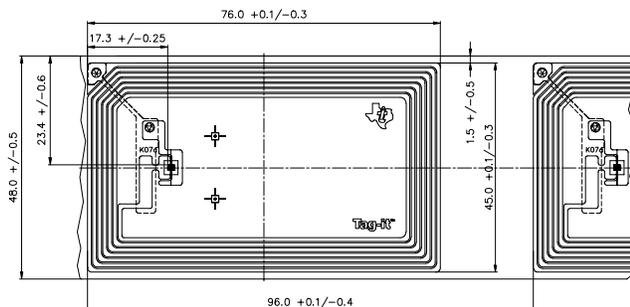


# Tag-it™ HF-I Transponder Inlay

## - Rectangle-Large -

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 or plastic labels.



### Specifications:

Part Number	RI-I02-112A	RI-I02-112B
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)	14.4 MHz ± 200kHz (includes frequency offset to compensate PVC lamination)
Typ. required activation field strength read (at +25°C)	94 dBµA/m #	94 dBµA/m *
Typ. required activation field strength write (at +25°C)	97 dBµA/m #	97 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 76 mm (~1.77 in x ~2.99 in)	
Foil width	48 mm ± 0.5 mm (1.89 in ± 0.02 in)	
Foil pitch	96 mm +0.1mm/-0.4mm (~3.78 in)	
Thickness	Chip: 0.355mm (~0.014 in) Antenna: 0.085mm (~0.0033 in)	
Base material	Substrate: PET (Polyethylenetherephthalate) 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 (warping 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; \* After PVC Lamination

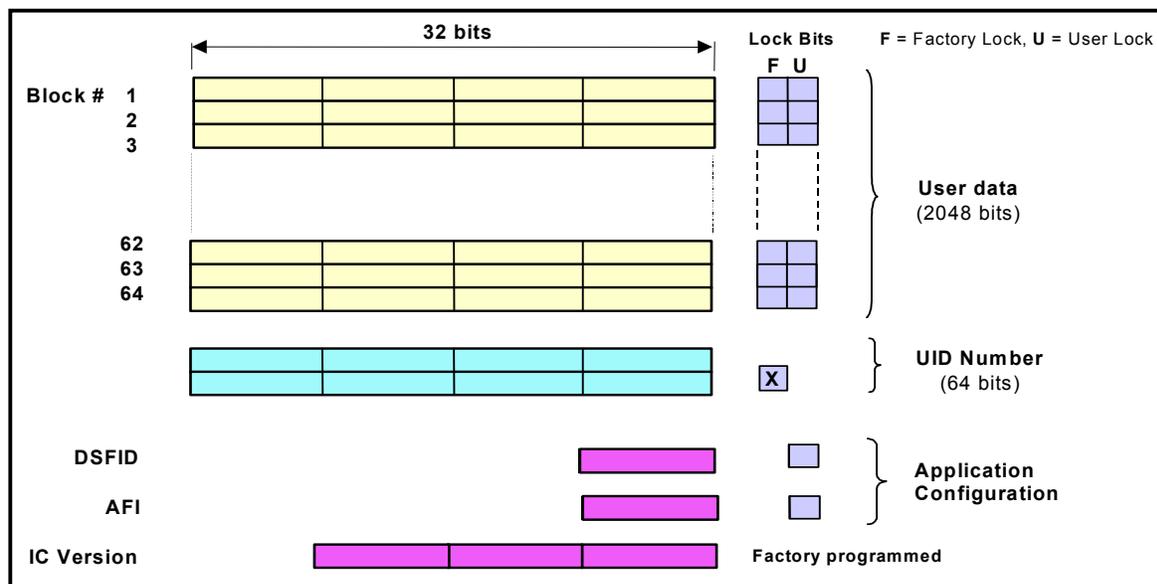
For more information, contact the sales office or distributor nearest you. This contact information can be found on our web site at: <http://www.ti-rfid.com>

## Supported Command Set

Request	Request Code	Request Mode				
		Inventory	Addressed	Non-Addressed	Select	AFI
<b>ISO 15693 Mandatory and Optional Commands</b>						
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_DSFI	0x29	-	✓	✓	✓	-
Lock_DSFI	0x2A	-	✓	✓	✓	-
Get_System_info	0x2B	✓	✓	✓	✓	✓
Get_M_Blks_Sec_St	0x2C	✓	✓	✓	✓	✓
<b>TI Custom Commands</b>						
Write_2_Blocks	0xA2	-	✓	✓	✓	-
Lock_2_Blocks	0xA3	-	✓	✓	✓	-

✓: Implemented  
 -: Not applicable

## Memory Organization



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