

**FXT0.2.3-SLI**

Code: 4330 034 10271

## 13.56 MHz SMALL METAL BARE FERROXTAG

**FEATURES**

- ISO/IEC 15693; ISO/IEC 18000-3 Compliant
- 13.56 MHz Operating Frequency
- 1024 Bits User Memory in 32 blocks x 4 bytes
- Unique Identifier 8 bytes
- Fast Simultaneous Identification (Anticollision)
- Data transfer up to 53kbits/sec

**APPLICATIONS**

- Metal items identification
- Industrial applications
- Asset Tracking
- Gas cylinders
- Metal pallets
- Beer kegs

**DESCRIPTION**

FerroxTag 13.56MHz is compliant with the ISO/IES 15693 and ISO/IEC 18000-3 global open standards. This product offers a user accessible memory of 1024 bits, organized in 32 blocks of 4 bytes and an optimized command set.

Each transponder has a factory programmed 8 bytes unique identifier. Prior to delivery, FerroxTag undergo complete and parametric testing, in order to provide high quality.

Specially tuned at such frequency that they need to be mounted on a metallic item in order to achieve the right 13.56MHz operating frequency and best performance.

***For non metallic applications use FerroxTag FXT0.1.3-SLI, or ask your local distributor. [www.ferroxtag.com](http://www.ferroxtag.com)***

**SPECIFICATIONS**

PART NUMBER	FXT0.2.3-SLI
Supported Standard	ISO/IEC 15693; ISO/IEC 18000-3
Passive Resonance Frequency (at the air)	13MHz $\pm$ 300 kHz
Unique identifier	8 bytes
EEPROM memory	1024 bits, 32 blocks x 4 bytes
User programmable memory	28 blocks x 4 bytes
Typical programming cycles	100,000
Data retention time	10 years
Data transfer	Up to 53 kbits/sec
Typical Reading range	10 cm with 4 watts reader power and 30x30 cm on a metallic item
Simultaneous Identification of Tags	Up to 50 tags per second (reader/antenna dependent)
Operating temperature	-25°C to +130°C
IC	NXP-ICODE SLI

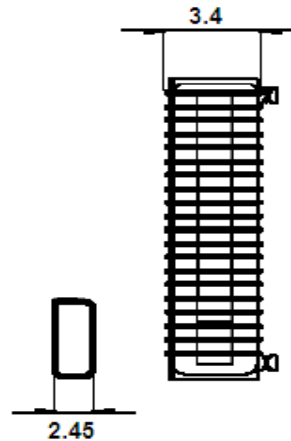
**MECHANICAL PROPERTIES**

Dimensions	15.25 x 3.4 x 2.45 mm
Weight	0.4 grams
Storage temperature	-25°C to + 150°C
Appearance	Identified with paint



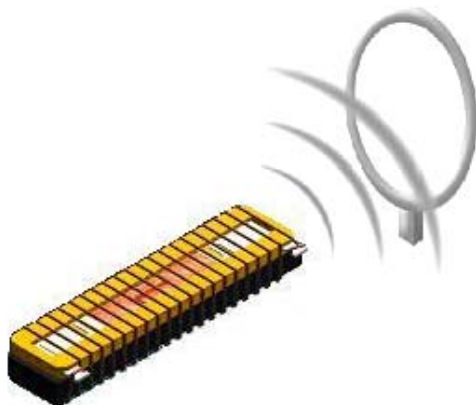
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### TAG INSTALLATION

It is recommended to install the tag on a corner of the item to be identified, or in the closest position to the reader antenna. Optimal performance is achieved by orientating the device towards the reader as shown in the figure and by putting the *CHIP* side against the metal item to be identified.



Copper wire that is part of the antenna is not isolated, therefore in order to avoid antenna short circuit, it is advisable not to place this bare tag directly on a metal surface. Placing a thin layer of non-conductive material between tag and metal is recommended or use our **FXT0.2.3-SLI-R** (protected with thermo-shrink rubber).

### MEMORY ORGANIZATION

The 1024 bits EEPROM memory is divided in 32 Blocks of 4 bytes. (1 Block = 32 bits). The 64 bit Unique Identifier (UID) is programmed during the production process. The next 2 blocks are for control (EAS= Electronic Article Surveillance, AFI= Application Family Identifier, DSFID= Data Storage Format Identifier) and write access conditions for the rest of the blocks. Blocks 0 to 27 can be addressed with read and write commands only.

	Byte 0	Byte 1	Byte 2	Byte 3	
Block -4	UID 0	UID 1	UID 2	UID 3	} UID n° (64bits) EAS, AFI, DSFID
Block -3	UID 4	UID 5	UID 6	UID 7	
Block -2	Control bytes				
Block -1	Write access conditions				
Block 00	R/W	R/W	R/W	R/W	} User data 28 blocks
Block 01	R/W	R/W	R/W	R/W	
Block 02	R/W	R/W	R/W	R/W	
.....	...	...	...	...	
.....	...	...	...	...	
Block 25	R/W	R/W	R/W	R/W	
Block 26	R/W	R/W	R/W	R/W	
Block 27	R/W	R/W	R/W	R/W	

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### **DISCLAIMER**

These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Ferroxcube customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Ferroxcube for any damages resulting from such application.