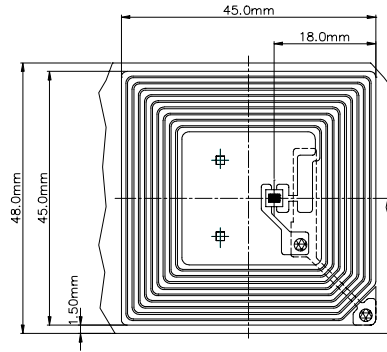


## Data Sheet

# Tag-it™ HF Transponder Inlay Square

### Specifications:



Part Number	RI-I01-110A	RI-I11-110A
Recommended Operating frequency	13.56 MHz	
Passive Resonance Frequency (at +25°C)	14.36 MHz ± 200kHz (includes frequency offset to compensate further integration into paper; drops down to operating frequency when exposed to activation field strength)	
Typical activation field strength read (at +25°C)	103 dBμA/m	
Typical activation field strength write (at +25°C)	108 dBμA/m	
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 = $f_c \pm 423.75$ kHz, B = $f_c \pm 484.29$ kHz Low bit: transition A to B. High bit: transition B to A	
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	48 mm +0.1mm/-0.4mm (-1.89 in)	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 (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 (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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