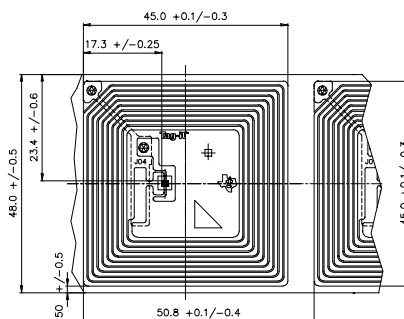


Tag-it™ HF-I Transponder Inlay - Square -

The Tag-it HF-I Transponder Inlay is compliant with the ISO/IEC 15693 standard. With a user memory of 2k bits, organized in 64 blocks, the Tag-it HF-I Transponder Inlays allows advanced solutions for a variety of applications, including product authentication, ticketing, library management, supply chain management etc. The thin and flexible Tag-it HF-I Transponder Inlays can be easily converted into paper labels.



Specifications:

| Part Number | RI-I11-112A |
|---|--|
| Supported Standard | ISO 15693-2,-3 |
| Recommended Operating frequency | 13.56 MHz |
| Passive Resonance Frequency (at +25°C) | 13.86 MHz ± 200kHz (includes frequency offset to compensate further integration into paper) |
| Typ. required activation field strength to read (at +25°C) | 98 dBμA/m # |
| Typ. required activation field strength to write (at +25°C) | 101 dBμA/m # |
| Factory programmed Read Only Number | 64 bits |
| Memory (user programmable) | 2k bits organized in 64 x 32-bit blocks |
| Typical programming cycles (at +25°C) | 100,000 |
| Data retention time (at +55°C) | > 10 years |
| Simultaneous Identification of Tags | Up to 50 tags per second (reader/antenna dependent) |
| Antenna size | 45 mm x 45 mm (~1.77 in x ~1.77 in) |
| Foil width | 48 mm ± 0.5 mm (1.89 in ± 0.02 in) |
| Foil pitch | 50.8 mm +0.1mm/-0.4mm (2 in) |
| Thickness | Chip: 0.355mm (~0.014 in) Antenna: 0.085mm (~0.0033 in) |
| Base material | Substrate: PET (Polyethylenetherephtalate) Antenna: Aluminum |
| Smallest bending radius allowed | 18 mm (~0.71 in) |
| Operating temperature | -25°C to +70°C |
| Storage temperature (single inlay) | -40°C to +85°C (warpage may occur at upper temperature range) |
| Storage temperature (on reel) | -40°C to +40°C |
| Delivery | Single row tape wound on cardboard reel with 500 mm diameter Reel outer width: approx. 60 mm (~2.36 in) Reel inner width: approx. 50 mm (~1.97 in) Hub diameter: 76.2 mm (3 in) |
| Typical quantity of good units per reel | 5,000 |

Note: For highest possible read-out coverage we recommend to operate readers at a modulation depth of 20% or higher

After integration into paper

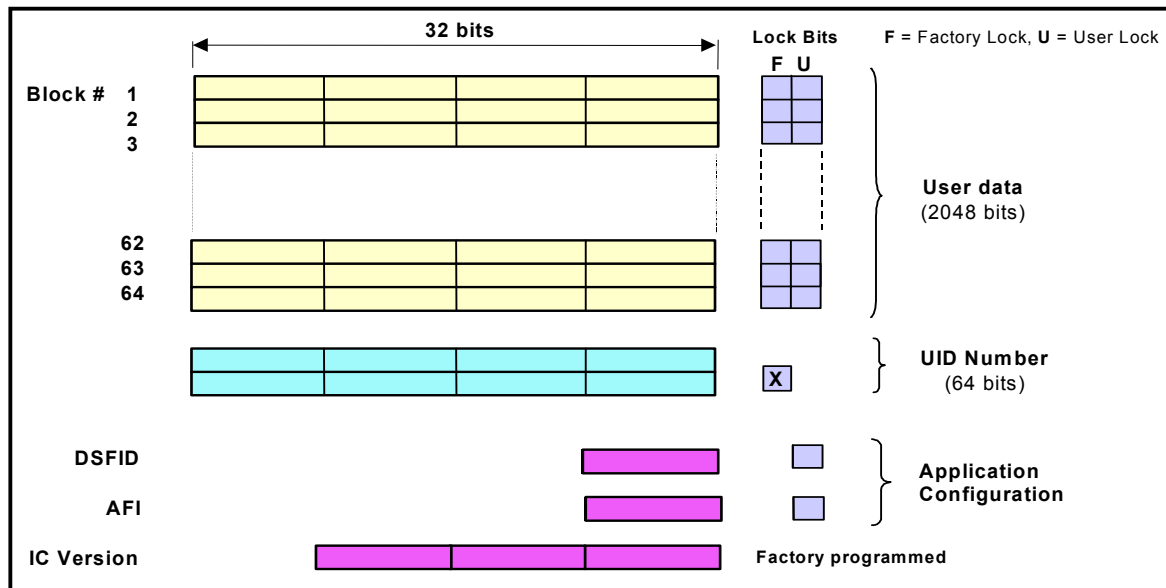
For more information, contact the sales office or distributor nearest you. This contact information can be found on our web site at: <http://www.ti-rfid.com>

Supported Command Set

| | | Request Mode | | | | |
|---|--------------|--------------|-----------|---------------|--------|-----|
| Request | Request Code | Inventory | Addressed | Non-Addressed | Select | AFI |
| ISO 15693 Mandatory and Optional Commands | | | | | | |
| Inventory | 0x01 | ✓ | - | - | - | ✓ |
| Stay Quiet | 0x02 | - | ✓ | - | - | - |
| Read_Single_Block | 0x20 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Write_Single_Block | 0x21 | - | ✓ | ✓ | ✓ | - |
| Lock_Block | 0x22 | - | ✓ | ✓ | ✓ | - |
| Read_Multi_Blocks | 0x23 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Write_Multi_Blocks | 0x24 | - | - | - | - | - |
| Select Tag | 0x25 | - | ✓ | - | - | - |
| Reset to Ready | 0x26 | - | ✓ | ✓ | ✓ | - |
| Write_AFI | 0x27 | - | ✓ | ✓ | ✓ | - |
| Lock_AFI | 0x28 | - | ✓ | ✓ | ✓ | - |
| Write_DSFID | 0x29 | - | ✓ | ✓ | ✓ | - |
| Lock_DSFID | 0x2A | - | ✓ | ✓ | ✓ | - |
| Get_System_info | 0x2B | ✓ | ✓ | ✓ | ✓ | ✓ |
| Get_M_Blkc_Sec_St | 0x2C | ✓ | ✓ | ✓ | ✓ | ✓ |
| TI Custom Commands | | | | | | |
| Write_2_Blocks | 0xA2 | - | ✓ | ✓ | ✓ | - |
| Lock_2_Blocks | 0xA3 | - | ✓ | ✓ | ✓ | - |

✓: Implemented
 -: Not applicable

Memory Organization



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