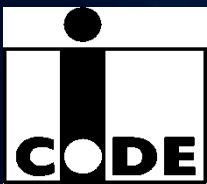
2) Password protected EAS and AFI same as SLIX

3) Page wise R/W Password protection for alterable Library Data (one page = 4 blocks)
According password can be locked

50 years chip data retention

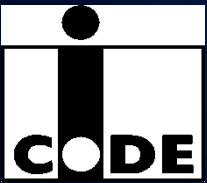
Note: SLIX-S offers additional privacy and destroy command which shall be password protected as well.

Level 3



Protecting the Libraries

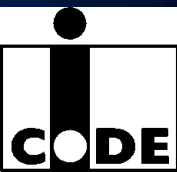
Function	used for	SLI	SLIX	SLIX-S
Memory	Fixed library data	Lock	Lock	Lock
Memory	Alterable library data	no protection	no protection	Password
AFI , EAS	Alarm Gates	no protection	Password protected	Password protected



How to handle a mixed tag population

- ❑ **Mixed SLI & SLIX (*without* AFI enabled pwd)**
 - There is no difference on the handling of the tags
- ❑ **Mixed SLI & SLIX (AFI PWD is *enabled on all SLIX tags*)**
 - System has to check the bit37 of the UID, when this bit is “1” it indicates a SLIX. (Bit 37 on the SLI is “0”)
- ❑ **Mixed SLI & SLIX (*some SLIX with AFI PWD enabled & some not enabled*)**
 - System has to check the bit37 if it is a SLI or SLIX
 - To differentiate a SLIX with enabled AFI PWD and a SLIX with not enabled AFI PWD, the DSFID can be used. The DSFID is a byte which comes automatically with the UID from the tag. With different DSFID values a system can easily check if the PWD is set or not

ICODE Product Table



	ILT	ILT-M	SLI-L	SLIX-L	SLI	SLIX	SLI-S	SLIX-S
Status	Released	Released	Released	Released	Released	Released	Released	Released
Standard	ISO 18000-3.3, EPC global HF	ISO 18000-3.3, EPC Global HF	ISO 18000-3.1 / ISO 15693	ISO 18000-3.1 / ISO 15693	ISO 18000-3.1 / ISO 15693	ISO 18000-3.1 / ISO 15693	ISO 18000-3.1 / ISO 15693	ISO 18000-3.1 / ISO 15693
User Memory (bit)	0	512	256	256	896	896	1280	1280
EPC Code Size (bit)	240	240	-	-	-	-	96	-
TID size(bit)	96	96	-	-	-	-	-	-
UID size(bit)	-	-	64	64	64	64	64	64
Data Retention	10	10	10	50	10	50	10	50
Anticollision Speed	600 units/sec	600 units/sec	60 units/sec	60 units/sec	60 units/sec	60 units/sec	60 units/sec 200 units/sec	60 units/sec
Fast Inventory Read			✓	✓	✓	✓	✓	✓
Security Functions								
EAS	✓	✓	✓	✓	✓	✓	✓	✓
EAS Password	✓	✓	✓	✓		✓	✓	✓
EAS Selective	-	-	✓	✓	-	-	✓	✓
AFI	-	-	✓	✓	✓	✓	✓	✓
AFI Password	-	-	-	✓	-	✓	-	✓
Memory write Lock		✓	✓	✓	✓	✓	✓	✓
Memory access Password			-	-	-	-	✓	✓
Privacy Password			✓	✓	-	-	✓	✓
Destroy Password			✓	✓	-	-	✓	✓
Packages								
Wafer FFC	✓	✓	✓	✓	✓	✓	✓	✓
MOA2	-	-	✓	-	✓	-	✓	-
SOT1122	✓	✓	-	✓		✓		-
Capacitance 0 pF	✓	✓	-	-	-	-	-	-
Capacitance 23pF	✓	✓	✓	✓	✓	✓	✓	✓
Capacitance 97pF	✓	✓	✓	✓	-	✓	✓	✓



Thank you