

**FXT0.4-SLI-R**

Code: 4330 034 10171

## 13.56 MHz IN METAL NOTCH BARE FERROXTAG PROTECTED WITH THERMO-SHRINK RUBBER

**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/IEC 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 placed in a metal notch and in order to achieve the right 13.56MHz operating frequency and best performance.

***TUNED TO BE PARTIALLY  
SURROUNDED BY METAL.  
[www.ferroxtag.com](http://www.ferroxtag.com)***

**SPECIFICATIONS**

|  |   |
|--|---|
| PART NUMBER                              | FXT0.4-SLI-R  |
| Supported Standard                       | ISO/IEC 15693; ISO/IEC 18000-3                                |
| Passive Resonance Frequency (at the air) | 12.3MHz $\pm$ 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 kbts/sec   |
| Typical Reading range                    | 10 cm with 4 watts reader power and 30x30 cm in a metal notch |
| Simultaneous Identification of Tags      | Up to 50 tags per second (reader/antenna dependent)           |
| Operating temperature                    | -25°C to +105°C   |
| IC                                       | NXP-ICODE SLI   |

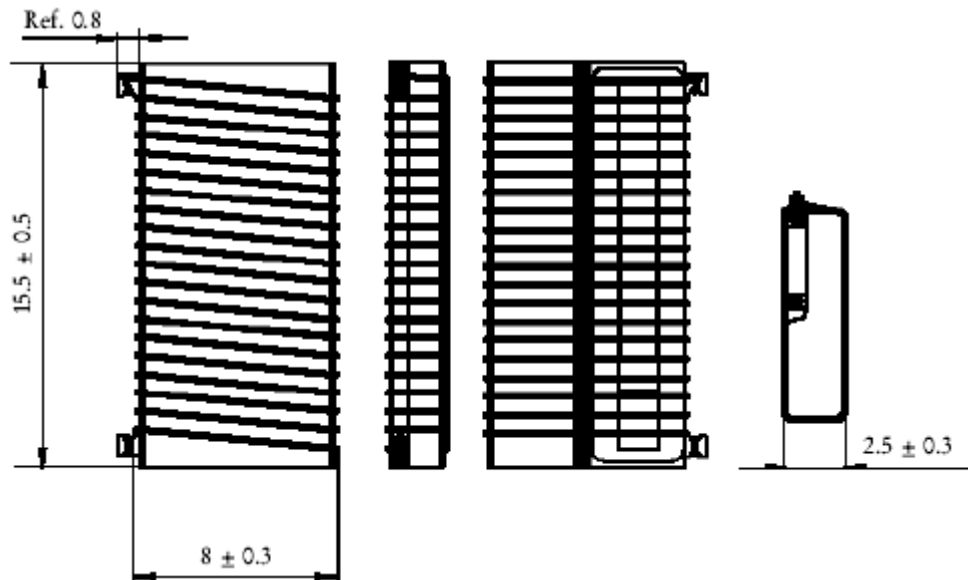
**MECHANICAL PROPERTIES**

|                     |  |
|---------------------|--|
| Dimensions          | 15.5 x 8 x 2.5 mm, increased by rubber thickness |
| Weight              | 1.3 gram   |
| Storage temperature | -25°C to + 105°C                                 |
| Appearance          | Blue rubber                                      |



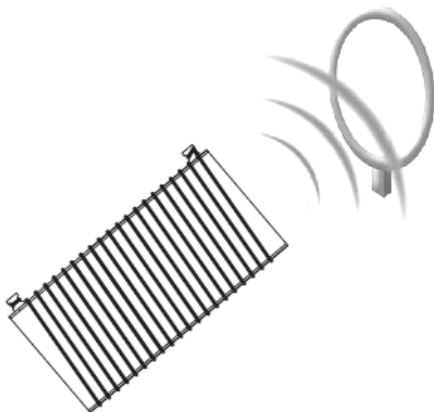
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### TAG INSTALLATION

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.



### 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°<br>(64bits)<br>EAS, AFI,<br>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<br>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    |  |
| } 32     |                         |        |        |        |  |



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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.