

Product Bulletin

**Tag-it™ HF-I Family
Transponder Inlays**

Description

Texas Instruments' Tag-it™ HF-I family of transponder inlays consist of 13.56-MHz high-frequency (HF) transponders that are compliant with the ISO/IEC 15693 and ISO/IEC 18000-3 global open standards. These products are available in six different antenna shapes with frequency offset for integration into paper, PVC or other substrates.

Tag-it HF-I transponder inlays are manufactured with TI's patented laser-tuning process to provide consistent read performance. Prior to delivery, the transponders undergo complete functional and parametric testing, in order to provide the high quality customers have come to expect from TI.

The Tag-it HF-I transponder inlays are well suited for a variety of applications including, but not limited to, product authentication, library applications, supply chain management, asset management and ticketing/stored value applications.

**Tag-it™ HF-Family
Product Specifications**

Supported Standards	ISO/IEC 15693-2, -3; ISO/IEC18000-3
Recommended Operating frequency	13.56 MHz
Factory programmed Read Only Number	64 bits
Typical programming cycles (at +25°C)	100,000
Data retention time (at +55°C)	>10 years

Key Features

- ISO/IEC 15693 –2,–3; ISO/IEC18000-3
- User and factory lock per block
- Application Family Identifier (AFI)

Standard

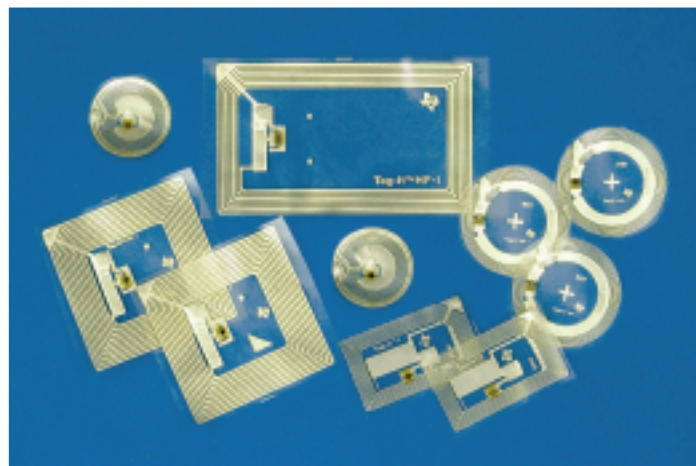
- 256-bit user memory, 8x32 bit
- FastSID

Pro

- 256-bit user memory, 8x32 bit
- Password-protected write command
- Command to disable IC functionality
- FastSID

Plus

- 2K-bit user memory, 64x32 bit
- Data Storage Format Identifier (DSFID)
- Combined Inventory Read Block



Tag-it™ HF-I Family transponder inlays are available in a variety of package options, including square, circular and rectangular (regular and mini).

Tag-it™ HF-Plus Inlay Shapes

Part Number	RI-I11-112A	RI-I11-112B	RI-I02-112A	RI-I02-112B	RI-I03-112A	RI-I15-112B	RI-I16-112A	RI-I17-112A
Available Memory	2K bits organized in 64 x 32-bit blocks							
Antenna size (mm)	45 x 45	45 x 45	45 x 76	45 x 76	22.5 x 38	34 x 65	Ø 24.2	Ø 32.5
Foil pitch (mm)	50.8 +0.1 /-0.4 (2in)	50.8 +0.1 /-0.4 (2in)	96 +0.1/ -0.4 (~3.78 in)	96 +0.1/ -0.4 (~3.78 in)	48 +0.1 /-0.4 (~1.89 in)	101.6 +0.1 /-0.4 (4in)	50.8 +0.1 /-0.4 (2in)	50.8 +0.1 /-0.4 (2in)
Frequency Offset for lamination material	Paper	PVC	Paper	PVC	Paper/PVC	PVC	Paper/PVC	Paper/PVC
Delivery	Single row tape with 48-mm foil width wound on cardboard reel							

Tag-it™ HF-I Pro Transponder Inlays

Part Number	RI-I11-114A-S1	RI-I11-114B-S1	RI-I02-114A-S1	RI-I02-114B-S1	RI-I03-114-S1	RI-I16-114-S1	RI-I17-114-S1
Available Memory	256 bits organized in 8 x 32-bit blocks						
Foil width (mm)	48 mm ± 0.5 mm						
Antenna size (mm)	45 x 45	45 x 45	45 x 76	45 x 76	22.5 x 38	Ø 24.2	Ø 32.5
Foil pitch (mm)	50.8 +0.1 / -0.4 (2in)	50.8 +0.1 / -0.4 (2in)	96 +0.1 / -0.4 (~3.78 in)	96 +0.1 / -0.4 (~3.78 in)	48 +0.1 / -0.4 (~1.89 in)	50.8 +0.1 / -0.4 (2in)	50.8 +0.1 / -0.4 (2in)
Frequency Offset for lamination material	Paper	PVC	Paper	PVC	Paper/PVC	Paper/PVC	Paper/PVC
Delivery	Single row tape wound on cardboard reel						

