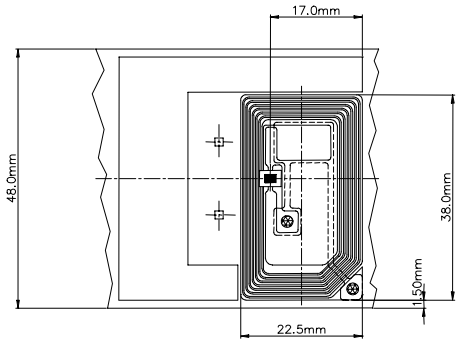
Data Sheet

Tag-it™ HF
Transponder Inlay
Rectangle - Miniature



Specifications:

Part Number	***RI-I03-110A***
Recommended Operating frequency	13.56 MHz
Passive Resonance Frequency (at +25°C)	14.26 MHz ± 400kHz (includes frequency offset to compensate further integration into PVC; drops down to operating frequency when exposed to activation field strength)
Typical activation field strength read (at +25°C)	112 dBµA/m (preliminary value)
Typical activation field strength write (at +25°C)	116 dBµA/m (preliminary value)
Factory programmed Read Only Number	32 bits
Memory (user programmable)	256 bits organized in 8 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 dependant)
Uplink / downlink data rates	26.7 kBd / 6.2 and 9 kBd
RX modulation	Pulse-width coded, AM 100% modulation
TX frequencies	Manchester encoded, A = f_c ± 423.75 kHz, B = f_c ± 484.29 kHz Low bit: transition A to B. High bit: transition B to A
Antenna size	22.5 mm x 38 mm (~0.89 x ~1.5 in)
Foil width	48 mm ± 0.5 mm (1.89 in ± 0.02 in)
Foil pitch	48 mm +0.1mm/-0.4mm (~1.89 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 with increasing temperature)
Storage temperature (on reel)	-40°C to +40°C
Delivery	Single row tape wound on cardboard reel with 500 mm diameter Reel width: approx. 60 mm (~2.36 in); inside 50 mm (~1.97 in) Hub diameter: 76.2 mm (3 in)
Typical quantity per reel	5,000

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**

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