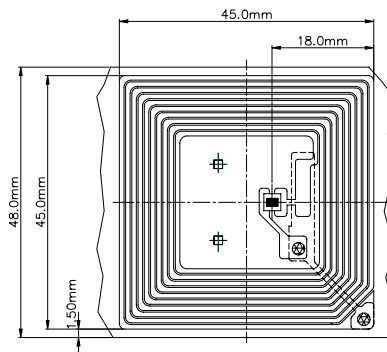


Data Sheet

Tag-it™ HF Transponder Inlay Square

Specifications:



Part Number	RI-111-110A
Recommended Operating frequency	13.56 MHz
Passive Resonance Frequency (at +25°C)	14.36 MHz \pm 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 dB μ A/m
Typical activation field strength write (at +25°C)	108 dB μ A/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 \pm 0.5 mm (1.89 in \pm 0.02 in)
Foil pitch	50.8 mm +0.1mm/-0.4mm (2 in)
Thickness	Chip area: 0.355mm (~0.014 in) Antenna area: 0.085mm (~0.0033 in)
Base material	Substrate: PET (Polyethyleneterephthalate) 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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