Tag-it™ HF-I Standard Transponder Inlays

Part Number	RI-I11-114A-01	RI-I11-114B-01	RI-I02-114A-01	RI-I02-114B-01	RI-I03-114-01	RI-I16-114-01	RI-I17-114-01
Available Memory	256 bits organized in 8 x 32-bit blocks						
Foil width (mm)	48 mm ± 0.5 mm						
Antenna size (mm)	45 x 45	45 x 45	45 x 76	45 x 76	22.5 x 38	Ø 24.2	Ø 32.5
Foil pitch (mm)	50.8 +0.1 / -0.4 (2in)	50.8 +0.1 / -0.4 (2in)	96 +0.1 / -0.4 (~3.78 in)	96 +0.1 / -0.4 (~3.78 in)	48 +0.1 / -0.4 (~1.89 in)	50.8 +0.1 / -0.4 (2in)	50.8 +0.1 / -0.4 (2in)
Frequency Offset for lamination material	Paper	PVC	Paper	PVC	Paper/PVC	Paper/PVC	Paper/PVC
Delivery	Single row tape wound on cardboard reel						

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>

Texas Instruments reserves the right to change its products and services at any time without notice. TI provides customer assistance in various technical areas, but does not have full access to data concerning the uses and applications of customers products. Therefore, TI assumes no responsibility for customer product design or for infringement of patents and/or the rights of third parties, which may result from assistance provided by TI.

© Copyright 2005 Texas Instruments Incorporated.

11-09-22-173 12/05

TI Worldwide Technical Support

Internet

TI RFID Product Information Center Homepage

www.ti.com/rfid

US and Canada Product Information Center

Phone: 800-962-7343

Fax: 214-567-7343

Business Hours (Central Standard Time):

Mon. 8:00 am - 5:00 pm

Tues. 10:00 am - 5:00 pm

Wed. 8:00 am - 5:00 pm

Thurs. 10:00 am - 5:00 pm

Fri. 8:00 am - 5:00 pm

E-mail: rfidsupport@ti.com

(Use this email address for follow-up support or questions. For first time inquiries, use the Help Form located at

www.ti.com/rfid/docs/customer/helpform.shtml.)

Texas Instruments Radio Frequency Identification Systems

6550 Chase Oaks Blvd., MS 8470

Plano, Texas 75023

USA

European Product Information Center

Country	Phone
Belgium (English)	+32 (0)2 7455455
France (English)	+33 4 93 22 22 00
Germany	+49 (0)8161 80 2200
Italy	+39 (0)39 6568 210
Netherlands (English)	+31 (0)546 879 222
Spain	+34 902 19 73 96
Sweden (English)	+46 (0)8 58755527
UK	+44 (0)1604 88 4088

Fax:

All Languages — +49 (0) 8161 80 2045

Business Hours (Central European Time):

Mon. 8:30 am - 17:30 pm

Tues. 8:30 am - 17:30 pm

Wed. 8:30 am - 17:30 pm

Thurs. 8:30 am - 17:30 pm

Fri. 9:00 am - 16:00 pm

E-mail: e-rfidsupport@ti.com

Texas Instruments Radio Frequency Identification Systems – European Product Information Center

Deutschland GmbH

Haggertystrasse 1D-85350 Freising

Germany

International Product Information Center

Phone: +1 972-575-4364 (English)

Fax: 214-567-2492

Business Hours (Central Standard Time):

Monday - Friday 8:00 am - 5:00 pm

E-mail: rfidsupport@ti.com

Texas Instruments Radio Frequency Identification Systems

6550 Chase Oaks Blvd., MS 8470

Plano, Texas 75023

USA

Important Notice: The products and services of Texas Instruments Incorporated and its subsidiaries described herein are sold subject to TI's standard terms and conditions of sale. Customers are advised to obtain the most current and complete information about TI products and services before placing orders. TI assumes no liability for applications assistance, customer's applications or product designs, software performance, or infringement of patents. The publication of information regarding any other company's products or services does not constitute TI's approval, warranty or endorsement thereof.

Technology for Innovators and the black/red banner are trademarks of Texas Instruments.

All other trademarks are the property of their respective owners.

A011905